

e-Systems Group

Cabinets
Consoles
Services



Protecting Data Center Assets

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e-Systems Group protects your data center infrastructure by addressing these five key trends facing IT and facility professionals.

CONSOLIDATION

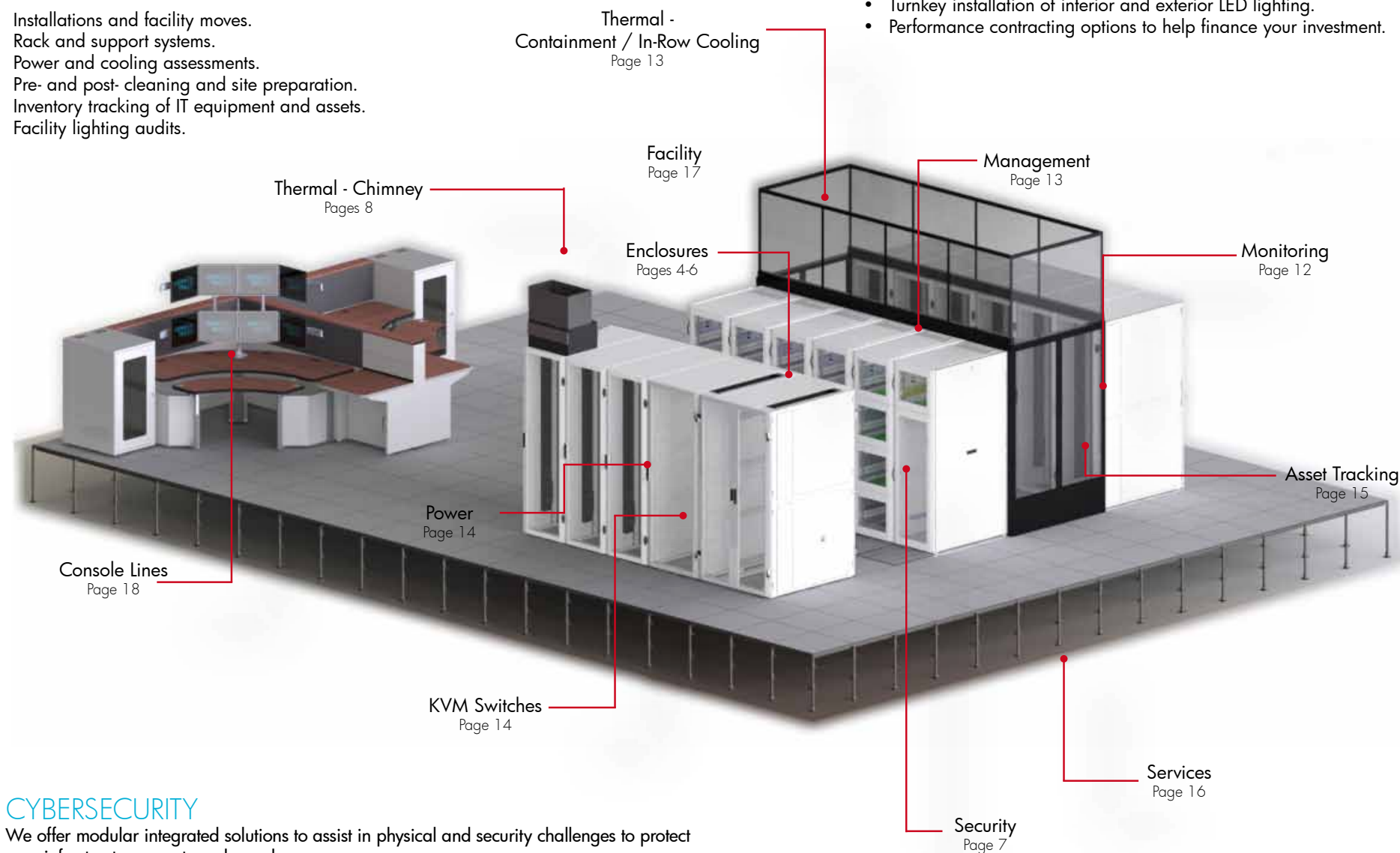
Private businesses and the Federal Government have undertaken extensive initiatives to reduce the number of operating centers along with increasing IT efficiency. e-Systems Group assists with:

- Installations and facility moves.
- Rack and support systems.
- Power and cooling assessments.
- Pre- and post- cleaning and site preparation.
- Inventory tracking of IT equipment and assets.
- Facility lighting audits.

ENERGY EFFICIENCY

We offer a complete portfolio of system and rack-level solutions for facility retrofits and new data center builds to improve PUE performance:

- Cabinet and aisle containment, liquid-cooling door upgrades, in-row A/C systems.
- Thermal assessments including CFD analysis.
- Custom PDU and UPS at rack level.
- Specialized data center cleaning programs.
- Turnkey installation of interior and exterior LED lighting.
- Performance contracting options to help finance your investment.



