the challenge:

XSite is a leading design-build firm of the modular cable landing stations used by the sub-marine cable industry. Its turnkey approach to data centers and landing stations includes pre-fabrication of the modular buildings off-site in the U.S., shipment of the units to their eventual site, and re-assembly at the project location. According to XSite President, Amy Marks, the firm is always looking for ways to reduce costs to the client both at the manufacturing plant and the eventual destination.

the solution:

As part of a recent project involving multiple cable landing station modules for placement in Brazil, XSite introduced the Prelude XL Max ceiling suspension system from Armstrong® Ceiling Solutions into its process. The suspension system uses threaded rod connections and integrated hanging clips to provide reconfigurable support for overhead cable trays, bus bars, hot aisle containment, and other data center components anywhere along the suspension system face without the need to penetrate the ceiling plane.

Mike Hathaway, XSite Vice President of Operations, explains that the flexibility the suspension system provides is one reason it was introduced. “Technology is constantly changing,” he states. “As a result, clients continually have to move or upgrade equipment. The ability to easily move cable trays along with the equipment without penetrating the ceiling is a huge benefit to the client.”

The system’s load-bearing capability was also a consideration. “Most cable distribution now occurs overhead,” Hathaway says. “Consequently, as facilities get denser, more cabling in an area is needed, resulting in more load on the ceiling. In that regard, the load-bearing capability of Prelude XL Max grid is excellent. Considering the load that can be supported by the system, we were surprised with the flexibility it provides.”

XSite President Marks notes that XSite had used hard ceilings in the past. However, because of current changes in cooling systems, more data centers are now utilizing plenum systems for supply or return. “Raised access floors are also a possibility,” she says, “but we have found it easier, cleaner, and less costly to include a ceiling plenum.”

Looking back on the introduction of the ceiling suspension system to its cable landing stations, Marks adds, “We also consult on prefabricated modular data centers used in other markets such as healthcare, and the suspension system offers the same benefits in these applications as well. As a result, it should be well received.”