

LS1 and LS2 performance comparison

Hardware :

cpu: Intel(R) Core(TM)2 Duo CPU E8400 @ 3.00GHz

memory : 3,6 GB

system: Ubuntu 8.10

Software :

server: tomcat 5.5

java: 1.6.0_14

eXist: 7866-20080610 and 9165-20090617

lookupService: LS1(psBase1) and LS2(psBase2)

Description:

There are 3 kinds of tests :

- 1) Registration 1000 different services:
 - a) every service with 4 interfaces
 - b) every service with 24 interfaces
- 2) Querying lookup service for services with concrete ID – there are 30 query-requests which query lookup service for data.
- 3) De-registration services – 30 de-registration-requests which force de-registration of the services in lookup service.

All requests are invoked in sequence.

Test no 1. is a base for tests no 2 and 4. Test no 1 has 2 options. First – registered services contain 4 interfaces and second – registered services contain 24 interfaces. Hence size of the storage in second option is larger than in first.

Measurement:

Measurement of the single request is difference between time before send request and time after response is received. Units of measurement are milliseconds.

Aim:

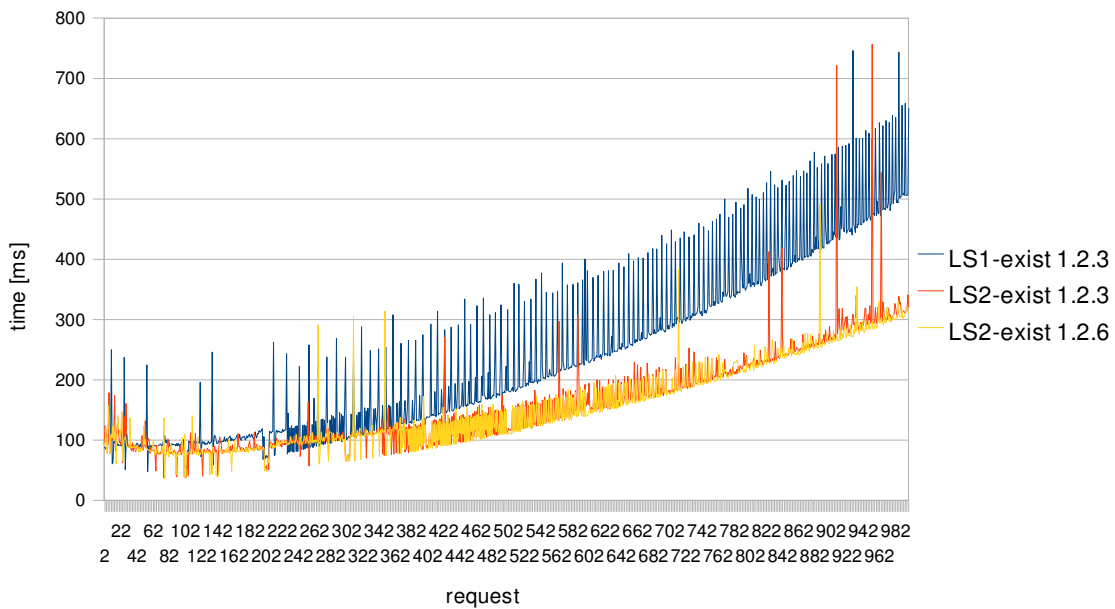
The aim of this comparison is to compare performance of 3 products :

- lookup service based on psBase1 with exist 1.2.3
- lookup service based on psBase2 with exist 1.2.3
- lookup service based on psBase2 with exist 1.2.6

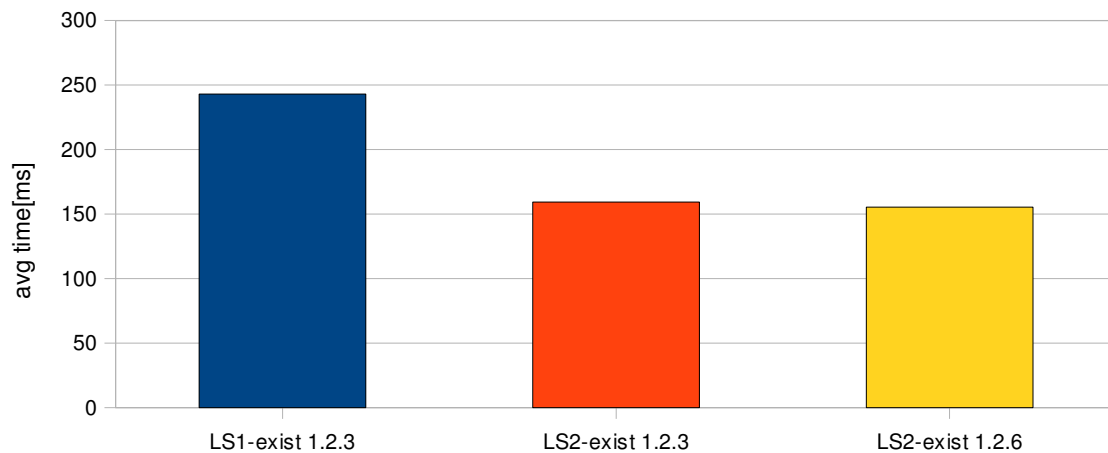
1 Scenario – services with 4 interfaces.

