

# Test - Platform Profile: Single VM at UNC Chapel Hill

UNC Chapel Hill libraries has allocated 8 VMs for testing Fedora performance.

| Parameter           | Value        | Notes                                                                   |
|---------------------|--------------|-------------------------------------------------------------------------|
| Clustered?          | No           | run as single node (a node from cluster w/larger disk)                  |
| Processing hardware | 2 Cores      | Intel(R) Xeon(R) CPU E5-2690 @ 2.90GHz                                  |
| Operating system    | Ubuntu 13.10 | GNU/Linux 3.11.0-12-generic x86_64                                      |
| Memory              | 2048 MB      | only setting JVM max, 4GB real memory per server                        |
| Allocated Storage   | 200GB        | this persistence area /data is ext4 (/ partition is 12GB)               |
| Persistence I/O     | 106 MB/s     | Is a certain level of throughput to disk an important part of the test? |
| Network I/O         | 95MB/s       | This is particularly important for clustered operation.                 |

## Results: Fedora 4 Baseline (Minimal Config)

| threads | objects | DS MB | F3 MB/s (quick) |      |        |        | F4 MB/s (minimal) |      |        |        |
|---------|---------|-------|-----------------|------|--------|--------|-------------------|------|--------|--------|
|         |         |       | Ingest          | Read | Update | Delete | Ingest            | Read | Update | Delete |
| 1       | 100     | 50    | 88              | 129† | 35     | 2417   | 56                | 56   | 52     | 1993   |
| 5       | 100     | 50    | n/a             |      |        |        | 81                | 185  | 82     | 3225   |
| 10      | 100     | 50    |                 |      |        |        | 81                | 210  | 79.5   | 3448   |

† This result was originally suspect at 1005 mb/s due to only reading data and not properties.

Fedora 4 start parameters were specified as follows:

```
-Dfcrepo.modeshape.configuration=classpath:/config/minimal/repository.json \
-Dcom.arjuna.ats.arjuna.common.ObjectStoreEnvironmentBean.default.objectStoreDir=$STORE/arjuna.default.objectstore \
-Dcom.arjuna.ats.arjuna.objectstore.objectStoreDir=$STORE/arjuna.objectstore \
-Dfcrepo.ispn.CacheDirPath=$STORE/ispn \
-Dfcrepo.ispn.binary.CacheDirPath=$STORE/ispn.binary \
-Dfcrepo.modeshape.index.location=$STORE/modeshape.index \
-Dfcrepo.ispn.alternative.CacheDirPath=$STORE/ispn.alternative \
-Dfcrepo.ispn.binary.alternative.CacheDirPath=$STORE/ispn.binary.alternative \
-Dfcrepo.ispn.repo.CacheDirPath=$STORE/ispn.repo"
```

## Results: F4 No Versioning

| threads | objects | DS MB | Ingest | Read | Update | Delete |
|---------|---------|-------|--------|------|--------|--------|
| 1       | 100     | 50    |        |      |        |        |
| 5       | 100     | 50    |        |      |        |        |
| 10      | 100     | 50    |        |      |        |        |

## Results: F4 Modeshape Cache Eviction

## Results: F4 ??