

Table of Contents

| | |
|--|----------|
| High Availability Implementation for MyProxy..... | 1 |
| Configuration..... | 1 |
| Conclusion..... | 1 |

High Availability Implementation for MyProxy

Configuration

The CERN requirements for the MyProxy service requires a highly available configuration. As discussed in PxNotes, the high availability functions are available in the standard MyProxy implementation using `myproxy_replicate`. This creates a read-only replica of the data which supports retrieve operations only. This can cover the retrieve operations but will not cover the user oriented actions such as `init` or `destroy`.

To provide a full high availability function, the following approach was taken

- Master/Slave set up using Linux-HA and shared IP service address
- Master stores data in `/var/proxy` and replicates using `myproxy_replicate` to slave in `/var/proxy.slave`
- Master `rsync`'s data from `/var/proxy` to the slave `/var/proxy` directory
- The slave `myproxy` server is started in slave mode to read from `/var/proxy.slave` (i.e. read-only mode)
- In the event of master failure as detected by Linux-HA, the daemon is stopped on the slave and then restarted with the read-write copy from `/var/proxy`

Using Linux-HA with a small `myproxy` resource script (`start/stop/monitor/status`) provide this function. The take over time is around 2 seconds following detection of a failure. There may be a substantial delay between occurrence of failure and detection. If further work on the client configuration is made such that a replica server can be queried, this window will be covered by the replica.

The HA configuration has been implemented as follows

.

In the event of a failure or an operator initiated switch for planned maintenance, the configuration is changed

- Service IP now points to slave server
- Slave `myproxy` started with `/var/myproxy` as repository (which was being received via `rsync` from master)
- Master adopts slave role (if it is able to)

.

Conclusion

For the cost of two machines with small disk space, a highly available MyProxy implementation can be made which is resilient to network, machine and storage failures.

-- TimBell - 05 Oct 2005

This topic: LCG > PxWlcgHa

Topic revision: r1 - 2005-10-05 - TimBell



Copyright &© 2008-2020 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.

Ideas, requests, problems regarding TWiki? Send feedback