NORTEL NETWORKS

Preside Multiservice Data Manager

List of Terms

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Contents

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

This document is intended for personnel requiring a definition of terms, initials, and acronyms found in Preside Multiservice Data Manager (MDM) 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 (MDM)
- familiar with the DPN-100 family of switches
- familiar with the Passport family of switches
- 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 provides the page each letter starts on:

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

  In Preside Multiservice Data Manager (MDM), 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 of the Preside Multiservice Data Manager (MDM) documentation suite. It contains MDM specific terminology as well as some general terms, initials, and acronyms.

Chapter 2
List of terms

This section contains an alphabetical listing of the terms 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 DPN-100 switch 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 34).

active surveillance model

The Network Model used by all Preside Multiservice Data Manager fault management tools.

AD

See “Alarm Display (AD)” (page 16).

agent

See “SNMP agent” (page 65).

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 Preside Multiservice Data Manager 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 Preside Multiservice Data Manager fault management tool that monitors logs and active alarms.

alarm format

Alarms are presented in Preside Multiservice Data Manager fault management Alarm Display in either DPN format or a common DPN and Passport format. Alarms can be read in either terse, normal, or full syntax.

Alarm Help

A Preside Multiservice Data Manager (MDM) utility that lets you view alarm code descriptions for DPN and Passport 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 40).

API

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

API provider

A process residing on Preside Multiservice Data Manager 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 programing interface (API)

Preside Multiservice Data Manager 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

A module of Preside Multiservice Data Manager software 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

A Preside Multiservice Data Manager tool that lets you provision asynchronous transfer mode (ATM) permanent virtual connections (PVCs) between two or more Passport switches. The application lets you do this in one provisioning session and from a single user interface.

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

Preside Multiservice Data Manager configuration validation of destination, userid, and password when connecting to a DPN or Passport.

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 Preside Multiservice Data Manager fault management, a geographic map (in X11 format) on which an organization may be displayed.

base object

An object that matches the data specified by the *_object_id* message line in an Application Programming Interface service request message. It becomes the root of a logical tree structure containing the set of objects of interest onto which the service is performed.

BDF

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

bendpoint

In the Preside Multiservice Data Manager fault management Network Viewer tool, the location of an angle in a link.

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 device configuration data, as last read from the device.

Cache Server

See “Passport 4400 Configuration Server” (page 55).

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 provided because the list of commands is too long to be placed on the main menu, or to emphasize that those commands belong to a particular group or perform a particular function separate from the 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 22).

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 25).

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 button 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 button 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 23).

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 (the leftmost mouse button on a UNIX workstation with the Solaris operating system).

CM

See “Connection Manager (CM)” (page 24).

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 a Preside Multiservice Data Manager 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 Preside Multiservice Data Manager Command Console is an operator command interface. It can be used interactively to control the network by issuing operator commands directly to switching devices 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 Preside Multiservice Data Manager 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 67).

communications channel interface

A Preside Multiservice Data Manager tool software module 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)

A Preside Multiservice Data Manager 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

A Preside Multiservice Data Manager configuration management tool. The Component Provisioning tool defines, edits, and displays service data for Passport and DPN-100 modules.

Component Status Display (CSD)

A Preside Multiservice Data Manager fault management tool that provides information on the status of elements in the network. The Component Status Display lists the elements at the following levels: site, switch, 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 Preside Multiservice Data Manager toolset used to define and maintain service and operating parameters for DPN-100 and Passport modules.

Configuration Manager (CONFIGMAN)

CONFIGMAN provides configuration services for the nodal provisioning interface and the CES SVC service 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)

A Preside Multiservice Data Manager server process that manages all network connections during a logon session. It also performs DPN Network Control System and Passport authentication.

constant state component

A type of module component for which the Preside Multiservice Data Manager Network Model does not receive any state information from the network.

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 tools in the Preside Multiservice Data Manager (MDM) toolsets. Not all MDM 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 Preside Multiservice Data Manager 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 50).

cursor

A graphical image that shows the location where text will appear on the screen when keys are pressed or where a selection can be made.

customer application

An application written by the customer that uses the Application Programming Interface format to exchange information with Preside Multiservice Data Manager tools.

Customer Data Tool

A Preside Multiservice Data Manager 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 Preside Multiservice Data Manager (MDM) alarms for display in MDM tools. The DCD can be generic or device-specific. See "SNMP Surveillance Adapter" (page 66).

data collector

An application that retrieves raw event files such as logs, alarms, statistics, and accounting information from DPN-100, Passport, or Vector networks; see "Management Data Provider (MDP)" (page 41).

