



SyncServer S100

High Performance, Secure Network Time Server

KEY FEATURES

- Dedicated Secure NTP Time Server
- Supports NTP Versions 2 - 4
- Synchronizes with Another SyncServer or An External Time Source
- Independent Time Acquisition from GPS, Dial-Up Service, or NTP Servers
- Secure Web-Based Setup and Management
- Secure Shell (SSH) and RS-232 Remote Interface
- Dual, Ethernet 10/100Base-T Interface
- Supports SNMP
- 1U Height, Rack-Mountable Unit
- High Performance Oscillator
- Convenient Front Panel Connections
- Web-Based Help
- Email Alerts for Alarms or Errors
- IRIG-B Output
- 1PPS Output
- Rubidium Oscillator Upgrade
- Two-Year Warranty

Your systems need to know what time it is. Business transactions, security controls, digital signatures, and system performance tools can't be trusted unless they all run on the same time, and unless that time is accurate and secure. Provide time that your systems can trust with Symmetricom's SyncServer® S100.

SyncServer S100 is a network time server.

It acquires time either from a non-network source or from another SyncServer and delivers it to computers and other devices on a network. One SyncServer needs to acquire time from a known good source for all other SyncServers within the network to synchronize with that source.

SyncServer S100 is accurate. It acquires UTC (Coordinated Universal Time) from GPS signals or by dial-up to the National Institute of Standards and Technology (U.S.) or other UTC source. Only one SyncServer S100 in your network need acquire UTC directly, although SyncServers are typically deployed in pairs for high reliability.

SyncServer S100 is secure. Computers on a network synchronize with a local time source, such as SyncServer, using NTP, the Network

Time Protocol, to exchange packets of time. SyncServer implements NTP Version 4. This minimizes the ability of hackers to spoof time packets and use NTP to gain access to your systems. Unlike previous versions, NTP Version 4 implements asymmetric encryption – the same technique used by secure Web sites to protect credit card numbers from unintended interception.

SyncServer S100 management is Web-based.

Set up and configure all SyncServers from any point on the Web using a standard, secure browser. SyncServer S100 also supports SNMP (Simple Network Management Protocol) for easy integration into your existing management hierarchy. For maximum flexibility, SyncServer S100 can also be set up, configured and managed using Secure Shell (SSH) or a RS-232 serial connection.

SyncServer S100 is easy to set up. It's not always convenient or possible to receive GPS signals at each location but not all SyncServers need to be connected to an external time source so multiple antennas are not necessary.



SyncServer S100 High Performance, Secure Network Time Server



SyncServer S100 Specifications

NETWORK PROTOCOLS

- Network Time Protocol (NTP)
 - NTPv2 (RFC 1119)
 - NTPv3 (RFC 1305)
 - NTPv4 (IETF Draft Standard)
- MD5 Authentication (NTP)
- SNTP (RFC 2030)
- Daytime Protocol (RFC 867)
- Time Protocol (RFC 868)
- SNMPv1 (RFC 1157), SNMPv3 (RFC 3411-3415)
- MIB II (RFC 1213)
- DHCP (RFC 2131)
- SSH (Secure Shell)
- HTTP/HTML/HTTPS (RFC 2616)

FRONT PANEL

- Input/output connections
 - Network: Dual, 10/100Base-T Ethernet
 - Serial port A: RS-232/DB9 DTE
 - Serial port B: Configuration and status RS-232/DB9 Sysplex Timer
- Indicators
 - Front LED indicators: Power, HDD Activity, Ethernet Link & Activity

MECHANICAL/ENVIRONMENTAL

- Power: 100-240 VAC, Auto-switching 50-60 Hz
- Size: Form Factor 1U; 1.75" H x 17" W x 18" D (4.45 cm H x 43.2 cm W x 45.7 cm)
- Operating temp/Humidity: 0° C to +45° C/5-95% @ 40° C
- Weight: 18 lbs. (8.2 kg.)
- Certification: FCC, CE, UL

GPS RECEIVER/ANTENNA (OPTIONAL)

