



Overview Of Microsoft Azure

2018
Global Azure
BOOTCAMP



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FB: ITGeist





Microsoft Azure

An Open and Flexible Cloud Platform that enables you to quickly build, deploy, and manage solutions across a global network of Microsoft-Managed Datacenters.

USAGE-BASED CLOUD SERVICES



Services are billed against Compute, Storage, Network, and Application Service meters. Customers can quickly build, deploy, & manage solutions across a global network of Microsoft-managed datacenters. Distinct Rates for each of these Service "meters".

Customers are billed for usage against one or more of these meters

APP SERVICES



Caching



Identity



Service bus



Media



CDN



Integration



HPC



Analytics

COMPUTE



Virtual machines



Websites



Cloud services



Mobile services

STORAGE



SQL database



HDInsight



Tables



Blob storage

NETWORK



Connect



Virtual network



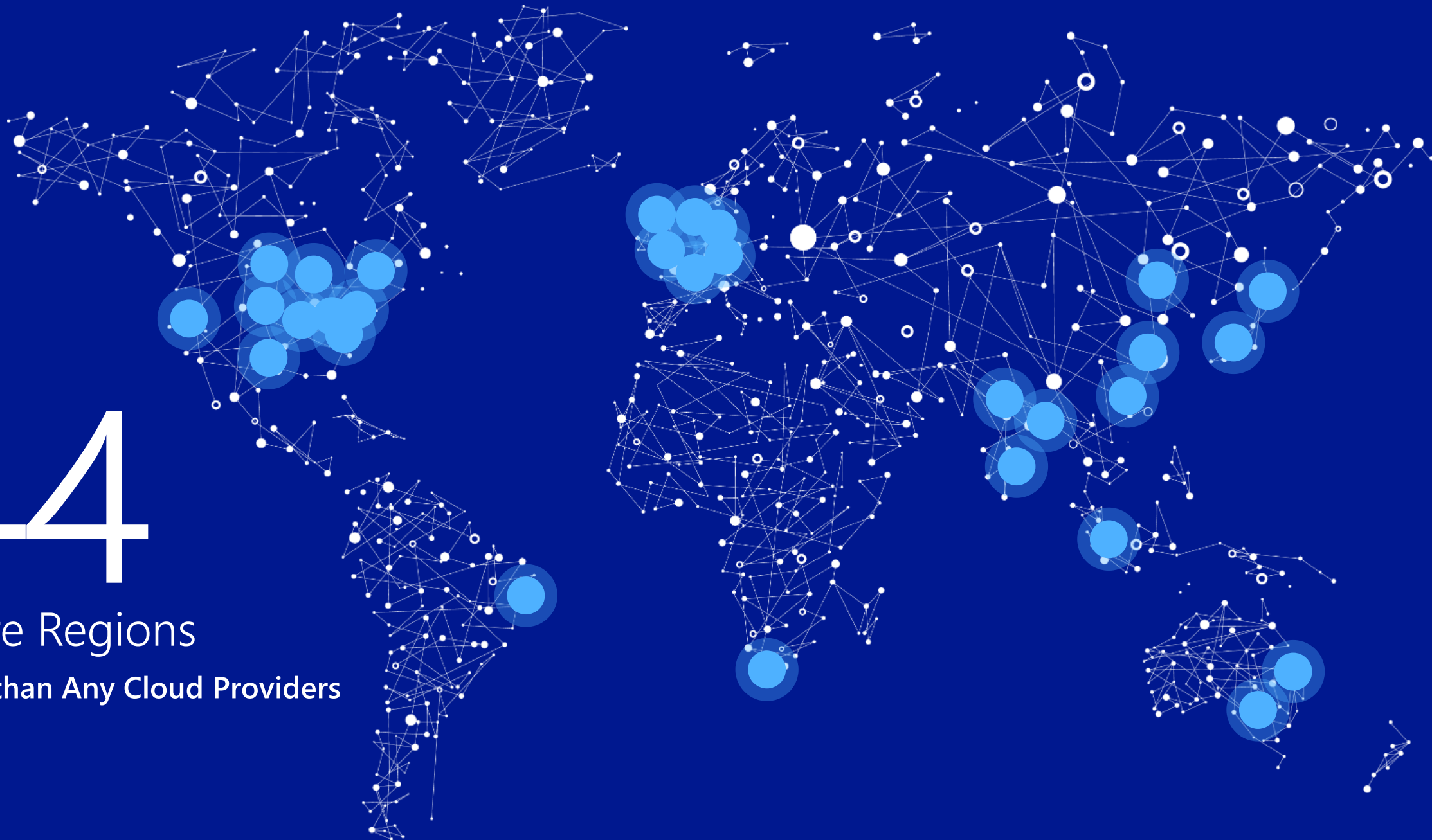
Traffic manager



44

Azure Regions

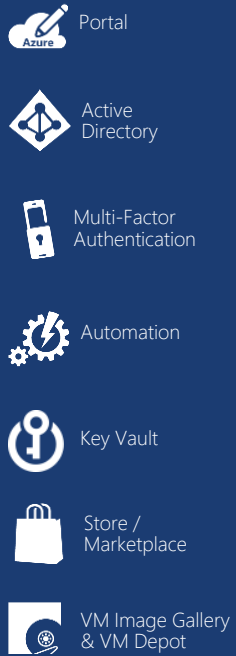
