Presidio, VMware, Dell Technologies & Intel: A Powerful Partnership to Accelerate Your Journey to the Cloud

Presidio helps customers accelerate digital transformation by combining our strategic IT consulting and lifecycle services with a broad portfolio of trusted software and enterprise hardware solutions from VMware, Dell Technologies and Intel.

By leveraging our integrated technologies, services, and engineering teams, we design and implement the secure, hybrid cloud-based solutions organizations need to realize their full potential. Whether its VMware’s innovative technology platforms that deliver consistent infrastructure and operations across data centers and public clouds; Dell Technologies’ suite of products and solutions that protect, manage and support traditional and modern apps wherever they reside; Intel’s innovative technologies that optimize workloads across compute, storage, and network; or some combination of all of three, Presidio can customize a solution. Working together, we help our customers realize better business outcomes in a dynamic and competitive marketplace.

VMware Cloud Foundation™ Your Starting Point for Digital Transformation

VMware’s innovative software forms the digital foundation that powers applications, services, and experiences. Spanning compute, cloud, storage, networking and security, and digital workspace, our software unlocks new possibilities by streamlining the journey for organizations to become digital businesses, deliver exceptional customer experiences and empower employees to do their best work.

It all starts with VMware Cloud Foundation™, the ubiquitous hybrid cloud platform for both traditional enterprise apps and modern apps that provides a complete set of software-defined services for compute, storage, network security, Kubernetes management, and cloud management. The result is agile, reliable, efficient cloud infrastructure that offers consistent operations across private and public clouds.

To manage the logical infrastructure in the private cloud, VMware Cloud Foundation augments the VMware virtualization and management components with powerful tools that automate configuration, provisioning, and lifecycle management. From this same interface, IT administrators can provision new private cloud resources, monitor changes to the logical infrastructure, and manage life cycle and other operational activities.
VMware and Dell EMC have extended VMware Cloud Foundation to include traditional, purpose-built Dell EMC storage systems within VMware Cloud Foundation domains. Additionally, the VMware Cloud Provider program supports a number of leading cloud service providers, including CenturyLink, OVH and Rackspace. VMware Cloud on AWS, powered by VMware Cloud Foundation, is an on-demand service operated, managed and sold by VMware. Additional solutions such as Azure VMware Solution and Google Cloud VMware Engine are also powered by VMware Cloud Foundation.

VMware Cloud Foundation enables data center cloud administrators to provision an application environment in a rapid, repeatable, automated way versus the traditional manual process. Here is a snapshot of its powerful components and features:

**CLOUD FOUNDATION COMPONENTS**

VMware Cloud Foundation delivers a natively integrated software-defined data center stack that includes the core infrastructure virtualization, VMware vSphere®, VMware vSAN®, and NSX-T™ Data Center.

**CLOUD BUILDER**

The VMware Cloud Builder appliance automates the deployment of the entire software-defined Stack.

**SDDC MANAGER**

SDDC Manager automates the entire system lifecycle (from configuration and provisioning to upgrades and patching), and simplifies day-to-day management and operations.

**VMWARE vSPHERE**

VMware vSphere uses virtualization to transform individual data centers into aggregated computing infrastructures that include CPU, storage, and networking resources. VMware vSphere manages these infrastructures as a unified operating environment and provides you with the tools to administer the data centers that participate in that environment.

The two core components of vSphere are ESXi and vCenter Server. ESXi is the virtualization platform where you create and run virtual machines and virtual appliances. vCenter Server is the service through which you manage multiple hosts connected in a network and pool host Resources.

VMware Cloud Foundation™ with VMware Tanzu™, allows you to deploy and operate the compute, networking, and storage infrastructure for vSphere with Tanzu. vSphere with Tanzu transforms vSphere to a platform for running Kubernetes workloads natively on the hypervisor layer. When enabled on a vSphere cluster, vSphere with Tanzu provides the capability to run Kubernetes workloads directly on VMware® ESXi hosts and to create upstream Kubernetes clusters within dedicated resource pools.

