

[an error occurred while processing this directive]

Support

Glossary

[HOME](#)[SUPPORT](#)[Glossary](#)

Table Of Contents

Downloads

[Glossary](#) [Feedback](#)

glossary

A

agent Process that resides in all managed devices and reports the values of specified variables to management stations.

B

browser GUI-based hypertext client application, such as Internet Explorer and Netscape Navigator, used to access hypertext documents and other services located on innumerable remote servers throughout the World Wide Web (WWW) and Internet.

C

Cisco IOS software Cisco Internetwork Operating System software. Cisco system software that provides common functionality, scalability, and security for many Cisco products. The 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.

CLI command line interface. An interface that allows the user to interact with the Cisco IOS software operating system by entering commands and optional arguments.

client Node or software program that requests services from a server. The IPM user interface is an example of a client. See also *server*.

collector Entity defined to measure network performance statistics from a specific router (source) to a specific device (target). The collector definition includes information about the target, the protocol used to take measurements, how often measurement are taken, and the length of time (duration) of the measurements.

command line interface See *CLI*.

community name See *community string*.

community string Text string that acts as a password and is used to authenticate messages sent between a management station and a router containing an SNMP agent. The community string is sent in every packet between the manager and the agent. Also called a *community name*.

D

data-link switching See *DLSw*.

dedicated line Communications line that is indefinitely reserved for transmissions, rather than switched as transmission is required. See also *leased line*.

device See *node*.

DHCP Dynamic Host Configuration Protocol. Provides a mechanism for allocating IP addresses dynamically so that addresses can be reused when hosts no longer need them.

DLSw data-link switching. Interoperability standard, described in RFC 1434, that provides a method for forwarding SNA and NetBIOS traffic over TCP/IP networks using data-link layer switching and encapsulation. DLSw uses SSP instead of SRB, eliminating the timeouts, lack of flow control, and lack of prioritization schemes. See also *SRB* and *SSP*.

DNS Domain Name System. System used in the Internet for translating names of network nodes into addresses.

domain 1. In the Internet, a portion of the naming hierarchy tree that refers to general groupings of networks based on organization-type or geography.
2. In SNA, an SSCP and the resources it controls.

Domain Name System See *DNS*.

duration Number of seconds that a collector actively collects network performance statistics at the source router. The default value is forever. The valid range is 1 hour to forever.

Dynamic Host Configuration See *DHCP*.

Protocol

E

echo Measures the total round trip latency and other statistics and errors from the source router to the target device.

G

graphical user interface See *GUI*.

GUI graphical user interface. User environment that uses pictorial as well as textual representations of the input and output of applications and the hierarchical or other data structure in which information is stored. Conventions such as buttons, icons, and windows are typical, and many actions are performed using a pointing device (such as a mouse). Microsoft Windows and the Apple Macintosh are prominent examples of platforms utilizing a GUI.

H

hop Term describing the passage of a data packet between two network nodes (for example, between two routers). See also *hop count*.

hop count Routing metric used to measure the distance between a source and a destination. RIP uses hop count as its sole metric. See also *hop*.

host Computer system on a network. Similar to the term node except that host usually implies a computer system, whereas node generally applies to any network system, including access servers and routers. See also *node*.

host address See *host number*.

host node SNA subarea node that contains an SSCP. See also *SSCP*.

host number Part of an IP address that designates which node on the subnetwork is being addressed. Also called a *host address*.

HTTP Hypertext Transfer Protocol. The protocol used by Web browsers and Web servers to transfer files, such as text and graphic files.

HTML Hypertext Markup Language. Simple hypertext document formatting language that uses tags to indicate how a given part of a document should be interpreted by a viewing application, such as a Web browser. See also *hypertext* and *browser*.

hypertext Electronically-stored text that allows direct access to other texts by way of encoded links. Hypertext documents can be created using HTML, and often integrate images, sound, and other media that are commonly viewed using a browser. See also *HTML* and *browser*.

Hypertext Markup Language See *HTML*.

Hypertext Transfer Protocol See *HTTP*.

I

ICMP Internet Control Message Protocol. Network layer Internet protocol that reports errors and provides other information relevant to IP packet processing. Documented in RFC 792.

Internet Control Message Protocol See *ICMP*.

Internet Protocol See *IP*.

Internetwork Performance Monitor See *IPM*.

interval See *duration*.

IP Internet Protocol. Network layer protocol in the TCP/IP stack offering a connectionless internetwork service. IP provides features for addressing, type-of-service specification, fragmentation and reassembly, and security. Documented in RFC 791.

