VMware Integrated OpenStack 2.0

VMware Integrated OpenStack is a VMware-supported OpenStack distribution (distro) that makes it easier for IT to run a production-grade OpenStack-based deployment on top of their existing VMware infrastructure. Building on their existing expertise, VMware administrators can foster innovation and agility by providing their developers with simple vendor-neutral OpenStack APIs on top of VMware's best-of-breed Software-Defined Data Center (SDDC) infrastructure. Key administration capabilities, including install, upgrade, troubleshooting, and cost-visibility are provided via deep integration with already familiar VMware management tools, enabling fast time to innovation and lower total cost of ownership.

BENEFITS

- OpenStack Powered Platform Certified (DefCore 2015.04)
- Enterprise Grade OpenStack Cloud
- No OpenStack PhD Required!
- Simplified OpenStack Operations
- Single Vendor Support
- Free for all VMware vSphere® Enterprise Plus customers, including vSphere with Operations Management™ Enterprise Plus and vCloud Suite® customers
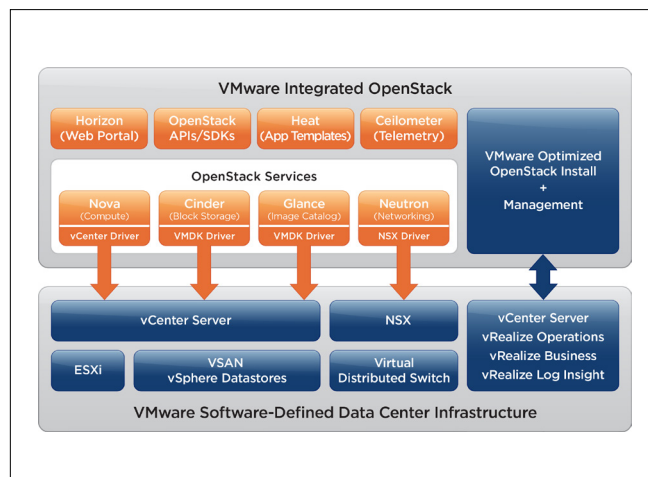
Advantages of Running OpenStack on VMware
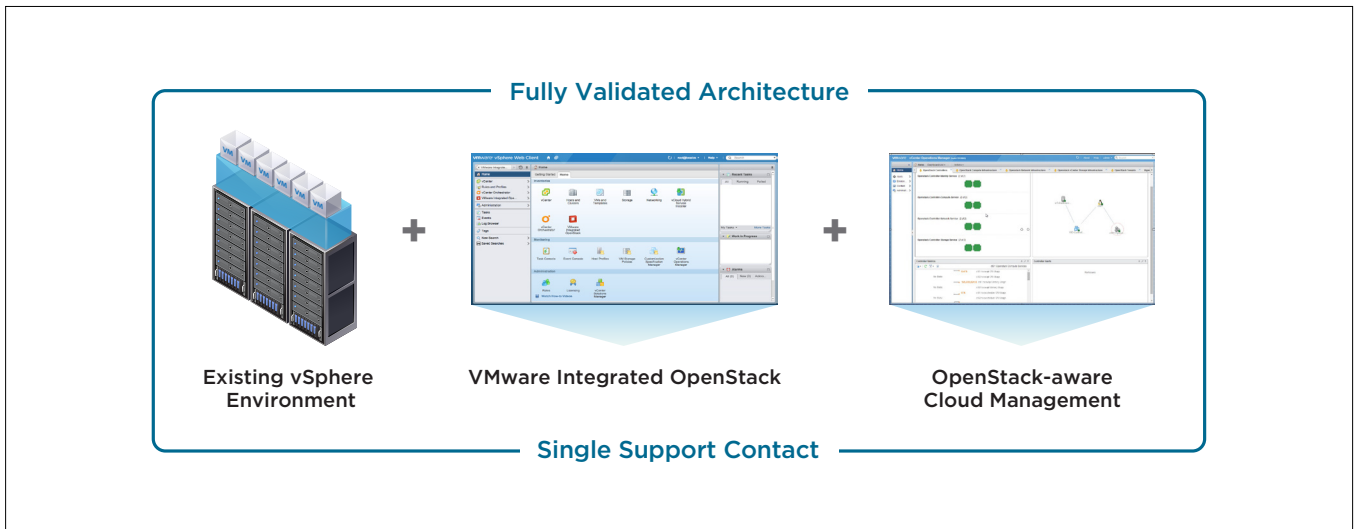
vSphere for Compute (NOVA)

- The industry's most robust and production proven hypervisor.
- Rich, differentiated features, including vSphere vMotion®, High Availability (HA), Fault Tolerance, Distributed Resource Scheduler™ (DRS), resource protections, and low-latency.
- Low OpEx provided by advanced management and operational features.

NSX for Networking (Neutron)

- Programmatic provisioning of network and security services can result in greater agility and visibility for your network and security infrastructure in addition to simplified operation and lower CapEx.
- Advanced security and multi-tenancy (Micro-Segmentation).
- Advanced virtualized network services with massive scale and throughput (routing, security groups, QoS).

Virtual SAN/vSphere Data Store for Storage (Cinder/Glance)

- Works with any vSphere validated storage.
- Leverage commodity hypervisor-converged storage nodes to provide low-cost shared storage with VMware Virtual SAN™.
- Use advanced Storage Policies (SPBM) for optimal placement of workloads and efficient utilization of storage.

vmware®

Fully Validated Architecture

Existing vSphere Environment + VMware Integrated OpenStack + OpenStack-aware Cloud Management

Single Support Contact

What's new in VMware Integrated OpenStack 2.0

Kilo-based: VMware Integrated OpenStack is now based on the OpenStack (K)ilo release.

