



Object Storage For VMware VIO: Deploying SwiftStack Alongside VMware OpenStack

Challenge:

As popular as OpenStack is today for its ability to deploy and manage large pools of heterogeneous compute, network, and storage resources with its dashboard and API, one of its challenges is the complexity involved in initial installation and deployment—especially for developers and testers who need a functioning OpenStack environment but do not want to manually manage all of the individual OpenStack services or deploy dozens of servers on which to run them.

In most OpenStack environments, you need at least a handful of critical services—including Nova for compute, Neutron for networking, Cinder for block storage, and Swift for object storage (probably along with Keystone for authentication, Glance for virtual machine images, Horizon for the dashboard, and perhaps others). Of those, Swift is particularly complex and error-prone—especially if that object store grows to hundreds of nodes containing petabytes of data for Glance images, Cinder backups, and other applications outside of OpenStack that leverage Swift object storage directly.

Solution:

Fortunately, VMware and SwiftStack have addressed many of these challenges. SwiftStack was designed **specifically** to simplify the deployment, management, and monitoring of OpenStack Swift. There is—without question—no easier way to configure and maintain a Swift deployment—whether it starts small for just a few Glance images or Cinder backups or grows to a massive scale to support a web application, host data for an enterprise file-sync-and-share service, or contain backup data from other applications as well. And because SwiftStack’s object storage **is** OpenStack Swift, the integration with OpenStack couldn’t be simpler.

But not only does SwiftStack make OpenStack Swift simple, it also provides things that cannot be found with Swift alone—things like authentication via LDAP or Active Directory (or OpenStack’s Keystone service if desired), integration with Nagios or Zabbix tools for monitoring, and support from the industry’s recognized experts in and leading contributors to OpenStack Swift.

And like SwiftStack for Swift, VMware has simplified deployment of the other services in OpenStack—particularly for test and development environments. VMware Integrated OpenStack (VIO) is available as a single virtual appliance (OVA) that can be deployed in an existing VMware ESX environment with a wizard-driven tool for configuring the necessary OpenStack services within the VMware infrastructure (using ESX virtual machines for Nova instances, NSX virtual networking for Neutron, and vSAN for Cinder block storage). With VIO, developers can have a functional OpenStack environment ready in minutes!

Highlights:

- **Deploy Test/Dev OpenStack in Minutes**
- **Leverage Existing VMware Infrastructure**
- **Simple Transition from Test/Dev to Production SwiftStack**

Swift Key Features:

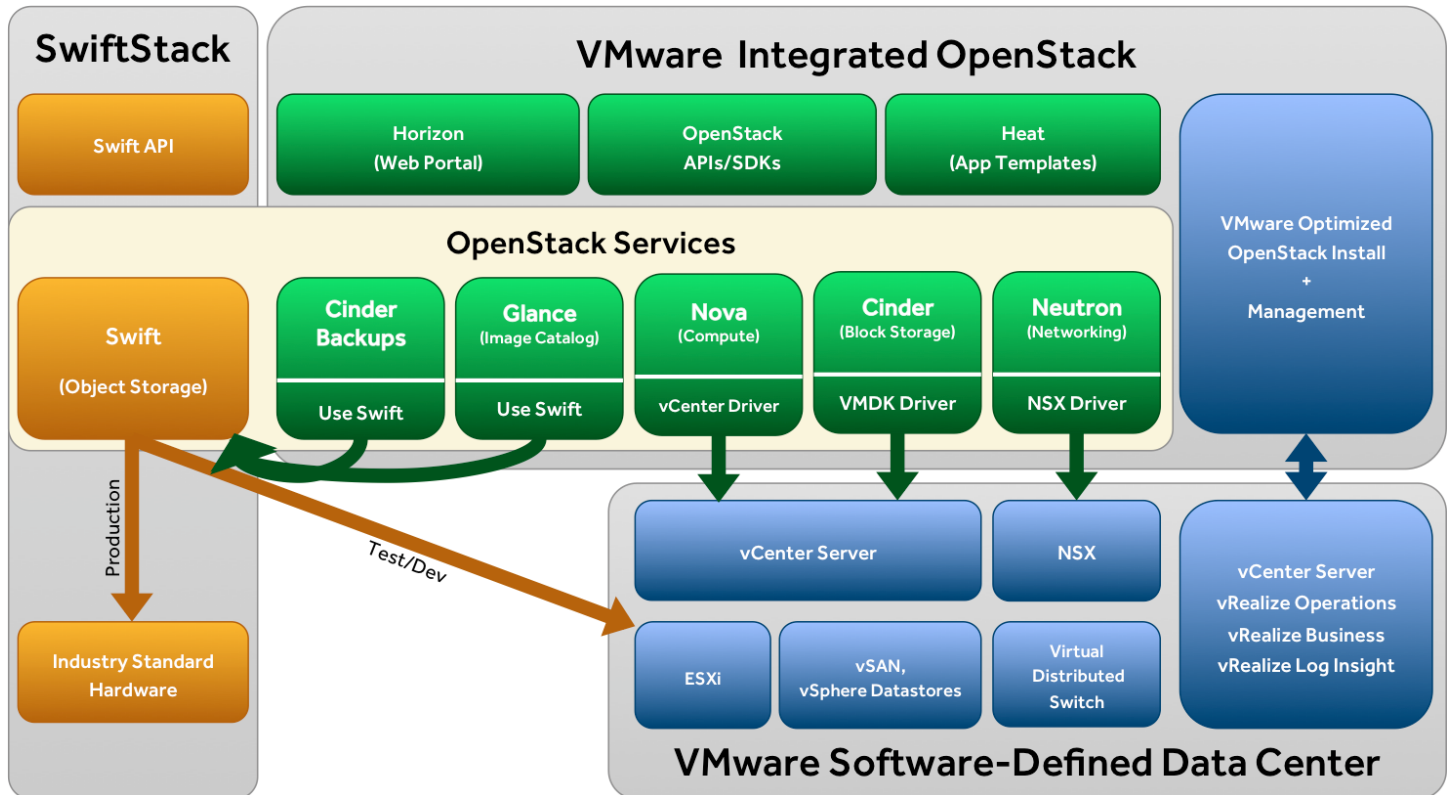
- **Massively Scalable**
- **Geographic Distribution**
- **Seamless Integration**
- **Heterogeneous Device Support**

Solutions:

- **OpenStack Test & Development**
- **Storage for Backups & Other Unstructured Data**

SwiftStack Benefits:

- **Scalability:** scale capacity and performance from terabytes to exabytes.
- **Availability:** geographically distributed data can be accessed anytime, from anywhere.
- **Durability:** highly durable architecture with no single-point of failure.
- **Seamless Integration:** plug directly into existing deployments without disruption.
- **No Vendor Lock-in:** by using low-cost, industry standard servers and storage.



With VMware Integrated OpenStack and SwiftStack's object storage platform, developers can now leverage VMware infrastructure to quickly test and develop against the OpenStack APIs with tightly integrated object storage for Glance images, Cinder volume backups, and native application storage as well.

Contact us to learn more!



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