



Preside Multiservice Data Manager

# List of Terms

241-6001-805



---

Preside Multiservice Data Manager

# List of Terms

---

Publication: 241-6001-805  
Document status: Standard  
Document version: 15.1RSUP  
Document date: August 2004

---

Copyright © 2004 Nortel Networks.  
All Rights Reserved.

Printed in Canada

NORTEL, NORTEL NETWORKS, the globemark design, the NORTEL NETWORKS corporate logo, DPN, PASSPORT, CONCORDE, and VECTOR are trademarks of Nortel Networks.

---



## Publication history

---

### August 2004

15.1RSUP Standard

Commercial availability except for MPE support which will be available in a future release.



---

# Contents

---

## **About this document** **9**

Who should read this document and why 9

What you need to know 9

How this document is organized 10

Text conventions 11

Related documents 12

---

## **Chapter 1**

### **Using the list of terms** **13**

---

## **Chapter 2**

### **List of terms** **15**

A 15

B 18

C 19

D 25

E 30

F 31

G 34

H 35

I 36

L 37

M 39

N 43

O 49

P 52

Q 58

R	58
S	60
T	66
U	68
V	70
W	70
X	71

## About this document

---

This document is a list of Preside Multiservice Data Manager (MDM) terms and their definitions. All documents in the MDM library are supported by this document.

The following topics are discussed in this section:

- “Who should read this document and why” (page 9)
- “What you need to know” (page 9)
- “How this document is organized” (page 10)
- “Text conventions” (page 11)
- “Related documents” (page 12)

### Who should read this document and why

This document is intended for personnel requiring a definition of terms, initials, and acronyms found in Preside Multiservice Data Manager documentation.

### What you need to know

This document assumes that the user is:

- an experienced user of data switching equipment
- familiar with Preside Multiservice Data Manager
- familiar with Nortel Networks switching equipment
- familiar with data networks

## How this document is organized

This document contains a list of terms, initials, and acronyms in alphabetical order with corresponding definitions. The list starts on page 15, and the list below indicates the beginning page number for each letter.

- “Using the list of terms” (page 13)
- “A” (page 15)
- “B” (page 18)
- “C” (page 19)
- “D” (page 25)
- “E” (page 30)
- “F” (page 31)
- “G” (page 34)
- “H” (page 35)
- “I” (page 36)
- “L” (page 37)
- “M” (page 39)
- “N” (page 43)
- “O” (page 49)
- “P” (page 52)
- “R” (page 58)
- “S” (page 60)
- “T” (page 66)
- “U” (page 68)
- “V” (page 70)
- “W” (page 70)
- “X” (page 71)

## Text conventions

This document uses the following text conventions:

- `nonproportional spaced plain type`

Nonproportional spaced plain type represents system generated text or text that appears on your screen.

- **nonproportional spaced bold type**

Nonproportional spaced bold type represents words that you should type or that you should select on the screen.

- *italics*

Statements that appear in italics in a procedure explain the results of a particular step and appear immediately following the step.

Words that appear in italics in text are for naming.

- `[optional_parameter]`

Words in square brackets represent optional parameters. The command can be entered with or without the words in the square brackets.

- `<general_term>`

Words in angle brackets represent variables which are to be replaced with specific values.

- UPPERCASE, lowercase

Uppercase and lowercase letters that appear in UNIX commands and parameters must be matched exactly. The system matches upper and lowercase characters differently.

- |

This symbol separates items from which you may select one; for example, ON|OFF indicates that you may specify ON or OFF. If you do not make a choice, a default ON is assumed.

- ...

Three dots in a command indicate that the parameter may be repeated more than once in succession.

The term absolute pathname refers to the full specification of a path starting from the root directory. Absolute pathnames always begin with the slash (/) symbol. A relative pathname takes the current directory as its starting point, and starts with any alphanumeric character (other than /).

## Related documents

See the following documents for related information:

- 241-0001-002 *DPN-100 List of Terms*
- 241-5701-005 *Passport 7400, 15000, 20000 List of Terms*

# Chapter 1

## Using the list of terms

---

Terms, initials, and acronyms in this document are listed in alphabetical order. Whenever possible, definitions are given with a term, not with its initial or acronym.

This document is meant to be used as an aid to understanding the terminology and acronyms used in Preside Multiservice Data Manager (MDM) documentation suite. The list contains MDM-specific terminology as well as general terms, initials, and acronyms.



## Chapter 2

### List of terms

---

This section contains an alphabetical listing of the terms found in the Preside Multiservice Data Manager (MDM) with their definitions.

#### A

##### **Abstract Syntax Notation One (ASN.1)**

The OSI notation used to describe abstract entities by using macros to build upon simpler entities. Management information base files are written in ASN.1 notation.

#### AC

See “access concentrator (AC)” (page 15).

##### **access concentrator (AC)**

A packet assembler/disassembler which connects several local asynchronous terminals to a distant packet switch over a packet-mode transmission link.

##### **access module (AM)**

A network element that provides user access termination, concentration, and local data switching. Access modules support internationally recommended and industry standard protocols.

##### **access node**

The integration unit through which a network management station connects to the network.

##### **action**

An activity performed as a result of a rule firing. See “firing a rule” (page 33).

**active surveillance model**

The Network Model used by all MDM fault management tools.

**AD**

See “Alarm Display (AD)” (page 16).

**agent**

See “SNMP agent” (page 63).

**alarm**

Notification of an unusual or important event. An alarm may indicate degradation of quality in service conditions, processing errors, out-of-service conditions, software errors, administrative conditions, or security violations.

**Alarm Acknowledgement**

A fault management tool that enables operators to identify and broadcast to other operators when they are investigating a problem associated with an alarm.

**alarm cache**

A file that contains a list of alarms to be reported to the Problem Manager.

**Alarm Display (AD)**

A fault management tool that monitors logs and active alarms.

**alarm format**

Alarms reported in the MDM Alarm Display are presented in either DPN format or a common DPN and Passport format. Alarms can be read in either terse, normal, or full syntax.

**Alarm Help**

An MDM utility that lets you view alarm code descriptions for network element alarms, MDM proxy alarms, and MDM supported Simple Network Management Protocol devices.

**AM**

See “access module (AM)” (page 15).

**anchor window**

See “main window” (page 39).

**API**

See “Application programming interface (API)” (page 17).

**API provider**

A process residing on MDM that is called upon to provide the services of an Application Programming Interface (API).

**API user**

The component of a custom program that invokes the Application Programming Interface (API) provider and subsequently makes service requests.

**Application programming interface (API)**

MDM Application Programming Interfaces (APIs) are open, published interfaces that allow third-party network management systems and custom programs to access the full range of network data.

**archiver**

An MDM utility that is responsible for storing and extracting files to and from tape. The archival process is a background activity in which alarms, logs, and statistics are written to tape.

**ASN.1**

See “Abstract Syntax Notation One (ASN.1)” (page 15).

**asynchronous**

(1) A communication mode where requests can be submitted successively without waiting for responses, which could be returned at any time and in any arbitrary order.

(2) A mode of communication where messages (event-reports) may be transmitted at any time by the Application Programming Interface provider.

**Asynchronous transfer mode (ATM)**

A mode of communication where messages (event-reports) may be transmitted at any time by the Application Programming Interface provider.

**ATM**

See “Asynchronous transfer mode (ATM)” (page 17).

**ATM service provisioning tool**

An MDM tool that lets you provision asynchronous transfer mode (ATM) permanent virtual connections (PVCs) between two or more nodes.

**ATM PVC checks**

An NRS-based service integrity check to identify problems in ATM permanent virtual circuits.

**attribute**

Properties of objects. A processing element object may have a state attribute describing its state (enabled or disabled); an X.25 service object may have an attribute representing the number of disconnects.

**authentication**

A process whereby MDM verifies destination, userid, and password information from the user against configuration information when connecting to a node.

**availability**

The time at which a device or service is ready and fit for use.

**B**

**background**

The part of a workstation window that does not have static text, fields, buttons, or other objects on it.

**background map**

In MDM fault management, a geographic map (in X11 format) over which a network model can be displayed.

**base object**

An object that matches the data specified in the *\_object\_id* message line in an API service request message. It becomes the root of a logical tree structure containing the set of objects of interest for which the service is performed.

**BDF**

See “Bulk data format (BDF)” (page 19).

**bendpoint**

Found in the MDM fault management Network Viewer tool, it is the location of an adjustable angle in a link between nodes.

**block**

A set of labels or values that span more than one line. The block begins with the command `_block:<label>` and ends with the command `_end_block`.

**border**

In a user interface, the outline portion of the window, including the title bar. This is not to be confused with a separator, which divides different areas of a window.

**Bulk data format (BDF)**

Data, such as accounting and alarm data, is collected by a Management Data Provider and converted into BDF for transfer to customer sites for further processing.

