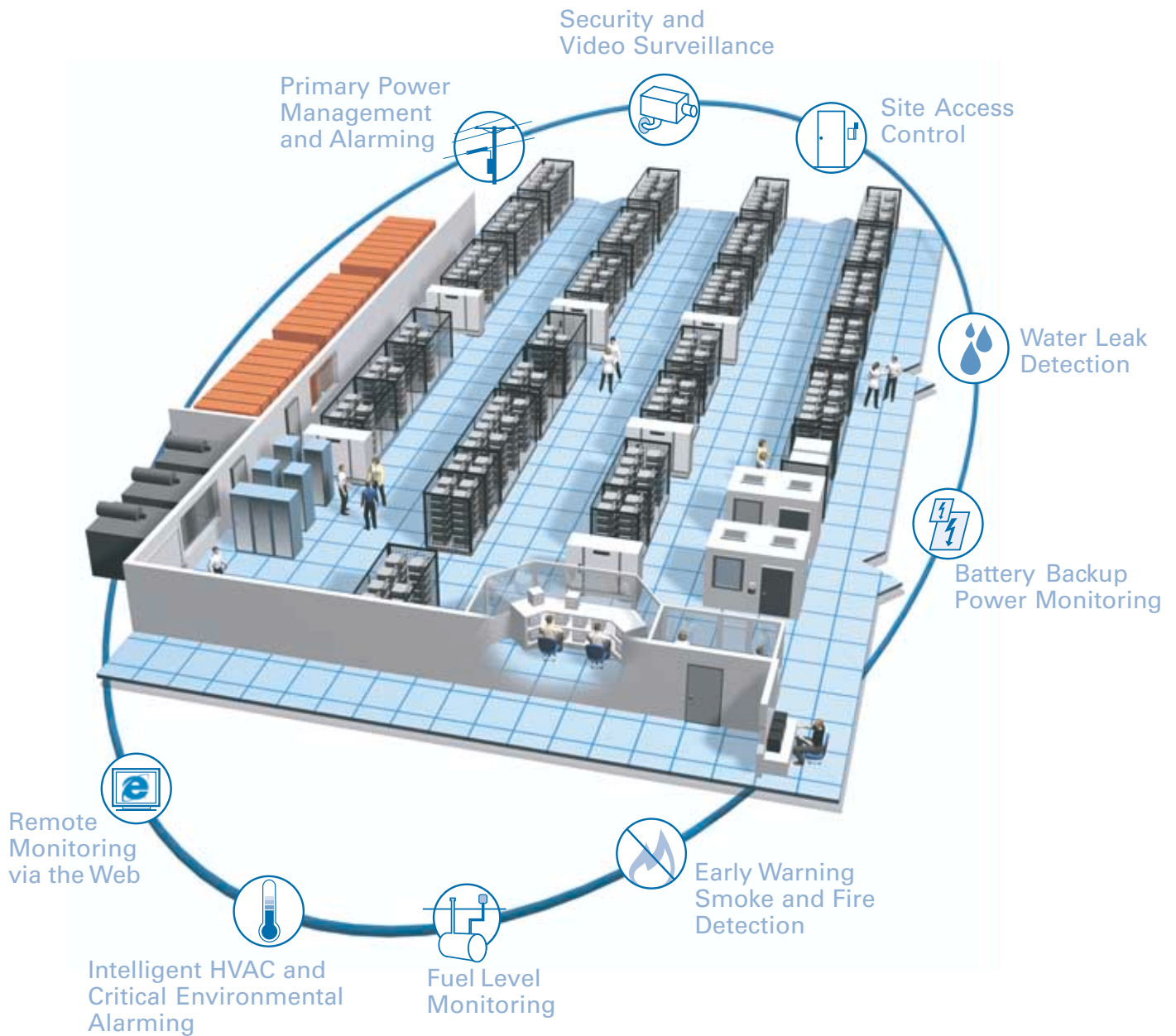


Andover Controls

WE'RE BUILDING SMART



Continuum[®] for the Communications Industry

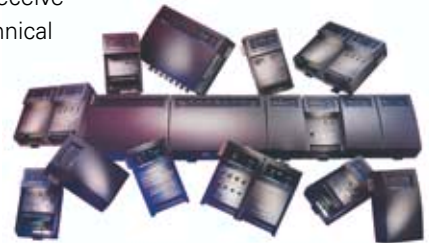
Smart control and monitoring solutions for mission critical facilities

Continuum[®] for the Communications Industry

Communications companies have invested heavily in next-generation technology and infrastructure to support the increasing use of networks by corporate and consumer users. The mission-critical buildings and facilities containing critical infrastructure, such as servers and switches, need real-time *control* and *monitoring*. This ensures the essential functions of your business operate uninterrupted and meet the service levels your customers demand today. This is most important at remote unmanned locations where security and maintenance costs can easily escalate and stress fiscal budgets.



