



"The TAC I/NET / Vista product line has really pushed this Raytheon site to the BMS front line in our corporation by helping us minimize energy consumption."

*John Knighton, P.E.
Principal Engineer
Facilities Engineering*

PROJECT AT A GLANCE

Project Type:
Building management system

Location:
St. Petersburg, FL

Number of Buildings:
4 (total 650,000 sq.ft.)

HVAC equipment installed:
82 chilled water units
56 DX units
1 energy recovery unit
1 make-up air unit
3 500-ton chillers
4 cooling towers
4 condensing water pumps
3 primary pumps
3 secondary pumps

BMS equipment installed:
40 TAC I/NET controllers
5 NetPlus Routers
2 central servers
4 I/NET / Vista workstations

Applications:
BMS with 178 graphical user pages

Raytheon

Raytheon leverages the building management system (BMS) at its facilities in St. Petersburg, FL, to share information with employees and customers and to provide them with environmental control over their individual areas.

THE CHALLENGE

Raytheon is a world-class defense and aerospace systems supplier. Over the years this tech-savvy company has hosted a variety of programs at its Florida site.

Hosting various programs has required flexibility to meet different layout and environmental requirements on short notice. For instance, one year an area might serve as a cleanroom or test lab and two weeks later it might have to be converted into an area with meeting rooms.

Facilities at this location comprise one very large building and two smaller buildings. The buildings are sectioned into areas designated for administration, engineering, manufacturing, process testing, the chillers, and customer representatives.

In the mid-1980s, Raytheon asked leading BMS vendors to bid on providing a system for this location. The company wanted a BMS that was versatile, agile, and capable of expanding over time without major complications. Ultimately, Raytheon chose a forerunner of TAC's BMS because the system was more user-friendly and offered more "self-monitoring, alarms and security" capabilities.

Since 2001 Raytheon has teamed with Cyrus Technologies, a TAC partner, to expand system capabilities and to develop control strategies that maximize Raytheon's BMS. In 2005 Raytheon asked Cyrus Technologies to create an open network and provide Web access to BMS information.

CUSTOMER BENEFITS

- Centralized and remote system access
- Interoperability among multiple systems
- System expandability and reliability
- Ease of use and self-maintenance

Raytheon

THE SOLUTION

Over the years, Raytheon has continued to upgrade its BMS in order to provide its employees and customers with the best available technology.

In the mid-1990s, Raytheon installed TAC's NetPlus™ Routers to enhance and stabilize the network across multiple buildings. Then in 2002, the company upgraded to TAC I/NET® technology.

I/NET enables Raytheon to monitor and manage BMS activities quickly and easily. For example, the system automatically reports alarms and sends a message to the security desk to contact the person in charge of the area where the alarm occurred. In addition, the BMS provides flexibility for Raytheon to create multiple levels of secure system access.

Raytheon leverages 178 graphic user pages to give employees and customers remote and local access to pertinent information. It also allows authorized users to adjust an area's temperature without having to rely on the facilities staff.

In 2005 Cyrus Technologies installed a TAC Vista® system along with a LON®-based network to provide an open network environment for Raytheon. The TAC Vista system provides centralized control, system reports and Web access.

THE BOTTOM LINE

Beyond maintaining Raytheon's BMS, Cyrus Technologies works with Raytheon to keep its BMS user-friendly by applying simple, efficient programs that give all users the level of environmental control they require.

Future plans for the St. Petersburg BMS include integrating the lighting, fire alarm systems, and IT networking capabilities.

INDUSTRY/TECHNOLOGY PROFILE

Facilities containing manufacturing enterprises, research/development hubs and data centers must address unique challenges to operate efficiently, such as strictly controlled clean rooms, temperature-sensitive products and materials, air quality and lighting requirements, and sophisticated process controls. Such special conditions place restrictions and burdens on a facility's building automation and security systems.

TAC has the expertise and experience to enhance the overall environment for industrial and high-tech customers, making their facilities comfortable and secure while streamlining energy costs and protecting against environmental variances.

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