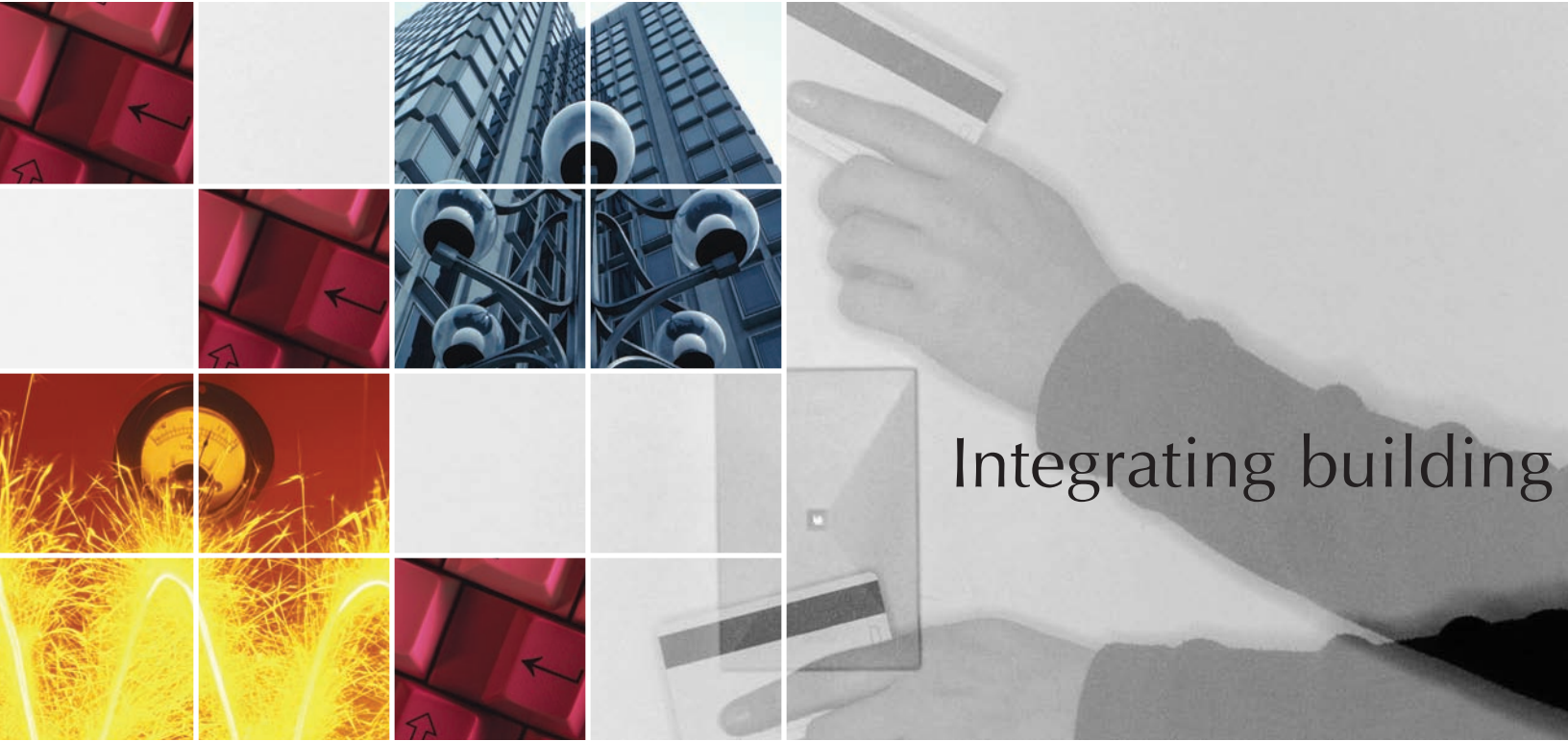


Integrating BUILDING AUTOMATION, ENERGY,
and SECURITY to the enterprise.





Integrating building

Today's facilities are equipped with a wide range of computerized systems to control HVAC, energy management, lighting, and security. Integration and interoperability between all of these systems are critical to improving operations, lowering costs, and achieving the security and comfort demanded in today's dynamic business environments.

The challenge is to get these diverse systems that communicate using many different protocols to connect and converse with each other – and with the enterprise – so you can derive actionable intelligence from the information they contain.

The answer is Vykon®.

automation, energy, and security.