**VMWARE vSAN**

VMware vSAN™ aggregates local or direct-attached data storage devices to create a single storage pool shared across all hosts in the vSAN cluster. vSAN eliminates the need for external shared storage, and simplifies storage configuration and virtual machine provisioning. Built-in policies allow for flexibility in data availability.
NSX-T DATA CENTER
The management domain and VI workload domains support the NSX-T Data Center platform. NSX-T Data Center is focused on providing networking, security, automation, and operational simplicity for emerging application frameworks and architectures that have heterogeneous endpoint environments and technology stacks. NSX-T Data Center supports cloud-native applications, bare metal workloads, multi-hypervisor environments, public clouds, and multiple clouds.

vREALIZE SUITE
VMware Cloud Foundation supports automated deployment of vRealize Suite Lifecycle Manager. You can then deploy and manage the lifecycle of the vRealize Suite of products (vRealize Log Insight, vRealize Automation, and vRealize Operations Manager) through vRealize Suite Lifecycle Manager.

VMware vRealize Suite is a purpose-built management solution for the heterogeneous data center and the hybrid cloud. It is designed to deliver and manage infrastructure and applications to increase business agility while maintaining IT control. It provides the most comprehensive management stack for private and public clouds, multiple hypervisors, and physical infrastructure.

VMware Cloud Foundation on Dell EMC VxRail
The Simplest Path to Hybrid Cloud
Continuous innovation and joint engineering across VMware and Dell EMC ensure Dell EMC VxRail, the digital native infrastructure foundation for the Dell Technologies Cloud, empowers customers to unlock innovation, foster operational freedom and evolve predictably.

BETTER TOGETHER WITH FULL STACK INTEGRATION DELIVERS ONE, COMPLETE, SEAMLESS USER EXPERIENCE
Full stack integration with Cloud Foundation on VxRail means both HCI infrastructure layer and VMware cloud software stack lifecycle are managed as one, complete, automated, turnkey hybrid cloud experience greatly reducing risk and increasing IT operational efficiency.

READY, SET, DEVELOP: THE HYPERCONVERGED INFRASTRUCTURE PLATFORM FOR ANY APP, ANYWHERE
VMware Cloud Foundation on Dell EMC VxRail enables organizations to run traditional workloads alongside cloud native container-based applications, eliminating dev-ops silos and sprawl. VMware PKS on Cloud Foundation on VxRail is the optimal choice for customers looking for a transformational, multi-cloud solution to develop, deploy, and host traditional and cloud-native apps on the same hyperconverged platform.
VCF ON VXRAIL: THE TRANSFORMATIVE HYBRID CLOUD SOLUTION

- The only jointly-engineered HCI system with deep Cloud Foundation integration.
- Drives cross-functional collaboration for developers and operators
- Integrated, end-to-end lifecycle management (LCM) ensures clusters are in a continuously validated state.
- **Flexible deployments:** entry-level DTCP to start small and grow, and standard configuration for dedicated workload requirements.
- **Flexible delivery options:** VxRail delivery as appliance or as a VxRail integrated rack
- **Flexible consumption models:** Pay as you grow, as you use it, or as a subscription with Dell Technologies on Demand
- Single point of global support 24x7 through entire lifecycle.
- Cyber resiliency built into the VCF on VxRail stack with additional enterprise-grade data protection solutions for VMs, Applications, and Kubernetes containers.

SIMPLEST PATH TO HYBRID CLOUD WITH CONSISTENT INFRASTRUCTURE AND CONSISTENT OPERATIONS

Cloud Foundation on VxRail delivers a consistent infrastructure and consistent operations with edge, private and public cloud workload deployment options for a true hybrid cloud solution, while allowing businesses to maintain flexibility of networking and topology. For more simplified cloud deployment, Cloud Builder is a standardized automation tool that has been engineered to integrate with VxRail for deploying and configuring Cloud Foundation according to VMware’s SDDC standardized architecture.

