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TITLE PAGE

IMPLICATIONS OF QUERY CACHING FOR JXTA PEERS

ROZLINA MOHAMED

Doctor of Philosophy

ASTON UNIVERSITY

June 2014

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THESIS SUMMARY

ASTON UNIVERSITY

Implication Of Query Caching For JXTA Peers

Rozlina Mohamed

Doctor of Philosophy

June 2014

This dissertation studies the caching of queries and how to cache in an efficient way, so that retrieving previously accessed data does not need any intermediary nodes between the data-source peer and the querying peer in super-peer P2P network. A precise algorithm was devised that demonstrated how queries can be deconstructed to provide greater flexibility for reusing their constituent elements. It showed how subsequent queries can make use of more than one previous query and any part of those queries to reconstruct direct data communication with one or more source peers that have supplied data previously. In effect, a new query can search and exploit the entire cached list of queries to construct the list of the data locations it requires that might match any locations previously accessed. The new method increases the likelihood of repeat queries being able to reuse earlier queries and provides a viable way of by-passing shared data indexes in structured networks. It could also increase the efficiency of unstructured networks by reducing traffic and the propensity for network flooding. In addition, performance evaluation for predicting query routing performance by using a UML sequence diagram is introduced. This new method of performance evaluation provides designers with information about when it is most beneficial to use caching and how the peer connections can optimize its exploitation.

Keywords: peer-to-peer, super-peer network, query routing, query caching, UML sequence diagram.

DEDICATION

This dissertation marks the end of a very long journey to my PhD. A journey to my PhD starts two months before my second daughter was born. Two months after the birth of my second son, I decided to leave UK before sending my thesis. I have to face the truth that I can't continue leaving in UK once my scholarship is terminated. However, I am grateful for being able to work with Christopher Buckingham, my supervisor as his earnest support during my late stage is priceless to me. I am also grateful for the support given by my examiners to correct my thesis. I would like to also thank my family and colleagues for their full support for me to complete my PhD research for the benefits of my career. They always blow me away with their amazing sharpness, technical depth, knowledge and communication skills. Thank you for your guidance on this research topic in particular, and on research and life in general.

As I write this thesis line, I realize that my journey to achieve PhD gives a priceless lesson learnt to me as a student in Aston University, an employee at Universiti Malaysia Pahang, mother to my kids and wife to my husband. These experiences make me realize more than ever how much they mean to me. They are the semantics behind all that I do. It is to them I dedicate this dissertation.

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LIST OF ACRONYMS

API	Application Programmable Instruction
CON	Coordinator Overlay Network
CPU	Central Processing Unit
CSD	Common Schema Description
DCT	Distributed Cache Table
DHT	Distributed Hash Table
HON	Hybrid Overlay Network
HT	Hash Table
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
GAV	Global Access View
GLAV	Global-Local Access View
HTTP	Hypertext Transfer (or Transport) Protocol
JXTA	Juxtapose (peer-to-peer protocol specification)
I/O	Input / output
IP address	Internet Protocol address
IR	Information Retrieval
LAV	Local As View
LFU	Least Frequently Used
LRU	Least Recently Used
NFU	Never Frequently Used
OS	Operating system
P2P	Peer-to-peer
PC	Personal computer
PDA	Personal digital assistant
RAM	Random Access Memory
RDF	Resource Description Framework
LAV	Local Access View
UML	Unified Modeling Language
SRDI	Shared Resource Distributed Index
TCP/IP	Transmission Control Protocol / Internet Protocol
TTL	Time-To-Live
W3C	World Wide Web Consortium
XQuery	Query language for XML data
XML	Extensible Markup Language

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Chapter 1: **Introduction**

1.1. **Overview**

The focus of this thesis is on peer-to-peer (P2P) networks and how to make query processing more efficient. It will explore problems with query routing and propose a new approach for reducing number of query re-routings by using query caching of historical data. The idea behind caching data in P2P networks is to keep information about where the data source(s) is located. Thus, the process of identifying data location for a repeated query does not have to start from scratch. There are many alternatives for query routing (Pourebrahimi, Bertels et al. 2005, Mohamed 2007, Mohamed and Satari 2009) but the goal of this PhD research is to provide an adaptation of current processes that stores some information about the data source location together with knowledge about the hierarchical schema structure of data at the source location and, more crucially, to do this at the local peer where the query is made, as this will ensure the local peer is able to determine routing directions for its query. The cached query is obtained from the query history that has been locally executed by the peer in a P2P network and used to access the data source directly rather than requesting a search for the location over the P2P network. Thus, this research introduces a new query routing approach based on caching and a new method of evaluating the impact of the caching on the super-peer network.

Providing users with cached queries has raised significant attention as a way of reducing the query processing cost. Query caching has been widely implemented in query processing over centralized and distributed, as well as P2P, data-sharing systems. The idea used in query caching in this research is to keep the hierarchical structure as a query schema. The query

schema can then be used by subsequent queries that share some of this structure. These new queries will be able to exploit the location information of target data that is held within the shared part of the schema. In this research, pre-processing for query routing is proposed to facilitate the functionality. This pre-processing consists of locally identifying the location of the target data for a given query, then directly routing the query message towards the specified data location complete with the schema structure of the identified target data, instead of it being re-routed to several other locations. As a result, the number of messages being routed in the network is greatly reduced along with the associated query routing time. Consequently, the aggregate query routing cost is much lower when the query is matched at the peer level, because the data can be directly accessed. This thesis will explain how the query caching works at the local peer and will demonstrate the potential savings for different types of network architectures.

1.2. **Research background**

P2P technology has the potential to enhance large-scale database sharing (Androutsellis-Theotokis and Spinellis 2004, Bellahsène, Lazinitis et al. 2006, Modarresi, Mamat et al. 2008, Mohamed and Satari 2009). Moreover, P2P offers the possibility of exploiting the local content of any peer in a network by any other peer, thereby breaking information monopolies. The P2P system offers great flexibility and decentralization, in addition to being highly resistant to faults. This is due to the fact that P2P does not rely on any centralized resources. In conjunction with database query processing, the design of P2P applications should significantly improve the ability to find relevant or potential answers to any given query, optimize the search cost by reducing the network traffic and issues concerned with peers' availability and autonomy of shared data (Bellahsène and Roantree 2004, Brunkhorst and Dhraief 2005, Doulkeridis, Norvag et al. 2006, Doulkeridis, Nørsvåg et al. 2008). In order to locate the query result, a query will be broadcast to several other peers that may or may not be able to obtain the required answer. However, they have to process the incoming query message and react to it. The reaction is either an acknowledgement message to the sender that they have obtained the answer or a resending of the query to its neighbor. In addition, a peer that received the query may decompose it into several sub-queries, then send these sub-queries to multiple neighboring peers. The resending process will occur until the answer is found or the query

message reaches the maximum level of its TTL (*time-to-live*) value that has been initially setup for it. The TTL value is the number of hops (i.e. message passing from one peer to the next) allowed for one query message over the network. The process of broadcasting the query message to obtain the result is called *routing*.

Query routing in P2P networks is based on overlay networks that hide the physical network topology. Depending on how the peers in the overlay network are linked to each other, P2P networks can be classified as structured or unstructured. An unstructured peer-to-peer application is a P2P application that has no server function present whatsoever. All communication occurs between clients, who are designated peers, and this might be termed a "pure" P2P application. Illustration of unstructured P2P is depicted in Figure 1.1. Searching for 'X' begins when Peer 1 sends a query message asking for 'X' from neighboring peers, which are Peer 2 and Peer 4 as illustrated in Figure 1.1. Then, the message is re-routed to Peer 3, 5 and 6 until the requested answer is found. Once the query reaches the location of the target data, the requested data is directly sent to the requestor.

In contrast, structured peer-to-peer is a P2P application that introduces a server for control and coordination purposes. As with the unstructured peer-to-peer environment, information exchange is still being passed directly between the clients (designated as peers). However, the server assists in helping the peers find one another and may assist in coordinating connections between them, tracking their progress or status. Figure 1.2 illustrates the structured P2P network overlay, which shows that Peer 1 will only ask the data directory while searching for data 'X'.

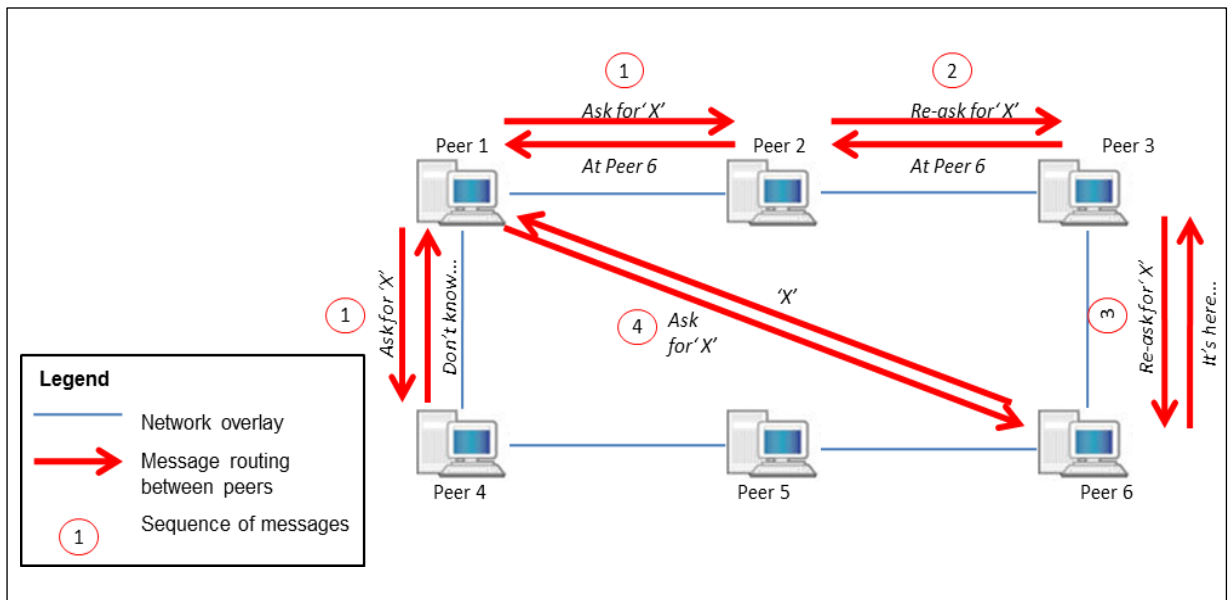


Figure 1-1 Illustration of an unstructured network of querying for data 'X'

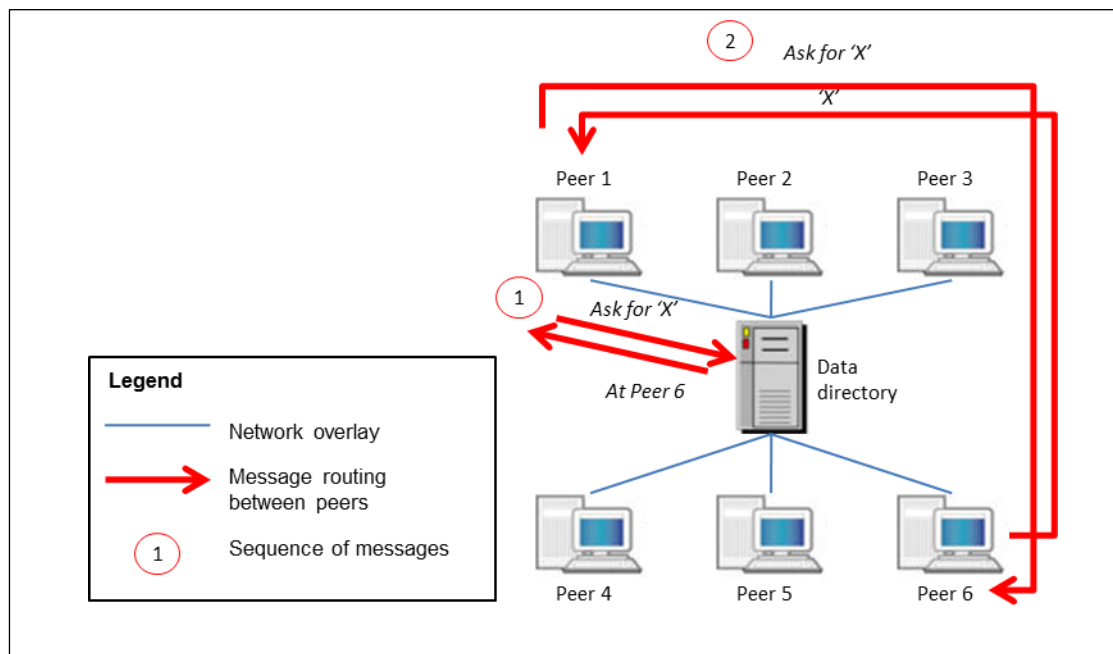


Figure 1-2 Illustration of a structured network of querying for data 'X'

Query routing in unstructured networks has been implemented in Gnutella, Freenet and KaZaA which are based on the *query flooding* approach where each peer broadcasts the received query to directly connected peers (Good and Krekelberg 2003, Bejar 2010), which are also known as *neighboring peers*. Generally, a P2P network consists of a large number of peer nodes where each peer is connected not to all other peers, but a small subset of the peers. In query flooding, if a peer wants to find a resource on the network, which may be on a peer it

does not know about, it could simply broadcast its search query to its neighboring peers. If the neighbors do not have the resource, it then asks its neighbors to forward the query to their neighbors in turn. This is repeated until the resource is found or all the nodes have been contacted, or perhaps a *time-to-live* value (TTL), which is the network-imposed hop limit, is reached. Query flooding is normally practical for small networks with few requests. It contacts all reachable nodes in the network and so can precisely determine whether a resource can be found in the network. Instead, every query request may cause every peer within the same P2P network to be contacted. Each peer might generate a small number of queries; however, each such query floods the network. Thus, a larger network would generate far more traffic per peer than a smaller one, making it not scalable. Query flooding is efficient for locating popular data objects for which several duplicate copies exist in a large number of peers. On the other hand, query flooding would influence the search quality and performance cost for remote unpopular data objects, as an unpopular data object may not be found before the TTL limit is reached, or may incur a high search cost if it is eventually found (Ratnasamy, Francis et al. 2001). In query flooding, several duplicate copies may be available within the TTL limit. A large TTL number would increase query result expansion, and the possibility of finding the required result. However, the search cost exponentially increases with the expansion of search sites. Ideally the query should only be broadcast to potential result locations, which would reduce the search cost without compromising the possibility of obtaining query results.

Besides unstructured, another logical P2P connection is structured P2P. The structured P2P can be divided into three sub-categories: central index, distributed index and publish/subscribe. Details of each category will be described in Chapter 2. In distributed index systems, query routing uses a Distributed Hash Table (DHT) to identify the location of content and thus perform direct queries to the appropriate peers. DHT-based techniques have been widely used as the locator in several structured P2P projects (Gong 2001, Ion Stoica 2001, Ratnasamy, Francis et al. 2001, Rowstron and Druschel 2001, Meshkova, Riihij et al. 2008). Peers and their data are given a unique identifier, and are grouped to create an overlay subnet. Each subnet will select at least one peer to become a super-peer. The super-peer is a hub which allows the local subnet to connect to other subnets in the network as a whole. At the same time, this super-peer is responsible for maintaining a routing table of its local subnet. The routing table consists of identifiers for peers in the local subnet and is used as a locator to identify the appropriate data location for answering queries. The query is routed to and processed by the

peer that contains the corresponding identifiers that match the required data. The idea of having the routing table as a locator for query result has been adopted in super-peer P2P network architectures. The routing table is used to improve the search efficiency as the routing table provides a deterministic routing and a high recall of the required data. However, selected peers for obtaining the routing table are required to give their high commitment to the network community. On the other hand, the peers that have the routing table would become a single point of failure for their cluster if they suddenly left the P2P network (Yang and Garcia-Molina 2003, Pourebrahimi, Bertels et al. 2005). Thus, the high flexibility and autonomous features offered by a dynamic P2P network could be abused by the selected peers that own the routing table on behalf of their cluster.

In this research, the super-peer P2P network overlay is chosen for embedding the alternative approaches as the use of central coordinating servers and directed search requests can be used to coordinate the peers' activities as well as reduce the number of message passing through the P2P network while searching for the answer. Accordingly, the directed search request contributes towards reducing the cost of query routing.

1.3. **Research Motivations**

Efficient query routing in P2P systems is a highly active research area with a plethora of publications (Brunkhorst, Dhraief et al. 2003, Yang and Garcia-Molina 2003, Leonidas Fegaras 2005, Ismail, Quafafou et al. 2009, Ismail, Quafafou et al. 2009, Fegaras 2010), which testifies to the importance of the topic. Efficient query routing aims to limit network bandwidth consumption by reducing the number of messages across the network and reducing the total query processing cost by minimizing the number of peers that contribute to the query results. Query routing in a super-peer network is a process of routing the query to a number of relevant peers without having to broadcast the query message to the whole network. The problem is concerned with the discovery of the relevant peer for a particular query (Ismail, Quafafou et al. 2009). As a result, data localization and routing in P2P networks are closely related to one another in producing the query result. A survey on the growth of P2P network traffic in Japan indicated that 63% of the residential traffic volume is contributed by P2P users, which is about 37% overall increment of P2P users per year (Cho, Fukuda et al. 2006).

Consequently, there have been attempts to optimize the P2P traffic by, ‘...placing super peers close to the subscribers and *caching popular content.*’ (Tschofenig and Matuszewski 2008). However, caching the popular content in several places has potential pitfalls related to copyright issues (Lohmann 2006). In addition, the nature of the super-peer network overlay will always route the query via the super-peer node. Thus, it is important to keep a high availability of the super-peer nodes. The higher availability of super peers contributes towards several research directions, such as the intelligent selection of super-peer nodes (Gao and Min 2009, Min and Holliday 2009) and the use of multiple super-peer nodes for a single network cluster (Bellahsène and Roantree 2004, Pourebrahimi, Bertels et al. 2005, Bellahsène, Lazinitis et al. 2006). These research areas contribute towards maintaining the high availability of super-peer nodes. However, high availability of super peers comes with some trade-offs, such as an increase of the entire processing cost and the requirement for higher processing capabilities at client-peers. Furthermore, the traffic directed towards super-peers will remain unchanged. In contrast, this research contribution will suggest an approach of diverting the query direction towards the query result location rather than going-through the super-peer node (asking for query result locations). This means that the number of query requests to the super-peer node is decreased, hence reducing the network traffic towards the super-peer node.

This section discusses the motivation which supports the research in query routing over a super-peer network overlay. The discussion starts with an illustrated network, which represents a sample scenario as depicted in Figure 1.3. Let us assume that a user at Peer 1 in a super-peer network application posts a query in order to search for books on ‘Database’. This query is labeled as *Q1*. In this scenario, let us assume that Super-peer A, which is the super-peer of Peer 1, does not have the required information. Thus, *Q1* is re-routed to its neighboring peers within the cluster (Peer 2, 3 and 4) and super-peers that have been logically connected (Super-peer B). Once again, let us assume that the required information is not obtained in the neighboring super-peer, and thus *Q1* is re-routed. The re-routing is repeated until the required information is obtained, or the maximum TTL value of the routing message is reached. Once the location for the required information is found, query answer retrieval and processing will be started.

As a second scenario, Peer 1 sends another query that is similar to *Q1*. The second query is labeled as *Q2*. *Q2* is searching for the author of a book entitled 'Database'. Again, Peer 1 contacts Super-peer A. Since the related information of *Q1* is captured by Super-peer A, *Q2* is not re-routed. Message passing is just between Peer 1 and Super-peer A. Then, the third query *Q3* is initiated by Peer 1, asking for details of the author of the 'Database'. Once again, communication between Peer 1 and Super-peer A is established for *Q3*. The scenarios illustrate that three queries *Q1*, *Q2* and *Q3* require service from Super-peer A.

Based on the above scenarios, there is no doubt that the super-peer has a high number of messages passing through it. Since the super-peer node is responsible for aggregating incoming client peer requests and forwarding them to the relevant peer or neighboring cluster, the super-peer workload is scaling with the number of query messages (Wu and Starobinski 2008). However, significant research concerning the message traffic that is always routed to the super-peer node has yet to receive particular attention from researchers. Therefore, the first aim of this research is to divert queries from being routed to the super-peer node by locally determining target location for similar or repeated queries. Thus, queries will only be sent to selected peer(s), which is the target location to obtain the query result (Wu and Starobinski 2008).

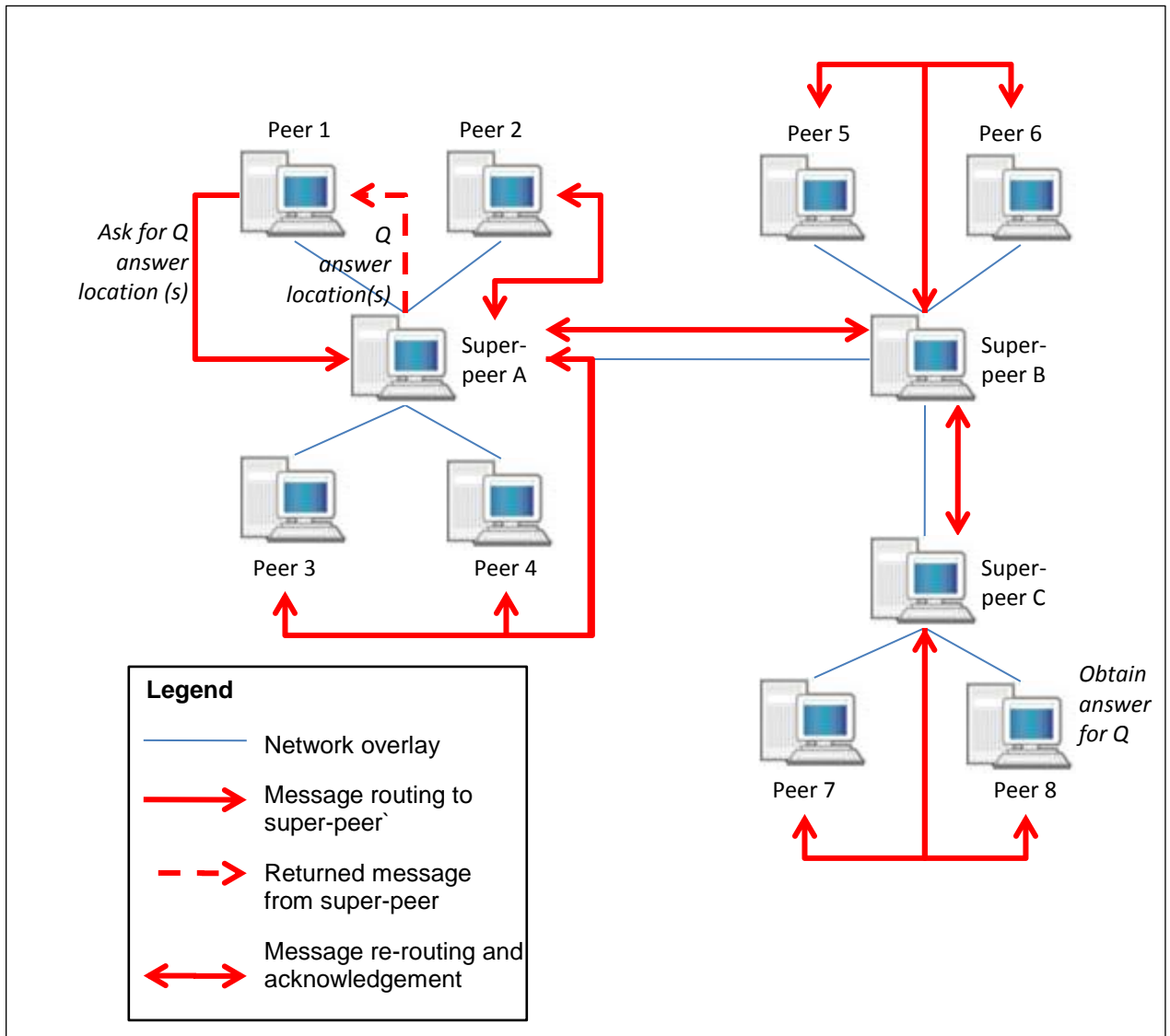


Figure 1-3 An ordinary query routing in super-peer network

Besides reducing the number of re-routing messages, this research would also contribute to the reduction of the query re-writing effort. Before sending a query, it should be re-written in a form that can be understood by the receiver. In order that the recipient peer knows where to find the requested resource, the query has to be written using the same or similar schema of the receivers' data source. Therefore, caching the hierarchical schema structure of the specified data location is used in this research.

Research in database integration has widely explored the issues of caching a complete query message (known as 'materialized views'), caching an address of the data locations, or caching a query result (Watanabe and Kitagawa 2010, Sluijs, Iterbeke et al. 2011). However, caching

actual results has led to copyright issues in P2P. Caching only the location of the result points the query routing towards a specific location (Sluijs, Iterbeke et al.), but does reduce the query processing and data access time. This research proposes a method for caching the pre-processed query, which is a skeleton of the query statement that comes from previous queries. By obtaining a pre-processed query, the new query does not require the entire query processing operation. As a result, the query processing cost is reduced and the query processing time is shortened.

The initial intention of this research was to reduce the number of re-routing messages and query processing costs. However, this led to the proposal of an additional query routing measurement that can be used specifically to compare the number of messages passing within the network according to the query routing approach used. The third research motivation contributes to the analysis of the initial system design. Previous researchers have introduced several performance models for measuring system performance, and the existing performance models are based on input that are available in the early stage of system development. For instance, software modeling in formal methods and Unified Modeling Language (UML) are amongst the best known approaches used during the requirements' analysis stage. To date, most system performance measurements carried out during the early stages of system development require additional system modeling as an input before the system is measured (Smith and Woodside 2000, Swan, Kutar et al. 2004, Abdullatif and Pooley 2009, Al Abdullatif and Pooley 2010, Albert, Cabot et al. 2011, Nieto, Costal et al. 2011). Thus, it requires some additional tasks for the software engineer, to transform their existing system model (as created during requirements analysis) into another system model required for the measurement. UML diagrams possess the capacity for being specifically interpreted (Parreiras and Staab 2010, Albert, Cabot et al. 2011, Nieto, Costal et al. 2011). This research proposes a new approach for predicting system performance based on a diagram available in UML.

In short, this research has three motivational factors. The first motivation is to divert query message routing away from the super-peer node for repeating queries. This first aim leads towards extending the capabilities of query routing in super-peer P2P network applications, which is tested on one of the super-peer applications named JXTA, a P2P platform specification developed by Sun Microsystems. JXTA can be used to develop a P2P system application by providing typical P2P operations such as registering a peer, creating a peer group, joining the

peer group, resource query. Using JXTA, P2P application developers do not have to reinvent these basic operations.

The second motivation is to reduce the query processing cost by caching the existing manipulated query statement. Since the cached item consists of the skeleton of the query statement, the second aim will shorten the query re-writing task, which will result in a reduction of the query processing time.

The third motivation is to introduce a software performance measurement approach, which is used specifically for comparing the P2P applications conducting the query routing task. The third aim contributes to the area of software measurement, especially in the early stage of system development.

1.3.1 Research objectives

In conjunction with the motivational factors of this research, the following are the objectives of the research:

1. Design and develop an architectural framework as a pre-processing mechanism for assisting the query routing operation in super-peer networks on the JXTA platform (Mohamed and Buckingham 2010).
2. Determine performance bounds and identify the usability of caching at the local querying peer (as opposed to the super-peer) in attempting to reduce the query routing cost in super-peer P2P applications that share their XML data on the JXTA P2P platform.
3. Formulate a performance analysis model for comparing the query routing costs in a variety of super-peer routing approaches.

1.3.2 Research scope and limitations

In order to achieve the stated objectives, this research will focus on the query routing process for the JXTA platform while not looking at the query processing once the query result has been returned by the queried peer(s). This research is about caching at the peer level instead of at the super-peer, and it is an attempt to improve the process by breaking queries into sub-

queries and linking the sub-queries to the most appropriate target peers that are sources for the sub-query's required data. Moreover, this research adopts a query caching concept in the proposed framework in order to prove the usability of query caching in a P2P environment.

1.4. **Research overall achievement**

This research has achieved several objectives that contribute to the research endeavor for P2P networks. The main contributions are as follows:

1. Creation of a computer taxonomy for P2P systems, which classifies various computer system architectures. The classification is aimed at showing the hierarchies of terms used in P2P architectures.
2. A comparative study of resource discovery mechanisms, which leads to a new resource discovery mechanism, as well as parameters for measuring the cost and benefits for each discovery mechanism.
3. A feasibility study on the use of materialized views in P2P queries processing. The use of materialized views for query processing in distributed database applications which will lead towards designing an architecture for implementing the query caching concept in a super-peer network. The research proposes a query cached list for keeping information about data source locations that have been used in previous queries executed locally at the peer.
4. Implementation of a query caching algorithm and its demonstration on JXTA platform. The query caching mechanism is used to keep the query history that has been executed by the local peer. This research is motivated by the belief that the amount of query routing is reduced when embedding the query cached list at the client-peer instead of the super-peer. A novel method of using UML sequence diagrams to monitor improvement in performance was developed to produce evidence that supports this belief.
5. An architectural design for pre-processing the query routing operations in JXTA P2P platform. The design has been implemented and evaluated, and has been shown to improve the performance, due to the reduction of the aggregate query routing time either at the client-peer or at the super-peer.
6. Algorithms for implementing the proposed query caching list together with the pre-processing mechanism for query routing have been developed. The algorithms have been implemented in

Java and piggy-backed on the JXTA platform for P2P super-peer networks to create the evaluation environment.

7. Comparative assessment of query routing performance. The main idea of comparative assessment is to compare the query routing strategies by considering each and every step (process) that contributes to the query routing process. Then, the processing time for each step is averaged and these averages are used to calculate the processing time for the process.

1.5. Thesis structure

This section presents an overview of the thesis organization.

CHAPTER 1: Introduction

The first chapter presents an introduction to the research undertaken, covering background, motivation, objectives, scope and limitations, as well as research achievements.

CHAPTER 2: Peer-to-peer Networks

This chapter gives necessary background information about P2P networks. It reviews some existing approaches in P2P system architectures in order to address the problem of single-point-of-failure, which is a motivational background for the research.

CHAPTER 3: Query Caching in Peer-to-peer Networks

This chapter creates a classification of the existing query routing approaches. It also presents some of the implementation issues associated with query caching and the importance of query caching in P2P environments.

CHAPTER 4: The Proposed Approach.

This chapter describes the logical foundations of the proposed query cached list and the pre-processing mechanism. It also describes the logical scenarios for testing the proposed concepts.

CHAPTER 5: Query Caching in JXTA.

This chapter provides the architecture and operations of the proposed concepts in the JXTA platform. It also presents the implications of implementing the proposed approaches on JXTA peers compared to the implementation of the ordinary query routing approach. The main purpose of JXTA is to provide a test environment for demonstrating the caching process and its effects.

CHAPTER 6: Performance Analysis.

This chapter focuses on the evaluation of the use of query cached lists and the proposed pre-processing mechanism for assisting query routing. The analysis compares routing performance with a query as the parameter. A UML sequence diagram is used to represent the various process flows of query routing. Each process flow is given a weight based on the average value of the actual processing time required for a specified task and a multiplier for the number of times it occurs in the overall query routing process. The product of weight and its multiplier represents the total processing time for a process flow. The summed process flows are then used to compare the performance of query routing approaches.

CHAPTER 7: Conclusions and Future Works

This chapter draws conclusions and identifies future work that could be carried out based on the achievements of this research or work that was identified but could not be addressed within the constraints of a PhD research project.

Chapter 2: **Peer-to-Peer Networks**

2.1 Introduction

This chapter introduces the P2P network architecture and derives a taxonomy for the computer system. Discussion of each of the P2P network architectures will locate its position in the proposed taxonomy. Since this research focuses on reducing the number of query messages being routed in the P2P network, the query routing strategies amongst the P2P network architectures are compared using this classification.

The chapter is organized as follows. Section 2.2 defines the P2P network. Section 2.3 discusses the taxonomy of P2P computer systems where the taxonomy is used towards the super-peer network. After classifying the architectures, Section 2.4 compares the routing strategies for some of the architectures. A comparison is made with the intention of identifying the 'message passing' flows within P2P networks, which is illustrated using a UML sequence diagram. First, a comparison of the routing strategies on unstructured and structured networks is made, and this is followed by comparisons of other approaches that are piggy-backed onto the structured network. The discussion focuses on the routing strategies over super-peer networks to support the objective of this research. Finally, Section 2.5 summarizes the chapter and introduces the next chapter.

2.2 Definition

Peer-to-peer (commonly abbreviated as P2P) is a type of Internet network that allows a group of computer users within the same networking environment to directly communicate with one another. P2P application is used to enable resource and service sharing within individual

personal computers (PC). In contrast to client-server computing, the resource and service sharing in P2P collaborates without central administration. Shared resources could be files, disk storage, and databases, while services include the upload bandwidth, CPU cycles and propagation of required data. According to a broader P2P definition by Shirky (Shirky 2000),

“P2P is a class of applications that takes advantage of resources – storage, cycles, content, human presence – available at the edges of the Internet.”

This shows that the pre-requisites for a computer to join a P2P network are an Internet connection and a P2P software application. Besides the above definition, P2P is also specifically defined by the degree of centralization, as suggested by Theotokis and Spinellis (Androutsellis-Theotokis and Spinellis 2004) in their article in ACM Computing Survey:

“Peer-to-peer systems are distributed systems consisting of interconnected nodes able to self-organize into network topologies with the purpose of sharing resources such as content, CPU cycles, storage and bandwidth, capable of adapting to failures and accommodating transient populations of nodes while maintaining acceptable connectivity and performance, without requiring the intermediation or support of a global centralized server or authority.”

In short, a brief review of the literature reveals a considerable number of different definitions of P2P, and they are mainly distinguished by their degree of specialization. This section does not intend to redefine P2P but offers a classification of P2P taxonomy to clarify the numerous types of index and directory terms used in the literature.

2.3 Taxonomy of computer system

A taxonomy of computer systems from a standalone PC to P2P has been proposed by Bricklin (Bricklin 2001). In contrast, the proposed taxonomy in this section classifies the taxonomy of P2P by the use of a routing index to assist query routing in a P2P network overlay. An overlay network is a computer network which is built on top of the physical network. Nodes in the overlay can be thought of as being connected by virtual or logical links, where each link corresponds to a path through many physical links, in the underlying network (Bellahsène, Lazinitis et al. 2006). The taxonomy is shown in Figure 2.1. Descriptions of each aspect of the taxonomy will be discussed in subsequent paragraphs.

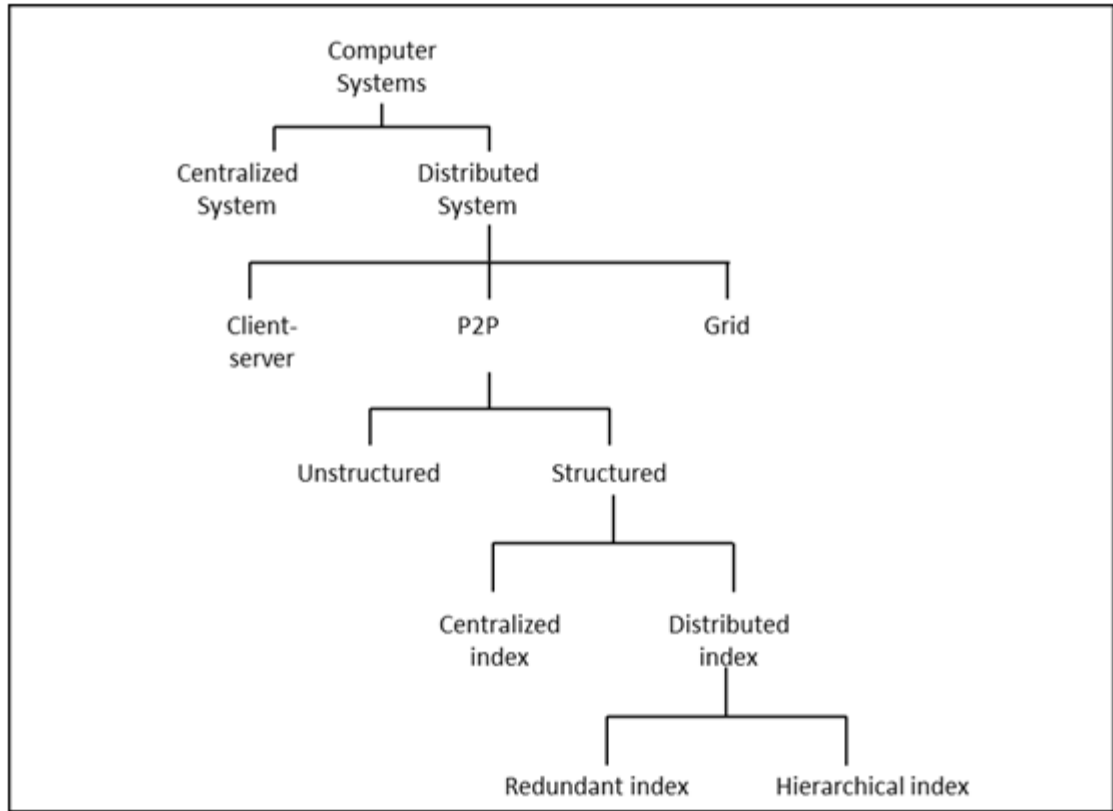


Figure 2-1 Taxonomy of computer system

2.3.1 Computer system: Centralized system and distributed system

A computer system can be classified as either a centralized or a distributed system. A centralized system represents a single unit processing in a central hub, whereas in a distributed system, the processing units are dispersed at different locations. Data-warehousing is an example of a centralized system. The distributed system can be further classified as client-server, P2P and grid.

Client-server

Client-server computing or client-server networking is a distributed application architecture that partitions workloads between service providers known as ‘servers’ and service requesters known as ‘clients’ (Krauter, Buyya et al. 2002). Normally, clients and servers operate over a computer network on separate hardware. Often, clients are PCs or workstations on which

users run applications while servers are high performance computers that run one or more server programs and share its resources with some clients. Specific types of clients include web browsers, email clients, and online chatting clients. Web servers, web services, ftp servers, application servers, database servers, mail servers, file servers, print servers, and terminal servers are amongst the specific types of servers used. Figure 2.2 illustrates a client-server network that is searching for 'X', and then retrieving 'X' from the server.

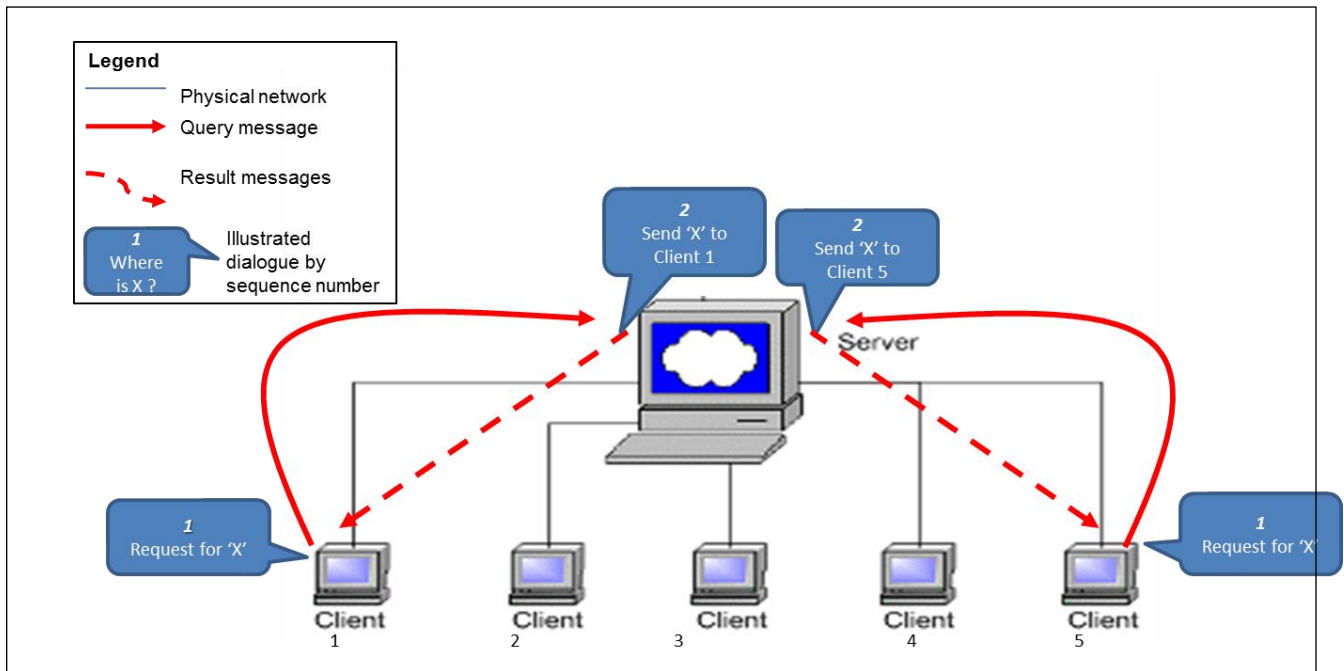


Figure 2-2 Client-server network architecture

P2P (Peer-to-Peer)

In contrast to the client-server, P2P is a term that represents a network computer with equal capabilities and capacity for sharing resources with other participants without requiring centralized co-ordination by a separate server computer. In the early days of P2P, it was known as a decentralized client-server (H., Y. et al. 2005, Ives, Green et al. 2008). P2P is often described as a system in which computers communicate directly with one another. In the early 2000's, P2P was most popularly used for file sharing applications, with KaZaa and BitTorrent being amongst the file sharing applications used. From a six month long survey that was

reported in CNET News in 2004, it was found that eight million users were online as BitTorrent users at any given time. In addition, the users were sharing up to 10 million gigabytes of data. Meanwhile, Kazaa was used by four million users simultaneously in 2003(Cope 2002). Nowadays, however, P2P is more than just a file sharing application and is also used for providing CPU cycles, storage and even as a database (Shen and Li 2008, Liu and Zhao 2009).

Grid computing

P2P and grid computing are collaborative computing technologies but each comes from different origins. Both are distributed computing models that enable decentralized collaboration by integrating computers into networks in which each computer can consume and offer services (Shen and Li 2008, Ciraci, Brahim et al. 2009). P2P originated in the “open community” (Foster and Iamnitch 2003), in which anyone could become a P2P user. Users may join, share resource and leave the community without restriction. Moreover, direction and goals of the community were collaboratively determined by members of the community. In contrast, grid computing is mainly for a “closed community”. Grid users share more specific goals. Grids generally include high performance machines that are connected through high performance networks with high level performance which is obviously different from P2P nodes. In addition, resource discovery in grids is mainly based on a centralized or hierarchical model. In contrast to P2P, grid computing is used predominantly for scientific and technical computing as well as in research and education. Grid computing is often described as a pooling of resources from multiple organizations that form a distributed computation platform comprising a set of heterogeneous machines that users can access through a single interface (Ciraci, Brahim et al. 2009).

Internationally, there are large numbers of projects actively exploring the design and development of different grid system components, services, and applications. Links to these projects can be found at the Grid Infoware (community). NeuroGrid and GridLab are amongst the grid systems, which can be used to develop a set of tools to build computational servers. Thus, very large problems can now be computed over the Internet. Based on a grid system taxonomy in (Krauter, Buyya et al. 2002), grid systems can be classified using computational application performance, data access, and enhanced service as differentiating characteristics.

2.3.2 Unstructured and structured

Unlike the grid computing classification, P2P systems are often classified based on the degree of decentralization in processing tasks and sharing resources they support as well as the services shared among participants in the network (Lv, Cao et al. 2002, Bergner 2003). In this thesis, the P2P system is firstly classified as being composed of unstructured and structured systems. This classification is based on the network architecture topologies. Unstructured P2P (which is also known as 'pure P2P') is

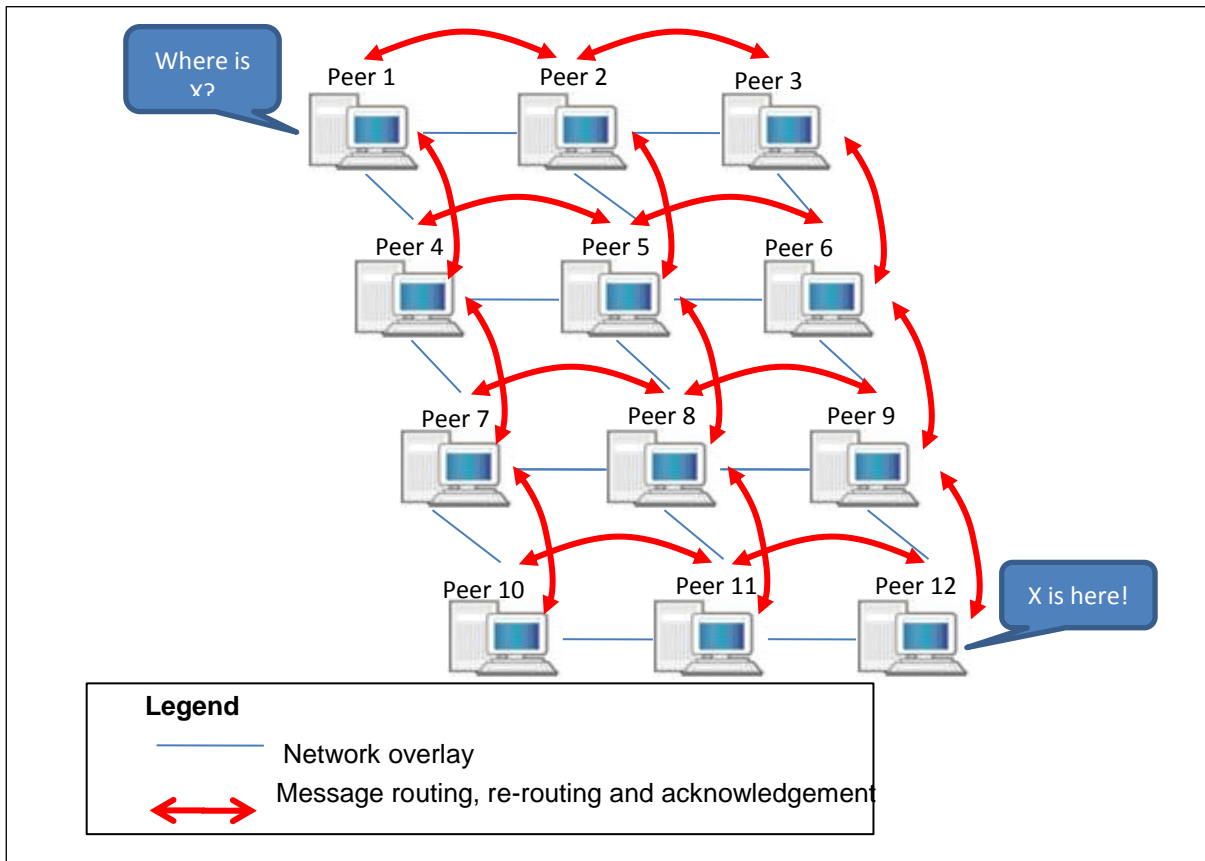


Figure 2-3 Unstructured P2P network architecture

a fully autonomous P2P system without any centralized control, whereas structured P2P allows the existence of an index in its network as part of the network control service offered. In the context of this research, the index is mainly used to facilitate the query routing. It is also known as the 'routing index'. With the presence of the routing index, a query is not blindly broadcasted to the whole network as is the case in pure P2P. Figure 2.3 and Figure 2.4 illustrate, respectively, the unstructured P2P and centralized index P2P, which is a kind of structured P2P. These diagrams are presented to depict the differentiation between

unstructured and structured P2P architectures. The double headed arrow is used to represent the routing message from the *querying peer* (the peer that sends the initial query), following which the message is re-routed until the result is found. After this, a backtracked message is generated from the *queried peer* (the peer that owned the data being queried) to the *querying peer*. The number of routing messages in a centralized index (see Figure 2.4) remains constant, no matter how many peers are participating. In contrast to centralized index P2P, Figure 2.3 (Unstructured P2P network) illustrates the number of routing messages is scalable and increases with the number of participating peers in the unstructured P2P network.

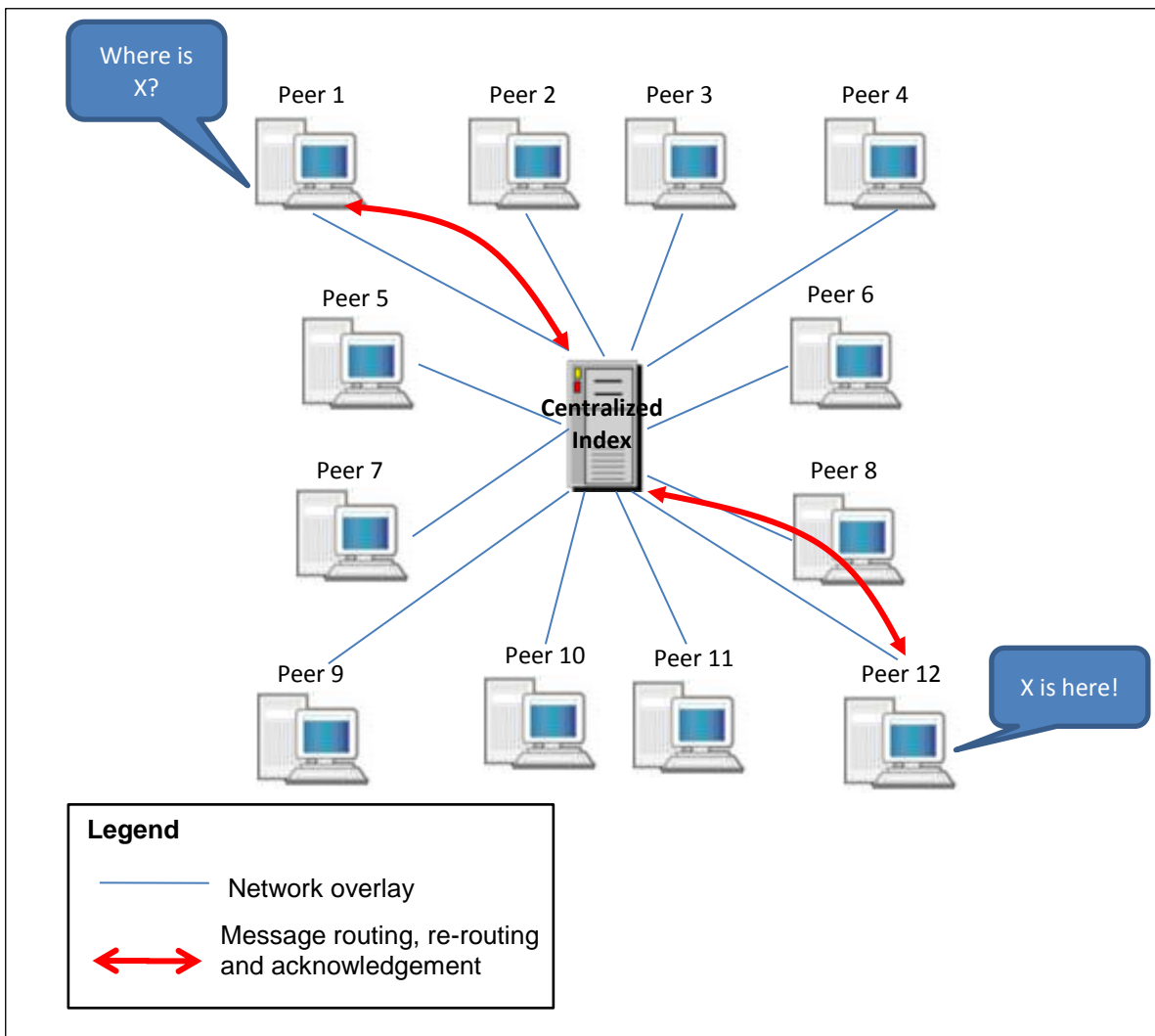


Figure 2-4 Centralized index P2P network architecture

e

Gnutella. Freenet, BitTorrent and LimeWire are amongst Gnutella-based applications. Gnutella does not require any centralized directories. Furthermore, each peer in Gnutella is absolutely autonomous as the system network does not have any control over network topology and data

placement. Thus, the query algorithm used in Gnutella is performed by broadcasting a query message to the entire network (Kalogeraki, Gunopulos et al. 2002, Lv, Cao et al. 2002, Bergner 2003, Ciraci, Brahim et al. 2009). Broadcasting a query message to the entire network is the only choice for P2P applications that require simple query routing. In the early age of P2P, Gnutella was chosen due to its simple routing concept, as every peer participating autonomously in the network has equal responsibility. Each peer acts as a client and server at the same time. The routing message is sent to neighboring peers without having to know the specific direction of the query result. This simple routing concept allowed the "Gnutella based P2P" applications to be more scalable. A Gnutella based P2P forms an overlay network in which each P2P node is connected to several other nodes. Each node is responsible for re-routing the incoming query to enlarge the search space. Therefore, Gnutella-based P2P applications are able to scale up the search locations because the search directory is not a constraint.

A peer node in a Gnutella-based system is known as a 'servant', which plays the dual role of server and client. Figure 2.5 illustrates a query routing for 'X' by Peer 1. Based on the blindly broadcast messages to the neighboring peers, X is found at Peer 12. Following this, Peer 1 sends a query message for X to Peer 12, which is followed by the query result retrieval.

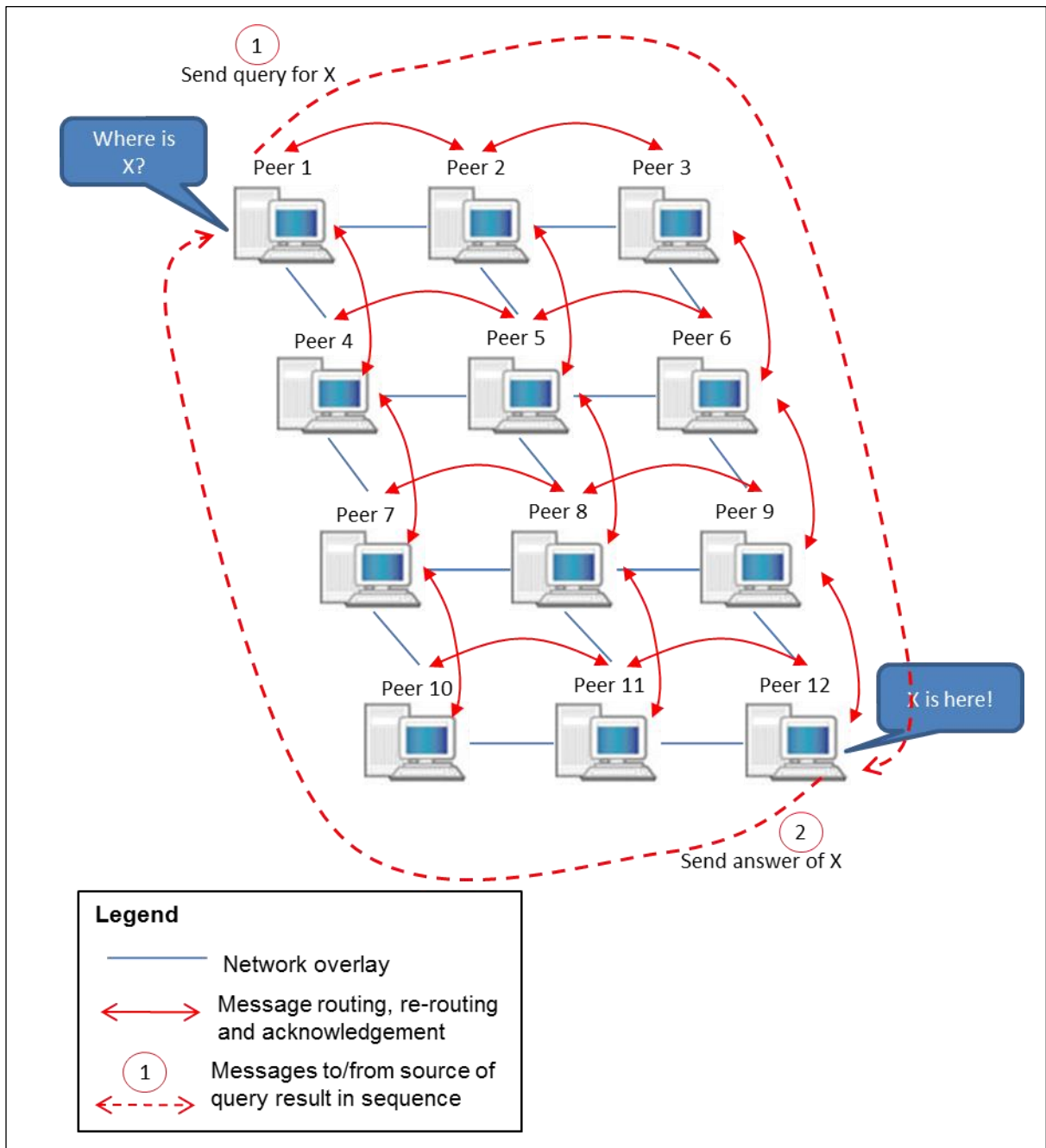


Figure 2-5 Query routing in an unstructured network

Centralized index

The allocation of indices in structured P2P can be either centralized or distributed. In general, a P2P system with a **centralized index** is widely known as 'centralized P2P'. A centralized index was popularized by Napster and its clients (Tyson), in which the data index or file locations are

kept in a single central server. Each peer maintains a connection to the central server. Instead of blindly broadcasting the query as in Gnutella, each query in Napster sends a message to the

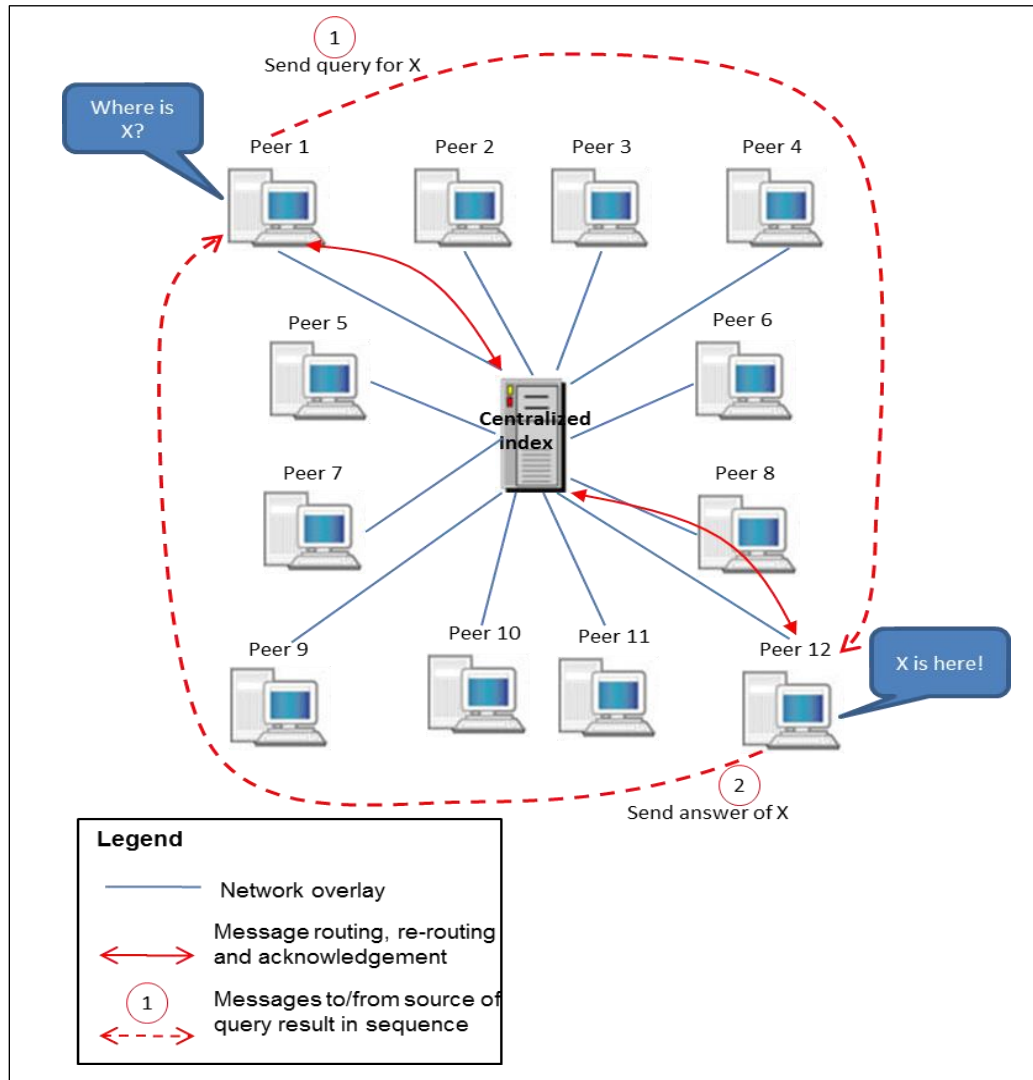


Figure 2-6 Query routing in centralized network

central server to determine the location for where the query result is held. Figure 2.6 illustrates a client in a centralized P2P querying his directory server, asking for the location of the required data. The process starts when a peer tries to connect to the directory server. Once the directory server accepts the connection, the peer sends a query to the directory server describing the required data.

In the context of this research, the directory server is used to assist query routing by maintaining the routing index that specifies the location of data shared by its clients. Once the location is identified, a return message that consists of information on the location(s) of the target data is sent back to the querying peer. After that, a query message is sent to the target location, and then the query result is retrieved. Therefore, the number of query messages in the entire network is reduced in the centralized P2P compared to the unstructured P2P. This is supported by experimental results, as shown in (Nottelmann and Fuhr 2006). Even though there is no method that outperforms all others for all parameters measured, the use of an index (called a distributed hash table in (Nottelmann and Fuhr 2006)) has shown a reduction in the number of hops for query answering. However, the central server in the centralized P2P is vulnerable to censorship and malicious attacks. The directory's single server is also a single point of failure (Pourebrahimi, Bertels et al. 2005). Furthermore, scalability is a problem because of the limitations of the size of the index directory and server capacity to respond to peers' queries. As data allocation is always changing, the directory server must be periodically refreshed to keep the index directory up-to-date.

2.3.3 Distributed index

In order to reduce the risk from a single point of failure, a distributed index has been introduced. By distributing the routing directory into several indices, the size and capacity of the central index peers' disk space and the processing power that is required to maintain the routing index are also reduced. In a distributed index environment, distributed routing indices are located on selected peers in the network, which are called 'super-peers'. Amongst peers in the P2P network, a super-peer can be seen as a hub that builds connections within different groups. A group of peers in the P2P network community is called a 'cluster'. An illustration of a super-peer cluster in the distributed network overlay is shown in Figure 2.7.

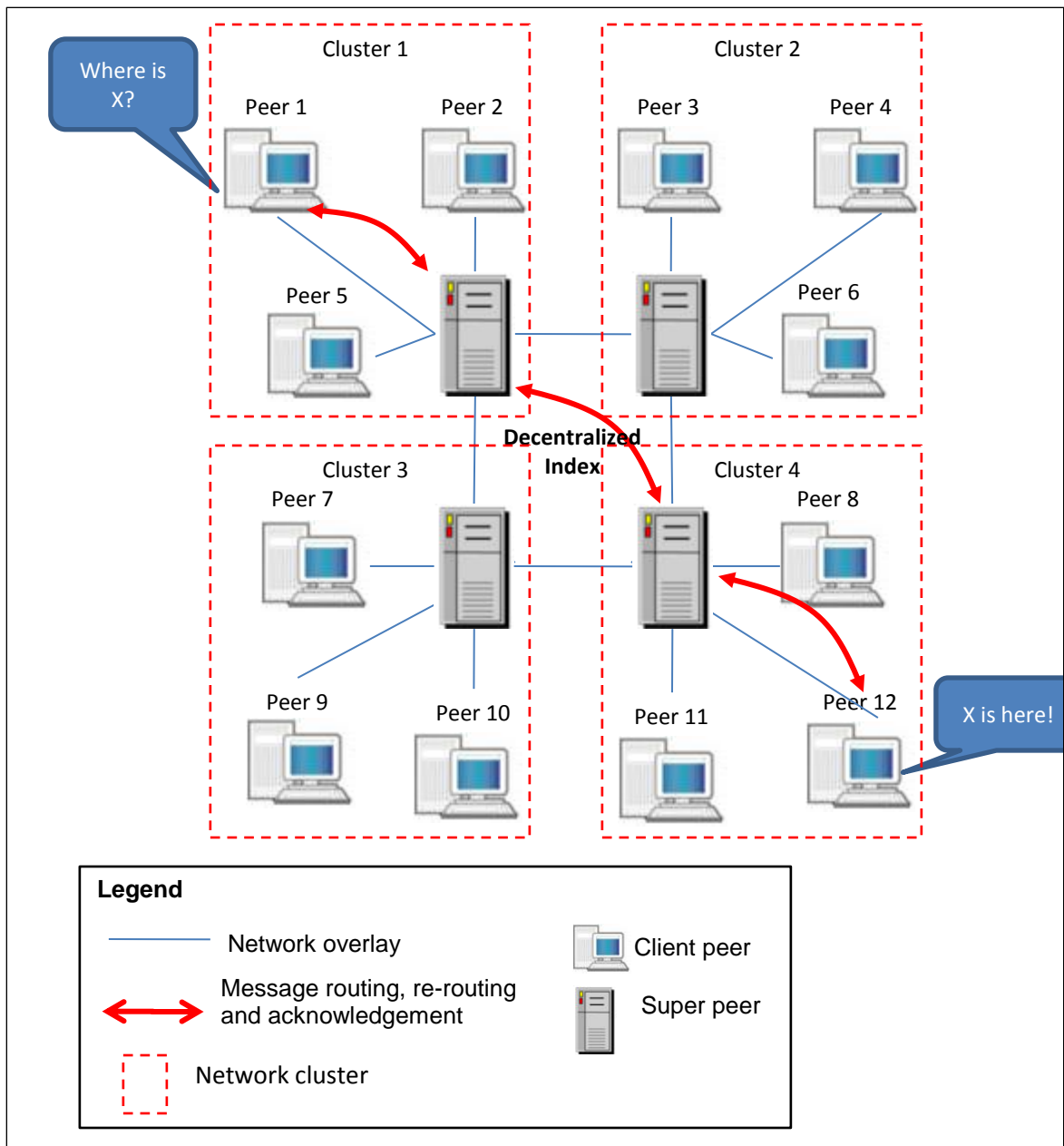


Figure 2-7 Distributed index network architecture showing cluster

In a network cluster, a super-peer is regarded as a hub on behalf of other peers in a group. The term 'client-peers' is used to differentiate the role of the peers within a cluster. The cluster is built-up based on shared data, usage history and peer interest (Nejdl, Wolf et al. 2002, Datta, Gradinariu et al. 2003, Calvanese, Lenzerini et al. 2004, Bellahsène, Lazinitis et al. 2006, Kacimi and Yetongnon 2007). Before joining the P2P network, a peer has to register its participation and declares its profile and shared resources, which is then used to determine their allocations in the cluster. A peer may belong to more than one cluster, where each cluster is hosted by at

least one super-peer. In Figure 2.7, only one peer is assigned for a cluster and each peer belongs to a single cluster. The super-peer has to maintain the super-peer index on behalf of other peers within its cluster. The respective super-peer will update its routing-index when a new peer joins or leaves the network, and also whenever the shared resources are updated. Further details on the super-peer index registrations, updates and withdrawals can be found in (Nejdl, Wolpers et al. 2003). The initial concept of the super-peer is similar to the central server in a centralized index. Once the target location is identified by the super-peer, a return message that consists of information on the location(s) of the target data is sent back to the querying peer. After that, a query message is sent by the querying peer to the target location, which retrieves the query result by the peer. Since the super-peer plays the main role in the distributed index network, this network overlay is widely known as a super-peer P2P network. An illustration of query routing in a super-peer network is shown in Figure 2.8.

The routing directory is distributed across several super-peers in a super-peer network. Hence the number of query requests that move in the same direction within the network is reduced. This is because query broadcasting is mainly managed by the corresponding super-peer where the query is created. Each query is assigned a unique identifier and is broadcast to subordinate client peers within the same cluster as well as to neighboring super-peers depending on query results that have been identified. When the same query goes through the same peer more than once, broadcasting will stop. However, the identifier of a rewritten query is not directly recognized when compared with its initial query. Hence the number of repeat query requests moving towards the same location can be reduced but not completely eliminated.

Furthermore, distributing the routing index alleviates the single-point-of-failure. Although super-peer clusters are efficient, scalable and manageable, the super-peer itself has become a single-point-of-failure for the peer nodes within its cluster (Swan, Kutar et al.). The super-peer is responsible for keeping the routing table on behalf of the other client-peers within the group. However, the super-peer node is also an autonomous peer which is not a permanent server. Thus, the super-peer may leave the P2P network at any time. For this reason, some policies on redundant super-peers and hierarchical super-peers must be implemented in order to avoid clients in its cluster from becoming isolated.

Redundant super-peer

In unstructured P2P, every peer is given equal responsibility irrespective of its computing or network capabilities. However, unstructured P2P, also known as pure P2P, can quickly lead to deterioration of performance due to network fragmentation as less capable nodes are added. This problem can be alleviated in a super-peer P2P architecture as only relatively powerful computers with large network bandwidth are promoted to the status of super-peers. In the super-peer network, the load is divided according to the capability of the peers, leading to better overall performance. Although super-peer clusters are efficient, scalable and manageable, a super-peer becomes a potential single point of failure for its client-peers. This

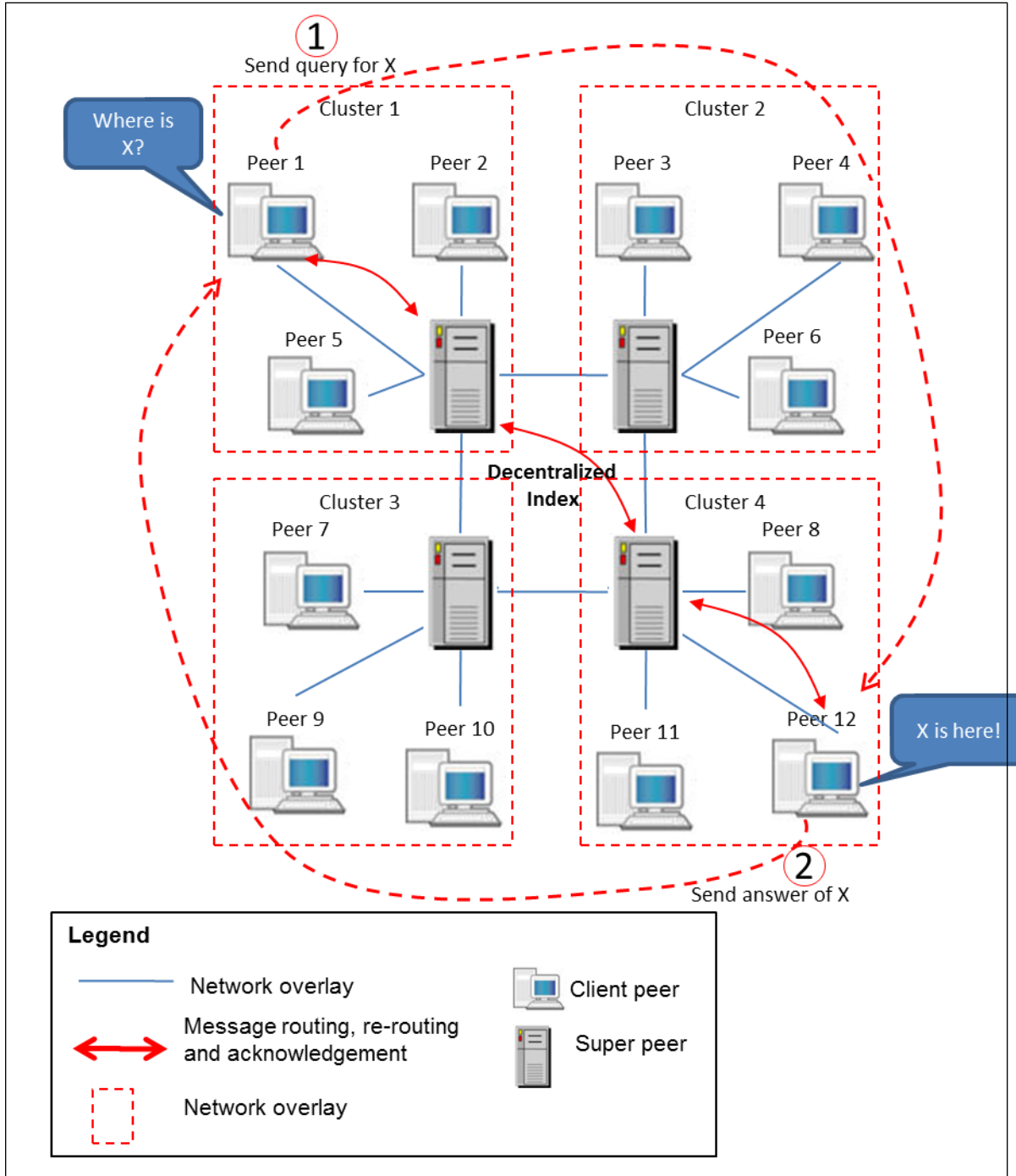


Figure 2-8 Query routing in super-peer network

problem is overcome via the notion of super-peer redundancy, in which fail-over super-peers are defined to automatically take over the job of the primary super-peer in case of failures.

Redundant super-peer is built in to increase the reliability of a super-peer topology by replicating the super-peer's role in several super-peers within the same subnet (Cartaxo, Neto

et al. 2007, Kwon, Lee et al. 2008, Zamli, Othman et al. 2011). Several peers are assigned as super-peers for the same cluster of peers. However, the super-peer redundancy causes an increase in query processing cost (Yang and Garcia-Molina 2003). Based on the research finding in (Yang and Garcia-Molina 2003), the number of super-peers assigned to the peer's cluster increasing by a factor of k^2 , where k is the number of super-peers in a cluster; hence the aggregate cost for maintaining the super-peer's routing index is also increased due to the extra requirements for the bandwidth, processing and storage.

On the other hand, the redundant super-peer would be able to reduce the workload by $(load/k)$ compared to a single super-peer. A comparative illustration between a super-peer network with no redundancy and two redundant super-peers is illustrated in Figure 2.9. In the figure, a black node represents the super-peer, a white node is the client-peer, and the cluster is marked with the dashed lines. Based on findings in (Yang and Garcia-Molina 2003), by increasing the number of super-peers per cluster, the number of overlay connections is also increased. Thus, the accumulated cost of maintaining the redundant index architecture is more than a distributed index with a single super-peer. Increasing the processing cost in the aggregate P2P network and reducing the processing load on a super-peer is a trade-off between the super-peer's reliability and the increase in cost of the bandwidth, workload and storage for the aggregate P2P network.

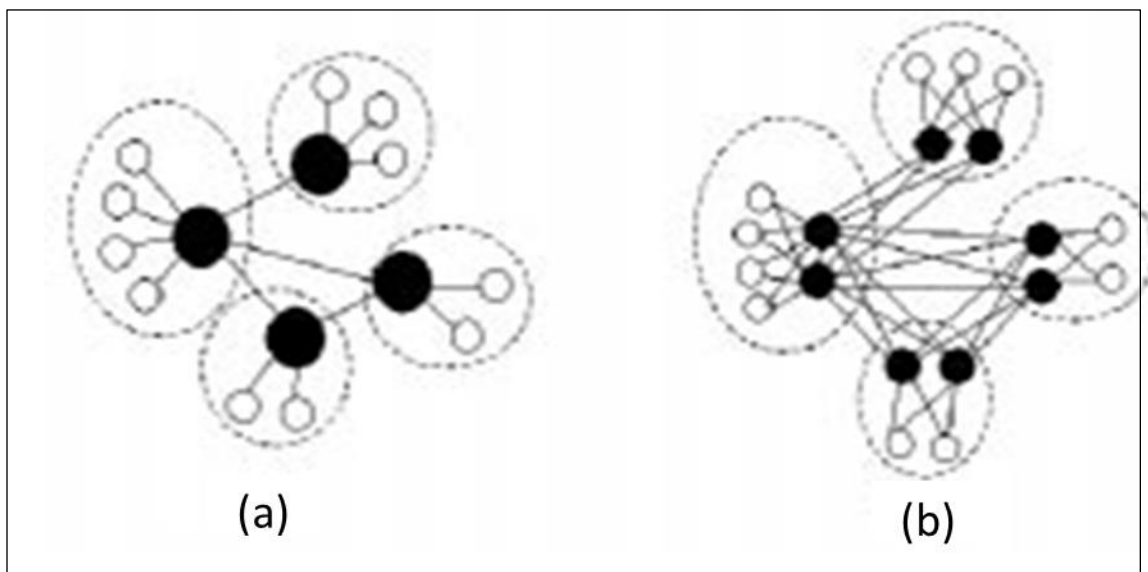


Figure 2-9 (a) Super-peer with no redundancy and (b) Super-peer with 2-redundancy (adapted from (Beverly Yang and Garcia-Molina 2003))

Hierarchical super-peers

Besides having more than one super-peer, another approach to reducing the probability for a super-peer node becoming a single-point-of-failure in super-peer networks is by having a hierarchical structure of the super-peer index. Since the number of peers involved in maintaining the index is increased, the probability of losing the routing information due to the loss of the super-peer should decrease as a result of index segregation. By segregating the index, the probability of the required data being kept in a unique index is decreased compared to keeping the entire hierarchical index structure in a super-peer. The main aim of the hierarchical schema structures approach is to increase the system's scalability by reducing the amount of complete mapping between data source peers (Bellahsène, Lazinitis et al. 2006).

There are two approaches to creating hierarchical schema structures: fixed structures and flexible structures. The XPeer (Bellahsène and Roantree 2004) system specifies three levels of schema hierarchy; in iXPeer (Bellahsène, Lazinitis et al. 2006), the level of schema hierarchy varies, since it can be derived from any abstraction. The iXPeer architecture is shown in Figure 2.10.

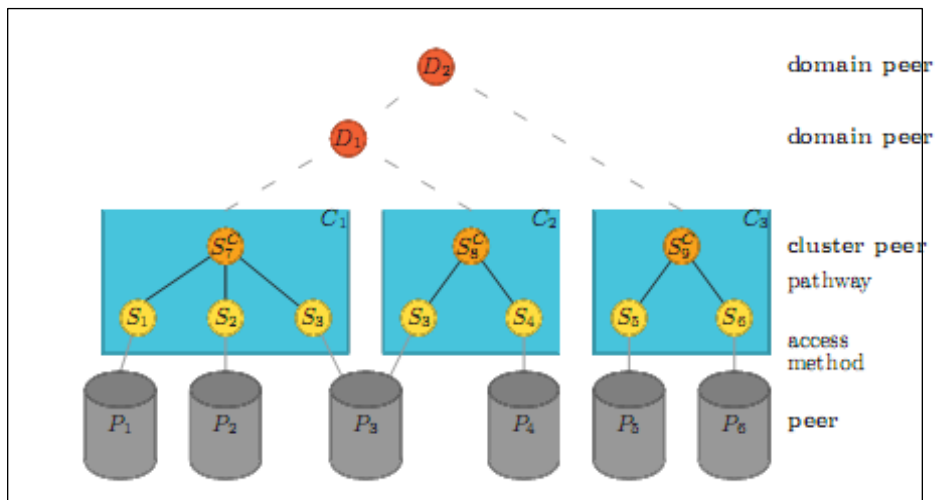


Figure 2-10 iXPeer architecture (adapted from (Bellahsène, Lazinitis et al. 2006))

In order to reduce the probability of having a single-point-of-failure in the super-peer network topology, the hierarchical schema index could have the single-point-of-failure if only one peer is involved in each hierarchy level. Therefore, implementing the abstraction of the super-peer schema hierarchical index would only reduce the probability of having a single-point-of-failure

in a super-peer network but would not be able to solve the entire problem for single-point-of-failure.

2.3.4 Summary of taxonomy description

Various computer system architectures have been presented in a form of taxonomy. In general, different architectural structures would lead to different query routing strategies. Discussion on the routing strategies is important in order to identify the problems while routing the queries. For example, the more centralized routing index would be more vulnerable to failures by peers (who are obtaining the index) suddenly leaving the network. However, the purely unstructured network will lead to inefficient query routing due to the absence of the routing index. Thus, there must be a balance between efficiency and robustness within P2P applications. The next section will discuss the various ways of query routing which will raise some issues concerning possible compromise between the network traffic and the additional burden for routing the query.

