

A photograph of a modern, multi-story glass building at night. The building's interior lights are on, and a street lamp is visible in the foreground. The text 'SMART BUILDINGS' is overlaid in large, white, sans-serif letters.

SMART BUILDINGS

Cut energy bills by 30%, put more money back into your city's budget, and improve public safety — with Echelon technology for smart street lighting.

Echelon's smart building solution delivers a suite of tools and product offerings for OEMs and application developers based on well established, global standards like LONWORKS® that interoperate with a variety of building automation protocols at the system level including BACnet and Modbus. Developing with Echelon means you can eliminate technology and market risks and focus on differentiating the products you bring to market with the confidence that they will easily integrate into buildings all over the world.

PROVEN IN 300,000 BUILDINGS AND COUNTING

From the Paris Louvre museum to Beijing's "Bird's Nest" stadium used in the opening and closing sessions in the 2010 Olympic Games, over 300,000 buildings and 100 million devices use our energy control networking platform. Leading building automation companies including Honeywell, Siemens, Distech Controls, and Schneider, along with thousands of other OEMs, depend on the platform for designing highly efficient systems and developing devices that power buildings from the inside out.

DEVELOP PRODUCTS THAT MAKE A BUILDING SMARTER FROM THE INSIDE OUT.

Echelon products help you:

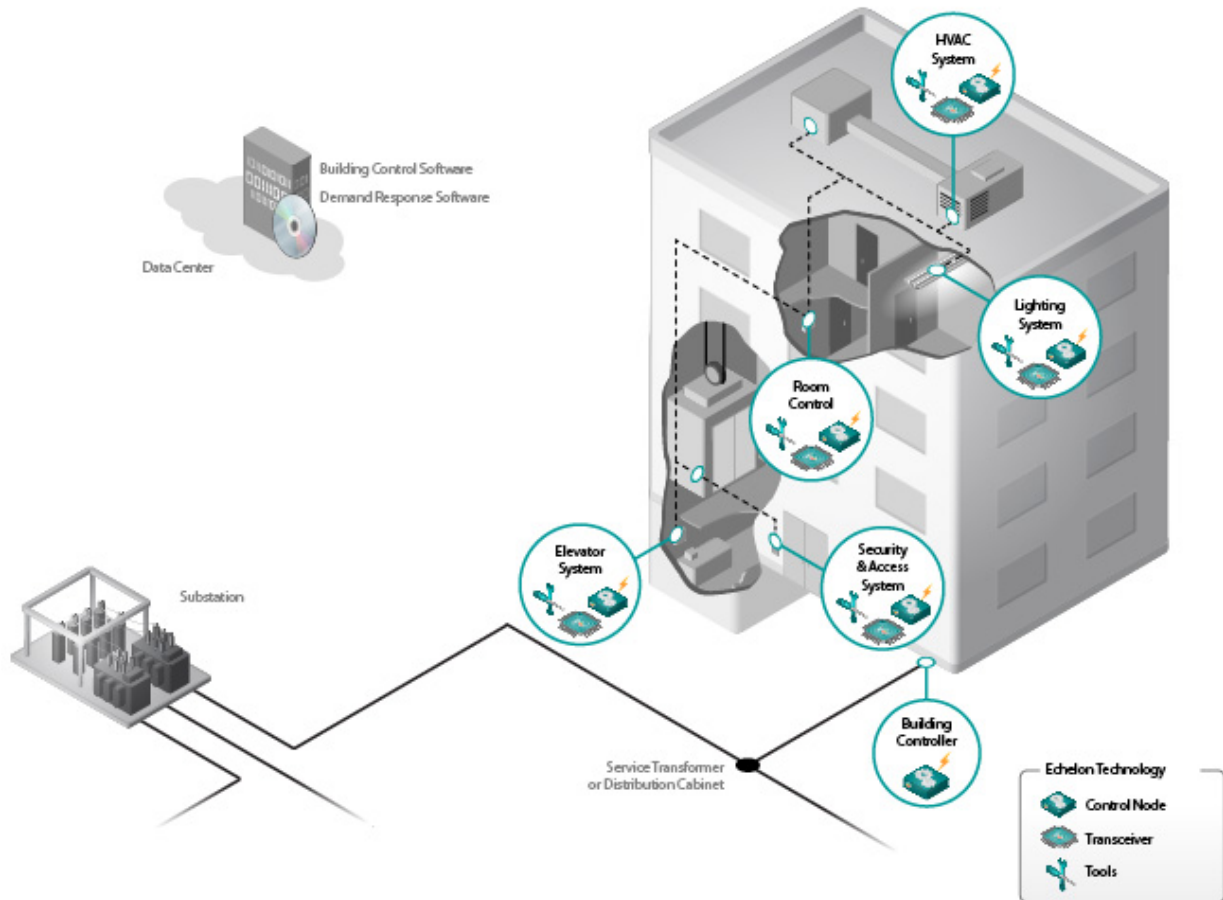
- Get to market faster with less risk using globally certified, standards-based components
- Focus on product differentiation instead of communications and networking
- Lower development and manufacturing costs
- Reduce maintenance and support costs

