GLOSSARY

A

AAA Authentication, Authorization, and Accounting. Network security services that provide the primary framework to set up access control on a router or access server. AAA is an architectural framework and modular means of configuring three independent, but closely related security functions in a consistent manner. It is flexible, scalable, and supports multiple authentication methods.

C

CCIE Cisco Certified Internetwork Expert. The CCIE program offers various CCIE certification in lab testing centers worldwide. This certification gives you an excellent opportunity to demonstrate your technical expertise, and can serve as an alternative to other CCIE designations toward fulfilling Cisco partner requirements.

CDMA Code Division Multiple Access. An access technology that combines each phone call with a code that only one cellular phone extracts from the air.

CLI Command Line Interface. An interface that uses commands entered on a command line to configure and maintain network elements. You use the CLI to access the Cisco IOS software.

E

ECC Error-Correcting Code. Memory that corrects errors on the fly.

ETSI European Telecommunications Standards Institute. The European Telecommunications Standards Institute (ETSI) is an independent, non-profit organization, whose mission is to produce telecommunications standards for today and for the future. ETSI is officially responsible for standardization of Information and Communication Technologies (*ICT*) within Europe. These technologies include telecommunications, broadcasting, and related areas, such as intelligent transportation and medical electronics.

F

FUR Field-Upgradeable ROMMON.

G

GGSN Gateway *GPRS* Support Node. A wireless gateway that allows mobile cell phone users to access the public data network.

GPRS General Packet Radio Service. A service designed for GSM networks. GPRS is standardized by the European Telecommunications Standards Institute (*ETSI*). Cisco Systems' GPRS solution enables mobile wireless service providers to supply their mobile subscribers with packet data services. A GPRS network has two essential elements: Serving GPRS Support Node (*SGSN*) and Gateway GPRS Support Node (*GGSN*).

H

HA Home Agent. The Home Agent maintains mobile user registrations and tunnels packets destined for the mobile to the PDSN/FA (Packet Data Serving Node/Foreign Agent). It supports reverse tunneling, and can securely tunnel packets to the *PDSN* using *IPSec*. Broadcast packets are not tunneled. Additionally, the HA performs dynamic home address assignment for the mobile. Home address assignment can be from address pools configured locally, through either DHCP server access, or from the *AAA* (Authentication, Authorization, and Accounting) server

HSRP Hot Standby Router Protocol. A Cisco routing protocol for fault-tolerant IP routing that enables a set of routers to work together to present the appearance of a single virtual router to the hosts on a LAN; used in environments where critical applications are running and fault-tolerant networks have been designed.

I

ICMP Internet Control Message Protocol. A protocol that supports packets containing error, control, and informational messages.

ICT Information and Communication Technologies. Through its core activities, working groups, and regional nodes, successfully served as a multi-stakeholder mechanism to facilitate and promote collaborative initiatives at the regional, subregional, and national levels and to mobilize new public and private resources to support information and communication technologies-for-development programs and projects. The ICT Task Force facilitated the pooling of relevant experience of both developed and developing countries and the sharing of lessons learned in introducing and promoting ICT.

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

IPSec Internet Protocol Security. IPSec is the network layer crypto platform for Cisco's security platforms (Cisco IOS Software, PIX, and so on). Originally described in RFCs 1825-1829, which are now obsolete, IPSec is currently discussed in a number of documents presented by the IETF IP Security Working Group. IPSec currently supports IP version 4 unicast packets. IPv6 and multicast support is coming later.

IPSec has the following strengths over current Cisco crypto offerings:

Multivendor: Since the IPSec framework is standardized, customers are not locked into any specific vendor's product. You will find IPSec on routers, firewalls, and client desktops (Windows, Mac, and so on).

Scalability: IPSec was designed with large enterprises in mind and therefore, it has "built-in" key management.