2.4 Comparison of query routing strategies

This section will compare query routing strategies for some of the P2P systems that have been described in the previous section. In some circumstances, a sequence diagram model will be used to illustrate the message propagation flow which is part of the query routing steps. The sequence diagram is one of the modeling approaches used in Unified Modeling Language (UML) and is widely used for exhibiting the flow of logic in a visual manner.

Before starting the discussion on query routing strategies, query routing in the context of this research is defined, rather than solely using previous definitions such as stated in (Nottelmann and Fuhr 2006, Dimitriou, Karame et al. 2008, Garrod, Manjhi et al. 2008). Query routing is defined as a process of directing user queries to appropriate peer nodes by constraining the query search space through query refinement and resource selection. The goal of a query routing mechanism is to reduce the unused part of broadcast query messages and to increase the reachability of potential resource locations for query answering. Unused parts of the query message are those that do not locate information at the resource locations; they contribute to query cost but not to query results. Effective query routing not only minimizes the query

response time and the overall processing cost, but also eliminates a lot of unnecessary communication overhead for P2P networks as a whole and for the individual information sources.

Discussion on query routing strategies in P2P networks is separated into the following subsections: Unstructured network, Centralized network, Super-peer network, Redundant super-peer network and Hierarchical index super-peer network. In this case, the discussion is mainly focused on comparing the number of messages for each of the compared routing strategies. Message during query routing is represented as an 'arrow link' that represents the flow of messages from one object to another, as necessitated for a UML sequence diagram (Albert, Cabot et al. 2011, Nieto, Costal et al. 2011).

2.4.1 Unstructured network

In a fully unstructured network (such as pure P2P), the querying peer will contact all of its neighbors and send the query to these peers. Assume that the network connection is as shown in Figure 2.3. Based on the peer network connection given, the query routing process is illustrated using a sequence diagram as shown in Figure 2.11. When *Peer 1* sends the query message to its neighbors *Peer 2* and *Peer 4*, these neighboring peers will process the query to see if it has anything that matches the query. Since no matched data is found, they will not yet send any response back to *Peer 1*. Meanwhile, *Peer 2* and *Peer 4* will resend the same message to their neighbors, which are *Peer 3* and *Peer 5*, and once again *Peer 5* and *Peer 7*. Observe that since *Peer 5* is neighbor to both *Peer 2* and *Peer 4*: it has received the request for 'X' twice.

The process of sending the query message is called 'routing' and resending the query message is called 're-routing'. The re-routing process will continue until the required data is found and/or the TTL (Time-To-Live) of the query message is reached. TTL is a limit on the period of time or number of iterations or transmissions in a computer network a query has before it should be discarded. In this research, TTL is used to represent the number of iterations for a message being re-routed. In unstructured networks, TTL is set along with the initial query message. Using the same example architecture (Figure 2.3), assume that the TTL for an initial query message from *Peer 1* is two. Here, TTL is pre-set on the initial message at *Peer 1*, which means that the initial message querying for X will be resent twice before being discarded. When the query message reaches *Peers 3, 5* and *7*, the number of iterations is counted as one.

The message will be re-routed once again before the TTL limit is reached. In this example, the message is finally re-routed to *Peer 6* by *Peers 3* and *5*, to *Peer 8* by *Peers 5* and *7* and to *Peer 10* by *Peer 7*, before the message is discarded. As shown in Figure 2.11, the message routing does not reach *Peer 12*, which possesses the required resource *X*, because *Peer 12* is unreachable due to the pre-set limit on the TTL value. Unstructured P2P may require a high TTL value to increase node reachability but this may increase the number of unnecessary re-routes and will lead to 'network flooding'. Network flooding is a situation in which the entire network will be full of re-routing messages; the upshot is high transmission of redundant data.

QUERY CACHING IN UNSTRUCTURED NETWORKS

Query caching is one of the approaches used for assisting query routing in the absence of a routing directory or index. In an unstructured P2P, the query caching approach is used to store the returned message content. The use of cached query results may lead to the retrieval of outdated information for subsequent queries if there is a long elapsed time from the original query. Thus, instead of caching the query result, Quan et al. (Lan Quan 2004) have proposed query hit message caching. In query hit message caching, peers that participate on the return path of the query result will cache the data address of the return paths as well as the path to the querying peer. Figure 2.12 illustrates the routing when no query hit message caching is found for the required resource 'Y'. Assume that *Peer 1* requests for 'Y' that is located at *Peer 10*. In this scenario, *Peer 1* will become a new source of 'Y'. In addition, *Peer 4* and *Peer 7* will have cached the query hit caching information, since they are involved with the return message between *Peer 1* and *Peer 10*. Peers in the return path will cache the querying hit information that *Peer 1* has data 'Y'. Therefore, if *Peer 7* subsequently requests for 'Y', *Peer 7* will send a request message to *Peer 4*, and then *Peer 4* will send the request to *Peer 1*. This is due to its cached data.

Comparing Figures 2.12 and 2.13 with Figure 2.11, which depicts ordinary routing in an unstructured network, the number of message passing towards the target data source will be reduced by up to 63% if the required data ('Y') has already been cached. However, there is

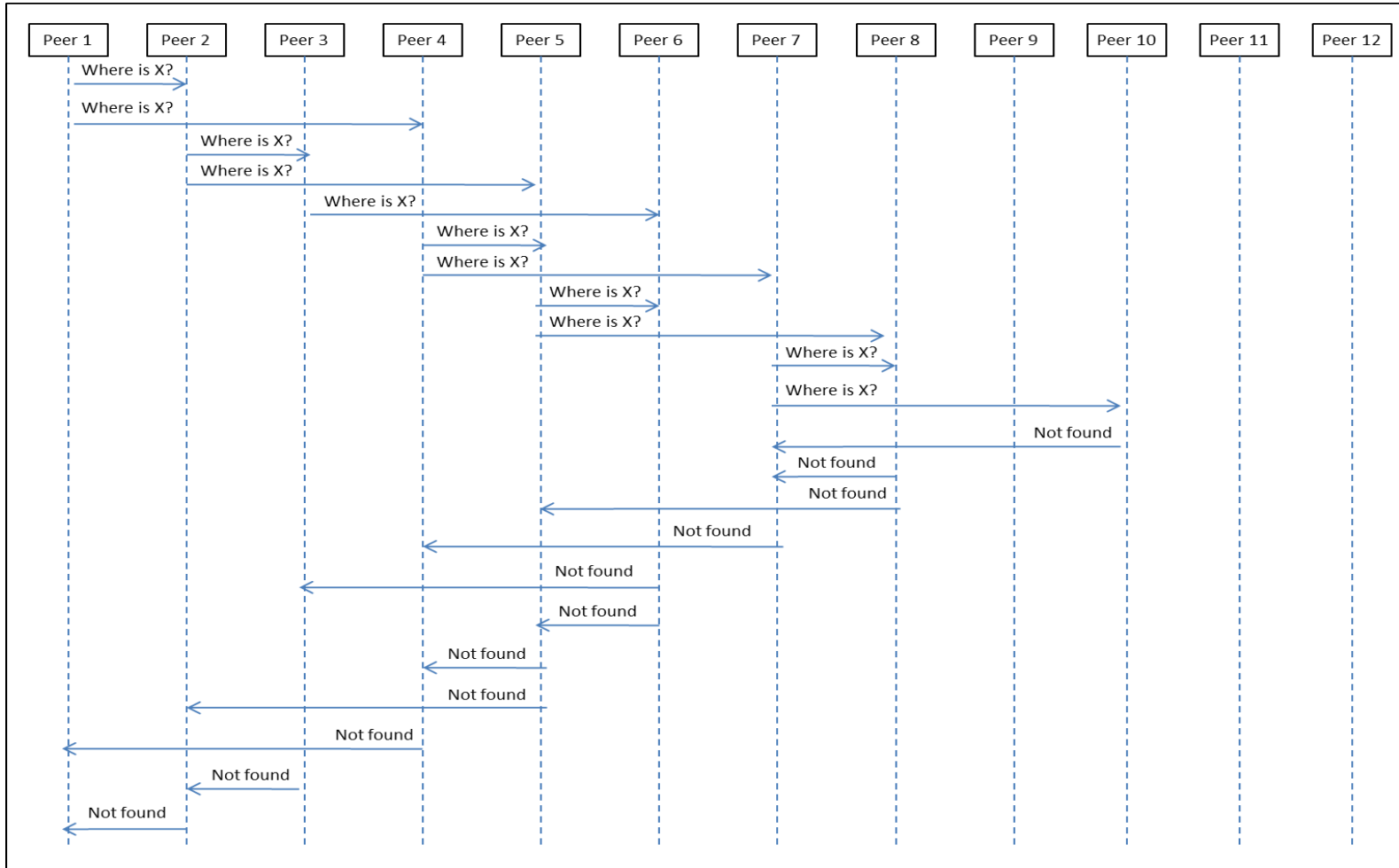


Figure 2-11 Ordinary query routing in an unstructured network with a limited TTL and query initiated by Peer 1

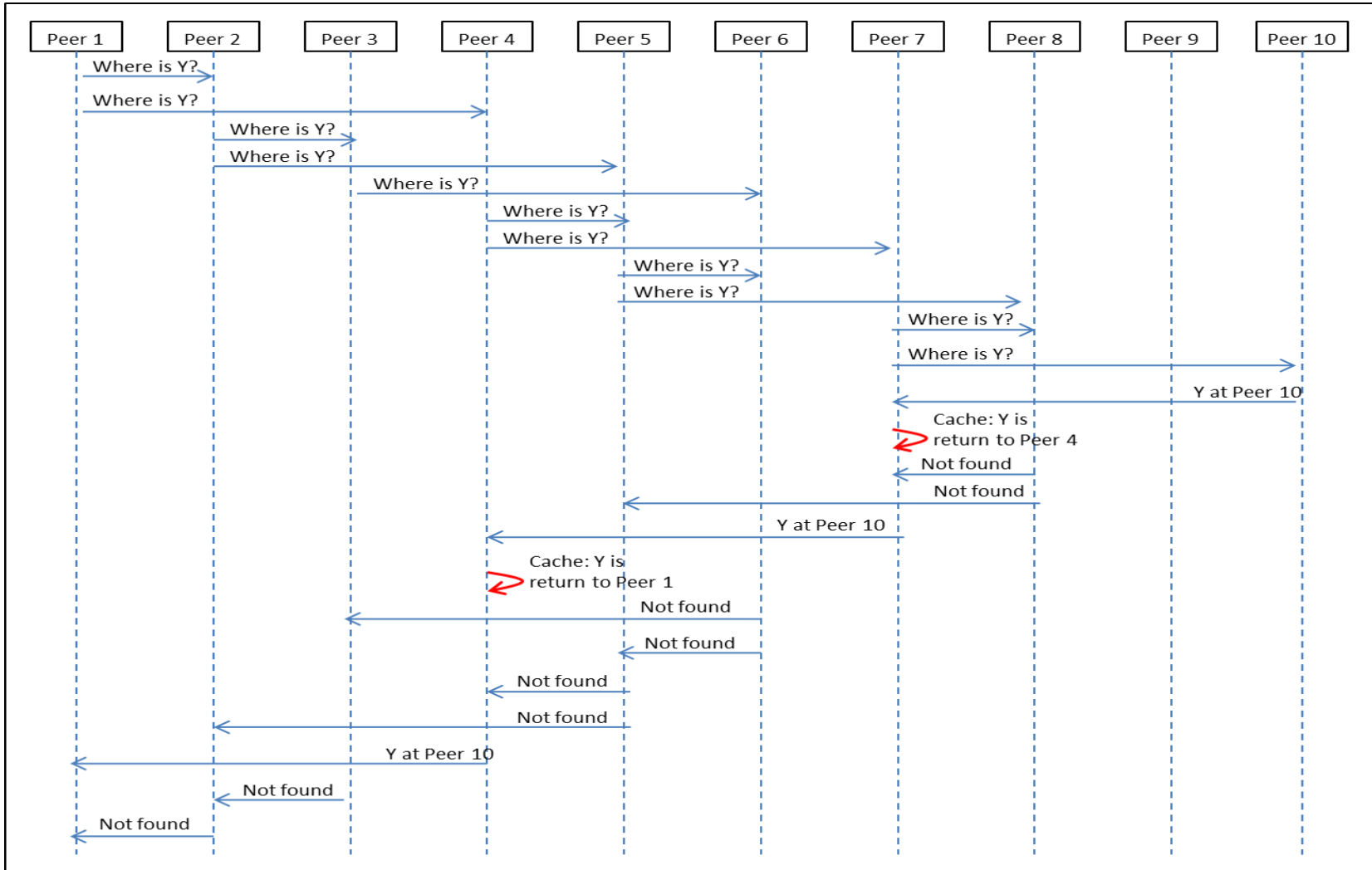


Figure 2-12 Illustration of query routing as proposed by Quan et al.

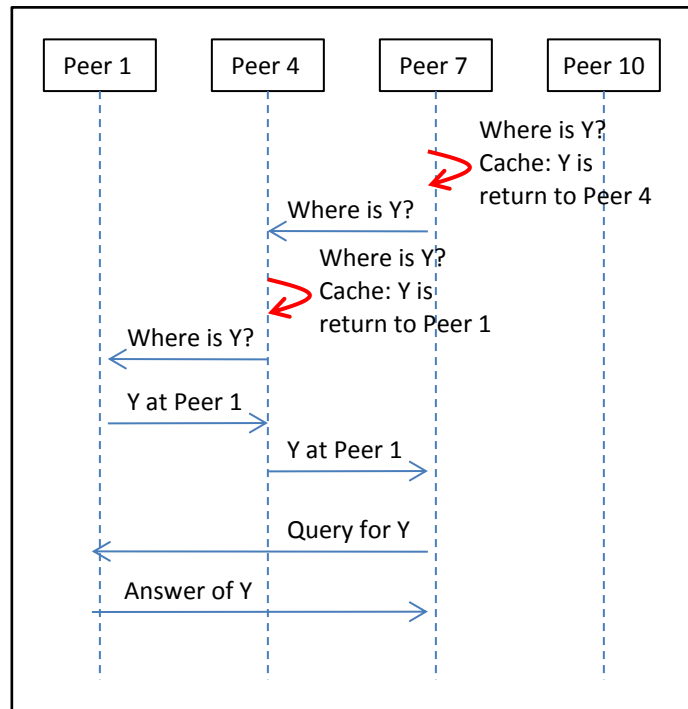


Figure 2-13 Illustration of the use of cached query as proposed by Quan et al.

a 9% increase in message passing when the required data do not exist in the query hit cached information. Illustrations of query routing using UML sequence diagrams in Figures 2.11, 2.12 and 2.13 are based on the peer connection in Figure 2.3. Figure 2.11 illustrates an unstructured P2P network and Figures 2.12 and 2.13 represent the proposed query routing algorithm presented in (Lan Quan, 2004 #64). The percentages are derived from the number of message passing, depicted by arrows in the UML sequence diagram. For example, the 9% increment comparing Figure 2.11 and 2.12 is calculated from the differences in numbers of arrows in both diagrams:

$$\begin{aligned} \text{Increase in message routings} &= \frac{(\text{Number of arrow in 2.12} - \text{Number of arrow in 2.11})}{\text{Number of arrow in 2.11}} * 100 \\ &= \frac{(24 - 22)}{22} * 100 = 9.09\% \end{aligned}$$

Similarly, the 63% reduction is calculated from the difference in number of arrows in Figure 2.11 and Figure 2.13:

$$\begin{aligned}\text{Reduction in message routings} &= \frac{(\text{Number of arrow in 2.13} - \text{Number of arrow in 2.11})}{\text{Number of arrow in 2.11}} * 100 \\ &= \frac{(22 - 8)}{22} * 100 = 63.63\%\end{aligned}$$

Assisted query routing proposed by Quan et al. is thus able to reduce the routing messages. However, if the original data source is updated, the cached data is going to be obsolete. Doulkeridis, et al. have proposed a schema-based query caching approach in (Doulkeridis, Norvag et al. 2006, Doulkeridis, Nørnvåg et al. 2008), where the schema of the shared resource is cached by the peers in the network community. It means the query can be sent directly to the target peers without broadcasting it to the whole network.

Consider the same scenario as in Figure 2.12, where *Peer 1* requests *Y*, which is cached at *Peer 10*. *Peers 4* and *7* are intermediate nodes between the two peers. Assume a request has been made for *Y* that is in the possession of *Peer 10* and not yet cached, as shown by Figure 2.14.

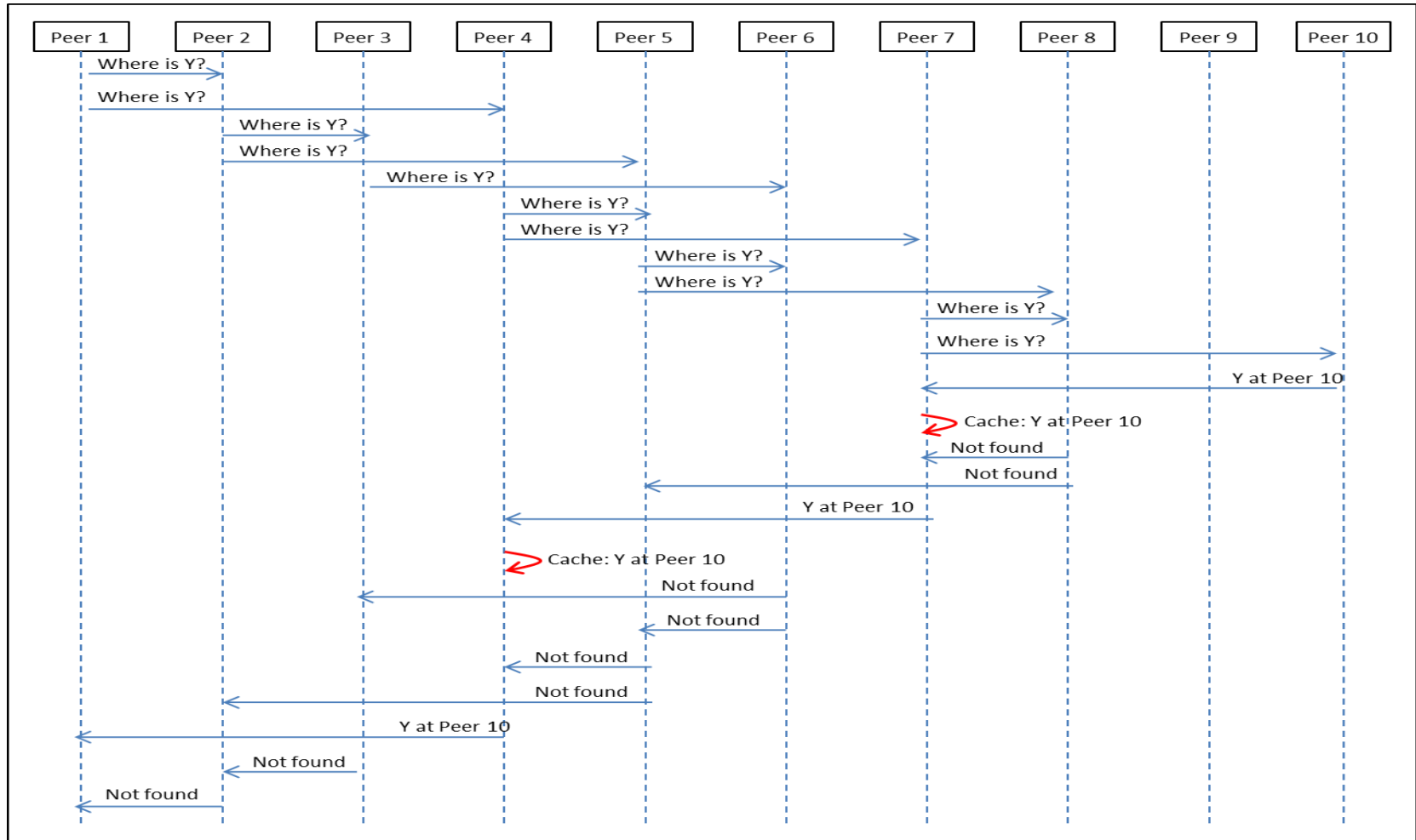


Figure 2-14 Illustration of query routing as proposed by Doukeridis, et. al.

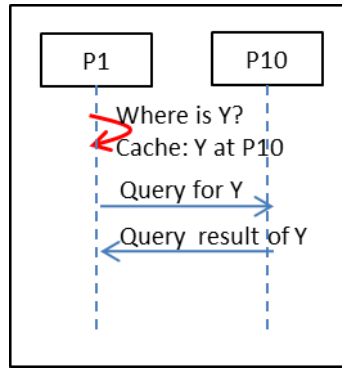


Figure 2-15 Illustration of the use of cached query as proposed by Doulkeridis, et. al.

Meanwhile, Figure 2.15 illustrates the same approach but when *Y* has already been cached. As in the previous scenario, when *Peer 7* requests for *Y*, it would not blindly route the query to its neighboring peers because the return message from *Peer 10* has already been cached. The cached return message at *Peer 7* noted that *Y* is located at *Peer 10*. Thus, a subsequent query for *Y* by *Peer 7* will just send a query message to *Peer 10*.

Based on the message passing depicted by arrows in UML sequence diagrams, a 9% increment is required when the required resource does not exist in the cached query (Doulkeridis, et. al) but it may reduce 86% of message passing when the resource exists. This is shown by comparing the arrows for Figures 2.11 and 2.14 for the absence of the required resource in the cache and Figures 2.11 and 2.15 for the presence of the required resource in the cache:

$$\text{Increase in message routings} = \frac{(\text{Number of arrow in 2.14} - \text{Number of arrow in 2.11})}{\text{Number of arrow in 2.11}} * 100$$

$$= \frac{(24 - 22)}{22} * 100 = 9.09\%$$

$$\text{Reduction in message routings} = \frac{(\text{Number of arrow in 2.15} - \text{Number of arrow in 2.11})}{\text{Number of arrow in 2.11}} * 100$$

$$= \frac{(22 - 3)}{22} * 100 = 86.36\%$$

However, caching the schema of all of the shared resources is an expensive solution for a peer that performs the least in the P2P network. This is due to the fact that caching requires some cost on disk space to store the cache, and a number of I/O transactions (Thomas M. Connolly, 2009). In some cases, caching does require some on-going management in terms of ensuring the cache is updated.

2.4.2 Centralized network

In contrast to pure unstructured networks, queries in centralized networks can be posted directly to the specific data location using the directory server. Figure 2.4 shows the network connections in a centralized network and query message propagation is shown in Figure 2.16. Assume that *Peer 1* sends a request for resource 'X' that is held at *Peer 12*. Even though the number of messages being routed in a centralized index network is normally less than in an unstructured network, it is not always the case. By comparing the sequence diagram shown in Figure 2.16 to the sequence diagram shown in Figure 2.15, the number of messages being routed in a centralized network is 40% more than the number of messages in an unstructured network with assisted query caching as proposed by D Doulkeridis, et al. The percentage is derived from the differences number of arrows in both diagram as shown in the calculation below,

$$\text{Increment message routings} = \frac{(\text{Number of arrow in 2.16} - \text{Number of arrow in 2.15})}{\text{Number of arrow in 2.16}} * 100$$

$$= \frac{(5 - 3)}{5} * 100 = 40\%$$

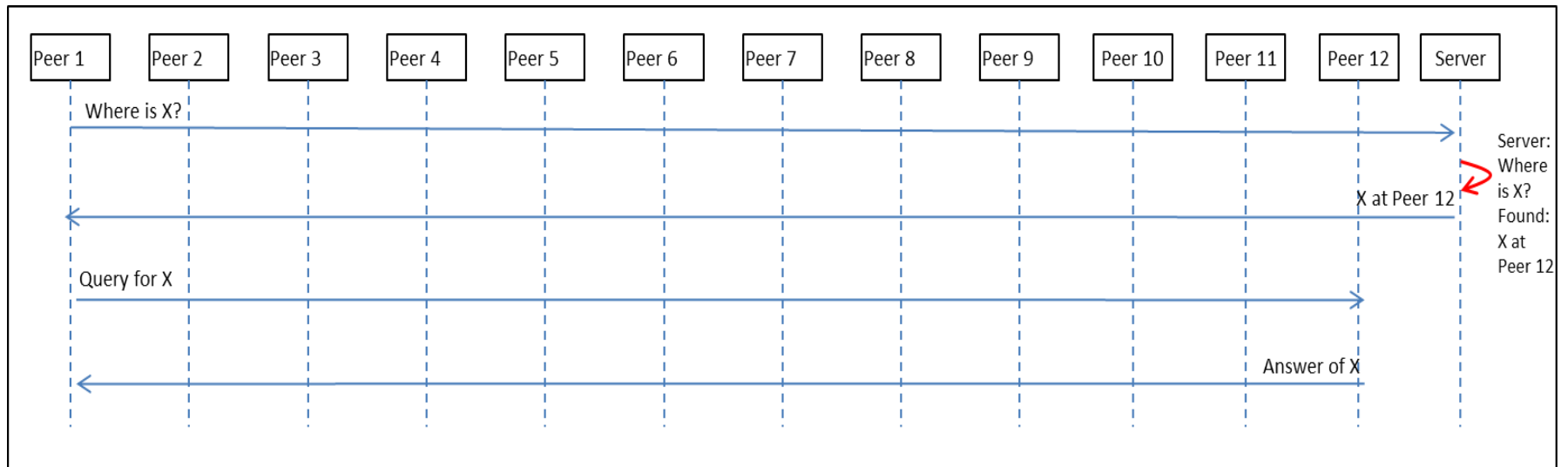


Figure 2-16 Ordinary query routing in a centralized P2P network

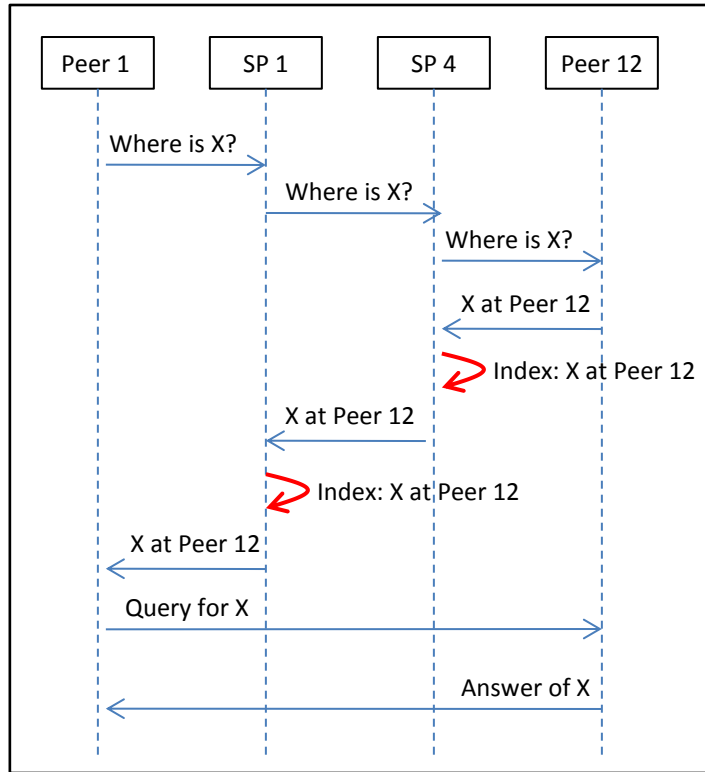


Figure 2-17 Ordinary query routing in a super-peer P2P network

2.4.3 Super-peer network

Ordinary query routing in centralized networks seems to be propagating the least number of routing messages in the P2P network. However, as previously discussed in Section 2.3.3, the central node is a single point of failure.

A super-peer network is a hybrid approach between a single server directory in a centralized network and the absence of any routing directory in a purely unstructured P2P network. Consider the scenario where *Peer 1* requests resource 'X' as illustrated in Figure 2.7. Figure 2.17 shows the query routing for X when it is located at *Peer 12*. In this illustration, it is assumed that the information about X has not yet been captured by any super-peers. In the figure, super-peer is abbreviated as 'SP', and 'SP 1' is used to represent the super-peer at *Cluster 1*. The super-peer holds the routing index, which is labeled as 'index' in the figure. The number of messages will be further reduced if the required data source has already been captured by the local super-peer (Garrod, Manjhi et al. 2008) as there will be no messages

between super-peers in different clusters. The number of messages propagated in Figure 2.17 is reduced by up to 50% compared to ordinary routing over unstructured networks as shown in Figure 2.11. Zhou (2011) confirmed these reductions by conducting experiments for up to 5 000 000 queries, which showed the average volume of traffic per query decreasing by more than 40% when utilizing the super peer. The calculations from sequence diagrams presented in this thesis that show the potential changes in message routing would seem to accord with the empirical results:

Reduction in message routings with a super peer

$$= \frac{(Number\ of\ arrow\ in\ 2.11 - Number\ of\ arrow\ in\ 2.17)}{Number\ of\ arrow\ in\ 2.11} * 100$$

$$= \frac{(22 - 10)}{22} * 100 = 54.54\%$$

2.4.4 Redundant super-peer network

In ordinary super-peer networks (as discussed in 2.3.3), each peer can either be a super-peer node or a client-peer node. One node is assigned as the super-peer while other nodes are considered as a client-peer in the cluster. A cluster is a group of peer nodes. In order to increase the performance of super peer networks, it can be useful to decrease the load on super-peer nodes by creating several redundant ones within the cluster, which also has the advantage of reducing the effect of a super-peer's failure. This architecture is known as a redundant super-peer network (Beverly Yang and Garcia-Molina (2003), (Dimitriou, Karame et al. 2008), where each cluster may have more than one super-peer. Transmission Control Protocol (TCP) connections are established between client-peers and their super-peers and between pairs of super-peers as well as with neighboring super-peers. Thus, super-peer nodes in a redundant super-peer network can take the benefit of having several super-peers working in a round robin for each cluster (Dimitriou, Karame et al. 2008).

Figure 2.18 illustrates a redundant super-peer network, where each cluster contains three super-peers. *P6* represent a client-peer labeled id 6, while *SP3* represent a super-peer node labeled id 3 and 2, and clusters *C1* and *C2* are marked by dashed lines. TCP connections between peers are not shown due to the maze of links. As depicted in Figure 2.18, *SP3* is

chosen to be responsible for receiving and broadcasting a query request from peer P_6 . As the super-peer's responsibility is repeated among several nodes of super-peers within a cluster, the probability of failures is reduced. Based on simulated results demonstrated in (Dimitriou, Karame et al. 2008), where the presence of 30% malicious aggregators was placed in the network, almost 60% of the requests remained successfully routed.

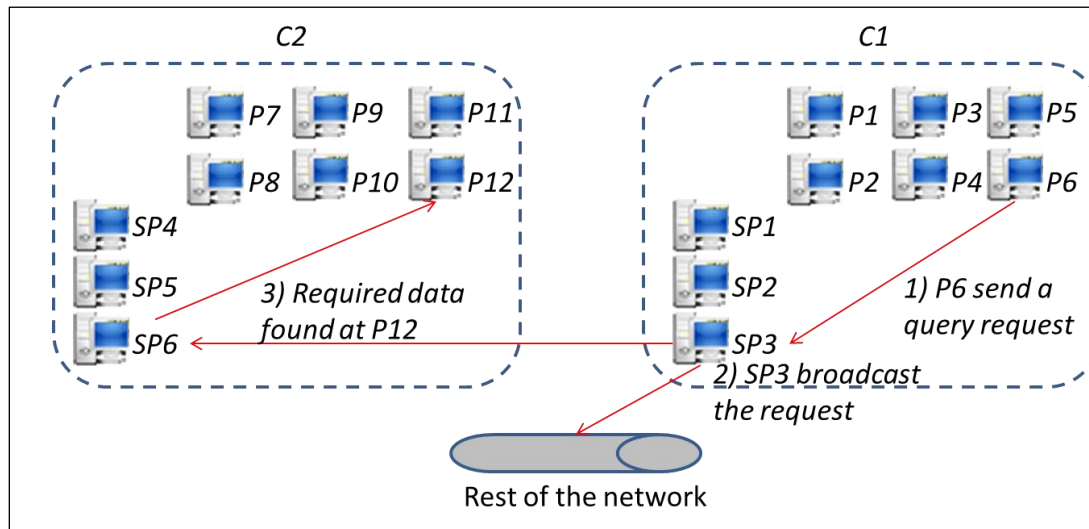


Figure 2-18 Example of 3-redundant super-peer request scenario

Step-by-step action is broken down into a sequence of messages as illustrated in the sequence diagram of Figure 2.19. Peer P_6 issues a request for some resource (r) to initiate a query. One of the super-peers SP_3 responsible for the C_1 cluster broadcasts this request to the highest reputation peer/neighbouring cluster that stores the required resource. Upon receipt of request from P_6 , each super-peer checks whether r is available within its cluster. Assuming that r is in the possession of peer P_{12} and no other peers within C_1 possess r , peer P_{12} issues a reply confirming its possession of r . In addition, other clusters in the network respond to P_6 with their resource that is relevant to r , which will allow P_6 to compute the final query result, as shown in Figure 2.19. From the figure, it is observed that the redundant super-peer does not increase the number of query routings compared to ordinary query routing shown in Figure 2.17. However, the use of multiple peer nodes to be super-peers requires additional administrative effort, such as managing the round-robin task.

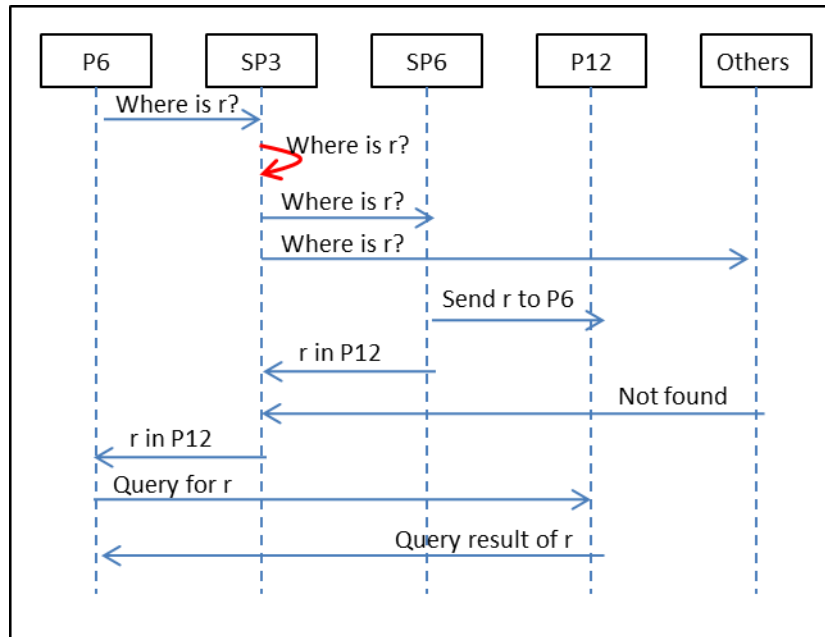


Figure 2-19 Query routing on a redundant super-peer network

2.4.5 Hierarchical index super-peer network

The hierarchical index super-peer network is similar to the redundant super-peer network, in that a cluster may contain many super-peers. However, the routing index in this network is arranged in hierarchal order and the hierarchical index is stored in many super-peers within the same cluster. Thus, each super-peer is responsible for a certain portion of the index and not for the entire schema's index (Bellahsène, Lazinitis et al. 2006). As shown in Figure 2.20, an intermediary super-peer (among the aggregate super-peers) has the authority to identify the schema hierarchy required by the query request. Then the routing message from a peer goes towards a specified hierarchy super-peer based on the segregated schema hierarchy. Other routing steps remain similar to the ordinary super-peer network.

This routing scenario is based on the same topology as in Figure 2.18 but with a different index type. Assuming that *SP3* and *SP6* are the intermediary super-peers, *SP3* and *SP6* hold the schema (within the hierarchy) required by *r*, and *r* is in the ownership of peer *P12*, and no other peers within *C1* owning *r*. Query routing in the hierarchical index super-peer network is illustrated in Figure 2.20. Peer *P6* initiates the query by sending a request to intermediary

super-peer *SP3*, and *SP3* will decide which super-peer has the required resource *r*, where subsequently *P12* is identified as having the resource.

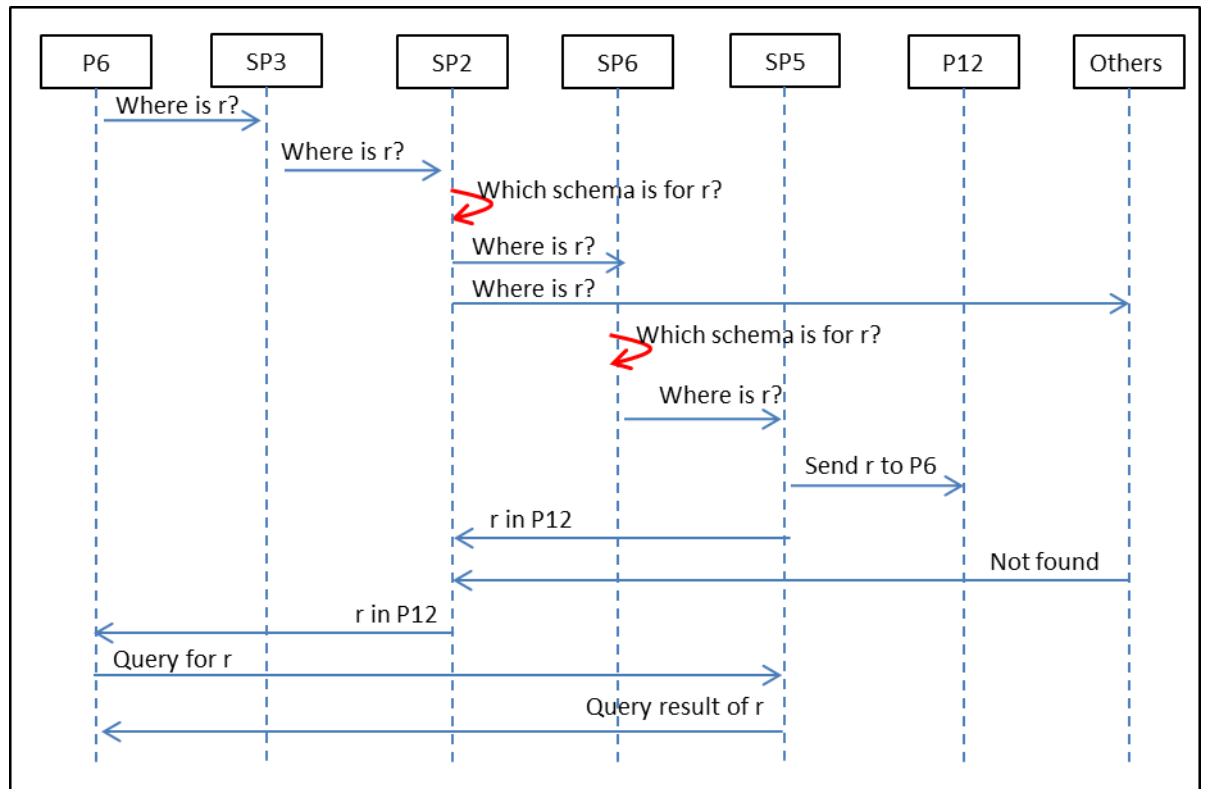


Figure 2-20 Query routing in a hierarchical index super-peer network

Although a super-peer is responsible for a certain portion of the index, segregation of a super-peers' duty requires additional effort to identify which super-peer keeps the specified schema in the index hierarchy. Recent analysis based on state-of-the-art hierarchical schema selection (represented as a view) on P2P showed few studies that deal with this schema selection problem (Mami and Bellahsene 2012).

In this thesis, the UML sequence diagram is used to compare routing messages between peers. Comparison of query routing is made between the unstructured network (Figure 2.11), ordinary super-peer network (Figure 2.17) and hierarchical index built on top of a super-peer network (Figure 2.20). From a comparison of the corresponding sequence diagrams, it is observed that the hierarchical index has up to a 30% increase in message passing compared to the ordinary super-peer network. However, the message passing in the hierarchical index is

40% less than the unstructured network. Hierarchical index super-peer routing is thus successful in dispersing super-peer index load over several nodes that have been assigned as super-peers within a cluster, but it does not contribute towards further reducing the query routing messages in the P2P network. Increment and reduction percentages are calculated as shown below,

$$\begin{aligned} \text{Increment message routings} &= \frac{(\text{Number of arrow in 2.20} - \text{Number of arrow in 2.19})}{\text{Number of arrow in 2.19}} * 100 \\ &= \frac{(13 - 10)}{13} * 100 = 30\% \end{aligned}$$

$$\begin{aligned} \text{Reduction message routings} &= \frac{(\text{Number of arrow in 2.11} - \text{Number of arrow in 2.20})}{\text{Number of arrow in 2.11}} * 100 \\ &= \frac{(22 - 13)}{22} * 100 = 40.90\% \end{aligned}$$

To summarize the query routing comparisons, no matter what kind of P2P network is used (either a structured or unstructured network), the assisted query mechanism can improve the overall performance of query routing. The number of messages passing through an unstructured network is greatly reduced when assisted query routing is applied, as the comparison shows between the ordinary query routing over the unstructured network (Figure 2.11) and the assisted query routings (shown in Figure 2.13 and Figure 2.15). However, a small number of additional message(s) has occurred while searching for a resource that has not been previously discovered, as observed in the comparison between Figure 2.11 and Figures 2.12 and 2.14. On the other hand, ordinary query routing over a centralized network (Figure 2.16) has shown up to 40% reduction in the number of query messages compared to ordinary query routing over the unstructured network (Figure 2.11). The problem with the centralized network is a high probability of vulnerability to failure of the query routing index. In addition, handling issues regarding peers' autonomy (any node can freely join and leave the network) and unbalanced workloads between peers are crucial in the centralized network.

Comparison of ordinary query routing over unstructured networks and super-peer networks shows up to a 50% reduction in the number of query messages in the latter, as observed from Figure 2.11 and Figure 2.17. In contrast to centralized networks, the super-peer network distributes the centralized workload onto several peer nodes over the P2P network. Thus, the probability of single-point-of-failure for query routing is reduced. Assisted query routing over the super-peer network has shown further reduction in the number of query messages as compared to the ordinary query routing. In addition, probability of failure is greatly reduced when the number of super-peer nodes within a cluster is increased. However, the use of multiple nodes to become super-peers would increase the aggregate administration workloads.

2.5 Summary

This chapter describes the different architectures in P2P with respect to query routing. The discussion starts by defining P2P and is followed with taxonomy of a computer system that depicts taxonomy of P2P resource discovery mechanisms towards super-peer based query routing. The taxonomy is used to differentiate various features in query routing over P2P network architecture. Then, query routing strategies over various P2P architectures are compared. The comparison details the query routing in a super-peer based network. This comprises the main concern of this thesis, which proposes the use of query caching to assist the query routing in super-peer networks.

Query caching stores copies of previous local queries, so that peers can process similar queries faster for subsequent queries. The cache aggregates every query request and may send a single request as a proxy directly to a data owner. As part of query routing, query caching is proposed with the aim of reducing network traffic and vulnerability. Therefore, it is essential to discuss how query caching works. The next chapter will explore caching in more detail with the intention of demonstrating how a variation of caching can reduce the number of query routings in the network.

Chapter 3: **Query Caching in Peer-to-Peer Network**

3.1 Introduction

Vulnerability issues in P2P networks have been widely discussed in the literature on P2P. Vulnerability arises because peers are free to join and leave a network. After obtaining the information about data sources, peers may suddenly disappear from the community. Discussion on query routing in the previous chapter has focused on propagating messages in order to find the location of data. Several query routing strategies that were discussed indicated that the routing strategies only reduce the vulnerability effects. Besides having several ways of routing the query message according to network architectures, another research trend to reduce the vulnerability effects proposed is by caching some of the information that relates either to the query, query result, or description of shared data location. Keeping such information is known as 'caching'. This chapter will focus on several caching approaches and how they tackle the query routing problem, and then contribute to enhanced query routing when the caching mechanism is embedded into the existing P2P query routing approach.

This chapter is organized as follows. Section 3.2 defines query caching, followed by a comparison of different types of query caching. Section 3.3 elaborates on each type of caching that has been defined earlier. Section 3.4 compares the different approaches to caching and describes the various processes involved in query caching implemented by other researchers. Nine researches related to the implementation of query caching will be explored in Section 3.5. Issues on query containment, cache replacement strategy, cache granularity and query rewriting are chosen as they relate to the research contribution that will be discussed in subsequent chapters. Then, in Section 3.6, there is a discussion of query caching

implementations which is intended to clarify the significance of embedding the query caching at client-peer level in super-peer networks.

3.2 What is query caching?

This section begins by defining the term 'cache' as storing information in a place where the information can be accessed extremely quickly, in comparison to accessing it from a remote location. There are many different types of 'caching' but all of them serve the same purpose. For example, your web browser may use a cache to store the pages, images and URLs of your recently visited web sites in your computer hard disk. Therefore, when you visit a page that you have recently been to, the pages and images will be taken from your computer's hard disk without any further download from the initial site. Because accessing your computer's hard disk is much faster than accessing information from the internet, caching the web sites has significantly speeded up web browsing tasks.

In a database system, caching is used for query answering purposes. Initially, database caching is just a matter of keeping the existing query result in a virtual table. This virtual table is called a 'view'. It is used to keep the results of a database query to minimize the cost of subsequent query answering for a similar query. Answering queries using views is one of the well-established techniques in database querying and it is considered to be one of the cheapest ways for query processing with high query recall. However, the use of caching in database integration is becoming a requirement for keeping pre-existing query manipulations that may consist of accessing several different data sources, where this manipulation process is considered to be expensive. Thus, caching in database integration is used to keep a pre-existing query result or pre-existing query manipulation, also known as a materialized view.

Today, caching is essential for improving the performance of many middleware applications. For an application to benefit from caching, the cached data must be repeatedly used. By caching such data, the application only needs to calculate or fetch the data once. Whenever the data is needed (after it has been cached), the application can fetch the data from the cache instead of re-fetching it from remote locations, or re-computing the query manipulation if the query rather than the data has been cached. Therefore, the term 'query caching' in this thesis is defined as:

Query caching is a manipulation process on pre-stored query information. The pre-stored information could be any data that was recovered in response to a previous query such as query results, or previous query statements (view) or even the information about data source location used in responding to a previous query.

This definition is formed to reflect the wide use of the query caching approach in P2P query processing. How query caching is used in P2P systems will be discussed in subsequent chapters, but this chapter focuses on the fundamental issues in query caching. As covered in the query caching definition, there are several different types of query caching, and this will constitute the principal topic in the next section.

3.3 Importance of query caching in P2P environment

Query caching is widely used in data sharing as well as P2P environments Patro and Hu (2003), (Qian, Xu et al. 2005, Yin, Jin et al. 2005, Doulkeridis, Norvag et al. 2006, Skobeltsyn and Aberer 2006), Kacimi and Yetongnon (2007), (Battre 2008, Kostas Lillis 2008). This section emphasizes the importance of query caching in P2P applications. The discussion is classified into: general advantages and disadvantages of query caching, and then followed by a discussion of the advantages of locally keeping the query cache. Note that the term query caching is not limited to query result caching but also includes any kind of caching approaches that are available in P2P.

Advantages of query caching in P2P

Based on a study of query caching in the literature on P2P networks, the use of query caching is able to improve query processing performance while minimizing the computational cost Doulkeridis, Norvag et al. (2006[Kacimi, 2007) Lan Quan (2004) (Patro and Hu 2003, Yin, Jin et al. 2005, Skobeltsyn and Aberer 2006, Zhou 2011[Mami, 2012]]]. As defined previously, the term query caching is used to represent the caching of query results, or materialized views, or

information regarding data source location. Advantages of query caching given in the following list can be divided into two categories by the type of query caching it is used for, namely query result caching and these are relevant to any other type of query caching provided in P2P applications.

1. Data sources do not have to be queried – By caching the query result, the data source or data owner does not have to be queried every time. This will reduce the risk of a failure due to the data source leaving the network. Therefore, query processing can continue regardless of the inaccessibility of the data owner or site (Yin, Jin et al. 2005, Battre 2008, Kostas Lillis 2008).
2. Reducing the load on data owner – Because the owner is not queried, the query processing load is greatly reduced at the site holding data (Yin, Jin et al. 2005, Battre 2008, Kostas Lillis 2008) since the repeated queries do not have to be processed by the data owner.
3. Reducing P2P traffic – P2P messages are now the most prevalent traffic on the Internet (Mayer 2009). It has been shown that 61% of query message traffic would be reduced by query caching (Yin, Jin et al. 2005, Battre 2008).
4. Faster access and loading of data – Besides reducing the network traffic, a query caching mechanism also tends to shorten the time spent on accessing and loading data (Kostas Lillis 2008). In addition, the query answer does not need to be computed from scratch.
5. Improving bandwidth utilization – Any query message that is used more than once would lead to a decreased number of messages passing through the network. Thus, bandwidth utilization is also reduced.
6. Reducing search length – Peers that have been cached in the querying peer will directly receive requests from that querying peer because they are known to hold information about the required data. This reduces the number of queried peers because of better information targeting. Each message re-routing is limited to the number of hops specified, which is also known as TTL (Time-To-Live) value. The TTL value will determine the number of message re-routings that occur. In the case of query caching where the exact data location has been specifically identified, the query message can be directly sent to the exact data location without requiring further re-routing. Thus, searching for required data does not require a high TTL value to ensure query result success. A low TTL value means the search length has been reduced. The low TTL value contributes towards reducing network flooding. Network flooding is a situation in which the same message is re-routed to the whole network. It has been shown

that, with query caching, the average search length in the P2P network can be reduced by 30% (Muthusamy, Petrovic et al. 2005).

7. Reducing query processing costs –The use of cached data items has simplified the query re-writing, thus reducing the query processing cost (Mohamed, Buckingham et al. 2007, Mohamed and Buckingham 2010).
8. Serves the query more efficiently – In order to manage the large amount of data that are queried by many peers concurrently, caching the intermediate result is an approach which is made possible by decentralizing the processing tasks (Battre 2008). The term *intermediate result* is used to refer to a query that has been re-written. Query re-writing is one of the tasks in query processing. Our proposed solution is to cache the re-written query but not the answer of the query.
9. Increases the probability of finding the relevant data – Based on a study of query message behaviour, 60% of query messages are repeatedly circulated in the P2P network because they miss the target peer (He, Fegaras et al. 2007, Kacimi and Yetongnon 2007). The use of query caching based on query history will increase the probability of finding the relevant answer the first time. This is because information from the query history is indexed using the data source schema, the structure of the shared data source, or the data source content. These are used by the searching directory so that the query message is sent towards the target data location. Clearly, this increases the probability of finding relevant answers compared to blindly broadcasting the query message.
10. Reducing redundant query processing – Running a complete cycle of query routing for every query is leading to redundant query processing (Teevan, Adar et al. 2007, Huang and Efthimiadis 2009, Mayer 2009). Therefore a subsequent query or sub-query which is similar to the cached query does not have to go through the same cycle of query routing process.

Advantages of local-peers' caching in super-peer networks.

In an unstructured network, every peer node has an equal responsibility to the P2P community, which means locating a cache in every peer will not cause an unbalanced load. In contrast, peers' responsibility in a super-peer network is divided into two groups: client-peer and super-peer. Super-peers are responsible for obtaining the routing directory. A super-peer failure becomes a single point-of-failure for its associated client-peers that may be asking for

the routing directions. Allowing the routing information to be held locally to the client-peer would overcome this vulnerability. Presented below are some more advantages for locally caching the routing direction information by a client peer.

1. Reducing dependency on super-peers.

Since the super-peer is not a server, a super-peer may autonomously leave the network. Thus, the super-peer's failure becomes a single point-of-failure for its neighboring client-peers (Brunkhorst and Dhraief 2005). In a super-peer network, the super-peer index is used as a routing directory for the client-peer's query, and its failure will affect the query routing, which is part of the query-answering process. Therefore, embedding the query caching mechanisms locally in the client peer will reduce its dependency on super-peers for routing the query. Hence, query routing can still be performed without the super-peer's involvement.

2. Reducing a super-peer's load.

As super-peers do not have to hold the query needs of the querying peers, the loads of the super-peer are decreased. Dependency on super-peer CPU processing is therefore reduced.

3. More reduction in network traffic.

Query caching approach is widely known as a technique for reducing the network traffic (Jenn-Wei, Ming-Feng et al. 2007, Jung-Shian and Chih-Hung 2010). However, location of caching mechanism also contributes to the impact on network traffic. Caching is served to keep the query routing direction. Once the routing direction is available at every peer, then no message passing to obtain the query routing direction is needed (Skobeltsyn and Aberer 2006). In comparison, let us assume that the cached data item is available on a single location that is one hop away. There must be at least a request and a response messages occurring between the queried peer and the peer that holds the routing directory. Hence, allocating the cached data item in the peer's local storage leads to a further reduction in the network traffic.

4. Personalize peers' needs.

Based on a study in personal query habits, the same query message is repeated up to 60% (Cho, Fukuda et al. 2006, Tschofenig and Matuszewski 2008). Since the cached item is based on local query history and held in the local storage, a peer should be able to customize its local cache based on personal requirements without affecting any other peer's cache. Personalizing the cached data item is required to ensure the returned result has a high probability of being

the required answer. The personalized caching mechanism is able to derive information based on specified user requirements.

This section has listed the advantages of implementing query caching in P2P networks, specifically with client peers. More issues about query caching with client-peers in the super-peer network will be discussed in the next chapter.

3.4 Different types of query caching

In this section, the discussion is divided into three main topics: caching the query result, caching the pre-manipulated query, and caching the information on data location. Besides giving some explanation on each topic and referring to previous research, this section also explicitly presents the pros and cons for each type of caching.

3.4.1 Caching the query result

Caching query results can improve the execution time for resource requirements as it will allow for the reuse of post-processed data. In an ordinary database query processing (without any caching facilities occur), a typical process for executing a query is:

1. Set (open) the database connection
2. Prepare the query
3. Send query to the particular database
4. Retrieve the results
5. Close the dataset connection

This process is highly influenced by the target resource, and it strongly influences the query processing performance as the number of resources, the location of the required results being retrieved and the probability of a query result being retrieved from resource(s) that has been contacted have an impact on a query process. Additionally, this process is highly dependent on factors such as the amount of data retrieved and the location of the data sources because a query routing task takes place for every retrieved result. For example, preparing a query for locating the target data is dependent on the number of locations as well as query re-writing as

required by the schema of the target data location. More target locations need more query messages to be sent and more local query processing for query re-writing.

In caching the query result, the query is used to retrieve data from the database, which is then cached and later used as a data source. A typical process for this type of caching is:

1. Set (open) the database connection
2. Prepare the query
3. Send query to the particular database
4. Retrieve the results
5. Put the results into cache in the local storage (so that it can be accessed later)
6. Save the cache
7. Close the dataset connection

For cached results that come from multiple schema and even several databases, accessing the cached result is a local query retrieval using a single schema which is faster and cheaper than accessing it from several schema and databases; especially when accessing remote and distributed databases. From the user's point of view, the steps for accessing the cached data are similar to those taken for ordinary query processing. However, the internal processes for retrieving the query result are different, as it is just a matter of locating the data source on the local machine of peers where the query retrieves its results.

DISADVANTAGES OF CACHING THE QUERY RESULT.

Despite providing faster data access, caching the query result can have a problem of consistency when the data is compared with the actual data source. This is due to the fact that cached data can become out of date when the source of the data is updated. In order to ensure the cached data is up-to-date, a caching coherency strategy is essential to ensure that the cached data are consistent with their sources. The publish-subscribe approach has been proposed for maintaining the consistency of data sources and cached data (Garrod, Manjhi et al. 2008). Recently, Mansour and Höpfner proposed an approach for checking the relevance of data source updates to a cached item by analyzing the intersection between the modified data and cached item for the client-server database (Mansour and Höpfner 2009). Research that explicitly discusses the issue of deciding when to update the cached data is rare, but three

common approaches for cache updates have been widely accepted (Gupta, Zeldovich et al. 2011). In these approaches, the processes involved in successfully identifying the best time to update the cached data can be categorized as:

1. Time triggered caching

Cached data is updated based on a pre-defined time.

2. Information changed triggered caching

Cached data is update when the original source of data is updated.

3. Manual triggered caching

Cached data is updated upon receiving instruction from cache administrator.

Besides ensuring the cached data is up-to-date with coherent alert updates, another potential disadvantage is an additional cost for maintaining the cache. The additional cost includes: the cache setup, the storage needed for the query results and the cache updates facilities, which do not exist in an ordinary query processing situation (Idreos, Koubarakis et al. 2004, Mohamed, Buckingham et al. 2007, Garrod, Manjhi et al. 2008).

The third disadvantage is related to legislative issues. Caching the query result is seen as replicating the original data from many sites. In P2P perspectives, replicating the data at several peer sites away from its initial source raises copyright issues; some issues on copyright law that the P2P developers need to know have been discussed by Lohmann in (Fred von Lohmann. 2006. ". " 2006).

The last disadvantage of caching the query results is the effect it has on log-file analysis. The accumulated number of data retrievals or access to the original source will be lower than the actual number of queries made to that data due to the extensive use of cached data unless usage statistics are fed back.

3.4.2 Caching the pre-manipulated query

A query or sub-query that has been re-written and used as a query message to data source location is cached. This cache is used as a pre-manipulated query for subsequent similar query.

The pre-manipulated query is also known as an intermediate result caching (Mohamed and Buckingham 2008). This type of caching refers to a new query re-writing that is constructed based on the existing query re-written that has been previously cached. In contrast to the query result caching, this type of caching does not store the query result. Therefore, caching the pre-manipulated query is free from cache coherency problems, free from copyright issues, and does not affect the log file analysis. Niagara CQ, TelegraphCQ and OpenCQ are amongst those whose research focuses on caching the intermediate results (Watanabe and Kitagawa 2010).

By caching the pre-manipulated query, data coherency is no longer a problem because data is retrieved from the original source. So, no additional cost for maintaining the data consistency between cache and its actual data source is required. Meanwhile, the nature of data sharing in the P2P environment will inevitably be associated with issues of copyright law. Copyright law applies to any virtual form of expression that can be captured in a tangible medium such as paper, film, hard drive, or random access memory (RAM) that are normally related to a cached data item. Since caching the pre-manipulated query would not replicate the data in any form, it is no longer associated with copyright issues.

DISADVANTAGES OF CACHING THE PRE-MANIPULATED QUERY

Since data is directly retrieved from the original data source, the use of a cached query would be able to reduce the number of query routing messages over the network. However, the process of retrieving the query result remains unchanged. So, the caching of pre-manipulated queries does not shorten the time taken for retrieving query results, but it can reduce the number of messages passing through the network while searching for the result location.

Similar to query result caching, caching the pre-manipulated query also comes with additional costs for maintaining the cache. However, the maintenance of a cache for keeping the query does not require complex update facilities, as required by the query result caching.

3.4.3 Caching the information of data location

In P2P research, caching the information on data location has been proposed by several researchers (Qian, Xu et al. 2005, Skobeltsyn and Aberer 2006, Kacimi and Yetongnon 2007, Battre 2008, Fegaras 2010). In this research, the term 'caching the information of data location' refers to the keeping of any related information that would help query routing. The use of caching in P2P query routing can be considered as an alternative to the peers' index that has been widely explored.

The main difference between index and cache methods is the way that they collect information. Information for the index is systematically maintained as the core of the P2P platform. Hence, an index is suitable only for a structured P2P platform. For example, in the JXTA platform (which is one of the platforms that provides the super-peer P2P network overlay), each participating peer sends a message describing its shared services and data to peers who maintain an index. This message, known as an advertisement in JXTA, is part of the core element. However, a cache in P2P would only collect the information from the query routing message, and the message of retrieving the query result are more flexible when compared with the messages in the peers' index.

Caching facilities in P2P were initially proposed for unstructured P2P networks due to the absence of the routing index that was available in structured P2P network (Battre 2008). A cached item would include the address or location of a data source (Kacimi and Yetongnon 2007), granularity of the cached data (this is required for hierarchical-based data sharing such as XML data) (Battre 2008), schema of the shared data (He, Fegaras et al. 2007, Kacimi and Yetongnon 2007), neighboring peers' data, subject and/or predicate of the query object (Battre 2008), and any query routing messages (that have been routed to search for required data), or returned (back-propagated) messages (Skobeltsyn and Aberer 2006, Mohamed, Buckingham et al. 2007). The term granularity is used to represent the detailed level of data hierarchy: the greater the granularity, the deeper the level of detail. This kind of information is used to assist query processing and/or query routing and will be discussed and compared in the following subsection.

DISADVANTAGES OF CACHING THE INFORMATION OF DATA LOCATION

As is the case with pre-manipulated query caching, the returned result has not been cached, meaning that the passing of the query message and the data retrieval message is still required. Furthermore, caching facilities also require some additional query processing costs. Unlike pre-manipulated query caching that does not require query manipulation since the cache item is ready for execution, P2P caching may require some query manipulation such as re-writing. This is due to the dissimilar schema structure or caching granularity between the cached data item and the actual data source schema.

In short, caching the information of the data source location is quite similar to pre-manipulated query caching, but it comes with additional settings to suit the P2P environment, such as schema granularity and the location address of data sources. The existence of query caching in P2P systems is seen as an alternative in query routing to the peers' routing index that was widely accepted in structured networks.

In this section, caching is grouped into three categories: (i) caching query result, (ii) caching pre-manipulated query, and (iii) caching information of data location. The caching category is intended to be used to class the use of caching in P2P systems as each category has its own advantages and deficiencies. Caching has been used in P2P systems in the unstructured network and it has been the main player for assisting query routing so that the query message need not be broadcasted to the entire network. Meanwhile, caching is also being used in the structured network, not only for reducing the network traffic but also the potential vulnerability of the routing index to failure as the routing index is maintained by a limited set of selected peer(s) in the structured network. Thus, it is necessary to compare the query caching implementation in P2P unstructured and structured networks. The comparison is discussed in the following section.

3.5 Comparison of query caching approaches in P2P networks

Different types of query caching have been compared in the previous section. This section continues to compare query caching implementations on researches that have been implemented on unstructured, centralized and super-peer P2P networks. Each network reflects query routing strategies. Query routings have been compared in the previous chapter.

Here the comparison aims to foresee the current trend of using caching for query routing in P2P. Furthermore, the idea of caching and the ways in which the different approaches tackle efficiency and performance issues will be discussed. Table 3.1 presents a summary of the comparison of several caching approaches. Each column of the table represents different research work (based on cited literatures) while the row lists the research characteristics that have been compared. Discussion on each approach will follow in the subsequent paragraphs.

3.5.1 Query caching in unstructured P2P network

The first column of Table 3.1 represents the research conducted by Doulkeridis, D. et al. (Doulkeridis, Norvag et al. 2006, Doulkeridis, Nørsvåg et al. 2008), in which they proposed schema caching in an unstructured P2P network. Schema of the source data location in the remote peer is captured while retrieving the query result, and both items are returned together while returning the query result. This schema is then locally cached in the form of a tree-structure, which is named as XSCache. The structure is the cached schema of remote peers that will be used by the subsequent queries. If subsequent queries match any of the portions of schema in XSCache, the query will be routed to the specified location without being broadcasted over the whole network, as is practiced by flooding-based query routing in an unstructured network. The cached schema in XSCache is maintained on the Least Recently Used (LRU) basis. If the space in XSCache is fully occupied, the least recently used schema will be removed once the new cached schema needs to be held. In this research, data source schema is locally cached by each peer. Therefore, one of the disadvantages for local caching is the possibility for the same schema being cached redundantly by many peers

The second column of Table 3.1 represents the research conducted by Yin, Z., et al. (Yin, Jin et al. 2005). In contrast to XSCache, this research has designed a query caching that will adaptively remove certain peers while routing the query. Besides the query results, the peers' source data location and its uptime are locally cached. This information is returned as part of the query replying message, and it has been implemented as a Limewire client over the Gnutella network. Limewire is a free peer-to-peer file sharing (P2P) client program. In this type of routing, the subsequent query would get the query result in two parts; the first part of the query results comes from the cache (if any), while the second part is derived from query routing. The list of peers that have been excluded during the query routing process is called

the 'exclude list'. If a peer transfers its peer's cache before the peer continues to broadcast the query to its neighbours, it adds the peers with the corresponding records in the cache into the exclude list. Thus, when the query is forwarded to the next peer, the peers in the exclude list will be excluded from the searching scope. Data that has been captured in the local cache will remain, even when the uptime of the respective peer is over. This local cache list can be transferred to another remote peer once the participating peer wants to leave the network or there is insufficient space to allocate the new cached data. However, the local peer has the authority to keep or trash the cached data. The disadvantage of this approach is that cache duplication may arise throughout the network as a whole. This is due to the absence of a central caching control. Moreover, routing the query to a peer that is not listed in cache, or peers listed in the exclude list, will not provide a successful query hit.

The third column of Table 3.1 represents the approach proposed by Patro, S. and Hu, Y. C. (Patro and Hu 2003). As was the case in the previous approaches, caching was simulated on the unstructured Gnutella network; however, in contrast to previous approaches, this approach was done at the gateway of the network organization. The cache is used to index query hits. The index tuple contains some information about the query string such as the forwarding peer and neighboring peers, TTL values, and minimum speed of the network connection when the query was sent previously. Since the caching is done at the gateway level, it can exploit the aggregated locality among all queries forwarded and initiated by all Gnutella 'servents' in the network. A servent is the concatenation from the words 'server' and 'clients' in the Gnutella network. This cached item is integrated into the HTTP data caching, and is widely deployed in the Internet. Caching in the third approach works similarly to the previous approach, with similar advantages and disadvantages. In the unstructured network, a cache is placed at the gateway to the network. Thus, additional effort is required for retrieving the cached query, which is not kept locally by peers (servant)

The fourth column in Table 3.1 is the last unstructured network approach considered for caching. The fourth approach was proposed by Skobeltsyn, G. and Aberer, K., and Patro, S. and Hu, C.Y (Patro and Hu 2003[Skobeltsyn, 2006]). Using this approach, cache is not locally maintained. In the case of Patro and Hu, they used the DHT-based table to keep the index of cached items, known as a distributed cache table (DCT). The query result is cached locally but each local cache is indexed by the DCT. The cached data is maintained based on the top-k

rating. Top-k is calculated based on a statistical table that contains information regarding the most frequent queries from the peers' local query history. The query history consists of the query string, the number of result sets for the query result, and the number of absolute and intermediate results that have been accepted. The cache item with the least top-k rating value will be replaced by the new cache item once the cache is full. The experimental result is obtained using the DCT simulator, which is similar to the Freenet approach. This approach was proposed as an alternative method of indexing to replace the routing indices proposed by Crespo and Garcia-Molina (Crespo and Garcia-Molina 2002). One drawback in having an index of cached query results is that it could lead to a large number of index entries that are not being queried, and this situation would lead to unnecessary maintenance.

3.5.2 Query caching in structured P2P network

The approaches from the fifth column onwards of Table 3.1 are based on the P2P structured network. They are similar to query caching in an unstructured P2P that uses the concept of caching the peers' schema. A peer in a structured P2P varies according to its responsibility to the network community. The typical role in structured P2P is super-peer and client-peer. The fifth column summarizes the approach for caching the actual query results as proposed by Kachimi and Yetongnon (Kacimi and Yetongnon 2007). In this case, the peer's cache schema is kept by the 'active peer', which plays a similar role to a super-peer. In (Kacimi and Yetongnon 2007), the term active peer is used to refer to a peer that shares its resources with the community. The cached schema is obtained in a DHT-based table called a Hybrid Overlay Network (HON) that consists of participating peers and data in an n-dimensional space. Moreover, the index of a cached schema is distributed among the participating peers. Cached data items are obtained based on LRU and the Never Frequently Used (NFU) caching replacement policy. However, HON requires additional computational processing to classify similar queries in order to increase the success hit and avoid redundancy.

The sixth column of Table 3.1 is an approach proposed by Lillis, K. and Pitoura, E. (Kostas Lillis 2008) that is similar to Kacimi and Yetongnon (Kacimi and Yetongnon 2007). It has been implemented on a simulator of Chord together with an XML data set. A self-organized XML schema is indexed on the DHT-based Chord, in which the prefix-based XML is used for arranging the cached XML fragment intended to locate the query request. As mentioned in

(Sluijs, Iterbeke et al. 2011), this approach does not improve the basic working of a DHT and induces an additional overhead of moving query results between caching peers. This loosely coupled approach means little advantage is taken from caching the query requests.

The seventh column in Table 3.1 was proposed by Qian, W., et al. (Qian, Xu et al. 2005). There are certain similarities with approaches discussed in (Kacimi and Yetongnon 2007, Kostas Lillis 2008) except for the ability to cache the sub-query result. In this paper, a Coordinator Overlay Network (CON), used for maintaining the summary of the whole cached results, was introduced. A decentralized process is adopted for the query processing to be achieved in minimum time response. The decentralized process promotes collaborative caching techniques in an ad-hoc network environment. However, as analyzed by (Elfaki, Ibrahim et al. 2011), this type of collaborative caching was developed without considering service differentiation for processing query requests. The query request is checked by several peer nodes before being processed. A mechanism for differentiating the query request would enhance the performance of collaborative caching.

The last approach considered here was proposed by Battre, D. (Battre 2008) and is listed in the eighth column of Table 3.1. It is quite similar to the approach proposed by Qian, W., et al. (Qian, Xu et al. 2005), except in its utilization of the Resource Description Framework (RDF) as its shared data. The shared data is presented in RDF triples, which consists of subject, predicate and object. These triples can be modeled as a directed graph that is used to formulate a model graph and query graph. In these graphs, subject and object represent labeled vertices while the predicates represent labeled edges. This approach has been applied on the Pastry network, which is an overlay routing on the P2P network for the implementation of a Distributed Hash Table (DHT); it was presented in (Rowstron and Druschel 2001).

Table 3-1 Comparison of researches on query caching in P2P

Research Criteria	1 Doulkerindis, C et al. (Doulkeridis, Norvag et al. 2006, Doulkeridis, Nørvåg et al. 2008)	2 Yin, Z, et. al. (Yin, Jin et al. 2005)	3 Patro, S., Hu, Y C (Patro and H 2003)	4 Skobeltsyn, G. Aberer, K. (Skobeltsyn an Aberer 2006)	5 Kachimi, M., Yetongnon, K. (Kacimi and Yetongnon 200	6 Lilis, K., Pitoura E. (Kostas Lillis 2008)	7 Qian, W., et. a (Qian, Xu et al 2005)	8 Battre, D. (Battre 2008)	9 Rozlina Mohamed, et al (Mohamed, Buckingham e al. 2007, Mohamed and Buckingham 2008, Mohamed and Buckingham 2010)
Network Structure	Unstructured P2P				Structured P2P				
Protocol	Not specified	Limewire of Gnutella	Gnutella	DCT	HON	Chord	CON	Pastry	JXTA
Cached item	Schema of shared data location	Query replying message	Query string, neighboring & TTL	Document caching along the search path of a query	Query result	Query result	Query or sub-query	Subject, predicate & object of query result	Subject, predicate & object of query result
Local cached? Y: Yes N: No	Y	Y	N (Cached at the gateway)	Y	N (Cached at the super-peer)	Y	Y	Y	Y
Cached structure	Cached schema construct a tree structure	List	Integrate the cached item with HTTP data caching	Indexed the local cached in DHT	Cache the schema of peer in HON	Indexed the local cached in DHT	Tree	Indexed the local cached in DHT	Indexed the local cached in DHT
Shared data format	XML	Not specified	Not specified	XML	Not specified	XML	XML	RDF	XML
Cached replacement strategy	LRU	Move to other peer with longer uptime	Not specified	Top-k rating	LRU, NFU	LRU	Not specified	Not specified	LRU

A DHT is a class of decentralized distributed systems that provides a lookup service similar to a hash table where pairs of *key* and *value* are stored. Since this approach is applied on the Pastry network, DHT based routing is already available in almost every peer in the network. Thus, any participating peer can efficiently retrieve the value associated by using a key. This approach is suitable because it reduces the query processing time as a trade-off for maintaining the cache in almost every peer in the network.

In conclusion, the use of query caching either for caching query results or the location of those results has gained considerable attention from some researchers in the P2P environment, both in unstructured or structured networks. Inefficiency of routing is addressed by reducing the number of propagating messages trying to find where the data is. These efforts have been made to avoid large volumes of unnecessary routing messages occurring in unstructured networks, and to balance the computational processing cost performed by super-peer and local processing cost at client-peers in the structured network.

3.6 Implementation issues associated with query caching

Due to the growing demand for P2P applications for retrieving information from multiple XML sources, it has become important to improve the efficiency of the current XML query engines. This can be done by exploiting caching approaches in order to improve the query response time when there is heavy network traffic and vulnerability in finding directions for routing the query. The implementation issues in this section will mainly focus on reducing the network traffic and vulnerability of the network to failure by the application of caching.

Research issues in query caching include caching granularity, caching containment and caching replacement strategy, which will be discussed in the following sub-sections. These issues are chosen since they are closely related to improving query processing performance which in turn will reduce the network traffic and vulnerability to inability to access data.

In order to achieve effective cache management, the access and management of the cached data is typically made at the level of the query descriptions. For example, the decision of whether or not the answers to a new query can be retrieved from the local cache is based on

the query containment analysis of the new query and the cached ones. One of the important responsibilities of cache management is to determine which data items should be retained in the cache and which ones should be replaced to make free space for new data, given the limited cache space. The data granularity available for replacement in query-based caching is the query and its associated result.

3.6.1 Query containment

Query containment is defined as a process of checking whether the cached items contain the required answer to a query. There are six aspects of the containment checking process. Assuming C is the cache that contains previous query data that has been segregated into several regions, $C = \{r_1, r_2, \dots, r_n\}$ where r is a region or routed sub-tree, and a query Q contains several required data items (d_i), denoted as $Q = \{d_1, d_2, \dots, d_n\}$. Possible results for query containment are listed below:

1. A query is equivalent to a region or cache, $Q = r_x$, where x is the index of r in C . Figure 3.1 illustrates $Q = r_x$.

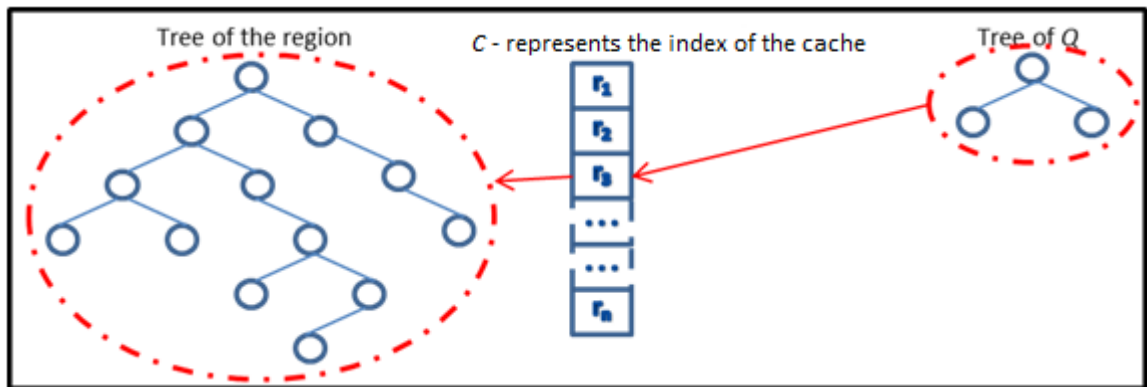


Figure 3-1 The whole region r_3 is the data required by query Q

2. A query is contained in part of a region, $Q \supset r_x$, as depicted in Figure 3.2.

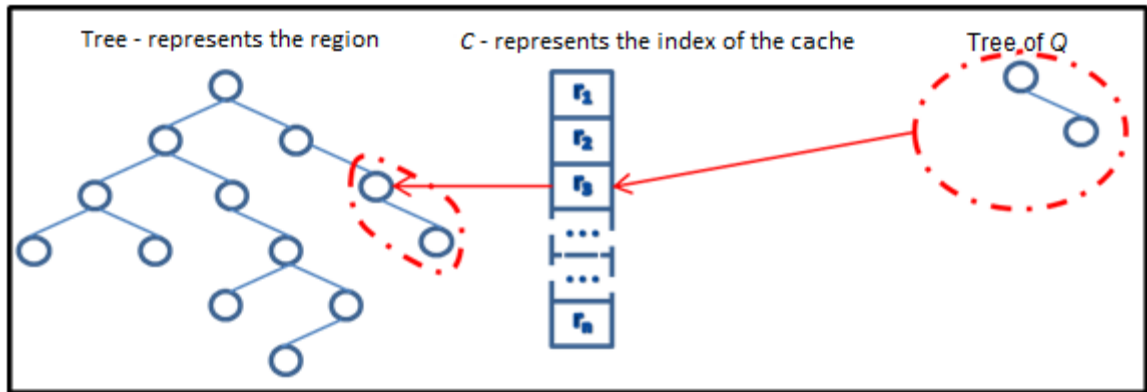


Figure 3-2 The whole query Q is contained in a part of region r_3

3. The whole region is contained in a part of query, $d_x \subset r_x$, as depicted in Figure 3.3.

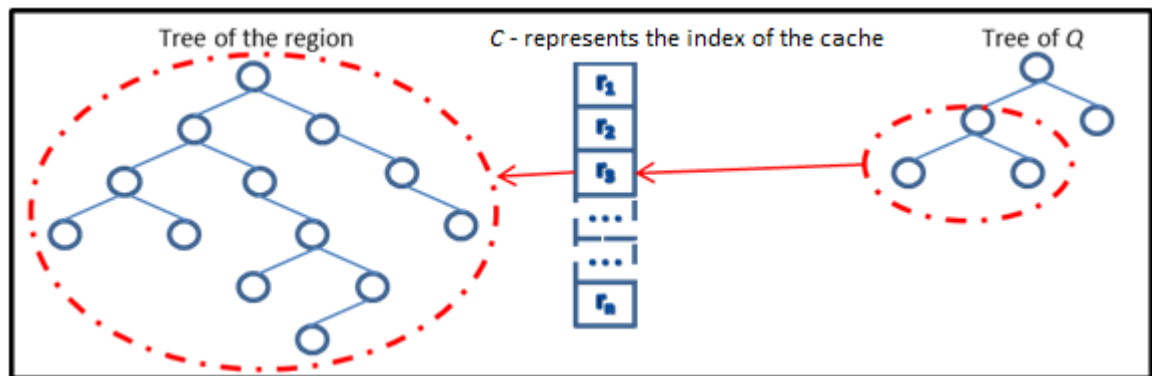


Figure 3-3 The whole region of r_3 is part of query Q

4. Multiple region containment, as both the query and cached item are conjunctions of terms. It means that the required data for query Q is contained in multiple regions of cache C where $d_x = r_x \wedge r_y$. An illustration of multiple region containment is given in Figure 3.4.

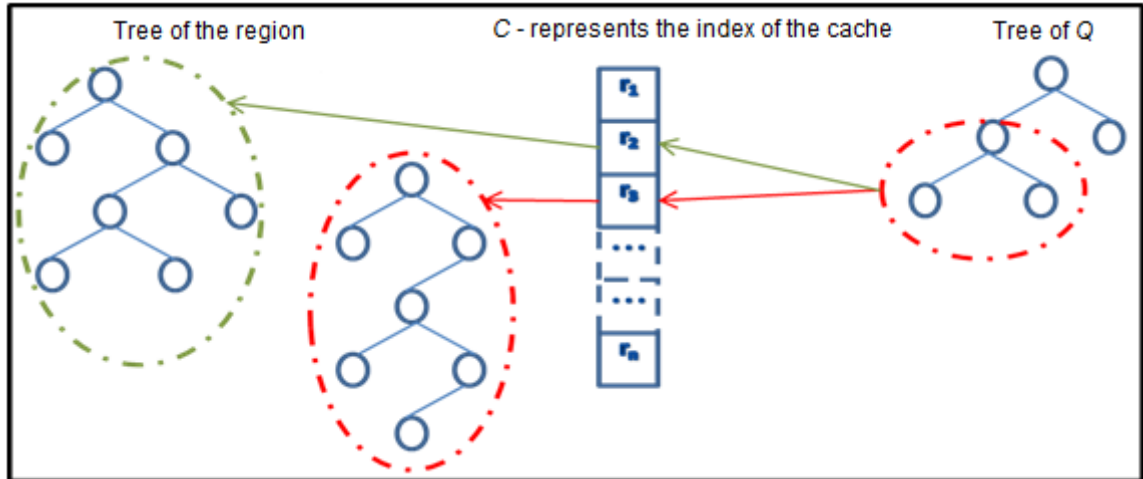


Figure 3-4 The similar data required by query Q is contained in regions r_2 and r_3

- Multiple query containment means multiple data required by query Q is contained in a single region of cache C , where $r_x = d_x \wedge d_y$. An illustration of multiple query containment is given in Figure 3.5.

