The Difference between Ethernet PCI Adapter and Network Interface Card

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Ethernet PCI adapters and Network Interface Cards do the same job: they allow a computer to connect to the rest of the network via a Cat5 cable, and communicate with said network. However, their similarities almost completely end there.

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**Network Interface Card**

A network interface card (NIC) is a circuit board or card that is installed in a computer so that it can be connected to a network.

A network interface card provides the computer with a dedicated, full-time connection to a network. Personal computers and workstations on a local area network (LAN) typically contain a network interface card specifically designed for the LAN transmission technology

**Difference between Ethernet PCI Adapter and Network Interface Card**

**Hardware**

Technically, both Ethernet PCI adapters and Network Interface Cards are hardware, as they both are electronics on a circuit board. However, only one has all of the necessary components to do all of the technical stuff on its own. The other relies on software to accomplish the same means.

**Software**

All forms of networking cards require drivers; software that tells your computer operating system how to use the hardware. Network Interface Cards receive information from the OS, and do the rest. Ethernet PCI adapters on the other hand, are the bare minimum to connect to the network. The software runs in the main CPU to do the rest.

**Bus**

Different computers use different buses for add on cards. Network Interface Cards can come in 8-bit ISA, 16-bit ISA, 32-bit PCI, or even 32-bit PCI Express. A Ethernet PCI Adapter works only on 32-bit PCI buses.

**Performance**

Since a Network Interface Card does everything on its own, it tends to be much faster and more efficient. Ethernet PCi Adapters generally tend to be slower and less efficient due to software being slower and lacking many features.

**Cost**

Since an Ethernet PCI Adapter does less, it tends to be much cheaper than a full-fledged Network Interface Card. Some Ethernet PCI Adapters can be had for as little as $5 per unit.

**Summary**

A NIC is a network interface card - this can either be on a PCI card which you plug into a PCI slot inside your computer or on most new computers built into the motherboard. This is normally the name for wired systems. A PCI adapter is just another name for the same thing - but normally associated with wireless networking