

Software Product Description

PRODUCT NAME: PROBEwatch for ULTRIX, Version 1.0

SPD 46.01.00

DESCRIPTION

PROBEwatch for ULTRIX is a layered product that is designed to manage Digital's DECpacketprobe products. DECpacketprobes monitor the network to which they are attached, and make the statistical data available via the Remote Monitoring (RMON) Management Information Base (MIB). PROBEwatch uses the Simple Network Management Protocol (SNMP) to get the RMON MIB data from the DECpacketprobes. The PROBEwatch user is provided with a Motif® graphical user interface to view and analyze the data retrieved from the DECpacketprobes.

RMON defined:

RMON is a draft standard MIB specification written by the Internet Engineering Task Force (IETF) RMON committee. The specification has been designated RFC 1271. It provides for an agent, acting on behalf of a client, to collect statistics on a per packet basis by monitoring the network to which the agent is attached. The agent-to-client communication takes place via the SNMP. The DECpacketprobe is an implementation of an RMON agent, and PROBEwatch is Digital's implementation of an RMON client. The Ethernet version of RFC 1271 calls for nine separate groups of MIB objects. The nine groups are:

Segment statistics - counters for total number of packets, octets, broadcasts, collisions, dropped packets, fragments, CRC/ alignment errors, under-size and oversize errors, and jabbers; each packet is also sorted by size into one of six size groupings; the RMON agent will also count the number of packets that were dropped (not counted into the categories above) due to performance limitations

History - segment statistics stored at user-defined intervals

Host Table - statistics indexed by node address

Host Top N - host statistics sorted by user-defined criteria

Traffic Matrix - traffic patterns between pairs of nodes

Filters - a set of user-defined pre-conditions for packet capture of events

Events - logs an entry in a local log or sends an SNMP Trap when a particular user-specified event occurs

Alarms - SNMP Traps generated when a high or a low threshold is crossed

Packet Capture - stores packets that meet the filter criteria for later retrieval by a client

PROBEwatch can be installed in one of two ways:

- As an add-on application to POLYCENTER products for ULTRIX
- As a standalone application with ULTRIX and Motif

PROBEwatch runs from the network map menu on either POLYCENTER SNMP Manager 300 or the Polycenter Network Manager 200 on ULTRIX.

When the PROBEwatch application is invoked, either by selecting PROBEwatch on a POLYCENTER network map menu or by typing the appropriate command at the ULTRIX prompt, a Motif window will be opened, displaying a table of known DECpacketprobe agents. The user can then select one of these agents and look at the statistics for that segment. Any of the variables in the Statistics Group can be graphed over time. Short-term history and long-term history graphs can be started in separate windows for several of the variables in the Statistics Group. A choice of chart formats is made available for each graph.

The user can choose to have PROBEwatch identify hosts by replacing the first three bytes of the MAC address with the vendor name, whenever the first three bytes can be associated with a known vendor. Optionally, hosts can be identified by DECnet or IP address rather than by MAC address. The user can select Discover from the menu to automatically translate from MAC to IP address and name for addresses listed in the /etc/hosts file. Translation from MAC to DECnet Phase IV addresses is automatic.

PROBEwatch has a window for viewing the list of discovered hosts and sorting the list by various criteria, including discovery order, MAC address order, or by several statistics from the RMON Statistics Group. PROBEwatch has controls to limit the number of hosts and

or conversations kept by a particular DECpacketprobe. The user can select a pair of hosts and view the conversation statistics between them. PROBEwatch supports the Top N Group through a window that lists hosts sorted by the various statistics of the Statistics Group.

PROBEwatch provides the capability to upload captured files from DECpacketprobes to disk for subsequent decoding. Extensive protocol decoding exists for Novell, Appletalk Phase 1 and 2, Sun/NFS, DECnet & LAT, XNS, DOD TCP/IP suite, SNMP, VINES, SNA, and OSI. Each layer of the OSI model can be displayed in a different color. PROBEwatch allows the user to set up pre-capture filters and to apply different filters to an existing data-capture file. PROBEwatch allows offline Filter editing, storage and retrieval. Thus the user can store various filters of interest, and call them up to configure a DECpacketprobe as needed.

The PROBEwatch DomainView™ hides much of the setup work that is required in the RMON MIB to set up filters for common protocol suites. A "domain" is a subset of all traffic on the segment; domains are defined using filters in the Filter Group. More than one DomainView can be active at the same time on any one probe; a different DomainView can be set up by another PROBEwatch management station.

PROBEwatch can be set up as an SNMP Trap receiver, not only from DECpacketprobes, but from any device that sends Traps. PROBEwatch allows the user to open a window to view the Traps that have been received.