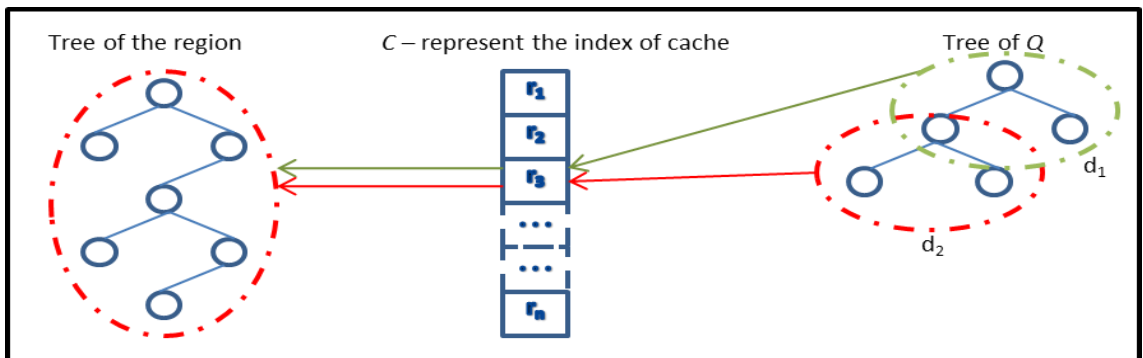


Figure 3-5 The same region r_3 is referred to d_1 and d_2 of query Q

- No region of C contains data for query Q , which is in contrast to any of the above cases, $Q \not\subseteq C$ for any r in C .

Among the six aspects of the containment checking process, the first five are concerned with the criteria for answering the query by using the cache. Thus, all possible rewritings can be obtained by considering the containment mappings from the region of the cache to the data of

the query (Ren, Dunham et al. 2003). Research determining how a query can be answered using a given set of resources has been discussed (Chidlovskii and Borghoff 2000, Ren, Dunham et al. 2003, Mandhani and Suciu 2005, Watanabe and Kitagawa 2010). In the mid 1980's, Yang and Larson were amongst the pioneers in research that analyzed the use of query rewriting for materialized views in databases (Mandhani and Suciu 2005).

3.6.2 Cache replacement strategy

Cache replacement strategy is a policy for updating the cached data items. Since caches have limited space, this policy must effectively decide which items are worth caching or replacing with other items, especially when the cache is full or strict cache allocation is applied. This issue has been studied in the context of operating a system of virtual memory management and database buffer management (Chen, Wang et al. 2002, Ren, Dunham et al. 2003). Commonly used replacement strategies are listed below: (1) and (2) are from (Sahin, Gupta et al. 2002, Podlipnig and Böszörmenyi 2003, Ren, Dunham et al. 2003), while (3) is discussed in (Chen, Wang et al. 2002, Podlipnig and Böszörmenyi 2003, Kacimi and Yetongnon 2007), (4) comes from (Podlipnig and Böszörmenyi 2003), and (5) from (Podlipnig and Böszörmenyi 2003, Ren, Dunham et al. 2003).

1. Least Recently Used (LRU) (Sahin, Gupta et al. 2002, Podlipnig and Böszörmenyi 2003, Ren, Dunham et al. 2003) – LRU uses the latest access as a main factor in replacement and has been applied successfully in many different areas. LRU is based on the locality of the reference data source, which is characterized by its ability to predict future accesses to data source objects from past accesses. There are two main types of locality: temporal and spatial. Temporal locality refers to repeated accesses to the same object within short time periods, in which case recently accessed objects are likely to be accessed again in the near future. Spatial locality refers to access patterns in which accesses to some objects imply access to certain other objects which are related to them in some way. It implies that references to certain objects can be used to predict references to future related objects.
2. Least Frequently Used (LFU) (Sahin, Gupta et al. 2002, Podlipnig and Böszörmenyi 2003, Ren, Dunham et al. 2003) – LFU uses frequency as a main factor in replacement. LFU is based on the fact that different data objects have different popularity values, which result in different

frequency values. Frequency-based strategies keep track of the popularity values and use them for future decisions. Another replacement policy that has been proposed is based on frequency (Good and Krekelberg 2003). It is known as Not Frequently Used (NFU) and is similar to LFU, with the least popular data in the cache being removed when replacement is needed.

3. Recency/Frequency-Based Strategies (Chen, Wang et al. 2002, Podlipnig and Böszörmenyi 2003, Kacimi and Yetongnon 2007) – There are some projects that propose a replacement policy based on a combination of LRU and LFU such as: Segmented LRU, Generational Replacement, LRU*, LRU-Hot, HYPER-G, Cubic Selection Scheme and LRU-SP. No further detail description for each strategy is required since both features are inherited from LRU and LFU.
4. Function-based strategy (Podlipnig and Böszörmenyi 2003) – This strategy uses a general function to calculate a key value for a data object. The calculation is based on a request for an object i (new request or hit) denoted as H_i . Approaches that work on a functional-based strategy are Greedy Dual-Size, GDSF, GD*, Server-assisted cache replacement, Taylor Series Prediction, Bolot/Hoschka's strategy, MIX, M-Metric, HYBRID, LNC-R-W3, LUV and Logistic Regression Model. Each approach has the ability to calculate the value of H_i but uses a different function.
5. Randomized strategy (Podlipnig and Böszörmenyi 2003, Ren, Dunham et al. 2003) - This strategy uses randomized decisions in order to find appropriate objects for replacement. RAND function is a strategy which randomly removes cached objects with equal probability for each object, whereas HARMONIC function removes items at random with a probability inversely proportional to a specified cost value. Also, the replacement operation in a randomized strategy can be mixed with LRU, which is known as LRU-C and it randomly replaces a cached item based on cost. LRU-S is another randomized-LRU replacement strategy that replaces items based on size. Another randomized strategy is the 'randomized replacement with general value functions' that has been proposed by Psounis and Prabhakar (Ren, Dunham et al. 2003). This strategy draws several objects randomly from the cache and removes the least useful object. Object usefulness is determined by a utility function depending on the application.

A cache replacement strategy is essential for managing the space in the cache. The item selected for removal will be determined based on the strategy applied. The chosen strategy will be activated whenever space needs to be freed. In this research, LRU has been adopted as

the cache replacement strategy in developing the prototypes. LRU has been widely accepted as one of the most practical cache replacement strategies and it has been implemented as part of hash table data types. For example, Java has adopted LRU as the cache replacement strategy for its 'Hash Table' class. (See Java standard application programmable instruction (API) for further details on Java standard classes (Brookshier, Govoni et al. 2002, 2007)).

3.6.3 Caching granularity

Typical types of cache granularity are as follows: (i) attribute caching which caches frequently accessed attributes of database objects, (ii) object caching which caches frequently accessed objects, and (iii) hybrid caching which caches the frequently accessed attributes of those frequently accessed database objects (Ren, Dunham et al. 2003). The type of cache granularity determines the underlying relations for cached queries in a form of collection of pointers.

Caching granularity is usually discussed in hierarchical-based shared data such as XML documents. XML tokens such as tags denoted as "`<tag> .. </tag>`" and attributes denoted as "`attributes = XX`" encode the XML elements' region that is used to show the hierarchical relationship between XML fragments. In the XQP project (Leonidas Fegaras 2005), each fragment is indexed over the DHT of the P2P network based on the 'structure' and 'data' of the textual content of a shared XML document. Except in query result caching, indexing the data synopsis is not a common practice. Besides using the cache region for indexing purposes, it is also being use as a basis for capturing query hits. The hit count and the last access time are required to update the hit and recent time value of different, smaller regions in an XML query cache (Chen, Wang et al. 2002).

Caching granularity will reflect the cache structure. The cache structure is important since it affects the cache search performance, and relates to the semantics of data or the structure of the data being represented.

3.6.4 Query rewriting for cached data

The purpose of query rewriting in the context of this research is to rewrite the new query with respect to the structures viewed when the queries are cached (Mohamed, Buckingham et al. 2007). This differs from other approaches to query rewriting that have been proposed previously (Calvanese, Giacomo et al. 2000, Onose, Deutsch et al. 2006, Wang Bin 2006). Our approach focuses on the non-tree cache structure, while the previous approaches are applicable to a cache with a tree-type structure.

Since this PhD research uses XQuery as the query language, the selected literatures on query rewriting focuses on XQuery. XQuery is chosen since it has been recommended by W3C as a standard query language for XML data (W3C). One type of query rewriting for XQuery that has been thoroughly explored is based on tree pattern matching (Calvanese, Giacomo et al. 2000, Zhang, Pielech et al. 2002, Zhang, Dimitrova et al. 2003, Onose, Deutsch et al. 2006, Arion, Benzaken et al. 2007, Gueni, Abdessalem et al. 2008). Tree pattern matching represents the input query in XQuery and maps it against a unified schema. Query and unified schema are represented as a tree structure. This contrasts with this research, where it is not possible for the cached data item to become a unified schema due to the nature of P2P environments; in this case, query rewriting works on flexible schema structures and various granularities. This PhD research needs to have a flexible method of mapping hierarchical queries to the hierarchical cache in order to encompass this flexibility. How this compares with alternative methods for query rewriting will be considered but it should be noted that not many research or commercial implementation approaches have been documented with the specifics of query rewriting.

The cached data item is used to produce the query rewriting plan, which consists of the query that is ready for execution. When a user submits a query Q , a query containment test is used to determine whether or not the query could be answered using a cached query. In this way, Q may be divided into two parts, a *probe query* that will reuse the existing cached query, and a *remainder query* that will obtain the remaining answers from remote sources. In this case, the query rewriting task focuses on rewriting the probe query, while the remaining query will use the existing query rewriting facilities available in the super-peer network system.

Due to the growing demand for processing the query using cached data items, it becomes more critical to improve the efficiency of current query caching engines by exploiting caching implementation approaches that reflect latent responses caused by message failure over the P2P network. Thus, four issues in implementing query caching in P2P are relevant to this research. Due to the increasing attention being given to implementing query caching in P2P, some focus should be given to the importance of embedding the query caching facilities as part of the P2P application system as implemented in the proposed approach of this research.

3.7 Summary

In general, a new query caching approach needs to be proposed for speeding up the performance of query processing. By caching data for later reuse, the number of messages between data requestor (the peer that sends the query) and data owner can be reduced, thus improving the response time and lowering the network traffic. As queries can be processed using cached data, which is normally held at the peer level, the workload on the super-peer and other related peers in the network is greatly reduced. As peers are volatile entities in the network, super-peers' connections are expected to fail whenever a peer leaves the network or has other connection problems. With the ability to obtain local routing direction, each peer is able to route their query messages to target destinations independent of the super peers. Therefore, the aim of this chapter is to explore the feasibility of embedding query caching in the super-peer network.

This chapter began by defining query caching and how it relates to the P2P environment, and this was followed by discussions which sought to clarify the definition of three types of query caching. Different approaches to caching were then compared, together with the various processes involved in implementing query caching over P2P networks. A table was used to summarize the results of the comparisons and highlight the similarities and differences of query caching implementations in several P2P research projects. The discussion continued by identifying the issues when implementing query caching. Query containment, cache replacement strategy, cache granularity and query rewriting are the key areas of this research. These issues provide the necessary background knowledge to underpin implementing query caching in super-peer query routing which will be discussed in the next chapter. However, this

research will only utilize existing approaches to caching and will not contribute to exploring new ways of caching. Caching is proposed as a mechanism for assisting the query routing in super-peer networks. The implementation of query caching for P2P query routing will be discussed further in the next chapter.

This chapter ended by focusing on implementing query caching in P2P in general, which is followed with a look at the super-peer network, specifically at the embedding of the cache at the client-peer level. Embedding cached queries at the client-peer level is related to this research, as it adopts a query caching concept as part of its proposed framework, and then proves the usability of query caching in a P2P environment. The focus of the next chapter is to discuss ways in which to implement query caching over the proposed query routing framework.

Chapter 4: **The Proposed Approach to Query Caching at the Peer**

4.1. **Introduction**

The last chapter identified the trade-offs occurring when query routing uses cached information to reduce the query processing cost and the number of messages broadcast in the network, against the cost of maintaining the query caching facilities. Various ways of caching have been proposed by researchers, some of which were explored as alternative ways for tackling efficiency and performance issues as a trade-off for obtaining the query caching. This chapter introduces a proposed approach to query routing by using a cached query located in a client-peer of super-peer P2P networks that exploits the advantages of caching. Simultaneously, this approach will minimize the cached query disadvantages. The chapter discusses the ways in which this approach can reduce the number of messages passing through the network. In addition, the dependency of routing query messages using the super-peer will also be reduced.

Section 4.2 begins with a description on how the data items that are to be cached are captured from the intermediate results of query processing, which are the final query output. These are rewritten so that it is ready to be sent to the target peer. Section 4.3 discusses how to cache a result that has been captured, and Section 4.4 describes the ways in which a query can be processed using a cached data item. The ways in which the initial query can be rewritten after it has been manipulated by the cached data item is explained in Section 4.5. In Section 4.6, the elaboration is on how to maintain the cached data item, while Section 4.7 discusses the implication of implementing the query caching approach at the client peer level in a super-peer network. Query caching and query processing will be described using the XQuery language for XML data. The explanations will be based on a set of scenarios which clarify this

concept. In addition, each major step will be precisely described and summarized using an algorithmic approach.

4.2. Processing a query

Query processing is an activity involving the retrieval of relevant data from a specified database location. There are two main challenges for query processing in P2P networks: (i) how to identify the required data location(s); and once a possible target location is found, (ii) how to route the query to that location (Mohamed and Buckingham 2008). Before explaining how to locate the required data and how to route the query, descriptions of generic database query processing and query processing operations are given. From the perspectives of relational database, query processing can be divided into four main phases: query decomposition, query optimization, code generation and query execution (Thomas M. Connolly and Begg 2009). Figure 4.1 illustrates the phases in a typical query processing.

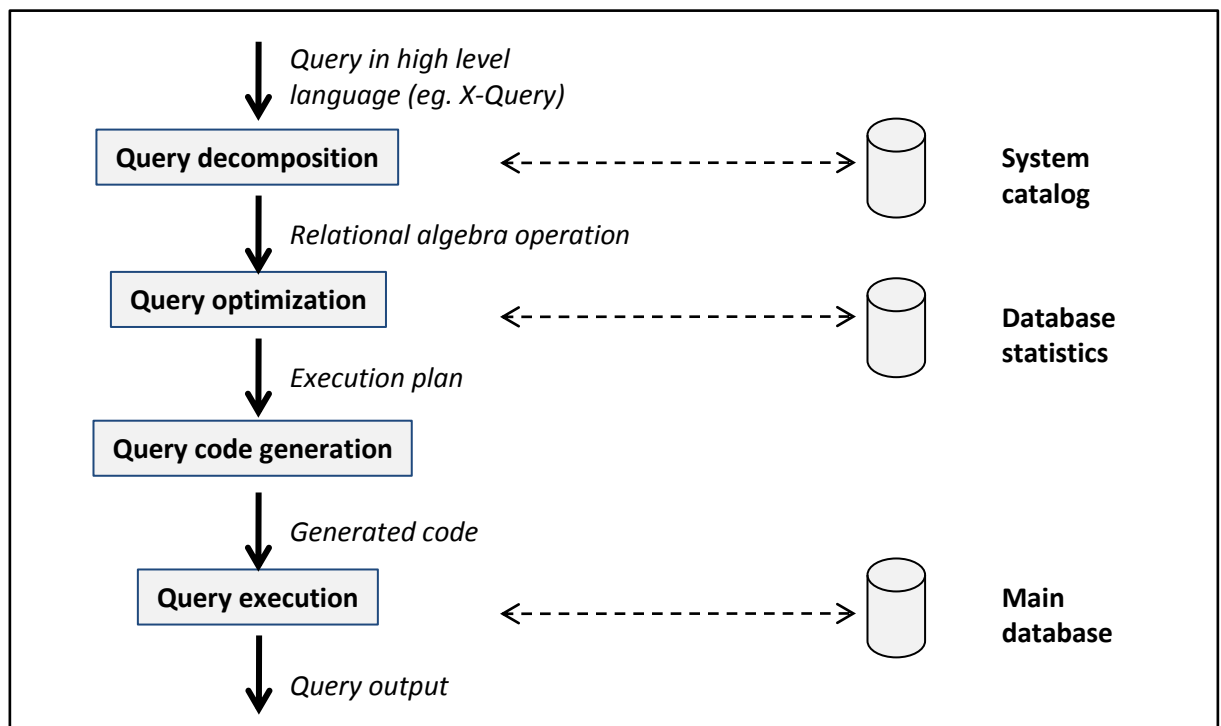


Figure 4-1 Phases in query processing

In the first phase, the input query in a high level language is translated into an equivalent relational algebraic expression. The input query is decomposed into query blocks, which form

the basic units to be translated into the algebraic operators and optimized at a later stage. Any nested queries within the input query are identified as separate query blocks. Then, the query optimizer devises an execution plan to retrieve the result of the query from the target location.

A query typically has many possible execution strategies, differing in performance and cost. Query optimization is the process of choosing an efficient execution strategy for processing a query. A code generator in the third phase generates the code to execute the plan. The output of this phase is the rewritten query in code that is available for execution. The last phase is the query execution, when the runtime database processor runs the generated code to produce results. Thus, query execution results in the retrieval of the answer (query result), where answer retrieval is a separate process from the query processing. However, the query output from the query processing is used to retrieve the result. In short, query execution is the transformation of a query message string into an executable form, and query execution uses this form to retrieve data and thus the query result.

Alternatively, queries can be processed using cached data. As elaborated in the last chapter, the cached data can be a query result, a pre-stored manipulated query, or any information that will direct the query to the target location(s). In this research, the execution plan is based on cached data. Normally, the optimizer selects an execution plan for a query every time the query is executed. Optimization during execution allows the optimizer to choose a plan based on the current system state. For queries that are frequently executed, the cost of caching optimized queries can outweigh the benefits of optimizing at execution time: the next time the same query is executed, the cached plan is retrieved and all the phases up to the execution phase are skipped, as they have already been stored in the cache.

This section discussed the generic process for query processing. The next section continues the discussion on query processing but with a special focus on the P2P environment, where the issue of locating the required data and routing the query to a specified location will be examined.

4.3. Processing a query in P2P

Before a query retrieves the required data, the specific data location needs to be identified. Identification of the target location is dependent on the P2P network architecture in which the system is embedded. The discussion in Chapter 2 has classified P2P networks into three main architectures: unstructured, structured, and super-peer networks, and each of them has a specific routing strategy. Identification of the target data location is closely related to the routing strategies. In short, in unstructured networks, the input query will simply be broadcasted to all neighboring peers. Peers that receive the query will process it by returning the result (if the result is locally available), or resending the received query to its neighboring peer. This sending process will occur until the required result is found or the TTL value for the query message is reached. However, in structured networks, the input query will request the target data location from the central directory, which is responsible for obtaining the shared data information. It will respond to the request by sending the information of the location for the input query. The query initiator will then be able to send its query directly to the target peer.

The super-peer network merges the advantages of both approaches mentioned above. When a peer initiates a query, it is sent to its local super-peer. At the super-peer, the meta-data used in the query are matched against the super-peer's index in order to determine any target location that would be able to answer the query. If the query cannot be satisfied by the local super-peer, the query is forwarded to its neighboring super-peers. Once the target data location is identified at a super-peer it is returned to the initiator peer, and the result is retrieved by this peer.

Schema mapping

Although query processing in P2P looks similar to a typical database query processing, one of the major differences between them is the existence of schema mapping in P2P during the identification of the target data location. Schema mapping is required whenever the query processing is done within shared data sources in a heterogeneous schema. Data sources involved in P2P data sharing are typically designed independently, and hence use different

schemas. To be able to perform query processing operations between peers with different schemas, the schema mapping operation is necessary.

The schema mapping operation is an additional operation that requires a set of expressions that specify how the data in one source corresponds to the data in another (Akbarinia, Pacitti et al. 2007). There are several schema mapping approaches available such as GAV (Global As View), LAV (Local As View), GLAV (Global Local As View), 'pairwise' mapping between two different schemas, common schema description (CSD), and schema mapping based on IR (information retrieval) (Akbarinia, Pacitti et al. 2007).

Once the schema in query meta-data is mapped against the schema obtained at the peer that receives the query request, the process of identifying the required data starts to identify the location of the target data. As the process of identifying the target data location is performed, the peer that initiates the query identifies the target location(s) to route its query to. Only then can the generic query processing begin. Figure 4.2 illustrates a part of the query processing. The output of this process involves discovering the data location before retrieving the query results from it.

No matter which routing strategy is used by the peer, once the target data location is found, query processing is able to start its typical operations at the local peer level. In the case of query processing using cached data, when the matching query is found, the initial query will be rewritten based on the relevant cached data. The query rewriting process using cached data is illustrated in Figure 4.3.

This section has discussed generic query processing in the P2P perspective. The next two sections will introduce the proposed approach for using cached data for query processing in the P2P super-peer network. Since the explanation will be based on XQuery language, and the shared data is in XML format, the next section briefly introduces XML and XQuery. Further information on XML and XQuery can be found in several references (w3schools.com , Holzner 2003).

4.4. XML and XQuery

XML stands for eXtensible Markup Language. It is designed to transport and store data in a hierarchical format. Since XML is a markup language, it is similar to HTML in syntax in terms of arranging tags that will become the attributes which represent the data (2010). In contrast to HTML, XML tags are not predefined, but may be defined by the user so that the stored XML data is self-descriptive. The purpose of creating an XML data file is to represent the structure of the information that is going to be stored and transported to other parties. A simple example of XML data is shown in Figure 4.4. It represents information about a book catalog. The sample data contains information about title, author, publisher, and publication year of a book.

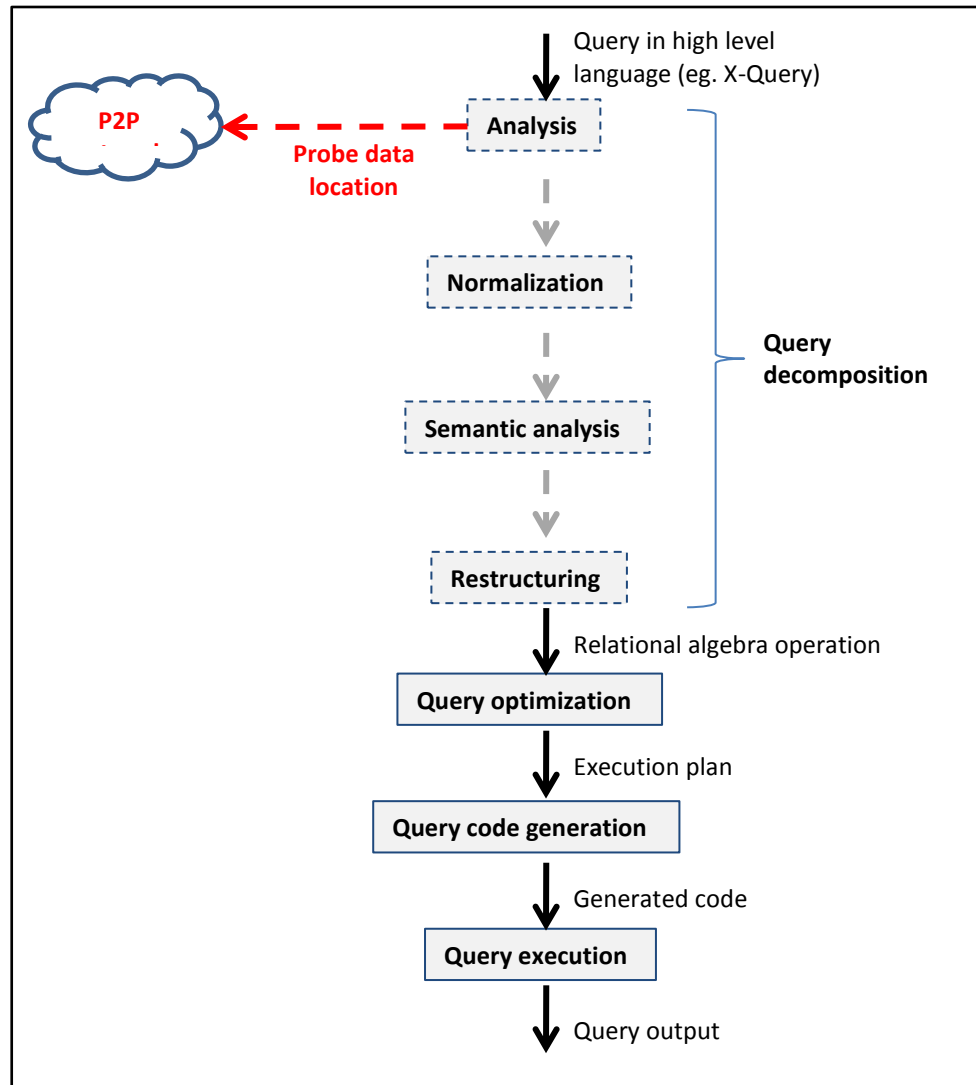


Figure 4-2 A part of query processing tasks

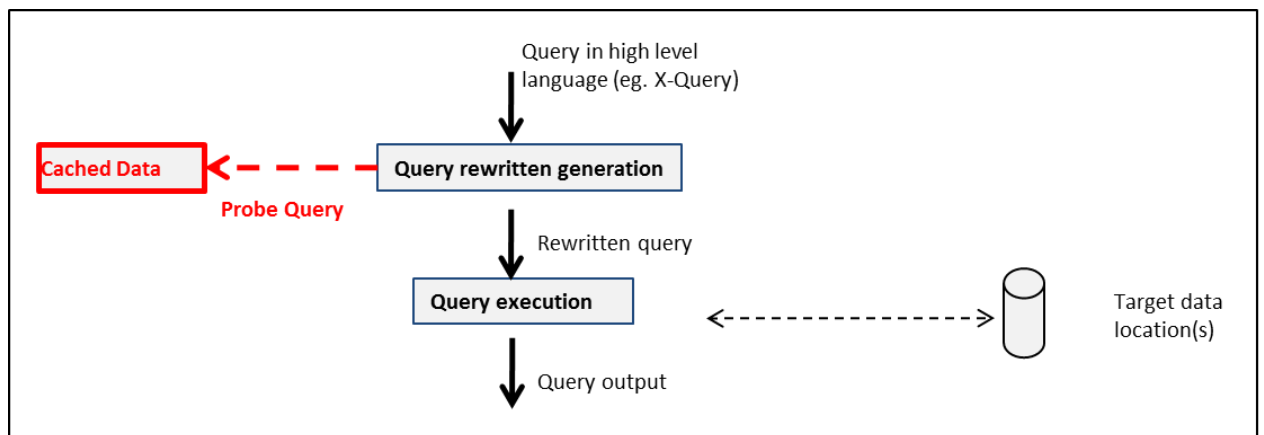


Figure 4-3 Query processing with cached data


```

<?xml version="1.0"?>
<catalog>
  <book id="112233">
    <title> JXTA: Java P2P Programming </title>
    <author> Brookshier, D. </author>
    <author> Govoni, D. </author>
    <author> Krishnan, N. </author>
    <author> Soto, J. C. </author>
    <publisher> Sams Publishing </publisher>
    <year> 2002 </year>
  </book>
  <book id="223344">
    <title> JXTA </title>
    <author> Wilson, B. J </author>
    <publisher> New Riders </publisher>
    <year> 2002 </year>
  </book>
</catalog>

```

Figure 4-4 Sample XML data for information about books

XML is one of the most important data representations used in the web and also in P2P environments for sharing and sending information between peers. It is widely accepted as the shared data format since it became a W3C recommendation in 1998. W3C has also recommended XQuery for querying XML data. XQuery is a language for querying XML data (W3C), just like SQL is a language for querying relational data (Thomas M. Connolly and Begg 2009).

From the XML perspective, XQuery can be used for finding and extracting elements and attributes contained in XML documents. As an example, let us consider the request to retrieve all books published in 2002 from the XML data file named as 'catalog.xml,' as depicted in Figure 4.4. The expression FLWOR can be used to construct the XQuery query statement, where FLWOR is an acronym for 'FOR', 'LET', 'WHERE', 'OR' and 'RETURN' clauses as defined below:

FOR : Use to select all elements as specified path and assign to a variable.

LET : Use for a variable assignment which is normally used for assigning values in iteration.

WHERE : Use to specify one or more criteria for the query result.

ORDER BY : Use to sort the result.

RETURN : Use to specify what should be returned by the query.

Thus, the following XQuery query statement can be used to return all authors that published their books in 2002; the result is sorted by books' title.

```
FOR $b in doc ("catalog.xml")/catalog/book
WHERE $b/year = 2002
ORDER BY $b/title
RETURN $b/author
```

Therefore, the returned result when processed against the data shown in Figure 4.4 is:

```
Wilson, B. J
Brookshier, D.
Govoni, D.
Krishnan, N
```

This section has discussed how to use XML data and query it using the FLWOR expression in XQuery. Samples of data, queries and returned results were presented for better understanding. The next section will describe the proposed approach that uses some XML sample data as well as an XQuery expression in order to demonstrate the contribution made in query processing using cached data over P2P super-peer network in this thesis.

4.5. Processing a query in our proposed approach

Query processing using cached data has been discussed since research on integrated databases (widely known as 'federated database') was introduced (Heimbigner and McLeod 1985). In the early years of federated databases, cached data was either the query result or a 'view'. A view is a pre-computed query statement that identifies how to link one or more schemas to recover data. A preserved pre-computed query statement is known as a 'materialized view' (Sluijs, Iterbeke et al. 2011). Normally, research into materialized views is focused on the logical virtual mediation that has been created to be mapped to numerous schemas of shared data sources (Elfaki, Ibrahim et al. 2011). Data source schemas used in mediated federated databases are well-defined and fixed. In a federated database system application, the mediator is used to formulate the mapping from the source to the destination schema (Greco, Pontieri et al. 2001). With the existence of materialized views, the query

reformulation task that was previously done by the mediator is reduced due to the existence of the reformulated pre-stored query (Kossmann 2000, Greco, Pontieri et al. 2001, Chaves, Buchmann et al. 2009).

In contrast to the federated database environment, the absence of the mediator and global schema in the P2P environment means the process of materializing past queries has different settings and encounters different obstacles. Thus, a peer has to formulate its own cached queries that should work directly at the destination schema, which is the schema in use at the target peer. Because of this constraint, the input to the cache must be able to reconstruct the posted query based on the target peers' schema without requiring any mediation in reformulating the initial query. Since the aim is to reduce the trade-off value of maintaining the query caching, it must be ensured that the cached data item will not require huge space or complex query computation when it is used. Thus, this research proposes to use the query intermediate result as the cached item. The intermediate result is the query or sub-query that has been generated in the query processing tasks (labeled as 'query output' in Figure 4.2). The term 'query output' is used since it is the output of a part of the query processing tasks. The term 'intermediate result' is used since the input to the cache mechanism is actually a complete query statement, although it may not be exactly the same structure as the query being processed. Description of the proposed approach will be given, based on several scenarios. These scenarios are intended to assist in understanding the proposed approach as they depict the sample cases which illustrate the contributions of this research.

Scenario 1

Three peers are sharing their XML data to form an integrated information source on bibliography items. The bibliography information is a list of books and journals, the authors' descriptions of the books and journals, and detailed descriptions of the books and journals, such as the publisher and price. For illustrative purposes, Figure 4.5 is used to depict the shared XML data among peer P1, P2 and P3. They share their data on authors, bibliography and catalog, although each of peer's data does not refer to the same schema.

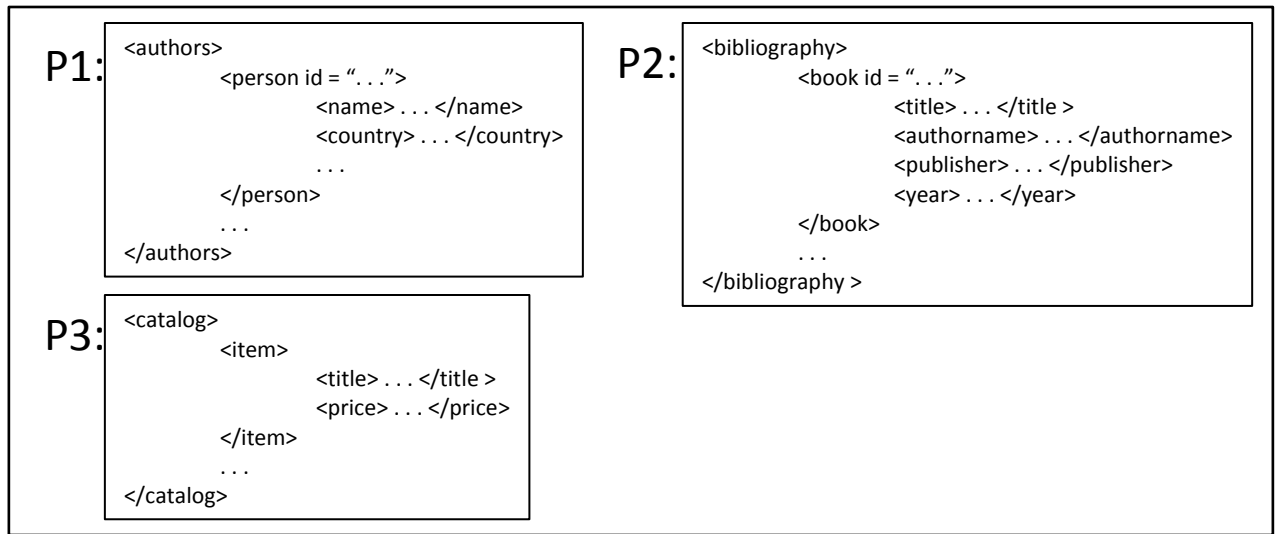


Figure 4-5 Shared XML data by peers P1, P2 and P3

Scenario 2:

Consider a query Q initiated at peer P1, that needs information on books written by any author from 'Malaysia' published after '2004'. In this scenario, peer P1 as the 'querying peer' initiates a query request for the title and the price of the book for each author as the return value. At this point, the 'price' element is unknown to the P1 local schema and thus it requires an answer that requires another peer's schema. Q is represented as the XQuery statement:

```
Q: FOR $a in(*)//authors,
WHERE $a//country = "Malaysia"
AND $a//year > 2004
RETURN
<author> $a//name
<bookAuthored> $a//title, $a//price </bookAuthored>
</author>
```

Let us assume that P1 is a client-peer in a super-peer network. It may send a routing direction request for query Q to its local super-peer. The super-peer obtains the index from its DHT (distributed hash function table) to assist P1's query with routing directions. The super-peer supports the routing index by maintaining an index of its peers' shared resources in its local subnet. This routing index could be in the form of a schema or keywords based on the mutual peer shared data regulation that has been setup. However, the actual data is not obtained by

the super-peer; the query result comes from the data source location(s) when the querying peer sends its query.

Table 4-1 Granularity level of data being captured matching the super-peer’s routing index

P1	P2	P3
//authors/person/name	//bibliography/book/authorname	
//authors/person/country		
	// bibliography/book/title	//catalog/item/title
	// bibliography/book/publisher	
	// bibliography/book/year	
		//catalog/item/price

As the first step in query propagation on the super-peer network, the querying peer will send its query, Q , to the super-peer. Once the message is received at the super-peer, it is matched against the peers’ index of shared data. This enables peers on the network to discover the available resources and services, and to determine how to connect and interact with those resources and services. If the required data for answering Q successfully matched with the available resources indexed by the super-peer, a returned message that contains a set of peers’ addresses is sent to the querying peer for further query processing.

For illustrative purposes, Table 4.1 shows the illustration of returned index messages that contain path names matching the query Q that was sent to a peer named as P1. Table 4.1 depicts the granularity at the schema level that is relevant for mapping the posted query. This mapping is built at P1 to indicate how mappings are integrated into the query, Q . The schema mapping, which is based on XML data shared by peers P1, P2 and P3, is shown in Figure 4.5. Based on the mapping results in Table 4.1, P1 then re-writes the initial query Q into Q' :

```

Q':   FOR $P1 in(P1.xml)//author/person,
      $P2 in (P2.xml)//bibliography/book,
      $P3 in (P3.xml)//catalog/item
WHERE $P1/country = "Malaysia"
AND $P2/year > 2004
AND $P1/name = $P2/authorname
AND $P2/title = $P3/title
RETURN
<author> $P1//name
<bookAuthored> $P2/title, $P3/price </bookAuthored>
</author>

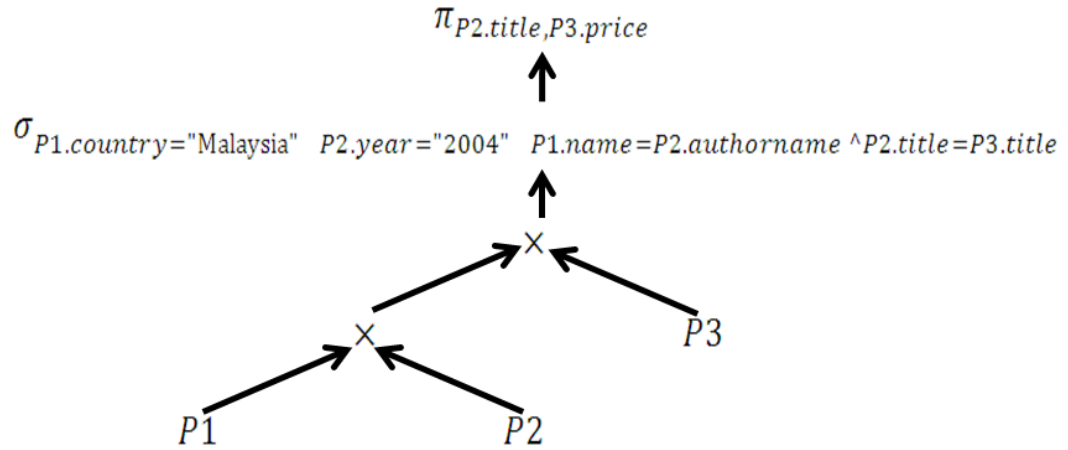
```

Q' is a complete query in XQuery after the target data location is found. Q and Q' are queries in a declarative language representation. Declarative languages such as XQuery and SQL are used to specify 'what' data is required. In contrast, the subsequent query processing pursues tasks concerning 'how' the data is to be retrieved. As shown in Figure 4.2, the initial XQuery query will be used to find the target data locations, and then the query will be transformed into relational algebra notation. The purpose of this transformation is to prepare the query for the subsequent query optimization process. Thus, Q' is transformed into Q'' :

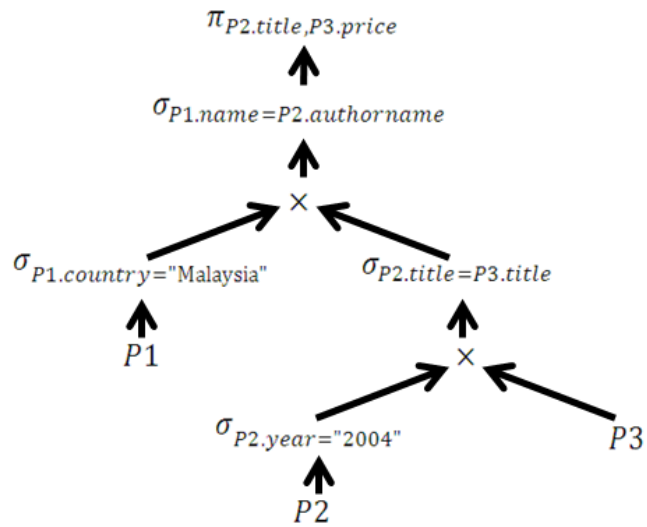
$$Q'' : \pi_{P2.title, P3.price}(\sigma_{P1.country="Malaysia" \ P2.year="2004" \ P1.name=P2.authorname \ P2.title=P3.title}((P1 \times P2) \times P3))$$

For the purpose of query optimization, Q'' is represented as several different relational algebra trees, where each tree represents an execution plan. Several execution plans are produced during this stage and the one with the highest score is considered optimum. The score is calculated from various execution criteria (Halevy, 2001;Calvanese, 2000;Wang Bin, 2006) and the optimum query is selected for the next task of query code generation. The query execution mechanism is responsible for choosing and executing the selected execution plan, which is part of the query rewriting process. A query may have several rewriting plans but these are not the focus of this thesis so the assumption is that an optimal plan is chosen.

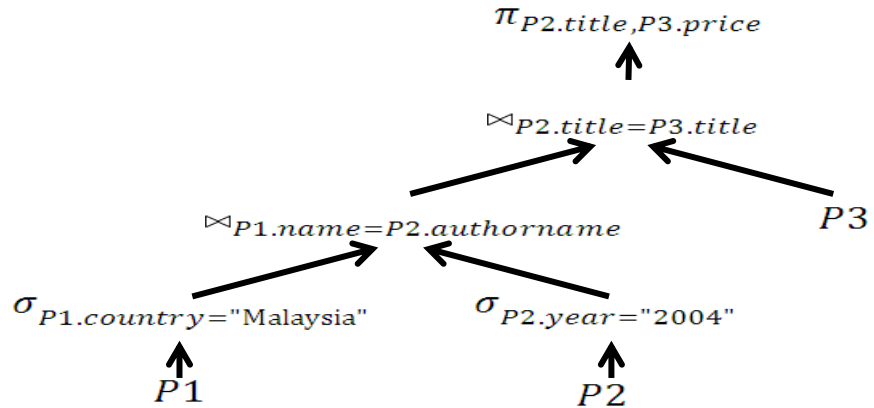
Query rewriting is typically represented using relational algebra representation. Let's assume that the chosen examples of relational algebra tree representations for Q'' are shown in Figures 4.6(a), (b) and (c).



(a) Canonical relational algebra tree



(b) Relational algebra tree formed by pushing Selections down



(c) Relational algebra tree formed by changing Selection/ Cartesian product to Equijoin

Figure 4-6 Relational algebra tree for Q''

In Figure 4.6 several relational algebra operators are used such as ' π ', ' σ ', ' \times ', ' \bowtie ', which respectively represent the 'Projection', 'Selection', 'Cartesian product' and 'Equijoin' operations. Further details on relational algebra can be found in books on database theory such as (Thomas M. Connolly and Begg 2009).

The chosen execution path will be based on cost estimation. Once the selected execution path is chosen, an equivalent XQuery statement will be produced based on the plan. In this scenario, let us assume that Figure 4.6(c) is chosen to become the path to input the next task, the query code generation. Four of the re-written sub-queries for this path are shown in Figure 4.7.


```

Sub-query 1:
FOR $P1 in doc ("P1.xml")//authors/person
WHERE $P1/country = "Malaysia"
RETURN <result1>$P1</result1>

Sub-query 2:
FOR $P2 in doc ("P2.xml")//bibliography/book
WHERE $P2/year > 2004
RETURN <result2>$P2</result2>

Sub-query 3:
FOR $r1 in //result1,
$r2 in //result2
WHERE $r1/name = $r2/authurname
RETURN <result3>$r1 $r2</result3>

Sub-query 4:
FOR $P3 in doc ("P3.xml")//catalog,
$r3 in //result3
WHERE $r3/title = $P3/title
RETURN <result4> $P3/title $r3/price</result4>

```

Figure 4-7 Rewritten sub-queries for Q

The generated sub-queries are then sent to the target data locations for the query execution tasks. Using the above sub-queries, the buffered location is assumed to keep the sub-query results. These buffered results will be labeled, for example 'result1' and 'result2' corresponding to Sub-query 1 and Sub-query 2, respectively. The final buffered result ('result4') is the query result.

Caching the queries

With the intention of processing the query based on cached data, the re-written sub-queries from Scenario 2 (shown in Figure 4.7) will be cached. The main reason for capturing a re-written sub-query (the output from the query generation task in Figure 4.2) is that it contains complete information for sending a query to a particular target data location. The description

in Scenario 2 is limited to the re-written query. However, in an actual case, the output from the query generation task also includes information about the target data location. Any relevant information about the target data location, such as the IP address, specific file name or path on the data location, is captured. Thus, in this scenario, the cached data consists of the query output (which is the re-written sub-queries generated by the code generation task) and information about target data locations. Thus, in this proposed approach, the ordinary query processing steps (as described in Scenario 2) will only take place when the initial query does not match any cached sub-queries available in the cached mechanism. Data in the cached mechanism is kept in a DHT structure.

The reason for reusing the existing generated sub-queries from a past query as the cached data item is that most of the queries on the network are the same queries or modifications of previous queries. From the literature on individual user's navigational habits, 102 out of 114 Internet users have issued at least one equivalent query (Teevan, Adar et al. 2007). Another study reported that every second page loaded has already been visited by the same user at a recurrence rate averaging 20% to 72% (Mayer 2009). A survey found that more than 50% of the users were posting reformulated queries (Wang Bin 2006), that is the modification of previous queries. Therefore, caching the previous query output, which is also the intermediate result for query processing, is expected to receive great demand in subsequent queries and lead to reduce the number of query routing over the network.

Further elaboration on the caching process is now given based on the previous scenarios. Each sub-query will be kept in a local hash table of peer P1. A hash table is chosen for the purpose of efficiency in storing and searching data for locally maintained data structures, and it is used by the peer to obtain cached data items. For each captured query output, the query cache mechanism will keep the partial query output and the destination address (the IP address of the data location), and then generate the timestamp and initialize the frequency of usage. The initial value of the usage frequency is zero, which increases by one for every time the cached item is used. The timestamp is used to capture the time of caching. The timestamp and frequency of usage for each cached items are used for maintenance purposes. Further details of a maintenance process will be explained in subsection 'Maintaining the cached query' (this subsection is within Section 4.5: Processing a query in our proposed approach). Meanwhile,

based on the path from the query output that has been captured, a keyword will be constructed to represent the data. This keyword is used as the 'key' for the hash table.

To illustrate, Figure 4.7 is used to depict the hash-table in peer P1. To summarize the caching process, Algorithm 1 describes how to trim the query output (generated sub-queries) and prepare for the insertion of a cached data item into the hash table.

Algorithm 1: Query caching

Input: Query output (Q) message

Output: Insertion of data item elements (E) and generated key (key) into hash table (HT)

Procedure:

```
For each hierarchical path in Q
{
    Ehit ← Initialize hit usage
    Etimestamp ← current timestamp
    EIP ← Get destination address
    Epath ← Get full hierarchy
    key ← GetKey(Epath)
}
HT.put (key, E)
```

Using the cached data items for query processing

Once the captured query output has been placed into the hash table, it then becomes a cached data item. The focus of this subsection is to explain how the cached data item is used in query processing for subsequent queries. To simplify the explanation, assume the same instance used in Scenarios 1 and 2.

Scenario 3:

Again, consider peer P1 as the querying peer but where this time P1 has already obtained the cached data item. The second query Q2 is searching for the title, author, and price of the book as shown below.

```
Q2:FOR $b in //book,  
    $t in $b/title,  
    $a in $t/author,  
    $p in $t/price  
WHERE $t = "JXTA"  
RETURN <result> {$a, $p} </result>
```

P1 initiates the task of extracting information from the cached query, Q , which is needed for query $Q2$. The query string message of $Q2$ is decomposed into several hierarchical path structures to produce query skeletons, represented as QS . Decomposition of $Q2$ into several query skeletons is depicted below:

```
QS.1: //book/title  
QS.2: //book/author  
QS.3: //book/price
```

The number of query skeletons depends on the complexity of the query's hierarchical schema structure. Algorithm 2 describes how query $Q2$ is decomposed into a query skeleton QS that will become sub-query skeleton parts.

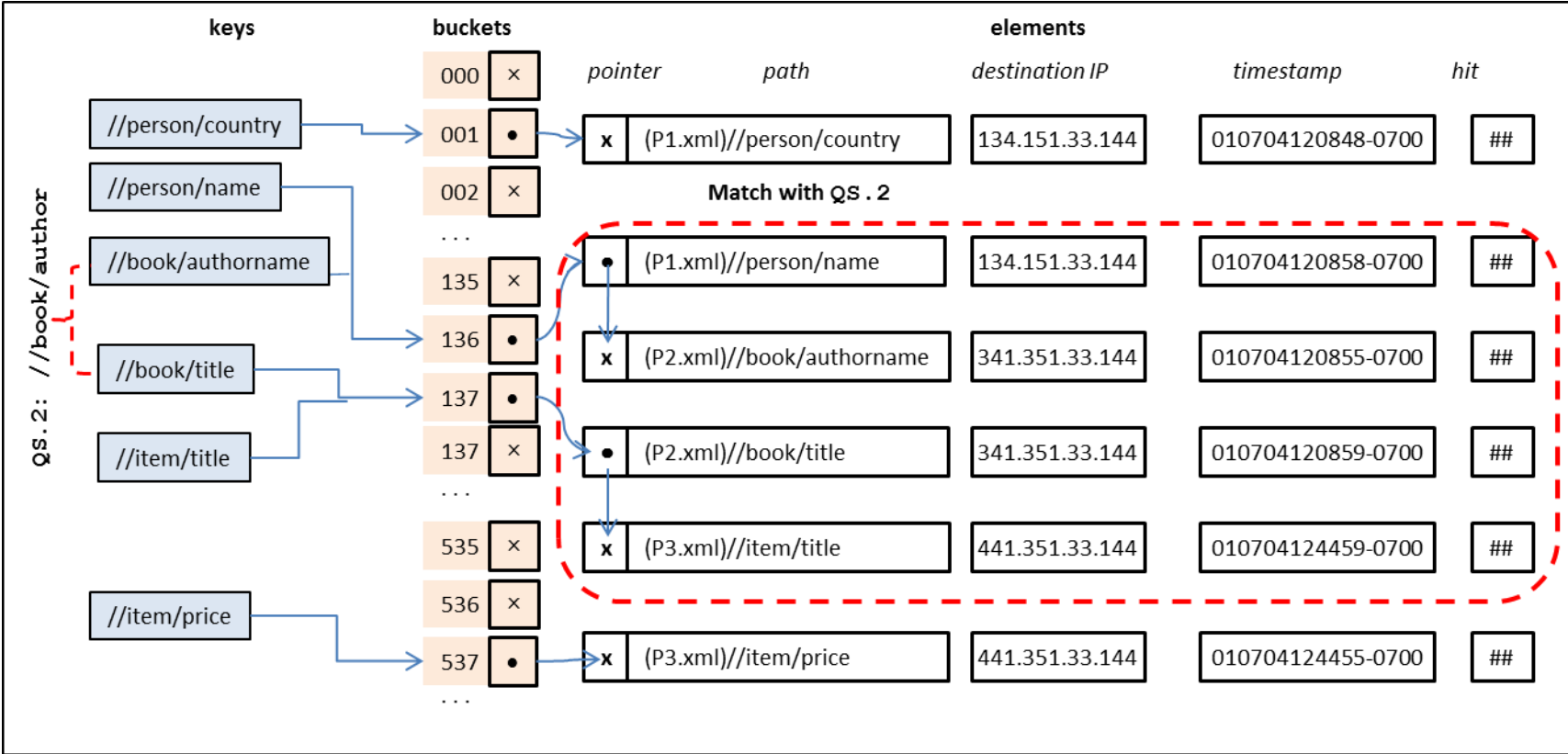


Figure 4-8 Illustration of matching between QS.2 and keys in P1 hash table

Each decomposed skeleton, QS , will be compared to the cached data item in the hash table HT , using a string matching function. This matching of elements in QS and HT is known as the query containment process, which allows partial matching to increase the probability of a match. If a matched data item is found, the related element in HT will be extracted.

Algorithm 3 defines the query containment process, which requires the query skeleton list, QS , as the input. It is illustrated in Figure 4.8 and Figure 4.9 using the scenario for Query $Q2$ as an example. Once $Q2$ is decomposed by Algorithm 2, three query skeletons are generated, which are labeled as $QS.1$, $QS.2$ and $QS.3$; $QS.2$, `book/author`, is shown in Figures 4.8 and 4.9. Each query skeleton becomes the input to Algorithm 3 for the query containment process, where each query string is compared to the several parts of the cached item. In Figure 4.8, the blue boxes on the left are keys for a set of cached data. Elements of the cached data, such as path and destination IP, are represented in several boxes on the right. Each key is pointing to one or more buckets, where the buckets contain a pointer to a specified cached element. The red dotted line in Figure 4.8 shows the keys that matched with $QS.2$. The query containment process is conducted between $QS.2$ and elements pointed at by the matched keys. The result of Algorithm 3 on query containment for $QS.2$ is shown by the dotted ring box in Figure 4.9. The extracted elements provide the full path of a pre-existing query and the destination address for sending the query for processing. At the same time, a counter will increment the hit element in HT by one, to record the frequency of usage for the particular QS .

The cached data item is represented using a hash table data structure, which is not the usual tree structure for keeping XML-based data. Hence, Algorithm 3 does not use a search tree algorithm. Instead, in this thesis, query containment is a process of deciding whether or not the decomposed query matches with any previously decomposed and cached query messages.

If the query containment returns a 'not found' matching status, then peer $P1$ has to revert to ordinary query routing by sending the query message to the super-peer, as clarified at the beginning of this section. A description of how ordinary query routing works was given in Section 4.3. Once the containment result is obtained, the initial query will be rewritten. This rewritten query is the actual query or sub-query that will be sent to the target peer. The proposed rewriting process will be explained in the next subsection.

Algorithm 2: Query decomposition

Input: Initial query (Q) in XQuery using FLWR structure

Output: Decomposed query skeleton list (QS)

Procedure:

```
L ← first segment on list QS
C ← initialize NULL value on list QS
eClause ← {'FOR', 'LET', 'WHERE' or 'RETURN'}// list of
enumerated elements

// Parse Q string
For (each line of query string in Q ⊂ eClause)
{
L ← whole string of current line
C ← previous segment of QS
while (C ≠ NULL)
{
if (L ⊂ variable of C)
{
Associate the hierarchical path of C to replace the variable
in L

C ← previous segment of QS
}
L ← next segment of QS
}
}
```

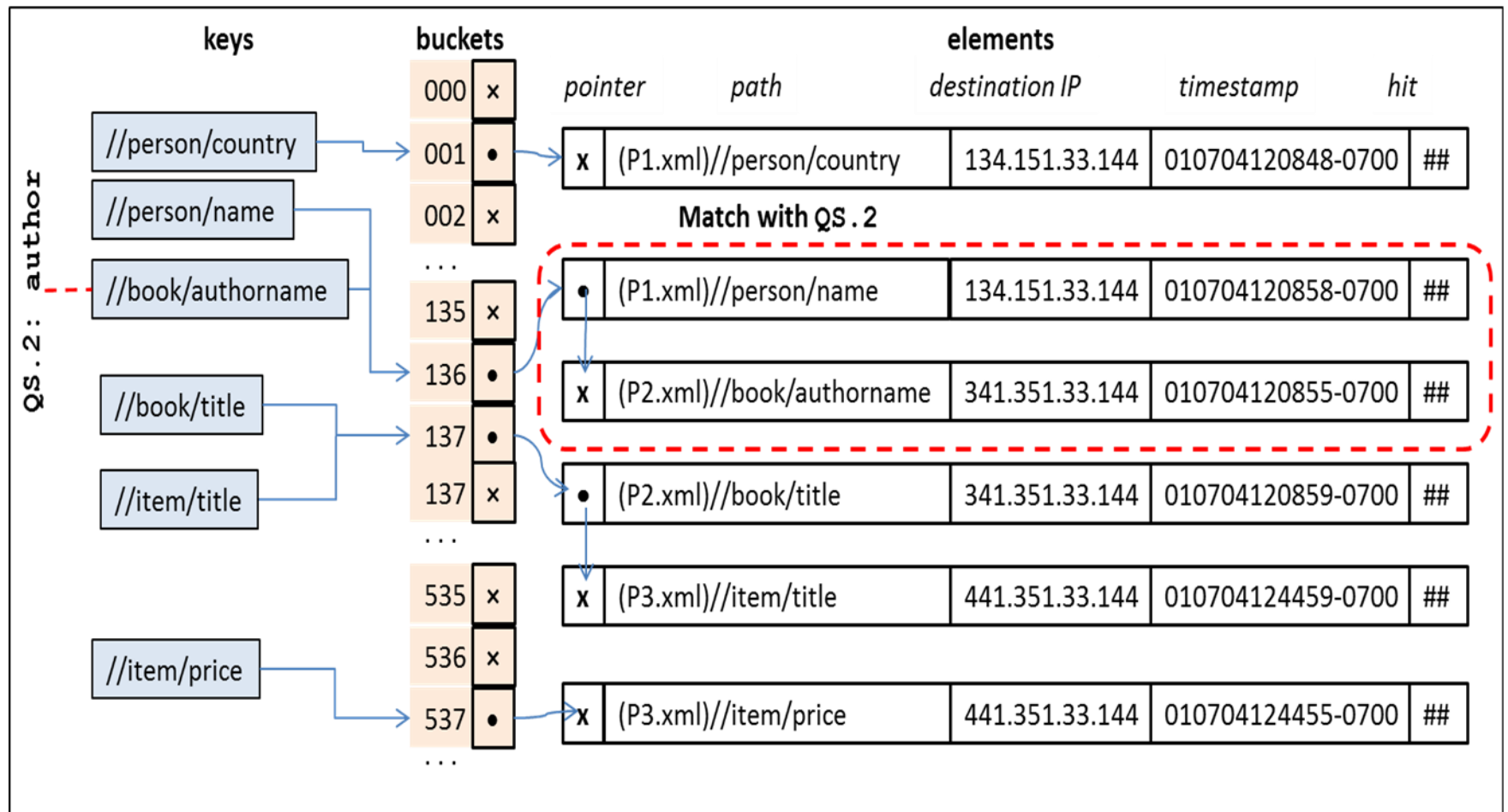


Figure 4-9 Illustration for containment matching of QS.2

Algorithm 3: Query containment test

Input: Query skeleton list(QS), and cached data item in hash table (HT)

Output: Matching status (found or not found) together with the matched results list, List (if any)

Procedure:

```
List ← empty list
L ← first segment on List
q ← a query skeleton QS.#
status ← NULL
key ← HTkey
e ← the first HT segment

while (status = NULL) AND (e ≠ the last segment of HT)
{
  if (q ⊆ key)
  {
    /***** Partial & totally contained *****/
    Lpath ← HTpath
    LIP ← HTIP
    IncreaseHit(HThit)

    status ← found
  }
  else
    status ← not found

  e ← next segment of HT
  L ← next segment of List
}
```

Query rewriting

Query rewriting is a process of rewriting the initial query based on the output from the query containment test. To elaborate the query rewriting process, the example given in Scenario 3 is again used where the query was asking for books on “JXTA” as in Q2. The following XML skeleton code shows a list of the hierarchical paths extracted by Algorithm 3. The execution result of Algorithm 3 is indicated in the dotted ring box in Figure 4.9, which is listed as follows:

```

("P2.xml")//book/title
("P3.xml")//item/title

("P2.xml")//book/authorname
("P1.xml")//person/name

("P3.xml")//item/price

```

The initial query is needed when structuring the rewritten query. The rewriting process begins with the query skeleton that appears in the 'WHERE' clause of the initial query, namely Q2. In this case, the matched query paths are "(P2.xml)//book/title" and "(P3.xml)//item/title". For each matched path, one or more other paths that come from the same location are identified. The matched paths are sorted as follows:

```

/* Location 1 */
("P2.xml")//book/title
("P2.xml")//book/authorname

/* Location 2 */
("P3.xml")//item/title
("P3.xml")//item/price

```

The matched data item is stored as a list, which is the output from Algorithm 3 and is represented by /* Location 1*/ and /* Location 2*/. Each of the grouped paths matched by the location is then linked with other paths (if any). Here, "(P2.xml)//book/authorname", has a link to "(P1.xml)//person/name". The link is shown as a pointer in Figure 4.9. The link means that the rewritten query for "P1.xml" will be nested in the query for "P2.xml". Thus, the rewritten query will be nested as follows.

```

Q2.1':  FOR $var0 in ("P2.xml")//book
        $var1 in $var0/title
        $var2 in $var0/authorname
        WHERE $var1 = "JXTA"
        RETURN
        <author>
          $var2

        FOR $var3 in ("P1.xml")//person
        $var4 in $var3/name
        WHERE $var4 = $var2

```

```

    RETURN
    $var4
  </author>

```

On the other hand, the rewriting for location "P3.xml" is explicit from Q2.1 as no link between "P3.xml" and "P2.xml" or "P1.xml" has been shown in Figure 4.9. The second rewriting for Q2 is as follows.

```

Q2.2':  FOR $var5 in ("P3.xml")//item
        $var6 in $var5/title
        $var7 in var5/price
        WHERE $var6 = "JXTA"
        RETURN
        <price>
        $var7
        </price>

```

The query rewriting process is summarized in Algorithm 4, which requires two inputs: the initial query and the matched data item list. The initial query is the original query message (such as Q2) initiated by the querying peer. The matched data item list is the output of Algorithm 3 that was previously labeled as /* Location 1 */ and /* Location 2 */. Q2 and the list from Algorithm 3 are required to produce a query and/or sub-query ready for sending to the target data locations.

Algorithm 4: Query rewriting

Input: Initial query (Q), matched data item list (List)

Output: Rewritten query (CQ)

Procedure:

Wlist ← get all path in WHERE clause from Q

Rlist ← get all path in RETURN clause form Q

L ← first segment on List

c ← initialize value '0' for counter

if (WList ≠ NULL)

/** recorded when the last time the cached query is used

*/

}

```

cur ← next segment of L on List
while (cur ≠ L)
{
/** Find other cached data item that belongs to the same
location */
If (LIP ≠ curIP)
cur ← next segment of cur on List
else
{
FList ← rewrite (cur, var[c])
c ← increase counter
}
}

```

```

W ← next segment on WList
}
}
else
{
cur ← next segment of L on List
while (cur ≠ L)
{
/** Find other cached data item that belongs to the same
location */
If (LIP ≠ curIP)
cur ← next segment of cur on List
else
{
FList ← rewrite (cur, var[c])
c ← increase counter
}
}
}

```

```

Function rewrite (path, variable[sequence])
{
/** FOR clause */
if (sequence = 0)
Initiate FOR clause

```

Construct path with a given variable sequence

```

/** WHERE clause */
if (path ⊆ WList)

```

Construct the WHERE clause for the current path

```
/ *** RETURN clause ***/  
If (path  $\subseteq$  RList)  
Construct the RETURN clause for the current path  
}
```

Maintaining the cached query

As described in Section 3.5.2, the cached data items are maintained by a process based on the coherency and replacement strategy. LRU is chosen for maintaining the cached data item in the proposed approach, which means that the least recently used cached item will be replaced with the new cached item. This replacement strategy is applied to the pre-existing Java hash table (Sluijs, Iterbeke et al. 2011) which is used in developing the proposed approach. However, there is no strict rule when choosing a replacement strategy for maintaining the cache, as long as the data is allowed to be processed at the client-peer as a local process.

A cached query is stored in a hash table data type representation as illustrated in Figures 4.7 and 4.8. The hash table is used to store several elements, which are:

- (i) Frequency of usage – the number of cached queries being used
- (ii) Timestamp - record of the last time the cached query was used
- (iii) Destination IP – IP address of the data source location
- (iv) path – XML skeleton code that will be used to locate the query answer, and
- (v) pointer – pointer used for pointing between hash table key and elements

The implementation of LRU will use the timestamp and hit value. Based on Scenarios 1 and 2, these values are stored together with the hierarchical XQuery path and the destination IP address in the cached data item hash table, HT. According to the LRU approach, once the cache limit is exceeded, the data item with the lowest hit value and the oldest timestamp will be deleted from the cache. Algorithm 5 is used structurally to describe the maintenance process which also forms part of the proposed mechanism of this project.

Algorithm 5: LRU maintenance

Input: Cached data item in hashtable (HT), and maximum size allowed for hashtable HT (max)

Output: Deletion of the least recently used cached data item status

Procedure:

```
P ← pointer initialized to the first segment of HT
sortedSetTimestamp ← initialize value for sorted set to
                    keep the timestamps
sortedSetHit ← initialize value for sorted set to keep the
              hit values

/* Get the sorted set of timestamp & hit values from HT */
while (P ≠ the last segment of HT)
{
  sortedSetHit.add(PHit)
  sortedSetTimestamp.add(Ptimestamp)

  P ← next segment of HT
}

/* Assign the rating value to both sorted set. The lowest
   value in sortedSetHit and the highest value in
   sortedSetTimestamp obtain the highest rate. Rating values
   for each element on both sorted set is returned.
*/
rate = assignRate(sortedSetHit, sortedSetTimestamp)

/* Accumulate the total rate for each pair of elements from
   both sorted set.
   The timestamp for the highest rate is returned.
*/
highestRateTimestamp ← getHighestRate(rate)

/* Remove the element of HT that contains the highest rate
*/
HT.remove(highestRateTimestamp)
```

4.6. Implication of implementing local query caching

The proposed structure of the query caching approach to be used in this PhD research was discussed in the previous section. This section will discuss the implications of implementing the proposed query caching at the local peer from three perspectives: the effect on the local peer, the effect on the super-peer, and the effect on the entire network. Chapter 5 will discuss the experimental results obtained in a simulation, which will focus on the percentage of query caching usage that increases the number of query messages processed. In other words, how often does caching at a local peer mean that subsequent queries can be matched at that peer and used to locate data somewhere else. Performance analysis is detailed in Chapter 6, by comparing the performance of the proposed approach with alternative caching approaches proposed by other researchers and with no caching, which is the ordinary super-peer routing method.

The impacts of embedding the query cache mechanism into the local peer are as follows:

1. Additional query processing load is a burden for the queried peer only.

The query cache mechanism is locally embedded at the client peer. Hence, the process of determining the direction of query routing can be locally processed without the intervention of other peers. The client peer can also perform query matching without the super-peer assistance.

2. The client peer is no longer entirely depended on the super-peer.

The client peer can forward its query directly to the target peer that stores the required data, and then directly receives the answer to its query. Since the client peer is able to decide the target data location locally, the client peer is no longer fully dependent on the local super-peer's index as the routing directory and demand on the super-peer for processing queries is reduced. The ordinary processes performed by the super peer are: (i) identifying the required data from the querying client-peer, (ii) matching the queried data to the information available on the super-peer's index, (iii) forwarding the query to neighboring super-peers if the local index does not match the queried data, and (iv) returning the matched results to the querying client peer for further processing. If the local super-peer needs to resend the query to the neighboring super-peers, this rerouting process requires the neighboring super-peers to repeat these four processes. The rerouting process is repeated until an answer to the query is found

and returned to the querying client-peer, or the TTL value for the query message is reached. If a client peer has the routing information locally cached, it by-passes steps (i), (ii), and (iv) but not (iii) because this only happens when a query has not been received before at the super-peer and therefore won't be known to the client peer either. In other words, with the client-peer being able to decide its query routing direction, the rerouting of the process at the super-peer level is no longer required unless there is no match in the cache.

3. Simplified query processing.

Comparing Figure 4.2 and Figure 4.3, several typical processing tasks in Figure 4.2 have been omitted. Reducing the number of typical tasks will lead to the reduction of the entire query processing time as normally required when query caching approaches such as in (Doulkeridis, Norvag et al. 2006, Battre 2008, Kostas Lillis 2008, Fegaras 2010) are used.

4. Reduce the effect of a super-peer's failure.

By determining the query direction at the client-peer, the query routing location can still be locally identified even during a super-peer's downtime.

4.7. Summary

Assisting query routing in a super-peer network is one of the current trends for reducing the impact of super-peers' failure (Mohamed and Satari 2009). In this research, query caching at the client-peer is proposed. The chapter began with a description of typical query processing and how this works within P2P applications. A brief description of XML and XQuery languages were then given because XML is a language for shared data and XQuery is used as its query language.

Discussion of query processing for the proposed approach in this thesis used three hypothetical scenarios as examples for simulating task execution. The task execution was presented in five algorithms: query caching, query decomposition, query containment test, query rewriting, and LRU maintenance for maintaining the cached query. Four benefits for implementing this local query caching were given. The next chapter will provide the technical details for the proposed approach.

Chapter 5: **Query Caching in JXTA**

5.1. **Introduction**

The general description of how query caching work has been given in the previous chapter. This chapter examines the technical aspects of query caching on the JXTA platform for evaluating the practical capabilities of the proposed solution. The capabilities are evaluated by comparing the effect of the 'resource discovery mechanism' based on the set of operations involved in query processing. The 'resource discovery mechanism' is defined as any mechanism that is used in P2P applications to assist query routing, without broadcasting the query over the entire network. The prototype focuses on the implementation of local query caching over a super-peer network in order to reduce the peer's dependency on the super-peer node for query routing and reducing network traffic without excessive costs at the peer level. However, this prototype is designed to demonstrate the steps involved and evaluate their impact on network traffic rather than being implemented for efficiency and flexibility purposes, which would be the focus of any eventual industrial application of this work.

This chapter is organized as follows. Section 5.2 introduces the JXTA platform, the justification for choosing it, and will compare JXTA to other P2P platforms. The architectural and prototype designs are then discussed in Sections 5.3 and 5.4, respectively. Section 5.5 presents the experimental setup, and Section 5.6 discusses the experimental results and the implications of implementing the query caching mechanism on JXTA peers. Section 5.7 summarizes the chapter.

5.2. JXTA

JXTA is an open-source project supported and managed by Sun Microsystems (community). JXTA is not a software application but it provides a set of protocols that software developers can use to establish P2P connections with other peers over the JXTA platform (Chidlovskii and Borghoff 2000). By using the JXTA protocols, networked peers in the system application can cooperate to form self-organized and self-configured peer groups as a P2P system which is independent in the network, without the need of a centralized management infrastructure (Brookshier, Govoni et al. 2002, 2007). JXTA provides XML based protocols to cover a typical P2P network functionality. There is six 'service' protocols provided in JXTA, which is the most common tasks that peer performs (Verstryngge 2008).

Core protocols required for communication are:

- Peer Endpoint Protocol (PEP) – for routing the advertisement.
- Peer Resolver Protocol (PRP) – for querying the peers.

Four other standard service protocols are:

Peer Discovery Protocol (PDP) – for discovery of advertisements published by peers within a peer group.

- Rendezvous Protocol (RVP) – to propagate messages between peers within a group.

Peer Information Protocol (PIP) – to handle information requests about remote peers. Information such as peer's name, peer's active duration, peer last message sent and amount of data transferred from peer.

- Pipe Binding Protocol (PBP) – used to define a pipe for information transfers.

All entities in JXTA (the peer, peer group, service, protocol and pipes) are represented as 'advertisements'. An advertisement is an XML document with a well-defined format. There are several types of advertisements to represent the JXTA entity, of which the peer, peer group and pipes are among the JXTA entities. For example, 'peer advertisement', used to represent the JXTA peer, contains at least the peer ID and the ID of the peer group it belongs to

(Verstrynge 2008). Eventually, it can contain a name, a description of the peer, and endpoint addresses (locations of the peer in the peer group). More information on JXTA can be found from (community , Gong 2001, Brookshier, Govoni et al. 2002, Verstrynge 2008, Wilson June 15, 2002).

Developing the P2P applications from scratch is not an easy task. Besides JXTA, there are several other P2P platforms available either as open-source software or proprietary products that provide facilities for developers to rapidly develop their P2P applications. By using the P2P platform, developers need not waste their time for building the common services, such as fault tolerance, data replication, security, application-level multicast, and many others. Consequently, several middleware platforms have appeared in the market offering the benefits of novel services that can be overlaid on the network. Prominent examples from the literature can be divided into structured and unstructured P2P networks. Gnutella is an example of an unstructured P2P, while structured P2Ps are those such as JXTA (Bergner 2003, Pourebrahimi, Bertels et al. 2005, Mohamed 2007). Research on query routing in P2P was compared in Chapter 2, while research on query caching approaches in P2P was reviewed in Chapter 3.

Why JXTA?

There are several reasons for choosing JXTA as the platform for the prototype in this project. Firstly, implementing a super-peer in JXTA does not limit it to a single rendezvous peer that would lead to a single point-of-failure problem as more than one peer can be selected as the super-peer in each group. The rendezvous peer in JXTA is the super-peer in the P2P network. Besides the rendezvous type, there are three other peer types: an edge peer that acts as a client-peer, a minimal edge peer that is a peer with limited capabilities, and a relay peer that acts as a connector to peers behind the firewall. When a super-peer node leaves its P2P cluster, a new peer will replace and perform all the necessary consequent operations. The cluster will appoint any peer within its cluster to become a super-peer according to the selection algorithm. A measure of node capabilities such as computational power and transmission/reception capabilities is considered during super-peer selection (Mahdy, Deogun et al. 2007).

The second reason for choosing JXTA is because JXTA can be a P2P platform for PDAs, cellular telephones and MP3 players. These devices represent the client-peer as a minimal-edge peer mode. The third reason is that JXTA is not limited to any specific transport protocols, as advertisements in JXTA can be stored as centralized and/or decentralized entities, with no specific discovery and update approach. In this research, P2P routing for regular discovery and index update is not associated with the cache maintenance. In addition, JXTA peers do not require any web server/browser to launch the advertisement.

The focus of this research is on determining the effect of implementing local query caching at the client peer will have in a super-peer network. Since the super-peer network is a structured network, JXTA is chosen as the bench-test platform for this research's P2P prototype for the following reasons:

- JXTA supports the idea of super-peer networks (community , Gong 2001) by implementing two main concepts: (i) the rendezvous peer, which is similar in concept to the super-peer, for message resolution and propagation, and (ii) SRDI (shared resource distributed index), which is similar to the super-peers' index. The SRDI maintains the pointers to edge peers that cache corresponding advertisements. Edge peer is one of the peer modes in JXTA. The edge peer mode will become the client-peer in a super-peer network.
- JXTA provides additional P2P protocols and services, including peer discovery, peer groups, peer pipes and peer monitors, which are required for the implementation of P2P operations such as query processing, routing and discovery.
- JXTA provides an open platform for P2P cooperation as it offers interoperability between systems, peers and applications. This means that peers on any other platform would be able to communicate with peers on the JXTA platform.
- JXTA is a platform that is independent of language, operating system (OS) and transport protocols (TP). Independence of language means that developers may use C, Java or any other programming language to develop their P2P applications on a JXTA platform. Moreover, JXTA is also OS independent, so programming can be done using UNIX, Windows and any other operating system platforms. In addition, JXTA is a networking platform that is not dependent on any specific TP, hence peers can send messages using TCP/IP, HTTP, Bluetooth and other systems. Therefore, the peers in a JXTA platform could be sensors, PDAs, routers, desktops and laptops.

In summary, JXTA provides a very useful framework to support this research. The next section will explain how to build a P2P application on the JXTA platform.

5.3. Building a P2P application on a JXTA platform

A Java implementation for JXTA protocol and messages is known as JXSE (Microsystems). Building a P2P application on JXTA using the Java programming language requires some Java libraries that can be downloaded from the JXTA official website (community). The library items are `bcprov-jdk14.jar`, `javax.servlet.jar`, `jxta.jar` and `org.mortbay.jetty.jar`. The first step in building a JXTA-based application is to create a network manager. It provides a configuration platform using the `NetworkManager` class, which defines six abstractions of node configurations which determines the peer type; the configurations are `ad-hoc`, `edge`, `rendezvous`, `relay`, `proxy`, and `super`. For example, to create a client-peer, 'peer edge mode' is the appropriate configuration mode. An edge mode enables the peer to be connected to a rendezvous or relay peer (or both), just as if the client-peer is connected to a super-peer. `NetworkManager` is one of the classes used for defining code modules in the JXTA platform package. Modules in the platform package are used for configuring and managing the JXTA peer startup and shutdown.

The next step is to start the network by invoking `startNetwork()` from the created `NetworkManager`. This creates a new peer with a new peer ID on the network. These two commands are compulsory for creating a JXTA peer. To stop the JXTA network, the command `stopNetwork()` is invoked. Besides these three commands, there are other commands that are needed for a complete start-up process, such as when a peer needs to be connected to other peers and when to assign a peer to the group. Common peer and super-peer start-up and query processes will be discussed in the next subsections.

Peer Start-up

Besides the processes mentioned above that are required during a peer start-up, other processes are also involved. These processes, though not compulsory, are normally used to

connect peers to a connected P2P community over the network. The literature by Halepovic, et al. is considered as a guideline for a typical peer operation since the peer start-up process is thoroughly discussed in (Halepovic and Deters 2003, Halepovic and Deters 2005). A high-level typical peer operation is presented in the following steps (Halepovic and Deters 2003):

1. Start the JXTA platform.
2. Join peer group(s), according to user preferences or common peer services, and for a more secure and efficient environment.
3. Publish own advertisements to make other peers aware of its presence and available resources.
4. Open an input pipe to receive messages from peers.
5. Learn about other peers who are in the same group and share common resources.
6. Obtain pipe advertisements to discover available communication channels of other peers.
7. Open an output pipe to send messages to other peers.

During the peer start-up, its platform classes are loaded. Then, the peer joins the default group, `world netPeerGroup`. In order to join any specific group, the peer has to load its particular group advertisement. An advertisement is the XML document that describes the JXTA entity. In the case of the peer group, an advertisement is used to describe the peer group details. The content of the peer group advertisement is something such as the name of the peer group and the details of the shared services. Once the peer group advertisement is loaded, the peer can apply for membership in order to join the group.

Since JXTA uses the 'advertisement' mechanism to describe its service and protocols, the peer will want to let other peers know about its existence, meaning that its shared services have to publish an advertisement as well. The peer may publish its advertisement locally (within the same group) or remotely (to the entire network which is outside its local peer group).

Before sending any message, the peer needs to establish the pipe for sending and receiving messages. Thus, there will be an input and output pipe. Pipe is a kind of virtual communication channel in JXTA (Gong 2001, Verstrynge 2008). It is used to connect peers and to send messages between them. Pipe is a peering point that consists of the IP and port numbers for a traditional socket. Once the input pipe is loaded, incoming messages can be received.

Consequently, once the output pipe is loaded, the peer will be able to load its message. At this point, the peer can load its peer advertisement (a description about the peer and what it shared). At the same time, the peer can now get the pipe advertisement, or the incoming message sent by other peers.

Rendezvous-Peer Start-up

For experimental purposes, the local rendezvous peer(s) are created to become the super-peers for the client peers. The purpose of this research is not to determine which peer will be chosen to become the super-peer, and thus the connection between peer and super-peer for message passing purposes is pre-set. Therefore, during the peer start-up, each peer is pre-determined either as an edge peer (which is the client peer) or as the rendezvous peer (which is the super-peer). In this setting, the rendezvous peer will hold the SRDI (Shared Resource Distributed Index), which is used to simulate the super-peers' index functionality in query routing. The rendezvous peer's operation is presented in the following stages:

1. Start the JXTA network.
2. Join the peer group.
3. Check the stored contents.
4. Prepare the listener pipe.
5. Obtain pipe advertisement.
6. Create the output pipe to send messages to other peers.
7. Get the namespace of the retrieved message elements (if any).
8. Send the message for specified namespace to other peers (if required).

For a rendezvous peer (super-peer), the process of peer start-up is similar to that for an edge-peer (client-peer) because the super-peer also has features of the client-peer. The operations of the super-peer are typically checking the stored contents in its SRDI, sending routing messages to its local client-peers (within the same group) and within super-peers, and managing peer registration (when any peer wants to join or leave the group).

Query in JXTA.

There are four types of peers in JXTA, which are rendezvous, relay, edge and minimal-edge (Sahin, Gupta et al. 2002). Rendezvous and relay features are adopted by the super-peer in a super-peer network, while minimal-edge peer is a peer with minimal capability. The minimal edge peer is typically adopted for a basic mobile phone user, and forwarding of any query message is not allowed due to its lack of capability. An edge peer is adopted by the client peer in a super-peer network but it is not responsible for holding the routing directory. However, it will maintain their own local advertisement caches but with limited capability. Consequently, edge peers are always dependent on the connection to the rendezvous peer to forward their query requests. As described in (Leonidas Fegaras 2005), routing requests which are part of query processing in the super-peer networks are described in a sequence diagram as shown in Figure 2.13. A summary of the routing request as a sequential flow of messages is as follows:

1. Peer A (an edge peer) inputs a query, Q .
2. Query Q is decomposed in order to identify the required data, D .
3. Peer A sends a message to the connected super-peer, Super-peer 1 (which is the rendezvous peer). The message requests the data location of D .
4. Based on the SRDI of the Super-peer 1, it then sends a 'discovery query message' to potential peer locations that may have the data location D , which are local client-peers (edge peers) and neighboring super-peers (rendezvous peers).
5. The receiver will send the 'discovery query response' to the sender if they have the required data for Q . If the receiver is a rendezvous peer with a SRDI, the discovery query message is re-sent to its client-peers and the neighboring super-peer. However, queries are only propagated among rendezvous peers. The process of re-sending the query request message will continue until the TTL (time-to-live) value is reached.
6. The result of the discovery query request message is then returned to Super-peer 1, which will then re-send it back to Peer A. The peers that have data D become the target for getting the query result.
7. The returned message is analyzed by peer A in order to re-write the query Q which is tailored to the schema of L .
8. The re-written query, Q' is then sent to L .

