Glossary

ACO
Alarm cut-off switch. The alarm cut-off switch on the Cisco 6200 is located on the management processor card (MPC). It cuts off audible alarms.

ADSL
Asymmetric digital subscriber line. ADSL is designed to deliver more bandwidth downstream (from the central office to the customer site) than upstream. Downstream rates range from 1.5 Mbps to 9 Mbps; upstream bandwidth ranges from 16 kbps to 1 Mbps. ADSL transmissions work at distances up to 18,000 feet over a single copper wire twisted pair. See also DSL.

agent
Generally, software that processes queries and returns replies on behalf of an application. In the context of network management, an agent is a process that resides in all managed devices and reports the values of specified variables to management stations.

alarm
A status condition that shows that the module or port is experiencing an abnormal operating condition. See also critical alarm, major alarm, and minor alarm.

Asynchronous Transfer Mode
See ATM.

ATM
Asynchronous Transfer Mode. A broad-bandwidth, low delay cell relay switching and multiplexing technique.

backplane
A printed circuit board at the rear of the Cisco 6200 chassis that provides internal busing to distribute data, clocking, and power among the various modules.

CAP
Carrierless amplitude modulation/phase modulation. An encoding method used by modems in some DSL equipment. For example, the SLC 8CAP module in the Cisco 6200 and some CPE devices use CAP. See also DMT.

cell
The basic data unit for ATM switching and multiplexing. Each cell contains an identifier that specifies the data stream to which it belongs. Each cell consists of a 5-byte header and 48 bytes of payload. See also cell relay.

cell relay
Network technology based on the use of small, fixed-size packets, or cells. Because cells are fixed-length, they can be processed and switched in hardware at high speeds. Cell relay is the basis for many high-speed network protocols including ATM, IEEE 802.6, and SMDS. See also cell.

Cisco IOS software
Cisco Internetwork Operating System software. System software that provides common functionality, scalability, and security for all products under the CiscoFusion architecture. Cisco IOS software allows centralized, integrated, and automated installation and management of internetworks, while ensuring support for a wide variety of protocols, media, services, and platforms.

CPE
Customer premises equipment. Terminating equipment at the subscriber's side of the local telephone loop. CPE is often supplied by the telephone company and is always connected to the telephone company's network. Examples of CPE include telephones, POTS splitters, terminals, modems, and the Cisco 676 router.

critical alarm
An alarm condition that affects most or all subscribers that connect to the reporting node. See also major alarm and minor alarm.

customer premises equipment
See CPE.

digital subscriber line
See DSL.

digital subscriber line access multiplexer
See DSLAM.

DMT
Discrete multitone modulation. An encoding method used by modems in some DSL equipment. For example, the SLC 8DMT module in the Cisco 6200 and some CPE devices use DMT. See also CAP.

downstream
Pertaining to the movement of data traffic from a service provider to a subscriber. See also upstream.

DSL
Digital subscriber line. A public network technology that delivers high bandwidth over conventional copper wiring (such as telephone lines) at limited distances. There are five types of DSL: ADSL, HDSL, IDSL, SDSL, and VDSL. All are provisioned via modem pairs, with one modem located at a central office and the other at the customer site. Because most DSL technologies do not use the whole bandwidth of the twisted pair, there is room left for a voice channel. See also ADSL.

DSLAM
Digital subscriber line access multiplexer. A device that connects many digital subscriber lines to a network by multiplexing the DSL traffic onto one or more network trunk lines.

EQF
Equipment failure. A SONET status indication.

faceplate
The front panel of a plug-in module (card).

FEC
Forward error correction. A class of methods for controlling errors in a one-way communication system. FEC sends information along with the payload data that can be used to check and correct the data.

information along with the data, which can be used by the receiver to check and correct the data.

field-replaceable unit
See FRU.

forward error correction
See FEC.

FRU
Field-replaceable unit. A component that can be removed from a network device and replaced in the field. Cisco 6200 FRUs include all cards (MPCs, NTCs, and SLCs), power entry modules, and the fan tray.

IOS
See Cisco IOS software.

KB
Kilobyte (approximately 1000 bytes).

Kb
Kilobit (approximately 1000 bits).

kBps
Kilobytes per second, a measurement of transmission speed.

kbps
Kilobits per second, a measurement of transmission speed.

L2TP
Layer 2 tunneling protocol.

LAIS
Line Alarm Indication Signal. A SONET port status indicator that activates when an LAIS defect occurs and does not clear throughout the alarm integration period, which is typically 2.5 seconds. An LAIS defect occurs when bits 6, 7, and 8 of the K2 byte are 111 for three consecutive frames. This occurrence begins the alarm integration period. If this period elapses without the detection of three consecutive frames in which K2 bits 6, 7, and 8 show any pattern other than 111, the LAIS indicator activates. The LAIS indicator clears when an LAIS defect does not occur for a time interval equal to the alarm deactivation period (typically 10 seconds).

LED
Light-emitting diode. A visual status indicator on a hardware device.

Line Alarm Indication Signal
See LAIS.