THE POWER OF AN OPEN STANDARD

You want the technology you choose for your next building system or device to meet widely accepted standards so they will be able to seamlessly interoperate and communicate with other devices. Our LONWORKS products are based on the ISO/IEC 14908 control networking standard so you can address global markets with one proven energy control networking platform. Each of our components meet strict, indus-

try interoperability guidelines so OEMs can bring products to market that more easily integrate into open building networks. As buildings become more grid-aware, the need to support multiple open standards increases. At the system level, Echelon's SmartServer building controller can integrate with grid and enterprise applications over SOAP/XML Web services or BACnet/IP, and with LONWORKS, Modbus, and other protocols at the device level. This means your integration chan-

ECHELON'S SMART BUILDING SOLUTION



PROVEN, OPEN STANDARD. MULTI-APPLICATION

nel can compete in almost every opportunity — whether a LONWORKS or BACnet system — without losing any of the benefits of your devices and systems.

MULTI-APPLICATION PLATFORM ALLOWS YOU TO DEVELOP PRODUCTS THAT DELIVER VALUE OVER THE LIFE OF A BUILDING

When you develop on our energy control networking platform, your products have the much needed device level responsiveness that future smart grid applications require. Without this granular, dynamic control at the device level, buildings lack the customized responsiveness tenants need when participating in new grid-aware applications like automatic demand response programs.

But what happens when new grid applications are introduced? Without a standard, structured way to integrate the rules and conditions, your products would not be able to automatically respond to these applications. That's where Echelon's SmartServer building controller and OpenLNS network operating system come in. With open, standard interfaces, your products can connect to multiple applications that provide the highest value to customers. Now a building can respond to the tenants' need to remain productive and comfortable while energy use drops, often by 30% or more.

SMART PRODUCTS FOR SMART BUILDINGS

What do you get when you buy Echelon's energy control networking platform for smart buildings? You get Echelon's complete suite of tools, network management system, and system-on-chip embedded components that reduce time-to-market with less risk. Each of our ICs includes a full ISO/IEC 14908.1 networking stack that's supported by advanced network management software. With Echelon, OEMs quickly produce feature-rich products with less risk and higher differentiation. Our product suite for the building industry includes:

ICs (INTEGRATED CIRCUITS)

