WESCO®

PREFABRICATION SAVES CONTRACTOR

587 MAN HOURS TO MEET DEADLINE ON $4 MILLION PROJECT

CASE STUDY

BACKGROUND: A CYBERSECURITY FIRM EXPANDS AS GLOBAL CYBER BREACHES INCREASE

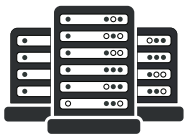
A leading international cybersecurity firm located in Northern California strives to keep its customers protected from cyber breaches. In today's age of global hacks, malicious links, and privacy breaches, the company prides itself on an ability to respond quickly to any customer cybersecurity crisis. This firm must be constantly updating and iterating to stay ahead of hackers.

The best way for this company to meet increasing demand was with strong networks and top talent. In 2015, the cybersecurity firm had plans to move its headquarters location to reduce lead times and attract top talent in Silicon Valley.

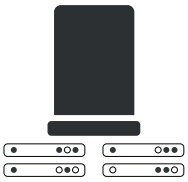
STEPS TO MEETING THE PROJECT DEADLINE

1. Material was staged in Arizona over a two-month period.
2. Kitting and labeling simplified ordering, storage and installation.
3. Package shipments were consolidated to reduce lead times and shipping expenses.
4. Racks were installed in California in a few short weeks.

COORDINATING PROJECT COMPONENTS



745 racks



4-6 components per rack

30 racks per truck

25 truck deliveries

PROBLEM: CAPACITY AND INCREASING DEMAND NECESSITATED AN ADVANCED FACILITY

The company's current facility was at capacity. Looking ahead, the company anticipated steady demand growth as the need for cybersecurity increases. When attacks such as the WannaCry ransomware leave hundreds of companies and millions of individuals vulnerable, the firm needs bandwidth to respond immediately. The California-based company required a headquarters that could handle the work that comes with a global cybersecurity crisis.

The company selected a location in Santa Clara for a new, stylish corporate headquarters location to house its growing workforce and as a talking point for talent acquisition. Investment was put into more lab space and greater research and development capabilities. The facility's lab environment was essential to develop mockups. Downtime isn't an option in cybersecurity, so this project would need to be completed swiftly.

SOLUTION: A DATACOM CONTRACTOR NEEDED LOGISTICAL SOLUTIONS TO DELIVER ON TIME

The cybersecurity company set out to find a contractor that could meet its network needs while still meeting a tight deadline. The firm needed two buildings and labs containing 745 data center server racks built and assembled at their new facility. All of this needed to be completed in only a few weeks.

The company selected SASCO, an electrical and networking contractor in Milpitas, CA, to build the racks. SASCO had the capabilities needed to meet the project needs but had some reservations about the tight project deadline.

WESCO Datacom and Security pitched a logistical and kitting solution to SASCO's executive team outlining strict assembly and delivery deadlines. Working together was the best option SASCO had to meet the cybersecurity firm's expectations.

SASCO was responsible for delivering racks, fiber optic networks, and lab environment equipment. WESCO Assembly and WESCO Datacom and Security brainstormed and shared supply chain best practices with the contractor. It was decided that WESCO would pre-assemble data center server racks with wire management and air containment. WESCO had a facility in Arizona with pre-assembly capabilities. SASCO couldn't gain access to the site until several weeks before the occupancy date, so WESCO would pre-order racking material and start building racks before ground was broken at the firm's new facility. A complete package would then be delivered to the customer's job site.

The project became WESCO Datacom and Security's highest priority; it took precedence over nearly every other order. WESCO and SASCO scheduled to have weekly meetings to make sure that production was done correctly.

WHAT ARE THE BENEFITS OF PREFABRICATION?

Reduced on-site waste

Fewer man hours required

Faster installation

Efficient delivery

RESULT: PREFABRICATION MADE IT POSSIBLE TO INSTALL 800 DATA SERVER RACKS ON TIME

Prefabrication bought SASCO two months of productivity to stage material in Arizona and build it before they had access to the site in California. This dramatically reduced the number of man hours that SASCO had to allocate to the project.

WESCO Datacom and Security brought racks off trucks and SASCO installed them in the cybersecurity company's new building. WESCO coordinated wire management to arrive with the right number based on how many racks were being delivered. They were not unboxed to avoid cosmetic damage – doors were delivered at a later date for the same reason. WESCO arranged for the racks to be offloaded based on how they needed to be lined up for the install. Shipments from WESCO arrived in a timely manner with zero damages. Trucks were loaded correctly and delivered on time.

SASCO saved about .80 hours per rack on the complete build out. The rack build outs included wire management and panels in place with containment pieces installed. Racks were also delivered with third-hole punches in 320 racks. Across the span of the project, SASCO saved approximately 587 man hours.

In total, 745 racks were installed at the company's new location. The installation included $1 million of racks and metals and $500,000 in fiber and services. The total BOM was about $4 million. The project spanned two buildings and several large labs within the buildings.

The cybersecurity firm was most concerned about meeting its deadline. With crippling cyberattacks happening more frequently and without warning, the new headquarters and facility needed to be completed as quickly as feasibly possible. A short deadline was set to get 745 racks installed – thanks to the prefabrication, the deadline was met on time.

A PROVEN SYSTEM

WESCO Datacom and Security worked with a Silicon Valley lab in 2014 to customize a prefabrication solution. Over 250 racks were built to meet a specific delivery schedule and delivered by row or multiple rows. Racks, brackets, wire management, and hardware were consolidated. The solution resulted in reduced on-site waste and labor.