More than Any Cloud Providers



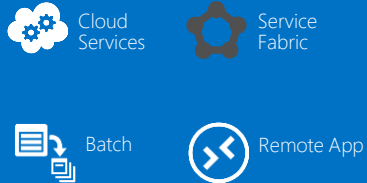
Microsoft Azure Services

Azure Platform Services

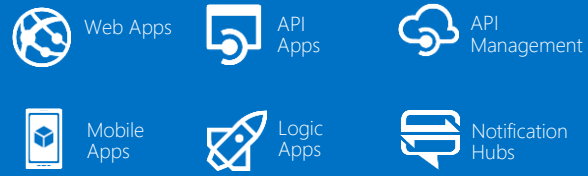
Security & Management



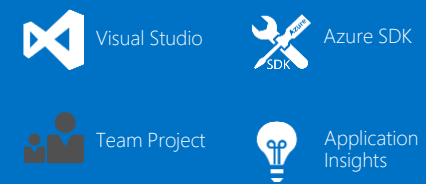
Compute



App Services



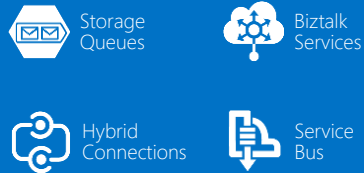
Developer Services



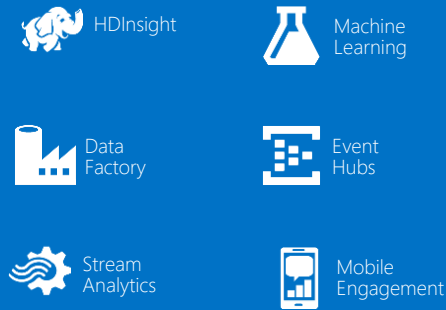
Hybrid Operations



Integration



Analytics & IoT



Data



Media & CDN



Azure Infrastructure Services

Virtual Machines



Storage



Networking



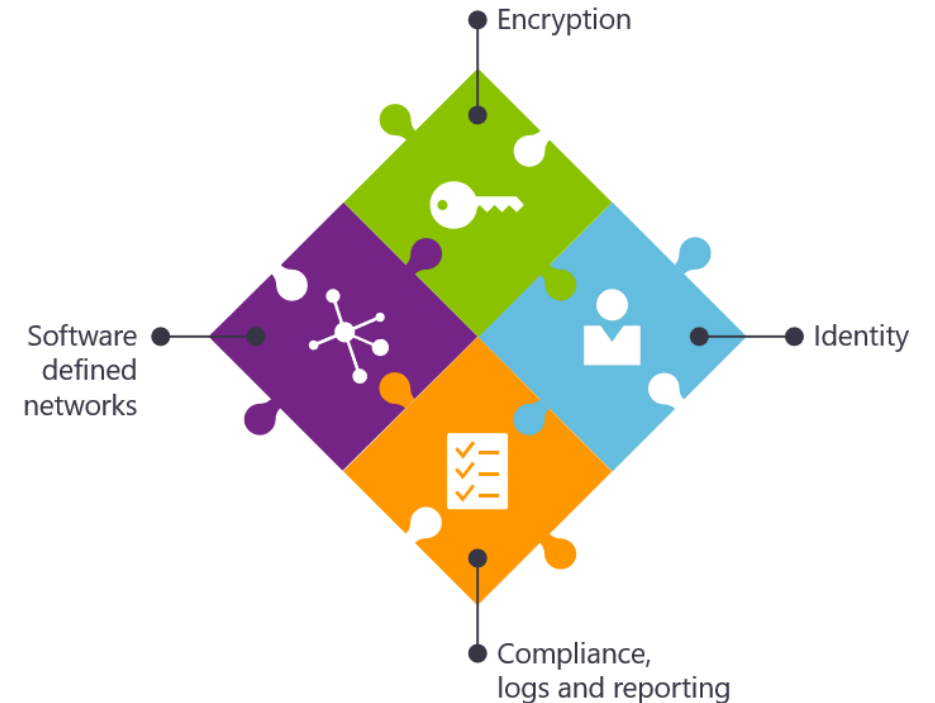
Global Infrastructure

Azure Virtual Datacenter

Deploying workloads to the Cloud introduces the need to develop and maintain trust in the Cloud to the same degree you trust your Existing Datacenters.

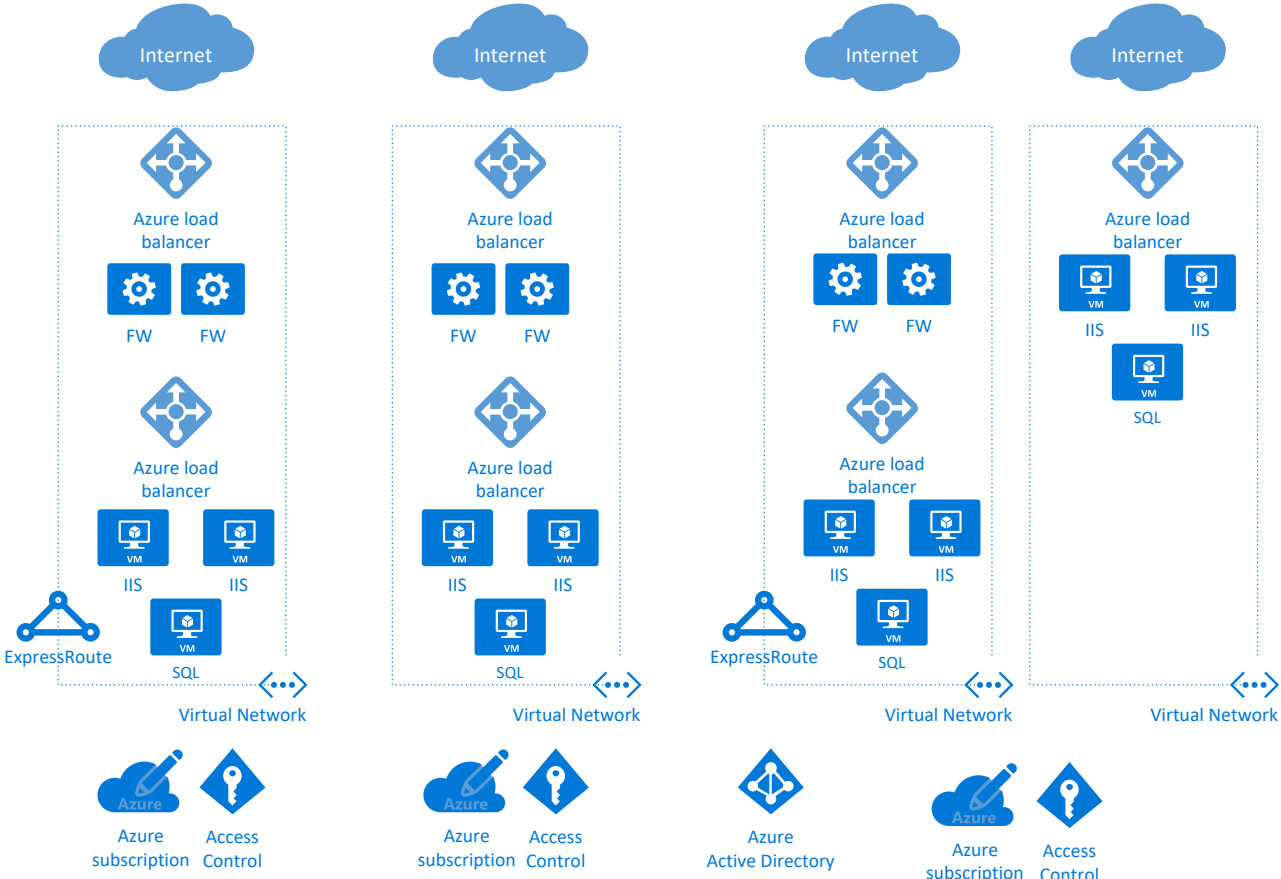
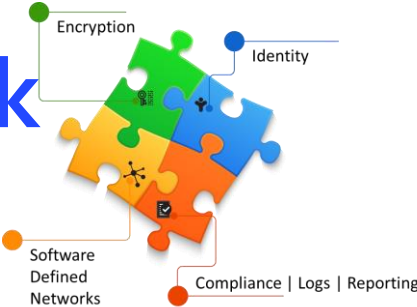
In the Azure Virtual Datacenter Model, you can apply isolation policies, make the cloud more like the physical datacenters you know, and achieve the levels of security and trust you need.

