



# Software Product Description

**PRODUCT NAME:** Ethernet Switch Enterprise RMON Upgrade, Version 2.0

**SPD 61.33.02**

## Description

The Ethernet Switch Enterprise RMON Upgrade software provides support for nine Remote Monitoring (RMON) groups as specified in RFC 1757, the Ethernet RMON Management Information Base (MIB). In addition, it provides support for the Enterprise Specific RMON extensions of Frontier Software Development, Inc. RFC 1757 specifies the RMON agent requirements; an RMON client application is required for viewing the traffic information captured by the RMON agent. The Simple Network Management Protocol (SNMP) is used between the client and agent.

This software includes support for all of the switching and Virtual LAN (VLAN) functions found in the basic Version 2.0 switch firmware. Up to 250 VLANs can be supported in an extended LAN environment across a Fiber Distributed Data Interface (FDDI) backbone. Any DECswitch port on this extended LAN is individually assignable to any of the 250 possible VLANs. The VLAN functionality is not available on the DECswitch 900EE. See the clearVISN VLAN Manager SPD, number 61.30, for additional capabilities.

The RMON capability can be applied to the six Ethernet ports, but not to the FDDI port.

The Enterprise RMON Upgrade software is available for the following hardware modules:

- DECswitch 900EF/DECbridge 900MX
- DECswitch 900EE
- DECswitch 900FO

The Enterprise RMON Upgrade software is not available for the PEs switch 900TX. It is also not supported on DECswitch products running routing software.

The software provides full integration of switching, VLAN, and RMON code within the switch hardware product. This allows you to use the idle CPU cycles in the switch for monitoring. You can choose to enable RMON on any Ethernet port, and monitor the traffic

into and out of that port, whether the port is connected externally, or is connected to one of the DECchub 900 MultiSwitch backplane LANs. Digital's clearVISN MultiChassis Manager software is recommended for controlling the switching functions of the module, including directing ports externally or onto the DECchub 900 MultiSwitch backplane. All of the traffic analysis power of Frontier Software's advanced RMON agent software is readily available on the DECswitch when used in conjunction with Digital's clearVISN RMON Manager software or Frontier Software's NETscout™ client software. Any RMON client application can manage the standard MIB objects in the nine RMON groups.

Switching and RMON can be enabled simultaneously on any or all ports; also, either, or both functions can be disabled on any or all ports. Switching and Spanning Tree Management always take precedence over processing RMON information, so that switching performance does not suffer dramatically when RMON is enabled. The RMON performance, however, is directly linked to the aggregate traffic level across all switch ports, including the FDDI port on the 900EF and 900FO models. As the aggregate traffic level increases, the CPU spends more time switching and has fewer cycles for processing RMON data. For this reason, it is recommended that full RMON be enabled on one port at a time. However, both the base and the Enterprise upgrade DECswitch Version 2.0 firmware support four RMON groups on all ports simultaneously. The four groups are Statistics, History, Alarms, and Events. The performance of these four RMON groups is not affected by the aggregate traffic levels, since less CPU processing is required.

The number of protocol domains that can be monitored on a DECswitch using clearVISN RMON Manager is limited by the available memory on the module. Only two domains are supported with RMON enabled on all six Ethernet ports, and with all RMON groups enabled in each domain. However, by reducing the number of enabled ports and groups, up to 32 domains can be supported.

The Ethernet Switch Enterprise RMON Upgrade is available only as a network loadable firmware image. It does not ship with the DECswitch hardware.

### Hardware Requirements

Any of the following:

- DECswitch 900EF/DECbridge 900MX
- DECswitch 900EE
- DECswitch 900FO

### Load Host Software Requirements

You can use the TFTP server that is included with clearVISN Flash Loader or any other TFTP server application to load the image.

### Optional Software

clearVISN RMON Manager - SPD 46.03  
 clearVISN MultiChassis Manager - SPD 37.87  
 clearVISN VLAN Manager - SPD 61.30

### Distribution Media

1.44 Mbyte diskette

### Ordering Information

The QB kit includes one license, the media, and documentation. One QM license is required for each additional switch module you wish to upgrade.

QB-56RAA-SA: DECswitch 900EF or DECbridge 900MX Enterprise RMON Upgrade license, media, documentation kit

QM-56RAA-AA: Single DECswitch 900EF or DECbridge 900MX license

QM-56RAA-CA: Single DECswitch 900EF or DECbridge 900MX Upgrade license

QB-4YKAA-SA: DECswitch 900EE Enterprise RMON Upgrade license, media, documentation kit

QM-4YKAA-AA: Single DECswitch 900EE license

QM-4YKAA-CA: Single DECswitch 900EE Upgrade license

QB-58NAA-SA: DECswitch 900FO Enterprise RMON license, media, documentation kit

QM-58NAA-AA Single DECswitch 900FO license

QM-58NAA-CA Single DECswitch 900FO Upgrade license

### Software Product Services

- Package Service
  - QT-56RAA-XA: DECswitch 900EF or DECbridge 900MX
  - QT-4YKAA-XA: DECswitch 900EE
  - QT-58NAA-XA: DECswitch 900FO
- Documentation Update
  - QT-56RAA-KZ: DECswitch 900EF or DECbridge 900MX
  - QT-4YKAA-KZ: DECswitch 900EE
  - QT-58NAA-KZ: DECswitch 900FO

### Software Licensing

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions. For more information about Digital's licensing terms and policies, contact your local Digital office.

You may print any electronic software documentation accompanying the software as reasonably necessary to exercise your license to use the software.

### Service Options

Service options available from Digital include:

- Management Operations Services
- Network Management Planning and Design Services
- Network Management Implementation Services
- Management Training

For more information, contact your local Digital office.

### Software Warranty

Warranty for this software product is provided by Digital with the purchase of a license for the product as defined in the license agreement.

The above information is valid at the time of release. Contact your local Digital office for the most up-to-date information.

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