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 Preside Multiservice Data Manager 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 a Preside Multiservice Data Manager (MDM) diagnostic tool that lets you collect, display and analyze performance information in real-time mode and replay mode. Data from from Passport 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 Preside Multiservice Data Manager servers. Once connected to the servers, the agent provides information to the graphical user interface.

DBMS

See “data entry field” (page 26).

DBNL

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

DBNL auto-disabling daemon (DBNLWatch)

The DBNLWatch daemon monitors alarms from DBNL network switches. 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 28).

DDR

See “DPN data reporter (DDR)” (page 30).

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 (SNMP) 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. You can produce reports on Passport 7000 and Passport 15000 series modules, and DPN-100 modules.

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

DLCI

See “Data Link Connection Identifier (DLCI)” (page 26).

DMDR

See “DPN Management Data Router (DMDR)” (page 30).

DNA

See “data network address (DNA)” (page 27).

DNMNMC

See “Network Model coordinator (DNMNMC)” (page 48).

download

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

DPN

See “Data Packet Network (DPN)” (page 27).

DPN data reporter (DDR)

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

DPNGATE

See “DPN Gateway (DPNGATE)” (page 30).

DPN Gateway (DPNGATE)

A trunk from Passport to DPN. Its provisioning is similar to a Passport-to-Passport trunk.

DPN Inventory tool

A DPN-100 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)

A Preside Multiservice Data Manager 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 31).

EDSERVER

See “Network Model Editing server (EDSERVER)” (page 48).

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 Preside Multiservice Data Manager Application Programming Interfaces.

end-to-end server (ETESERVER)

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

endpoint

A subcomponent that is a termination for a link in the Preside Multiservice Data Manager Network Model.

engineering

The process of planning, configuring, and monitoring the Preside Multiservice Data Manager computing platforms and/or network for maximum efficiency.

Enhanced Status Reporter (ESR)

An application to produce reports on DPN-100 and Passport switches, based on statistics and threshold problems.

Envelope Editor

A DPNconfiguration 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 31).

ESR

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

ETESERVER

See “end-to-end server (ETESERVER)” (page 31).

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 60).

F

FA

See “field access (FA)” (page 33).

facts

State information about problem instances.

fallback

The Preside Multiservice Data Manager process of reactivating service data residing in a previously activated master configuration file.

Fault management

The Preside Multiservice Data Manager 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 55).

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 FMDR server to various Preside Multiservice Data Manager 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 55).

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

A Preside Multiservice Data Manager tool that lets you provision Frame Relay permanent virtual connections between two or more Passport switches. The application lets you do this in one provisioning session and from a single user interface.

G

General Management Data Router (GMDR)

A database that stores indicators about network management elements, for use by the Preside Multiservice Data Manager 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 66).

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 Passports 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 35).

GMDR Admin

A Preside Multiservice Data Manager 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 36).

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 the Preside Multiservice Data Manager that describes how the Operation Agents (OAs) and Passport switches 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 37).

INETD

See “INET Daemon (INETD)” (page 37).

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 & 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 46).

IP VPN Global server

The IP VPN Global server provides the main functionality of the IP VPN Global Update tool. The server communicates with the IP VPN database to store, update and list customer VPN-related information. The server uses the end-to-end server to communicate with Passport switches and to send provisioning commands to them.

IP VPN Global Update tool

A Preside Multiservice Data Manager tool that allows you to set up and perform global updating provisioning of a customer IP VPN from either a graphical user or command line interface.

IPVPNSERVER

See “IP VPN Global server” (page 38).

IRM

See “Integration Router Module (IRM)” (page 37).

L

LAN

See “local area network (LAN)” (page 39).

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 39).

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 produced during a Preside Multiservice Data Manager tool operation. The log file contains various information depending on the tool being used, usually providing a record of the success or failure of the required operation.

logical connection

In Preside Multiservice Data Manager 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 Preside Multiservice Data Manager 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 39).

M

macro

A file in the Preside Multiservice Data Manager (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 Preside Multiservice Data Manager 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 Passport, DPN-100, and Vector 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 40).

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 41).

MCF

See “master configuration file (MCF)” (page 41).

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 57).

MDM Module

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

MDMWeb

A set of applications that lets you perform fault management using a common desktop environment and a Netscape World Wide Web (Web) browser.

MDP

See “Management Data Provider (MDP)” (page 41).

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 DPN-100 or Passport switches.

MDP outage calculator

Calculates component outage based on alarms generated by the DPN-100 network component and alarms and state change notification generated by a Passport 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

A Preside Multiservice Data Manager 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 41).

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 44).

mnsdagent

See “Multi-nodal name server agent (mnsdagent)” (page 44).