Four components any enterprise IT team would recognize make it possible: **Software-Defined Networking, Encryption, Identity Management, and the Azure platform's underlying Compliance Standards and Certifications.** These four are key to making a Virtual Datacenter a trusted extension of your existing infrastructure investment.



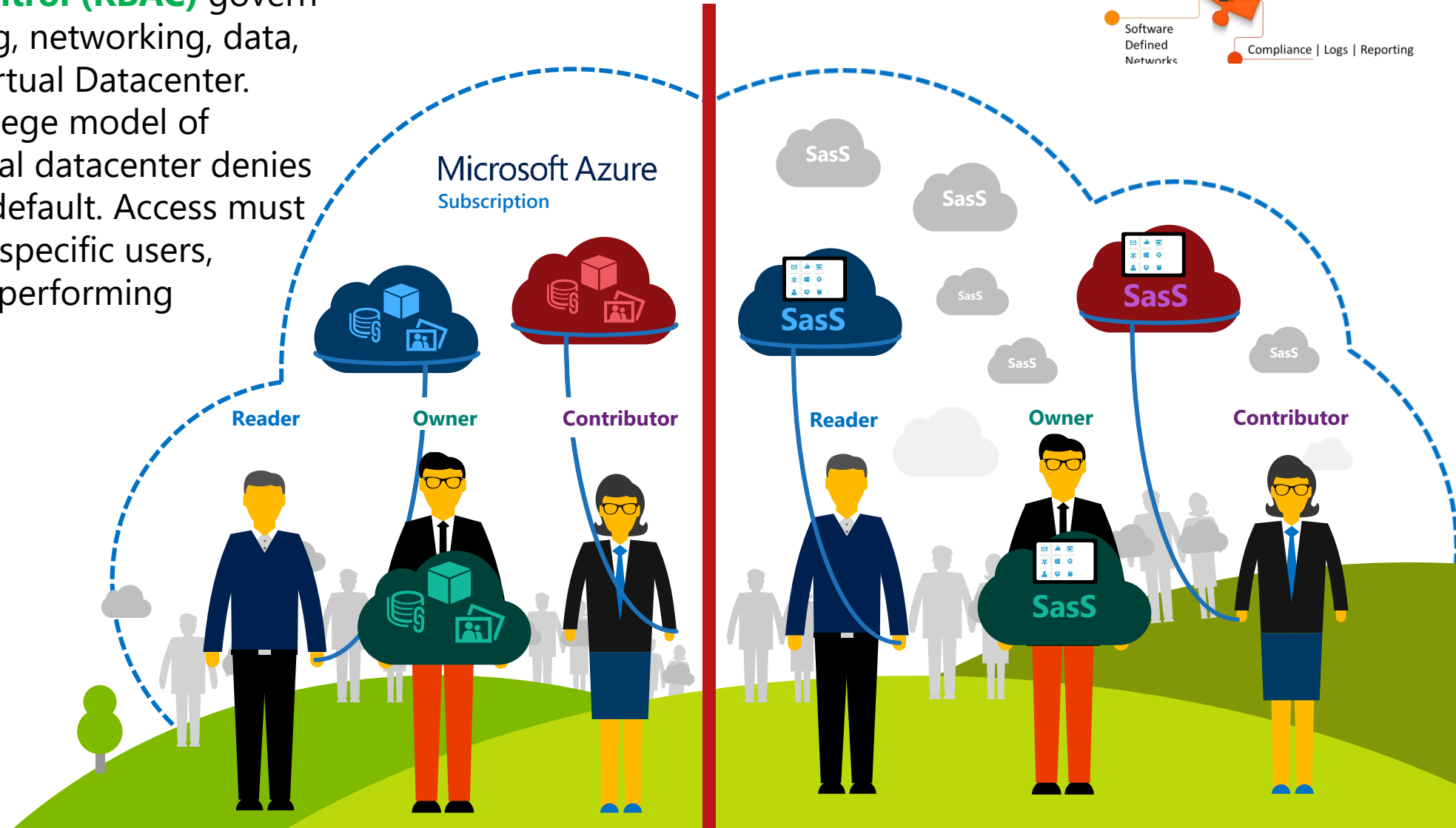
Azure Virtual Datacenter-Software Defined Network

Provides virtual abstractions for your physical network elements, such as network topologies, firewalls, intrusion detection mechanisms, load balancers, and routing policy. You can create, configure, and manage network topologies, support isolation, and provision perimeter networks.

