



PROJECT AT A GLANCE

Project Type: Energy Management, HVAC Control and Water Management

Location: Kolkata, West Bengal, India

Total Area: 425,000 sq. ft.

Applications:

- HVAC Control
- Water Management
- Energy Management System

Total System Points: 1,800

TAC Equipment Installed:

- 3 - Xenta 511 as Web Server
- 3 - Xenta 400 freely programmable controller for HVAC
- 1 - Xenta 400 for Water Management
- 1 - Xenta 400 for Lift Monitoring
- 56 - Xenta 300 freely programmable controllers for HVAC
- 1 - Xenta 300 for DG Set
- 1 - Vista Workstation

Technopolis IT Park: Green Building with TAC

In India's growing IT & ITES sectors where people work on stringent work schedules, creating a healthy work environment empowers the occupant work force to be efficient and competitive. As India's office space moves towards a modern working environment, a clean, green, eco-friendly environment is essential.

Technopolis IT Park, Kolkata, is India's first such Green Information Technology building. It is a 14-story office building creating 425,000 sq. ft. of workspace, complete with a Business Center and Conference Facilities. This project ensures high occupant comfort and energy savings by integrating and monitoring HVAC, energy meters, water management, vertical transport and fire systems.

Technopolis boasts of a flexible and reliable Building Management System. TAC was chosen as the solution provider for this project because of its expertise in delivering creative solutions that use the latest open system networking technology.

Green buildings are the future. They reduce the operating costs by up to 30%, provide the highest quality of indoor air and ensure optimal health and safety for the employees; this leads to high levels of productivity for our new cutting edge industries.

THE CHALLENGE

Technopolis was conceptualized as India's first Green IT building. The project was built to adhere to strict pre-requisites for US Green Building Council's Leed Certification, such as:

- Healthy IAQ
- 30% reduction in energy consumption
- Water & waste water management systems

CUSTOMER BENEFITS

- Energy efficiency
- Expandability and reliability
- Ease-of-use and maintenance
- Single console control of the whole system

Technopolis IT Park

The intelligent integrated project had three main building management demands:

1. Technopolis was to be designed to meet the LEED Certification and thus required improved energy optimization and control.
2. It needed an intelligent network that could enable temperature control at individual workplaces and in multiple offices.
3. The system had to be user-friendly, inexpensive to operate and upgrade, and flexible to handle numerous office reorganizations without operational shutdowns. In addition, the promoters wanted a system that would provide off-site monitoring capability for better building management.

THE SOLUTION

Leveraging and consolidating its vast experience of designing and integrating building management systems across the globe, the TAC team installed the TAC Vista™ open system using LONWORKS® technology. As an industrial standard for network communications, LONWORKS provides future-proof system architecture enabling Heating, Ventilating and Air Conditioning subsystems solutions.

These are managed by programming energy optimizing intelligent algorithms into TAC Xenta™ freely programmable controllers. A broad array of systems are monitored, managed and controlled by this system, including water, HVAC, fire detection and elevators.

Dynamic real-time data from every subsystem throughout the building is collected and centralized, allowing authorized personnel to respond immediately to faults or emergency alarms. The TAC Vista Workstation presents the information in a user-friendly format allowing fast and simple analysis and an ability to change subsystem parameters with just a few keystrokes. The Xenta 511 is used as a Web Server to monitor this live data over the web for off-site monitoring.

THE BOTTOM LINE

The TAC system provides energy optimization and control, imparts flexibility for future expansion, integrates equipment such as energy meters and fire alarm panels from third-party vendors, addresses the changing needs of occupants and tenants, and most importantly meets the stringent product and execution norms for LEED certification.

BUILDING PROFILE

As the leader in Open Integrated Systems for Building IT, TAC provides solutions that ensure reliable building system control and operational efficiency. This allows facility owners and operators to concentrate on their top priority — providing the highest value to their clients and users.