Line Remote Failure Indication
See LRFI.

LOCD
Loss of Cell Delineation. A SONET port status indicator that activates when an LOCD defect occurs and does not clear for an interval of time equal to the alarm integration period, which is typically 2.5 seconds. An LOCD defect occurs when an out-of-cell-delineation (OOCD) condition occurs and does not clear for more than 4 ms. This occurrence begins the alarm integration period. (OOCD occurs when seven consecutive cells do not contain a valid header error check (HEC). OOCD clears when six consecutive HEC-valid cells are detected.) The LOCD indicator clears when an LOCD defect is not detected for a time interval that is equal to the alarm deactivation period (typically 10 seconds).

LOF
Loss of Frame. A SONET port status indicator that activates when an LOF defect occurs and does not clear for an interval of time equal to the alarm integration period, which is typically 2.5 seconds. An LOF defect occurs when an out-of-frame (OOF) condition occurs and does not clear for more than 3 ms. This occurrence begins the alarm integration period. (OOF occurs when four consecutive frames do not contain a valid frame word. OOF clears when two valid consecutive frames are detected.) The LOF indicator clears when an LOF defect is not detected for a time interval that is equal to the alarm deactivation period (typically 10 seconds).

loop
The connection between a service-providing network and the subscriber; also called distribution loop or subscriber loop.

LOP
Loss of Pointer. A SONET port status indicator that activates when an LOP defect occurs and does not clear throughout the alarm integration period, which is typically 2.5 seconds. An LOP defect occurs when eight consecutive frames do not contain a valid pointer. This occurrence begins the alarm integration period. If this period elapses without the detection of three consecutive frames with a valid pointer, the LOP indicator activates. The LOP indicator clears when an LOP defect does not occur for a time interval equal to the alarm deactivation period (typically 10 seconds).

LOS
Loss of Signal. A SONET port status indicator that activates when an LOS defect occurs and does not clear throughout the alarm integration period, which is typically 2.5 seconds. An LOS defect occurs when the OC3 port receives all zeros for 20 microseconds (+.3 microseconds). This occurrence begins the alarm integration period. If this period elapses without the detection of two consecutive frames in which there are no 20-microsecond periods of signal loss, the LOS indicator activates. The LOS indicator clears when an LOS defect is not detected for an interval equal to the alarm deactivation period (typically 10 seconds).

Loss of Cell Delineation
See LOCD.

Loss of Frame
See LOF.

Loss of Pointer
See LOP.

Loss of Signal
See LOS.

Loss of Synchronization
See LOST.

LOST
Loss of Synchronization. A SONET port status indicator that activates when a LOST defect occurs and does not clear throughout the alarm integration period, which is typically 2.5 seconds. A LOST defect occurs when a valid clock signal cannot be extracted from the configured timing source. This occurrence begins the alarm integration period. If this period elapses without the detection of a valid clock signal for a period of 125 to 250 microseconds, the LOST indicator activates. The LOST indicator clears when a LOST defect does not occur for a period of time equal to the alarm deactivation period (typically 10 seconds).

LRFI
Line Remote Failure Indication. A SONET port status indicator that activates when an LRFI defect occurs and does not clear throughout the alarm integration period, which is typically 2.5 seconds. An LRFI defect occurs when bits 6, 7, and 8 of the K2 byte are 110 for three consecutive frames. This occurrence begins the alarm integration period. If this period elapses without the detection of three consecutive frames in which K2 bits 6, 7, and 8 show any pattern other than 110, the LRFI indicator activates. The LRFI indicator clears when an LAIS defect does not occur for a time interval equal to the alarm deactivation period (typically 10 seconds).

major alarm
One of a group of alarm conditions that are considered the second most severe of all reportable alarms. Major alarms affect several subscribers who connect to the reporting node. See also critical alarm and minor alarm.

Management Information Base
See MIB.

management processor card
See MPC.

MB
Megabyte (approximately 1,000,000 bytes).

Mb
Megabit (approximately 1,000,000 bits).

Mbps
Megabits per second, a measurement of transmission speed.

MIB
A database of network management information used by CMIP (Common Management Information Protocol) and SNMP (Simple Network Management Protocol).

minor alarm
One of a group of alarm conditions that are considered the third most severe of all reportable alarms. Minor alarms affect a single or small number of subscribers who connect to the reporting node. See also critical alarm and major alarm.

MPC
Management processor card. A hardware module that performs management and control functions in the Cisco 6200.

network trunk card
See NTC.

NTC
Network trunk card. A service interface module that connects the Cisco 6200 node to an OC-3c or STM-1 fiber optic channel from the service-providing ATM network.

OC-3c
A physical protocol for SONET optical signal transmissions. OC-3c puts STS frames onto fiber-optic line at 155.52 Mbps.

PAIS
Path Alarm Indication Signal. A SONET port status indicator that activates when an PAIS defect occurs and does not clear throughout the alarm integration period, which is typically 2.5 seconds. A PAIS defect occurs when an LOS, LOF, LAIS, or LOP is detected on the incoming signal of an upstream network element. The PAIS is signalled to downstream elements. This occurrence begins the alarm integration period. The PAIS indicator clears when a PAIS defect does not occur for a time interval equal to the alarm deactivation period (typically 10 seconds).

