

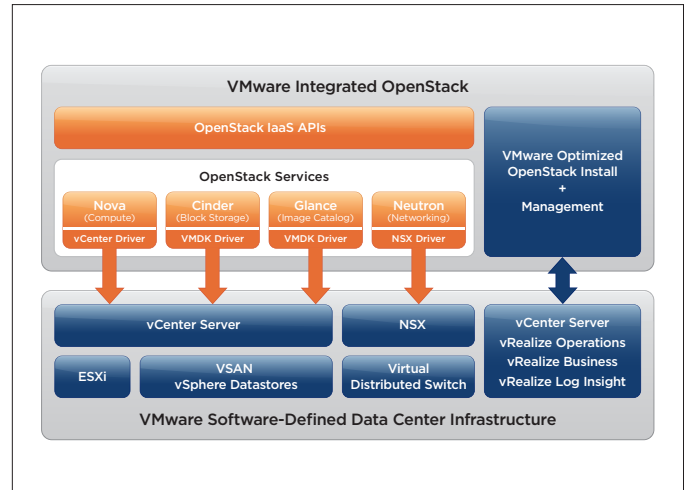
# VMware Integrated OpenStack

## AT A GLANCE

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

- 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)

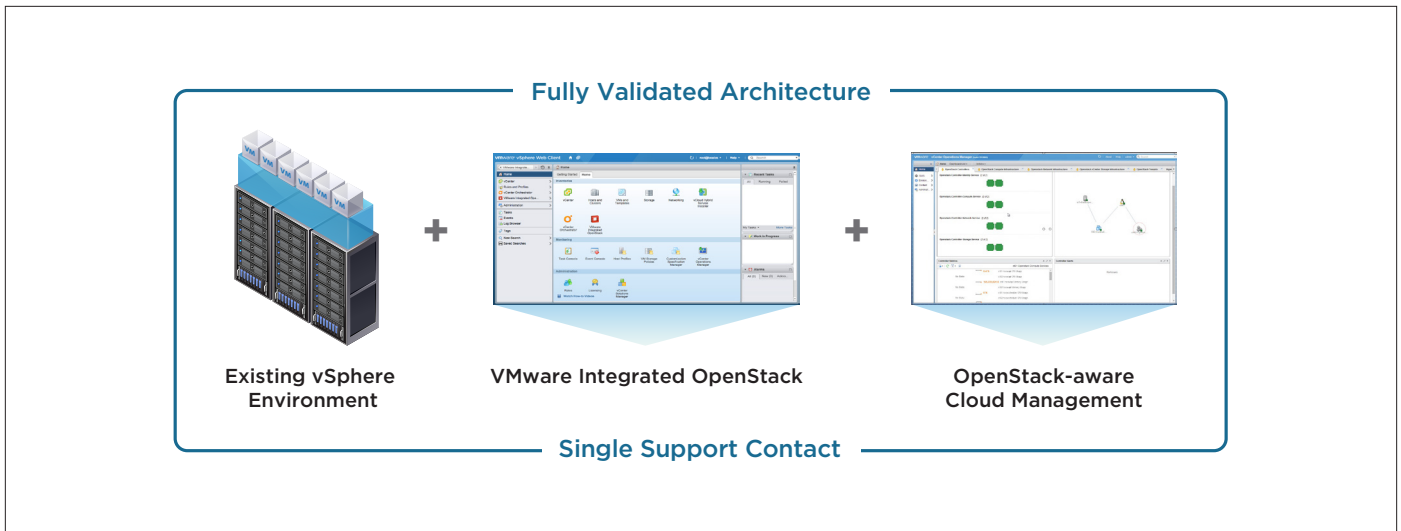
- The industry's most robust and production proven hypervisor.
- Rich, differentiated features, including vSphere vMotion®, High Availability (HA), Fault Tolerance, Distributed Resource Scheduler™ (DRS), resource protections, and low-latency.
- Low OpEx provided by advanced management and operational 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, load balancing, QoS).
- Integration with third-party network services such as load balancers and firewalls (e.g., Arista, F5, and more).

### 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™.
- Advanced storage policies using Virtual SAN and vSphere Virtual Volumes™ (aka VVOLs).



## 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

- **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.
- **In-place Patching and Upgrade:** Whether you are upgrading to the latest OpenStack release or just performing a patch, VMware Integrated OpenStack enables a seamless upgrade of your OpenStack environment.
- **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 servers. 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, patching and upgrading.
- **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.

