Synchronizing Time Using NTP

Check out [NTP-Pool](#) for a list of pools available to different regions.

Configuration

Network Time Protocol (NTP) allows us to easily synchronize our servers with the indicated NTP host. The settings stored in `/etc/systemd/timesyncd.conf` allow us to specify which NTP server we would prefer to sync with, as well as which server(s) to use should our preferred option fail for whatever reason.

```
#  This file is part of systemd.
#
#  systemd is free software; you can redistribute it and/or modify it
#  under the terms of the GNU Lesser General Public License as published by
#  the Free Software Foundation; either version 2.1 of the License, or
#  (at your option) any later version.
#
# Entries in this file show the compile time defaults.
# You can change settings by editing this file.
# Defaults can be restored by simply deleting this file.
#
# See timesyncd.conf(5) for details.

[Time]
#NTP=
#FallbackNTP=ntp.ubuntu.com
#RootDistanceMaxSec=5
#PollIntervalMinSec=32
#PollIntervalMaxSec=2048
```

The configuration above is an example of the default settings, which are commented out since these same default settings are assumed by the Ubuntu system. If you want to change them, just remove the comment and modify their values. Below, we have modified the settings to use various

servers based on our preferences.

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#
# Entries in this file show the compile time defaults.
# You can change settings by editing this file.
# Defaults can be restored by simply deleting this file.
#
# See timesyncd.conf(5) for details.


[Time]
NTP=0.north-america.pool.ntp.org 1.north-america.pool.ntp.org
FallbackNTP=ntp.ubuntu.com 0.arch.pool.ntp.org


#RootDistanceMaxSec=5
#PollIntervalMinSec=32
#PollIntervalMaxSec=2048
```

Above, we tell systemd that we would prefer to connect to NTP servers in the following order

1. 0.north-america.pool.ntp.org
2. 1.north-america.pool.ntp.org
3. ntp.ubuntu.com
4. 0.arch.pool.ntp.org

Synchronization

If your server is for any reason out of sync, this could cause various issues down the line with services or applications. To correct this, simply synchronize with your configured NTP servers by running `sudo timedatectl set-ntp true && timedatectl status` - These commands will synchronize and then print the status of your NTP connection. Be sure to verify the information is correct, and double-check by running `date` within your bash terminal.

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