



Power Innovations
INTERNATIONAL, INC.



Case Study 1703

Power Innovations' Provides a Power Quality Upgrade at Mineta San José International Airport

The Customer

Mineta San José International Airport, a self-supporting enterprise, is owned and operated by the City of San José. With 189 flights a day on 13 domestic and international carriers to 30 nonstop destinations, the San José Airport served 10.8 million passengers and handled approximately 209 million pounds of air cargo in 2006.

The San José Airport Communication Control Center (ACC) is in charge of the security and logistics for all terminals.

Mineta San José International Airport is located in San José, California's third largest city and the nation's tenth largest city (population of 974,000). San José is the capitol of Silicon Valley, where 29 of the nation's 100 fastest growing technology companies are located. Over 2.3 million people live within 30 minutes of the Airport.

The Challenge

While most airports have generator backup to address power loss, generators are not adequate and do not address ongoing utility power quality problems. Generator transfers temporarily leave systems without power and cause surges that can damage sensitive electronic equipment. In addition, once generator power is running, the quality of the power supplied is often compromised.

The Airport Communication Control Center is in charge of all security and logistics; therefore, a constant, steady power source is critical. Power failure is not an option because the control center is vital for ensuring safety and protecting lives.

The Solution

After a competitive bid process, the City of San José contracted with Cupertino Electric for the installation of a custom designed, Uninterruptible Power Quality™ (UPQ™) Q-LS 50 kVA system from Power Innovations. This new technology provides the San José Airport with unparalleled protection from fluctuations in power supply – spikes, dips, brownouts, noise, frequency variation, as well as backup when power outages occur.

“We carefully researched the options we wanted to ensure power to the ACC and what was available on the market,” says Don Ernst of the Airport's Facilities Division. “Power Innovations was able to provide the customization that met our exact needs for reliable and flexible service.”

The Installation

With the green light from San José Airport Security and from Federal agencies including TSA and FAA, the previous UPS system was removed and UPS loads were transferred to the new UPQ system. Downtime was kept to a minimum, and the entire transfer took only 15 minutes to complete. Field verifications took place, as well as testing, commissioning, and training.

Mineta San José International Airport

INDUSTRY SERVED

Security

CHALLENGE

The Airport Communication Control Center needed a constant, steady power source to ensure safety and protect lives.

SOLUTION

The Q-LS™ Series provides unparalleled protection from fluctuations in power supply, as well as backup when power outages occur.

ADVANTAGES

- High Efficiencies
- Battery Management
- Ease of Maintenance and Service
- Remote Monitoring

Advantages of the Q-LS Series

The Q-LS Series is highly efficient, and provides battery and system monitoring and management, as well as easy maintenance and service of critical electronic equipment.

High Efficiencies

The high efficiencies of the Q-LS Series provide less heat dissipation, less noise, and longer backup times. This Q-LS Series can save, in operational costs alone, up to \$12,000 annually in power bills.

Battery Management

All large systems utilize expensive battery banks. Ordinary UPS systems on the market use the batteries as part of the conversion process. Using batteries in this way damages the batteries over a short period of time, leaves the systems vulnerable to failure in a power loss situation, and shortens battery life.

The design of the Power Innovations Q-LS Series system allows total isolation, regulation, and regeneration of power without using the batteries. By eliminating the use of the batteries in the power conversion process, Q-LS Series systems are not vulnerable to failure in the event of power loss and do not require frequent battery replacement. Batteries, which are used only for supplementing power in a power loss situation, can also be locally or remotely monitored and managed.

Ease of Maintenance and Service

The display panel of the Q-LS Series provides detailed status and function information. Each circuit board has an LED indicator, which alerts the system administrator to error status and allows for immediate problem isolation and maintenance. The Q-LS Series is designed for ease of maintenance and service. All serviceable parts and components are located on slide trays and rails for quick access and repair. To ensure safety of the technician, high voltage areas have also been secluded.

Remote Monitoring

The Q-LS Series provides the option of local monitoring and management via a local RS232 serial port, and can be remotely monitored and managed using a UPQnet-agent II™. The UPQnet-agent II uses Simple Network Management Protocol (SNMP) to communicate with the Q-LS Series system. This universal protocol allows for Internet access of real-time power status and history reports. The UPQnet-agent II provides the flexibility to monitor and control power from within the data center network, from a remote location via an Internet connection or direct dial up, and from handheld devices such as PDAs or cell phones.

Power Innovations

Launched in 1997, Power Innovations has pioneered a revolutionary set of solutions to generate, store, and manage AC power. Power Innovations' mission is to provide and manage continuous high-quality power in conjunction with, or even independent of, utility services worldwide. Power Innovations is helping forward-thinking companies accomplish this goal through a new class of technology called Uninterruptible Power Quality (UPQ).

Today, Power Innovations' UPQ systems, coupled with its UPQnet-agent II™ IP management tools, assist organizations of every size in addressing the key issues surrounding power management.

Power Innovations' long term strategy includes fully integrated power management and control, storage, and generation for total power independence. Power Innovations' line of power management products is currently being marketed. The company is involved in the development of a spectrum of solutions for power storage. Currently Power Innovations offers a variety of alternative generation options. In the near future, Power Innovations plans to introduce the PowerWell™, a revolutionary solution to provide green renewable energy generation for homes and business, with or without grid interaction.

“Power failure is not an option. We have a high level of confidence in this new system to support a mission-critical function for our airport.”

- Shashikant Naik

San Jose Public Works
Project Manager



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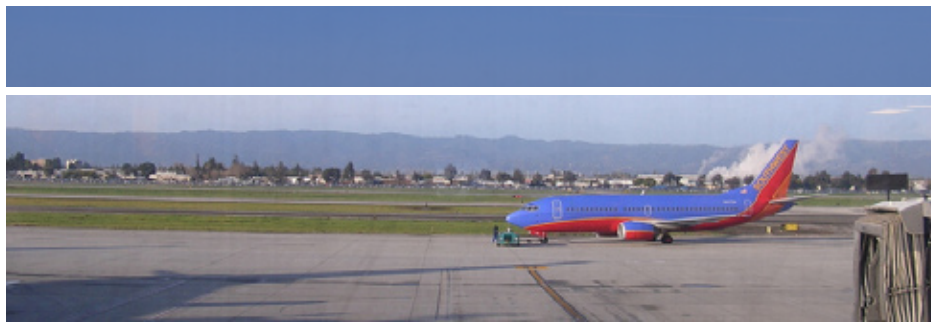
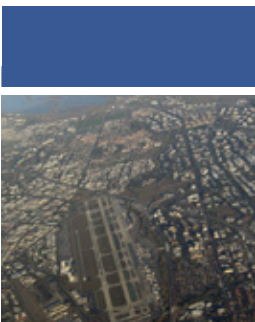
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