



CYBERPATH SOLUTION WHITEPAPER

CYBERPATH POWER-OVER-ETHERNET SWITCHING WITH AVAYA IP OFFICE

Introduction

Small and medium sized businesses have a greater need than ever before to improve performance, remain competitive and deliver profits. There is no doubt that world-class communication solutions are a key tool to achieve these goals. Avaya's IP Office fills the gap between yesterday's circuit switched PBXs and Key Systems and the IP-only solutions of tomorrow by meeting the total office communications needs of small-to-medium sized businesses.

A key element in the migration to IP-based communication is the consideration of the network itself. The convergence of voice into a data network has also created a convergence of power and data in the form of Power-over-Ethernet. The significance of PoE is just beginning to take root in office telephony solutions where traditional phones can be migrated to VoIP capable handsets and powered and networked using PoE capable Ethernet switches.

The list of the advantages PoE includes:

- Reduced cabling costs. One set of wires provides both power and data.
- Simplification of wireless LAN installs allowing easier installs and changes in location.
- A worldwide power standard—the first. This means that PoE devices will work in any country, without converters and special adapters.
- Reliability. A UPS at the power distribution source can guarantee power to all connected devices.
- SNMP network management. This system can be used to monitor and control connected devices. This includes resetting them and shutting them down remotely.

Technology Overview

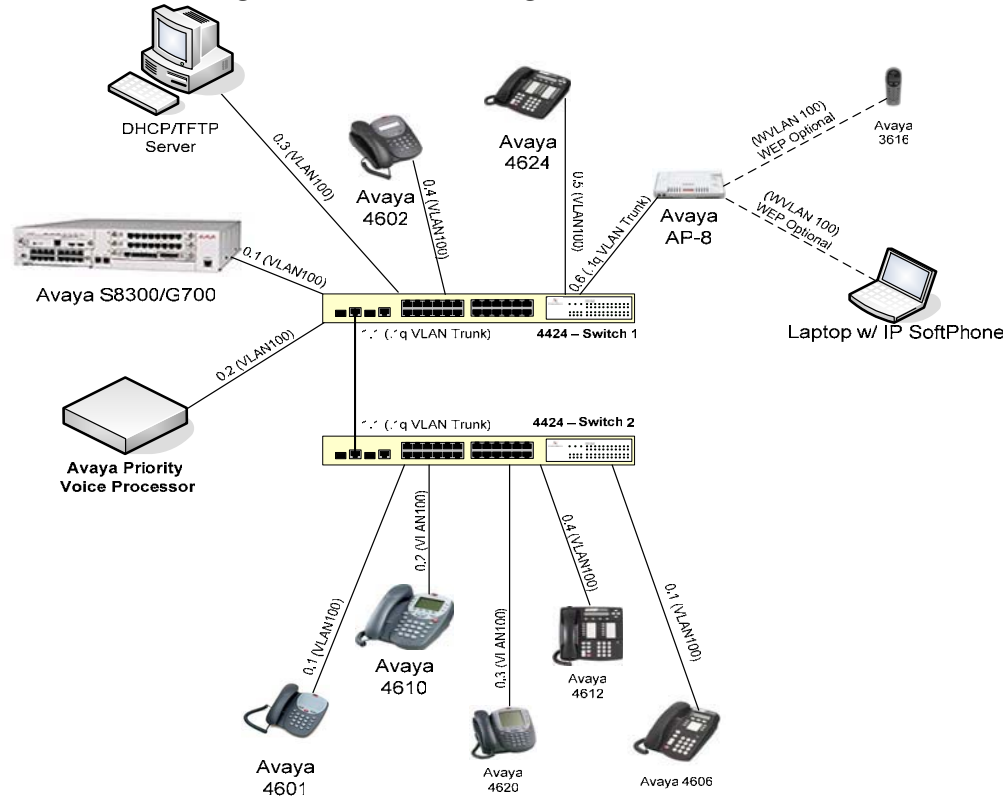
The CyberPath PowerPath product line builds on the foundation of the EtherPath family of Ethernet Switches by adding support for the IEEE 802.3af specification for Power over Ethernet (PoE). This enhancement to the standard Ethernet deployments allows low-voltage power to be carried down the same CAT5 cabling that currently supports data traffic. Power Over Ethernet also has widespread applications in wireless, point-of-sales, security, and building controls systems and networks where intelligent devices will benefit from the ease of installing open cable to supply both data and power needs.

The 802.3af standard defines two new hardware components, power sourcing equipment (PSE), and the powered device (PD). The PowerPath are PoE-compliant Ethernet switches that act as the PSE and is responsible for supplying up to 15.4 watts of power (at 48 volts) to the PD. The Avaya IP telephones are the power Devices (PD) that can accept power down the same CAT5 cable that they connect with the network. Since the CyberPath switches have an auto-sensing function for power requests, any device can be plugged into the switch and only those requesting power will receive it.

CyberPath Power-over-Ethernet Switching with Avaya IP Office (continued)

Network Application

CyberPath's PowerPath Ethernet Switches are fully compliant with the Avaya IP Office solution. Here the switches can provide Power-over-Ethernet for IP telephones, Wi-Fi deployments, as well as security cameras, while still connecting to traditional networking devices



Conclusion

Power-over-Ethernet provides flexible and cost efficient network deployments for Wi-Fi networks and CyberPath's PowerPath series of Power-over-Ethernet switches are a fully compliant with the IEEE 802.3af standard.

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