

# Cisco Catalyst Intelligent Switching— Leading the evolution of innovation with Gigabit Ethernet and Power over Ethernet solutions

## Why is Cisco the right choice for upgrading your network to Gigabit Ethernet with Power over Ethernet capabilities?

Cisco Systems® is propelling technology innovation to and adoption of industry standards by delivering IEEE 802.3af-compliant Power over Ethernet solutions for the entire Cisco Catalyst® portfolio of intelligent switching solutions. By expanding support, Cisco® offers greater flexibility and mobility to users by combining Cisco Catalyst intelligent switching capabilities with integrated power delivery to increase network support of new services and applications. Cisco is the first and only vendor to offer Gigabit Ethernet ports that deliver standards-based IEEE 802.3af Power over Ethernet. Cisco delivers both 10/100 and 10/100/1000 Power over Ethernet ports, enabling higher bandwidth connections for greater network performance and user productivity. Deploying Gigabit Ethernet ports with Power over Ethernet not only provides the incremental performance and productivity gains expected from Gigabit Ethernet, but also allows organizations to invest in scalable technology that will enable the deployment of new applications and services without the need for additional upgrades. This will give your organization the ability to lower the overall cost of network ownership through optimal use of the LAN infrastructure, thereby reducing capital expenditures, simplifying manageability, and lowering operating costs.

## Cisco Leads the Industry in Power over Ethernet

Cisco was the first to innovate in-line power and continues the evolution of technology standards by delivering IEEE 802.3af-compliant Power over Ethernet solutions for the Cisco Catalyst portfolio of intelligent switching devices. Cisco delivers 802.3af-compliant Power over Ethernet for the Cisco Catalyst 6500 and 4500 series, and introduces the Cisco Catalyst 3560 and Catalyst 3750 stackable fixed-configuration Power over Ethernet switches. Cisco has shipped more than 18 million in-line Power over Ethernet capable ports on the Cisco Catalyst 6500, 4500, 4000 and 3500 Series switches. Cisco standards-based Power over Ethernet switches allow you to expand your network to support new Ethernet-powered devices such as IP video surveillance, magnetic card readers for building management, and retail video kiosks. Cisco Catalyst 10/100/1000 and 10/100 Power over Ethernet solutions further enhance the value of the Cisco Catalyst Family.

## Investment Protection

Cisco delivers superior investment protection by “engineering in” backward and forward compatibility whenever possible, enabling you to gain the highest possible return on your infrastructure



investments. The Cisco Catalyst 6500 and 4500 series switches were designed with support for Power over Ethernet. Each chassis supports standards-based Power over Ethernet line cards, giving you a longer deployment life from your initial infrastructure investment. The Cisco Catalyst 6500 Series provides an incremental benefit by offering field-upgradable 10/100 and Gigabit Ethernet line cards that allow users to add Power over Ethernet capabilities when needed, reducing initial capital expenditures and allowing for a “pay-as-you-grow” approach.

The new 802.3af Power over Ethernet line cards for the Cisco Catalyst 6500 and 4500 chassis-based switches and the Cisco Catalyst 3750 stackable and 3560 fixed-configuration switches will support both Cisco pre-standard in-line power and 802.3af Power over Ethernet delivery. The newly announced Cisco IP Phone 7970G also supports both Cisco in-line power and the 802.3af standard. Cisco will continue to develop powered end devices, such as IP phones and wireless access points that will support both the original Cisco implementation and the 802.3af standard as well to provide investment protection to customers with pre-standard in-line power devices and line cards. This helps ensure compatibility with your current installed products, as well as future devices.



### Intelligent Power Management

Cisco Catalyst intelligent switches not only support a complete implementation of the IEEE optional power classification features, but further extend these capabilities with Intelligent Power Management (IPM). IPM enables scalable, intelligent management of power delivery for all Power over Ethernet ports in the switch. IPM enables the granular control of power delivery to each Power over Ethernet port, allowing for power reservation, power allocation, power oversubscription management, and power prioritization. This extends the manageability of Power over Ethernet deployments by minimizing wall power requirements, and maximizing power usage on a per-port basis, and better managing monthly electrical power costs.

### Scalability and Expandability

Cisco delivers a highly scalable solution with high density of Power over Ethernet ports. Cisco Catalyst intelligent switches were designed for Power over Ethernet and therefore have the inherent power system and capacity in place to provide high density 802.3af Power over Ethernet ports connectivity.

In addition, Power over Ethernet, combined with Cisco Catalyst intelligent switching capabilities broadens the deployment possibilities and usefulness of the switching infrastructure, enabling the support of advanced application deployments and new network devices. The inherent intelligence in the Cisco Catalyst switches further benefits the new, power-enabled applications by helping ensure availability, granular traffic control, and integrated network

security. Applications for Power over Ethernet range from IP Telephony and Wireless LAN to IP Video Surveillance, Building Management and Retail Video Kiosks.

Cisco is continuing to extend its leadership position in delivering Gigabit Ethernet and Power over Ethernet ports for the entire Cisco Catalyst portfolio of intelligent switching solutions. By upgrading your existing network or implementing Gigabit Ethernet with Power over Ethernet capabilities in new deployments, you can use your existing LAN investments for current and future applications, while lowering your total cost of ownership. Gigabit Ethernet combined with Power over Ethernet and the Cisco Catalyst intelligent switching capabilities will allow your network to support advanced applications and new network devices without having to further upgrade your network.

Contact your Cisco sales representative or reseller today to learn how you can take advantage of your LAN to reduce capital expenditures, simplify manageability, and lower operating costs as your business moves into the future.

For More Information

Cisco Catalyst Gigabit Ethernet with Power over Ethernet Migration Program

<http://www.cisco.com/go/>

Cisco Catalyst 6500 Series Switches

<http://www.cisco.com/go/catalyst6500>

Cisco Catalyst 4500 Series Switches

<http://www.cisco.com/go/catalyst4500>

Cisco Catalyst 3560 Series Switches

<http://www.cisco.com/go/catalyst3560>

Cisco Catalyst 3750 Series Switches

<http://www.cisco.com/go/catalyst3750>

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[http://tools.cisco.com/WWChannels/LOCATR/jsp/partner\\_locator.jsp](http://tools.cisco.com/WWChannels/LOCATR/jsp/partner_locator.jsp).



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