

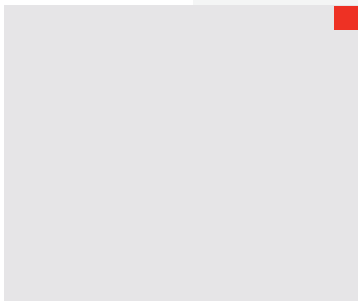
Alcatel-Lucent OmniSwitch 6855

Hardened LAN Switch





Businesses are demanding a common and converged communication infrastructure that supports their growth by extending the reach and scope of the network and its services beyond the wiring closet, even to locations where harsh environmental conditions exist.





The Alcatel-Lucent® OmniSwitch™ 6855 Hardened LAN Switch

is the industry's first Ethernet switch offering up to 24 gigabit ports in a hardened chassis that is designed and built to operate reliably in harsh environments and severe temperature conditions.

This superior, rugged hardware design coupled with the widely deployed and field proven Alcatel-Lucent Operating System (AOS) makes it ideal for industrial and mission-critical applications that require wider operating temperatures, more stringent EMC/EMI requirements and optimized feature set for high security, reliability, performance and easier management.

In addition, OmniSwitch 6855 offers the option to power Ethernet devices at the edge of a network such as video cameras, wireless access points, card readers, and industrial sensors.

The target applications for these versatile LAN switches are power utilities, transportation and traffic control systems, industrial factory floor installations, video surveillance systems, and outside installations, all requiring the benefits and performance of IP and Gigabit Ethernet.

FEATURES AND BENEFITS

Flexibility in the design

- Wide choice of models offering different port densities and port types as well as diverse power supply options: external, redundant, hot swappable, AC and DC.
- Purpose built, industrial strength switch engineered to operate in temperatures ranging from -40C up to + 75C for some models.
- Convection cooling fan-less design models offer increased reliability and lower acoustic levels.

Power over Ethernet (PoE)

- All of the OmniSwitch 6855 copper models support PoE (compliant with the 802.3af standard) which can be used for powering access points, card readers, surveillance cameras, etc.

Performance

- Wire-rate gigabit connectivity and full IPv4 and IPv6 support with unicast and multicast switching and routing (e.g., native support of OSPF, IGMPv3, PIM) for future proof investment.
- Advanced quality of service (QoS) to support critical applications.

Security and Manageability

- Extensive security features for network access control, policy enforcement and attack containment enabling fully secure and protected networks.
- Alcatel-Lucent OmniVista™ Network Management System and Alcatel-Lucent 5620 SAM* support for easier operations.

* Contact for availability

Alcatel-Lucent OmniSwitch 6855 Family

The OmniSwitch 6855 family offers customers an extensive selection of Gigabit Ethernet fixed configuration switches and power supply options that accommodate most hardened Ethernet needs. Models offered include industrial-strength PoE and non-PoE copper and fiber models in a 1U form factor.

Fiber Models



OmniSwitch 6855-U10

- Eight SFP fiber ports 100/1000BaseX
- Two RJ45 10/100/1000 copper ports
- Operating temperature: -40°C to + 70°C



OmniSwitch 6855-U24

- 22 SFP fiber ports 100/1000BaseX
- Two combo ports
- Operating temperature: -40°C to + 75°C

Copper with PoE models



OmniSwitch 6855-14

- 12 10/100/1000 RJ 45 ports including 4 PoE capable ports
- Two SFP fiber ports 100/1000BaseX
- Operating temperature: -40°C to + 70°C



OmniSwitch 6855-24

- 20 10/100/1000 RJ45 copper ports
- Four of which support PoE
- Four combo port
- Operating temperature: -40°C to + 75°C

Combo ports are ports individually configurable to be 10/100/1000BaseT or 100/1000BaseX that can support SFP transceivers for short, long and very long distances. SFP fiber interfaces support 1000BaseX or 100BaseX SFP optical transceivers.

Compliance and Regulatory Agency Approvals

Alcatel-Lucent's OmniSwitch 6855 family is fully compliant with the European Community's directive – Restriction on Hazardous Substances in Electrical and Electronic Equipment (RoHS) and WEEE (Waste Electrical and Electronic Equipment).

It has also received the UL approval for safety and is in compliance with numerous industrial standards and certifications for EMI immunity, environmental, mechanical shock and vibration in addition to industry specific guidelines such as IEEE1613 and IEC 61850-3 for substations.



