

# How Does a Router Work



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How does a router work? In order to allow computers to communicate with each other across great distances, a device needs to process the data and send it along.

Wireless routers are able to move large amounts of data along a communication trail, delivering packets of information along in milliseconds.

**Routers deliver data packages across networks.**

When a computer user wishes to send information to another computer across the country—from an e-mail to a large graphics file—the message is parceled into data packages of a set size. These data packets move along from the computer of origin to a router. The wireless router analyzes the destination address on the information packets and then determines the best route to get the packets to the destination. Just as the heart moves blood throughout the body in veins and arteries, so does a router send electronic data packets throughout the vast computer networks.

**Wireless routers rely on radio waves.**

Signals are sent and received via a wireless router by a certain set of radio waves. The radio frequencies change the data into code and the router can then interpret it. The information is coded with instructions on how best to process the data. This coding is known as the configuration tables, which are rules that the router must follow in order to best present and pass along the information. In addition to ensuring that data gets to the proper destination, it prevents information from heading to the wrong computer. In this sense, it acts like a gatekeeper, keeping information away that is not related to a particular computer's address.

Whether you're working with a wired or wireless router, a router will send data packets to the next router in the delivery chain. When that router analyzes the destination address, it forwards the data packets to the next, and the next. Eventually, the data packets will arrive at the router that services the destination computer, and the information is sent to that computer. All this happens in just a few milliseconds.

Source:

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