



## DATA CENTER DESIGN AND MIGRATION FOR IT EQUIPMENT MANUFACTURER

### CASE STUDY SUMMARY

- Rahi delivered a turnkey solution encompassing data center design, consolidation, implementation of infrastructure and IT products, and migration.
- The new IT data center provides increased operational and environmental efficiencies and reduced costs, in a future-proof design that allows for growth and upgrades.
- The Rahi team completed a tightly coordinated migration project on a tight schedule with no unplanned downtime.
- Rahi's international footprint and logistics capabilities enabled the customer to work with a single vendor for an end-to-end solution across its global operations.

Given the scale of today's IT demands, many organizations are finding that their data center environment lacks the capacity to support continued growth. Physical space, electrical power and cooling capacity are finite. Consolidation efforts can ease these constraints, but it often makes sense to relocate to a new data center facility.

A leading manufacturing of networking equipment had exhausted the capacity of its three production data centers in Bangalore, India, and had insufficient manpower to properly support its geographically dispersed operations. The company decided to consolidate the data centers into one facility that would provide the space for continued expansion as well as greater operational efficiency. The move would also afford an opportunity to consolidate the environment.

However, the company faced difficulty finding vendors with an understanding of highly dense and secure data center environments, as well as the deep technical skills to architect a robust, future-proof solution. The company also desired a solution provider that could offer a heterogeneous, vendor-neutral solution, and deliver products and services to its data centers and engineering labs around the world in accordance with its global standards.

Recognizing the scope of such an undertaking, the company asked Rahi Systems to design the new IT data center facility and handle the migration process. By engaging experts with significant experience in data center infrastructure, as well as project management and global logistics capabilities, the company would be able to complete the project on a tight schedule and with no unplanned downtime.

## SOLUTION

Working with the company to understand its operational workflows and growth projections, Rahi Systems designed the IT data center layout to maximize efficiency and flexibility. Through this process, Rahi helped the company identify opportunities for consolidation, ultimately reducing the number of data center racks by half.

Rahi Systems supplied servers, storage devices, racks and cabinets, and implemented a hot-aisle containment system. The turnkey solution also included power distribution units (PDUs), KVM switches and console servers, cabling infrastructure, environmental monitoring, and automation. The Rahi team established communication between multiple vendors, briefing them on existing challenges and standards, and coordinating project deliverables and timelines.

Implementation of the data center infrastructure was constrained by the construction of the new facility, which took a couple of months. Rahi Systems completed its development of the data center components ahead of the construction schedule, and was ready to deploy the infrastructure when the building was complete. Once the data center components were implemented, the new facility was ready to receive the company's IT equipment.



Next came the migration, which was completed in phases. Working with the company's rack elevations and network design, the Rahi team powered off and unmounted equipment at each existing facility, packed it and moved it to the new data center, then unpacked, mounted, connected, powered on and tested each device.

## RESULTS

The company's existing IT data center contained a total of 200 racks and 2,500 IT devices. By increasing rack density from 3kW or 4kW to 15kW per rack, the new, consolidated facility comprises just 100 racks with ample physical space and power capacity for expansion. Hot-aisle containment and racks with automated sliding doors and intelligent roof panels optimize cooling within the high-density data center.

The new IT data center also relieves network bandwidth constraints. The future-proof network design includes flexible connectivity options that enable the company to scale from 10Gbps to 40Gbps to 100Gbps on the same infrastructure.

The new data center design follows industry best practices, enabling the company to streamline its operations and reduce costs. Rahi aided in the selection of solutions for server console management, serial

console management, and intelligent power and environment management to maximize the productivity of the company's operations team.

The migration was a challenging project that was brought to a successful conclusion through the focused efforts of the Rahi team. The company selected Rahi to execute the project because of its global presence and technical expertise, and those capabilities proved to be instrumental.

"This was a very high priority project for the business and we faced many challenges but we experienced no issues," said the company's IT infrastructure services and operations manager. "It was a wonderful experience working with the professionals at Rahi, who brought the expertise and commitment to see a project of this scope to successful completion."