Manufacturing | United States

Consolidating global IT to transform the way business gets done

With IT operations spread across 83 countries, SMC Corporation standardized on Dell Technologies for improved teamwork and efficiency.

Business needs

A leader in pneumatic technology, SMC Corporation of America provides products to automate manufacturing for an array of industries. With operations in hundreds of locations worldwide, the company turned to Dell Technologies to help build 11 data centers in 12 months — to enhance efficiency and allow teams to better collaborate and innovate.

Business results

- Enables global teams to collaborate and innovate more effectively.
- Allows storage to be added in minutes to ease processing demands.
- Spreads workloads and reduces power and cooling requirements to cut costs.
- Safeguards critical data against ransomware and other cyberattacks.

Solutions at a glance

- Dell PowerScale
- Dell PowerScale OneFS
- Dell VxRail Hyperconverged Infrastructure
- Dell ECS
- Dell PowerScale Cyber Protection Solution
- VMware Cloud Foundation

“VMware Cloud Foundation on VxRail is the gold standard for performance and operational simplicity.”

Jon St. Arnaud
Global Infrastructure Manager, SMC Corporation of America
SMC Corporation is a leader in pneumatic technology, providing products and solutions for advanced automation through automated control technology. The company’s comprehensive product line has vital applications in almost every industry, from automotive to semiconductor manufacturing to life sciences.

Headquartered in Japan — with subsidiaries and joint ventures, 30 production facilities, and hundreds of sales and support offices in 83 countries worldwide — SMC relied on dozens of largely independent IT departments. This made it increasingly difficult to collaborate and innovate. The answer was a global IT environment powered by Dell Technologies solutions.

“We are building 11 new data centers worldwide in 12 months,” says Chris Cerny, global IT manager for infrastructure and architecture at SMC Corporation of America. “We harness this power to bring greater value to how we produce and ship products and deliver results for our customers.”

Efficiency and simplicity

SMC standardized on a hyperconverged IT infrastructure using VMware Cloud Foundation on Dell VxRail. “VMware Cloud Foundation on VxRail is the gold standard for performance and operational simplicity,” states Jon St. Arnaud, global infrastructure manager at SMC Corporation of America. “Plus, migrating was much simpler than we could have imagined.”

Mike Loggins, global vice president of IT at SMC, further explains, “We’re running multiple IT environments from around the world — large-scale supply chain systems, ERP, CRM, and file and email servers. VxRail lets us easily scale, allowing us to add hardware or reconfigure storage or networks for new functionality or capabilities as needed.”

With so many of its applications in the cloud, SMC counts on the versatile hybrid cloud platform to effectively unify and manage both traditional VM- and container-based applications. Loggins says, “Our ability to monitor, manage and control resources never changes, regardless of which cloud an application is sitting in.”

St. Arnaud adds, “We’re also able to quickly spin up private clouds and make them portable across multiple workload domains or even data centers. It’s all so fast and efficient.”

“OneFS on the PowerScale platform allowed us to consolidate and completely change the way we provide services to our organization.”

Mike Loggins
Global Vice President of IT,
SMC Corporation of America
Safeguards critical data against ransomware and other cyberattacks.

Efficient — we simply drop in a new node and minutes later, our servers are where they belong.

One of the biggest benefits is how VMware Cloud Foundation on VxRail lets engineers in Japan, Europe and the U.S. work together on large CAD files and 3D modeling. A virtual desktop infrastructure (VDI) supported by VMware Horizon on VxRail — together with high-performance NVIDIA GPUs — enhances the digital workspace experience for engineers while reducing costs and delivering products faster to customers.

Flexibility and seamless integration

With resource-intensive applications and artificial intelligence (AI) placing enormous demands on its previous storage area networks and network-attached storage devices, SMC turned to Dell PowerScale and Dell ECS enterprise object storage. The Dell PowerScale OneFS operating system integrated seamlessly and provides the flexibility to distribute workloads across clusters or teams based on resource needs and available processing.

“We don’t wind up with 20 or 30 storage pools doing the same thing — and our storage can grow and expand as needed,” St. Arnaud says. “PowerScale and ECS put us in the best position to provide private cloud services anywhere around the globe.”

Loggins states, “OneFS on the PowerScale platform allowed us to consolidate and completely change the way we provide services to our organization — so we can collaborate more effectively and be even more competitive. At one time, we had five file servers in North America alone. With PowerScale and OneFS, we have a single, secure storage platform, and it perfectly complements our backup, recovery and availability strategies.”

Safeguarding vital data

To protect the data that provides its competitive advantage, SMC has implemented secure data-at-rest encryption as well as the Dell Cyber Protection Solution for PowerScale to guard against ransomware and other cyberattacks.

“We chose PowerScale because it enables us to create an air-gapped vault off-site to ensure that our backups aren’t compromised should we ever have to recover from a cyber event,” St. Arnaud explains. “Our data is offloaded to our cyber recovery solution, which goes offline until it’s needed. In addition, we use Palo Alto Networks Prisma Cloud to track communications among our data centers and secure our endpoints all the way back to each data center.”

Looking ahead

As SMC has transformed its IT environment, it has kept a constant eye on sustainability. St. Arnaud states, “To create greener data centers, our new platform delivers the compute density we need while spreading out the load to reduce heating and cooling demands and decrease our carbon footprint.”

Loggins adds, “SMC has been around for 62 years, and we plan to be in business for another 100. Sustainability is an important consideration in everything we do.”

In the future, SMC will look to its partners Dell Technologies and VMware to help drive greater efficiencies, teamwork and innovation with further advances in AI, SAP manufacturing applications, ERP and CRM solutions, NonStop SQL databases and more. “Dell Technologies is a key strategic partner for us,” concludes St. Arnaud. “They ensure we always have the right hardware and solutions at the right time.”