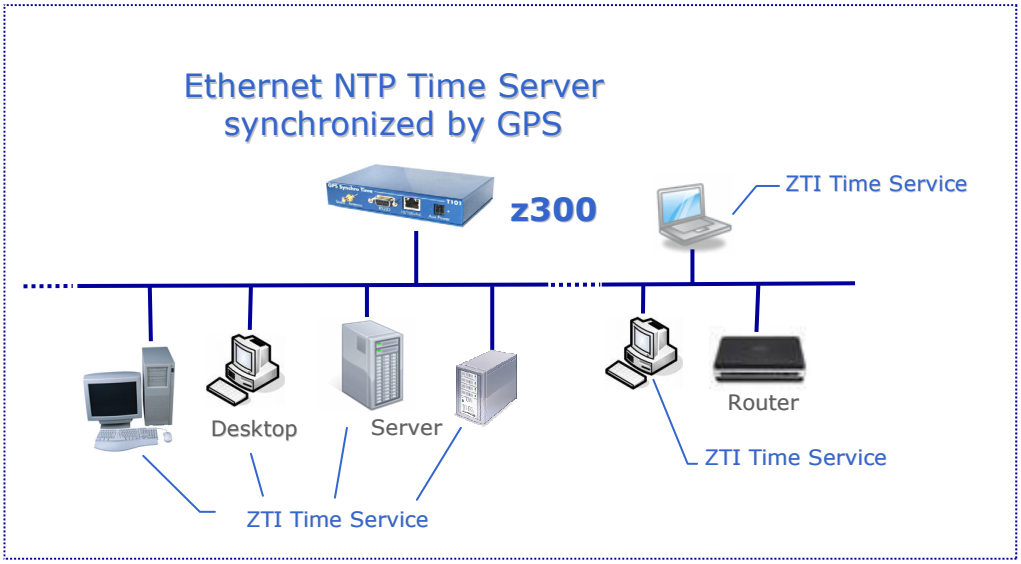
High Precision
ZTI Time Service Software
for Windows & Linux applications

Today the Network Time Protocol (NTP) is widely used around the world, to synchronize the computers and provide a very precise time reference. NTP protocol supports an accuracy of time down to nanoseconds but the real accuracy which can be achieved depends on the operating system and the network performance.

NTP relies on a reference clock to define the most accurate time and synchronizes all clocks on a network to that of the reference clock. NTP uses Coordinated Universal Time (UTC) as the universal standard for current time. UTC is independent of time zones and enables NTP to be used anywhere in the world regardless of the time zone settings.

An NTP time server is used to obtain the correct time from a time source and adjust the local time in each participating computer. The time source used by the time server is extremely important as this forms the basis of time updates across the whole network.
Recent studies show that the use of Internet time servers is not recommended for commercial applications: there are high numbers of bad clocks, unbalanced nature of the network load, security reasons...
So it is essential to use an accurate auditable time source such as a GPS source or an atomic clock.



An NTP time server synchronized by GPS for time synchronization on a computer's network is an ideal professional level solution.

But what is the uncertainty for the synchronized computer? (1, 10 or up to 50 milliseconds when using a NTP client on Windows computers)

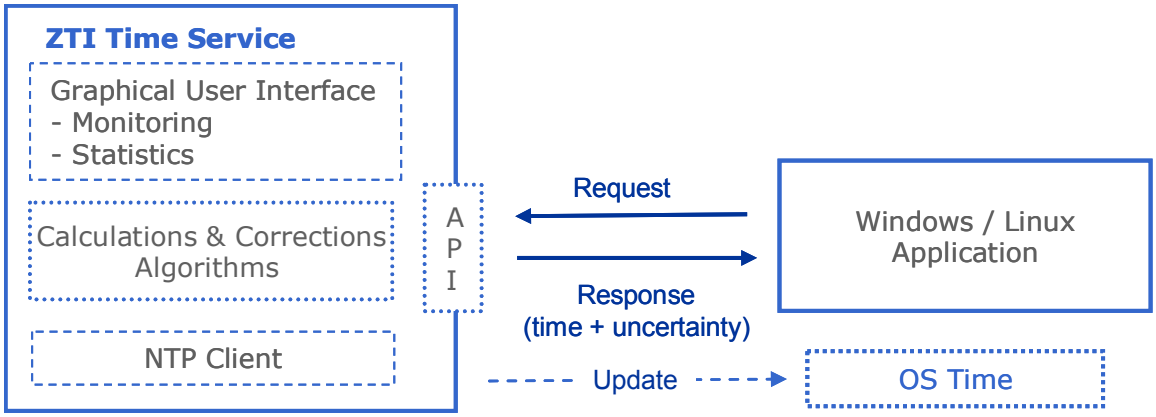
And what is the time accuracy and uncertainty delivered to the applications running on the synchronized computer?

The solution: Ethernet NTP Time Server by HEOL DESIGN + ZTI Time Service Software

The ZTI offering

- z300: Is a High Precision Ethernet NTP Time Server developed by HEOL DESIGN (UTC absolute timestamp error < 10 microseconds and uncertainty provided)

- ZTS: High Precision **Z**TI **T**ime **S**ervice Software on the end user computer provides accurate time synchronization and the related uncertainty to the applications.
  Based on a NTP client and sophisticated calculations and corrections algorithms, ZTI time service delivers a very accurate time and indication of uncertainty, whose quality doesn't drift during time and is independent of the Windows/Linux or system clocks.



Key Benefits

- Ensures accurate time for applications running on Windows / Linux client machines
- Delivers precise time with uncertainty associated to the applications through an API
- Option to update or not Windows/Linux time
- ZTI Time Service = Windows service or Linux daemon: run continuously and nothing else to do (no manual synchronization or parameters to adjust)
- Guaranteed accuracy for the PC running ZTI Time Service thanks to the use of NTP and of sophisticated proprietary algorithms developed by ZTI
- No more PC clock drift

Application examples

Metrology, alarms and logs time-stamping, network traffic measurement, time-stamping authority, time transfer measurements, e-business, financial network measurement and more.

Products Reference List

ZTS-1 for Windows	**Z**TI **T**ime **S**ervice software / Accuracy = 1 millisecond (Windows OS supported: 2000, XP, Server 2003 & 2008, Vista)
ZTS-1 for Linux	**Z**TI **T**ime **S**ervice software / Accuracy = 1 millisecond Availability = April 2008
ZTS-2 for Windows	**Z**TI **T**ime **S**ervice software / Accuracy = 100 microseconds Availability = June 2008
ZTS-2 for Linux	**Z**TI **T**ime **S**ervice software / Accuracy = 100 microseconds Availability = June 2008

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