

FUJITSU Integrated
System PRIMEFLEX
for Microsoft
Azure Stack Hub

eBook



Windows Server:
Power your business.



**PRIMEFLEX for
Microsoft
Azure Stack Hub**

About this document

Business context

The need for hybrid cloud

Hybrid cloud practicalities

Azure Stack Hub: An emerging solution

Fujitsu's view of the opportunity and need

Meet PRIMEFLEX for Microsoft Azure Stack Hub

Adding value to Azure Stack Hub

Fujitsu: A one stop shop for your hybrid IT



About this document

Our aim in this eBook is to provide a concise overview of what matters about Microsoft's latest hybrid cloud solution, where it might fit into your plans and activities, and how Fujitsu can help you leverage the potential of this exciting new technology option.

It's all about infusing flexibility, speed and efficiency into your application and service delivery, and indeed into your business strategy as a whole. But to be successful, there are some important things you need to know, and that's what we'll be covering.

In Part 1 of this document, we have asked industry analyst firm Freeform Dynamics to set the scene and lay out some key principles and requirements. This independent perspective will help you cut through the industry noise in this space and focus on the right things for the right reasons. Be sure to take note of the key imperatives highlighted on each page as you read what Freeform Dynamics has to say.

In Part 2 we move onto the Fujitsu perspective and take a look at how PRIMEFLEX for Microsoft Azure Stack Hub – Fujitsu's fully integrated Microsoft-based hybrid cloud solution - accelerates you towards success. We finish off this section by zooming out to consider how hybrid cloud is part of the broader hybrid IT discussion, and why Fujitsu's inclusive philosophy and approach makes it such a good strategic partner.

We hope you find this resource useful as you continue along your cloud journey.



Windows Server:
Power your business.

PRIMEFLEX for Microsoft Azure Stack Hub

About this document

Business context

The need for hybrid cloud

Hybrid cloud practicalities

Azure Stack Hub: An emerging solution

Fujitsu's view of the opportunity and need

Meet PRIMEFLEX for Microsoft Azure Stack Hub

Adding value to Azure Stack Hub

Fujitsu: A one stop shop for your hybrid IT



Business Context

It sometimes feels like a digital whirlwind. New technology options enable new and disruptive ways of doing things, and every disruption drives the need for more and better technology. The whirlwind created is self-perpetuating, and it's software that keeps it spinning.

In order to keep up, IT teams need to optimize software and service delivery. Iterative approaches such as Agile and DevOps are important here, but so too is cloud computing.

Cloud platforms from the likes of Amazon, Microsoft and Google put rich functionality just an API call away, while providing access to almost limitless resources on demand. Everything becomes more flexible and responsive from development to ops.

As you gain experience, however, it becomes less about the benefits of the cloud model per se, and more about how you maximize flexibility without losing control. Each provider offers something different, and project teams want the freedom to use the cloud(s) of their choice. It's all too easy to end up with cloud sprawl.

A much more challenging business environment

- Faster and ever-changing markets
- New and different competitors
- New and innovative business models
- Constantly evolving business demands



A growing focus on key technology imperatives

- Increased emphasis on software
- The 'fail fast' experimental approach
- Agile, DevOps and Continuous Delivery
- The hybrid cloud computing model

If you don't have one already, you therefore need a multi-cloud strategy to define how you will exploit a select number of cloud options in a coherent manner, both technically and commercially.

Mixed up in this conversation is the question of where clouds reside and where individual workloads should run. Geography is a consideration here, but so is the role of your data center and the notion of clouds deployed on your premises or in a private hosted environment. This is where hybrid cloud platforms come into play.

KEY IMPERATIVES

-  Make sure you understand the role of cloud and where it fits as a transformation enabler, within both IT and the business.
-  Consider the cloud services and platforms that really matter to you, then formulate a coherent multi-cloud strategy.

