Completely New to vCloud® (IaaS)?
New User’s Overview Guide
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Introduction

The global leader in virtualization, VMware’s vCloud solution enables firms to realize value while reducing risks. The vCloud Product Family and vCloud Datacenter Services are a part of the vCloud VMware solution that assists organizations by providing enterprise-ready environments, compatibility with existing IT investments, and the freedom to move between public and private clouds. Now you can build a cloud to suit your particular IT goals, providing the ultimate in flexibility and utilization of your resources.

About Cloud Computing

Cloud computing is an approach to computing that pools or aggregates IT infrastructure resources. Using Infrastructure-as-a-Service (IaaS), through cloud computing, gives you a more efficient, flexible and cost-effective infrastructure. Clouds typically include a set of virtual machines (“VM’s”). A virtual machine is an isolated software container that can run its own operating systems and applications as if it were a physical computer, and contains its own virtual (i.e., software-based) CPU, RAM, hard disk and network interface card (NIC). Users can start and stop Virtual Machines or use compute cycles, as needed. Clouds can be on-site (commonly referred to as ‘Private Clouds’), with a Service Provider (‘Public Cloud’), or a combination of the two (‘Hybrid Cloud’).

The vCloud Difference

Enterprise Ready
- Proven robust platform
- Policy-based management, SLA, security, high availability for the cloud

Choice
- Across internal and external clouds
- Broadest ecosystem of service providers

Broad Application Compatibility
- Optimized for new and existing applications
- No need to rewrite or reimplement your applications
The main components of the VMware vCloud Suite Standard include vSphere, vCloud Director, and vCloud Connector. These components provide an integrated solution for building and managing a complete cloud infrastructure. They work together to build a software-defined datacenter pooling hardware and running each layer of the datacenter as software-defined services. The pools of servers, storage and networking that are created can be dynamically configured for security, availability and management. The solution also provides a built-in self-service portal, catalog, policy-based infrastructure, application provisioning and automated operations management.

**What is vSphere?**
VMware vSphere® is the industry-leading virtualization platform. It enables users to run business critical applications with confidence, and respond to business requirements faster, while operating at the lowest possible cost. The vSphere platform allows you to transform your IT infrastructure into a private cloud and together with vCloud Connector provide a bridge to public clouds.

**What is vCloud Director?**
VMware vCloud Director is a software solution that transforms your existing vSphere infrastructure into a consumable, self-managed, web-based service. It orchestrates the provisioning of software-defined datacenter services to deliver complete virtual datacenters for easy consumption in minutes. Software-defined datacenter services and virtual datacenters fundamentally simplify infrastructure provisioning and enable IT to move at the speed of business.

**What is vCloud Connector?**
VMware vCloud Connector allows you to view, operate on, and transfer your computing resources across vSphere and vCloud Director in your private cloud environment as well as public clouds from vCloud Service Providers. Using a "single pane of glass" management interface, you can extend your datacenter and move VMs, vApps, and templates as needed. Cloud resources can be consumed with confidence while running development, QA and production workloads using VMware technology-based public clouds.
The VMware Cloud Evaluation

A VMware Cloud Evaluation is the best way to experience how VMware’s vCloud technology can scale your enterprise-class infrastructure capacity within minutes without the need to purchase the additional capacity as a capital expense. The evaluation also provides the opportunity to learn how easy it is to administer workloads between environments of choice.

While using the evaluation you’ll find an extremely flexible, on-demand, self-service public cloud sandbox that allows for easy migration of workloads between your existing private datacenter or cloud environment, the VMware Cloud Evaluation, and VMware’s ecosystem of service providers.

To help get you started VMware is providing a 90-day trial of the VMware Cloud. The 90-day trial includes the following starter cloud resources at no charge:

- Up to two VM’s (virtual machines) with one CPU each
- Each of the above VM’s may be provisioned with Linux or Microsoft Windows OS
- Each of the above VM’s is provided with 50 GB of disk usage
- Memory resources up to 2 GB of RAM

What You Need to Get Started with the Evaluation

**Browser** – The evaluation works best with Microsoft Internet Explorer 7 or higher or Firefox 3 or higher. It is recommended to use the latest version of Internet Explorer. Users should also ensure that scripting is enabled.

**VMware vSphere or vCloud Director** (optional*) – To get the most from your evaluation experience and to be able to migrate workloads, you should have VMware vSphere (versions 4.0, 4.1 or 5.0) or vCloud Director (1.x or 5.x) installed in your datacenter. If you are not currently a vSphere user you can download a trial version of the software at [www.vmware.com/try-vmware](http://www.vmware.com/try-vmware)

* If VMware vSphere or vCloud Director is not installed in your environment you can still experience the public cloud, but will not be able to migrate workloads between your datacenter and the cloud using vCloud Connector. If you have multiple Public VMware vCloud-based environments you are able to migrate workloads between the two.