POWER SUPPLY OPTIONS

Flexibility

- All of the OmniSwitch 6855 chassis support redundant, hot-swappable AC and DC power supplies.
- Primary as well as backup power supplies are external to the device which allows for easier installation, maintenance and replacement.
- Power supplies can also be remotely mounted using a special cable, which allows the OmniSwitch 6855 to be used in areas with reduced depth.
- The power supplies for the 10- and 14- port models come in the form of a power brick. The PoE brick is separate from the brick providing chassis power and it can be purchased separately, only when PoE is required.



Availability

- Designed for maximum availability, the primary as well as the backup power supplies for the OmniSwitch 6855 models are external and hot-swappable.
- There is no interruption of service in case of a new power supply is installed or an old one replaced.

Product features and benefits

PERFORMANCE AND HIGH AVAILABILITY FEATURES

The OmniSwitch 6855 family supports real-time voice, data, and video applications. The switches provide first packet wire-speed classification and processing for all packets – giving a noticeable performance boost to converged enterprise networks. The OmniSwitch 6855s support advanced services such as PoE and IPv6, future proofing today's investment to support the demands of tomorrow.

In addition to supporting the standards-based protocols that ensure network resiliency, OmniSwitch 6855 supports an enhanced version of the spanning tree protocol, called Ring Rapid Spanning Tree (RRSTP). This creates a faster convergence time in a ring configuration making the OmniSwitch 6855 ideal for Ethernet fiber ring deployments.

The OmniSwitch 6855's resiliency is provided through a superior architecture offering physical redundancy.



ENHANCED SECURITY

Alcatel-Lucent OmniSwitch 6855 secures the network with proactive and reactive capabilities that are provided through Alcatel-Lucent Access Guardian™, traffic anomaly detection and the Alcatel-Lucent Quarantine Manager™.



Alcatel-Lucent's Access Guardian

Alcatel-Lucent's Access Guardian is a network access security framework that enables network-wide and user-based security by automatically detecting and authenticating the 802.1X and non-802.1X supplicants connected to a single port, in any combination. This provides users proactive security by preventing unauthorized network access or restricting access for remediation. In addition to improved network security, Alcatel-Lucent's Access Guardian reduces to zero the time a network administrator spends for adding or moving users.



Traffic Anomaly Detection

Traffic anomaly detection (TAD) is a network security component embedded in the OmniSwitch 6855, which detects network traffic anomalies and distinguishes malware traffic.

TAD monitors network traffic in real time, detects anomalies by monitoring discrepancies in user-port's ingress and egress packet rates that match specific traffic patterns. TAD either reports or automatically quarantines the offending ports.

It reduces the impact of worms and other malicious code by detecting and eliminating them right at the edge of the network.



Quarantine Manager

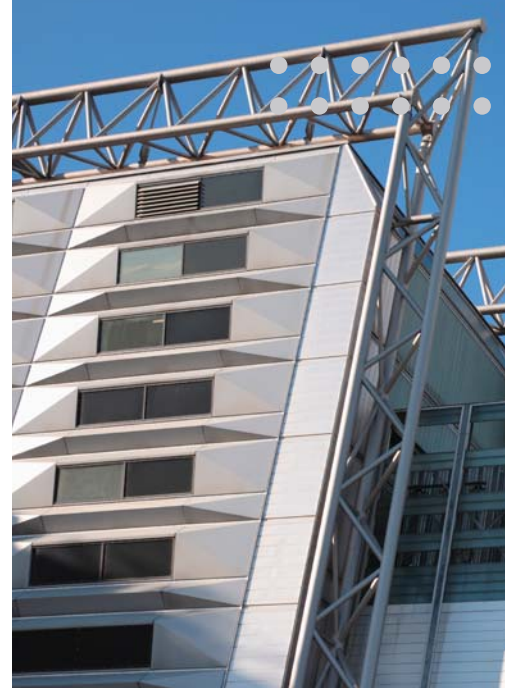
In addition to proactive security provided by Alcatel-Lucent's Access Guardian, the Alcatel-Lucent OmniSwitch 6855 provides reactive security by immediately notifying Alcatel-Lucent OmniVista network manager when an attack is detected and then swiftly handling the attacker through automatic containment and remediation as directed by the network management system.

