



DATACENTRE SOLUTIONS

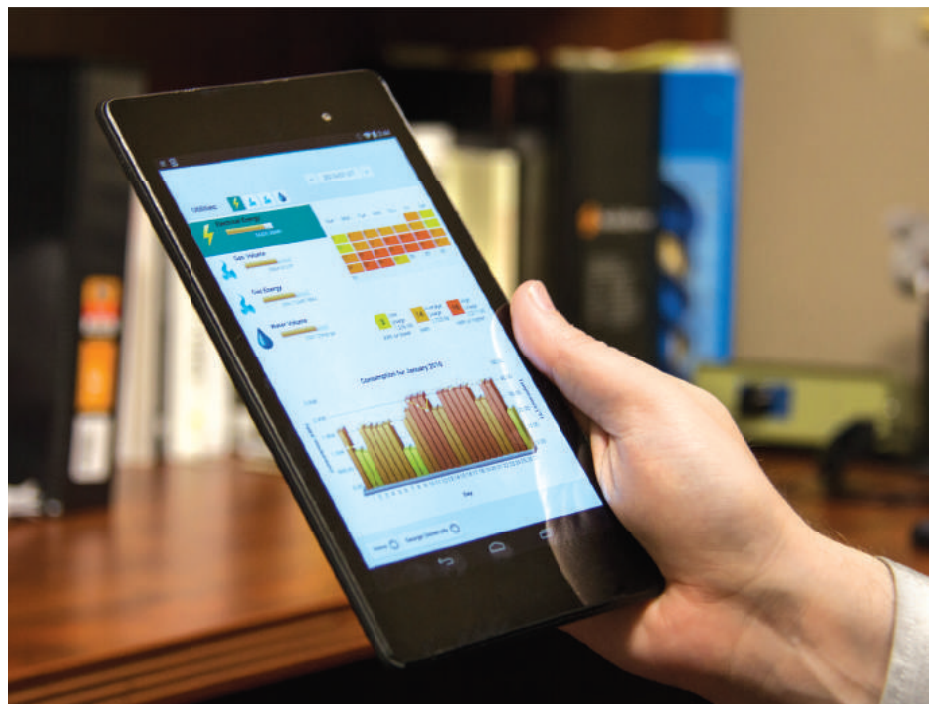
For A Digital World



INCREASE FLEXIBILITY - WITH DATA CENTRE MANAGEMENT, AUTOMATION AND CONTROL

Benefits:

- **Wireless and battery less sensors ensures flexibility and helps to design movable racks**
- Complete data centre management solution offering
- Use of latest technologies and open standards protects your investment
- Minimization of human errors by automating processes
- Automatic Alarms emails and applications notify you of critical failures
- User-friendly supervision with the help of 3D visualizations
- All critical functions can be placed in one dashboard
- BMS and EMS applications for reliable facility infrastructure management
- Create heat maps of your data racks and view it in graphical form for predictive analysis to identify possible hot/cold spots



Continuous and comprehensive monitoring and management of constantly changing and expanding facility and IT infrastructure is key to ensure uptime and safeguard uninterrupted operation 24/7.

Keeping environmental conditions in a defined range and minimizing energy consumption at the same time is one of the major ongoing challenges in a data centre. To meet these requirements, the design for such solutions requires a comprehensive consideration of all the operational processes in a structured approach.

Bajaj Electricals' building automation and control system (BACS) portfolio offers a complete range of field devices, controllers and an integrated building management system (BMS) that set new standards for technology, efficiency and user-friendliness. Energy Monitoring Software (EMS) combined with low voltage protective devices provide a complete energy management solution. The EnOcean range of wireless and battery less sensors ensures that we can have movable racks which is the need of the hour.

Our data centre management solutions will help you anticipate the future - to guarantee uptime and stay one step ahead of the competition. This ensures safe, secure and reliable operation of your data centre.

