



# Next-Generation Retail Architecture with Cisco UPOE: Unleash the Power of Your Network



Cisco Catalyst 4500E with Cisco UPOE



Cisco Catalyst 3560-C and 2960-C

Cisco® Universal Power over Ethernet (UPOE) is the next generation of PoE solution, which doubles the power per port to 60W. UPOE is available on the world's most widely deployed modular access switching platform: the Cisco Catalyst® 4500E. UPOE enables secure Ethernet connectivity for applications in locations that might not have sufficient Ethernet cable drops or power outlets to support the IP devices required to provide essential services.

## UPOE Powering the Retail Space of the Future

Retail industry is at a turning point where it adopts the realities of online stores. Customer experience plays a primary role in retail business sector that relies heavily on repeat customers. Retail industry is using the advancements in technologies to create a positive experience on their customers, thus improving their profitability.

With just one Ethernet cable drop, Cisco Catalyst 4500 switches, along with new Cisco Catalyst compact switches (small form factor with 8/12-port Gigabit and Fast Ethernet switches), enable retail establishments to deploy an array of new IP applications

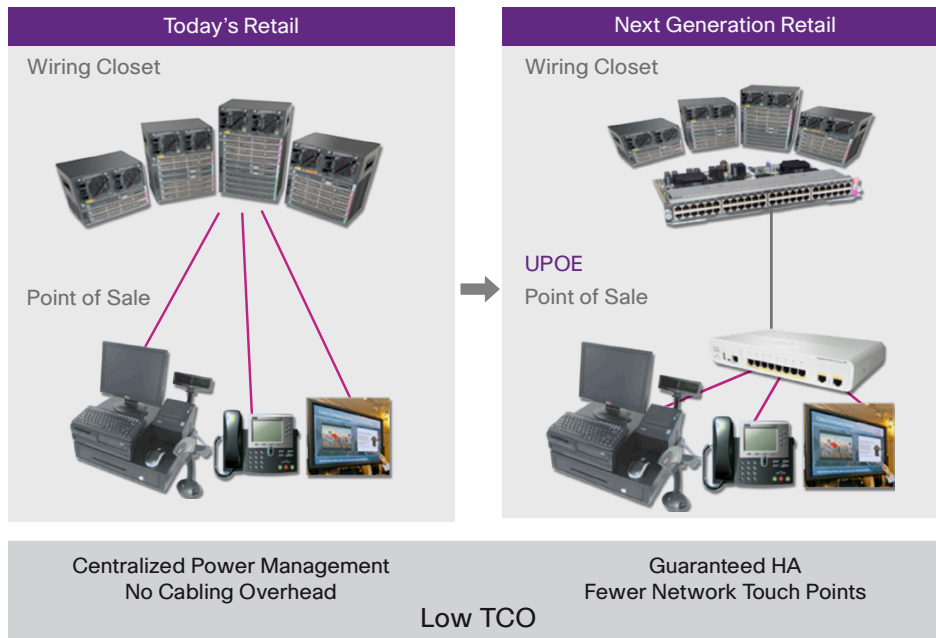
in various areas of the store or mall. For example, they can support multifunctional checkout stations, video signage for running advertisements or store specials, temporary product kiosks on the store/mall floor, customer kiosks for accessing store catalogues or manufacturer's coupons, temporary work spaces, and more.

## Flexible Device Placement: Deploy New Applications Wherever You Need Them in the Store

Your managed switches will no longer have to be confined to a closet. They can be deployed up to 100 meters away from the wiring closet, anywhere in the store, mall, back office, small branch office, call center, or warehouse area. Cisco Catalyst compact switches are sleek and quiet (fanless) and can be placed on or mounted underneath desktops or countertops or on a wall.

## UPOE with Power over Ethernet (PoE) Pass-Through: Eliminate the Need for Power Outlets for Your Floor Switch and Application Devices

The PoE pass-through feature on new compact switches enables IP applications in locations without access to power outlets. It enables the compact switch to draw power over the Ethernet cable, from a UPOE-enabled Cisco Catalyst 4500 in the wiring closet, to power itself and the PoE devices connected to it. All you need is a single Ethernet cable to provide IP connectivity and power for the switch and the few IP devices it has to support. For example, a checkout station or a temporary kiosk could have several IP devices—including a phone, point-of-sale devices, credit card reader, printer, video signage, camera, or wireless access point—supported by a single Cisco Catalyst compact switch. With a Cisco Catalyst compact switch you can eliminate the need for hundreds of meters of Ethernet cabling from the wiring closet to the individual devices at these checkout stations or kiosks.



