

District 214 Network Time Standard v. 2.0

Prepared by the 214 Technology Team

Introduction

In order to improve the use of NTP, we have implemented some changes to the NTP infrastructure. Please review the following instructions and then work with your building technology team to bring your computers up to this revised standard.

214 Time Server Standards Summary

All district servers and network infrastructure should be obtaining their NTP time synchronization from the district designated time server. The district time server is our Stratum 1 NTP server which gets its time directly from the Stratum 0 NTP NIST server in Colorado periodically. All district workstations should be obtaining their NTP (Stratum 3) time synchronization directly from one of the district servers in their respective buildings.

The District 214 NTP hierarchy will be as follows:

Stratum 0 (NIST NTP time server in Colorado)

Stratum 1 (District 214 NTP time server)

Stratum 2 (District 214 Macintosh NTP time servers)

Stratum 3 (District 214 workstations which do not need to function as an NTP server)

NO servers/computers should sync with servers outside of the district network (Internet).

Configure NTP on the designated server(s)

Connect to the server using Server Admin. Under the Settings section, select the "Advanced" tab. Click the "Enable NTP" checkbox. Click "Save". Make sure that the server is pointing to the District 214 NTP time server of **t-f.d214.org**. You may point all servers, and only servers, in your building to obtain their NTP time from the District 214 designated time server. For the sake of consistency, please enable NTP on your building's login server; this is very important.

Configure the clients

Select the "Date & Time Preference" Pane. Check the "Set Date & Time automatically:" checkbox. By default, Apple Americas/U.S. (time.apple.com) displays in the pull-down menu. Change this to the name of the designated DNS name for your building's time server address. The DNS names for building time servers are as follows:

t-p.d214.org	phs
t-j.d214.org	jhhs
t-w.d214.org	whs
t-r.d214.org	rmhs
t-e.d214.org	eghs
t-b.d214.org	bghs
t-f.d214.org	timeserve.d214.org

Please **do not** point any workstations to obtain their NTP time from the District 214 NTP time server as this is only designated to dole out time information to servers and network infrastructure only. We must follow this hierarchal standard in order to maintain reliable and consistent time synchronization throughout the entire district network.

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The NTP time server information is stored in the file `/etc/ntp.conf` and looks like this if you run `cat /etc/ntp.conf`:

```
server time.apple.com minpoll 12 maxpoll 17
```

After you change the "Date & Time Preference" Pane, `/etc/ntp.conf` should look like this (substitute `hs-time.dist214.k12.il.us` with the DNS name of your building's time server address):

```
server hs-time.dist214.k12.il.us minpoll 12 maxpoll 17
```

Note the privileges on `/etc/ntp.conf`:

```
-rw-r--r--  1 root  wheel  44  8 Nov 04:59 /etc/ntp.conf
```

Shoot the `/etc/ntp.conf` file out to all of your client computers. Restarting is not necessary.

If you have any questions, don't hesitate to contact Kevin or Brian.