Seamless OpenStack Upgrade: VMware Integrated OpenStack 2.0 introduces an Industry-first seamless upgrade capability between OpenStack releases. Customers will now be able to upgrade from V1.0 (Icehouse) to V2.0 (Kilo), and roll back if anything goes wrong.

Additional Language Support: VMware Integrated OpenStack 2.0 is now available in 6 more Languages. German, French, Traditional Chinese, Simplified Chinese, Japanese and Korean.

LBaaS: Load Balancing as a service is now supported via Neutron by leveraging VMware NSX™.

Ceilometer Support: VMware Integrated OpenStack 2.0 now supports Ceilometer with Mongo DB as the Backend Database.

Auto Scaling: Auto Scaling enables users to set up metrics that will scale up or down application components. This enables development teams to address unpredictable changes in demand for the app services. Ceilometer provides the alarms and triggers, Heat orchestrates the creation (or deletion) of scale out components and LBaaS provide load balancing for the scale out components.

Backup and Restore: VMware Integrated OpenStack 2.0 now includes the ability to backup and restore your OpenStack services and configuration data.

Advanced vSphere Integration: VMware Integrated OpenStack 2.0 exposes VMware vSphere® Windows Guest Customization. VMware admins can specify various attributes such as ability to generate new SIDs, assign admin passwords for the VM, manage compute names etc. There is also added support for more granular placement of VMs by leveraging vSphere features such as affinity and anti-affinity settings.

Qcow2 Image Support: VMware Integrated OpenStack 2.0 no supports the popular qcow2 Virtual Machine image format.

Available on EMC (Federation) Enterprise Hybrid Cloud and EVO Rack: VMware Integrated OpenStack is now available on Enterprise Hybrid Cloud (V3.5) , and VMware EVO:Rack™ (VMware Hyper Converged Infrastructure Solution).

Available through our VMware vCloud® Air™ Network Partners: Customers can now use OpenStack on top of VMware through any of the service providers in our vCloud Air Partner Network.

Key Features of VMware Integrated OpenStack

Foster Innovation and agility for application development teams

- **OpenStack APIs:** Whether you are transitioning to a DevOps-centric agile product development methodology or building cloud native applications, foster innovation and agility by providing developers with OpenStack APIs on top of VMware's best-of-breed SDDC infrastructure.

Streamlined Deployment and Upgrade

- **Complete support for core OpenStack services:** Nova, Neutron, Cinder, Glance, Horizon, Keystone Heat and Ceilometer.

- **vSphere Web Client Based Deployment:** VMware Integrated OpenStack is a downloaded virtual appliance that is deployed using the vSphere Web Client. The vSphere Web Client then deploys all the VMs and components needed to create a highly available, production grade OpenStack infrastructure in a few simple steps.

- **Patching and Upgrade:** VMware Integrated OpenStack includes a patching mechanism that allows administrators to easily perform patching and upgrades with minimum disruption to the OpenStack infrastructure.

- **Leverage the Complete VMware Ecosystem:** VMware Integrated OpenStack can be deployed on any vSphere supported hardware. VMware Integrated OpenStack leverages any storage solutions supported by vSphere through vSphere datastores to implement Cinder and Glance, the OpenStack block and image storage services.

- **Available for all vSphere Enterprise Plus Customers:** VMware Integrated OpenStack is available for use, free of charge, with all editions of vCloud Suite, vSphere with Operations Management Enterprise Plus and vSphere Enterprise Plus. Optional VMware Integrated OpenStack support can be purchased separately.

Optimized for the Software Defined Data Center

- **vSphere:** VMware Integrated OpenStack leverages enterprise grade vSphere features such as Dynamic Resource Scheduling (DRS) and Storage DRS™, through Nova – the OpenStack compute service, to achieve optimal VM density. Features such as HA and vMotion are used to protect tenant workloads against failures.

- **NSX:** VMware NSX™ provides a highly scalable network virtualization solution with rich features such as private networks, floating IPs, logical routing and security groups that can be consumed through Neutron – the OpenStack networking service.

- **Virtual SAN:** Virtual SAN uses server disks and flash to create radically simple, high performance, resilient shared storage for your virtual machines using x86 serves. The scale-out architecture drastically lowers your overall storage TCO while enabling administrators to specify storage attributes such as capacity, performance, and availability in the form of simple policies on a per-VM basis. Virtual SAN features are provided through Cinder and Glance, the OpenStack block and image storage services.

Integrated Operation and Management

- **Simplified Configuration and Operation:** Pre-defined workflows automate common OpenStack operations such as adding/removing capacity, configuration changes, and patching.

- **Integrated Monitoring and Troubleshooting Tools:** Out-of-the-box VMware vRealize™ Operations Manager™ and vRealize Log Insight™ integrations can provide faster and easier monitoring and troubleshooting of your OpenStack infrastructure.

Single Support Contact

- World-Class VMware support is provided for both OpenStack and the underlying VMware infrastructure*.

*Support for VMware Integrated OpenStack is optional and can be purchased separately.

How to Buy

VMware Integrated OpenStack is available for use, free of charge, with vCloud Suite (all editions), vSphere with Operations Management Enterprise Plus and vSphere Enterprise Plus. Production-level technical support for VMware Integrated OpenStack including the OpenStack open source code is optional and can be purchased separately.