VMware vCloud Director
Deliver Infrastructure as a Service with Security, Extensibility, Portability and Control

VMware vCloud™ Director gives customers the ability to deliver infrastructure on demand so that end users can consume virtual resources with maximum agility. Extensions, APIs and open cross-cloud standards enable vCloud Director customers to integrate with existing management systems and provide the flexibility to migrate workloads among different clouds. Datacenters can be consolidated and workloads can be deployed on shared infrastructure with built-in security and role-based access control.

BENEFITS

- Accelerate end user time-to-market by enabling intelligent virtual machine provisioning across VMware vSphere® clusters with on-demand access.
- Ensure secure isolation and enforce control with policy-based user controls and VMware vShield™ security technologies.
- Increase datacenter flexibility by using open standards for interoperability and application portability between clouds.
- Decrease costs by consolidating infrastructure and delivering resources as configurable, easy-to-manage virtual datacenters.

VMware vCloud Director enables IT to create secure hybrid clouds for consolidating clusters of virtual resources and delivering those resources on demand.

What Is VMware vCloud Director?

VMware vCloud Director enables customers to build secure, multitenant hybrid clouds by pooling infrastructure resources into virtual datacenters. and enabling those resources to be consumed by users on-demand. vCloud Director pools datacenter resources, including compute, storage and network, along with their relevant policies into virtual data centers. Fully encapsulated multitier virtual machine services are delivered as vApps, using the Open Virtualization Format (OVF). End users and their associated policies are captured in organizations. With programmatic and policy-based pooling of infrastructure, users and services, VMware vCloud Director enforces policy intelligently and creates unprecedented flexibility and portability.

By building secure and cost-effective hybrid clouds with vSphere and VMware vCloud Director, IT organizations can become true service providers for the businesses they support, driving agility and efficiency with confidence and control.

How Does VMware vCloud Director Work?

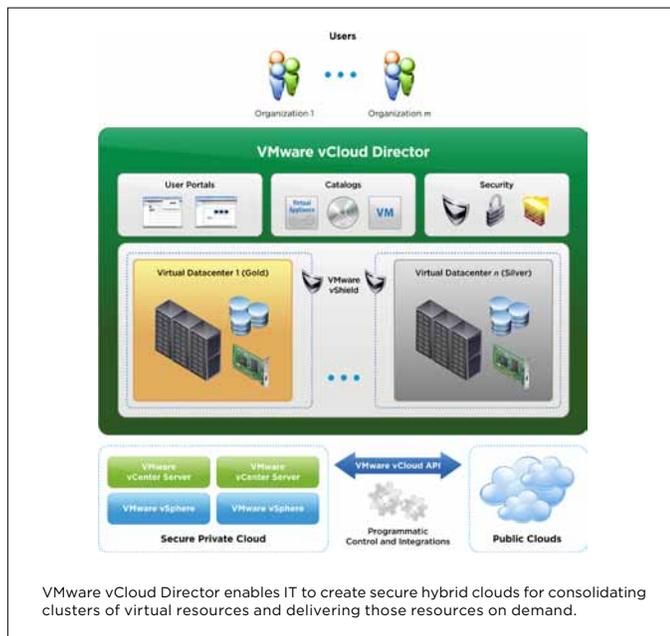### Deliver Infrastructure as a Service
VMware vCloud Director pools infrastructure resources across clusters into policy-based virtual datacenters. Integrating with existing vSphere deployments and extending capabilities such as VMware Distributed Resource Scheduler (DRS) and VMware vNetwork Distributed Switch, VMware vCloud Director provides elastic compute, storage and networking interfaces across clusters.

By logically pooling infrastructure capacity into virtual datacenters, IT can manage resources more efficiently by separating the consumption and delivery of IT services.

Enable Portability of Services
VMware vCloud Director leverages open standards such as the vCloud API and OVF so that administrators can package and migrate workloads across clouds. By encapsulating multi–virtual machine services and associated networking policies in vApps, end users of one cloud can easily share services with one another, and IT can easily migrate services between clouds with ease.

End users and IT can now manipulate services as flexible and portable units rather than have services be locked in to a specific deployment environment.

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Consume Infrastructure as a Service

End users can deploy services and consume resources on demand through a Web portal and programmatic interface. IT can utilize multiple resource allocation models for the same shared infrastructure, ranging from pay-as-you-go to a fixed reserved pool. Service deployment can be metered and monitored with VMware vCenter™ Chargeback, ensuring accountability for resource usage. Ultimately, IT maintains control with permissions, quotas and leases governed by role-based access controls based on existing LDAP directory services.

Instead of filing service desk tickets and waiting in long queues, end users are given rapid, controlled access to virtual machines in a matter of minutes.

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. End users with rapid and transient requirements for virtual infrastructure, such as testing and development, demo users, or trainees, experience unprecedented access to virtual infrastructure.

IT can also reduce costs through increased consolidation, task automation and simplified administration. By pooling resources, services and users into policy-based abstractions, IT can increase datacenter's flexibility without compromising control.

VMware vCloud Director uses open standards to preserve deployment flexibility between private clouds or with a hybrid cloud. Through partnerships with a broad ecosystem of service providers offering VMware vCloud Datacenter Services, 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 of VMware vCloud Director

Virtual datacenters
These logical constructs include compute, storage, networking capacity and associated policy to enable complete abstraction between the delivery of infrastructure services and the underlying resources.

Security
Integrated vShield Edge technologies such as perimeter protection, port-level firewalls, 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.

Fast provisioning
Unique VMware Linked Clones technology accelerates cloning of base vApps into child vApps by storing only changes made by children and reading all other data from the base. IT saves on storage, and end users of cloned applications enjoy significant speed of provisioning.

vApp catalog
Users are empowered to deploy and consume preconfigured infrastructure and application services, such as virtual appliances, virtual machines and operating system images, with the click of a button from central catalogs. This enables IT teams to standardize offerings, simplifying troubleshooting, patching and change management.

Organizations
Administrators can group users into organizations with associated policies that can represent any unit of consumption, such as a development team, business unit or division. Each organization can be granted isolated virtual resources, independent LDAP authentication, specific policy controls and unique catalogs. These features enable secure multitenancy and controlled sharing of infrastructure.

Self-service portal
Users have direct access to their catalogs and virtual datacenters through a user-friendly Web portal.

VMware vCloud API, OVF, and custom extensions
The vCloud API is an open, REST-based API that allows scripted access to cloud resources, such as vApp upload and download, catalog management, and other operations. The vCloud API makes basic transfer between clouds possible using OVF, which preserves application properties, networking configuration and other settings. Custom extensions enable VMware vCloud Director to send outbound messages to other integrated systems.

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.

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