CLOUD COMPUTING

New server designs enable more servers to fit into a cabinet which require flexible rack components to manage higher power densities and more complex airflow and cabling:

- DCIM tools for critical infrastructure management.
- Options for turnkey equipment integration and installation.
- Cabinet retrofits and upgrades for air containment, liquid cooling and A/C options.
- Cabinet designs with multi-bay compartments.
- Customized cabinet configurations for high-density cabling, patching or oversized frames.

CYBERSECURITY

We offer modular integrated solutions to assist in physical and security challenges to protect your infrastructure, assets and people:

- Electronic Access Solutions (EAS) provides electronic locking solutions that can be linked to your security, environmental and DCIM systems.
- Our cabinet designs offer affordable and easy upgrades from conventional mechanical locks to EAS.
- Our Enasys™ Asset Tracking Software optimizes asset accuracy and regulatory compliance through comprehensive RFID tracking, reporting and search functionality.
- Audit assistance including commissioning, training and scheduled audit options.

MODERNIZATION

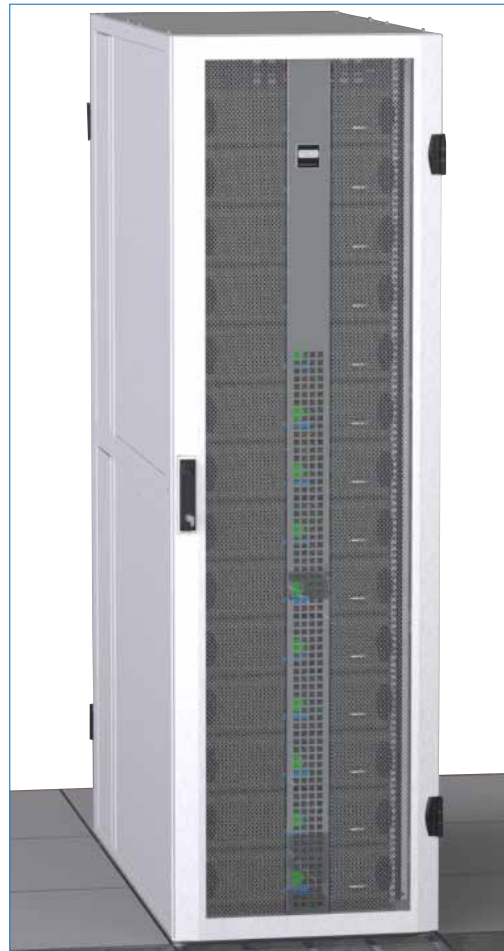
Modernization encompasses a broad spectrum of system and facility upgrades ranging from:

- Modular cabinet designs that accommodate new server and switch technologies.
- Retrofits to racks to achieve high-density or spot cooling.
- Software and hardware upgrades related to power distribution and airflow management.
- Customized enclosure platforms to replace legacy cabinets.
- Options for performance contracting to fund programs.

Designing and manufacturing for mission critical requirements for 68 years, e-Systems Group has an established history for bringing custom configurations to the Data Center.

With headquarters in New York and additional facilities in Denver and U.K., we provide global coverage.





Platinum 2 Cabinets

A Superior Standard Enclosure

- Modular component options to ensure the cabinet fits your Data Center's needs.
- Durable, lasting design with 3,000 lbs capacity, even while moving via casters.
- Tool-less rail adjustment & cable management options for simple implementation.
- Industry leading front to rear airflow capacity.
- Range of accessories for blocking unwanted air movement.

P2 Server

- 24" Wide frame, various depths & heights.
- Ideal for low to medium density applications.

P2 Blade

- 30" Wide frame, various depths & heights.
- Medium to high density applications.
- Ships convertible to 23" wide telecom mounting.

