



Monmouth University

User Profile:

Monmouth University's historic 155-acre campus is located in attractive, residential West Long Branch, near the ocean and close to New York City and Philadelphia. Monmouth offers a high-tech learning environment, professors who meet the highest standards for teaching and academic excellence, and the vibrant life of a large university combined with the individual attention typical of small liberal arts colleges.

Business Situation & Challenge:

Monmouth University, like many institutions, was using a dedicated computer server to distribute time across its network. The source of time for this server was obtained through the Internet. All seemed fine with this time source until a power outage affected the campus and the surrounding community. The University, luckily, was able to remain functional, as they had a back-up power source. Their data servers remained fully operational.

The power outage lasted about four days, but the real problem occurred about a day into this situation. Even though the campus had power, the Internet connection was lost shortly into the outage. With the loss of the Internet connection, the dedicated server used for time distribution was unable to access its source for the network time.

Immediately the University began to have problems with synchronization of time across the network. With no available time source, each machine and server in the network began to experience drift, which became an enormous concern.

Solution:

Monmouth realized that it needed to rectify this situation. With the loss of the Internet time source, University staff understood how unreliable that source truly was.

The University came to Spectracom for its solutions in time synchronization. Spectracom's NetClock® is a GPS-enabled NTP time server tracking up to 12 satellites. The NTP time server is a Stratum 1 device that receives official UTC (Coordinated Universal Time) through the GPS signal. This time is so accurate that it is considered Legally Traceable Time®.

NetClock synchronizes time from one source across the network. It is secure because it is behind the edge firewall; there is no need to open port 123 in the edge firewall and risk synchronizing from an Internet-based time source. NetClock is reliable because, if the GPS signal is ever lost, the device can rely on OCXO and Rubidium Oscillator options to keep timing accurate across the network during the signal loss. This eliminates the risk of time drift.

Results and Benefits:

Monmouth found that Spectracom's NetClock time server provided it with a secure, accurate, and reliable time source. NetClock was able to synchronize time on the network and prevent the complications that could arise from using an alternate source and risking the possibility of time drift. The University also incorporated a TimeView® clock that synchronizes with the time server. The TimeView displays the University's accurate and reliable time for all to see.