

Improving global supply chain efficiency and industrywide sustainability with multicloud

PSA Corporation accelerates carbon emission reductions and AI development with a centralized, highly scalable multicloud solution from Dell Technologies and VMware.



Business needs

To build the world's largest fully automated port, decarbonize its operations and establish an ecosystem of communities connected with interoperability through a global "Internet of Logistics" (IoL) initiative, PSA Corporation needed a highly scalable and flexible multicloud infrastructure to increase development efficiency.

Business results

-  Accelerates development from months to weeks by giving teams on-demand access to multicloud services.
-  Delivers needed IT performance and reliability with less time and effort.
-  Improves IT scalability and flexibility to support expanding data and software services.
-  Simplifies multicloud management with a fully integrated hyperconverged solution.
-  Enables PSA to reduce its greenhouse gas emissions by 50% by 2030 and reach its net-zero goals by 2050.
-  Advances the global IoL initiative so companies can share applications and data services.

Solutions at a glance

- [Dell VxRail](#)
- [Dell PowerScale](#)
- [Dell Unity XT](#)
- [VMware Cloud Foundation on Dell VxRail](#)



Implementing a multicloud strategy enables the ability to be flexible and agile.

Transforming an industry

To make Singapore a global leader in maritime shipping, logistics and environmental sustainability, PSA Corporation is building Tuas Port — the world's largest fully automated, intelligent and sustainable port. Successful completion of the port required faster development of highly reliable and scalable AI-powered applications as well as other types of services that enable:

- Hands-free container loading and unloading.
- Faster docking times and reduced fuel consumption.
- Supply chain and carbon footprint efficiencies for PSA as well as its suppliers and customers.
- A 50% reduction in PSA's greenhouse gas emissions by 2030 and net-zero emissions by 2050.

Powering innovation with multicloud

To meet its software development goals, PSA required a multicloud infrastructure with greater flexibility and agility than its existing solutions. Not only did developers want faster, easier access to compute, storage and software services, but IT staff also needed to spend less time on manual administrative tasks.

PSA met its requirements by building a software-defined data center (SDDC) that supports its own multicloud solutions. The solution gives employees centralized access to in-house and third-party Software-as-a-Service (SaaS), Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) options — on demand.

Dell VxRail hyperconverged infrastructure (HCI) anchors the foundation of PSA's multicloud solutions and gives administrators the ability to easily configure, monitor and optimize the organization's private and public cloud experiences. The solution includes VMware Cloud Foundation on VxRail as well as compute and network resources, and Dell Unity XT

and Dell PowerScale storage. Using these solutions' built-in management tools and APIs, PSA can seamlessly expand its on-premises infrastructure and add public cloud options as needed. Reusable virtualization components that PSA built with VMware save additional time by giving developers ready-to-go services that are required by a variety of applications.

Sriram Ramanujam, Assistant Vice President of Digital and Community Solutions at PSA Corporation, says, "We're reaping great returns from our multicloud infrastructure powered by Dell VxRail, PowerScale and Unity XT — and the collaboration with VMware on our development components. Our platform teams spend significantly less time supporting infrastructure without compromising speed or reliability. And applications that used to take us months to bring to market now take just weeks."

Advancing the Internet of Logistics

As PSA further develops the Tuas Port, the global supply chain orchestrator is also using its scalable development framework and multicloud solutions to advance an industry-wide supply chain automation initiative it calls the Internet of Logistics (IoL). With an overarching goal of promoting greater collaboration between supply chain providers, IoL enables the sharing of Data-as-a-Service and SaaS offerings that drive global supply chain efficiencies as well as carbon reduction strategies. Vee Leung Ho, Head of Regional I.T. (SEA) at PSA Corporation, says, "Everyone cares about the health of the world, but no single business or government can solve our environmental issues. PSA is uniquely positioned to drive a fundamental change in creating intelligent logistic ecosystems with our multicloud that's built with leading technology platforms from Dell Technologies."



Dell Technologies is a key partner in our transformation and pivotal for the launch of our Tuas Mega Port."

Vee Leung Ho
Head of Regional I.T. (SEA), PSA Corporation

“ Through collaboration, we can make global supply chains more efficient and enable everyone to participate in sustainability efforts that reduce carbon emissions and waste.”

Vee Leung Ho
Head of Regional I.T. (SEA), PSA Corporation



Increasing efficiency, sustainability and revenue

PSA is able to transform global supply chain and logistics operations, while increasing revenue with IoL. Organizations that consume IoL services enjoy fast access to needed data, applications and even infrastructure. For example, PSA quickly developed and deployed a fee-based SaaS offering that trucking companies can use to better understand their operations and improve the services they provide to their clients. Already used by a local trucking company, PSA's commercial SaaS offering runs on a Dell Technologies multicloud solution that uses the same design as the one PSA uses internally. "Increasing insights into global supply chains and logistics is like switching on a light," Mr. Ramanujam says. "People can see where they can speed up processes, reduce waste and optimize asset utilization."

To help accelerate global sustainability efforts, PSA aims to also give consumers greater insights into the carbon footprints of the products they purchase by increasing data sharing through its multicloud and Internet of Logistics strategies. "We all have a responsibility when it comes to sustainability," Mr. Ho explains. "Dell Technologies is a key partner in our transformation and pivotal for the launch of our Tuas Mega Port and intelligent logistic ecosystems. Through collaboration, we can make global supply chains more efficient and enable everyone to participate in sustainability efforts that reduce carbon emissions and waste."

“ We're reaping great returns from our multicloud infrastructure powered by Dell VxRail, PowerScale and Unity XT – and the collaboration with VMware on our development components.”

Sriram Ramanujam
Assistant Vice President of Digital and
Community Solutions, PSA Corporation

[Learn More About Dell Technologies HCI Solutions.](#)

Connect on Social.



DELLTechnologies

vmware®