CVMFS CLIENT CONFIGURATION

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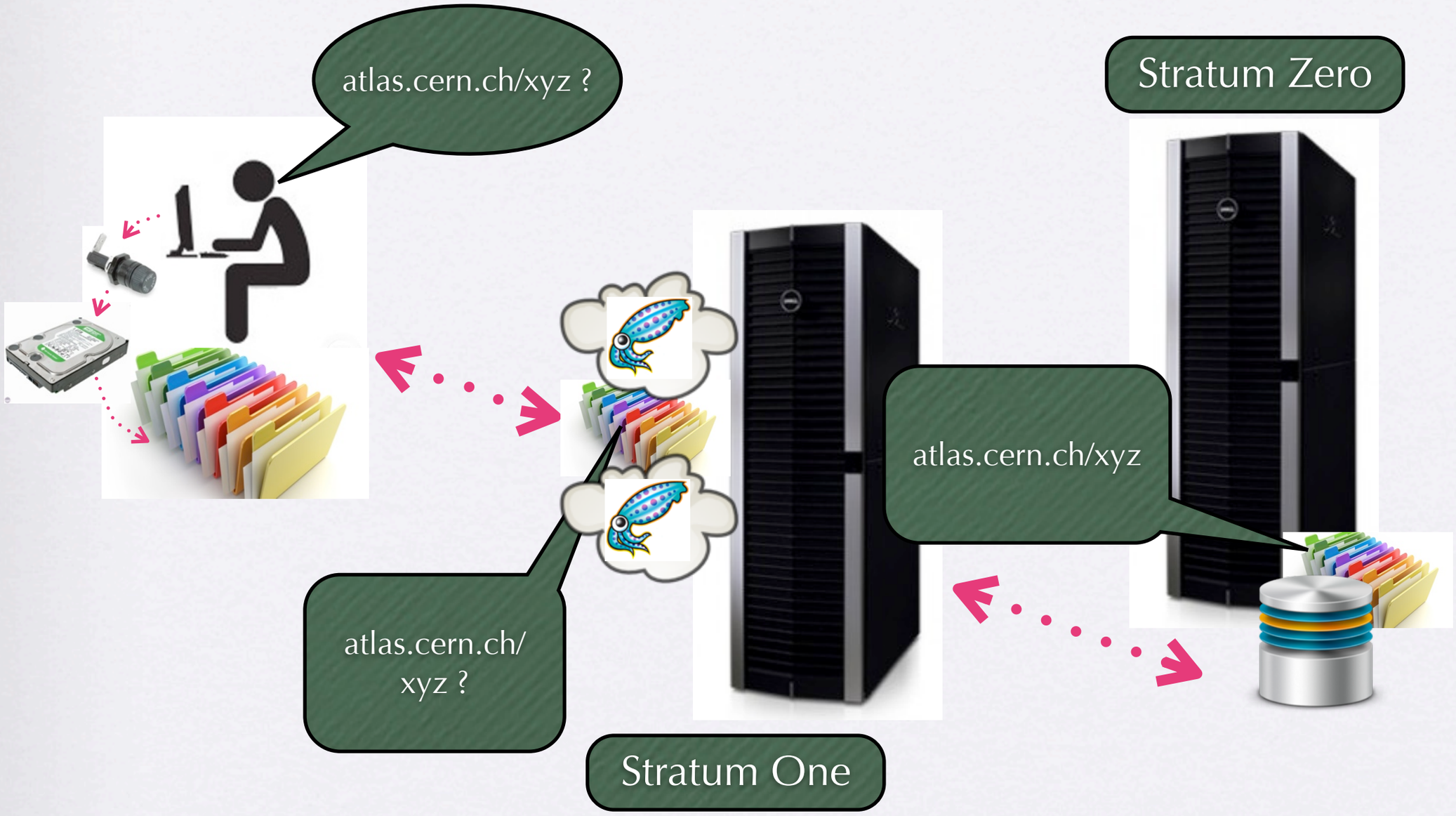
Overview



client - replica - server

Installation Packages

- cvmfs-keys
- cvmfs
- cvmfs-init-scripts

Yum repository (for EL 5/6):
http://cvmrepo.web.cern.ch/cvmrepo/yum/cvmfs/

Configuration Hierarchy

- `/etc/cvmfs/`
  - Instance-wide default parameters for local client
    - repository mirror list, system-wide disk quota, base cache and mount directories, remote proxy
- `/etc/cvmfs/domain.d/`
- `/etc/cvmfs/config.d/`