HARDWARE REQUIREMENTS

Processor and/or hardware configurations as specified in the System Support Addendum (SSA 46.01.00-x).

SOFTWARE REQUIREMENTS

- ULTRIX Operating System
- Motif

Refer to the System Support Addendum (SSA 46.01.00-x) for availability and required versions of prerequisite/optional software.

ORDERING INFORMATION

Software License: QL-216A9-AA

Software Media: QA-216AA-H5

Software Documentation: QA-216A9-GZ

Software Product Services:

- Layered Product Service: QT-216A9-L9
- Documentation Service: QT-216AA-KZ
- Media and Documentation Service (MDDS): QT-216AA-E5
- Installation: QT-216A9-I9

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.

License Management Facility Support:

This layered product supports the ULTRIX License Management Facility.

License units for this product are allocated on an Unlimited Use basis.

For more information on the License Management Facility, refer to the ULTRIX Operating System Software Product Description (SPD 26.40.xx) or the *Guide to Software Licensing* in the ULTRIX Operating System documentation set.

SOFTWARE PRODUCT SERVICES

A variety of service options, including those listed below, are available from Digital. For more information, contact your local Digital office.

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

SOFTWARE WARRANTY

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

- ® Motif and OSF/Motif are registered trademarks of Open Software Foundation, Inc.
- ™ DomainView is a trademark of Frontier Software Development, Inc.
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System Support Addendum

PRODUCT NAME: PROBEwatch for ULTRIX, Version 1.0

SSA 46.01.00-A

HARDWARE REQUIREMENTS

RISC-Based Processors Supported:

Personal DECstation 5000 Model 20/25/33 /50 HX,
Personal DECstation 5000 Model 20/25/33 /50 TX,
Personal DECstation 5000 Model 20/25/33 /50 PXG+,
Personal DECstation 5000 Model 20/25/33 /50 PXG Turbo+

DECstation 5000 Model 120/125/133 CX,
DECstation 5000 Model 120/125/133 HX,
DECstation 5000 Model 120/125/133 PX,
DECstation 5000 Model 120/125/133 TX,
DECstation 5000 Model 120/125/133 PXG,
DECstation 5000 Model 120/125/133 PXG+,
DECstation 5000 Model 120/125/133 PXG Turbo,
DECstation 5000 Model 120/125/133 PXG Turbo+

DECstation 5000 Model 200/240/260 CX,
DECstation 5000 Model 200/240/260 HX,
DECstation 5000 Model 200/240/260 PX,
DECstation 5000 Model 200/240/260 TX,
DECstation 5000 Model 200/240/260 PXG,
DECstation 5000 Model 200/240/260 PXG+,
DECstation 5000 Model 200/240/260 PXG Turbo,
DECstation 5000 Model 200/240/260 PXG Turbo+

Processors Not Supported

DECstation 2100, DECstation 3100

All VAX-based processors

Other Hardware Required:

The PROBEwatch program supports 8-plane color monitors in "pseudocolor" mode only.

Disk Space Requirements:

Disk space required for installation: 60 Mbytes
Disk space required for use (permanent): 40 Mbytes

The disk sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

The minimum memory supported is 24 Mbytes. However, the use of this software in conjunction with increased memory capability improves performance.

DECpacketprobe 90 (to collect the information that PROBEwatch will get using SNMP)

SOFTWARE REQUIREMENTS

- ULTRIX Operating System V4.2A or V4.3
- OSF/Motif® V1.1.3

OPTIONAL SOFTWARE

- POLYCENTER Framework V1.3
- POLYCENTER Network Manager 200 V1.3
- POLYCENTER SNMP Manager 300 V1.3

Refer to the following SPDs for specific information on the Polycenter products:

- POLYCENTER Framework (SPD 32.46.xx)
- POLYCENTER Network Manager 200 (SPD 32.48.xx)
- POLYCENTER SNMP Manager 300 (SPD 33.18.xx)

GROWTH CONSIDERATIONS

The minimum hardware/software requirements for any future version of this product may be different from the requirements for the current version.

DISTRIBUTION MEDIA

TK50 Streaming Tape

This product is also available as part of the ULTRIX Consolidated Software Distribution on CD-ROM.

ORDERING INFORMATION

Software License: QL-216A9-AA

Software Media: QA-216AA-H5

Software Documentation: QA-216A9-GZ

Software Product Services:

Layered Product Service: QT-216A9-L9

Documentation Service: QT-216AA-KZ

Media Document (MDDS): QT-216AA-E5

Installation: QT-216A9-I9

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

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