NETWORK MANAGEMENT

The OmniSwitch 6855 is part of Alcatel-Lucent's OmniSwitch family that uses the AOS and are managed by the Alcatel-Lucent OmniVista Network Management System for simplified OneTouch™ manageability. By offering the same operating system and network management system (NMS) across all Alcatel-Lucent platforms, an existing user is familiar with the product's management from the very first day, reducing the cost of ownership by eliminating the time needed for training.

OmniSwitch administrators have three types of management method interfaces to choose from: a command line interface (CLI), Alcatel-Lucent WebView for web-based management, or SNMP, each, easy to use and offering a common look and feel for every device.

Like the OmniSwitch 6855 product family, OmniSwitch 6855s are fully manageable by Alcatel-Lucent OmniVista and Alcatel-Lucent 5620 SAM*.



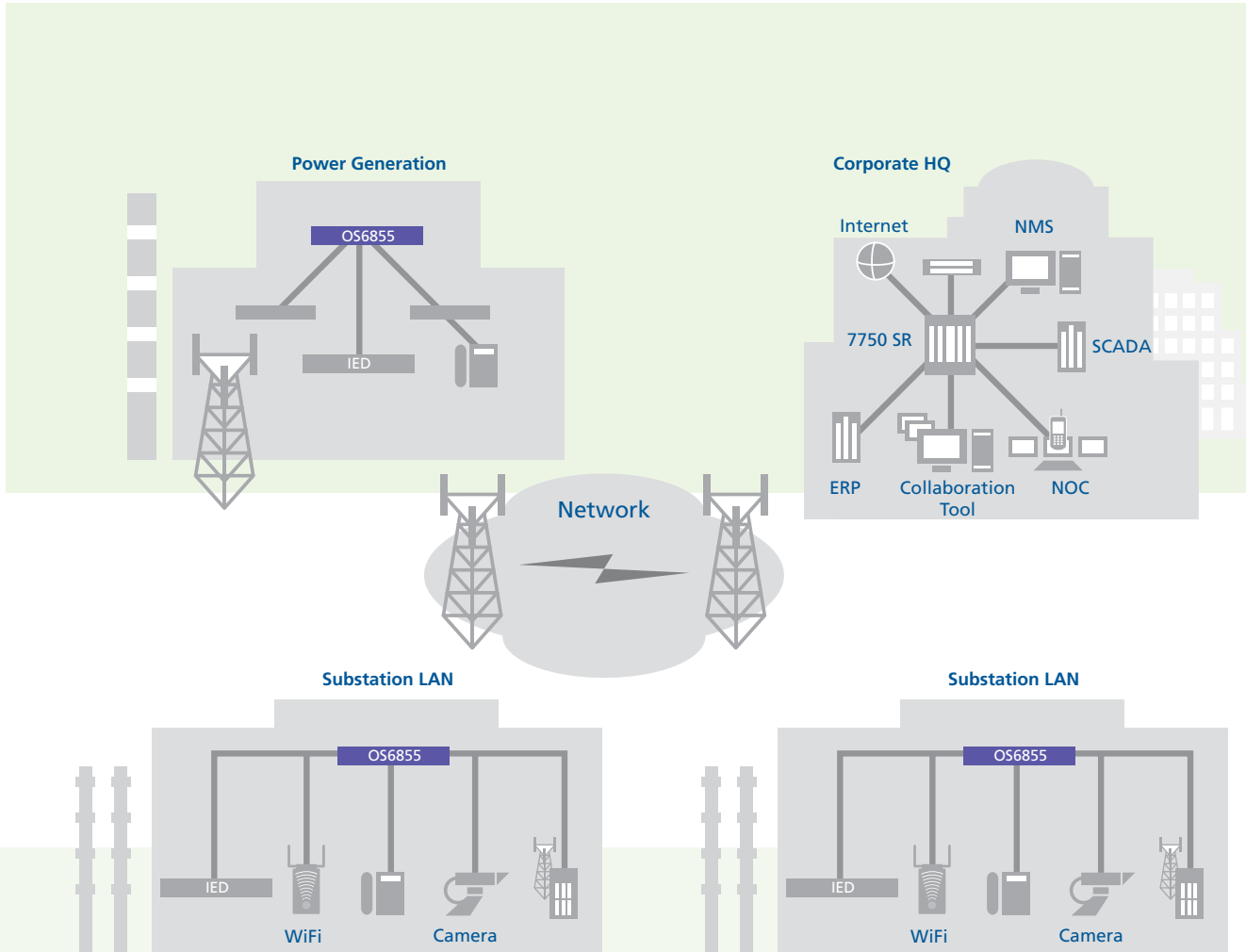
IPv6 SUPPORT

The OmniSwitch 6855 family provides full IPv6 support with hardware-based forwarding for wire-rate speeds, classification and tunneling to address various corporate and U.S. federal government Department of Defense (DoD) requirements for IPv6. Flexibility is provided through the dual IPv4/IPv6 stack without compromising switch performance. By including it in current purchases, a network manager extends the life of existing equipment and prevents future expenses that would be required to upgrade to a switch that supports IPv6.

