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Grubhub OSI Model Layer Details

APPLICATION

The user interacts with Grubhub's Web site interface to decide where they'd like to order and what they liked to order. This is the first phase of data generation and protocols such as HTTP (Hypertext Transfer Protocol) and SSH (Secure Shell) ensure that the data is properly transferred over the web.

PRESENTATION

The User's Grubhub order data is translated into familiar networking formats through protocols such as HTML (Hypertext Markup Language) and FTP (File Tranfer Protocol). What's important to know here is that the data is being formatted and encrypted for Grubhub's server to recognize in order to establish a connection with the client within the session layer.

SESSION

Now that we've made a connection with Grubhub's server, we can now establish a session between the client making the Grubhub order and Grubhub server receiving the data. All of the Grubhub order data including the items, price, and other order details are stored on the web device in which the order was made. LDAP (Lightwieght Directory Access Protocol) and SQL (Structured Query Language) Protocols are added in order to streamline data while also modifying data for the transport layer.

TRANSPORT

The client's web device is now breaking the Grubhub order data into smaller pieces known as segments in order for the delivery of the data to be as valid and secure as possible. Once these segments make it to Grubhub's server, they are then sequenced into the format in which they were sent. For data transportation, TCP (Transmission Control Protocol) protocol is used in order to create reliable data transportation, a header is added before being routed to it's destination.

NETWORK

So far, the Grubhub order has most recently acquired a TCP header during transport. In the network layer, logical addressing occurs, this helps the data navigate the network using IPv4 protocols. Once these protocols are added within the segments, they then become new data units known as packets. The IP protocol determines where to move these packets within the network, once this done, the router can encapsulate these packets of data with a header and destination IP address.

DATA LINK

We now have to ensure that this data transmission occurs error free. Thru the Data Link layer, Our Grubhub order data will go thru two sub layers: the LLC and the MAC. Within the Network layer are data were converted to packets, Within the data link layer, the LLC sublayer frames bits and bytes and encapsulates the order data with a header and trailer. Grubhub's server then checks the LLC (Logical Link Control) header to receive information regarding the Network layer protocol. The MAC (Media Access Control) provides a MAC address to the Order data so that the requested information can finds its destination.

PHYSICAL

The Grubhub order data is now transmitted out on Grubhub's network via a ethernet connection. Through protocols such as ATM (Asynchronous Transfer Mode) the order data can be transmitted over a single connection no matter how large.

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