

Azure Stack: Hybrid cloud your way

Get cloud benefits for every workload

As organizations race to digitally transform, many are finding they can move faster by using public cloud services to build on modern architectures and refresh legacy apps. Many workloads, however, must remain on-premises, for reasons that include technological and regulatory obstacles.

Microsoft has you covered with hybrid cloud options for every workload – whether you need public, private, or hybrid. The right hybrid cloud strategy provides what you need where you need it, delivering cloud innovation for workloads wherever they reside.



Choose from two comprehensive Azure Stack solutions

Use public cloud services

For on-demand, self-service computing resources to migrate and modernize existing apps and build new cloud-native apps.

Operate cloud services on-premises

Build and run cloud applications at the edge, when disconnected, or to meet regulatory requirements—using consistent Azure services on-premises.

Run virtualized apps on-premises

Run virtualized applications on-premises, replace and consolidate aging server infrastructure, and connect to Azure for cloud services.

Microsoft Azure

Azure Portal, API, IaaS and PaaS, and cloud platform admin tools

Cloud compute, storage, and networking

Azure hardware

Microsoft Azure Stack

Hyperconverged compute, storage, and networking

Industry standard hardware

Microsoft Azure Stack HCI

On-premises

What I use:

More than 100 services available in 54 regions around the globe

What I use:

Azure VMs for Windows and Linux
 Azure Web Apps and Functions
 Azure Key Vault
 Azure Resource Manager
 Azure Marketplace
 Containers
 Azure IoT Hub and Event Hubs
 Admin tools (Plans, offers, RBAC, etc.)

What I use:

Validated HCI solutions powered by Hyper-V and Storage Spaces Direct with Windows Server 2019 SDDC
 Windows Admin Center for management and integrated access to Azure services such as:

- Azure Backup
- Azure Site Recovery
- Azure Monitor and Update Management

Azure Stack is an extension of Azure – bringing the agility and innovation of cloud computing to your on-premises environment.

Edge and disconnected solutions

Run Azure Stack at the edge for remote locations or intermittent connectivity, run it disconnected from the internet, or create hybrid solutions—process data locally in Azure Stack and then aggregate it in Azure for additional processing and analytics.

Example use cases:

- Financial modeling
- Clinical and claims data
- IoT device analytics
- Retail assortment optimization
- Supply-chain optimization
- Industrial IoT
- Predictive maintenance
- Smart city
- Citizen engagement



Cloud applications that meet regulatory requirements

Meet your specific regulatory or policy requirements with full flexibility to deploy on-premises using Azure Stack—without changing any code.

Legacy systems modernization

Apply a consistent DevOps process, Azure web services, containers, serverless computing, and microservices architectures to update and extend your legacy data locked in mainframe and core business process applications.

Consistent tools, experiences, and application models

Easily transfer your skills and processes between Azure clouds while using the tools you want. Maximize productivity by building and deploying applications the same way, whether your apps run on Azure or Azure Stack.

One set of tools. Use the same application model, self-service portal, and APIs with Azure Resource Manager.

Common DevOps. Experience continuous deployment and integration using Jenkins and Azure DevOps, and automation using Chef and Azure PowerShell DSC extensions.

Open source. Use a broad range of open source technologies, including Java, Python, Node.js, PHP, Kubernetes containers, and Cloud Foundry.

Run the same Azure services across cloud boundaries

Meet your business and technical requirements by using the right combination of cloud and on-premises deployments for your needs. Azure infrastructure as a service (IaaS) delivery goes far beyond traditional virtualization. Use Virtual Machine Scale Sets for rapid deployments with true autoscaling for modern workloads.

Consistent Azure platform as a service (PaaS) capabilities bring hybrid deployment choice and portability to cloud applications. Run fully managed PaaS, serverless computing, distributed microservices architectures, and container management on-premises.

Key features

- Azure VMs for Windows and Linux
- Azure Web Apps and Functions
- Azure Key Vault
- Azure Resource Manager
- Azure Marketplace
- Containers
- Azure IoT Hub and Event Hubs (coming soon)
- Admin tools (Plans, offers, RBAC, etc.)