Subsequent steps are the typical query answering process where L will be analyzed in order to find the most effective data location using any heuristic or statistical evaluation. This query answering process, however, is not part of this project since it does not involve query routing. Instead, the discussion will continue in the following subsection by describing the discovery process in detail, which is part of the query's routing activities. This discussion will only focus on the service or data discovery as implemented in JXTA.

Discovery operations

Discovery is the process of one peer searching for another peer that contains the desired content. There are three types of discovery process: local discovery, direct discovery and propagated discovery. Any JXTA full-edge peer, an edge-peer that has full capability and can become a client-peer, may use the local cache of advertisements to search for the required resource contents within the same peer group. An edge peer can either be in a full-edge peer mode or a minimal-edge-peer mode. All JXTA resources are represented in advertisements. There are several types of advertisements such as peer advertisement, rendezvous advertisement and peer group advertisement. An advertisement is a structured XML document that is used to represent a resource. For instance, a peer advertisement contains at least a peer ID and the ID of the peer group that it belongs to. A peer advertisement may also contain the peer name, peer descriptions, and a set of group services provided by the peer. Appendix 1 and Appendix 2 show the specification and a sample of a peer advertisement, respectively. The advertisement is either locally or remotely published by the peer to let other peers know about its existence and the services it can provide. Once published, the advertisement will be cached on the peer and the expiration time of the advertisement can also be set. The lifetime indicates how long the advertisement will be cached.

Meanwhile, the direct discovery facility will allow a peer to send a request using TCP/IP and HTTP network protocols. Use of direct discovery is suitable whenever the service/resource content to be recovered from the target peer is already known. Direct discovery allows a peer to directly contact other peers which are outside its local network. Another type of discovery that can detect peers outside the local network is propagated discovery, which requires the

use of a rendezvous peer. By obtaining the SRDI, a rendezvous peer is seen as a place where a peer can search for other peers.

From the perspective of this research, several important elements are required for building a P2P application on the JXTA platform such as peer start-up, rendezvous start-up, query in JXTA and discovery operations. There is also a need to be familiar with the existing techniques for discovering resource contents available in the network. The discovery operation is important for identifying the location of the required resource contents. Normally, the super-peer network discovers resource contents through propagation in the presence of a rendezvous peer and SRDI. This propagation usually utilizes the cached advertisements that have been locally or remotely advertised by a peer. The prototype's architecture in this research proposes an extensive use of direct propagation.

In a typical direct propagation, the peer has to establish a private network with the target peer that has the required resource contents. These peers may know one another from the private network and they can then directly propagate with each other. In contrast, the proposed direct propagation utilizes the query history information to identify the location of resource contents. Furthermore, the use of query caching facilities should shorten the query re-writing process, meaning that the initial query does not have to go through the schema integration process, as in the shared resource based heterogeneous schema. The next section clarifies the architectural and system design of this proposed approach on a JXTA platform while showing the use of JXTA as the platform in this implementation.

5.4. **Architectural design**

This section describes in details the development of the prototype of the proposed approach that is piggy-backed on a standard super-peer network using JXTA as the P2P platform. Section 5.3 has specified the compulsory elements that must be taken into account in order to prove the approach of this thesis. This section clearly separates the existing processes in JXTA from the components that will support the proposed approach. As can be seen in Figure 5.1, JXTA and the proposed services are obviously separated in the P2P application. The JXTA services depicted in Figure 5.1 are those services that are related to this prototype. However, the full

JXTA service architecture can be referred to in several articles on JXTA (Gong 2001, Oaks, Traversat et al. 2002, 2007, Wilson June 15, 2002).

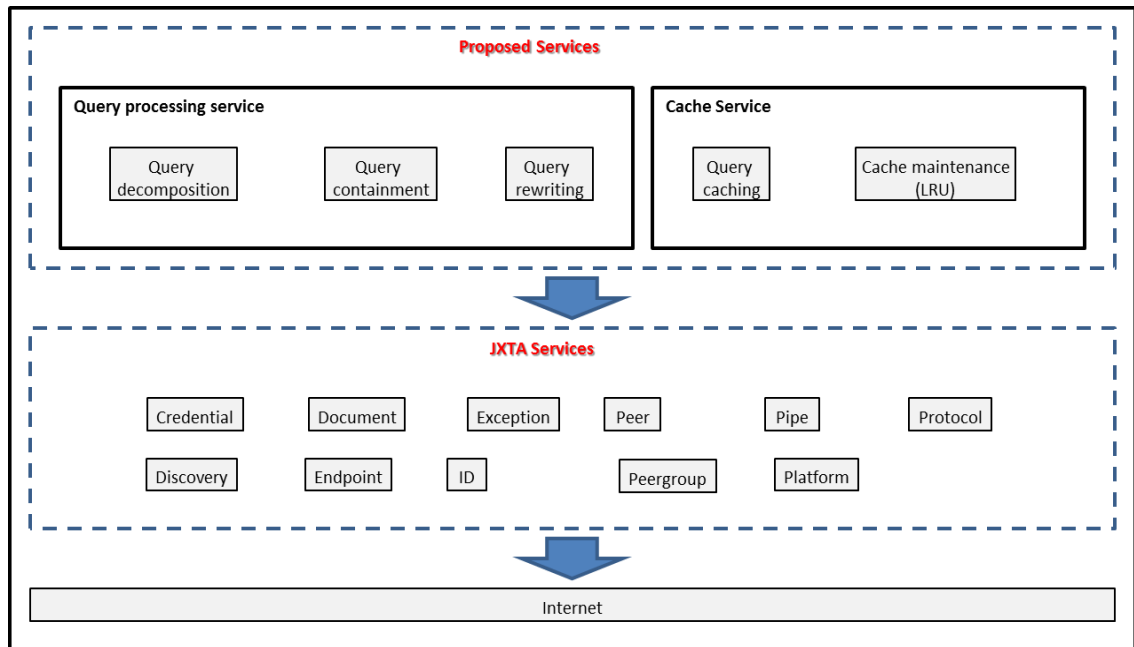


Figure 5-1 System architectural design

The two proposed additional services represent the implementation of this PhD's research ideas and provide query processing and cache services. The query processing service consists of query decomposition, query containment and query rewriting, as described by Algorithm 2, Algorithm 3 and Algorithm 4 in Chapter 4, respectively. In addition, query caching and cache maintenance are respectively described in Algorithm 1 and Algorithm 5 in the same chapter. Note that the prototype does not provide a complete query processing as the prototype does not include a query answering process. The scope of this research is confined to query routing, specifically in identifying the required resource contents for directly propagated queries. Thus, the development focuses on identifying the target peer, preparing the query message to be sent to the target peer (identified using the caching mechanism), as well as the maintenance of the cached item. One of the major impacts of the proposed approach for query routing in JXTA is that a client-peer can directly send the query to some potential resource locations for the query results.

Several JXTA services are used by the prototype in this project. `Peer` and `Peergroup` are used respectively to create the peer and peer group in the P2P network. `ID` is the identification of the represented service or protocol. `Document` is a kind of advertisement message since an advertisement is actually an XML document. `Protocol` is the class to represent the JXTA service. `Platform` is used to represent the platform layer. `Pipe` is used for sending and receiving messages. Output pipe is used by the sender to give a direction (pointing) to where the message is to be sent; on the other hand, input pipe is used by the receiver to capture the incoming message and know where it is coming from. In short, pipe is considered as a peering point where it is pointing toward a message that will be sent to and pointing from where the message is coming from. `Discovery` provides the discovery feature, either local or remote discovery. Local discovery provides the discovery function within the same peer group, while remote discovery is within different peer groups. `Credential` is part of the security service that relates to permission, such as permission to join the peer group or to send and receive an advertisement. `Endpoint` provides the function which determines routes between peers in the JXTA network.

The process system flow shown in Figure 5.2 enables a comparison between ordinary query processing and the proposed query processing services that will be embedded into the ordinary query processing tasks. The inputs for both types of querying processing are the same, namely query strings, Q . Each query will request several data items that may come from several resources. In the ordinary query processing, Q will be decomposed into a single query block, where each query block will be reformulated into an algebra notation. Query reformulation is done based on notation used in statistical tables of the query processor. Then the query block is ready for further query processing tasks. The phase for ordinary query processing was explained in Section 4.2. However, in the proposed approach, Q will be decomposed into a single required datum, labeled q , that needs to be retrieved. Both approaches will need the required data to be retrieved and delivered to the requesting peer.

Once q is captured, each q will be checked for query containment. Query containment checking is used to identify the existence of query history in the cache. If the matching is successful, the target data location will be identified; otherwise, the unmatched query will be sent back to the ordinary query processing task. This is shown by an arrow going from the query containment block to the query reformulation block in Figure 5.2. The equation $q \notin c$ is

used to represent the successful query match with the cached query during Query Containment. q is a small portion of the query string. If the Query Containment returns an unsuccessful result, the proposed process will not be able to proceed and execution is diverted to ordinary query processing.

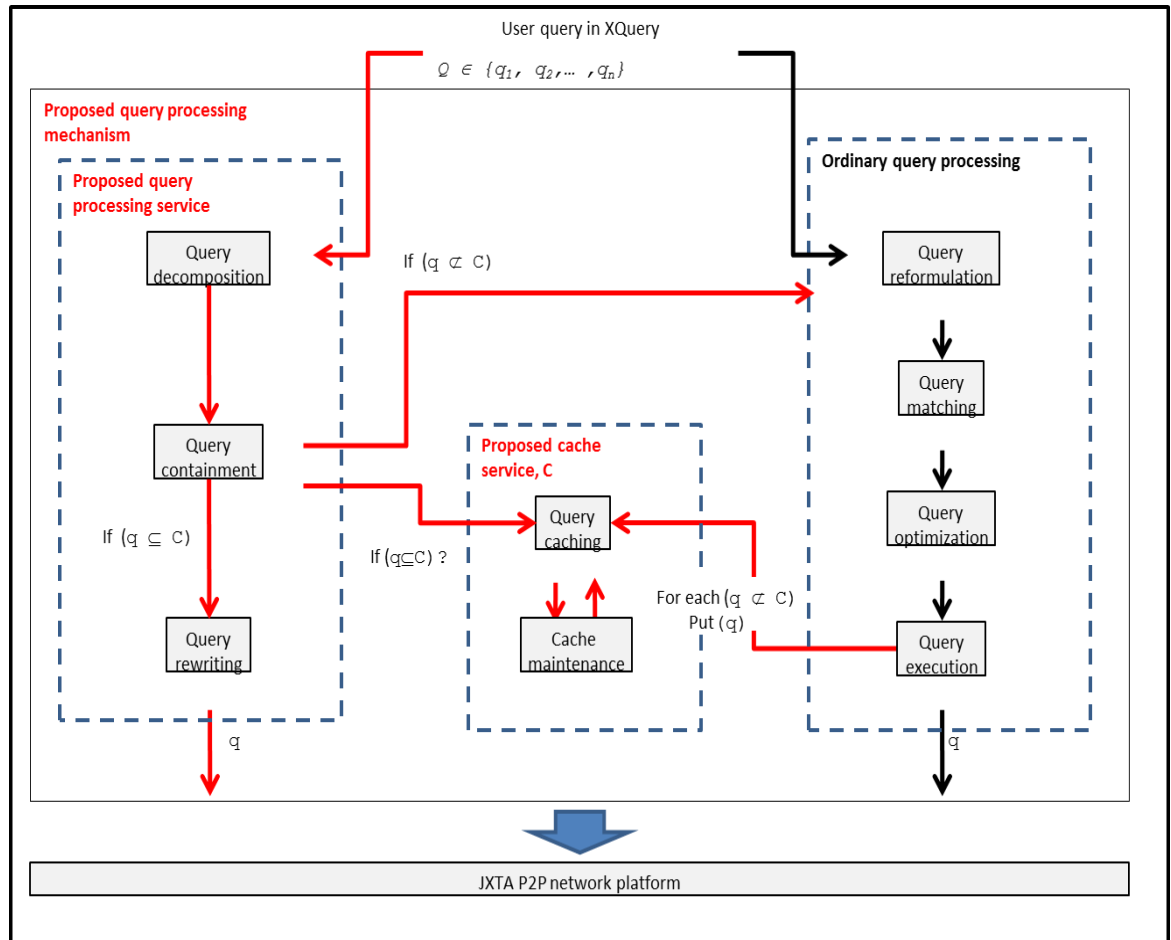


Figure 5-2 Block diagram of the process system flow

The query re-writing process occurs when matched data items are found. Each q that matches a cached data item containing the target data locations will be reconstructed. The reconstruction is a process of re-arrangement of target data location by the required data (which is the required resource content). For each target data location, a sub-query will be re-written based on the cached data item that matches the result. The sub-query is then sent to a single resource asking for the specified resource content(s). Since the re-writing is actually a

query re-construction based on the previous cached query, the re-writing process is faster than ordinary query rewriting, which has been proven by other query caching research (Kacimi and Yetongnon 2007, Garrod, Manjhi et al. 2008, Watanabe and Kitagawa 2010). In this research, the exact time for query re-writing is not specifically recorded because query re-writing for the cached query is considered part of the proposed query processing mechanism before query routing. Thus, the re-written sub-queries are ready to be sent to their target locations.

5.5. System design

The proposed system design is presented as UML diagrams, starting with UML packages as an architectural diagram which are followed by class diagrams. Package diagrams are used to reflect the actual Java package organization, where each package represents a collection of logically related class elements. Figure (a) in Appendix 3 shows several UML packages, which are used to represent the system module. The simulation package is dependent on the 'ProposedQueryService' package that contains the proposed query services. The simulation package will be used in the experimental setup in the following section to evaluate the proposed approach. The reasons for representing system design of the proposed using class diagram are: (i) Class diagram is one of the object-oriented design approaches. Thus, it would closely represent system implementations of object-oriented programming such as Java; (ii) Class diagram is used for representing object used in a sequence diagram. Sequence diagram is used as a medium to compare several routing approaches in the next chapter. Thus, the use of a class diagram is highly related with the project contribution.

All Java classes that have been developed for each package within the `ProposeQueryService` are also depicted in Figures (b) to (e) in Appendix 3. The JXTA classes that are involved in the simulation package are shown in Figure (f) of the same appendix. Client-peer and super-peer, created as two separates classes, are the main objects of the simulator. The client-peer and super-peer classes are implemented on JXTA, which is the backbone of the simulator. The next section will describe the experimental setup using the prototype as proposed for this research.

5.6. Experimental setup

The effectiveness of the proposed approach is evaluated through a prototype simulation. The prototype is written in Java, and it manipulates the JXTA platform which is also written in Java. The purpose of the simulation is to study the performance of various query routing strategies. The prototype is developed for several reasons: (i) to record the query routing time in an ordinary super-peer network in JXTA platform; (ii) to compare the routing time when the proposed approach is embedded in specified peers; and (iii) to record the time taken for each operation to run on the peer and super-peer. Typical operations that take place in a peer and super-peer were discussed in Section 5.3. The time taken to complete an operation is measured based on the local computer system time and it is required in order to scale-up the number of query messages and percentage of cached query usage. The scale-up is needed to find the optimal situation applicable to the proposed approach.

This section elaborates the time measurements for each routing approach. Performance evaluation analysis of the proposed model based on the measured execution time will be discussed in the next chapter. In order to measure the time required for each process, the main routing process is developed as a java class. Several classes make up a package that is used to represent a specified process which forms part of a complete query routing operation. The discussion on the experimental setup is divided into two parts, namely, the ordinary super-peer approach and the proposed approach to query routing.

5.6.1 Ordinary super-peer query routing

A peer typically performs a series of operations during query routing. The measurements of the time required to accomplish these operations are taken as the goal of identifying the cost of each operation and to allow comparison with the same measurements for the proposed query routing process. Performance results of typical query routing operations indicate the responsiveness of the super-peer to the query routing. The process flow for a typical super-peer query routing is as follows:

1. Start-up the super-peer.
2. Start-up the peer (p).
3. Once the JXTA network is started up, the peer is allowed to send the message.
 - a. Peer sends query to the super-peer.
4. Super-peer receives the query. The TTL value for the query message is decreased by 1.
5. Super-peer sends query to its index (SRDI), which provides relevant information (if any is held). The information returned by the index is the routing direction information (ri) for finding the answer to the query.
6. If the SRDI does not contain enough information to answer the query, then
 - a. If the TTL value does not exceed the limit, the super-peer will re-send the query message to the neighboring super-peer(s).
 - b. Go to step '4'.
7. For any ri returned by the super-peers' index as available,
 - a. The super-peer will send the ri to the sender (back propagate) until it reaches peer p .
8. Peer p will re-write the query according to the schema used by the target location and send the query and/or sub-query message(s) to the location as specified by the ri from step '7'.

In order to run this process, the following must be prepared:

1. A query in XQuery language.
2. Relevant entries to the super-peer's index, being the content of the SRDI.

Besides the typical query routing, another experimental setup is prepared for the proposed pre-processing to be used in super-peer query routing as discussed on the next sub-section.

5.6.2 Proposed pre-processing for query routing

The query routing process used in the proposed pre-processing mechanism on top of the typical super-peer network is as follows:

1. Start-up the super-peer.
2. Start-up the peer (p).
3. Once the JXTA network is started up, then the peer is allowed to post a query.

- a. The peer invokes the pre-processing mechanism for query routing
4. The peer retrieves the relevant cached queries from the list (if any). The returned information is the cached queries (*CQ*) that determines the target location and the query message that can be used to re-send the query.
5. If the cached list does not have enough information to answer the query, then
 - a. Go to step 5 of the typical super-peer query routing.
6. Peer p will re-construct the *CQ* according to its original query and send the re-constructed query and / or sub-query message(s) to the location as specified by *CQ*.

In order to run this process, the following must be prepared:

1. A query in XQuery language.
2. An initialized query cached list. The list may contained several cached queries that have been pre-stored, or could be an empty list.

The time consumed on every step of this process is measured for ordinary super-peer query routing as well as for the proposed pre-processing for query routing settings. The testing environment for both settings is described in the next subsection. Both settings are observed in the same testing environment since the goal is to identify and examine bottlenecks, performance limits, behavior patterns and effects of different parameters in a comparative evaluation rather than looking at the absolute running time.

5.6.3 Testing environment

Two computers are used as the hardware for executing the tests. These computers are used for capturing the time taken to complete each task identified in the ordinary super-peer routing approach and the proposed routing approach. Each computer is equipped with Intel 3.00GHz CPU and 3325MB of RAM. Both computers are located and connected to the LAN within Internet campus at 100Mbps on IPV4 within University of Malaysia Pahang in Malaysia. Operating system used in both computers is Microsoft Windows Vista 6.0, and the compiler for prototype is Java 6 updates 20.

Three main peer configuration modes are activated on a single computer: (i) a client-peer (full-edge peer) p which is the query owner, (ii) a super-peer (rendezvous peer) for p , and (iii)

another super-peer which is the neighboring super-peer for the purpose of re-sending the query. Other peers and super-peers that will be contacted for query answering purposes are not prepared in our simulation because this research is focusing on discovering the location that obtains the query result but not processing the query answering. Simulation for query message broadcasting to the entire network is not included in the prototype as the intention of this simulation is just to record the time taken for one complete cycle of query routing. The process of re-sending the query to another cluster (re-routing) can be analyzed by multiplying the time taken for each segmented process. The multiplier for each segmented process is closely related to the steps taken in query routing. The time multiplication is executed for query routing analysis and the routing analysis is discussed in the next chapter.

In a hypothetical scenario, upon start-up each peer performs a pre-defined set of operations, discussed in Section 5.6.1. During start-up, a peer is configured to the network in a specified mode (either 'edge' or 'rendezvous'), joins the peer group, and opens a pipe connection. The peer configured using the 'edge' mode joins the network as a client-peer, while the 'rendezvous' mode is used when it joins the network as a super-peer. For a super-peer, the SRDI (Shared Resource Distributed Index) is started as the routing index. Then, the routing index will search the routing directory for any incoming query message that is received in `Pipe`. The incoming query is routed to neighboring super-peer(s) that has been identified as the specified routing direction.

In this testing environment, super-peer(s) and client-peer(s) are placed within two computers that have been specified earlier; factors caused by the network that affect the query routing will not be taken into account in the analysis. Instead, it is focused on the effect of query routing on super-peer and client-peer nodes. In short, the standard segmented processes involved in a client-peer are: start the JXTA platform as an edge-peer, join the existing peer group, and open pipe in readiness to send message. Meanwhile, the standard segmented processes involved in super-peer node are: start the JXTA platform as a rendezvous peer, join the existing peer group as super-peer for the group, open pipe in readiness to receive messages, open the super-peer index (SRDI), process the incoming message to search within super-peer index (SRDI entry), and process the incoming messages from the client-peer (edge message). The super-peer index is used for assisting any peer that is finding a location for query routing. The target location is identified with the intention of discovering query result

locations. In this simulation, time taken for each segmented process is recorded for 1000 cycles. The average time taken for each process is shown in Tables 5.1 and 5.2, which are then further analysed.

In this testing setup, a query message is pre-set as the input for a client-peer, relevant SRDI entries for the specified query are prepared, and also, some relevant cached data is prepared for the cached list as part of the initial process. Once the query is sent, the time taken for each operation identified in 5.6.1 on participated client-peers and super-peers is recorded. For a client-peer, time taken for starting-up JXTA, joining an existing peer group, and opening the pipe are recorded. JXTA start-up is required so that it can be identified as part of a JXTA edge in order to allow communication between JXTA peers. Joining a group in this setup is a default group, namely `NetPeerGroup`, which is then followed by a pre-defined peer group. Each peer is allowed to join more than one peer group simultaneously but joining `NetPeerGroup` is compulsory. Thus, every user-defined peer group is linked to `NetPeerGroup`. In a typical JXTA platform, each peer group is led by a super-peer. By joining the peer group, the client peer is logically connected to the corresponding super-peer.

At the same time, the super-peer also needs to be part of the start-up by joining the peer group and opening the pipe. In addition, the super-peer node is required to open the SRDI. Once the super-peer receives an incoming query message (either from a client peer within the peer group or a super-peer in another peer group), operations to get the SRDI entry for the incoming query message are executed. For the purpose of analysis, the time taken for each of these operations is recorded. The experiment for query routing is done by sending a pre-set query message for 1000 cycles. The pre-set query messages are set up as follows:

Query 1:

```
FOR $b in //book
WHERE $b/year = 2002
ORDER BY $b/title
RETURN $b/author
```

Query 2:

```
FOR $b in //book,
$t in $b/title,
$a in $t/author,
$p in $t/price
WHERE $t = "JXTA"
RETURN <result> {$a, $p} </result>
```

Query 1 and Query 2 are sent in sequence by a single client-peer. In this example, both queries are sent based on three different scenarios: (i) the typical super-peer routing approach with the required routing directions available in the super-peer routing index; (ii) the new proposed approach with the required routing directions not available in the cached list, and (iii) the new proposed approach with the required routing directions available in the cached list. Based on empirical observations, the time taken for typical operations is not influenced by the three scenarios that have been set. The average time taken is measured over 1000 simulation cycles for typical operations on client-peer and super-peer nodes. Collections of execution results and formulae used to summarize the findings are compiled in the appendices of the thesis. Appendix 1 and Appendix 2 provide samples of execution results, while Appendix 3 has the formula used to summarize the actual execution results into average time for the operations shown in Table 5.1, Table 5.2 and Table 5.3. These average times are used to plot the subsequence graphs to show the propagation of query routing. Appendix 4 shows the average time taken for different numbers of queries.

The results summarized in Table 5.1 and Table 5.2 show the time taken based respectively on the start time and end time for every operation executed. Symbol t is used to represent time for a specified process while the number represents a type of operation. A complete record for 1000 simulation cycles is listed in Appendix 4. The proposed approach contains several operations, including query decomposition, query containment, query rewriting and query maintenance. These operations are the modules in the developed prototype. Table 5.3 shows the average time for the specified operations when the proposed approach is executed. In the proposed approach, the cached list can be invoked at the same time as the typical peer operations are taking place on the same peer.

The purpose of the experiments is not to compare the actual time taken for the entire query processing. Instead, it is intended to compare the percentage of time difference in finding the target routing location due to the impact of the proposed query routing approach. Time taken for a complete query processing requires some other operation besides identifying target location for query routing. Besides that, time taken by the network for message delivery is not taken into account because the diverse situations on networks influences the time needed for transmission of messages. Thus, this experiment is mainly designed to show the impact of the

proposed query cached list when it is embed for query routing. Therefore, the significance of this experiment is to show the percentage of time difference when the proposed query routing approach is used compared to the ordinary routing. The experiment was executed in a controlled environment where the prototype was running with a pre-defined query message, and contents of cached data were obtained by specified peers. The sample query message used is shown as Query 1 and Query 2 above while the pre-set cache contents is as depicted in Table 4.1.

Table 5-1 Average time for operations on a typical peer in milliseconds

Peer configuration mode	Start JXTA	Join group	Open pipe	Open SRDI	Get SRDI entry	Get edge message	Discovery message
	t_1	t_2	t_3		t_4		t_5
Edge (client-peer)	4409	66807	68668	-	7085	-	59903

Table 5-2 Average time for operations on a typical super-peer in milliseconds

Peer configuration mode	Start JXTA	Join group	Open pipe	Open SRDI	Get SRDI entry	Get edge message
	t_6	t_7	t_8	t_9	t_{10}	t_{11}
Rendezvous (super-peer)	2700	1456	3334	2555204619170	20	2342

Table 5-3 Average time for operations of the proposed approach in milliseconds

Peer configuration mode	Query decomposition	Query containment	Query rewriting	Query Maintenance
	t_{12}	t_{13}	t_{14}	t_{15}
Cache mechanism operations	185	14	31	31

In a typical query processing, the routine operation starts with JXTA start-up, joining a default peer group, opening pipe connection for sending and receiving messages, and conducting resource discovery. These routine operations are provided by the JXTA community for P2P applications (community, Gradecki 2002, Verstrynge 2008). In this experiment, the duration of each operation is measured for each peer mode configuration (client peer and super-peer). The SRDI can be seen as the routing indices feature provided by the super-peer, and the 'Open

SRDI' operation is invoked by the super-peer. The content of SRDI is called 'entry'. The client-peer would be able to reach the SRDI entries through its respective super-peer. That is why the duration of the 'Open SRDI' operation is not specified for a client-peer, and the time taken for a client peer to get a SRDI entry is longer than the super-peer. The time taken to operate the 'Get edge message' process indicates the period for a message to be transferred from the client-peer to its respective super-peer. The time required for operating the 'discovery message' process is the duration of a peer discovering the existence of the surrounding peer(s) and super-peer, including their shared data or services that are available.

The proposed query routing mechanism in this research requires additional operations in order to process the cached query, which include query decomposition, query containment, query re-writing and query maintenance. In this experiment, time is measured at client peer and super-peer nodes by simulating 1000 queries over 1000 cycles. Simulation cycles are divided into 10 different groups where each group manages 100 cycles using the same scenario. Each scenario is used to represent the same percentage cached query usage and the cached query is used to determine location for query routing.

As mentioned earlier, three types of scenarios are set in this simulation. The first scenario is a typical super-peer routing where the proposed query routing is not used and it indicates 0% usage of the cached query. The second scenario is when the cached query is invoked but the requested location is not fully available in the cached query. Since the incoming query message is decomposed into sub-queries, the process of discovering query routing location is done by a sub-query. The percentage of sub-queries that are able to find the query routing location from the cached query is indicated as the percentage of cached query usage. In this simulation, percentage of usage is segmented for each 10%. The third scenario is when the required location is fully identified from the cached query, indicating 100% usage.

For example, 100 cycles is used to measure the processing time when 10% of the queries is processed by the local super-peers' index and the other 90% of queries used the proposed query cached mechanism. The next simulation continues with 20% of the queries processed by the local super-peer index and 80% processed by the proposed query cached mechanism. The simulation continues until 100% of the queries are processed by the proposed approach. It is important to measure the query processing time with different percentages of query routing approaches in order to identify the effect of embedding the proposed approach on the local

peer processing time. The following section will discuss the effect of implementing the proposed approach on peers and super-peers based on different configuration settings.

5.7. Implications of implementing query caching on JXTA peers

JXTA peers can be divided into four different configuration modes: minimal edge peers, full-edge peers, rendezvous peers and relay peers. This section will discuss the implications when the proposed pre-processing operation for query routing is implemented on client-peer and super-peer nodes.

5.7.1 Implication on the client-peer

In super-peer network theory, every node in the network is able to act as the super-peer for a number of clustered peer nodes. So, the terms client-peer and super-peer are interchangeable for a single node. However, the term ‘client-peer’ in this section refers to ‘edge’ node for the configuration mode during the peer start-up. The discussion in this section is focused on the comparison of local processing time for the various percentage of the use of super-peers’ index and cached mechanism. The local processing time is measured at edge node during the simulation.

Assume that T is the cost of the local processing time at client-peer. $T(x_e)$ is the cost of using a typical query routing at the client peer level, while $T(y_e)$ is the cost of the query when the pre-processing query routing is piggy-backed onto a typical query routing. Therefore, the equation to represent the local processing cost at the client peer level $T(x_e)$ is:

$$\begin{aligned}
 T(x_e) &= 1(t_1 + t_2 + t_3) + n(t_4) + m(t_5) \\
 &= \sum_1^3 t_i + n t_4 + m t_5
 \end{aligned} \tag{1}$$

where t is the mean latency time for each operation as specified in Table 5.2, n is the number of times SRDI is accessed, and m is the number of message discoveries that need to be sent while searching for the specified data location.

To represent the proposed approach of embedding the pre-processing operations into the query routing, a second equation (2), which is similar to equation (1), has been formulated. The differences between two equations are the additional processes in the latter for query routing pre-processing. This refers to the internal cache list for its previous query information and the maintenance of the cached list operation. The cost of query routing with pre-processing is represented as:

$$\begin{aligned}
T(y_e) &= 1(t_1 + t_2 + t_3) + n(t_4) + m(t_5) + p(t_{12} + t_{13} + t_{14}) + q(t_{15}) \\
&= \sum_1^3 t_i + n t_4 + m t_5 + p \sum_{12}^{14} t_j + q t_{15} \\
&= T(x_e) + p \sum_{12}^{14} t_j + q t_{15} \tag{2}
\end{aligned}$$

where p and q are variables which represent the number of hits that requires query pre-processing and cached-list maintenance operations, respectively. In this case, the term ‘hit’ means to invoke the required operations, while p and q are mutually exclusive variables.

The cached list operation will not be hit if the pre-processing cannot match any cached queries in the cached list; thus the query routing will return to the typical route. If this is the case, the result from the typical route will be inserted into the cached list. In short, q is the number of new cached queries cached by the list. This means that p would not be 0 if q is greater than 0, but q may be 0 if the pre-processing is able to return the matched cached queries. Note that t_{12} to t_{15} are referred to in Table 5.3, where they specify the mean latency of the proposed query routing operations. Thus, if C represent the additional cost for cached list processing, then

$$C = p \sum_{12}^{14} t_j + q t_{15} \tag{3}$$

and the cost of query routing with the query processing at the client peer level, $T(y_e)$ is:

$$T(y_e) = T(x_e) + C$$

Comparison of processing times for a typical query routing ($T(x_e)$) with embedding the proposed approach that requires pre-processing using the cached query mechanism ($T(y_e)$), is shown in Figure 5.3. In the figure, 0% of the proposed mechanism means that the query is completely routed using the local super-peer routing index, while 100% indicates that the query is completely routed according to the local-peer cache using the proposed approach.

Similarly, 10% of the proposed approach mechanism usage indicates the processing time for 10% of the posted queries are routed using proposed mechanism and 90% of the queries are routed using the local super-peer routing index, and so on.

Based on the results captured, the use of a cached query mechanism for query pre-processing before query routing would be able to reduce the processing time for determining the query routing direction. In addition, analysis of the total processing time indicates that additional pre-processing required by the cached query mechanism does not overburden local node processing.

Figure 5.4 shows the stacked column graph for the same query routing measurements as in Figure 5.3. Five values used in the legend of both figures are the variables which are part of the processing time, T . The value of 'default', 'm' and 'n' are part of the typical query routing process that require the super-peer's index involvement. The value of 'n' that represents the number of times the SRDI is accessed is shown in Figure 5.3, while 'n' in Figure 5.4 shows that the processing time is proportional to the number of query messages being processed. Thus, Figure 5.4 shows the use of the proposed query mechanism does not have a great impact on increasing the processing time. The values of 'p' and 'q' in Figure 5.3 show that the processing time still remains the same when the usage percentage is increased. Figure 5.3 also shows that the time taken by the proposed method does not increase when the usage percentage is increased. Therefore, the proposed mechanism does not burden the local peer.

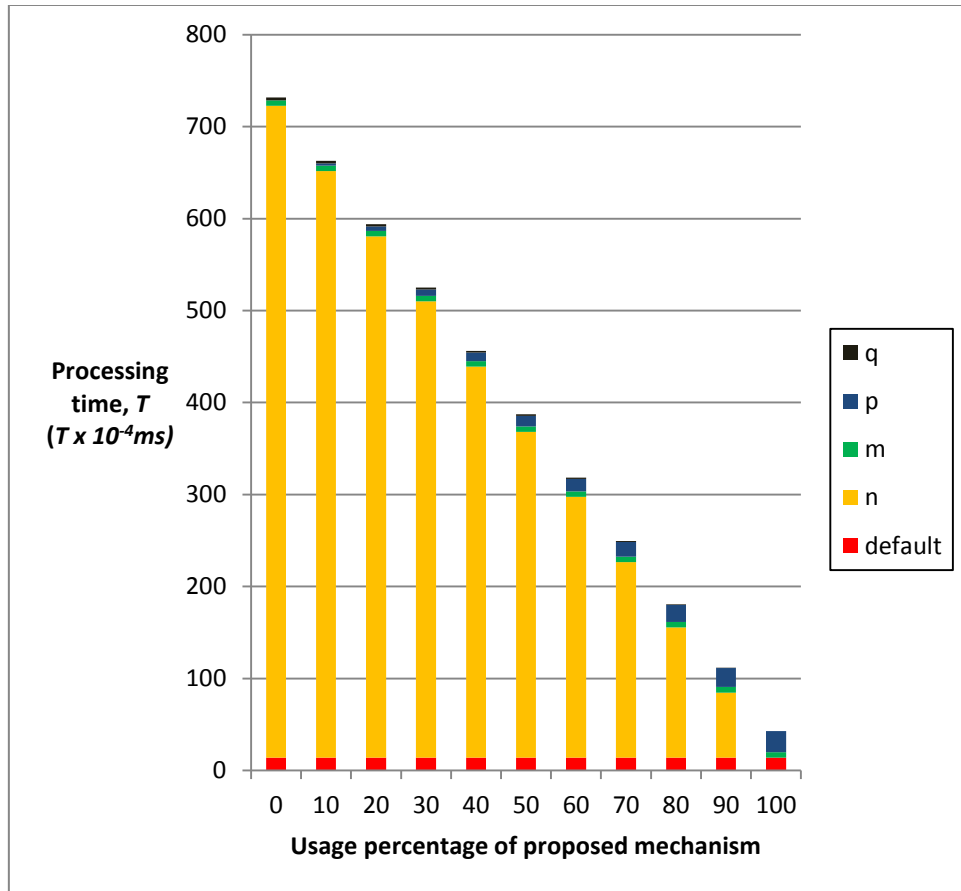


Figure 5-3 Comparison of query processing time for various percentages of cached mechanism usage at client-peer (edge) in milliseconds at client-peer node

Figure 5.4 is used to compare the percentage of processing time required by each process component, namely, the variables involved in T . The variables are shown as 'default', n , m , p and q . The 'n' represents the multiplier for t_4 , which is the process of getting the SRDI message. As shown in Figure 5.4, the values of 'n' remain dominant, although only a small percentage of queries used the typical query routing (where the super-peer index is used). For example, the value of 'n' requires up to 60% of the processing time even though the typical query routing involves only 10% of the query, while another 90% is processed by the proposed mechanism.

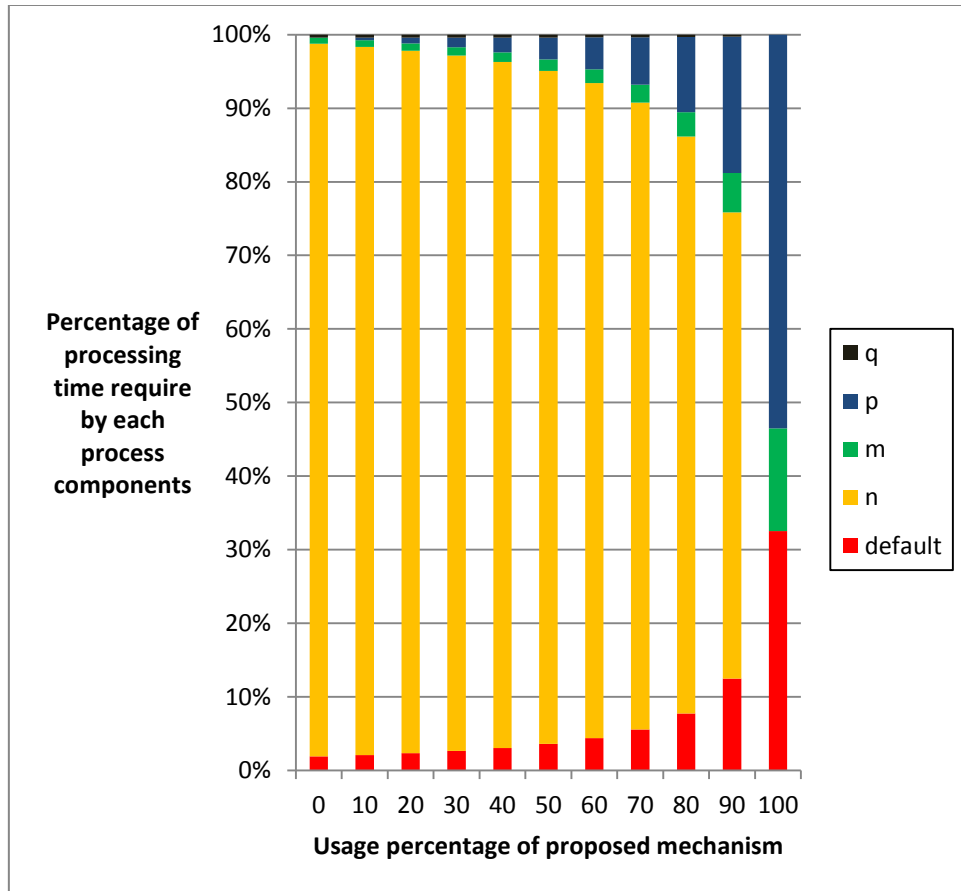


Figure 5-4 Comparison by percentage of processing time require by each process components at client-peer

5.7.2 Implications on the super-peer

Theoretically, a super-peer can act as a client-peer from the P2P network perspectives, but the super-peer in this section refers to a peer where the configuration mode is declared as type ‘rendezvous’ during start-up. In this case, a typical query routing by the super-peer ($T(x_r)$) can be represented by equation (4) :

$$\begin{aligned}
 T(x_r) &= 1(t_6 + t_7 + t_8) + r(t_9) + s(t_{10}) + u(t_{11}) \\
 &= \sum_6^8 t_i + r t_9 + s t_{10} + u t_{11}
 \end{aligned}
 \tag{4}$$

where r indicates the existence of an indexed search support. The value of r is either 0 or 1. r describes the situation in which the SRDI index is supported by the super peer, otherwise r is 0.

S is the frequency of hitting (making a connection with) the SRDI and u is the number of query routing requests by the client-peer. If r is 0, then s must be 0 as well. In addition, r must be 1 if s is greater than 0 because a super-peer initiates the connection to the SRDI before requesting SRDI entries. Also, s would only be more than 0 if u is greater than 0, since the request for a routing service would require a super-peer to hit its SRDI.

A super-peer may obtain the cached list for invoking the pre-processing in order to assist the query routing. For that reason, the local cost at the super-peer is represented as equation (5).

$$\begin{aligned}
 T(y_r) &= 1(t_6 + t_7 + t_8) + r(t_9) + s(t_{10}) + u(t_{11}) + p(t_{12} + t_{13} + t_{14}) + q(t_{15}) \\
 &= \sum_6^8 t_i + r t_9 + s t_{10} + u t_{11} + p \sum_{12}^{14} t_j + q t_{15} \\
 &= T(x_r) + C
 \end{aligned} \tag{5}$$

To prove the effectiveness of the proposed approach, equations (4) and (5) are compared. Once again, data collected in Table 5.2, 5.3 and 5.4 are represented in three graphs, which are Figures 5.5, 5.6 and 5.7. The number of query messages is up to 100,000 messages. The message is divided into 10 different scenarios according to percent of use of the proposed mechanism with respect to the typical routing that uses the SRDI in super-peer index. There are 10 different sets of percentages, starting from 0% to 100% of the queries being processed using the proposed cached mechanism. As before, 0% of the proposed mechanism means all the queries are processed on a typical routing approach.

Comparison of processing times at the super-peer node is shown in Figure 5.5. According to equation (5), there are five variables involved, which are: ' r ', ' s ', ' u ', ' p ', and ' q '. Figure 5.5 only shows the value of ' s ', ' p ' and ' q ', which are, respectively, the number of times the SRDI (t_{10} : get SRDI entry) is executed, the number of times the cached mechanism ($t_{12} + t_{13} + t_{14}$: execute the cached query mechanism) is executed, and the number of times the cached-list maintenance is executed. The main concern is to compare the percentage of time taken when executing the SRDI-related components compared to executing the proposed mechanism (represented by the value for ' p ' and ' q '), so other variables such as ' r ' (t_9 that indicates the existence of index support) is omitted. In addition, the value of ' r ' is too large to be

meaningfully compared to other processing times. The number of query routing requests by the client-peer ('u') is represented by the fixed number of 100,000 query requests.

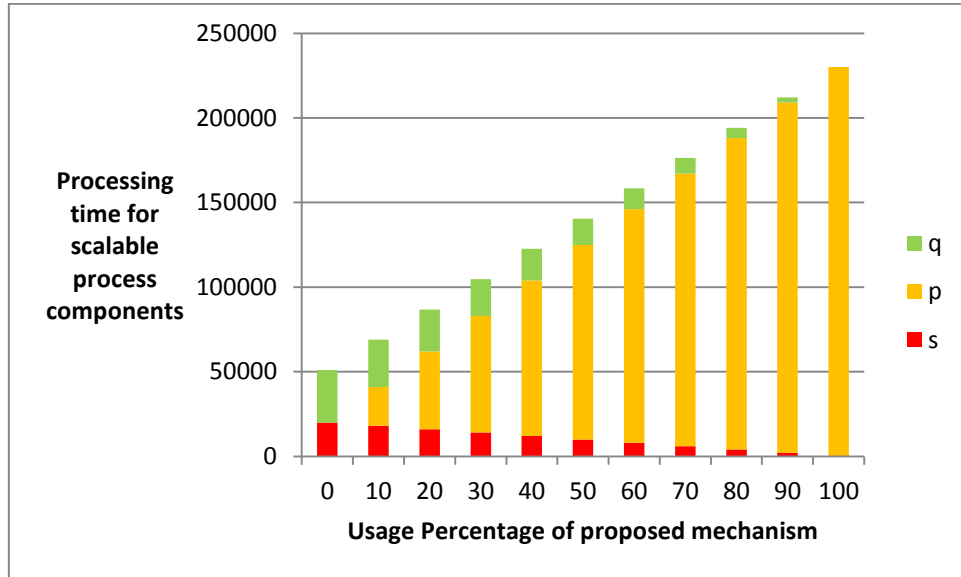


Figure 5-5 Comparison of query processing time at super-peer (rendezvous) between hitting SRDI and the proposed mechanism

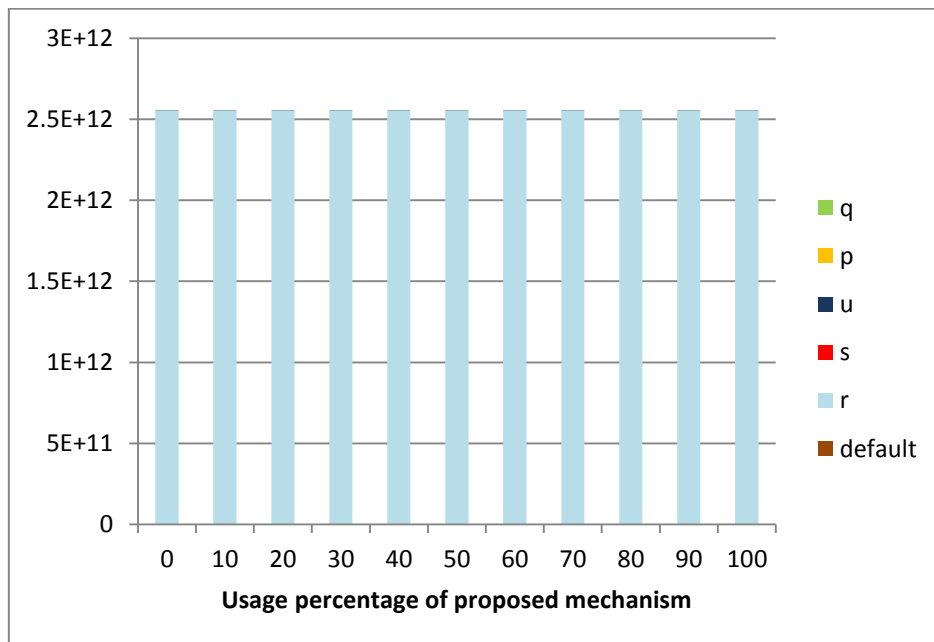


Figure 5-6 Comparison of query processing time at super-peer (rendezvous) between the entire variables in query routing

Figure 5.6 depicts a complete comparison for the entire variables that contribute to query routing time. In the figure, the value of 'r', the time for opening the SRDI to indicate the SRDI index support, dominates the entire processing time. 'r' is more than 25×10^{-11} ms. Processing time for other variables requires less than 25×10^{-4} ms. Since the range of values is so high, it is impossible to see the differences when all variables are together within the same graph (if the time for 'r' is included).

Figure 5.7 shows a stacked graph to compare the percentage of processing time required by each process component. Variables used in equation (4) and equation (5) are 'r', 's', 'u', 'p', and 'q'. In the figure, the time taken for processes represented by 'default', 'r', 's', 'u', 'p', 'q' are compared. It is observed that the values of 'r' are again too dominant because the other values cannot be seen in the same graph. Thus, it is clear that the value of 'r' dominates the processing time at the super-peer node.

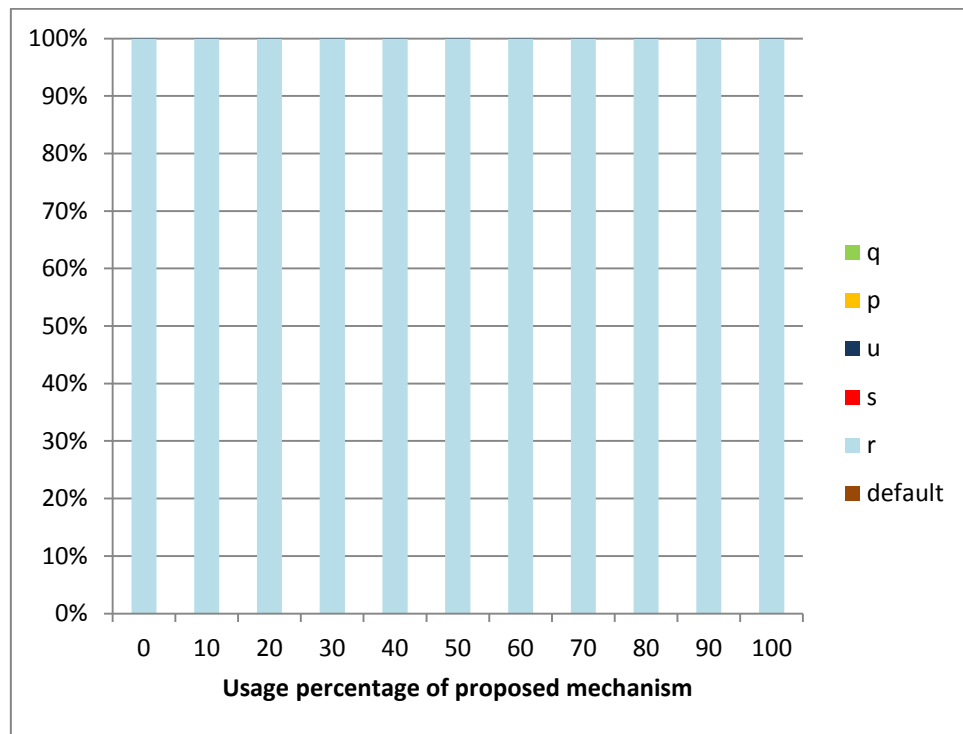


Figure 5-7 Value of 'r' dominates the entire processing time at super-peer (rendezvous)

This section has addressed the implications of processing time when embedding the proposed cached list as a pre-processing mechanism. The first comparison is of the query processing

time by each process component (represented by several variables in the legend) at the client-peer node where the query is routed by using the proposed mechanism in various percentages. The second comparison is focused on processing at the super-peer node where the query is routed using the proposed mechanism in various percentages again. Impact on processing time at the client-peer node and super-peer node is shown in Figure 5-3 and Figure 5-5 respectively. Meanwhile, the stacked graphs in Figure 5-4 and Figure 5-7 show the percentages of processing time required by various components of the query routing process; either they are coming from ordinary query routing or caused by the components of the cached query in the proposed mechanism.

Based on these two stack graphs, it is shown that processing time is mostly influenced by 'n' for the client-peer and 'r' for the super-peer. The processes represented by 'n' and 'r' are respectively the time to get the SRDI entry and to open the SRDI from the client-peer and super-peer node. Both processes represented by 'n' and 'r' are part of ordinary query routing and are not influenced by the proposed pre-processing mechanism. Therefore it can be concluded that the proposed mechanism does not create a significant burden on either the client-peer or the super-peer during query routing. Other implications resulting from the implementation of the pre-processing mechanism for query caching on JXTA peers will be analyzed and discussed in the next chapter.

5.8. Summary

This chapter has discussed how query caching has been implemented on the JXTA platform and how the experiment has been set-up in order to show and compare performance results, as measured by the local processing time (CPU time). The simulations described in Section 5.7 led to a number of graphs being plotted that compared processing times when the cached query is used at various percentages. Based on these analyses, it can be concluded that there is no significant effect on query processing time for client-peer and super-peer nodes that implement the proposed query caching mechanism. This means the savings in message transmission are not offset by overheads at the peers.

The discussion in this chapter is based on the impact of embedding the proposed approach on the performance of identifying the target location(s) for sending a query. The next chapter will

discuss the overall performance analysis and other implications resulting from implementing the pre-processing mechanism.

Chapter 6: **Performance Analysis**

6.1. **Introduction**

This chapter discusses the performance analysis of the proposed approach. A mathematical equation is set up for comparing the several routing approaches. The evaluation is described based on several scenarios with the intention of evaluating the performance of the proposed routing approach compared to the other approaches in these situations. Discussion continues by analyzing the effects of the cached query mechanism on query routing.

6.2. **Evaluation of query caching mechanism**

In this section, the evaluation model of a single equation that combines each node's processing time with the time for sending messages is produced. The equation consists of several variables representing specified operations, while a coefficient is used to represent the different scenarios. Processing time with its time units for each operation is based on work from the previous chapter. The keys to this evaluation model are Tables 5.2, 5.3 and 5.4 where fifteen types of operational processing times (denotes as t_i) are represented. To clarify the discussion, Table 6.1 lists each type of t with a description of what it is.

Several different routing scenarios will be discussed to illustrate the significance of the proposed query cached mechanism in a super-peer network. As far as the operations regarding the search for target data location is concerned, any process related to peer and super-peer start-up is omitted as the process began before the sending and receiving any messages. Moreover, the start-up time is the same for both networks (ordinary super-peer routing or one with embedded cached query). In addition, the start-up time does not affect the

operations for searching the target data locations. Thus, t_1 , t_2 , t_3 , t_6 , t_7 , and t_8 , are omitted in the subsequent equations.

Table 6-1 Description of each represented operational processing time (t) invoked by peer, super-peer, cached mechanism

Label	Operation Name	Description
t_1	Start JXTA by peer	To start-up a client-peer with configuration mode 'full-edge'. Default group joined is 'NetPeerGroup'.
t_2	Join group by peer	
t_3	Open pipe by peer	
t_4	Get SRDI entry by peer	One hop time of receiving the information on target data location from super-peer's index. The super-peer index is called SRDI in JXTA. A process for sending back the information from super-peer to the client-peer initiating the query.
t_5	Discovery message	One hop time of routing message to discover target data location(s). It is the mean time for a message sent from one node to the next in the same logical network while searching for a target data location to answer the query.
t_6	Start JXTA by super-peer	To start-up a peer with configuration mode 'redzvous'. Default group joined is 'NetPeerGroup'.
t_7	Join group by super-peer	
t_8	Open pipe by super-peer	
t_9	Open SRDI	Open the SRDI index which is the super-peer index. Then, search for required data location in SRDI index. If the required information on data location is found in SRDI (search result is 'true'), operation t_4 will be invoked to back-propagate the information. If the search result is 'false' the discovery operation will continue to its local client-peers and neighboring super-peers.
t_{10}	Get SRDI entry by peer	The operation for updating the SRDI information.
t_{11}	Get edge message	Acknowledgement message of t_5 operation. A process of receiving a message request from other peers.
t_{12}	Query decomposition	Operations related to the cached query mechanism.
t_{13}	Query containment	
t_{14}	Query rewriting	
t_{15}	Query maintenance	

Based on the query routing operations, an equation for determining the network performance (P) is:

$$P = ((t_5 + t_9 + t_{10} + t_4 + (b - 1)(t_5 + t_{11}))) + a((t_5 + t_9 + t_{10} + t_4 + b(t_5 + t_{11}))) + c(t_{15}) + d \sum_{i=12}^{14} t_i$$

where

a is the number of external super-peers involved,

b is the number of client-peers in the cluster (n) if the super-peer does not obtain the required data location or zero (0) when the super-peer obtains the required data location in operation t_9 . The value of t_9 is set based on the following conditions,

$$t_9 = \begin{cases} true: b = 0 \\ false: b = n \end{cases}$$

c indicates the existence of a cached query mechanism. Value zero (0) is assigned to c when the peer which initiates the query does not embed the cached query mechanism. Otherwise, a value one (1) is assigned. This condition is represented as,

$$\text{existence of cached query mechanism?} = \begin{cases} true: c = 1 \\ false: c = 0 \end{cases}$$

d is the number of sub-queries (nSQ) that have been decomposed from the initial query and will be processed by the cached query mechanism, if variable c has value one (1). Otherwise, d is zero (0). This condition is represented as follows,

```
if (c==1)
    d = nSQ
else
    d = 0
```

The following scenarios are used to illustrate the use of P . The difference in performance between the scenarios is illustrated using a UML sequence diagram. The diagram is based on the logical super-peer network's logical connections shown in Figure 2.7. Let us assume that only one query is processed in the following scenarios.

Scenario 1: Ordinary super-peer routing and the location of the queried data is locally captured in the super-peers' index

This scenario represents an ordinary query routing where the location of the queried target data is found in the super-peer's index. The flow of operations is represented as a sequence diagram shown in Figure 6.1. Each sequence is labeled with the relevant routing operation (t). Peer 1 represents the client peer, which is assumed to be the querying peer that has initiated the query, and SP1 represents a super-peer in Cluster 1 as in Figure 2.7.

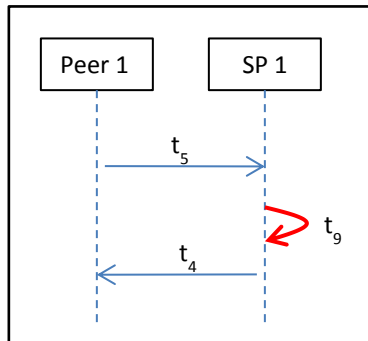


Figure 6-1 Sequence of operations for Scenario 1

In this scenario, the value of 'a' and 'b' for P is zero because only the local super-peer is involved and the location of the queried data is ready in the SP1 index. Therefore, t_5 is not propagated to the client-peers in Cluster 1. Thus, in this scenario

$$P = (t_5 + t_9 + t_{10} + t_4) + c(t_{15}) + d \sum_{i=12}^{i=14} t_i$$

Scenario 2: Ordinary super-peer routing and the location of the queried data is captured by external super-peers' index or is not captured at all

This is a continuation from the first scenario. The number of external super-peers involved in this routing operation is represented as 'a', while the number of client peers in each peer group (cluster) is assigned to 'b'. Thus, in this scenario, 'a' plus 'b' is '3', where 'a' and 'b' are the variables of the performance measurement equation (P) as mentioned earlier in this

section. The value for 'b' will be 0 if the required data is already captured by the super-peer. Figure 6.2 illustrates an instance in this scenario in which the location of the queried target data is found at Peer 4 in Cluster 2. Super-peer routing starts with the neighboring super-peers. As mentioned in Chapter 2, the re-routing will stop when the number of returned results has reached the target, or the number of TTL value for message re-routing is reached. Meanwhile, Figure 6.3 represents a scenario in which the location of the target data is not found, as it has not been captured by any super-peers. The query message is re-routed to Cluster 4, the neighbor of Cluster 2 and Cluster 3. In this illustration, Cluster 4 is only contacted by super-peers in Cluster 2. In an ordinary super-peer query routing, the same query message is not allowed to be re-routed to the same peer group (Crespo and Garcia-Molina 2002). Re-routing to the same peer nodes, known as 'blindly broadcast', will lead to query message flooding in the network. This message flooding normally occurs in pure P2P networks, where every query is blindly broadcasted to anywhere without mutual administration.

In this scenario, if the location of the target data is found in the super-peer's index, then the re-routing of messages to its client-peers would not be continued, as shown in Figure 6.4. Peer 4 is one of the client-peer in Cluster 2 coordinated by SP2. This illustration assumes that the data about Peer 4 having the target data has already been captured in SP2 index. Thus, no message is required between SP2 and Peer 4.

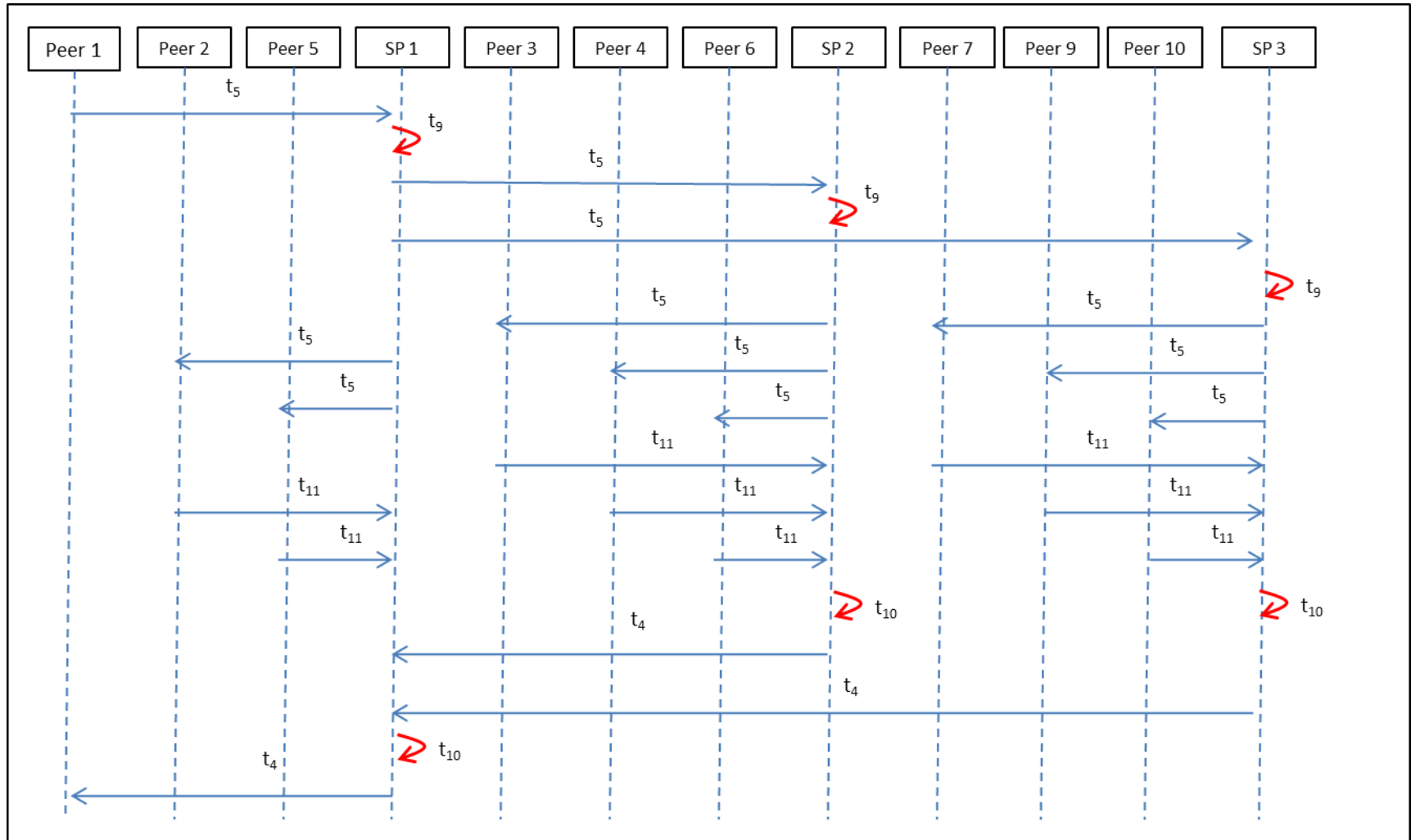


Figure 6-2 Sequence of operations showing query routing within neighboring peers of SP 1

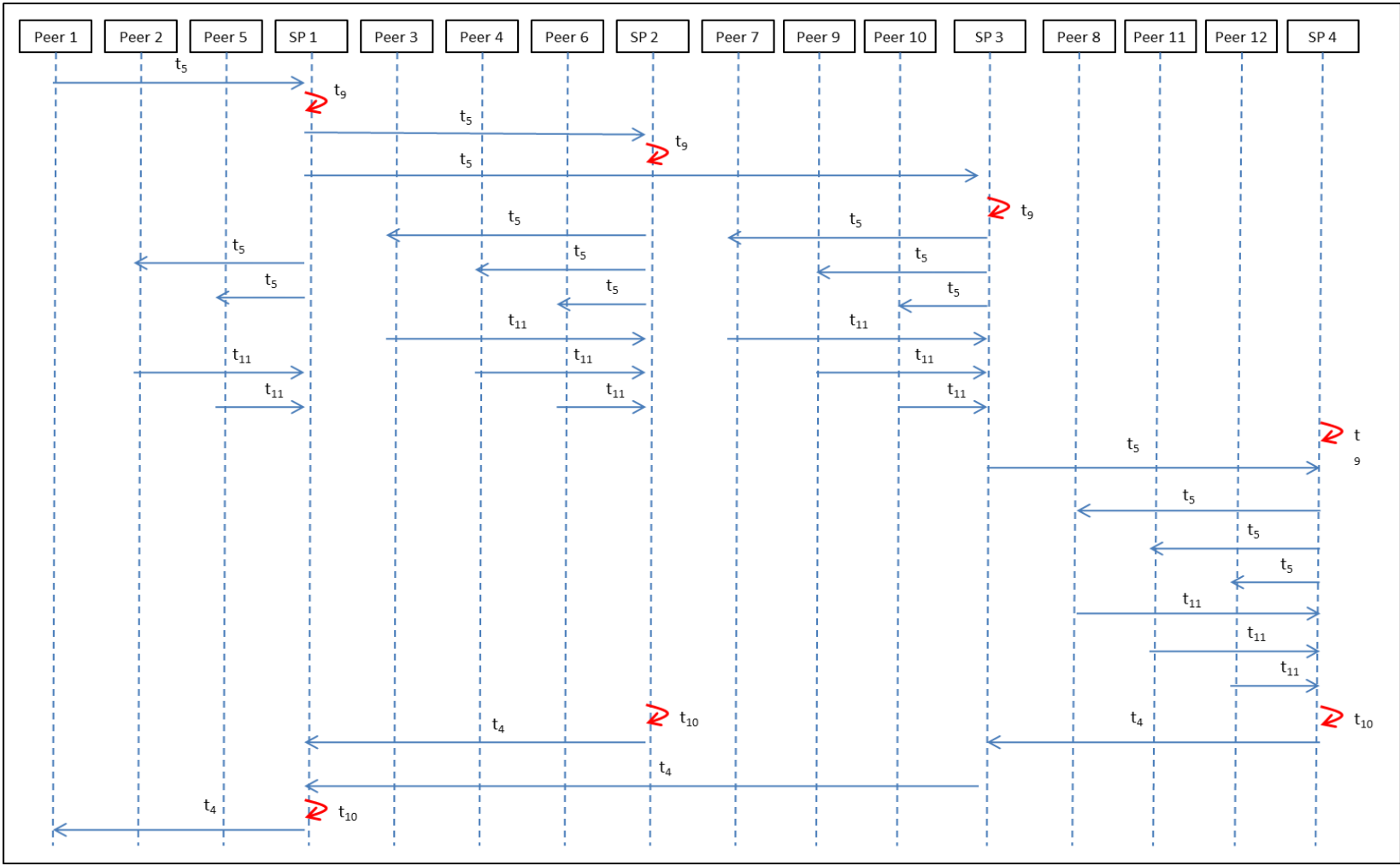


Figure 6-3 Sequence of operations to the neighbor of SP1

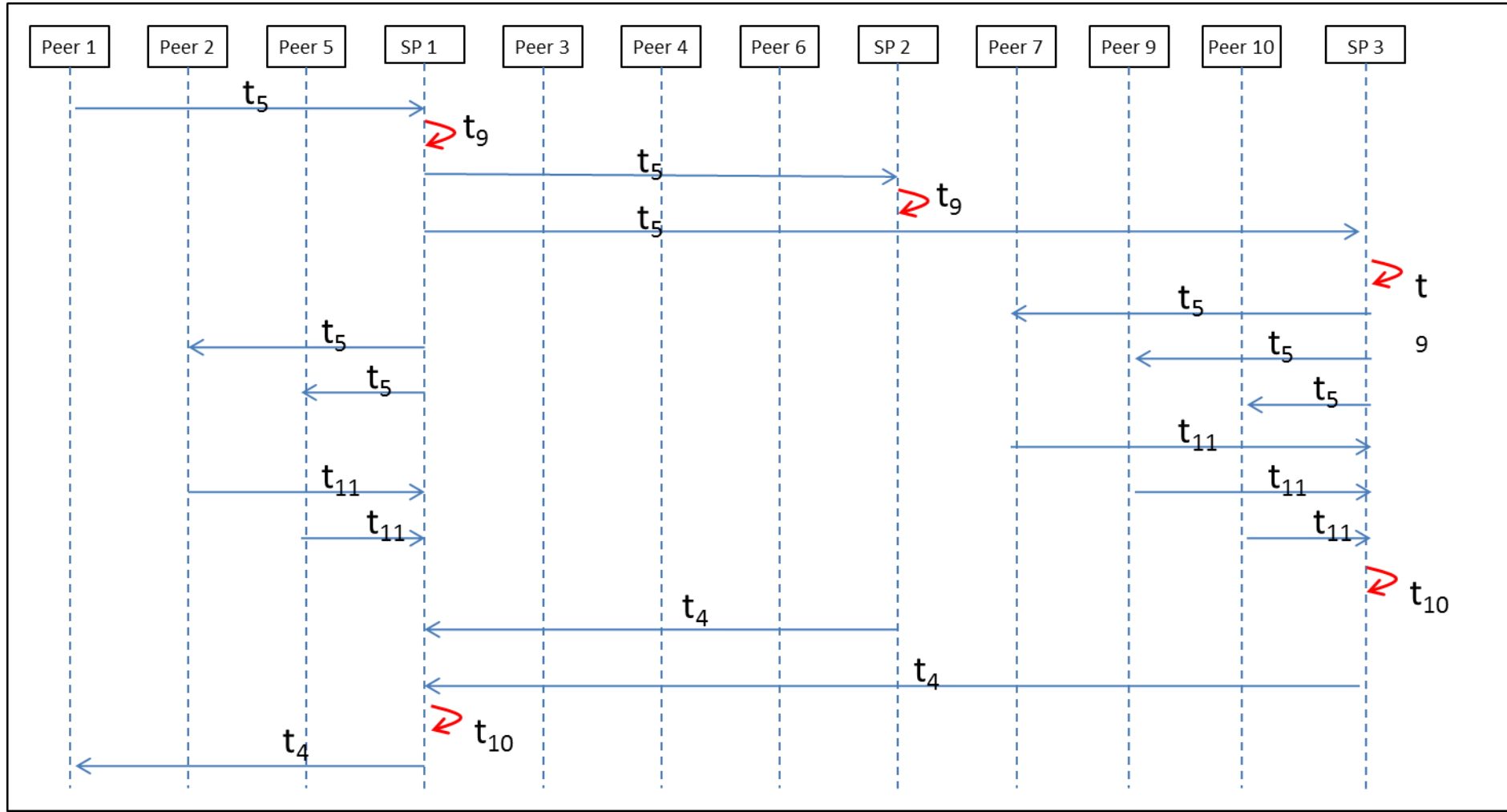


Figure 6-4 Location of the target data has already been captured in SP2

Scenario 3: Super-peer network with embedded cached query and the location of the queried data is already cached

The third scenario illustrates the super-peer network in which Peer 1 is equipped with the proposed query caching mechanism. Since the location of the required data for answering the query is already cached, there are no more message routings for the discovery of the target data as it has been identified. Figure 6.5 shows the flow of operations in Scenario 3.

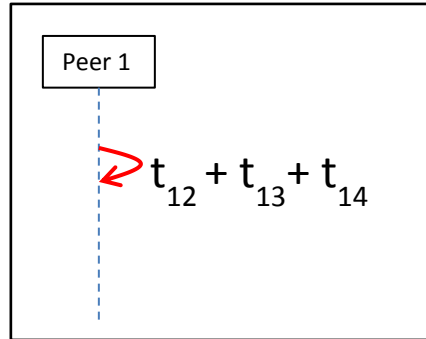


Figure 6-5 Sequence of operations for Scenario 3

Scenario 4: Super-peer network with embedded cached query but the location of the required data for answering the query has not yet been cached

In this scenario, there are three possibilities that could occur with regards to the location of the target data: the location is held at the local super-peer or at the neighboring super-peer level or it may not have been captured by any super-peers yet. When the required data is not found in the cached query mechanism at Peer 1, query routing follows the ordinary query routing as given for Scenario 1 and 2. However, operation t_{15} is invoked by the information returned by operation t_4 . Thus, for any repeating query or sub-query, Scenario 3 will take place. This situation is represented in Figure 6.6, in which Query 2 is similar or equal to Query 1 ($Q2 \subseteq Q1$), thus Q2 will go through the cached query processing operations which are t_{12} , t_{13} and t_{14} .

To highlight the significance of having the cached mechanism at Peer 1, let us compare the sequence of operations in Figure 6.7 for Query 1 and Query 2, where both locations of the queried target data are similar ($Q2_{loc} \sim Q1_{loc}$). This illustrates an ordinary super-peer query routing where the location of the target data for Query 1 has not been obtained by any peer. In this case, the information about the data location will be captured by the super-peers while

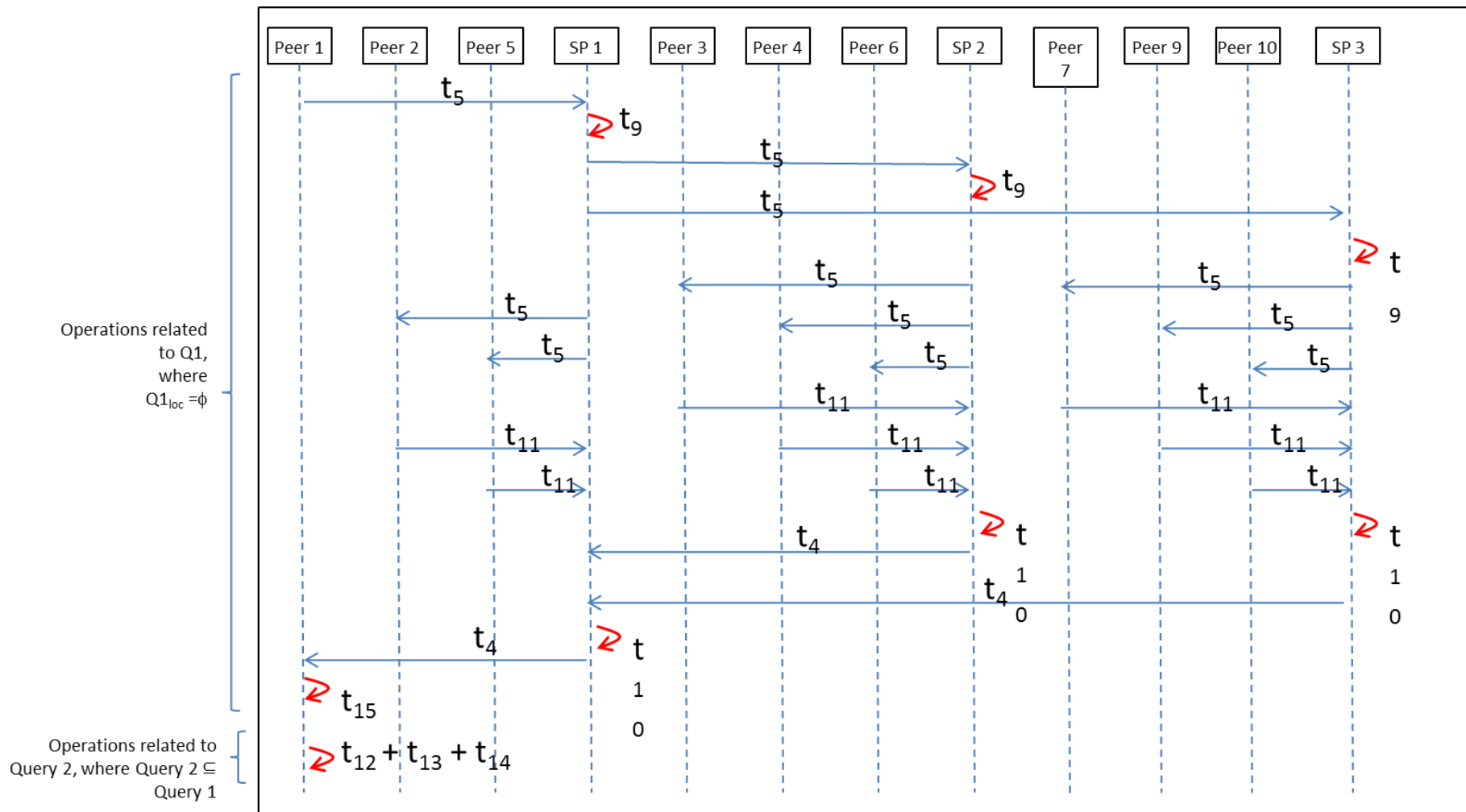


Figure 6-6 Sequence of operations for Query 1 and Query 2 where Query 2 is equal or similar to Query 1 while, Peer 1 embeds the cached query mechanism.

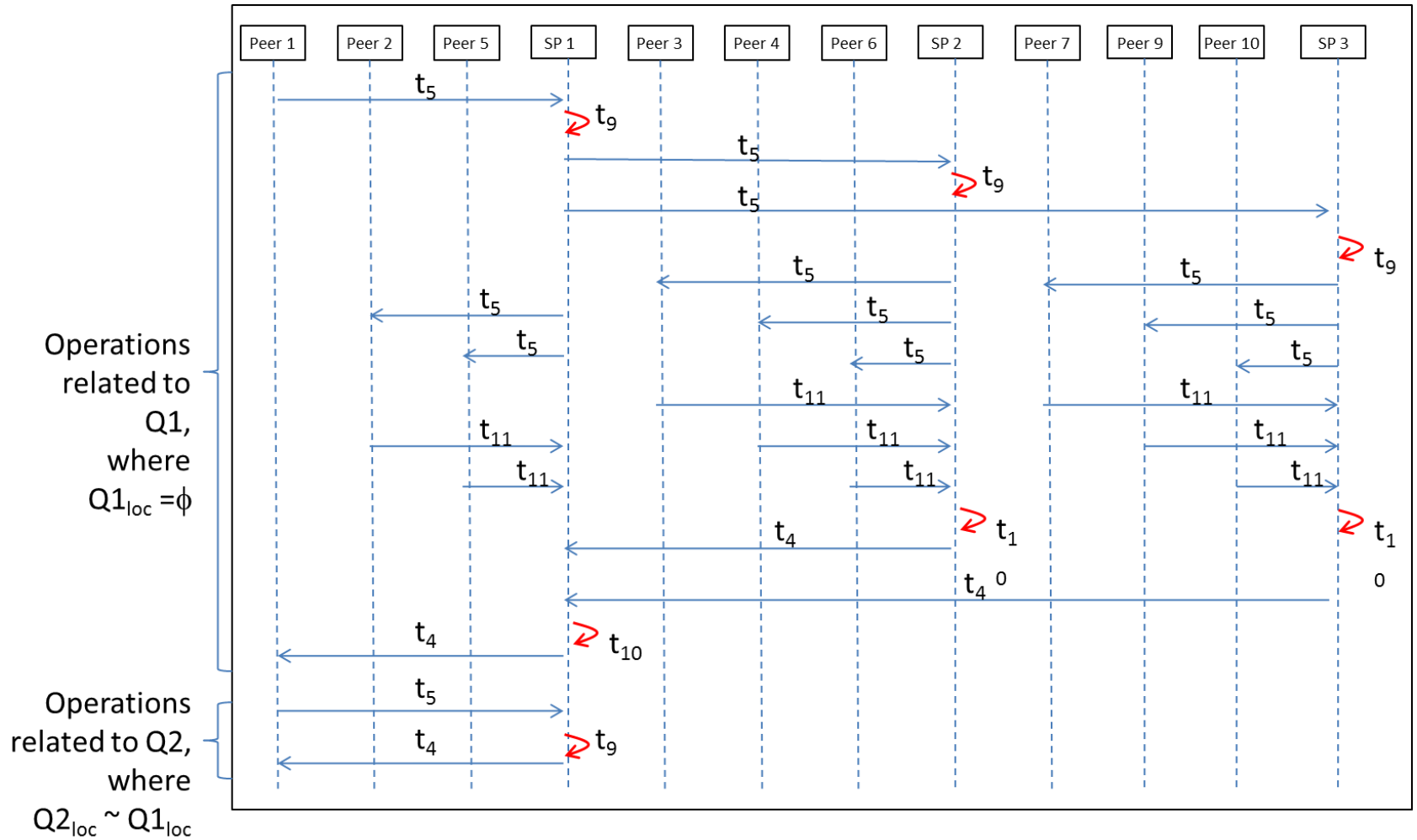


Figure 6-7 Sequence of operations for Query 1 and Query 2 where Query 2 data locations are equal or similar to Query 1 over an ordinary super-peer network

they back-propagate the returned result. Subsequently, Query 2 (that requires a similar data location) will only send a query message to SP1.

To conclude the consideration of the above comparisons, operation t_{15} is an additional cost when it embeds the cached query mechanism because operation t_{15} is invoked at a local cost to a peer, which embeds the cached query mechanism for every returned operation t_4 . However, the cached query mechanism would be able to reduce the invoking of operations t_5 , t_9 and t_4 that require higher processing costs compared to t_{12} , t_{13} and t_{14} . Cost comparison uses query processing time for preparing query routing and is shown in Figure 6.8.

The time difference between fully using the typical query (0% use of the proposed mechanism) and fully using the proposed mechanism (100% usage) is about 180,000 milliseconds for a query. The time difference is based on the average of 10,000 query messages initiated. The time difference is up to 3×10^9 per cent of time for processing a query routing using 100% of the proposed approach. This difference is big enough not to be compromised by network configuration differences, especially when the number of query messages is increased.

