



# TimeNX

## Network Time Server for Enterprise, Cloud, and High Performance Computing

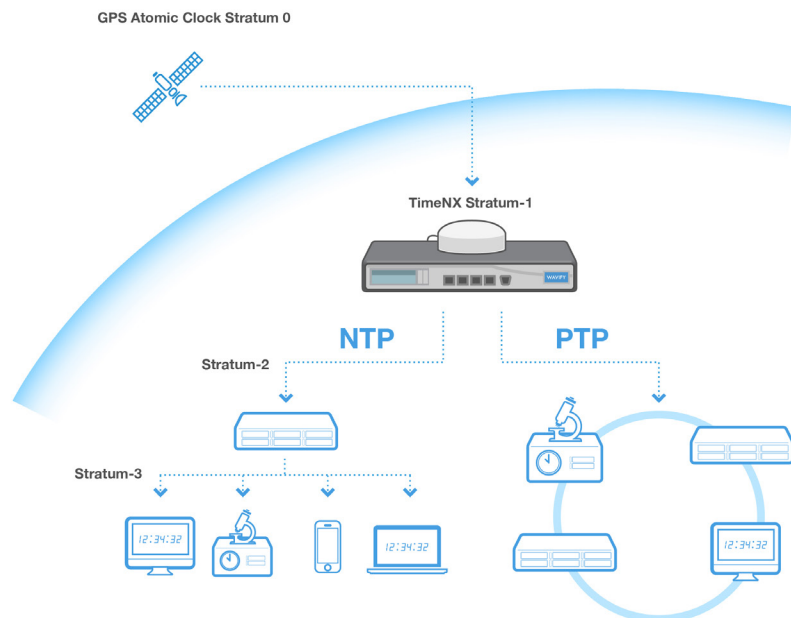
### Key Features

- All-in-one time services - NTPv2/3/4, SNTP, PTPv2
- Stratum-1 via GPS with optional rubidium clock
- Stratum-2 peering
- Up to 12,000 NTP requests per second
- Up to 6x 10/100/1,000 Mbps
- Multiple VLANs supported
- Built-in stateful firewall with MD5 NTP authentication
- Built-in DNS Caching
- GPS and authentication log
- Encrypted web-based management
- Syslog, SNMP trap and email alert
- 1U rack mount

Wavify TimeNX is the timing and synchronization solution for present technology's higher demand of time accuracy. The solution is designed to be enterprise time synchronization server for large-scale system where thousands of devices are involved, while still maintaining high security and privacy.

Wavify TimeNX provides nanosecond-level time precision for secured networks in a compact hardware of rack-ready 1U appliance, supporting time referencing through NTPv4 Stratum-1 time source via default GPS and other reference options.

The unit comes ready with new precision timing standard IEEE-1588 PTPv2 grandmaster. It is perfect for internal network that needs nano/millisecond-precision in all network device timing like trading floor or laboratory equipments that need accurate measurement and control. The PTP deployment option is included with no extra license cost.



TimeNX is optimal for standardizing time of system or organization. TimeNX's inbuilt 6-gigabit ports are able to support up to 12,000 NTP requests per second. The system can be deployed either as a standalone or together with other Stratum-1 NTP time source.

The precision of time over the GPS availability can be further enhanced by adopting optional modules such as internal Rubidium time source option that keeps the nanosecond-precision up to 72 hours.

### Versatile Network Time Server for All Devices

Wavify TimeNX is an all-in-one timing and synchronization server designed for network, security, and other equipments that require accurate time service. The solution includes complete support of NTP, SNTP, and PTP timing protocols, along with features such as additional time source and output settings.

The versatility and capability of TimeNX make various applications possible in different fields:

- Cloud Computing and Virtualization
- Audit and Compliance
- Video Streaming and Broadcasting
- Manufacturing Automation
- Network and Security
- Scientific High Performance Computing
- Ubiquitous Computing
- Military Application

### Secured for Enterprise

As security is a necessity of organization network, Wavify TimeNX comes with various security measures such as firewall to protect your network against attackers, MD5 authentication to limit the access to TimeNX, and log to increase traceability of TimeNX condition.

# Wavify TimeNX Appliance Models



	NX-200	NX-300	NX-500	NX-1000
<b>Form Factor</b>	1U Rack Mount	1U Rack Mount	1U Rack Mount	1U Rack Mount
<b>NTP Performance</b>	1,000 req/s	2,500 req/s	4,400 req/s	12,000 req/s
<b>Stratum-1</b>	<i>Optional</i>	Yes	Yes	Yes
<b>Stratum-2 Peering</b>	Yes	Yes	Yes	Yes
<b>Time Source</b>	<i>Option: GPS with PPS</i>	GPS with PPS	GPS with PPS <i>Option: TCXO, OCXO, Rubidium</i>	GPS with PPS <i>Option: TCXO, OCXO, Rubidium</i>
<b>Time Output</b>	Network	Network	Network <i>Option: PPS, E1/T1</i>	Network <i>Option: PPS, E1/T1</i>
<b>Network Interface</b>	2x 10/100/1,000Mbps	2x 10/100/1,000Mbps	4x 10/100/1,000Mbps	6x 10/100/1,000Mbps
<b>Management</b>	SSH, Web, Console	SSH, Web, Console, LCD	SSH, Web, Console, LCD	SSH, Web, Console, LCD
<b>Power Supply</b>	Single	Single	Single	Single <i>Option: Redundant Power Supply</i>

## Specifications

### Accuracy

- Nanosecond range via GPS and PPS Stratum-1
- Millisecond range via Stratum-2 peering
- Up to 72-hours accuracy hold-over with optional rubidium clock

### Protocols

- NTPv2 (RFC1119)
- NTPv3 (RFC1305)
- NTPv4 (RFC5905)
- SNTP (RFC2030)
- PTPv2
- HTTPS
- IPv4
- IPv6
- SCP
- SSH
- Telnet
- SNMP

### Network Support

- IPv4
- IPv6
- TCP
- UDP
- ICMP
- HTTPS/SSL
- IEEE 802.1Q VLAN Tagging

### Security

- Built-in Firewall with 200Mbps Throughput
- MD5 NTP Authentication

### Management

- Serial Console
- CLI/SSH
- SCP
- Secure Web Management

### Log and Alert

- SNMP
- Syslog
- Email Alert

*\*All specifications are subject to change without notice.*

