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## A

- access port** A switch port that is connected to a host. DFM does not manage access ports by default.
- adapter** A program that links a domain manager to its environment. Adapters forward inventory and event information to a domain manager for analysis, and send the results of the analysis to other network management applications or other adapters.
- agent, SNMP** Software that enables a device to respond to an SNMP manager's request for MIB information, and to send traps that report network problems or other significant events.
- aggregate** The process of "rolling up" compound event notifications to a device or VLAN. See also compound event.
- alarm** An indicator that a network device has failed, or that the device has exceeded a specified threshold. An alarm generates an event and a notification.
- analysis engine** An in-memory repository describing a managed domain: the types of elements managed by DFM, the problems that can occur in those elements, and the symptoms that the problems can cause.
- analysis model** An object-oriented data model describing the managed domain.
- attribute** A property of a class that describes data that belongs to every object in that class.

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**B**

**broker** Software that facilitates communications between a domain manager and its clients.

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**C**

**cable** A connection between a port and an interface. A port on a switch, for example, can be connected to an interface on a router by way of a cable.

**card** A physical container that can be plugged into another card or host board, or is itself a host board or motherboard in a chassis.

**CD One** A CiscoWorks suite of tools that includes the CiscoWorks Server.

**certification** A tag assigned to a network device during inventory collection. The tag (validated or certified, for example) is based on the published information (MIB) that is available for the device. Certification determines the level of support DFM offers for the device.

**chassis** A container that encloses other network elements, and provides definable functions.

**CiscoWorks** A family of products based on Internet standards for managing Cisco enterprise networks and devices.

**class** A description of a group of objects that are structurally and operationally similar. Classes consist of properties. See also *property*.

**client** In networks, a device with processing capabilities that can request data or applications from a host.

**codebook** A DFM data structure that maps problem instances to problem signatures.

**collection** See *discovery, device*

**Common Services** A CiscoWorks suite of tools that includes the CiscoWorks Server. Common Services replaces CD One after CD One, 5th Edition.

<b>community string</b>	An identifier used when communicating with an SNMP agent. The agent uses the community string to determine what kind of access will be allowed to the agent's MIB. Typically, SNMP agents have READ community strings, which allow query operations such as get-requests, and READ/WRITE community strings, which also allow remote configuration. DFM must know a READ community string for any device it will manage; it does not need to know a READ/WRITE community string. The string public is very widely used as a READ community string.
<b>compound</b>	An indication of an abnormal condition. Compounds are made up of one or more symptoms. In adapter configuration files, compounds are called <i>aggregates</i> .
<b>compound event</b>	An event in which one or more related symptomatic events (symptoms) has occurred. A compound event is an output of the analysis engine.
<b>console</b>	A Java Graphical User Interface that provides user-configurable views for displaying domain manager device and event information.

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## D

<b>Device Fault Manager</b>	See <i>DFM</i> .
<b>DFM</b>	CiscoWorks Device Fault Manager. A network management and analytical tool that enables one to monitor network devices and determine the cause of device problems.
<b>DFM Server</b>	See <i>domain manager</i> .
<b>discovery, device</b>	In DFM, the process of using probing to analyze a network element. Discovery consists of a collection of probes. Based on the results of generic device capability probes, other more specific probes are selected and executed to fully determine the capabilities and internal structure of each network element. In DFM terminology, also referred to as <i>collection</i> .
<b>domain manager</b>	A process running DFM software that monitors network elements, uses analysis technology to pinpoint the root cause of failures, and diagnoses the effects of the failures on related elements. Also known as <i>DFM Server</i> or <i>domain server</i> .

**domain server** See *domain manager*.

**duplex setting** The port or interface setting that controls whether data transmission is bidirectional (Full Duplex) or unidirectional (Half Duplex).

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## E

**Essentials** See *Resource Manager Essentials*.

**event** An alarm or other significant occurrence reported by DFM. There are two kinds of events in DFM: symptomatic events, or symptoms, which are detected directly in a device component (such as an interface in a router), and compounds, which “roll up” symptoms to a higher level (such as the router containing the interface).

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## F

**flapping** The excessive fluctuation of a network element between up and down states within a short period of time.

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## G

**get-next-request** An SNMP operation that requests and retrieves MIB variables sequentially.

**get-request** An SNMP operation that requests MIB variables from a network agent.

**group** A class of network elements that are defined by similar or closely related MIB entries.

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## H

- host** In a network, a computer that can perform maintenance functions, support multiple users of applications, and monitor network activities.
- hub** A multi-port relay device that connects multiple physical segments of a network.