**bundle**

A set of Master Configuration Files (MCFs) that includes the root MCF, MCF directory file, and the associated MC.\* files. The bundle id is the second field of the root MCF file name.

**button**

A standard user interface object that appears on windows, areas, or dialogs. A button lets you make a selection, and start or stop a process. The button can be activated by clicking on it with the pointer.

**C****cache file**

Cache files contain Passport 4400 configuration data, as last read from the device.

**Cache Server**

See “Passport 4400 Configuration Server” (page 53).

**call redirection**

Automatic rerouting of calls to predefined alternate addresses when the destination address is not available.

**cascade menu**

A list of selectable options that appears beside the main list of selectable options (main menu). A cascade menu is used when the list of subcommands is too long to be placed on the main menu, or to emphasize that the commands belong to a particular group or perform a particular function separate from other commands in the main menu. A cascade menu is indicated by an arrow to the left of the command.

**CC**

See “Command Console (CC)” (page 21).

**CCITT**

See “Consultative Committee for International Telephony and Telegraphy (CCITT)” (page 24).

**CCM**

See “community string” (page 22).

**CDF**

See “configuration data files (CDF)” (page 23).

**CDT**

See “Customer Data Tool” (page 24).

**channel**

A path for electrical transmission between two or more points. A channel can also be called a circuit, line, data link, or path. It can be asynchronous, synchronous, or voice.

**check box**

A standard user interface object that is used in a window or dialog to provide the user with the option of selecting one or more items from the list in that window or dialog. A check box appears to the left of each selectable item and contains a checkmark when that item is selected.

**chooser**

A standard user interface object found on the right side of a field and that signals the availability of a menu of options for filling the field. The chooser looks like a black box with a triangle inside.

**CIV**

See “Component Information Viewer (CIV)” (page 22).

**class**

The name given to a group of one or more asynchronous channels. Classes are used to group similar ports for network users and may be viewed as a hunt group where an asynchronous user can connect to any available ports in the group.

**CLI**

See “command line interface (CLI)” (page 22).

**click**

The action of pressing and then immediately releasing the select mouse button.

**CM**

See “Connection Manager (CM)” (page 23).

**columnar variable**

A management information base variable that has multiple instances. These instances are organized into a table and individual instances are referred to by their table index.

**command area**

A location in an application window where commands can be entered and reviewed. The command area contains two fields: a command (input) field and a history field.

**Command Console (CC)**

The MDM Command Console is an operator command interface. It can be used interactively to control the network by issuing operator commands directly to nodes in the network, issuing UNIX commands, and issuing Simple Network Management Protocol commands.

**command file**

A set of instructions stored in a file. When the command file is executed or invoked, all instructions or commands in that file are performed automatically. Also referred to as a macro.

**command line interface (CLI)**

An area on a terminal screen that lets you enter instructions from the keyboard and then execute or run those instructions. The UNIX workspace is a command line interface that can be opened by selecting System -> Utilities -> UNIX Access in the MDM window.

**command port**

A dedicated terminal used to control and monitor a multiplexer system. Also, the interface to which this terminal is connected.

**committed model**

See “start-up (committed) model” (page 64).

**communications channel interface**

An MDM utility that manages a single communications channel to the Network Control System.

**community string**

A case-sensitive character string that accompanies each Simple Network Management Protocol request. Community strings are used to grant read access to management information bases and to verify the origin of traps. The default community string is public.

**component**

A component is a hardware device or a link within the network. Examples of components are packet module, access module, trunks, and network links.

**Component Information Viewer (CIV)**

An MDM fault management tool that provides information about a single component in the network. The information may include a list of related components, alarms, status, and Network Model information.

**Component Provisioning**

An MDM configuration management tool. The DPN Component Provisioning tool defines, edits, and displays service data for network elements.

**Component Status Display (CSD)**

An MDM fault management tool that provides information on the status of network elements. The Component Status Display lists the elements at the following levels: site, node, module, component, and subcomponent.

**configuration data files (CDF)**

A set of files created from the configuration data collected from the network using the MCDF process. These files are used to create a Network Model.

**Configuration Differences Report**

An NRS Reports tool that provides a graphical user interface that lets you select two sets of configuration data, compares the two configurations and produces a report on the differences.

**Configuration management**

The MDM toolset used to define and maintain service and operating parameters for network elements.

**Configuration Manager (CONFIGMAN)**

CONFIGMAN provides configuration services for the nodal provisioning interface.

**Configuration Report**

An NRS Reports tool that provides a graphical user interface that lets you produce simple configuration hierarchy reports.

**connection**

An established data communications path, the process of establishing that path, or a point of attachment for that path.

**Connection Manager (CM)**

An MDM server process that manages all network connections and authentications for an MDM session.

**constant state component**

A type of network module component from which the MDM Network Model does not receive any state information.

**Consultative Committee for International Telephony and Telegraphy (CCITT)**

The body responsible for defining international recommendations for voice and data communications.

**containment tree**

A hierarchical arrangement of object classes based on their containment relations. This hierarchy is used to describe the structure of the naming tree.

**context buffer**

A storage area used to transfer information, modules, component and subcomponents such as filenames or the contents of files, between utilities in the MDM toolsets. Not all tools have access to the context buffer. The tools that can place information in and retrieve information from the context buffer are: Component Status Display, Component Information Viewer, Command Console, Component Provisioning, Customer Data tool, and Alarm Display.

**criticality**

The importance of a component in network fault management. In MDM fault management, criticality can be user-specified as a number from 1 to 5. The more outages the component's fault would cause, the higher its criticality value.

**CSD**

See "Component Status Display (CSD)" (page 23).

**CTXSVR**

See "NMS Context server (CTXSVR)" (page 48).

**cursor**

A graphical image that shows the location where text will appear on the screen when keyboard keys are pressed.

**customer application**

An application written by the customer that uses the Application Programming Interface format to exchange information with MDM tools.

**Customer Data Tool**

An MDM utility that provides access to a customer database(s). The database can be populated by the customer with any type information.

**custom program**

A program developed to use Application Programming Interface services for a particular customer application.

**D****database management system (DBMS)**

A storage area for alarms, logs, and statistics collected by any network platform. The DBMS is controlled by the system administrator.

**data collection daemon (DCD)**

A process by which fault management data is collected from selected devices. Traps are converted into MDM alarms for display. The DCD can be generic or device-specific. See “SNMP Surveillance Adapter” (page 64).

**data collector**

An application that retrieves raw event files such as logs, alarms, statistics, and accounting information from networks; see “Management Data Provider (MDP)” (page 40).

**data entry field**

A standard object that appears, usually in the form of a rectangle on the tools main window or in dialog boxes, that lets you type information onto that field in the window or dialog. That information is then processed in some way by the application.

**datagram**

A data packet that includes sufficient information to be independently routed from source to destination.

**Data Link Connection (DLC)**

The frame relay data stream.

**Data Link Connection Identifier (DLCI)**

1) To identify data link connections (DLCs) in a frame relay link, each DLC is assigned a DLCI when a frame relay call is being established.

2) A unique number assigned to a permanent virtual circuit (PVC) endpoint in a frame relay network. Identifies a particular PVC endpoint within a frame relay link in a network; it has local significance only to that link.

During the data transfer phase, all the frames belonging to a frame relay call carry the same DLCI in the link layer address field of each frame.

### **Data Link Control (DLC)**

A bit-oriented communications protocol that sets up, controls, checks, and terminates information transfer between two stations on a data link.

### **data manager agent (DMA)**

Depending on the startup parameters you use when configuring the server, the DMA server can be used to perform the following:

- distribute MDM alarms through the general management data router or network control system (NCS)
- workstation surveillance using NCS status probing
- global alarm clearing for DPN

### **data network address (DNA)**

An address used to label each line in the DPN-100 network, that is, a telephone number. Conforms to X.121 or E.164 numbering systems.

### **Data Packet Network (DPN)**

A packet-switched networking system. A Data Packet Network is used as a data concentrator to help manage the data traffic associated with large numbers of zones. DPN is a trademark of Nortel Networks.

### **Data Viewer**

The Data Viewer is an MDM diagnostic tool that lets you collect, display and analyze performance information in real-time mode and replay mode. Data from network elements and Simple Network Management Protocol (SNMP) devices is collected in real-time mode. Replay mode lets you replay data collected by Management Data Provider (MDP), Statistical Retrieval System (SRS), Performance Measurement Stream Processor (PMSP), and Data Viewer. The Data Viewer is a Java-based application that requires software installation on both the server (MDM workstation) and client.

### **Data Viewer agent**

The Data Viewer clients open sessions with the Data Viewer agent. The agent, in turn, connects to the corresponding MDM servers. Once connected to the servers, the agent provides information to the graphical user interface.

