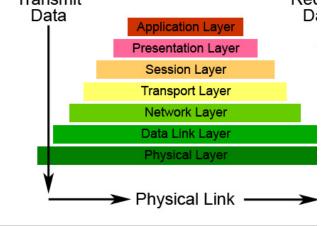# EXHIBIT 8

The OSI Model

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This section serves as an introduction to the International Standards Organization/Open System Interconnection (ISO/OSI) model. You do not need to understand the OSI model in order to build a home network. However, it can be helpful to have a basic understanding of how your network works in order to troubleshoot future problems. We designed this section with more advanced users in mind.

The OSI model defines a networking framework for implementing protocols according to seven layers. Each layer is functionally independent of the others, but provides services to the layer above it and receives services from the layer below it. The seven OSI layers are explained in more detail below.

APPLICATION

The Application layer is the layer at which applications access network services. This layer represents the services that directly support applications such as software for file transfers, database access, email, and network games.

PRESENTATION

The Presentation layer translates data from the Application layer into a network format (and vice-versa). This layer also manages security issues by providing services such as data encryption and compression.

SESSION

The Session layer allows applications on different computers to establish, use, and end a session/connection. This layer establishes dialog control between the two computers in a session, regulating which side transmits, and when and how long it transmits.

TRANSPORT

The Transport layer handles error recognition and recovery. It also repackages long messages when necessary into small packets for transmission and at the receiving end, rebuilds packets into the original message. The receiving Transport layer also sends receipt acknowledgments.

NETWORK

The Network layer addresses messages and translates logical addresses and names into physical addresses. It also determines the route from the source to the destination computer and manages traffic problems (flow control), such as switching, routing, and controlling the congestion of data packets.

DATA LINK

The Data Link layer packages raw bits from the Physical layer into frames (logical, structures packets for data). This layer is responsible for transferring frames from one computer to another, without errors. After sending a frame, it waits for an acknowledgment from the receiving computer.

PHYSICAL

The Physical layer transmits bits from one computer to another and regulates the transmission of a stream of bits over a physical medium. This layer defines how the cable is attached to the network adapter and what transmission technique is used to send data over the cable.

Back   **Next: Home Network Terms**