The need for hybrid cloud

PRIMEFLEX for Microsoft Azure Stack Hub

About this document

Business context

The need for hybrid cloud

Hybrid cloud practicalities

Azure Stack Hub: An emerging solution

Fujitsu's view of the opportunity and need

Meet PRIMEFLEX for Microsoft Azure Stack Hub

Adding value to Azure Stack Hub

Fujitsu: A one stop shop for your hybrid IT



Public cloud services are a good fit for many requirements, but not all. Sometimes an application must be executed in close proximity to existing on-premises systems or business users for performance purposes. On other occasions compliance requirements or customer expectations mandate strict control over data location.

Depending on the provider, and the specific requirement at hand, other concerns may exist in areas such as security, privacy, data protection and quality of service.

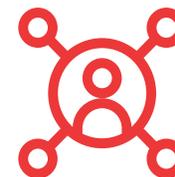
You also shouldn't take cloud economics for granted. Despite flexible, on-demand payment models, you won't always save money. The case for public cloud might initially look good in relation to a specific application or workload requirement, but the numbers may not always add up if you bear in mind sunk costs relating to facilities, skills, resources, etc.

In an attempt to deal with these issues, platform software for creating on-premises clouds has existed for a while, but has

typically worked differently to mainstream public clouds. The added complexity has then often undermined the benefits - more target platforms for developers, and more environments for ops teams to manage.

It's against this background that modern hybrid cloud solutions have emerged. These allow public and on-premises (or privately-hosted) clouds to be created that look and behave almost identically, even at the higher-level platform services and workload orchestration levels.

Public cloud barriers:
Security, privacy and data sovereignty...
...latency and connectivity



KEY IMPERATIVES

-  Define your own technical and business criteria for determining where an individual application or workload should run.
-  Review your application portfolio and delivery pipeline considering the optimal location and platform for each service.

Hybrid cloud practicalities

As you explore the options available on the market, you'll find there are two routes that vendors have taken to come up with their hybrid cloud offerings.

The first approach involves taking software platforms originally designed to run on-premises and deploying them in a large-scale hosted environment. The platforms involved often have their roots in the world of traditional x86 virtualization and hyper-convergence, which means they may be more familiar to your operations team.

The second approach stems from mainstream service providers making their public cloud platforms, or at least the main elements of them, available for deployment on-premises. Given software developers' natural affinity for public cloud, such platforms may be more familiar to your development and DevOps teams.

Both approaches have their place, but the momentum associated with global providers such as Microsoft, Amazon and Google favors the second for those

'cloud native' applications that underpin your digital strategy. Your on-premises or privately hosted cloud environment becomes consistent with recognized public cloud services, so the skills required to develop and manage it are the same. You also have the freedom to migrate workloads to and from mainstream public cloud services with ease.

But hybrid cloud platforms are not magic. The on-premises element is fundamentally still just hardware and software, so normal enterprise operations requirements apply.



KEY IMPERATIVES

- 
 Get yourself up to speed on the different approaches to hybrid cloud, and the high-level pros and cons associated with each.
- 
 Make sure you understand the security, data protection and overall management and integration requirements.

PRIMEFLEX for Microsoft Azure Stack Hub

About this document

Business context

The need for hybrid cloud

Hybrid cloud practicalities

Azure Stack Hub: An emerging solution

Fujitsu's view of the opportunity and need

Meet PRIMEFLEX for Microsoft Azure Stack Hub

Adding value to Azure Stack Hub

Fujitsu: A one stop shop for your hybrid IT



PRIMEFLEX for Microsoft Azure Stack Hub

About this document

Business context

The need for hybrid cloud

Hybrid cloud practicalities

Azure Stack Hub: An emerging solution

Fujitsu's view of the opportunity and need

Meet PRIMEFLEX for Microsoft Azure Stack Hub

Adding value to Azure Stack Hub

Fujitsu: A one stop shop for your hybrid IT



Azure Stack Hub: An emerging solution

Of the mainstream public cloud service providers, Microsoft has arguably progressed the most with hybrid cloud. Its approach is to bring Azure to on-premises or private hosted environments in the form of Azure Stack Hub. As the name suggests, this is essentially the same software stack that Microsoft uses to power its own public cloud services.