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 43).

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 Preside Multiservice Data Manager 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 44).

N

NAF

See “Network Activation File (NAF)” (page 45).

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 46).

NAT

See “Network Activation Tool (NAT)” (page 46).

NCD

See “Network Configuration Database (NCD)” (page 47).

NCD server

See “Network Configuration Database server (NCD server)” (page 47).

NCS

See “Network Control System (NCS)” (page 47).

NCS Command Console

A DPN fault management operator tool that lets you use Network Control System applications and access DPN devices from a Preside Multiservice Data Manager workstation.

NCS Communication Manager (NCSMGR)

A Preside Multiservice Data Manager (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 MDM 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 45).

NDAM

See “Network Data Access Mediator (NDAM)” (page 47).

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)

A Preside Multiservice Data Manager 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 DPN and Passport switches 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 switches to client applications. By doing so, it can act as distributor of management data for applications such as HP Openview Desktop for the Preside Multiservice Data Manager. 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

A Preside Multiservice Data Manager (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 Preside Multiservice Data Manager Network Model include modules (or nodes), subcomponents, links, organization structures, organizational nodes, and organizational links.

Network Model coordinator (DNMNMC)

The DNMNMC 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 Preside Multiservice Data Manager 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 Preside Multiservice Data Manager (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

A Preside Multiservice Data Manager utility that displays information about the amount of shared memory available on the workstation for the Network Model.

Network Reporting System (NRS)

A Preside Multiservice Data Manager 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)

A Preside Multiservice Data Manager 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)

A Preside Multiservice Data Manager 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 Preside Multiservice Data Manager fault management Network Viewer tool that lets you create, supplement, and change a Network Model.

Network Viewer legend

A Preside Multiservice Data Manager 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 47).

Nodal Provisioning

A Preside Multiservice Data Manager 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 43).

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.

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 Preside Multiservice Data Manager (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 48).

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 49).

NRS Reports

A Preside Multiservice Data Manager 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 49).

NTP

See “Nortel Networks technical publication (NTP)” (page 50).

NV

See “Network Viewer (NV)” (page 49).

O

OA

See “operations agent (OA)” (page 52).

OAM

See “operations, administration, and maintenance (OAM)” (page 52).

OAMC

See “NMS Log collector (OAMC)” (page 50).

OAM Data Collector

A Preside Multiservice Data Manager (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 Preside Multiservice Data Manager 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 52).

OMS-P

Open Management System for 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 switches to client applications.

OpenView Data Access Mediator (OVDAM)

The OVDAM server provides Preside Multiservice Data Manager 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 Preside Multiservice Data Manager. One or more devices are managed and accessible for operators. OAs are interconnected into a hierarchy.

Operator Commands tool

A Preside Multiservice Data Manager 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 Preside Multiservice Data Manager Network Model.

organizational node

A set of modules or other organizational nodes in a fixed location of the Preside Multiservice Data Manager Network Model hierarchy.

organization structure

A representation in the Preside Multiservice Data Manager 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 Preside Multiservice Data Manager (MDM) tool. Some of these resources are user-editable in MDM.

OVAT

See “OpenView Alarm Translator (OVAT)” (page 52).

OVDAM

See “OpenView Data Access Mediator (OVDAM)” (page 52).

P

package

See “software package” (page 66).

packet data overlay (PDO)

A software feature that supports the messaging facilities between Preside Multiservice Data Manager 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 an 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

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 15000 (PP15000)

An ATM-based data switch that can be deployed as a backbone for existing Passport edge switch networks or as a service provider ATM backbone switch. Passport 15000 offers full redundancy, scalable high capacity, high-speed access and trunking, and optional SONET/SDH integration.

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

Passport Global Data Manager (pgdm)

A Preside Multiservice Data Manager Passport configuration management command line tool that is used to propagate global data components from a Passport switch to other selected Passports, or to replace the attribute values for those components during propagation. In addition, it can be used to replace the attribute values for selected Passports 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. The Passport Inventory tool supports both the Passport 7000 and Passport 15000 series modules.

Passport group

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

Passport Provisioning Stack (FPS)

An area in storage that uploads and stores the Passport model description file in Preside Multiservice Data Manager, generates the record description files, activation files and forms, and loads the provisioning activation files in memory.

PDO

See “packet data overlay (PDO)” (page 54).

PDU

See “protocol data unit (PDU)” (page 59).

PE

See “processing element (PE)” (page 58).

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 59).

PFA

See “provisioning file access (PFA)” (page 59).

PFAS

See “provisioning file access server (PFAS)” (page 59).

PGDM

See “Passport Global Data Manager (pgdm)” (page 55).