INTRINSIC SECURITY AT EVERY LEVEL

Intrinsic security at every layer of the stack ensures unified security and networking policies across the organization and enables organizations to rapidly and confidently identify, protect, detect, respond, and recover. With NSX-T consistent security and networking policies are extended across the infrastructure. Full-stack integrity between VCF and VxRail ensures the ability to rapidly and securely update and patch from one known good state to the next, which is critical in fast paced dev-ops environments.
UNIQUE INTEGRATION FOUND IN NO OTHER VMWARE CLOUD FOUNDATION OFFER
VxRail HCI system software includes unique integration between SDDC Manager and VxRail Manager that combines operational transparency with automation, support, and serviceability capabilities not found when deploying VMware Cloud Foundation on any other infrastructure.

CHOICE OF INFRASTRUCTURE DEPLOYMENT OPTIONS
With VMware Cloud Foundation on VxRail, enterprises now have the choice of flexible infrastructure deployment and networking options by getting VxRail delivered as an integrated rack system with integrated networking or a cluster of appliances that leverages the customer’s choice of network infrastructure.

DELL TECHNOLOGIES CLOUD
Dell Technologies Cloud is the operational hub for your hybrid cloud and includes components of the wider Dell Technologies Portfolio to more accurately meet your business needs, today and in the future. It provides the flexibility of deploying applications in the right cloud – whether in a private cloud that is fully under your control, a public cloud that provides the efficiency of a shared-resource infrastructure, or at the edge so that data can be processed and stored close to its creation. Choose the right approach to suit your business needs and ensure the best experience possible with the only cloud platform on the market that is jointly engineered by Dell Technologies and VMware - based on VMware Cloud Foundation.

A CONSISTENT HYBRID CLOUD EXPERIENCE FOR TRADITIONAL AND CLOUD-NATIVE WORKLOADS
Dell Technologies Cloud Platform provides a consistent hybrid cloud experience for traditional and cloud-native workloads. Deploy, run, and manage Kubernetes for production with productivity and efficiency using Tanzu Kubernetes Grid and deliver consistent, integrated experiences for both traditional and cloud-native workloads.

Modern Applications
LEARN MORE
Visit presidio.com/bigcloud or contact your local Presidio sales representative to learn more.

The Best of Intel® Technologies
Optimize Your Hybrid Cloud for Today and Tomorrow

More and more, Presidio’s customers are seeking flexible, high-performance solutions able to run traditional data analytics and AI applications on-premises or in the cloud. The VMware hybrid cloud platform is able to accomplish this because it combines the best of Intel hardware—including Intel® 2nd Generation Intel® Xeon® Scalable Processors and Intel® Optane™ persistent memory—and VMware virtualization software. With this end-to-end solution, enterprises can run both their traditional data analytics workloads and the AI and machine-learning workloads of the future.

2ND GENERATION INTEL® XEON® SCALABLE PROCESSORS
Today’s modern enterprises are processing ever-increasing amounts of data. They need the compute power that can meet the data-centric demands of analytics, AI, and in-memory database workloads. 2nd Generation Intel Xeon Scalable processors are workload optimized for exactly these types of applications. What’s more, these processors support Intel Optane PMem, which enables affordable system memory expansion.

INTEL OPTANE PERSISTENT MEMORY
Intel Optane PMem represents a new class of memory and storage technology. It is designed to improve the overall performance of the server by providing large amounts of persistent storage with low-latency access.

INTEL® SSD DATA CENTER FAMILY: INTEL OPTANE SSDS AND INTEL® 3D NAND SSDS
To obtain the best performance from VMware vSAN, it is recommended to use high-performance Intel Optane SSDs for the cache layer, while the capacity layer can use large-capacity NVMe-based 3D NAND SSDs. This enables faster caching which means enterprises can affordably and efficiently process bigger datasets to uncover important business insights.

INTEL® NETWORK INTERFACE CARDS (NICS)
To accelerate the performance of the VMware hybrid cloud platform, we recommend using Intel® Ethernet 700 Series network adapters. These Intel Ethernet products deliver validated performance that can meet enterprise-level requirements for data resiliency, service reliability, and ease-of-provisioning.