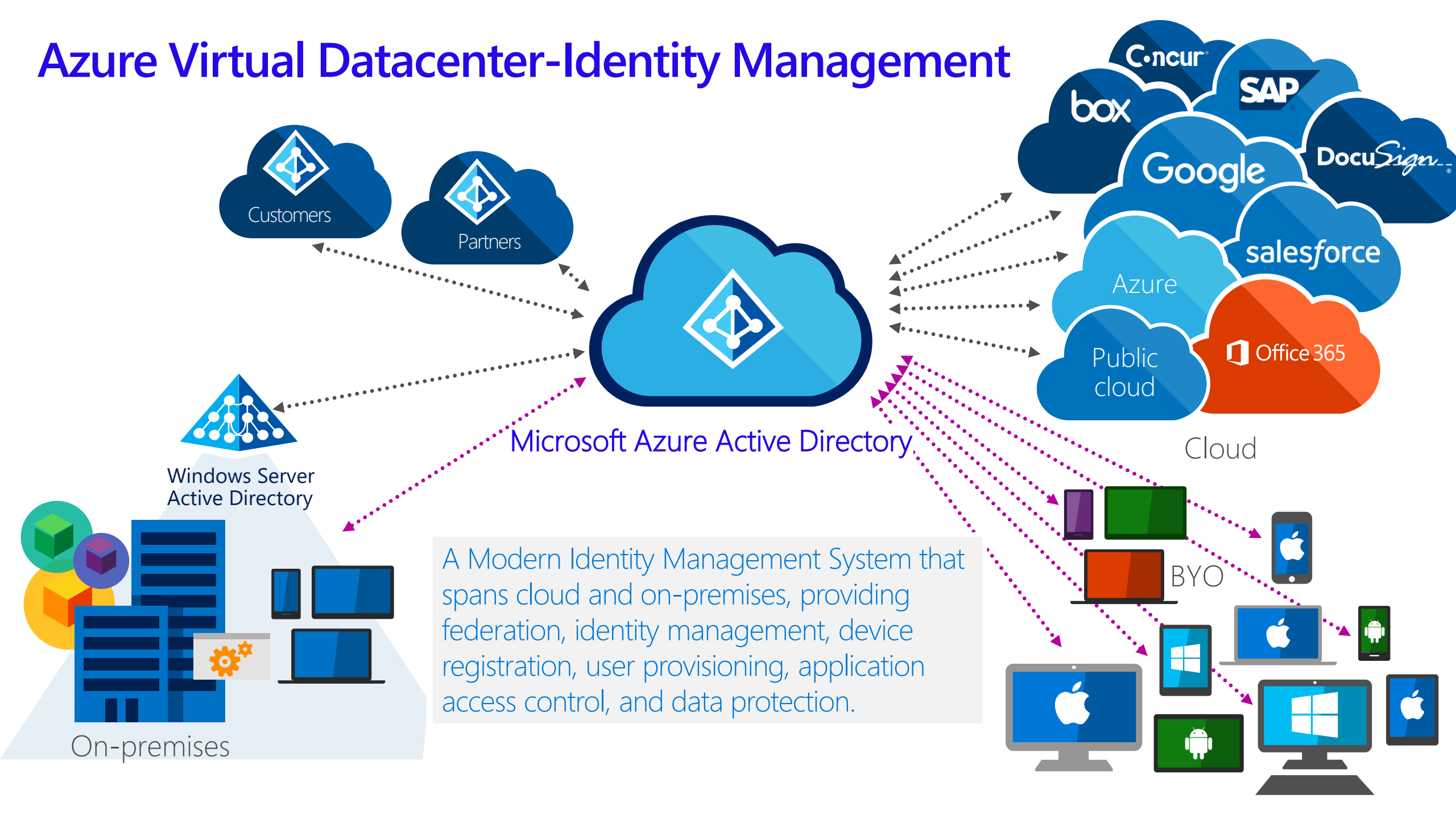


Azure Virtual Datacenter-Identity Management

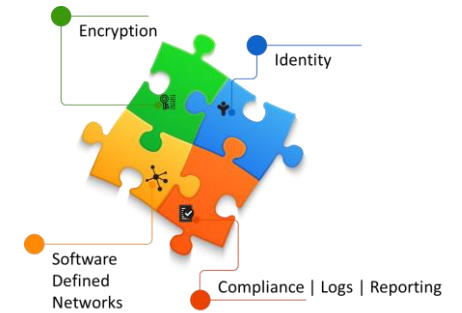
Role-Based Access Control (RBAC) govern access to the computing, networking, data, and applications in a Virtual Datacenter. Based on the least privilege model of access control, the virtual datacenter denies access to resources by default. Access must be explicitly granted to specific users, groups, or applications performing particular roles.



Azure Virtual Datacenter-Identity Management

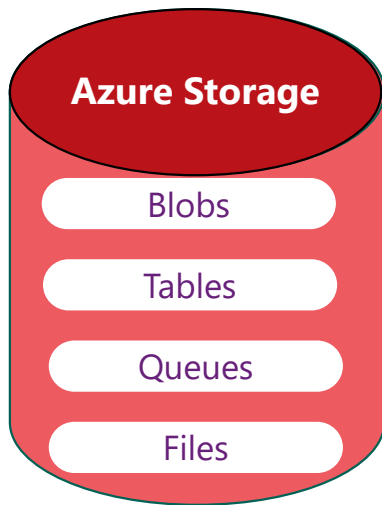


Azure Virtual Datacenter-Encryption



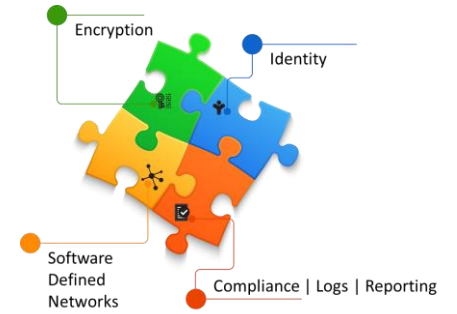
Data at Rest

Data at rest is also encrypted, including data stored on Azure Storage

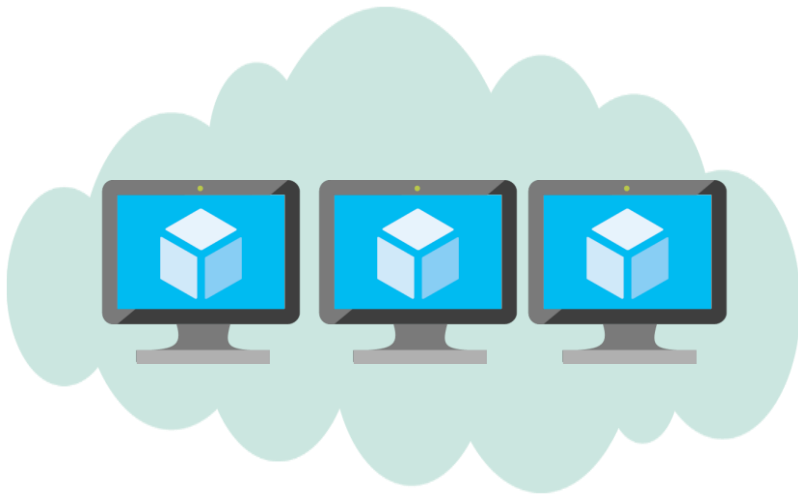


Azure Storage Service Encryption (SSE) provides encryption at rest for all Azure Storage services by encrypting data before writing it to storage. SSE decrypts the data immediately prior to retrieval. SSE-enabled Azure Storage accounts can handle encryption, decryption, and key management in a totally transparent fashion. All data is encrypted using 256-bit AES encryption, and both Microsoft-managed and customer-managed encryption keys are supported.