**DBMS**

See “data entry field” (page 25).

**DBNL**

See “dial backup network link (DBNL)” (page 28).

**DBNL auto-disabling daemon (DBNLWatch)**

The DBNLWatch daemon monitors alarms from DBNL network elements. When the DBNLWatch server daemon detects an alarm, it sets up a watch on the dial backup network link (DBNL), obtaining information about it and can deactivate the DBNL when the primary link returns to service successfully.

Does not apply to networks that only contain Passport switches.

**DBNLWatch**

See “DBNL auto-disabling daemon (DBNLWatch)” (page 27).

**DCD**

See “data collection daemon (DCD)” (page 25).

**DDEF**

See “destination define configuration (DDEF)” (page 27).

**DDR**

See “DPN data reporter (DDR)” (page 29).

**destination define configuration (DDEF)**

A file that specifies the Network Control System (NCS) Operations Agents that are used by the NCS Connection Console tool.

**device**

A modelling concept used by the Simple Network Management Protocol Surveillance Adapter. A device is a network element with an IP address.

**Device Inventory tools**

Reporting tools that let you report on the hardware and software configuration of selected devices in your network.

**device IP translation file**

Device IP translation files are required by the Passport 4400 Configuration Server to translate Passport 4400 device names to IP addresses and ports.

**dial backup network link (DBNL)**

If the primary network link fails, the DPN-100 network makes a dial-up call through the public switched telephone network. The dial-up connection becomes the new primary link between the access module cluster and a resource module.

**dialog box**

A secondary window within a tool that displays message indicators, fields, and interactive controls to the user. Some dialogs contain a message that describes an action that occurs when you select the OK action button. The Cancel action button lets you to stop the action from occurring.

**display area**

A portion of a window that shows information; data, filenames, or information contained in files. Usually the display area lets you to delete or edit the information that is being shown.

**distinguished name**

The name and value of all the components along the path from the top of the hierarchy, down to and including the component being named.

**DLC**

See “Data Link Connection (DLC)” (page 25) or “Data Link Control (DLC)” (page 26).

**DLCI**

See “Data Link Connection Identifier (DLCI)” (page 25).

**DMDR**

See “DPN Management Data Router (DMDR)” (page 29).

**DNA**

See “data network address (DNA)” (page 26).

**DNMNC**

See “Network Model coordinator (DNMNC)” (page 46).

**download**

The process of distributing network configuration data, service data, or software to a device.

**DPN**

See “Data Packet Network (DPN)” (page 26).

**DPN data reporter (DDR)**

An application to produce reports based on alarms, statistics and operator log data.

**DPNGATE**

See “DPN Gateway (DPNGATE)” (page 29).

**DPN Gateway (DPNGATE)**

A trunk from Passport to DPN.

**DPN Inventory tool**

A reporting tool that lets you produce reports for modules under an operations agent, or for a specific module. In addition to using existing reports, you can design custom reports.

**DPN Management Data Router (DMDR)**

The DMDR server processes raw data received from the communication channel interface process, calculates the state of the DPN components monitored by network control system operational agents, and forwards this processed information to its GMDR client servers.

**DPN Performance Viewer (PV)**

An MDM fault management tool used by network operators to collect and display performance information about network components. The DPN Performance Viewer provides a graphic display of this information for DPN network components. This tool is used to help trace faults in the network, collect information about network load, and generate statistics for reporting and analytical purposes.

## **E**

### **E1**

A European standard for digital voice and data communications transmitted at the rate of 2.048 Mbps.

### **E.164**

The Consultative Committee for International Telephony and Telegraphy (CCITT) recommended numbering plan for ISDN, which includes the numbering plan for public switched telephone networks (PSTNs). All of the DPN-100 access services can accept the E.164 addressing format for both international and national addresses.

### **EIA**

See “Electronics Industry Association (EIA)” (page 30).

### **EDSERVER**

See “Network Model Editing server (EDSERVER)” (page 47).

### **Electronics Industry Association (EIA)**

A trade organization that issues its own standards and contributes to American National Standards Institute (ANSI). EIA developed the RS-232 (V.24) standard.

### **Embedded Programming Interface (EPI)**

A more powerful and efficient access to the MDM Application Programming Interfaces.

### **end-to-end server (ETESERVER)**

The ETESERVER acts as an intermediary between the end-to-end provisioning applications and the MDM Command Console Functional Process server.

### **endpoint**

A subcomponent that is a termination for a link in the MDM Network Model.

### **engineering**

The process of planning, configuring, and monitoring the MDM computing platforms and/or network for maximum efficiency.

**Enhanced Status Reporter (ESR)**

An application to produce reports on network nodes, based on statistics and threshold problems.

**Envelope Editor**

A DPN configuration management application that lets you edit and create service data envelopes or Service Data Area headers. The Envelope Editor displays service data in ASCII hex or binary format.

**EPI**

See “Embedded Programming Interface (EPI)” (page 30).

**ESR**

See “Enhanced Status Reporter (ESR)” (page 31).

**ETESERVER**

See “end-to-end server (ETESERVER)” (page 30).

**ethernet**

A type of communications interface between workstations and local area networks (LANs).

**event**

Any reportable occurrence on a managed device.

**event report**

The information associated with an event that is transmitted to the Application Programming Interface user.

**external state**

See “raw state” (page 58).

**F****FA**

See “field access (FA)” (page 33).

**facts**

State information about problem instances.

**fallback**

The MDM process of reactivating service data residing in a previously activated master configuration file.

**Fault management**

The MDM toolset that lets a network operator obtain information about events from devices in a network.

**FCAPS**

The Telecommunications Management Network standard of functional network management categories: fault management, configuration management, accounting management, performance management, and security management.

Fault management includes the activities of network surveillance, fault localization, service restoration (recovery), and testing.

Configuration management includes the activities of resource provisioning, service provisioning, status control, and software management and recovery.

Accounting management includes the activities of collecting and accessing accounting records, processing accounting records, and validating and modifying accounting records.

Performance management includes the activities of network performance monitoring, performance measurement, configuration, and reporting, and performance analysis.

Security management includes the activities of access control, ensuring system integrity, detecting and reporting security breaches, and security recovery.

**FDTM**

See “Passport Communications Manager (FDTM)” (page 53).

**field access (FA)**

A service that provides configuration management client processes with DPN service data parameters at the discrete field level. This process uses the service data area and Envelope Access server to retrieve the envelope information it requires.

**file**

A set of related records. Records that are treated as a unit for the purposes of storage and retrieval.

**filter**

A means to refine an Application Programming Interface query.

**firing a rule**

A rule is said to fire if the conditions associated with the rule evaluate to true using the current state of the problem instance and the most recently arrived alarm.

**Flash memory**

Non-volatile memory containing service data on Passport 4400 devices.

**FlashPak cartridge**

A cartridge containing the operating firmware for Integration products. The cartridge contains Flash memory, which lets software be downloaded.

**FMIP Management Data Router**

The FMIP management data router directs reports from the FMIDR server to MDM applications.

**force connect(ed)**

A dedicated connection between any two ports of the same type.

**forward chaining**

The process by which a knowledge base can be searched exhaustively to prove an hypothesis.

**FPS**

See “Passport Provisioning Stack (FPS)” (page 54).

### **Frame Relay**

A wide area networking connection to leased lines, providing multiple permanent virtual circuits or data link connections within the same physical access line.

### **Frame Relay service provisioning tool**

An MDM tool that lets you provision Frame Relay permanent virtual connections between two or more nodes.

## **G**

### **General Management Data Router (GMDR)**

A database that stores indicators about network management elements, for use by MDM fault management tools.

### **Generic Data Collection Daemon (GENDCD)**

GENDCD allows the fault management of Simple Network Management Protocol devices, and the auto-discovery of the devices and their configuration. The SNMP Surveillance Adapter is based on the GENDCD; see “SNMP Surveillance Adapter” (page 64).

### **Generic Service Data Backup/Restore**

A stand-alone tool for backing up and restoring service data on selected devices. The Generic Service Data Backup/Restore supports Passport and Passport 4400 devices. The tool lets you perform full, incremental, and selective backups and restores.

### **Global Data Manager (GDM)**

A DPN configuration management tool that provides a mechanism for duplicating certain global service data components from one master configuration file (MCF) to one or more MCF(s) in the network. It lets you provision an arbitrarily designated master MCF as a source of service data envelopes to be copied to one or more target MCF(s). The GDM tool is used to distribute network data across the modules in your network.

### **GMDR**

See “General Management Data Router (GMDR)” (page 34).

**GMDR Admin**

An MDM administration tool that lets you configure a General Management Data Router (GMDR) server to collect fault management data, monitor connections between the GMDR server and the fault management servers, view and reset a GMDR database that contains statistics gathered by the GMDR server, and to view logs about changes in the states of connections to the fault management servers and database resets.