P2 Network

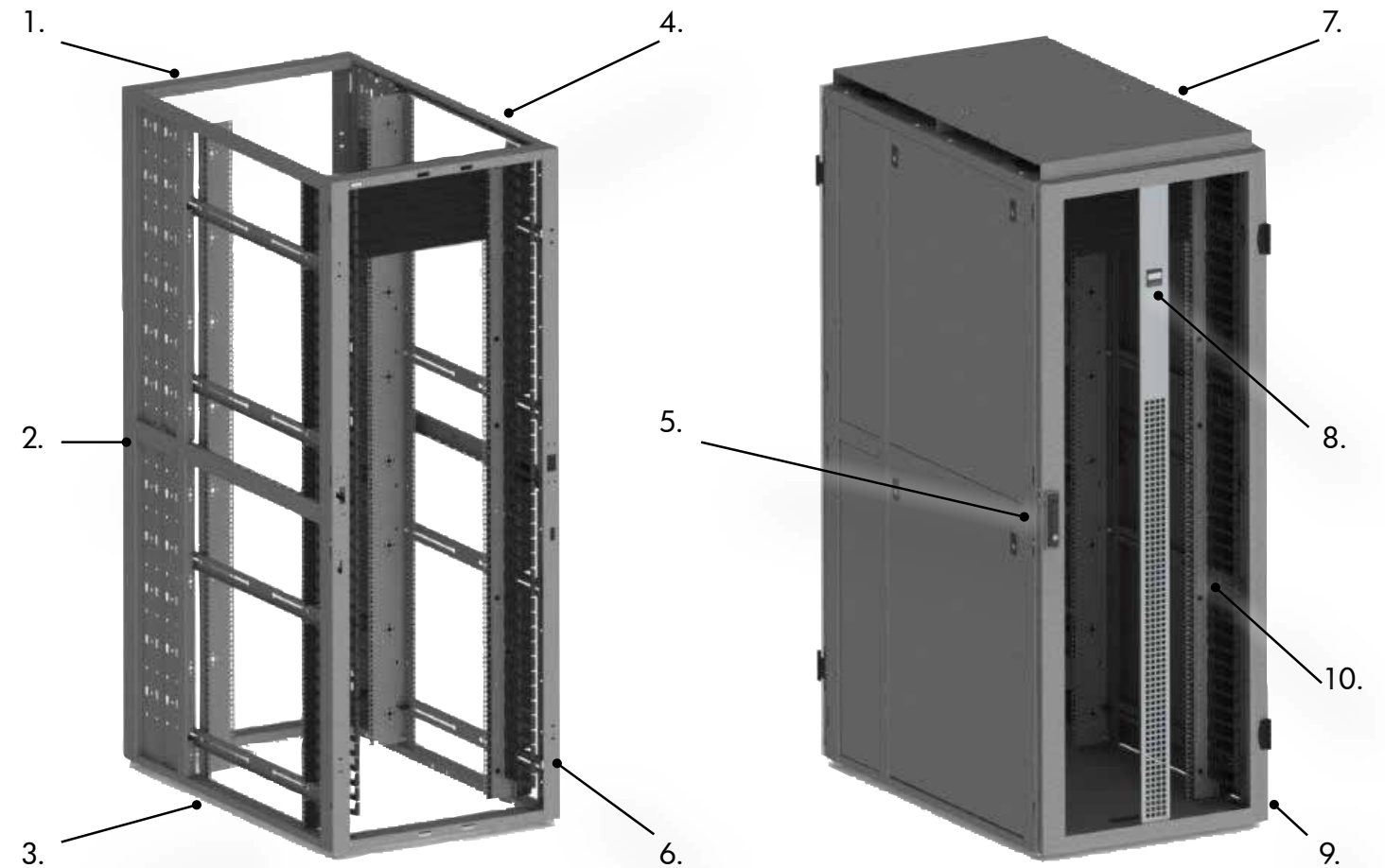
- 36" and 42" frame widths available.
- Sized for high density applications.
- Side-to-side airflow capable for Cisco Nexus installations.

Protect your servers, switches and other hardware with an enclosure that meets your specific requirements.



Shown: P2 Network, P2 Blade, P2 Server (from left to right).

All e-Systems Group cabinets incorporate leading edge design features.



- 1.** Fully customizable, modular cabinet system including cable management & airflow devices.
- 2.** Extensive cable management options for easy access to, and organization of high-density fibre & copper cables.
- 3.** Standard 42U, 44U & 48U heights - Custom sizes available.
- 4.** Industry leading 3,000 lbs static & dynamic load ratings.
- 5.** Extensive access control options including keyed lock, RFID, HID card, Fingerprint Reader and Keypad.
- 6.** Pre-installed cabinet components, PDUs, and integrated cable troughs - Reducing installation time.
- 7.** 3rd Party IBC seismic certification (24" & 30" models).
- 8.** Personalized options for custom cabinet branding for distinctive styling (powder coat finishes, company logos).
- 9.** Pre-configured Intelligent cabinets with U-level device asset identification, inventory management and DCIM functionality.
- 10.** 81% mesh door exceeds OEM equipment requirements for maximum airflow.



MultiRack™ Cabinets

Proven Reliability for CoLo Environments

- Available in 2, 3, and 4 bay configurations.
- 24" width for most server and switching needs.
- 42" and 48" depths available to fit cable management & power distribution requirements.
- Secure, inter-compartment channels for CoLo infrastructure management.