* Future availability

Network applications

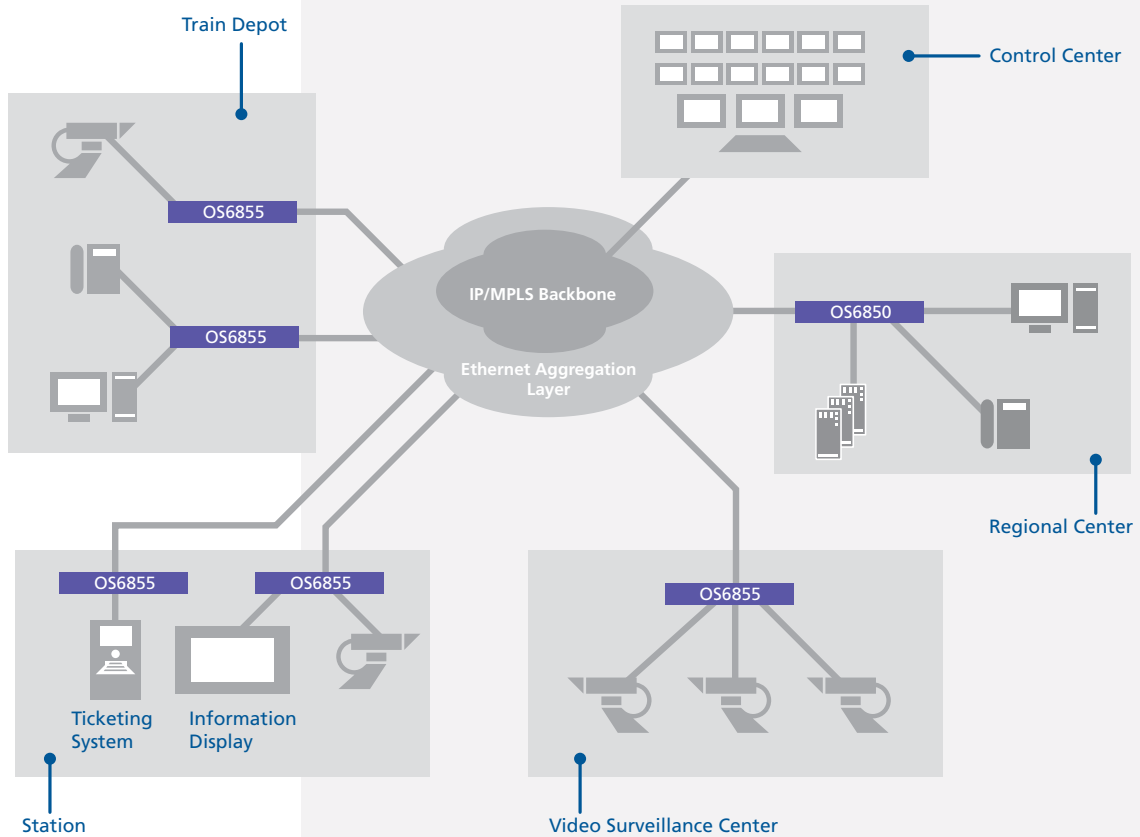
UTILITY



Utility companies rely heavily on their communications infrastructures to ensure the flawless delivery of critical services everywhere from the edge to the central office. Increasingly, the utility network infrastructure must deliver integrated voice, data and video communications. The advanced QoS and converged services make the OmniSwitch 6855 an excellent choice for substation installations. These locations have numerous intelligent devices such as video cameras, IP phones and IP surveillance systems, which have to be connected to a hardened Ethernet switch. In addition, the power plants need heavy duty industrial networking products that can withstand electrical noise and DC power options which the OmniSwitch 6855 offers.

