



Safelite® Glass

Case Study

The Challenge

Protect critical systems for the nation's largest auto glass service company's data center and customer contact centers

The Solution

- Dual and single-bus power systems
 - 130 kVA Liebert Npower UPS
 - 225 kVA and 300 kVA Liebert 600 Series UPSs
 - Liebert Precision Power Distribution Units/Expansion Cabinets
 - Liebert Static Transfer Switch
 - Liebert SmartSwitches™
- Liebert SiteScan Web Monitoring System
- Liebert Mini-Mate2 Air Conditioning Systems
- Liebert Deluxe System/3 Precision Air Conditioners
- Liebert Himod Air Conditioner

Critical System Infrastructure Puts the Safe in Safelite's Data and Call Centers

The Situation

The nation's largest auto glass repair, replacement and claims management services provider, Safelite Glass, planned a dual expansion at its headquarters in Columbus, Ohio. The expansion included:

- Relocating one of two national customer contact centers to the headquarters location.
- Expanding the existing data center by 60 percent.



Safelite's customer contact centers are critical to the company's success, handling approximately nine million contacts annually and providing 7x24 access to the company's services.

Both the customer contact center and the data center are business-critical operations. The contact center processes claims for 16 of the nation's top 20 property and casualty insurance companies as well as national automobile fleets. Vital company information — from customer transactions to inventory reports — is stored in the data center. Downtime in either location could have a significant impact on Safelite and its customers.

That concern prompted Safelite to increase its level of protection for critical IT systems as part of the data center expansion.

“With the expansion, we were making a significant investment in hardware and software, and we needed the right infrastructure to protect that investment,” said Randy Randolph, vice president, market development and real estate, at Safelite. “The existing building system had been adequate to that point, but it did not provide the level of protection we required long-term.”

Safelite turned to Technology Site Planners (TECH SITE), a technical site planning, design and construction firm specializing in critical facilities. TECH SITE put its experience to work to design an efficient support system that would ensure Safelite's critical systems deliver the availability the company demands.

The Liebert Difference

- Single source for support system solutions
- Product quality
- Commitment to customers

The Partner

TECH SITE

“Liebert provided guidance on choosing the best systems for the job. Their recommendations and support were very helpful. They listened to our needs, presented several options, and helped us select the best equipment for this application.”

Matt Phillips,
TECH SITE

The Solution

TECH SITE called upon Liebert, the leader in critical system support, to provide the high availability equipment and technical support the application required.

“The Liebert systems are the best for the job,” explained Matt Phillips, TECH SITE construction manager. “They are extremely reliable and, because Liebert is single-source, all the equipment works together. That’s important in high availability applications.”

TECH SITE drew heavily from Liebert’s comprehensive product offering for the Safelite project. TECH SITE integrated Liebert’s environmental, power and monitoring systems into a state-of-the-art support system matched to the needs of business-critical systems.

“Liebert also provided guidance on choosing the best systems for the job,” said Phillips. “Their recommendations and support were very helpful. They listened to our needs, presented several options, and helped us select the best equipment for this application.”

Keeping Safelite Cool

With four decades experience in precision air conditioning systems, Liebert was able to provide the ideal environment for Safelite’s critical systems.

As at many facilities, space was tight at Safelite headquarters — especially in the 300-station customer contact center. Liebert offered space-saving solutions with both its Mini-Mate2 and Himod precision air conditioning systems.

The Liebert Mini-Mate2 installs above drop ceiling tiles, saving valuable floor space. Five Mini-Mate2 systems are tucked above the ceiling tiles spanning Safelite’s customer contact center. Likewise, Liebert’s Himod air conditioning system was developed to fit small spaces where critical electronic equipment is housed. A compact, eight-ton Himod cools the room housing the customer contact center UPS.

Safelite’s 6,800-square-foot data center is filled with sensitive, high-performance electronic systems that require precise, reliable control of temperature, humidity and airflow. This equipment is protected by six 20-ton Liebert air-cooled Deluxe System/3 precision cooling systems, which provide total environmental control of the center. The Liebert Deluxe is the industry standard for precision air conditioning.



Top: The 300 kVA Liebert 600 UPS supports Safelite’s dual-bus power system that delivers high availability to the data center.

Bottom: Liebert Deluxe precision air conditioner and Liebert Power Distribution Units in the Safelite data center.