1.1) Registration (every service with 4 interfaces) - 1000 registration requests

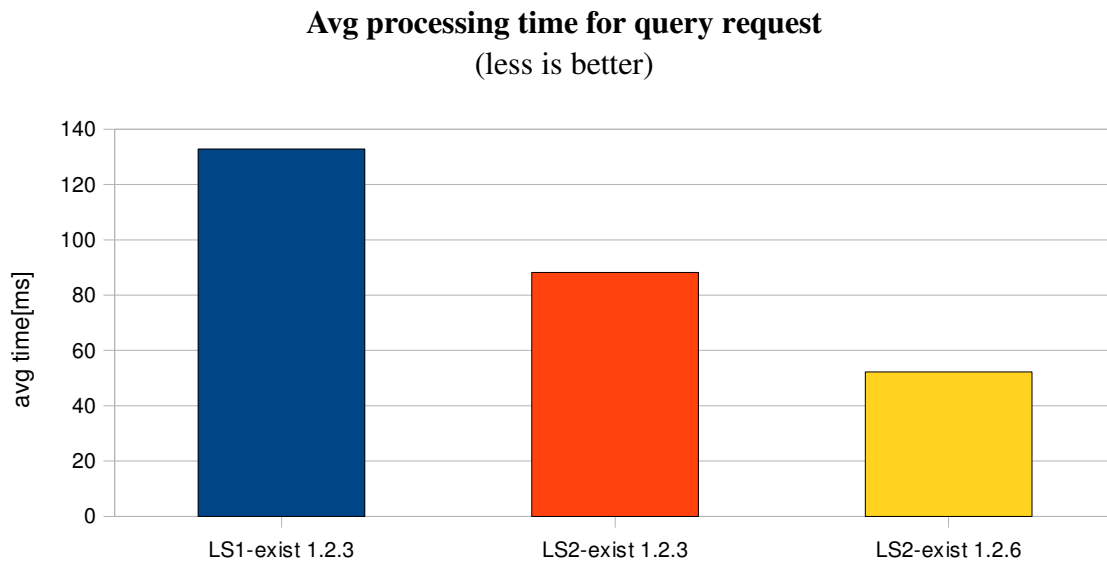
Request processing time for registration request
(less is better)



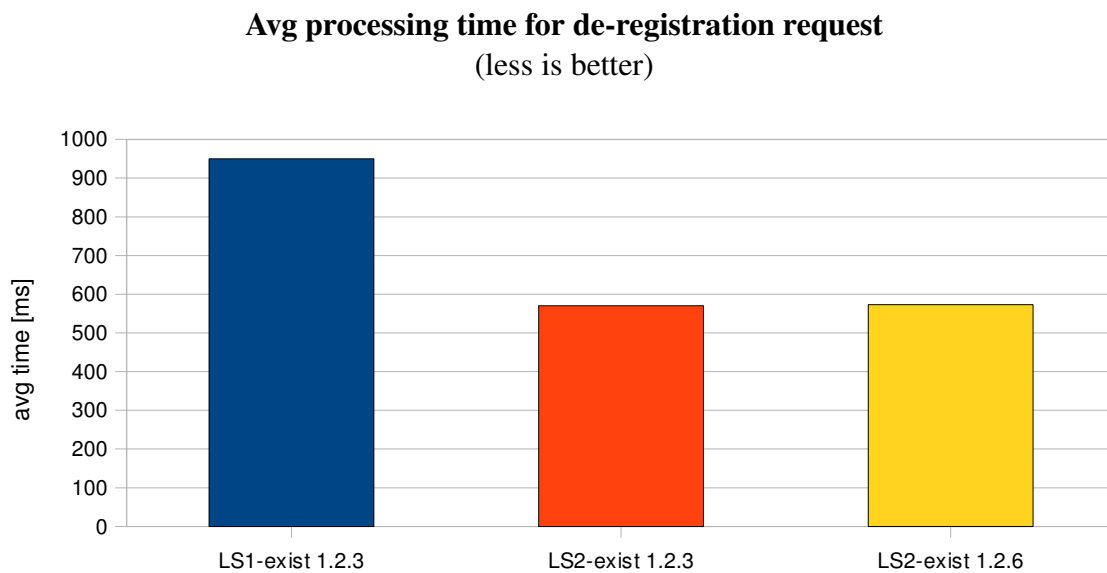
Avg processing time for registration request
(less is better)



