

chrony

Controller node

Install and configure components

Install the packages:

```
# apt-get install chrony
```

By default, the controller node synchronizes the time via a pool of public servers. However, you can optionally configure alternative servers such as those provided by your organization.

1. Edit the `/etc/chrony/chrony.conf` file and add, change, or remove the following keys as necessary for your environment:

```
server NTP_SERVER iburst
```

Replace `NTP_SERVER` with the hostname or IP address of a suitable more accurate (lower stratum) NTP server. The configuration supports multiple `server` keys.

2. Restart the NTP service:

```
# service chrony restart
```

Other nodes

Install and configure components

Install the packages:

```
# apt-get install chrony
```

Configure the network and compute nodes to reference the controller node.

1. Edit the `/etc/chrony/chrony.conf` file and comment out or remove all but one `server` key. Change it to reference the controller node:

```
server controller iburst
```

2. Restart the NTP service:

```
# service chrony restart
```

Verify operation

We recommend that you verify NTP synchronization before proceeding further. Some nodes, particularly those that reference the controller node, can take several minutes to synchronize.

1. Run this command on the *controller* node:

```
# chronyc sources
210 Number of sources = 2
MS Name/IP address          Stratum Poll Reach LastRx Last sample
=====
^- 192.0.2.11                2   7   12   137  -2814us[-3000us] +/- 43ms
^* 192.0.2.12                2   6  177   46   +17us[-23us] +/- 68ms
```

Contents in the *Name/IP address* column should indicate the hostname or IP address of one or more NTP servers. Contents in the *S* column should indicate *** for the server to which the NTP service is currently synchronized.

2. Run the same command on *all other* nodes:

```
# chronyc sources
210 Number of sources = 1
MS Name/IP address          Stratum Poll Reach LastRx Last sample
=====
```

^* controller 3 9 377 421 +15us[-87us] +/- 15ms