

SOLVE REMOTE AND EDGE IT CHALLENGES WITH
Nutanix Solutions
for ROBO



Remote and Edge Site Challenges

Lower IT infrastructure costs, eliminate complexity, and reduce the need for specialized personnel at remote and edge sites

Key Benefits

- Simplify onsite deployment
- Consolidate remote and edge workloads
- Shrink IT footprint
- Centralize management
- Leverage one-click management
- Streamline backup and DR
- Delight your customers and remote office users

While remote office, branch office (ROBO) and edge locations may be an important element of your business, they can often create significant IT challenges. These locations can have just a few employees or hundreds, and IT needs that vary widely.

Remote employees typically want most of the same IT services—and the same service levels. However, supporting remote locations can be difficult. Due to network bandwidth and connectivity challenges, onsite infrastructure is often the best option. But, remote hardware and software can be expensive to provision and difficult to manage remotely. Common challenges include:

- Fitting infrastructure into the space available
- Ensuring performance
- Providing adequate backup and recovery



The cost of IT per employee served can be prohibitive in locations where there aren't enough employees to justify the expense. And it's almost never possible to have trained IT staff at every remote site. The infrastructure you deploy must be:

- Suitable for remote and potentially isolated sites
- Flexible and adaptable to address unique requirements
- Resilient to connectivity problems and WAN outages

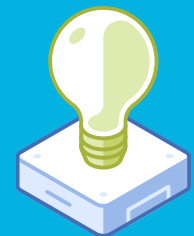
The traditional IT architecture—with separate servers, storage, and networks—creates even more problems for remote sites than it does in the datacenter. It takes up too much space and drives up CapEx, while the complexity drives up OpEx.

By dramatically simplifying infrastructure for remote and edge locations, Nutanix completely changes the economics of onsite infrastructure, while offering solutions tailored for every location.

This guide explains some of the key design elements of Nutanix Cloud Platform solutions for ROBO and edge deployments.

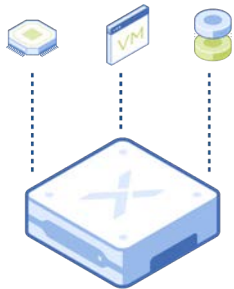
Find Out More:

- nutanix.com/robo
- [The Definitive Guide to Nutanix Enterprise Cloud for ROBO](#)
- [ESG Economic Validation for ROBO](#)



Consolidate the IT Footprint for **Remote Sites**

The Nutanix HCI architecture enables you to deploy and manage IT resources in less space, using less power, with less effort



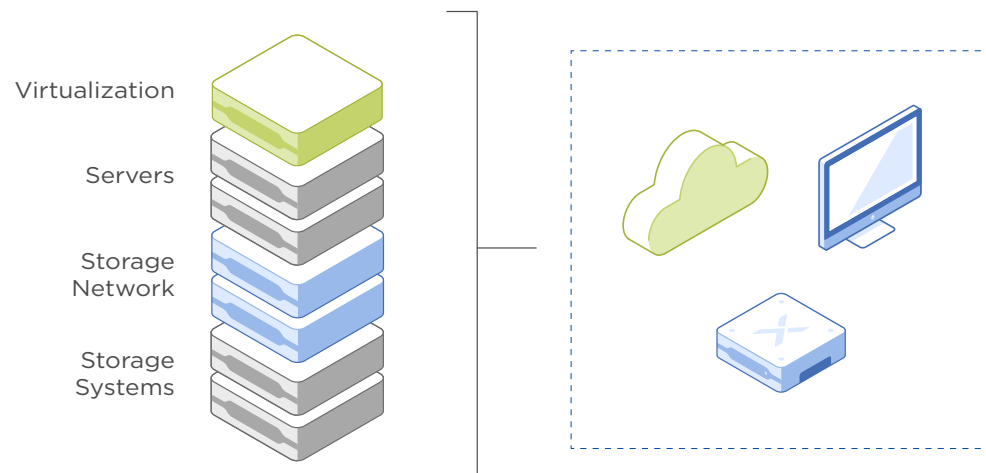
A Better Option for Sites that Lack Onsite Infrastructure

For remote sites currently supported from a datacenter or the cloud, Nutanix provides a cost-effective, space-efficient, and resilient option for onsite IT, eliminating bottlenecks and outages to deliver higher levels of service and productivity.

In remote locations, space is at a premium. When you plan a deployment, you have to consider whether all the infrastructure needed—like servers, switches, storage, and communications gear—will even fit.

