

Microsoft®: DirectBand™

User Profile:

Microsoft® is the worldwide leader in software, services and solutions that help people and businesses realize their full potential.

MSN® Direct, part of Microsoft's Smart Personal Objects Technology (SPOT) initiative, is a service that delivers personalized information via the Microsoft DirectBand™ wireless datacast network to a variety of mobile and low cost devices, including wristwatches and weather stations.

Business Situation & Challenge:

Microsoft Corporation was in need of a system that could support accurate time for their DirectBand network, which carries the MSN Direct service. DirectBand is a North American wireless datacast network that constantly transmits information such as time, stocks, news, sports, weather, movie times, traffic, local events, and Outlook® calendar appointments to subscribers that utilize MSN Direct wristwatches and other devices. DirectBand transmits data over the FM radio spectrum covering 125 cities in the United States and Canada. Microsoft needed to ensure that time displayed on devices in the network is always accurate.

Besides accurate time on a subscriber's MSN Direct wristwatch, Microsoft was also looking for a way to ensure that the time on the network servers that support DirectBand was synchronized and accurate. Algorithms and protocols that DirectBand employs, to ensure reliable delivery of data to subscribers, relies on the servers in the network being synchronized with accurate time. The time source for the system needed to deliver better performance than what a time source over the Internet can provide.

Solution:

Microsoft was led to Spectracom® for its solutions in time synchronization. Spectracom's NetClock® is a GPS enabled NTP (Network Time Protocol) time server tracking up to 12 satellites. The NTP time server is a Stratum 1 device that receives official UTC (Coordinated Universal Time) time through the GPS signal. NetClock synchronizes time from one source across the network and is secure for the fact that it is behind the firewall, so there is no need to open a port in the firewall and risk synchronizing from an Internet based time source.

Microsoft deployed two 9189 GPS enabled NetClock's to build redundancy in the system, guaranteeing their subscribers that the time would be accurate and reliable. Spectracom's time servers are so accurate and reliable that they are able to provide Legally Traceable Time.

Results and Benefits:

Microsoft found that by utilizing Spectracom's NetClock, it provided them with a secure, accurate and reliable time source. NetClock was able to synchronize time on Microsoft's network, thus ensuring that the algorithms and protocols deployed to support DirectBand functioned accurately and efficiently.

NetClock is a Stratum 1 NTP time server, so Microsoft was able to provide greater performance in network time through GPS that just can't be accomplished by using an Internet based time source. This is important as subscribers to the MSN Direct service are relying on Microsoft to provide accurate and reliable time, which they are now able to deliver.

Microsoft found that Spectracom was able to provide them with a secure, accurate, reliable and cost effective solution for their internal network timing needs, as well as the time they provided for their customers.

Specifications subject to change or improvement without notice.
Spectracom, NetClock and Legally Traceable Time are all Spectracom trademarks.
All other products are identified by trademarks of their respective companies or organizations.
Copyright 2005 Spectracom Corporation. Printed in USA.

0805-MS_DirectBrand-CaseStudy(A)