

kyndryl™

# Development for Private Cloud Infrastructure

When you need to quickly establish a private cloud hyperconverged infrastructure with Microsoft Azure Stack HCI

## Highlights

- Establishes a future-ready private cloud infrastructure wherever you choose
- Simplifies complex decisions and accelerates results with trusted designs and a ready-to-go delivery team
- Quickly delivers reference design models for faster deployment of Azure Stack HCI and integration with Azure services ecosystem
- Reduces costs by making use of existing assets and reaping benefits quickly



Today's competitive companies are using a combination of public and private cloud infrastructure to secure their mission-critical data and workloads. According to a Forrester report, "Organizations are drawn to private cloud for many reasons: to maximize opportunity cost and existing investments, to safely test new innovation models and tools, and to handle performance- or compliance-sensitive applications."<sup>1</sup> Moving to a cloud infrastructure can also help minimize data center facility space and maximize server virtualization. Companies want a reliable, secure and consistent private cloud infrastructure with minimal total cost of ownership (TCO) and complexity.

"Modern IT infrastructure, at least in the form of Hyperconverged Infrastructure (HCI), is not like cloud – it *is* cloud. Today's IT leaders recognize that cloud is not a destination, but an experience, distinguished by a common set of transformative attributes," as well stated in 451 Research's Technology & Business Insight HCI Thought Leadership report.<sup>2</sup>

Development for Private Cloud Infrastructure takes the complexity out of establishing a private cloud infrastructure and lays the groundwork for transformation. Kyndryl experts build the environment wherever you choose—on your company's premises, in a Kyndryl data center or other data center. Remote services deliver Microsoft Azure Stack HCI with Kyndryl's architecture for client-owned physical hardware. We can adapt the reference design to address your preferences.

## Establishes a future-ready private cloud infrastructure wherever you choose

Development for Private Cloud Infrastructure can build a rock-solid foundation in your hybrid and multicloud environments.

451 Research's Voice of the Enterprise report on HCI Technology & Platform Innovation confirms that HCI has "changed the on-premises infrastructure game. Over time, HCI has evolved from an enterprise virtualization accelerant into a full-blown cloud-native infrastructure foundation that organizations lean on to meet internal goals for on-premises modernization. Agility is the name of the game for modern IT, and HCI represents the new normal for on-premises infrastructure."<sup>3</sup>

Kyndryl experts establish and virtualize your physical infrastructure, wherever you choose to deploy. We offer design and planning to guide purchase decisions, integrate the new environment with your existing environment, and remotely deliver implementation services to access, implement, configure, and establish clusters with Microsoft Azure Stack HCI. Once deployed, the private cloud foundation is ready to expand with orchestration, automation, security and resiliency to establish an enterprise-grade platform.

### Simplifies complex decisions and accelerates results with trusted designs and a ready-to-go delivery team

Organizations worry about the complexity and vast number of choices involved in the design of physical and virtualization layers for a private cloud. Too many options can become confusing, and companies need the technical expertise to make the right purchase decisions for an optimized private cloud. Kyndryl's experienced teams offer guidance, considerations and standardized blueprints with options to meet your organization's preferences.

Development for Private Cloud Infrastructure deploys any Microsoft validated integrated system or server configuration for Azure Stack HCI. Kyndryl specialists accelerate the infrastructure foundation with a detailed design process, plans and project management artifacts developed with our world class project management methodology, and compute subject matter experts ready to implement and configure the environment. Armed with established processes, our team can move quickly to implement your private cloud infrastructure foundation.

Kyndryl is ready to help your team however you wish to engage – with design, plan, implement, or all 3 services to establish the private cloud environment your enterprise will depend upon and scale for a solid and bright future.

### Quickly delivers reference design models for faster deployment of Azure Stack HCI and integration with Azure services ecosystem

Companies generally want to include their enterprise preferences in the architectural design of their private cloud. At the same time, they need to avoid a

piecemeal solution with repurposed equipment and tools. Development for Private Cloud Infrastructure features building blocks to adapt your cloud design to your needs. Reference architectures can be customized to include existing investments and preferences. The service includes ready-to-use reference design models for physical servers, storage, network and virtualization deployment and configuration based on Microsoft recommendations and best practices.