Nutanix makes it easier to deploy onsite infrastructure for all of your remote sites. Most companies find they reduce rack space requirements significantly, for example London Capital Group reduced footprint by 60%, NASDAQ by 40%, and Trek by 75%, making Nutanix Cloud Platform perfect for remote locations with limited space and power.

Nutanix Cloud Platform is the leading hyperconverged infrastructure (HCI) solution. Simple building blocks eliminate infrastructure complexity, simplify management, and enable you to pay as you grow.



Overcome the Limitations of Existing Remote Infrastructure

For remote locations that already have IT infrastructure, Nutanix overcomes limitations:

Sites with separate servers and storage?

Nutanix consolidates and simplifies the hardware environment. Remote management and troubleshooting become much easier.

Sites with servers and direct-attached storage?

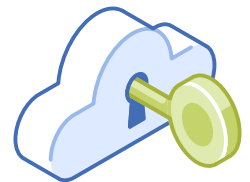
By creating a single, flexible pool of storage, Nutanix simplifies provisioning, data management, and backup tasks.

Benefits for remote locations include:

- **Flash performance.** Flash SSDs in each node put the storage closer to the application for lower latency and more predictable performance, eliminating the performance challenges that can plague small sites. Nodes with a combination of NVMe and Flash SSDs are available for applications that need maximum performance.
- **Simplified operations.** Nutanix delivers a complete infrastructure solution in a compact package that can be managed locally or remotely via Nutanix Prism with one-click simplicity. Nutanix block, file, and object data services dramatically simplify the operation of remote environments.
- **More flexible options.** Nutanix software runs on a variety of hardware platforms (starting at a single node) and public clouds and supports leading hypervisors and Kubernetes for containers.

Nutanix Cloud Platform provides all the infrastructure services that remote locations need:

- Nutanix AHV, our native hypervisor, eliminates virtualization licensing costs and is included with no additional cost
- File, block, and object storage services address diverse storage needs
- Self-service for sites that need immediate access to infrastructure and other IT services
- Data protection and disaster recovery
- Advanced security functions



Address the Infrastructure Needs of All Remote and Edge Locations **with a Single Solution**

Many sites are too small for traditional three-tier datacenter infrastructure or have very modest requirements. And, the physical environment in some locations may be too harsh for standard equipment due to temperature, humidity, shock, vibration, or dust. Nutanix supports infrastructure configurations to address these diverse needs, delivering the greatest possible resiliency in a small and affordable footprint.

- Single-node cluster are available for the smallest edge deployments, providing full data redundancy and superior performance in an extremely compact form factor.
- Two-node clusters are the next step up, delivering high availability for locations that need it. If one node fails, the remaining node assumes its workload.
- Clusters with three or more nodes provide a scale-out environment for larger environments, allowing you to start small and grow in manageable increments (capacity and cost) as needs grow.



Flexible Hardware and Virtualization Options

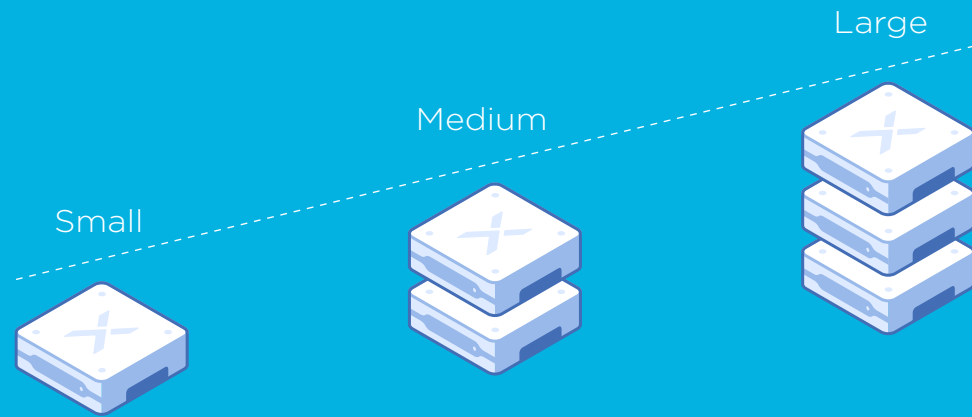
Nutanix Cloud Platform runs on a variety of hardware platforms including:

- Nutanix NX
- HPE
- Lenovo
- Fujitsu
- Cisco
- Dell EMC
- Huawei
- And ruggedized

And supports all popular virtualization solutions:

- VMware Sphere
- Microsoft Hyper-V
- Nutanix AHV

AHV is built on proven technology and included free with purchase, eliminating hypervisor licensing costs. This means you can get the benefits of Nutanix without sacrificing existing vendor relationships.