Whether it be custom footprint, U space, specialized equipment, a preferred cooling choice, or cabling access, your options with e-Systems Group are wide open.



Custom Cabinets

68 Years of Custom Engineered Solutions

- Custom solutions available for low and high volume requests.
- In-house expertise in maximising Data Center space.
- Rapid drafting & rendering available for design collaboration with end-user.

Recent Customizations Include:

- 9' Tall enclosure for maximum use of floor space.
- Retrofit side to side airflow baffles.
- Integrated bus bar mounting.
- High density patch panel for mixed fiber/copper use.



Cloud™ Rack

Cost Effective Server Rack System

- New for 2014; consult factory for availability and quick ship status.
- 42U pre-configured cabinet available in 600/800mm widths and 1100/1200mm depths.
- Available in black powder coat finish.
- 2 sets of depth adjustable 19" rack-mount rails.



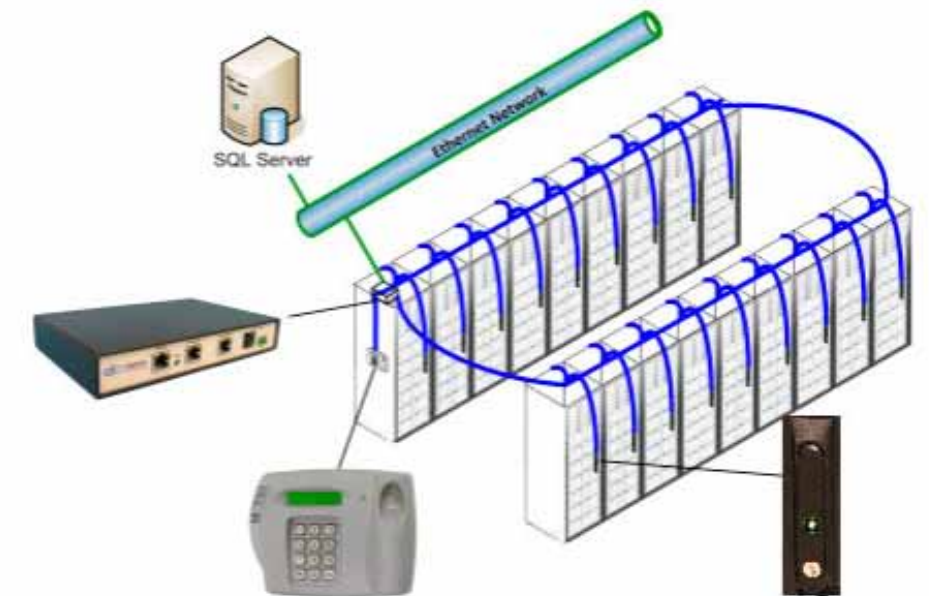
Access Control

Modular Door Options Featuring The Latest in Security Technologies

- The proprietary biometric technology provides centralized administration, real-time monitoring, real-time alerts, and indisputable audit trails
- Various access options including Keyed Lock, RFID, HID card, Fingerprint Reader and Keypad.
- Access method field upgradeable without changing out original service door.
- Easy integration with standard rack monitoring and security systems.
- Minimal power consumption.

From the standard lock swing handle to sophisticated IP based access control, e-Systems Group seamlessly integrates the right lock solution that best protects your assets.

End-of-row biometric access controller
(multiple cabinets in a row controlled by a single reader)



Select Your Modular Access Control Format



Swinghandle Multi-Point System



Proximity Reader



Keypad Access Controller



IP Access Control System

Protect your assets with the most effective thermal management technologies that optimize your cooling systems & drive efficiency.



Cabinet Containment

Intelligent Airflow Management

By containing and directing hot air, our Containment solutions deliver significant cost savings while improving the long-term reliability of mission critical IT equipment.

- Contains and evacuates 100% of the heat - so there's no air mixing with the cool air.
- Maximizes efficiency while easily maintaining an ideal temperature throughout the Data Center.
- Rack based containment offers ultra-high density on a cabinet level up to 30kW.
- Maintains chiller plant efficiency with the highest possible return air temperatures.
- Eliminates makeshift solutions with expertly designed solution.

