Chapter 1. Quickstart guide

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common commands. easier to read would be more of the commands and less of their output.

CLI usage for directory authorities

The voting authority has the following commandline usage:

```
./voting -h
Usage of ./voting:
  -f string
        Path to the authority config file. (default "katzenpost-authority.toml")
  -g    Generate the keys and exit immediately.
```

The `-g` option is used to generate the public and private signing and link keys.

CLI usage for servers

The `server` commandline usage is as follows:

```
./server -h
Usage of ./server:
  -f string
        Path to the server config file. (default "katzenpost.toml")
  -g    Generate the keys and exit immediately.
```

The command output when generating keys looks like this:

```
./server -f my_katzenpost_mix_server.toml -g
22:51:55.377 NOTI server: Katzenpost is still pre-alpha.  DO NOT DEPEND ON IT FOR
22:51:55.377 NOTI server: AEZv5 implementation is hardware accelerated.
22:51:55.377 NOTI server: Server identifier is: 'example.com'
22:51:55.379 NOTI server: Server identity public key is: 2628F87F2806048C95F060DA9
22:51:55.379 NOTI server: Server link public key is: CCDC5C105E649D543DF1CF397A176
```

Note that if you choose to configure logging to a file one disk, you can implement log rotation by moving the log file and then sending the `HUP` to the authority server process. This will cause the daemon to rewrite the log file in the location specified by the config file.

From my runbook

4. Where are the files?

root@oneeyedman:/usr/local# ls -al bin/

total 23720

drwxr-xr-x 2 root root 4096 Nov 28 23:11 .

drwxr-xr-x 10 root root 4096 Aug 9 11:53 ..

-rwxr-xr-x 1 root root 9802680 Dec 10 17:34 pq-katzenpost-authority

-rwxr-xr-x 1 root root 14474976 Dec 10 17:33 pq-katzenpost-mixserver

root@oneeyedman:~# ls -al /etc/pq-katzenpost-mixserver/

total 36

drwxr-xr-x 2 root root 4096 Dec 10 21:01 .

drwxr-xr-x 110 root root 4096 Dec 9 06:55 ..

-rw-r--r-- 1 root root 14084 Nov 29 17:00 katzenpost.toml

-rw-r--r-- 1 root root 11848 Nov 29 01:29 katzenpost.toml.old

root@oneeyedman:~# ls -al /var/lib/pq-katzenpost-mixserver/ (my personal keys in red)

total 104

drwx------ 2 pq-katzenpost-mixserver pq-katzenpost-mixserver 4096 Dec 11 02:10 .

drwxr-xr-x 47 root root 4096 Dec 5 02:05 ..

-rw------- 1 pq-katzenpost-mixserver pq-katzenpost-mixserver 348 Nov 29 01:09 identity.private.pem

-rw------- 1 pq-katzenpost-mixserver pq-katzenpost-mixserver 216 Nov 29 01:09 identity.public.pem

-rw------- 1 pq-katzenpost-mixserver pq-katzenpost-mixserver 3381 Nov 29 01:09 link.private.pem

-rw------- 1 pq-katzenpost-mixserver pq-katzenpost-mixserver 1734 Nov 29 01:09 link.public.pem

-rw------- 1 pq-katzenpost-mixserver pq-katzenpost-mixserver 20480 Dec 11 02:10 mixkey-145374.db

-rw------- 1 pq-katzenpost-mixserver pq-katzenpost-mixserver 20480 Dec 11 02:10 mixkey-145375.db

-rw------- 1 pq-katzenpost-mixserver pq-katzenpost-mixserver 20480 Dec 11 02:10 mixkey-145376.db

```
-rw------- 1 pq-katzenpost-mixserver pq-katzenpost-mixserver 20480 Dec
11 02:11 mixkey-145377.db
```

Relevant git repositories:

git clone git@github.com:katzenpost/katzenpost.git

git clone git@github.com:katzenpost/katzen.git

Service management

```
systemctl start pq-katzenpost-mixserver
```

```
systemctl stop pq-katzenpost-mixserver
```

```
systemctl restart pq-katzenpost-mixserver
```

```
systemctl enable pq-katzenpost-mixserver
```

Monitoring

```
journalctl -u pq-katzenpost-mixserver -f -n 2000
```

```
iftop -t -s 18000 > log.txt &
```

```
bmon -p ens3
```

Log the system stats and active process every 5 seconds

dwrob@hoh:~$ top -i -b -d 5 > top-watchdog.txt

Keep an eye on the active updating of that file

dwrob@hoh:~$ watch -d ls -l

Every 2.0s: ls -al top-watchdog.txt hoh: Sun Dec 4 11:06:17 2022

-rw-r--r-- 1 dwrob dwrob 16016638 Dec 4 11:06 top-watchdog.txt

Watch the actual updates

dwrob@hoh:~$ tail -f top-watchdog.txt

Capture net/disk/sys stats in CSV

dwrob@hoh:~$ dstat -tndcgy -N enp40s0 --output dstat.csv

And in general

```
dwrob@hoh:~$ bpytop
```