Invite Azure Local Into Your Data Center

Are you rethinking your virtual infrastructure?

Or are you refreshing and consolidating servers in your data center? Chances are that you have already invested in the cloud but you recognize that you need certain data stored on premises. So you need a private cloud to support these applications but it would be so much less of a burden and risk if it were supported.

You need a rock-solid solution, with the capability to support your enterprise applications and new, cloud-native apps. The solution must be supported in your core data center and at remote and branch offices or locations. It needs performance and reliability to support ever-changing business needs. It should scale with the convenience of hyperconverged storage.

Make your data center one with the cloud

Azure Local with Cisco UCS® servers provides an Azure environment on premises with the backing of both Cisco and Microsoft. You can run Microsoft Windows, Linux, and Kubernetes with Hyper-V virtualization. Hyperconverged storage is supported by Microsoft Storage Spaces Direct, and software-defined networking ties your virtualized environments together with the support of Cisco Nexus® switching for 100-Gbps connectivity throughout. Ours is a high-performance solution with reliable, fast, NVMe storage throughout—not limited to solid-state drives for caching. You can scale from 1 to 16 servers and choose from a wide range of 4th and 5th Gen Intel® Xeon® Scalable processor to gain the number of cores needed to meet your workload needs.

Azure Local with Cisco UCS servers

- Run your enterprise applications in a hybrid-cloud infrastructure on premises and in the cloud
- Use Tier-1 servers to create a hyperconverged solution with all-NVMe storage to maximize performance
- Use Cisco switching for the performance, reliability, and security you can count on—ours is the only current solution with up to 100 Gbps of end-to-end connectivity
- Deploy following a Cisco Validated Design with Cisco Intersight™ automation
- Intersight server profiles, deployed globally, ensure consistent server configuration
- Manage your on-premises cloud environment with the Azure portal or Windows Admin Center
- Contact either Cisco or Microsoft for support

Why Cisco and Microsoft?

We can think of several reasons why our solution belongs in your data center:

- We are a Tier-1 server vendor with a single tier of storage that eliminates complexity and speeds performance
- The solution incorporates 100-Gbps networking that delivers the performance needed by modern applications
- Cisco is the leader in data center networking, so you can use the technology standard you probably already have in your data center.
- Systems are interconnected with Cisco Nexus 9000 Series Switches or those from the Microsoft compatability list
- Use Microsoft Azure Arc and Cisco Intersight for comprehensive system management from one screen
- We have worked with Microsoft since 2009, in fact we used Microsoft tools to develop the Cisco UCS Manager GUI
- Our support model means that Microsoft handles your support call and works with Cisco if a hardware issue is suspected

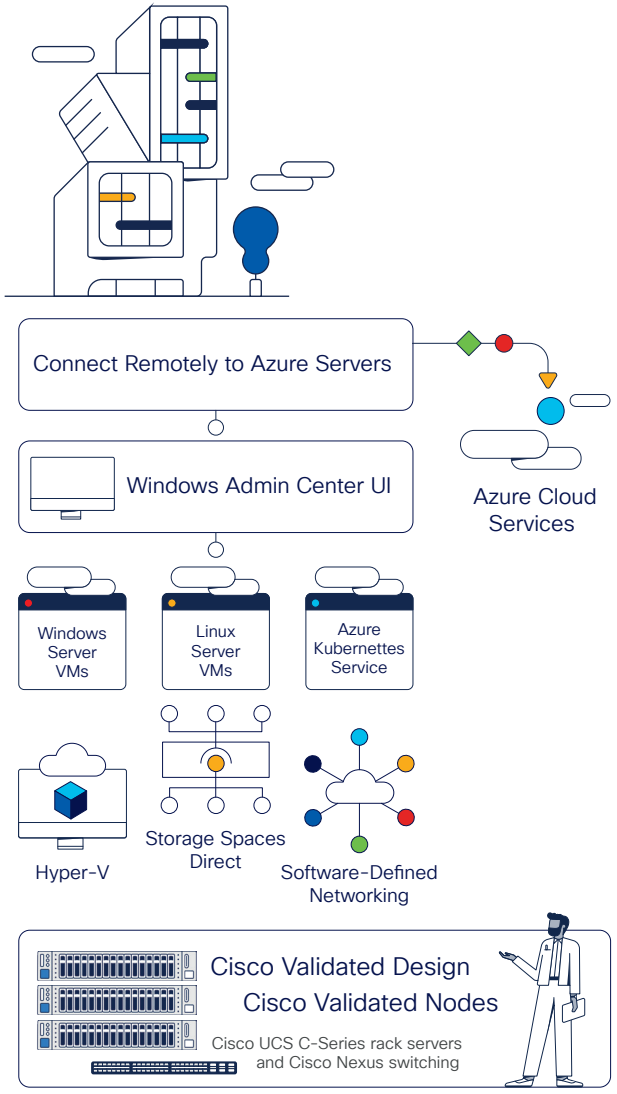
With the convenience and support of Azure in your data center, you can use the same environment in the cloud, on premises, and in branch and remote locations. You can manage your virtual environment with the Azure portal for complete consistency between clouds. Your physical infrastructure is managed with the cloud-based Cisco Intersight® IT operations platform, with role- and policy-based management, your deployments are consistent and repeatable wherever they are located.