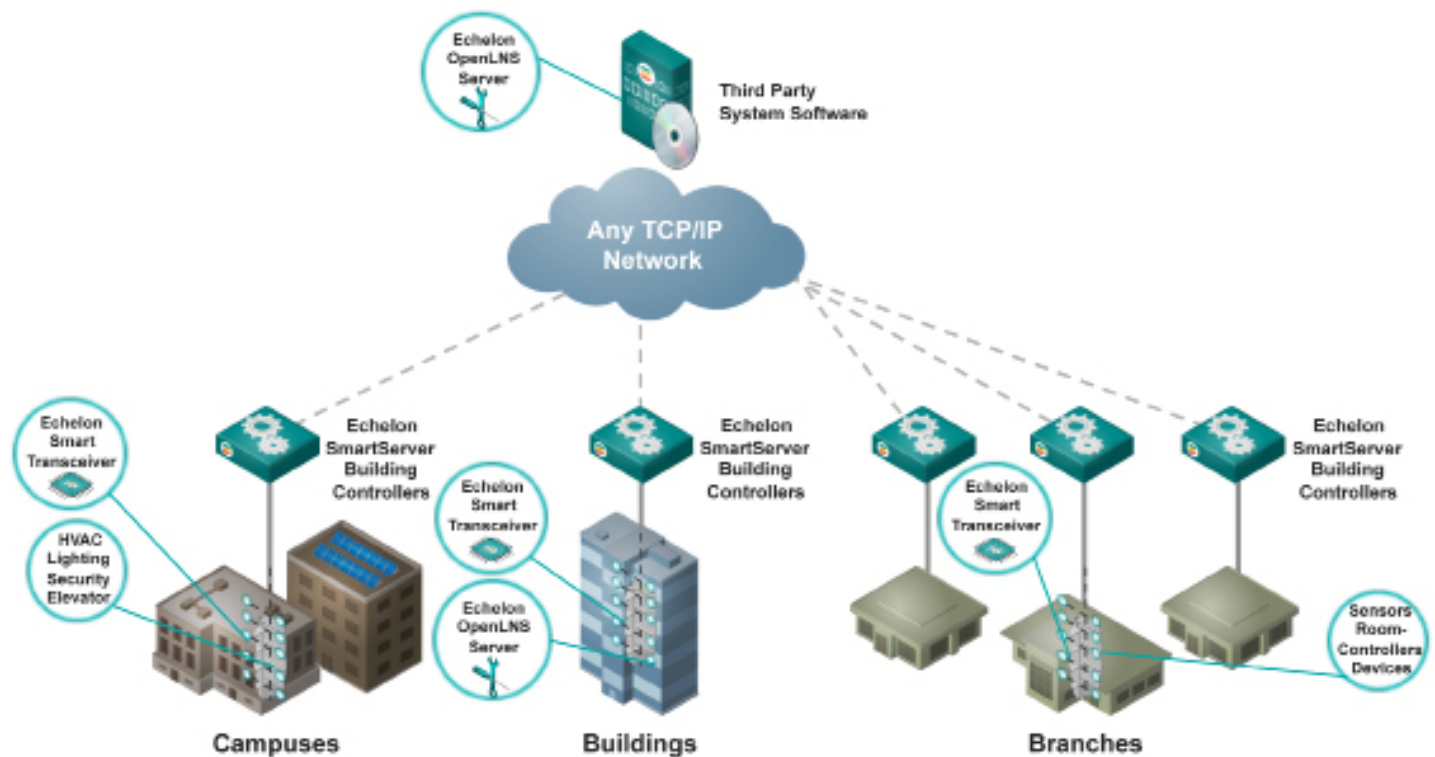
Echelon Twisted Pair Smart Transceivers. Cost effective embedded system-on-chip components integrating an ISO/IEC 14908.1 optimized 8-bit application micro-processor and an ISO/IEC 14908.2 (free-topology twisted pair) transceiver. Our smart transceivers eliminate wiring errors, are extremely noise immune, highly reliable, polarity insensitive and do not require either complex network termination or expensive network cable shielding.



“The system has greatly reduced our energy use. We've saved 40% in air conditioning and 25% in heating, all while maintaining comfortable humidity and temperature levels in the rooms.”

Rafael Vale, Architect
Ximara Geriatric, Spain

PRODUCTS THAT FIT YOUR NEEDS

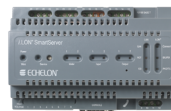


TOOLS

Echelon OpenLNS Server. The new standard for network management and software tools in a building network. OpenLNS provides a platform for network management across product lines, minimizing development time and training costs, and reducing time to market for software. A free developer kit allows OEMs to develop differentiated, powerful tools for their installation and distribution channel, yet retain the ability to use and interoperate with OpenLNS applications from other OEMs and software suppliers. Unlike previous versions of LONWORKS network management software, OpenLNS does not incur royalty or credit fees.

CONTROL NODES

Echelon SmartServer Building Controller. A system manager and controller integral to any installation. The SmartServer provides the functionality required for high-performance building networks and smart-energy applications and can also serve as a standalone controller for smaller networks. Echelon's SmartServer connects control networks to IP-based applications using SOAP/XML Web services and other open protocols such as BACnet (BACnet/IP) and Modbus (Modbus/IP). When equipped with a BACnet/IP gateway application, the



SmartServer supports BACnet user interfaces for integrated management of LONWORKS and BACnet-based networks.

GET STARTED TODAY

To learn how Echelon can help you to get closer to your smart grid vision, call +1 408 938 5200 or visit us at www.echelon.com.