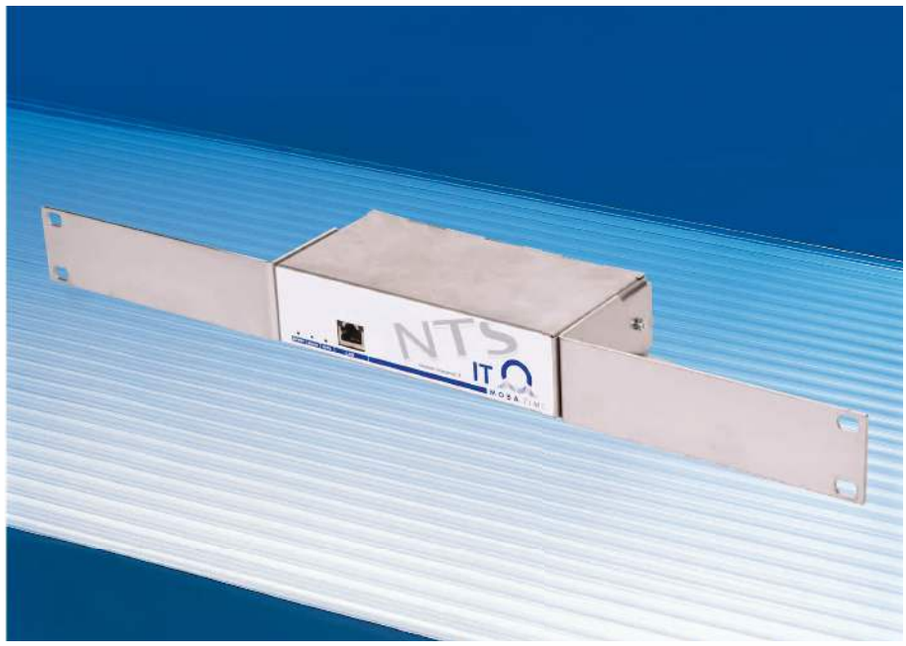


Network time server

NTS IT

The network time server NTS IT is a compact and powerful NTP time server with a very good cost-performance ratio.

The NTS IT guarantees maximum operating safety for the time synchronization of IT systems.

It can be used nearly anywhere to synchronize IT systems, data centers, servers, computers, fire alarm systems, audio and video surveillance etc. via NTP with the precise time.

The NTS IT can be synchronized by another time server via NTP. Alternatively, it can take over the time from GPS (from a GPS 4500 receiver).

The commissioning and operation is easy and can be done via terminal menu or web interface.

NTS IT - Advantages

Nowadays, online NTP servers are often used for the time synchronization of a server or data center in the IT area. However, this kind of synchronization is not ideal in terms of reliability and operating safety, as a loss of internet connection leads to a loss of an accurate NTP time source.

Because different NTP clients operate with a variety of time-keeping mechanisms, these disturbances cause time deviations between devices (device times drift apart). The time deviation increases the longer the loss of connection persists. This can endanger the operation of the system (e.g. data inconsistency).

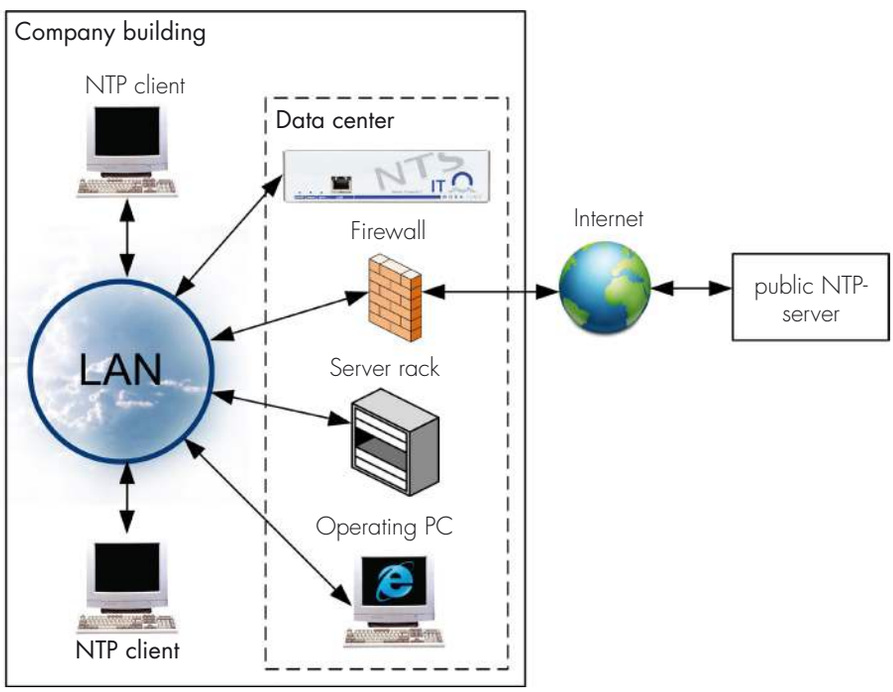
By using an NTS IT time server, this risk can be greatly reduced. As a local time server, the NTS IT guarantees additional operating safety: in case of loss of the NTP server connection, it carries on the time and is as such available as an accurate NTP time reference for all installed NTP clients.

