A blue circle with arrows in center

AI-generated content may be incorrect.

If the computer on the left wants to send data to the computer on the right, the data would be marked with a source and destination IP addresses. So now the computer knows that it must send the data to the first router. So, this data will now have layer 2 information, it will be marked with the source and destination MAC address.

The data would look like this:

A blue and green box with black text

AI-generated content may be incorrect.

Once the data arrives at the first router, the layer 2 information is stripped off and a new one is put on, again the source and destination MAC address for the next router. This is because the whole purpose of layer 2 is for hop-to-hop delivery. This happens over and over until it reaches the destination IP address, then the layer 3 information is stripped off.

MAC addresses and IP address are independent functions, however there is a protocol which ties them together known as ARP which will link a L3 address (IP address) to a L2 address (MAC address)