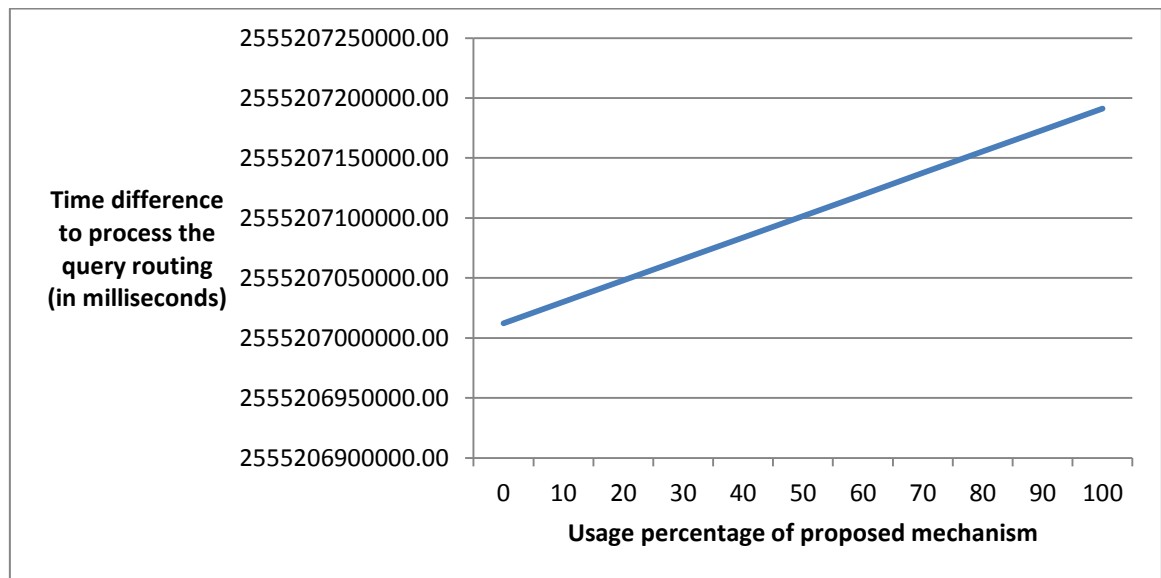


Figure 6-8 Differences in processing time for every usage percentage of the proposed approach

6.3. Analysis of the proposed approach

In order to analyze the advantages and disadvantages of embedding the cached query mechanism onto a peer, two principal simulations have been used to evaluate the caching performance. Firstly, analysis on the time taken to accomplish a query routing is done based on the simulation result. In other words, latency time for querying peer has to wait before sending a query to a specified location of the target data in order to get the query result. Secondly, comparison between three query routing approaches, which are: (i) the proposed approach, (ii) an ordinary query routing in a super-peer network (Gong 2001, Verstrynge 2008), and (iii) peer caching approaches (Beverly Yang and Garcia-Molina 2003, Kacimi and Yetongnon 2007) is analyzed. The peer caching is simulated on the ordinary super-peer network, but the super-peer index function is idle and is replaced with the cached mechanism. In (Kacimi and Yetongnon 2007), the cached mechanism is obtained by the selected peer, called the 'active-peer', which is not limited to super-peers. The analysis simulation is conducted in an experimental environment using 1,000 pre-set peers with 10,000 queries over the network. In contrast to the simulation mentioned in the previous chapter that is more focused on the processing time taken by every process components, this analysis simulation is used to capture the entire query routing processing time. The query processing is fixed to XQuery query processing on XML data file in order to ensure that the query processing time is unbiased. Amongst researches compared in literature as shown in Table 3.1, active-peer has the closest similar features to our proposed approach, where it is also piggy-backed on the super-peer routing and obtaining query caching for assisting query routing.

Analysis on the query routing time

Analysis of the impact of the cached query mechanism on query routing time is demonstrated in Figure 6.9. This figure shows the time taken by the querying peer to search for the location of the target data, which is needed to send a query and to retrieve the query result. At the beginning, the cache is nearly empty, and consequently, the percentage of queries generated by the cached query mechanism is almost zero. Thus, the time taken for query routing is approximately equal for the three routing approaches at this stage. Query routing time starts

to decrease for both approaches that use the cached query approach when the ‘cached query’ cache starts to store information regarding the query. In Figure 6.9, the results for the ordinary routing approach are shown in red. With the ordinary approach, the result shows that the increase in routing time is proportional to the number of queries because the number of repeated and similar queries will increase. Thus, the benefit of cached queries can be utilized in subsequent query routing. Once the cached query is utilized, the time taken for routing to the location of the target data will decrease. Comparing the blue line (indicates the proposed approach) to the green line (indicates the active-peer caching approach) in Figure 6.9, it is noted that the processing time for the proposed approach is always less than the active-peer caching; this is due to the participation of the client peers in the caching mechanism, which contributes to the reduction of the routing time.

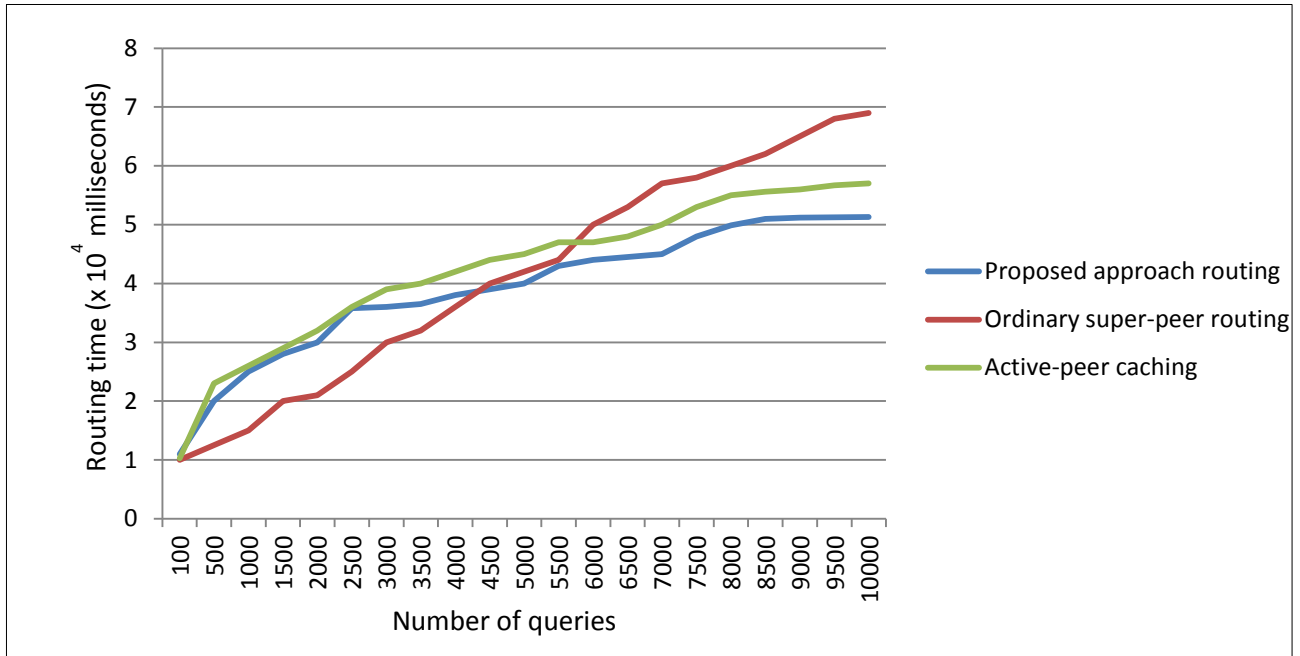


Figure 6-9 Impact of query routing time

Analysis on the participating peers

In conjunction with previous analysis of the query routing time, the analysis continues for the number of peers involved in query routing. The compared routing approaches remain the same as in the previous analysis in this section. The number of peers involved in query routing is shown in Figure 6.10; they act as mediators in message passing towards the location of the target data. A reduction in the number of participating peers in query routing is considered to

be efficient in order to reduce local processing time required by peers in the entire network. Figure 6.10 shows the impact of cached queries on the number of peers participating as mediators in locating the target data. It compares the number of peers involved in the proposed approach, the ordinary super-peer routing approach, and the active-peer caching approach.

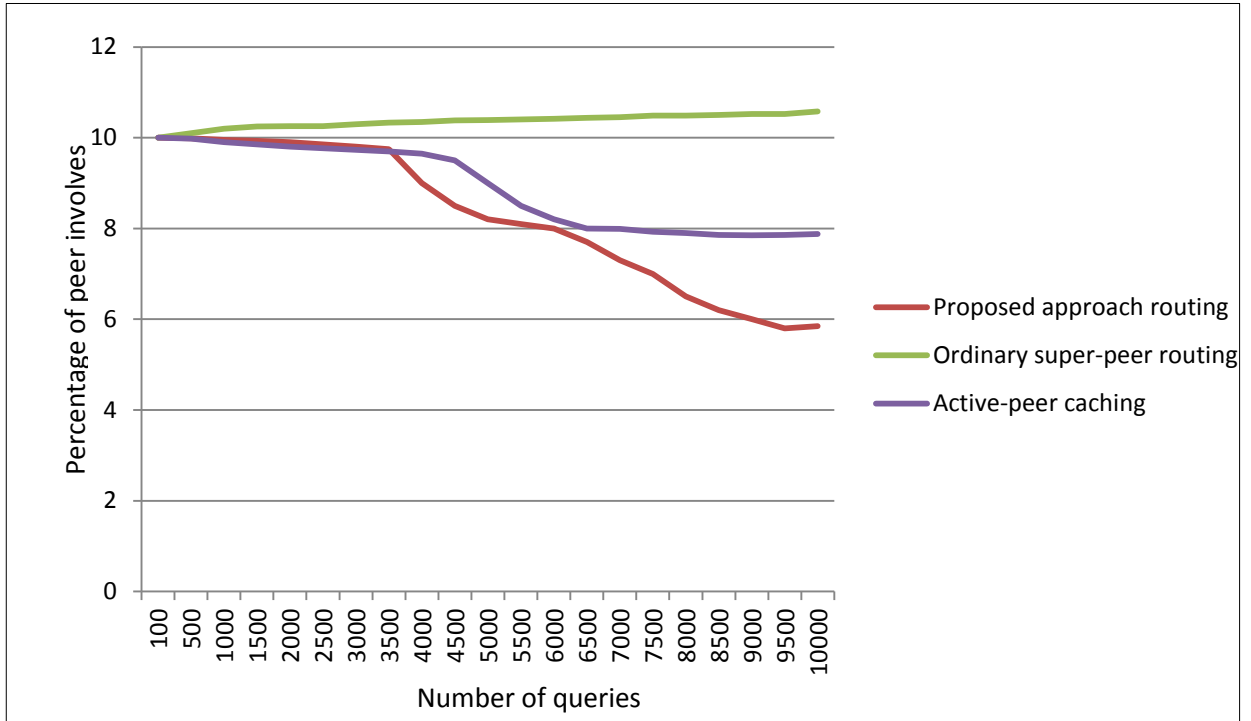


Figure 6-10 Impact of caching on the number of contacted peers

In ordinary query routing, in which the cache is not used, an average of 10% of peers in the network are involved in the query routing. This percentage remains almost constant as the number of queries increases and simultaneously, more mediating peers are involved during query routing. Initially, when a cache mechanism is used, the average number of participating peers increases because the routing history is not yet available in the cache. However, when the cached query mechanism starts to store query information (based on previous query history), the number of mediating peers involves during query routing decreases. The decrease in the number of participating peers in the proposed approach is larger than that obtained with the active-peer approach because the cache mechanism location in the proposed approach is at client-peer nodes. Locating the cache at the local client peer contributes to a larger reduction in the number of contacted peers for routing the query. The decrease in

number of participating peers could reach up to 6% in the proposed approach and reducing the number of mediating peers obviously reduces the overall routing time, as discussed in the first analysis.

Summary

This chapter began with the mathematical equations which represent the operational time for query routing. The equation represents query routing on an ordinary super-peer network as well as the proposed approach. The equation of operational time is simulated in four different scenarios. Routing steps for each scenario is represented on UML sequence diagrams to show routing task differences. Then, the analysis continues to compare the query routing time between an ordinary routing, which is a typical super-peer routing, and active-peer caching approach (one of the research compared in literature) with our proposed approach. The comparison is focused on the processing time required for query routing and the number of participating peers involved in query routing. The analyses are done based on the experimental results from previous chapter. The next chapter will conclude this thesis and discuss the potential for future research.

Chapter 7: **Conclusions and Future Work**

7.1. **Research summary and contributions**

This research has introduced a novel approach to caching queries that demonstrates an efficient way of retrieving previously accessed data without needing any intermediary peer nodes between the data-source peer and the querying peer. Algorithms have been developed to show how the query was reconstructed using the information on cached query. The reconstructed query is built so that it can be used for subsequent query routing at the same peer node. With this approach, the concise query message is ready for direct communication between the querying and data source peers. This new approach to query routing has shown that the use of cached queries can reduce the routing time by reducing the number of messages being passed between peers. The reduction in the number of message passing is proved by the analysis on the reduction number of peers that participated in the query routing has been shown in the previous chapter. Furthermore, our simulation has shown that the query routing process can be done without entirely dependent on super-peer index. Consequently, the processing time for query routing is also reduced.

In order to demonstrate the impact of the proposed approach to super-peer query routing, performance measurement equation is created. The performance measurements consist of several parameters that could be varied to model simulating different routing activities, especially for the message passing through the network. The proposed performance measurement equations are not limited to super-peer networks because the parameters involved can be replaced to simulate various network structures and P2P platform. The use of mathematical based equation is to avoid any bias that generally occurs in some P2P simulator. Normally, P2P simulator is initiated based on specified routing approach that the author intends to prove. Principle of the proposed measurement equation is to identify component(s)

involved in query routing tasks. Then, every component is arranged by task according to approaches being compared.

Results of the comparative performance evaluations provide some evidence in identifying the most suitable routing approach for specified peer network connections. Evidence is identified by determining the average cost for each component (of the task). Then, graph is plotted by manipulating all the variables in the equation. Analysis on the impact of the proposed component was analyzed on the plotted graph.

In summary, this research revealed the following:

- Computer taxonomy for P2P systems.
The proposed taxonomy provides a classification of P2P in which various computer system architectures have been represented in a form of taxonomy. The proposed taxonomy covers the differentiation between architectural structures that lead to different query routing strategies. This contribution is discussed in Chapter 2 and has been published in (Mohamed 2007).
- Comparative study of resource discovery mechanisms.
This study has led to a list of challenges to be met in providing the discovery mechanism in P2P networks. Issues relating to the matrix for measuring the costs and benefits when choosing a suitable resource discovery mechanism for a P2P system have been presented in (Mohamed and Satari 2009). In conjunction with the comparative study of resource discovery mechanisms, in Chapter 2 of this thesis, a comparison between several query routing approaches in P2P systems has been done and it is found that query routing need to be directed rather than freely route the query message. The best routing assistance is when it is in locally contained.
- The use of a materialized view for query processing in P2P applications.
A feasibility study on the use of materialized views in P2P query processing was explored in Chapter 3, building on ideas that were published in (Mohamed, Basel-Al-Mourad et al. 2006). The materialized view is commonly used in integrated database systems. In the P2P environment, saving query results at the peer or super-peer could lead to obsolete data. Consequently, the 'materialization' of data source locations in a database is a 'view' and is

highly important in an integrated database environment. Thus, a similar concept of materialization of data source locations could also provide benefits in a P2P environment. Therefore, an architectural design for using a materialized data source location for query processing is discussed in Chapter 5, and was previously published in (Mohamed, Buckingham et al. 2007). This feasibility study served as background work to support the use of query caching.

- A new query caching mechanism.

This cached query mechanism is a novel approach to query caching over super-peer networks. The design and implementation of query caching to assist the query routing process is discussed in Chapter 4. This leads to the use of query caching in the JXTA platform proposed in (Mohamed and Buckingham 2008), where the query caching mechanism is used to keep the query history that was executed by the local peers. The performance impact of utilizing this query caching mechanism has been tested under different peer-group configurations and messaging patterns.

- An amendment of query routing in super-peer networks.

An architectural design for query routing is proposed. The architectural design for the proposed service for pre-processing query routing in a JXTA P2P platform is implemented and evaluated. The implementation uses Java and is piggy-backed onto the JXTA platform for a P2P super-peer network, while the evaluation is done at the client and super-peer levels. The algorithms for the architectural concept are thoroughly described in Chapter 4 and published in (Mohamed and Buckingham 2008), while the implementation of the proposed architecture on JXTA is described in Chapter 5. The implementation of the pre-processed query routing using the query cached list that keeps the information regarding the data source location was also presented in (Mohamed and Buckingham 2010).

- A new approach to compare query routing performance evaluations.

The method for collecting query routing performance results revealed a number of performance issues. The experimental results were analyzed and discussed in Chapter 6. The analyses produced an equation that allows a comparative assessment of query routing time. The results of the analyses show the query routing performance is influenced by the cache mechanism and the cache location in the network. Although comparative assessment used the UML sequence diagram to illustrate a super-peer network, the main idea of this comparison is

to compare the effect of every component involved in the query routing process without bias towards any P2P platform or P2P simulator. In the sequence diagram, sending a message is represented by an arrow. Message passing occurs between components. Each component represents a peer that is involved in query routing. Message passing represents a step-by-step interaction between peers that illustrates routing behavior. Based on this analysis of routing behavior, a mathematical equation was created. The variables in the mathematical equation represent the parameters involved in query routing or the contributing factors that affect the query routing. The equation was shown to be effective in comparing performances of different routing strategies.

7.2. Conclusions

There are two main novelties of this research, namely:

1. A new approach to deconstructing queries in a cache and reconstituting them for super-peer P2P networks.
2. A new method for comparing the performance of query routing over different P2P network architectures.

With the intention of producing a list of research contributions, the discussion on this research contribution can be broken down into the following questions:

How does the caching mechanism work?

The novelty of the proposed query caching mechanism is that it is not limited to caching the query string, but can also cache information on the location of the target data. Furthermore, the mechanism is not limited to comparing the incoming (input) query with the previously cached queries, but can also decompose the input query into the smallest portion of query (sub-query) that can be answered at separate locations. Following this, the comparison operation will be started. In this thesis, the comparison between the sub-query (from the input query) and the cached queries is called 'query containment'. This novel query caching approach is able to provide the re-use of query strings together with the significant information for routing the query to the location(s) of the target data which can answer the input query.

How does the cached mechanism contribute towards reducing network traffic?

In terms of reducing network traffic, this research has shown that the proposed approach is able to reduce the messages passing through the network while searching for the location of the target data to answer the input query. The results show that the number of messages passing is reduced for the query routing initiated by a peer which has a cached query mechanism. Even though the proposed mechanism will work for repeating queries, the ability to slice up the query increases the likelihood of matching it. Thus, there is a greater chance of the input query matching with cached queries. The more a cached query approach is used in query routing, the greater the reduction in the number of query messages is assisted in finding the query answer.

How does the performance evaluation work?

Performance is evaluated by comparing the number of operations involved in routing messages for different routing approaches. First, scenarios must be created which are applicable to the approaches being compared. A scenario takes the form of step-by-step operations that need to be accomplished. Then the operations in the different approaches are classified and weighted. Coefficient values that contribute to each operation are identified to represent the parameters or impact on performance of the specified operations. To analyze the overall performance of each approach, the coefficient values are manipulated and graphs are plotted of the results to find the most efficient approach amongst those compared.

Does the cached mechanism work for a client-peer, a super-peer or both?

The query routing analysis in this research is mainly for client-peers in a super-peer network, however, it is not restricted to the peers' mode (client or super-peer). Since the cached mechanism is a type of cached query list that uses a hash-table data structure, there is no reason why a super-peer should not have a cache as the super-peer is also a peer in the P2P network. However, the use of the proposed mechanism is limited to cached query. Thus, it is not going to replace the use of the super-peers' index. If a client-peer embeds the proposed mechanism, it will be able to reduce the super-peers' load on identifying the location of the target data. Since the super-peers' load is reduced, there is an opportunity for the super-peer network's community to reduce the number of super-peers. The reason for not emphasizing the use of the proposed approach on a super-peer node is because it would not be possible for

the cached query to replace the super-peers' index. In addition, the super-peer node does not have to transmit any query message requests for the location of the target data. However, the process of identifying the location of the target data in the cached query mechanism provides the cached query string together with the information on data location. In contrast, the super-peers' index only provides the direction to the locations of the target data.

Is the cached mechanism applicable to super-peer network only?

The proposed mechanism was only tested on a super-peer network environment because the aim of this research is to give an alternative to the client-peer in identifying the location of the target data for routing a query. The cached mechanism may be applicable in an unstructured P2P network as well, but the mechanism of adapting the cached queries will be slightly different. Since in an unstructured network, there is no central routing index provided, there must be some base for the cached mechanism to start-up caching if the approach is used.

7.3. Future work

In this study, the proposed pre-processing for query routing has been piggy-backed on the JXTA platform used for experimental purposes. However, the philosophy of the research is not limited to this platform because it has contributed to query routing in a general P2P environment. Accordingly, there are a number of avenues to explore for future work:

- Adding semantic processing to the query containment test used for comparing and matching the text (string) in query messages with the cached data. The query containment test in this research is based on string matching. The query containment test has been described in a form of algorithm. A semantic query containment test would be able to increase the precision of the match, thus increasing the possibility of the required data location being found in a cached list. This is due to the fact that a single text could be interpreted differently based on its semantic meanings.
- In the JXTA platform, a more comprehensive investigation of the relay peers for handling query routing is recommended because the relay peer in JXTA also takes part in messaging and discovering the query result locations that are situated behind the firewall. The main categories of peer in JXTA are minimal edge peer, fully-featured edge peer, rendezvous peer

and relay peer. However, only the fully-featured edge peer is used as a client-peer while the rendezvous peer is used as the super-peer in this research. Expanding the research by considering the use of various types of mobile devices and sensors as peers, and peers being located behind the firewall, would open up interesting new research areas.

- Further exploration of multiple P2P platforms would also open up an exciting research focus. Within the area of P2P systems and platforms, it would be interesting to investigate other P2P environments that offer features and functionalities to support P2P application system development. A comparison of the effect of query routing performance between non-JXTA based applications and JXTA based applications will be of interest to the P2P developers' community, since messaging and discover approaches are directly associated with the platform used.
- Further research in implementing the pre-processed query caching mechanism on a grid platform is also an interesting future research direction because grid technology has recently raised significant attention in community-based sharing, either in research perspectives or commercial products such as Oracle. The implementation of server data on a grid has been specifically highlighted since Oracle10g was released. Utilizing shared information, bandwidth and computing resources over the Internet are among the similarities shared between grid and P2P. Thus, the issue of identifying a target location for utilizing the shared information, bandwidth and other computing resources indicates the need for the proposed cached query mechanism. In addition, the proposed performance evaluation framework would be able to assist a grid developer in justifying the routing approach adopted while developing a query-based system on grid.

This research is significant because it has provided a new way of caching that has been shown to benefit particular network architectures and usages. The new method of evaluating performance provides designers with information about when it is most useful to use caching and how the peer connections can optimize its exploitation. Future work could improve the caching mechanism, extend it to different types of message format, and see it implemented on other P2P platforms. The results should lead to more robust networks that are less reliant on centralization and less prone to failures of centralized data storages. Network traffic should also be reduced, which would limit the impact of bandwidth limitations and benefit data-access times.

List of references

- (2007). JXTA Java Standard Edition v2.5. Programmers Guide, Sun Microsystems.
- (2010). SumTotal Toolbook: ToolBook XML Format, SumTotal Systems. **10.5**.
- Abdullatif, A. A. and R. J. Pooley (2009). From UML to EQN: Studying System Performance from an Early Stage of Systems Life Cycle. 25th UK Performance Engineering Workshop. School of Computing. University of Leeds, UK.
- Akbarinia, R., E. Pacitti and P. Valduriez (2007). Query processing in P2P systems. Technical Report 6112. INRIA. France, Université de Nantes.
- Al Abdullatif, A. and R. J. Pooley (2010). UML-JMT: A Tool for Evaluating Performance Requirements. Engineering of Computer Based Systems (ECBS), 2010 17th IEEE International Conference and Workshops on.
- Albert, M., J. Cabot, C. G., \#243, mez and V. Pelechano (2011). "Generating operation specifications from UML class diagrams: A model transformation approach." Data Knowl. Eng. **70**(4): 365-389.
- Androutsellis-Theotokis, S. and D. Spinellis (2004). "A Survey of Peer-to-Peer Content Distribution Technologies." ACM Computer Survey **36**(4): 335-371.
- Arion, A., V. Benzaken, I. Manolescu and Y. Papakonstantinou (2007). Structured materialized views for XML queries. Proceedings of the 33rd international conference on Very large data bases. Vienna, Austria, VLDB Endowment: 87-98.
- Battre, D. (2008). "Caching of Intermediate Results in DHT-based RDF Stores." International Journal of Metadata Semantics. Ontologies **3**(1): 84-93.
- Bejar, N. S. (2010). "Zone indexing: Optimizing the Balance Between Searching and Indexing in a Loosely Structured Overlay." Computer Network **54**(12): 2041-2055.
- Bellahsène, Z., C. Lazinitis, P. McBrien and N. Rizopoulos (2006). iXPeer: Implementing Layers of Abstraction in P2P Schema Mapping Using AutoMed. 2nd Workshop on Innovations in Web Infrastructure. Edinburgh, UK.
- Bellahsène, Z. and M. Roantree (2004). "Querying Distributed Data in a Super-Peer Based Architecture." Lecture Notes in Computer Science, Database and Expert Systems Applications **3180/2004**: 296-305.
- Bergner, M. (2003). Improving Performance of Modern Peer-to-Peer Services. Master's Thesis, UMEA University.
- Beverly Yang, B. and H. Garcia-Molina (2003). Designing a super-peer network. Data Engineering, 2003. Proceedings. 19th International Conference on.
- Bricklin, D. (2001). "A Taxonomy of Computer Systems and Different Topologies: Stand-Alone to P2P." Dan Bricklin's Web Site: www.bricklin.com Retrieved February, 12, 2010, from <http://www.bricklin.com/p2ptaxonomy.htm>
- Brookshier, D., D. Govoni, N. Krishnan and J. C. Soto (2002). JXTA: Java P2P Programming, Sams Publishing.
- Brunkhorst, I. and H. Dhraief (2005). Semantic Caching in Schema-Based P2P-Networks. International Conference on Databases, Information Systems, and Peer-to-Peer Computing (DBISP2P'05/06). S. B. Gianluca Moro, Sam Joseph, Jean-Henry Morin, and Aris M. Ouksel, Springer-Verlag: 179-186.
- Brunkhorst, I., H. Dhraief, A. Kemper, W. Nejdl and C. Wiesner (2003). Distributed Queries and Query Optimization in Schema-Based P2P-Systems. International Workshop on Databases, Information Systems and Peer-to-Peer Computing (DBISP2P): 184-199.

Calvanese, D., G. D. Giacomo, M. Lenzerini and M. Y. Vardi (2000). What is View-Based Query Rewriting? 7th International Workshop on Knowledge Representation meets Databases (KRDB 2000). Berlin, Germany,. **29**: 17-27.

Calvanese, D., M. Lenzerini, R. Rosati and G. Vetere (2004). Hyper: A Framework for Peer-to-Peer Data Integration on Grids. International Conference on Semantics of a Networked World: Semantics for Grid Databases (ICSNW 2004). Paris, France: 144-157.

Cartaxo, E. G., F. G. O. Neto and P. D. L. Machado (2007). Test case generation by means of UML sequence diagrams and labeled transition systems. Systems, Man and Cybernetics, 2007. ISIC. IEEE International Conference on.

Chaves, L. W. F., E. Buchmann, F. Hueske, K. B. #246 and hm (2009). Towards materialized view selection for distributed databases. Proceedings of the 12th International Conference on Extending Database Technology: Advances in Database Technology. Saint Petersburg, Russia, ACM: 1088-1099.

Chen, L., S. Wang, E. Cash, B. Ryder, I. Hobbs and E. A. Rundensteiner (2002). A fine-grained replacement strategy for XML query cache. Proceedings of the 4th international workshop on Web information and data management. McLean, Virginia, USA, ACM: 76-83.

Chidlovskii, B. and U. M. Borghoff (2000). "Semantic caching of Web queries." The Very Large Database Journal: 2-17.

Cho, K., K. Fukuda, H. Esaki and A. Kato (2006). The Impact and Implications of the Growth in Residential User-to-User Traffic. The 2006 Conference on Applications, Technologies, Architectures, and Protocols for Computer Communications, ACM: 207-218.

Ciraci, S., Brahim and Ulusoy (2009). "Reducing Query Overhead Through Route Learning in Unstructured Peer-to-Peer Network." Journal of Network Computing Applications **32**(3): 550-567.

community, J. "JXTA Community Projects." Retrieved February, 8, 2010, from <https://jxta.dev.java.net/>

Cope, J. (2002). QuickStudy: Peer-to-Peer Network. Computerworld, Computerworld Inc.

Crespo, A. and H. Garcia-Molina (2002). Routing Indices for Peer-to-Peer Systems. 22nd International Conference on Distributed Computing Systems (ICDCS'02). Vienna, Austria, IEEE Computer Society: 23 - 32

Datta, A. K., M. Gradinariu, M. Raynal and G. Simon (2003). Anonymous Publish/Subscribe in P2P Networks. 17th International Symposium on Parallel and Distributed Processing (IPDPS '03), IEEE Computer Society,: 74.71.

Dimitriou, T., G. Karame and I. Christou (2008). SuperTrust - a secure and efficient framework for handling trust in super peer networks. Proceedings of the 9th international conference on Distributed computing and networking, Kolkata, India.

Doulkeridis, C., K. Norvag and M. Vazirgiannis (2006). Schema Caching for Improved XML Query Processing in P2P Systems. Sixth IEEE International Conference on Peer-to-Peer Computing (P2P'06). Cambridge, UK, IEEE: 73-74.

Doulkeridis, C., K. Nørvgå and M. Vazirgiannis (2008). Schema-assisted Peer Selection for XML Querying in Unstructured P2P Systems. Seventh ACM International Workshop on Data Engineering for Wireless and Mobile Access (MobiDE '08). New York, NY, USA, ACM: 31-38.

- Elfaki, M. A., H. Ibrahim, A. Mamat and M. Othman (2011). Service differentiation for collaborative caching query process in mobile database. Software Engineering (MySEC), 2011 5th Malaysian Conference in.
- Fegaras, L. (2010). Propagating Updates Through XML Views Using Lineage Tracing. IEEE 26th International Conference on Data Engineering (ICDE), IEEE: 309 – 320.
- Foster, I. and A. Iamnitch (2003). On Death, Taxes, and the Convergence of International Workshop on Peer to Peer Systems.
- Fred von Lohmann. 2006. “”, O. A. (2006). "What Peer-to-Peer Developers Need to Know about Copyright Law." IAAL* Retrieved February, 2, 2010, from <https://www.eff.org/wp/iaal-what-peer-peer-developers-need-know-about-copyright-law>.
- Gao, L. and P. Min (2009). Optimal Superpeer Selection Based on Load Balance for P2P File-sharing System. Proceedings of the 2009 International Joint Conference on Artificial Intelligence, IEEE Computer Society: 92-95.
- Garrod, C., A. Manjhi, A. Ailamaki, B. Maggs, T. Mowry, C. Olston and A. Tomasic (2008). "Scalable Query Result Caching for Web Applications." Journal of the VLDB Endowment **1**(1): 550-561.
- Garrod, C., A. Manjhi, A. Ailamaki, B. Maggs, T. Mowry, C. Olston and A. Tomasic (2008). "Scalable Query Result Caching for Web Applications." Proc. VLDB Endow. **1**(1): 550-561.
- Gong, L. (2001). Project JXTA: A Technology Overview. Technical Report, SUN Microsystems.
- Good, N. S. and A. Krekelberg (2003). Usability and privacy: a study of Kazaa P2P file-sharing. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. Ft. Lauderdale, Florida, USA, ACM: 137-144.
- Good, N. S. and A. Krekelberg (2003). Usability and Privacy: A Study of Kazaa P2P File-Sharing. SIGCHI Conference on Human Factors in Computing Systems (CHI '03), ACM: 137-144.
- Gradecki, J. D. (2002). Mastering JXTA: Building Java Peer-to-Peer Applications, John Wiley & Sons Publishing.
- Greco, S., L. Pontieri and E. Zumpano (2001). A technique for information system integration. Proceedings of the 2001 international conference on Information systems technology and its applications - Volume P-2. Kharkiv, Ukraine, Gesellschaft fuer Mathematik und Datenverarbeitung: 75-84.
- Gueni, B., T. Abdessalem, B. Cautis and E. Waller (2008). Pruning nested XQuery queries. Proceedings of the 17th ACM conference on Information and knowledge management. Napa Valley, California, USA, ACM: 541-550.
- Gupta, P., N. Zeldovich and S. Madden (2011). A trigger-based middleware cache for ORMs. Proceedings of the 12th ACM/IFIP/USENIX international conference on Middleware. Lisbon, Portugal, Springer-Verlag: 329-349.
- H., K. S., C. K. Y. and C. Y. M. (2005). "A Server-Mediated Peer-to-Peer System." ACM SIGecom Exchanges **5**(3): 38-47.
- Halepovic, E. and R. Deters (2003). The Costs of Using JXTA. Proceedings of the 3rd International Conference on Peer-to-Peer Computing, IEEE Computer Society: 160.
- Halepovic, E. and R. Deters (2005). "The JXTA performance model and evaluation." Future Gener. Comput. Syst. **21**(3): 377-390.

He, W., L. Fegaras and D. Levine (2007). Indexing and Searching XML Documents Based on Content and Structure Synopses. 24th British National Conference on Databases (BNCOD'07). R. C. a. J. Kennedy. Glasgow, UK, Springer-Verlag: 58-69.

Heimbigner, D. and D. McLeod (1985). "A federated architecture for information management." ACM Trans. Inf. Syst. **3**(3): 253-278.

Holzner, S. (2003). Sams Teach Yourself XML in 21 Days, Sams Publishing.

Huang, J. and E. N. Efthimiadis (2009). Analyzing and evaluating query reformulation strategies in web search logs. Proceedings of the 18th ACM conference on Information and knowledge management. Hong Kong, China, ACM: 77-86.

Idreos, S., M. Koubarakis and C. Tryfonopoulos (2004). P2P-DIET: An Extensible P2P Service That Unifies Ad-hoc and Continuous Querying in Super-Peer Networks. ACM SIGMOD International Conference on Management of Data (SIGMOD '04): 933-934.

Ion Stoica, R. M., David Karger, M. Frans Kaashoek, and Hari Balakrishnan (2001). Chord: A scalable Peer-to-Peer Lookup Service for Internet Applications. 2001 Conference on Applications, Technologies, Architectures, and Protocols for Computer Communications (SIGCOMM '01), ACM.

Ismail, A., M. Quafafou, G. Nachouki and M. Hajjar (2009). Data Mining Effect in Peer-to-Peer Queries Routing. International Conference on Management of Emergent Digital EcoSystems (MEDES '09), ACM. **10**.

Ismail, A., M. Quafafou, G. Nachouki and M. Hajjar (2009). Efficient Super-Peer-Based Queries Routing. International Conference on Management of Emergent Digital EcoSystems (MEDES '09), ACM. **14**.

Ives, Z. G., T. J. Green, G. Karvounarakis, N. E. Taylor, V. Tannen, P. P. Talukdar, M. Jacob and F. Pereira (2008). "The ORCHESTRA Collaborative Data Sharing System." ACM SIGMOD **37**(3): 26-32.

Jenn-Wei, L., Y. Ming-Feng and T. Jichiang (2007). Fault Tolerance for Super-Peers of P2P Systems. Dependable Computing, 2007. PRDC 2007. 13th Pacific Rim International Symposium on.

Jung-Shian, L. and C. Chih-Hung (2010). "An Efficient Superpeer Overlay Construction and Broadcasting Scheme Based on Perfect Difference Graph." Parallel and Distributed Systems, IEEE Transactions on **21**(5): 594-606.

Kacimi, M. and K. Yetongnon (2007). Evaluation Study of a Distributed Caching Based on Query Similarity in a P2P Network. 2nd International Conference on Scalable Information Systems (InfoScale '07). Brussels, Belgium, ICST (Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering). **26**.

Kalogeraki, V., D. Gunopulos and D. Zeinalipour-Yazti (2002). A Local Search Mechanism for Peer-to-Peer Networks. Eleventh International Conference on Information and Knowledge Management (CIKM '02), ACM: 300-307.

Kossmann, D. (2000). "The state of the art in distributed query processing." ACM Comput. Surv. **32**(4): 422-469.

Kostas Lillis, E. P. (2008). Cooperative XPath caching. The 2008 ACM SIGMOD International Conference on Management of Data (SIGMOD '08), ACM: 327-338.

Krauter, K., R. Buyya and M. Maheswaran (2002). "A Taxonomy and Survey of Grid Resource Management Systems for Distributed Computing." Journal of Software Practice & Experience **32**(2): 135-164.

- Kwon, H.-J., H.-S. Lee, D.-H. Song and C.-Y. Kim (2008). Toward a Linkography Design Visualization Tool on Web 2.0 Social Network Type Interface. Proceedings of the 2008 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology - Volume 03, IEEE Computer Society: 377-380.
- Lan Quan, T. R. E., Kyung Geun Lee, Ju-wook Jang, Sang Yun Lee (2004). Retrieval Schemes for Scalable Unstructured P2P System. International Symposium on Information and Communication Technologies (ISICT '04). Las Vegas, Nevada, USA, ACM Digital Library: 68-73.
- Leonidas Fegaras, W. H., Gautam Das, David Levine (2005). XML Query Routing in Structured P2P Systems. The 2005/2006 International Conference on Databases, Information systems, and Peer-to-Peer Computing (DBISP2P'05/06). S. B. Gianluca Moro, Sam Joseph, Jean-Henry Morin, and Aris M. Ouksel Springer-Verlag,: 273-284.
- Liu, D. and Y.-l. Zhao (2009). Distributed Relational Data Sharing Based on P2P. Proceedings of the 2009 International Conference on New Trends in Information and Service Science, IEEE Computer Society: 378-383.
- Lohmann, F. v. (2006). "What Peer-to-Peer Developers Need to Know about Copyright Law." IAAL* Retrieved February, 2, 2010, from <https://www.eff.org/wp/iaal-what-peer-peer-developers-need-know-about-copyright-law>. .
- Lv, Q., P. Cao, E. Cohen, K. Li and S. Shenker (2002). Search and Replication in Unstructured Peer-to-Peer Networks. International Conference on Supercomputing (ICS '02), ACM: 84-95.
- Mahdy, A. M., J. S. Deogun and W. Jun (2007). A Dynamic Approach for the Selection of Super Peers in Ad Hoc Networks. Networking, 2007. ICN '07. Sixth International Conference on.
- Mami, I. and Z. Bellahsene (2012). "A survey of view selection methods." SIGMOD Record **41**(1): 20-29.
- Mandhani, B. and D. Suci (2005). Query Caching and View Selection for XML Databases. 31st International Conference on Very large Data Bases (VLDB '05), VLDB Endowment: 469-480.
- Mansour, E. and H. Höpfner (2009). An Approach to Detecting Relevant Updates to Cached Data Using XML and Active Databases. The 12th International Conference on Extending Database Technology: Advances in Database Technology (EDBT '09). B. N. Martin Kersten, Jens Teubner, Vladimir Polutin, and Stefan Manegold, ACM.
- Mayer, M. (2009). "Web History Tools and Revisitation Support: A Survey of Existing Approaches and Directions." Found. Trends Hum.-Comput. Interact. **2**(3): 173-278.
- Meshkova, E., J. Riihij, M. Petrova and P. Mähönen (2008). "A survey on Resource Discovery Mechanisms, Peer-to-Peer and Service Discovery Frameworks." Computer Network **52**(11): 2097-2128.
- Microsystems, S. "JXSE: The Java Implementation of the JXTA Protocols." from jxse.kenai.com.
- Min, S. and J. Holliday (2009). Super-Peer Availability Prediction Strategy in Unstructured P2P Network. Proceedings of the 2009 Sixth IFIP International Conference on Network and Parallel Computing, IEEE Computer Society: 23-29.
- Modarresi, A., A. Mamat, H. Ibrahim and N. Mustapha (2008). How Community-Based Peer-to-Peer Social Networks Can Affect Query Routing? Fourth International

Conference on Networked Computing and Advanced Information Management (NCM), Gyeongju

Mohamed, R. (2007). A Review of Peer-to-Peer Systems. International Conference on Electrical Engineering and Informatics (ICCEI 2007). Bandung, Indonesia, Institut Teknologi Bandung, Indonesia.

Mohamed, R. (2007). A Review of Peer-to-Peer Systems. International Conference on Electrical Engineering and Informatics (ICCEI 2007). Institut Teknologi Bandung, Indonesia: 17-19.

Mohamed, R., M. Basel-Al-Mourad and Y. M. A. Khalifa (2006). A Vision to Construct Multiple Data Views in Peer Data Management Systems. 5th Information Systems Technology and its Applications (ISTA 2006), Klagenfurt, Austria, Bonner K'ollen Verlag.

Mohamed, R. and C. D. Buckingham (2008). Pre-processing for Improved Query Routing in Super-peer P2P Systems. The 2008 IEEE Region 5 Conference. Kansas City, MO, USA, IEEE Society.

Mohamed, R. and C. D. Buckingham (2010). Implication of Query Caching Implementation on JXTA Peers. The 2010 International Conference on Computer Computational Intelligence. Nanning China.

Mohamed, R., C. D. Buckingham, M. B. Al-Mourad and Y. Khalifa (2007). Towards the Use of Mediated Knowledge-based and User-defined Views in Super-peer P2P Systems, SpringerLink.

Mohamed, R. and S. Z. Satari (2009). Resource Discovery Mechanisms for Peer-to-Peer Systems. Second International Conference on Computer and Electrical Engineering (ICCEE). Dubai, IEEE. **2**: 100-104.

Muthusamy, V., M. Petrovic, D. Gao and H.-A. Jacobsen (2005). Publisher Mobility in Distributed Publish/Subscribe Systems. Fourth International Workshop on Distributed Event-Based Systems (DEBS) – (ICDCSW '05), IEEE Computer Society. **4**: 421-427.

Nejdl, W., B. Wolf, C. Qu, S. Decker, M. Sintek, A. Naeve, M. Nilsson, M. Palmer and T. Risch (2002). EDUTELLA: A P2P Networking Infrastructure Based on RDF. 11th International Conference on World Wide Web (WWW '02), ACM: 604-615.

Nejdl, W., M. Wolpers, W. Siberski, C. Schmitz, M. Schlosser, I. Brunkhorst and A. Löser (2003). Super-peer-based routing and clustering strategies for RDF-based peer-to-peer networks. Proceedings of the 12th international conference on World Wide Web. Budapest, Hungary, ACM: 536-543.

Nieto, P., D. Costal, C. G., \#243 and mez (2011). "Enhancing the semantics of UML association redefinition." Data Knowl. Eng. **70**(2): 182-207.

Nottelmann, H. and N. Fuhr (2006). Comparing different architectures for query routing in peer-to-peer networks. Proceedings of the 28th European conference on Advances in Information Retrieval, London, UK.

Oaks, S., B. Traversat and L. Gong (2002) "JXTA in a Nutshell."

Onose, N., A. Deutsch, Y. Papakonstantinou and E. Curtmola (2006). Rewriting nested XML queries using nested views. Proceedings of the 2006 ACM SIGMOD international conference on Management of data. Chicago, IL, USA, ACM: 443-454.

Parreiras, F. S. and S. Staab (2010). "Using Ontologies with UML Class-based Modeling: The TwoUse Approach." Journal of Data & Knowledge Engineering **69**(11): 1194-1207.

Patro, S. and Y. C. Hu (2003). Transparent Query Caching in Peer-to-Peer Overlay Networks. 17th International Symposium on Parallel and Distributed Processing (IPDPS '03). Nice, France, IEEE Computer Society: 32-31.

Podlipnig, S. and L. Böszörményi (2003). "A survey of Web cache replacement strategies." ACM Comput. Surv. **35**(4): 374-398.

Pourebrahimi, B., K. Bertels and S. Vassiliadis (2005). A Survey of Peer-to-Peer Networks. 16th Annual Workshop on Circuits, Systems and Signal Processing.

Qian, W., L. Xu, S. Zhou and A. Zhou (2005). "CoCache: Query Processing Based on Collaborative Caching in P2P Systems." Lecture Notes in Computer Science: Database Systems for Advanced Applications **3453/2005**: 498-510.

Ratnasamy, S., P. Francis, M. Handley, R. Karp and S. Shenker (2001). A Scalable Content-Addressable Network. the 2001 Conference on Applications, Technologies, Architectures, and Protocols for Computer Communications ACM.

Ren, Q., M. H. Dunham and V. Kumar (2003). "Semantic Caching and Query Processing." IEEE Transaction on Knowledge and Data Engineering **15**(1): 192-210.

Rowstron, A. I. T. and P. Druschel (2001). Pastry: Scalable, Decentralized Object Location, and Routing for Large-Scale Peer-to-Peer Systems. IFIP/ACM International Conference on Distributed Systems Platforms Heidelberg (Middleware '01). R. Guerraoui. Heidelberg, Springer-Verlag: 329-350.

Sahin, O. D., A. Gupta, D. Agrawal and A. E. Abbadi (2002). Query Processing Over Peer-To-Peer Data Sharing Systems. Technical Report UCSB/TR-2002-28, University of California at Santa Barbara.

Shen, X. and Z. Li (2008). Implementing Database Management System in P2P Networks. Proceedings of the 2008 International Seminar on Future Information Technology and Management Engineering, IEEE Computer Society: 528-532.

Shirky, C. (2000). "What is P2P...and What Isn't." O'Reilly: openp2p.com Retrieved February, 12,, 2010, from <http://openp2p.com/pub/a/p2p/2000/11/24/shirky1-whatisp2p.html>

Skobeltsyn, G. and K. Aberer (2006). Distributed Cache Table: Efficient Query-Driven Processing of Multi-Term Queries in P2P Networks. International Workshop on Information Retrieval in Peer-to-Peer Networks (P2PIR '06), Collaborated with ACM Fifteenth Conference on Information and Knowledge Management (CIKM 2006). Sheraton Crystal City Hotel, Arlington, VA 22202 USA, ACM: 33-40.

Sluijs, N., F. Itebeke, T. Wauters, F. De Turck, B. Dhoedt and P. Demeester (2011). "Cooperative caching versus proactive replication for location dependent request patterns." Journal of Network and Computer Applications **34**(2): 562-574.

Smith, C. U. and M. Woodside (2000). Performance validation at early stages of software development. System performance evaluation. G. Erol, CRC Press, Inc.: 383-396.

Swan, J., M. Kutar, T. Barker and C. Britton (2004). User Preference and Performance with UML Interaction Diagrams. Proceedings of the 2004 IEEE Symposium on Visual Languages - Human Centric Computing, IEEE Computer Society: 243-250.

Teevan, J., E. Adar, R. Jones and M. A. S. Potts (2007). Information re-retrieval: repeat queries in Yahoo's logs. Proceedings of the 30th annual international ACM SIGIR conference on Research and development in information retrieval. Amsterdam, The Netherlands, ACM: 151-158.

Thomas M. Connolly and C. E. Begg (2009). Database Systems: A Practical Approach to Design, Implementation and Management, Addison Wesley.

Tschofenig, H. and M. Matuszewski (2008). Dealing with P2P Traffic in an Operator Network: State-of-the-Art. Position paper in P2P Infrastructure Workshop.

Tyson, J. How the Old Napster Worked, HowStuffWorks inc.

Verstrynge, J. (2008). Practical JXTA: Cracking the P2P puzzle, Lulu Enterprises.

W3C. "XML Query (XQuery)." Retrieved November, 2, 2010, from <http://www.w3.org/XML/Query/>.

w3schools.com. "W3Schools Online Web Tutorials." Retrieved November, 12, 2010, from <http://www.w3schools.com/>

Wang Bin, Y. X.-c., Wang Guo-ren, Yu Ge and Liu Hui-lin (2006). "An efficient query rewriting approach for Web cached data management " Wuhan University Journal of Natural Sciences **11**(1): 122-126.

Watanabe, Y. and H. Kitagawa (2010). "Query Result Caching for Multiple Event-Driven Continuous Queries." Journal of Information Systems **35**(1): 94-110.

Wilson, B. J. (June 15, 2002). JXTA, New Riders Publishing.

Wu, T. and D. Starobinski (2008). "A comparative analysis of server selection in content replication networks." IEEE/ACM Trans. Netw.: 1461-1474.

Yang, B. and H. Garcia-Molina (2003). Designing a Super-Peer Network. 19th International Conference on Data Engineering (ICDE'03), IEEE.

Yin, Z., H. Jin, C. Zhang, Q. Yuan and C. Zhao (2005). "Network and Parallel Computing." Lecture Notes in Computer Science **3779/2005**: 97-104.

Zamli, K., R. Othman, M. Younis and M. Mohamed Zabil (2011). Practical Adoptions of T-Way Strategies for Interaction Testing. Software Engineering and Computer Systems. J. Zain, W. Wan Mohd and E. El-Qawasmeh, Springer Berlin Heidelberg. **181**: 1-14.

Zhang, X., K. Dimitrova, L. Wang, M. E. Sayed, B. Murphy, B. Pielech, M. Mulchandani, L. Ding and E. A. Rundensteiner (2003). Rainbow: multi-XQuery optimization using materialized XML views. Proceedings of the 2003 ACM SIGMOD international conference on Management of data. San Diego, California, ACM: 671-671.

Zhang, X., B. Pielech and E. A. Rundesnteiner (2002). Honey, I shrunk the XQuery!: an XML algebra optimization approach. Proceedings of the 4th international workshop on Web information and data management. McLean, Virginia, USA, ACM: 15-22.

Zhou, Y. (2011). "On the Performance of P2P Network: An Assortment Method." ArXiv e-prints.

Appendix 1

Collections of running output

Output 1

ExpID	SType	IsBase?	#Peers	Topol	#Res	aR2T	aQuer	
#Quer	QType	%QPeer	TTL	CacheS	CacheET	#QWarm		
#RWalk	#MaxJumFL	#MaxJumNR	FirstNRes					
TaxFile	TaxFile	#CPeers	#CPeers	#Msgs	Recall	LFirstRes		
LFirstNRes	LAllRes	#QId	#found/#total					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	19.33	21.89	23.56	31.67		
	0.0183	3.11	8.22	14.44	#	TTL=8	N=900	#
	V1.7_XML	1	18.7778/1026					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	12.11	21.33	17.67	29		
	0.0213	2	3.56	7.56	#	TTL=8	N=900	#
	V1.7_XML	2	21.8889/1026					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.11	21	26.44	27.67		
	0.0285	2.44	5.11	15.33	#	TTL=8	N=900	#
	V1.7_XML	3	28.3333/995					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	18.22	20.56	22	27.44		
	0.0259	2	7.11	14	#	TTL=8	N=900	#
	V1.7_XML	4	26.5556/1025					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6

	10	XMLSchema5-3-2-0.5	10.22	20.44	13	26.44		
	0.0256	2	2	5.56	#	TTL=8	N=900	#
	V1.7_XML	5	26.2222/1025					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	10.44	20.33	15.11	26.11		
	0.0216	2	1.78	4.22	#	TTL=8	N=900	#
	V1.7_XML	6	22.1111/1026					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	12.11	20.11	16.78	26		
	0.0248	2	2.44	6.89	#	TTL=8	N=900	#
	V1.7_XML	7	25.4444/1026					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	18.56	19.89	21	25.56		
	0.0218	2.22	7.11	13.78	#	TTL=8	N=900	#
	V1.7_XML	8	21.6667/993					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	9.89	19.78	12.33	25.22		
	0.0232	2	2.67	5.78	#	TTL=8	N=900	#
	V1.7_XML	9	23.0/993					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	18.33	19.56	24.22	25.11		
	0.0207	2	5.5	13.78	#	TTL=8	N=900	#
	V1.7_XML	10	22.3333/1080					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	11.44	19.33	16	24.89		
	0.0245	2	2	5.11	#	TTL=8	N=900	#
	V1.7_XML	11	25.1111/1026					
0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6

	10	XMLSchema5-3-2-0.5	11.33	19.33	14.33	24.67			
	0.0284	2	2	6.44	#	TTL=8	N=900	#	
	V1.7_XML	12	29.1111/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	19	19.22	23.11	24.67			
	0.0242	2.22	6.22	15.56	#	TTL=8	N=900	#	
	V1.7_XML	13	24.7778/1024						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	13	19.22	19.22	24.67			
	0.0258	2	2	6.44	#	TTL=8	N=900	#	
	V1.7_XML	14	26.4444/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	12	19.11	17.33	24.44			
	0.0269	2	2	5.11	#	TTL=8	N=900	#	
	V1.7_XML	15	27.5556/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	13.33	19.11	15.33	24.22			
	0.0308	2	2	10.22	#	TTL=8	N=900	#	
	V1.7_XML	16	31.5556/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	19.11	19	22	23.89			
	0.0238	2.67	6	12.67	#	TTL=8	N=900	#	
	V1.7_XML	17	23.6667/994						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	9.78	18.89	13.67	23.89			
	0.0248	2	2.44	4.22	#	TTL=8	N=900	#	
	V1.7_XML	18	25.4444/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	

	10	XMLSchema5-3-2-0.5	10.89	18.78	15.67	23.78			
	0.0274	2	2	6.44	#	TTL=8	N=900	#	
	V1.7_XML	19	28.1111/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	11.78	18.67	15.11	23.56			
	0.0285	2	2	7.33	#	TTL=8	N=900	#	
	V1.7_XML	20	29.2222/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	11.56	18.67	14.78	23.56			
	0.0299	2	2	3.56	#	TTL=8	N=900	#	
	V1.7_XML	21	30.6667/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	13.22	18.56	15.78	23.44			
	0.0305	2	2	8.67	#	TTL=8	N=900	#	
	V1.7_XML	22	30.3333/993						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	16.89	18.44	22	23.44			
	0.025	2.22	6.75	14.67	#	TTL=8	N=900	#	
	V1.7_XML	23	25.6667/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	20.56	18.33	23.44	23.11			
	0.0243	2	7.56	14.22	#	TTL=8	N=900	#	
	V1.7_XML	24	23.6667/974						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	18.33	18.33	21.67	23.11			
	0.0228	2.22	5.75	14.22	#	TTL=8	N=900	#	
	V1.7_XML	25	21.5556/944						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	

	10	XMLSchema5-3-2-0.5	9	18.22	13.44	22.89			
	0.019	2	2.67	6.67	#	TTL=8	N=900	#	
	V1.7_XML	26	19.4444/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	11.22	18.22	15.89	22.89			
	0.026	2	2.44	8.44	#	TTL=8	N=900	#	
	V1.7_XML	27	26.6667/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	11.56	18	15.56	22.56			
	0.0274	2	2	9.78	#	TTL=8	N=900	#	
	V1.7_XML	28	27.2222/994						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	9.44	18	13.22	22.44			
	0.0222	2	2.5	6.67	#	TTL=8	N=900	#	
	V1.7_XML	29	22.7778/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	14.33	17.89	18.89	22.33			
	0.0266	2.44	2.89	8.67	#	TTL=8	N=900	#	
	V1.7_XML	30	26.4444/993						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	15.56	17.78	20.78	22			
	0.0171	2.44	9.5	13.56	#	TTL=8	N=900	#	
	V1.7_XML	31	17.0/995						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	19.89	17.33	27.67	22			
	0.0345	2.67	4	10.44	#	TTL=8	N=900	#	
	V1.7_XML	32	34.3333/995						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	

	10	XMLSchema5-3-2-0.5	11.56	17	15.44	22			
	0.0275	2	3.11	7.78	#	TTL=8	N=900	#	
	V1.7_XML	33	28.2222/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	8.11	17	11.44	21.78			
	0.0244	2	3	3.56	#	TTL=8	N=900	#	
	V1.7_XML	34	25.0/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	17.33	17	24.44	21.67			
	0.0255	2.67	7.11	14.22	#	TTL=8	N=900	#	
	V1.7_XML	35	26.3333/1031						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	8.33	17	11.22	21.67			
	0.0227	2	3	4.44	#	TTL=8	N=900	#	
	V1.7_XML	36	23.3333/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	10	16.89	13	21.67			
	0.0226	2	3.25	5.56	#	TTL=8	N=900	#	
	V1.7_XML	37	22.4444/994						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	11	16.67	12.56	21.67			
	0.0271	2	4	8.67	#	TTL=8	N=900	#	
	V1.7_XML	38	27.0/995						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	17	16.56	21.67	21.44			
	0.0258	2.22	8	14.22	#	TTL=8	N=900	#	
	V1.7_XML	39	25.2222/978						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	

	10	XMLSchema5-3-2-0.5	12.22	16.33	18.44	21.33			
	0.0244	2.22	3.11	8.89	#	TTL=8	N=900	#	
	V1.7_XML	40	25.0/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	11.11	16.11	16.22	21.22			
	0.0238	2	2.5	6.89	#	TTL=8	N=900	#	
	V1.7_XML	41	24.4444/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	19.78	15.56	25.22	21.11			
	0.0307	2.44	6.44	14.22	#	TTL=8	N=900	#	
	V1.7_XML	42	30.1111/980						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	8.44	15.56	12.78	21.11			
	0.0208	2	2	4.67	#	TTL=8	N=900	#	
	V1.7_XML	43	21.4444/1031						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	9.44	15.33	12.22	21			
	0.0248	2	3	6.89	#	TTL=8	N=900	#	
	V1.7_XML	44	24.6667/995						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	8.67	15.22	11.44	21			
	0.0205	2	3.25	8	#	TTL=8	N=900	#	
	V1.7_XML	45	20.3333/994						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	9.89	15.22	15	20.78			
	0.0245	2	2.86	6.22	#	TTL=8	N=900	#	
	V1.7_XML	46	25.1111/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	

	10	XMLSchema5-3-2-0.5	9.56	15.11	12	20.67			
	0.0216	2	2.57	7.78	#	TTL=8	N=900	#	
	V1.7_XML	47	21.4444/994						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	18.89	14.78	22.89	19.89			
	0.0259	2.44	5.33	14.89	#	TTL=8	N=900	#	
	V1.7_XML	48	26.5556/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	10.22	14.78	13.89	19.89			
	0.0233	2	2.5	6	#	TTL=8	N=900	#	
	V1.7_XML	49	23.8889/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	21.89	14.67	29	19.78			
	0.0375	2.67	4	10.67	#	TTL=8	N=900	#	
	V1.7_XML	50	38.4444/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	14.78	14.33	19.89	19.67			
	0.0347	2	2.5	8.89	#	TTL=8	N=900	#	
	V1.7_XML	51	34.5556/995						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	8.78	14.22	12.11	19.67			
	0.0225	2	2.25	6	#	TTL=8	N=900	#	
	V1.7_XML	52	23.1111/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	12.89	14.11	18.22	19.56			
	0.0293	2	2.5	6.89	#	TTL=8	N=900	#	
	V1.7_XML	53	30.1111/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	

	10	XMLSchema5-3-2-0.5	11.56	13.33	16.67	19.44			
	0.0265	2	2.67	7.33	#	TTL=8	N=900	#	
	V1.7_XML	54	27.2222/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	12.67	13.33	19.89	19.22			
	0.0274	2	2.22	4.67	#	TTL=8	N=900	#	
	V1.7_XML	55	28.1111/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	9.67	13.33	16	19.11			
	0.0238	2	2.22	4.44	#	TTL=8	N=900	#	
	V1.7_XML	56	24.4444/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	10.89	13.22	13.56	18.89			
	0.0306	2	3.78	8	#	TTL=8	N=900	#	
	V1.7_XML	57	31.3333/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	15.33	13	19.67	18.78			
	0.0195	2.22	7.25	13.78	#	TTL=8	N=900	#	
	V1.7_XML	58	19.1111/982						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	15.11	13	23.89	18.78			
	0.0268	2.89	3.25	11.33	#	TTL=8	N=900	#	
	V1.7_XML	59	26.6667/995						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	12.22	13	17.67	18.78			
	0.0258	2	2.44	5.56	#	TTL=8	N=900	#	
	V1.7_XML	60	26.4444/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	

	10	XMLSchema5-3-2-0.5	18.22	13	22.44	18.44			
	0.0235	2	9.11	15.33	#	TTL=8	N=900	#	
	V1.7_XML	61	23.6667/1008						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	9.67	12.89	13.44	18.33			
	0.0261	2	2	5.11	#	TTL=8	N=900	#	
	V1.7_XML	62	26.7778/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	10.22	12.78	13.78	18.22			
	0.0261	2	2	4.44	#	TTL=8	N=900	#	
	V1.7_XML	63	26.7778/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	8.44	12.78	12.11	18.22			
	0.0186	2	3	4	#	TTL=8	N=900	#	
	V1.7_XML	64	19.1111/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	16.67	12.67	21.22	18			
	0.0291	2.89	4.44	14.89	#	TTL=8	N=900	#	
	V1.7_XML	65	28.3333/973						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	7.89	12.67	10.22	17.67			
	0.0245	2	2.25	3.11	#	TTL=8	N=900	#	
	V1.7_XML	66	25.1111/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	
	10	XMLSchema5-3-2-0.5	11.89	12.56	19.56	17.67			
	0.0271	2.22	3.33	6	#	TTL=8	N=900	#	
	V1.7_XML	67	27.7778/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	

	10	XMLSchema5-3-2-0.5	14.78	12.33	21.11	17.56		10	XMLSchema5-3-2-0.5	10	11.89	11.89	16.78				
	0.0324	2	2.67	7.78	#	TTL=8	N=900	#	0.0292	2	2.44	3.56	#	TTL=8	N=900	#	
	V1.7_XML	68	33.2222/1026						V1.7_XML	75	29.8889/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	19.11	12.22	22.33	17.33			10	XMLSchema5-3-2-0.5	9.56	11.89	14.22	16.67			
	0.0221	2.67	8	15.11	#	TTL=8	N=900	#	0.0263	2	2.75	4.44	#	TTL=8	N=900	#	
	V1.7_XML	69	21.7778/985						V1.7_XML	76	27.0/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	11.33	12.22	16.78	17			10	XMLSchema5-3-2-0.5	20.44	11.89	23.11	16.22			
	0.0263	2	2.67	5.11	#	TTL=8	N=900	#	0.0336	2.67	6.44	14.89	#	TTL=8	N=900	#	
	V1.7_XML	70	27.0/1026						V1.7_XML	77	32.8889/979						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	10.89	12.11	14.11	16.89			10	XMLSchema5-3-2-0.5	11.89	11.78	15.67	16			
	0.0268	2	1.75	6.22	#	TTL=8	N=900	#	0.0254	2	2.44	5.56	#	TTL=8	N=900	#	
	V1.7_XML	71	27.4444/1025						V1.7_XML	78	26.1111/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	9.44	12.11	13.11	16.78			10	XMLSchema5-3-2-0.5	16.11	11.67	21	16			
	0.0227	2	2	3.78	#	TTL=8	N=900	#	0.0302	2.44	4.89	8.22	#	TTL=8	N=900	#	
	V1.7_XML	72	23.3333/1026						V1.7_XML	79	30.0/995						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	11.11	12	16.78	16.78			10	XMLSchema5-3-2-0.5	7.78	11.67	9.89	16			
	0.0244	2	2	4.22	#	TTL=8	N=900	#	0.0194	2	3.33	4.67	#	TTL=8	N=900	#	
	V1.7_XML	73	25.0/1026						V1.7_XML	80	19.3333/995						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	11	12	15.22	16.78			10	XMLSchema5-3-2-0.5	17.78	11.56	23.78	15.89			
	0.0223	2.44	2.57	6.89	#	TTL=8	N=900	#	0.0266	2.89	4	12	#	TTL=8	N=900	#	
	V1.7_XML	74	22.2222/995						V1.7_XML	81	27.2222/1024						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6

	10	XMLSchema5-3-2-0.5	15.56	11.56	21.67	15.78		10	XMLSchema5-3-2-0.5	18	11.22	23.44	15.44				
	0.0348	2	3.11	6.22	#	TTL=8	N=900	#	0.0226	2.67	7.78	14.22	#	TTL=8	N=900	#	
	V1.7_XML	82	35.6667/1026						V1.7_XML	89	21.8889/970						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	13.33	11.56	19.44	15.78			10	XMLSchema5-3-2-0.5	19.56	11.11	22.56	15.33			
	0.0315	2	2.75	6.22	#	TTL=8	N=900	#	0.0206	3.11	8.25	15.33	#	TTL=8	N=900	#	
	V1.7_XML	83	32.3333/1026						V1.7_XML	90	19.5556/948						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	11.56	31.67	15.78			10	XMLSchema5-3-2-0.5	12.78	11.11	18.78	15.22			
	0.0407	2.89	3.56	10.44	#	TTL=8	N=900	#	0.0285	2.22	3.33	8.89	#	TTL=8	N=900	#	
	V1.7_XML	84	40.4444/993						V1.7_XML	91	29.2222/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	18.78	11.44	21.33	15.67			10	XMLSchema5-3-2-0.5	11.89	11	17	15.11			
	0.0255	2.22	5.25	13.78	#	TTL=8	N=900	#	0.0282	2	3.78	7.11	#	TTL=8	N=900	#	
	V1.7_XML	85	25.5556/1003						V1.7_XML	92	28.8889/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	19.33	11.33	25.11	15.67			10	XMLSchema5-3-2-0.5	12.78	11	17.56	15.11			
	0.033	3.11	3.5	10.89	#	TTL=8	N=900	#	0.0299	2	2.67	8	#	TTL=8	N=900	#	
	V1.7_XML	86	32.7778/994						V1.7_XML	93	30.6667/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	19.22	11.33	27.44	15.67			10	XMLSchema5-3-2-0.5	17	10.89	24.67	15			
	0.0306	2.67	3.78	12.89	#	TTL=8	N=900	#	0.0353	2.67	4	7.56	#	TTL=8	N=900	#	
	V1.7_XML	87	31.5556/1031						V1.7_XML	94	36.2222/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	10.11	11.22	13	15.56			10	XMLSchema5-3-2-0.5	18.67	10.89	24.67	15			
	0.0206	2.22	2.75	6	#	TTL=8	N=900	#	0.0314	2.67	3.33	12.44	#	TTL=8	N=900	#	
	V1.7_XML	88	21.2222/1031						V1.7_XML	95	32.2222/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6

	10	XMLSchema5-3-2-0.5	18.44	10.89	26	15		10	XMLSchema5-3-2-0.5	18	10.22	24.67	14.33				
	0.0327	2.67	5.33	13.33	#	TTL=8	N=900	#	0.0298	2.22	6	14	#	TTL=8	N=900	#	
	V1.7_XML	96	30.8889/944						V1.7_XML	3	29.6667/995						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	8.22	10.89	10.67	14.89			10	XMLSchema5-3-2-0.5	13	10.22	18.22	14.22			
	0.0195	2	4.4	5.56	#	TTL=8	N=900	#	0.023	2	4.22	10.89	#	TTL=8	N=900	#	
	V1.7_XML	97	20.0/1025						V1.7_XML	4	23.5556/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	10.89	24.89	14.78			10	XMLSchema5-3-2-0.5	7.89	10.22	10.89	14.22			
	0.0317	2.22	6.44	15.78	#	TTL=8	N=900	#	0.0198	2	2	6.89	#	TTL=8	N=900	#	
	V1.7_XML	98	32.6667/1029						V1.7_XML	5	20.3333/1025						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	12.33	10.67	18	14.78			10	XMLSchema5-3-2-0.5	10.22	10.22	15	14.11			
	0.029	2	3.56	6	#	TTL=8	N=900	#	0.0216	2	1.78	4.89	#	TTL=8	N=900	#	
	V1.7_XML	99	29.7778/1026						V1.7_XML	6	22.1111/1026						
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	6.22	10.44	9.22	14.56			10	XMLSchema5-3-2-0.5	13	10.22	19.11	14			
	0.0162	2	3.67	4.67	#	TTL=8	N=900	#	0.0293	2	2.44	6.44	#	TTL=8	N=900	#	
	V1.7_XML	100	16.5556/1025						V1.7_XML	7	30.1111/1026						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	17	10.44	21.78	14.56			10	XMLSchema5-3-2-0.5	14.22	10.11	18.78	13.89			
	0.0259	2.22	4.86	12.22	#	TTL=8	N=900	#	0.0245	2	5.25	13.33	#	TTL=8	N=900	#	
	V1.7_XML	1	26.5556/1026						V1.7_XML	8	24.3333/993						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	10.44	10.33	14.56	14.56			10	XMLSchema5-3-2-0.5	10.89	10	14	13.78			
	0.0208	2	3.11	6.44	#	TTL=8	N=900	#	0.0279	2	2	6.67	#	TTL=8	N=900	#	
	V1.7_XML	2	21.3333/1026						V1.7_XML	9	27.6667/993						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6

	10	XMLSchema5-3-2-0.5	17.89	10	21.11	13.78		10	XMLSchema5-3-2-0.5	14.11	9.56	19.78	13				
	0.0312	2	4.5	13.56	#	TTL=8	N=900	#	0.0201	2.44	8.29	13.78	#	TTL=8	N=900	#	
	V1.7_XML	10	33.6667/1080						V1.7_XML	17	20.0/994						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	10.33	9.89	13.78	13.67				10	XMLSchema5-3-2-0.5	13	9.56	18.78	13		
	0.0247	2	2	4	#	TTL=8	N=900	#		0.0288	2	2.89	6.22	#	TTL=8	N=900	#
	V1.7_XML	11	25.3333/1026							V1.7_XML	18	29.5556/1026					
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	9.33	9.89	12.22	13.56				10	XMLSchema5-3-2-0.5	11.67	9.44	16.89	13		
	0.023	2	2.22	5.56	#	TTL=8	N=900	#		0.0259	2	2.22	4	#	TTL=8	N=900	#
	V1.7_XML	12	23.5556/1025							V1.7_XML	19	26.5556/1026					
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	15.22	9.78	19.67	13.44				10	XMLSchema5-3-2-0.5	12	9.44	15.78	12.78		
	0.0259	2.89	7.25	13.56	#	TTL=8	N=900	#		0.0274	2	2.22	5.33	#	TTL=8	N=900	#
	V1.7_XML	13	26.5556/1024							V1.7_XML	20	28.1111/1026					
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	12.67	9.67	15.78	13.44				10	XMLSchema5-3-2-0.5	11.22	9.44	15.67	12.56		
	0.0257	2	2	6.22	#	TTL=8	N=900	#		0.0295	2	2	8.22	#	TTL=8	N=900	#
	V1.7_XML	14	26.3333/1026							V1.7_XML	21	30.2222/1025					
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	12.56	9.67	16.78	13.22				10	XMLSchema5-3-2-0.5	11.67	9.44	14.89	12.33		
	0.0289	2	2	6.44	#	TTL=8	N=900	#		0.0291	2	2	7.11	#	TTL=8	N=900	#
	V1.7_XML	15	29.6667/1026							V1.7_XML	22	28.8889/993					
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	7.56	9.67	9.78	13.11				10	XMLSchema5-3-2-0.5	16.56	9.33	20.67	12.22		
	0.022	2	2	4.44	#	TTL=8	N=900	#		0.0225	2.22	7.11	12	#	TTL=8	N=900	#
	V1.7_XML	16	22.5556/1025							V1.7_XML	23	23.1111/1026					
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6

	10	XMLSchema5-3-2-0.5	20.33	9	26.11	12.22		10	XMLSchema5-3-2-0.5	19.22	8.22	25.56	11.44				
	0.0313	2.89	8	14.67	#	TTL=8	N=900	#	0.028	2.67	5.5	13.78	#	TTL=8	N=900	#	
	V1.7_XML	24	30.4444/974						V1.7_XML	31	27.8889/995						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	17	9	22.89	12.11			10	XMLSchema5-3-2-0.5	15.22	8.22	21.44	11.22			
	0.0275	2.89	7.14	12	#	TTL=8	N=900	#	0.0261	2.44	3.67	10.44	#	TTL=8	N=900	#	
	V1.7_XML	25	26.0/944						V1.7_XML	32	26.0/995						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	9.44	8.78	14.78	12.11			10	XMLSchema5-3-2-0.5	10.67	8.11	14.56	10.89			
	0.0183	2	4.57	6.67	#	TTL=8	N=900	#	0.0224	2	2.5	7.11	#	TTL=8	N=900	#	
	V1.7_XML	26	18.7778/1025						V1.7_XML	33	23.0/1026						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	10.89	8.67	16	12			10	XMLSchema5-3-2-0.5	9	8	11.78	10.67			
	0.0258	2	2.22	8.89	#	TTL=8	N=900	#	0.0234	2	2	6.44	#	TTL=8	N=900	#	
	V1.7_XML	27	26.4444/1026						V1.7_XML	34	24.0/1026						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	10.22	8.44	14.56	11.89			10	XMLSchema5-3-2-0.5	18.67	7.89	23.89	10.56			
	0.0217	2.22	2.5	5.33	#	TTL=8	N=900	#	0.0267	3.78	7.78	12.89	#	TTL=8	N=900	#	
	V1.7_XML	28	21.5556/994						V1.7_XML	35	27.5556/1031						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	9.67	8.44	15	11.78			10	XMLSchema5-3-2-0.5	8.22	7.89	14.22	10.22			
	0.0221	2	3	5.56	#	TTL=8	N=900	#	0.0186	2	2.75	4.67	#	TTL=8	N=900	#	
	V1.7_XML	29	22.6667/1025						V1.7_XML	36	19.1111/1026						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	13.33	8.33	18.33	11.44			10	XMLSchema5-3-2-0.5	14.67	7.78	21.67	9.89			
	0.0293	2	2.44	8.89	#	TTL=8	N=900	#	0.0287	2.22	3.78	10.67	#	TTL=8	N=900	#	
	V1.7_XML	30	29.1111/993						V1.7_XML	37	28.5556/994						
0	RWTCA	NO	900	SQUARE	50	0	1.4	100	0	RWTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6

10	XMLSchema5-3-2-0.5	8	7.56	10.56	9.78				
0.0183	2	4	5.56	#	TTL=8	N=900	#		
V1.7_XML	38	18.2222/995							
0	RWTCB	NO	900	SQUARE	50	0	1.4	100	
LEAF	0.01	8	50	1500	50	3	6		
10	XMLSchema5-3-2-0.5	16.33	6.22	23.56	9.22				
0.0181	2.44	8	12.67	#	TTL=8	N=900	#		
V1.7_XML	1	18.5556/1026							

Output 2

TaxFile d2'

d1 d1' d2 #CPeers

#Quer	QType	%QPeer	TTL	CacheS	CacheET	#QWarm			
#RWalk	#MaxJumFL	#MaxJumNR	FirstNRes						
TaxFile	20.33	#CPeers	26.11	#Msgs	Recall	LFirstRes			
LFirstNRes	LAllRes	#Qld	#found/#total						
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	17	19.22	21.78	25.56				
0.0259	2.22	4.86	12.22	#	TTL=8	N=900	#		
V1.7_XML	1	26.5556/1026							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	10.44	18.67	14.56	24.67				
0.0208	2	3.11	6.44	#	TTL=8	N=900	#		
V1.7_XML	2	21.3333/1026							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	18	18	24.67	23.89				

0.0298	2.22	6	14	#	TTL=8	N=900	#		
V1.7_XML	3	29.6667/995							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	13	17.89	18.22	22.89				
0.023	2	4.22	10.89	#	TTL=8	N=900	#		
V1.7_XML	4	23.5556/1025							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	7.89	17	10.89	21.78				
0.0198	2	2	6.89	#	TTL=8	N=900	#		
V1.7_XML	5	20.3333/1025							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	10.22	17	15	21.67				
0.0216	2	1.78	4.89	#	TTL=8	N=900	#		
V1.7_XML	6	22.1111/1026							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	13	16.56	19.11	21.44				
0.0293	2	2.44	6.44	#	TTL=8	N=900	#		
V1.7_XML	7	30.1111/1026							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	14.22	15.22	18.78	21.11				
0.0245	2	5.25	13.33	#	TTL=8	N=900	#		
V1.7_XML	8	24.3333/993							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	10.89	15.22	14	20.67				
0.0279	2	2	6.67	#	TTL=8	N=900	#		
V1.7_XML	9	27.6667/993							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	17.89	14.67	21.11	19.78				
0.0312	2	4.5	13.56	#	TTL=8	N=900	#		
V1.7_XML	10	33.6667/1080							
100	LEAF	0.01	8	50	1500	50	3	6	
10	XMLSchema5-3-2-0.5	10.33	14.22	13.78	19.67				
0.0247	2	2	4	#	TTL=8	N=900	#		
V1.7_XML	11	25.3333/1026							

100	LEAF	0.01	8	50	1500	50	3	6	0.0274	2	2.22	5.33	#	TTL=8	N=900	#	
	10	XMLSchema5-3-2-0.5		9.33	14.11	12.22	19.11		V1.7_XML	20	28.1111/1026						
	0.023	2	2.22	5.56	#	TTL=8	N=900	#	100	LEAF	0.01	8	50	1500	50	3	6
	V1.7_XML	12	23.5556/1025						10	XMLSchema5-3-2-0.5	11.22	11.67	15.67	15.78			
100	LEAF	0.01	8	50	1500	50	3	6	0.0295	2	2	8.22	#	TTL=8	N=900	#	
	10	XMLSchema5-3-2-0.5		15.22	13.33	19.67	18.78		V1.7_XML	21	30.2222/1025						
	0.0259	2.89	7.25	13.56	#	TTL=8	N=900	#	100	LEAF	0.01	8	50	1500	50	3	6
	V1.7_XML	13	26.5556/1024						10	XMLSchema5-3-2-0.5	11.67	11.22	14.89	15.67			
100	LEAF	0.01	8	50	1500	50	3	6	0.0291	2	2	7.11	#	TTL=8	N=900	#	
	10	XMLSchema5-3-2-0.5		12.67	13	15.78	18.78		V1.7_XML	22	28.8889/993						
	0.0257	2	2	6.22	#	TTL=8	N=900	#	100	LEAF	0.01	8	50	1500	50	3	6
	V1.7_XML	14	26.3333/1026						10	XMLSchema5-3-2-0.5	16.56	10.89	20.67	15			
100	LEAF	0.01	8	50	1500	50	3	6	0.0225	2.22	7.11	12	#	TTL=8	N=900	#	
	10	XMLSchema5-3-2-0.5		12.56	13	16.78	18.33		V1.7_XML	23	23.1111/1026						
	0.0289	2	2	6.44	#	TTL=8	N=900	#	100	LEAF	0.01	8	50	1500	50	3	6
	V1.7_XML	15	29.6667/1026						10	XMLSchema5-3-2-0.5	20.33	10.89	26.11	15			
100	LEAF	0.01	8	50	1500	50	3	6	0.0313	2.89	8	14.67	#	TTL=8	N=900	#	
	10	XMLSchema5-3-2-0.5		7.56	13	9.78	18.22		V1.7_XML	24	30.4444/974						
	0.022	2	2	4.44	#	TTL=8	N=900	#	100	LEAF	0.01	8	50	1500	50	3	6
	V1.7_XML	16	22.5556/1025						10	XMLSchema5-3-2-0.5	17	10.67	22.89	14.89			
100	LEAF	0.01	8	50	1500	50	3	6	0.0275	2.89	7.14	12	#	TTL=8	N=900	#	
	10	XMLSchema5-3-2-0.5		14.11	12.67	19.78	16.89		V1.7_XML	25	26.0/944						
	0.0201	2.44	8.29	13.78	#	TTL=8	N=900	#	100	LEAF	0.01	8	50	1500	50	3	6
	V1.7_XML	17	20.0/994						10	XMLSchema5-3-2-0.5	9.44	10.44	14.78	14.78			
100	LEAF	0.01	8	50	1500	50	3	6	0.0183	2	4.57	6.67	#	TTL=8	N=900	#	
	10	XMLSchema5-3-2-0.5		13	12.56	18.78	16.78		V1.7_XML	26	18.7778/1025						
	0.0288	2	2.89	6.22	#	TTL=8	N=900	#	100	LEAF	0.01	8	50	1500	50	3	6
	V1.7_XML	18	29.5556/1026						10	XMLSchema5-3-2-0.5	10.89	10.33	16	14.56			
100	LEAF	0.01	8	50	1500	50	3	6	0.0258	2	2.22	8.89	#	TTL=8	N=900	#	
	10	XMLSchema5-3-2-0.5		11.67	12	16.89	16		V1.7_XML	27	26.4444/1026						
	0.0259	2	2.22	4	#	TTL=8	N=900	#	100	LEAF	0.01	8	50	1500	50	3	6
	V1.7_XML	19	26.5556/1026						10	XMLSchema5-3-2-0.5	10.22	10.22	14.56	14.56			
100	LEAF	0.01	8	50	1500	50	3	6	0.0217	2.22	2.5	5.33	#	TTL=8	N=900	#	
	10	XMLSchema5-3-2-0.5		12	11.67	15.78	15.78		V1.7_XML	28	21.5556/994						