Connecting Your Cloud

With vSphere installed and managing your on-premise virtualizations you are able to transfer workloads or applications and templates between the VMware Cloud Evaluation, other clouds and your private cloud/datacenter using vCloud Connector.
Enjoy the Easy-to-use, Enterprise Class Cloud Evaluation that Keeps Choice and Control in Your Hands.

**Easy-to-use**

- **Simple Sign-up** - Get starter cloud resources with just your name, company, email and verification phone number. No credit card required at sign-up.

- **Free 90-Day Evaluation** – Free use of starter cloud resources includes 2 CPUs, 2GB memory, drive space and choice of Windows or Linux OS. Easily upgrade to a paid premium account for unlimited click-to-buy cloud resources.

- **Compatible** – Bring workloads into the environment with no rewriting from either vSphere or vCloud Director. Retain existing operating system and application stacks. Workloads “just work” alongside all the tools, processes, and scripts already developed in-house.

**Enterprise-class**

- **Superior infrastructure** – with direct access to the advanced features of vCloud Director and an environment that includes Cisco’s UCS platform.

- **Scalable** - As your business needs change and grow, you can easily scale your workloads to and from any other vCloud powered private and hybrid cloud solutions.

**Choice and Control**

- **Workload Migration** - VMware vCloud Connector allows you to view, operate on and transfer your computing resources across vSphere and vCloud Director in your private cloud environment as well as public clouds from vCloud service providers.

- **Secure** - Our state-of-the-art top tier data center facilities ensure your cloud evaluation is backed by strong security.
When you get started with the VMware Cloud Evaluation, you will be using an enterprise-class public cloud that offers you:

- **vApps** - We provide a library of pre-built vApps from shared templates or create your own. vApps (or “Virtual Appliances”) are a grouping of virtual machines that allow you to start, stop, reboot and even destroy your virtual machines with just a click or two.

- **Bandwidth** – The VMware Cloud Evaluation offers unlimited inbound bandwidth, and free outbound bandwidth up to 1TB.

- **IPs** – We offer a pool of public and private IP addresses.

- **OS Templates** – We provide both Windows and Linux OS.

- **Application Templates** – We include a suite of application templates that greatly simplify development and testing of popular web applications. Many application templates are available including popular applications such WordPress, Drupal, Ruby on Rails and LAMP.

- **API** - The vCloud API is your interface to building new management solutions and integrating existing ones with VMware cloud infrastructure.

- **Redundancy** - If hardware that is powering your VMs fails, your VMs will be automatically moved to a new set of resources, regardless of operating system or underlying hardware configuration.

- **Distributed Resource Scheduler (DRS)** – DRS enables your cluster to be properly balanced with the workloads running upon it. DRS automatically keeps physical hosts and clusters running smoothly by moving workloads off if they can be better used on different ‘less busy’ hosts.

- **vCloud Networking & Security** - VMware vCloud Networking & Security Edge firewall control is built in, so no need to add a 3rd party firewall.

- **Snapshot Capability** - Ability to take a snapshot of a single virtual machine or an entire vApp. Snapshots allow users to revert back to how the environment was at a particular point in time such as reverting to a baseline configuration, recovering from a failed patch attempt, and supporting testing or training evolutions. This advanced feature is available through your vCloud Director tab.
Use Cases in the VMware Cloud Evaluation

What Can You Do with Your Evaluation?

Deploy a VM
Using the 90-day trial starter cloud resources experience how quickly and easily you are able to deploy a VM (virtual machine) with either a Windows or Linux OS.

Deploy a VM with an Application Template
The VMware Cloud Evaluation provides a library of application templates to deploy applications such as WordPress, Drupal, LAMP, and Ruby on Rails. You can use the how-to guides located in Knowledge Base on the Help Desk tab of your VMware Cloud Evaluation to install, run and test an application of your choice in the cloud.

Run a Workload, Application or Your Own Template on a Deployed VM
You can use the VMware Cloud Evaluation to

- Test the hybrid cloud deployment
- Set up a development and testing environment
- Build out a cloud to evaluate for datacenter overflow or seasonal loads
- Offer a low-touch web service for employees
- Migrate repetitive workloads and templates

Note: If you have VMware vSphere installed you can use the free download of vCloud Connector to migrate workloads from your datacenter or private cloud to the cloud evaluation. Download a free trial version at www.vmware.com/try-vmware

Importing Workloads

If your workload is not housed in a VMware based environment you can still import your data and applications using OVF. Many 3rd-party virtual environments support the export of workloads to OVF. If a vendor does not support exporting workloads to OVF for offline transfer, there are tools freely available on the web for converting and exporting workloads from virtually all 3rd-party hypervisors.
Access your cloud through the “VMware Cloud Evaluation Console” at vcloudservice.vmware.com. This console is an example of a customized user interface based on vCloud technology. After logging in the console you can begin to configure your cloud using the 90-day trial resources.