If the NTS IT is used in combination with a GPS 4500 receiver, additional operating safety and utmost autonomy for the time synchronization of IT infrastructure are ensured. The GPS 4500 delivers a time signal with the accuracy of an atomic clock and a high availability that is used by the NTS IT to create NTP packets.

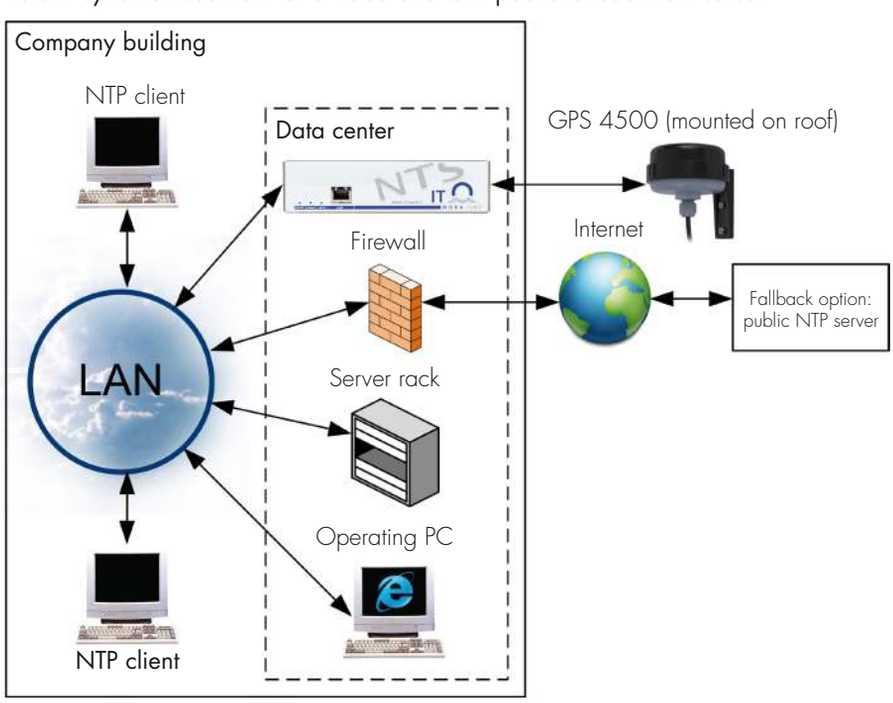
The combination of NTS IT & GPS 4500 allows for optimal redundancy as additional fallback NTP sources can be configured in the NTS IT. Thus, the time synchronization of your data center is ensured in case of any disturbance.

