Interfacing Sapling Clocks / Master Clocks with Existing Clock Systems

Sapling Synchronized Clock Systems are in demand across the globe. Our advanced technologies and high quality standards attract customers from the United States to Australia, and everywhere in between. Oftentimes, customers turn to Sapling to replace or add clocks to an existing system from a third-party manufacturer. If your facility is currently using a synchronized clock system from another manufacturer and you are interested in adding the simplicity and reliability of Sapling clocks to that system, we may have a solution for you.

Sapling offers different types of synchronized clock systems: Wired, Wireless, and IP. Each of these systems is capable of interfacing with third-party synchronized clock systems. For everything from a single clock add-on to adding an entire master clock system, Sapling can offer a variety of options to interface our clocks with an existing system.

Wired System Replacement/Interfacing Solutions

Sync-Wire

Sapling clocks support the vast majority of three wire sync protocols, including 59-minute correction, most 58-minute corrections, and National Time/Rauland. As such, Sapling can most likely provide add-ons or replacement clocks for existing sync-wire systems.

Since there is only one three-wire sync 59-minute protocol, if the facility's existing system is using that specific protocol, Sapling can provide replacement or add-on clocks.

If the facility's existing system uses a 58-minute correction or National Time/Rauland, please contact your dedicated Sapling representative with the following information:

1. The system's sync-wire protocol
2. The full part number of a secondary clock in the system (this should be printed on the back of the clock)
3. The voltage input of the system's secondary clocks (this should be printed on the back of the clocks)
4. Type of clock needed: Digital (4 digits or 6 digits) or Analog
5. Size of Clock Needed: 2.5" or 4.0" digits Digital; 9", 12", or 16" Analog
6. With the above information, we can determine if this solution is a match for you.

Sapling engineers its clocks with a focus on ease of installation. Our SAM series analog clocks have the advanced ability to automatically detect the correct sync-wire time protocol when installed, while our SBD 3300 digital clocks are easily set to the correct time protocol input utilizing the front push buttons. This makes Sapling clocks an easy addition to an existing sync-wire system.

IP-PoE or Wi-Fi System Replacement/Interfacing Solutions

IP-PoE or Wi-Fi Clocks

Sapling IP-PoE Clocks and Sapling Wi-Fi Clocks are capable of taking the time data from any NTP or SNTP server via LAN and the internet without the need for a Sapling Master Clock. If the facility has an in-house NTP or SNTP server, Sapling's PoE-powered IP Clocks and Sapling's Wi-Fi Clocks are able to receive the time data over LAN, synchronizing them with the existing system.

If the facility's existing synchronized clock system is taking the time data from a third party NTP or SNTP server, it is easy to set Sapling IP-PoE or Wi-Fi Clocks to take the time from the same NTP or SNTP server. Simply input the IP address of the NTP or SNTP server as the clocks' primary NTP time source and the IP-PoE or Wi-Fi Clocks will synchronize to the same time as the existing system. With their ability to take the time data from any NTP or SNTP server, Sapling IP-PoE Clocks or Sapling Wi-Fi Clocks make for a seamless addition to any synchronized clock system.

Adding a New or Replacement Master Clock with Secondary Clocks for an Existing Wired System

If you are looking to replace a facility's existing master clock or looking to add a master clock with secondary clocks, Sapling Master Clocks can support the most commonly used sync-wire time protocols and may be able to synchronize to the same time source as an existing master clock.

Adding a New or Replacement Master Clock in a Sync-Wire System

Sapling Master Clocks support three-wire sync 59-minute protocol, most 58-minute protocols, American Time & Signal, Rauland Digital, and National Time/Rauland sync-wire time protocols. If the facility's existing sync-wire system is using one of these supported protocols, a Sapling Master Clock is capable of replacing the existing master clock and providing time data to the existing secondary clocks.

In addition to providing the time data to an existing sync-wire system, the same Sapling Master Clock can also send the time data (via a converter box) to Sapling Wired Clocks, utilizing the advantages of the Sapling 2-Wire System. The same Sapling Master Clock can also send the time data (via a converter box) to Sapling Wireless Clocks if equipped with a transmitter. This flexibility affords you the ability to gradually replace your old system's sync-wire clocks with the latest technology.

For most sync-wire systems, Sapling Master Clocks are a perfect addition, equipped with a convenient built-in web interface that is accessible using any computer connected to the same LAN without the need for additional software.

Syncing to the Same Time Source for an Existing Wired System

An easy way to synchronize a Sapling clock system with a facility's existing synchronized clock system is to set the Sapling Master Clock to the same time source as the existing master clock in the facility. Sapling Master Clocks are capable of taking the time data from any NTP or SNTP server, as well as a GPS. If the existing master clock system is set to take the time data from an (S)NTP server or a GPS, a Sapling Master Clock can take time data from the same source, which will synchronized the systems. This solution allows you the flexibility to choose the Sapling system best suited for your needs or preferences, while not being limited by the existing system.

Adding a New or Replacement Master Clock with Secondary Clocks for an Existing Wireless System

If you would like to utilize Sapling's advanced wireless technology in your facility with an existing system, there are a couple of different options to achieve this goal.

Syncing to the Same Time Source for a Wireless System

Sapling Master Clocks are capable of taking the time data from any NTP or SNTP server. If your existing wireless master clock system is using an (S)NTP server or a GPS as its time source, a Sapling Master Clock can be programmed to take its time data from the same time source as the facility's existing master clock, synchronizing the Sapling clock system with the existing clock system. This solution allows you to add Sapling's advanced wireless clocks to a facility's existing wireless system, giving you the benefit of Sapling wireless clocks' built-in repeater for maximum coverage and reliability.

Once-A-Day Contact Closure

Even if the above options are not applicable to your needs, Sapling may still be able to offer a solution. A Sapling Master Clock has the capability to receive a once-per-day contact closure from an existing master clock, which will synchronize the Sapling Master Clock with the existing master clock. This will synchronize the entire existing clock system with the entire Sapling clock system.

Adding a New or Replacement Master Clock for an Existing IP Clock System

NTP Master Clock

If you are looking to add a redundant time source to a facility's IP clock system, a Sapling NTP Master Clock is the solution for you. The Sapling NTP Master Clock is upgraded to act as an NTP server, allowing it to provide NTP time to any IP device in a facility capable of receiving it. Sapling NTP Master Clocks offer layers of redundancy, greatly reducing the chances of the clocks being unable to synchronize to an accurate time source. Sapling NTP Master Clocks come pre-programmed with the IP addresses of 10 free third-party NTP servers from around the world, so if one server goes down, there are nine backups remaining. In addition, Sapling offers an NTP Master Clock equipped with a GPS receiver, which provides another layer of redundancy and reliability to the system.

A Sapling NTP Master Clock is the perfect solution to improve an existing IP clock system.

Sapling is recognized as a world leader in synchronized clock systems, blending innovative technology with unmatched quality, reliability, and support. To add Sapling clocks or a Sapling Master Clock to an existing third party synchronized clock system, or if you would like to explore the option of upgrading to a new clock system with the most advanced technology, please contact your dedicated Sapling representative.