1

General Overview and Technical Highlights

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2

SNMP Impact

- All work done in SNMPv2 SMI
  - Better MIB structure to better exploit IPv4 v/s IPv6
  - Conversion to SNMPv1 provided
  - MIB-II provided by SNMPv2 Working Group
- New RFC for IPv6 Transport Domain

3

SNMPv2 Status

- New Transport Address
  - Identified but not added...waiting for IPv6 RFCs
- New Transport Domain
  - Identified but not added...waiting for IPv6 RFCs
- Textual Conventions
  - Identified IPv6 Address Format
  - Identified IPv6 UDP Address Format
  - Waiting for IPv6 RFCs

4

Technical Direction

- Informational RFC Translating MIBs to IPv6
  - Suggested Methods
  - Handling IPv4 only
  - Handling new IPv6 Objects
  - Joint IPv4 and IPv6 Objects
  - Network Address Textual Convention
    - » Many Address Formats
    - » Results usable by other Groups
- Convert MIB-II
  - As example for above
  - SNMPv2 Format (based on SNMPv2 WG Documents
  - Our responsibility

5

Changes to Existing MIBs

- Domain Name System
- Forwarding Information Base
- Routing Protocols
  - BGP
  - OSPF
  - RIP

6

New MIBs

- Address Resolution
- Neighbor Discovery
- Tunneling
- Mobility
- Quality of Service
- Security

7

Current Work

- Existing Work
- Informational RFC
- MIB-II
- SNMP Impact

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8

Textual Convention for IPv6 Address and Unumbered I/F

- Use OCTET STRING
- Value of First Octet (CODE) specifies syntax and semantics of remaining octets
- CODE = 1
  - Octets 2-17: IPv6 Address
- CODE =2
  - Octets 2-5: ifIndex in Network Byte Order

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9

Conclusion

Thank You

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