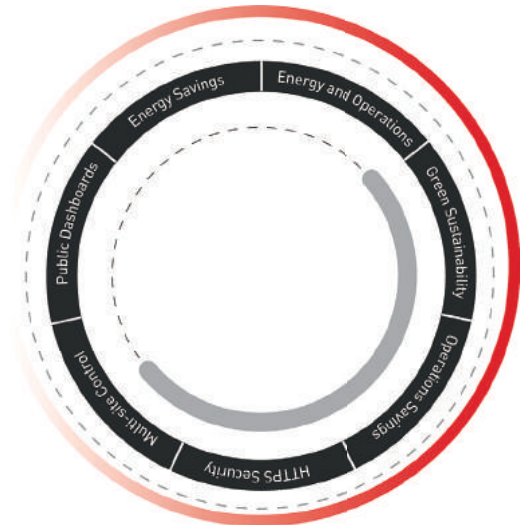
SAFE AND RELIABLE SYSTEM INTEGRATION MONITORING AND CONTROLLING.

Benefits:

- **Controllers with options of POE for better uptimes and hot swappable modules for quicker serviceability**
- Consistency - Improved system planning and commissioning, easy integration of building automation
- One-stop shop - One contact partner for all products, systems, solutions and services results in considerable cost savings during installation and operation
- Safety - Perfect protection of personnel and equipment through optimized protection and switching devices
- Efficiency - Higher system availability and maximum energy efficiency thanks to monitoring and protection against overload and short-circuits
- Scalability - Can be scaled from a small system of 200 points to unlimited IO points

Source: Delta Controls
enteliWEB Brochure

- Unified Platform for Building Automation, Access Control Solution and Lighting Controls
- An enterprise platform with multisite management tools
- High level third party systems integration
- Web-based application that combines the power of enterprise dashboards with easy-to-use tools
- Customizable Energy Management dashboards and powerful energy reports give managers the tools to reduce consumption and drive down costs
- Task-driven alarm management and system dashboards allow operators to quickly visualize and prioritize their work, keeping the facility running comfortably and efficiently
- Drilling down from high-level operational views to specific parts of the system is simple and intuitive
- Efficient, comprehensive and scalable: With all systems being interconnected there can be a lot of data. enteliWEB collects and organises this information, displaying it through a custom dashboard. Dashboards can be customized to your needs in every level of enteliWEB. We have more than four types of dashboards available through one enteliWEB solution:
 - ▶ Enterprise dashboards allows Facility Managers to quickly evaluate their systems based on KPIs
 - ▶ Personal dashboards provide an easy way for operators to view the building the way they want
 - ▶ Systems dashboards provide a much richer experience than graphics alone. They combine operational views such as graphics, alarms, point lists, charts and other tools all on one page
 - ▶ Energy dashboards allow you to monitor how much energy your datacentre is using in once quick glance. You have the ability to choose the appropriate systems, and have their energy usage displayed in one easy to understand interface
- Power metering and monitoring devices plus energy power monitoring software help detect malfunctions and lower energy consumption. All findings are included in customer specific reports
- The high quality of our products and systems pave the way for smooth data center operation while significantly extending the maintenance and service intervals, which in turn reduce life cycle costs. Tailored to the process requirements of our customers, we develop a system or overall solution that focuses on reliability and availability



ENSURE MAXIMUM UPTIME WITH FIRE SAFETY

Benefits:

- Fast and highly reliable fire detection thanks to unique aspirating smoke detectors
- Efficient and effective fire extinguishing using clean agents like FHT (Firefite Hypoxic System - Firepass) Novec 1230 & FM 200
- Complete integration of fire detection, extinguishing and evacuation solutions
- Bajaj Electricals fire safety products and solutions comply with the highest safety standards and regulations
- Reliable alarming and fast evacuation when needed



The risk of fire in a data centre is particularly high due to heavy power loads, a constant ignition source, combustible materials, extensive cabling and high air velocity for cooling. Bajaj Electricals' fire safety solutions are precisely tailored to your data centre's requirements and comply with the highest safety standards and regulations.