**group files**

Group files exist on a Passport 4400 Configuration Server and contain lists of PP4400 devices. These files are used to provision multiple Passport 4400 devices simultaneously.

**H****heuristic**

A rule, generally based on expert experience rather than procedural theory, that can be incorporated in a knowledge base and used to guide the problem solving process.

**HGDS**

See “Host Group Directory server (HGDS)” (page 35).

**host computer**

- (1) A computer that uses a communication network to provide its services.
- (2) The primary or controlling computer in a multiple computer operation.
- (3) A computer used to prepare programs for use on another data processing system; for example, a computer used to compile, link, edit or test programs to be used on another system.

**Host Group Directory server (HGDS)**

The HGDS provides information to MDM that describes how the Operation Agents (OAs) and Passport nodes in the network are grouped.

## I

### **icon**

A graphical image used to represent a window. Windows can be turned into icons or minimized to save room on the screen.

The nodes in the network display in Network Viewer (NV). The NV network display provides a graphical representation of trunks and nodes in the network. Nodes are represented by icons; trunks are represented by lines between the nodes.

### **icon state**

A graphical representation of the state of a problem instance.

### **IMDR**

See “Injected Management Data Router Module (IMDR)” (page 36).

### **INETD**

See “INET Daemon (INETD)” (page 36).

### **INET Daemon (INETD)**

A software process that lets server-type applications to be made available from IPC ports. Consult UNIX documentation for more details.

### **Injected Management Data Router Module (IMDR)**

The IMDR server collects and stores surveillance data, calculates and updates each components’ raw state as needed and provides this information to clients, such as the general management data router. The IMDR also supports property requests from clients.

### **Integration Router Module (IRM)**

An integral module available on Integration units that offers router functionality. This local area network product is used to connect remote LANs across a wide area network.

### **Integration unit**

A product that utilizes MicroBand ATM technology to multiplex data, voice, facsimile, and local area network traffic over low-cost leased lines.

**invoke-id**

An integer identifier used to correlate responses, errors, or both, with the requests with which they are associated in an Application Programming Interface.

**IP Address**

See “network address” (page 44).

**IRM**

See “Integration Router Module (IRM)” (page 36).

**L****LAN**

See “local area network (LAN)” (page 38).

**LAN module**

An optional Integration unit module. Along with a LAN FlashPak, this module will support either Remote Terminal Server, Remote local area network Bridge, or Integration Router functionality.

**layer**

A collection of related network processing functions that comprise one level of a hierarchy of functions in the OSI reference model.

**LCD**

See “liquid crystal display (LCD)” (page 38).

**leased line**

A telephone line reserved for the exclusive use of the leasing customer without interexchange arrangements.

**link**

A representation of a physical or logical access connection or trunk between network components.

**liquid crystal display (LCD)**

The 80-character display in the front of some Integration units that consists of two 40-character lines. It is used for real-time status and alarm messages, and time-of-day. By use of the adjacent keypad, it also provides access to configuration, diagnostics, and administration functions.

**local area network (LAN)**

A system linking together computers to create an inter-site network. These networks usually also provide access to external networks (WANs).

**Log Display**

A DPN fault management operator tool that displays the stream of network alarms. These network alarms are called system logs.

**log file**

A file that contains the log messages generated during a MDM tool operation. The contents of the log file depends on the tool that generates the log, usually providing a record of the success or failure of the required operation.

**logical connection**

In MDM fault management, an association between two end points in the network for the purpose of exchanging data.

**logical processor type**

The logical processor type list specifies the characteristic of the software that needs to be loaded on a processor card.

**logs**

Messages that are displayed by the Network Operator log display tool. Logs may include DPN alarms issued by Network Control System or MDM messages issued by the workstation. Logs also include messages that are displayed on the screen or in an X terminal window defined to display console output or command history.

**loopback or loopback test**

A type of diagnostic test in which the transmitted signal is returned to the sending device after passing through all, or a portion of, the data communications link or network. This lets the technician (or built-in

diagnostic circuit) compare the returned signal with the transmitted signal. This comparison provides the basis for evaluating the operational status of the equipment and the transmission paths through which the signal traveled.

**LPDA-2**

A protocol that enables diagnostic commands to be sent to modems.

**LPT**

See “logical processor type” (page 38).

**M****macro**

A file in MDM containing a program that runs complex or repetitive commands on network elements, parses the results if need be, and reports back to standard output (the screen, by default). MDM users can write additional macros in a number of programming languages including: C, C++, Perl, and TCL/Tk. However, macros are most commonly written in one of the UNIX shell languages, including: Bourne Shell, C-Shell, Korn Shell, and desktop Korn shell (dtksh).

**Magellan Access switch (MAS)**

Switching equipment.

**main window**

A graphical display that appears when you select an application from the MDM window. The main window provides a title bar, various areas, and menus that allow you perform certain functions.

**make configuration data file (MCDF)**

A utility that collects configuration data from the network to create configuration data files to define a Network Model.

**managed object**

A network device that can be managed by a network management protocol, such as Simple Network Management Protocol.

**Management Data Provider (MDP)**

A set of software that collects network accounting and performance data, converts the data format, and transfers it to a customer Billing or Network Engineering host. The Management Data Provider also includes network outage and availability calculation software.

**Management Information Base (MIB)**

A Management Information Base provides a description of all the components and variables within a component that a network management system may access. It provides the way of naming each of these components and variables.

**MAS**

See “Magellan Access switch (MAS)” (page 39).

**master configuration file (MCF)**

A file located on a module disk that contains the service data required for the operation of that module. Several related MCFs that make up a single module’s configuration are commonly, collectively referred to as an MCF and are identified by the bundle id. A bundle of service data is commonly referred to as an MCF.

**MCDF**

See “make configuration data file (MCDF)” (page 39).

**MCF**

See “master configuration file (MCF)” (page 40).

**MCF directory**

A file located on a module disk that provides a listing of all related master configuration files that together make up a complete module configuration.

**MCF Directory Merge**

A DPN configuration management command line application that is used to merge a selected number of master configuration file (MCF) directory files into a new MCF directory file. After the on-switch tidy command is executed, the MCF directory merge application lets you keep three or more bundles on a DPN-100 module.

**MCF management**

A DPN configuration management set of UNIX utilities used to help manage master configuration files on packet modules and NMS Disks.

**MDM**

See “Preside Multiservice Data Manager (MDM)” (page 49).

**MDM Module**

An optional Integration unit module that provides network management functionality without reducing the number of data channels available for user applications.

**MDM Toolset**

The MDM toolset refers to the non-operator client version of MDM originally available on UNIX-based SUN workstations.

**MDP**

See “Management Data Provider (MDP)” (page 40).

**MDP availability calculator**

Calculates network component availability statistics from outage records generated by the outage calculator.

**MDP host**

An off-switch component of the management data collection system that collects and converts the format of accounting and performance data generated by nodes.

**MDP outage calculator**

Calculates component outage based on alarms and state change notification generated by a network component.

**mean time to repair (MTTR)**

A statistic that indicates the time required to implement repairs related to a switch outage; as indicated by the Multiservice Data Provider Availability Calculator.

**Memory Utilization**

An MDM utility that displays information about the amount of virtual memory available on the workstation.

**menu**

A user interface list of available selections from which you can choose an option.

**MIB**

See “Management Information Base (MIB)” (page 40).

**MIB-II**

The current standard management information base defined in RFC 1213 for managing TCP/IP-based networks.

**MIB browser**

A software product that lets you access management information base files in a hierarchical display and to issue Simple Network Management Protocol Set, Get, and GetNext requests.

**MNSD**

See “Multi-nodal name server (MNSD)” (page 42).

**mnsdagent**

See “Multi-nodal name server agent (mnsdagent)” (page 42).

**module**

A hardware device within the network. Examples of modules are packet module which includes resource module and access module, as well as network module. A module can also be called a node.

**MTTR**

See “mean time to repair (MTTR)” (page 41).

**Multi-nodal name server (MNSD)**

There are two types of MNSD servers: level 1 and level 2. Level 1 MNSD enables software processes running on the same workstation to communicate with each other. Level 2 MNSD enables processes running on different workstations to communicate with each other; however, they must be connected to the same Ethernet local area network.

**Multi-nodal name server agent (mnsdagent)**

The mnsdagent functionality is similar to the multi-nodal name server, with the exception that it contains an interface for MDM Java applications to use.

**multiplexer (MUX)**

A device that combines the signals of many devices and types into a composite signal for transmission to a remote destination.

**MUX**

See “multiplexer (MUX)” (page 43).

**N****NAF**

See “Network Activation File (NAF)” (page 44).

