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# Software Product Description

**PRODUCT NAME: System Resource Management (SRM) SCO[TM], Version 3.5** **SPD 44.21.02**

## DESCRIPTION

System Resource Management (SRM) consists of several products providing Systems and Network Management Services in a Financial Business System (FBS). SRM products provide system and network managers with the necessary tools to ensure effective manageability of complex net worked systems. SRM provides the management functions through a centrally located entity called System Control Centre (SCC). From this center managers can plan additions, moves, etc., but even more important is the ability to make these changes timely, easily, securely, and cost-effectively.

In a typical banking configuration all branches are connected to a Wide Area Network (WAN). In Europe many banks use IBM[R] hosts. In a bank's branch the FBS system is a Local Area Network (LAN) with UNIX[R] servers and with DOS/Windows[TM] workstations.

SRM provides System Management Services in FBS-based systems. The SRM products support both IBM and non-IBM host environments. In systems with IBM hosts, SRM provides products that can cooperate with products such as NetView[R]. SRM also integrates products in the IBM host for assisting in software distribution and utilizes the SNA network in the most efficient way. Non-IBM host environments are also supported.

As an example, SRM can perform software distribution directly from the System Control Centre to branch nodes without utilizing any host functions.

The following SRM products provide Systems and Network Management services in FBS:

- SRM SCO product, installed in SCO/UNIX branch server and DOS PC workstations
- SRM SCC product, installed in SCO/UNIX-based System Control Centre
- SRM PVBF product, installed in IBM host under VTAM[TM]
- SRM PVBF/SAF product, installed in IBM host under VTAM
- SRM NetView Panels product, installed in IBM host under NetView

The Software Product Descriptions for the products listed above define the main software products and dependencies among them.

System Resource Management SCO Product Features

The System Resource Management (SRM) SCO product works with the following SRM products:

- SRM SCC
- SRM PVBF or SRM PVBF/SAF
- SRM NetView Panels

The SRM SCO product is divided into the following components:

- Base Function Products
  - Remote Execute
  - PVBF Gateway
- Fault Management
  - Event Logging
  - PC Event Logging
  - PC Monitor
  - System Log Analysis
  - Systems Management Application
  - NetView/SCC Gateway
- Configuration Management
  - Software Distribution and Installation
  - Software Installation in PC workstations
  - Store and Forward
- Performance Management
  - Performance Monitor

**Base Function Products**

The Base functions are used by almost all other SRM products. The basic components are always required for SRM operation; some of them, however, are only required in combination with an SNA network.

**Remote Execute**

Remote Execute functions provide the means to log in on a remote node, act as a remote operator, execute commands in a remote node from a local application, running either in the foreground or the background, and have the output and exit status immediately sent back to the local node. The peer entity executes in the branch server.

**PVBF Gateway**

This module is located in the SCC and in the UNIX Branch server. The PVBF Gateway cooperates with PVBF in the host and provides service mapping to allow OSI or TCP/IP protocols to operate over the SNA network.

**Fault Management Products**

Fault Management is the detection, isolation, and correction of faults that cause abnormal system operation. The SCC operator can inspect the SRM Event Log in the server using remote log in and take further ap propriate actions for server and PC workstations.

**Event Logging**

Event Logging is the base for other SRM products such as the NetView/SCC Gateway, System Log Analysis, Systems Management Application, and user applications that want to read information from the log in the branch server. The Event Log can be inspected from SCC or locally. The Event Logging product provides the following services:

- Collecting event messages submitted from other components
- Event reporting from user programs
- Logging of event messages
- Administering the Event Log
- Reading and interpreting the Event Log
- Log listing
- An interface that allows user-defined filtering of event messages before logging

**PC Event Logging**

PC Event Logging enables events to be reported via a C or TFM application interface in the DOS/Windows workstation and sent to the Event Log in the server. Events can be sent further to NetView or SCC(when applicable). The customer organization can decide on the events to be sent and specify the format of events.

**PC Monitor**

SRM PC Monitor (PCM) is a PC management tool implementing remote monitoring and remote execute in a Windows PC. PCM is primarily intended for trouble shooting activities. PCM nterworks with the Performance Monitor by providing statistics. The Windows PC is normally managed from the SCC via the branch server. The PCM Agent (the PC component) executes commands on request from the PCM Manager on the branch server. PCM Manager can be run locally at the branch server or remotely from the SCC, either interactively by a human user, or from UNIX scripts. PCM is restricted, only commands defined in a PCM command table can be executed.

**System Log Analysis**

System Log Analysis is a tool used to analyze the contents of the Event Log locally or from SCC. It provides the service engineer or system administrator with a comprehensive set of functions, such as:

- Production of summary or detailed reports.
- Analysis of the Event Log and comparison of results with predefined threshold values. If a threshold is exceeded, specified UNIX commands can be executed or a local/remote operator can be notified.
- Generation of service event records on the Event Log.

