



Power over Ethernet

Power over Ethernet provides an economical answer to our power and data requirements

Over the past decade our lives have become increasingly reliant on a vast array of devices that support and control the environments in which we live and work.

Our way of life is interwoven with technology, not only in terms of mobile phones and the internet, but also an astounding network of cameras and sensors that monitor and regulate the world around us.

This is a trend that is set to continue as the Internet of Things comes of age.

We have sought to centralise much of the infrastructure that manages this technology, creating networks of environmental sensors, lighting controls and security devices.

These devices require both power and data connections to function

All of these devices require fixed power sources and data network connectivity to operate effectively. Most require a high level of resiliency and are therefore unsuited to battery power, or wireless network connections.

As you expand your network to include more nodes and user devices, creating separate power and data solutions becomes an arduous and expensive task.

As an alternative, passive power over Ethernet (PoE) patch panels can be used as part of a cost effective solution for distributing power to where it is needed throughout the home, office, campus or other environment.

Patch panels are a vital part of an Ethernet cabling solution for organising and managing cable connections. They maximise the effectiveness of the IT cabling by delivering power and data to where it is needed.

While there are other cabling solutions that provide both power and data such as USB, PoE is suitable for far longer distances.

Typical applications

The types of devices that are best suited to PoE connectivity remain in a fixed position and have a low power draw.

PoE is particularly useful for connecting disparate and geographically dispersed devices to your network, without having to add a separate power source or additional cabling.

Common examples include:

- Wireless routers
- VoIP phones
- Security cameras
- Intercom
- Sensors
- Security / access devices

In the data centre, PoE is an effective tool to power humidity and temperature sensors as part of a broader DCIM solution.

Electromagnetic Interference

To help prevent Electromagnetic interference when using PoE it is important that the patch panel is properly grounded.

This type of disturbance, if not guarded against, can have a serious detrimental effect on performance. Most panels are supplied with a grounding bolt for this purpose.

Long term outlook

PoE patch panels will become an ever more important part of any structured cabling solution as the plethora of interconnected devices continues to grow.

As our environments at work and home become increasingly “smart”, PoE will emerge as the most dependable and cost effective method of supplying power and data to the network of cameras, sensors and telecommunications equipment that we have become increasingly reliant on.

For more information on Power over Ethernet [Contact NM Cabling](#) 01923 888588