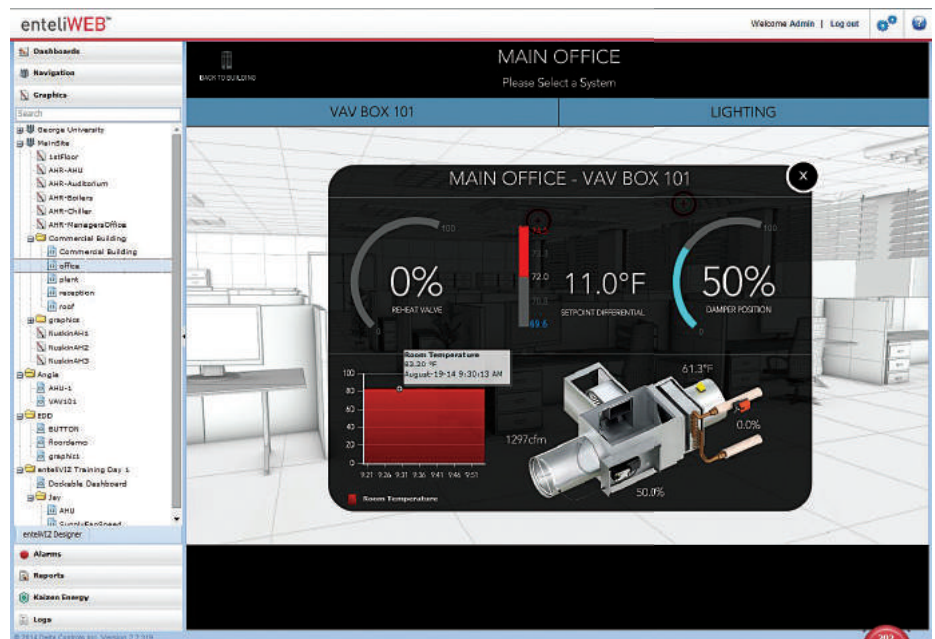
The solutions offer you maximum safety against all risks of fire and ensure uptime and availability of service. They reduce the risk of wide-spread fire, combining highly accurate smoke detectors with fire panels that have hot redundancy along with aspirating smoke detection with asymmetric piping guarantees the highest detection speed and accuracy, coupled with preventive maintenance, improving the response effectiveness. **The detection technology used is LED based and provides long life and reliability.**

The silent discharge nozzle technology ensures quiet and effective extinguishing, minimizing the risk of data loss due to hard disk drive failure. As in any fire situation, ensuring that people are alerted immediately and know what to do is the top priority. Reliable alarming devices and the voice evacuation system ensure that people are able to evacuate the danger area quickly and safely.

ENSURE BUSINESS CONTINUITY WITH SECURITY & CARBON FOOTPRINT ANALYTICS.

Benefits:

- As the access control is seamlessly integrated with BMS we can provide carbon foot printing of the data centre
- Data, people and assets remain secure 24/7
- Risk mitigation prevents loss of reputation and business disruption
- Tailor-made integrated security solution following security policies and procedures
- Early detection of unauthorized people on the data centre premises
- Protection of operational processes and data ensures business continuity
- User-friendly security management system supporting security guards and operators



Threats to data centres in this modern day and age come in many forms, from the intruder trying to gain physical access to the facility and ultimately the servers, or safety incidents and natural disasters to cyber attacks and hackers trying to gain access to the network and the data stored on the servers.

Bajaj Electricals provides a layered and integrated approach on data centre security after identifying all the possible threats and their impact on a data centre's infrastructure and assets. From perimeter protection, gate control, intrusion detection to access control and visitor management, incoming and outgoing goods, access to specific security zones, such as power distribution and UPS rooms, and to the computer room itself. Intelligent video surveillance solutions help with event investigation and - in combination with all other security measures - ensure highest protection.

The management system that integrates all security disciplines allows increased visibility, response agility and control and ensures your facility remains secure 24/7. By adopting an integrated approach aimed at protecting all the operational processes of a data centre, our solution ensures business continuity in compliance with customer security policies and procedures. We also offer ROC - Remote Operation Center as a service model.

COSMOS BANK TOWER, PUNE, INDIA

Overview

Vertical
Commercial

Site build
New Building

Site size
274,000ft²

The Cosmos Co-operative Bank Ltd. (Cosmos Bank), established in 1906, is one of the oldest Urban Co-operative Banks in India. It is one of the first co-operative banks in the country to implement Core Banking System (CBS) across the entire network of its 140 service outlets. It has also received permanent authorized dealer (AD) license from the Reserve Bank of India. In addition, Cosmos Bank is the first bank in co-operative sector to be granted permission to operate a Currency Chest.



