The Complete Solution for Branch Office Desktops with VMware and Nutanix

Nutanix 2U High-Density Block

Nutanix and VMware simplify your virtual desktop infrastructure (VDI) and branch office desktop deployments with a single high-performance scalable appliance.

The Nutanix & VMware Branch Office Desktop (BOD) solution is a purpose built platform targeted for secure, easy to manage, high-performance desktop and application delivery to branch-office users. With the Nutanix solution and its architecture you can start small and scale. A single Nutanix block provides up to 400 desktops in a compact 2U footprint.
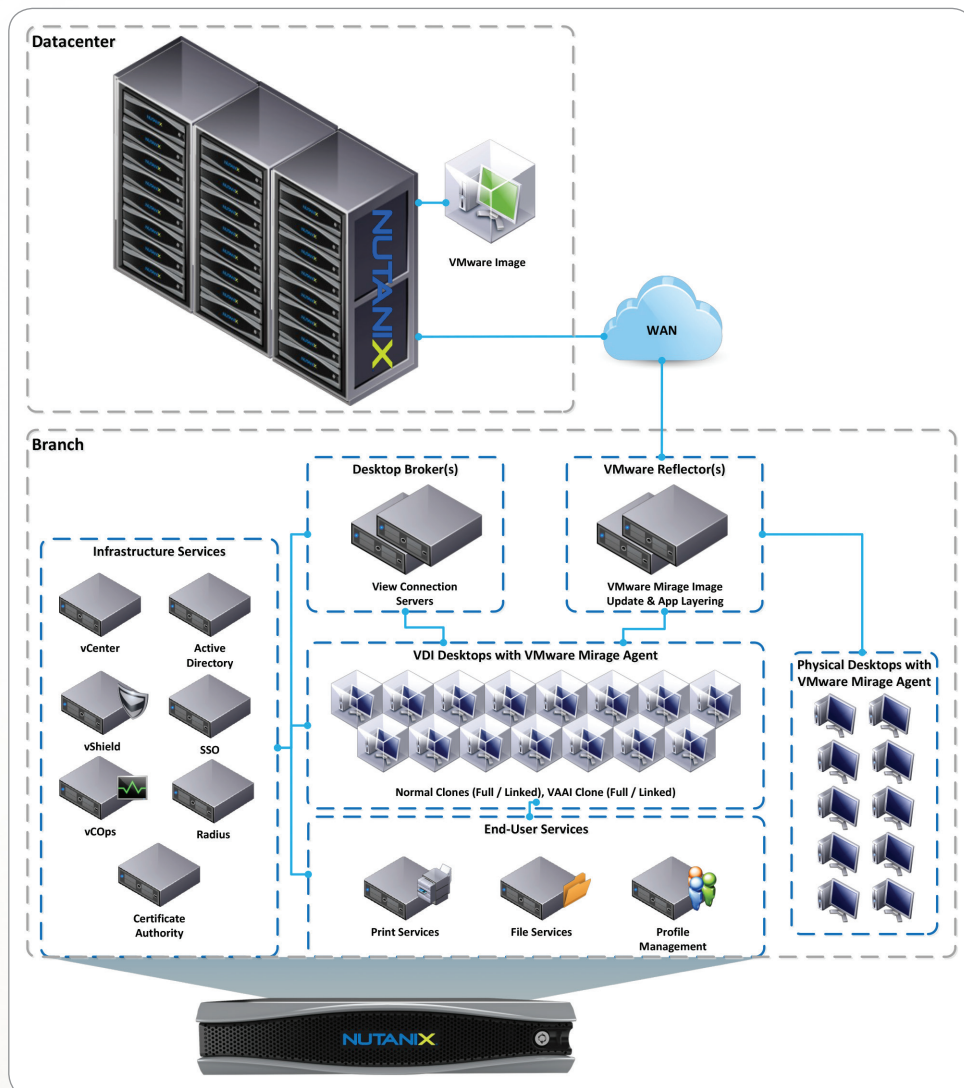
Need more desktops or capacity? Nutanix allows you to scale per-node in 100 desktop increments—giving you the ability to accurately match supply with demand and minimize the upfront CapEx.