Microsoft Validated Nodes

We've created a Cisco Validated Design that guides deployment and acts as a cookbook to minimize risk. Our servers have achieved Validated Node certification with Microsoft. This means that we have a support model where a single call to Microsoft solves any software issue and any infrastructure issues are covered by the Cisco Technical Assistance Center (Cisco TAC). Our two support teams work together to ensure that you're never caught in the middle. Indeed, an always-on connection between Intersight and Cisco TAC helps to proactively identify issues and send security updates or replacement parts sometimes even before a failure occurs.

Rapid OS updates

The Azure Local OS is on a frequent-update track at Microsoft, with releases expected every six months rather than every few years. Because your environment is fully supported, minor updates are applied automatically.



Use Azure Local to meet all of your enterprise needs

Microsoft SQL Server

- Millions of IOPS and database transactions are possible through low-latency, all-NVMe design
- New features in SQL Server 2022 such as SQL Managed Instance make it easy to move data as needed between clouds
- We have a long history of setting database performance records including on TPC-H

Enterprise virtualization

- Easily migrate your VMware vSphere virtual machines to run with Hyper-V support
- Reduce TCO through reduced management and an economical fee structure
- Centralized Azure Local OS updates help your data center always have up-to-date software

Cloud-native applications

- Use a supported, on-premises Azure Kubernetes Service to support cloud-native applications
- Eliminate the management headaches of building your own containerized environment
- Develop locally and deploy in the cloud, or vice versa, depending on your data locality requirements

Remote and branch offices

- Increase efficiency with Azure Local—deploy to remote locations yet manage centrally through Azure Arc and Intersight
- Increase efficiency by deploying small 1- to 2-server clusters
- High availability and storage resiliency are provided by Microsoft Storage Spaces Direct

Virtual desktop infrastructure

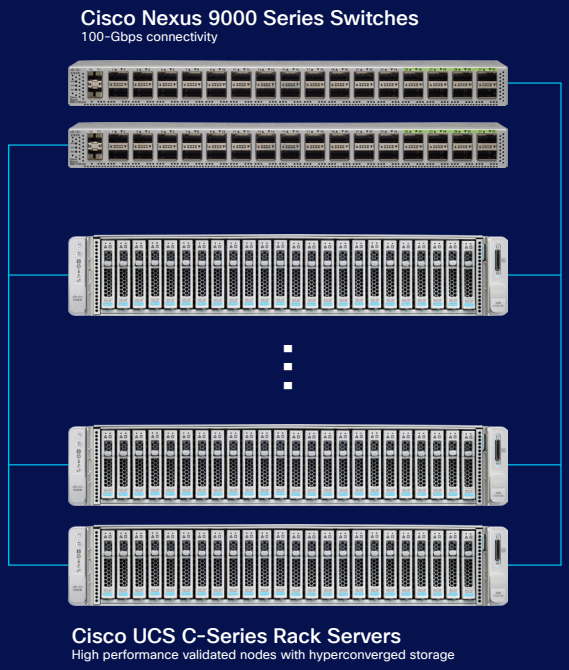
- Provide work-from-anywhere support your on-premises infrastructure or in the cloud
- Streamline access to internal applications while minimizing the impact of laptop loss
- Enjoy a seamless user experience with up to 250 Citrix or Omnissa Horizon 8 virtual desktop users per server

Secure core servers

- Enhance exploit protection with hardware and software-based mitigations
- Secure communication between endpoints with Transport Layer Security (TLS) 1.3
- Improve account support across containers and server farms with group Managed Service Accounts in Active Directory

100 Gbps connectivity with Cisco Nexus switching

- Choose from 1 to 16 servers
- Choose Cisco Nexus or third-party switches



Per-core licensing Azure Local OS
Operating system licensing is on a per-core basis, so you can size your infrastructure to match specific workload environments—ultimately reducing costs by avoiding licenses that aren't really necessary. Cisco Intersight gives you the option of specifying the number of cores to enable, so you can even purchase more cores than you need at first and have the headroom to enable more cores (and licenses) when and if they become necessary. You gain software-based hardware scaling.

It's your data center

When you invite Azure Local into your data center, you deploy Cisco UCS validated nodes in your own system racks. Azure Local integrates computing, networking, and storage into a uniform hyperconverged environment that delivers the features you have grown to love with Azure.

When you choose the Cisco solution, you can install and manage your infrastructure from the cloud with the Cisco Intersight IT operations platform. You can use Intersight Infrastructure Service to automate server deployment so that your Azure Local environment is deployed quickly and accurately—and if you wish to deploy the solution in multiple locations, you get consistency wherever the location.

For managing your Windows Server virtual machines, Linux Server virtual machines, and Kubernetes containers, you connect remotely to the Azure portal and manage your on-premises environment exactly as you manage your cloud instances. For operating system management, the familiar Windows Admin Center is available.

Azure Local brings a compelling value proposition: because you are managing your own data center, you chose which data you back up to Azure and Microsoft may offer lower pricing to do so given your system investment. If there is a security breach, any cloud vendor will apologize but what new procedures are implemented to help secure your data? You can segment your data and decide what remains on site and what can be cloud based.

It's your data center, and you can maximize its value to your clients by deploying Azure Local for physical, virtual, and containerized deployments.

Learn more

- Read the Cisco Validated Design
- View validated nodes available from Cisco