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## I

- ICMP** Internet Control Message Protocol. A protocol that is used to report problems with the delivery of IP datagrams. It includes an echo message that serves as the basis of the ping function.
- Incremental Device Update (IDU)** A downloadable package that provides CiscoWorks applications with the ability to support additional Cisco devices. IDUs may also provide bug fixes. The Cisco.com download site is:  
<http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-dfm>
- instance** An object or element that belongs to a given class.
- interface** A location at which a network device can be attached to a connector or to another device. An interface can be assigned a MAC address, an IP address, or both.
- Internet Control Message Protocol** See *ICMP*.
- intra-device fault** See *symptomatic event*.
- inventory** A list of all of the network elements in the repository of a domain manager, and the relationships between those elements. Both Essentials and DFM maintain inventories; usually, DFM is configured to base its inventory on Essentials inventory. The DFM inventory includes devices (hosts, routers, and switches, for example) and their components (ports and interfaces, for example). In DFM terminology, also referred to as *topology*.

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**M**

- managed object** A network element that is monitored by a domain manager.
- Management Information Base** See *MIB*.
- manager, SNMP** Software that enables a network management station to request MIB information from network devices, to update MIB information associated with the devices, and to receive traps that report network problems or other significant events.
- MIB** Management Information Base. A standardized, logical database that includes, for example, the identity, configuration, and status of a network device.

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**N**

- notification** A message that reports a network problem or other significant event to a network management application.

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**P**

- polling** The request for, and response to, status information about network elements based on the elements' MIB. Polling is usually repeated at regular intervals. See also *probing*.
- port** A specific location at which a connection to a network segment can be made. A MAC address is associated with any given port.
- probe** In DFM, a piece of software that implements one stage of the discovery process. Each probe is responsible for reading some particular set of information from a network element. A probe reads one MIB or a set of closely related MIBs.

<b>probing</b>	The request for, and response to, configuration information about network elements, based on the elements' MIB. Probing is used to determine the capabilities and internal structure of a network element during the discovery process. The information discovered by probing is used to control subsequent polling of the elements. See also <i>polling</i> .
<b>property</b>	An attribute, relationship, or event that describes an element managed by DFM. A group of properties make up a class. See also <i>class</i> .

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## R

<b>relationship</b>	A definition of how managed elements are related to each other.
<b>repository</b>	The in-memory, object-oriented data structure of DFM that stores information about the managed elements currently in a network, and the relationships between the elements.
<b>Resource Manager Essentials</b>	A CiscoWorks suite of web-based network management tools. Also called <i>Essentials</i> .
<b>router</b>	A programmable device, or software in a computer, that is connected to at least two networks, and that can determine the next network point to which a packet should be forwarded as it travels toward its destination.
<b>Router Switch Module</b>	See <i>RSM</i> .
<b>RSM</b>	Router Switch Module. A router that is installed as a card in a switch to perform routing between VLANs.

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**S**

<b>seed file</b>	A text file that lists top-level network devices (hosts, routers, and switches, for example) by name or IP address, and the read community strings of the devices. DFM can use a seed file to initiate device discovery.
<b>service</b>	A logical element that contains the information necessary to represent, configure, or manage the functionality provided by a network device or program.
<b>setting</b>	In DFM, a collection of polling and/or threshold parameters common to a particular type of analysis.
<b>Simple Network Management Protocol</b>	See <i>SNMP</i> .
<b>SNMP</b>	Simple Network Management Protocol. A standardized protocol that enables a network management station to monitor and configure network devices.
<b>subscription profile</b>	An automatically created and saved list of subscribed-to events. The list determines the notifications that are displayed on the DFM console.
<b>switch</b>	A network device that switches packets between physically separate network segments.
<b>symptom</b>	An indication of an abnormal condition. Symptoms commonly propagate to network elements from a root-cause source.
<b>symptomatic event</b>	An event in which a symptom or fault has occurred.

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**T**

<b>threshold</b>	A specified value associated with a managed network element that, when exceeded, produces an alarm.
<b>topology</b>	See <i>inventory</i> .

<b>trap</b>	An SNMP message that reports a network problem or other significant network event.
<b>trap forwarder</b>	A network adapter that forwards SNMP traps to SNMP recipients.
<b>trap notifier</b>	A network adapter that converts DFM notifications into SNMP traps.
<b>trunk cable</b>	A connection between two ports. Switches, for example, are often trunked to connect multiple segments of a network, or to provide redundant paths through a network.
<b>trunk port</b>	A port that connects network infrastructure devices. By default, DFM considers a port to be a trunk port if it connects to a switch, router, hub, or bridge.

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## V

<b>Virtual Local Area Network</b>	See <i>VLAN</i> .
<b>VLAN</b>	Virtual Local Area Network. A logical subgroup within a local area network that is created with software to facilitate the flow of data within populations of mutual interest.