Get going quickly with one Azure ecosystem

Our purpose-built integrated system design gets you up and running quickly. Enjoy the continuous innovation of Azure through regular software updates.

Key partners

- Avanade
- Cisco
- Dell EMC
- Fujitsu
- HPE
- Huawei
- Lenovo
- Wortmann

Azure Stack HCI is Microsoft's hyperconverged solution available from a wide range of hardware partners.

Refresh aging hardware

Replace older servers and storage infrastructure and run Windows and Linux virtual machines on-premises and at the edge with existing IT skills and tools.



Use cases:

- Remote or branch office systems
- Datacenter consolidation
- Virtual desktop Infrastructure
- Business-critical infrastructure
- Lower-cost storage
- High availability/disaster recovery in the cloud
- Enterprise apps like SQL Server

Consolidate virtualized workloads

Consolidate legacy apps on an efficient, hyperconverged infrastructure. Tap into the same types of cloud-efficiencies used to run hyper-scale datacenters such as Microsoft Azure.

Connect to Azure for hybrid cloud services

Streamline access to cloud management and security services in Azure, including offsite backup, site recovery, cloud-based monitoring, and more.

Hyperconverged efficiencies

Azure Stack HCI solutions bring together highly virtualized compute, storage, and networking on industry-standard x86 servers and components. Combining resources in the same server node cluster makes it easier for you to deploy, manage, and scale. Manage with your choice of command-line automation or Windows Admin Center.

Achieve industry-leading virtual machine performance for your server applications with Hyper-V, the foundational hypervisor technology of the Microsoft cloud, and Storage Spaces Direct technology with built-in support for NVMe, persistent memory, and remote-direct memory access (RDMA) networking.

Help keep apps and data secure with shielded virtual machines, network micro-segmentation, and native encryption for data at rest and in transit.

Hybrid capabilities

Take advantage of cloud and on-premises working together with the only hyperconverged infrastructure platform from a leader in public cloud. Your team can start building cloud skills with built-in integration to Azure infrastructure management services:

- Protect virtual machines and use cloud-based Azure Backup and disaster recovery (HA/DR) with Azure Site Recovery.
- Use Azure for cluster quorum in failover clustering with Cloud Witness.
- Track what's happening across your applications, network and infrastructure with the help of advanced analytics and machine learning in Azure Monitor.
- Simplify network connectivity with Azure Network Adapter.
- Keep virtual machines up to date with Azure Update Management.

Microsoft-validated solutions

Azure Stack HCI solutions must meet rigorous validation requirements to ensure reliability and compatibility with the underlying hardware platform. Choose from more than a dozen partners around the world that offer multiple configuration options, deployment services and support. Visit the [Azure Stack HCI solution catalog](#).