Kyndryl research, collaboration and design with Microsoft help move you quickly and confidently through the design, order and implementation process without interrupting ongoing operations. Kyndryl's partnership with Microsoft provides delivery teams with premium access to Microsoft support throughout the project.

### Reduces costs by making use of existing assets and reaping benefits quickly

Over 50% of enterprises surveyed by IDC expect their organization's IT infrastructure spend to increase in both server hardware and HCI compared to 2021, with IT modernization and IT automation as top drivers for on premise investment.<sup>4</sup> So, it makes sense that these organizations seek to repurpose some existing IT technology assets in their private cloud infrastructure foundation wherever possible.

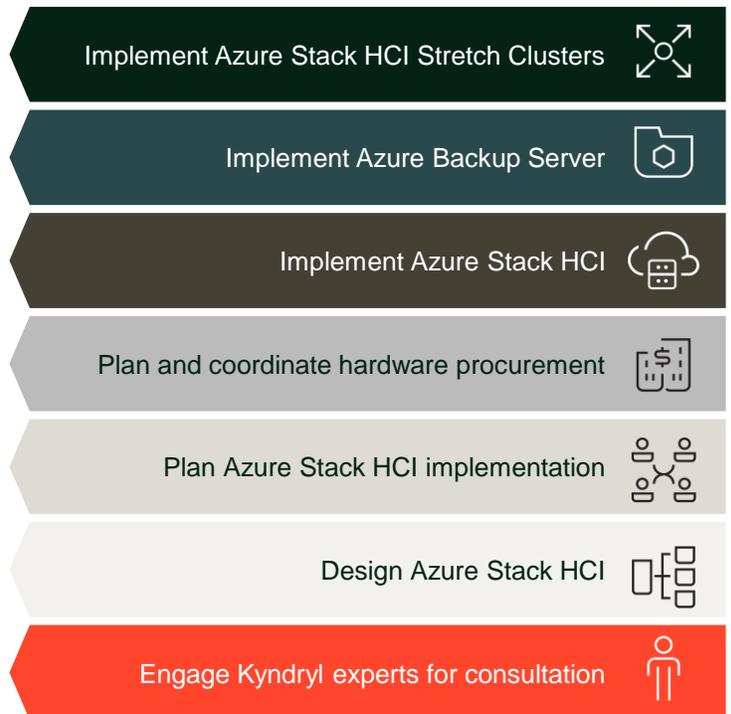


Figure 1. Development for Private Cloud Infrastructure service components

“Azure Stack HCI has a broad set of deployment options, from purchasing pre-validated nodes from major OEMs to using customers’ existing hardware, offering considerable flexibility.”

TBR Hyperconverged & Converged Market Landscape 1Q22, Computer Business Quarterly, January 2022

Kyndryl guides and Client directs physical integrated system or server system from 70+ hardware configurations validated by Microsoft. The Development for Private Cloud Infrastructure solution provides the flexibility to partner with Kyndryl to further customize, monitor and manage, or you can choose to configure and manage your private cloud.