Key Benefits

- BOD in a box – Four highly available nodes per 2U
- Support multiple workloads – Desktops, server virtualization, and even Hadoop on the same platform
- Un-paralleled density fitting 400 desktops in 2U
- Modular incremental scale – scale in 100 desktop increments
- Time to value – Get your platform up and running in 30 mintues
- VMware certified solution
- Control boot and login storms with PCIe SSD and Nutanix ILM
- 40-60% CAPEX savings over existing traditional solutions
- VMware certified solution

Datacenter

VMware Image

WAN

Branch

Desktop Broker(s)

View Connection Servers

VMware Reflector(s)

VMware Mirage Image Update & App Layering

Infrastructure Services

vCenter

Active Directory

vShield

SSO

vCOps

Radius

Certificate Authority

VDI Desktops with VMware Mirage Agent

Normal Clones (Full / Linked), VAAI Clone (Full / Linked)

End-User Services

Print Services

File Services

Profile Management

Physical Desktops with VMware Mirage Agent
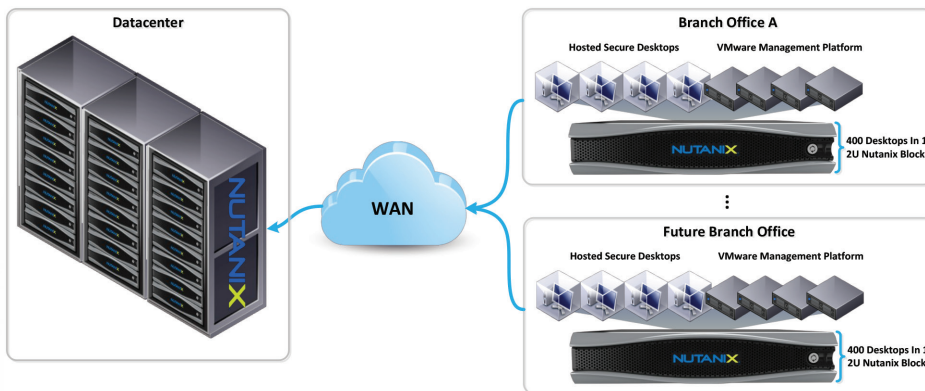
The single platform for branch office deployments

Branch Office in 2U

With the Nutanix solution and its architecture you can start small and scale. A single Nutanix block provides up to 400 desktops in a compact 2U footprint. New branch office? Deploy a Nutanix block and get up and running quick. Need to expand your branch office? Nutanix allows you to modularly scale your environment as your branch office grows.

Nutanix allows you to scale per-node (100 desktops), per-block (400 desktops), or multiple blocks— giving you the ability to accurately match supply with demand and minimize the upfront CapEx.

In a single Nutanix block you have 4 distinct nodes creating a HA cluster leveraging resource pools and reservations for resource allocation and management. This enables you to have an HA platform to host your business critical services and applications in 2U.

High-Availability throughout the Stack

The Nutanix Complete Cluster is a purely distributed system, both from a network, compute and data standpoint. On the data front, Nutanix was designed ground up to be resilient in the case of any host or disk failure. This coupled with the vSphere availability features it provides (HA / FT) and redundant network uplinks ensure your user's data and desktop always remains available and delivers a consistent user experience.

Unified Management with Nutanix and VMware

Nutanix eliminates the need for traditional SAN / NAS infrastructures which can be difficult to manage and scale. We combine both compute and storage into a single converged appliance, enabling you to have a single unit to provision, scale and manage.

Nutanix brings an Apple-like approach to managing cluster state including:

- Auto-discovery to detect and configure new nodes in the cluster

- A unique user experience that brings stunning consumer-grade graphics to the world of enterprise datacenters

Nutanix Complete Cluster at a Glance

Nutanix SAN-Free architecture
Delivers best of both worlds; local bus speed performance to virtualized desktops with all the benefits of globally available shared storage.

High-density Infrastructure
Nutanix uses a hyper-scale server architecture with eight Intel processors in a single 2U spread over four server nodes. Combined with data archiving and compression, Nutanix can reduce data footprints by up to 4x.