NTS IT - Examples of use

NTS IT synchronized from public NTP server



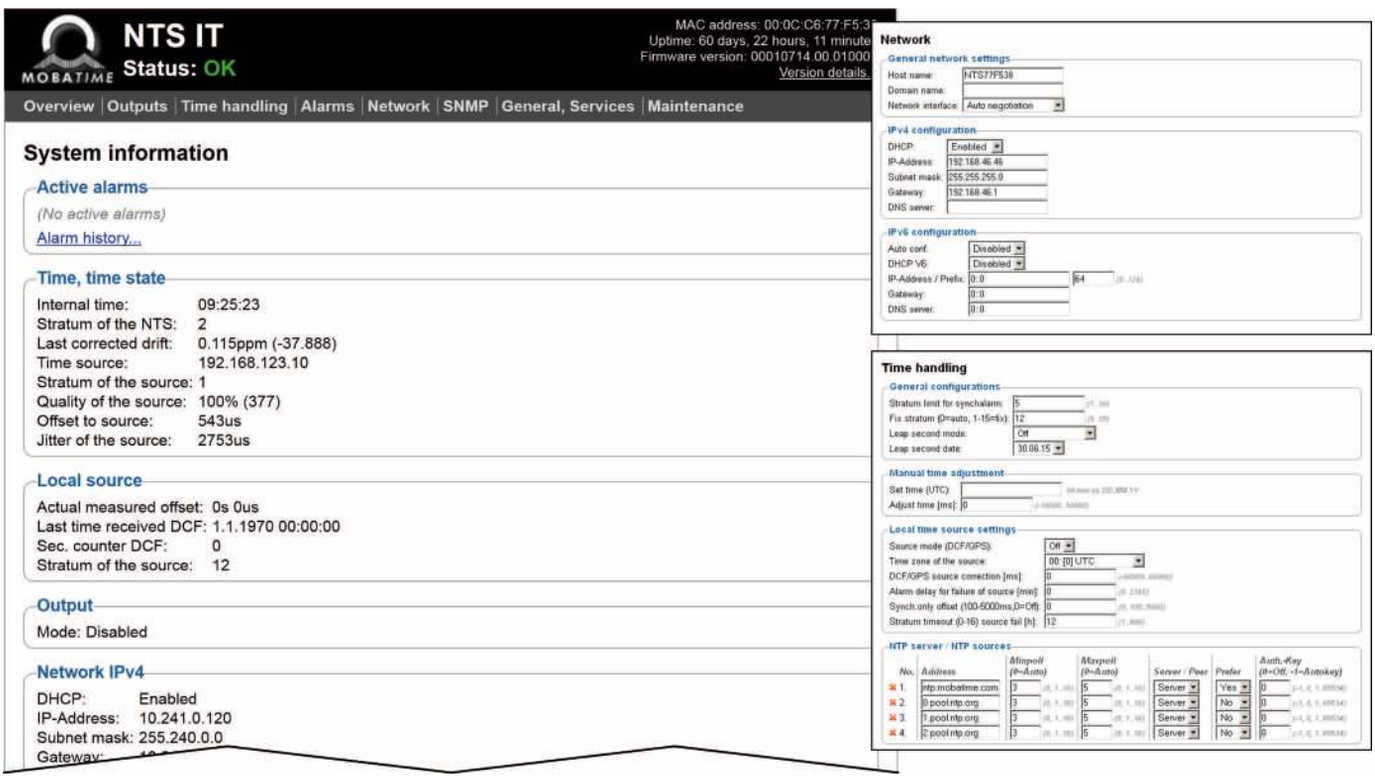
NTS IT synchronized from GPS 4500 and with public fallback NTP server



NTS IT - Operation and mounting

Operation of the NTS IT

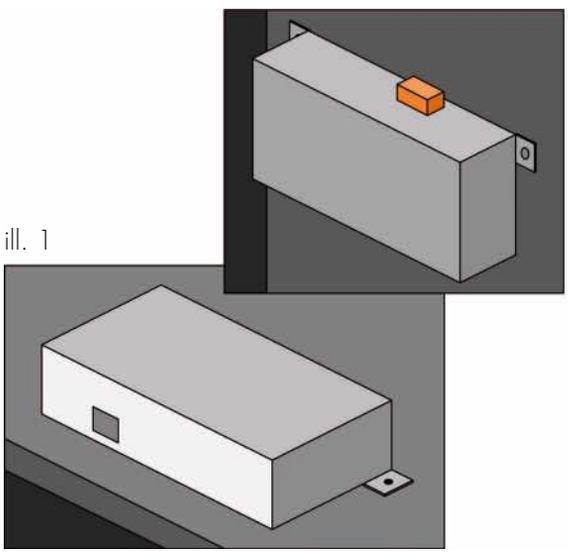
The NTS IT is operated via terminal menu or web interface (e.g. Internet Explorer). Thanks to the user-friendly operation, the NTS IT can be set up quickly and intuitively. Furthermore, 4 public NTP servers are preset as possible time sources.



Mounting the NTS IT

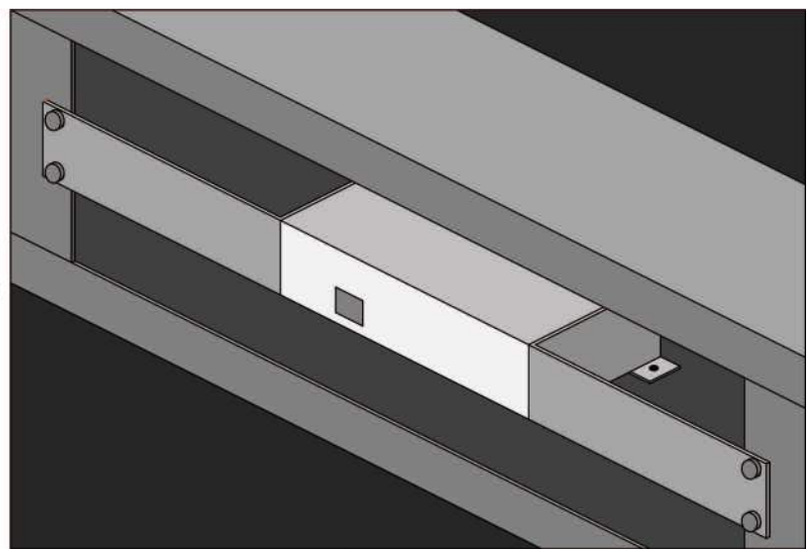
Thanks to the provided rubber feet, the NTS IT can be placed on a flat surface without slipping (ill. 1). Using the mounting ears, the NTS IT can also be mounted on a wall (ill. 2). Optionally, mounting brackets for rack mounting are available (ill. 3).