IPM IPM is an application for measuring and monitoring network performance statistics such as network latency, jitter, availability, packet loss, and errors. You can view these statistics in real time or have IPM store them in its database for historical analysis. You can also use IPM to establish network baselines and monitor thresholds.

IP address 32-bit address assigned to hosts using TCP/IP. An IP address belongs to one of five classes (A, B, C, D, or E) and is written as 4 octets separated by periods (dotted

decimal format). Each address consists of a network number, an optional subnetwork number, and a host number. The network and subnetwork numbers together are used for routing, while the host number is used to address an individual host within the network or subnetwork. A subnet mask is used to extract network and subnetwork information from the IP address. CIDR provides a new way of representing IP addresses and subnet masks. See also *IP*.

J

Jitter The variance in latency between a source and target.

L

latency Time that it takes for a network packet to transit between a source and a target.

leased line Transmission line reserved by a communications carrier for the private use of a customer. A leased line is a type of dedicated line. See *dedicated line*.

logical unit See *LU*.

LU logical unit. Primary component of SNA, an LU is an NAU (network addressable unit) that enables end users to communicate with each other and gain access to SNA network resources.

M

Management Information Base See *MIB*.

MIB Management Information Base. Database of network management information that is used and maintained by a network management protocol such as SNMP. The value of a MIB object can be changed or retrieved using SNMP commands, usually through a GUI network management system. MIB objects are organized in a tree structure that includes public (standard) and private (proprietary) branches.

multiple virtual storage See *MVS*.

MVS multiple virtual storage. Consists of MVS/System Product Version 1 and the MVS/370 Data Facility Product operating on a System/370 processor.

N

name resolution Generally, the process of associating a name with a network location.

name server Server connected to a network that resolves network names into network addresses.

NetView IBM network management architecture and related applications. NetView is a VTAM application used for managing mainframes in SNA networks. See also *VTAM*.

network management system See *NMS*.

network management vector transport See *NMVT*.

node Endpoint of a network connection or a junction common to two or more lines in a network. Nodes can be processors, controllers, or workstations. Nodes, which vary in routing and other functional capabilities, can be interconnected by links, and serve as control points in the network. Node is sometimes used generically to refer to any entity that can access a network, and is frequently used interchangeably with *device*.

NSM network management system. System responsible for managing at least part of a network. An NMS is generally a reasonably powerful and well-equipped computer such as an engineering workstation. NMSs communicate with agents to help keep track of network statistics and resources.

NMVT network management vector transport. SNA message consisting of a series of vectors conveying network management specific information.

NSPECHO VTAM application running in the mainframe to support the IPM and SAA solution. NSPECHO is used by IPM for measuring latency to the mainframe.

O

operation Set of parameters used in measuring network performance statistics. The parameters specify the type of measurement to be performed and many other parameters specific to the type of measurement being taken.

P

Path Echo	Measures the total latency as well as the incremental latency for each hop in each path between the source router and the target device. PathEcho is available only for the IP protocol.
physical unit	See <i>PU</i> .
ping	packet internet groper. ICMP echo message and its reply. Often used in IP networks to test the reachability of a network device.
PU	physical unit. SNA component that manages and monitors the resources of a node, as requested by an SSCP. There is one PU per node.

Q

QoS	quality of service. Measure of performance for a transmission system that reflects its transmission quality and service availability.
Quality of Service	See QoS.

R

request/response unit	See <i>RU</i> .
Response Time Reporter	See <i>SAA</i> .
round-trip time	See <i>RTT</i> .
route	Path through an internetwork between a specific source and target.
router	Network layer device that uses one or more metrics to determine the optimal path along which network traffic should be forwarded. Routers forward packets from one network to another based on network layer information.
RTR	See <i>SAA</i> .
RTT	round-trip time. Time required for a network packet to travel from the source to the destination and back. RTT includes the time required for the destination to process the message from the source and generate a reply. The latency measurements taken by IPM and SAA are round-trip time latency measurements.
RTTMON MIB	round-trip time monitor management information base. Proprietary MIB created by Cisco to obtain and store round-trip time statistics. The MIB is implemented by the Cisco IOS software in the source router. The IPM application obtains the round-trip time statistics from this MIB. You can access additional information about this MIB, on the Internet at ftp://ftp.cisco.com/pub/mibs/v2/CISCO-RTTMON-MIB.mib . This MIB has been extended to monitor network performance statistics in addition to round trip time statistics.
RU	request/response unit. Request and response messages exchanged between NAUs in an SNA network.