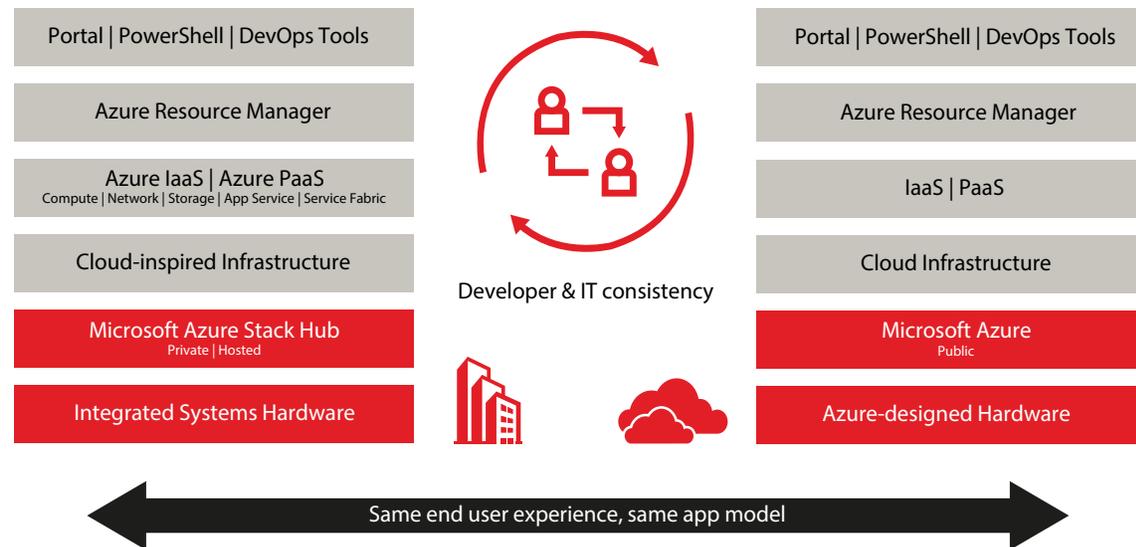
In practical terms, Azure Stack Hub is always delivered via partners in the form of an integrated system. Microsoft mandates a certified and appropriately-configured

underlying hardware layer to make sure that Azure Stack Hub looks and behaves as much like the Azure public cloud as possible. This is important to unlock the benefits of consistency we outlined earlier.

The integrated systems approach also allows Microsoft to maintain any Azure Stack Hub system as a 'known' extension of the public cloud. When new platform capabilities or services are rolled out in Azure, with a few exceptions, Microsoft will take care of deploying them to your on-premises environment.

The exceptions are certain services in areas such as AI and IoT that need the reach and sheer scale of the public cloud to function fully. That said, most Azure IaaS and PaaS services are supported by Azure Stack Hub, albeit sometimes with a delay - Microsoft's policy is always to roll out to the public cloud first.

As a notional extension of Azure, Azure Stack Hub is generally paid for on a subscription basis, though capacity-based charging is available for disconnected scenarios. Reuse of existing Microsoft software licenses is often possible.



KEY IMPERATIVES

- Make sure you fully understand the practical detail, e.g. the differences between Azure and Azure Stack Hub, and the nuances of the commercial model.
- Leverage your partner to help with assessment, planning, design and implementation.



Windows Server:
Power your business.

PRIMEFLEX for Microsoft Azure Stack Hub

About this document

Business context

The need for hybrid cloud

Hybrid cloud practicalities

Azure Stack Hub: An emerging solution

Fujitsu's view of the opportunity and need

Meet PRIMEFLEX for Microsoft Azure Stack Hub

Adding value to Azure Stack Hub

Fujitsu: A one stop shop for your hybrid IT



Fujitsu's view of the opportunity and need

At Fujitsu we see our customers looking to exploit Azure Stack Hub to create IaaS or PaaS environments to speed application development and deployment. Early use cases include the on-premises development and/or deployment of Azure cloud solutions, e.g. where data storage and/or application execution needs to stay on-premises for performance, policy or compliance reasons.

