

IP Addresses, Packets, And Routing



How do you send and receive files across the web?

Data Transmission

Data on the internet is sent as packets. Packets are small fragments of a file that are individually sent from a source to their destination. They only know their source IP address and their destination IP address. Packets do not follow a direct path, but instead are directed by routers which have multiple paths available. The path is not predetermined; it is decided by the router as packets arrive and the cheapest path is chosen. Cheap here is in terms of traffic, time, or business relationships. A router having multiple paths allows for reliability across the network as a precaution against faults and outages. When packets arrive at their destination, they are checked with the TCP protocol to make sure all packets have arrived. If they did not, the sender is requested to resend the missing packets. When everything is there, an acknowledgement is sent to the sender to confirm and the file is accessible to the receiver.

Onward

This page is created and brought to you by Sean Rogawski. Additional resources can be found in the following links.

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