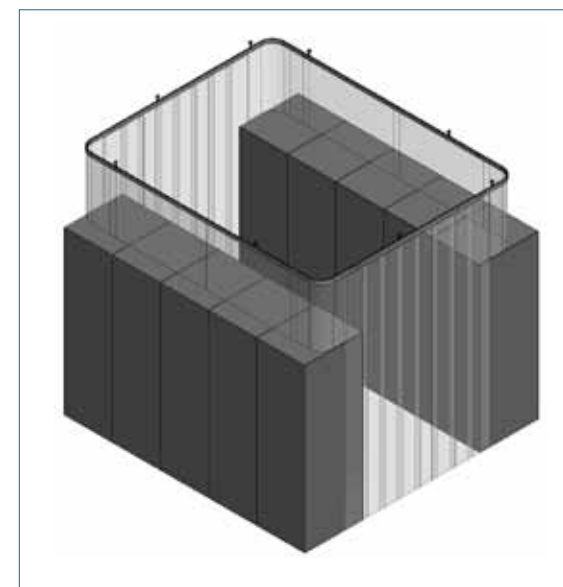
Automated Feedback helps to cut total fan energy 40%

- System consists of adjustable chimney, fan units, an intelligent controllers and pressure sensors.
- Pressure sensor information translates into commands to raise or lower fan speed.
- Additional chimneys and sensors can be added to maintain the appropriate temperature throughout a cabinet row.
- Scalable capacity and load sharing.
- Passive containment option available for low density cabinets up to 4kW.

Aisle Containment

Energy Saving Hot and Cold Aisle Containment Systems

- Modular system offers doors with manual or automatic closing.
- Modular system attaches to racks or suspended from ceiling.
- Fire marshal and insurance company review.
- ROI analysis with short term on investment.
- Utility rebate application and base-lining.
- Professional services for custom installation.
- No door threshold to walk over.
- Commission planning available.
- Available in clear or black anodized aluminum trim.
- Rigid panels available with thermal or mechanical release.



Soft Containment Solutions

- Thermal wall curtains prevent airflow escape.
- Clear see through vinyl curtains and doors.
- 50% translucent silicon curtains meet ASTM E-84 and UL 723 flame spread and smoke deviation requirements.
- Requires drop ceiling for installation.
- Ideal for non-uniform rack heights.

In-Row Cooling

Advanced Precision A/C Cooling

- Adapts to all major manufacturers racks and rack containment systems.
- Installation on raised / non-raised floors.
- Suitable for new and existing data centers; easy to add units as you grow.
- Used in containment, open architecture and hot spot reduction applications.
- Cold air discharge options; front or side discharge available.

Performance

- Widest range of units with the largest cooling capacity in the industry.
- EC Fans provide adjustable air volume based on real time cooling requirements at the lowest energy consumption.

Cold Air Discharge

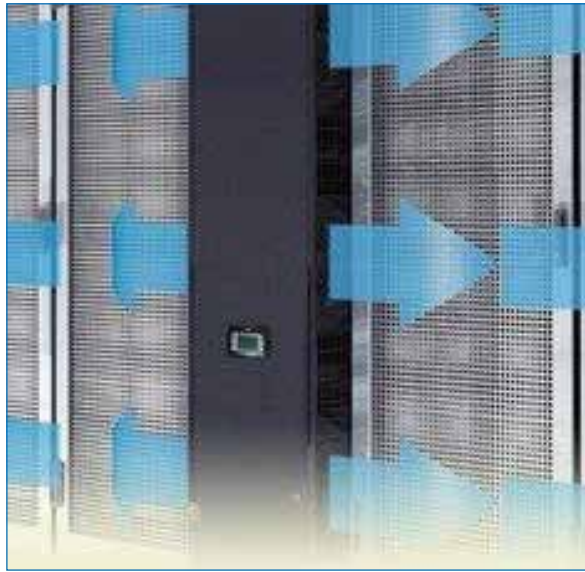
- Cold air discharge options, front or side discharge available.
- Front discharge recommended for containment configurations.
- Side discharge recommended for open architecture configurations.

Controls

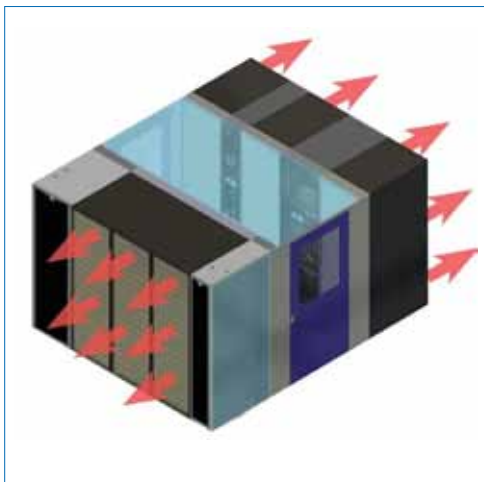
- Various fan control options allowing optimized air distribution.
- Dual power with true auto switch-over function.

