Sapling Master Clocks and NTP Time

Many facilities require an in-house time server to provide NTP (Network Time Protocol) or SNTP (Simple Network Time Protocol) time to all of the IP devices in the facility via LAN. These IP devices may be security cameras, phones, time and attendance systems, intercoms or other systems that can receive (S)NTP time.

As standard, Sapling Master Clocks will communicate the time signal only to the secondary clocks in a system. However, Sapling Master Clocks can be upgraded to become an in-house NTP server. This will save money eliminating the need to purchase a separate NTP Server. An upgraded master clock NTP server will be able to provide the time not only to the secondary clocks but also to other IP devices in the facility.

How the Master Clock Receives Accurate Time

As standard, a Sapling Master Clock will obtain the accurate time from up to 10 NTP Servers via LAN/Internet. If a facility does not have an in-house NTP Server, the master clock may obtain NTP time through the Internet. The Sapling Master Clock is designed to store up to 10 NTP server addresses to ensure system redundancy in the event that the connection to the first NTP server is lost. If that connection is lost, the Master Clock will automatically attempt to connect to one of the other nine NTP server IP addresses.

The Sapling Master Clock is also offered with an optional GPS receiver. This will allow the Master Clock to receive the time from satellites as the primary source for accurate time, while receiving time from NTP Servers as backup. The GPS option can also be used where the internet connection is highly secured and breaking through a firewall is not an option, or if the facility is located in a remote area where a dependable Internet connection is not available. Using a Sapling Master Clock with a GPS receiver in these situations provides a reliable solution for receiving the accurate time.

How a Sapling NTP Server Provides (S)NTP Time

All IP devices in the facility that are capable of receiving S/NTP Time via LAN should be set with the IP address of the Sapling NTP Master Clock as their accurate time source. Each IP device will periodically "ping" the Sapling NTP Master Clock in order to receive the time. This ensures that all IP devices in the facility will display the same, accurate time.

IP BASED SECURITY CAMERAS

IP INTERCOM SYSTEM

IP TELEPHONE

TIME & ATTENDANCE IP BASED SYSTEM

ANY OTHER NTP ENABLED DEVICES

NTP TIME PROVIDED VIA LAN NETWORK.

Enhanced Features

Sapling's Master Clock can be programmed to send an email alert to the system administrator if connection to a time source is lost. This feature keeps you fully informed about the status of your Sapling NTP Master Clock.

Upgrading a Sapling Master Clock to act as an NTP server will not only save money (as it eliminates the need to purchase a separate NTP server), but it will also keep all IP systems synchronized to the same accurate time source.

For more information about Sapling NTP Master Clocks, please contact your dedicated Sapling representative.