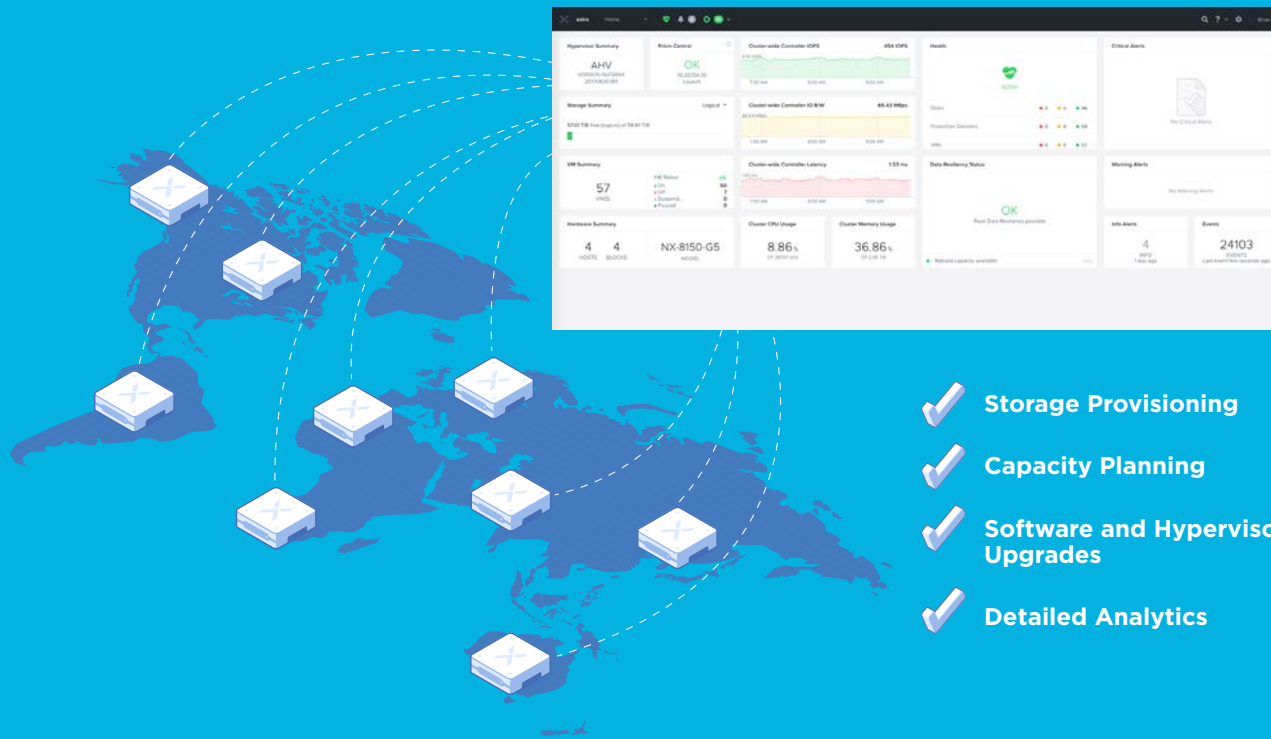


Choose your platform



Priced by capacity or by VM





Find Out More:

- [ROBO Deployment and Operations Best Practices](#)
- nutanix.com/prism

- ✓ **Storage Provisioning**
- ✓ **Capacity Planning**
- ✓ **Software and Hypervisor Upgrades**
- ✓ **Detailed Analytics**

One-Click Simplicity

Nutanix Prism takes the pain out of IT management. It makes it easy for your IT team to manage ROBO infrastructure from a central location, and it also makes it possible for untrained remote staff to perform management tasks when necessary.

Powered by advanced data analytics and heuristics, Prism streamlines common IT workflows, providing a single interface for managing servers, storage, data protection, virtualization and more. Prism makes configuring, monitoring, and managing Nutanix solutions remarkably simple. One-click management reduces the administrative burden and the potential for operator error. And Prism allows you to easily schedule and coordinate software updates across all remote installations.

Solve **Remote Data Protection** Challenges

Nutanix provides flexible, built-in backup and DR options and integrates easily with leading vendors to better address diverse needs across remote and edge locations

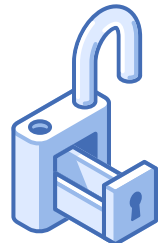
In a simple world, you'd back up all remote sites to a corporate datacenter where the data is protected and secure, but WAN reliability and bandwidth almost always make this impractical.

