



Ethernet as the new power jack

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Ethernet is the new Power Jack for WLAN and Media Endpoint Devices.





Why “Power over Ethernet”

Powering Network Devices over Ethernet Wiring

The IP Network Infrastructure is the platform that delivers business critical applications. Applications that use end devices connected to the IP network, devices that require power.

- IP Telephones
 - Wireless LAN Access Points
 - Security Cameras
 - Video Conference
- } Drivers today

- Remote Kiosks
 - Handheld devices, e.g., PDA's, mobile phones
 - CCTV and DVRs
- } More Devices are coming

Ethernet as the power jack for these devices provides easy to delivery power to remote devices and backup power for critical devices such are IP Phones.

What is “Power over Ethernet”

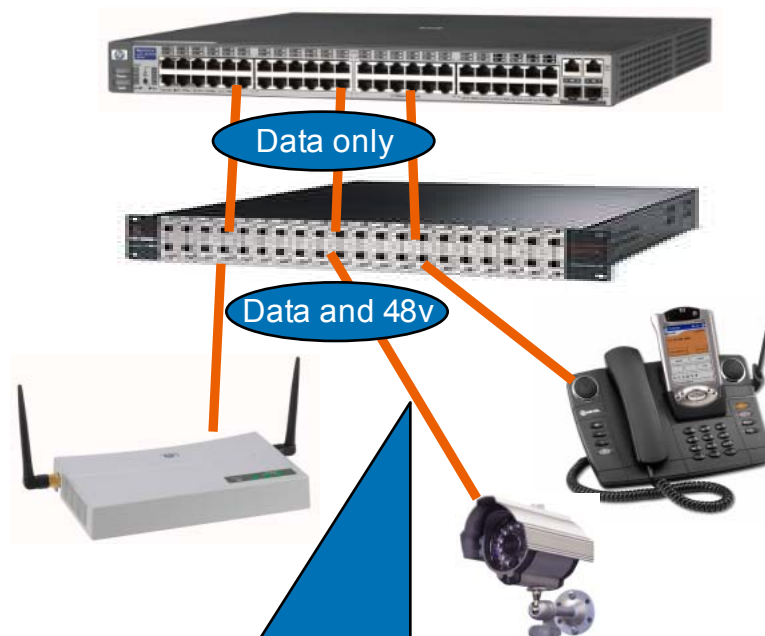
Powering Network Devices over Ethernet Wiring

Edge Ethernet Switch
data and power to network endpoints



Ethernet Switch data and power
Unused data pairs deliver 48

Mid-span Device
Injects power into the Ethernet wiring



Mid-span patch panel device
Located between the Ethernet Switch and the endpoint device

What to Consider



Edge Ethernet Switch with internal 48 volt power delivery capability *versus* mid-span device

Edge Ethernet Switch

- + Integrated, less devices to manager
- + Ease of deployment
- + External backup power capability
- + Ease of expansion for present and growing number of future products
- Cost per port
- Utilization of available power

Mid-Span Device

- + Implementation Flexibility
- + Cost
- + Power distribution utilization
- No External backup
- Management
- Scalability



What to Consider

IEEE 802.3af Standard *versus* Vendor Proprietary

IEEE 802.3af Standard

- + Broad industry acceptance
- + Large and growing number of compliant products
- + Multi-vendor interoperability
- Generally not backward compatible with vendor proprietary implementations

Vendor Proprietary

- + Single vendor solution
- Lock-in to single vendor
- Most vendors are phasing to standards based implementations

Recommendations

- Plan power distribution today that allows you to scale appropriately in the future
 - Use Standards based technologies, IEEE 802.3af
 - Vendor agnostic
 - Deploy edge Ethernet Switches with Integrated Power
 - Vendors offer a wide range of available power and port density to meet most requirements
 - Vendors offer Redundant Power units to provide resiliency
 - Vendors offer External Power units to increase output power of the Ethernet Switch for easy scalability.



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