Chilled Water (CW)

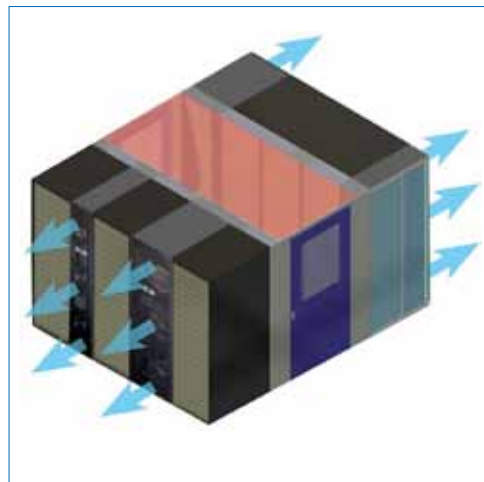
- 2-way or 3-way CW control valves.
- Low water side pressure drop.



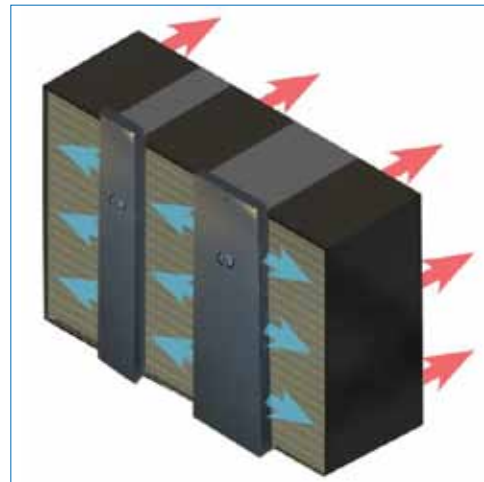
Front View of In-Row Cooling Unit



Cold Aisle



Hot Aisle



Side Discharge for Open Aisles and Spot Cooling

Lower your energy costs, increase the reliability of your equipment and enable added server capacity.



EZIBLANK® Blanking Panels

Modular and Easy To Install To Any 19" Rack

- 6U Blanking panel sheets.
- Snap at 1U intervals for optimum space.
- Tool-less design.
- Prevents hot air recirculation at the cabinet level.
- e-Systems Group is the U.S. distributor for EZIBLANK®.
- New for 2014: EZIBRUSH Brush Strip Panel, EZIBLANK42 Air Flow Control Panel, EZIWALL Rack Replacement Panel, and EZIFLUTE Under-floor Panel.



Grommets & Air Blocks

KoldLok® Sealed Floor Grommet Accessories

- Leading range of raised floor grommets.
- Designed to effectively manage cable openings.
- A first step in improving airflow efficiency and reducing cooling costs.

Air Blocks

- Standard.
- Custom.

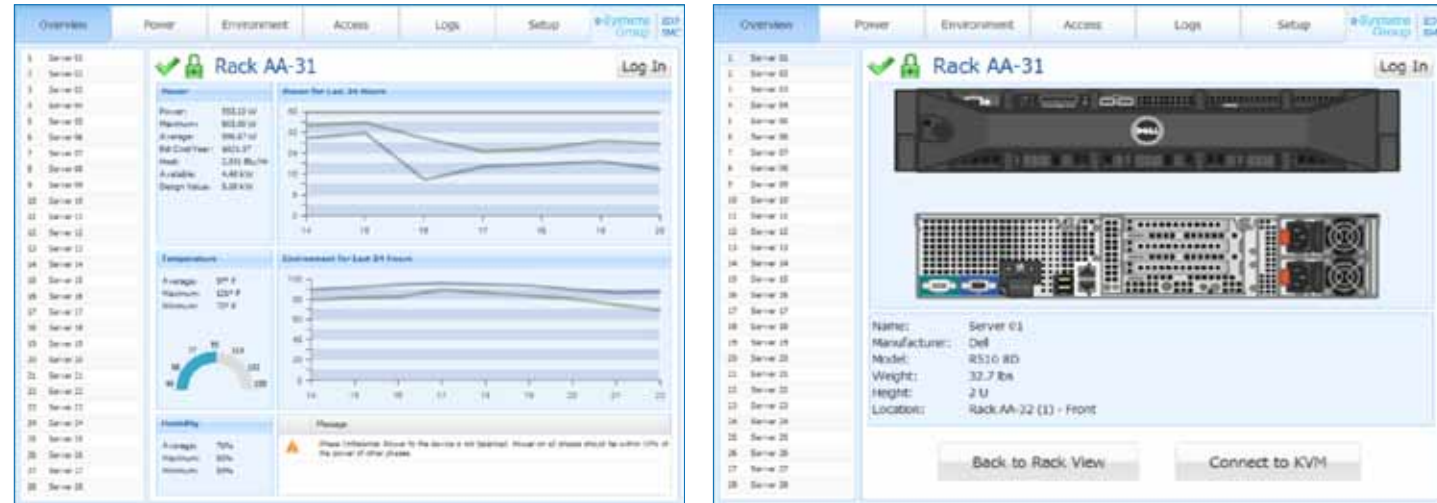


Quantum Air Tile

Patent-Pending High Performance Air Tile

- Directional vane controls route conditioned air supply to targeted enclosures for effective server cooling.
- Passive design lowers cooling cost.
- Compatible with most steel tile floor systems.