Continuum is Andover Controls' state-of-the-art integrated automation system. It is designed for both control and monitoring of HVAC, power, battery backup, fuel tank, environmental, security, card access, lighting, digital video surveillance, and many other facility elements that support overall network operation. Effective *control* means your equipment lasts longer, requires less service, and operates more efficiently. Effective *monitoring* means you receive early alerts of facility incidents, enabling technical staff to quickly pinpoint problems, avoid misallocation of resources, and plan better using historical knowledge of past operations. **Continuum** pays for itself by delivering higher customer service levels, better network reliability, and lower operating costs.



A Continuum installation will add to bottom-line profitability and long-term growth of your business . . .

- Uninterrupted operations can be achieved through better automation and management of each facility. This contributes to more billing time, increased revenue, retained customers, and sustained business growth.
- Optimized service cycles and power consumption extends the overall life of HVAC equipment, switches, servers, and other assets.
- Correlating facility and network incidents allows operations personnel to understand related problems and pinpoint the root cause.

Protect Critical Network Infrastructure

Data Centers



- Bring operational consistency to corporate Data Centers by automating security, access control, power, and climate control systems.

Central Offices



- Monitor switching sites and mission-critical Telecom equipment, anywhere in the world, around the clock.

Cell Sites



- Reduce routine manual inspections and provide higher security by monitoring Base Stations and Mobile Switching Centers remotely.

Continuum® Delivers Business Benefits . . .

- Rapid response to tower light malfunctions avoids required Notices to Airmen (NOTAMs).
- Integrated monitoring of Base Stations and Mobile Switching Centers means fewer personnel are needed to maintain many locations.

- Monitoring underground fuel tanks for leaks helps avoid costly state or EPA fines.

- Comprehensive alarm notification and remote interrogation reduces or eliminates unnecessary site visits and service calls.
- Monitoring commercial and battery power in real-time enables service technicians to respond quickly to power loss events.

- Remote administration of card and keypad access eliminates the need for issuing new cards, programming keypads, and replacing locks.
- Digital video surveillance helps deter vandalism and provides records of personnel access.

. . . and Cost Savings

Base Station tower light out for more than 30 minutes.	\$3,000 Fine
Failure to report a leak in an underground fuel storage tank.	\$11,000 Fine
Unnecessary site visit by service personnel or contractor.	\$600 -\$1,000 Per Dispatch
Replacing keys and lock cores for 100 sites over a year.	\$15,000 Annually

Andover Controls Has All the Elements Covered

With **Continuum[®]**, you take control of all the elements within your facility, integrated under one complete automation solution.



Primary and Backup Power

Guard against power interruptions that can bring down network service and cause poor climate conditions.



Environmental Conditions

Using **Continuum**, extend the life of HVAC equipment. Set threshold for alarms on high or low climate conditions.



Security and Video Surveillance

Capture and view digital video at key areas, such as entry points or locations prone to vandalism.



Site Access Control

Administer remote access to doors, gates, and even equipment cabinets. View access logs and receive alarms for any unauthorized entry.



Underground Fuel Tanks

Monitor fuel levels and potential leaks in underground storage tanks. Comply with EPA regulations for monitoring and reporting.



Fire, Water, Smoke, and Life Safety

Receive immediate alarms for fire, smoke, halon gas, carbon monoxide, water leak, and other elements that may cause catastrophic loss.