- GPS receiver: Eight channel, C/A code
- Antenna size: 3.04" D x 2.94" H (7.72 cm x 7.47 cm)
- Antenna operating temp: -40° C to +85° C
 - Acquisition: <5 minutes
 - Cable type: 50' (15 m)/RG58

TIMING ACCURACY

- Network: 1-10 milliseconds, typical
- GPS receiver (optional): <1 microsecond (relative to UTC, GPS Tracking)
- Dial-Up service: <1-10 milliseconds, on sync
- IRIG B out: <5µs to input
- 1PPS out: <5µs to input
- Oscillator: Rate stability: 5x10⁻⁷

CLIENT SOFTWARE

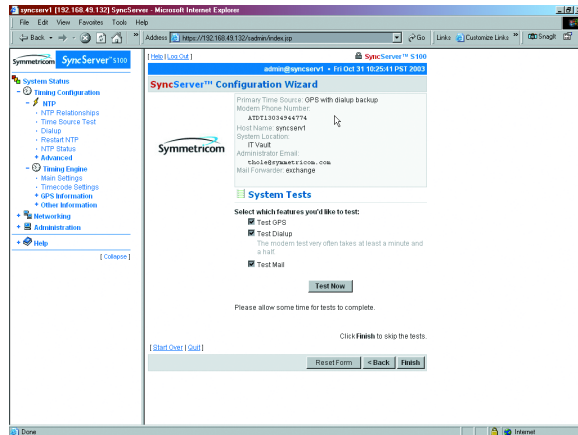
- An NTP client/daemon is required for client-side synchronization with any network time server, including the SyncServer S100. Included with the S100 is Symmetricom's SymmTime™ NTP client for Windows 95/98/NT/2000/XP. Comprehensive time client, server & management software for easy distribution, management and monitoring of time across the network is also available.

PRODUCT INCLUDES

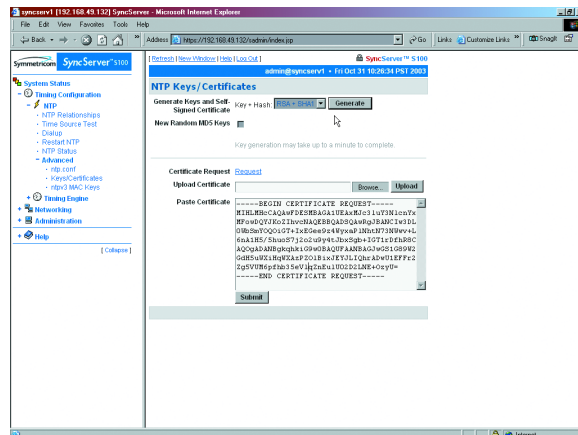
- SyncServer S100 Network Time Server, two-year warranty, power cord, manual, SNTP client software phone cord, RS-232 cable and BNC timing cable* (IRIG-in, IRIG-out, 1PPS out). GPS Option adds: L1 GPS antenna, 50' (15 m) RG-58 antenna cable, 1' (30 cm) antenna mast, two (2) mounting brackets.
- * BNC cable is not included or applicable with Rubidium oscillator option.

OPTIONS

- GPS receiver
- Long antenna cable (Belden 9913) (GPS)
- High gain antenna (GPS)
- In-line amplifier (GPS)
- Lightning arrestor (GPS)
- Rack mount slides
- Rubidium oscillator (removes IRIG-B output)
- Comprehensive time client, server & management software for easy distribution, management and monitoring of time across the network is also available.
- NTP Network Time Displays, 2" or 4" (5 cm or 10 cm), 6 digit, red LEDs



Set-up of the SyncServer S100 is straightforward with the Configuration Wizard.



Digitally-signed NTP packets enhance security.



SYMMETRICOM, INC.
TT&M DIVISION
 3750 Westwind Boulevard
 Santa Rosa, California
 95403
 tel: 707.528.1230
 fax: 707.527.6640
 ntp-systems@symmetricom.com
 www.ntp-systems.com

SYMMETRICOM, INC.
CORPORATE
 2300 Orchard Parkway
 San Jose, California
 95131-1017
 tel: 408.433.0910
 fax: 408.428.7896
 info@symmetricom.com
 www.symmetricom.com