

# VMWARE VCLLOUD DIRECTOR

## The Leading Cloud Management Platform for Cloud Providers

### AT A GLANCE

VMware vCloud Director is VMware's flagship Cloud Management Platform for Cloud Providers. VMware vCloud Director 9.5 enables easy and intuitive cloud provisioning and consumption, and has built-in services such as data protection, disaster recovery, multi-site management and more. vCloud Director enables Cloud Providers to deliver differentiated cloud services on their VMware cloud infrastructure and provides enterprises a self-service cloud.

### KEY BENEFITS

- vCloud Director modernizes the provider cloud by up-leveling from rudimentary vSphere hosting to a full-fledged cloud experience with on-demand elasticity
- Delivers next-gen hybridity and security with Cross-VDC networking and NSX-T integration (initial phase)
- Enables multi-tenancy and automation by intelligently pooling and allocating resources through automated workflows and creating an efficient and optimized cloud provider environment
- Extends the platform to develop and integrate custom-built 3rd-party services for a richer cloud experience
- Helps cloud providers offer differentiated and value-added services
- Delivers the best of underlying VMware technologies through full compatibility with core VMware SDDC technologies exposed in a policy-driven approach

### What is VMware vCloud Director?

VMware vCloud Director is VMware's flagship cloud management platform for Cloud Providers. It forms the management plane of the Cloud Provider Platform and in its latest iteration, vCloud Director 9.5 builds on its previous updates by introducing:

- Cross-site networking improvements
- Full transition to an HTML5 UI for the cloud consumer
- Improvements to role-based access control
- Initial integration with NSX-T for NFV applications

vCloud Director allows seamless provisioning and consumption of VMware resources in a cloud model. It offers all capabilities of the VMware SDDC, along with cloud provider-specific features such as multi-tenancy, elasticity, self-service, platform extensibility and containers - all in an intuitive, modern UI. Cloud Providers use vCloud Director to stand up differentiated and value-added offerings, making them the most capable candidates to host vSphere-based workloads in the Cloud. vCloud Director is available to all Cloud Providers through the VMware Cloud Provider Program.

### What are the key features of VMware vCloud Director?

- **Multi-tenant Resource Pooling:** easily create virtual datacenters from common infrastructure to cater to heterogeneous enterprise needs. Policy-driven approach ensures enterprises have isolated virtual resources, independent role-based authentication and fine-grained access control.
- **Multi-site Management:** stretch data centers across sites and geographies and monitor these resources across sites from a single pane of glass.
- **3rd-party ISV Services:** vCloud Director has an extensible UI that can be leveraged by 3rd-parties and Cloud Providers to natively integrate and publish services on the vCloud Director UI. For example, Dell EMC Avamar has natively integrated their Data Protection capabilities right onto the vCD UI.
- **Datacenter Extension and Cloud Migration:** enable simple, secure VM migration and data center extension with vCloud Director Extender. Allows for true hybridity, enterprise-driven workflows, seamless connectivity and cold or warm migration options.
- **Operational Visibility and Insights:** refreshed dashboard for centralized multi-tenant cloud management views. Leverage vRealize Operations' native integration with vCloud Director using advanced analytics, chargeback and more for deep visibility into enterprise environments.
- **Containers-as-a-Service:** vCloud Director provides an easy on-ramp for enterprises, by delivering containers and VMs in the same virtual datacenter and faster time-to-consumption for Kubernetes, using the Container Services Extension.

- **Chargeback:** vCloud Director provides visibility into virtual machine costs and chargeback accountability for self-service. Cost transparency and accountability to understand actual cost of virtual infrastructure required to support business services.
- **Data Protection and Availability:** natively integrated with vCloud Director, vCloud Availability makes it easy for cloud providers to run data protection offerings compatible with enterprise environments. Moreover, Cloud Providers can now add multi-tenant self-service data protection by integrating Dell EMC Avamar into your vCloud Director instance.
- **Workflow Automation:** vRealize Orchestrator natively integrates into vCloud Director, enabling cloud providers to automate complex workflows and deploy a variety of services such as ticketing, service queries and more, all while maintaining access control and visibility to the enterprise and cloud provider.

### What are the key benefits of vCloud Director for the Cloud Provider?

- **Operational Efficiency:** vCloud Director delivers secure, isolated-but-fluid resource pools to teams and organizations by enabling rapid SDDC provisioning, SPOG management and self-service capabilities.
- **Monetization:** vCloud Director enables Cloud Providers to spin up new services using vRO workflows or leverage natively-integrated service capabilities to deliver more value to the enterprise customer.
- **Differentiation:** vCloud Director provides an open platform for DevOps teams and carries the 'Cloud Verified' certification, which marks the most elite and differentiated VMware Cloud providers in the world.