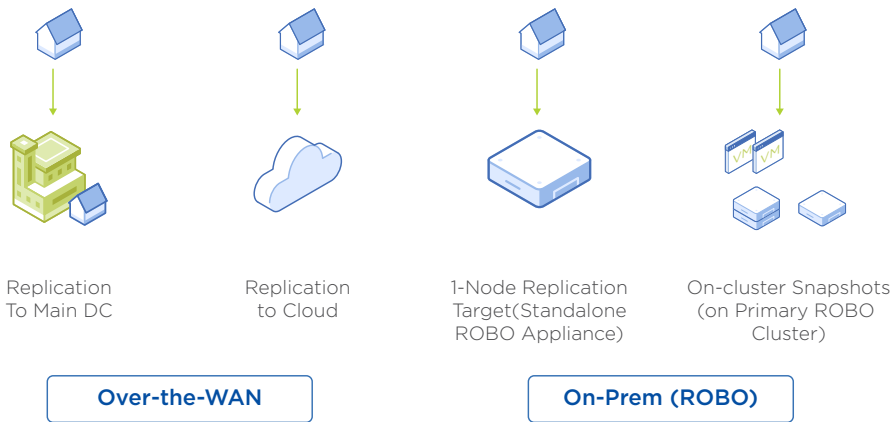
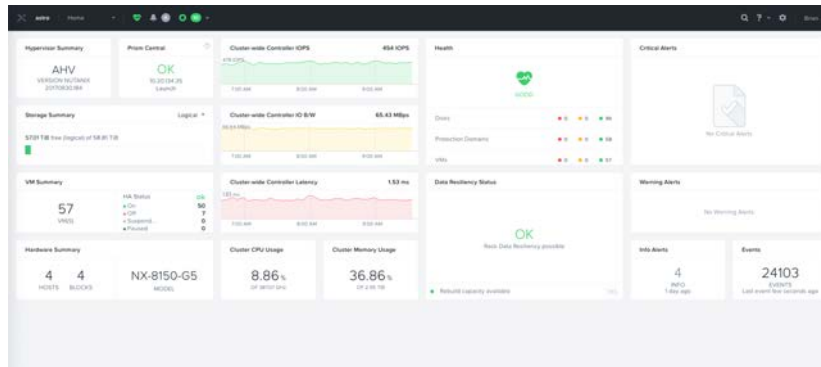
Cloud backup is also attractive for remote locations, but some cloud storage providers charge based upon how quickly you want to move data, and big recoveries can take hours or days over slow network connections.

Even when you're backing up over the WAN or to the cloud, you typically still need some form of local backup to accelerate recovery.

With local backups, the challenge is management. Tape requires someone onsite who can reliably manage tapes and deal with the unique challenges of these devices. Disk-based backup eliminates tape complications and provides greater recovery speeds but can be an expensive option for a small remote site.

Nutanix Cloud Platform includes flexible native protection mechanisms to help you guard your remote business operations against component failure, node failure, or a site-wide outage. Because Nutanix provides a broad range of options, it can address your data protection and DR needs across a diverse set of remote locations.





Nutanix snapshots serve as the first line of defense and the fastest and most convenient recovery point for application problems or user errors, providing production-level data protection without sacrificing performance.

API Support and Partner Integration

Nutanix solutions integrate with popular offload capabilities, including VMware API for Array Integration (VAAI) and Microsoft Offloaded Data Transfer (ODX).

Nutanix provides full REST APIs for integration of backup, DR, and other Nutanix capabilities.

Nutanix backup and DR capabilities integrate with third-party tools from Veeam, HYCU, Veritas, CommVault, and more.

Nutanix 1-Node Replication Target

Nutanix makes it simple and convenient to replicate snapshots for longer-term retention and site-level resilience. The Nutanix 1-node replication target is a local backup solution aimed at solving backup challenges for small remote sites. A separate appliance with a single node and raw capacity up to 120TB is dedicated for storing backups. A single click is all it takes to recover data.

The 1-node replication target is highly available and durable. It can withstand single disk failure without downtime or loss of data. The node runs AHV, eliminating third-party license fees, and the solution is ready to go out of the box. It can be managed from a centralized location with Nutanix Prism. Plus, you can run a limited number of VMs on it in an emergency to maintain availability for a critical workload.

