

OAM cell

Operation, Administration, and Maintenance cell. ATM Forum specification for cells used to monitor virtual circuits. OAM cells provide a virtual circuit-level loopback in which a router responds to the cells, demonstrating that the circuit is up, and the router is operational.

OARnet

Ohio Academic Resources Network. Internet service provider that connects a number of U.S. sites, including the Ohio supercomputer center in Columbus, Ohio.

object instance

Network management term referring to an instance of an object type that has been bound to a value.

OC

Optical Carrier. Series of physical protocols (OC-1, OC-2, OC-3, and so on), defined for SONET optical signal transmissions. OC signal levels put STS frames onto multimode fiber-optic line at a variety of speeds. The base rate is 51.84 Mbps (OC-1); each signal level thereafter operates at a speed divisible by that number (thus, OC-3 runs at 155.52 Mbps). See also *SONET*, *STS-1*, and *STS-3c*.

ODA

Open Document Architecture. ISO standard that specifies how documents are represented and transmitted electronically. Formally called *Office Document Architecture*.

ODI

Open Data-Link Interface. Novell specification providing a standardized interface for NICs (network interface cards) that allows multiple protocols to use a single NIC. See also *NIC* (*network interface card*).

OEMI channel

See *block multiplexer channel*.

Office Document Architecture

See *ODA*.

Ohio Academic Resources Network

See *OARnet*.

OIM

OSI Internet Management. Group tasked with specifying ways in which OSI network management protocols can be used to manage TCP/IP networks.

OIR

online insertion and removal. Feature that permits the addition, replacement, or removal of interface processors in a Cisco router without interrupting the system power, entering console commands, or causing other software or interfaces to shut down. Sometimes called *hot swapping*. See also *power-on servicing*.

ONC

Open Network Computing. Distributed applications architecture designed by Sun Microsystems, currently controlled by a consortium led by Sun. The NFS protocols are part of ONC. See also *NFS*.

ones density

Scheme that allows a CSU/DSU to recover the data clock reliably. The CSU/DSU derives the data clock from the data that passes through it. In order to recover the clock, the CSU/DSU hardware must receive at least one 1 bit value for every 8 bits of data that pass through it. Also called *pulse density*.

online insertion and removal

See *OIR*.

on-the-fly packet switching

See *cut-through packet switching*.

open architecture

Architecture with which third-party developers can legally develop products and for which public domain specifications exist.

open circuit

Broken path along a transmission medium. Open circuits will usually prevent network communication.

Open Data-Link Interface

See *ODI*.

Open Document Architecture

See *ODA*.

Open Network Computing

See *ONC*.

Open Shortest Path First

See *OSPF*.

Open System Interconnection

See *OSI*.

Open System Interconnection reference model

See *OSI reference model*.

oper account

One of the four default user accounts that are created in the factory on each LightStream 2020 ATM switch. The oper account is for general users. Its default interface is the CLI.

Operation, Administration, and Maintenance cell

See *OAM cell*.

Optical Carrier

See *OC*.

optical fiber

See *fiber-optic cable*.

Organizational Unique Identifier

See *OUI*.

OSI

Open System Interconnection. International standardization program created by ISO and ITU-T to develop standards for data networking that facilitate multivendor equipment interoperability.

OSI Internet Management

See *OIM*.

OSINET

International association designed to promote OSI in vendor architectures.

OSI reference model

Open System Interconnection reference model. Network architectural model developed by ISO and ITU-T. The model consists of seven layers, each of which specifies particular network functions such as addressing, flow control, error control, encapsulation, and reliable message transfer. The highest layer (the application layer) is closest to the user; the lowest layer (the physical layer) is closest to the media technology. The lower two layers are implemented in hardware and software, while the upper five layers are implemented only in software. The OSI reference model is used universally as a method for teaching and understanding network functionality.

Similar in some respects to *SNA*. See *application layer*, *data link layer*, *network layer*, *physical layer*, *presentation layer*, *session layer*, and *transport layer*.

OSPF

Open Shortest Path First. Link-state, hierarchical IGP routing algorithm proposed as a successor to RIP in the Internet community. OSPF features include least-cost routing, multipath routing, and load balancing. OSPF was derived from an early version of the IS-IS protocol. See also *Enhanced IGRP*, *IGP*, *IGRP*, *IS-IS*, and *RIP*.

OUI

Organizational Unique Identifier. The 3 octets assigned by the IEEE in a block of 48-bit LAN addresses.

outframe

Maximum number of outstanding frames allowed in an SNA PU 2 server at any time.

out-of-band signaling

Transmission using frequencies or channels outside the frequencies or channels normally used for information transfer. Out-of-band signaling is often used for error reporting in situations in which in-band signaling can be affected by whatever problems the network might be experiencing. Contrast with *in-band signaling*.

