How to Set Up an NTP Server for a XenServer Network

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XenServer gives an SSL (Secure Sockets Layer) error and fails to connect if there is a time difference between the Administrator console and the XenServer Host.

Using a Network Time Protocol (NTP) server can help to fix this problem.

Network Time Protocol synchronizes the Linux system's clock with an accurate time source. There are two such sources which allow the general public to synchronize to them: Stratum1 and Stratum2. Stratum1 uses an atomic clock for timing; Stratum2 NTP sites are slightly less accurate time sources.

Systems with any Linux distribution can be used to set up the NTP server for your entire network.

**Procedure**

1. Install the NTP package for your Linux distribution. Generally, the name starts with ntp- followed by a version number, for example: ntp-4.2.0.xxxxx.
2. Edit the file /etc/ntp.conf once the installation is complete, and identify the stratum1 and stratum2 servers you plan to use as shown in the following example:   
   server yourntp.server.org # stratum1  
   server secondntp.some.org # stratum2
3. Specify the type of access to allow these stratum servers on your NTP server. The following entry does not allow you to change run-time information or do a query on your NTP server.  
   restrict yourntp.server.org mask 255.255.255.255 nomodify notrap noquery   
   restrict secondntp.server.org mask 255.255.255.255 nomodify notrap noquery
4. If you are using this server to synchronize time for your network computers and network devices, you must allow networks which will accept NTP synchronization requests. Add: **restrict 192.168.0.1 mask 255.255.255.0 nomodify notrap**  **Note**: noquery is not specified here.
5. Set NTP to start at boot time using the following command  **service ntp start**
6. Start the services at boot time using the following command:  **chkconfig ntpd on**
7. Specify this NTP server when installing your XenServer Host. On an already installed XenServer Host, edit the file /etc/ntp.conf and add the following line to the end of the file:  
   server ntp-server ip
8. Use the following command to synchronize your XenServer Host with the NTP server,  **ntpdate -u NTP server ip**
9. Enter the following command to check if the XenServer Host is using the correct NTP server,  **ntpq -p**

The NTP package contains ntp-wait, ntptrace, ntpd, ntpdate, ntpdc,ntpq, ntptime, tickadj and ntp-keygen commands

**More Information**

[http://support.ntp.org/bin/view/Servers/StratumOneTimeServersStratum1]Stratum1 server](http://support.ntp.org/bin/view/Servers/StratumOneTimeServersStratum1%5DStratum1%20server)

[http://support.ntp.org/bin/view/Servers/StratumTwoTimeServers]Stratum2 server](http://support.ntp.org/bin/view/Servers/StratumTwoTimeServers%5DStratum2%20server)

**This document applies to:**

* [XenServer 3.1](http://support.citrix.com/product/legacy/xensv3.1/)
* [XenServer 3.2](http://support.citrix.com/product/legacy/xensv3.2/)
* [XenServer 4.0](http://support.citrix.com/product/legacy/xensv4.0/)
* [XenServer 4.1](http://support.citrix.com/product/legacy/xensv4.1/)
* [XenServer 5.0](http://support.citrix.com/product/xens/v5.0/)
* [XenServer 5.5](http://support.citrix.com/product/xens/v5.5/)