1.2) Querying (database with registered services which every contains 4 interfaces) - 30 query requests



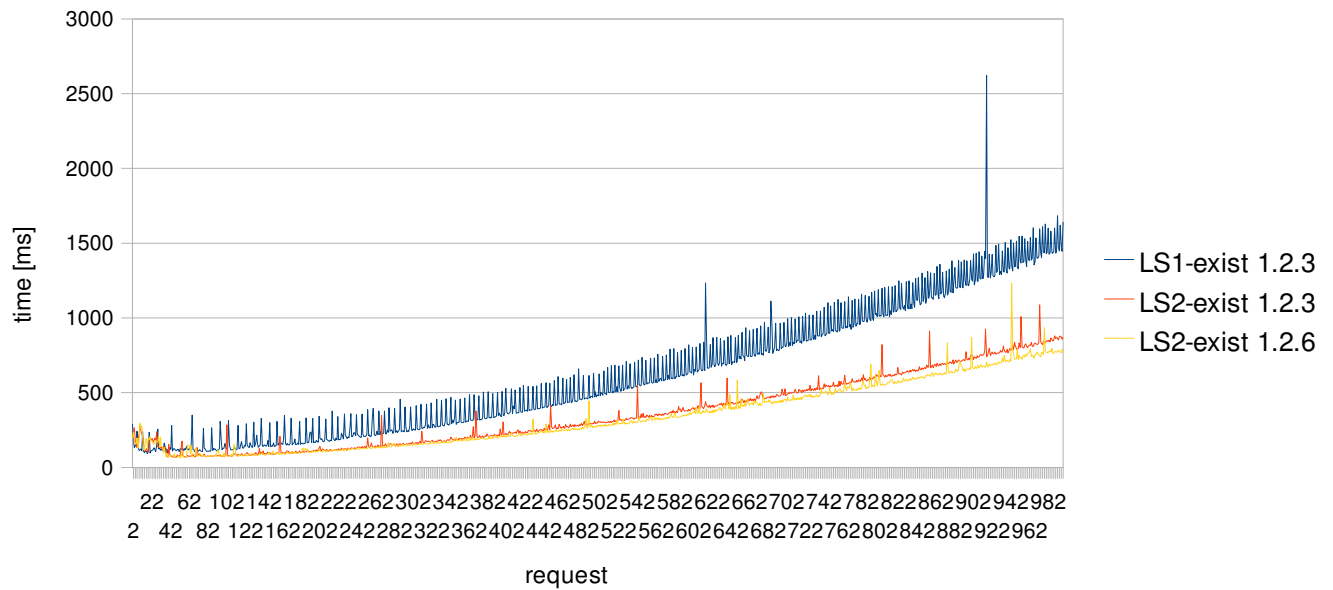
1.3) De-registrations (database with registered services which every contains 4 interfaces) - 30 deregistration requests



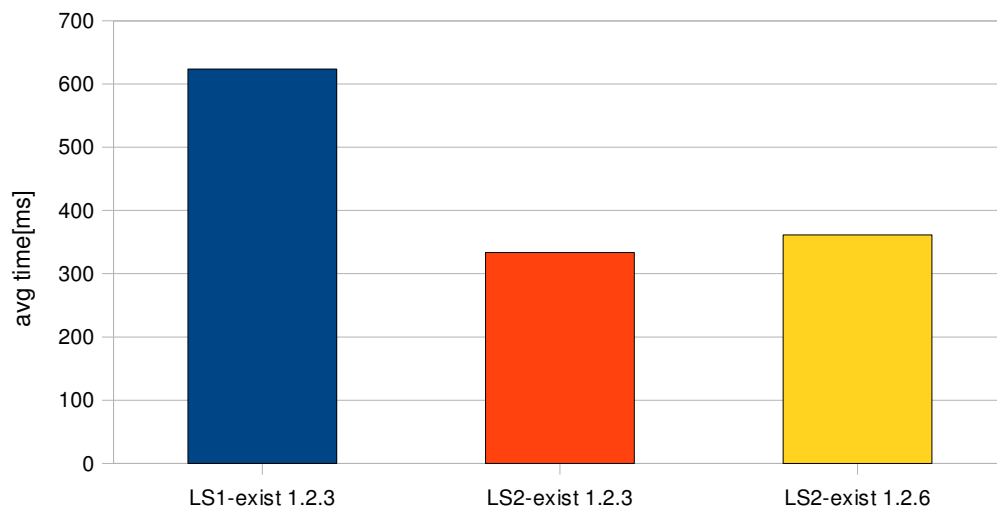
2. Scenario – services with 24 interfaces.