Protect your assets by measuring and managing power and cooling at the rack level. e-Systems Group will provide both retrofit and at the factory installation.



At the rack level, the DCIM lets you know:

- Monitors power usage.
- Reports environmental values (temperature, humidity, pressure differential).
- Identifies contents.
- Reports security status.
- Enables power cycling at the outlet level.
- Connects to a server via a KVM.
- Locks/unlocks the rack doors.

Monitoring Workstations

e-Systems Group offers an extensive portfolio of Control Consoles

- Modular consoles designed for network and command center operators.
- Supervisor, administrator and team workstation designs.
- Accepts multiple flat panel display and computer hardware.
- Ideal for network operations, security suites and system monitoring workstation applications.



The integrated intelligent cabinet is delivered completely installed with DCIM and asset tracking.



Platinum 2 Cabinets

Pre-Configured Intelligence

- Intelligent rack management.
- Environmental, asset, access monitoring & control.
- U-level, rack, row, room & facility tracking.
- Dual smart CPU/PDUs.
- Electronic access control.
- Integrated sensors.
- 81% High airflow mesh.
- Zone 4 seismic rating.

Your P2 Intelligent Solutions

- Each cabinet and related integrated technology components are factory tested and inspected.
- Your cabinet ships fully assembled, ready-to-use, from our factory in Conklin, NY.
- Installation services for cabinets and asset management commissioning / audits available.

Factory tested & commissioned, e-Systems Group delivers this next generation enclosure with all that you need to ensure a fully protected Data Center.

e-Systems Group's installation team will ensure full integration within your existing footprint and will bring all your enclosures up to the same level of intelligence for full monitoring & management.

Our power technicians help customers to design and choose their PDU solution.



Power Solutions

Customised Critical Power Expertise in Rack-Level PDUs

- Basic power distribution.
- Monitored strips.
- Switched & non-switched.
- Metered power, inline & other.
- Low profile breakers.
- Hot swappable.
- Smart/Switch.
- Integrated monitoring & management.

A multi-step process is used to uncover your specific specifications.

Uninterruptible Power Supplies

Expertise in Power Quality

- Online 1 and 3 phase double conversion UPS.
- Up to 98% Efficient.
- Compact & Reliable.
- Nationwide Service Program.
- Made in U.S.A.
- Fully customizable solutions available.
- Communicate via SNMP/Web/Network adapter.



With a complete offering of the best of breed PDU & KVM's, we provide that experienced support that is readily available to you.

KVM Technologies

High-Performance Analog and Digital KVM Appliances

- Award winning enterprise class KVM-over-IP switches.
- Secure BIOS-level access and control of your servers over LAN, WAN, Internet connection.
- Provides access and control to a specified number of multiplatform servers and serial based devices.



Know where your assets are at all times - both in and outside the rack. Protect them from theft and loss.



Asset Tracking

Accurate and Fast RFID Technology

- Rack, row, room and building discrete asset tracking.
- Measurable return on investment.
- Improved accuracy; assists in compliance requirements.
- Timely results.
- Misplaced devices can be located.
- Exceptions noted and resolved in real time.
- Prevents unauthorized movement of assets.
- Eliminates spreadsheets, non-value add costs.
- Integrated with DCIM system for total tracking.



e-Systems Group provides an independent audit in addition to your existing asset tracking or in place of.

Data Center Auditing Services

A Data Center audit is carried out by certified staff in compliance with Sarbanes-Oxley. An audit report details the process, findings and suggestions, and identifies asset location and chain-of-custody.



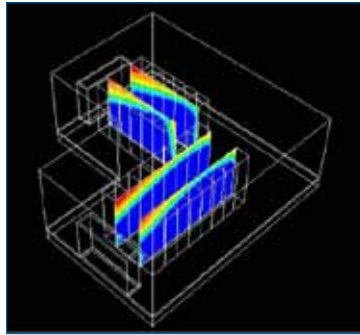
Standard Audit

- Data Center purchases the tracking system; our team commissions the assets.
- Training staff on how to verify the inventory.
- Follow up independent audit by our team.
- Complete report as to processes performed and the results found.

Premium Audit

- Using wireless tag and reader technology, our team commissions the assets and performs an audit of the Data Center on an agreed-upon periodic basis.
- Complete report as to processes performed and the results found after every visit.

Our nationwide coverage provides a full line of services specifically designed to assist Data Center and Facility Professionals.



