

Osi model



Checkpoint: OSI Model Paul Tegner IT/242 April 22, 2011 Mark Burke OSI

Model The OSI Model consists of seven layers. These layers are the application layer, presentation layer, session layer, transport layer, network layer, data link layer, and physical layer. The Application Layer The application layer is responsible for interaction between the operating system and the network services and provides an interface to the system. It provides the user interface to a range of network wide distributed services including file transfer, printer access, and mail (Regan, 2004). Presentation Layer This layer makes sure that information sent by one application layer protocol from a remote system is readable by another application layer protocol in a remote system. It is a translator between different data formats, protocols, and systems. Session Layer The Session Layer allows remote users to establish, manage, and terminate a connection. The session layer enables two users to organize and manage their data exchange and to implement dialog control between the source and destination network devices, including the type of dialog (simplex, half duplex, full duplex) and how long a computer transmits (Regan, 2004). Transport Layer The Transport Layer is the layer that connects the upper and lower layers together. The transport layer is also responsible for reliable, transparent transfer of data between two end points. Network Layer The Network Layer concerns itself with the addressing and routing necessary to move data from one network to another. Data Link Layer The Data Link Layer is responsible for sending data over the channel. It sends frames, defines the station address, and provides link management. Physical Layer The Physical Layer handles physical signaling, provides access to media, defining voltages and data rates for sending binary data. A. The layers of the OSI model that WAN protocols

operate are the physical layer and the data link layer. B. Some of these protocols are DOCSIS (Data over Cable Service Interface Specification), ISDN (Integrated Services Digital Network), PPP (Point to Point Protocol), PoS (Packet over SONET/SDH), and SDLC (Synchronous Data Link Control). C. The layers of the OSI that switches and routers operate are the physical layer, data link layer, and network layer. D. If the routers reside at more than one layer, the difference between the OSI layers is first of all, routers do not physically reside at more than one layer. Routers route at layer 3, they then apply layer 2 headers, and put the signals on the layer 1 wire. Reference Regan. (2004). Wide Area Networks. Retrieved April 18, 2011 from Regan, IT242-Introduction to WAN Technologies website.