

Robert Redford Green Building & Contemporary Controls

The Robert Redford Green Building Nerve Center Relies on Contemporary Controls' Ethernet Switch

Contemporary Controls' Ethernet switch is an integral part that communicates energy and environmental control information, enabling the Robert Redford building in Santa Monica, CA, to receive LEED™ (Leadership in Energy and Environmental Design) Platinum rating—the highest rating—from the U.S. Green Building Council (USGBC) for green construction. For example, this “green” structure uses recyclable materials, natural light, and saves water through capturing rain and recycling sink and shower water to irrigate landscaping and flush toilets. The building, named for Robert Redford, actor and well-known environmentalist, is the new office for the Natural Resources Defense Council (NRDC). The Robert Redford Building, which opened in November 2003, is a showcase for energy technology application, and it is one of the first structures in the United States to receive a LEED Platinum rating.

Contemporary Controls' Ethernet switches, marketed under the CTRLink® trade name, were selected by ASW Engineering Management Consultants in Tustin, CA, whose firm was engaged by Southern California Edison (SCE) who managed the project. ASW's Senior Project Engineer, Dennis Rowan, emphasized that Contemporary Controls' (Downers Grove, IL) miniature, five-port EISM5-100T switching hub has performed without failure with data transfer speeds as expected. He also stated that this device's wide, low-voltage power requirements and redundant power features made it the ideal choice for this application. The unit was selected to address the small panel space available to maintain a minimum footprint for all the equipment. “The tiny switch (measuring only



This photo shows the entrance to the NRDC's new office in the Robert Redford Building. Facility renovation spanned eight months. (Photo courtesy of Tim Street-Porter and the NRDC)



The EISM5-100T switch is a small but important element in the design of the Internet Gateway System. The Internet Gateway System is the enabling mechanism for the “Green Building Exhibit.”

3 x 3 inches) accommodated our space limitations and enhanced our compact panel design,” said Rowan. “It was easy to install with DIN-rail mount. No Velcro®, duct tape, or custom shelves.”

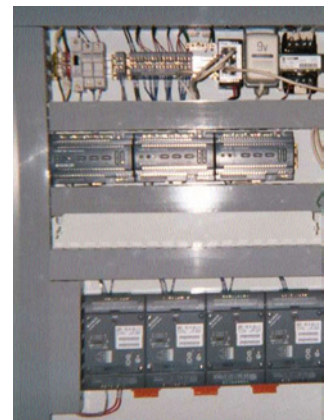
The Contemporary Controls' miniature Ethernet switch bridges three Echelon iLON® 100 Internet Servers to the Internet outside the NRDC firewall. The Internet



The Green Building Exhibit is located in the building's Environmental Action Center. SCE's Project Manager Christine Magar says the exhibit will help the public to remember what the building systems are, what they look like, and to remember their names. “It's definitely a realm of knowledge,” says Magar. (Photo courtesy of Tim Street-Porter and the NRDC)

Gateway is the enabling mechanism for the Green Building Exhibit which educates the public on the building's energy efficiency. SCE's Project Manager, Christine Magar, said “The NRDC desired a fun and playful learning tool which would teach visitors how a building consumes energy.”

“The Green Building Exhibit is a kiosk representing a unique use of real-time building systems,” said Magar. She explained that the kiosk is equipped with a monitor built inside a much larger wall exhibit with photos and text defining the concept of a “green” building. Four panels on the monitor display lighting expenditure, water efficiency, heating and cooling usage.



The cabling (three feet or less) inside the Internet Gateway panel attaches the Ethernet switch (top row) to the servers. One cable from the switch is connected to the router located in the building's Telecomm room.

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The Internet Gateway provides real-time data collected at the facility to the Internet for remote examination and retrieval. “Twenty-two sensors located throughout the building gather this data (gas and water usage for example) which is available through FTP,” explained Rowan. “Multiple calculations are completed with the collected data from the sensors. The sensor leads terminate in the server control panel in the basement's electrical room.

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With the aid of Ethernet switching technology and the Internet, the Green Building Exhibit as is the Robert Redford Building enables us to become more aware of our global environment. Contemporary Controls promises to continue its support with the “green movement” by adhering to the European Union guidelines of restricting the use of hazardous materials in electrical and electronic equipment (RoHS) by the required July 2006 date. The company is already developing plans for fully converting to a lead-free process. Customers are encouraged to review the RoHS Compliant Product Roadmap posted on the company’s main website, www.ccontrols.com, to be ensured that a product of interest is scheduled to be converted to lead-free.