

For more than 30 years, this client has been at the forefront of innovation, revolutionizing the world of electronic systems. With a passion for advancing technology, the semiconductor company provides software, hardware, and IP that bring design concepts to life. While its headquarters are in California, the client provides the broadest range of integrated end-to-end solutions globally.

THE CHALLENGE

When a summer heatwave overloaded utility supply equipment at the client's headquarters, it resulted in a power outage that threatened its data centers, which are critical to daily operations. Unfortunately, the data centers' emergency backup system was untested and proved ineffective during the blackout.

Specifically, the transfer of power from the uninterruptible power supply (UPS) to the backup generators led to a mechanical breakdown, causing three out of five generators to fail. An attempt to revert the power load back to the still-malfunctioning UPS led to a total power failure that compromised data integrity.

THE **SOLUTION**

In the aftermath of the power failure, Flagship worked with the client to analyze the event as well as the multi-vendor response. This analysis pointed to the need for a revision to the client's SOW, to encompass comprehensive maintenance and an outline of emergency event protocols.

Flagship updated the client's SOW and integrated a robust solution stack to avoid a repeat of the system failure. The solution stack includes:



- Assessment and outline of each vendor's role within the emergency backup system
- Coordination with the controls vendor to create and implement a robust controls package that monitors and notifies the real-time status of incoming utility power, UPS, automatic transfer switches, and generator systems
- Diagnosis of equipment inefficiencies, replacement of malfunctioning equipment, and revision of preventive maintenance procedures to include annual load bank testing
- Development of an emergency preparedness plan that includes a backup systems program with written protocols and procedures agreed upon by all stakeholders and adherent to industry standards
- Training of FM team to include testing, support, and facilitation of both the emergency preparedness plan and backup systems program to guarantee power reliability



THE **OUTCOME**

Not only does Flagship's solution stack enable the client to maintain operational continuity during emergencies, but it also protects the health of its physical infrastructure and helps ensure data integrity. These solutions were designed to scale with the client's operations to maintain high standards of reliability and readiness through growth and expansion. Furthermore, this process of collaborative problem-solving laid a solid foundation for future strategic planning, communication, and decision-making to advance the client's mission of driving technological innovation.