The Challenge

Energy management of a highly secure smart building was not going to be easy. The Cosmos Bank headquarter building consists of a branch, currency chest and data center, which made security a main concern for the clients. Pedestrian and vehicle flow patterns were studied so that the proposed system would ensure an easy flow of traffic along with minimal disruption to employee and customer comfort.

The location of the bank added to the challenge Bajaj Electricals faced. Cosmos bank is located in the heart of Pune on University Road. Since Pune is known as “The Oxford of India”, it attracts thousands of people daily, making its location a high threat zone.

Installed systems had to be scalable, forward and backwards compatible while having the flexibility to integrate with third party products.

Vivotek IP CCTV cameras, Milestone video management software, HID controllers, Ingersoll Rand palm readers, a Securiton fire detection along with an Aspiration detection system for early smoke detection in the data center, an alarm system, and Novec gas suppression systems were just a few of the low voltage systems that the BMS required to integrate.

CASE STUDY

COSMOS BANK TOWER, PUNE, INDIA



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Bajaj Electricals is a very supportive and understanding team, and has great knowledge and expertise in the field of life safety, security, and energy management. The systems installed are simple, scalable, and open source so that as a customer, we have choices as we grow. We are happy to have Bajaj Electricals as a partner and look forward to a long term association.

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Mr. Jayesh Maldikar
Chief Manager
Estate Management Cell

The Solution

A detailed project plan had to be developed, tracked and updated on a weekly basis to ensure compliance to the scope defined in the risk mitigation plan. By using the Delta Controls product line, Bajaj was able to integrate all third-party products. Third-party systems included HVAC (chillers, pumps, AHU's, VFD's, and ventilation), and electrical (UPS, DG, and energy meters) systems. The data centre was equipped with precision AC's, gas suppression systems and hydrogen sensors. Energy analytics and dashboards were provided as well. The system also included the following:

- Building and energy management system
- IP CCTV surveillance system
- Access control systems with smart cards and palm readers
- Fire detection and alarm systems with evacuation
- Novec gas suppression system
- Aspiration smoke detection system
- Hydrogen sensors for battery rooms

enteliWEB

- Web-based BMS management software

Kaizen

- Interactive lobby energy dashboard

DSM - RTR

- BACnet system integration router

DSC - 1616

- Ethernet enabled high-speed system controller

The Benefits

Using enteliWEB meant that the facilities staff at Cosmos Bank can monitor lighting, HVAC, fire, security, and CCTV systems all through one interface. The use of an open protocol means that Cosmos is not tied down to a single vendor or service provider. The BMS uses BACnet standards, is BTL listed, and the CCTV's are OnVif compliant. Certain applications were created to ensure that critical alarms from the BMS and video management system are displayed on the mobile phones of key facilities personnel. This feature allows them to respond faster to any internal threat that may occur.

The Results

The systems installed met the security standards of the client, while being scalable, backwards compatible and platform independent. The employees and customers feel increasingly secure after the new installation. Using energy dashboards means that not only our facilities staff are aware of the energy savings, but the knowledge is also shared with the building occupants. The energy reporting feature of enteliWEB is saving the facilities team time in their daily routine, by giving them a single, easy-to-use platform to generate reports for the different systems throughout the building.

DATA CENTRE SOLUTIONS FROM BAJAJ ELECTRICALS

The benefit delivered:

Improve data centre through a comprehensive portfolio.

Starting from datacentre Lighting - LED based to Tiling & Merging data centre management, automation and control, wireless sensors, fire safety, security and services.

Maximize flexibility through integrated solutions.

Modular, hot swappable, compatible, customizable, easily extendable - for maximum uptime.

Availability of partner eco-system & part of datacentre eco-system

We partner with large global corporations to deliver full datacentre solution with Bajaj Electricals domain expertise in IBMS & having Partner eco-system to even support Bajaj Electricals solutions.

Enhance efficiency through transparent & expert operations.

Continual optimization with monitoring and reporting tools.

Increase system's availability through reliable and secure operations.

Building global presence and local expertise paired with strong service culture for business continuity.

Enterprise	Management	Building Controllers	Application Controllers	Sensors & I/O Modules
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Bajaj Electricals Ltd.

Inspiring Trust

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