sapling
Synchronized Clock Systems

Using a Master Clock with an IP Clock System

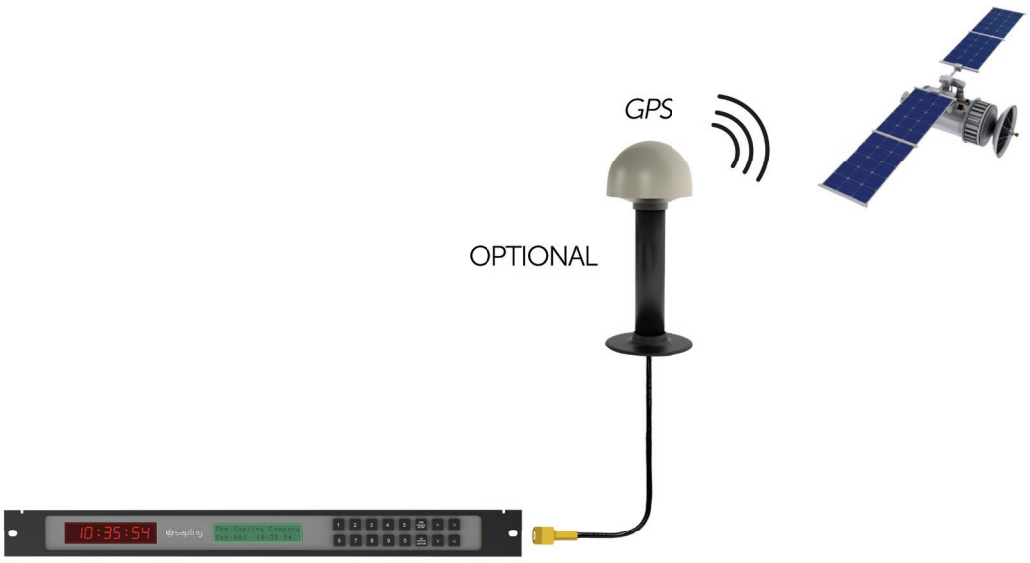
The Sapling IP Clock System has many advantages and features, including an intuitive built-in web interface, multiple NTP time sources, self-diagnostic capabilities, email alerts and much more. Since Sapling IP Clocks can receive NTP time directly via standard network (CAT 5/6) cable, the use of a master clock is only optional with this system. There are certain scenarios, however, where a master clock might be required or beneficial with an IP clock system.

How Sapling IP Clocks Receive Accurate Time

Sapling IP Clocks connect to a facility's LAN using a standard network (CAT 5/6) cable and comes preprogrammed with 10 NTP server addresses as standard. The user has the option of changing these NTP server addresses (to outside NTP servers through the internet or to an in-house server) via the clock's built-in web interface. Sapling's IP Clocks are designed with the option of storing up to 10 NTP server address to ensure redundancy in the event that connection with the first NTP server is lost. The IP Clock will automatically attempt to connect to the next stored NTP server address until accurate time is detected.

Scenarios When a Master Clock Might Be Used With an IP System:

1. For facilities without a reliable internet connection or in-house NTP server, Sapling can offer a master clock with the optional GPS receiver. In this case, the master clock will obtain the accurate time from a GPS satellite and relay it to the IP Clocks.



SAPLING MASTER CLOCK

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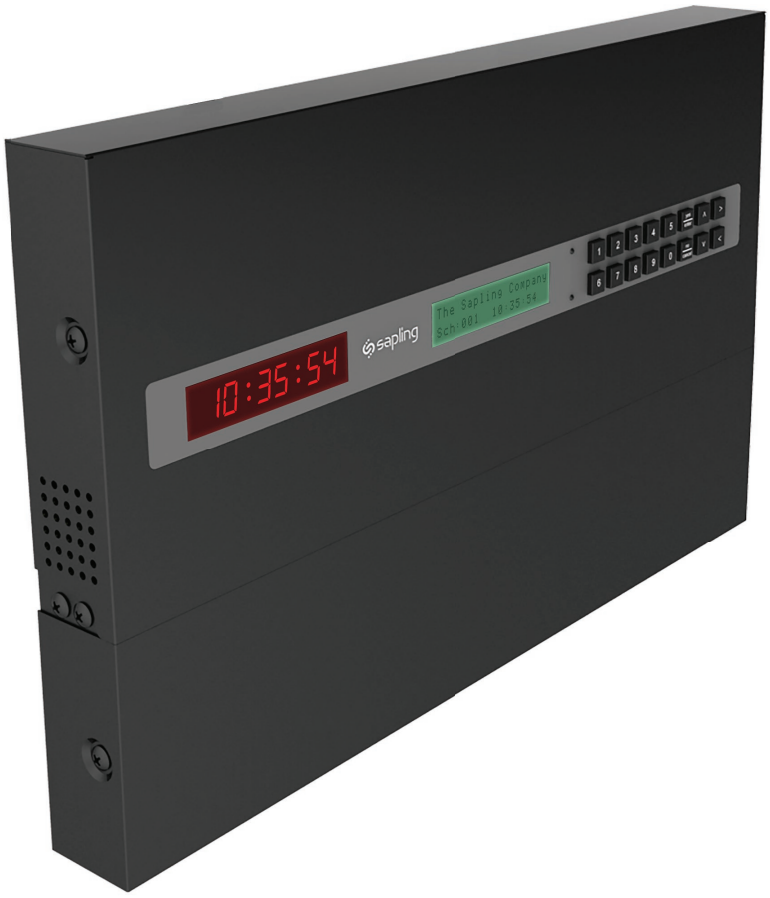
2. Some facilities require an in-house NTP server in order to synchronize and provide time to other IP devices, such as: IP security cameras, IP phones, IP intercoms, or any other device capable of receiving (S)NTP time via LAN. Sapling offers a master clock model that can act as an NTP server to provide all IP devices (including IP Clocks) accurate time.

3. Some facilities require a master clock that is capable of controlling other systems via programmable relays. Sapling offers an SMA 3000 Series Master Clock model, which can come with either 4 or 8 programmable relays, that may control a variety of systems by switching them on and off at predetermined times. These systems may include school bell systems, lights, heating/cooling, and many more.



The Sapling IP System offers a flexible solution since each IP clock can receive time from any NTP Server. IP Clocks are easy to install and do not necessarily require a master clock, making it suitable for projects of all sizes. A master clock is optional with our IP System, though it can be useful for redundancy, synchronization of other IP devices, and controlling other systems.

For more information, please contact your dedicated Sapling representative.

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