2.1) Registration (every service with 24 interfaces) - 1000 registration requests

Request processing time for registration request
(less is better)

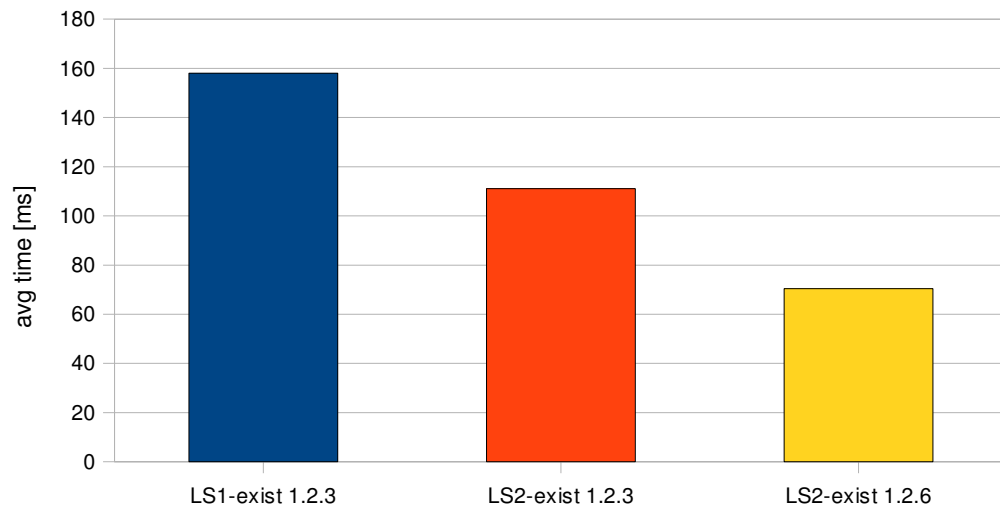


Avg. processing time for registration request
(less is better)



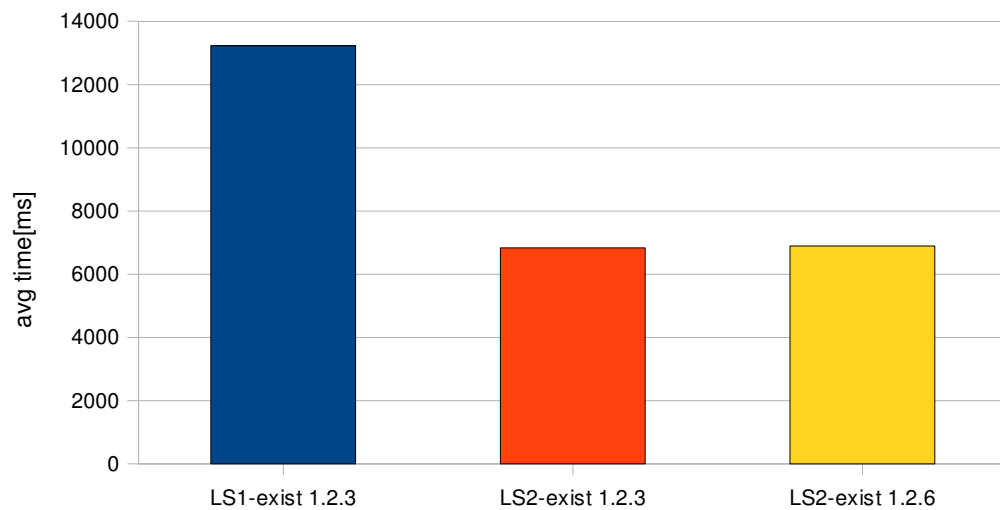
2.2) Querying (database with registered services which every contains 24 interfaces) - 30 query requests

Avg processing time for query request
(less is better)



2.3) De-registrations (database with registered services which every contains 24 interfaces) - 30 de- registration requests

Avg processing time for de-registration request
(less is better)



Summary

There is significant performance improvement between lookup service based on psBase1 and lookup service based on psBase2. Increase of data size causes decrease of lookup service performance.