



TECHNOLOGY 194: Power over Ethernet

Summary

Power over Ethernet (PoE) is a system to transmit electrical power and data to remote devices over standard twisted-pair cable in an Ethernet network. This technology is useful for powering IP telephones, low powered wireless LAN access points, network cameras, remote network switches, embedded computers, and other appliances where it would be inconvenient, expensive, or infeasible to supply power separately.

The Powered Ethernet Splitter (PES) or Powered Ethernet Module (PEM) provide the first commercially available devices to provide PoE output loads of up to 33 Watts while maintaining compliance with the IEEE 802.3af standard. By expanding available power, the PES and PEM devices significantly expand the types and number of appliances that can be powered over the network. The PES was designed to “PoE enable” legacy network appliances while the PEMs were built to integrate directly into the product designs of network appliance devices.

The developers see the technology as offering the advantage of the power limits of the new 802.3at standard with the inter-operability of the 802.3af standard.

Value Proposition

PoE minimizes the number of wires used to install the network, resulting in lower cost, less downtime, easier maintenance and greater installation flexibility. There are many benefits to using PoE, most obviously reduced installation cost, and additionally, centralized data and power management and better reliability through the use of a centralized uninterruptible power supply (UPS).

Development Status

The stand-alone high power PoE splitters and integration-ready modules are commercially available today,

IP Status

PoE as a technology is Patented by PowerDsine of Israel, the original inventors. Cisco Systems has an even earlier claim to PoE’s predecessor, a proprietary technology called “in-line power” that it has been shipping for over 8 years to power its IP phones.

Infomart does not have any patents on the PES or PEM devices but does own the intellectual property surrounding the design of the devices.

Partner Opportunities

Infomart is an India-based pioneer in higher output, non-proprietary PoE solutions. They have a presence in Singapore and the United States, and are seeking partnerships in various geographic areas.

Innovator

Devesh Agarwal, Managing Director, Infomart Pvt. Ltd.

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