Thermal Review & Installation

CFD Studies For New Construction and Remodels

- CFD Analysis.
- Hot Spot audit & removal.
- Aisle containment installation.
- Subscription program available to update future CFD modeling.



Raised Floor Inspection & Replacement

Innovative Live Equipment Floor Replacement

- Structural integrity reviews.
- No service interruption replacement.
- Sub-floor seal to control moisture absorption.
- Air blockage solutions to minimize airflow leaking.



Installation & Auditing Services

Full Turnkey Service and Maintenance Program

- Experienced and certified service team.
- On time, any time to meet requirements.
- Enclosure placement, ganging and inspection.
- DCIM and asset tracking commissioning.
- High quality, hi-tech service equipment.



Specialty Data Center Cleaning

Maintain The Health and Performance of Your Infrastructure

- Sub-floor, equipment & floor surface.
- Above ceiling.
- Post-construction.
- Disaster recovery.
- Zinc whisker identification, verification and remediation.
- Contamination removal.



LED Lighting by Philips

Reduce Heat, Energy and Maintenance with LED Lighting

- Energy Efficiency – up to up to 70% based on age of system
- Operational Efficiency based on 10 year guarantee and lower maintenance costs.
- Improved lighting quality enhances safety and security.
- Sustainability – reduced carbon footprint.
- Meet current government energy requirements.
- Replaces existing fluorescent lamp and ballasts in UL listed luminaries.
- Full turnkey solution from design to installation.



Fuel Right®

The Proven Leader of Fuel Treatment Systems

- Fuel additive for diesel generator station operational efficiency and performance.
- Dissolves sludge and prevents further growth.
- Protect tank linings from corrosion.
- Keeps fuel system clean.
- Reduces fuel system wear.
- Protects against fuel line freeze-up.
- Maintain reliability of auxillary generation stations.



CRAB Upgrades and Retrofits

An easy-to-install fan box designed to retrofit older Liebert brand CRAHs by replacing inefficient belt-driven forward curved, DWDI fans with efficient EC plug fans.

- Retrofit replaces inefficient belt-drive forward curved, DWDI fans with efficient EC plug fans.
- Immediate 20% energy savings in an apples-to-apples comparison by replacing existing centrifugal fans (based on an actual performance test).
- Over 60% energy savings possible when running at partial load (with built-in redundancy).
- Updated control options (under floor pressure control; return or supply air temp control; independent fan and valve control).
- Low first-cost – big energy savings.
- Fast payback / ROI.
- May qualify for utility rebates.



Console Lines

From individual operator workstations to enterprise-level monitoring, e-Systems Group offers consoles and AV solutions to complete your center.



Console Lines

Multiple Line Choices to Suit Your Application

- Four console system choices to address space plan, equipment and modularity needs.
- All lines manufactured to match finishes of our cabinets and rack products.
- Options for ergonomic flexibility and customization.
- Space planning, project management and installation services available.
- Single source with one manufacturer for your rack and specialized technical furniture requirements.
- Console systems integrate well with raised floor and slab floor environments.
- All console lines made-to-order and manufactured in U.S.A.

Structured Video Wall

Display wall system to support a fully integrated audio-visual environment

- Houses individual monitor technologies (typically 42" and 55" displays).
- Custom designed to fit your technology, room architecture and display configuration.
- Complete power and cabling integration, along with fan ventilation options.
- Create a showroom-quality control room environment.

What Our Customers Say...

"Choosing a manufacturer who is willing to be my partner over the long haul is vital. Many are willing to sell me a product but few are willing to follow through with service, creativity and responsiveness."

e-Systems has proved time and time again that they will do whatever it takes to help me achieve success with my clients. Their 'can do' attitude and desire to produce high quality American made products is unparalleled, and I can't imagine doing my job without them."

*Reseller Partner
Colorado*

"e-Systems Group helps us to win opportunities by supplying superior products that meet the needs of our customers. The e-Systems Group team assists by providing drawings, pricing and details in a timely manner so we can offer great service. Together we continue to grow."

*Reseller Partner
Colorado*

"Very professional and understanding of working within a 9-1-1 center. Willing to work around the ever-changing environment of our center all while the center was live and never missed a call. Thanks!"

*PSAP Manager
Delaware*

"We were working with our customers to come up with a rack solution that would satisfy the existing footprint of our old racks, but has the features and design that IT administrators would appreciate. The attention to detail and thoughtful design has made eSystems Group our choice when it came to a rack solution."

*IT Systems Coordinator
Massachusetts*

"The e-Systems Group Service team did a very professional job of cleaning our data center with no interruption of services at all. Would highly recommend them to other and will continue to use them at our organization."

*Data Center Manager
Wisconsin*

From inception to continuing operation, e-Systems Group provides the products and services that protect your assets and mission.