SNMPv2 Working Group

Status Report
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Overview

- **Where we started**
- **What happened**
- **Where we are**
- **Where we're going**

Where We Started

- **12 RFCs**
  - **Proposed Standard since April 1993**
  - **Multiple implementations but little fielded**
- **Working group chartered in mid-October 1995**
- **Convened working group and published 15 Internet Drafts beginning of November 1994**
  - **Rewrote parts of Administration and Security to clarify**
  - **Made known necessary edits**
  - **Split MIB-II**

What Happened

- At San Jose IETF heard implementation reports, accepted proposals, and became confused
- Defined a schedule with milestones, defined necessary contents for a proposal, and instituted a system for numbering and tracking proposals
- Received nearly 130 proposals, many at the last minute, from minor clarifications to major changes

What Happened, continued

- Had a hand-picked review team make recommendations, cutting the proposal list down by over 100
- Had an interim meeting to handle the remaining issues
- Discussion interspersed on mailing list
- Issued 17 Internet Drafts in March 1995

SMI

- Added “deprecated” STATUS to OBJECT-IDENTITY and required use for OID registration points
- Added Unsigned32 as base for Gauge32
- Changed BITSTRING to BITS
- Restricted IMPLIED to final index object
- Added “accessible-for-notify” ACCESS
- Clarified subtyping and UTC time format
- Other minor clarifications

Textual Conventions

- **Added BITS (due to ASN.1 requirements)**
- **Made TestAndIncr change at startup**
- **Replaced InstancePointer with VariablePointer and RowPointer**
- **Added decimal point placing in DISPLAY-HINT**
- **Other minor clarifications**

Protocol

- Added Report-PDU
- Allowed agent to terminate GetBulk due to time
- Modified Set error checking order
- Matched Trap processing to changed Party MIB
- Made supplemental Trap variables not agent-optional
- Removed dependency on Manager-to-Manager MIB
- Other minor clarifications

Transport Mappings

- **Made UDP maximum message no less than 1472**
- **Added BITS encoding rules**
- **Updated proxy to match changed Party MIB**
- **Converted to OBJECT-IDENTITY for type OIDs**

Conformance Statements

- Added “deprecated” STATUS to OBJECT-GROUP and MODULE-COMPLIANCE
- Added NOTIFICATION-GROUP
- Added “accessible-for-notify” ACCESS to MODULE-COMPLIANCE and AGENT-CAPABILITIES
- Required every object to be in at least one group
- Removed use of sysObjectID in favor of syORID

Coexistence

- **Remove hyphens from integer enumerations**
- **For SNMPv1 MIB in AGENT-CAPABILITIESs, use subtree to imply group**

Administrative Infrastructure

- Shift in concept from “model” to “infrastructure”
- Considerable clarification, e.g. proxy, where to listen, mid-level managers
- Applied access control when information moved rather than message received
- Moved MIB views from contexts to ACLs
- Added Maintenance Functions outside normal security for Report, clock, secrets, and such

Security Protocols

- **Reduced size of clocks to 32-bit, >=0, signed range**
- **Made clock synchronization and secret update Maintenance Functions**
- **Changed secret update to avoid disclosure cascade**
- **Many clarifications**

Party MIB

- Split “permanent” StorageType, adding “read-only”
- Increased range of partyIndex, contextIndex, viewIndex and emphasized being local
- Added secret update objects
- Added agentID, viewNextIndex
- Changed tables to move view to ACL
- Added contextType: “local”, “remote”, “proxy”
- Many clarifications

Basic Configuration Model

- New, replaces initial party conventions
- Required parties, context, views, ACLs
- Requires security posture, transport, secrets
- Supports administrative configuration, discovery

Simplified Configuration Model

- New, built on Administrative Infrastructure
- Management sessions create transient parties and perhaps contexts, ACLs, and views
- Based on users, passwords, and capabilities
- Defines MIB for users and capabilities
- Uses Maintenance Functions for session control

SNMP/System MIB

- **Combined as minimum subset**
- **Moved sysORLastChange and sysORTable, added sysORUpTime, and referenced AGENT-CAPs**
- **Added snmpStatsProxyDrops**
- **Added snmpV2EnableReports**

Other MIBs

- **Manager-to-Manager deferred to new working group**
- **MIB-II IP, TCP, and UDP separate but unchanged**

Where We're Going

- **Internet Drafts open for comments until 15 May**
- **Recommendation to IESG 31 May**
- **Current recommendation:**
  - **Draft: Introduction, SMI, Textual Conventions, Protocol, Transport Mappings, Conformance Statements, Coexistence, SNMP MIB, IP MIB, TCP MIB, UDP MIB**
  - **Proposed: Administrative Infrastructure, Security Protocols, Party MIB, Basic Configuration Model, Simplified Configuration Model**