ill. 1

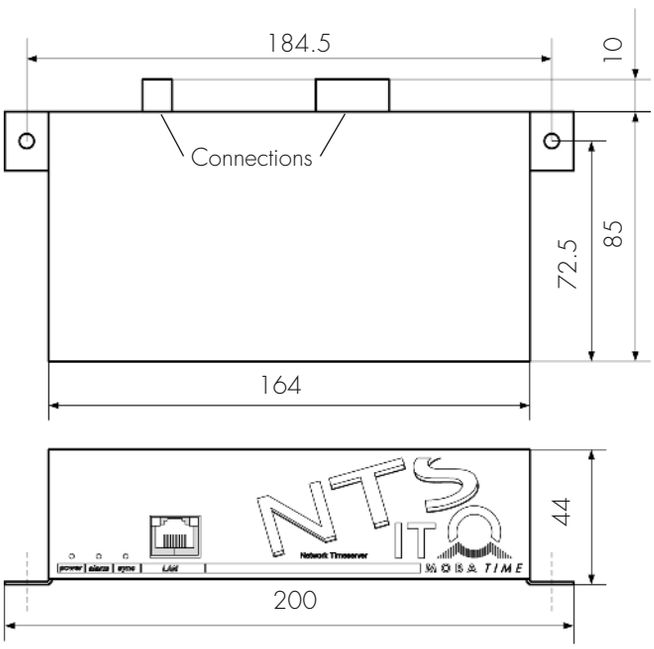


ill. 2

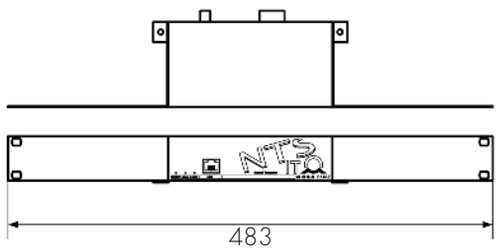
ill. 3



NTS IT - Technical details



Option: Mounting brackets for 19" rack



Option: GPS 4500 receiver

all dimensions in mm

Technical data	Art. no. 118464	
Time server	NTP V4 (fully V3 compatible), RFC 1305 (port 123) SNTP (UDP), RFC 2030 (port 123) TIME (TCP/UDP, RFC 868 (port 37) DAYTIME (TCP/UDP), RFC 867 (port 13) Max. number of NTP and SNTP requests per second: typically 250 Modes: Server, Broadcast, Multicast	
Network interface	10BaseT / 100BaseTX (IEEE 802.3) Auto-negotiation / manual Connector: RJ-45	
IP configuration	IPv4: static IP; IPv6: DHCPv6, autoconfig, static IP	
Synchronization output	NTP, DCF (UTC) or pps (configurable)	
Synchronization input	NTP (max. 4 NTP sources configurable) GPS 4500 (incl. output for GPS 4500 power supply) Automatic selection of the best NTP source resp. change from GPS to NTP in case of a failure	
LED displays	LAN link, LAN speed / network activity, time synchronization status, power supply, alarm, DCF in, init	
DC output	20 VDC, max. 100 mA (for power supply of a GPS receiver)	
Power supply	External mains supply included in delivery 100 - 240 VAC / 50-60 Hz / max. 12 W or 24 - 28 VDC / 200 mA	
Environment	Operating temperature: -5°C...50°C Relative humidity: 5% - 95% (non-condensing)	
Accuracy	GPS (DCF input) to NTP server	typically < ± 0.5 ms
	NTP client to NTP server	typically < ± 0.5 ms
	GPS (DCF input) or NTP client to DCF/impulse	typically < ± 2 ms
	Holdover (unsynchronized)	< ± 0.1 s/day (after 24h synch. from time source)
Time-keeping	RTC with time keeping for min. 5 days (without battery)	
NTP slave clocks	1 line with time zone server function via multicast or unicast	
Operation	Telnet or SSH, web interface or operation via SNMP	
Mounting types	Table, wall rack	

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