

VMware Object Storage Extension (OSE) 2.0



What is OSE?

VMware Cloud Director OSE is an integrated storage solution that is provisioned and managed within the VMware Cloud Director and now with Cloud Director Service. VMware Cloud Director OSE is a standalone middleware service that runs atop of a storage cluster (today supporting Cloudian Hyperstore 7.1.6, 7.2 and 7.2.x and Dell ECS 3.4) or new in OSE 2.0 is AWS native S3 and provides Object Storage capabilities to the users of VMware Cloud Director. OSE provides a UI plugin through VMware Cloud Director portals to give VMware Cloud Director users the native user experience. OSE also exposes S3 compatible APIs for 3rd party applications to integrate with delivering underlying storage data persistence. Version 2.0 also introduces common APIs that will enable more object storage vendors to integrate with Cloud Director.

What opportunities does it address?

The market opportunity for storage services is growing at a 32% CAGR (IDC WW Cloud Storage services) and has largely been defined by the S3 interface and AWS being the market leader. Any Cloud Provider interested in providing storage needs to compete on the cost per GB as defined by AWS, which is typically not possible on current storage architectures. Most Cloud Providers storage offerings have suffered against

Hyperscale pricing and reselling those services is low margin with no differentiation.

Cloud Providers can now address customer's need for object storage (unstructured large data volumes) either in their data center with S3 compliant vendors such as Cloudian and Dell or using native AWS S3, all available to the tenant Org Virtual Data Center. This opens up storage service opportunities such as:

- **Storage-as-a-Service (STaaS)**
 - Capacity for archive, Dev/Test, etc.
- **Backup-as-a-Service (BaaS)**
 - Backup services
- **Archive-as-a-Service (AaaS)**
 - Long-term data repository
- **Disaster Recovery-as-a-Service (DRaaS)**
 - Maintain an offsite data copy
- **Big Data-as-a-Service (BDaaS)**
 - Provide scalable data lake services

What new functionality is provided?

Cloud Providers can enable (by invite for AWS S3) customer accounts to the Object Storage Service (now a single OSE instance to support more than 1 object storage platform) and manage rights to the actions that can be performed. Future proofing the solution, OSE 2.0 now

offers new API extensibility that will allow object storage vendors to integrate with OSE in a self-serving fashion.

The Object Storage UI allows tenants complete control to configure and manage their access keys for AWS S3 and to get, set and apply lifecycles, access control policies, web site hosting, server-side encryption, locks and legal holds and apply CRUD operations to their storage buckets.

Multi-region support is covered with multi region bucket creation and replication for on-prem and cloud storage platforms. Lastly a big bonus of utilizing OSE 2.0 in Cloud Director service instances is that, the provider can utilize their AWS VPC and ENI to consume tenant AWS S3 from OSE, circumventing AWS egress costs.

What else is required?

To work with VMware Cloud Director Object Storage Extension, the VMware Cloud Director instance must support VMware Cloud Director service provider admin portal and VMware Cloud Director tenant portal, hence must be a version greater than 10. VMware Cloud Director Object Storage Extension requires a dedicated PostgreSQL (9.5 or later) database instance and a database user that has sufficient privileges to create tables and change database schemas.

A Natural Partnership



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