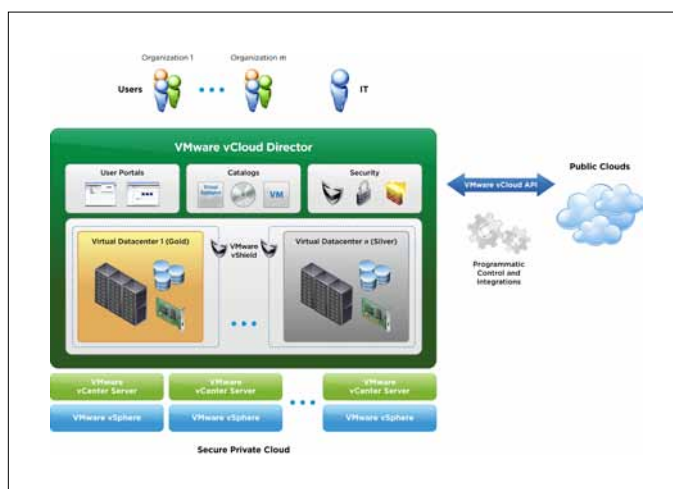# VMware vCloud Director
Build Secure Private Clouds to Deliver Infrastructure as a Service

AT A GLANCE

VMware vCloud™ Director gives customers the ability to build secure private clouds that dramatically increase datacenter efficiency and business agility. Coupled with VMware vSphere™, the best platform for cloud infrastructures, VMware vCloud Director delivers cloud computing for existing datacenters by pooling virtual infrastructure resources and delivering them to users as catalog-based services.

KEY BENEFITS

- Increase business agility by empowering users to deploy preconfigured or custom-built services with the click of a button.
- Maintain security and control over multi-tenant environments with policy-based user controls and VMware vShield™ security technologies.
- Reduce costs by efficiently delivering resources to internal organizations as virtual datacenters to increase consolidation and simplify management.
- Leverage existing investments and open standards to ensure interoperability and application portability between clouds.

VMware vCloud Director lets IT organizations create secure private clouds for delivering IT resources as catalog-based services that users can consume on demand.

What is VMware vCloud Director?

VMware vCloud Director is a software solution that enables enterprises to build secure, multi-tenant private clouds by pooling infrastructure resources into virtual datacenters and exposing them to users through Web-based portals and programmatic interfaces as fully automated, catalog-based services.

By building secure and cost-effective private clouds with VMware vSphere and VMware vCloud Director, internal IT organizations can act as true service providers for the businesses they support, driving innovation and agility while increasing IT efficiency and enhancing security. This solution provides a pragmatic path to cloud computing by giving customers the power to leverage existing investments and the flexibility to extend capacity between clouds.

How Does VMware vCloud Director Work?

Deliver Infrastructure as a Service

VMware vCloud Director enables IT organizations to deliver resources to internal users as virtual datacenters. By logically pooling compute, storage, and networking capacity into virtual datacenters, IT organizations can manage resources more efficiently with complete abstraction between consumption and delivery of IT services.

Instead of providing users or organizations with siloed physical infrastructures, IT teams can deliver isolated virtual datacenters that draw resources from a common physical infrastructure. By pooling these physical resources on the back end, hardware utilization and consolidation increases. Similarly, underlying infrastructure can be pooled into tiers and offered to users at distinct service levels and prices.

Consume Infrastructure as a Service

VMware vCloud Director also changes the way that users consume IT services. Instead of filing service desk tickets and waiting in queues, application and line-of-business owners can utilize self-service portals to access their own virtual datacenters. VMware vCloud Director enables users to consume these resources as a catalog-based service through a Web portal and programmatic interfaces.

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IT teams can define multiple consumption models using the same infrastructure, ranging from capacity-as-you-go to reserved pools. These can be delivered at an appropriate cost model with VMware vCenter™ Chargeback, which helps drive accountability and enables granular usage monitoring. Ultimately, IT organizations maintain control with permissions, quotas and leases governed by role-based access controls that leverage existing LDAP directory services.

How is VMware vCloud Director Used?

In this new model, IT organizations become cloud service providers for the business, achieving the benefits of cloud computing without sacrificing security or control. Users experience unprecedented responsiveness and agility, and IT management can reduce costs through increased consolidation, task automation, and simplified administration. All this is achieved cost-effectively while leveraging existing investments in people and technology.

VMware vCloud Director integrates with existing VMware vSphere deployments and supports existing and future applications by providing elastic standard storage and networking interfaces, such as Layer-2 connectivity and broadcasting between virtual machines.

VMware vCloud Director utilizes open standards to preserve deployment flexibility and pave the way to the hybrid cloud. Through partnerships with a broad ecosystem of service providers offering cloud services based on VMware vCloud Director, customers can extend their datacenter capacity to include secure and compatible public clouds and manage them as easily as their own private cloud.

Key Features

• **Create virtual datacenters** – Virtual datacenters are logical constructs that include compute, storage, and networking capacity to enable complete abstraction between the consumption of infrastructure services and the underlying resources.

• **Support multi-tenant environments** – Administrators can group users into organizations that can represent any policy group, such as a business unit, division, or subsidiary company. Each has isolated virtual resources, independent LDAP-authentication, specific policy controls, and unique catalogs. These features enable secure multi-tenancy and safe sharing of infrastructure.

• **vShield security technologies** – Integrated vShield Edge technologies such as perimeter protection, port-level firewalling, network address translation and DHCP services, offer virtualization-aware security, simplify application deployment, and enforce boundaries required by compliance standards. Upgrading to the full vShield Edge solution adds advanced services such as site-to-site VPN, network isolation, and Web load balancing.

• **Infrastructure service catalog** – Users are empowered to deploy and consume pre-configured infrastructure and application services, such as virtual appliances, virtual machines, operating system images, and other media with the click of a button from central catalogs. This enables IT teams to standardize offerings, simplifying troubleshooting, patching, and change management.

• **Self-service portal** – Users get direct access to their catalogs and virtual datacenters through a user-friendly Web portal.

• **VMware vCloud API and Open Virtualization Format** – The vCloud API is an open, REST-based API that allows scripted access to consume cloud resources, such as vApp upload/download, catalog management, and other operations. The vCloud API makes basic transfer between clouds possible using the open virtualization format (OVF), which preserves application properties, networking configuration, and other settings.

• **Automation and orchestration** – Leveraging the APIs in conjunction with the VMware vCenter™ Orchestrator plug-in and integrations with other orchestration and service management software, administrators can automate routine tasks, build ITIL workflows, and script complex operations with ease.

Find Out More

For information or to purchase VMware products, call 877-4-VMWARE, visit www.vmware.com, or search online for an authorized reseller. For detailed specifications and requirements, refer to the product documentation.