Management Through Clear Graphical Views

Web User Interface



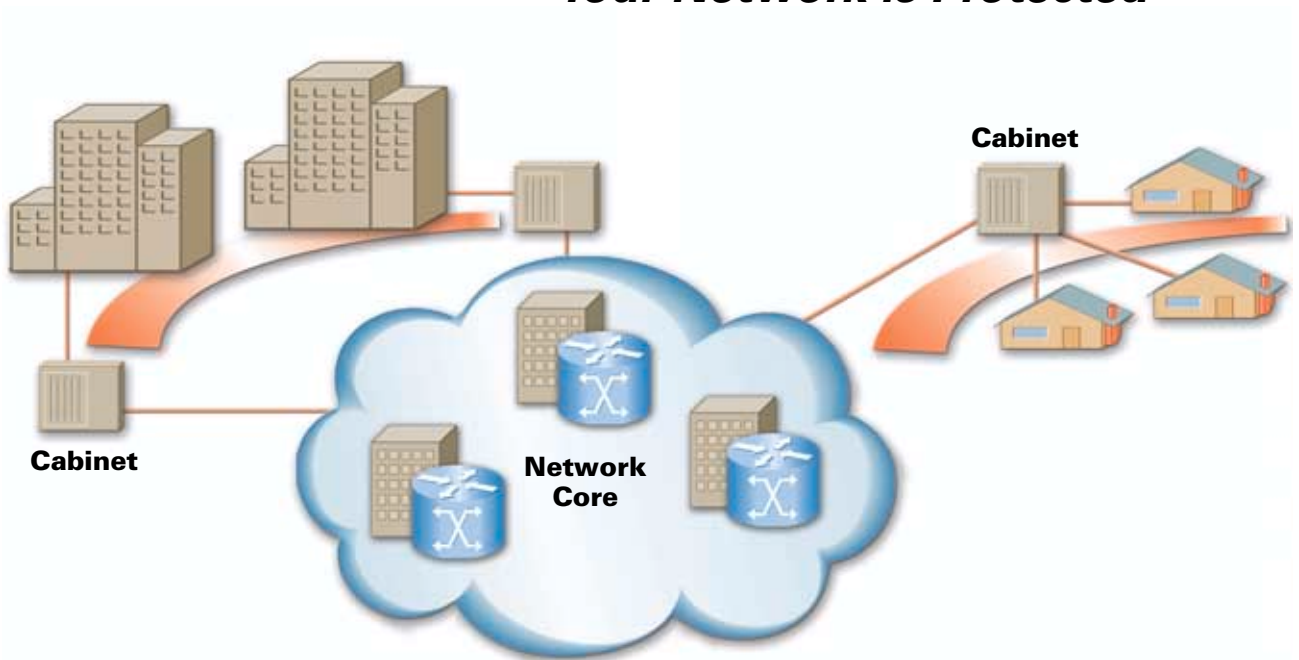
SNMP Integration



Source	Destination	Message	Status	Type	Message
192.168.1.1	192.168.1.10	Temperature sensor 1: 75.0 F	OK	Temperature	Temperature sensor 1: 75.0 F
192.168.1.1	192.168.1.10	Water leak sensor 1: No Leak	OK	Water Leak	Water leak sensor 1: No Leak
192.168.1.1	192.168.1.10	Fire alarm: No Alarm	OK	Fire Alarm	Fire alarm: No Alarm
192.168.1.1	192.168.1.10	Carbon monoxide sensor 1: 0 ppm	OK	Carbon Monoxide	Carbon monoxide sensor 1: 0 ppm
192.168.1.1	192.168.1.10	Access control: Door 101 locked	OK	Access Control	Access control: Door 101 locked
192.168.1.1	192.168.1.10	Power supply: UPS battery level low	Warning	Power Supply	Power supply: UPS battery level low
192.168.1.1	192.168.1.10	Smoke detector: No Smoke	OK	Smoke Detector	Smoke detector: No Smoke
192.168.1.1	192.168.1.10	Humidity sensor: 45% RH	OK	Humidity	Humidity sensor: 45% RH
192.168.1.1	192.168.1.10	Pressure sensor: 12.5 psi	OK	Pressure	Pressure sensor: 12.5 psi

Comprehensive Alarms

From the **CORE** to the **CABINET** . . . Your Network is Protected



Integrated Facility Automation

Communications facilities demand a wide range of environmental and security management. But fulfilling this demand with a collection of *single function* products does not give the facility manager the whole picture.

Continuum[®] combines all control and monitoring functions into a single *integrated* solution. Using *Continuum*, the facility manager can understand how one problem relates to another, such as how a loss of primary power can affect high temperature and humidity.

The *Continuum* Solution:

- **Scalable to thousands of sites**

Buy only what you need now and expand later – use the same modular hardware and software for the largest Central Office down to the smallest street-level cabinet.

- **Real-time and historical information**

View all facility conditions from the *Continuum* workstation, or from a web browser. See real-time information that is happening now, or run reports on past events.

- **Communications via IP or dial-up**

Run *Continuum* on your IP network, or over dial-up lines. Andover gives you the flexibility to do both.

- **Coordinate alarms with the NOC**

Continuum conforms to industry-standard TCP/IP and SNMP protocols, enabling you to coordinate alarm handling between many locations. Manage alarms using your email, pager, cell phone or PDA.



On IP networks, *Continuum* SNMP enables facility alarms to be coordinated between an Alarm Response Center (ARC) and the Network Operations Center (NOC).

Continuum® Family

Modular and Expandable Network Controllers

Andover Controls *Continuum* is the smart way to manage the environment in your switching sites and Data Centers. Easy to use, flexible, fully programmable, and scalable — your investment will be protected for years.

Hardware Features

- 32-bit CPU
- Flash memory
- Programmable communications ports
- Modular Universal I/O
- Ethernet port
- Dial-up modem
- Compatible with third-party devices

Software Features

- Alarm thresholds
- SQL-compatible database
- TCP/IP over Ethernet
- SNMP Alarming (Get, Set, and Trap)
- Supports integration with Network Management Systems
- Web browser-based user interface
- User level security



Communications Industry Global Customers . . .

Telecommunications

AT&T
British Telecom
Cable & Wireless
CANTV
China Telecom
Puerto Rico Telephone
SBC
Sprint
Verizon

Mobile Wireless

ALLTEL
Bell Mobility
Cingular Wireless
China Mobile
China Unicom
Orange
SBC Mobile
Vodafone

Enterprise/Data Centers

American Express
Banco de Mexico
Daimler-Chrysler
Dupont
Eli Lilly
Ford Motor Company
SAP
Société Générale

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