100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			9.67	10.22	15	14.56											
	0.0221	2	3	5.56	#	TTL=8	N=900	#											
	V1.7_XML		29	22.6667/1025															
100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			13.33	9.67	18.33	14.22											
	0.0293	2	2.44	8.89	#	TTL=8	N=900	#											
	V1.7_XML		30	29.1111/993															
100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			19.22	9.44	25.56	14											
	0.028	2.67	5.5	13.78	#	TTL=8	N=900	#											
	V1.7_XML		31	27.8889/995															
100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			15.22	9.33	21.44	13.78											
	0.0261	2.44	3.67	10.44	#	TTL=8	N=900	#											
	V1.7_XML		32	26.0/995															
100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			10.67	9	14.56	12.22											
	0.0224	2	2.5	7.11	#	TTL=8	N=900	#											
	V1.7_XML		33	23.0/1026															
100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			9	8.22	11.78	11.78											
	0.0234	2	2	6.44	#	TTL=8	N=900	#											
	V1.7_XML		34	24.0/1026															
100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			18.67	8	23.89	10.89											
	0.0267	3.78	7.78	12.89	#	TTL=8	N=900	#											
	V1.7_XML		35	27.5556/1031															
100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			8.22	7.89	14.22	10.56											
	0.0186	2	2.75	4.67	#	TTL=8	N=900	#											
	V1.7_XML		36	19.1111/1026															
100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			14.67	7.56	21.67	9.78											

		0.0287	2.22	3.78	10.67	#	TTL=8	N=900	#										
	V1.7_XML		37	28.5556/994															
100	LEAF	0.01	8	50	1500	50	3	6											
	10	XMLSchema5-3-2-0.5			8														
	0.0183	2	4	5.56	#	TTL=8	N=900	#											
	V1.7_XML		38	18.2222/995															

Output 3

										#CPeers		
aQuer	#Quer	QType	%QPeer	TTL	CacheS	CacheET						
#QWarm	#RWalk	#MaxJumFL				#MaxJumNR						
FirstNRes	TaxFile	TaxFile	#CPeers	31.67	#Msgs	Recall						
LFirstRes	LFirstNRes	LAllRes	#QId	#found/#total								
1.4	100	LEAF	0.01	8	50	1500	50	3				
	6	10	XMLSchema5-3-2-0.5			19.33	21.89	23.56				
	29	0.0183	3.11	8.22	14.44	#	TTL=8					
	N=900	#	V1.7_XML		1	18.7778/1026						
1.4	100	LEAF	0.01	8	50	1500	50	3				
	6	10	XMLSchema5-3-2-0.5			12.11	21.33	17.67				
	27.67	0.0213	2	3.56	7.56	#	TTL=8					
	N=900	#	V1.7_XML		2	21.8889/1026						
1.4	100	LEAF	0.01	8	50	1500	50	3				
	6	10	XMLSchema5-3-2-0.5			20.11	21	26.44				
	27.44	0.0285	2.44	5.11	15.33	#	TTL=8					
	N=900	#	V1.7_XML		3	28.3333/995						
1.4	100	LEAF	0.01	8	50	1500	50	3				
	6	10	XMLSchema5-3-2-0.5			18.22	20.56	22				
	26.44	0.0259	2	7.11	14	#	TTL=8					
	N=900	#	V1.7_XML		4	26.5556/1025						

1.4	100	LEAF	0.01	8	50	1500	50	3	23.89	0.0242	2.22	6.22	15.56	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			10.22	20.44	13	N=900	#	V1.7_XML	13	24.7778/1024				
	26	0.0256	2	2	5.56	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML	5	26.2222/1025				6	10	XMLSchema5-3-2-0.5	13	19.22	19.22			
1.4	100	LEAF	0.01	8	50	1500	50	3	23.78	0.0258	2	2	6.44	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			10.44	20.33	15.11	N=900	#	V1.7_XML	14	26.4444/1026				
	25.22	0.0216	2	1.78	4.22	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML	6	22.1111/1026				6	10	XMLSchema5-3-2-0.5	12	19.11	17.33			
1.4	100	LEAF	0.01	8	50	1500	50	3	23.56	0.0269	2	2	5.11	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			12.11	20.11	16.78	N=900	#	V1.7_XML	15	27.5556/1026				
	25.11	0.0248	2	2.44	6.89	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML	7	25.4444/1026				6	10	XMLSchema5-3-2-0.5	13.33	19.11	15.33			
1.4	100	LEAF	0.01	8	50	1500	50	3	23.44	0.0308	2	2	10.22	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			18.56	19.89	21	N=900	#	V1.7_XML	16	31.5556/1025				
	24.89	0.0218	2.22	7.11	13.78	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML	8	21.6667/993				6	10	XMLSchema5-3-2-0.5	19.11	19	22			
1.4	100	LEAF	0.01	8	50	1500	50	3	23.44	0.0238	2.67	6	12.67	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			9.89	19.78	12.33	N=900	#	V1.7_XML	17	23.6667/994				
	24.67	0.0232	2	2.67	5.78	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML	9	23.0/993				6	10	XMLSchema5-3-2-0.5	9.78	18.89	13.67			
1.4	100	LEAF	0.01	8	50	1500	50	3	23.11	0.0248	2	2.44	4.22	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			18.33	19.56	24.22	N=900	#	V1.7_XML	18	25.4444/1026				
	24.67	0.0207	2	5.5	13.78	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML	10	22.3333/1080				6	10	XMLSchema5-3-2-0.5	10.89	18.78	15.67			
1.4	100	LEAF	0.01	8	50	1500	50	3	23.11	0.0274	2	2	6.44	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			11.44	19.33	16	N=900	#	V1.7_XML	19	28.1111/1026				
	24.44	0.0245	2	2	5.11	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML	11	25.1111/1026				6	10	XMLSchema5-3-2-0.5	11.78	18.67	15.11			
1.4	100	LEAF	0.01	8	50	1500	50	3	22.89	0.0285	2	2	7.33	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			11.33	19.33	14.33	N=900	#	V1.7_XML	20	29.2222/1026				
	24.22	0.0284	2	2	6.44	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML	12	29.1111/1025				6	10	XMLSchema5-3-2-0.5	11.56	18.67	14.78			
1.4	100	LEAF	0.01	8	50	1500	50	3	22.56	0.0299	2	2	3.56	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			19	19.22	23.11	N=900	#	V1.7_XML	21	30.6667/1025				

1.4	100	LEAF	0.01	8	50	1500	50	3	21.33	0.0266	2.44	2.89	8.67	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			13.22	18.56	15.78	N=900	#	V1.7_XML	30	26.4444/993				
	22.44	0.0305	2	2	8.67	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML			22	30.3333/993			6	10	XMLSchema5-3-2-0.5			15.56	17.78	20.78
1.4	100	LEAF	0.01	8	50	1500	50	3	21.22	0.0171	2.44	9.5	13.56	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			16.89	18.44	22	N=900	#	V1.7_XML	31	17.0/995				
	22.33	0.025	2.22	6.75	14.67	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML			23	25.6667/1026			6	10	XMLSchema5-3-2-0.5			19.89	17.33	27.67
1.4	100	LEAF	0.01	8	50	1500	50	3	21.11	0.0345	2.67	4	10.44	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			20.56	18.33	23.44	N=900	#	V1.7_XML	32	34.3333/995				
	22	0.0243	2	7.56	14.22	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML			24	23.6667/974			6	10	XMLSchema5-3-2-0.5			11.56	17	15.44
1.4	100	LEAF	0.01	8	50	1500	50	3	21	0.0275	2	3.11	7.78	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			18.33	18.33	21.67	N=900	#	V1.7_XML	33	28.2222/1026				
	22	0.0228	2.22	5.75	14.22	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML			25	21.5556/944			6	10	XMLSchema5-3-2-0.5			8.11	17	11.44
1.4	100	LEAF	0.01	8	50	1500	50	3	21	0.0244	2	3	3.56	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			9	18.22	13.44	N=900	#	V1.7_XML	34	25.0/1026				
	22	0.019	2	2.67	6.67	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML			26	19.4444/1025			6	10	XMLSchema5-3-2-0.5			17.33	17	24.44
1.4	100	LEAF	0.01	8	50	1500	50	3	20.78	0.0255	2.67	7.11	14.22	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			11.22	18.22	15.89	N=900	#	V1.7_XML	35	26.3333/1031				
	21.67	0.026	2	2.44	8.44	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML			27	26.6667/1026			6	10	XMLSchema5-3-2-0.5			8.33	17	11.22
1.4	100	LEAF	0.01	8	50	1500	50	3	19.89	0.0227	2	3	4.44	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			11.56	18	15.56	N=900	#	V1.7_XML	36	23.3333/1026				
	21.67	0.0274	2	2	9.78	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML			28	27.2222/994			6	10	XMLSchema5-3-2-0.5			10	16.89	13
1.4	100	LEAF	0.01	8	50	1500	50	3	19.89	0.0226	2	3.25	5.56	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			9.44	18	13.22	N=900	#	V1.7_XML	37	22.4444/994				
	21.67	0.0222	2	2.5	6.67	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500	50	3
	N=900	#	V1.7_XML			29	22.7778/1025			6	10	XMLSchema5-3-2-0.5			11	16.67	12.56
1.4	100	LEAF	0.01	8	50	1500	50	3	19.67	0.0271	2	4	8.67	#	TTL=8		
	6	10	XMLSchema5-3-2-0.5			14.33	17.89	18.89	N=900	#	V1.7_XML	38	27.0/995				

1.4	100	LEAF	0.01	8	50	1500	50	3	17.67	0.0216	2	2.57	7.78	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			17	16.56	21.67	N=900	#	V1.7_XML	47	21.4444/994		
	19.56	0.0258	2.22	8	14.22	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	39	25.2222/978				6	10	XMLSchema5-3-2-0.5			18.89 14.78 22.89	
1.4	100	LEAF	0.01	8	50	1500	50	3	17.67	0.0259	2.44	5.33	14.89	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			12.22	16.33	18.44	N=900	#	V1.7_XML	48	26.5556/1025		
	19.44	0.0244	2.22	3.11	8.89	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	40	25.0/1026				6	10	XMLSchema5-3-2-0.5			10.22 14.78 13.89	
1.4	100	LEAF	0.01	8	50	1500	50	3	17.56	0.0233	2	2.5	6	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			11.11	16.11	16.22	N=900	#	V1.7_XML	49	23.8889/1026		
	19.22	0.0238	2	2.5	6.89	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	41	24.4444/1026				6	10	XMLSchema5-3-2-0.5			21.89 14.67 29	
1.4	100	LEAF	0.01	8	50	1500	50	3	17.33	0.0375	2.67	4	10.67	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			19.78	15.56	25.22	N=900	#	V1.7_XML	50	38.4444/1025		
	18.89	0.0307	2.44	6.44	14.22	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	42	30.1111/980				6	10	XMLSchema5-3-2-0.5			14.78 14.33 19.89	
1.4	100	LEAF	0.01	8	50	1500	50	3	17	0.0347	2	2.5	8.89	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			8.44	15.56	12.78	N=900	#	V1.7_XML	51	34.5556/995		
	18.78	0.0208	2	2	4.67	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	43	21.4444/1031				6	10	XMLSchema5-3-2-0.5			8.78 14.22 12.11	
1.4	100	LEAF	0.01	8	50	1500	50	3	16.78	0.0225	2	2.25	6	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			9.44	15.33	12.22	N=900	#	V1.7_XML	52	23.1111/1025		
	18.44	0.0248	2	3	6.89	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	44	24.6667/995				6	10	XMLSchema5-3-2-0.5			12.89 14.11 18.22	
1.4	100	LEAF	0.01	8	50	1500	50	3	16.78	0.0293	2	2.5	6.89	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			8.67	15.22	11.44	N=900	#	V1.7_XML	53	30.1111/1026		
	18.22	0.0205	2	3.25	8	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	45	20.3333/994				6	10	XMLSchema5-3-2-0.5			11.56 13.33 16.67	
1.4	100	LEAF	0.01	8	50	1500	50	3	16.78	0.0265	2	2.67	7.33	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			9.89	15.22	15	N=900	#	V1.7_XML	54	27.2222/1026		
	18	0.0245	2	2.86	6.22	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	46	25.1111/1026				6	10	XMLSchema5-3-2-0.5			12.67 13.33 19.89	
1.4	100	LEAF	0.01	8	50	1500	50	3	16.67	0.0274	2	2.22	4.67	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			9.56	15.11	12	N=900	#	V1.7_XML	55	28.1111/1026		

1.4	100	LEAF	0.01	8	50	1500	50	3	15.44	0.0186	2	3	4	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			9.67	13.33	16	N=900	#	V1.7_XML		64	19.1111/1026	
	16.22	0.0238	2	2.22	4.44	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML		56	24.4444/1026			6	10	XMLSchema5-3-2-0.5			16.67	12.67 21.22
1.4	100	LEAF	0.01	8	50	1500	50	3	15.33	0.0291	2.89	4.44	14.89	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			10.89	13.22	13.56	N=900	#	V1.7_XML		65	28.3333/973	
	16	0.0306	2	3.78	8	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML		57	31.3333/1025			6	10	XMLSchema5-3-2-0.5			7.89	12.67 10.22
1.4	100	LEAF	0.01	8	50	1500	50	3	15.22	0.0245	2	2.25	3.11	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			15.33	13	19.67	N=900	#	V1.7_XML		66	25.1111/1025	
	16	0.0195	2.22	7.25	13.78	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML		58	19.1111/982			6	10	XMLSchema5-3-2-0.5			11.89	12.56 19.56
1.4	100	LEAF	0.01	8	50	1500	50	3	15.11	0.0271	2.22	3.33	6	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			15.11	13	23.89	N=900	#	V1.7_XML		67	27.7778/1026	
	15.89	0.0268	2.89	3.25	11.33	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML		59	26.6667/995			6	10	XMLSchema5-3-2-0.5			14.78	12.33 21.11
1.4	100	LEAF	0.01	8	50	1500	50	3	15.11	0.0324	2	2.67	7.78	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			12.22	13	17.67	N=900	#	V1.7_XML		68	33.2222/1026	
	15.78	0.0258	2	2.44	5.56	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML		60	26.4444/1026			6	10	XMLSchema5-3-2-0.5			19.11	12.22 22.33
1.4	100	LEAF	0.01	8	50	1500	50	3	15	0.0221	2.67	8	15.11	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			18.22	13	22.44	N=900	#	V1.7_XML		69	21.7778/985	
	15.67	0.0235	2	9.11	15.33	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML		61	23.6667/1008			6	10	XMLSchema5-3-2-0.5			11.33	12.22 16.78
1.4	100	LEAF	0.01	8	50	1500	50	3	14.78	0.0263	2	2.67	5.11	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			9.67	12.89	13.44	N=900	#	V1.7_XML		70	27.0/1026	
	15.67	0.0261	2	2	5.11	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML		62	26.7778/1025			6	10	XMLSchema5-3-2-0.5			10.89	12.11 14.11
1.4	100	LEAF	0.01	8	50	1500	50	3	14.33	0.0268	2	1.75	6.22	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			10.22	12.78	13.78	N=900	#	V1.7_XML		71	27.4444/1025	
	15.56	0.0261	2	2	4.44	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML		63	26.7778/1025			6	10	XMLSchema5-3-2-0.5			9.44	12.11 13.11
1.4	100	LEAF	0.01	8	50	1500	50	3	14.22	0.0227	2	2	3.78	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			8.44	12.78	12.11	N=900	#	V1.7_XML		72	23.3333/1026	

1.4	100	LEAF	0.01	8	50	1500	50	3	13.11	0.0266	2.89	4	12	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			11.11	12	16.78	N=900	#	V1.7_XML	81	27.2222/1024		
	14.11	0.0244	2	2	4.22	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	73	25.0/1026				6	10	XMLSchema5-3-2-0.5		15.56	11.56	21.67
1.4	100	LEAF	0.01	8	50	1500	50	3	13	0.0348	2	3.11	6.22	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			11	12	15.22	N=900	#	V1.7_XML	82	35.6667/1026		
	13.89	0.0223	2.44	2.57	6.89	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	74	22.2222/995				6	10	XMLSchema5-3-2-0.5		13.33	11.56	19.44
1.4	100	LEAF	0.01	8	50	1500	50	3	13	0.0315	2	2.75	6.22	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			10	11.89	11.89	N=900	#	V1.7_XML	83	32.3333/1026		
	13.78	0.0292	2	2.44	3.56	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	75	29.8889/1025				6	10	XMLSchema5-3-2-0.5		21.33	11.56	31.67
1.4	100	LEAF	0.01	8	50	1500	50	3	13	0.0407	2.89	3.56	10.44	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			9.56	11.89	14.22	N=900	#	V1.7_XML	84	40.4444/993		
	13.67	0.0263	2	2.75	4.44	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	76	27.0/1025				6	10	XMLSchema5-3-2-0.5		18.78	11.44	21.33
1.4	100	LEAF	0.01	8	50	1500	50	3	12.78	0.0255	2.22	5.25	13.78	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			20.44	11.89	23.11	N=900	#	V1.7_XML	85	25.5556/1003		
	13.56	0.0336	2.67	6.44	14.89	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	77	32.8889/979				6	10	XMLSchema5-3-2-0.5		19.33	11.33	25.11
1.4	100	LEAF	0.01	8	50	1500	50	3	12.56	0.033	3.11	3.5	10.89	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			11.89	11.78	15.67	N=900	#	V1.7_XML	86	32.7778/994		
	13.44	0.0254	2	2.44	5.56	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	78	26.1111/1026				6	10	XMLSchema5-3-2-0.5		19.22	11.33	27.44
1.4	100	LEAF	0.01	8	50	1500	50	3	12.33	0.0306	2.67	3.78	12.89	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			16.11	11.67	21	N=900	#	V1.7_XML	87	31.5556/1031		
	13.44	0.0302	2.44	4.89	8.22	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	79	30.0/995				6	10	XMLSchema5-3-2-0.5		10.11	11.22	13
1.4	100	LEAF	0.01	8	50	1500	50	3	12.22	0.0206	2.22	2.75	6	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			7.78	11.67	9.89	N=900	#	V1.7_XML	88	21.2222/1031		
	13.22	0.0194	2	3.33	4.67	#	TTL=8		1.4	100	LEAF	0.01	8	50	1500 50 3
	N=900	#	V1.7_XML	80	19.3333/995				6	10	XMLSchema5-3-2-0.5		18	11.22	23.44
1.4	100	LEAF	0.01	8	50	1500	50	3	12.11	0.0226	2.67	7.78	14.22	#	TTL=8
	6	10	XMLSchema5-3-2-0.5			17.78	11.56	23.78	N=900	#	V1.7_XML	89	21.8889/970		

1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			19.56	11.11	22.56
	12.11	0.0206	3.11	8.25	15.33	#	TTL=8	
	N=900	#	V1.7_XML	90		19.5556/948		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			12.78	11.11	18.78
	12	0.0285	2.22	3.33	8.89	#	TTL=8	
	N=900	#	V1.7_XML	91		29.2222/1026		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			11.89	11	17
	11.89	0.0282	2	3.78	7.11	#	TTL=8	
	N=900	#	V1.7_XML	92		28.8889/1026		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			12.78	11	17.56
	11.44	0.0299	2	2.67	8	#	TTL=8	
	N=900	#	V1.7_XML	93		30.6667/1026		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			17	10.89	24.67
	11.44	0.0353	2.67	4	7.56	#	TTL=8	
	N=900	#	V1.7_XML	94		36.2222/1025		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			18.67	10.89	24.67
	11.22	0.0314	2.67	3.33	12.44	#	TTL=8	
	N=900	#	V1.7_XML	95		32.2222/1026		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			18.44	10.89	26
	10.67	0.0327	2.67	5.33	13.33	#	TTL=8	
	N=900	#	V1.7_XML	96		30.8889/944		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			8.22	10.89	10.67
	10.22	0.0195	2	4.4	5.56	#	TTL=8	
	N=900	#	V1.7_XML	97		20.0/1025		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			21	10.89	24.89

	9.89	0.0317	2.22	6.44	15.78	#	TTL=8	
	N=900	#	V1.7_XML	98		32.6667/1029		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			12.33	10.67	18
	9.22	0.029	2	3.56	6	#	TTL=8	
	N=900	#	V1.7_XML	99		29.7778/1026		
1.4	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5			6.22	10.44	9.22
	0.0162	2	3.67	4.67		#	TTL=8	
	N=900	#	V1.7_XML	100		16.5556/1025		

Output 4

ExpID	SType	IsBase?	#Peers	Topol	#Res	aR2T	aQuer
#Quer	QType	%QPeer	TTL	CacheS	CacheET	#QWarm	
#RWalk	#MaxJumFL	#MaxJumNR	FirstNRes				
TaxFile	#CPeers	#Msgs	Recall	LFirstRes		LFirstNRes	
LAllRes	#Qid	#found/#total					
2	FLTCB	NO	900	SQUARE	50	0	1.4 100
	LEAF	0.01	8	50	1500	50	3 6
	10	XMLSchema5-3-2-0.5	21.11	37	0.021	2.89	
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML
	rozlina	1	dNrRes--	21.5556/1026			
2	FLTCB	NO	900	SQUARE	50	0	1.4 100
	LEAF	0.01	8	50	1500	50	3 6
	10	XMLSchema5-3-2-0.5	21.44	37	0.0191	2	
	4	6	#	TTL=8	N=900	#	V1.7_XML
	rozlina	2	dNrRes--	19.5556/1026			
2	FLTCB	NO	900	SQUARE	50	0	1.4 100
	LEAF	0.01	8	50	1500	50	3 6
	10	XMLSchema5-3-2-0.5	21	37	0.0218	2.44	
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML
	rozlina	3	dNrRes--	21.6667/995			

2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.89	37	0.0228	2.67			10	XMLSchema5-3-2-0.5		21.44	37	0.0191	2	
	5.11	6.22	#	TTL=8	N=900	#	V1.7_XML			3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	4	dNrRes--23.3333/1025							rozlina	11	dNrRes--19.5556/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.0243	2			10	XMLSchema5-3-2-0.5		21.67	37	0.0227	2	
	4	6	#	TTL=8	N=900	#	V1.7_XML			4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	5	dNrRes--24.8889/1025							rozlina	12	dNrRes--23.2222/1025					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.44	37	0.0191	2			10	XMLSchema5-3-2-0.5		21	37	0.0225	2.67	
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			4.57	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	6	dNrRes--19.5556/1026							rozlina	13	dNrRes--23.0/1024					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.44	37	0.0191	2			10	XMLSchema5-3-2-0.5		21.67	37	0.0207	2	
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	7	dNrRes--19.5556/1026							rozlina	14	dNrRes--21.2222/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21	37	0.0229	2.89			10	XMLSchema5-3-2-0.5		21.56	37	0.0194	2	
	4	6.22	#	TTL=8	N=900	#	V1.7_XML			3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	8	dNrRes--22.7778/993							rozlina	15	dNrRes--19.8889/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.78	37	0.0204	2			10	XMLSchema5-3-2-0.5		21.89	37	0.0227	2	
	4	6	#	TTL=8	N=900	#	V1.7_XML			3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	9	dNrRes--20.2222/993							rozlina	16	dNrRes--23.2222/1025					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.11	37	0.0202	2.44			10	XMLSchema5-3-2-0.5		21	37	0.0201	2.44	
	4.25	6.22	#	TTL=8	N=900	#	V1.7_XML			4.67	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	10	dNrRes--21.7778/1080							rozlina	17	dNrRes--20.0/994					

2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.44	37	0.0198	2			10	XMLSchema5-3-2-0.5		21	37	0.0201	2.44	
	3.56	6	#	TTL=8	N=900	#	V1.7_XML			5.14	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	18	dNrRes--20.3333/1026							rozlina	25	dNrRes--19.0/944					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.0194	2			10	XMLSchema5-3-2-0.5		21.67	37	0.0232	2.22	
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	19	dNrRes--19.8889/1026							rozlina	26	dNrRes--23.7778/1025					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.0194	2			10	XMLSchema5-3-2-0.5		22.33	37	0.0205	2.22	
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	20	dNrRes--19.8889/1026							rozlina	27	dNrRes--21.0/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.78	37	0.0218	2			10	XMLSchema5-3-2-0.5		20.78	37	0.0187	2	
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML			3.25	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	21	dNrRes--22.3333/1025							rozlina	28	dNrRes--18.5556/994					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.11	37	0.0215	2			10	XMLSchema5-3-2-0.5		21.44	37	0.0228	2	
	3.5	5.78	#	TTL=8	N=900	#	V1.7_XML			3.78	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	22	dNrRes--21.3333/993							rozlina	29	dNrRes--23.3333/1025					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21	37	0.0205	2.22			10	XMLSchema5-3-2-0.5		20.78	37	0.021	2	
	4.89	6.22	#	TTL=8	N=900	#	V1.7_XML			4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	23	dNrRes--21.0/1026							rozlina	30	dNrRes--20.8889/993					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21	37	0.0211	2			10	XMLSchema5-3-2-0.5		21	37	0.0207	2.67	
	4.22	6.22	#	TTL=8	N=900	#	V1.7_XML			4.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	24	dNrRes--20.5556/974							rozlina	31	dNrRes--20.5556/995					

2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0217	2.67				10	XMLSchema5-3-2-0.5	21.11	37	0.0195	2.67		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML			5.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	32	dNrRes--21.5556/995							rozlina	39	dNrRes--19.1111/978					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.89	37	0.022	2.22				10	XMLSchema5-3-2-0.5	22.33	37	0.0192	2.22		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	33	dNrRes--22.5556/1026							rozlina	40	dNrRes--19.6667/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.67	37	0.0195	2.22				10	XMLSchema5-3-2-0.5	22.33	37	0.0187	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML			4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	34	dNrRes--20.0/1026							rozlina	41	dNrRes--19.2222/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.0197	2				10	XMLSchema5-3-2-0.5	21	37	0.0215	2.44		
	4.89	6.22	#	TTL=8	N=900	#	V1.7_XML			5.56	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	35	dNrRes--20.3333/1031							rozlina	42	dNrRes--21.1111/980					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37	0.0196	2.22				10	XMLSchema5-3-2-0.5	20.89	37	0.0191	2		
	4	6	#	TTL=8	N=900	#	V1.7_XML			2.89	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	36	dNrRes--20.1111/1026							rozlina	43	dNrRes--19.6667/1031					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.021	2				10	XMLSchema5-3-2-0.5	21.78	37	0.024	2		
	4	5.78	#	TTL=8	N=900	#	V1.7_XML			3.56	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	37	dNrRes--20.8889/994							rozlina	44	dNrRes--23.8889/995					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0224	2				10	XMLSchema5-3-2-0.5	21	37	0.0197	2		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			4	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	38	dNrRes--22.3333/995							rozlina	45	dNrRes--19.5556/994					

2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.33	37	0.0187	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	46	dNrRes--19.2222/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0197	2		
	4	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	47	dNrRes--19.5556/994					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0191	2		
	4.57	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	48	dNrRes--19.5556/1025					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.0196	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	49	dNrRes--20.1111/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0236	2.67		
	3.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	50	dNrRes--24.2222/1025					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.0268	2		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	51	dNrRes--26.6667/995					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.0225	2		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	52	dNrRes--23.1111/1025					

2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.02	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	53	dNrRes--20.5556/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0194	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	54	dNrRes--19.8889/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.0193	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	55	dNrRes--19.7778/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.0193	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	56	dNrRes--19.7778/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0214	2		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	57	dNrRes--21.8889/1025					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.018	2.22		
	6	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	58	dNrRes--17.6667/982					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.11	37	0.0185	2.89		
	4	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	59	dNrRes--18.4444/995					

2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89			37	0.0199	2.22		10	XMLSchema5-3-2-0.5	21.78			37	0.0187	2.22
	4	6	#	TTL=8	N=900	#		V1.7_XML		4	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	60		dNrRes--20.4444/1026						rozlina	67		dNrRes--19.2222/1026				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21			37	0.0207	2		10	XMLSchema5-3-2-0.5	21.78			37	0.0181	2.22
	4.44	6.22	#	TTL=8	N=900	#		V1.7_XML		4	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	61		dNrRes--20.8889/1008						rozlina	68		dNrRes--18.5556/1026				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67			37	0.021	2		10	XMLSchema5-3-2-0.5	21			37	0.0211	2
	3.56	6	#	TTL=8	N=900	#		V1.7_XML		4.22	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	62		dNrRes--21.5556/1025						rozlina	69		dNrRes--20.7778/985				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67			37	0.021	2		10	XMLSchema5-3-2-0.5	21.78			37	0.0181	2.22
	3.56	6	#	TTL=8	N=900	#		V1.7_XML		4	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	63		dNrRes--21.5556/1025						rozlina	70		dNrRes--18.5556/1026				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78			37	0.0194	2.22		10	XMLSchema5-3-2-0.5	21.56			37	0.0206	2
	4.22	6	#	TTL=8	N=900	#		V1.7_XML		3.56	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	64		dNrRes--19.8889/1026						rozlina	71		dNrRes--21.1111/1025				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21			37	0.0222	2.44		10	XMLSchema5-3-2-0.5	21.78			37	0.0181	2.22
	5.33	6.22	#	TTL=8	N=900	#		V1.7_XML		4	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	65		dNrRes--21.5556/973						rozlina	72		dNrRes--18.5556/1026				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56			37	0.0212	2		10	XMLSchema5-3-2-0.5	21.78			37	0.0181	2.22
	3.56	6	#	TTL=8	N=900	#		V1.7_XML		4	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	66		dNrRes--21.7778/1025						rozlina	73		dNrRes--18.5556/1026				

2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.33	37			0.0178	2.22		10	XMLSchema5-3-2-0.5	20.22	37			0.02	3.11
	3.33	5.33	#	TTL=8	N=900	#		V1.7_XML		3.43	5.56	#	TTL=8	N=900	#		V1.7_XML
	rozlina	74	dNrRes--17.6667/995							rozlina	81	dNrRes--20.4444/1024					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37			0.0206	2		10	XMLSchema5-3-2-0.5	22	37			0.018	2.22
	3.56	5.78	#	TTL=8	N=900	#		V1.7_XML		4	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	75	dNrRes--21.1111/1025							rozlina	82	dNrRes--18.4444/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37			0.0206	2		10	XMLSchema5-3-2-0.5	21.78	37			0.0171	2.22
	3.56	5.78	#	TTL=8	N=900	#		V1.7_XML		4.22	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	76	dNrRes--21.1111/1025							rozlina	83	dNrRes--17.5556/1026					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37			0.0228	2.67		10	XMLSchema5-3-2-0.5	20.22	37			0.0198	3.56
	3.75	6.22	#	TTL=8	N=900	#		V1.7_XML		4.5	5.56	#	TTL=8	N=900	#		V1.7_XML
	rozlina	77	dNrRes--22.3333/979							rozlina	84	dNrRes--19.6667/993					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78	37			0.0175	2.22		10	XMLSchema5-3-2-0.5	21	37			0.0201	2.67
	4	5.78	#	TTL=8	N=900	#		V1.7_XML		5.11	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	78	dNrRes--18.0/1026							rozlina	85	dNrRes--20.1111/1003					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.0214	2.67		10	XMLSchema5-3-2-0.5	20.33	37			0.0195	3.11
	3.78	6	#	TTL=8	N=900	#		V1.7_XML		3.78	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	79	dNrRes--21.3333/995							rozlina	86	dNrRes--19.3333/994					
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.0208	2		10	XMLSchema5-3-2-0.5	21	37			0.019	2.89
	3.78	5.78	#	TTL=8	N=900	#		V1.7_XML		3.78	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	80	dNrRes--20.6667/995							rozlina	87	dNrRes--19.5556/1031					

2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89			37	0.0181	2		10	XMLSchema5-3-2-0.5	20.89			37	0.0206	2.89
	3.78	5.78	#	TTL=8	N=900	#		V1.7_XML		4	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	88		dNrRes--18.6667/1031						rozlina	95		dNrRes--21.1111/1026				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21			37	0.019	2.89		10	XMLSchema5-3-2-0.5	20.78			37	0.0219	2.89
	5.5	6.22	#	TTL=8	N=900	#		V1.7_XML		3.43	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	89		dNrRes--18.4444/970						rozlina	96		dNrRes--20.6667/944				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11			37	0.0202	2.67		10	XMLSchema5-3-2-0.5	22.22			37	0.0234	2
	5.11	6.22	#	TTL=8	N=900	#		V1.7_XML		4	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	90		dNrRes--19.1111/948						rozlina	97		dNrRes--24.0/1025				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.44			37	0.0193	2.44		10	XMLSchema5-3-2-0.5	21			37	0.0187	2.67
	4.44	6	#	TTL=8	N=900	#		V1.7_XML		4.86	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	91		dNrRes--19.7778/1026						rozlina	98		dNrRes--19.2222/1029				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89			37	0.018	2.22		10	XMLSchema5-3-2-0.5	21.67			37	0.0188	2.22
	4.22	6	#	TTL=8	N=900	#		V1.7_XML		4.44	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	92		dNrRes--18.4444/1026						rozlina	99		dNrRes--19.3333/1026				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89			37	0.018	2.22		10	XMLSchema5-3-2-0.5	22.11			37	0.0229	2
	4.22	6	#	TTL=8	N=900	#		V1.7_XML		3.56	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	93		dNrRes--18.4444/1026						rozlina	100		dNrRes--23.4444/1025				
2	FLTCB	NO	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.67			37	0.0242	2.67		10	XMLSchema5-3-2-0.5	21.11			37	0.021	2.89
	4	6	#	TTL=8	N=900	#		V1.7_XML		5.33	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	94		dNrRes--24.7778/1025						rozlina	1		dNrRes--21.5556/1026				

2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.44	37	0.0191	2			10	XMLSchema5-3-2-0.5		20.78	37	0.0204	2	
	4	6	#	TTL=8	N=900	#	V1.7_XML			4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	2	dNrRes--19.5556/1026							rozlina	9	dNrRes--20.2222/993					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21	37	0.0218	2.44			10	XMLSchema5-3-2-0.5		21.11	37	0.0202	2.44	
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML			4.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	3	dNrRes--21.6667/995							rozlina	10	dNrRes--21.7778/1080					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.89	37	0.0228	2.67			10	XMLSchema5-3-2-0.5		21.44	37	0.0191	2	
	5.11	6.22	#	TTL=8	N=900	#	V1.7_XML			3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	4	dNrRes--23.3333/1025							rozlina	11	dNrRes--19.5556/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.0243	2			10	XMLSchema5-3-2-0.5		21.67	37	0.0227	2	
	4	6	#	TTL=8	N=900	#	V1.7_XML			4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	5	dNrRes--24.8889/1025							rozlina	12	dNrRes--23.2222/1025					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.44	37	0.0191	2			10	XMLSchema5-3-2-0.5		21	37	0.0225	2.67	
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			4.57	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	6	dNrRes--19.5556/1026							rozlina	13	dNrRes--23.0/1024					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.44	37	0.0191	2			10	XMLSchema5-3-2-0.5		21.67	37	0.0207	2	
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	7	dNrRes--19.5556/1026							rozlina	14	dNrRes--21.2222/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21	37	0.0229	2.89			10	XMLSchema5-3-2-0.5		21.56	37	0.0194	2	
	4	6.22	#	TTL=8	N=900	#	V1.7_XML			3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	8	dNrRes--22.7778/993							rozlina	15	dNrRes--19.8889/1026					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0227	2				10	XMLSchema5-3-2-0.5	21	37	0.0205	2.22		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML			4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	16	dNrRes--23.2222/1025							rozlina	23	dNrRes--21.0/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0201	2.44				10	XMLSchema5-3-2-0.5	21	37	0.0211	2		
	4.67	6.22	#	TTL=8	N=900	#	V1.7_XML			4.22	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	17	dNrRes--20.0/994							rozlina	24	dNrRes--20.5556/974					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.44	37	0.0198	2				10	XMLSchema5-3-2-0.5	21	37	0.0201	2.44		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML			5.14	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	18	dNrRes--20.3333/1026							rozlina	25	dNrRes--19.0/944					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0194	2				10	XMLSchema5-3-2-0.5	21.67	37	0.0232	2.22		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	19	dNrRes--19.8889/1026							rozlina	26	dNrRes--23.7778/1025					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0194	2				10	XMLSchema5-3-2-0.5	22.33	37	0.0205	2.22		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	20	dNrRes--19.8889/1026							rozlina	27	dNrRes--21.0/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78	37	0.0218	2				10	XMLSchema5-3-2-0.5	20.78	37	0.0187	2		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML			3.25	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	21	dNrRes--22.3333/1025							rozlina	28	dNrRes--18.5556/994					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0215	2				10	XMLSchema5-3-2-0.5	21.44	37	0.0228	2		
	3.5	5.78	#	TTL=8	N=900	#	V1.7_XML			3.78	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	22	dNrRes--21.3333/993							rozlina	29	dNrRes--23.3333/1025					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.78	37			0.021	2
	4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	30	dNrRes--20.8889/993					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37			0.0207	2.67
	4.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	31	dNrRes--20.5556/995					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37			0.0217	2.67
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	32	dNrRes--21.5556/995					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.89	37			0.022	2.22
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	33	dNrRes--22.5556/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.67	37			0.0195	2.22
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	34	dNrRes--20.0/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37			0.0197	2
	4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	35	dNrRes--20.3333/1031					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37			0.0196	2.22
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	36	dNrRes--20.1111/1026					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37			0.021	2
	4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	37	dNrRes--20.8889/994					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0224	2
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	38	dNrRes--22.3333/995					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0195	2.67
	5.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	39	dNrRes--19.1111/978					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.33	37			0.0192	2.22
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	40	dNrRes--19.6667/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.33	37			0.0187	2.22
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	41	dNrRes--19.2222/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37			0.0215	2.44
	5.56	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	42	dNrRes--21.1111/980					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37			0.0191	2
	2.89	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	43	dNrRes--19.6667/1031					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78	37	0.024	2		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	44	dNrRes--23.8889/995					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0197	2		
	4	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	45	dNrRes--19.5556/994					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.33	37	0.0187	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	46	dNrRes--19.2222/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0197	2		
	4	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	47	dNrRes--19.5556/994					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0191	2		
	4.57	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	48	dNrRes--19.5556/1025					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.0196	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	49	dNrRes--20.1111/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0236	2.67		
	3.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	50	dNrRes--24.2222/1025					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.0268	2		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	51	dNrRes--26.6667/995					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.0225	2		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	52	dNrRes--23.1111/1025					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.02	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	53	dNrRes--20.5556/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0194	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	54	dNrRes--19.8889/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.0193	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	55	dNrRes--19.7778/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.0193	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	56	dNrRes--19.7778/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0214	2		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	57	dNrRes--21.8889/1025					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.018	2.22				10	XMLSchema5-3-2-0.5	21	37	0.0222	2.44		
	6	6.22	#	TTL=8	N=900	#	V1.7_XML			5.33	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	58	dNrRes--17.6667/982							rozlina	65	dNrRes--21.5556/973					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.11	37	0.0185	2.89				10	XMLSchema5-3-2-0.5	21.56	37	0.0212	2		
	4	4.89	#	TTL=8	N=900	#	V1.7_XML			3.56	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	59	dNrRes--18.4444/995							rozlina	66	dNrRes--21.7778/1025					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0199	2.22				10	XMLSchema5-3-2-0.5	21.78	37	0.0187	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML			4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	60	dNrRes--20.4444/1026							rozlina	67	dNrRes--19.2222/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0207	2				10	XMLSchema5-3-2-0.5	21.78	37	0.0181	2.22		
	4.44	6.22	#	TTL=8	N=900	#	V1.7_XML			4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	61	dNrRes--20.8889/1008							rozlina	68	dNrRes--18.5556/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.021	2				10	XMLSchema5-3-2-0.5	21	37	0.0211	2		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML			4.22	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	62	dNrRes--21.5556/1025							rozlina	69	dNrRes--20.7778/985					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.021	2				10	XMLSchema5-3-2-0.5	21.78	37	0.0181	2.22		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML			4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	63	dNrRes--21.5556/1025							rozlina	70	dNrRes--18.5556/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78	37	0.0194	2.22				10	XMLSchema5-3-2-0.5	21.56	37	0.0206	2		
	4.22	6	#	TTL=8	N=900	#	V1.7_XML			3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	64	dNrRes--19.8889/1026							rozlina	71	dNrRes--21.1111/1025					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78	37	0.0181	2.22		
	4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	72	dNrRes--18.5556/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78	37	0.0181	2.22		
	4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	73	dNrRes--18.5556/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.33	37	0.0178	2.22		
	3.33	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	74	dNrRes--17.6667/995					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0206	2		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	75	dNrRes--21.1111/1025					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0206	2		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	76	dNrRes--21.1111/1025					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0228	2.67		
	3.75	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	77	dNrRes--22.3333/979					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78	37	0.0175	2.22		
	4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	78	dNrRes--18.0/1026					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0214	2.67		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	79	dNrRes--21.3333/995					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0208	2		
	3.78	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	80	dNrRes--20.6667/995					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.22	37	0.02	3.11		
	3.43	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	81	dNrRes--20.4444/1024					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.018	2.22		
	4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	82	dNrRes--18.4444/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78	37	0.0171	2.22		
	4.22	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	83	dNrRes--17.5556/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.22	37	0.0198	3.56		
	4.5	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	84	dNrRes--19.6667/993					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0201	2.67		
	5.11	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	85	dNrRes--20.1111/1003					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.33	37			0.0195	3.11		10	XMLSchema5-3-2-0.5	21.89	37			0.018	2.22
	3.78	5.78	#	TTL=8	N=900	#		V1.7_XML		4.22	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	86	dNrRes--19.3333/994							rozlina	93	dNrRes--18.4444/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37			0.019	2.89		10	XMLSchema5-3-2-0.5	20.67	37			0.0242	2.67
	3.78	6	#	TTL=8	N=900	#		V1.7_XML		4	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	87	dNrRes--19.5556/1031							rozlina	94	dNrRes--24.7778/1025					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37			0.0181	2		10	XMLSchema5-3-2-0.5	20.89	37			0.0206	2.89
	3.78	5.78	#	TTL=8	N=900	#		V1.7_XML		4	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	88	dNrRes--18.6667/1031							rozlina	95	dNrRes--21.1111/1026					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37			0.019	2.89		10	XMLSchema5-3-2-0.5	20.78	37			0.0219	2.89
	5.5	6.22	#	TTL=8	N=900	#		V1.7_XML		3.43	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	89	dNrRes--18.4444/970							rozlina	96	dNrRes--20.6667/944					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0202	2.67		10	XMLSchema5-3-2-0.5	22.22	37			0.0234	2
	5.11	6.22	#	TTL=8	N=900	#		V1.7_XML		4	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	90	dNrRes--19.1111/948							rozlina	97	dNrRes--24.0/1025					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.44	37			0.0193	2.44		10	XMLSchema5-3-2-0.5	21	37			0.0187	2.67
	4.44	6	#	TTL=8	N=900	#		V1.7_XML		4.86	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	91	dNrRes--19.7778/1026							rozlina	98	dNrRes--19.2222/1029					
2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCB	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37			0.018	2.22		10	XMLSchema5-3-2-0.5	21.67	37			0.0188	2.22
	4.22	6	#	TTL=8	N=900	#		V1.7_XML		4.44	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	92	dNrRes--18.4444/1026							rozlina	99	dNrRes--19.3333/1026					

2	FLTCB	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.0229	2				10	XMLSchema5-3-2-0.5	21.78	37	0.0264	2		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML			2	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	100	dNrRes--23.4444/1025							rozlina	7	dNrRes--27.1111/1026					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0219	2.89				10	XMLSchema5-3-2-0.5	21.11	37	0.0237	2.89		
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML			4	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	1	dNrRes--22.4444/1026							rozlina	8	dNrRes--23.5556/993					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.025	2				10	XMLSchema5-3-2-0.5	21.67	37	0.0251	2		
	2.22	5.78	#	TTL=8	N=900	#	V1.7_XML			3.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	2	dNrRes--25.6667/1026							rozlina	9	dNrRes--24.8889/993					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0228	2.44				10	XMLSchema5-3-2-0.5	21.22	37	0.021	2.44		
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML			4.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	3	dNrRes--22.6667/995							rozlina	10	dNrRes--22.6667/1080					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0236	2.67				10	XMLSchema5-3-2-0.5	21.78	37	0.0266	2		
	5.11	6.22	#	TTL=8	N=900	#	V1.7_XML			2	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	4	dNrRes--24.2222/1025							rozlina	11	dNrRes--27.3333/1026					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.44	37	0.0273	2				10	XMLSchema5-3-2-0.5	22.78	37	0.0284	2		
	2.89	5.78	#	TTL=8	N=900	#	V1.7_XML			2.67	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	5	dNrRes--28.0/1025							rozlina	12	dNrRes--29.1111/1025					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.0264	2				10	XMLSchema5-3-2-0.5	21	37	0.0225	2.67		
	2	5.56	#	TTL=8	N=900	#	V1.7_XML			4.57	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	6	dNrRes--27.1111/1026							rozlina	13	dNrRes--23.0/1024					

2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37	0.0246	2				10	XMLSchema5-3-2-0.5	22.67	37	0.0261	2		
	2.22	5.78	#	TTL=8	N=900	#	V1.7_XML			2.89	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	14	dNrRes--25.2222/1026							rozlina	21	dNrRes--26.7778/1025					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37	0.0234	2				10	XMLSchema5-3-2-0.5	22.56	37	0.0257	2		
	2	5.56	#	TTL=8	N=900	#	V1.7_XML			2.67	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	15	dNrRes--24.0/1026							rozlina	22	dNrRes--25.5556/993					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23	37	0.0278	2				10	XMLSchema5-3-2-0.5	21.22	37	0.0212	2.22		
	2.67	6	#	TTL=8	N=900	#	V1.7_XML			4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	16	dNrRes--28.4444/1025							rozlina	23	dNrRes--21.7778/1026					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0205	2.44				10	XMLSchema5-3-2-0.5	21.11	37	0.0217	2		
	4.67	6.22	#	TTL=8	N=900	#	V1.7_XML			4.22	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	17	dNrRes--20.3333/994							rozlina	24	dNrRes--21.1111/974					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.67	37	0.0244	2				10	XMLSchema5-3-2-0.5	21.22	37	0.0211	2.44		
	2.22	5.78	#	TTL=8	N=900	#	V1.7_XML			5.14	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	18	dNrRes--25.0/1026							rozlina	25	dNrRes--19.8889/944					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23	37	0.024	2				10	XMLSchema5-3-2-0.5	22.89	37	0.0232	2		
	2.22	5.78	#	TTL=8	N=900	#	V1.7_XML			3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	19	dNrRes--24.6667/1026							rozlina	26	dNrRes--23.7778/1025					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.44	37	0.0239	2				10	XMLSchema5-3-2-0.5	21.89	37	0.0224	2		
	2	5.78	#	TTL=8	N=900	#	V1.7_XML			3.11	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	20	dNrRes--24.5556/1026							rozlina	27	dNrRes--23.0/1026					

2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.89	37	0.0243	2				10	XMLSchema5-3-2-0.5	21.11	37	0.0206	2		
	3.11	6	#	TTL=8	N=900	#	V1.7_XML			4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	28	dNrRes--24.1111/994							rozlina	35	dNrRes--21.2222/1031					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37	0.0255	2				10	XMLSchema5-3-2-0.5	22.89	37	0.025	2		
	2.67	5.78	#	TTL=8	N=900	#	V1.7_XML			3.33	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	29	dNrRes--26.1111/1025							rozlina	36	dNrRes--25.6667/1026					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23	37	0.0263	2				10	XMLSchema5-3-2-0.5	22.56	37	0.0239	2		
	4	6	#	TTL=8	N=900	#	V1.7_XML			2.89	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	30	dNrRes--26.1111/993							rozlina	37	dNrRes--23.7778/994					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0212	2.67				10	XMLSchema5-3-2-0.5	22.44	37	0.0218	2		
	4.33	6	#	TTL=8	N=900	#	V1.7_XML			4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	31	dNrRes--21.1111/995							rozlina	38	dNrRes--21.6667/995					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.33	37	0.0228	2.89				10	XMLSchema5-3-2-0.5	21.22	37	0.0202	2.67		
	3.78	5.56	#	TTL=8	N=900	#	V1.7_XML			5.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	32	dNrRes--22.6667/995							rozlina	39	dNrRes--19.7778/978					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.33	37	0.0238	2.22				10	XMLSchema5-3-2-0.5	22.11	37	0.0253	2		
	3.11	6	#	TTL=8	N=900	#	V1.7_XML			2.44	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	33	dNrRes--24.4444/1026							rozlina	40	dNrRes--26.0/1026					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.44	37	0.0252	2				10	XMLSchema5-3-2-0.5	22	37	0.0245	2		
	3.11	6	#	TTL=8	N=900	#	V1.7_XML			2.44	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	34	dNrRes--25.8889/1026							rozlina	41	dNrRes--25.1111/1026					

2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.0227	2.44		10	XMLSchema5-3-2-0.5	22	37			0.0239	2
	5.56	6.22	#	TTL=8	N=900	#	V1.7_XML			2.67	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	42	dNrRes--22.2222/980							rozlina	49	dNrRes--24.5556/1026					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37			0.0214	2		10	XMLSchema5-3-2-0.5	22	37			0.0249	2.67
	2	5.56	#	TTL=8	N=900	#	V1.7_XML			3.56	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	43	dNrRes--22.1111/1031							rozlina	50	dNrRes--25.5556/1025					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37			0.023	2		10	XMLSchema5-3-2-0.5	22.89	37			0.0257	2
	3.33	5.56	#	TTL=8	N=900	#	V1.7_XML			2.89	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	44	dNrRes--22.8889/995							rozlina	51	dNrRes--25.5556/995					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.67	37			0.0228	2.22		10	XMLSchema5-3-2-0.5	21.67	37			0.0234	2.22
	2.89	6	#	TTL=8	N=900	#	V1.7_XML			3.33	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	45	dNrRes--22.6667/994							rozlina	52	dNrRes--24.0/1025					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37			0.024	2		10	XMLSchema5-3-2-0.5	21.89	37			0.0248	2
	2.44	6	#	TTL=8	N=900	#	V1.7_XML			2.89	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	46	dNrRes--24.6667/1026							rozlina	53	dNrRes--25.4444/1026					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	24.11	37			0.0222	2		10	XMLSchema5-3-2-0.5	22.56	37			0.0246	2
	2.67	6	#	TTL=8	N=900	#	V1.7_XML			2.67	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	47	dNrRes--22.1111/994							rozlina	54	dNrRes--25.2222/1026					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0196	2		10	XMLSchema5-3-2-0.5	22.78	37			0.0246	2
	4.57	5.78	#	TTL=8	N=900	#	V1.7_XML			2.67	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	48	dNrRes--20.1111/1025							rozlina	55	dNrRes--25.2222/1026					

2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37			0.0246	2		10	XMLSchema5-3-2-0.5	22.11	37			0.0251	2.22
	2.67	6	#	TTL=8	N=900	#		V1.7_XML		3.33	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	56	dNrRes--25.2222/1026							rozlina	63	dNrRes--25.7778/1025					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37			0.0229	2.22		10	XMLSchema5-3-2-0.5	22.78	37			0.0232	2
	3.33	5.56	#	TTL=8	N=900	#		V1.7_XML		3.11	5.56	#	TTL=8	N=900	#		V1.7_XML
	rozlina	57	dNrRes--23.4444/1025							rozlina	64	dNrRes--23.7778/1026					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.019	2.22		10	XMLSchema5-3-2-0.5	21.11	37			0.0228	2.44
	6	6.22	#	TTL=8	N=900	#		V1.7_XML		5.33	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	58	dNrRes--18.6667/982							rozlina	65	dNrRes--22.2222/973					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37			0.0213	2.89		10	XMLSchema5-3-2-0.5	21.89	37			0.025	2.22
	2.86	5.56	#	TTL=8	N=900	#		V1.7_XML		3.11	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	59	dNrRes--21.2222/995							rozlina	66	dNrRes--25.6667/1025					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.22	37			0.0235	2		10	XMLSchema5-3-2-0.5	22.44	37			0.0229	2.22
	2.67	6	#	TTL=8	N=900	#		V1.7_XML		3.56	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	60	dNrRes--24.1111/1026							rozlina	67	dNrRes--23.4444/1026					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0215	2		10	XMLSchema5-3-2-0.5	22.89	37			0.0226	2
	4.67	6.22	#	TTL=8	N=900	#		V1.7_XML		3.11	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	61	dNrRes--21.6667/1008							rozlina	68	dNrRes--23.2222/1026					
2	FLTCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37			0.0253	2.67		10	XMLSchema5-3-2-0.5	21.22	37			0.0218	2
	3.11	5.78	#	TTL=8	N=900	#		V1.7_XML		4.22	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	62	dNrRes--25.8889/1025							rozlina	69	dNrRes--21.4444/985					

2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.11	37			0.024	2		10	XMLSchema5-3-2-0.5	21.22	37			0.0235	2.67
	3.33	6	#	TTL=8	N=900	#		V1.7_XML		3.75	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	70	dNrRes--24.6667/1026							rozlina	77	dNrRes--23.0/979					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.0227	2.22		10	XMLSchema5-3-2-0.5	22.44	37			0.0223	2
	3.11	5.78	#	TTL=8	N=900	#		V1.7_XML		2.89	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	71	dNrRes--23.2222/1025							rozlina	78	dNrRes--22.8889/1026					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37			0.0224	2		10	XMLSchema5-3-2-0.5	22.67	37			0.0247	2.44
	3.11	6	#	TTL=8	N=900	#		V1.7_XML		4.22	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	72	dNrRes--23.0/1026							rozlina	79	dNrRes--24.5556/995					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.44	37			0.023	2		10	XMLSchema5-3-2-0.5	22.67	37			0.0231	2
	2.89	6	#	TTL=8	N=900	#		V1.7_XML		3.11	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	73	dNrRes--23.5556/1026							rozlina	80	dNrRes--23.0/995					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37			0.0189	2.22		10	XMLSchema5-3-2-0.5	20.33	37			0.0195	3.11
	4.5	5.78	#	TTL=8	N=900	#		V1.7_XML		3.43	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	74	dNrRes--18.7778/995							rozlina	81	dNrRes--20.0/1024					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37			0.0222	2.22		10	XMLSchema5-3-2-0.5	21.56	37			0.0241	2
	3.11	5.78	#	TTL=8	N=900	#		V1.7_XML		3.78	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	75	dNrRes--22.7778/1025							rozlina	82	dNrRes--24.7778/1026					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37			0.0222	2.22		10	XMLSchema5-3-2-0.5	21.78	37			0.023	2
	3.11	5.78	#	TTL=8	N=900	#		V1.7_XML		3.11	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	76	dNrRes--22.7778/1025							rozlina	83	dNrRes--23.5556/1026					

2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.33	37			0.0218	3.56		10	XMLSchema5-3-2-0.5	21.78	37			0.0224	2
	3.5	5.11	#	TTL=8	N=900	#		V1.7_XML		3.33	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	84	dNrRes--21.6667/993							rozlina	91	dNrRes--23.0/1026					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37			0.0201	2.67		10	XMLSchema5-3-2-0.5	22	37			0.0231	2
	5.11	6.22	#	TTL=8	N=900	#		V1.7_XML		3.11	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	85	dNrRes--20.1111/1003							rozlina	92	dNrRes--23.6667/1026					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20	37			0.0191	3.11		10	XMLSchema5-3-2-0.5	22	37			0.0231	2
	3.11	5.33	#	TTL=8	N=900	#		V1.7_XML		3.11	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	86	dNrRes--19.0/994							rozlina	93	dNrRes--23.6667/1026					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0221	3.11		10	XMLSchema5-3-2-0.5	21.22	37			0.0225	2.67
	3.56	5.78	#	TTL=8	N=900	#		V1.7_XML		4.44	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	87	dNrRes--22.7778/1031							rozlina	94	dNrRes--23.1111/1025					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.67	37			0.0219	2		10	XMLSchema5-3-2-0.5	21.33	37			0.0212	2.89
	4	5.56	#	TTL=8	N=900	#		V1.7_XML		4	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	88	dNrRes--22.5556/1031							rozlina	95	dNrRes--21.7778/1026					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37			0.0202	2.89		10	XMLSchema5-3-2-0.5	20	37			0.0193	2.89
	5.5	6.22	#	TTL=8	N=900	#		V1.7_XML		4	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	89	dNrRes--19.5556/970							rozlina	96	dNrRes--18.2222/944					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.021	2.67		10	XMLSchema5-3-2-0.5	21.11	37			0.0214	2.22
	5.11	6.22	#	TTL=8	N=900	#		V1.7_XML		4	5.56	#	TTL=8	N=900	#		V1.7_XML
	rozlina	90	dNrRes--19.8889/948							rozlina	97	dNrRes--21.8889/1025					

2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0187	2.67				10	XMLSchema5-3-2-0.5	23.44	37	0.0273	2		
	4.86	6	#	TTL=8	N=900	#	V1.7_XML			2.89	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	98	dNrRes--19.2222/1029							rozlina	5	dNrRes--28.0/1025					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.0223	2				10	XMLSchema5-3-2-0.5	21.67	37	0.0264	2		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			2	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	99	dNrRes--22.8889/1026							rozlina	6	dNrRes--27.1111/1026					
2	FLTCCN	NO	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.0207	2.22				10	XMLSchema5-3-2-0.5	21.78	37	0.0264	2		
	2.89	5.33	#	TTL=8	N=900	#	V1.7_XML			2	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	100	dNrRes--21.2222/1025							rozlina	7	dNrRes--27.1111/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0219	2.89				10	XMLSchema5-3-2-0.5	21.11	37	0.0237	2.89		
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML			4	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	1	dNrRes--22.4444/1026							rozlina	8	dNrRes--23.5556/993					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.025	2				10	XMLSchema5-3-2-0.5	21.67	37	0.0251	2		
	2.22	5.78	#	TTL=8	N=900	#	V1.7_XML			3.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	2	dNrRes--25.6667/1026							rozlina	9	dNrRes--24.8889/993					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0228	2.44				10	XMLSchema5-3-2-0.5	21.22	37	0.021	2.44		
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML			4.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	3	dNrRes--22.6667/995							rozlina	10	dNrRes--22.6667/1080					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0236	2.67				10	XMLSchema5-3-2-0.5	21.78	37	0.0266	2		
	5.11	6.22	#	TTL=8	N=900	#	V1.7_XML			2	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	4	dNrRes--24.2222/1025							rozlina	11	dNrRes--27.3333/1026					

2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37	0.0284	2				10	XMLSchema5-3-2-0.5	23	37	0.024	2		
	2.67	6	#	TTL=8	N=900	#	V1.7_XML			2.22	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	12	dNrRes--29.1111/1025							rozlina	19	dNrRes--24.6667/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0225	2.67				10	XMLSchema5-3-2-0.5	22.44	37	0.0239	2		
	4.57	6	#	TTL=8	N=900	#	V1.7_XML			2	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	13	dNrRes--23.0/1024							rozlina	20	dNrRes--24.5556/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37	0.0246	2				10	XMLSchema5-3-2-0.5	22.67	37	0.0261	2		
	2.22	5.78	#	TTL=8	N=900	#	V1.7_XML			2.89	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	14	dNrRes--25.2222/1026							rozlina	21	dNrRes--26.7778/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37	0.0234	2				10	XMLSchema5-3-2-0.5	22.56	37	0.0257	2		
	2	5.56	#	TTL=8	N=900	#	V1.7_XML			2.67	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	15	dNrRes--24.0/1026							rozlina	22	dNrRes--25.5556/993					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23	37	0.0278	2				10	XMLSchema5-3-2-0.5	21.22	37	0.0212	2.22		
	2.67	6	#	TTL=8	N=900	#	V1.7_XML			4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	16	dNrRes--28.4444/1025							rozlina	23	dNrRes--21.7778/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0205	2.44				10	XMLSchema5-3-2-0.5	21.11	37	0.0217	2		
	4.67	6.22	#	TTL=8	N=900	#	V1.7_XML			4.22	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	17	dNrRes--20.3333/994							rozlina	24	dNrRes--21.1111/974					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.67	37	0.0244	2				10	XMLSchema5-3-2-0.5	21.22	37	0.0211	2.44		
	2.22	5.78	#	TTL=8	N=900	#	V1.7_XML			5.14	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	18	dNrRes--25.0/1026							rozlina	25	dNrRes--19.8889/944					

2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.89	37	0.0232	2				10	XMLSchema5-3-2-0.5	22.33	37	0.0238	2.22		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML			3.11	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	26	dNrRes--23.7778/1025							rozlina	33	dNrRes--24.4444/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0224	2				10	XMLSchema5-3-2-0.5	22.44	37	0.0252	2		
	3.11	5.56	#	TTL=8	N=900	#	V1.7_XML			3.11	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	27	dNrRes--23.0/1026							rozlina	34	dNrRes--25.8889/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.89	37	0.0243	2				10	XMLSchema5-3-2-0.5	21.11	37	0.0206	2		
	3.11	6	#	TTL=8	N=900	#	V1.7_XML			4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	28	dNrRes--24.1111/994							rozlina	35	dNrRes--21.2222/1031					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37	0.0255	2				10	XMLSchema5-3-2-0.5	22.89	37	0.025	2		
	2.67	5.78	#	TTL=8	N=900	#	V1.7_XML			3.33	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	29	dNrRes--26.1111/1025							rozlina	36	dNrRes--25.6667/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23	37	0.0263	2				10	XMLSchema5-3-2-0.5	22.56	37	0.0239	2		
	4	6	#	TTL=8	N=900	#	V1.7_XML			2.89	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	30	dNrRes--26.1111/993							rozlina	37	dNrRes--23.7778/994					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0212	2.67				10	XMLSchema5-3-2-0.5	22.44	37	0.0218	2		
	4.33	6	#	TTL=8	N=900	#	V1.7_XML			4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	31	dNrRes--21.1111/995							rozlina	38	dNrRes--21.6667/995					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.33	37	0.0228	2.89				10	XMLSchema5-3-2-0.5	21.22	37	0.0202	2.67		
	3.78	5.56	#	TTL=8	N=900	#	V1.7_XML			5.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	32	dNrRes--22.6667/995							rozlina	39	dNrRes--19.7778/978					

2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37			0.0253	2		10	XMLSchema5-3-2-0.5	24.11	37			0.0222	2
	2.44	5.78	#	TTL=8	N=900	#		V1.7_XML		2.67	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	40	dNrRes--26.0/1026							rozlina	47	dNrRes--22.1111/994					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37			0.0245	2		10	XMLSchema5-3-2-0.5	21.11	37			0.0196	2
	2.44	5.78	#	TTL=8	N=900	#		V1.7_XML		4.57	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	41	dNrRes--25.1111/1026							rozlina	48	dNrRes--20.1111/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.0227	2.44		10	XMLSchema5-3-2-0.5	22	37			0.0239	2
	5.56	6.22	#	TTL=8	N=900	#		V1.7_XML		2.67	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	42	dNrRes--22.2222/980							rozlina	49	dNrRes--24.5556/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37			0.0214	2		10	XMLSchema5-3-2-0.5	22	37			0.0249	2.67
	2	5.56	#	TTL=8	N=900	#		V1.7_XML		3.56	5.56	#	TTL=8	N=900	#		V1.7_XML
	rozlina	43	dNrRes--22.1111/1031							rozlina	50	dNrRes--25.5556/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37			0.023	2		10	XMLSchema5-3-2-0.5	22.89	37			0.0257	2
	3.33	5.56	#	TTL=8	N=900	#		V1.7_XML		2.89	5.56	#	TTL=8	N=900	#		V1.7_XML
	rozlina	44	dNrRes--22.8889/995							rozlina	51	dNrRes--25.5556/995					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.67	37			0.0228	2.22		10	XMLSchema5-3-2-0.5	21.67	37			0.0234	2.22
	2.89	6	#	TTL=8	N=900	#		V1.7_XML		3.33	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	45	dNrRes--22.6667/994							rozlina	52	dNrRes--24.0/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37			0.024	2		10	XMLSchema5-3-2-0.5	21.89	37			0.0248	2
	2.44	6	#	TTL=8	N=900	#		V1.7_XML		2.89	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	46	dNrRes--24.6667/1026							rozlina	53	dNrRes--25.4444/1026					

2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37			0.0246	2		10	XMLSchema5-3-2-0.5	21.11	37			0.0215	2
	2.67	6	#	TTL=8	N=900	#		V1.7_XML		4.67	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	54	dNrRes--25.2222/1026							rozlina	61	dNrRes--21.6667/1008					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37			0.0246	2		10	XMLSchema5-3-2-0.5	21.89	37			0.0253	2.67
	2.67	6	#	TTL=8	N=900	#		V1.7_XML		3.11	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	55	dNrRes--25.2222/1026							rozlina	62	dNrRes--25.8889/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37			0.0246	2		10	XMLSchema5-3-2-0.5	22.11	37			0.0251	2.22
	2.67	6	#	TTL=8	N=900	#		V1.7_XML		3.33	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	56	dNrRes--25.2222/1026							rozlina	63	dNrRes--25.7778/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37			0.0229	2.22		10	XMLSchema5-3-2-0.5	22.78	37			0.0232	2
	3.33	5.56	#	TTL=8	N=900	#		V1.7_XML		3.11	5.56	#	TTL=8	N=900	#		V1.7_XML
	rozlina	57	dNrRes--23.4444/1025							rozlina	64	dNrRes--23.7778/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.019	2.22		10	XMLSchema5-3-2-0.5	21.11	37			0.0228	2.44
	6	6.22	#	TTL=8	N=900	#		V1.7_XML		5.33	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	58	dNrRes--18.6667/982							rozlina	65	dNrRes--22.2222/973					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37			0.0213	2.89		10	XMLSchema5-3-2-0.5	21.89	37			0.025	2.22
	2.86	5.56	#	TTL=8	N=900	#		V1.7_XML		3.11	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	59	dNrRes--21.2222/995							rozlina	66	dNrRes--25.6667/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.22	37			0.0235	2		10	XMLSchema5-3-2-0.5	22.44	37			0.0229	2.22
	2.67	6	#	TTL=8	N=900	#		V1.7_XML		3.56	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	60	dNrRes--24.1111/1026							rozlina	67	dNrRes--23.4444/1026					

2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.89	37	0.0226	2				10	XMLSchema5-3-2-0.5	21.33	37	0.0222	2.22		
	3.11	6	#	TTL=8	N=900	#	V1.7_XML			3.11	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	68	dNrRes--23.2222/1026							rozlina	75	dNrRes--22.7778/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0218	2				10	XMLSchema5-3-2-0.5	21.33	37	0.0222	2.22		
	4.22	6.22	#	TTL=8	N=900	#	V1.7_XML			3.11	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	69	dNrRes--21.4444/985							rozlina	76	dNrRes--22.7778/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.11	37	0.024	2				10	XMLSchema5-3-2-0.5	21.22	37	0.0235	2.67		
	3.33	6	#	TTL=8	N=900	#	V1.7_XML			3.75	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	70	dNrRes--24.6667/1026							rozlina	77	dNrRes--23.0/979					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0227	2.22				10	XMLSchema5-3-2-0.5	22.44	37	0.0223	2		
	3.11	5.78	#	TTL=8	N=900	#	V1.7_XML			2.89	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	71	dNrRes--23.2222/1025							rozlina	78	dNrRes--22.8889/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37	0.0224	2				10	XMLSchema5-3-2-0.5	22.67	37	0.0247	2.44		
	3.11	6	#	TTL=8	N=900	#	V1.7_XML			4.22	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	72	dNrRes--23.0/1026							rozlina	79	dNrRes--24.5556/995					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.44	37	0.023	2				10	XMLSchema5-3-2-0.5	22.67	37	0.0231	2		
	2.89	6	#	TTL=8	N=900	#	V1.7_XML			3.11	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	73	dNrRes--23.5556/1026							rozlina	80	dNrRes--23.0/995					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.0189	2.22				10	XMLSchema5-3-2-0.5	20.33	37	0.0195	3.11		
	4.5	5.78	#	TTL=8	N=900	#	V1.7_XML			3.43	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	74	dNrRes--18.7778/995							rozlina	81	dNrRes--20.0/1024					

2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37			0.0241	2		10	XMLSchema5-3-2-0.5	21.33	37			0.0202	2.89
	3.78	6	#	TTL=8	N=900	#		V1.7_XML		5.5	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	82	dNrRes--24.7778/1026							rozlina	89	dNrRes--19.5556/970					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.78	37			0.023	2		10	XMLSchema5-3-2-0.5	21.22	37			0.021	2.67
	3.11	6	#	TTL=8	N=900	#		V1.7_XML		5.11	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	83	dNrRes--23.5556/1026							rozlina	90	dNrRes--19.8889/948					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.33	37			0.0218	3.56		10	XMLSchema5-3-2-0.5	21.78	37			0.0224	2
	3.5	5.11	#	TTL=8	N=900	#		V1.7_XML		3.33	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	84	dNrRes--21.6667/993							rozlina	91	dNrRes--23.0/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37			0.0201	2.67		10	XMLSchema5-3-2-0.5	22	37			0.0231	2
	5.11	6.22	#	TTL=8	N=900	#		V1.7_XML		3.11	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	85	dNrRes--20.1111/1003							rozlina	92	dNrRes--23.6667/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20	37			0.0191	3.11		10	XMLSchema5-3-2-0.5	22	37			0.0231	2
	3.11	5.33	#	TTL=8	N=900	#		V1.7_XML		3.11	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	86	dNrRes--19.0/994							rozlina	93	dNrRes--23.6667/1026					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0221	3.11		10	XMLSchema5-3-2-0.5	21.22	37			0.0225	2.67
	3.56	5.78	#	TTL=8	N=900	#		V1.7_XML		4.44	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	87	dNrRes--22.7778/1031							rozlina	94	dNrRes--23.1111/1025					
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100	2	FLTCCN	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.67	37			0.0219	2		10	XMLSchema5-3-2-0.5	21.33	37			0.0212	2.89
	4	5.56	#	TTL=8	N=900	#		V1.7_XML		4	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	88	dNrRes--22.5556/1031							rozlina	95	dNrRes--21.7778/1026					

2	FLTCCN	YES	900	SQUARE	50	0	1.4	100					
	LEAF	0.01	8	50	1500	50	3	6					
	10	XMLSchema5-3-2-0.5	20	37	0.0193	2.89							
	4	5.33	#	TTL=8	N=900	#	V1.7_XML						
	rozlina	96	dNrRes--18.2222/944										
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100					
	LEAF	0.01	8	50	1500	50	3	6					
	10	XMLSchema5-3-2-0.5	21.11	37	0.0214	2.22							
	4	5.56	#	TTL=8	N=900	#	V1.7_XML						
	rozlina	97	dNrRes--21.8889/1025										
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100					
	LEAF	0.01	8	50	1500	50	3	6					
	10	XMLSchema5-3-2-0.5	21	37	0.0187	2.67							
	4.86	6	#	TTL=8	N=900	#	V1.7_XML						
	rozlina	98	dNrRes--19.2222/1029										
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100					
	LEAF	0.01	8	50	1500	50	3	6					
	10	XMLSchema5-3-2-0.5	22	37	0.0223	2							
	3.78	6	#	TTL=8	N=900	#	V1.7_XML						
	rozlina	99	dNrRes--22.8889/1026										
2	FLTCCN	YES	900	SQUARE	50	0	1.4	100					
	LEAF	0.01	8	50	1500	50	3	6					
	10	XMLSchema5-3-2-0.5	20.89	37	0.0207	2.22							
	2.89	5.33	#	TTL=8	N=900	#	V1.7_XML						
	rozlina	100	dNrRes--21.2222/1025										
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5	199.67	762.22								
	0.2204	2.89	4.44	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	1	dNrRes--226.1111/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5	708	3455.33								
	0.6846	2	2	15.56	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	2	dNrRes--702.4444/1026									

2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5	207.22	752.67	0.24							
	2.67	4	16	#	TTL=8	N=900	#						
	V1.7_XML	rozlina	3	dNrRes--238.7778/995									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5	202.44	734.56								
	0.2241	3.11	4.44	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	4	dNrRes--229.6667/1025									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5	767.11	3801.22								
	0.7559	2	2	14.89	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	5	dNrRes--774.7778/1025									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5	787.89	3652								
	0.7721	2.89	3.56	15.56	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	6	dNrRes--792.2222/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5	890.56	4698.44								
	0.8517	2	2	13.78	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	7	dNrRes--873.8889/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5	210.67	822.89								
	0.2192	3.11	4.67	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	8	dNrRes--217.6667/993									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5	733.11	3646.78								
	0.7362	2	2	14.44	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	9	dNrRes--731.0/993									

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		193.33	734.78	
	0.2019	2.67	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	10		dNrRes--218.0/1080		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		877.22	4152.89	
	0.8474	3.11	4	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	11		dNrRes--869.4444/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		762	3486.22	
	0.7425	2.89	3.56	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	12		dNrRes--761.1111/1025		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		191.56	687.11	
	0.2015	2.44	4.67	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	13		dNrRes--206.3333/1024		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		882.89	4303.56	
	0.8554	2.44	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	14		dNrRes--877.6667/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		894.33	4660.89	
	0.8403	2	2	14	#	TTL=8	N=900 #
	V1.7_XML	rozlina	15		dNrRes--862.1111/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		885.33	4438.22	
	0.8194	2.67	3.78	15.11	#	TTL=8	N=900 #
	V1.7_XML	rozlina	16		dNrRes--839.8889/1025		

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		196.67	734.89	
	0.2101	2.67	4.89	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	17		dNrRes--208.8889/994		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		884.78	4305.78	
	0.8468	2.67	3.78	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	18		dNrRes--868.7778/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		893.89	4648.22	
	0.8522	2	2	13.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	19		dNrRes--874.3333/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		894.33	4683.67	
	0.8468	2	2	13.11	#	TTL=8	N=900 #
	V1.7_XML	rozlina	20		dNrRes--868.7778/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		884.56	4406.44	
	0.8025	2.89	3.78	14.89	#	TTL=8	N=900 #
	V1.7_XML	rozlina	21		dNrRes--822.5556/1025		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		694.56	3093.22	
	0.6824	3.11	4.67	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	22		dNrRes--677.6667/993		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5		188	717.11	
	0.2075	2.22	4.22	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	23		dNrRes--212.8889/1026		

2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		193.11	711.22							
	0.2145	2	4	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	24	dNrRes--208.8889/974									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		185.89	697.11							
	0.1984	2.44	4.89	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	25	dNrRes--187.3333/944									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		870	4189.56							
	0.8147	3.11	3.78	15.78	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	26	dNrRes--835.1111/1025									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		807.22	3563.33	0.807						
	2.44	3.78	15.78	#	TTL=8	N=900	#						
	V1.7_XML	rozlina	27	dNrRes--828.0/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		549.89	2390.44							
	0.5556	2.22	4.89	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	28	dNrRes--552.2222/994									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		893	4592.22							
	0.8039	2.89	4	14.67	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	29	dNrRes--824.0/1025									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		771.33	3312.44							
	0.7673	3.33	4.44	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	30	dNrRes--761.8889/993									

2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		210.89	814.11							
	0.2274	2.44	4.22	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	31	dNrRes--226.2222/995									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		300.67	1117.33							
	0.3127	2.67	4.67	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	32	dNrRes--311.1111/995									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		872.78	4060.78							
	0.8474	2.89	4	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	33	dNrRes--869.4444/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		897.78	4759.11							
	0.8365	2	2	14	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	34	dNrRes--858.2222/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		194.11	723.78							
	0.2093	2.22	4.44	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	35	dNrRes--215.7778/1031									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		896.56	4587.67							
	0.8542	2.44	3.11	15.11	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	36	dNrRes--876.4444/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		758.67	3544.11							
	0.7167	2.44	4.89	15.56	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	37	dNrRes--712.4444/994									

2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			733.78	3328.89	0.696					
	3.11	3.78	16	#	TTL=8	N=900	#						
	V1.7_XML	rozlina	38			dNrRes--692.5556/995							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			187.67	713.67	0.189					
	2.89	4.22	16	#	TTL=8	N=900	#						
	V1.7_XML	rozlina	39			dNrRes--184.8889/978							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			873.33	4097.78						
	0.8434	2.67	4	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	40			dNrRes--865.3333/1026							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			897	4737.44						
	0.8493	2	2	14	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	41			dNrRes--871.3333/1026							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			199.22	737.89						
	0.2118	2.44	4.44	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	42			dNrRes--207.5556/980							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			566.11	2470.33						
	0.5671	2.44	4	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	43			dNrRes--584.6667/1031							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			813.11	3721.67						
	0.7886	2.44	3.78	15.56	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	44			dNrRes--784.6667/995							

2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			819.44	3713.33						
	0.7714	2	4.22	15.78	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	45			dNrRes--766.7778/994							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			875.33	4119.33						
	0.8373	2.67	4.22	15.78	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	46			dNrRes--859.1111/1026							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			896.11	4597.44						
	0.8236	2	2	14	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	47			dNrRes--818.6667/994							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			214.89	798.89						
	0.2304	2.44	4.67	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	48			dNrRes--236.1111/1025							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			890.44	4451.22						
	0.8378	2.89	3.78	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	49			dNrRes--859.5556/1026							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			659.89	2643.89						
	0.6731	2.67	4.44	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	50			dNrRes--689.8889/1025							
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5			893.67	4376.56						
	0.8351	2.67	3.56	15.33	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	51			dNrRes--830.8889/995							

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		831.78	4276.67	
	0.7552	2.44	2.89	15.33	#	TTL=8	N=900 #
	V1.7_XML	rozlina	52	dNrRes--774.1111/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		896.11	4498.11	
	0.8486	2.89	4.22	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	53	dNrRes--870.6667/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		897.33	4693.67	
	0.8613	2	2	14.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	54	dNrRes--883.6667/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		898.11	4739.22	
	0.8593	2	2	14	#	TTL=8	N=900 #
	V1.7_XML	rozlina	55	dNrRes--881.6667/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		898.11	4741.11	
	0.8503	2	2	13.56	#	TTL=8	N=900 #
	V1.7_XML	rozlina	56	dNrRes--872.4444/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		892.67	4624.56	
	0.8056	2.89	3.33	15.33	#	TTL=8	N=900 #
	V1.7_XML	rozlina	57	dNrRes--825.7778/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		220.56	897.44	
	0.2365	2	4.89	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	58	dNrRes--232.2222/982			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		385.89	1511.78	0.398
	2.89	4.89	16	#	TTL=8	N=900	#
	V1.7_XML	rozlina	59	dNrRes--396.0/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		895.56	4460.78	
	0.8312	2.89	4	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	60	dNrRes--852.7778/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		190.44	733.67	0.203
	2	4.44	16	#	TTL=8	N=900	#
	V1.7_XML	rozlina	61	dNrRes--204.6667/1008			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		888.67	4445.56	
	0.7945	2.44	4.44	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	62	dNrRes--814.3333/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		897.56	4883	
	0.8133	2	2	13.56	#	TTL=8	N=900 #
	V1.7_XML	rozlina	63	dNrRes--833.6667/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		881.67	4363.67	
	0.8318	2.89	4	15.56	#	TTL=8	N=900 #
	V1.7_XML	rozlina	64	dNrRes--853.4444/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		210.33	785.33	
	0.2383	2.44	4.89	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	65	dNrRes--231.8889/973			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			892.22	4590.78
	0.7983	2.44	3.11	15.11	#	TTL=8	N=900 #
	V1.7_XML	rozlina	66			dNrRes--818.2222/1025	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			896.11	4520.56
	0.8516	2.89	3.56	15.56	#	TTL=8	N=900 #
	V1.7_XML	rozlina	67			dNrRes--873.7778/1026	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			898	4677.33
	0.8415	2	2	14.44	#	TTL=8	N=900 #
	V1.7_XML	rozlina	68			dNrRes--863.3333/1026	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			225.22	885.56
	0.2364	2.22	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	69			dNrRes--232.8889/985	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			894.89	4553.22
	0.8473	2.22	3.11	14.89	#	TTL=8	N=900 #
	V1.7_XML	rozlina	70			dNrRes--869.3333/1026	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			895.89	4625.78
	0.8037	3.33	3.78	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	71			dNrRes--823.7778/1025	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			896.33	4637.11
	0.8372	2	2	14.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	72			dNrRes--859.0/1026	

