

Guide to Enterprise Protocols

OSI LAYERS

TCP/IP LAYERS

7

Application Layer
 - Supports application and end-user processes
 - Offers application services
 - User identification, authentication, and privacy

6

Presentation Layer
 - Application, system, and network independent data formatting
 - Data conversion, compression, encryption, and decryption

5

Session Layer
 - Establishes, manages, and terminates application connections
 - Manages data transfer permissions and records upper layer errors

4

Transport Layer
 - End-to-end connection and connectionless data delivery management
 - Ensures reliable packet delivery caused by network congestion & errors
 - Congestion avoidance and data transmission flow control

3

Network Layer
 - Logical addressing, routing, and packet generation
 - Carries out congestion control and error handling
 - Route monitoring and message forwarding

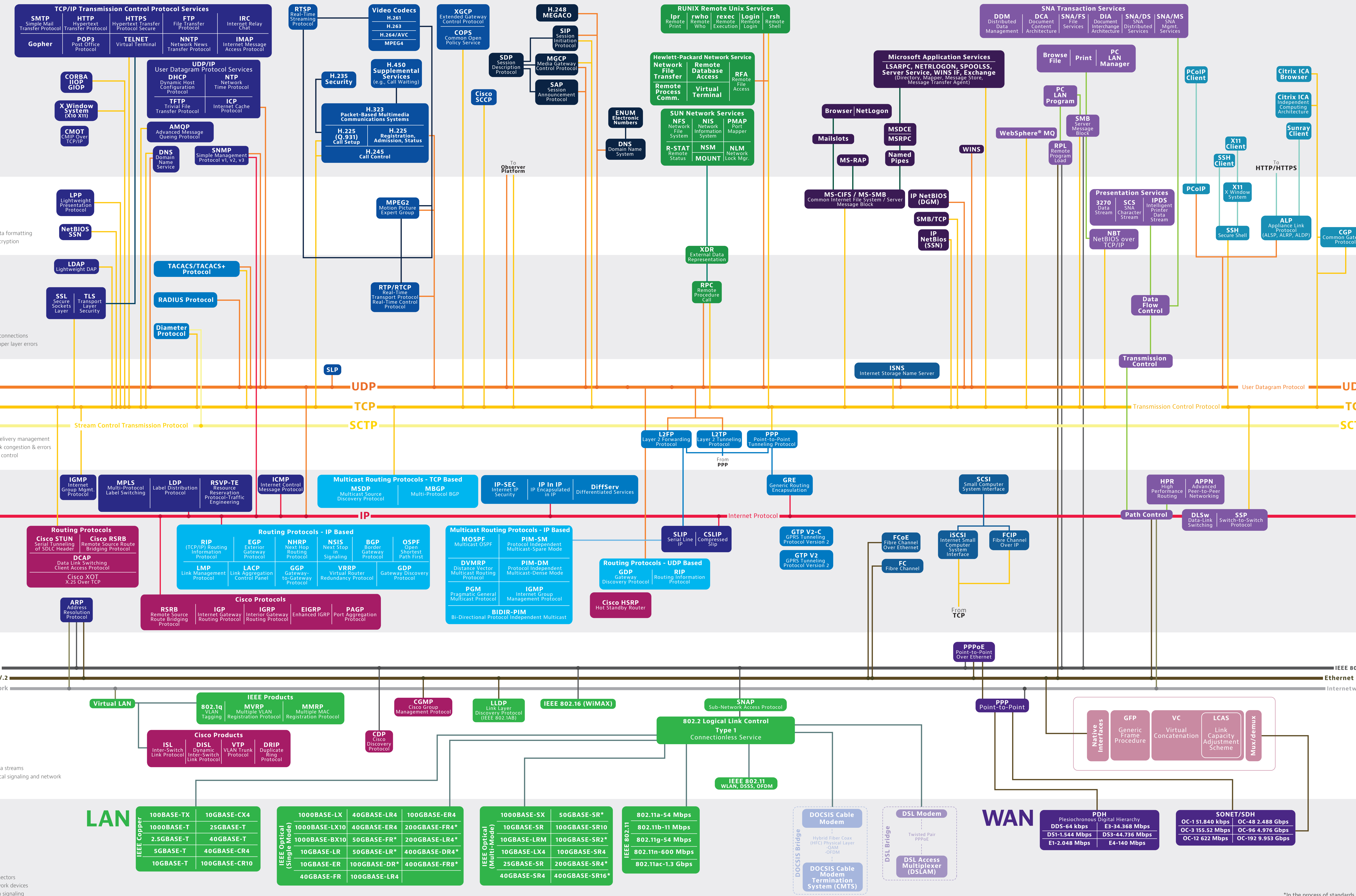
2

Data Link Layer
 - Performs error detection and correction of the data streams
 - Manages flow and link control between the physical signaling and network
 - Constructs and synchronizes data frame packets

1

Physical Layer
 - Defines physical characteristics of cables and connectors
 - Provides the interface between network and network devices
 - Describes the electrical, light, or radio data-stream signaling

TCP/IP Routing/Switching Protocols VoIP/Video/Streaming Cisco VPN/Tunneling UNIX/HP/Sun SAN Microsoft IBM Thin Client Protocols



D Application Layer

C Transport Layer

B Internet Layer

A Network Access Layer

To learn more, visit viavisolutions.com/enterprise



© 2017 Viavi Solutions Inc. All rights reserved. Observer and all associated logos are trademarks or registered trademarks of Viavi Solutions. All other trademarks, registered or unregistered, are property of their respective owners.

IP-PO-EC-AE 30186090 900 0517

*In the process of standards approval