# Realize the Potential of An Enterprise Cloud with Nutanix and OpenStack

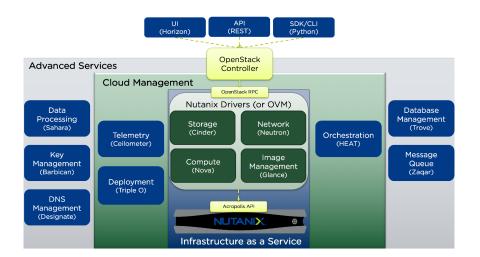
OpenStack Solution Brief

OpenStack is a powerful open source software platform for creating private and public clouds, allowing you to offer a new class of services to your customers and end users. To fully realize the benefits of the cloud, however, the infrastructure you choose is just as important. The Nutanix enterprise cloud platform is a 100% software-driven infrastructure solution that natively converges storage, compute and virtualization into a turnkey appliance that can be deployed in minutes to run any application out of the box.

The Nutanix solution has been built from the ground up to provide building blocks for deploying cloud environments, including those based on OpenStack. Datacenter capacity can be easily expanded one node at a time with no disruption, delivering linear and predictable scalability with pay-as-you-grow flexibility. Nutanix eliminates complexity and allows IT to drive better business outcomes.

## TURNKEY CLOUD SOLUTION WITH NUTANIX AND OPENSTACK

The simple-to-deploy Nutanix enterprise cloud platform includes shared enterprise-class storage, as well as built-in server virtualization. This eliminates the need for separate shared storage and standalone virtualization products. The entire infrastructure stack can be managed using an integrated management platform, Nutanix Prism. Nutanix has built fully tested and supported drivers to integrate infrastructure with several OpenStack services. The drivers covers integration with the four core components of an Infrastructure-as-a-Service (laaS) deployment, while supporting integration with your choice of advanced services and cloud management though your provided OpenStack controller.





#### HOW NUTANIX ACROPOLIS INTEGRATES WITH OPENSTACK SERVICES:

The OpenStack and Nutanix solution is composed of two main components:

# OpenStack Controller (OSC)

An existing, or newly provisioned VM or host hosting the OpenStack UI,
 API and services running Kilo or later releases of OpenStack. Handles all OpenStack API calls.

# Acropolis OpenStack Services VM (OVM)

- VM with Acropolis drivers that is responsible for taking OpenStack RPCs from the OpenStack Controller and translating them into native Acropolis API calls.
   OVM is deployed as part of the Nutanix OpenStack integrated solution.
- The Acropolis drivers can also be directly installed on the OpenStack Controller, removing the need for an additional VM.

The client communicates with the OpenStack Controller using their expected methods (Web UI / HTTP, SDK, CLI or API), and the OpenStack controller in turn communicates with the Acropolis OVM, which translates the requests into native Acropolis REST API calls using the OpenStack drivers. The Nutanix Drivers conform to the standards set by OpenStack.

#### COMPLETING YOUR OPENSTACK DEPLOYMENT WITH NUTANIX

With the Nutanix Enterprise Cloud backing your OpenStack deployment, you can realize the full benefits of an intelligent infrastructure end to end. OpenStack gives you unparalleled flexibility in your infrastructure for the front end and Nutanix radically simplifies the backend infrastructure management. Your teams can focus on extracting additional value from OpenStack with the confidence that the backend will adapt to the changes while reducing the time wasted on traditional operations.

## NUTANIX SUPPORTS THE OPEN SOURCE COMMUNITY

Nutanix is an active member of the open source community. Nutanix has signed on as a sponsor of the OpenStack foundation and support the advancement of Open Source technologies. As the leading provider of enterprise clouds, Nutanix looks forward to the growth and development of the OpenStack software and community. Nutanix also provides a community version of Acropolis and Prism available for home and lab use. Check out next.nutanix.com for more information.

## **NEXT STEPS**

Ready to get your OpenStack deployment simplified with Nutanix? Email sales@nutanix.com to find out how to get started today. Visit www.nutanix.com or contact Nutanix Sales Rep/Partner for more information.



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## **Key Benefits**

- > Turnkey Single hyperconverged solution for OpenStack-managed infrastructure. Quickly deploy and linearly scale your environment to meet needs
- Available Stay up and running with a highly available platform and leverage non-disruptive upgrades integrated data protection and VM-level features such as VM snapshots, live migration and high availability
- Simple and secure Cut down on time spent managing by as much as 71% with consumer-grade simplicity and rich set of APIs and scripts and self-enforcing security policies
- > Open Support integration with any on-premises or cloud-hosted OpenStack Controller, including offerings from Ubuntu, Red Hat, and Mirantis

### **Key Features**

- > Unique integration of Nutanix Acropolis and AHV with the Glance and Nova services, which enables automation across the stack
- Web-scale architecture enabling dynamic and linear scaling and fast storage performance through data locality and intelligent tiering
- 24x7 "call-home" service tunnels and access to award-winning support
- Self-enforcing security compliance of the hypervisor and Nutanix CVM

Nutanix delivers invisible infrastructure for next-generation enterprise computing, elevating IT to focus on the applications and services that power their business. The company's software-driven Xtreme Computing Platform natively converges compute, virtualization and storage into a single solution to drive simplicity in the datacenter. Using Nutanix, customers benefit from predictable performance, linear scalability and cloud-like infrastructure consumption. Learn more at www.nutanix.com or follow us on Twitter@nutanix.

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