Running a storage node

Overview

A lobber storage node is essentially a standard BitTorrent client with a very thin layer used to receive notification about new and modified torrents. A lobber storage node is provided as a twisted plugin and is installed from the python package index. Currently the twisted plugin works with `transmission` - a popular, cross-platform BitTorrent client. Other BT clients may be supported in the future.

Installing

The examples below assume a debian/ubuntu environment. If you're running another unix-like or windows OS your milage may vary. Our goal is for lobber to run on a multitude of environments and operating systems. Please provide us with patches!

Transmission

We recommend installing transmission 2.03 or later. If you are using ubuntu 10.04 you may have to install transmission from a PPA:

```
# apt-get install python-software-properties
# add-apt-repository ppa:transmissionbt/ppa
# apt-get update
```

If you run Ubuntu 10.10 you onlu need to do the next bit.

```
# apt-get install transmission-cli transmission-daemon deluge-common
```

At this point you should have a transmission daemon running after each reboot. Use the `/etc/init.d/transmission-daemon` tool to stop/start the service in the normal way.

lobberstoragenode

The lobberstoragenode is available from http://pypi.python.org/ and can be installed using the easy_install tool from python-setuptools:

> ⊘ Errata: You may have to download the tarball and install it using the provided setup.py instead of using easy_install.

```
# apt-get install python-setuptools python-twisted python-feedparser bittorrent
# easy_install stompservice transmissionrpc
```

```
# easy_install lobberstoragenode
```

or install lobberstoragenode from GIT or from tarballs...

At this point `twistd` should have a new plugin registered. Verify this by running `twistd --help` and look for `lobberstoragenode` in the list of commands. If you see this then you're installation should be ok.

```
# twistd --help
...
Commands:
    ftp                 An FTP server.
    telnet              A simple, telnet-based remote debugging service.
    socks               A SOCKSv4 proxy service.
    manhole-old         An interactive remote debugger service.
    portforward         A simple port-forwarder.
    lobberstoragenode   A Storage Node for Lobber
    web                 A general-purpose web server which can serve from a
                        filesystem or application resource.
    inetd               An inetd(8) replacement.
    news                A news server.
    xmpp-router         An XMPP Router server
    words               A modern words server
    toc                 An AIM TOC service.
    dns                 A domain name server.
    mail                An email service
    manhole             An interactive remote debugger service accessible via
                        telnet and ssh and providing syntax coloring and
                        basic line editing functionality.
    conch               A Conch SSH service.
```

Running `twistd lobberstoragenode --help` gives you an overview of the options:

```
$ twistd lobberstoragenode --help
Usage: twistd [options] lobberstoragenode [options]
Options:
  -n, --standardNotifications     Add standard notificiation destinations
  -R, --register                  Register new torrents with lobber
  -a, --announceUrl=              Announce URL (tracker) to use for new
                                  torrents
  -A, --acl=                      Access Control List to apply to new torrents
  -b, --dropbox=                  A directory to watch for new content
  -d, --torrentDir=               The directory where to store torrents
                                  [default: torrents]
  -D, --transmissionDownloadsDir= The downloads directory for transmission
                                  [default:
                                  /var/lib/transmission-daemon/downloads]
  -h, --lobberHost=               The host running both STOMP and https for
                                  lobber
  -k, --lobberKey=                The Lobber application key to use
  -p, --trackerProxyTrackerUrl=   Enable tracker proxying for given https
                                  tracker (HOST[:PORT])
  -P, --trackerProxyListenOn=     Adress to bind the tracker proxy to [default:
                                  localhost:8080]
  -r, --removeLimit=              Remove torrent and data when this many other
                                  storage-nodes have the data (0=never remove)
                                  [default: 0]
  -S, --stompUrl=                 The STOMP protocol URL to use for
                                  notifications [default:
                                  stomp://localhost:61613]
  -T, --transmissionRpc=          The RPC URL for transmission [default:
                                  http://transmission:transmission@localhost:9091]
      --version
      --help                      Display this help and exit.
```

When running a storage-node for development purposes you will typically run it with both the `--stompUrl` and `--lobberUrl` parameters pointing to endpoints on your local development sandbox. When running a storage-node off of `beta.lobber.se` you will typically want to start it this way:

```
# twistd -n lobberstoragenode -k <appkey> -h beta.lobber.se -d /var/torrents [<destination|rss>]*
```

The final arguments is a set of STOMP destinations and/or RSS feeds. Each RSS feed is pulled regularly and each link is downloaded. If the downloaded data is a BitTorrent file it is stored in the `--torrentDir` directory (`/var/torrents` in the example above). Optionally if a `--script` option was given it will be run as a command with the path to the torrent-file as an argument.

If you want to notify transmission of new torrents you might do something like this

```
# twistd -n lobberstoragenode ... --script="transmission-remote -n transmission:transmission -a"
```

A more complete example. This would regularly pull all torrents linked from `https://beta.lobber.se/torrent/tag/foo.rss` and ask transmission to add the new ones.

```
# twistd -n lobberstoragenode -k <key> -h beta.lobber.se -d /tmp \\
        --script="transmission-remote -n transmission:transmission -a" \\
        https://beta.lobber.se/torrent/tag/foo.rss /torrent/tag/foo
```

Useful stuff to listen to for a storagenode

STOMP destinations

Location	What it gets you
/torrent/new	Each newly created torrent
/torrent/tag/add	Each time a torrent is tagged
/torrent/tag/add/foo	Each time a torrent is tagged with 'foo'
/torrent/tag/remove/foo	Each time the 'foo' tag is removed from a torrrent

RSS URLs

Location	What it gets you
https://lobber.example.org/torrents/all.rss	All torrents readable by the current user (or key)
https://lobber.example.org/torrents/tag/foo.rss	All torrents tagged with 'foo'