

GUARANTEED BACK-UP POWER DURING EQUIPMENT REPLACEMENT

Grupo Salinas/Secovi

CHALLENGE

- The replacement of a pair of aging 1000 kVA uninterruptible power supplies needed to be completed without compromising back-up power protection.

SOLUTION

- Grupo Salinas worked with service company SECOVI to propose a carefully orchestrated multi-step solution for a full transition to a quantity 2 x Mitsubishi Electric 9900C 1050 kVA UPSs without any interruption to load protection.

RESULTS

- The successful tandem replacement was executed flawlessly: a complete transfer of power with uninterrupted protection of the load.



OVERVIEW. Grupo Salinas' prominence in Mexico's commerce is such that when it became necessary to replace a pair of aging 1000 kVA uninterruptible power supplies in the data center in Mexico City that supported many of their businesses, Grupo Salinas insisted that the work needed to be completed without compromising back-up power protection for all of the Grupo Salinas businesses supported through the data center.

CHALLENGE. If the load were to be unsupported at any time during the transition, the UPS provider would face huge penalties and potential lawsuits. Three UPS suppliers were approached initially, but after many time-consuming communications back and forth, all three suppliers remained unwilling to agree to this condition. Power supply in Mexico is electrically more complex than in the USA with grounding, transients, and harmonic issues and frequently requires additional equipment to affect corrections.

SOLUTION. The International Power Association (IPA), who has been involved in Mexico for more than 30 years and a recognized expert on power quality, was consulted. Previously, the IPA teamed up with Secovi, an engineering design firm in Mexico dedicated to electrical protection technologies, to recommend Mitsubishi UPSs for installation on mountain tops to protect transmitters throughout Mexico. SECOVI was fully aware that a UPS is typically de-rated and needs to be re-sized when installed at high elevations, but was undeterred and confidently recommended the Mitsubishi Electric brand because of their widely recognized robust design. SECOVI proposed a carefully orchestrated multi-step solution for a full transition to a quantity 2 x Mitsubishi Electric 9900C 1050 kVA UPSs without any interruption to load protection. With full acknowledgment of the complexity involved, the proposed plan included installing new breakers and using redundant generators to maintain power to the load while the utility wiring work was completed. A factory witness test of the 9900Cs complete with load transfer conducted at Mitsubishi Electric's Warrendale, PA facility legitimized the ambitious proposal and also verified that the 9900Cs were fully capable of performing admirably at the high altitude of Mexico City.

RESULTS. In June 2021, the players and equipment assembled on site of the subject data center. As if the daring plan was not challenging enough, additional factors compounded the intricacies of the procedure. The limited physical space available for the interchange made matters more complicated, as there was very little room for maneuverability with all 4 UPSs in close proximity of each other during the transfer. Additionally, the palpable tension in the air was heightened by the presence of legal teams from both Grupo Salinas and Secovi. At the end of the installation, all present were breathing normally again, as the successful tandem replacement was accomplished flawlessly: a complete transfer of power with uninterrupted protection of the load. Grupo Salinas was very grateful for the innovative solution as well as the leadership and expertise demonstrated by the Secovi installation team led by Hector Lozano and Edi Amaya.

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RESULTS (con't.)

The implementation of the 2 Mitsubishi 1050 kVA UPS has been the most important project for the Grupo Salinas Computer Center in the last 20 years due to its high technical complexity and the extreme planning required for its execution.

Without a doubt, the project was successful due to the union of three elements:

- 1) Technology and quality of Mitsubishi equipment.
- 2) Technical capacity and monitoring of the internal team at the Grupo Salinas Computing Center.
- 3) Technical capacity, commitment, and exceptional execution of Secovi.

It was an exciting project with unique challenges due to the pandemic, but thanks to the cohesive technical teams of Secovi and the Computer Center working together, a perfect implementation was achieved without any failure throughout the transfer process.

ABOUT GRUPO SALINAS

Grupo Salinas is a large corporation in Mexico comprised of many smaller entities with its foundation dating back to 1906. Their holding companies are involved in many diverse markets, including banking, retail, multi-media, telecommunications, and energy. Combined, they employ in excess of 100,000 people, and focus on creating shared prosperity in the areas of economy and the environment for their many varied consumers. They serve customers in portions of North, South, and Central America.



ABOUT THE PRODUCT/ 9900 SERIES UPS:

With legendary performance and reliability, the biggest names in cloud and colo with the most demanding expectations for uptime have made the 9900 Series their UPS of choice. The 9900 Series is designed with reliability and maintenance in mind, ensuring consistent quality operation for the lifetime of the UPS.



ABOUT US:

Since 1964, Mitsubishi Electric has manufactured precision engineered, high-quality uninterruptible power supplies to protect its customers' mission critical equipment during times of power instability.

Mitsubishi Electric leads the industry in designing and manufacturing reliable, environmentally-friendly UPS systems to extend uptime, prevent data loss, and protect against power surges. The CPS Division offers systems in both single and multi-module configurations in a broad range of kVA capacities.



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