Enjoy a turnkey experience by deploying VMs or application templates in a matter of minutes. With VMware Virtual Appliances or vApps, you have the ability to provision multi-tier applications without manual configuration. vSphere users are able migrate workloads between their datacenter or private cloud to the public cloud using vCloud Connector. All users will have access to application templates such as WordPress and Ruby on Rails that can be deployed using the evaluation.
Getting Started with the VMware Cloud Evaluation

To ensure you are ready to use your VMware Cloud Evaluation to test workload migration with your other vCloud environments and private clouds, you will need to leverage either the Simplified Interface or vCloud Director with the capabilities of vCloud Connector.

Creating your Cloud
The Simplified Interface is a quick, easy-to-use way for a novice to begin creating their cloud. We encourage users who are new to vCloud IaaS to begin in the simplified interface, while simultaneously beginning training on vCloud Director. The Simplified Interface is an example of a custom interface that can be built with the vCloud Director API.

More advanced users may choose to work directly within vCloud Director. More information on vCloud Director can be found here: vmware.com/support/product-support/vcloud-director.html
Working with the VMware Cloud Evaluation

Once your account is created, it’s time to **start deploying VMs:**

After you log into [vcloudservice.vmware.com](http://vcloudservice.vmware.com)
1. Click the “Add a New Server” button on the “My Cloud” tab
2. Name your server (“Server Label”)
3. Choose from one of our preconfigured templates, or use one of your own
4. Choose the amount of resource your VM requires
5. Click “Add New”

The last step is to **install vCloud Connector** to migrate data between your public and private cloud environments.

Please review this guide for details about each step: [download3.vmware.com/vcloud_assets/Doc/PDF/MovingCloudWorkloads-vCC.pdf](http://download3.vmware.com/vcloud_assets/Doc/PDF/MovingCloudWorkloads-vCC.pdf)

1. Deploy and configure the vCloud Connector Node within the VMware Cloud Evaluation
2. Download the vCC Server and/or Node OVF files from the ‘vCloud Connector’ page located [here](http://example.com)
3. Deploy and configure a vCC Server and/or Node within your private cloud or vSphere environment
4. Use vCC Interface to migrate data between clouds

*Note: vCloud Connector (vCC) requires VMware vSphere. Only 1 vCC Server is required across all clouds, but every environment requires a vCC Node.*
Selecting a Cloud Service Provider

After experiencing the VMware Cloud Evaluation Program, you may now be ready to select a vCloud service provider. There are many different service providers that offer different types and levels of services. To help prepare for your selection process consider the following questions:

**Type of Service**
- Do I want a raw, self-managed VM or a managed service?

**Ability to Scale Up & Down**
- What if I need to increase or decrease my capacity?

**Performance Requirements**
- What level of guaranteed uptime and recovery time (SLA) do I need for my applications?

**Data Security and Compliance**
- Where is my data actually stored? Is it encrypted? Who has access?
- Can I get audit controls for regulatory compliance (e.g. ISO 27001, SAS 70 Type II)?

**Payment Model**
- What type of payment model will is preferred “Pay per use” or subscription?
- Is an Instance-based or resource pool type preferred?
vCloud Service Providers

The network of vCloud Service Providers can provide you with a production-ready vCloud Powered service, complete with custom SLAs, geographic choice and supporting engineering services. Choose from the following service types:

- **vCloud Datacenter Service**: vCloud Datacenter is a globally consistent cloud service built on VMware cloud infrastructure offered through certified VMware Service Providers. vCloud Datacenter delivers guaranteed performance and uptime and auditable security and compliance.

- **vCloud Powered Service**: VMware vCloud Powered services are a broad array of on-demand, secure, VMware-compatible infrastructure clouds delivered by VMware service providers for any business need.

Explore our full list of vCloud service providers: [vcloud.vmware.com/partners/vspp](http://vcloud.vmware.com/partners/vspp)
Resources

VMware Cloud Evaluation Resources
Find help and resources under the Help Desk tab of your VMware Cloud Evaluation

- Read our How-to Guides and other information sources to find answers on your vCloud Service and VMware topics.

vCloud Director
vmware.com/products/vcloud-director/overview.html

- View product demos, datasheets, and case studies to learn more about the full capabilities of vCloud Director.

vCloud Connector
vmware.com/products/datacenter-virtualization/vcloudconnector/overview.html

- Download Connector, review our FAQ, and find other resources to help you understand the possibilities with vCloud Connector.