**name binding**

A rule that states how instances of an object class may be named.

**naming tree**

A hierarchical arrangement of objects based on their containment relations. An object used to name another object is higher in the hierarchy than the named object. The naming object is called the superior object while the named object is called the subordinate object.

**NAMS**

See “network administration and management system (NAMS)” (page 45).

**NAT**

See “Network Activation Tool (NAT)” (page 44).

**NCD**

See “Network Configuration Database (NCD)” (page 45).

**NCD server**

See “Network Configuration Database server (NCD server)” (page 45).

**NCS**

See “Network Control System (NCS)” (page 45).

**NCS Command Console**

A DPN fault management operator tool that lets you use Network Control System applications and access DPN devices from an MDM workstation.

### **NCS Communication Manager (NCSMGR)**

An MDM software process that sets up and maintains virtual circuits on X.25 links from the workstation to DPN switches. The NCSMGR process performs this management function for other MDM software processes and tools.

### **NCS Connect Console**

A DPN fault management tool that lets you log on and off from the Network Control System through a specific DPN Operations Agent.

### **NCS Data Collector**

A server that collects access module (AM), network model (NM) and Resource Module (RM) alarms from the Network Control System. The NM alarms are filtered out, and the AM and RM alarms are sent to the Management Data Provider.

### **NCSMGR**

See “NCS Communication Manager (NCSMGR)” (page 44).

### **NDAM**

See “Network Data Access Mediator (NDAM)” (page 46).

### **Network Activation File (NAF)**

A file that contains a set of Network Activation records that can be executed in real-time or in batch mode with the Network Activation tool.

### **Network Activation Tool (NAT)**

An MDM tool with a graphical user interface and a command line interface that is used to simplify and automate the process for activating DPN MCFs and Passport Views over multiple modules. With the tool, activate operations can be performed interactively or in batch mode. For DPN modules, the NAT can be used to download master configuration filemasters (MCFs) configuration file from an NMS Disk, distribute the software images used by an MCF from a Software Distribution Site or from a Remote Download Site, activate MCFs, commit MCFs or commit loaders. For Passport modules, the NAT can be used to activate a View or commit a View.

### **network address**

In LAN technology, every node on an Ethernet network has one or more addresses associated with it.

Every node has a hardware address that is unique across every network everywhere, at any time. If you know a node's hardware address, you should be able to identify the exact piece of equipment to which it belongs. Hardware addresses are generally set up by the company that manufactured the equipment and should never change. This address is usually specified as a list of six hexadecimal numbers separated by dashes, such as ae-34-2c-1d-69-f1. The hardware address for the LAN module is shown on a label on the back panel of the module.

In the case of TCP/IP networks, each node also has a software or IP address. This can be configured by the network administrators of the nodes. The software address is usually specified as four decimal numbers separated by periods (for example, 197.49.155.247). In this case, each number must be between 0 and 255, and each segment of the number corresponds to a different network or sub-network. Depending on how many other nodes and networks a node can see on its network, addresses are either assigned to nodes (in the case of large, cross-country networks) or chosen randomly (for a small network that does not connect to the outside world). Each software address should be unique.

### **network administration and management system (NAMS)**

A functional grouping of administration subsystems that pertain to DPN-100.

### **Network Configuration Database (NCD)**

A database that facilitates DPN module configuration management capability and that provides notification of non-unique data values for components that require network-wide uniqueness. In addition, it provides notification of references to non-existent data network addresses.

### **Network Configuration Database server (NCD server)**

The NCD server provides access to an internal database that contains service configuration data which must be unique across all nodes in the network.

Unique items stored in this database include: data network addresses (DNAs), network administrator identifiers (NAMSIDs), gateway identifiers (GATEWAY\_ID), and IP addresses.

### **Network Control System (NCS)**

A system on the DPN network that carries out real-time management and fault management of the network components.

### **Network Data Access Mediator (NDAM)**

The NDAM provides management data from Passport nodes to client applications. By doing so, it can act as distributor of management data for applications such as HP Openview Desktop for the MDM. It can also act as a filter between two hierarchical general management data router (GMDR) servers. Finally, it can act in place of a GMDR server to perform type and regional filtering for fault clients.

### **network element**

A generic term for a Simple Network Management Protocol-monitored component in a network. Classifications of network elements are: device, subdevice, surrogating device, and surrogated device.

### **network file system (NFS)**

NFS lets client workstations access to software and data located on file servers.

### **Network Model**

An MDM software representation of network components and their relationships with each other in the network hierarchy. The Network Model is a collection of module, link, and subcomponent elements assembled into a hierarchical network topology. The Network Model shows the topology of the nodes and links in the network and can reflect the real-time state of those components through a constant flow of information from the actual network as it operates. The Network Model stores the modeled view of the managed elements in the network and makes it available to MDM tools and to Application Programming Interfaces.

### **Network Model components**

The classes of components modeled by the MDM Network Model include modules (or nodes), subcomponents, links, organization structures, organizational nodes, and organizational links.

### **Network Model coordinator (DNMNC)**

The DNMNC is the fault server responsible for coordinating access to the Network Model.

**Network Model Editing server (EDSERVER)**

The EDSERVER lets you edit Network Models from the Network Viewer (NV). The EDSERVER, along with the network model server, must be running to use NV in edit mode and security must be configured.

**Network Model server (NMSERVER)**

The NMSERVER is the MDM server responsible for handling Application Programming Interface requests from the Network Model Provider. It also provides Network Model information to the fault tools.

**Network Model schema**

The MDM Network Model schema defines the component types that are allowed to be modeled, what informational attributes they contain, how they can be inter-connected through links, and how they can be organized into an organization structure. These definitions are stored in a number of configuration files called the Network Model Types files. These files are specific to and delivered with each new MDM release.

**Network Model Shared Memory Utilization**

An MDM utility that displays information about the amount of shared memory available on the workstation for the Network Model.

**Network Reporting System (NRS)**

An MDM configuration management collection of tools that let you extract service data from DPN-100 modules on the network and store all the data in a central repository. This data can then be used for reporting purposes and is also accessible to other custom-developed applications.

**Network Status Bar (NSB)**

An MDM fault management tool that provides a high-level view of the current network status. It monitors a set of statistical indicators gathered from the General Management Data Router database. Some of these indicators quantify troubled elements of the network, including the number of active alarms and the number of components out-of-service.

**network topology**

A logical mapping of the physical structure of a network, which includes nodes, trunks, and gateways.

**Network Viewer (NV)**

An MDM fault management tool that displays state and topology information for the physical and organization components that comprise the network. The Network Viewer operates in two modes: surveillance and editing.

**Network Viewer Editor**

A subset of the MDM fault management Network Viewer tool that lets you create, supplement, and change a Network Model.

**Network Viewer legend**

An MDM fault management tool that shows the colors associated with state values and conditions. It also shows the meaning of icon and link styles.

**NFS**

See “network file system (NFS)” (page 46).

**NMS Context server (CTXSVR)**

The CTXSVR provides a way for processes running on the workstation to communicate with each other by putting values into context, or by getting values that have been previously put into context. The CTXSVR maintains the (key, content) pairs and responds to requests to put and get the values. A set of functions is provided for sending requests to the CTXSVR and decoding the responses.

**NMS Log collector (OAMC)**

The OAMC is the MDM server responsible for collecting MDM generated logs and making them available to the System Log Display tool.

**NMSERVER**

See “Network Model server (NMSERVER)” (page 47).

**Nodal Provisioning**

An MDM tool that lets you provision components and selected services using a graphical user interface. The nodal provisioning tool lets you define, edit and display service data.

**node**

See “module” (page 42).

**Preside Multiservice Data Manager (MDM)**

A Nortel Networks proprietary network management system used to manage a network. MDM runs on a commercially available hardware platform, such as a SPARCstation.

**Nortel Networks technical publication (NTP)**

A technical document that is intended to assist operating company personnel with the operations, administration, maintenance, and provisioning of Nortel Networks products, including both hardware and software.

**Notification**

Information associated with an event.

**NPM Macro**

A file containing one or more commands that are used for changing the value of existing service data but that does not allow the user to enter new data, for example, a new closed user group. This is used as a service data patching tool.

**NRS**

See “Network Reporting System (NRS)” (page 47).

**NRS Reports**

An MDM toolset from which you can launch the graphical user interfaces for two of the NRS tools; the Configuration Report and Configuration Differences report.

**NSB**

See “Network Status Bar (NSB)” (page 47).

**NTP**

See “Nortel Networks technical publication (NTP)” (page 49).

**NV**

See “Network Viewer (NV)” (page 48).

**O****OA**

See “operations agent (OA)” (page 51).

**OAM**

See “operations, administration, and maintenance (OAM)” (page 51).

**OAMC**

See “NMS Log collector (OAMC)” (page 48).