Another important set of needs is emerging around 'edge' scenarios and disconnected solutions. Examples here include the use of Azure Stack Hub in an industrial IoT context, or in remote locations with limited, unreliable or intermittent connectivity. Deploying an Azure Stack Hub integrated system to run Azure-compatible applications and workloads on-premises therefore holds plenty of appeal.

But at Fujitsu we know that embracing cloud architectures doesn't mean you can forget about important systems principles and needs. You still have to care about the physical infrastructure you put into your data center, and how well everything works together. This is why our focus is on high-performance yet energy efficient integrated systems, delivered with the tools you need to manage your Azure Stack Hub environment effectively and efficiently to enterprise standards.

If you are looking for a fast path to Azure Stack Hub we also know that you are going to need a fully integrated service experience, no matter where you decide to deploy. This includes getting help with licensing, application migration and data protection, plus guidance on your more strategic journey to a full multi-cloud approach.



← Focus on the business →

KEY TAKEAWAYS

- ✓ Fujitsu can help you understand where Azure Stack Hub fits, and how to get the most from it.
- ✓ Fujitsu integrated systems reduce complexity, time and cost, and are backed by a comprehensive set of services.



Windows Server:
Power your business.

PRIMEFLEX for Microsoft Azure Stack Hub

About this document

Business context

The need for hybrid cloud

Hybrid cloud practicalities

Azure Stack Hub: An emerging solution

Fujitsu's view of the opportunity and need

Meet PRIMEFLEX for Microsoft Azure Stack Hub

Adding value to Azure Stack Hub

Fujitsu: A one stop shop for your hybrid IT



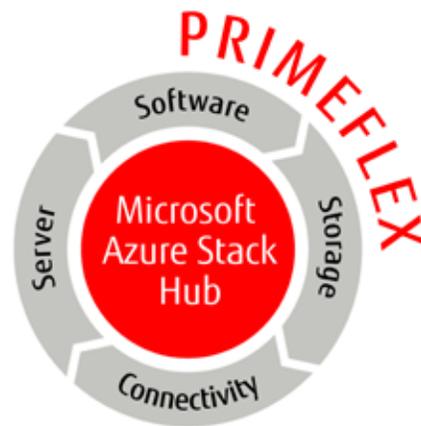
Meet PRIMEFLEX for Microsoft Azure Stack Hub

At the center of our Microsoft-based hybrid cloud proposition is FUJITSU Integrated System PRIMEFLEX for Microsoft Azure Stack Hub. Just like all of our other integrated systems offerings, this leverages high performance, robust, energy-efficient FUJITSU PRIMERGY x86 technology to bring the agility, consistency, and fast-paced innovation of the public cloud to your data center. But PRIMEFLEX for Microsoft Azure Stack Hub also comes with the service quality your users expect in terms of resilience, reliability, consistent performance and an ability to scale.

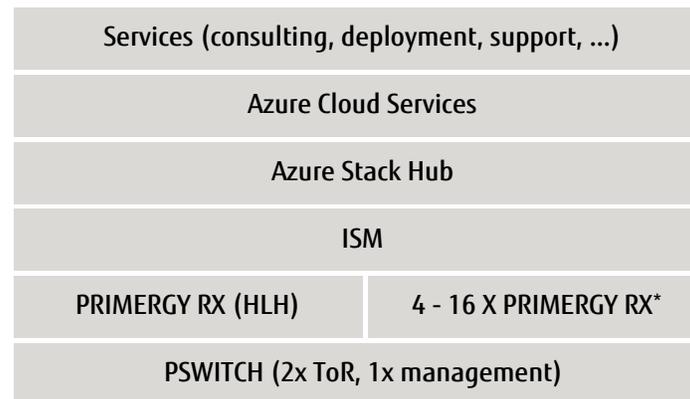
Buying Azure Stack Hub from Fujitsu allows you to avoid complex design, integration and deployment efforts by taking advantage of a tried and tested solution ready to plug in and go. And from a

management perspective, FUJITSU Software Infrastructure Manager (ISM) simplifies management of the infrastructure, providing the functionality needed for fail-safe, flexible and automated operation via a single user interface.

