The OSI model and the basics of network troubleshooting

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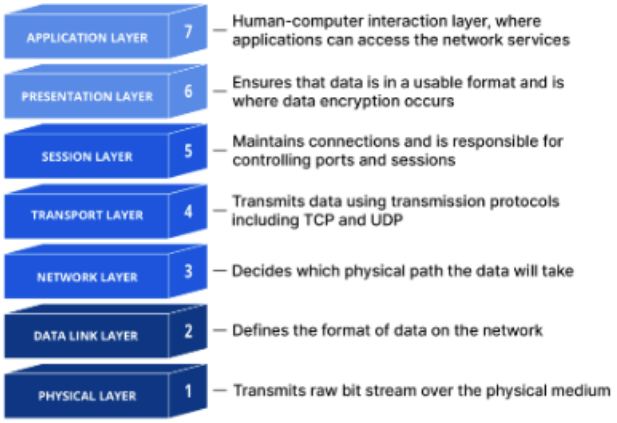
Related product (if any):	
Description:	Describes the open systems interconnection (OSI) model and how it is used for troubleshooting network-related issues in IT.
Symptoms:	
Cause:	
Files Needed:	

Steps to Correct:

The open systems interconnection (OSI) model is a conceptual model created by the International Organization for Standardization which provides a standard for different computer systems to be able to communicate with each other via standard protocols.

The OSI Model can be seen as a universal language for computer network. It is based on the concept of splitting up a communication system into seven abstract layers, each one stacked upon the last.

***The explanation of the layers and the OSI Model is copied from this CloudFlare article, or otherwise slightly abbreviated. This is not my work: https://www.cloudflare.com/learning/ddos/glossary/open-systems-interconnection-model-osi/**



Each layer of the OSI Model handles a specific job and communicates with the layers above and below itself. DDoS attacks target specific layers of a network communication; application layer attacks target layer 7 and protocol layer attacks target layers 3 and 4.

Understanding the OSI Model is vital for understanding how computer networking works, but it's also vital for troubleshooting networking-related issues. So let's start by breaking down what each layer does, starting from the top.

Layer 7: The application layer

This is the only layer that directly interacts with data from the user. Software applications like web browsers and email rely on the application layer to initiate communications. It's important to note that client software applications are not part of the application layer in their entirety; rather, the application layer is responsible for the protocols and data manipulation that the software relies on to present meaningful data to the user.

Some application layer protocols include HTTP/HTTPS and SMTP.

Layer 6: The presentation layer

This layer is primarily responsible for preparing data so that it can be used by the application layer; in other words, layer 6 makes the data presentable for applications to

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