

# Surveyor Implementation Report RFC 2679-2680

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# Platform

- Dell PCs (old 400 MHz GXE's)
- TrueTime GPS-PC cards
- BSDI/OS 3.2+
- Custom driver for the TT GPS card
- Generally 10bT & 100bT connections
- Custom software from scratch (C, ksh, perl, ...)
  - Collect and buffer on receiver
  - Pull (via tar over ssh) to central server
  - Web displays; Java-based display to tweak parameters

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- 2679
  - Type-P-One-way-Delay: **Yes**
    - 12 byte UDP packets, ports random, best-effort std – ToS opt.
  - Type-P-One-way-Delay-Poisson-Stream: **Yes**
    - Generally 2/sec per path
  - Type-P-One-way-Delay-Median: **Yes**
  - Type-P-One-way-Delay-Minimum: **Yes**
  - Type-P-One-way-Delay-Percentile: **Yes**
    - 0<sup>th</sup>, 50<sup>th</sup>, 90<sup>th</sup> standard, others optional. All on one-min averages by default
  - Type-P-One-way-Delay-Inverse-Percentile: **No**
    - Did create histogram of delays, though

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- 2680
  - Type-P-One-way-Packet-Loss: **Yes**
  - Type-P-One-way-Packet-Loss-Poisson-Stream: **Yes**
  - Type-P-One-way-Packet-Loss-Average: **Yes**
    - For one minute intervals by default
- 2678 (connectivity) and 2681 (RT delay):  
Not implemented

# Status

- Originally created by non-profit Advanced Network & Services, Inc.
- Essentially defunct...
- Surveyor code and data (1998-2002) donated to Wisconsin Advanced Internet Laboratory
- New development in OWAMP implementation by Internet2