Vykon is a complete management and control suite that orchestrates the building automation, energy, and security functions of a facility by means of a single software platform. Vykon integrates diverse systems and devices – regardless of manufacturer or communications protocol – into a unified platform that can be easily managed and controlled in real time over the Internet using a standard web browser.

Vykon utilizes a highly scalable architecture that fits any size facility or enterprise. It has been used in office buildings, data centers, hotels, airports, industrial plants, convenience stores, restaurants, churches, schools, universities, and other facilities.

Vykon provides a 360 degree view into the operational assets of any facility, allowing managers to optimize their applications, enhance performance efficiencies, reduce operational costs, and gain actionable intelligence to drive decisions resulting in greater returns.

Many of the world's leading facilities rely on Vykon to connect and control their building automation, energy management, and security systems.

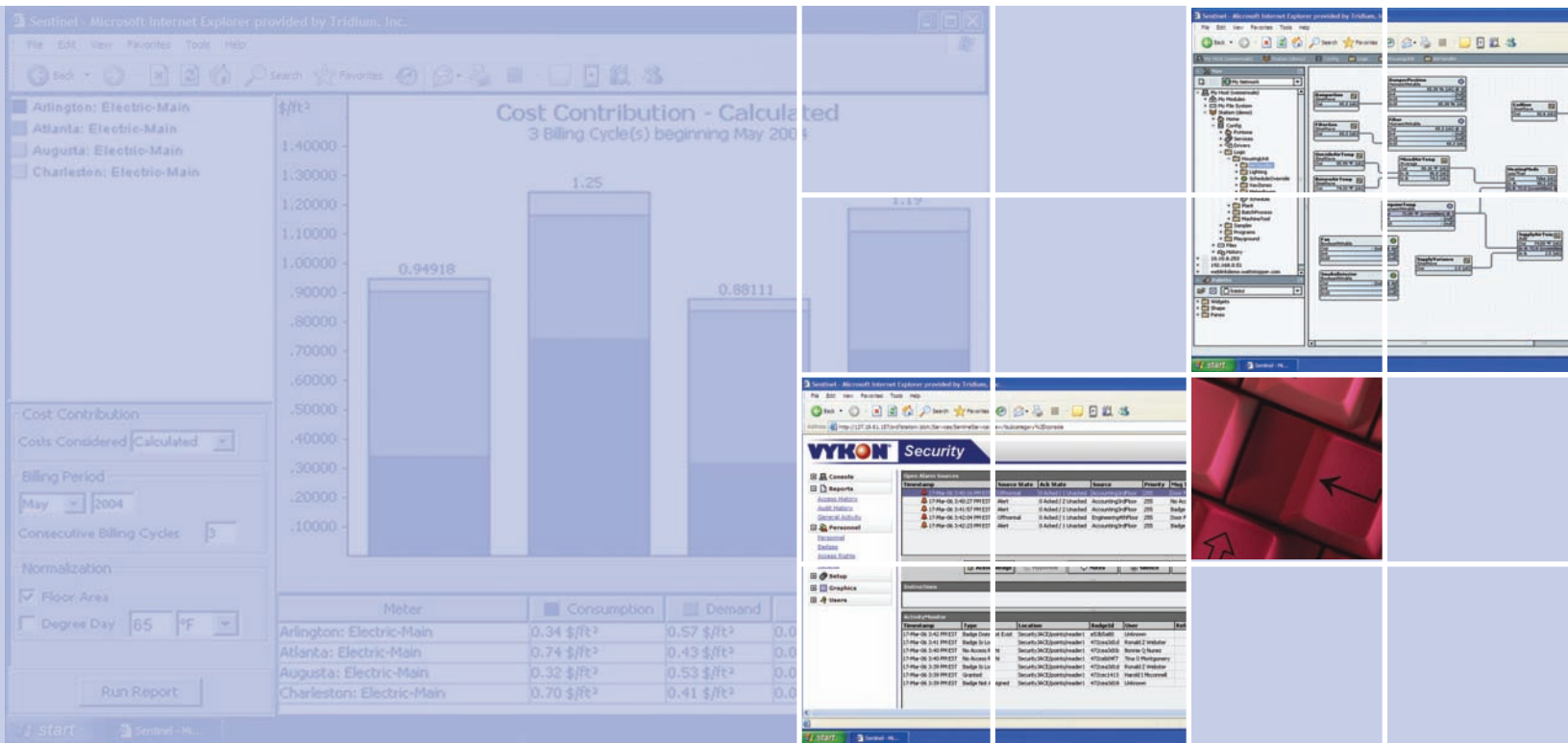


Powered by Niagara^{AX}.

