VMware Cloud Director Availability™ 4.0

The Natural Partnership

AT A GLANCE

VMware Cloud Director Availability offers simple, secure, and cost-effective onboarding, migration, and disaster recovery as a service (DRaaS) to or between multitenant clouds.

KEY BENEFITS

SIMPLE OPERATION

A converged solution with simplified recovery workflows, unified management and onboarding using familiar tools. Fully integrated with VMware Cloud Director providing intuitive and efficient DRaaS capabilities.

Simple customer driven deployment and configuration on-premise to self-service access protection and recovery for vAPPs and VMs. Whilst providers can manage tenant bandwidth, compute / storage capacity and service stability through integrated events to their operational systems

SIMPLE CONSUMPTION

All tenants have different workload criticality and expectations of a DRaaS Service. Cloud Providers can provide tailored DR capabilities as options to tenants to choose to protect a workload. With many complexities removed, it is simpler to protect and hence drive consumption of the service.

Tenants can consume more storage and services by storing longer term replicants for fast retrieval outside of the normal DRaaS cycle, driving more convenience and longer age of recovery.

API functionality has been extended to enhance coverage of the swagger API functions available, brining more into the public specification to encourage automating DRaaS

INTEGRATED SOLUTION

The service is fully integrated with VMWare Cloud Director, now in-content protection status and jobs can be run without going into VMware Cloud Director Availability.

NSXT-2.5.0 and 2.5.1 are now integrated with VMware Cloud Director Availability, aligning with the direction that VMware Cloud is taking with NSX.

Operationally things are now easier with integrated syslog output that can send systems status and tenant issues directly to a syslog server for processing.

Key Features and Capabilities in 4.0

Full Onboarding and Migration

- Managed onboarding and DR as a service for on-premises to cloud, and cloud to cloud scenarios.
- Seed on-boarding / Migration jobs and delay initial seed start times to office out of hours to minimize bandwidth affects
- Accurately understand correct capacity storage and compute needed for failover at target site to ensure service will have enough resources and assist with resource planning.
- Control over NIC and bandwidth configuration in on-premise replicator appliance assisting customers with complex networks and expensive bandwidth.
- Automatic disk resizing reconfiguration for DR to accept the new size without any manual intervention, ensuring operational changes are 'absorbed' in the solution without impacts on DR coverage.
- Provide self-service 'cold' or 'warm' VM migration from on-premises to cloud, cloud to on-premises, or vApp and VM migrations cloud to cloud between VMware Cloud Director instances.
- Automate the inventory collection of an organization's vDCs', unprotected and protected vAPPs, underlying VMs, storage profiles, and virtual data center Networks. This includes vApp settings and configurations which can be restored with ordering conditions and networking changes if necessary.
- Tenant onboarding used to be a manual task and now can be fully API driven, helping new customers access the service faster and without error.

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Disaster Recovery Service Organization Controls

- Whitelisted, activation-controlled service is disabled by default, allowing partner to upsell DR to customers. Org controls include max RPO, snapshots, and replicants to help tier tenant DR offerings.
- VMware Cloud Director Availability is integrated into VMware Cloud Director to provide at a glance protection status and in-context menu to start and manage replication and DR actions to protect vApps and virtual machines.
- Service Providers can now define and control Service Level Agreement (SLA) replications settings: Recovery Point Objective (RPO), retention policy for the point-in-time instances, quiescing, compression, and initial synchronization time by using SLA profiles that can be assigned to organizations making it simpler for an organization to consume the DRaaS.
- To restore a workload to a previous state, tenants now in 4.0 can use point-in-time or stored instances. To avoid the automatic retention of point-in-time instances, tenants can store point-in-time instances (the number is limited by the provider in the SLA profile for the org). The stored instances do not change, you can use them to recover the workload to the stored instance, regardless of the overall retention period of the point-in-time instances.
- Service providers can now configure a limit for the replication data traffic from the on premises to cloud sites for regions where bandwidth is a premium. Providers can also set a global limit in VMware Cloud Director Availability for the total incoming replication traffic from all cloud sites.