**OAM Data Collector**

An MDM sever that generates, collects, and distributes operations, administration and maintenance (OAM) data messages in the MDM environment. The OAM data messages report events, status, or failures detected in operation.

**object**

(1) A node or link that is defined by the MDM Network Model. These objects are organized into a hierarchy.

(2) A piece of information in a management information base tree that is either an intermediate node or a leaf node containing a value.

**object class**

An identified family of objects.

**Object ID (OID)**

A text or numeric string that identifies an object within a management information base tree. An OID lists the exact traversal of objects, starting from the root and moving down to the object in question. The internet OID, for example, is 1.3.6.1 (or iso.org.dod.internet in textual notation).

**OID**

See “Object ID (OID)” (page 50).

**OMS-P**

Open Management System for Passport (formerly Passport). A set of fault management and configuration management applications for Passport that can be integrated in an umbrella network management system such as HP OpenView.

**OpenView**

A third-party umbrella network management system from Hewlett-Packard, which supports OMS-P.

**OpenView Alarm Translator (OVAT)**

The OVAT provides trap information from Passport nodes to client applications.

**OpenView Data Access Mediator (OVDAM)**

The OVDAM server provides MDM management data to applications running on a Hewlett-Packard (HP) OpenView platform.

**operations, administration, and maintenance (OAM)**

A global set of processes and systems that covers the operational, administrative, and maintainability aspects of operating a network. The capabilities can be deployed by the operating company to best suit its total business and operational requirements.

**operations agent (OA)**

A software process in the Network Control System (NSC) that performs network management activities for other client processes within NCS or for client processes running on external computing platforms such as MDM. One or more devices are managed and accessible for operators. OAs are interconnected into a hierarchy.

**operator clients**

Clients for Operator Client applications can be established on Windows-based PCs or Unix-based SUN workstations. Clients must either locally install Java Run-Time Environment (JRE) and JWS on the client host, or use the auto-install feature to download the JRE from the User Administration Server. All other software required to support MDM on the client is downloaded from the User Administration server when the client establishes an IP connection. Clients can connect to the MDM User Administration server or to an MDM workstation configured as a server.

**Operator Commands tool**

An MDM tool available from NV, CIV, and AD that enables you to send operator commands to a selected component.

**organizational link**

A link between components that belong to different organizational nodes in the MDM Network Model.

**organizational node**

A set of modules or other organizational nodes in a fixed location of the MDM Network Model hierarchy.

**organization structure**

A representation in the MDM Network Model of an organizational arrangement of modules. Organizational structures are overlays that can be applied to the Network Model to group or hide nodes.

**OSF/Motif**

A graphical user interface standard.

**OSF/Motif toolkit**

A graphical user interface development tool, that provides a means to simplify the design and coding of user interface software in accordance with OSF/Motif standards.

**OSF/Motif widget resources**

Standard resources that define the appearance of a widget and how it acts; for example, resources that define the background color and border width for a push-button in the icon bar of a MDM tool. Some of these resources are user-editable in MDM.

**OVAT**

See “OpenView Alarm Translator (OVAT)” (page 51).

**OVDAM**

See “OpenView Data Access Mediator (OVDAM)” (page 51).

**P**

**package**

See “software package” (page 64).

**packet data overlay (PDO)**

A software feature that supports the messaging facilities between MDM tools on the same or different workstations.

**Packet InterNet Groper (PING)**

A method of testing the accessibility of a destination by sending an ICMP echo request and then waiting for a reply.

**packet module (PM)**

A provisionable node in the network. This may be a resource module, network module, access module, DPN access module, or any module.

**pagent icon**

The process on a module that has configuration management responsibilities and interacts with DPN configuration management.

**Passport (Passport) formerly Passport**

A Nortel Networks data communication switch with hybrid features: voice, data, and ATM. Passport is a small high-speed switch capable of: using several routing types; handling multiple protocols and most types of multimedia communications.

**Passport 4400 (PP4400)**

A Nortel Networks access product that extends the benefits of Passport to the small branch site by integrating voice, fax, video, local area network, and simple network architecture traffic.

The Passport 4400 series of devices includes the Passport 4430, 4450/55, and 4460.

**Passport 4400 Configuration Server**

The Passport 4400 Configuration Server, also referred to as the Cache Server, is used to provision Passport 4400 devices.

**Passport Configuration Server (PCSERVER)**

The PCSERVER is used by the Nodal Provisioning and the Circuit Emulation Service switched virtual circuit interfaces to create and manage the Passport Configuration Providers (FPS).

**Passport Communications Manager (FDTM)**

The FDTM creates and manages the data translation (FDTR) processes. The FDTR process allows a workstation to communicate with a Passport switch. The FDTM server also provides user ID and password authentication service when users log in to the node through the Connection Manager.

**Passport Global Data Manager (PGDM)**

An MDM configuration management command line tool that is used to propagate global data components from a Passport node to other selected nodes, or to replace the attribute values for those components during propagation. In addition, it can be used to replace the attribute values for selected nodes in the network.

**Passport Inventory tool**

A reporting tool that lets you produce pre-defined or custom reports for the modules in a Passport group or for a specific module.

**Passport group**

A set of Passport nodes that share at least one common user ID and password for performing network access, fault management or configuration management.

**Passport Provisioning Stack (FPS)**

An area in storage that uploads and stores the model description file in MDM, generates the record description files, activation files and forms, and loads the provisioning activation files in memory.

**PDO**

See “packet data overlay (PDO)” (page 52).

**PDU**

See “protocol data unit (PDU)” (page 57).

**PE**

See “processing element (PE)” (page 56).

**peripheral interface (PI)**

The circuit pack that provides the physical interface between a processing element and other devices or facilities.

**permanent virtual circuit (PVC)**

An ATM channel connection or path connection that is controlled by configuration at the network management interface.

**PF**

See “published format (PF)” (page 57).

**PFA**

See “provisioning file access (PFA)” (page 57).

**PFAS**

See “provisioning file access server (PFAS)” (page 57).

**PGDM**

See “Passport Global Data Manager (PGDM)” (page 54).

**PI**

See “peripheral interface (PI)” (page 54).

**ping**

See “Packet InterNet Groper (PING)” (page 53).

 **pixmap**

A common image format. The MDM fault management Network Viewer supports background maps in pixmap format.

**PM**

See “packet module (PM)” (page 53).

**PO**

Port; third element of a DNA address, after PE and PI.

**point-to-point**

A communications circuit or transmission path connecting two points. In the Integration unit, that connection can be force connected (dedicated point-to-point) or switched (switched point-to-point).

**polling**

A process by which a device accesses other devices at regular intervals to collect certain types of information.

**pop-up menu**

A user interface list of selectable commands that appears when the user presses the menu mouse button in a certain area. Each area may provide a different list of options.

**port**

(1) In data communications, that part of a data processor that is dedicated to a single data channel for the purpose of receiving data from or transmitting data to, one or more external, remote devices.

(2) A functional unit of a node through which data can enter or leave a data network.

(3) An access point (for example, a logical unit) for data entry or exit.

**PP4400**

See “Passport 4400 (PP4400)” (page 53).

**problem instance**

An occurrence of a problem created as a result of the triggering of a problem type for a specific physical component.

**problem type**

A predefined category of problems that correspond to a set of possible fault conditions defined using PDL.

**processing element (PE)**

The engine that drives processes within switch modules; contains a processor and application memory.

**propagated state**

In MDM fault management, to make dependencies visible and to permit fault management of lower level components at a higher level (that is, monitoring a network at the site level instead of looking at every module and link), the MDM Surveillance Network Updater (SurNUp) computes another state for components on the basis of the received raw states. This is the propagated state, and is the state displayed when using the MDM fault management tools such as Network Viewer (NV), Component Status Display (CSD), or Component Information Viewer (CIV). The propagated state takes into consideration the possible faults (raw states) of related components and shows their impact. The propagated state consists of a pair of elements: a state value, for example, Unknown, In-Service, or Out-Of-Service, and an optional state criticality or severity for In-Service-Troubled and Out-Of-Service, to identify the importance of the fault as a Criticality value.

**protocol**

The rules governing the format, timing, sequencing, and error control for the exchange of data through a communications network or between a user and a network.

**protocol data unit (PDU)**

A protocol that lets the exchange of information between the servers, applications, and processes of MDM.

**provisioning**

The process of specifying the service parameters for a module in the network. Subscription time options are selected during the provisioning session. The provisioning data is then downloaded to the network.

**provisioning file access (PFA)**

X.25 access to DPN packet modules for the purpose of retrieving and modifying service data files.

**provisioning file access server (PFAS)**

An MDM server that provides X.25 access to packet modules for the purpose of retrieving and modifying service data files. The PFAS server makes use of services provided by the NCSMGR server.