M

MSFC2 Multilayer Switch Feature Card 2. The Multilayer Switch Feature Card 2 quadruples the control plane and software forwarding performance of a Multilayer Switch Feature Card. It combines the benefits of Cisco IOS Software with the performance of the Catalyst 6000/6500 to support a broad array of features. The Multilayer Switch Feature Card 2 adds the following enhancements to the features already offered by the Multilayer Switch Feature Card:

- Four times the control plane and forwarding performance of the MSFC
- Support for Error-Correcting Code (*ECC*) DRAM with option to upgrade to 256 or 512 MB
- Full Internet routing-table support
- Support for 1000 terminated virtual LANs (VLANs)
- Field-replaceable unit for Supervisor Engine 1A already equipped with MSFC
- Enhanced Web Cache Control Protocol Version 2 (WCCPv2) and Cisco IOS server load balancing (SLB) performance
- Enhanced multicast performance

N

NE Network Element. A single piece of telecommunications equipment used to perform a function or service integral to the underlying network.

NTP Network Time Protocol. NTP is a utility for synchronizing system clocks over the network, providing a precise time base for networked workstations and servers. In the NTP model, a hierarchy of primary and secondary servers pass timekeeping information by way of the Internet to cross-check and correct errors arising from equipment or propagation failures.

P

PDSN Packet Data Serving Node. A node that provides the primary wireless mobile data access to the Internet and intranets using the CDMA2000 Radio Access Network environment.

Q

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

R

ROMMON ROM-monitor. The ROM-monitor is a ROM-based program that is involved at power-up or reset, or when a fatal exception error occurs. The switch enters ROMMON mode if the switch does not find a valid software image, if the NVRAM configuration is corrupted, or if the configuration register is set to enter ROMMON mode. From the ROMMON mode, you can load a software image manually from Flash memory, from a network server file, or from bootflash. You can also enter ROMMON mode by restarting the switch and pressing Ctrl-C during the first five seconds of startup. When you enter ROMMON mode, the prompt changes to `rommon 1>`. Use the **?** command to see the available ROMMON commands.

RPR+ Route Processor Redundancy Plus. A redundant processor module that contains the CPU, system software, and most of the memory components that are used in a router. Sometimes called a *supervisory processor*. The RPR+ has the following additional benefits over an RPR: reduced switchover time, installed module are not reloaded, allows OIR (On-line Insertion and Removal) for maintenance, synchronization of OIR events, and manual user-initiated switchover using the **redundancy force-switchover** command.

S

SSG Service Selection Gateway. A Cisco product that provides flexible service selection, connectivity to multiple networks, and RADIUS proxy capability.

SLB Server Load Balancing. The Server Load Balancing feature is a Cisco IOS-based solution that provides server load balancing. This feature allows you to define a virtual server that represents a cluster of real servers, known as a server farm. When a client initiates a connection to the virtual server, the IOS SLB load balances the connection to a chosen real server, depending on the configured load balance algorithm or predictor.

SNMP Simple Network Management Protocol. A common method by which network management applications can query a management agent using a supported management information base.

T

TCB Transmission Control Block or Transaction Control Block. It remembers incoming and outgoing requests, providing reliable retransmission of proxied requests and returning the best final response or responses back upstream. One transaction encompasses the received request, the request or requests (if forked) forwarded downstream, responses received from downstream hosts, and the best response returned upstream.

U

UDP User Datagram Protocol. A layer 4 IP protocol that provides for exchange of datagrams without acknowledgements or guaranteed delivery.

W

WCCPv2 Web Cache Control Protocol Version 2. The Web Cache Communication Protocol (WCCP) feature allows you to use a Cisco Cache Engine to handle web traffic, reducing transmission costs and downloading time. This traffic includes user requests to view pages and graphics on World Wide Web servers, whether internal or external to your network, and the replies to those requests. When you request a page from a web server (located in the Internet), the router sends the request to a cache engine. If the cache engine has a copy of the requested page in storage, the cache engine sends you that page. Otherwise, the cache engine retrieves the requested page and the objects on that page from the web server, stores a copy of the page and its objects, and forwards the page and objects to you.

WCCP transparently redirects Hypertext Transfer Protocol (HTTP) requests from the intended server to a cache engine. You do not know that the page came from the cache engine rather than the originally requested web server.

WCCP v2 now contains the following new features:

- Multiple router support
- Improved security
- Faster throughput
- Redirection of multiple TCP port-destined traffic
- Load distributing applications capability
- Client IP addressing transparency