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GPS clocks, NTP time servers and master clock systems · Made in India since 1985
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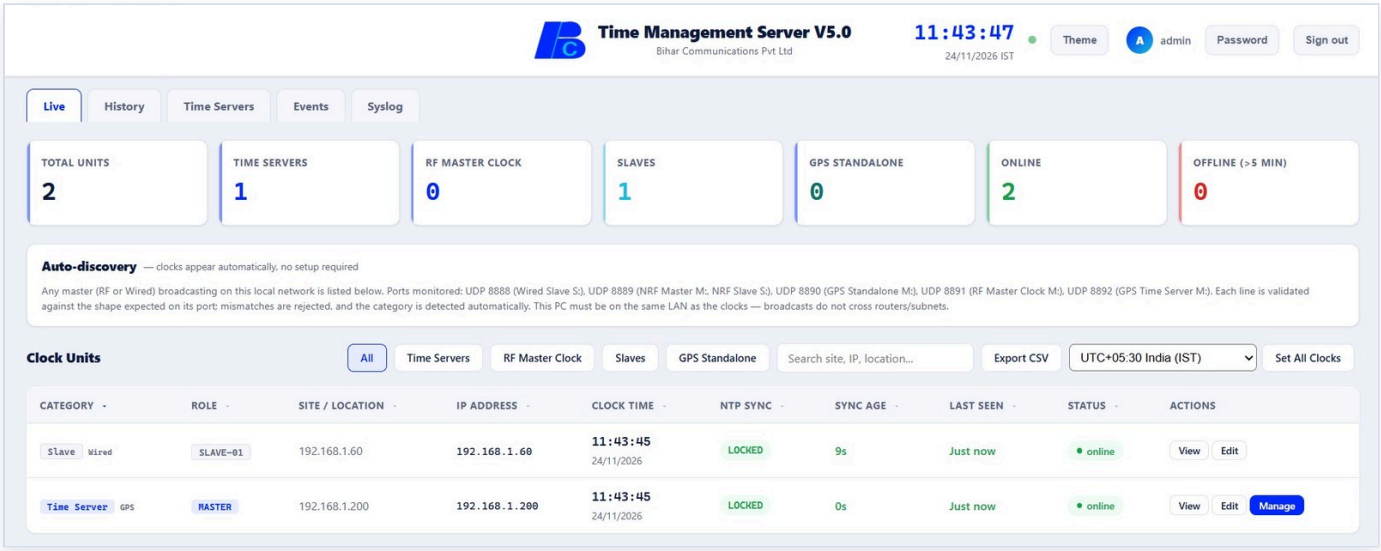
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Time Management Server V5.0

Central monitoring and management software for GPS time servers and clocks

Time Management Server is Windows software that monitors and manages every ORNATE GPS time server, master clock and slave clock on a network from one screen. Clocks are found automatically from their status broadcasts. Their time, synchronisation state and health are shown live and kept as history, and GPS time servers can be configured remotely with signed, password-protected commands.

It runs as a desktop application on any Windows PC on the same LAN as the clocks, and any browser on the LAN can open the same dashboard. No cloud service, internet connection or per-device setup is needed.



Live view: unit counters, a GPS time server and a wired slave clock, both LOCKED, with sync age, last-seen time and status.

Automatic Discovery

GPS time servers, RF master clocks, wired and RF slave clocks and GPS standalone clocks appear as soon as they are powered. The category is detected from each broadcast; there is no IP list to maintain.

Live Monitoring

Counters for total, online and offline units. Per unit: clock time and date, NTP sync state, sync age and last seen, refreshed every 2 seconds. Units silent for over 5 minutes are flagged offline.

Remote Time-Server Configuration

Change PFC outputs, RS-232 / RS-485, SYSLOG, time zone, alarm, network, PTP and the device password without visiting the site. Every value is read back from the unit to confirm the change.

Secure by Design

Dashboard login with hashed passwords. Commands to time servers are signed (HMAC-SHA256) with single-use codes; the device password never travels on the network. Repeated wrong passwords are locked out.

FEATURES

- Automatic discovery of all ORNATE clocks on the LAN
- Live status, refreshed every 2 seconds
- Filter by category; search by site, IP or location
- Site, location and notes for each unit
- Set the time zone of every clock in one click
- Time-server status: GNSS, PPS, holdover, alarm, ports
- Remote settings with read-back confirmation
- Bulk settings across selected time servers
- Event list and alarm banner
- Built-in SYSLOG receiver
- 7-day history with Excel export; CSV export
- Follows a time server when it fails over to a backup port

TIME-SERVER MANAGEMENT

Manage panel (one per GPS time server)	
Status	Clock state (LOCKED / HOLDOVER / UNSYNCED), GNSS fix, satellites, PPS, holdover time, alarm, licence, firmware, uptime; link and load of NTP ports 1–3 and the PTP port
PFC outputs	PFC 1–4: on / off, mode (PPS to PPD), pulse width, offset, polarity, UTC or local time; test pulse
Serial outputs	RS-232 and RS-485: format (NMEA ZDA, NGTS, T-format) and baud rate
SYSLOG	On / off, two servers, facility, minimum severity, event groups; send a test message
Time & alarm	Time zone (UTC −12:00 to +14:00); holdover time before the alarm
Network	IP, mask and gateway of each NTP port; management primary port and automatic failover
PTP	Profile, transport, delay mechanism, domain, priorities, message rates and IP; NTP on the PTP port
Device	Change the device password, reboot, factory defaults

History, events and reports	
History	Every unit logged about once a minute, kept 7 days; filter by date, category and IP; download as Excel
Graphs	Last 24 hours per time server: satellites in use and NTP requests per second
Events	Sync state changes, alarms and port link changes for each unit; alarm banner when a time server is in holdover, unsynchronised or in alarm
SYSLOG receiver	Built-in receiver, so this PC can be the log server with no other software
Export	Live unit list to CSV; history to Excel

Specification	
Operating system	Windows 10 / 11, 64-bit
Delivery	Single program file; no installation and no separate database server
Access	Desktop window on the PC; any browser on the LAN at http://<PC address>:3000
Network	PC on the same LAN / subnet as the clocks (discovery uses broadcasts)
Ports used	UDP 8888–8892 status broadcasts (in) · UDP 8000 time-server commands · UDP 514 SYSLOG (optional) · TCP 3000 dashboard
Supported devices	ORNATE GPS time servers (e.g. ORNATE 7000 TSDRNT), RF master clocks, wired and RF slave clocks, GPS standalone clocks
Users	Dashboard login; username and password can be changed
Data	Stored on the PC only; device passwords are never stored, only derived keys

Remote configuration and extended status need GPS time-server firmware 1.1 or later; other clocks are monitored from their standard broadcasts.

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