**provisioning user interface (PUI)**

The display format for the provisioning tool. The Provisioning tool uses tabbed forms that let you view and change attributes. The tabs give you access to large amounts of data through a single form. Forms have standard menu items for ease of use. You can also display the management information base description of an attribute by clicking the mouse menu button on a form's field label, and selecting Help.

**proxy agent**

A Simple Network Management Protocol (SNMP) agent that acts on behalf of a foreign device (a device that does not have an on-board SNMP agent). A proxy agent typically resides on a workstation in the managed network.

**published format (PF)**

A data format for network accounting information.

## **PUI**

See “provisioning user interface (PUI)” (page 57)

## **PVC**

See “permanent virtual circuit (PVC)” (page 54).

## **Q**

### **queue**

A line or list formed by items in a system waiting for service; for example, tasks to be performed or messages to be transmitted in a message switching system.

## **R**

### **radio button**

A standard user interface object used in windows, dialogs, or areas to select one or more options. The radio button appears to the left of the option and is selected by clicking on it.

### **raw state**

The state computed by the MDM Fault management Data Servers (GMDR, DMDR and FMDR) for the component on the basis of network management information received for the component. (Also called external state or state from the network.) Possible values are unknown, in-service, out-of-service, and in-service-troubled.

## **RDF**

See “real time alarm collection (rtaccol)” (page 58).

## **RDS**

See “remote download site (RDS)” (page 59).

### **real time alarm collection (rtaccol)**

The rtaccol tool is the server responsible for collecting all network alarms and storing them in files, one file per day. The rtaccol tool is started by the Server Manager Administration tool.

**record description file (RDF)**

A file required to decode “Bulk data format (BDF)” (page 19) output files in a “Management Data Provider (MDP)” (page 40). An RDF identifies BDF output fields and their sequence. There is one RDF for each data type (for example, acc, sta, ala, log) in each switch type.

**related problem**

A problem instance associated with another problem on a dependent component.

**remote access**

An MDM utility that lets you access a host from a remote location.

**remote download site (RDS)**

A module designated to provide software to other modules. The MDM provides the software to the RDS. A module that requires access to the RDS using the DPN Software Distribution system must have its PAGENT icon provisioned with a direct call to the RDS.

**remote network communication system (RNCS)**

An MDM subsystem running network management tools that assist network operators in day-to-day maintenance.

**resource module (RM)**

A DPN-100 network backbone switch. Resource modules provide routing, trunking, switching control functions, and management functions in DPN-100 networks.

**resources**

See “X resources” (page 71) and “OSF/Motif widget resources” (page 52).

**RM**

See “resource module (RM)” (page 59).

**RNCS**

See “remote network communication system (RNCS)” (page 59).

**root MCF**

The file associated with a DPN service data bundle.  
Format: MC.bundle.namsid.0

**route**

A list of individual trunks over which a logical connection exchanges data between both end points.

**rule**

A definition for checking certain management information base variables against certain conditions, and specifications for alarms to be generated if the check has a certain result. One or more rules can be grouped into a ruleset. See “firing a rule” (page 33).

**ruleset**

A name given to a list of rules that is used in the Network Element File to indicate the rules that should apply to a particular device.

**S**

**SCN**

See “state change notification (SCN)” (page 65).

**scope**

In MDM fault management, the part of the network that has been selected for scrutiny.

**scroll bar**

A standard user interface object that lets you access the remaining portion of the contents of a window. The scroll bar may be located on the right hand side or at the bottom of a window. The scroll bar appears only when the amount of information is too large to be displayed in the area provided.

**SDA**

See “service data area (SDA)” (page 62).

**SDA and Envelope Access server (SEA)**

An MDM server that organizes service data into service data areas and envelopes. It uses provisioning file access to retrieve and download master configuration files (MCFs). Other provisioning applications such as the Envelope Editor and MCF Directory Merge are client applications that use the data supplied by this process.

**SEA**

See “SDA and Envelope Access server (SEA)” (page 60).

**semantic check**

Module-wide service data semantic checks are performed at different levels and at various times during a DPN Component Provisioning session to ensure service data validity and integrity.

**serial interface**

A network interface that connects to a serial link.

**serial link**

A link in which data bits are transmitted in order over a single channel.

**Server daemon (SVMDMN)**

The SVMDMN works with the SVMADM server and the UNIX operating system to monitor and manage all of the other MDM servers. The SVMDMN server starts MDM servers when the workstation is rebooted, restarts MDM servers when they exit abnormally, and communicates with the Server Administration tool to enable user interaction.

**Server Administration (SVM)**

An MDM tool used to monitor and control MDM servers. The Server Administration tool shows a list of available servers and allows you to add, delete, or edit servers, as well as start and stop servers.

**server monitor**

A text-based administrative interface that lets the MDM system administrator inspect data and control operations to the server.

**server workstation**

In an MDM installation, at least one or more MDM workstations must be setup with MDM server software. This server provides access to the network, collects data, and supports MDM applications.

**service data**

Information that is stored on the module disk, which defines the process that the module follows when it transmits and receives data.

**service data area (SDA)**

On an Access Module, a linear list of service data envelopes required by a switch process. It may contain SDAs belonging to the son processes of its owner; an SDA can embed other SDAs.

**Service Data Backup**

An MDM configuration management tool that provides facilities to create backups for the master configuration files (MCF) on DPN-100 modules. For DPN, it also triggers the dumping process that transfers backup MCFs from the DPN-100 module to the backup system.

**Service Data Conversion**

An MDM DPN configuration management tool that lets you to convert service data from one DPN generic release to another, one master configuration file (MCF) at a time or in batches using a command file. The new service data can then be used with the new switch software. Service data conversion is required when either a new main release of MDM is deployed, or a module is entirely provisioned or has components provisioned by configuration management.

**service data fields**

Attributes within service data envelopes that define the values of parameters governing module services.

**Service Data Restore**

An MDM DPN configuration management tool that provides facilities to retrieve backed up master configuration file (MCF) sets from the backup disk and restore the MCFs for a DPN-100 module. It also lets you to clean up MCFs stored on the backup disk.

**Service Integrity Audit tool**

An MDM tool used to populate the NRS database for network modules, and optionally, to execute the NRS-based Service Integrity checks, and to populate the NCD.

**Service Selection tool**

A tool that lets a user at a workstation that is running a Client Set of processes, choose the Server Set of processes that the Client Set is to use for one of the following service areas: fault management, Network Model, DPN Network Access, Passport Network Access, and ALL.

**session servers**

Session servers are started automatically when the you log on to a user account that is set up to run the default MDM user environment, or when a command macro uses the `cmcwrap` command. Session servers do not have an entry in the file `/opt/MagellanNMS/cfg/SVMList.cfg` and they cannot be started by the Server Administration tool.

**sieve**

An Application Programming Interface object responsible for filtering an event and generating the appropriate event report. See “event report” (page 31).

**Simple Network Management Protocol (SNMP)**

A network management protocol that polls components in the network, typically over an IP-based network. The protocol data units are encoded in ASN.1. The protocol primarily concentrates on the observation and control of the network.

**simple variable**

A management information base variable for which only one instance exists. Any variable that is not organized into a table is simple.

**SMDR**

See “SNMP Management data router (SMDR)” (page 63).

**SNMP**

See “Simple Network Management Protocol (SNMP)” (page 63).

**SNMP agent**

A software module that responds to Simple Network Management Protocol Set, Get, and GetNext requests and sends trap messages to a network management station.

**SNMP Management data router (SMDR)**

The SMDR is responsible for merging the SNMP surveillance data obtained from SMDR-based data collection daemons and making it available to the general management data router.

### **SNMP Surveillance Adapter**

A process by which surveillance data is collected from selected devices. Traps are converted into MDM alarms for display in MDM tools. The process allows surveillance of Simple Network Management Protocol (SNMP) devices to be fully data-driven. The SNMP Surveillance Adapter toolkit consists of a trap reporter, trap server, a generic or device-specific data collection daemon, and the SNMP Management Data Router.

### **Software Distribution**

An MDM configuration management application used to upgrade images from an older release to a newer release on DPN-100 modules. This tool can be used either by means of the graphical user interface from configuration management or by a command line in a UNIX shell.

### **Software Distribution and Configuration**

An MDM configuration management application that is used to manage Passport software. This tool is used to configure, download, and upgrade software in the Passport network.

### **software package**

MDM software is grouped into software packages for the purposes of distribution and licensing. A package is a subset of the MDM software that provides a specific set of tools or functionality. The MDM base package must be installed on all MDM workstations. All other packages are optional, and may be selectively installed to provide the network management capability required on the workstation.

### **Software Substitution**

An MDM configuration management application used to upgrade images from an older release to a newer release on DPN-100 modules. This tool can be used either by means of the graphical user interface or by a command line in a UNIX shell.

