# **CASE STUDY**



# DAMAC CASE STUDY Financial Services

## **Overview**

A leading financial services organization called on DAMAC to remedy several challenges within its data center infrastructure and develop new rack designs to meet unique requirements. The company configured its data center cabinets in rows and was connecting the cabinets using uncommon frame-to-frame connections. It was a simple process when deploying a row of empty cabinets. However, once the team populated the cabinets with equipment, it was impossible to access the frame-to-frame coupling hardware.

This challenge made it difficult to reconfigure the rows and remove individual empty cabinets to repurpose them. The company needed a different way to connect the racks.

Also, the company began implementing new servers that were considerably deeper than the prior generation. While the company's 42" deep cabinets could accommodate the new servers, it left no room for cabling and power strips. The company needed a deeper rack.

After developing a DAMAC relationship, the company explored other rack designs to enhance data center operations. The company also asked DAMAC to design a rack that would facilitate cold-spare networking equipment and a four-post rack that addressed airflow controls.

#### **DAMAC's Solution**

DAMAC designed a 48" deep cabinet that better accommodated the new servers. DAMAC delivered a sample cabinet with an additional mounting rail and various cable management options. This enabled the company to try multiple configurations before they placed their order.

The DAMAC cabinets have a front-mounted cabinet-to cabinet coupling feature that eliminates the challenges associated with the previous inaccessible frame-to-frame connection when the cabinets are fully-populated. The company can now easily remove empty racks from a row to repurpose. The cabinets also feature DAMAC's rear cavity, which accommodates up to four power strips and cabling, while allowing for the unimpeded flow of hot exhaust air, full access to the equipment rear and adequate space for proper cabling and labeling.

### **DAMAC's Solution Continued**

The company also ordered 36" deep server cabinets specially configured to accommodate coldspare networking equipment to enable safe storage of cold spares for fast replacement of failed equipment.

DAMAC then addressed the company's longstanding issue with its four-post racks. The DAMAC team designed a cabinet that is a "four-post face" on a server cabinet back. Because the company uses fiber structured cabling, there was no need for vertical wire management. The new cabinet provides the open cabling flexibility of a four-post rack along with space for power strips, a lockable screen door and the ability to control airflow with blanking panels. The second version of that rack incorporates fan kits to exhaust hot air into the ceiling space and noise-dampening linings to control sound.

#### **Proven Success**

The company selected DAMAC for its ability to deliver a custom-designed product at a competitive price. DAMAC engineers listened to the company's requirements and developed the specifications for each rack and cabinet, down to the color scheme. While its standard data center cabinets are white, the company specified orange for specific cabinets. The bright color tells network administrators that the equipment is in from the lab for testing in the production environment.

The new four-post rack with fan kits and noise-dampening features is used in the company's lab environment — a converted conference room that houses equipment that mirrors the production network. Because the lab is adjacent to office space, the company needed specialized cooling and noise- control capabilities. DAMAC rose to the challenge and developed a unique product that precisely meets the company's requirements.



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## **Solution Summary**

- Multiple custom-designed cabinets to cost-effectively meet company requirements.
- A deeper cabinet accommodates the larger servers while leaving sufficient room for power strips and cable management.
- Front connecting capability enables the racks to be joined in rows while eliminating the access challenges associated with frame-to-frame screws.
- Shallower cabinet houses cold-spare networking equipment for rapid replacement of failed gear.
- The modified four-post rack provides cabling flexibility along with the ability to control airflow and additional noise-reducing features.
- A custom color scheme makes it easy for administrators to distinguish racks holding test equipment in the production data center.

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