Built on the Niagara Framework[®], Vykon integrates both open and proprietary building automation, energy management, and access control systems.

Designed for a wide range of single and multi-site environments.

Vykon enables facility managers, building owners, and systems integrators to integrate proprietary and otherwise incompatible products into a unified enterprise solution. This allows personnel using a standard web browser to measure, manage, and control a wide variety of facilities, energy, and security applications from anywhere in the world.



Meeting all the complex challenges of real-world integration and enterprise connectivity, Vykon ensures *complete interoperability* among diverse systems and devices by providing a single unified platform that connects these devices to each other, to enterprise systems, and to the Internet in real time.

Built on Tridium's proven Niagara Framework, Vykon is a comprehensive set of applications that synchronize, manage, and control major building system functions required in a facility, such as heating, ventilating, and air conditioning (HVAC) systems, energy, lighting, security, fire, safety, unitary devices, and more.

Vykon has been used to integrate numerous other facility systems, including energy metering, electrical switch gear, irrigation, elevators, generators, utility real-time pricing, and many other specialized applications.

Whether the systems are based on BACnet®, LonWorks®, MODBUS®, SNMP, OPC, or a host of supported legacy protocols, Vykon connects to almost any device imaginable, regardless of manufacturer or communication protocol. Supporting both wired and wireless technology, Vykon provides a unified solution to connect and integrate all of your systems.

The Vykon software platform connects your building, energy, and security systems to each other, to your enterprise, and to you.

Vykon Architecture Solutions are accessible via a web browser, anytime and anywhere, so you can manage any and all applications, simultaneously, in real time.



Scalable for facilities of all sizes, the Vykon software platform consists of three applications: Vykon Building, Vykon Energy, and Vykon Security. The suite is available as one total integrated solution or as individual applications. You can add and mix applications as your needs grow for true investment protection.

Vykon Building. Vykon Building provides building owners and facility management with a web-based building automation system that unifies diverse equipment systems and control devices into a single, easy-to-navigate web site. With the ability to integrate standard protocols with legacy systems from a wide variety of building automation providers, Vykon Building breaks through the traditional barriers between systems to create a seamless solution. As a web-based application suite, Vykon Building can be accessed anywhere, at anytime, from any cell phone or other web-enabled device.

With Vykon Building, your standard web browser is your management and control console. Comprehensive tools make it easy to create custom displays, control algorithms, and operational strategies to meet specific requirements. In addition, there are pre-created graphics in the library that can be used to represent mechanical and electrical systems. The result is an intuitive user interface, making your entire facility a dynamic easy-to-navigate web site customized to your specific needs.

Robust. Integrated.

HVAC. Lighting. Energy. Access control. And more...

Vykon Energy. Vykon Energy is a comprehensive enterprise energy management application that helps businesses manage energy and facility performance. Vykon Energy gathers, analyzes, and communicates energy consumption and cost information based on real-time interval data. Users gain a clear visibility into the energy consumption patterns of their facilities, making it easier to manage and optimize energy usage while identifying opportunities for performance improvement.

Vykon Energy provides analysis tools to analyze and aggregate load profiles, benchmark facilities, and determine how building characteristics – such as size, equipment type, schedules, and climate – correlate with energy use. Combined with the real-time control capabilities of Niagara, Vykon Energy lets you take action to avoid unfavorable peaks, reduce consumption, optimize equipment run times, evaluate utility rates, and take advantage of demand response and real-time pricing programs.

Vykon Security. Vykon Security is an advanced web-based, Internet-enabled access control and intrusion detection system providing physical protection for your facilities, whether in a single building or in a large multi-site environment.

As a fully-embedded access control and security alarm monitoring appliance, Vykon Security supports the use of standard browser technology, such as Internet Explorer and Netscape, for accessing the security application. By allowing system configuration and management functions to be performed using a standard web browser, it eliminates the need for a conventional PC to be installed as part of the security system. This lowers costs while improving reliability and security. Vykon Security supports a network of door control modules and remote input/output devices, and provides global supervisory access control functions over all of the devices connected to the security appliance.

