NETWORK MANAGEMENT AREA:

OPEN MEETING

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IETF Area Director for Network Management

as of July 21, 1994

AGENDA

- NM Area Report
- General SNMP issues:

  presentations and discussion

A REMINDER

- The goal of the IETF is produce standards which:

  have high technical quality;

  solve real and immediate problems in the Internet using modest community and computing resources;

  are accessible to a broad community;

  are developed in an open and fair manner; and,

  are developed in a timely manner

SNPMv1 FRAMEWORK

- Core documents (full standards):

RFC	Name
1155	Structure of Management Information
1212	Concise MIB Definitions
1157	Simple Network Management Protocol
1213	Management Information Base II

- Traps (informational):

RFC	Name
1215	A Convention for Defining Traps

- Transport mappings (proposed standards):

RFC	Name
1418	SNMP over OSI
1419	SNMP over AppleTalk
1420	SNMP over IPX

SNMPv2 FRAMEWORK

- Core documents (proposed standards):

RFC	Name
1441	Introduction to SNMPv2
1442	SMI for SNMPv2
1443	Textual Conventions for SNMPv2
1444	Conformance Statements for SNMPv2
1445	Administrative Model for SNMPv2
1446	Security Protocols for SNMPv2
1447	Party MIB for SNMPv2
1448	Protocol Operations for SNMPv2
1449	Transport Mappings for SNMPv2
1450	MIB for SNMPv2
1451	Manager-to-Manager MIB
1452	Coexistence between SNMPv1 and SNMPv2

Topic	Standard (over 3000 objects)			Work in Progress
	Full	Draft	Proposed	
General	MIB-II	DECnet Phase-IV	Appletalk, SNA NAU	SNA DLC/NAU
Wires			Interface layering	
		802 bridges 802.3 repeaters	802 SR	
	Ether		Token Ring, MAU FDDI (SMT 6.2 and 7.3)	
			RMON, TRMON	
			DS1, DS3, SONET SIP, FR-DTE, FR-Service X.25 (PLP, LAPB, MIOX)	ATM VCs
			PPP (LCP, security, IP, bridging)	
Routing			IP forwarding BGP v4, OSPF v2, RIP v2	IS-IS IDPR, IDRP
Network Services			User Identity, DNS Networked Applications Mail & Directory	 RDBMS
			SNMPv2 MIB, M2M, Party	
Hosts		Character (serial, parallel, ports)	Host Resources, UPS	Modem Printer

NM DIRECTORATE

- Consider strategic evolution of the framework
- Provide architectural/engineering guidance,

  at the earliest stages of a WG
- Review submitted I-Ds

  for standards-track evaluation
- No standards-setting power, but is consulted

  whenever a WG (in any area) defines a MIB module
- Membership:

  Fred Baker, Tracy Brown, Ted Brunner, Jeff Case,
  Deirdre Kostick, Keith McCloghrie, Dave Perkins,
  Bob Stewart, Kaj Tesink, and Steve Waldbusser

SNMPv2 AND MIB MODULES

- Now: use SNMPv2 SMI, but without:

  `BIT STRING`, `NsapAddress`, `Counter64`, or, `UInteger32`

  (WGs can ask for waivers)

- When SNMPv2 is a draft-standard: use SNMPv2 SMI,

  without restrictions

- Check a MIB:

  `mosy@dbc.mtview.ca.us`

- Convert a MIB:

  `mib-v2tov1@dbc.mtview.ca.us`

  (some rough edges)

SNMP AGENT EXTENSIBILITY

- A standard for extensible agents must:

  include some kind of sub-agent API;

  must also be platform-independent; but,

  should also be efficient to implement

  (this is a contradictory set of requirements)

- SNMP's "MIB view" concept is a self-consistent data set,

  in which only the external behavior is specified

  (a standard for extensible agents is inconsistent with this)

- Standardization of extensible agents to be "out of scope"

  (my term ends next March)

WORKING GROUPS

- Active:

  Interfaces MIB, Printer MIB, RMON, SNA DLC MIB, SNA NAU MIB

- Awaiting RFC publication:

  AToM MIB, Modem MIB, RDBMS MIB

- Inactive:

  Bridge MIB, Character MIB, DECnet Phase IV MIB, FDDI MIB, FRS MIB, HR MIB, HUB MIB, MADMAN, SNMPv2, Trunk MIB, UPS MIB, X.25 MIB

- AD messages sent to IETF and SNMP lists

  subscribe to IETF list: `ietf-request@cnri.reston.va.us`

  subscribe to SNMP list: `snmp-request@uu.psi.com`

HOW TO FORM A WORKING GROUP

- See if there's an existing WG; otherwise follow these steps...
- Find an area consultant who is interested in guiding the activity:

  if none, no WG
- Consultant and AD discuss BOF/charter:

  if not workable, go back to previous step
- Determine level of community interest via e-mail:

  establish initial vocabulary, views; and,

  draft a preliminary, non-binding charter
- Request a BOF to determine:

  community interest in producing the technology;

  community interest in using the technology; and,

  if there is any vendor-specific experience
- If AD is satisifed with outcome of BOF,

  a draft charter is negotiated

  and the AD presents it for IAB comment and IESG approval

WHY IT'S DONE THIS WAY

- Senior technical guidance, people with both:

  content-relevant experience; and,

  process-relevant experience,

  is a necessary ingredient for a successful WG

- For example, without an appreciation of:

  technical simplicity and operational scaling,

  WGs tend to produce documents that are IETF-inconsistent

- Unfortunately, as the IETF membership grows,

  the percentage of senior technical resources has decreased

  because any new IETF member initially lacks the shared philsophy, regardless of their background

NM AD's STATEMENT OF DISCLOSURE

- Principal of a consultancy:

  50% time for clients, 50% for community service; and,

  clients neither fund nor direct any community service

- Client list:

Client	Market Area
Soft∘Switch	E-Mail & Directory products
AT&T Bell Laboratories	Network Management services
ZD Expos	N+I US Program Committee
First Virtual Holdings	Internet Commerce products & services (equity participant)

- Author of several books on internetworking technologies
- A small number of shares in PSI, otherwise no financial interest in any computer-communications company
- E-mail: `mrose.iesg@dbc.mtview.ca.us`
- The appeals procedure:

  WG chair $\mapsto$ AD $\mapsto$ IESG $\mapsto$ IAB