Other benefits include the following:

- **Ability to Offer Next-Gen Hybridity and Security with Cross-VDC L2 Networking and Initial NSX-T Integration:** improved integration with NSX enables Cloud Providers to pre-configure datacenter connections and eliminate L2 VPN manual configurations. Enterprises can stretch networks across org virtual datacenters in different vCenters across different sites. vCloud Director delivers higher throughput and lower latency for NFV workloads powered by initial integration of NSX-T.
- **Ability to Open Up to Developers:** With increased agility for DevOps with SDK and programmatic interfaces, cloud providers can attract enterprise programmers to build and automate services, customize org experiences, and provision next-gen workloads on their familiar vCloud Director environment.
- **Improved Customer Satisfaction:** vCloud Director 9.5 expands adoption of HTML5 on the provider and enterprise portals including UIs for user management, RBAC management and org management. The easy-to-implement improved UI lowers barriers to adoption and improves user experience for Cloud Providers and enterprises.
- **Ability to Integrate Services:** vCD 9.5 enables cloud providers to integrate custom ISV services with a comprehensive REST API and UI Extensibility for a diverse services portfolio to differentiate your offering.
- **Simplified User Experience:** single pane of glass visualization of entire cloud environments. Cloud providers now have visibility into any part of their environment at any time.




- **Optimal Use of Datacenter Infrastructure:** with multi-tenancy and automation built for the Cloud Provider, vCloud Director provides efficient and optimized multi-tenant environments through intelligent pooling, resources allocation and complex workflow automation.
- **Data Protection:** vCloud Director integration with Dell EMC Avamar provides a single cloud management end-point for virtual datacenters, offering self-service data protection through an extended enterprise portal UI and REST API. Delivers high performance with a scale-out architecture and low operating costs with industry-leading de-duplication.
- **Redesigned Full Governance of Roles:** help Cloud Providers reduce administrative work and IT support, maximize operational efficiency and improve compliance. Simplified access control provides a consistent and intuitive rights model that's easy to understand and can be changed as the needs of your enterprise evolve.
- **Differentiated and Value-added Services:** allow third parties to develop and integrate custom-built services onto a common platform and expose them to enterprises for consumption, resulting in a richer cloud experience. Optimize and extend your environment for differentiated, value-added services offerings for the fastest, easiest path to service monetization and revenue realization.

### What are the key benefits of vCloud Director to the Enterprise customer?

- **VMware Cloud-as-a-Service:** consume turnkey cloud services, including the full VMware Software-Defined Datacenter, as a service from a trusted VMware Cloud Provider
- **Easy-to-Provision and Easy-to-Consume VMware Cloud Resources:** experience a single access point for all your virtual datacenters via an intuitive HTML5-based user interface. Enjoy easy, self-service consumption and provisioning of cloud services, including 3rd-party services through a single pane of glass. Leverage simplified workflows, APIs including container services extensions to orchestrate Kubernetes clusters, and programmatic interfaces such as CLI and Python SDK for DevOps agility.
- **Easy Workload Migration Across Virtual Datacenters:** cross-VDC networking enables easier migrations across virtual data centers
- **Fast Path to Hybrid Services:** vCloud Director provides a feature-rich, self-service and modern cloud environment that enterprises know and trust for a full-fledged private or public cloud experience with on-demand elasticity, streamlined on-boarding and hybrid cloud operations

### What's new in vCloud Director 9.5?

vCD 9.5 Enables Cloud Providers to:

 <p><b>Simplify Networking</b></p> <p>With X-VDC L2 Networking and NSX-T Integration</p>	 <p><b>Simplify User Experience</b></p> <p>With a full HTML5 Experience for Provider and Customer</p>	 <p><b>Simplify Operations</b></p> <p>With Intuitive Access Control and Rights Distribution</p>
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For information or to purchase VMware products:

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877-4-VMWARE,

#### VISIT

<http://www.vmware.com>,

or search online for an authorized reseller. For detailed specifications and requirements, refer to the product documentation.

### Deeper Integration with NSX

- Integrated into vCD: universal transport zone, universal logical switch and universal logical router now integrated into vCD
- Local egress is supported, active-active or active-standby
- Stretch L2 network across org VDCs in different vCenters/PVDCs in the same site and across different sites
- Each network can be stretched across up to four Org VDCs
- IP address management (static and DHCP) for cross-VDC networks

### Initial Integration with NSX-T

- NSX-T and NSX-V managers in the same vCD instance
- Regular vSwitch and DPDK vSwitch (ENS) for VLAN and Overlay
- Directed connected network (imported from NSX-T logical switch)
- Provider Virtual Datacenters allow clusters of hosts with and without ENS

### HTML5 UI

Complete tenant user experience, including:

- User Management
- RBAC Management
- Organization Management
- Expanded Provider Portal
- RBAC Management
- Organization VDC Management

### Improved RBAC

- Cascading levels of access
- Implement a flat, consistent, intuitive set of rights