MOBATIME

SWISS TIME SYSTEMS

## NETWORK TIME SERVER

# NTS

*The network time server NTS is a compact and powerful NTP time server with a very good price-performance ratio. It can be used almost anywhere to synchronize time service systems, computers, fire alarm systems, audio and video surveillance systems, etc. with the exact time via NTP.*

# HIGHLIGHTS

### COMPACT

The NTS is about a third the size of conventional time servers and therefore extremely space-saving.

### COST-EFFECTIVE

With the NTS, a time system can be implemented even on a small budget.

### VERSATILE MOUNTING

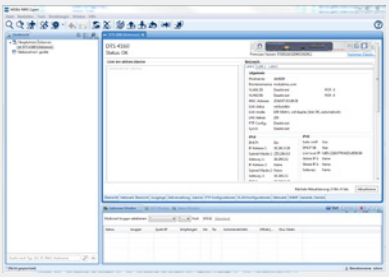
The NTS can be screwed to a wall using mounting brackets. 19" rack installation is also possible with the optional mounting elements.

### VARIANTS

**NTS (Art. no. 117 990)**
Standard version, configurable via terminal or MOBA-NMS

**NTS IT (Art. no. 118 464)**
Version for IT systems, configurable via terminal or web interface

**Mounting kit (Art. no. 111 782)**
Aluminum brackets for 19" rack mounting (NTS not included)

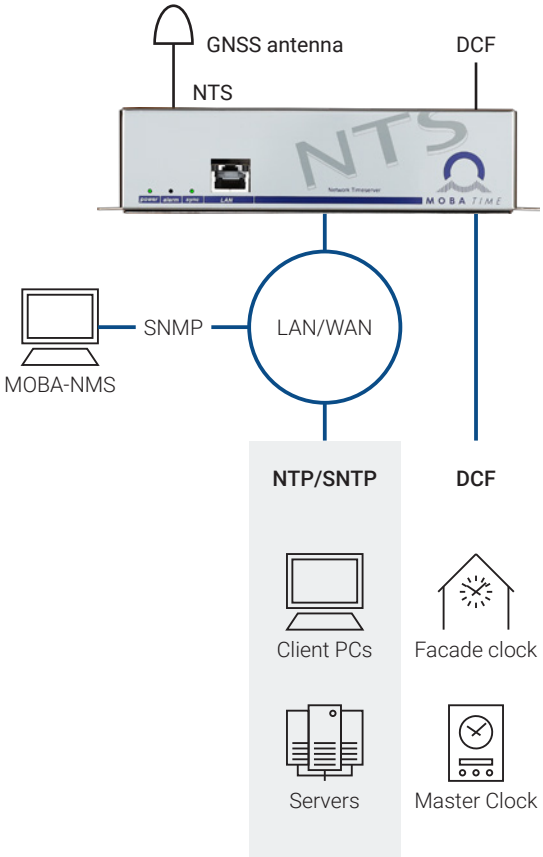


NETWORK MANAGEMENT SYSTEM

## *MOBA-NMS*

The NTS can be fully monitored, configured and controlled using the Mobatime Network Management System software (MOBA-NMS).

# APPLICATIONS



# TECHNICAL DATA

MECHANICAL DATA AND ENVIRONMENT

## General data

**Dimensions:** 170 x 44 x 85 mm (19", 1U)
**Weight:** 1.35 kg
**Housing material:** Stainless steel
**Protection degree:** IP 20
**Operating temperature:** -5–50 °C
**Operating humidity:** 10–90 % relative, no condensation
**Power supply:** 90–240 VAC, 0.12 A (with external power supply unit (included in delivery)); 24–28 VDC, 0.2 A
**MTBF:** > 250,000 h

STANDARDS

## Conformity

The NTS conforms to the following agency approvals[1]:

CE, UKCA, CB, RoHS, WEEE
**EMC:** EN 50121-4, EN 61000-6-3, EN 61000-6-2
**Safety:** IEC 62368

[1] For full list, see product manual

### REFERENCE SIGNAL INPUTS

- 1x DCF current loop (e.g. GNSS 4500)
- External NTP / SNTP server (4 NTP sources possible)

### REFERENCE SIGNAL OUTPUTS - NETWORK

- NTP server (<250 requests/second)
- NTP mode: Server, Peer, Broadcast, Multicast / SNTP / MD5 and SHA1 authentication for NTP
- TIME (RFC 868), DAYTIME (RFC 867)

### REFERENCE SIGNAL OUTPUTS - NON-NETWORK

- 1x DCF77 (time zone selectable) or PPS (configurable)

### NETWORK INTERFACE

- 1x 10/100BaseT

### NETWORK FEATURES

- NTP V4/V3 server (RFC 5905/1305) / SNTP (RFC 4330)
- IP configuration: IPv4 (DHCP, static IP), IPv6 (autoconfiguration, DHCPv6, static IP)

### ALARMS

- Network outputs: SNMP notifications (Traps) V2c, Mail (RFC 4954, 2195)
- Alarm LED

### OSCILLATOR STABILITY

- Holdover (after 24h synchronization) at room temperature < +/- 0.1 s/day

### ACCURACY (TYPICAL VALUES)

- Internal
  - NTP to internal time: < +/- 0.5 ms
- Time signal output
  - GNSS to NTP: < +/- 0.5 ms
  - GNSS/NTP to DCF/pulse: < +/- 2 ms
  - DCF to NTP: < +/- 5 ms

### MANAGEMENT & SUPERVISION

- MOBA-NMS (NTS IT: web interface); monitoring possible
- Terminal menu: Serial connector (RS-232), SSH, Telnet
- SNMP (v1/v2c/v3), SNMPv3 with authentication and encryption
- System firmware download via SCP, SFTP or FTP
- LEDs: Alarm, Power, Sync

### SECURITY

- Configuration and log files are stored on non-volatile memory in order to survive power failures
- See Mobatime security guideline (available on request)
- SNMPv3, SCP, SSH, NTP authentication

# INTERFACES


| | | | |
|---|---|---|---|
| 1 | **Status LEDs** | Power (green), alarm (red), synchronization (green) | |
| 2 | **LAN** | RJ45 10/100MBit | Maintenance/NTP |
| 3 | **Status LEDs** | Operation (green), DCF signal (red) | |
| 4 | **DCF In/Out** | 6-pin terminal | DCF current loop input for the connection of a GNSS 4500 |
| | | | DCF output, current loop passive |
| | | | DC output (28 VDC, max. 100 mA), e.g. GNSS 4500 |
| 5 | **Mains power supply**[1] | C14 plug | 90–240 VAC, 50/60 Hz<br>0.5 A |

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*Do you have any questions?*
*We are happy to help.*

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