**Systems Management Application**

Systems Management Application supports standard Systems Management operations, such as get value, set value, and action to be performed, on attributes of the managed DC objects, such as X25 or SDLC running on a DC control unit. Events such as a threshold exceeded for an error counter are also received from DC managed objects and logged into the Event Logging system. Typical SMA operations are:

- Reading statistical counters
- Setting thresholds, for example, on error counters
- Sending events when thresholds are exceeded
- Changing configuration information

**NetView/SCC Gateway**

The NetView/SCC Gateway product is inserted as an event filter in the SRM Event Logging system and interprets each event. Important events are converted to IBM format and transferred to NetView in the IBM host. The customer organization can also link in its own exit routines to perform any special interpretation and

conversion of events. This type of customization is normally carried out only at the central site, with the result distributed to the relevant nodes. Events can also be sent to SCC instead of delivery to NetView.

**Configuration Management Products**

The main task of Configuration Management is to ensure system consistency. The distribution and installation of new software versions and network supervision requires considerable investment. SRM protects this investment by providing efficient tools for centralized control of soft ware distribution and installation.Configuration Management provides the system administrator services for version control and distribution of software without any branch operator interaction.

**Software Distribution and Installation**

Software Distribution and Installation (SWDI) supports the distribution of software from the SCC to the WAN nodes/branch servers and further to workstations on the LANs. It has been designed to cover parallel distribution and installation to many/all nodes in an FBS-based system. Once software has been distributed in this way, it can be installed later. Installation can include operations such as creation, removal and replacement of files and directories, editing files, linking, and other actions. Files to be changed can be saved and reinstalled later in the server if installation was unsuccessful. Distribution and installation are controlled by commands and lists in the SCC. The status of the distribution and installation can be requested and reported.

**Software Installation in PC Workstations**

The SWDI component in the PC workstation, connected to a UNIX server via a LAN, has access to software in the UNIX server via a file-sharing mechanism (for example, the SMB Server or PATHWORKS). When distributing software to a DOS workstation, the SCC first distributes and then installs the software at the UNIX server on the LAN. As part of the installation process, the software is queued for each PC workstation affected. Each PC workstation checks, for example, at start up, to see if any software is queued for it. If so, the PC retrieves and installs the software onto its disk and reports the result back to the SCC. Distribution and installation for a diskless PC workstation for which all files reside on the UNIX server are handled as distribution to a UNIX server.

**Store and Forward**

The Store and Forward (SAF) function is a file transfer facility between FBS nodes and an IBM host. Files (datasets) are stored as sequential files on the host and the VTAM Bridge Facility is used to store/retrieve the files. The SAF commands generated by the FBS node enables files to be stored, retrieved, deleted, or listed. The SAF facility is used by SWDI for more efficient parallel distribution over the SNA network. SAF can be used to store Digital software in the IBM (or MVS compatible) host. The FBS nodes in the WAN will later retrieve the stored software under the control of the SCC.

**Performance Management Products**

**Performance Monitor**

The product provides significant extensions in performance management and early warnings as it regularly collects and evaluates statistics. In previous versions many statistical commands were available, which could be executed manually from SCC or branch when problems occurred.

The statistics was available as is, i e not regularly collected. SRM Performance Monitor provides early indications on possible problems in the network (slow during certain hours), capacity problems (disk getting full at server or workstation) and resource problems (memory problems at workstation). Repair actions can be taken before user is effected. Most of the evaluation like collection and analysis is performed at the branch in order to limit the network load. A general threshold analysis program compares the contents of the collected statistics with user defined threshold criteria and when threshold is exceeded events are sent from the branch server via NetView/SCC Gateway to either SCC or IBM NetView. Statistics can also be collected to SCC, at request for regularly, for further presentation and analysis. The user can also add his own statistics.

The SCC/SWP product provides a graphical interface at SCC to present the statistics. The Performance Monitor product can be installed in branch servers and in the SCC server itself for performance measurements. Predefined MS Excel spreadsheets and selections of statistics are included in the product.

## SOFTWARE REQUIREMENTS

**For DOS PC:**

- MS-DOS[R] Release 5.0 or later
- Microsoft[R] Windows 3.1 or later or Microsoft[R] Windows for Workgroups 3.11 (if PC Event Logging or PCM is used)
- SMB Server/MS-Net or compatible (if SWDI or PCM in PC is used)
- TFM Start 3.1.5 (if PC Event Logging is used)
- TCP/IP (or OSI) for LAN communication. DAV TCP/IP or Microsoft[R] TCP/IP 16 bit (but not 32 bit if SWDI in PC is used)

**For UNIX Server:**

- SCO-based UNIX, (DAV5) SMB Server or compatible (if SWDI or PCM in PC is used) OSI or TCP/IP protocols are required for communication with SCC

(also required if configuration is IBM host and SNA network)

- SNA Server (if configuration is IBM host and SNA network)
- TFM Start 3.1.5 (if PC Event Logging is used)