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			896.89	4713.44 0.838
	2	2	13.78	#		TTL=8	N=900 #
	V1.7_XML	rozlina	73			dNrRes--859.7778/1026	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			717	3292.33
	0.6845	2.89	4.22	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	74			dNrRes--681.1111/995	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			896.56	4692.78
	0.8176	3.33	4	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	75			dNrRes--838.0/1025	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			898.44	4932.44
	0.8366	2	2	14.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	76			dNrRes--857.5556/1025	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			215.44	871.33
	0.2362	3.11	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	77			dNrRes--231.2222/979	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			893.78	4422.67
	0.8448	3.11	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	78			dNrRes--866.7778/1026	
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			702.56	2965
	0.7062	2.67	4.67	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	79			dNrRes--702.6667/995	

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	899	4689.89		
	0.8354	2	2	13.56	#	TTL=8	N=900 #
	V1.7_XML	rozlina	80	dNrRes--831.2222/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	240.67	885.89		
	0.2533	2.44	5.11	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	81	dNrRes--259.3333/1024			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	894.33	4405.11	0.826	
	2.67	3.78	16	#	TTL=8	N=900 #	
	V1.7_XML	rozlina	82	dNrRes--847.4444/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	896.78	4680.22		
	0.8477	2	2	14.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	83	dNrRes--869.7778/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	447.89	1766.78		
	0.4602	3.33	4.89	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	84	dNrRes--457.0/993			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	241.44	949.11		
	0.2607	2.67	4.22	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	85	dNrRes--261.4444/1003			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	769.22	3199.67		
	0.7625	2.22	4.67	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	86	dNrRes--757.8889/994			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	413.11	1540.78		
	0.4303	2	4.67	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	87	dNrRes--443.6667/1031			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	863.67	4434.56		
	0.8133	2	2	14.67	#	TTL=8	N=900 #
	V1.7_XML	rozlina	88	dNrRes--838.5556/1031			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	211.11	803.56		
	0.2186	2.67	4.67	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	89	dNrRes--212.0/970			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	184.56	692.44		
	0.2035	2.89	4.44	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	90	dNrRes--192.8889/948			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	853.67	3855		
	0.8089	3.33	4.89	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	91	dNrRes--829.8889/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	898.78	4895.78		
	0.8476	2	2	14	#	TTL=8	N=900 #
	V1.7_XML	rozlina	92	dNrRes--869.6667/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	898.89	4883.22	0.85	
	2	2	13.78	#	TTL=8	N=900 #	
	V1.7_XML	rozlina	93	dNrRes--872.1111/1026			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	769.33	3382.56		
	0.7388	2.89	4.44	15.78	#	TTL=8	N=900
	V1.7_XML	rozlina	94	dNrRes--757.2222/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	242	895		
	0.2614	2.22	4.44	16	#	TTL=8	N=900
	V1.7_XML	rozlina	95	dNrRes--268.2222/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	247.78	912.56		
	0.2519	3.11	4.89	16	#	TTL=8	N=900
	V1.7_XML	rozlina	96	dNrRes--237.7778/944			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	893.67	4748.44		
	0.8131	2.44	3.78	15.56	#	TTL=8	N=900
	V1.7_XML	rozlina	97	dNrRes--833.4444/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	218.89	844		
	0.2448	2.67	4.44	16	#	TTL=8	N=900
	V1.7_XML	rozlina	98	dNrRes--251.8889/1029			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	880.33	4278.56		
	0.8282	2.89	4.44	15.78	#	TTL=8	N=900
	V1.7_XML	rozlina	99	dNrRes--849.7778/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	897.44	4713.89		
	0.8049	3.33	3.78	15.56	#	TTL=8	N=900
	V1.7_XML	rozlina	100	dNrRes--825.0/1025			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	127	434.33		
	0.1368	2.44	4	16	#	TTL=8	N=900
	V1.7_XML	rozlina	1	dNrRes--140.3333/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	547	2455.44		
	0.5595	2	2	16	#	TTL=8	N=900
	V1.7_XML	rozlina	2	dNrRes--574.0/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	119.67	404.33		
	0.1308	2.67	4	16	#	TTL=8	N=900
	V1.7_XML	rozlina	3	dNrRes--130.1111/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	121.89	412.89		
	0.1274	2.89	3.56	16	#	TTL=8	N=900
	V1.7_XML	rozlina	4	dNrRes--130.5556/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	511.78	2388.33		
	0.5276	2	2	16	#	TTL=8	N=900
	V1.7_XML	rozlina	5	dNrRes--540.7778/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	688.56	3145.89		
	0.7089	3.33	4.44	15.78	#	TTL=8	N=900
	V1.7_XML	rozlina	6	dNrRes--727.3333/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50
	6	10	XMLSchema5-3-2-0.5	890.11	4609.78		
	0.8412	2	2	13.78	#	TTL=8	N=900
	V1.7_XML	rozlina	7	dNrRes--863.1111/1026			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		126.22	431.78	
	0.1329	2.44	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	8	dNrRes--132.0/993			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		503.89	2307	
	0.5171	2	2	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	9	dNrRes--513.4444/993			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		124.44	423.89	
	0.1396	2.67	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	10	dNrRes--150.7778/1080			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		886.11	4347.78	
	0.8447	3.11	3.78	15.33	#	TTL=8	N=900 #
	V1.7_XML	rozlina	11	dNrRes--866.6667/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		655.67	2805.67	
	0.6829	2.67	3.56	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	12	dNrRes--700.0/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		125.11	430.56	
	0.1368	2.44	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	13	dNrRes--140.1111/1024			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		892.56	4457	
	0.8465	3.33	4	15.11	#	TTL=8	N=900 #
	V1.7_XML	rozlina	14	dNrRes--868.5556/1026			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		892.89	4661.89	
	0.8484	2	2	13.11	#	TTL=8	N=900 #
	V1.7_XML	rozlina	15	dNrRes--870.4444/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		892.67	4652	
	0.8022	3.33	4.22	14.44	#	TTL=8	N=900 #
	V1.7_XML	rozlina	16	dNrRes--822.2222/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		119.67	401.56	
	0.1335	2.67	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	17	dNrRes--132.6667/994			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		890.67	4464.44	
	0.8521	2.89	3.78	15.33	#	TTL=8	N=900 #
	V1.7_XML	rozlina	18	dNrRes--874.2222/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		895.22	4648.78	
	0.8543	2	2	12.67	#	TTL=8	N=900 #
	V1.7_XML	rozlina	19	dNrRes--876.5556/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		895.33	4668.67	0.864
	2	2	12.44	#	TTL=8	N=900 #	
	V1.7_XML	rozlina	20	dNrRes--886.4444/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		895.11	4658.78	
	0.8331	3.33	3.78	14	#	TTL=8	N=900 #
	V1.7_XML	rozlina	21	dNrRes--853.8889/1025			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		627.33	2730.22	
	0.6423	2.67	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	22	dNrRes--637.7778/993			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		121.11	404.11 0.13	
	2.44	3.78	16	#	TTL=8	N=900 #	
	V1.7_XML	rozlina	23	dNrRes--133.3333/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		123	425.33	
	0.1338	2.67	3.56	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	24	dNrRes--130.3333/974			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		125.89	437.33	
	0.1377	2	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	25	dNrRes--130.0/944			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		870.33	4114.22	
	0.8192	2.89	3.78	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	26	dNrRes--839.6667/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		795.22	3490.89 0.79	
	2.67	3.78	15.78	#	TTL=8	N=900 #	
	V1.7_XML	rozlina	27	dNrRes--810.5556/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		282.78	1094.44	
	0.3007	2.44	4.22	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	28	dNrRes--298.8889/994			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		879	4286.11	
	0.8205	3.11	4	14.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	29	dNrRes--841.0/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		806.89	3753.78	
	0.7778	2.44	3.78	15.56	#	TTL=8	N=900 #
	V1.7_XML	rozlina	30	dNrRes--772.3333/993			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		124.78	431.22	
	0.1273	2.22	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	31	dNrRes--126.6667/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		187.67	674.78	
	0.1955	2.67	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	32	dNrRes--194.5556/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		874.78	4105	
	0.8364	2.89	3.56	15.33	#	TTL=8	N=900 #
	V1.7_XML	rozlina	33	dNrRes--858.1111/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		896.89	4704.56	
	0.8293	2	2	13.33	#	TTL=8	N=900 #
	V1.7_XML	rozlina	34	dNrRes--850.8889/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		125.67	439	
	0.1407	2.44	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	35	dNrRes--145.1111/1031			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		893.11	4533.11	
	0.8439	2.22	2.44	14.44	#	TTL=8	N=900 #
	V1.7_XML	rozlina	36	dNrRes--865.8889/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		528	2257.78	
	0.5328	2.44	3.56	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	37	dNrRes--529.5556/994			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		521.67	2271	
	0.5303	2.89	3.33	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	38	dNrRes--527.6667/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		122.89	421.78	
	0.1301	2.44	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	39	dNrRes--127.2222/978			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		884.78	4312.44 0.833	
	3.33	3.56	15.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	40	dNrRes--854.6667/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		898	4716.44	
	0.8423	2	2	13.33	#	TTL=8	N=900 #
	V1.7_XML	rozlina	41	dNrRes--864.2222/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		129.44	448.33	
	0.1387	2.22	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	42	dNrRes--135.8889/980			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		374.44	1517.67 0.374	
	2.67	4.22	16	#	TTL=8	N=900	#
	V1.7_XML	rozlina	43	dNrRes--385.5556/1031			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		729.78	3401.11	
	0.7242	2.89	3.56	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	44	dNrRes--720.5556/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		701.11	3024.67	
	0.6906	2.22	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	45	dNrRes--686.4444/994			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		887.33	4341.78	
	0.8542	2.67	3.78	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	46	dNrRes--876.4444/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		895.56	4669.67	
	0.8319	2	2	13.33	#	TTL=8	N=900 #
	V1.7_XML	rozlina	47	dNrRes--826.8889/994			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		122.89	419.56	
	0.1331	2.22	4.22	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	48	dNrRes--136.4444/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		894.56	4516.78	
	0.8404	3.33	3.56	15.11	#	TTL=8	N=900 #
	V1.7_XML	rozlina	49	dNrRes--862.2222/1026			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		772.22	3185.44	0.756						
	2.44	4.22	15.78	#	TTL=8	N=900	#						
	V1.7_XML	rozlina	50	dNrRes--774.8889/1025									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		807.67	3910.67							
	0.7788	2.67	3.78	15.78	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	51	dNrRes--774.8889/995									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		897.67	4895.78							
	0.8026	2.22	2.22	13.56	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	52	dNrRes--822.6667/1025									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		888.33	4441.67							
	0.8353	3.33	3.78	15.56	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	53	dNrRes--857.0/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		895.44	4675.33							
	0.8529	2	2	14	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	54	dNrRes--875.1111/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		895.33	4679							
	0.8439	2	2	14.22	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	55	dNrRes--865.8889/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		894.56	4685.11							
	0.8444	2	2	14	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	56	dNrRes--866.3333/1026									

2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		898.44	4874.44							
	0.8158	3.33	4	13.56	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	57	dNrRes--836.2222/1025									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		122.78	424.11							
	0.1332	2.22	4	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	58	dNrRes--130.7778/982									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		246.11	972.67							
	0.2529	2.22	3.78	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	59	dNrRes--251.6667/995									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		828.67	4038.44							
	0.8081	3.11	4	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	60	dNrRes--829.1111/1026									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		126.11	443.89							
	0.1287	2.67	3.78	16	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	61	dNrRes--129.7778/1008									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		879.22	4448.67							
	0.7974	3.11	3.78	15.56	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	62	dNrRes--817.3333/1025									
2	FLTCDN2	NO	900	SQUARE	50	0	1.4						
	100	LEAF	0.01	8	50	1500	50	3					
	6	10	XMLSchema5-3-2-0.5		898	5023.22							
	0.8166	2	2	12.89	#	TTL=8	N=900	#					
	V1.7_XML	rozlina	63	dNrRes--837.0/1025									

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			876.78	4290.44
	0.8299	3.11	3.78	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	64	dNrRes--851.4444/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			121.44	411.67
	0.1266	2.44	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	65	dNrRes--123.2222/973			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			890.67	4684.44
	0.8162	3.33	3.56	14.44	#	TTL=8	N=900 #
	V1.7_XML	rozlina	66	dNrRes--836.5556/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			889.44	4446.33
	0.8358	3.11	3.56	15.11	#	TTL=8	N=900 #
	V1.7_XML	rozlina	67	dNrRes--857.5556/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			895.44	4705.33 0.84
	2	2	14	#	TTL=8	N=900	#
	V1.7_XML	rozlina	68	dNrRes--861.8889/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			127.44	429.89 0.14
	2.22	3.56	16	#	TTL=8	N=900	#
	V1.7_XML	rozlina	69	dNrRes--137.8889/985			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			892.67	4495.67 0.835
	2.22	2.67	14.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	70	dNrRes--856.6667/1026			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			895.56	4759.67
	0.8201	3.33	3.56	14	#	TTL=8	N=900 #
	V1.7_XML	rozlina	71	dNrRes--840.5556/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			896.11	4667.67
	0.8563	2	2	14.44	#	TTL=8	N=900 #
	V1.7_XML	rozlina	72	dNrRes--878.5556/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			895.89	4753.22
	0.8551	2	2	14.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	73	dNrRes--877.3333/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			518.44	2109.89
	0.5222	2	4.22	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	74	dNrRes--519.5556/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			898.33	4773.67
	0.8247	3.56	4	14.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	75	dNrRes--845.3333/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			898.89	4994.67
	0.8295	2	2	13.11	#	TTL=8	N=900 #
	V1.7_XML	rozlina	76	dNrRes--850.2222/1025			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5			123.33	423.11
	0.1361	2.44	4.22	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	77	dNrRes--133.2222/979			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	886	4275.22		
	0.8435	3.11	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	78	dNrRes--865.4444/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	744.44	3408.44		
	0.7207	2.44	4	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	79	dNrRes--717.1111/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	899	5118.22		
	0.8294	2	2	12.67	#	TTL=8	N=900 #
	V1.7_XML	rozlina	80	dNrRes--825.2222/995			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	153.22	531.44		
	0.1596	2.44	4.44	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	81	dNrRes--163.4444/1024			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	888	4327.33		
	0.8352	2.89	3.56	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	82	dNrRes--856.8889/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	896.11	4698.11	0.847	
	2	2	13.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	83	dNrRes--869.0/1026			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	360.67	1241.44		
	0.4094	2.67	4.44	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	84	dNrRes--406.5556/993			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	121.11	407.56		
	0.1329	2.44	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	85	dNrRes--133.3333/1003			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	582.44	2235.89		
	0.5778	2.67	4.22	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	86	dNrRes--574.3333/994			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	263	911		
	0.2926	2.22	3.56	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	87	dNrRes--301.6667/1031			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	781.22	3895.44		
	0.7241	2	2	14.67	#	TTL=8	N=900 #
	V1.7_XML	rozlina	88	dNrRes--746.5556/1031			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	123.44	436.22		
	0.1347	2.44	4.22	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	89	dNrRes--130.6667/970			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	119.67	404		
	0.1319	2.67	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	90	dNrRes--125.0/948			
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5	800.22	3617.33		
	0.8062	2.89	3.33	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	91	dNrRes--827.1111/1026			

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		896.78	4726.44	
	0.8373	2	2	12.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	92		dNrRes--859.1111/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		896.89	4779.89	
	0.8465	2	2	12.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	93		dNrRes--868.5556/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		786.11	3368.89	
	0.7827	2.67	4	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	94		dNrRes--802.2222/1025		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		148.22	504.44	
	0.1648	2.44	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	95		dNrRes--169.1111/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		171.78	616.11	
	0.1794	2	3.78	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	96		dNrRes--169.3333/944		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		897.56	4938.67	
	0.8184	3.33	4.22	14.89	#	TTL=8	N=900 #
	V1.7_XML	rozlina	97		dNrRes--838.8889/1025		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		122.56	417.33	
	0.1343	2.22	4	16	#	TTL=8	N=900 #
	V1.7_XML	rozlina	98		dNrRes--138.2222/1029		

2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		880.33	4195.11	
	0.8572	2.44	3.78	15.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	99		dNrRes--879.4444/1026		
2	FLTCDN2	NO	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		897.56	4951	
	0.8038	3.33	4	14.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	100		dNrRes--823.8889/1025		
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		21.22	37	
	0.0214	2.89	5.33	6.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	1		dNrRes--22.0/1026		
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		22.78	37	
	0.0249	2	2.44	5.56	#	TTL=8	N=900 #
	V1.7_XML	rozlina	2		dNrRes--25.5556/1026		
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		21.11	37	
	0.0228	2.44	5.33	6.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	3		dNrRes--22.6667/995		
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		21.22	37	
	0.0241	2.67	5.11	6.22	#	TTL=8	N=900 #
	V1.7_XML	rozlina	4		dNrRes--24.6667/1025		
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100	LEAF	0.01	8	50	1500	50 3
	6	10	XMLSchema5-3-2-0.5		22.44	37	
	0.0227	2	2.89	5.78	#	TTL=8	N=900 #
	V1.7_XML	rozlina	5		dNrRes--23.2222/1025		

2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	22.78	37			
	0.0234	2	2	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	6	dNrRes--24.0/1026				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	22.22	37			
	0.0275	2	2	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	7	dNrRes--28.2222/1026				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	21.11	37			
	0.0237	2.89	4	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	8	dNrRes--23.5556/993				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	21.78	37			
	0.0242	2	3.56	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	9	dNrRes--24.0/993				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	21.22	37	0.021		
	2.44	4.25	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	10	dNrRes--22.6667/1080				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	22.89	37			
	0.0264	2	2	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	11	dNrRes--27.1111/1026				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	22.89	37	0.022		
	2	2.89	5.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	12	dNrRes--22.5556/1025				

2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	21.11	37			
	0.0232	2.67	4.57	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	13	dNrRes--23.7778/1024				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	23.11	37	0.023		
	2	2.89	5.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	14	dNrRes--23.5556/1026				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	22.78	37			
	0.0217	2	2.67	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	15	dNrRes--22.2222/1026				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	23.78	37			
	0.0283	2	2.67	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	16	dNrRes--29.0/1025				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	21	37			
	0.0201	2.44	4.67	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	17	dNrRes--20.0/994				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	23.89	37			
	0.0221	2	2.44	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	18	dNrRes--22.6667/1026				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100	LEAF	0.01	8	50	1500	50	3
	6	10	XMLSchema5-3-2-0.5	22.67	37			
	0.0249	2	2.22	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	19	dNrRes--25.5556/1026				

2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.11	37		
	0.0263 2	2.67	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	34	dNrRes--27.0/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0204 2	4.89	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	35	dNrRes--21.0/1031			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.44	37		
	0.0277 2	2.22	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	36	dNrRes--28.4444/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.11	37		
	0.0215 2	3.11	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	37	dNrRes--21.3333/994			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.44	37		
	0.0219 2	4	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	38	dNrRes--21.7778/995			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0202 2.67	5.25	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	39	dNrRes--19.7778/978			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.89	37		
	0.0285 2	2	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	40	dNrRes--29.2222/1026			

2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23	37	0.027	
	2 2	6	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	41	dNrRes--27.6667/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0222 2.44	5.56	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	42	dNrRes--21.7778/980			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23	37		
	0.0197 2	2.22	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	43	dNrRes--20.3333/1031			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.44	37	0.023	
	2 3.11	5.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	44	dNrRes--22.8889/995			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.89	37		
	0.0227 2.22	3.33	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	45	dNrRes--22.5556/994			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.44	37	0.027	
	2 2.67	6	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	46	dNrRes--27.6667/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.56	37		
	0.0243 2	2.89	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	47	dNrRes--24.1111/994			

2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0199 2	4.57	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	48	dNrRes--20.4444/1025			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.33	37		
	0.0274 2	2.89	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	49	dNrRes--28.1111/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0219 2.44	3	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	50	dNrRes--22.4444/1025			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.67	37		
	0.0248 2	3.33	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	51	dNrRes--24.6667/995			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.33	37		
	0.0219 2	3.5	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	52	dNrRes--22.4444/1025			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.11	37		
	0.0259 2	2.89	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	53	dNrRes--26.5556/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23	37		
	0.0258 2	3.11	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	54	dNrRes--26.4444/1026			

2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.44	37		
	0.0245 2	3.11	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	55	dNrRes--25.1111/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.33	37		
	0.0251 2	2.89	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	56	dNrRes--25.7778/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0229 2	2.89	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	57	dNrRes--23.4444/1025			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0186 2.22	6	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	58	dNrRes--18.2222/982			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.56	37	0.02	
	2.89 3.43	5.33	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	59	dNrRes--19.8889/995			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.44	37		
	0.0251 2.22	2.89	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	60	dNrRes--25.7778/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0216 2	4.67	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	61	dNrRes--21.7778/1008			

2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.11	37		
	0.0242 2	2.44	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	62	dNrRes--24.7778/1025			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0229 2	2	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	63	dNrRes--23.4444/1025			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.89	37		
	0.0262 2	3.78	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	64	dNrRes--26.8889/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0222 2.44	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	65	dNrRes--21.5556/973			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.11	37		
	0.0217 2	2.22	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	66	dNrRes--22.2222/1025			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.44	37		
	0.0279 2	3.11	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	67	dNrRes--28.6667/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.78	37		
	0.0247 2	3.11	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	68	dNrRes--25.3333/1026			

2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0218 2	4.22	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	69	dNrRes--21.4444/985			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.22	37		
	0.0279 2	2.89	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	70	dNrRes--28.6667/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.67	37		
	0.0237 2.22	2.89	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	71	dNrRes--24.3333/1025			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.56	37		
	0.0253 2	2.89	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	72	dNrRes--26.0/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.56	37		
	0.0254 2	2.44	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	73	dNrRes--26.1111/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0183 2	3.71	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	74	dNrRes--18.2222/995			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.56	37		
	0.0245 2.22	2.89	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	75	dNrRes--25.1111/1025			

2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.89	37			
	0.0242 2	2.44	5.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	76	dNrRes--24.7778/1025				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.22	37	0.023		
	2.67 3.75	6.22	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	77	dNrRes--22.5556/979				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.67	37			
	0.0254 2	3	5.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	78	dNrRes--26.1111/1026				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.67	37			
	0.0226 2.67	4	5.33	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	79	dNrRes--22.4444/995				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.56	37			
	0.0229 2	2.5	5.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	80	dNrRes--22.7778/995				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		20.33	37			
	0.0195 3.11	3.43	5.33	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	81	dNrRes--20.0/1024				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.56	37			
	0.0247 2	2.89	6	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	82	dNrRes--25.3333/1026				

2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.89	37			
	0.0265 2	3.11	6	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	83	dNrRes--27.2222/1026				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		20.78	37			
	0.0219 3.56	3.5	5.11	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	84	dNrRes--21.7778/993				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.11	37			
	0.0204 2.67	5.11	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	85	dNrRes--20.4444/1003				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		20.22	37			
	0.0186 3.11	3.33	5.33	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	86	dNrRes--18.4444/994				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21	37			
	0.0218 2.89	3.56	5.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	87	dNrRes--22.4444/1031				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.56	37			
	0.0221 2	4	5.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	88	dNrRes--22.7778/1031				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.22	37			
	0.0197 2.89	5.5	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	89	dNrRes--19.1111/970				

2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.33	37		
	0.0213 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	90	dNrRes--20.2222/948			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.89	37		
	0.0229 2	3.11	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	91	dNrRes--23.4444/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.11	37		
	0.0244 2	3.11	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	92	dNrRes--25.0/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23	37		
	0.0239 2	2.89	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	93	dNrRes--24.5556/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.67	37		
	0.0253 2.67	3.33	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	94	dNrRes--25.8889/1025			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0213 2.89	4	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	95	dNrRes--21.8889/1026			
2	FLTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.11	37		
	0.0193 2.89	3.71	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	96	dNrRes--18.2222/944			

2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		20.67	37			
	0.0219 2	3.11	5.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	97	dNrRes--22.4444/1025				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21	37			
	0.0184 2.67	4.86	6	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	98	dNrRes--18.8889/1029				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.67	37			
	0.0251 2	3.78	6	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	99	dNrRes--25.7778/1026				
2	FLTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		20.78	37			
	0.0221 2	2.67	5.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	100	dNrRes--22.6667/1025				
2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.33	37	0.0222	2.89	
	5.33 6.22	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	1	dNrRes--22.7778/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.11	37	0.0236	2	
	2 4	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	2	dNrRes--24.2222/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21	37	0.0231	2.44	
	5.33 6.22	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	3	dNrRes--23.0/995					

2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0248	2.67				10	XMLSchema5-3-2-0.5	23.22	37	0.0269	2		
	5.11	6.22	#	TTL=8	N=900	#	V1.7_XML			2	2.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	4	dNrRes--25.4444/1025							rozlina	11	dNrRes--27.5556/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.78	37	0.03	2				10	XMLSchema5-3-2-0.5	24.44	37	0.0327	2		
	1.78	4	#	TTL=8	N=900	#	V1.7_XML			1.78	3.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	5	dNrRes--30.7778/1025							rozlina	12	dNrRes--33.5556/1025					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.22	37	0.0258	2				10	XMLSchema5-3-2-0.5	21.22	37	0.0238	2.67		
	2	3.33	#	TTL=8	N=900	#	V1.7_XML			4.57	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	6	dNrRes--26.4444/1026							rozlina	13	dNrRes--24.3333/1024					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.22	37	0.0271	2				10	XMLSchema5-3-2-0.5	23.22	37	0.0233	2		
	2	2.67	#	TTL=8	N=900	#	V1.7_XML			2.22	4	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	7	dNrRes--27.7778/1026							rozlina	14	dNrRes--23.8889/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0243	2.89				10	XMLSchema5-3-2-0.5	23.67	37	0.0225	2		
	4	6.22	#	TTL=8	N=900	#	V1.7_XML			2	3.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	8	dNrRes--24.1111/993							rozlina	15	dNrRes--23.1111/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	24	37	0.0261	2				10	XMLSchema5-3-2-0.5	25	37	0.0328	2		
	2.25	4.22	#	TTL=8	N=900	#	V1.7_XML			1.78	2.44	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	9	dNrRes--25.8889/993							rozlina	16	dNrRes--33.6667/1025					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0212	2.44				10	XMLSchema5-3-2-0.5	21.22	37	0.0208	2.44		
	4.25	6.22	#	TTL=8	N=900	#	V1.7_XML			4.67	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	10	dNrRes--22.8889/1080							rozlina	17	dNrRes--20.6667/994					

2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23	37	0.022	2				10	XMLSchema5-3-2-0.5	21.33	37	0.0217	2.44		
	2.44	3.56	#	TTL=8	N=900	#	V1.7_XML			5.14	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	18	dNrRes--22.5556/1026							rozlina	25	dNrRes--20.4444/944					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.11	37	0.0229	2				10	XMLSchema5-3-2-0.5	24.78	37	0.0285	2		
	2.44	3.11	#	TTL=8	N=900	#	V1.7_XML			2.44	3.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	19	dNrRes--23.4444/1026							rozlina	26	dNrRes--29.2222/1025					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23	37	0.0229	2				10	XMLSchema5-3-2-0.5	22.33	37	0.0204	2		
	2.44	2.89	#	TTL=8	N=900	#	V1.7_XML			3.25	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	20	dNrRes--23.4444/1026							rozlina	27	dNrRes--20.8889/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	25.56	37	0.0311	2				10	XMLSchema5-3-2-0.5	22.44	37	0.022	2		
	2	3.33	#	TTL=8	N=900	#	V1.7_XML			2.44	4.44	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	21	dNrRes--31.8889/1025							rozlina	28	dNrRes--21.8889/994					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	24.22	37	0.028	2				10	XMLSchema5-3-2-0.5	23.78	37	0.0261	2		
	2.25	3.78	#	TTL=8	N=900	#	V1.7_XML			1.78	3.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	22	dNrRes--27.7778/993							rozlina	29	dNrRes--26.7778/1025					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0217	2.22				10	XMLSchema5-3-2-0.5	23.78	37	0.0254	2		
	4.89	6.22	#	TTL=8	N=900	#	V1.7_XML			3	4.44	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	23	dNrRes--22.2222/1026							rozlina	30	dNrRes--25.2222/993					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0221	2				10	XMLSchema5-3-2-0.5	21.11	37	0.0214	2.67		
	4.22	6.22	#	TTL=8	N=900	#	V1.7_XML			4.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	24	dNrRes--21.5556/974							rozlina	31	dNrRes--21.3333/995					

2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.89	37	0.0224	2.89			10	XMLSchema5-3-2-0.5		21.33	37	0.0208	2.67	
	3.33	5.11	#	TTL=8	N=900	#	V1.7_XML			5.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	32	dNrRes--22.3333/995							rozlina	39	dNrRes--20.3333/978					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.67	37	0.0263	2			10	XMLSchema5-3-2-0.5		23	37	0.0229	2	
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML			2.22	4	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	33	dNrRes--27.0/1026							rozlina	40	dNrRes--23.4444/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.89	37	0.0211	2			10	XMLSchema5-3-2-0.5		22.78	37	0.0238	2	
	2.67	4.89	#	TTL=8	N=900	#	V1.7_XML			2.22	3.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	34	dNrRes--21.6667/1026							rozlina	41	dNrRes--24.4444/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.22	37	0.0208	2			10	XMLSchema5-3-2-0.5		21.11	37	0.0231	2.44	
	4.89	6.22	#	TTL=8	N=900	#	V1.7_XML			5.56	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	35	dNrRes--21.4444/1031							rozlina	42	dNrRes--22.6667/980					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.11	37	0.0214	2.22			10	XMLSchema5-3-2-0.5		24.22	37	0.0279	2	
	2.22	4.22	#	TTL=8	N=900	#	V1.7_XML			1.78	4.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	36	dNrRes--22.0/1026							rozlina	43	dNrRes--28.7778/1031					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23	37	0.0202	2			10	XMLSchema5-3-2-0.5		22.11	37	0.0202	2	
	2.67	4.44	#	TTL=8	N=900	#	V1.7_XML			3.33	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	37	dNrRes--20.1111/994							rozlina	44	dNrRes--20.1111/995					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.44	37	0.0216	2			10	XMLSchema5-3-2-0.5		22.67	37	0.0245	2	
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			3.11	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	38	dNrRes--21.4444/995							rozlina	45	dNrRes--24.3333/994					

2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37			0.0249	2		10	XMLSchema5-3-2-0.5	21.89	37			0.0208	2
	2.44	4	#	TTL=8	N=900	#		V1.7_XML		2.44	4.89	#	TTL=8	N=900	#		V1.7_XML
	rozlina	46	dNrRes--25.5556/1026							rozlina	53	dNrRes--21.3333/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	24.22	37			0.0239	2		10	XMLSchema5-3-2-0.5	22.56	37			0.0206	2
	3	5.33	#	TTL=8	N=900	#		V1.7_XML		2.44	4.89	#	TTL=8	N=900	#		V1.7_XML
	rozlina	47	dNrRes--23.7778/994							rozlina	54	dNrRes--21.1111/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.0204	2		10	XMLSchema5-3-2-0.5	22.33	37			0.0206	2
	4.57	5.78	#	TTL=8	N=900	#		V1.7_XML		2.44	4.89	#	TTL=8	N=900	#		V1.7_XML
	rozlina	48	dNrRes--20.8889/1025							rozlina	55	dNrRes--21.1111/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.33	37			0.0247	2		10	XMLSchema5-3-2-0.5	22.33	37			0.0206	2
	2.22	4.44	#	TTL=8	N=900	#		V1.7_XML		2.44	4.67	#	TTL=8	N=900	#		V1.7_XML
	rozlina	49	dNrRes--25.3333/1026							rozlina	56	dNrRes--21.1111/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.67	37			0.026	3.11		10	XMLSchema5-3-2-0.5	23.56	37			0.0251	2
	3.78	6	#	TTL=8	N=900	#		V1.7_XML		2.75	4.44	#	TTL=8	N=900	#		V1.7_XML
	rozlina	50	dNrRes--26.6667/1025							rozlina	57	dNrRes--25.7778/1025					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37			0.0221	2.22		10	XMLSchema5-3-2-0.5	21.22	37			0.0197	2.22
	2.67	4.67	#	TTL=8	N=900	#		V1.7_XML		6	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	51	dNrRes--22.0/995							rozlina	58	dNrRes--19.3333/982					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	24.22	37			0.0216	2		10	XMLSchema5-3-2-0.5	22.33	37			0.0218	2.67
	3	4.67	#	TTL=8	N=900	#		V1.7_XML		2.5	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	52	dNrRes--22.1111/1025							rozlina	59	dNrRes--21.6667/995					

2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.33	37	0.0201	2				10	XMLSchema5-3-2-0.5	21.67	37	0.0246	2		
	2.44	4.89	#	TTL=8	N=900	#	V1.7_XML			2.89	5.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	60	dNrRes--20.6667/1026							rozlina	67	dNrRes--25.2222/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0222	2				10	XMLSchema5-3-2-0.5	21.44	37	0.0225	2		
	4.67	6.22	#	TTL=8	N=900	#	V1.7_XML			2.67	5.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	61	dNrRes--22.3333/1008							rozlina	68	dNrRes--23.1111/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.0256	2				10	XMLSchema5-3-2-0.5	21.11	37	0.0222	2		
	2.67	5.33	#	TTL=8	N=900	#	V1.7_XML			4.22	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	62	dNrRes--26.2222/1025							rozlina	69	dNrRes--21.8889/985					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.024	2				10	XMLSchema5-3-2-0.5	22.22	37	0.0234	2		
	2.67	4.67	#	TTL=8	N=900	#	V1.7_XML			2.67	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	63	dNrRes--24.5556/1025							rozlina	70	dNrRes--24.0/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.44	37	0.0227	2				10	XMLSchema5-3-2-0.5	22.33	37	0.0231	2		
	3.33	5.78	#	TTL=8	N=900	#	V1.7_XML			2.89	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	64	dNrRes--23.3333/1026							rozlina	71	dNrRes--23.6667/1025					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0235	2.44				10	XMLSchema5-3-2-0.5	22.11	37	0.0234	2		
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML			2.44	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	65	dNrRes--22.8889/973							rozlina	72	dNrRes--24.0/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0234	2				10	XMLSchema5-3-2-0.5	21.67	37	0.0225	2		
	2.67	4.89	#	TTL=8	N=900	#	V1.7_XML			2.44	5.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	66	dNrRes--24.0/1025							rozlina	73	dNrRes--23.1111/1026					

2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.78	37	0.0186	2			10	XMLSchema5-3-2-0.5		20.33	37	0.0197	3.11	
	4	5.56	#	TTL=8	N=900	#	V1.7_XML			3.43	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	74	dNrRes--18.5556/995							rozlina	81	dNrRes--20.2222/1024					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.67	37	0.0225	2			10	XMLSchema5-3-2-0.5		22.44	37	0.0227	2	
	2.67	6	#	TTL=8	N=900	#	V1.7_XML			2.67	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	75	dNrRes--23.1111/1025							rozlina	82	dNrRes--23.3333/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.78	37	0.0245	2			10	XMLSchema5-3-2-0.5		22	37	0.0221	2	
	2.67	5.78	#	TTL=8	N=900	#	V1.7_XML			2.67	5.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	76	dNrRes--25.1111/1025							rozlina	83	dNrRes--22.6667/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.44	37	0.0243	2.67			10	XMLSchema5-3-2-0.5		20.78	37	0.0213	3.56	
	3.75	6.22	#	TTL=8	N=900	#	V1.7_XML			3.75	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	77	dNrRes--23.7778/979							rozlina	84	dNrRes--21.1111/993					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.11	37	0.0249	2			10	XMLSchema5-3-2-0.5		21	37	0.0206	2.67	
	2.44	5.11	#	TTL=8	N=900	#	V1.7_XML			5.11	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	78	dNrRes--25.5556/1026							rozlina	85	dNrRes--20.6667/1003					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.11	37	0.0243	2.67			10	XMLSchema5-3-2-0.5		20.44	37	0.0205	3.11	
	3.78	4.67	#	TTL=8	N=900	#	V1.7_XML			3.33	5.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	79	dNrRes--24.2222/995							rozlina	86	dNrRes--20.3333/994					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.78	37	0.0207	2			10	XMLSchema5-3-2-0.5		21.67	37	0.0219	3.11	
	4	5.33	#	TTL=8	N=900	#	V1.7_XML			3.33	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	80	dNrRes--20.5556/995							rozlina	87	dNrRes--22.5556/1031					

2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.11	37			0.0228	2		10	XMLSchema5-3-2-0.5	21.22	37			0.0211	2.89
	3.78	5.78	#	TTL=8	N=900	#		V1.7_XML		3.78	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	88	dNrRes--23.5556/1031							rozlina	95	dNrRes--21.6667/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37			0.021	2.89		10	XMLSchema5-3-2-0.5	20.11	37			0.0193	2.89
	5.5	6.22	#	TTL=8	N=900	#		V1.7_XML		3.71	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	89	dNrRes--20.3333/970							rozlina	96	dNrRes--18.2222/944					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0218	2.67		10	XMLSchema5-3-2-0.5	21.22	37			0.0219	2.22
	5.11	6.22	#	TTL=8	N=900	#		V1.7_XML		4.44	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	90	dNrRes--20.6667/948							rozlina	97	dNrRes--22.4444/1025					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37			0.025	2.67		10	XMLSchema5-3-2-0.5	21.22	37			0.0195	2.67
	4.44	6	#	TTL=8	N=900	#		V1.7_XML		4.86	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	91	dNrRes--25.6667/1026							rozlina	98	dNrRes--20.1111/1029					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37			0.0224	2		10	XMLSchema5-3-2-0.5	22.11	37			0.0209	2
	3.56	6	#	TTL=8	N=900	#		V1.7_XML		3.56	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	92	dNrRes--23.0/1026							rozlina	99	dNrRes--21.4444/1026					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	NO	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37			0.0218	2		10	XMLSchema5-3-2-0.5	21.22	37			0.0227	2.22
	3.11	6	#	TTL=8	N=900	#		V1.7_XML		3.56	5.56	#	TTL=8	N=900	#		V1.7_XML
	rozlina	93	dNrRes--22.3333/1026							rozlina	100	dNrRes--23.2222/1025					
2	FLTCA	NO	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0235	2.89		10	XMLSchema5-3-2-0.5	21.33	37			0.0222	2.89
	4.22	5.78	#	TTL=8	N=900	#		V1.7_XML		5.33	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	94	dNrRes--24.1111/1025							rozlina	1	dNrRes--22.7778/1026					

2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.11	37	0.0236	2			10	XMLSchema5-3-2-0.5		24	37	0.0261	2	
	2	4	#	TTL=8	N=900	#	V1.7_XML			2.25	4.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	2	dNrRes--24.2222/1026							rozlina	9	dNrRes--25.8889/993					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21	37	0.0231	2.44			10	XMLSchema5-3-2-0.5		21.11	37	0.0212	2.44	
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML			4.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	3	dNrRes--23.0/995							rozlina	10	dNrRes--22.8889/1080					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.33	37	0.0248	2.67			10	XMLSchema5-3-2-0.5		23.22	37	0.0269	2	
	5.11	6.22	#	TTL=8	N=900	#	V1.7_XML			2	2.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	4	dNrRes--25.4444/1025							rozlina	11	dNrRes--27.5556/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.78	37	0.03	2			10	XMLSchema5-3-2-0.5		24.44	37	0.0327	2	
	1.78	4	#	TTL=8	N=900	#	V1.7_XML			1.78	3.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	5	dNrRes--30.7778/1025							rozlina	12	dNrRes--33.5556/1025					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.22	37	0.0258	2			10	XMLSchema5-3-2-0.5		21.22	37	0.0238	2.67	
	2	3.33	#	TTL=8	N=900	#	V1.7_XML			4.57	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	6	dNrRes--26.4444/1026							rozlina	13	dNrRes--24.3333/1024					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.22	37	0.0271	2			10	XMLSchema5-3-2-0.5		23.22	37	0.0233	2	
	2	2.67	#	TTL=8	N=900	#	V1.7_XML			2.22	4	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	7	dNrRes--27.7778/1026							rozlina	14	dNrRes--23.8889/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.22	37	0.0243	2.89			10	XMLSchema5-3-2-0.5		23.67	37	0.0225	2	
	4	6.22	#	TTL=8	N=900	#	V1.7_XML			2	3.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	8	dNrRes--24.1111/993							rozlina	15	dNrRes--23.1111/1026					

2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	25	37	0.0328	2				10	XMLSchema5-3-2-0.5	21.33	37	0.0217	2.22		
	1.78	2.44	#	TTL=8	N=900	#	V1.7_XML			4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	16	dNrRes--33.6667/1025							rozlina	23	dNrRes--22.2222/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0208	2.44				10	XMLSchema5-3-2-0.5	21.33	37	0.0221	2		
	4.67	6.22	#	TTL=8	N=900	#	V1.7_XML			4.22	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	17	dNrRes--20.6667/994							rozlina	24	dNrRes--21.5556/974					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23	37	0.022	2				10	XMLSchema5-3-2-0.5	21.33	37	0.0217	2.44		
	2.44	3.56	#	TTL=8	N=900	#	V1.7_XML			5.14	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	18	dNrRes--22.5556/1026							rozlina	25	dNrRes--20.4444/944					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.11	37	0.0229	2				10	XMLSchema5-3-2-0.5	24.78	37	0.0285	2		
	2.44	3.11	#	TTL=8	N=900	#	V1.7_XML			2.44	3.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	19	dNrRes--23.4444/1026							rozlina	26	dNrRes--29.2222/1025					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23	37	0.0229	2				10	XMLSchema5-3-2-0.5	22.33	37	0.0204	2		
	2.44	2.89	#	TTL=8	N=900	#	V1.7_XML			3.25	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	20	dNrRes--23.4444/1026							rozlina	27	dNrRes--20.8889/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	25.56	37	0.0311	2				10	XMLSchema5-3-2-0.5	22.44	37	0.022	2		
	2	3.33	#	TTL=8	N=900	#	V1.7_XML			2.44	4.44	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	21	dNrRes--31.8889/1025							rozlina	28	dNrRes--21.8889/994					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	24.22	37	0.028	2				10	XMLSchema5-3-2-0.5	23.78	37	0.0261	2		
	2.25	3.78	#	TTL=8	N=900	#	V1.7_XML			1.78	3.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	22	dNrRes--27.7778/993							rozlina	29	dNrRes--26.7778/1025					

2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.78	37			0.0254	2		10	XMLSchema5-3-2-0.5	23	37			0.0202	2
	3	4.44	#	TTL=8	N=900	#		V1.7_XML		2.67	4.44	#	TTL=8	N=900	#		V1.7_XML
	rozlina	30	dNrRes--25.2222/993							rozlina	37	dNrRes--20.1111/994					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0214	2.67		10	XMLSchema5-3-2-0.5	22.44	37			0.0216	2
	4.33	6	#	TTL=8	N=900	#		V1.7_XML		3.78	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	31	dNrRes--21.3333/995							rozlina	38	dNrRes--21.4444/995					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37			0.0224	2.89		10	XMLSchema5-3-2-0.5	21.33	37			0.0208	2.67
	3.33	5.11	#	TTL=8	N=900	#		V1.7_XML		5.25	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	32	dNrRes--22.3333/995							rozlina	39	dNrRes--20.3333/978					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.67	37			0.0263	2		10	XMLSchema5-3-2-0.5	23	37			0.0229	2
	3.56	5.78	#	TTL=8	N=900	#		V1.7_XML		2.22	4	#	TTL=8	N=900	#		V1.7_XML
	rozlina	33	dNrRes--27.0/1026							rozlina	40	dNrRes--23.4444/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.89	37			0.0211	2		10	XMLSchema5-3-2-0.5	22.78	37			0.0238	2
	2.67	4.89	#	TTL=8	N=900	#		V1.7_XML		2.22	3.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	34	dNrRes--21.6667/1026							rozlina	41	dNrRes--24.4444/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.0208	2		10	XMLSchema5-3-2-0.5	21.11	37			0.0231	2.44
	4.89	6.22	#	TTL=8	N=900	#		V1.7_XML		5.56	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	35	dNrRes--21.4444/1031							rozlina	42	dNrRes--22.6667/980					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37			0.0214	2.22		10	XMLSchema5-3-2-0.5	24.22	37			0.0279	2
	2.22	4.22	#	TTL=8	N=900	#		V1.7_XML		1.78	4.67	#	TTL=8	N=900	#		V1.7_XML
	rozlina	36	dNrRes--22.0/1026							rozlina	43	dNrRes--28.7778/1031					

2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.11	37	0.0202	2			10	XMLSchema5-3-2-0.5		22	37	0.0221	2.22	
	3.33	5.33	#	TTL=8	N=900	#	V1.7_XML			2.67	4.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	44	dNrRes--20.1111/995							rozlina	51	dNrRes--22.0/995					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.67	37	0.0245	2			10	XMLSchema5-3-2-0.5		24.22	37	0.0216	2	
	3.11	5.33	#	TTL=8	N=900	#	V1.7_XML			3	4.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	45	dNrRes--24.3333/994							rozlina	52	dNrRes--22.1111/1025					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.78	37	0.0249	2			10	XMLSchema5-3-2-0.5		21.89	37	0.0208	2	
	2.44	4	#	TTL=8	N=900	#	V1.7_XML			2.44	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	46	dNrRes--25.5556/1026							rozlina	53	dNrRes--21.3333/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		24.22	37	0.0239	2			10	XMLSchema5-3-2-0.5		22.56	37	0.0206	2	
	3	5.33	#	TTL=8	N=900	#	V1.7_XML			2.44	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	47	dNrRes--23.7778/994							rozlina	54	dNrRes--21.1111/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.22	37	0.0204	2			10	XMLSchema5-3-2-0.5		22.33	37	0.0206	2	
	4.57	5.78	#	TTL=8	N=900	#	V1.7_XML			2.44	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	48	dNrRes--20.8889/1025							rozlina	55	dNrRes--21.1111/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.33	37	0.0247	2			10	XMLSchema5-3-2-0.5		22.33	37	0.0206	2	
	2.22	4.44	#	TTL=8	N=900	#	V1.7_XML			2.44	4.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	49	dNrRes--25.3333/1026							rozlina	56	dNrRes--21.1111/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.67	37	0.026	3.11			10	XMLSchema5-3-2-0.5		23.56	37	0.0251	2	
	3.78	6	#	TTL=8	N=900	#	V1.7_XML			2.75	4.44	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	50	dNrRes--26.6667/1025							rozlina	57	dNrRes--25.7778/1025					

2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37			0.0197	2.22		10	XMLSchema5-3-2-0.5	21.22	37			0.0235	2.44
	6	6.22	#	TTL=8	N=900	#		V1.7_XML		5.33	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	58		dNrRes--19.3333/982						rozlina	65		dNrRes--22.8889/973				
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.33	37			0.0218	2.67		10	XMLSchema5-3-2-0.5	21.89	37			0.0234	2
	2.5	5.78	#	TTL=8	N=900	#		V1.7_XML		2.67	4.89	#	TTL=8	N=900	#		V1.7_XML
	rozlina	59		dNrRes--21.6667/995						rozlina	66		dNrRes--24.0/1025				
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.33	37			0.0201	2		10	XMLSchema5-3-2-0.5	21.67	37			0.0246	2
	2.44	4.89	#	TTL=8	N=900	#		V1.7_XML		2.89	5.11	#	TTL=8	N=900	#		V1.7_XML
	rozlina	60		dNrRes--20.6667/1026						rozlina	67		dNrRes--25.2222/1026				
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0222	2		10	XMLSchema5-3-2-0.5	21.44	37			0.0225	2
	4.67	6.22	#	TTL=8	N=900	#		V1.7_XML		2.67	5.11	#	TTL=8	N=900	#		V1.7_XML
	rozlina	61		dNrRes--22.3333/1008						rozlina	68		dNrRes--23.1111/1026				
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37			0.0256	2		10	XMLSchema5-3-2-0.5	21.11	37			0.0222	2
	2.67	5.33	#	TTL=8	N=900	#		V1.7_XML		4.22	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	62		dNrRes--26.2222/1025						rozlina	69		dNrRes--21.8889/985				
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37			0.024	2		10	XMLSchema5-3-2-0.5	22.22	37			0.0234	2
	2.67	4.67	#	TTL=8	N=900	#		V1.7_XML		2.67	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	63		dNrRes--24.5556/1025						rozlina	70		dNrRes--24.0/1026				
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.44	37			0.0227	2		10	XMLSchema5-3-2-0.5	22.33	37			0.0231	2
	3.33	5.78	#	TTL=8	N=900	#		V1.7_XML		2.89	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	64		dNrRes--23.3333/1026						rozlina	71		dNrRes--23.6667/1025				

2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37			0.0234	2		10	XMLSchema5-3-2-0.5	22.11	37			0.0243	2.67
	2.44	5.33	#	TTL=8	N=900	#		V1.7_XML		3.78	4.67	#	TTL=8	N=900	#		V1.7_XML
	rozlina	72	dNrRes--24.0/1026							rozlina	79	dNrRes--24.2222/995					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37			0.0225	2		10	XMLSchema5-3-2-0.5	21.78	37			0.0207	2
	2.44	5.11	#	TTL=8	N=900	#		V1.7_XML		4	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	73	dNrRes--23.1111/1026							rozlina	80	dNrRes--20.5556/995					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37			0.0186	2		10	XMLSchema5-3-2-0.5	20.33	37			0.0197	3.11
	4	5.56	#	TTL=8	N=900	#		V1.7_XML		3.43	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	74	dNrRes--18.5556/995							rozlina	81	dNrRes--20.2222/1024					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.67	37			0.0225	2		10	XMLSchema5-3-2-0.5	22.44	37			0.0227	2
	2.67	6	#	TTL=8	N=900	#		V1.7_XML		2.67	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	75	dNrRes--23.1111/1025							rozlina	82	dNrRes--23.3333/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37			0.0245	2		10	XMLSchema5-3-2-0.5	22	37			0.0221	2
	2.67	5.78	#	TTL=8	N=900	#		V1.7_XML		2.67	5.11	#	TTL=8	N=900	#		V1.7_XML
	rozlina	76	dNrRes--25.1111/1025							rozlina	83	dNrRes--22.6667/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.44	37			0.0243	2.67		10	XMLSchema5-3-2-0.5	20.78	37			0.0213	3.56
	3.75	6.22	#	TTL=8	N=900	#		V1.7_XML		3.75	5.56	#	TTL=8	N=900	#		V1.7_XML
	rozlina	77	dNrRes--23.7778/979							rozlina	84	dNrRes--21.1111/993					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.11	37			0.0249	2		10	XMLSchema5-3-2-0.5	21	37			0.0206	2.67
	2.44	5.11	#	TTL=8	N=900	#		V1.7_XML		5.11	6.22	#	TTL=8	N=900	#		V1.7_XML
	rozlina	78	dNrRes--25.5556/1026							rozlina	85	dNrRes--20.6667/1003					

2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.44	37			0.0205	3.11		10	XMLSchema5-3-2-0.5	22.22	37			0.0218	2
	3.33	5.11	#	TTL=8	N=900	#		V1.7_XML		3.11	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	86	dNrRes--20.3333/994							rozlina	93	dNrRes--22.3333/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37			0.0219	3.11		10	XMLSchema5-3-2-0.5	21.11	37			0.0235	2.89
	3.33	5.56	#	TTL=8	N=900	#		V1.7_XML		4.22	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	87	dNrRes--22.5556/1031							rozlina	94	dNrRes--24.1111/1025					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.11	37			0.0228	2		10	XMLSchema5-3-2-0.5	21.22	37			0.0211	2.89
	3.78	5.78	#	TTL=8	N=900	#		V1.7_XML		3.78	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	88	dNrRes--23.5556/1031							rozlina	95	dNrRes--21.6667/1026					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37			0.021	2.89		10	XMLSchema5-3-2-0.5	20.11	37			0.0193	2.89
	5.5	6.22	#	TTL=8	N=900	#		V1.7_XML		3.71	5.33	#	TTL=8	N=900	#		V1.7_XML
	rozlina	89	dNrRes--20.3333/970							rozlina	96	dNrRes--18.2222/944					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37			0.0218	2.67		10	XMLSchema5-3-2-0.5	21.22	37			0.0219	2.22
	5.11	6.22	#	TTL=8	N=900	#		V1.7_XML		4.44	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	90	dNrRes--20.6667/948							rozlina	97	dNrRes--22.4444/1025					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37			0.025	2.67		10	XMLSchema5-3-2-0.5	21.22	37			0.0195	2.67
	4.44	6	#	TTL=8	N=900	#		V1.7_XML		4.86	6	#	TTL=8	N=900	#		V1.7_XML
	rozlina	91	dNrRes--25.6667/1026							rozlina	98	dNrRes--20.1111/1029					
2	FLTCA	YES	900	SQUARE	50	0	1.4	100	2	FLTCA	YES	900	SQUARE	50	0	1.4	100
	LEAF	0.01	8	50	1500	50	3	6		LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.11	37			0.0224	2		10	XMLSchema5-3-2-0.5	22.11	37			0.0209	2
	3.56	6	#	TTL=8	N=900	#		V1.7_XML		3.56	5.78	#	TTL=8	N=900	#		V1.7_XML
	rozlina	92	dNrRes--23.0/1026							rozlina	99	dNrRes--21.4444/1026					

2	FLTCA	YES	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21.22	37			0.0227	2.22						
	3.56	5.56	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	100	dNrRes--23.2222/1025											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21.11	37			0.021	2.89						
	5.33	6.22	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	1	dNrRes--21.5556/1026											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21.67	37			0.0181	2						
	3.75	5.56	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	2	dNrRes--18.5556/1026											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21	37			0.0218	2.44						
	5.33	6.22	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	3	dNrRes--21.6667/995											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	20.89	37			0.0228	2.67						
	5.11	6.22	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	4	dNrRes--23.3333/1025											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21.56	37			0.0245	2						
	3.56	5.78	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	5	dNrRes--25.1111/1025											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21.56	37			0.0181	2						
	3.75	5.56	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	6	dNrRes--18.5556/1026											

2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21.56	37			0.0181	2						
	3.75	5.56	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	7	dNrRes--18.5556/1026											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21	37			0.0229	2.89						
	4	6.22	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	8	dNrRes--22.7778/993											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	20.22	37			0.0201	2						
	3.75	6	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	9	dNrRes--20.0/993											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21.11	37			0.0202	2.44						
	4.25	6.22	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	10	dNrRes--21.7778/1080											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21.56	37			0.0181	2						
	3.75	5.56	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	11	dNrRes--18.5556/1026											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21.67	37			0.024	2						
	3.56	5.56	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	12	dNrRes--24.5556/1025											
2	NrmTCB	NO	900	SQUARE	50	0	1.4	100						
	LEAF	0.01	8	50	1500	50	3	6						
	10	XMLSchema5-3-2-0.5	21	37			0.0225	2.67						
	4.57	6	#	TTL=8	N=900	#		V1.7_XML						
	rozlina	13	dNrRes--23.0/1024											

2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		20.67	37	0.0186	2				
	2.89	5.11	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	28	dNrRes--	18.4444/994							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		21.44	37	0.0223	2				
	3.78	5.78	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	29	dNrRes--	22.8889/1025							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		20.56	37	0.0186	2				
	3.5	5.56	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	30	dNrRes--	18.4444/993							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		21	37	0.0207	2.67				
	4.33	6	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	31	dNrRes--	20.5556/995							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		21.22	37	0.0217	2.67				
	3.78	6	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	32	dNrRes--	21.5556/995							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		21.44	37	0.0201	2.22				
	4.22	6	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	33	dNrRes--	20.6667/1026							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		22.56	37	0.0207	2.22				
	4	6	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	34	dNrRes--	21.2222/1026							

2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		20.89	37	0.0197	2				
	4.89	6.22	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	35	dNrRes--	20.3333/1031							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		22.67	37	0.0212	2.22				
	3.56	6	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	36	dNrRes--	21.7778/1026							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		20.44	37	0.0197	2				
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	37	dNrRes--	19.5556/994							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		21	37	0.0223	2				
	3.56	6	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	38	dNrRes--	22.2222/995							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		21.11	37	0.0195	2.67				
	5.25	6.22	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	39	dNrRes--	19.1111/978							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		22.22	37	0.0203	2.22				
	3.78	6	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	40	dNrRes--	20.7778/1026							
2	NrmTCB NO	900	SQUARE	50	0	1.4	100				
	LEAF	0.01	8	50	1500	50	3	6			
	10	XMLSchema5-3-2-0.5		22.56	37	0.0207	2.22				
	3.78	6	#	TTL=8	N=900	#	V1.7_XML				
	rozlina	41	dNrRes--	21.2222/1026							

2	NrmTCB NO	900	SQUARE	50	0	1.4	100	2	NrmTCB NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0215	2.44			10	XMLSchema5-3-2-0.5	22.56	37	0.0221	2.22		
	5.56	6.22	#	TTL=8	N=900	#	V1.7_XML		3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	42	dNrRes--21.1111/980						rozlina	49	dNrRes--22.6667/1026					
2	NrmTCB NO	900	SQUARE	50	0	1.4	100	2	NrmTCB NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.0179	2			10	XMLSchema5-3-2-0.5	21.56	37	0.0229	2.67		
	3.11	5.56	#	TTL=8	N=900	#	V1.7_XML		4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	43	dNrRes--18.4444/1031						rozlina	50	dNrRes--23.4444/1025					
2	NrmTCB NO	900	SQUARE	50	0	1.4	100	2	NrmTCB NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.0245	2			10	XMLSchema5-3-2-0.5	21.89	37	0.0239	2		
	3.33	6	#	TTL=8	N=900	#	V1.7_XML		3.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	44	dNrRes--24.3333/995						rozlina	51	dNrRes--23.7778/995					
2	NrmTCB NO	900	SQUARE	50	0	1.4	100	2	NrmTCB NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.33	37	0.0191	2.22			10	XMLSchema5-3-2-0.5	21.44	37	0.0214	2		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML		4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	45	dNrRes--19.0/994						rozlina	52	dNrRes--21.8889/1025					
2	NrmTCB NO	900	SQUARE	50	0	1.4	100	2	NrmTCB NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37	0.0213	2.44			10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML		4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	46	dNrRes--21.8889/1026						rozlina	53	dNrRes--19.7778/1026					
2	NrmTCB NO	900	SQUARE	50	0	1.4	100	2	NrmTCB NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.56	37	0.019	2			10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML		4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	47	dNrRes--18.8889/994						rozlina	54	dNrRes--19.7778/1026					
2	NrmTCB NO	900	SQUARE	50	0	1.4	100	2	NrmTCB NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0191	2			10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		
	4.57	5.78	#	TTL=8	N=900	#	V1.7_XML		4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	48	dNrRes--19.5556/1025						rozlina	55	dNrRes--19.7778/1026					

2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		10	XMLSchema5-3-2-0.5	21.22	37	0.0208	2
	4.22	6	#	TTL=8	N=900	#		4	6	#	TTL=8	N=900	#
	rozlina	56	dNrRes--19.7778/1026					rozlina	63	dNrRes--21.3333/1025			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.56	37	0.0214	2		10	XMLSchema5-3-2-0.5	20.89	37	0.0184	2.22
	4	6	#	TTL=8	N=900	#		4.44	6	#	TTL=8	N=900	#
	rozlina	57	dNrRes--21.8889/1025					rozlina	64	dNrRes--18.8889/1026			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.018	2.22		10	XMLSchema5-3-2-0.5	21	37	0.0222	2.44
	6	6.22	#	TTL=8	N=900	#		5.33	6.22	#	TTL=8	N=900	#
	rozlina	58	dNrRes--17.6667/982					rozlina	65	dNrRes--21.5556/973			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.22	37	0.0193	2.67		10	XMLSchema5-3-2-0.5	20.89	37	0.0185	2
	4.29	5.33	#	TTL=8	N=900	#		3.75	5.78	#	TTL=8	N=900	#
	rozlina	59	dNrRes--19.2222/995					rozlina	66	dNrRes--19.0/1025			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		10	XMLSchema5-3-2-0.5	21.33	37	0.0179	2.22
	4.22	6	#	TTL=8	N=900	#		4.44	6	#	TTL=8	N=900	#
	rozlina	60	dNrRes--19.7778/1026					rozlina	67	dNrRes--18.3333/1026			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.0207	2		10	XMLSchema5-3-2-0.5	21.11	37	0.0179	2.22
	4.44	6.22	#	TTL=8	N=900	#		4.44	6	#	TTL=8	N=900	#
	rozlina	61	dNrRes--20.8889/1008					rozlina	68	dNrRes--18.3333/1026			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.33	37	0.0208	2		10	XMLSchema5-3-2-0.5	21	37	0.0211	2
	4	6	#	TTL=8	N=900	#		4.22	6.22	#	TTL=8	N=900	#
	rozlina	62	dNrRes--21.3333/1025					rozlina	69	dNrRes--20.7778/985			

2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.11	37	0.0179	2.22		10	XMLSchema5-3-2-0.5	21	37	0.0228	2.67
	4.44	6	#	TTL=8	N=900	#		3.75	6.22	#	TTL=8	N=900	#
	rozlina	70	dNrRes--18.3333/1026					rozlina	77	dNrRes--22.3333/979			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.0202	2		10	XMLSchema5-3-2-0.5	21.78	37	0.0194	2.22
	4	5.78	#	TTL=8	N=900	#		4.22	6	#	TTL=8	N=900	#
	rozlina	71	dNrRes--20.6667/1025					rozlina	78	dNrRes--19.8889/1026			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.11	37	0.0179	2.22		10	XMLSchema5-3-2-0.5	21.22	37	0.0205	2.67
	4.44	6	#	TTL=8	N=900	#		4	6	#	TTL=8	N=900	#
	rozlina	72	dNrRes--18.3333/1026					rozlina	79	dNrRes--20.4444/995			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.11	37	0.0179	2.22		10	XMLSchema5-3-2-0.5	20.78	37	0.0209	2
	4.44	6	#	TTL=8	N=900	#		3.56	5.78	#	TTL=8	N=900	#
	rozlina	73	dNrRes--18.3333/1026					rozlina	80	dNrRes--20.7778/995			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.22	37	0.0179	2.22		10	XMLSchema5-3-2-0.5	20.22	37	0.02	3.11
	3.43	5.11	#	TTL=8	N=900	#		3.43	5.56	#	TTL=8	N=900	#
	rozlina	74	dNrRes--17.7778/995					rozlina	81	dNrRes--20.4444/1024			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.67	37	0.0197	2		10	XMLSchema5-3-2-0.5	21.44	37	0.0175	2.22
	3.78	5.56	#	TTL=8	N=900	#		4.44	6	#	TTL=8	N=900	#
	rozlina	75	dNrRes--20.2222/1025					rozlina	82	dNrRes--18.0/1026			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.67	37	0.0197	2		10	XMLSchema5-3-2-0.5	21.44	37	0.0175	2.22
	3.78	5.56	#	TTL=8	N=900	#		4.44	6	#	TTL=8	N=900	#
	rozlina	76	dNrRes--20.2222/1025					rozlina	83	dNrRes--18.0/1026			

2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.33	37	0.0204	3.56		10	XMLSchema5-3-2-0.5	21.56	37	0.0196	2.44
	4.5	5.78	#	TTL=8	N=900	#		4.25	5.78	#	TTL=8	N=900	#
	rozlina	84	dNrRes--20.2222/993					rozlina	91	dNrRes--20.1111/1026			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.0201	2.67		10	XMLSchema5-3-2-0.5	21.33	37	0.0165	2.22
	5.11	6.22	#	TTL=8	N=900	#		4	5.78	#	TTL=8	N=900	#
	rozlina	85	dNrRes--20.1111/1003					rozlina	92	dNrRes--16.8889/1026			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.33	37	0.0196	2.89		10	XMLSchema5-3-2-0.5	21.33	37	0.0165	2.22
	3.78	5.78	#	TTL=8	N=900	#		4	5.78	#	TTL=8	N=900	#
	rozlina	86	dNrRes--19.4444/994					rozlina	93	dNrRes--16.8889/1026			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.019	2.89		10	XMLSchema5-3-2-0.5	20.89	37	0.0242	2.67
	3.78	6	#	TTL=8	N=900	#		4.44	6	#	TTL=8	N=900	#
	rozlina	87	dNrRes--19.5556/1031					rozlina	94	dNrRes--24.7778/1025			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.78	37	0.0181	2		10	XMLSchema5-3-2-0.5	20.89	37	0.0206	2.89
	4	5.78	#	TTL=8	N=900	#		4	6	#	TTL=8	N=900	#
	rozlina	88	dNrRes--18.6667/1031					rozlina	95	dNrRes--21.1111/1026			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.019	2.89		10	XMLSchema5-3-2-0.5	20.78	37	0.0219	2.89
	5.5	6.22	#	TTL=8	N=900	#		3.43	5.78	#	TTL=8	N=900	#
	rozlina	89	dNrRes--18.4444/970					rozlina	96	dNrRes--20.6667/944			
2	NrmTCB NO	900	SQUARE 50	0	1.4	100	2	NrmTCB NO	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.11	37	0.0202	2.67		10	XMLSchema5-3-2-0.5	21.22	37	0.023	2
	5.11	6.22	#	TTL=8	N=900	#		3.78	6	#	TTL=8	N=900	#
	rozlina	90	dNrRes--19.1111/948					rozlina	97	dNrRes--23.5556/1025			

2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.024	2			10	XMLSchema5-3-2-0.5	21.44	37	0.0173	2		
	3.56	5.56	#	TTL=8	N=900	#	V1.7_XML		4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	12	dNrRes--24.5556/1025						rozlina	19	dNrRes--17.7778/1026					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0225	2.67			10	XMLSchema5-3-2-0.5	21.44	37	0.0173	2		
	4.57	6	#	TTL=8	N=900	#	V1.7_XML		4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	13	dNrRes--23.0/1024						rozlina	20	dNrRes--17.7778/1026					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.0193	2			10	XMLSchema5-3-2-0.5	21.56	37	0.024	2		
	3.5	5.56	#	TTL=8	N=900	#	V1.7_XML		3.11	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	14	dNrRes--19.7778/1026						rozlina	21	dNrRes--24.5556/1025					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.0178	2			10	XMLSchema5-3-2-0.5	20.67	37	0.0215	2		
	3.75	5.56	#	TTL=8	N=900	#	V1.7_XML		3.5	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	15	dNrRes--18.2222/1026						rozlina	22	dNrRes--21.3333/993					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.024	2			10	XMLSchema5-3-2-0.5	21	37	0.0205	2.22		
	3.11	5.56	#	TTL=8	N=900	#	V1.7_XML		4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	16	dNrRes--24.5556/1025						rozlina	23	dNrRes--21.0/1026					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0201	2.44			10	XMLSchema5-3-2-0.5	21	37	0.0211	2		
	4.67	6.22	#	TTL=8	N=900	#	V1.7_XML		4.22	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	17	dNrRes--20.0/994						rozlina	24	dNrRes--20.5556/974					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0177	2			10	XMLSchema5-3-2-0.5	21	37	0.0201	2.44		
	3.75	5.78	#	TTL=8	N=900	#	V1.7_XML		5.14	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	18	dNrRes--18.1111/1026						rozlina	25	dNrRes--19.0/944					

2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0228	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	26	dNrRes--23.3333/1025					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.44	37	0.0179	2.44		
	4.25	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	27	dNrRes--18.3333/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.67	37	0.0186	2		
	2.89	5.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	28	dNrRes--18.4444/994					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.44	37	0.0223	2		
	3.78	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	29	dNrRes--22.8889/1025					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.56	37	0.0186	2		
	3.5	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	30	dNrRes--18.4444/993					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0207	2.67		
	4.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	31	dNrRes--20.5556/995					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0217	2.67		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	32	dNrRes--21.5556/995					

2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.44	37	0.0201	2.22		
	4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	33	dNrRes--20.6667/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37	0.0207	2.22		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	34	dNrRes--21.2222/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.0197	2		
	4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	35	dNrRes--20.3333/1031					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.67	37	0.0212	2.22		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	36	dNrRes--21.7778/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.44	37	0.0197	2		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	37	dNrRes--19.5556/994					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0223	2		
	3.56	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	38	dNrRes--22.2222/995					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0195	2.67		
	5.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	39	dNrRes--19.1111/978					

2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.22	37	0.0203	2.22		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	40	dNrRes--20.7778/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37	0.0207	2.22		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	41	dNrRes--21.2222/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0215	2.44		
	5.56	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	42	dNrRes--21.1111/980					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.0179	2		
	3.11	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	43	dNrRes--18.4444/1031					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.0245	2		
	3.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	44	dNrRes--24.3333/995					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.33	37	0.0191	2.22		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	45	dNrRes--19.0/994					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37	0.0213	2.44		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	46	dNrRes--21.8889/1026					

2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.56	37	0.019	2		
	3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	47	dNrRes--18.8889/994					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0191	2		
	4.57	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	48	dNrRes--19.5556/1025					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.56	37	0.0221	2.22		
	3.78	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	49	dNrRes--22.6667/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0229	2.67		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	50	dNrRes--23.4444/1025					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0239	2		
	3.33	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	51	dNrRes--23.7778/995					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.44	37	0.0214	2		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	52	dNrRes--21.8889/1025					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		
	4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	53	dNrRes--19.7778/1026					

2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		
	4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	54	dNrRes--19.7778/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		
	4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	55	dNrRes--19.7778/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		
	4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	56	dNrRes--19.7778/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0214	2		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	57	dNrRes--21.8889/1025					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.018	2.22		
	6	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	58	dNrRes--17.6667/982					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.22	37	0.0193	2.67		
	4.29	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	59	dNrRes--19.2222/995					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.67	37	0.0193	2.22		
	4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	60	dNrRes--19.7778/1026					

2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0207	2		
	4.44	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	61	dNrRes--20.8889/1008					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0208	2		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	62	dNrRes--21.3333/1025					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0208	2		
	4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	63	dNrRes--21.3333/1025					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.0184	2.22		
	4.44	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	64	dNrRes--18.8889/1026					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0222	2.44		
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	65	dNrRes--21.5556/973					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.0185	2		
	3.75	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	66	dNrRes--19.0/1025					
2	NrmTCB YES	900	SQUARE 50	0	1.4	100		
	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0179	2.22		
	4.44	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	67	dNrRes--18.3333/1026					

2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0179	2.22			10	XMLSchema5-3-2-0.5	20.67	37	0.0197	2		
	4.44	6	#	TTL=8	N=900	#	V1.7_XML		3.78	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	68	dNrRes--18.3333/1026						rozlina	75	dNrRes--20.2222/1025					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0211	2			10	XMLSchema5-3-2-0.5	20.67	37	0.0197	2		
	4.22	6.22	#	TTL=8	N=900	#	V1.7_XML		3.78	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	69	dNrRes--20.7778/985						rozlina	76	dNrRes--20.2222/1025					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0179	2.22			10	XMLSchema5-3-2-0.5	21	37	0.0228	2.67		
	4.44	6	#	TTL=8	N=900	#	V1.7_XML		3.75	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	70	dNrRes--18.3333/1026						rozlina	77	dNrRes--22.3333/979					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37	0.0202	2			10	XMLSchema5-3-2-0.5	21.78	37	0.0194	2.22		
	4	5.78	#	TTL=8	N=900	#	V1.7_XML		4.22	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	71	dNrRes--20.6667/1025						rozlina	78	dNrRes--19.8889/1026					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0179	2.22			10	XMLSchema5-3-2-0.5	21.22	37	0.0205	2.67		
	4.44	6	#	TTL=8	N=900	#	V1.7_XML		4	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	72	dNrRes--18.3333/1026						rozlina	79	dNrRes--20.4444/995					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0179	2.22			10	XMLSchema5-3-2-0.5	20.78	37	0.0209	2		
	4.44	6	#	TTL=8	N=900	#	V1.7_XML		3.56	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	73	dNrRes--18.3333/1026						rozlina	80	dNrRes--20.7778/995					
2	NrmTCB YES	900	SQUARE	50	0	1.4	100	2	NrmTCB YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.22	37	0.0179	2.22			10	XMLSchema5-3-2-0.5	20.22	37	0.02	3.11		
	3.43	5.11	#	TTL=8	N=900	#	V1.7_XML		3.43	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	74	dNrRes--17.7778/995						rozlina	81	dNrRes--20.4444/1024					

2	NrmTCB YES	900	SQUARE 50	0	1.4	100	2	NrmTCB YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.44	37	0.0175	2.22		10	XMLSchema5-3-2-0.5	21	37	0.019	2.89
	4.44	6	#	TTL=8	N=900	#		5.5	6.22	#	TTL=8	N=900	#
	rozlina	82	dNrRes--18.0/1026					rozlina	89	dNrRes--18.4444/970			
2	NrmTCB YES	900	SQUARE 50	0	1.4	100	2	NrmTCB YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.44	37	0.0175	2.22		10	XMLSchema5-3-2-0.5	21.11	37	0.0202	2.67
	4.44	6	#	TTL=8	N=900	#		5.11	6.22	#	TTL=8	N=900	#
	rozlina	83	dNrRes--18.0/1026					rozlina	90	dNrRes--19.1111/948			
2	NrmTCB YES	900	SQUARE 50	0	1.4	100	2	NrmTCB YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.33	37	0.0204	3.56		10	XMLSchema5-3-2-0.5	21.56	37	0.0196	2.44
	4.5	5.78	#	TTL=8	N=900	#		4.25	5.78	#	TTL=8	N=900	#
	rozlina	84	dNrRes--20.2222/993					rozlina	91	dNrRes--20.1111/1026			
2	NrmTCB YES	900	SQUARE 50	0	1.4	100	2	NrmTCB YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.0201	2.67		10	XMLSchema5-3-2-0.5	21.33	37	0.0165	2.22
	5.11	6.22	#	TTL=8	N=900	#		4	5.78	#	TTL=8	N=900	#
	rozlina	85	dNrRes--20.1111/1003					rozlina	92	dNrRes--16.8889/1026			
2	NrmTCB YES	900	SQUARE 50	0	1.4	100	2	NrmTCB YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.33	37	0.0196	2.89		10	XMLSchema5-3-2-0.5	21.33	37	0.0165	2.22
	3.78	5.78	#	TTL=8	N=900	#		4	5.78	#	TTL=8	N=900	#
	rozlina	86	dNrRes--19.4444/994					rozlina	93	dNrRes--16.8889/1026			
2	NrmTCB YES	900	SQUARE 50	0	1.4	100	2	NrmTCB YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.019	2.89		10	XMLSchema5-3-2-0.5	20.89	37	0.0242	2.67
	3.78	6	#	TTL=8	N=900	#		4.44	6	#	TTL=8	N=900	#
	rozlina	87	dNrRes--19.5556/1031					rozlina	94	dNrRes--24.7778/1025			
2	NrmTCB YES	900	SQUARE 50	0	1.4	100	2	NrmTCB YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.78	37	0.0181	2		10	XMLSchema5-3-2-0.5	20.89	37	0.0206	2.89
	4	5.78	#	TTL=8	N=900	#		4	6	#	TTL=8	N=900	#
	rozlina	88	dNrRes--18.6667/1031					rozlina	95	dNrRes--21.1111/1026			

2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4		
	100	LEAF	0.01	8	50	1500	50	3		100	LEAF	0.01	8	50	1500	50	3	
	6	10	XMLSchema5-3-2-0.5		21.11	37				6	10	XMLSchema5-3-2-0.5		21.22	37			
	0.0212	2.44	4.25	6.22	#	TTL=8	N=900	#		0.0208	2.44	4.67	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	10	dNrRes--22.8889/1080							V1.7_XML	rozlina	17	dNrRes--20.6667/994				
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4		
	100	LEAF	0.01	8	50	1500	50	3		100	LEAF	0.01	8	50	1500	50	3	
	6	10	XMLSchema5-3-2-0.5		24.44	37	0.023			6	10	XMLSchema5-3-2-0.5		23.89	37			
	2	2	3.56	#	TTL=8	N=900	#			0.0225	2	2.67	3.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	11	dNrRes--23.5556/1026							V1.7_XML	rozlina	18	dNrRes--23.1111/1026				
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4		
	100	LEAF	0.01	8	50	1500	50	3		100	LEAF	0.01	8	50	1500	50	3	
	6	10	XMLSchema5-3-2-0.5		24.44	37				6	10	XMLSchema5-3-2-0.5		23.78	37			
	0.0214	2	1.78	3.56	#	TTL=8	N=900	#		0.0222	2	2.67	3.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	12	dNrRes--21.8889/1025							V1.7_XML	rozlina	19	dNrRes--22.7778/1026				
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4		
	100	LEAF	0.01	8	50	1500	50	3		100	LEAF	0.01	8	50	1500	50	3	
	6	10	XMLSchema5-3-2-0.5		21.22	37				6	10	XMLSchema5-3-2-0.5		23.67	37			
	0.0239	2.67	4.57	6	#	TTL=8	N=900	#		0.0222	2	2.44	3.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	13	dNrRes--24.4444/1024							V1.7_XML	rozlina	20	dNrRes--22.7778/1026				
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4		
	100	LEAF	0.01	8	50	1500	50	3		100	LEAF	0.01	8	50	1500	50	3	
	6	10	XMLSchema5-3-2-0.5		23.89	37				6	10	XMLSchema5-3-2-0.5		24.33	37			
	0.0211	2	2.22	3.56	#	TTL=8	N=900	#		0.0214	2	1.78	3.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	14	dNrRes--21.6667/1026							V1.7_XML	rozlina	21	dNrRes--21.8889/1025				
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4		
	100	LEAF	0.01	8	50	1500	50	3		100	LEAF	0.01	8	50	1500	50	3	
	6	10	XMLSchema5-3-2-0.5		23.89	37	0.021			6	10	XMLSchema5-3-2-0.5		23.22	37			
	2	2.22	3.56	#	TTL=8	N=900	#			0.0224	2	1.75	4.44	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	15	dNrRes--21.5556/1026							V1.7_XML	rozlina	22	dNrRes--22.2222/993				
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4		
	100	LEAF	0.01	8	50	1500	50	3		100	LEAF	0.01	8	50	1500	50	3	
	6	10	XMLSchema5-3-2-0.5		24.33	37				6	10	XMLSchema5-3-2-0.5		21.11	37	0.021		
	0.0214	2	1.78	3.56	#	TTL=8	N=900	#		2.22	4.89	6.22	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	16	dNrRes--21.8889/1025							V1.7_XML	rozlina	23	dNrRes--21.5556/1026				

2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0218 2	4.22	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	24	dNrRes--21.2222/974			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0213 2.44	5.14	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	25	dNrRes--20.1111/944			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.44	37		
	0.0235 2.22	2.67	3.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	26	dNrRes--24.1111/1025			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23	37		
	0.0214 2	3.11	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	27	dNrRes--22.0/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.22	37		
	0.0192 2	2	3.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	28	dNrRes--19.1111/994			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.56	37		
	0.0209 2	2.67	3.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	29	dNrRes--21.4444/1025			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.67	37		
	0.0232 2.44	2.75	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	30	dNrRes--23.0/993			

2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0216 2.67	4.33	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	31	dNrRes--21.4444/995			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0243 2.67	3.33	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	32	dNrRes--24.2222/995			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22	37		
	0.0209 2	3.11	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	33	dNrRes--21.4444/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.22	37		
	0.0207 2	2.67	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	34	dNrRes--21.2222/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0208 2	4.89	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	35	dNrRes--21.4444/1031			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.89	37		
	0.0222 2.44	3.25	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	36	dNrRes--22.7778/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.33	37		
	0.0208 2	2.67	3.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	37	dNrRes--20.6667/994			

2	NrmTCCN	NO	900	SQUARE	50	0	1.4	2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3		100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.78	37	0.022			6 10	XMLSchema5-3-2-0.5		22.33	37		
	2.22 3.11	4.89	#	TTL=8	N=900	#			0.0195 2	2.67	3.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	38	dNrRes--21.8889/995					V1.7_XML	rozlina	45	dNrRes--19.3333/994			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4	2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3		100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37				6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0204 2.67	5.25	6.22	#	TTL=8	N=900	#		0.0198 2.44	3.56	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	39	dNrRes--20.0/978					V1.7_XML	rozlina	46	dNrRes--20.3333/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4	2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3		100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37				6 10	XMLSchema5-3-2-0.5		23	37		
	0.0198 2.67	3.56	4.67	#	TTL=8	N=900	#		0.0189 2	2.67	4	#	TTL=8	N=900	#
	V1.7_XML	rozlina	40	dNrRes--20.3333/1026					V1.7_XML	rozlina	47	dNrRes--18.7778/994			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4	2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3		100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37				6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0198 2.44	3.56	4.67	#	TTL=8	N=900	#		0.0203 2	4.57	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	41	dNrRes--20.3333/1026					V1.7_XML	rozlina	48	dNrRes--20.7778/1025			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4	2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3		100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37	0.023			6 10	XMLSchema5-3-2-0.5		20.89	37		
	2.44 5.56	6.22	#	TTL=8	N=900	#			0.0198 2.44	3.56	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	42	dNrRes--22.5556/980					V1.7_XML	rozlina	49	dNrRes--20.3333/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4	2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3		100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.67	37				6 10	XMLSchema5-3-2-0.5		21	37		
	0.0204 2	1.78	4.22	#	TTL=8	N=900	#		0.0238 2.89	4.22	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	43	dNrRes--21.0/1031					V1.7_XML	rozlina	50	dNrRes--24.4444/1025			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4	2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3		100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.78	37				6 10	XMLSchema5-3-2-0.5		21.67	37	0.02	
	0.0204 2.22	3.11	4.44	#	TTL=8	N=900	#		2.22 3.11	4.44	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	44	dNrRes--20.3333/995					V1.7_XML	rozlina	51	dNrRes--19.8889/995			