From a commercial perspective, a flexible range of options are available to you. These include both consumption (pay-as-you-use) and capacity (per processor installed) models for your on-premises data center, helping you ensure consistent service delivery and costs across on-premises and public cloud. Fujitsu additionally offers comprehensive support services and multiple financing options to make acquiring and implementing PRIMEFLEX for Microsoft Azure Stack Hub quick, painless and efficient.



Solution Stack



HLH = HW Lifecycle Host * Azure Stack Hub nodes

CUSTOMER TESTIMONIAL

"We have had a great collaboration with Fujitsu for years with consistently impressive results, which was crucial for our successful decision to run our Microsoft hybrid cloud project activities with FUJITSU Integrated System PRIMEFLEX for Microsoft Azure Stack Hub."

Wolfgang Rick Kutschera
Engineering Manager Microsoft Service Operations
bwin.party Services (Austria) GmbH, GVC Group



Windows Server:
Power your business.

PRIMEFLEX for Microsoft Azure Stack Hub

About this document

Business context

The need for hybrid cloud

Hybrid cloud practicalities

Azure Stack Hub: An emerging solution

Fujitsu's view of the opportunity and need

Meet PRIMEFLEX for Microsoft Azure Stack Hub

Adding value to Azure Stack Hub

Fujitsu: A one stop shop for your hybrid IT



Adding value to Azure Stack Hub

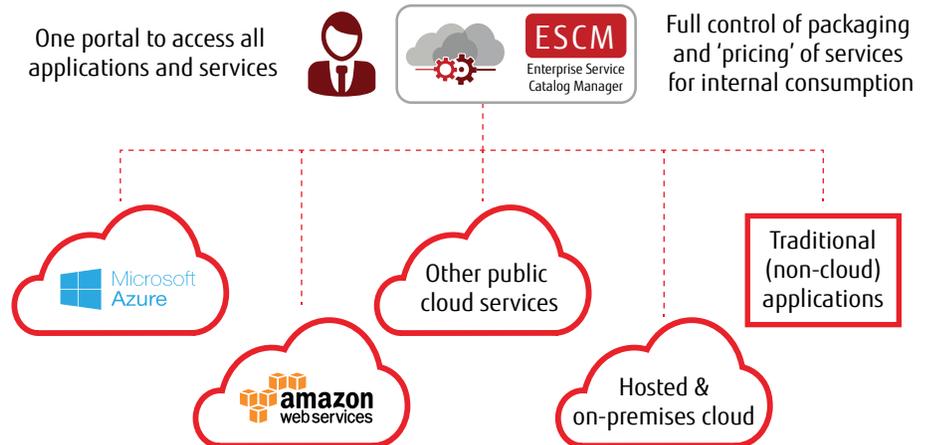
Fujitsu's 30+ year relationship with Microsoft provides major benefits to our customers. We now have one of the largest Microsoft practices, including integrated engineering and support. This deep level of expertise and experience is brought to bear when assessing your needs, then designing and optimizing your hybrid cloud to maximize service levels, efficiency and ROI.

At Fujitsu, we can help you turn your core Azure Stack Hub system into a more complete and robust enterprise solution using our extensive range of ecosystem offerings. An example here is our ETERNUS CS data protection appliances that are invaluable when you are looking to simplify and consolidate backup and archive infrastructures.

A hybrid and multi-cloud approach is crucial to your success in dealing with continually evolving business requirements. This doesn't just require a sound strategy, but also the right set of tools and services. So if you're taking steps to prevent 'service sprawl', the Fujitsu Enterprise Service Catalog Manager (ESCM) helps make multi-cloud and on-premises services easily available to the end user in a controlled and fully transparent manner. Fujitsu Cloud Service PICCO can then be used to manage, monitor and optimize your hybrid cloud environment, giving real-time visibility of costs and budget control.



Supporting the move to multi-cloud



Windows Server:
Power your business.