Path Alarm Indication Signal
See PAIS.

Path Remote Failure Indication
See PRFI.

PCMCIA card
A portable, nonvolatile storage device that is roughly the size of a credit card. PCMCIA cards use Flash technology to store read/write data. Cisco 6200 software and configuration files can be stored on PCMCIA cards. PCMCIA stands for Personal Computer Memory Card International Association, which sets the standard for this technology. Also PC card.

PEM
Power entry module. A Cisco 6200 hardware module that distributes DC power to the chassis.

Point-to-Point Protocol
See PPP.

POTS
Plain old telephone service. See also PSTN.

POTS splitter
A frequency-based filter that separates (or combines) voice signals and data signals travelling on the same telephone line.

power entry module
See PEM.

PPP
Point-to-Point Protocol. Successor to SLIP (Serial Line Internet Protocol) that provides router-to-router and host-to-network connections over synchronous and asynchronous circuits. Whereas SLIP was designed to work with IP, PPP was designed to work with several network layer protocols, such as IP, IPX, and ARA. PPP also has built-in security mechanisms. PPP relies on two other protocols: LCP (Link Control Protocol) and NCP (Network Control Protocol).

PRFI
Path Remote Failure Indication. A SONET port status indicator that activates when a Path Remote Defect Indication (PRDI) occurs and does not clear throughout the alarm integration period, which is typically 2.5 seconds. A PRDI occurs when bit 5 of the G1 byte is set to 1 for 10 consecutive frames. This occurrence begins the alarm integration period. If this period elapses without the detection of 10 consecutive frames in which all G1 bit 5s are set to 0, the PRFI indicator activates. The PRFI indicator clears when a PRDI does not occur for a time interval equal to the alarm deactivation period (typically 10 seconds).

PSTN
Public switched telephone network. General term referring to the various telephone networks and services in place worldwide. Sometimes called plain old telephone service (POTS).

public switched telephone network
See PSTN.

SDH
Synchronous Digital Hierarchy. European standard that defines a set of rate and format standards by which data is transmitted using optical signals over fiber. SDH is similar to SONET, with a basic SDH rate of 155.52 Mbps, designated as STM-1. See also SONET and STM-1.

SEF
Severely errored frames. A statistic collected and reported by the Cisco 6200.

shelf
The chassis, or container that houses the internal modular circuitry of the Cisco 6200. The shelf consists of slots that hold each module and a backplane that interconnects all modules.

Signal Label Mismatch
See SLM.

signal to noise ratio
See SNR.

Simple Network Management Protocol
See SNMP.

SLC
Subscriber line card. A line module in the Cisco 6200 that provides data and voice communication between the Cisco 6200 node and up to 8 subscribers over copper telephone lines. The SLC is available in DMT and CAP versions.

SLM
Signal Label Mismatch. A SONET port status indicator that activates when an SLM defect occurs and does not clear throughout the alarm integration period, which is typically 2.5 seconds. An SLM defect occurs when the received path signal label is not set for either the Equipped-Non Specific (0x01) or ATM (0x13) code for five consecutive samples within a 250 ms window. This occurrence begins the alarm integration period. If this period elapses without detecting a valid code (that is, 0x01 or 0x13) for five consecutive samples within a 250 ms window, the SLM indicator activates. The SLM indicator clears when an SLM defect does not occur for a time interval equal to the alarm deactivation period (typically 10 seconds).

SNMP
Simple Network Management Protocol. Network management protocol used almost exclusively in TCP/IP networks. SNMP provides a means to monitor and control network devices, and to manage configurations, statistics collection, performance, and security.

SNR
Signal to noise ratio. The ratio of good data (signal) to bad (noise) on the line, expressed in decibels (dB). A line statistic collected and reported by the Cisco 6200.

SNR margin
Signal to noise ratio margin.

SONET
Synchronous Optical Network. High-speed (up to 2.5 Gbps) synchronous network specification developed by Bellcore and designed to run on optical fiber. STS-1 is the basic building block of SONET. See also SDH.

STM-1
Synchronous Transport Module level 1. One of a number of SDH formats that specifies the frame structure of the 155.52-Mbps lines used to carry ATM cells. See SDH.

subscriber
The party who requests and pays for various network services. Also called end user.

subscriber line card
See SLC.

uninvestigated
A status condition that shows that a module or port has experienced a new alarm that the operator has not yet checked out.

unshielded twisted pair
See UTP.

upstream
Pertaining to the movement of data traffic from a subscriber to a service provider. See also downstream.

UTP
Unshielded twisted pair. The wiring that is used for standard voice service between a subscriber and a Telco.

VC
Virtual channel. A defined route between two end points in an ATM network. A VC may traverse several virtual paths.

Virtual channel
See VC.

Virtual path
See VP.

VP
Virtual path. A group of virtual channels, which can support multiple virtual circuits.