Network applications

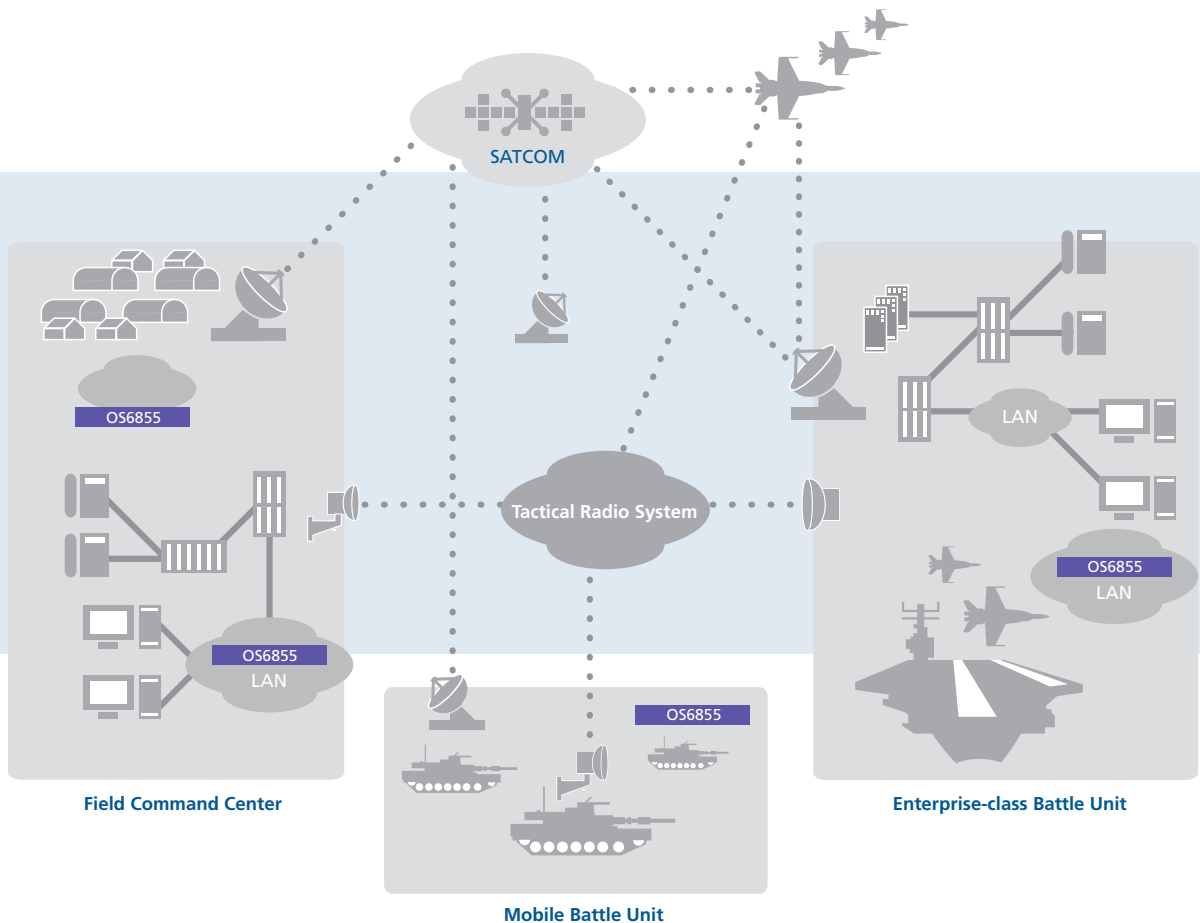
TRANSPORTATION SYSTEMS



Transportation networks often cover a wide geographic area within a metropolitan area or between different cities. The equipment installation locations can be by the roadside, in subway stations or railroad stations. The OmniSwitch 6855 is a good fit for these installations due to its support for long haul fiber, fast networks fault recovery, PoE and advanced L2/L3 protocol supports.

Network applications

MILITARY INSTALLATIONS



The military have strict requirements and stringent guidelines for all equipment deployed in their networks. The OmniSwitch 6855 addresses these requirements and operates in a wide range of temperatures and physical conditions along with the ability to withstand increased shock and vibration.

Defense department networks have to be future proof and usually require support for IPv6. The OmniSwitch 6855 supports both IPv4 and IPv6 unicast and multicast switching and routing at wire rate.

Service & Support

WARRANTY

Like the OmniSwitch 6850 commercial models, OmniSwitch 6855s are offered with a lifetime hardware warranty limited to the original owner and up to five years after the product's End-of-Sales announcement.

Alcatel-Lucent OmniSwitch 6855



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