S

SAA	Service Assurance Agent. Feature of Cisco IOS software which allows you to measure and monitor network performance between a Cisco router and a remote device.
SAA responder	Component embedded in a target Cisco router that is running a version of the Cisco IOS software that supports the SAA feature. Its function is to respond to SAA request packets from a source router running the SAA software. The responder can listen on any user-defined port for UDP and TCP protocols. The SAA responder is only required for specific collector types, such as Enhanced UDP for monitoring jitter in Voice-over-IP networks.
server	Node or software program that provides services to clients. See also <i>client</i> .
Service Assurance Agent	See <i>SAA</i> .
Simple Network Management Protocol	See <i>SNMP</i> .
SNA	Systems Network Architecture. Large, complex, feature-rich network architecture developed in the 1970s by IBM. Similar in some respects to the OSI reference model, but with a number of differences. SNA is essentially composed of seven layers.
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.
SNMP agent	Simple Network Management Protocol agent. Resides in the source router and is provided as part of Cisco IOS software. The SNMP agent receives requests from the IPM SNMP server to perform all IPM-related functions.
source	Originating router from which IPM takes network performance measurements.
source-route bridging	See <i>SRB</i> .

SRB	source-route bridging. Method of bridging originated by IBM and popular in Token Ring networks. In an SRB network, the entire route to a destination is predetermined, in real time, prior to the sending of data to the destination.
SSCP	system services control points. Focal points within an SNA network for managing network configuration, coordinating network operator and problem determination requests, and providing directory services and other session services for network end users.
SSCP-PU session	Session used by SNA to allow an SSCP to manage the resources of a node through the PU. SSCPs can send requests to, and receive replies from, individual nodes in order to control the network configuration.
SSP	Switch-to-Switch Protocol. Protocol specified in the DLSw standard that routers use to establish DLSw connections, locate resources, forward data, and handle flow control and error recovery. See also DLSw.
static route	Route that is explicitly configured and entered into the routing table. Static routes take precedence over routes chosen by dynamic routing protocols.
Switch-to-Switch Protocol	See <i>SSP</i> .
Systems Network Architecture	See <i>SNA</i> .
system services control point	See <i>SSCP</i> .

T

target	Any IP-addressable device or IBM Multiple Virtual Storage (MVS) mainframe that can be reached by the source router. The target is the destination of the network performance measurement.
TCP	Transmission Control Protocol. Connection-oriented transport layer protocol that provides reliable full-duplex data transmission. TCP is part of the TCP/IP protocol stack. See also <i>TCP/IP</i> .
TCP/IP	Transmission Control Protocol/Internet Protocol. Common name for the suite of protocols developed by the U.S. DoD in the 1970s to support the construction of worldwide internetworks. TCP and IP are the two best-known protocols in the suite. See also <i>IP</i> and <i>TCP</i> .
throughput	Rate of information arriving at, and possibly passing through, a particular point in a network system.
timeout	Event that occurs when one network device expects to hear from another network device within a specified period of time, but does not. The resulting timeout usually results in a retransmission of information or the dissolving of the session between the two devices.
Transmission Control Protocol	See <i>TCP</i> .
Transmission Control Protocol/Internet Protocol	See <i>TCP/IP</i> .
trap	Message sent by an SNMP agent to an NMS, console, or terminal to indicate the occurrence of a significant event, such as a specifically defined condition or a threshold that has been reached.

U

UDP	User Datagram Protocol. Connectionless transport layer protocol in the TCP/IP protocol stack. UDP is a simple protocol that exchanges datagrams without acknowledgments or guaranteed delivery, requiring that error processing and retransmission be handled by other protocols. UDP is defined in RFC 768.
User Datagram Protocol	See <i>UDP</i> .

V

virtual telecommunications access method	See <i>VTAM</i> .
VTAM	virtual telecommunications access method. Set of programs that control communication between LUs. VTAM controls data transmission between channel-attached devices and performs routing functions. See also <i>LU</i> .

W

World Wide Web	See <i>WWW</i> .
----------------	------------------

WWW

World Wide Web. Large network of Internet servers providing hypertext and other services to terminals running client applications such as a browser. See also *browser*.

[an error occurred while processing this directive]

[Contacts](#) | [Feedback](#) | [Help](#) | [Site Map](#) | [Terms & Conditions](#) | [Privacy Statement](#) | [Cookie Policy](#) | [Trademarks](#)