Performance and Scalability

This page is intended to be moved into the FAQ documentation once it has been more completely populated.

The use cases and expectations that fall under the category of Fedora "performance and scalability" are diverse and evolving. It is therefore important to establish and maintain a set of reproducible benchmarks that will be run over various configurations of Fedora releases.

Team

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Project Plans

1. Performance and Scalability Test Plans (Update to Fcrepo 4.7.x and later version)

Benchmark Categories

Resource Scale

- 1. Large datastreams (i.e. binaries, non-RDFSources)
- 2. Multi-TB datasets
- 3. Large number of objects (i.e. containers, RDFSources)
- 4. Many members

Performance Characteristics

- 1. Ingest rates
- 2. RDFSource property update rates

Prior Results

- 1. Performance Testing
- 2. Performance Summary
- 3. Assessment Plan Performance
- 4. Test 1 Results Summary
- 5. Test 2 Results Summary
- 6. Test 3 Results Summary
- 7. Test 4 Results Summary
- 8. Test 5 Results Summary
- 9. Many Members Performance Testing

Project Tools

- 1. Fcrepo performance analysis: https://github.com/fcrepo4-labs/fcrepo_perf_analysis
- 2. Fedora 4 Ansible: https://github.com/VTUL/fcrepo4-ansible
- 3. Many member testing scripts: https://github.com/dbernstein/fcrepo-performance-test-scripts

Publication

- Towards Use And Reuse Driven Big Data Management. JCDL 2015
- Performance of a CloudBased Digital Library. ICADL 2015
- Evaluating Cost of Cloud Execution in a Data Repository. JCDL 2016

Presentation

• Open Repositories: Presentations

Workshop

- Code4lib 2017 workshop: Performance and Scale Testing of Fedora
 Fedora Camp NYC 28-30 November 2016
- All Fedora workshops: Events

Other Tools

- 1. JMeter
- Grinder
 https://blazemeter.com/ commercial service for running our JMeter tests