

# Nutanix AHV is Webscale Virtualization

## Overview

The hypervisor is the foundation of modern IT. Virtual Machines (VMs) and containers abstract applications from the underlying hardware so that they can be dynamically provisioned, upgraded, and managed at scale. This paradigm is central across both traditional enterprise IT as well as modern cloud-native applications, but until recently these two delivery models were siloed.

AHV brings these two worlds together, with an open-source foundation extended with advanced enterprise features, and integrated into an HCI framework with built-in storage and networking capabilities for a complete, seamless solution.

With simple and intuitive provisioning and management of VMs, containers, business-critical applications and cloud-native operations and workloads, AHV enables a consistent hybrid cloud operating model across datacenters, the edge, and public clouds.

## Key Benefits

- Simple: Deploy, upgrade, patch, and provision VMs in one-click
- Powerful: Native, modern, feature-rich
- Built-In: Included at no additional cost
- Cloud Native: Built for the cloud and cloud-operating model
- Easy to learn: Consumer-grade interface
- Secure: Integrated and self-healing
- Intelligent: Nutanix Life Cycle Manager (LCM) software, driver, and firmware live updates

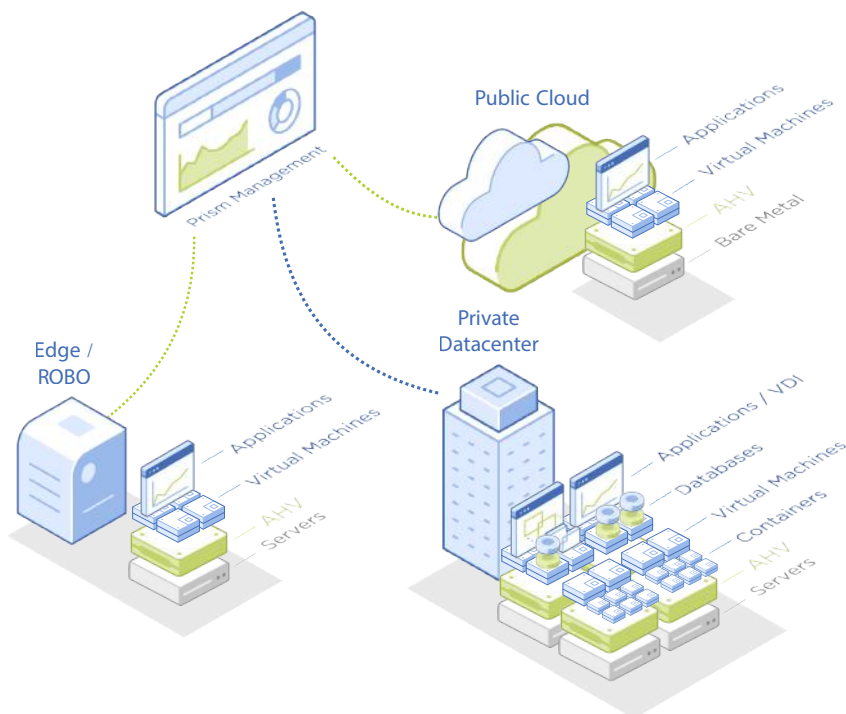


Fig. 1 AHV Powers the Hybrid Cloud

## Product Advantages

Public Cloud Providers utilize hypervisors to support multi-tenancy and to allocate their physical compute resources efficiently. They are designed to be lightweight and typically aren't designed to meet SLAs for traditional IT applications, such as VM High Availability or automatic workload balancing.

In contrast, traditional IT organizations require feature-rich VM operations and are designed to integrate with a wide range of both modern and legacy enterprise IT products. Typically requiring specialists to set up, manage, integrate, and patch.

AHV enables the seamless consolidation of these two divergent VM deployment models. Built into Nutanix Cloud Infrastructure, AHV is integrated and optimized for full stack performance, resiliency, and efficiency, and like traditional enterprise hypervisors it includes the advanced virtualization features needed to meet strict IT SLAs. Like public cloud hypervisors, AHV is lightweight, API-programmable, and includes integrated storage, networking, and automation services, for both VMs and Containers.

## Features and Capabilities

- **Ease of Management:** One-click installs, upgrades, and unified management across the full stack with Prism
- **Resiliency for IT Apps:** HA, Live Migration and Dynamic Scheduling, workload and host affinity and anti-affinity, seamlessly integrated storage snapshots and DR, and Metro Clustering.
- **Cloud-Native Services:** Kubernetes support with built-in NKE (Nutanix Kubernetes Engine) or your choice of ecosystem partner, plus storage and database services, and VPCs for seamless workload migration and multi-tenancy
- **Broad Compute Support:** Both Intel and AMD CPUs, vNUMA, vTPM, with automated CPU compatibility for seamless hardware upgrades and workload migrations
- **Advanced VM Management and Operations:** VM templates, RBAC, orchestration including 3rd party automation tools, flexible DR, microsegmentation, optimized storage paths, built-in security and GPU/vGPU integration, to name a few.
- **Broad Ecosystem Support:** Over 770 validated solutions from multiple vendors that include:

“Like public cloud hypervisors, AHV is lightweight, API-programmable, and includes integrated storage, networking, and automation services, for both VMs and containers.”



## NCI Licenses Include AHV, Available as Starter, Pro, or Ultimate License Tiers.

Nutanix Cloud Infrastructure (NCI) is a complete software stack to unify your hybrid cloud infrastructure including compute, storage and network, hypervisors and containers, in public or enterprise clouds; all with built-in resilience, self-healing, disaster recovery capabilities, and security. It includes enterprise data services and consolidated storage, data protection and disaster recovery, native virtualization and container management, networking and security.

		Starter	Pro	Ultimate
Enterprise Compute	Enterprise Virtualization	✓	✓	✓
	Credential Guard	✓	✓	✓
	vGPU and GPU Passthrough		✓	✓
	HA Guaranteed Failover		✓	✓
	Nutanix Kubernetes Engine	Limit one managed Kubernetes cluster per NCI cluster	Limit one managed Kubernetes cluster per NCI cluster, Cloud Native add-on license	✓
	Disaster Recovery		Adv Replication add-on license	✓
Networking & Security	Overlay Networking		✓	✓
	Microsegmentation		Security add-on license	✓
	Nutanix Security Central		Security add-on license	✓

**Starter:** Ideal for small-scale deployments with a limited set of workloads

**Pro:** Ideal for running multiple applications or large-scale single workload deployments (on-prem or in public clouds)

**Ultimate:** Ideal for multi-site deployments and advanced security requirements (on-prem or in public clouds)

\*For clusters running third-party hypervisors, NCI-Data licenses are available that don't include AHV



T. 855.NUTANIX (855.688.2649) | F. 408.916.4039  
[info@nutanix.com](mailto:info@nutanix.com) | [www.nutanix.com](http://www.nutanix.com) | [@nutanix](https://twitter.com/nutanix)

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