Azure Virtual Datacenter-Encryption



Azure VM 's OS & Data Disk (Azure Disk Encryption)



Azure Virtual Machines



Azure Virtual Machine Encryption supports two models for encrypting virtual machines which provide volume encryption for the operating system and data disks:

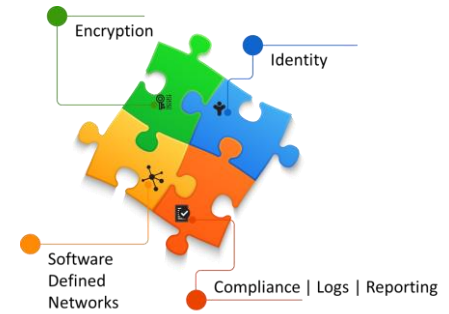
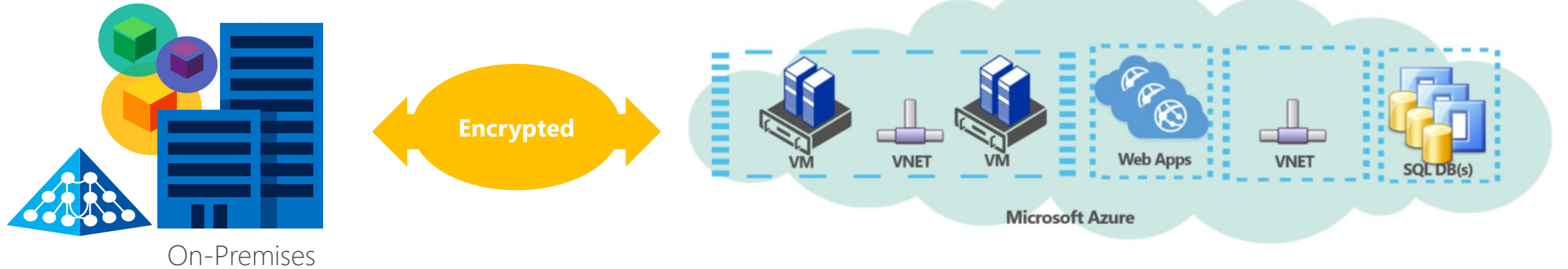
1. The BitLocker feature of Windows
2. The DM-Crypt feature of Linux

Azure Virtual Datacenter-Encryption



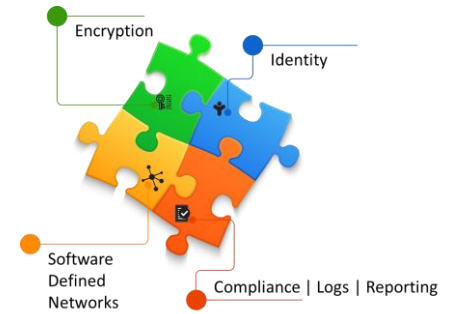
Data in Transit

The Azure Virtual Datacenter Model uses encryption to enforce isolation of data as it moves between:



- On-premises networks and the Virtual Datacenter. Data passes through either an encrypted site-to-site virtual private network (VPN) connection or an isolated, private ExpressRoute.
- Applications running in a different virtual datacenter (that is, from one Virtual Datacenter to another).
- Applications running in the same Azure Virtual Datacenter.
- Platform services, including both internal and external endpoints—storage accounts, databases, and management APIs.

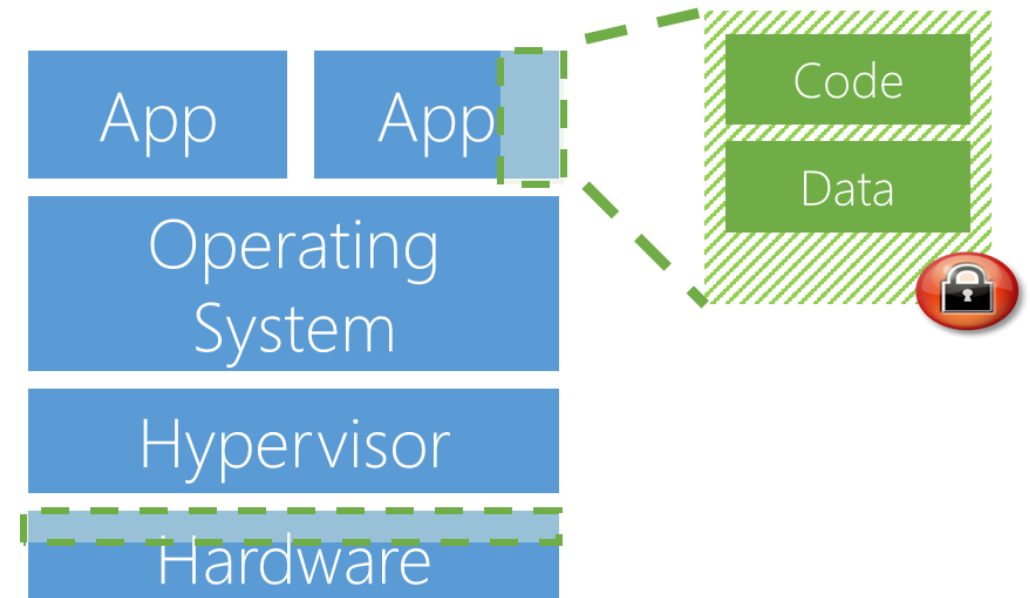
Azure Virtual Datacenter-Encryption



Data in Process

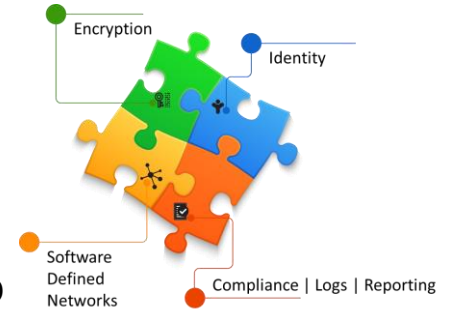
Azure platform is support for Confidential Computing through Trusted Execution Environments (TEE) using technologies such as enclaves. Intel Secure Guard Extensions (SGX).