## 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

DSHD 3.5-inch floppies

## ORDERING INFORMATION

**INDIVIDUAL SERVER LICENSES:**

| Part No. | Description |
|---|---|
| QL-ODGAW-AA | Remote Execute |
| QL-ODHAW-AA | PVBF Gateway |
| QL-ODJAW-AA | Event Logging |
| QL-ODKAW-AA | NetView/SCC Gateway |
| QL-ODLAW-AA | Systems Management Application |
| QL-4WVAW-AA | PC Monitor/Server |
| QL-ODMAW-AA | System Log Analysis |
| QL-ODNAW-AA | Software Distribution and Installation |
| QL-ODPAW-AA | Store and Forward |
| QL-ODSAW-AA | PC Event Logging |
| QL-4WUAW-AA | Performance Monitor |

**INDIVIDUAL CLIENT LICENSES:**

| Part Number | Description |
|---|---|
| QL-ODQAW-AA | Software Installation in PC Workstations |
| QL-ODRAW-AA | PC Event Logging in PC Workstations |
| QL-4WWAW-AA | PC Monitor/client |

**LICENSES FOR VOLUME DISCOUNTS**

The SRM products are also available in volume as traditional licenses for different project sizes. Note that accumulated volumes of previous orders cannot be taken into account.

| Part number /Client | Description |
|---|---|
| QL-UPIxx-AX | 100 CLIENTS TRAD LIC |
| QL-UPIxx-AY | 200 CLIENTS TRAD LIC |
| QL-UPIxx-AZ | 400 CLIENTS TRAD LIC |
| QL-UPIxx-A2 | 700 CLIENTS TRAD LIC |
| QL-UPIxx-A3 | 1K CLIENTS TRAD LIC |
| QL-UPIxx-A4 | 1.5K CLIENTS TRAD LIC |
| QL-UPIxx-A5 | 2K CLIENTS TRAD LIC |
| QL-UPIxx-A6 | 3K CLIENTS TRAD LIC |
| QL-UPIxx-A7 | 5K CLIENTS TRAD LIC |
| QL-UPIxx- A8 | 10K CLIENTS TRAD LIC |

| Part number /Servers | Description |
|---|---|
| QL-UPIxx-AY | 20 SERV.TRAD LIC |
| QL-UPIxx-AZ | 50 SERV.TRAD LIC |
| QL-UPIxx-A2 | 100 SERV.TRAD LIC |
| QL-UPIxx-A3 | 200 SERV.TRAD LIC |
| QL-UPIxx-A4 | 400 SERV.TRAD LIC |
| QL-UPIxx-A5 | 700 SERV.TRAD LIC |
| QL-UPIxx-A6 | 1K SERV.TRAD LIC |
| QL-UPIxx-A7 | 1.5K SERV.TRAD LIC |
| QL-UPIxx-A8 | 2K SERV.TRAD LIC |

Note. UPIxx refers to the part number of one of the above individual licenses.

Software Media and Documentation: QA-ODGAA-HC

The media/documentation kit includes the following documentation, also available separately.

| Part number | Description |
|---|---|
| AA-PUDRB-TE | SRM 3.5 Products and Documentation |
| AA-PUDSA-TE | SRM Remote Execute, User's Guide |

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|---|---|
| AA-PUDTA-TE | SRM Remote Execute, Release Notes |
| AA-PUDUB-TE | SRM PVBF Gateway, Installation and Configuration Guide |
| AA-PUDVA-TE | SRM Event Logging, Reference Manual |
| AA-PUDWA-TE | SRM Event Logging, Programmers Interface, Programmers Guide |
| AA-PUDXA-TE | SRM Event Logging, Release Notes |
| AA-PUDYA-TE | SRM PC Event Logging, User's Guide |
| AA-PUDZA-TE | SRM PC Event Logging, Release Notes |
| AA-PUE0A-TE | SRM System Log Analysis, Reference Manual |
| AA-PUE1A-TE | SRM System Log Analysis, Release Notes |
| AA-QM2UA-TE | SRM PC Monitor, User's Guide |
| AA-QM2VA-TE | SRM Performance Monitor, User's Guide |
| AA-PUE2A-TE | SRM Systems Management Application, Reference Manual |
| AA-PUE3C-TE | SRM NetView/SCC Gateway, Reference Manual |
| AA-PUE5B-TE | SRM Software Distribution and Installation, Users Guide |
| AA-PUE6A-TE | SRM Software Distribution and Installation, Release Notes |
| AA-PUE7A-TE | Software Installation in PC workstations, Release Notes |
| AA-PUE8A-TE | SRM Store and Forward in an SNA Environment, User's Guide |
| AA-PUE9A-TE | SRM Store and Forward, ReleaseNotes |

## 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.

## INSTALLATION

Digital recommends that a customer's first purchase of this software product include Digital Installation Services. These services provide for installation of the software product by an experienced Digital Software Specialist.

For subsequent purchases of this product, only experienced customers should attempt installation. Digital recommends that all other customers purchase Digital's Installation Services.

## SOFTWARE PRODUCT SERVICES

A variety of service options are available from Digital. These include project services which are available to design and implement custom banking solutions. Service offerings for this product which include telephone or electronic assistance, will be available during the normal business hours of the local DIGITAL office (typically, Monday through Friday, 8AM- 5PM dependent on country resources), excluding locally observed DIGITAL holidays.

For additional 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 Digital Sales and License Agreement.

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