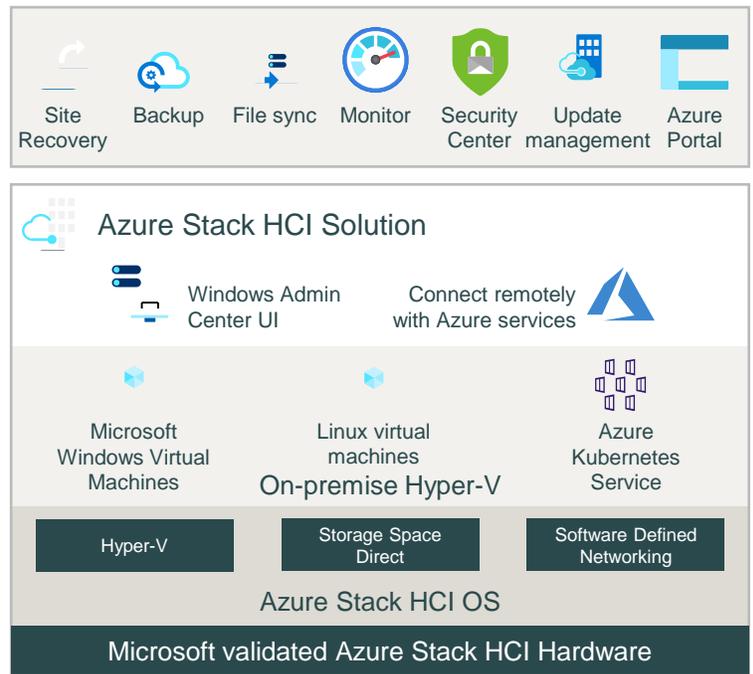


Figure 2. Azure Stack HCI implementation, technical components

Technical aspect	Architecture and implementation
Compute	Microsoft validated integrated systems and nodes
Compute virtualization	Microsoft Azure Stack hyperconverged infrastructure (HCI), Hyper-V
Storage virtualization	Storage Space Direct
Network virtualization	Microsoft Azure Stack HCI Software Defined Networking (SDN)
Virtualization management	Microsoft Azure Stack HCI, Microsoft Windows Admin Center, Microsoft Azure
Container services	Microsoft Azure Kubernetes <sup>†</sup>
Management services	Microsoft Azure Arc <sup>†</sup> , Microsoft Azure Monitor <sup>†</sup>
Backup and DR	Microsoft Azure Backup <sup>†</sup> , Microsoft Azure Site Recovery <sup>†</sup>

Figure 3. Azure Stack HCI implementation, technical and management services

<sup>†</sup> Optional components



The good news is that Kyndryl's optimized reference architectures can be customized to accommodate your existing investments and preferences. Development for Private Cloud Infrastructure is designed to easily adapt to meet individual requirements, including building on your heritage IT assets to reduce TCO and enhance ROI. The solution works with your existing compute, storage and network environment, integrating cloud functionality and content with building blocks that adapt your cloud design to your specifications.

## Conclusion

With Development for Private Cloud Infrastructure, your organization gains a single trusted provider that can quickly design, coordinate, implement and virtualize your private cloud infrastructure—wherever you wish to install it. Its key differentiators are as straightforward as the service itself: cost, simplicity and expertise. The price point is designed to help you get started and reap benefits quickly. The service is all about simplifying the complex with standardized blueprints along with an adaptable building block design to accommodate specific details and preferences. Clients benefit from Kyndryl's expertise, reducing risk without relinquishing architectural control.

# Why Kyndryl

Kyndryl has the capabilities and global reach needed to support large enterprises with their cloud needs. We have contracts and relationships in place to efficiently serve organizations regardless of size or geography. Kyndryl has a demonstrated ability to deliver and integrate a complete private cloud solution with software and services. Kyndryl architectures are endorsed by major hardware and virtualization providers and Kyndryl's Cloud Advisory Services, enabling confident technology decisions. Through our deep experience as a technology provider, trusted advisor and expert builder of private cloud infrastructure, Kyndryl is uniquely positioned to create a robust private cloud for our clients.

## For more information:

To learn more about Multicloud Infrastructure Development Services, contact your Kyndryl representative or business partner.



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<sup>1</sup> Forrester Adoption Profile: Private Cloud In North America, Q4 2020

<sup>2</sup> 451 Research's Technology & Business Insight HCI Thought Leadership report, January 2022

<sup>3</sup> 451 Research's Voice of the Enterprise report on HCI Technology & TBR Platform Innovation, March 2022

<sup>4</sup> IDC Trends in Enterprise Infrastructure IT Spending, March 2022