With Azure Confidential Computing, we're developing a platform that enable developers to take advantage of different TEEs without having to change their code. Initially we support two TEEs, Virtual Secure Mode and Intel SGX. Virtual Secure Mode (VSM) is a software-based TEE that's implemented by Hyper-V in Windows 10 and Windows Server 2016 Hyper-V.



Azure Virtual Datacenter-Compliance

Azure Infrastructure and Services meet a broad set of international, industry-specific, and country-specific compliance standards. To help ensure the safety of your data, Microsoft also verifies how compliance is achieved through rigorous third-party audits that validate Azure's adherence to standards-mandated security controls. In addition, virtual datacenters make extensive use of automated compliance monitoring, logging, and reporting



The trusted cloud



More certifications than
any other cloud provider



Industry leader for
customer advocacy and
rights protection

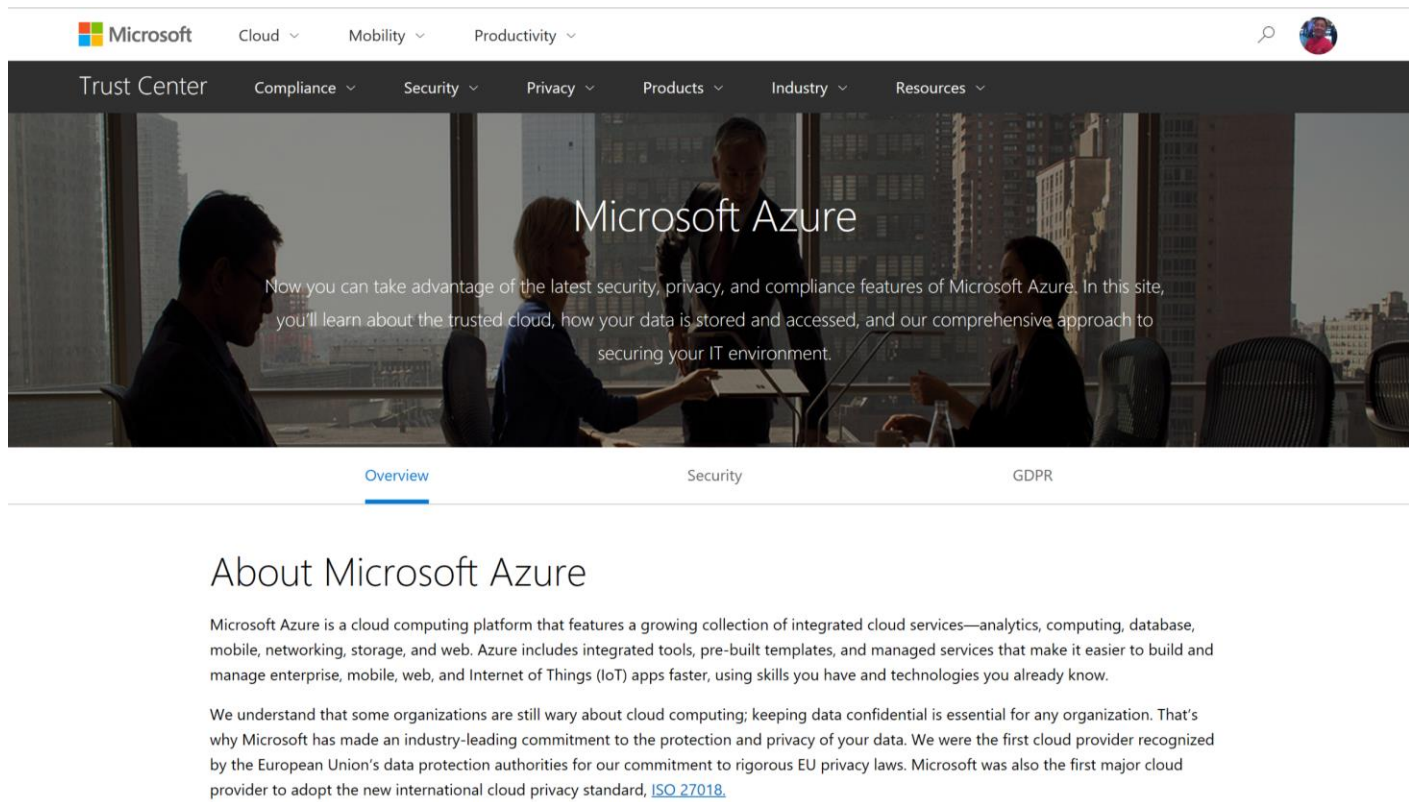


More global DC regions than any other provider



Azure Virtual Datacenter-Compliance

Microsoft Trust Center where Microsoft proves to its customers a trustworthy platform. From the center, Microsoft shows not only compliance achievement but also security privacy and its practices.



<https://www.microsoft.com/en-us/TrustCenter/CloudServices/Azure>

Azure Virtual Datacenter-Compliance



Cloud ▾

Mobility ▾

Productivity ▾



Trust Center

Compliance ▾

Security ▾

Privacy ▾

Products ▾

Industry ▾

Resources ▾

Compliance offerings

To help you comply with national, regional, and industry-specific requirements governing the collection and use of individuals' data, Microsoft offers the most comprehensive set of compliance offerings of any cloud service provider.

The table on this page contains all current certifications and appropriate filters. To find audit information, go to the related certification.

★ Featured

[The Health Insurance Portability and Accountability Act \(HIPAA\) and Health Information Technology for Economic and Clinical Health \(HITECH\) Act](#)

[Learn more about compliance >](#)

Find compliance offerings

Filter by

Region ▾

Country ▾

Industry ▾

Product or Service ▾

Clear all

Title

Description

[Argentina PDPA](#)

Microsoft has implemented the security measures in the Argentina Personal Data Protection Act.

[BIR 2012](#)

Agencies operating in the Netherlands government sector must comply with the Baseline Informatiebeveiliging Rijksdienst standard.

[Canadian Privacy Laws](#)

Microsoft contractually commits to implementing security that helps protect individuals' privacy.

[CCSL \(IRAP\)](#)

Microsoft is accredited for the Australian Certified Cloud Services List based on an IRAP assessment.

[CDSA](#)

Azure is certified to the Content Delivery and Security Assoc. Content Protection and Security standard.