PI

See “peripheral interface (PI)” (page 56).

ping

See “Packet InterNet Groper (PING)” (page 54).

pixmap

A common image format. The Preside Multiservice Data Manager fault management Network Viewer supports background maps in pixmap format.

PM

See “packet module (PM)” (page 54).

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 54).

PP15000

See “Passport 15000 (PP15000)” (page 54).

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.

Preside MDM window

The primary Preside Multiservice Data Manager (MDM) window in the workspace. The Preside MDM window provides access to all available MDM toolsets.

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 Preside Multiservice Data Manager (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 Preside Multiservice Data Manager.

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)

A Preside Multiservice Data Manager 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 DPN and Passport accounting information.

PUI

See "provisioning user interface (PUI)" (page 59)

PVC

See "permanent virtual circuit (PVC)" (page 56).

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 Preside Multiservice Data Manager 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 60).

RDS

See “remote download site (RDS)” (page 61).

real time alarm collection (rtaccol)

The rtaccol tool is the server responsible for collecting all alarms [DPN, Passport, Preside Multiservice Data Manager], and other devices generating 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 41). 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

A Preside Multiservice Data Manager 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 Preside Multiservice Data Manager 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)

A Preside Multiservice Data Manager 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 73) and “OSF/Motif widget resources” (page 53).

RM

See “resource module (RM)” (page 61).

RNCS

See “remote network communication system (RNCS)” (page 61).

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 34).

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 67).

scope

In Preside Multiservice Data Manager 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 63).

SDA and Envelope Access server (SEA)

A Preside Multiservice Data Manager 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 62).

semantic check

Module-wide service data semantic checks are performed at different levels and at various times during a Preside Multiservice Data Manager Configuration Management 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 Preside Multiservice Data Manager (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)

A Preside Multiservice Data Manager (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 Preside Multiservice Data Manager system administrator inspect data and control operations to the server.

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

A Preside Multiservice Data Manager 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

A Preside Multiservice Data Manager (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

A Preside Multiservice Data Manager 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

A Preside Multiservice Data Manager tool used to populate the NRS database for DPN and/or Passport 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 Preside Multiservice Data Manager 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 32).

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 65).

SNMP

See “Simple Network Management Protocol (SNMP)” (page 65).

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 Preside Multiservice Data Manager 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

A Preside Multiservice Data Manager DPN 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

A Preside Multiservice Data Manager Passport 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

Preside Multiservice Data Manager (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

A Preside Multiservice Data Manager DPN 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 Preside Multiservice Data Manager 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, the notification is generated only by a change in operational or procedural status in a preselected set of components. The Preside Multiservice Data Manager 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 67).

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 68).

SVM

See “Server Administration (SVM)” (page 63).

SVMDMN

See “Server daemon (SVMDMN)” (page 63).

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 Preside Multiservice Data Manager (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 69).

template

A file that is used to speed up the creation of service data when using the Preside Multiservice Data Manager Configuration Management Component Provisioning tool. 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 Preside Multiservice Data Manager 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 Preside Multiservice Data Manager tools are grouped into toolsets.

toolset

A group of related Preside Multiservice Data Manager (MDM) tools. MDM consists of several toolsets, each containing a group of related tools. The MDM toolsets can be accessed from the Preside MDM window.

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, such as the Passport 4400, that are managed in Preside Multiservice Data Manager 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 Preside Multiservice Data Manager Problem Manager.

TRK

See “Trunk (TRK)” (page 70).

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 70).

U

UDP

See “User Datagram Protocol (UDP)” (page 72).

UI

See “user interface (UI)” (page 71).

Online Documentation

A Preside Multiservice Data Manager (MDM) online documentation and context-sensitive help facility. It is designed to provide the information 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 Preside MDM 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

A Preside Multiservice Data Manager Utility that creates a window running a UNIX shell.

unknown state

In Preside Multiservice Data Manager (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 interface (UI)

A facility responsible for interaction between the user and the application. In Preside Multiservice Data Manager (MDM), any facility that lets you to interact with the MDM tools.

Utilities

Preside Multiservice Data Manager 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 71).

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 72).

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 72).

View

(1) In the Preside Multiservice Data Manager (MDM) fault management Network Viewer tool, a representation of network topology that can be saved and displayed by name.

(2) In the MDM configuration management for Passport Component Provisioning tool, the current view contains provisioning data corresponding to the current operation of the network. The edit view is provisionable and, if activated, becomes the current view.

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 Preside Multiservice Data Manager, 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 Preside Multiservice Data Manager tools. Some of these resources are user-editable.

Preside Multiservice Data Manager

List of Terms

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