BROADCOM®

Broadcom Inc., headquartered in Palo Alto, California, is a global infrastructure technology leader built on more than 60 years of innovation, collaboration and engineering excellence.

Industry

IT

VMware footprint

- VMware® Cloud Foundation®
- VMware Professional Services

Broadcom Realizes Value from Private Cloud Three Months After Implementation

Broadcom, a multinational semiconductor and infrastructure software manufacturer, realized the need for a cloud platform accessible to all company employees. Growth through acquisition led to the company having disparate legacy workloads and a mix of public and private clouds. The completed acquisition of VMware in November 2023 prompted the desire to consolidate and stand up a consumption-ready, easy-to-use platform. Broadcom chose VMware Cloud Foundation as the basis of its Enterprise Private Cloud.

Significant data center transformations can take over three years. With VMware Professional Services' expertise, Broadcom reduced its timeline to 12 months and realized value within three months of deployment.

Resilient, highly available infrastructure underpins continued growth

Broadcom bills itself as the business that connects everything, from the mobile device to the data center. The line is a simple one, but it reflects years of relentless hard work, acquisition and innovation from the Palo Alto-headquartered company.

"Today, we probably have the most diverse workloads of any large-scale multinational corporation," says Alan Davidson, CIO, Broadcom.

"VMware Professional Services provided deep technical, operational and implementation expertise to Broadcom IT to build the Enterprise Private Cloud powered by VMware Cloud Foundation."

Mitesh Pancholy, Principal Architect, Broadcom

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BROADCOM SHIFTS TO PRIVATE CLOUD WITH VMWARE

Davidson oversees an IT services team that serves 30 different Broadcom organizations. There are 26 business units and four different functions. Each has hundreds of distinct workloads with diverse characteristics. It is a constant juggle to balance cost, agility, scale and control.

"We've grown through acquisition," Davidson explains. "When you acquire different companies, you get lots of legacy technology and a mixed bag of workloads. What doesn't change is that we need consistent management, a highly available infrastructure and resiliency."

The challenge for Broadcom is to continue its momentum while establishing a common, global platform. Broadcom wants to be faster and more efficient while working toward future growth.

Accelerating the deployment of Enterprise Private Cloud

Although Broadcom uses the public cloud for certain dynamic workloads, Davidson says an on-premises environment provides advantages in terms of cost and control. The group has embarked on a 14-month journey to build its Enterprise Private Cloud. As part of the process, the company will consolidate 41 data centers into seven using VMware Cloud Foundation as the underlying technology.

The strategy supports a constraint-based approach to infrastructure. It controls the cost of managing a complex environment and enables the IT services team to define security and networking policies for each of the 30 organizations within the Broadcom group.

"The end goal of the Enterprise Private Cloud is to go beyond technology and drive a cultural shift. The vision is for VMware Cloud Foundation to empower end users, developers and business unit executives with self-service capabilities. Our goal is to provide infrastructure as a service," says Davidson. "Let our business units, our developers, our employees focus on their work and not the backend."

The key challenge with the introduction of the Enterprise Private Cloud was how the IT services team would evolve from a horizontal line of business to one more vertically integrated and platform focused. The IT team wanted to enable quick execution and move from five different lines of technology to one integrated team. Having multi-tenancy capability was critical to provide segregation between business units and functions.

"We wanted a knowledgeable partner with the technical skills to design and implement VMware Cloud Foundation," says Davidson. "VMware Professional Services was the obvious choice due to its tight integration with the VMware product team and expertise in global execution."

"VMware Professional Services was a critical resource. They enabled us to execute and build the solution the right way. With Enterprise Private Cloud, the time for end users to provision infrastructure is reduced from weeks to minutes."

Trinh Tran, Information Technology Manager, Broadcom

Creating a service catalog for a diverse range of global users

VMware Professional Services provided technical design, deployment and transformation expertise for the Broadcom internal private cloud architecture. The team assessed the group's requirements and infrastructure and counseled the IT team on preparing the environment.

In addition, VMware Professional Services created a service catalog for Broadcom developers and built executive dashboards for utilization insights and reporting. There were also extensive knowledge transfer sessions, resulting in the IT team having the skills to manage the environment moving forward.
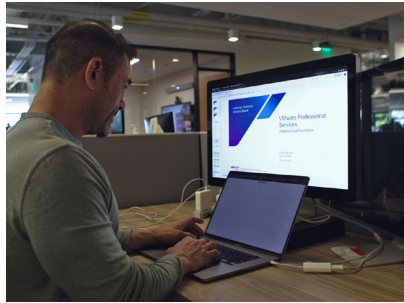
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"VMware Professional Services provided deep technical, operational and implementation expertise to Broadcom IT to build the Enterprise Private Cloud powered by VMware Cloud Foundation," says Mitesh Pancholy, principal architect, Broadcom.

Delivering a seamless user experience

The transformation of the Broadcom data centers has been a resounding success, delivering a seamless user experience and significantly reducing consumption time. In its Enterprise Private Cloud, Broadcom has established a resilient, highly available environment for the entire organization. The company has reduced its underlying infrastructure by 60 percent.

Access to enhanced tools and resources across the group will empower employees to perform their roles more effectively. For instance, developers are free from backend infrastructure tasks such as server provisioning. Additionally, business executives can leverage dashboards for utilization reports.

Speed and simplicity were driving forces behind the successful VMware Cloud Foundation deployment. Working with VMware Professional Services means Broadcom fast-tracks the value of VMware Cloud Foundation. Within three months of defining the solution and preparing the environment, the team deployed the first instance with 300 hosts. This quickly scaled to 2,000 nodes on 20 petabytes of storage, with plans to scale up to 20,000 nodes and over 100 petabytes of storage in the final phase.

"The speed at which we delivered has been something I'm very proud of," says Pancholy. "From when we started to when our first users began consuming and testing was three months."

VMware Professional Services enterprise architects have designed an infrastructure for easy consumption and adoption. Having detailed product knowledge and deployment experience across large and small customer engagements was critical for a project of this scale.

"VMware Professional Services was a critical resource. They enabled us to execute and build the solution the right way," says Trinh Tran, information technology manager, Broadcom. "With Enterprise Private Cloud, the time for end users to provision infrastructure is reduced from weeks to minutes."

"We have probably the most diverse workloads of any large-scale multinational corporation. Our goal is to provide infrastructure as a service. Let our business units, our developers, our employees focus on their work, not the backend."

Alan Davidson, CIO, Broadcom

Further enhancing the developer experience

The common platform enables Broadcom to accommodate diverse workloads and future growth. Davidson says the next phase will focus on enhancing the developer experience and tuning the environment to meet particular needs from specific business units.

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