Azure Service Management (ASM)-Classic Portal

The screenshot displays the Azure Service Management (ASM)-Classic Portal. The top navigation bar includes the 'Microsoft Azure' logo, a dropdown arrow, a blue button labeled 'Check out the new portal', a globe icon, and a user profile icon. The left sidebar features a grid icon for 'ALL ITEMS' and a list of service categories, each with an icon and a count of zero: 'WEB APPS', 'VIRTUAL MACHINES', 'MOBILE SERVICES', 'CLOUD SERVICES', 'BATCH SERVICES', 'SQL DATABASES', 'STORAGE', 'HDINSIGHT', 'MEDIA SERVICES', and 'SERVICE BUS'. The main content area is titled 'all items' and contains a table with the following columns: 'NAME', 'TYPE', 'STATUS', 'SUBSCRIPTION', and 'LOCATION'. A single row is visible in the table, representing the 'Default Directory' which is of type 'Directory', has a status of 'Active' (indicated by a checkmark), is 'Shared by all Default Dir...', and is located in the 'United States'. At the bottom of the interface, there is a dark blue bar with a '+ NEW' button, a 'DELETE' button with a trash icon, and a status area showing '1' item, a warning icon, and a help icon.

NAME	TYPE	STATUS	SUBSCRIPTION	LOCATION
Default Directory	Directory	✓ Active	Shared by all Default Dir...	United States

Azure Resource Manager (ARM)-Azure Portal

The screenshot displays the Azure Portal dashboard. On the left is a dark navigation sidebar with the following items: 'Create a resource', 'All services', 'FAVORITES', 'Dashboard', 'Resource groups', 'All resources', 'Recent', 'App Services', 'SQL databases', 'Virtual machines (class...', 'Virtual machines', 'Cloud services (classic)', 'Subscriptions', 'Azure Active Directory', 'Monitor', 'Security Center', 'Cost Management + B...', and 'Help + support'.

The main dashboard area has a top bar with the title 'Dashboard' and several action buttons: '+ New dashboard', 'Upload dashboard', 'Download dashboard', 'Edit dashboard', 'Share', 'Full screen', 'Clone', and 'Delete'. Below this, the dashboard is organized into a grid of tiles:

- What's new**: A tile with an information icon.
- All resources ALL SUBSCRIPTIONS**: A table listing resources across all subscriptions.

Resource Name	Type
DC	Virtual machine
WisitOMS	Log Analytics
DC1	Virtual machine

A 'See more...' link is at the bottom right.
- WTASR RECOVERY SERVICES VAULT**: A tile with a cloud icon.
- Marketplace**: A tile with a shopping bag icon.
- Service Health**: A tile with a heart icon and the text 'Personalized guidance and s in Azure services affect yc'.
- Azure classic portal**: A tile with a monitor icon and an external link icon.
- Tour**: A tile with an information icon and an external link icon.
- Portal settings**: A tile with a gear icon.
- Subscriptions**: A tile with a dollar sign icon and the text 'Forecast expenses and costs to optimize your apps'.
- WWeb1**: A tile with a monitor icon and the text 'Running'.
- AzureActivity(WisitO... SOLUTION)**: A tile with a bar chart icon.
- Resources WTADDS**: A table listing resources for the 'WTADDS' subscription.

Resource Name	Type
DC	Virtual machine
wtaddsstorage	Storage
DC2Disk	Disk

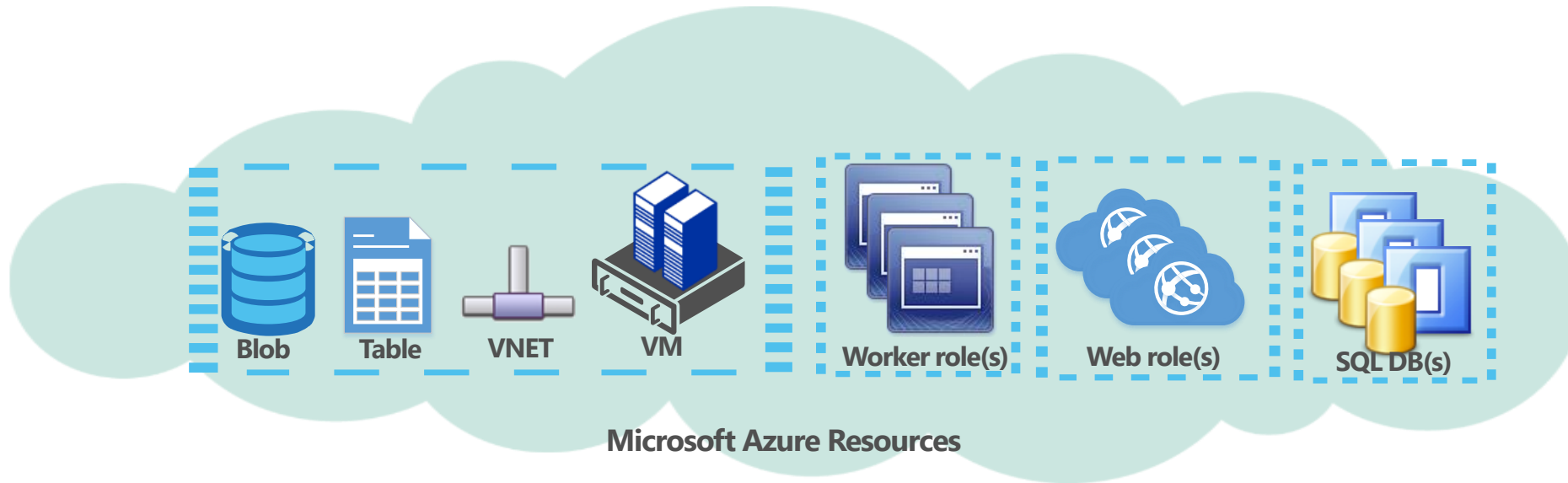
A 'See more...' link is at the bottom right.
- Resources SPRWEBAPP-PILOT**: A table listing resources for the 'SPRWEBAPP-PILOT' subscription.

Resource Name	Type
SPRWebApp-Pilot-vnet	Virtual network
SPRWebSite	Web site
SPRWebSite_OsDisk_1...	Disk

A 'See more...' link is at the bottom right.

ARM Concept & Terminology















With the Azure Resource Manager (ARM), Everything in Azure is a Resource.



