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Software Product Description

DESCRIPTION

System Resource Management (SRM) consist 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 networked 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[TM] product, installed in SCO/UNIX branch server and DOS PC workstations. Version 3.4.2 and 3.5. are supported from SCC .

- SRM SCC product, installed in SCO/UNIX-based System Control Centre (SCC) and the SRM SCO[TM] 3.5 product is required the SCC.

- 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 between them.

SRM System Control Centre Features

The SRM System Control Centre (SCC) product works with the following SRM products:

- SRM SCO

- SRM PVBF or SRM PVBF/SAF

Overall management at the SCC is provided by a set of software functions gathered into a package called the System Control Centre/Software Package (SCC/SWP). The SCC/SWP package is based on a client/server solution running SCO UNIX (SCC Server) and MS-Windows (SCC Workstation)

This is a graphical, menu-based application developed using TFM as the development and runtime environment. Centralized network and system control is provided via the SRM functions and UNIX functions through a uniform and easy-to-learn end user interface.

Other types of applications or functions can be implemented in the SCC /SWP since SRM products are based on a modular design. At the same time, a secure environment is provided by the ability to assign access rights to functions on a user group basis. The SCC also offers a channel to Network Management functions in an IBM host. The NetView/SCC Gateway product in the branches converts events to IBM format and these events sent to the NetView for presentation at the IBM host or alternatively to SCC. A 3270 Emulator can be used in the SCC to log into the host NetView system.

Most SRM functions have a product in the SCC and a corresponding product in the branch server (see SPD 44.21.02). The communication service supported between SCC and the branch servers is based on the TLI interface supporting, for example, TCP/IP or OSI protocols over X.25 routing function in the IBM host. PVBF is mainly used for software distribution; software can also be stored in the host for the most efficient distribution.

All configuration data in the SCC is stored in an INFORMIX[R] database called the Management Information Database (MID).

The SRM product is divided into the following components:

- Base Function Products

  - Remote Execute

  - PVBF Gateway

- Fault Management

  - Event Logging

  - PC Event Logging

  - System Log Analysis

  - Systems Management Application

  - NetView/SCC Gateway

  - PC Monitor

- Configuration Management

  - Software Distribution and Installation

  - Store And Forward

- Performance Management

  - Performance Monitor

- System Control Centre

  - SCC/Software Package

The System Control Center component is described above; descriptions for the remaining components follow.

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 TCP/IP or OSI 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 or alternatively retrieve the log to SCC in order to take further appropriate actions.

Event Logging

Event Logging is the base for other SRM products such as the NetView 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 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.

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 X.25 or SADLY 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

NetView/SCC Gateway

The NetView Gateway product is inserted as an event filter in the SRM Event Logging system and interprets each event. At installation the NetView/SCC Gateway is configured to deliver events either to IBM NetView or to SCC. If IBM NetView is selected for reporting of spontaneous events the 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.

SRM 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 interworks 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.

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 software 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 in the server to be changed can be saved and reinstalled later 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 .

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 PVBF product is used to store/retrieve the files.

The SAF commands generated by the FBS node enable 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

Performance Monitor

The product provides significant extensions in performance management and early warnings as it regularly collects and evaluates statistics. In previous version 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 UNIX SCC Server:

- SCO-based UNIX, DECadvantage Release 5 (DAV5)

- SQL UPS and SMB server (or similar)

- TFM 3.1.5 (4.0) and SRM SCO product version 3.5

- INFORMIX SE 5.0

- TCP/IP or OSI protocols with X.25 (if WAN is non SNA based)

- OSI or TCP/IP protocols over SNA (if configuration is IBM host and SNA WAN)

- SNA services (if configuration is IBM host and SNA network)

For DOS/MS Windows SCC workstations:

- TFM 3.1.5 (4.0)

- LAN protocol, Wollongong TCP/IP (DAV5)

- SMB redirector (or similar)

- for DAV (if access to IBM NetView is required)

- Microsoft[R] Excel 5.0 (optional if SRM Performance Monitor)

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 diskettes.

ORDERING INFORMATION

Server Licenses for client-server based SRM SCC, (Traditional Licenses):

Part No.		Description
QL-2WNAW-AA	1 to 40	SRM SCC SV SCO
QL-2WPAW-AA	1 to 100	SRM SCC SV SCO
QL-2WQAW-AA	1 to 200	SRM SCC SV SCO
QL-2WRAW-AA	1 to 400	SRM SCC SV SCO
QL-2WSAW-AA	1 to 1000	SRM SCC SV SCO

Client Licenses for client-server based SRM SCC, client part: (Each configured client workstation requires one license.)

QL-2WTAW-AA   SRM SCC CL WIN TRAD LIC

Software, Media and Documentation:

QA-2WNAA-HC   SRM SCC CL/SV RX23 V 4.1 KIT

Documentation includes the following manuals:

Part number /Servers	Description
AA-PUDRB-TE	SRM 3.5 Products and Documentation
AA-Q62EB-TE	SRM SCC, Operator's Guide
AA-PUF1A-TE	SRM SCC/SWP, Programmer's Guide
AA-Q62FB-TE	SRM SCC/SWP, Installation Guide
AA-PUDSA-TE	SRM Remote Execute, User's Guide
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, Programmer's Interface, Programmer's Guide
AA-PUDXA-TE	SRM 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-PUW2B-TE	Default NPDA Panels/IBM Rel Notes

AA-PUW5A-TE	PVBF Reference Manual
AA-PUW6B-TE	PVBF Installation Guide
AA-PUE5B-TE	SRM Software Distribution and Installation, User's Guide
AA-PUE6A-TE	SRM Software Distribution and Installation, Release Notes
AA-PUE8A-TE	SRM Store And Forward in an SNA Environment
AA-PUE9A-TE	SRM Store And Forward, Release Notes

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

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