On-Premises to Cloud and Cloud-to-Cloud Disaster Recovery

- Tenants can completely self-serve and automate replication, migration, failover, and failback of vApps and post failover operations from their vCenter plugin or from the VMWare Cloud Director interface using the solutions symmetric capabilities. The 4.0 improved user interface provides better usability and efficiency: VMware Cloud Director Availability now provides easier replication management and overview of the tasks by simplifying the management interface.
- Service providers must be able to resource plan to ensure that the service can satisfy any failover testing or events within their clouds. Resource requirements for compute vCPU and vGB RAM can be listed and aggregated for customer org VDC, organizations and provider VDC to help with capacity planning. This is very important for providers to manage as customers are not limited to the number of tests that they can execute.
- Storage management is key for Disaster Recovery as customers replicate their workloads and variations in RPO and the number and granularity of multiple point in time instances will dramatically impact the amount of storage used. VMware Cloud Director Availability now shows the disk space used by each virtual machine replication and aggregates the disk usage information per organization. Tenants can monitor the disk usage for every replication in all directions to help them understand each workloads' requirement and providers can monitor the disk usage for every organization via UI and API for metering and capacity management.
- What if replications fail or there are issues with the system? How is operations to know? In 4.0 service providers can use the syslog feature to monitor the event notifications that VMware Cloud Director Availability generates either by using a syslog server or in VMWare Cloud Director by monitoring the VMware Cloud Director Availability events. Syslog events can be forwarded to a log manager, like vRealize Log Insight (which is included in the Flex core bundle) where they can be filtered and changed into alarms and notifications.

Guaranteed Service Level Agreements

Speed of recovery and granularity of recovery are important DR considerations. However not all workloads require a fast Recovery Point Objective (RPO) as the faster the RPO the more storage will be consumed. Most applications will be fine with a 1hr RPO, and VMware Cloud Director Availability will support a max. RPO of 5 minutes (in vSphere 6.5 and above), but the RPO is completely customizable by the service provider for your tenants in SLA profiles. The Recovery Time Objective (RTO) is still the time it takes for the VM to power on.

Deep Integration with VMware Stack

- Core component of Cloud Provider Platform enables cloud providers to offer differentiated services.
- The new release provides support for cluster datastore allowing you to perform storage migration to a cluster datastore.
- Support for edge clusters in vCloud Director ensures optimum performance of vCloud Director environments.

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Service Provider "Day 2" Operations and Monitoring

- Policy based management of the DR service provided to customers is controlled by SLA profiles making it far easier to operationalize and to meter consumption and usage.
- Migrate tenants from one vCloud Director to another, for example, to set up a new data center or if there's a need to perform maintenance.

Reporting usage

Automatic metering for monthly usage is now supported using 3.6.1 and 4.2 of VMware Usage Meter, capturing replications for DR and for migration (although VMware capture migration replications, they are not charged). Service providers should deploy and configure VMware usage meter 3.6.1 H3 and above or 4.2 to take care of VMware's charges, providers can now use the API or CLI for their own metering if required.

Upgrading

VMware recommends upgrading to version 4.0 as a direct upgrade from 3.0.5 and 3.5.1 and the components should be upgraded in sequence starting with the vApp Replication manager and normal Replication manager, then the Replicator appliance(s) and lastly the tunnel appliance. In the future all upgrades to future releases 4.0.1 and 4.1 need to be done from 4.0 minimum. (please see product documentation for instructions)

Interoperability

VMware Cloud Director Availability is compatible with:

- vSphere 6.5 U3, 6.7 U1, U2 and U3 and 7.0 (on-prem only).
- VMware Cloud Director 9.5, 9.7, 10.0, 10.1, 10.1.1 (pending)
- NSX-V 6.4.6
- NSX-T 2.5.0, 2.5.1
- vCloud Usage Meter 3.6.1, 4.2

Support

VMware makes Subscription Services Support available to all VMware Cloud Director Availability customers. Support includes access to specialists who assist in coordinating onboarding activities as well as ongoing service support. For customers who require additional services, VMware also offers professional services engagements on best practices and getting started with your deployment, both directly and through an extensive network of certified professionals.

How is it Sold?

VMware Cloud Director Availability is offered as a subscription-based consumption model. Units are protected VMs/month, migrations, although metered, are at zero cost.

Please note that VMware vSphere Replication is included, without additional cost, in all supported VMware Cloud Provider bundles that contain VMware Cloud Director. For service provider system requirements and interoperability, see Cloud Director Availability documentation.

LEARN MORE

To Learn more about how VMware Cloud Director Availability 4.0 works, please visit cloudsolutions.vmware.com or please watch and subscribe to our YouTube Channel or any of the resources below:

http://bit.ly/VCPP_Twitter

http://bit.ly/VCPP_FB

http://bit.ly/VCPP_LinkedIn

http://bit.ly/VCPP_Youtube

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