



UNIVERSITY DATA CENTER FLASH FIRE/ARC

Case Study

Incident

When a large university data center experienced a flash fire/arc in a power distribution panel, soot and smoke engulfed the entire facility, affecting network and server equipment. This particular data center operates approximately 50 percent of all university computer traffic as well as critical operations for the university's hospital call system making it vital to get the data center fully back up and running as quickly as possible.



▲ University Data Center

Challenges & Logistics

As the university services a majority of the campus as well as some critical communication for their hospital staff, the university had to keep the equipment in operation. A large portion of the data center had no redundancy designed into the systems, meaning when failures occurred, a loss of service on a large scale was inevitable. Due to this, decontaminated equipment would need to be reinstalled, tested and operational before any further equipment could be powered down for decontamination. Much of the equipment was also being utilized in international competitions, creating another obstacle as the equipment was sometimes in use 24 hours, seven days a week, making the scheduling of equipment difficult.

Highlights

- A university data center experienced a flash fire/arc in a power distribution panel. Soot and smoke engulfed the entire facility, affecting network and server equipment.
- This data center operates approximately 50 percent of all university traffic as well as critical operations for the university's hospital call system requiring the data center be up and running as quickly as possible.
- A large portion of the data center had no redundancy built into the system.
- Decontaminated equipment would need to be reinstalled, tested and operational before any further equipment could be powered down for decontamination.
- A portion of the equipment contained information under the US Government import/export guidelines.
- AREPA was able to successfully complete decontamination on approximately 1,200 servers, switches and networking devices in 60 days.
- Following the successful decontamination, all warranties and service contracts were fully reinstated.
- AREPA was able to stay under budget and saved the client over \$39 million in replacement costs.

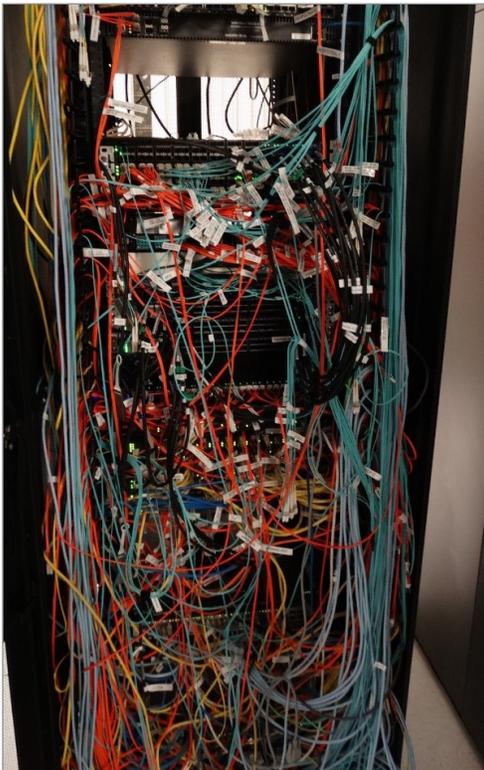
A portion of the equipment contained information under the US Government import/export guidelines impacting not only where the decontamination could take place but also who could perform the decontamination. As AREPA is a global company, staff from across the globe are routinely utilized. Because of the guidelines, all personnel were required to be US citizens who passed background checks and were checked against the denied persons list (DPL). AREPA therefore had to make adjustments to staff this project accordingly.

Initially, the university did not have an area where the decontamination work could be performed. After weeks of negotiating and planning to make sure all guidelines were strictly adhered to, the university allocated a secure area inside the building for the decontamination efforts. AREPA coordinated with the university to have proprietary locks with limited and controlled keys installed on the room where the decontamination was to be performed. AREPA also authored a Facility Access Plan to govern access and transportation of the equipment and decontamination area including university staff, insurance individuals, vendors and AREPA employees.

Outcome

With the small-scale size of the work area provided and the flow of the equipment, AREPA was able to successfully complete decontamination on approximately 1,200 servers, switches and networking devices in 60 days. The affected equipment included a dozen items that were under warranty or service contracts. Following the successful decontamination, all warranties and service contracts were fully reinstated.

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▲ University Data Center Equipment



▲ University Data Center Equipment

AREPA In Action



▲ Top photo: server circuit board before decontamination. Bottom photo: server circuit board after decontamination.