- You can implement strict security policies based on user IDs, their organizational roles, and device types, a unique solution from Cisco. This enables secure and flexible collaboration between users anywhere on the network. For example, field managers can collaborate with branch employees or even vendors, independent of their location, without compromising security.
- Malicious users can be proactively blocked from eavesdropping on the conversation/data between two endpoints.

### Enable Effortless Setup and Unified Network Management

Setting up the Cisco Catalyst 4500 and new compact switches is simple. Compact switches feature Cisco Catalyst Smart Operations for “zero-touch” setup and quick troubleshooting. Both include Cisco Auto Smartports, which support true plug and play by automatically configuring the switch based on the type of device connected to it. Automatic quality of service (AutoQoS) enables state-of-the-art QoS implementation with just one command. This is especially beneficial for stores that need to deploy IP telephony and video quickly, but lack the required expertise or staffing. You can remotely manage and troubleshoot the Cisco Catalyst compact switches utilizing the same infrastructure that you use to manage your switches in the wiring closet. In summary, you can significantly reduce setup and management costs by not requiring teams of IT experts on call.

### Make Sure of Superior Security

Now that your switching infrastructure is no longer limited to a secure wiring closet, it becomes all the more important to protect this extension of the network from unauthorized user or device access, eavesdropping, or theft. The Cisco Catalyst switches set themselves apart from other solutions on this front with Cisco TrustSec® security, the industry's most comprehensive network security solution.

- The Cisco Catalyst compact switches along with Cisco Catalyst 4500E help support requirements mandated by regulations such as the Payment Card Industry Data Security Standard (PCI DSS) and the Sarbanes-Oxley Act (SOX).
- Your network data will remain protected because all packets between the switches and between switch and the end device are encrypted right at the source, a unique solution from Cisco.

### Adapt to New Application Requirements

Cisco Catalyst switches are voice over IP (VoIP) and video ready. Furthermore, Cisco's unique QoS guarantees consistent voice/video quality even in the face of high network traffic, the primary advantage of Cisco QoS. With AutoQoS, Auto Smartports, and PoE pass-through, your network can support new applications without requiring new hardware.

### Improve Energy Efficiency and Sustainability

With Cisco EnergyWise you can monitor, manage, and reduce energy consumption on all the PoE devices connected to the switch and other Cisco EnergyWise-enabled devices across the entire store.



## Cisco and Payment Card Industry Compliance

Cisco has been a leader in the networking industry in guiding customers to achieve PCI compliance. The Cisco PCI Validated Architectures provide design guidance for implementing a PCI DSS network. Additionally, Cisco PCI Advanced Services perform readiness assessments and remediation services for customers before a PCI audit and compliance.

The new Cisco Catalyst 4500E with UPOE capability and Cisco Catalyst compact switches are the latest addition to its line of enterprise-class switches that have been proven in retail environments worldwide. In summary, they provide a flexible, secure, and cost-effective means to deliver new services to locations of the store/mall that were previously out of reach.

## For More Information

- UPOE White Paper  
[http://www.cisco.com/en/US/products/hw/switches/ps4324/prod\\_white\\_papers\\_list.html](http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_white_papers_list.html)
- Cisco Catalyst 4500 Supervisor 7-E Datasheet  
[www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/data\\_sheet\\_c78-612364.html](http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/data_sheet_c78-612364.html)
- Cisco Catalyst 4500 Line-Card Datasheet  
[www.cisco.com/en/US/prod/collateral/modules/ps2710/ps5494/product\\_data\\_sheet0900aecd802109ea\\_ps4324\\_Products\\_Data\\_Sheet.html](http://www.cisco.com/en/US/prod/collateral/modules/ps2710/ps5494/product_data_sheet0900aecd802109ea_ps4324_Products_Data_Sheet.html)
- Cisco Catalyst 4500 Chassis Datasheet  
[www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product\\_data\\_sheet0900aecd801792b1.html](http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product_data_sheet0900aecd801792b1.html)
- Cisco Catalyst 4500 Power Supply Datasheet  
[www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product\\_data\\_sheet09186a00801f3dd9.html](http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps4324/product_data_sheet09186a00801f3dd9.html)