



ABOUT THE COMPANY

Equinix, Inc. (Nasdaq: EQIX) connects the world's leading businesses to their customers, employees and partners inside the most interconnected data centers. In 40 markets across five continents, Equinix is where companies come together to realize new opportunities and accelerate their business, IT and cloud strategies. In a digital economy where enterprise business models are increasingly interdependent, interconnection is essential to success.

Equinix operates the only global interconnection platform, sparking new opportunities that are only possible when companies come together.

To meet the constant evolution of its clients' needs, Equinix called on Vertiv to redesign its 4 x 800 kVA parallel Uninterruptible Power Supply (UPS) system for its PA7 data center (Energy Park - Courbevoie, France). The new distributed architecture is now composed of three scalable UPS systems supported by Vertiv Services allowing greater capacity and enhanced availability.

www.equinix.com

World-Class Partners for an Exceptional Project

Given its position in the data center colocation market, Equinix sought a partner that could meet its numerous requirements. Specifications involved scalability to adapt to the evolving critical capacity load, high levels of efficiency as well as various functioning modes; all within a completely reliable, available, serviceable and secure data center ecosystem. Moreover, Equinix required top-quality services, including constant availability of critical spare parts, rapid response time, customized emergency plans and restrictive operating modes in case of particular events.

Equinix eventually chose Vertiv for its UPS offering, global presence and service capabilities which ensure on-site response in less than four hours. Through its Academy training centers, Vertiv succeeded in transferring the necessary skills to Equinix's staff, subsequently allowing independent and reactive system operations. "Vertiv did a fantastic job in meeting our many product and service expectations, and the PA7 (Energy Park - Courbevoie) project is a perfect demonstration of this." said Nicolas Buono, Director of Operations for Equinix in France.

A New Generation of Paralleled UPS Systems

The upgrade of the PA7 data center (Energy Park - Courbevoie) demonstrates Equinix's constant strive for state-of-the-art infrastructure. The first objective was to update and redesign the entire 4 x 800 kVA parallel UPS system based on a centralized, N+1 architecture. Vertiv led the customer in choosing a transformer-free UPS topology to boost efficiency and implemented a new distributed redundancy model with three chains, each composed of 1 MW Liebert® Trinergy™ UPS system in a (N+1) configuration. This architecture provides the data center with three different power lines, ultimately powering each rack customer rack with a 2(N+1) UPS configuration for utmost reliability. This new design stems from a previous model that was successfully implemented at Equinix's Condorcet site in Aubervilliers, France. The upgrade also allows for an AC power capacity expansion of up to roughly 500 kW, leading to an increase in rack density per square meter and thus meeting Equinix's evolving needs.

Vertiv easily met Equinix requirements by implementing high quality Liebert Trinergy UPS architectures, providing first-rate, 100 percent superior kW sources without any derating - no matter the load. Liebert Trinergy proved to be the ideal choice thanks to its three dynamic functioning modes and great scalability. Additionally, the excellent 96 percent efficiency levels of the new installation had a great impact on the data center's Power Usage Effectiveness (PUE).

Everlasting Power: A Perfectly Orchestrated Operation

The successful cooperation between Equinix, the local contractor and Vertiv led to a clear definition of the needs and restraints as well as to a solid knowledge of the electrical infrastructure available. Equinix's main requisite was to implement the new redundancy layout whilst assuring customers with at least one permanent high quality AC power source for each of their racks.

For example, key ingredients of the upgrade include the Liebert CROSS static transfer switches, which were installed for the sole duration of the works to ensure the supply of redundant power to critical loads. These switches automatically shift between two independent alternative power sources whenever the line supplying the load no longer falls within the acceptable (and user definable) tolerance values.

The smooth transition from the previous set-up to the new distributed architecture was perfectly orchestrated and supported by a thorough adherence to the operating mode. This led to a successful data center upgrade and redesign, implemented without the slightest service interruption.

Service Excellence: Exceeding Customer Expectations With a Tailored Service Program

The UPS capabilities are further enhanced by Vertiv LIFE™ Services, a cutting-edge remote diagnostic and preventive monitoring service. In fact, Vertiv LIFE Services are designed to ensure that the critical power protection system is maintained in an optimum state of readiness at all times. By providing real-time insights, early warning of UPS conditions and out of tolerances, effective proactive maintenance, fast incident response and remote trouble shooting, Vertiv LIFE Services give customers complete security, maximized availability as well as extended equipment life.

Equinix chose to rely on Vertiv Premier Service Contract to protect the installed equipment with Vertiv LIFE Services, preventive maintenance visits and full inclusive 24/7 emergency service with guaranteed on-site response.

With the broadest, most comprehensive service presence in the industry, Vertiv ensures that Equinix's business is protected 100 percent of the time, ultimately ensuring the customer's total piece of mind.

When Experience Turns into Best Practice

The new redundant architecture is now in place at PA7 (Energy park - Courbevoie). "We will make good use of the three Liebert Trinergy UPS systems' scalability by upgrading the power capacity whenever the critical load evolves. And Vertiv will enable us to do it without any service disruption for our data center customers," said Nicolas Buono of Equinix.

PA7 isn't the only site to benefit from retrofit and capacity upgrade. At the Aubervilliers Victor Hugo site, Equinix implemented a modernization, capacity upgrade and energy efficiency improvement program, investing several million euros. Part of this program is the replacement of the previously installed UPS units with new Vertiv systems, increasing power capacity and density per square meter with the objective to provide greater reliability, improve operational efficiency and lead Equinix's growth.

Fact & Figures

- 2000 m² IT rooms
- 2.2 MW power capacity
- High Resilience Distributed Redundancy Architecture
- 3 x 1 MW (N+1) UPS system configuration
- 96% UPS efficiency



Liebert Trinergy UPS installed in a 3 x 2(N+1) redundancy configuration