2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.67	37					6 10	XMLSchema5-3-2-0.5		21.89	37		
	0.0203 2	3.11	5.11	#	TTL=8	N=900	#			0.0205 2.22	3	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	52	dNrRes--20.7778/1025							V1.7_XML	rozlina	59	dNrRes--20.4444/995		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37	0.019				6 10	XMLSchema5-3-2-0.5		20.33	37		
	2.44 3.33	4.67	#	TTL=8	N=900	#				0.0186 2.44	3.56	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	53	dNrRes--19.4444/1026							V1.7_XML	rozlina	60	dNrRes--19.1111/1026		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37	0.019				6 10	XMLSchema5-3-2-0.5		21	37		
	2.44 3.33	4.67	#	TTL=8	N=900	#				0.0215 2	4.67	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	54	dNrRes--19.4444/1026							V1.7_XML	rozlina	61	dNrRes--21.6667/1008		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37	0.019				6 10	XMLSchema5-3-2-0.5		20.56	37		
	2.44 3.33	4.67	#	TTL=8	N=900	#				0.0192 2.22	3.11	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	55	dNrRes--19.4444/1026							V1.7_XML	rozlina	62	dNrRes--19.6667/1025		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37	0.019				6 10	XMLSchema5-3-2-0.5		20.56	37		
	2.44 3.33	4.67	#	TTL=8	N=900	#				0.0191 2	3.11	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	56	dNrRes--19.4444/1026							V1.7_XML	rozlina	63	dNrRes--19.5556/1025		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.67	37					6 10	XMLSchema5-3-2-0.5		21	37		
	0.0196 2	3.11	4.89	#	TTL=8	N=900	#			0.0187 2.44	3.11	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	57	dNrRes--20.1111/1025							V1.7_XML	rozlina	64	dNrRes--19.2222/1026		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37					6 10	XMLSchema5-3-2-0.5		21	37		
	0.0195 2.22	6	6.22	#	TTL=8	N=900	#			0.0234 2.44	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	58	dNrRes--19.1111/982							V1.7_XML	rozlina	65	dNrRes--22.7778/973		

2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0191 2	3.11	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	66	dNrRes--19.5556/1025			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0192 2.44	3.33	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	67	dNrRes--19.6667/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0186 2.44	3.11	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	68	dNrRes--19.1111/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0222 2	4.22	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	69	dNrRes--21.8889/985			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0183 2.44	3.33	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	70	dNrRes--18.7778/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0197 2	3.11	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	71	dNrRes--20.2222/1025			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0183 2.44	3.11	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	72	dNrRes--18.7778/1026			

2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0183 2.44	3.11	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	73	dNrRes--18.7778/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.89	37	0.017	
	2.44 3.33	4.89	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	74	dNrRes--16.8889/995			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0197 2.22	3.11	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	75	dNrRes--20.2222/1025			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0197 2.22	3.11	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	76	dNrRes--20.2222/1025			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0239 2.67	3.75	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	77	dNrRes--23.4444/979			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0192 2.44	3.11	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	78	dNrRes--19.6667/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0237 2.67	3.56	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	79	dNrRes--23.5556/995			

2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.56	37		
	0.0212 2	3.56	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	80	dNrRes--21.1111/995			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.22	37		
	0.0187 3.11	3.43	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	81	dNrRes--19.1111/1024			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0185 2.44	3.56	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	82	dNrRes--19.0/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0185 2.44	3.33	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	83	dNrRes--19.0/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0211 3.56	3.75	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	84	dNrRes--21.0/993			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0206 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	85	dNrRes--20.6667/1003			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.22	37		
	0.0196 3.11	3.33	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	86	dNrRes--19.4444/994			

2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0225 3.11	3.33	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	87	dNrRes--23.2222/1031			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.78	37		
	0.0214 2	3.56	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	88	dNrRes--22.1111/1031			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0208 2.89	5.5	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	89	dNrRes--20.2222/970			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0218 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	90	dNrRes--20.6667/948			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37	0.02	
	2.44 4.22	5.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	91	dNrRes--20.5556/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0175 2.22	4.44	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	92	dNrRes--18.0/1026			
2	NrmTCCN	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0182 2.22	3.56	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	93	dNrRes--18.6667/1026			

2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.11	37					6 10	XMLSchema5-3-2-0.5		21.33	37		
	0.0203 3.33	4	5.33	#	TTL=8	N=900	#			0.0222 2.89	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	94	dNrRes--20.7778/1025							V1.7_XML	rozlina	1	dNrRes--22.7778/1026		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37					6 10	XMLSchema5-3-2-0.5		24.11	37		
	0.0207 2.89	3.78	5.78	#	TTL=8	N=900	#			0.0212 2	2	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	95	dNrRes--21.2222/1026							V1.7_XML	rozlina	2	dNrRes--21.7778/1026		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20	37					6 10	XMLSchema5-3-2-0.5		21	37		
	0.0193 2.89	3.71	5.33	#	TTL=8	N=900	#			0.0231 2.44	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	96	dNrRes--18.2222/944							V1.7_XML	rozlina	3	dNrRes--23.0/995		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.11	37					6 10	XMLSchema5-3-2-0.5		21	37		
	0.0197 2.44	4.22	5.78	#	TTL=8	N=900	#			0.0245 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	97	dNrRes--20.2222/1025							V1.7_XML	rozlina	4	dNrRes--25.1111/1025		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37					6 10	XMLSchema5-3-2-0.5		23.89	37		
	0.0194 2.67	4.86	6	#	TTL=8	N=900	#			0.0215 2	1.78	4	#	TTL=8	N=900	#
	V1.7_XML	rozlina	98	dNrRes--20.0/1029							V1.7_XML	rozlina	5	dNrRes--22.0/1025		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37					6 10	XMLSchema5-3-2-0.5		24.67	37		
	0.0178 2.44	3.56	5.33	#	TTL=8	N=900	#			0.0234 2	2	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	99	dNrRes--18.2222/1026							V1.7_XML	rozlina	6	dNrRes--24.0/1026		
2	NrmTCCN	NO	900	SQUARE	50	0	1.4		2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3			100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37					6 10	XMLSchema5-3-2-0.5		24.44	37	0.023	
	0.0197 2.44	3.56	5.56	#	TTL=8	N=900	#			2 2	3.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	100	dNrRes--20.2222/1025							V1.7_XML	rozlina	7	dNrRes--23.5556/1026		

2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.22	37			
	0.0243 2.89	4	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	8	dNrRes--24.1111/993				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.67	37			
	0.0219 2	1.75	4.89	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	9	dNrRes--21.7778/993				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.11	37			
	0.0212 2.44	4.25	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	10	dNrRes--22.8889/1080				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		24.44	37	0.023		
	2 2	3.56	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	11	dNrRes--23.5556/1026				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		24.44	37			
	0.0214 2	1.78	3.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	12	dNrRes--21.8889/1025				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.22	37			
	0.0239 2.67	4.57	6	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	13	dNrRes--24.4444/1024				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.89	37			
	0.0211 2	2.22	3.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	14	dNrRes--21.6667/1026				

2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.89	37	0.021		
	2 2.22	3.56	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	15	dNrRes--21.5556/1026				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		24.33	37			
	0.0214 2	1.78	3.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	16	dNrRes--21.8889/1025				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.22	37			
	0.0208 2.44	4.67	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	17	dNrRes--20.6667/994				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.89	37			
	0.0225 2	2.67	3.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	18	dNrRes--23.1111/1026				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.78	37			
	0.0222 2	2.67	3.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	19	dNrRes--22.7778/1026				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.67	37			
	0.0222 2	2.44	3.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	20	dNrRes--22.7778/1026				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		24.33	37			
	0.0214 2	1.78	3.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	21	dNrRes--21.8889/1025				

2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.22	37			
	0.0224 2	1.75	4.44	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	22	dNrRes--22.2222/993				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.11	37	0.021		
	2.22 4.89	6.22	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	23	dNrRes--21.5556/1026				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21	37			
	0.0218 2	4.22	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	24	dNrRes--21.2222/974				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.11	37			
	0.0213 2.44	5.14	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	25	dNrRes--20.1111/944				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.44	37			
	0.0235 2.22	2.67	3.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	26	dNrRes--24.1111/1025				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23	37			
	0.0214 2	3.11	4.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	27	dNrRes--22.0/1026				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.22	37			
	0.0192 2	2	3.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	28	dNrRes--19.1111/994				

2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.56	37			
	0.0209 2	2.67	3.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	29	dNrRes--21.4444/1025				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.67	37			
	0.0232 2.44	2.75	4.67	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	30	dNrRes--23.0/993				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.22	37			
	0.0216 2.67	4.33	6	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	31	dNrRes--21.4444/995				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21	37			
	0.0243 2.67	3.33	5.11	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	32	dNrRes--24.2222/995				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22	37			
	0.0209 2	3.11	4.44	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	33	dNrRes--21.4444/1026				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.22	37			
	0.0207 2	2.67	4.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	34	dNrRes--21.2222/1026				
2	NrmTCCN	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.11	37			
	0.0208 2	4.89	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	35	dNrRes--21.4444/1031				

2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		21.89	37									
	0.0222 2.44	3.25	4.89	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	36	dNrRes--22.7778/1026										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		22.33	37									
	0.0208 2	2.67	3.78	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	37	dNrRes--20.6667/994										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		21.78	37	0.022								
	2.22 3.11	4.89	#	TTL=8	N=900	#								
	V1.7_XML	rozlina	38	dNrRes--21.8889/995										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		21.11	37									
	0.0204 2.67	5.25	6.22	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	39	dNrRes--20.0/978										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		20.89	37									
	0.0198 2.67	3.56	4.67	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	40	dNrRes--20.3333/1026										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		20.78	37									
	0.0198 2.44	3.56	4.67	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	41	dNrRes--20.3333/1026										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		21	37	0.023								
	2.44 5.56	6.22	#	TTL=8	N=900	#								
	V1.7_XML	rozlina	42	dNrRes--22.5556/980										

2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		23.67	37									
	0.0204 2	1.78	4.22	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	43	dNrRes--21.0/1031										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		21.78	37									
	0.0204 2.22	3.11	4.44	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	44	dNrRes--20.3333/995										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		22.33	37									
	0.0195 2	2.67	3.78	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	45	dNrRes--19.3333/994										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		20.78	37									
	0.0198 2.44	3.56	4.67	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	46	dNrRes--20.3333/1026										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		23	37									
	0.0189 2	2.67	4	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	47	dNrRes--18.7778/994										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		21.11	37									
	0.0203 2	4.57	5.78	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	48	dNrRes--20.7778/1025										
2	NrmTCCN	YES	900	SQUARE	50	0	1.4							
	100 LEAF	0.01	8	50	1500	50	3							
	6 10	XMLSchema5-3-2-0.5		20.89	37									
	0.0198 2.44	3.56	4.67	#	TTL=8	N=900	#							
	V1.7_XML	rozlina	49	dNrRes--20.3333/1026										

2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		21	37				
	0.0238 2.89	4.22	4.89	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	50	dNrRes--24.4444/1025					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		21.67	37	0.02			
	2.22 3.11	4.44	#	TTL=8	N=900	#			
	V1.7_XML	rozlina	51	dNrRes--19.8889/995					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		20.67	37				
	0.0203 2	3.11	5.11	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	52	dNrRes--20.7778/1025					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		20.78	37	0.019			
	2.44 3.33	4.67	#	TTL=8	N=900	#			
	V1.7_XML	rozlina	53	dNrRes--19.4444/1026					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		20.78	37	0.019			
	2.44 3.33	4.67	#	TTL=8	N=900	#			
	V1.7_XML	rozlina	54	dNrRes--19.4444/1026					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		20.78	37	0.019			
	2.44 3.33	4.67	#	TTL=8	N=900	#			
	V1.7_XML	rozlina	55	dNrRes--19.4444/1026					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		20.78	37	0.019			
	2.44 3.33	4.67	#	TTL=8	N=900	#			
	V1.7_XML	rozlina	56	dNrRes--19.4444/1026					

2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		20.67	37				
	0.0196 2	3.11	4.89	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	57	dNrRes--20.1111/1025					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		21	37				
	0.0195 2.22	6	6.22	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	58	dNrRes--19.1111/982					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		21.89	37				
	0.0205 2.22	3	5.11	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	59	dNrRes--20.4444/995					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		20.33	37				
	0.0186 2.44	3.56	4.89	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	60	dNrRes--19.1111/1026					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		21	37				
	0.0215 2	4.67	6.22	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	61	dNrRes--21.6667/1008					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		20.56	37				
	0.0192 2.22	3.11	4.89	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	62	dNrRes--19.6667/1025					
2	NrmTCCN	YES	900	SQUARE	50	0	1.4		
	100 LEAF	0.01	8	50	1500	50	3		
	6 10	XMLSchema5-3-2-0.5		20.56	37				
	0.0191 2	3.11	4.89	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	63	dNrRes--19.5556/1025					

2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0187 2.44	3.11	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	64	dNrRes--19.2222/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0234 2.44	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	65	dNrRes--22.7778/973			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0191 2	3.11	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	66	dNrRes--19.5556/1025			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0192 2.44	3.33	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	67	dNrRes--19.6667/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0186 2.44	3.11	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	68	dNrRes--19.1111/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0222 2	4.22	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	69	dNrRes--21.8889/985			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0183 2.44	3.33	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	70	dNrRes--18.7778/1026			

2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0197 2	3.11	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	71	dNrRes--20.2222/1025			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0183 2.44	3.11	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	72	dNrRes--18.7778/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0183 2.44	3.11	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	73	dNrRes--18.7778/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.89	37	0.017	
	2.44 3.33	4.89	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	74	dNrRes--16.8889/995			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0197 2.22	3.11	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	75	dNrRes--20.2222/1025			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0197 2.22	3.11	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	76	dNrRes--20.2222/1025			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0239 2.67	3.75	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	77	dNrRes--23.4444/979			

2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0192 2.44	3.11	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	78	dNrRes--19.6667/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0237 2.67	3.56	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	79	dNrRes--23.5556/995			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.56	37		
	0.0212 2	3.56	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	80	dNrRes--21.1111/995			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.22	37		
	0.0187 3.11	3.43	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	81	dNrRes--19.1111/1024			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0185 2.44	3.56	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	82	dNrRes--19.0/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0185 2.44	3.33	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	83	dNrRes--19.0/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0211 3.56	3.75	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	84	dNrRes--21.0/993			

2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0206 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	85	dNrRes--20.6667/1003			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.22	37		
	0.0196 3.11	3.33	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	86	dNrRes--19.4444/994			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0225 3.11	3.33	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	87	dNrRes--23.2222/1031			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.78	37		
	0.0214 2	3.56	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	88	dNrRes--22.1111/1031			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0208 2.89	5.5	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	89	dNrRes--20.2222/970			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0218 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	90	dNrRes--20.6667/948			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37	0.02	
	2.44 4.22	5.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	91	dNrRes--20.5556/1026			

2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0175 2.22	4.44	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	92	dNrRes--18.0/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0182 2.22	3.56	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	93	dNrRes--18.6667/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.11	37		
	0.0203 3.33	4	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	94	dNrRes--20.7778/1025			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0207 2.89	3.78	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	95	dNrRes--21.2222/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20	37		
	0.0193 2.89	3.71	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	96	dNrRes--18.2222/944			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.11	37		
	0.0197 2.44	4.22	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	97	dNrRes--20.2222/1025			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0194 2.67	4.86	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	98	dNrRes--20.0/1029			

2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0178 2.44	3.56	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	99	dNrRes--18.2222/1026			
2	NrmTCCN	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0197 2.44	3.56	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	100	dNrRes--20.2222/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.33	37		
	0.0222 2.89	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	1	dNrRes--22.7778/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.56	37		
	0.0205 2	2	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	2	dNrRes--21.0/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0231 2.44	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	3	dNrRes--23.0/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0243 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	4	dNrRes--24.8889/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.89	37		
	0.0216 2	1.78	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	5	dNrRes--22.1111/1025			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.67	37			
	0.0218 2	2	4.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	6	dNrRes--22.3333/1026				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.89	37			
	0.0217 2	2	4	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	7	dNrRes--22.2222/1026				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.22	37			
	0.0243 2.89	4	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	8	dNrRes--24.1111/993				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.89	37			
	0.0216 2	1.75	4.67	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	9	dNrRes--21.4444/993				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.11	37		0.021	
	2.44 4.25	6.22	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	10	dNrRes--22.6667/1080				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.78	37			
	0.0229 2	2	4.44	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	11	dNrRes--23.4444/1026				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.78	37			
	0.0198 2	1.78	3.11	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	12	dNrRes--20.3333/1025				

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.22	37			
	0.0232 2.67	4.57	6	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	13	dNrRes--23.7778/1024				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.44	37			
	0.0209 2	2.44	3.56	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	14	dNrRes--21.4444/1026				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23	37		0.02	
	2 2	4.22	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	15	dNrRes--20.5556/1026				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		24	37			
	0.0208 2	1.78	3.78	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	16	dNrRes--21.3333/1025				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.22	37			
	0.0208 2.44	4.67	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	17	dNrRes--20.6667/994				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		24	37			
	0.0194 2	2.44	4.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	18	dNrRes--19.8889/1026				
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.44	37			
	0.0188 2	2.22	4	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	19	dNrRes--19.3333/1026				

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.33	37		
	0.0196 2	2.22	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	20	dNrRes--20.1111/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.56	37		
	0.0201 2	1.78	3.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	21	dNrRes--20.5556/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.56	37		
	0.0223 2	1.75	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	22	dNrRes--22.1111/993			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.33	37		
	0.0212 2.22	4.89	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	23	dNrRes--21.7778/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0219 2	4.22	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	24	dNrRes--21.3333/974			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0212 2.44	5.14	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	25	dNrRes--20.0/944			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.44	37		
	0.0232 2	2.89	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	26	dNrRes--23.7778/1025			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.11	37		
	0.0205 2	3.11	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	27	dNrRes--21.0/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.11	37		
	0.0192 2	2	4	#	TTL=8	N=900	#
	V1.7_XML	rozlina	28	dNrRes--19.1111/994			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.89	37		
	0.0225 2	2.67	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	29	dNrRes--23.1111/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22	37		
	0.0219 2.44	2.75	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	30	dNrRes--21.7778/993			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0216 2.67	4.33	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	31	dNrRes--21.4444/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0242 2.67	3.33	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	32	dNrRes--24.1111/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.56	37		
	0.0211 2.22	2.89	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	33	dNrRes--21.6667/1026			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.56	37		
	0.0206 2	2.89	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	34	dNrRes--21.1111/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0207 2	4.89	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	35	dNrRes--21.3333/1031			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22	37		
	0.0218 2.22	3.25	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	36	dNrRes--22.3333/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.22	37		
	0.0216 2	2.67	4	#	TTL=8	N=900	#
	V1.7_XML	rozlina	37	dNrRes--21.4444/994			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.78	37		
	0.0221 2.22	3.33	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	38	dNrRes--22.0/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0202 2.67	5.25	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	39	dNrRes--19.7778/978			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0199 2.44	3.56	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	40	dNrRes--20.4444/1026			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0203 2.44	3.56	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	41	dNrRes--20.7778/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0227 2.44	5.56	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	42	dNrRes--22.2222/980			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.89	37		
	0.0194 2	1.78	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	43	dNrRes--20.0/1031			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.78	37		
	0.0207 2.22	3.11	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	44	dNrRes--20.5556/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.56	37		
	0.0183 2	2.67	3.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	45	dNrRes--18.2222/994			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0203 2.44	3.56	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	46	dNrRes--20.7778/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.78	37		
	0.0198 2	2.67	4	#	TTL=8	N=900	#
	V1.7_XML	rozlina	47	dNrRes--19.6667/994			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0197 2	4.57	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	48	dNrRes--20.2222/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0203 2.44	3.56	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	49	dNrRes--20.7778/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.56	37		
	0.0258 3.11	3.78	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	50	dNrRes--26.4444/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.67	37		
	0.0202 2.22	3.11	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	51	dNrRes--20.1111/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.33	37		
	0.0236 2	3.11	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	52	dNrRes--24.2222/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0198 2.44	3.56	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	53	dNrRes--20.3333/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0191 2.44	3.33	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	54	dNrRes--19.5556/1026			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0188 2.44	3.33	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	55	dNrRes--19.3333/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0188 2.44	3.33	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	56	dNrRes--19.3333/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.11	37		
	0.0229 2	2.67	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	57	dNrRes--23.4444/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0196 2.22	6	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	58	dNrRes--19.2222/982			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.44	37		
	0.0199 2.22	3.33	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	59	dNrRes--19.7778/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37	0.019	
	2.67 3.33	4.89	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	60	dNrRes--19.4444/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0216 2	4.67	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	61	dNrRes--21.7778/1008			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.78	37		
	0.0233 2	2.89	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	62	dNrRes--23.8889/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.89	37		
	0.0228 2	2.67	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	63	dNrRes--23.3333/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.67	37		
	0.0185 2.44	3.78	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	64	dNrRes--19.0/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0228 2.44	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	65	dNrRes--22.2222/973			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.89	37		
	0.0225 2	2.44	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	66	dNrRes--23.1111/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0178 2.44	3.56	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	67	dNrRes--18.2222/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0182 2.44	3.56	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	68	dNrRes--18.6667/1026			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0222 2	4.22	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	69	dNrRes--21.8889/985			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.22	37		
	0.0182 2.44	3.56	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	70	dNrRes--18.6667/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0225 2	2.67	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	71	dNrRes--23.1111/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0182 2.44	3.56	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	72	dNrRes--18.6667/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0182 2.44	3.56	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	73	dNrRes--18.6667/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.89	37		0.017
	2.22 3.33	4.89	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	74	dNrRes--16.8889/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.33	37		
	0.0218 2	2.67	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	75	dNrRes--22.3333/1025			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.44	37		
	0.0219 2	2.67	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	76	dNrRes--22.4444/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0235 2.67	3.75	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	77	dNrRes--23.0/979			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.67	37		
	0.0184 2.44	3.56	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	78	dNrRes--18.8889/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0226 2.67	3.56	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	79	dNrRes--22.4444/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.56	37		
	0.0207 2	3.56	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	80	dNrRes--20.5556/995			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.22	37		
	0.0187 3.11	3.43	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	81	dNrRes--19.1111/1024			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		19.89	37		
	0.0183 2.44	3.78	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	82	dNrRes--18.7778/1026			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20	37		
	0.0182 2.44	3.78	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	83	dNrRes--18.6667/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		0.021
	3.56 3.75	5.33	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	84	dNrRes--20.8889/993			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0206 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	85	dNrRes--20.6667/1003			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0202 3.11	3.33	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	86	dNrRes--20.1111/994			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0218 2.89	3.33	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	87	dNrRes--22.4444/1031			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.22	37		
	0.0211 2	3.78	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	88	dNrRes--21.7778/1031			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0203 2.89	5.5	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	89	dNrRes--19.6667/970			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0214 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	90	dNrRes--20.3333/948			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37		
	0.0187 2.67	3.78	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	91	dNrRes--19.2222/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0174 2.22	3.56	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	92	dNrRes--17.8889/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0171 2.22	3.11	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	93	dNrRes--17.5556/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0241 3.11	3.56	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	94	dNrRes--24.6667/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0207 2.89	3.78	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	95	dNrRes--21.2222/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20	37		
	0.0193 2.89	3.71	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	96	dNrRes--18.2222/944			

2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0212 2.44	4	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	97	dNrRes--21.7778/1025			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0192 2.67	4.86	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	98	dNrRes--19.7778/1029			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0171 2.22	3.33	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	99	dNrRes--17.5556/1026			
2	NrmTCDN2	NO	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0188 2.22	3.11	5.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	100	dNrRes--19.2222/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.33	37		
	0.0222 2.89	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	1	dNrRes--22.7778/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.89	37		
	0.0216 2	2	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	2	dNrRes--22.1111/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0229 2.44	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	3	dNrRes--22.7778/995			

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0241 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	4	dNrRes--24.6667/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.44	37		
	0.0214 2	1.78	4	#	TTL=8	N=900	#
	V1.7_XML	rozlina	5	dNrRes--21.8889/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		24.11	37		
	0.0222 2	2	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	6	dNrRes--22.7778/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		24	37		
	0.0225 2	2	3.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	7	dNrRes--23.1111/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0243 2.89	4	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	8	dNrRes--24.1111/993			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		22.89	37		
	0.0216 2	1.75	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	9	dNrRes--21.4444/993			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0212 2.44	4.25	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	10	dNrRes--22.8889/1080			

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.78	37		
	0.0223 2	2	3.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	11	dNrRes--22.8889/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		24.22	37		
	0.0203 2	1.78	3.56	#	TTL=8	N=900	#
	V1.7_XML	rozlina	12	dNrRes--20.7778/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0235 2.67	4.57	6	#	TTL=8	N=900	#
	V1.7_XML	rozlina	13	dNrRes--24.1111/1024			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.78	37		
	0.0212 2	2.22	3.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	14	dNrRes--21.7778/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.33	37		
	0.0201 2	2	2.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	15	dNrRes--20.6667/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		23.89	37		
	0.0205 2	1.78	3.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	16	dNrRes--21.0/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.22	37		
	0.0208 2.44	4.67	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	17	dNrRes--20.6667/994			

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		20.89	37			
	0.0243 2.67	3.33	5.11	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	32	dNrRes--24.2222/995				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.11	37	0.021		
	2.22 2.89	4	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	33	dNrRes--21.5556/1026				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.67	37			
	0.0206 2	2.67	4	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	34	dNrRes--21.1111/1026				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.11	37			
	0.0208 2	4.89	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	35	dNrRes--21.4444/1031				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.11	37			
	0.0221 2.22	3	4.67	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	36	dNrRes--22.6667/1026				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.22	37			
	0.0216 2	2.67	4	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	37	dNrRes--21.4444/994				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.78	37	0.022		
	2.22 3.11	4.89	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	38	dNrRes--21.8889/995				

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21	37			
	0.0202 2.67	5.25	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	39	dNrRes--19.7778/978				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		20.89	37			
	0.0194 2.44	3.56	4.89	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	40	dNrRes--19.8889/1026				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		20.78	37			
	0.0198 2.44	3.56	4.89	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	41	dNrRes--20.3333/1026				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21	37			
	0.0227 2.44	5.56	6.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	42	dNrRes--22.2222/980				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		23.89	37			
	0.0197 2	1.78	4.22	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	43	dNrRes--20.3333/1031				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		21.67	37	0.02		
	2.22 3.33	4.44	#	TTL=8	N=900	#		
	V1.7_XML	rozlina	44	dNrRes--19.8889/995				
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4	
	100 LEAF	0.01	8	50	1500	50	3	
	6 10	XMLSchema5-3-2-0.5		22.67	37			
	0.0189 2	2.67	4	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	45	dNrRes--18.7778/994				

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	20.44	37	0.02		
	2.44 3.78	4.89 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	46	dNrRes--20.5556/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	22.67	37			
	0.0188 2	2.67 4.22 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	47	dNrRes--18.6667/994			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	21	37			
	0.0196 2	4.57 5.78 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	48	dNrRes--20.1111/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	20.78	37			
	0.0187 2.44	3.56 4.89 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	49	dNrRes--19.2222/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	21.11	37			
	0.0241 3.11	4.25 5.33 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	50	dNrRes--24.6667/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	21.33	37			
	0.0194 2.22	3.11 4.67 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	51	dNrRes--19.3333/995			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	21.33	37			
	0.0205 2	3.25 4.89 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	52	dNrRes--21.0/1025			

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	20.44	37			
	0.0186 2.44	3.33 4.89 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	53	dNrRes--19.1111/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	20.11	37			
	0.0187 2.44	3.33 4.89 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	54	dNrRes--19.2222/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	20	37			
	0.0185 2.44	3.33 4.89 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	55	dNrRes--19.0/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	20.22	37			
	0.0191 2.44	3.33 4.67 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	56	dNrRes--19.5556/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	21.22	37			
	0.0199 2	2.75 4.89 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	57	dNrRes--20.4444/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	21	37			
	0.0191 2.22	6 6.22 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	58	dNrRes--18.7778/982			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5	21.56	37			
	0.0204 2.44	3.33 5.11 #	TTL=8	N=900	#		
	V1.7_XML	rozlina	59	dNrRes--20.3333/995			

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.22	37		
	0.0186 2.67	3.56	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	60	dNrRes--19.1111/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0216 2	4.67	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	61	dNrRes--21.7778/1008			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0205 2	2.75	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	62	dNrRes--21.0/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.67	37		
	0.0197 2	2.75	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	63	dNrRes--20.2222/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.67	37		
	0.0191 2.44	3.56	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	64	dNrRes--19.5556/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0228 2.44	5.33	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	65	dNrRes--22.2222/973			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0197 2	2.5	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	66	dNrRes--20.2222/1025			

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0178 2.44	3.56	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	67	dNrRes--18.2222/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0182 2.44	3.33	4.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	68	dNrRes--18.6667/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0217 2	4.22	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	69	dNrRes--21.3333/985			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37	0.018	
	2.44 3.33	4.67	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	70	dNrRes--18.4444/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0214 2	2.67	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	71	dNrRes--21.8889/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.67	37		
	0.0177 2.44	3.33	4.44	#	TTL=8	N=900	#
	V1.7_XML	rozlina	72	dNrRes--18.1111/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0178 2.44	3.33	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	73	dNrRes--18.2222/1026			

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.56	37		
	0.0176 2.44	3.33	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	74	dNrRes--17.5556/995			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0205 2	2.67	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	75	dNrRes--21.0/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0205 2	2.67	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	76	dNrRes--21.0/1025			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0238 2.67	3.75	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	77	dNrRes--23.3333/979			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.89	37		
	0.0179 2.44	3.56	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	78	dNrRes--18.3333/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.67	37		
	0.0231 2.44	3.78	4.89	#	TTL=8	N=900	#
	V1.7_XML	rozlina	79	dNrRes--23.0/995			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21.11	37		
	0.0211 2	3.78	5.11	#	TTL=8	N=900	#
	V1.7_XML	rozlina	80	dNrRes--21.0/995			

2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.22	37		
	0.0187 3.11	3.43	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	81	dNrRes--19.1111/1024			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0174 2.44	3.78	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	82	dNrRes--17.8889/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.56	37		
	0.0173 2.44	3.78	4.67	#	TTL=8	N=900	#
	V1.7_XML	rozlina	83	dNrRes--17.7778/1026			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.33	37	0.021	
	3.56 3.75	5.33	#	TTL=8	N=900	#	
	V1.7_XML	rozlina	84	dNrRes--20.8889/993			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		21	37		
	0.0204 2.67	5.11	6.22	#	TTL=8	N=900	#
	V1.7_XML	rozlina	85	dNrRes--20.4444/1003			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.44	37		
	0.0205 3.11	3.33	5.33	#	TTL=8	N=900	#
	V1.7_XML	rozlina	86	dNrRes--20.3333/994			
2	NrmTCDN2	YES	900	SQUARE	50	0	1.4
	100 LEAF	0.01	8	50	1500	50	3
	6 10	XMLSchema5-3-2-0.5		20.78	37		
	0.0214 2.89	3.33	5.78	#	TTL=8	N=900	#
	V1.7_XML	rozlina	87	dNrRes--22.1111/1031			

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 23 37 0.0222 2
 2 3.78 # TTL=8 N=900 # V1.7_XML
 rozlina 2 dNrRes--22.7778/1026

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 21 37 0.0231 2.44
 5.33 6.22 # TTL=8 N=900 # V1.7_XML
 rozlina 3 dNrRes--23.0/995

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 21.22 37 0.0248 2.67
 5.11 6.22 # TTL=8 N=900 # V1.7_XML
 rozlina 4 dNrRes--25.4444/1025

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 23.44 37 0.0276 2
 1.78 3.56 # TTL=8 N=900 # V1.7_XML
 rozlina 5 dNrRes--28.3333/1025

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 23.67 37 0.0246 2
 2 3.11 # TTL=8 N=900 # V1.7_XML
 rozlina 6 dNrRes--25.2222/1026

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 23.44 37 0.0263 2
 2 2.67 # TTL=8 N=900 # V1.7_XML
 rozlina 7 dNrRes--27.0/1026

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 21.22 37 0.0243 2.89
 4 6.22 # TTL=8 N=900 # V1.7_XML
 rozlina 8 dNrRes--24.1111/993

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 23.33 37 0.0236 2
 1.75 3.56 # TTL=8 N=900 # V1.7_XML
 rozlina 9 dNrRes--23.4444/993

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 21.11 37 0.0212 2.44
 4.25 6.22 # TTL=8 N=900 # V1.7_XML
 rozlina 10 dNrRes--22.8889/1080

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 23.11 37 0.0257 2
 2 2.44 # TTL=8 N=900 # V1.7_XML
 rozlina 11 dNrRes--26.3333/1026

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 24.33 37 0.0313 2
 1.78 3.11 # TTL=8 N=900 # V1.7_XML
 rozlina 12 dNrRes--32.1111/1025

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 21.22 37 0.0238 2.67
 4.57 6 # TTL=8 N=900 # V1.7_XML
 rozlina 13 dNrRes--24.3333/1024

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 22.56 37 0.0229 2
 2.22 3.56 # TTL=8 N=900 # V1.7_XML
 rozlina 14 dNrRes--23.4444/1026

2 NrmTCA NO 900 SQUARE 50 0 1.4 100
 LEAF 0.01 8 50 1500 50 3 6
 10 XMLSchema5-3-2-0.5 22.22 37 0.0216 2
 2 2.89 # TTL=8 N=900 # V1.7_XML
 rozlina 15 dNrRes--22.1111/1026

2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.78	37	0.0192	2.22		10	XMLSchema5-3-2-0.5		21.56	37	0.0175	2.22	
	3.33	4.44	#	TTL=8	N=900	#	V1.7_XML		3.78	4.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	44		dNrRes--19.1111/995					rozlina	51		dNrRes--17.4444/995				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		22.11	37	0.0191	2		10	XMLSchema5-3-2-0.5		21.78	37	0.0219	2	
	2.44	4.22	#	TTL=8	N=900	#	V1.7_XML		3.33	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	45		dNrRes--19.0/994					rozlina	52		dNrRes--22.4444/1025				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.22	37	0.0198	2.67		10	XMLSchema5-3-2-0.5		21.33	37	0.02	2.44	
	2.89	4.22	#	TTL=8	N=900	#	V1.7_XML		3.33	4.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	46		dNrRes--20.3333/1026					rozlina	53		dNrRes--20.5556/1026				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.22	37	0.019	2		10	XMLSchema5-3-2-0.5		21.44	37	0.0196	2.44	
	2.44	4.22	#	TTL=8	N=900	#	V1.7_XML		3.11	4.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	47		dNrRes--18.8889/994					rozlina	54		dNrRes--20.1111/1026				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.11	37	0.0204	2		10	XMLSchema5-3-2-0.5		21.56	37	0.0192	2.44	
	4.57	5.78	#	TTL=8	N=900	#	V1.7_XML		2.89	4.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	48		dNrRes--20.8889/1025					rozlina	55		dNrRes--19.6667/1026				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.02	2.44		10	XMLSchema5-3-2-0.5		21.56	37	0.0192	2.44	
	3.11	4.22	#	TTL=8	N=900	#	V1.7_XML		2.89	4.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	49		dNrRes--20.5556/1026					rozlina	56		dNrRes--19.6667/1026				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.025	3.11		10	XMLSchema5-3-2-0.5		21.89	37	0.0221	2	
	4.22	5.56	#	TTL=8	N=900	#	V1.7_XML		3.11	4.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	50		dNrRes--25.6667/1025					rozlina	57		dNrRes--22.6667/1025				

2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.22	37	0.0197	2.22		10	XMLSchema5-3-2-0.5		21.11	37	0.0235	2.44	
	6	6.22	#	TTL=8	N=900	#	V1.7_XML		5.33	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	58		dNrRes--19.3333/982					rozlina	65		dNrRes--22.8889/973				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.89	37	0.0195	2.44		10	XMLSchema5-3-2-0.5		21.44	37	0.0242	2	
	3.33	4.89	#	TTL=8	N=900	#	V1.7_XML		3.11	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	59		dNrRes--19.4444/995					rozlina	66		dNrRes--24.7778/1025				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.22	37	0.0191	2.44		10	XMLSchema5-3-2-0.5		20.33	37	0.0191	2.44	
	3.11	4.67	#	TTL=8	N=900	#	V1.7_XML		3.56	4.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	60		dNrRes--19.5556/1026					rozlina	67		dNrRes--19.5556/1026				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.11	37	0.0217	2		10	XMLSchema5-3-2-0.5		20.56	37	0.0186	2.44	
	4.67	6.22	#	TTL=8	N=900	#	V1.7_XML		3.33	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	61		dNrRes--21.8889/1008					rozlina	68		dNrRes--19.1111/1026				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.0238	2		10	XMLSchema5-3-2-0.5		21.11	37	0.0222	2	
	3.11	4.67	#	TTL=8	N=900	#	V1.7_XML		4.22	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	62		dNrRes--24.4444/1025					rozlina	69		dNrRes--21.8889/985				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.0243	2		10	XMLSchema5-3-2-0.5		20.56	37	0.0186	2.44	
	3.11	4.67	#	TTL=8	N=900	#	V1.7_XML		3.33	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	63		dNrRes--24.8889/1025					rozlina	70		dNrRes--19.1111/1026				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.44	37	0.0184	2.44		10	XMLSchema5-3-2-0.5		21.89	37	0.0245	2	
	3.33	4.44	#	TTL=8	N=900	#	V1.7_XML		2.89	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	64		dNrRes--18.8889/1026					rozlina	71		dNrRes--25.1111/1025				

2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.56	37	0.0186	2.44	10	XMLSchema5-3-2-0.5		21	37	0.0201	2.67		
	3.33	4.89	#	TTL=8	N=900	#	V1.7_XML		3.78	5.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	72		dNrRes--19.1111/1026					rozlina	79		dNrRes--20.0/995				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.56	37	0.0186	2.44	10	XMLSchema5-3-2-0.5		21.22	37	0.0207	2		
	3.33	4.89	#	TTL=8	N=900	#	V1.7_XML		3.56	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	73		dNrRes--19.1111/1026					rozlina	80		dNrRes--20.5556/995				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.89	37	0.0157	2.22	10	XMLSchema5-3-2-0.5		20.33	37	0.0197	3.11		
	3	5.11	#	TTL=8	N=900	#	V1.7_XML		3.43	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	74		dNrRes--15.6667/995					rozlina	81		dNrRes--20.2222/1024				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.0244	2	10	XMLSchema5-3-2-0.5		20.11	37	0.0185	2.44		
	2.89	4.67	#	TTL=8	N=900	#	V1.7_XML		3.78	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	75		dNrRes--25.0/1025					rozlina	82		dNrRes--19.0/1026				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.56	37	0.0244	2	10	XMLSchema5-3-2-0.5		20.33	37	0.018	2.44		
	2.89	4.67	#	TTL=8	N=900	#	V1.7_XML		3.56	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	76		dNrRes--25.0/1025					rozlina	83		dNrRes--18.4444/1026				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.44	37	0.0243	2.67	10	XMLSchema5-3-2-0.5		20.44	37	0.022	3.56		
	3.75	6.22	#	TTL=8	N=900	#	V1.7_XML		3.75	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	77		dNrRes--23.7778/979					rozlina	84		dNrRes--21.8889/993				
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.22	37	0.0187	2.44	10	XMLSchema5-3-2-0.5		21	37	0.0206	2.67		
	3.78	5.11	#	TTL=8	N=900	#	V1.7_XML		5.11	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	78		dNrRes--19.2222/1026					rozlina	85		dNrRes--20.6667/1003				

2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.22	37		0.02	3.11		10	XMLSchema5-3-2-0.5	20.89	37		0.0171	2.22	
	3.33	5.11	#	TTL=8	N=900	#	V1.7_XML		3.11	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	86	dNrRes--19.8889/994						rozlina	93	dNrRes--17.5556/1026					
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21	37		0.0216	3.11		10	XMLSchema5-3-2-0.5	20.78	37		0.0233	3.11	
	3.33	5.78	#	TTL=8	N=900	#	V1.7_XML		3.78	5.56	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	87	dNrRes--22.2222/1031						rozlina	94	dNrRes--23.8889/1025					
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.78	37		0.0205	2		10	XMLSchema5-3-2-0.5	20.89	37		0.0207	2.89	
	3.56	5.33	#	TTL=8	N=900	#	V1.7_XML		3.78	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	88	dNrRes--21.1111/1031						rozlina	95	dNrRes--21.2222/1026					
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37		0.021	2.89		10	XMLSchema5-3-2-0.5	20	37		0.0193	2.89	
	5.5	6.22	#	TTL=8	N=900	#	V1.7_XML		3.71	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	89	dNrRes--20.3333/970						rozlina	96	dNrRes--18.2222/944					
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37		0.0218	2.67		10	XMLSchema5-3-2-0.5	20.44	37		0.0205	2.44	
	5.11	6.22	#	TTL=8	N=900	#	V1.7_XML		4	5.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	90	dNrRes--20.6667/948						rozlina	97	dNrRes--21.0/1025					
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.44	37		0.0182	2.44		10	XMLSchema5-3-2-0.5	21.22	37		0.0195	2.67	
	3.56	5.33	#	TTL=8	N=900	#	V1.7_XML		4.86	6	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	91	dNrRes--18.6667/1026						rozlina	98	dNrRes--20.1111/1029					
2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA NO	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.67	37		0.0177	2.22		10	XMLSchema5-3-2-0.5	20.56	37		0.0171	2.22	
	3.56	5.11	#	TTL=8	N=900	#	V1.7_XML		3.56	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	92	dNrRes--18.1111/1026						rozlina	99	dNrRes--17.5556/1026					

2	NrmTCA NO	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		20.67	37	0.021	2.44	10	XMLSchema5-3-2-0.5		23.44	37	0.0263	2		
	3.33	5.56	#	TTL=8	N=900	#	V1.7_XML	2	2.67	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	100	dNrRes--21.5556/1025					rozlina	7	dNrRes--27.0/1026						
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.33	37	0.0222	2.89	10	XMLSchema5-3-2-0.5		21.22	37	0.0243	2.89		
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML	4	6.22	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	1	dNrRes--22.7778/1026					rozlina	8	dNrRes--24.1111/993						
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23	37	0.0222	2	10	XMLSchema5-3-2-0.5		23.33	37	0.0236	2		
	2	3.78	#	TTL=8	N=900	#	V1.7_XML	1.75	3.56	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	2	dNrRes--22.7778/1026					rozlina	9	dNrRes--23.4444/993						
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21	37	0.0231	2.44	10	XMLSchema5-3-2-0.5		21.11	37	0.0212	2.44		
	5.33	6.22	#	TTL=8	N=900	#	V1.7_XML	4.25	6.22	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	3	dNrRes--23.0/995					rozlina	10	dNrRes--22.8889/1080						
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		21.22	37	0.0248	2.67	10	XMLSchema5-3-2-0.5		23.11	37	0.0257	2		
	5.11	6.22	#	TTL=8	N=900	#	V1.7_XML	2	2.44	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	4	dNrRes--25.4444/1025					rozlina	11	dNrRes--26.3333/1026						
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.44	37	0.0276	2	10	XMLSchema5-3-2-0.5		24.33	37	0.0313	2		
	1.78	3.56	#	TTL=8	N=900	#	V1.7_XML	1.78	3.11	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	5	dNrRes--28.3333/1025					rozlina	12	dNrRes--32.1111/1025						
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5		23.67	37	0.0246	2	10	XMLSchema5-3-2-0.5		21.22	37	0.0238	2.67		
	2	3.11	#	TTL=8	N=900	#	V1.7_XML	4.57	6	#	TTL=8	N=900	#	V1.7_XML		
	rozlina	6	dNrRes--25.2222/1026					rozlina	13	dNrRes--24.3333/1024						

2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.89	37	0.0218	2			10	XMLSchema5-3-2-0.5	21.22	37	0.0208	2		
	2	3.78	#	TTL=8	N=900	#	V1.7_XML		4.89	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	28	dNrRes--21.6667/994						rozlina	35	dNrRes--21.4444/1031					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	23.89	37	0.0299	2			10	XMLSchema5-3-2-0.5	22.33	37	0.0209	2		
	2.44	3.11	#	TTL=8	N=900	#	V1.7_XML		2.75	4.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	29	dNrRes--30.6667/1025						rozlina	36	dNrRes--21.4444/1026					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22.67	37	0.0224	2			10	XMLSchema5-3-2-0.5	22.56	37	0.0209	2		
	2.25	3.78	#	TTL=8	N=900	#	V1.7_XML		2.67	3.78	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	30	dNrRes--22.2222/993						rozlina	37	dNrRes--20.7778/994					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0214	2.67			10	XMLSchema5-3-2-0.5	21.56	37	0.0203	2.22		
	4.33	6	#	TTL=8	N=900	#	V1.7_XML		3.33	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	31	dNrRes--21.3333/995						rozlina	38	dNrRes--20.2222/995					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.44	37	0.0222	2.89			10	XMLSchema5-3-2-0.5	21.33	37	0.0204	2.67		
	3.33	4.89	#	TTL=8	N=900	#	V1.7_XML		5.25	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	32	dNrRes--22.1111/995						rozlina	39	dNrRes--20.0/978					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.33	37	0.0221	2.22			10	XMLSchema5-3-2-0.5	21.33	37	0.0203	2.67		
	3.11	4.67	#	TTL=8	N=900	#	V1.7_XML		3.11	4.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	33	dNrRes--22.6667/1026						rozlina	40	dNrRes--20.7778/1026					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	22	37	0.0216	2			10	XMLSchema5-3-2-0.5	21.22	37	0.0197	2.44		
	2.89	4.44	#	TTL=8	N=900	#	V1.7_XML		2.89	4.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	34	dNrRes--22.1111/1026						rozlina	41	dNrRes--20.2222/1026					

2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.11	37	0.0231	2.44		10	XMLSchema5-3-2-0.5	21.56	37	0.02	2.44
	5.56	6.22	#	TTL=8	N=900	#		3.11	4.22	#	TTL=8	N=900	#
	rozlina	42	dNrRes--22.6667/980					rozlina	49	dNrRes--20.5556/1026			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	23.89	37	0.0246	2		10	XMLSchema5-3-2-0.5	21.56	37	0.025	3.11
	1.78	3.78	#	TTL=8	N=900	#		4.22	5.56	#	TTL=8	N=900	#
	rozlina	43	dNrRes--25.3333/1031					rozlina	50	dNrRes--25.6667/1025			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.78	37	0.0192	2.22		10	XMLSchema5-3-2-0.5	21.56	37	0.0175	2.22
	3.33	4.44	#	TTL=8	N=900	#		3.78	4.22	#	TTL=8	N=900	#
	rozlina	44	dNrRes--19.1111/995					rozlina	51	dNrRes--17.4444/995			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	22.11	37	0.0191	2		10	XMLSchema5-3-2-0.5	21.78	37	0.0219	2
	2.44	4.22	#	TTL=8	N=900	#		3.33	4.89	#	TTL=8	N=900	#
	rozlina	45	dNrRes--19.0/994					rozlina	52	dNrRes--22.4444/1025			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.22	37	0.0198	2.67		10	XMLSchema5-3-2-0.5	21.33	37	0.02	2.44
	2.89	4.22	#	TTL=8	N=900	#		3.33	4.22	#	TTL=8	N=900	#
	rozlina	46	dNrRes--20.3333/1026					rozlina	53	dNrRes--20.5556/1026			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	23.22	37	0.019	2		10	XMLSchema5-3-2-0.5	21.44	37	0.0196	2.44
	2.44	4.22	#	TTL=8	N=900	#		3.11	4.22	#	TTL=8	N=900	#
	rozlina	47	dNrRes--18.8889/994					rozlina	54	dNrRes--20.1111/1026			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.11	37	0.0204	2		10	XMLSchema5-3-2-0.5	21.56	37	0.0192	2.44
	4.57	5.78	#	TTL=8	N=900	#		2.89	4.22	#	TTL=8	N=900	#
	rozlina	48	dNrRes--20.8889/1025					rozlina	55	dNrRes--19.6667/1026			

2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0192	2.44			10	XMLSchema5-3-2-0.5	21.56	37	0.0243	2		
	2.89	4.22	#	TTL=8	N=900	#	V1.7_XML		3.11	4.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	56	dNrRes--19.6667/1026						rozlina	63	dNrRes--24.8889/1025					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0221	2			10	XMLSchema5-3-2-0.5	20.44	37	0.0184	2.44		
	3.11	4.67	#	TTL=8	N=900	#	V1.7_XML		3.33	4.44	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	57	dNrRes--22.6667/1025						rozlina	64	dNrRes--18.8889/1026					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0197	2.22			10	XMLSchema5-3-2-0.5	21.11	37	0.0235	2.44		
	6	6.22	#	TTL=8	N=900	#	V1.7_XML		5.33	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	58	dNrRes--19.3333/982						rozlina	65	dNrRes--22.8889/973					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.0195	2.44			10	XMLSchema5-3-2-0.5	21.44	37	0.0242	2		
	3.33	4.89	#	TTL=8	N=900	#	V1.7_XML		3.11	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	59	dNrRes--19.4444/995						rozlina	66	dNrRes--24.7778/1025					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.22	37	0.0191	2.44			10	XMLSchema5-3-2-0.5	20.33	37	0.0191	2.44		
	3.11	4.67	#	TTL=8	N=900	#	V1.7_XML		3.56	4.67	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	60	dNrRes--19.5556/1026						rozlina	67	dNrRes--19.5556/1026					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.11	37	0.0217	2			10	XMLSchema5-3-2-0.5	20.56	37	0.0186	2.44		
	4.67	6.22	#	TTL=8	N=900	#	V1.7_XML		3.33	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	61	dNrRes--21.8889/1008						rozlina	68	dNrRes--19.1111/1026					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0238	2			10	XMLSchema5-3-2-0.5	21.11	37	0.0222	2		
	3.11	4.67	#	TTL=8	N=900	#	V1.7_XML		4.22	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	62	dNrRes--24.4444/1025						rozlina	69	dNrRes--21.8889/985					

2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.56	37	0.0186	2.44			10	XMLSchema5-3-2-0.5	21.44	37	0.0243	2.67		
	3.33	4.89	#	TTL=8	N=900	#	V1.7_XML		3.75	6.22	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	70	dNrRes--19.1111/1026						rozlina	77	dNrRes--23.7778/979					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.89	37	0.0245	2			10	XMLSchema5-3-2-0.5	20.22	37	0.0187	2.44		
	2.89	4.89	#	TTL=8	N=900	#	V1.7_XML		3.78	5.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	71	dNrRes--25.1111/1025						rozlina	78	dNrRes--19.2222/1026					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.56	37	0.0186	2.44			10	XMLSchema5-3-2-0.5	21	37	0.0201	2.67		
	3.33	4.89	#	TTL=8	N=900	#	V1.7_XML		3.78	5.11	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	72	dNrRes--19.1111/1026						rozlina	79	dNrRes--20.0/995					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.56	37	0.0186	2.44			10	XMLSchema5-3-2-0.5	21.22	37	0.0207	2		
	3.33	4.89	#	TTL=8	N=900	#	V1.7_XML		3.56	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	73	dNrRes--19.1111/1026						rozlina	80	dNrRes--20.5556/995					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	20.89	37	0.0157	2.22			10	XMLSchema5-3-2-0.5	20.33	37	0.0197	3.11		
	3	5.11	#	TTL=8	N=900	#	V1.7_XML		3.43	5.33	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	74	dNrRes--15.6667/995						rozlina	81	dNrRes--20.2222/1024					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0244	2			10	XMLSchema5-3-2-0.5	20.11	37	0.0185	2.44		
	2.89	4.67	#	TTL=8	N=900	#	V1.7_XML		3.78	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	75	dNrRes--25.0/1025						rozlina	82	dNrRes--19.0/1026					
2	NrmTCA YES	900	SQUARE	50	0	1.4	100	2	NrmTCA YES	900	SQUARE	50	0	1.4	100	
	LEAF	0.01	8	50	1500	50	3	6	LEAF	0.01	8	50	1500	50	3	6
	10	XMLSchema5-3-2-0.5	21.56	37	0.0244	2			10	XMLSchema5-3-2-0.5	20.33	37	0.018	2.44		
	2.89	4.67	#	TTL=8	N=900	#	V1.7_XML		3.56	4.89	#	TTL=8	N=900	#	V1.7_XML	
	rozlina	76	dNrRes--25.0/1025						rozlina	83	dNrRes--18.4444/1026					

2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.44	37	0.022	3.56		10	XMLSchema5-3-2-0.5	20.44	37	0.0182	2.44
	3.75	5.56	#	TTL=8	N=900	#		3.56	5.33	#	TTL=8	N=900	#
	rozlina	84	dNrRes--21.8889/993					rozlina	91	dNrRes--18.6667/1026			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.0206	2.67		10	XMLSchema5-3-2-0.5	20.67	37	0.0177	2.22
	5.11	6.22	#	TTL=8	N=900	#		3.56	5.11	#	TTL=8	N=900	#
	rozlina	85	dNrRes--20.6667/1003					rozlina	92	dNrRes--18.1111/1026			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	20.22	37	0.02	3.11		10	XMLSchema5-3-2-0.5	20.89	37	0.0171	2.22
	3.33	5.11	#	TTL=8	N=900	#		3.11	4.89	#	TTL=8	N=900	#
	rozlina	86	dNrRes--19.8889/994					rozlina	93	dNrRes--17.5556/1026			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21	37	0.0216	3.11		10	XMLSchema5-3-2-0.5	20.78	37	0.0233	3.11
	3.33	5.78	#	TTL=8	N=900	#		3.78	5.56	#	TTL=8	N=900	#
	rozlina	87	dNrRes--22.2222/1031					rozlina	94	dNrRes--23.8889/1025			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	22.78	37	0.0205	2		10	XMLSchema5-3-2-0.5	20.89	37	0.0207	2.89
	3.56	5.33	#	TTL=8	N=900	#		3.78	5.78	#	TTL=8	N=900	#
	rozlina	88	dNrRes--21.1111/1031					rozlina	95	dNrRes--21.2222/1026			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.22	37	0.021	2.89		10	XMLSchema5-3-2-0.5	20	37	0.0193	2.89
	5.5	6.22	#	TTL=8	N=900	#		3.71	5.33	#	TTL=8	N=900	#
	rozlina	89	dNrRes--20.3333/970					rozlina	96	dNrRes--18.2222/944			
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	2	NrmTCA YES	900	SQUARE 50	0	1.4	100
	LEAF	0.01	8	50	1500	50		LEAF	0.01	8	50	1500	50
	10	XMLSchema5-3-2-0.5	21.22	37	0.0218	2.67		10	XMLSchema5-3-2-0.5	20.44	37	0.0205	2.44
	5.11	6.22	#	TTL=8	N=900	#		4	5.78	#	TTL=8	N=900	#
	rozlina	90	dNrRes--20.6667/948					rozlina	97	dNrRes--21.0/1025			

2	NrmTCA YES	900	SQUARE 50	0	1.4	100	50	3	6	10	XMLSchema5-3-2-0.5	21.72	37
	LEAF 0.01	8	50	1500	50	3	6	0.0224	2.32	3.58	5.84	#	TTL=8
	10	XMLSchema5-3-2-0.5	21.22	37	0.0195	2.67		V1.7_XML		rozlina			
	4.86	6	#	TTL=8	N=900	#		V1.7_XML					
	rozlina 98	dNrRes--20.1111/1029											
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	50	3	6	10	XMLSchema5-3-2-0.5	668.75	
	LEAF 0.01	8	50	1500	50	3	6	0.0171	2.22	3313.33	0.6355	2.52	3.49
	10	XMLSchema5-3-2-0.5	20.56	37	0.0171	2.22		V1.7_XML		rozlina		#	TTL=8
	3.56	4.89	#	TTL=8	N=900	#		V1.7_XML					
	rozlina 99	dNrRes--17.5556/1026											
2	NrmTCA YES	900	SQUARE 50	0	1.4	100	50	3	6	10	XMLSchema5-3-2-0.5	335.08	
	LEAF 0.01	8	50	1500	50	3	6	1633.14	0.32	2.4	3.38	10.43	#
	10	XMLSchema5-3-2-0.5	20.67	37	0.021	2.44		V1.7_XML		rozlina		#	TTL=8
	3.33	5.56	#	TTL=8	N=900	#		V1.7_XML					
	rozlina 100	dNrRes--21.5556/1025											

Output 5

#QWarm	#RWalk	#MaxJumFL	#MaxJumNR	FirstNRes
TaxFile	#CPeers	#Msgs	Recall	LFirstRes
LAllRes				LFirstNRes
50	3	6	10	XMLSchema5-3-2-0.5
	0.026	2.63	4.86	6
				#
				TTL=3
	V1.7_XML		rozlina	N=900
				#
50	3	6	10	XMLSchema5-3-2-0.5
	0.02	2.35	4.06	5.92
				#
				TTL=8
	V1.7_XML		rozlina	N=900
				#
50	3	6	10	XMLSchema5-3-2-0.5
	0.02	2.35	4.06	5.92
				#
				TTL=8
	V1.7_XML		rozlina	N=900
				#
50	3	6	10	XMLSchema5-3-2-0.5
	0.0224	2.32	3.58	5.84
				#
				TTL=8
	V1.7_XML		rozlina	N=900
				#

50	3	6	10	XMLSchema5-3-2-0.5	21.72	37
	0.0224	2.32	3.58	5.84	#	TTL=8
					N=900	#
	V1.7_XML		rozlina			
50	3	6	10	XMLSchema5-3-2-0.5	668.75	
	3313.33	0.6355	2.52	3.49	15.18	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	335.08	
	1633.14	0.32	2.4	3.38	10.43	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	335.09	
	1633.14	0.3196	2.4	3.38	10.25	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	335.09	
	1633.14	0.3196	2.4	3.38	10.25	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	314.24	
	1487.52	0.2988	2.59	4.21	11.13	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	334.7	
	1633.14	0.3183	2.43	3.78	10.47	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	334.7	
	1633.14	0.3183	2.43	3.78	10.47	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	334.56	
	1633.14	0.3184	2.49	3.51	10.13	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	334.56	
	1633.14	0.3184	2.49	3.51	10.13	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	334.64	
	1633.14	0.3186	2.48	3.49	10.11	#
						TTL=8
	N=900	#	V1.7_XML		rozlina	

50	3	6	10	XMLSchema5-3-2-0.5	334.54
	1633.14	0.3184	2.48	3.49 10.11 #	TTL=8
	N=900	#	V1.7_XML	rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	334.65
	1633.14	0.3187	2.48	3.5 10.09 #	TTL=8
	N=900	#	V1.7_XML	rozlina	
50	3	6	10	XMLSchema5-3-2-0.5	334.65
	1633.14	0.3187	2.48	3.5 10.09 #	TTL=8
	N=900	#	V1.7_XML	rozlina	

Output 6

ExpID	SType	TaxFile	#CPeers			
1	FLOOD	196	9	TTL=3	N=900	
1	FLTCB	190.72	9	TTL=8	N=900	
1	FLTCB	190.72	9	TTL=8	N=900	
1	FLTCCN	194.32	9	TTL=8	N=900	
1	FLTCCN	194.32	9	TTL=8	N=900	
1	FLTCDN2	11815.02	18	TTL=8	N=900	
1	FLTCDN2	6105.18	18	TTL=8	N=900	
1	FLTCA	6107.18	18	TTL=8	N=900	
1	FLTCA	6107.18	18	TTL=8	N=900	
1	NrmFL	5810.84	18	TTL=8	N=900	
1	NrmTCB	6101.86	18	TTL=8	N=900	
1	NrmTCB	6101.86	18	TTL=8	N=900	
1	NrmTCCN	6101.68	18	TTL=8	N=900	
1	NrmTCCN	6101.68	18	TTL=8	N=900	
1	NrmTCDN2	6102.18	18	TTL=8	N=900	
1	NrmTCDN2	6101.58	18	TTL=8	N=900	
1	NrmTCA	6104.56	18	TTL=8	N=900	
1	NrmTCA	6104.56	18	TTL=8	N=900	

#contacted peers #querying of peer TTL used for
flooding map.size()

Appendix 2

Results of comparing cache location (client-peer / super-peer)

Standard super-peer systems and result caching at super-peer based query routing caching at client-peer divide by 1000		Query Location-	
x	f(x)	#query successfully processed by SCL divided 1000000	#remote
results	cost / f(x)	Query answering cost 1	Network consumption
answering cost 3	cost 3	Query answering cost 2	Network Consumption
		cost 1	cost 2
0	0.000026561398888		0.000000000000000
0.101942648930561		144495401.625610000000000	
144.4954016		0	3838 239.1451907
2000	112	0	
3.838	2	0	
1	0.000295126654307		0.000295126654307
8.533290120026730		97971474.036936300000000	
97.97147404		0.172979934	28913.99335
403.3623814		9778 252	7778
		28.91399335	9.778 7.778
2	0.001623196598686		0.003246393197372
87.636362774537500		33261520.350466900000000	
33.26152035		0.345959867	53989.9867
567.5795721		17556 392	15556
		53.9899867	17.556 15.556
3	0.005891602469304		0.017674807407913
465.825323300553000		13420114.554900500000000	
13.42011455		0.518939801	79065.98005

731.7967628	25334 532	23334
	79.06598005	25.334 23.334
4	0.015874595542293	0.063498382169170
1653.211706701180000	6560291.449476560000000	
6.560291449	0.691919734	104141.9734
896.0139535	33112 672	31112
	104.1419734	33.112 31.112
5	0.033865803823557	0.169329019117786
4376.070312434440000	3815588.356420920000000	
3.815588356	0.864899668	129217.9668
1060.231144	40890 812	38890
	129.2179668	40.89 38.89
6	0.059578728948851	0.357472373693104
9192.638027242680000	2589749.107142980000000	
2.589749107	1.037879601	154293.9601
1224.448335	48668 952	46668
	154.2939601	48.668 46.668
7	0.088895246368127	0.622266724576885
15945.136202977100000	2017767.662257290000000	
2.017767662	1.210859535	179369.9535
1388.665526	56446 1092	54446
	179.3699535	56.446 54.446
8	0.114823026558830	0.918584212470640
23475.102379261500000	1780530.899830020000000	
1.7805309	1.383839468	204445.9468
1552.882716	64224 1232	62224
	204.4459468	64.224 62.224
9	0.130416277079165	1.173746493712480
29933.396942349900000	1759917.897446780000000	
1.759917897	1.556819402	229521.9402
1717.099907	72002 1372	70002
	229.5219402	72.002 70.002
10	0.131865346824489	1.318653468244890
33572.644801775700000	1930741.772809090000000	
1.930741773	1.729799335	254597.9335

1881.317098	79780 1512	77780
	254.5979335	79.78 77.78
11 0.119877588022263		1.318653468244890
33526.635783492700000	2332995.945814840000000	
2.332995946	1.902779269	279673.9269
2045.534288	87558 1652	85558
	279.6739269	87.558 85.558
12 0.098788012351680		1.185456148220150
30105.638880890900000	3084887.659396450000000	
3.084887659	2.075759202	304749.9202
2209.751479	95336 1792	93336
	304.7499202	95.336 93.336
13 0.074302094760238		0.965927231883088
24506.756282974000000	4438985.396230100000000	
4.438985396	2.248739136	329825.9136
2373.96867	103114 1932	101114
	329.8259136	103.114 101.114
14 0.051303827334450		0.718253582682296
18207.826152264500000	6917649.722044990000000	
6.917649722	2.421719069	354901.9069
2538.18586	110892 2072	108892
	354.9019069	110.892 108.892
15 0.032682438153798		0.490236572306964
12418.604224730500000	11626363.322769600000000	
11.62636332	2.594699003	379977.9003
2702.403051	118670 2212	116670
	379.9779003	118.67 116.67
16 0.019291716965783		0.308667471452533
7814.185071219710000	20996259.395595700000000	
20.9962594	2.767678936	405053.8936
2866.620242	126448 2352	124448
	405.0538936	126.448 124.448
17 0.010591530883175		0.180056025013978
4555.733981407560000	40610738.116552100000000	
40.61073812	2.94065887	430129.887

3030.837432	134226 2492	132226
	430.129887	134.226 132.226
18 0.005426525082121		0.097677451478171
2470.186126976740000	83885336.087327700000000	
83.88533609	3.113638803	455205.8803
3195.054623	142004 2632	140004
	455.2058803	142.004 140.004
19 0.002602193314233		0.049441672970432
1249.786280559460000	184568099.158119000000000	
184.5680992	3.286618737	480281.8737
3359.271814	149782 2772	147782
	480.2818737	149.782 147.782
20 0.001170986991405		0.023419739828100
591.767488261164000	431565739.593453000000000	
431.5657396	3.45959867	505357.867
3523.489004	157560 2912	155560
	505.357867	157.56 155.56
21 0.000495655869378		0.010408773256933
262.912656199184000	1070165598.998950000000000	
1070.165599	3.632578604	530433.8604
3687.706195	165338 3052	163338
	530.4338604	165.338 163.338
22 0.000197761685257		0.004350757075649
109.858564844462000	2808986245.129800000000000	
2808.986245	3.805558537	555509.8537
3851.923386	173116 3192	171116
	555.5098537	173.116 171.116
23 0.000074518895894		0.001713934605559
43.264616293768200	7791122507.732000000000000	
7791.122508	3.978538471	580585.8471
4016.140577	180894 3332	178894
	580.5858471	180.894 178.894
24 0.000026564606407		0.000637550553759
16.089168405727800	22799578925.789800000000000	
22799.57893	4.151518404	605661.8404

4180.357767	188672 3472	186672	5329.878102	243118 4452	241118
	605.6618404	188.672 186.672		781.1937939	243.118 241.118
25	0.000008972933720	0.000224323342989	32	0.000000001106279	0.000000035400926
5.659568776660980	70293379340.882200000000000		0.000891959284889	728812380525013.000000000000000	
70293.37934	4.324498338	630737.8338	728812380.5	5.535357872	806269.7872
4344.574958	196450 3612	194450	5494.095293	250896 4592	248896
	630.7378338	196.45 194.45		806.2697872	250.896 248.896
26	0.000002875940295	0.000074774447663	33	0.000000000253289	0.000000008358552
1.886081411199610	228034576483.099000000000000		0.000210571118917	3282196582286930.000000000000000	
228034.5765	4.497478271	655813.8271	3282196582	5.708337806	831345.7806
4508.792149	204228 3752	202228	5658.312483	258674 4732	256674
	655.8138271	204.228 202.228		831.3457806	258.674 256.674
27	0.000000875800748	0.000023646620201	34	0.000000000055459	0.000000001885599
0.596323814185159	777448320131.119000000000000		0.000047496125621	15442485996834600.000000000000000	
777448.3201	4.670458205	680889.8205	15442485997	5.881317739	856421.7739
4673.009339	212006 3892	210006	5822.529674	266452 4872	264452
	680.8898205	212.006 210.006		856.4217739	266.452 264.452
28	0.000000253704185	0.000007103717180	35	0.000000000011620	0.000000000406698
0.179106481422052	2782633695314.910000000000000		0.000010242950703	75860788186284700.000000000000000	
2782633.695	4.843438138	705965.8138	75860788186	6.054297673	881497.7673
4837.22653	219784 4032	217784	5986.746865	274230 5012	272230
	705.9658138	219.784 217.784		881.4977673	274.23 272.23
29	0.000000069987361	0.000002029633480	36	0.000000000002331	0.000000000083922
0.051163687138695	10445340312406.000000000000000		0.000002113369120		
10445340.31	5.016418072	731041.8072	388893722217736000.000000000000000	3.88894E+11	
5001.443721	227562 4172	225562	6.227277606	906573.7606	6150.964056
	731.0418072	227.562 225.562	282008 5152	280008	
30	0.000000018404084	0.000000552122518	906.5737606	282.008 280.008	
0.013915655452033	41084239991687.200000000000000		37	0.000000000000448	0.000000000016577
41084239.99	5.189398005	756117.8005	0.000000417407864		
5165.660911	235340 4312	233340	2079431989377680000.000000000000000	2.07943E+12	
	756.1178005	235.34 233.34	6.40025754	931649.754	6315.181246
31	0.000000004617512	0.000000143142875	289786 5292	287786	
0.003607171790887	169180670876683.000000000000000		931.649754	289.786 287.786	
169180670.9	5.362377939	781193.7939			

38 0.000000000000083 0.000000000003136
 0.000000078960494
 11592178650423700000.0000000000000001.15922E+13
 6.573237473 956725.7473 6479.398437
 297564 5432 295564
 956.7257473 297.564 295.564
 39 0.000000000000015 0.000000000000569
 0.000000014313003
 67346778833784600000.0000000000000006.73468E+13
 6.746217407 981801.7407 6643.615628
 305342 5572 303342
 981.8017407 305.342 303.342
 40 0.000000000000002 0.000000000000099
 0.000000002487202
 407607750627342000000.0000000000000000 4.07608E+14
 6.91919734 1006877.734 6807.832818
 313120 5712 311120
 1006.877734 313.12 311.12
 41 0.000000000000000 0.000000000000016
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 2569218474716320000000.0000000000000000 2.56922E+15
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 1031.953727 320.898 318.898
 42 0.000000000000000 0.000000000000003
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 7.265157207 1057029.721 7136.2672
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 1057.029721 328.676 326.676
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 1107.181707 344.232 342.232
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 352010 6412 350010
 1132.257701 352.01 350.01
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 7.957076941 1157333.694 7793.135962
 359788 6552 357788
 1157.333694 359.788 357.788
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 0.0000000000000004
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 367566 6692 365566
 1182.409687 367.566 365.566
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 0.0000000000000000
 3103309022220700000000000000.0000000000000000
 3.10331E+21 8.303036808 1207485.681
 8121.570344 375344 6832 373344
 1207.485681 375.344 373.344
 49 0.000000000000000 0.000000000000000
 0.0000000000000000
 26865005884548700000000000000.0000000000000000

2.6865E+22	8.476016742	1232561.674	
8285.787535	383122 6972	381122	
	1232.561674	383.122 381.122	
50	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
241866742057761000000000000000.0000000000000000			
2.41867E+23	8.648996675	1257637.668	
8450.004725	390900 7112	388900	
	1257.637668	390.9 388.9	
51	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
226460790753205000000000000000.0000000000000000			
2.26461E+24	8.821976609	1282713.661	
8614.221916	398678 7252	396678	
	1282.713661	398.678 396.678	
52	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
220521516235053000000000000000.0000000000000000			
2.20522E+25	8.994956542	1307789.654	
8778.439107	406456 7392	404456	
	1307.789654	406.456 404.456	
53	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
223345182375236000000000000000.0000000000000000			
2.23345E+26	9.167936476	1332865.648	
8942.656297	414234 7532	412234	
	1332.865648	414.234 412.234	
54	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
235293392519272000000000000000.0000000000000000			
2.35293E+27	9.340916409	1357941.641	
9106.873488	422012 7672	420012	
	1357.941641	422.012 420.012	
55	0.0000000000000000	0.0000000000000000	
0.0000000000000000			

2578717160740360000000000000000000.0000000000000000			
2.57872E+28	9.513896343	1383017.634	
9271.090679	429790 7812	427790	
	1383.017634	429.79 427.79	
56	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
2940529552826140000000000000000000.0000000000000000			
2.94053E+29	9.686876276	1408093.628	
9435.307869	437568 7952	435568	
	1408.093628	437.568 435.568	
57	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
3489444521192360000000000000000000.0000000000000000			
3.48944E+30	9.85985621	1433169.621	
9599.52506	445346 8092	443346	
	1433.169621	445.346 443.346	
58	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
4310140530770730000000000000000000.0000000000000000			
4.31014E+31	10.03283614	1458245.614	
9763.742251	453124 8232	451124	
	1458.245614	453.124 451.124	
59	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
5542954393735430000000000000000000.0000000000000000			
5.54295E+32	10.20581608	1483321.608	
9927.959441	460902 8372	458902	
	1483.321608	460.902 458.902	
60	0.0000000000000000	0.0000000000000000	
0.0000000000000000			
7423893247416930000000000000000000.0000000000000000			
7.42389E+33	10.37879601	1508397.601	
10092.17663	468680 8512	466680	
	1508.397601	468.68 466.68	

0

Appendix 3

Formula Used for Calculation

Standard super-peer systems

Cost for query answering = (Cost associated with finding one result . Expected total results) + (Cost associated with transferring one remote result back to local user . Expected remote result) + (Start-up cost . Expected number of servers)

Cost associated with finding one result, $c_1 = 7778$

Cost associated with transferring one remote result back to local user, $c_2 = 100,000$

Start-up cost, $c_3 = 2000$

Expected remote result = 17.29799335 % of of total result

Expected number of servers = 1.919

Query load 1 = Query message size + Expected total results . Query response message size

Query load 2 = ((Expected number of server – 1) . Query message size) + Expected total results . Query response message size

Network consumption for query load communication = Query load 1 + Query load 2

Query message size= 112

Query response message size = 140

Query and result caching at super-peer

Cost for query answering = (Cost associated with finding one result . Expected total results) + (Start-up cost . 1)

Cost associated with finding one result, c1 = 7778

Start-up cost, c3 = 2000

Query load = Query message size + Expected total results . Query response message size

Query message size= 112

Query response message size = 140

Average number of sending messages

0	1	2	10	20	30	40	50	60
70	80	90	100	200	300	400	500	600
700	800	900	1000	2000	3000	4000	5000	6000
7000	8000	9000	10000					
percentage of successful using SCL	0	255.5204627	4626662.91	255.5204629	4629026.12	255.5204631	4631389.332	
255.520465	4650295.024	255.5204674	4673927.139	255.5204698	4697559.255	255.5204721	4721191.37	
255.5204745	4744823.486	255.5204768	4768455.601	255.5204792	4792087.716	255.5204816	4815719.831	
255.5204839	4839351.947	255.5204863	4862984.062	255.5205099	5099305.216	255.5205336	5335626.37	
255.5205572	5571947.524	255.5205808	5808268.678	255.5206045	6044589.831	255.5206281	6280910.986	
255.5206517	6517232.14	255.5206754	6753553.293	255.520699	6989874.447	255.5209353	9353085.986	
255.5211716	11716297.52	255.521408	14079509.06	255.5216443	16442720.6	255.5218806	18805932.14	
255.5221169	21169143.68	255.5223532	23532355.22	255.5225896	25895566.75	255.5228259	28258778.29	
10	255.5204627	4626662.909	255.5204629	4629047.699	255.5204631	4631174.589	255.5204648	4648189.712
255.5204669	4669458.616	255.5204691	4690727.52	255.5204712	4711996.424	255.5204733	4733265.328	
255.5204755	4754534.231	255.5204776	4775803.136	255.5204797	4797072.039	255.5204818	4818340.943	

255.520484	4839609.847	255.5205052	5052298.886	255.5205265	5264987.924	255.5205478	5477676.962	
255.520569	5690366.001	255.5205903	5903055.039	255.5206116	6115744.077	255.5206328	6328433.116	
255.5206541	6541122.155	255.5206754	6753811.193	255.5208881	8880701.577	255.5211008	11007591.96	
255.5213134	13134482.35	255.5215261	15261372.73	255.5217388	17388263.12	255.5219515	19515153.5	
255.5221642	21642043.89	255.5223769	23768934.27	255.5225896	25895824.65			
20	255.5204627	4626662.909	255.5204629	4628808.278	255.5204631	4630698.847	255.5204646	4645823.401
255.5204665	4664729.093	255.5204684	4683634.785	255.5204703	4702540.477	255.5204721	4721446.17	
255.520474	4740351.862	255.5204759	4759257.555	255.5204778	4778163.247	255.5204797	4797068.939	
255.5204816	4815974.631	255.5205005	5005031.555	255.5205194	5194088.477	255.5205383	5383145.401	
255.5205572	5572202.324	255.5205761	5761259.247	255.520595	5950316.17	255.5206139	6139373.093	
255.5206328	6328430.016	255.5206517	6517486.939	255.5208408	8408056.17	255.5210299	10298625.4	
255.5212189	12189194.63	255.521408	14079763.86	255.521597	15970333.09	255.5217861	17860902.32	
255.5219751	19751471.55	255.5221642	21642040.79	255.5223533	23532610.02			
40	255.5204627	4626662.909	255.5204628	4628329.436	255.520463	4629747.362	255.5204641	4641090.778
255.5204655	4655270.047	255.5204669	4669449.316	255.5204684	4683628.586	255.5204698	4697807.855	
255.5204712	4711987.124	255.5204726	4726166.393	255.520474	4740345.663	255.5204755	4754524.932	
255.5204769	4768704.201	255.520491	4910496.893	255.5205052	5052289.586	255.5205194	5194082.278	
255.5205336	5335874.97	255.5205478	5477667.663	255.5205619	5619460.355	255.5205761	5761253.047	
255.5205903	5903045.74	255.5206045	6044838.431	255.5207463	7462765.355	255.5208881	8880692.278	
255.5210299	10298619.2	255.5211717	11716546.12	255.5213134	13134473.05	255.5214552	14552399.97	
255.521597	15970326.89	255.5217388	17388253.82	255.5218806	18806180.74			
60	255.5204627	4626662.909	255.5204628	4627850.593	255.5204629	4628795.878	255.5204636	4636358.155
255.5204646	4645811.001	255.5204655	4655263.847	255.5204665	4664716.693	255.5204674	4674169.539	
255.5204684	4683622.386	255.5204693	4693075.231	255.5204703	4702528.078	255.5204712	4711980.924	
255.5204721	4721433.77	255.5204816	4815962.231	255.520491	4910490.693	255.5205005	5005019.155	
255.52051	5099547.616	255.5205194	5194076.078	255.5205289	5288604.54	255.5205383	5383133.001	
255.5205478	5477661.462	255.5205572	5572189.924	255.5206517	6517474.54	255.5207463	7462759.155	
255.5208408	8408043.77	255.5209353	9353328.386	255.5210299	10298613	255.5211244	11243897.62	
255.5212189	12189182.23	255.5213134	13134466.85	255.521408	14079751.46			
80	255.5204627	4626662.909	255.5204627	4627371.751	255.5204628	4627844.393	255.5204632	4631625.532
255.5204636	4636351.955	255.5204641	4641078.378	255.5204646	4645804.801	255.5204651	4650531.224	
255.5204655	4655257.647	255.520466	4659984.07	255.5204665	4664710.494	255.5204669	4669436.916	

255.5204674	4674163.34	255.5204721	4721427.57	255.5204769	4768691.801	255.5204816	4815956.032	
255.5204863	4863220.263	255.520491	4910484.494	255.5204958	4957748.724	255.5205005	5005012.955	
255.5205052	5052277.186	255.52051	5099541.416	255.5205572	5572183.724	255.5206045	6044826.032	
255.5206517	6517468.34	255.520699	6990110.647	255.5207463	7462752.955	255.5207935	7935395.263	
255.5208408	8408037.57	255.5208881	8880679.878	255.5209353	9353322.186			
100	255.5204627	4626662.909	255.5204619	4619421.308	255.5204619	4619441.769	255.520462	4619605.461
255.520462	4619810.077	255.520462	4620014.692	255.520462	4620219.308	255.520462	4620423.923	
255.5204621	4620628.538	255.5204621	4620833.154	255.5204621	4621037.769	255.5204621	4621242.385	
255.5204621	4621447	255.5204623	4623493.154	255.5204626	4625539.308	255.5204628	4627585.461	
255.520463	4629631.615	255.5204632	4631677.769	255.5204634	4633723.923	255.5204636	4635770.077	
255.5204638	4637816.231	255.520464	4639862.385	255.520466	4660323.923	255.5204681	4680785.461	
255.5204701	4701247	255.5204722	4721708.538	255.5204742	4742170.077	255.5204763	4762631.615	
255.5204783	4783093.154	255.5204804	4803554.692	255.5204824	4824016.231			