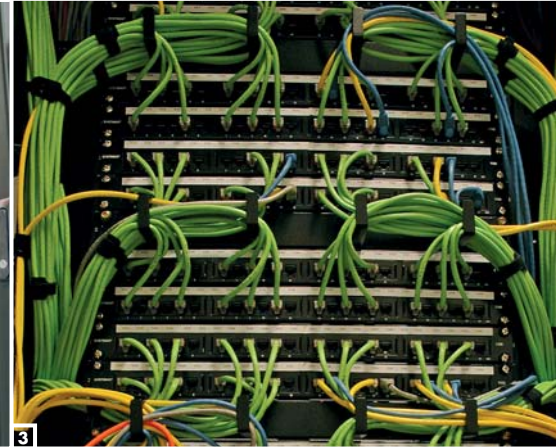


CASE STUDY: DELTA AIR LINES



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Keysource helps Delta Air Lines soar to new call centre deployment in record time



Keysource expertise in data centre design and deployment helps ensure new facility build out within 13-week window, without breaking the budget! APC InfraStruXure solution helps guard reputation of major air carrier.

In the midst of its check-in desk upgrade programme, Delta Air Line's West European Call Centre was also due to be moved into a brand new and high technology building in West London. To date, the call centre's telephony and data had been protected by a single Anton Piller UPS, but in the event this was proving prohibitively expensive to move to the new location.

Charles "Pat" Nunnally, a network engineer working out of Atlanta, Georgia for Delta Technology Inc, a division of Delta Air Lines, described what happened: "Since the solution we had in place couldn't be moved, we set about casting for another. We set three objectives for the new equipment: Firstly, it had to be cheaper than the incumbent equipment. Secondly, it had to make installation easier. Thirdly, it had to be able to be moved to a new location if necessary – we're always keen to apply new learnings!"

"Our start point was the solutions APC had on offer. We wanted to be sure that the UPS for this important new facility was going to be up to the mark, so we decided to test it against a major competitor. We like APC equipment for its modularity – not just its scalability – because modularity means that we can physically get it in and out of the facility. We also like its flexibility which means that we could move it to a new location if needs be. And, naturally, we like the price. Any concerns we might have harboured that some compromises may have been made in the design, were quickly allayed when the APC UPS outperformed its competitor during testing, providing even faster switching speeds!"

The challenge

To provide a modular, scalable and low-cost datacentre solution which could be relocated if necessary.

The solution

Communications Room:
1 x 2N APC InfraStruXure Symmetra PX 10kW N+1
2x APC in row PDUs
7x APC NetShelter equipment racks
Overhead cable management

Back-up:
1 x 2N APC InfraStruXure Symmetra PX 40kW N+1
2x APC InfraStruXure in row PDUs
2x extended runtime battery cabinets

The customer says



"The speed with which this facility has been delivered is breath-taking"

Glenn Watt, Systems Engineer,
Delta Air Lines



First Class Installation

The installation of the UPS equipment was undertaken by APC partner, Keysource Limited. Additionally, Keysource were responsible for further electrical works to incorporate an EPO (electric power off) system for the UPS installation and the IT equipment within the new facility.

Says Glen Watt, the Delta systems engineer responsible for ensuring uptime at the new call centre; "Keysource provided really smooth installation services. The equipment delivery from APC ran ahead of schedule in spite of our late modifications to the system. And Keysource took only two weeks to achieve what had taken us four weeks to achieve when we upgraded our Miami, Florida facility."

"Managing risk and ensuring continuity are essential to the reputation of the airline. We have over 300 workstations on the network at the West European Call Centre, and each of our reservation agents uses Avaya VOIP telephony. Since our customers are calling in from all over the region to both make and check flights, it's absolutely vital that both voice and data systems are online. We've therefore built in maximum redundancy: two Cisco switches, two WAN circuits, two Cisco power-over-Ethernet connections – you get the picture. Even the switch and servers are in two separate equipment rooms."

A comprehensive kit list

The overall electrical load for this facility including all of the back-office functions totals 50kVA. Watt explains: "We've protected the Communications Room with a 2N UPS solution, using two APC InfraStruXure Symmetra PX 10kW N+1 (scalable to 40kW N+1), to create a highly resilient, scalable and redundant solution. Two APC in-row Power Distribution Units (PDUs) allow clean power distribution to rack positions via the overhead cable management structure and APC NetShelter racks provide the housing for all the equipment."

"All desktop workstations and telephony are protected in a second room. This separate Bay UPS room houses a 2N UPS solution utilising two APC InfraStruXure Symmetra PX 40kW N+1, with two extended run battery cabinets to provide up to 30 minutes autonomy. Again, two APC in-row PDUs provide a neat power distribution solution. We've split the load between the two UPS's so that even in the event of a catastrophic load failure, we're guaranteed never to lose more than 50% of the workstations. The power system is further supported by a standby power generator. Monitoring the environment is also important to us, however we didn't feel we could justify implementing a fully-featured building management system (BMS). Using APC's InfraStruXure Manager software however, we're not only able to keep an eye on the health of the power and the UPS including batteries, we're also monitoring the starter voltage of the generator, the status of the generator and the level of the fuel tanks. All from any browser enabled terminal!"

Data centre build-out at the speed of sound

Glen Watt concludes, "The speed with which this facility has been delivered is breath-taking. The build-out started on July 4th 2005 and was handed over on October 4th. We've been impressed with the efficiency and knowledge of Keysource personnel. Their attention to detail has also been an unexpected bonus; for instance, on busy site with contractors working on various aspects of the project, Keysource cleared all packaging and pallets for the UPS and racks within 30 minutes of delivery. It's this sort of thinking which has kept the deployment of the West European Call Centre on time and on budget."

Pictures:

1. West European call centre.
2. APC InfraStruXure solution.
3. APC cable management.
4. Overhead data containment.
5. Integrated room EPO.
6. Power distribution monitoring display.
7. Extended battery cabinet.
8. Data cable terminations.



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