Learn more at Microsoft.com/HCI

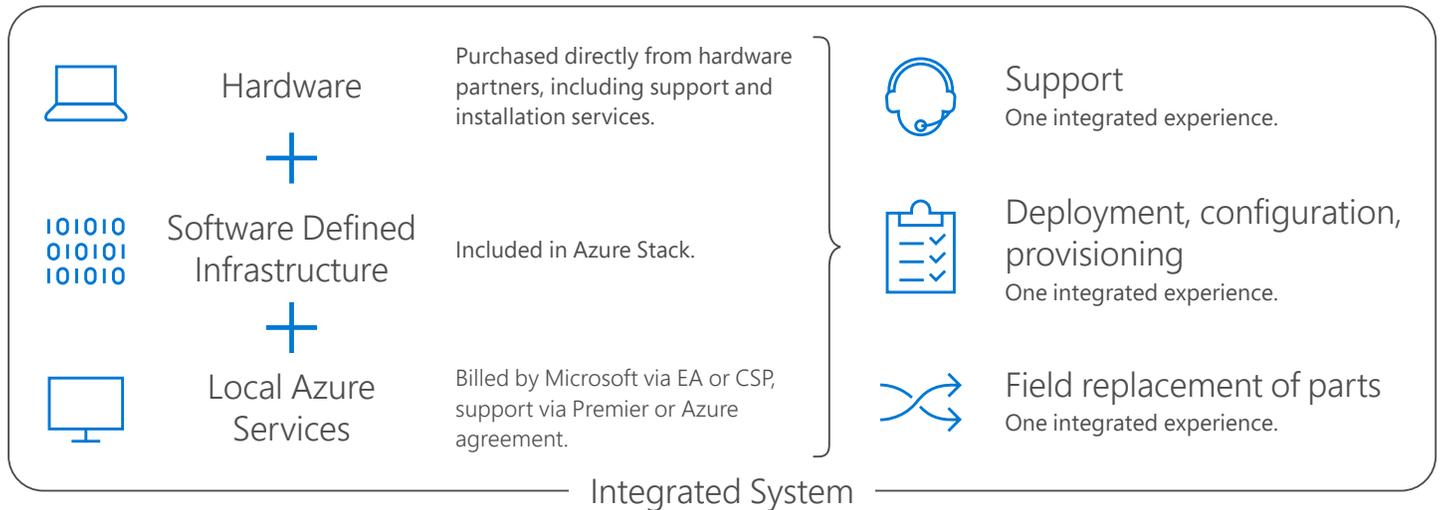
Key features

- Validated HCI solutions with Hyper-V and Storage Spaces Direct
- Windows Admin Center
- Integrated access to Azure services:
 - Azure Backup
 - Azure Site Recovery
 - Azure Monitor and Update Management
 - Azure Network Adapter
 - And more

Key partners

- ASUS
- Axellio
- bluechip
- DataON
- Dell EMC
- Fujitsu
- HPE
- Hitachi
- Huawei
- Lenovo
- NEC
- primeline Solutions
- QCT
- SecureGUARD
- Supermicro

How to buy Azure Stack



Integrated delivery experience

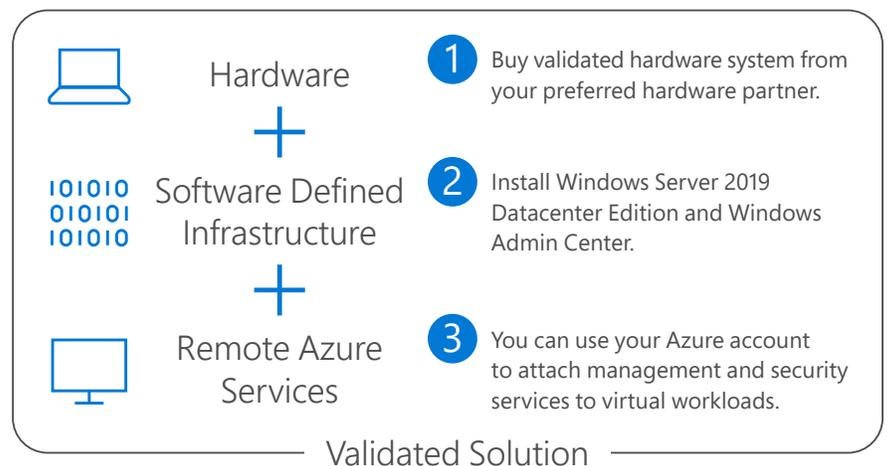
Get up and running quickly with purpose-built Azure Stack integrated systems from your preferred partner. These systems come fully ready to run and offer consistent, end-to-end customer support no matter whom you call.

Pre-validated software updates delivered on a predictable schedule enable you to benefit from continuous innovation available from Azure. Add new services and additional Azure Marketplace applications.

- 1 Choose from the following hardware approaches and purchase from your preferred partner.
 - Microsoft Azure Stack Development Kit.** A single node non-production proof of concept deployment for Dev/Test and training.
 - Azure Stack Integrated Systems.** Production integrated systems with pre-integrated software and hardware.
- 2 Size your Azure Stack solutions to meet your requirements and future needs. Start as small as four nodes and scale as needed.
- 3 Customize your Azure Stack—select and set up additional foundational and PaaS services from the supported list.

How to buy Azure Stack HCI solutions

Choose the hardware [partner and configuration](#) that best fits your needs. More than a dozen partners offer validated solutions, as well as deployment support and service.



Choose the Azure Stack solution that's right for you

<http://azure.com/azurestack>