Configuration Hierarchy

- `/etc/cvmfs/`
- **`/etc/cvmfs/domain.d/`**
  - Domain-wide default parameters for requests to all repositories within a specific domain
    - *.cern.ch, *.bnl.gov
- `/etc/cvmfs/config.d/`

Configuration Hierarchy

- `/etc/cvmfs/`
- `/etc/cvmfs/domain.d/`
- **`/etc/cvmfs/config.d/`**
  - Default parameters for a specific repository
    - atlas.cern.ch

Configuration Hierarchy

Default vs. Local files:

- Parameter values in stock configuration files can be set or overridden via their local counterparts:
  *.conf
  *.local

- **Do not edit *.conf files!**
  - Some .conf files include scripts (config.d)
  - Use ***.local** files for customization

Configuration Source Order

- `/etc/cvmfs/default.conf`
  - **`/etc/cvmfs/default.local`**
- `/etc/cvmfs/domain.d/{domain}.conf`
  - **`/etc/cvmfs/domain.d/{domain}.local`**
- `/etc/cvmfs/config.d/{repository}.conf`
  - **`/etc/cvmfs/config.d/{repository}.local`**

Configuration Example: Default vs. Local

- /etc/cvmfs/default.conf

```
CVMFS_CACHE_BASE=/var/cache/cvmfs2
CVMFS_QUOTA_LIMIT=4000
CVMFS_DEFAULT_DOMAIN=cern.ch
CVMFS_TIMEOUT=5
CVMFS_TIMEOUT_DIRECT=10
CVMFS_STRICT_MOUNT=yes
CVMFS_FORCE_SIGNING=yes
CVMFS_NFILES=65536
```

- **/etc/cvmfs/default.local**

```
CVMFS_CACHE_BASE=/var/cvmfs
CVMFS_REPOSITORIES=atlas,atlas-condb,atlas-nightlies,geant4,
  grid,lhcb-conddb,sft
CVMFS_HTTP_PROXY="http://cvmfs02.racf.bnl.gov:8000|
  http://cvmfs03.racf.bnl.gov:8000;DIRECT"
```

Configuration Example: Default vs. Local

- /etc/cvmfs/domain.d/cern.ch.conf

```
CERNVM_SERVER_URL="http://cvmfs-stratum-one.cern.ch/..."
CVMFS_PUBLIC_KEY=/etc/cvmfs/keys/cern.ch.pub:/etc/...
```

- /etc/cvmfs/domain.d/cern.ch.local

```
CVMFS_SERVER_URL="http://cvmfs.racf.bnl.gov:8000/opt/..."
```

Configuration Example: Default vs. Local

Setting a disk quota for a single repository:

- `/etc/cvmfs/domain.d/cern.ch.local`

```
CVMFS_QUOTA_LIMIT=20000
```

Additional Configuration

Add to files:

- **`/etc/fuse.conf`**

```
user_allow_other
```

- **`/etc/auto.master`**

```
/cvmfs /etc/auto.cvmfs
```

(or run: `cvmfs_config setup`)

Useful Client Commands

```
cvmfs_config stat [-v {repo}]  # stats on repo and system
                               #   usage

cvmfs_config chksetup          # and:

service cvmfs probe            #   quick config checks

service cvmfs status           # duh.

service cvmfs restartautofs    # to enact cvmfs/autofs changes

service cvmfs restartclean     # restarts/resets CVMFS only

cvmfs_config showconfig [repo]# dump of all active parameters
```

More Information

- https://webdocs.racf.bnl.gov/docs/service/cvmfs/information

- /etc/cvmfs/*