

NAME

ntp – Retrieve NTP status information.

DESCRIPTION

The Network Time Protocol (NTP) (RFC 1119, RFC 1305) allows to synchronize computer clocks by exchanging NTP messages. The **ntp** command allows to retrieve control variables from NTP peers.

NTP COMMAND**ntp** [*options*]

Invoking the **ntp** command with options but without any command arguments allows to retrieve and change the default values. See the description of supported options below. Default values are bound to a Tcl interpreter which allows to have multiple Tcl interpreter with different defaults.

ntp [*options*] *host* *arrayName*

The **ntp** command sends a NTP version 3 mode 6 request to *host* and writes status information into the Tcl array *arrayName*. After successful completion, the array will contain the following elements (RFC 1305):

peer.delay

This is a signed fixed-point number indicating the roundtrip delay of the peer clock relative to the local clock over the network path between them, in seconds.

peer.dispersion

This is a signed fixed-point number indicating the maximum error of the peer clock relative to the local clock over the network path between them, in seconds.

peer.offset

This is a signed, fixed-point number indicating the offset of the peer clock relative to the local clock, in seconds.

peer.precision

This is a signed integer indicating the precision of the various clocks, in seconds to the nearest power of two.

peer.reach

This is a shift register used to determine the reachability status of the peer, with bits entering from the least significant (rightmost) end. A peer is considered reachable if at least one bit in this register is set to one.

peer.srcadr

This is the IP address of the peer.

peer.stratum

This is an integer indicating the stratum of the local clock.

peer.valid

This is an integer counter indicating the valid samples remaining in the filter register. It is used to determine the reachability state and when the poll interval should be increased or decreased.

sys.peer

This is a selector identifying the current synchronization source.

sys.precision

This is a signed integer indicating the precision of the various clocks, in seconds to the nearest power of two.

sys.refid
This is a 32-bit code identifying the particular reference clock.

sys.rootdelay
This is a signed fixed-point number indicating the total roundtrip delay to the primary reference source at the root of the synchronization subnet, in seconds.

sys.rootdispersion
This is a signed fixed-point number indicating the maximum error relative to the primary reference source at the root of the synchronization subnet, in seconds.

sys.stratum
This is an integer indicating the stratum of the local clock

sys.system
A textual description of the system type.

NTP OPTIONS

The following options control how NTP requests are sent and how the ntp command deals with lost NTP packets.

-timeout *time*

The **-timeout** option defines the time the **ntp** command will wait for a response. The *time* is defined in seconds with a default of 2 seconds.

-retries *number*

The **-retries** option defines how many times a request is retransmitted during the timeout interval. The default *number* of retries is 2.

SEE ALSO

scotty(1), Tnm(n), Tcl(n)

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