Title:
What is a MAC Address?

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Summary:
MAC addresses are an example of an address that resides on the datalink layer of
an OSI model.

Keywords:
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Article Body:
MAC addresses are an example of an address that resides on the datalink layer of
an OSI model. The addresses themselves are written into the hardware proper at
the time that the model is manufactured. This has led to some people referring
to a MAC address as a burned in address.

Why is the MAC Address burned into the Data Link Layer?

It is important to understand how a data link layer is set up. The DDL, also
known as Layer 2 actually has two sub layers. One is referred to as the Media
Access Control (or MAC) and the other is the Logical Link Control. It is within
the MAC sublayer that the MAC address is burned during the production process.
The reason for this action is to make sure there is a default address connected
with the device and that no additional programming of an address is necessary in
order for operation to take place.

What Does the MAC Address Do?

The main function of the MAC address in the sublayer is to aid in the way that a
node on a network gains access to data and helps to provision the method that is
used to transmit the data as well. Acting as an identifier, the MAC address
essentially provides a place for data to collect and a launching point for data
to be sent out and distributed.

How is a MAC Address Set Up?

The typical MAC address is forty-eight bits long. This number of bits makes the
configuration of addresses virtually endless, although it is possible to

calculate the exact number of MAC addresses that could be created with this number of bits. Suffice it to say the number of configurations is sufficient to ensure there will be no duplications for many years to come. In actual script, the MAC address will translate into a series of both letters and numbers.

Is It Possible To Change A MAC Address?

Yes. While it is true the originating MAC address is burned in at the time of production, there are software packages that can help to change an address with relative ease. The software will generally identify the next logical configuration and offer it for approval to the user before replacing the originating address.