



VR MIB

<draft-elwin-ppvnpn-vr-mib-00.txt>

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VR Management Model

- Single SNMP agent to manage multiple VRs in a PE
 - SNMP contexts to identify different VRs
 - SNMPv2 community strings OR SNMPv3 contexts
 - Existing standard MIBs do not need an additional index to denote a VR.
 - VRId to index VRs in some of the new tables
 - Tunnels for the VRs:
 - Could either be configured using **Tunnel MIB** OR
 - Could be setup using a tunnel signaling protocol
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VR MIB Tables

- VR Config Table
 - This table is used to create/destroy/update VRs
 - VR IF config Table
 - To attach an interface to a VR
 - VR Stats Table – all per-VR statistics
 - VR IVL Config Table
 - To create/destroy Internal Virtual Links (IVL)
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VR Config Table

- vrid – index
 - vrContextName
 - vrVpnId
 - vrParent
 - To denote the relationship of a dependent VR to the backbone VR
 - vrDefaultForwardAction (for VPN Internet Access)
 - If the route to a destination is not found in a VR, either drop the packet OR forward based on parent VR forwarding table
 - vrPrimaryCP, vrSecondaryCP
 - For VR processor-level-redundancy OR load-balancing
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VR IF Config Table

- This table is used to attach/detach an existing interface to/from a VR
 - The elements in this table include:
 - vrlfId – ifIndex (primary index to this table)
 - vrId – denotes the VR to which the interface gets attached to.
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VR Stats Table

- This table has all the per-VR statistics
 - The objects include:
 - vrId -- Index
 - vrStatRouteEntries
 - vrStatFibEntries
 - vrStatUpTime
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VR IVL Table

- This table is used to create/destroy internal virtual links (IVLs)
 - Each IVL creation generates two interfaces, called IVIs. The IVIs can then be attached to appropriate VRs.
 - Objects in this table include:
 - vrlvlIndex – primary index
 - vrlvlInterfaceA, vrlvlInterfaceB
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VR Traps

- Following are the traps:
 - vrUp, vrDown
 - vrMaxRoutesExceeded
 - vrMaxKbpsExceeded
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Updates for next revision

- Add default values to many of the parameters
 - Detach Tunnel MIB extensions from this MIB
 - Remove 'vrBackboneVr' from VR config table
 - Means to associate multiple VPNs to a VR, is to be considered.
 - Rename to *draft-ietf-ppvpn-vmib-00.txt*
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Request to the WG

- Invite more volunteers to help develop and refine this MIB
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QUESTIONS