Time-to-value
Reduce project completion times up to 5x. Large clusters set up in hours, not months.

Software-defined Features
Granular VM operations include: snapshots, FastClones, thin provisioning, de-duplication, compression, site-to-site replication, QuickMotion and many more.

Smart Data Placement
Proximity-aware data placement places most frequently accessed data on the same host as your running VMs. It compresses cold data on conventional high-capacity spinning disks and maximizes the performance and cost advantages of every storage medium. (PCIe-Flash, SSDs, HDDs)

Turnkey Infrastructure
Just-in-time capacity augmentation reduces unnecessary upfront planning and capacity waste, enabling a more predictable and manageable sizing approach. Nutanix can dynamically grow or shrink with a single click, with zero downtime to end-users or application availability.

Time-sliced Clusters
Like Amazon EC2, Nutanix clusters, coupled with VMware vCloud Director & View, can provide multi-tenant virtualized workloads on the same physical hardware.

"This is exactly what the VDI Industry has been waiting for..."

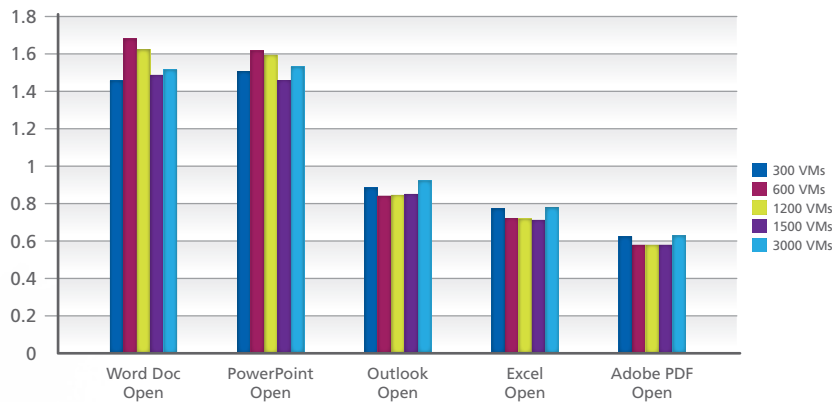**Brian Madden and Gabe Knuth**
Best of VMworld judges

Consistent Performance at Scale

The Nutanix & VMware BOD solution provides the highest density desktop deployment footprint and with unparalleled performance. Given our n-Controller model, the desktop performance remains consistent as the number of nodes / blocks scale.

In the graph below we compare the relative application response times as we scale from 300 to 3000 desktops (on a single datastore). As you can see, application performance and end-user experience remains consistent as we scale our platform:

Application Response Time in Seconds

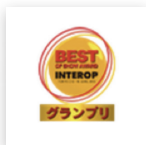

Legend: 300 VMs, 600 VMs, 1200 VMs, 1500 VMs, 3000 VMs

Conclusion

The Branch Office Desktop (BOD) solution from Nutanix & VMware provides a comprehensive and cost-effective approach to managing multiple requirements within branch office environments. The combination of VMware Mirage for image management/disaster recovery and VMware View deployed on the Nutanix Converged Cluster enables effective delivery of virtual desktops and applications in a high-available 2U appliance. Get your BOD deployment up and running quickly with Nutanix & VMware.

Ready to get your BOD initiative started? Email sales@nutanix.com to find out how to get started today.

Awards

Features

- PCIe flash coupled with ILM for optimal performance and capacity
- Full VAAI / VCAI Integration with VMware vSphere and View Composer
- Inline and offline de-duplication and compression
- Background defragmentation
- Non-disruptive rolling upgrades
- Automatic tiering of hot and cold data
- High performance PCIe flash coupled with ILM
- Cluster dynamic grow/shrink
- Thin provisioning
- Zero-detect snapshots
- HTML5-based GUI as a web console with role-based access control
- Granular performance graphs and charts
- Individual VMDK performance stats for VM-level troubleshooting
- 24x7 "call-home" service tunnels & support

Solution Components

Hardware

- Nutanix Complete Cluster

Software

- VMware vCenter
- VMware View
- VMware Mirage
- VMware vCOPS
- VMware vShield