Dual-Bus Power Protection

A distributed-redundant power system, utilizing Liebert equipment, now ensures high availability of conditioned power to Safelite headquarters. For the critical data center, TECH SITE designed a dual-bus power system featuring distributed redundant Liebert UPS systems.

“We needed to provide the highest level of power protection for the data center,” explained Phillips. “The dual-bus configuration eliminates single points of failure, protecting Safelite against downtime and data loss.”

The dual-bus system employs two Liebert 600 Series UPSs — a 225 kVA and a 300 kVA system — connected by a Liebert Static Transfer Switch. Designed for large-scale power protection, the Liebert 600 has an impressive record for reliability and performance.

The power distribution system features four Liebert SmartSwitches to enable single-corded equipment to benefit from the dual-bus system. Within six milliseconds of the detection of a power problem, the Liebert SmartSwitch seamlessly transfers connected equipment from the failing power source to the alternate source.

“The Liebert SmartSwitch enables us to provide dual-bus protection to every piece of equipment in the data center,” said Phillips. “In the event of a power disruption, even single-corded equipment will transfer over to the alternate power source so quickly operations are unaffected.”

Single-bus protection is provided to the customer contact center and fourth- and fifth-floor office systems via Liebert UPS systems and a 2000 kW Kohler generator. This system includes a Liebert 600 Series 225 kVA UPS for the customer contact center and a 130 kVA Liebert Npower UPS for the office systems (370 stations).

Both the Liebert 600 and the Liebert Npower utilize online double-conversion topology to provide complete protection against the full spectrum of power disturbances. The compact Liebert Npower packs 130 kVA of capacity into a 49.2-inch by 32.5-inch footprint.

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Matt Phillips,
TECH SITE



Matt Phillips (left) of TECH SITE with Safelite’s Randy Randolph in the Safelite network operations center. Through SiteScan Web, Safelite can continuously monitor critical support systems across three facilities from the operations center.



“Liebert went above and beyond our expectations on this project. They were involved in every phase, even going so far as to review UPS installation specifications with the electricians who installed the systems. They really demonstrated their commitment to service.”

Randy Randolph,
vice president,
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The combination of dual-bus and single-bus systems is designed to deliver 99.995 percent availability to Safelite’s business critical systems.

Four ASCO 7000 Series automatic transfer switches provide transition from utility power to standby generator power in the event of an unexpected or manual power disruption. ASCO, like Liebert, is an Emerson Network Power company. ASCO switches extend Liebert’s ability to meet the full power protection needs of its customers.

Monitoring Success

Beyond the rows of PDUs and racks of servers in the data center is a sophisticated control console that enables Safelite to monitor and manage its data, telephony, environmental and power systems. This console includes Liebert’s SiteScan® Web, a full-featured, open-standards, web-based monitoring, control and alarm management system for computer support systems.

SiteScan Web incorporates a network of microprocessor-based communication modules to link support systems to a central web-based server that consolidates data and generates web pages for system monitoring. In addition to Liebert UPSs and precision air conditioners, SiteScan Web can monitor leak detection and fire suppression systems, fuel tanks, transfer switches, battery banks and power conditioning units. SiteScan Web provides immediate alarm notification capabilities and includes tools for data analysis and trending to support preventive maintenance programs.

“With SiteScan, we virtually eliminate the risk of human error in responding to alarms,” said Phillips. “The monitoring system receives alarms and immediately pages three cell phones.”

Safelite uses SiteScan Web to monitor systems at the headquarters location as well as two other critical facilities in Columbus: a second customer contact center and the local Super-Center, which serves as the auto glass service hub for the market.

The Results

Although a major undertaking, the design and installation of the support system was completed on time, with no major glitches.

“Liebert went above and beyond our expectations on this project,” said Randolph. “They were involved in every phase, even going so far as to review UPS installation specifications with the electricians who installed the systems. They really demonstrated their commitment to service.”

But the real success of the project is in the performance of the critical systems the support system was installed to protect. Here, too, Liebert and TECH SITE earn high marks.

“We have had no issues to speak of,” said Randolph. “We haven’t had a single dropped load since the system went online.”

Shielded from the threat of downtime and data loss, Safelite can continue to grow its business and enhance its reputation as the leader in auto glass repair.

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