PRIMEFLEX for Microsoft Azure Stack Hub

About this document

Business context

The need for hybrid cloud

Hybrid cloud practicalities

Azure Stack Hub: An emerging solution

Fujitsu's view of the opportunity and need

Meet PRIMEFLEX for Microsoft Azure Stack Hub

Adding value to Azure Stack Hub

Fujitsu: A one stop shop for your hybrid IT



Fujitsu: A one stop shop for hybrid IT

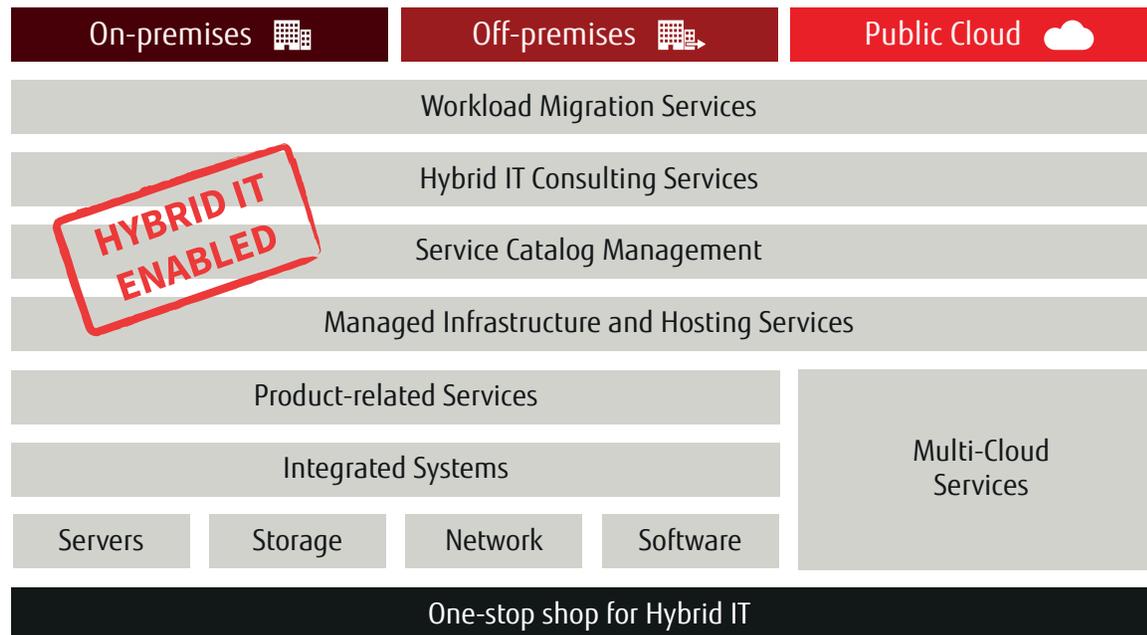


Hybrid IT is a simple term but has many facets, and this is reflected in Fujitsu's comprehensive portfolio of offerings. To begin with we deliver data center products such as servers, storage, networking equipment and software. These elements may be provided individually, or as integrated systems aimed at reducing complexity, time and risk when building IT infrastructure.

But product-related services may also be needed to supplement your own resources, skills and capabilities, and to make sure you don't have to go it alone. And if it suits you we can take on more of

the load and responsibility via our Managed Infrastructure Services or Hosting Services. Then overarching all of this, you have our Hybrid IT consulting and migration services to help you plan your objectives, set the right course, and get to your destination quickly, safely and efficiently.

Fujitsu covers all of these elements, either by itself or via strong alliances with leading edge partners. This makes us a one-stop shop to turn hybrid IT into a reality for your business as you continue to address the needs of today's digital world.



IN CONCLUSION



PRIMEFLEX for Microsoft Azure Stack Hub can accelerate and simplify your adoption of hybrid cloud.



Fujitsu adds value to Azure Stack Hub to help you get onto a robust multi-cloud footing.



As a strategic partner, Fujitsu is ready to take you beyond cloud platforms and services into the exciting world of hybrid IT.



Windows Server:
Power your business.