Time and frequency services

Precision Time Protocol (PTP) services for systems that need the highest levels of accuracy

Customer benefits
- Time stamp with the highest degree of accuracy
- Traceable time over a dedicated fibre
- Redundancy for mission-critical services that use GNSS
- Provided by Netnod, trusted by PTS to run NTP for Sweden and by the world to run one of the Internet’s 13 root name servers

Netnod’s PTP service is delivered over a dedicated fibre and offers a robust, reliable and highly accurate source for time and frequency. Many organisations currently run services using GPS, GLONASS, Galileo, and BDS. But these rely on the Global Navigation Satellite System (GNSS), and the GNSS can have issues.

For mission-critical services, it makes good business sense to have multiple sources of time and frequency to ensure redundancy. If you are working in a sector where every nanosecond counts, you can trust Netnod to keep you on time.

Who uses PTP?
PTP is used by industries ranging from banking and financial services to telecommunications, transport and the energy sector. For any organisation that needs to ensure the highest level of time accuracy and does not want to depend solely on GNSS, PTP offers robust and reliable traceable time.
What is Precision Time Protocol (PTP)?
PTP was originally defined in the IEEE 1588-2002 standard ("Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems"). It has been designed for systems that need a level of accuracy beyond the capability of traditional software NTP implementations and for applications where GNSS is not a scalable solution. PTP also offers a redundant alternative to GNSS.

What are the benefits?
Netnod’s PTP service offers traceable time over a dedicated fibre which enables organisations to time stamp to the highest degree of accuracy. It provides redundancy for organisations that are using GNSS, which is important given the fact that GNSS is susceptible to interruption due to weather conditions, rollover problems and security issues.

About Netnod
Netnod provides critical infrastructure support ranging from interconnection services and Internet Exchanges to DNS services, root server operations, time and frequency services, and activities for the good of the Internet. With a worldwide reputation for its services and the expertise of its staff, Netnod ensures a stable and secure Internet for the Nordics and beyond. Established in 1996 as a neutral and independent Internet infrastructure organisation, Netnod is fully owned by the non-profit foundation TU-stiftelsen (Stiftelsen för Telematikens utveckling).

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