Unfailing Time Availability

High-Performance, Enhanced Security Network Time Server

Today's network and computer systems require time-sensitive data for such tasks as logging events, records management, network optimization and troubleshooting, and synchronizing operations.

Accurate timestamping is critical for root-cause analysis, detecting when problems arise, and discovering correlations. When network devices are out of sync by a few milliseconds, or even a few seconds, determining the sequence of events can be challenging.

NTP is a network time protocol that is used to synchronize device clocks in a packet-switched, variable latency network to within a few milliseconds of Coordinated Universal Time (UTC). In actuality, utilizing a precision time source such as a cesium oscillator or GPS receiver, NTP gives nominal accuracies of low tens of milliseconds on WANs and, sub-milliseconds on LANs.

Underscore's Unfailing Time Availability (UTA) NTP server delivers network-wide, split-second timing with the highest security, reliability, and ease of management. It is intended for applications that require an affordable state-of-the-art NTP server.
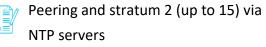
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Benefits

- Accurate and secure source of network time inside your firewall.
- Hundreds of thousands of NTP clients can be reliably synchronized to within 1⁄2 - 2 milliseconds of each other.
- Very reliable and easy-to-use network time appliance for modern networks and business operations.
- Tracking security breaches, network usage, or problems affecting a large number of components.
- Reducing confusion in shared file systems. It is important file modification times to be consistent, regardless of what machine the file systems are on.

- IPv4/IPv6 dual stack.

- Inbuilt Security and Access Control Stratum 1 NTP v2, v3, v4 Time Server

- Peering and stratum 2 (up to 15) via NTP servers

- Precision GPS time reference

- High bandwidth NTP performance

- Synchronizes security systems, computers, network elements (including PLC's, IED's, telemetry systems), specialty devices, display clocks

- Meets regulatory compliance standards

Capabilities

- Effective use of 1pps signal from satellite to maintain nanosecond accuracy.
- Secure Precision Time Protocol (PTP) and Network Time Protocol (NTP) support
- TCXO or OCXO to keep the hardware clock stable with minimal errors.
- Hardware timestamping.
- Precision time for the Network with less than 300 millisecond drift over a year.
- Broadcast or Unicast mode of synchronization.
- Support GNSS, GLONASS, Galileo, NavIC constellations
- Provides secure and error free time for the network in a failure tolerant manner.
- Inbuilt firewall preventing unauthorized access and tampering with the system.
- Includes a secure web interface, enabling users to configure SMTP server settings for alert notifications and forward NTP logs to a remote syslog server.

Specifications

Specification	Details
Time facility	Using Universal Time Coordination (UTC)
Accuracy	Sub millisecond
Inputs	GPS antenna input through USB connector
Length of GPS sensor cable	2 meters, extendable to 30 meters with optional attachment
Outputs	Minimum 2 RJ-45 1Gbps LAN ports (independent)