Find Out More:

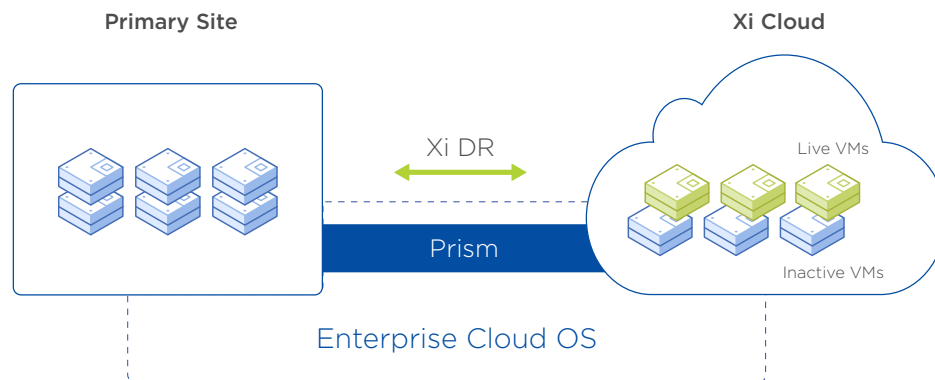
Learn about Nutanix ROBO deployments in these customer case studies:

- [Carmax](#)
- [Kinneapolis](#)
- [Sligro](#)
- [International Speedway Corporation](#)
- [Vast Auto Distribution](#)
- [Tractor Supply](#)

DISASTER RECOVERY

Nutanix remote office and edge solutions offer asynchronous, near-synchronous, and synchronous replication for disaster recovery. Groups of related VMs can be replicated together and brought up in a corporate datacenter or other recovery site if a remote site is down.

With [Xi Leap](#) disaster recovery service, Nutanix brings the ease of one-click operations to disaster recovery. A fully integrated DR-to-cloud solution protects critical applications, data, and services running in ROBO and edge locations without the need to purchase and maintain separate infrastructure. Xi Leap orchestrates the recovery of protected VMs at the recovery location.

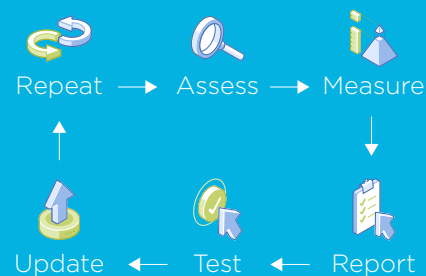


Ensure Security Everywhere

Legacy infrastructure solutions were not designed with security as a primary consideration. The Nutanix architecture takes a security-first approach. Built-in features deliver defense in depth so that data is always protected. Nutanix provides:

- Built-in two-factor authentication, cluster lockdown, and software or hardware-based data-at-rest encryption
- Secure installation and simplified security maintenance
- Deep integration with a broad ecosystem of security partners including SIEM, firewalls, and other security applications
- Identify and fix security issues in real-time across your ROBO, datacenter, and cloud operations.

Securing Entire Platform



Major Endorsements



Find Out More:

- [ROBO Deployment and Operations Best Practices](#)
- nutanix.com/flow
- [Information Security with Nutanix](#)

Integrated Functionality

- Encryption
- Key Management
- Micro-Segmentation
- Database Masking
- Database Patching

Enhanced by Partners

- Firewall
- Anti-Malware
- Anti-Virus
- Encryption
- Key Management

Automatically Detect and Fix Vulnerabilities



Getting Started with Nutanix Solutions for **Remote and Edge Locations**

As a leader in cloud solutions built on hyperconverged infrastructure, Nutanix understands the challenges IT teams face in managing diverse remote locations. Nutanix Cloud Platform is uniquely suited to meet your distributed infrastructure needs. Because Nutanix eliminates IT complexity, simplifies management, and improves data protection and security, it is ideally suited for remote environments. Nutanix software reduces the cost of remote IT, while increasing the level of services you are able to deliver to remote office, branch office, and edge locations.

Designing infrastructure solutions for remote locations begins with assessing each location's needs:

What is the appropriate Nutanix cluster architecture?

- Single-node, two-node, or multi-node?

What virtualization software should you choose?

- Nutanix AHV, VMware vSphere, Microsoft Hyper-V

What additional data services does the location require?

- File, object, block?
- RDBMS?

What level of data protection is needed and how will you deliver it?

- Backup/replicate to datacenter or the cloud?
- Local backup?

What security measures are required?

Using the information discussed in this guide, you should be able to begin thinking about and planning solutions to address your needs in each remote location. Use the links provided in each section to dig deeper into specific topics.

You can also take a test drive of Nutanix infrastructure with no hardware, setup, or cost required. Visit:

- nutanix.com/testdrive

to experience the simplicity and agility of public cloud combined with the performance, security, and control of private cloud via an easy-to-follow guided tour.

Also consider visiting www.nutanix.com/robo, contact us at info@nutanix.com, follow us on Twitter [@nutanix](https://twitter.com/nutanix), or send us a request at www.nutanix.com/demo to set up your own customized briefing and demonstration to see how Nutanix can help.

Stay engaged with Nutanix experts and customers on the Nutanix Next online community next.nutanix.com.

