

NTP Standardization Issues

Network Time Protocol BoF
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Dave Plonka <plonka@doit.wisc.edu>
University of Wisconsin - Madison

NTP Standardization Issues

- Operations
 - Public Service Identifiers
 - Access Control
- Client Implementation
 - Embedded SNTP Clients
- Server Implementation
 - Current specification is insufficient
- Organizing a new NTP standard

NTP Standardization Issues

- Operations: Public Service Identifiers
 - Public directories are duplicated by vendors, sans acceptable use policy
 - e.g. Microsoft support documents
 - IP addresses of NTP servers from the public directories are being embedded in firmware
 - Being addressed by draft-grow-embed-addr in the Global Routing Operations WG

NTP Standardization Issues

- Operations: Access Control
 - It is difficult to protect public NTP servers from abuse
 - NTP needs the threats/security assessment that would be required as part of the standardization process today

NTP Standardization Issues

- Client Implementation: Embedded SNTP Clients
 - Simple Network Time Protocol (SNTP) defined by Informational RFC 2030, c. 1996 utilizing NTP packet format defined by DRAFT STANDARD RFC 1305, c. 1992
 - Large pool of homogenous clients rapidly deployed in low-cost residential routers
 - Minimal ability to correct problems when they occur

NTP Standardization Issues

- Server Implementation: Current specification is insufficient
 - “Network Time Protocol (Version 3) Specification, Implementation” (RFC 1305) is half research paper, half RFC. It is a 120 page document combining algorithm details and the on-the-wire packet layout.
 - AFAIK, there is really only one NTP server-side implementation today, which does not meet the goals of the RFC2026-defined standardization process.

NTP Standardization Issues

- Organizing a new NTP standard
 - The Internet Standards Process (RFC2026) suggests a good structure
 - Technical Specification
 - Consider splitting it into protocol (on the wire) and algorithm documents
 - Applicability Statement / Requirements
 - document(s) could cover operational, deployment, and some robustness issues and performance requirements

NTP Standardization Issues

- Organizing a new NTP standard
 - Staffing ideas:
 - Candidate draft editor(s) willing to use IETF process and document structure
 - Invite NTP community to perform expert document review, in addition to any other level of participation in a proposed Working Group