Vykon's scalable, modular architecture is designed to meet the needs of today's fast-changing, fast-growing enterprises, whether it's a single facility, multi-building environment, or global application.

A range of benefits and ROI across multiple business functions:

Financial/Business Management

- Streamlines operations by integrating all building systems in the enterprise.
- Speeds resolution of revenue-impacting problems.
- Improves profitability by lowering cost of operations.
- Provides better control and manageability of multiple facilities from a central office location.
- Enhances reporting to support decision-making.
- Helps identify best practices from each facility.
- Improves workflow and resource management.
- Increases tenant/occupant satisfaction.

Energy Management

- Reduces consumption and energy costs with analysis tools.
- Provides knowledge of individual energy consumption patterns and trends.
- Supports improved energy control and management.

Facility and Equipment Management

- Increases system and equipment functionality.
- Improves facility operations.
- Improves customer comfort, enhancing the user experience.
- Reduces downtime caused by equipment failure.
- Improves visibility into mission-critical operational assets via a web-based interface for all facilities.

Maintenance & Operations

- Speeds maintenance and problem resolution.
- Supports preventive maintenance.
- Reduces equipment downtime.
- Enables performance-based prioritization of maintenance.
- Enables remote diagnostics and repair.
- Lowers renovation and construction costs.

Integrating diverse systems requires a physical connection to a device's network. Vykon's JACE is the mechanism that provides this connectivity to systems within a building.





HTTP, XML, BACnet, SNMP, oBIX

VYKON Building

VYKON Energy

VYKON Security

VYKON
JACE



VYKON
JACE



VYKON
SECURITY JACE



Industrial Devices



BACnet
Equipment
Control



HVAC
Control

Application
Specific
Devices



Lighting
Control



Power
Control



Energy
Monitoring

Access
Control



Alarm
Monitoring



Time and
Attendance



Intrusion
Detection

The Java Application Control Engine (JACE®) is a powerful embedded server that connects multi-protocol field devices to the LAN/WAN and provides energy management, alarm trending, and control capabilities.

A robust, scalable solution supporting as many systems as you need.

Vykon combines the power of the latest Internet technology with a unique, highly-distributed architecture. Reliable real-time control takes place locally in each JACE® network controller, meaning that you are not dependent on communication with a central server for execution of critical control decisions. Every Vykon node can function as an independent feature-rich server, serving live data to multiple users simultaneously or connecting to a central server for data aggregation, interface with standard relational databases, and enterprise applications. The result? Unsurpassed reliability and scalability.

www.tridium.com

About Tridium, Inc.

Tridium, a global software and technology company, is the inventor of the Niagara Framework, an extensible software framework that integrates diverse systems and devices into a unified platform that can be easily managed in real time over the Internet using a standard web browser.

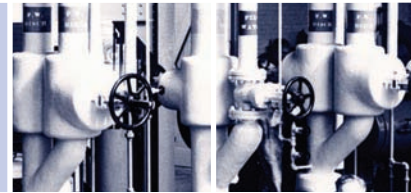
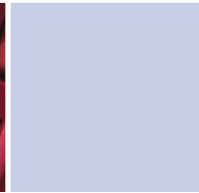
Today, there are more than 50,000 instances of Niagara operating in more than 6,000 installations worldwide. Applications include building automation, energy, security, M2M, telecommunications, lighting control, maintenance repair operations (MRO), service bureaus, industrial automation, convergence retailing, and total facilities management – all realizing improved operational efficiencies, reduced costs, and greater returns.

Tridium is an independent business entity of Honeywell International, Inc.

About Vykon

The Vykon suite of products and enterprise applications is powered by the Niagara Framework, and targets specific applications needs in key markets served by Tridium. Vykon Building, Vykon Energy, and Vykon Security enable facilities managers, building owners, energy service companies, and systems integrators to integrate proprietary and otherwise incompatible products into a unified enterprise solution. This allows personnel using a standard web browser to measure, manage, and control a wide variety of facilities, energy, and security applications from anywhere in the world.

Vykon solutions are available worldwide through a network of distributors, systems integrators, and value-added resellers. For a complete listing, please refer to www.vykon.com.



www.vykon.com

Tridium, Inc.
3951 Westerre Parkway, Suite 350
Richmond, VA 23233 USA
1.804.747.4771 Phone
1.804.747.5204 Fax

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