### **start-up (committed) model**

The MDM Network Model pointed to in the `/opt/MagellanNMS/data/model/commitmodel` directory. This Network Model will be used if the MDM workstation (or Network Update Process) is restarted.

**state**

The condition of components within the Network Model. It can be one of: in service, out of service, troubled, unknown, maintenance, or acknowledged.

**state change notification (SCN)**

In OSI, a notification of a change of OSI state and status values. In Passport nodes, the notification is generated only by a change in operational or procedural status in a preselected set of components. The MDM uses SCNs to update the state of components that are being displayed.

**subcomponent**

A sub-element of a module. Subcomponents may be physical (hardware) or logical (for example, software processes). A hardware subcomponent can be a processor element, peripheral interface, port, command memory, link processor, or trunk processor card.

**suffix**

A suffix for a management information base (MIB) variable. Each MIB variable has a SUFFIX associated with it. For variables with only one instance, and which are not organized into tables, the suffix is "0". For variables with multiple instances which are organized into tables, the suffix is a string that uniquely identifies the variable.

**SURNUP**

See "Surveillance Network model updater (SURNUP)" (page 65).

**Surveillance Network model updater (SURNUP)**

The SURNUP server is responsible for keeping the active Network Model up to date with current component state information. Whenever a component's overall state changes, the SURNUP server propagates the new state to related components and recomputes their overall states if necessary. The SURNUP server is also responsible for adding new components to the Network Model when state notifications arrive for components that do not exist in the model.

**SVC**

See "switched virtual circuit (SVC)" (page 66).

**SVM**

See "Server Administration (SVM)" (page 61).

**SVMDMN**

See “Server daemon (SVMDMN)” (page 61).

**switched virtual circuit (SVC)**

A connection which is only established for the duration of the session and is then disconnected. A SVC is established dynamically.

**switching**

Method of connecting any two voice/fax channels by dialing the extension number of the destination channel. Not applicable to force-connected channels; voice/fax channels that are force-connected cannot dial out nor can they receive calls.

**synchronous transmission**

A transmission process such that between any two significant instants in the overall bit stream, there is always an integral number of unit intervals.

**syntax**

The representation of the structure (and the encoding) of information.

**System Log Display**

A MDM administration tool that is used for displaying, copying, and printing logs produced by the MDM servers and by the action of MDM tools.

**T**

**T1**

A telephone digital multiplexing system originally for 24 channels of voice operating at 1.544 Mbps. Generally, it is used for any data or voice equipment operating on 1.544 Mbps lines.

**TCP/IP**

See “Transmission Control Protocol/Internet Protocol (TCP/IP)” (page 67).

**template**

A file that is used to speed up the creation of service data when using configuration tools. A template contains a snapshot of a particular instance of service data that is saved in a file with a user-specified name. The snapshot can then be used to create similar instances of the service data for different modules in the network.

**threshold file**

A file in which data is stored for comparison purposes. For example, values stored in a threshold file might be compared to network data by a program. If found to be higher or lower than a particular value (depending on what the program is being used for), the program might place network data in another file for future use or alert the operator.

**time stream management**

A means to help a user manage multiple sets of service data (views) on every module. A user assigns a unique mnemonic to an individual master configuration file to help identify the version that the configuration represents.

**title bar**

The top portion of a window of a MDM tool that contains a status indicator, tool name, and a menu.

**tool**

A software application that a user can access directly to perform a task or set of tasks. Related MDM tools are grouped into toolsets.

**toolset**

A group of related MDM tools. MDM consists of several toolsets, each containing a group of related tools. The MDM toolsets can be accessed from the application main window.

Also see “MDM Toolset” (page 41).

**Transmission Control Protocol/Internet Protocol (TCP/IP)**

A network protocol suite. TCP is a connection-based protocol that provides reliable, full-duplex data transmission between a pair of applications. TELNET, FTP, and rlogin use TCP connections. IP provides packet delivery services between nodes.

**trap**

An unsolicited message sent from a Simple Network Management Protocol agent to the network management station indicating that some type of event occurred. For example, a trap is sent if a network interface fails or reinitializes.

**Trap server daemon (TSVR)**

The TSVR receives trap information from devices that are managed in MDM using an SMDR-based data collection daemon (DCD) and forwards the traps to a registered DCD. Before forwarding the traps to the DCD, TSVR filters them according to the filter rules of the DCD.

**triggering**

The creation of a problem instance resulting from a specific event arriving at the MDM Problem Manager.

**TRK**

See “Trunk (TRK)” (page 68).

**Trunk (TRK)**

The transmission medium over which high-speed transfer of information occurs between two or more switches. Normally a communication facility supplied by a long-distance carrier.

**TSVR**

See “Trap server daemon (TSVR)” (page 68).

**U**

**UDP**

See “User Datagram Protocol (UDP)” (page 70).

**UI**

See “user interface (UI)” (page 69).

**Online Documentation**

An online documentation and context-sensitive help facility. It is designed to provide the information MDM users need, when they need it, without leaving the applications they are working in. It finds the information automatically, according to where the user is in the tool. Online Documentation provides hypertext links to related information as well as a powerful searching function. Online Documentation can be invoked by selecting System -> Utilities -> Online Documentation in the application main window or by requesting help while using an MDM Tool.

**universal trunk processor (UTP)**

A Nortel Networks proprietary protocol developed for use in DPN-100 networks.

**universal voice/fax module**

A voice/fax module with plug-in modules for the required interface (E&M, FXO, and FXS).

**UNIX Access**

An MDM utility that creates a window running a UNIX shell.

**unknown state**

In MDM fault management, a propagated state of Unknown indicates that no network management data has been received for the component, even though it is defined in the MDM Network Model.

**user administration server**

An MDM User Administration Server contains the software that centralizes Java Web Start (JWS) enabling, and Help Server for the Operator Clients. A second User Administration server can be set up for backup purposes. Operator Client users log into this server to download the desktop environment required to run MDM on the client PCs or Workstations.

In addition to supporting Operator Client functions, the User Administration server acts as a central repository for user definitions. By centralizing user definitions, this server provides a single access point for users, controlling how they access Operator Client and Sun UNIX operations, as well as Passport and other network devices.

**user interface (UI)**

A facility responsible for interaction between the user and the application. In MDM, any facility that lets you to interact with the MDM tools.

**Utilities**

MDM utilities are productivity tools that include UNIX Access, Remote Access, Memory Utilization, Network Model Shared Memory Utilization, Alarm Help, Customer Data, and Online Documentation.

**UTP**

See “universal trunk processor (UTP)” (page 69).

**User Datagram Protocol (UDP)**

A connectionless transport protocol used on IP networks. UDP does not guarantee that packets reach their destination.

**V**

**VAD**

See “value-added data (VAD)” (page 70).

**value-added data (VAD)**

Reportable data output from various value-added applications (for example: outage calculation and availability calculation) on the Management Data Provider.

**VC**

See “virtual circuit (VC)” (page 70).

**View**

In the MDM fault management Network Viewer tool, a representation of network topology that can be saved and displayed by name.

**virtual circuit (VC)**

The equivalent of a physical connection to a destination address using shared facilities. Virtual circuits can be permanent (PVC) or switched (SVC). The virtual circuit is anchored in the processing elements connected to the end users. This protects the user from failures or congestion at intermediate points in the network. A virtual circuit does not use a defined path through the network.

**W**

**widget**

User interface design toolkits provide a standard set of objects known as widgets for such things as push-buttons, scroll bars, and data entry fields. Each widget has a set of resources associated with it that defines the appearance of the widget and how it acts.

**window**

A window is the main user interface for a tool. When a tool is invoked its main window always appears on the screen and all activities performed in the tool are initiated from it.

**workspace**

The screen background upon which windows appear.

**workspace menu**

In MDM, the list of selectable commands that can be accessed from the workspace by pressing the menu mouse button.

**workstation**

A computing platform.

**X**

**X.25 link**

A specification establishing standards for connection of communicating devices to an HDLC packet switching network.

**X.121**

The CCITT recommended numbering plan, which includes the numbering plan for public switched telephone networks.

**X resources**

Standard X-Window System resources used for controlling aspects of the appearance and functions of MDM tools. Some of these resources are user-editable.





## Preside Multiservice Data Manager List of Terms

R15.1

Copyright © 2004 Nortel Networks.  
All Rights Reserved.

NORTEL, NORTEL NETWORKS, the globemark design, the  
NORTEL NETWORKS corporate logo, DPN, PASSPORT,  
CONCORDE, and VECTOR are trademarks of Nortel Networks.

Publication: 241-6001-805  
Document status: Standard  
Document version: 15.1RSUP  
Document date: August 2004  
Printed in Canada