Examples of resources are a virtual machine, network interfaces, public IP address, storage accounts, virtual networks, and more. ARM is based on concepts related to resource providers and resource consumers. Azure provides resources and services through multiple resource providers that are consumed and deployed in groups.

ARM Concept & Terminology

Resource Groups are a unit of deployment in the ARM. They are containers grouping multiple resource instances in a security and management boundary. A resource group is uniquely named in a subscription. Resources can be provisioned on different Azure regions yet belong to the same resource group.

<input type="checkbox"/>	NAME <small>↑↓</small>	TYPE <small>↑↓</small>	LOCATION <small>↑↓</small>	
<input type="checkbox"/>	 DC_OsDisk_1_c6f502f7c64e4c11acba8d0958d93219	Disk	Southeast Asia	...
<input type="checkbox"/>	 DC2	Virtual machine	Southeast Asia	...
<input type="checkbox"/>	 DC2_OsDisk_1_2bae6583d40545e880e59bed2be7d617	Disk	Southeast Asia	...
<input type="checkbox"/>	 dc2265	Network interface	Southeast Asia	...
<input type="checkbox"/>	 DC2Disk	Disk	Southeast Asia	...
<input type="checkbox"/>	 DC2-ip	Public IP address	Southeast Asia	...
<input type="checkbox"/>	 DC2-nsg	Network security group	Southeast Asia	...
<input type="checkbox"/>	 dc899	Network interface	Southeast Asia	...
<input type="checkbox"/>	 DCDisk	Disk	Southeast Asia	...
<input type="checkbox"/>	 DC-ip	Public IP address	Southeast Asia	...
<input type="checkbox"/>	 DC-nsg	Network security group	Southeast Asia	...
<input type="checkbox"/>	 wtaddsdiag671	Storage account	Southeast Asia	...
<input type="checkbox"/>	 wtaddsstorage	Storage account	Southeast Asia	...
<input type="checkbox"/>	 WTADDSVnet	Virtual network	Southeast Asia	...

Azure Deployment Model-ARM Benefits

Grouping: ARM allows grouping of resources together in a logical container. These resources can be managed together

Role-Based Access Control: Granular roles and permissions can be assigned to resources providing discreet access to users. Users can have only those rights that are assigned to them.

Deployment Support: ARM provides deployment support in terms of templates enabling DevOps and Infrastructure as Code (IAC). The deployments are faster, consistent, and predictable.

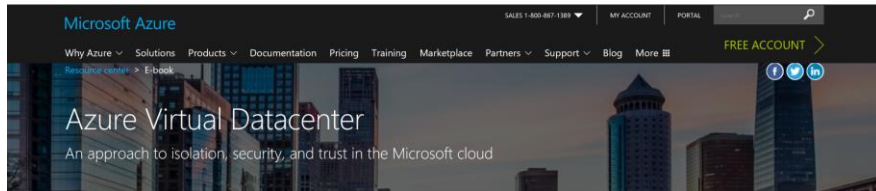
Superior Technology: Cost and billing of resources can be managed as a unit. Each resource group can provide their usage and cost information.

Manageability: ARM provides advanced features such as security, monitoring, auditing, and tagging features for better manageability of resources. Resources can be queried based on tags. Tags also provide cost and billing information for resources tagged similarly.

Migration: Easier migration and update of resources within, as well as from across resource groups.

Resources:

E-Book: <https://azure.microsoft.com/en-us/resources/azure-virtual-datacenter/>



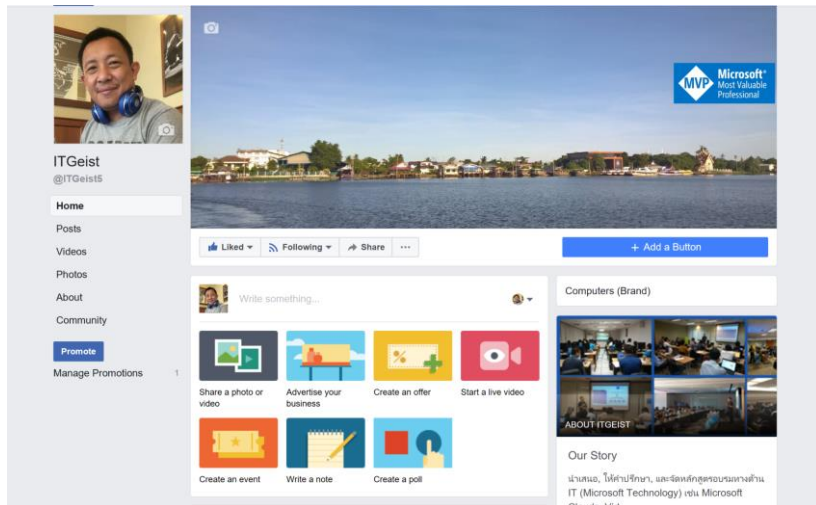
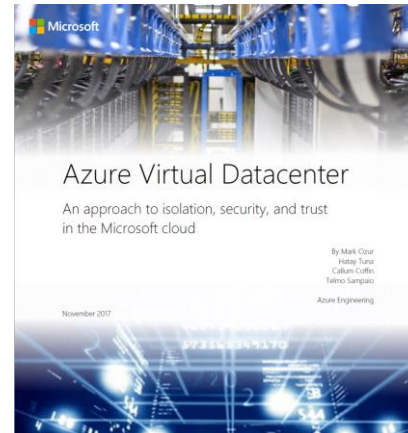
Published: 11/13/2017

Azure Virtual Datacenter is an approach to making the most of the Azure cloud platform's capabilities while respecting your existing security and networking policies. When deploying enterprise workloads to the cloud, IT organizations and business units must balance governance with developer agility. Azure Virtual Datacenter provides models to achieve this balance with an emphasis on governance.



This e-book was written by Mark Ozur, Hatay Tuna, Callum Coffin, and Telmo Sampaio from the Azure Customer Advisory Team (AzureCAT).

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WT Blog (ITGeist)

IT Knowledge Provider

วันจันทร์ที่ 5 กุมภาพันธ์ พ.ศ. 2561

มารู้จักกับ Azure AD กันต่อ และ Azure Active Directory Domain Service

สวัสดีครับท่านผู้อ่านทุกท่าน หลังจากที่เราได้ไปบทความเกี่ยวกับ Azure AD ไปก่อนหน้านี้ เพื่อให้ทุกท่านได้รู้จักและทราบว่า Azure AD คืออะไร และมีประโยชน์อย่างไร สำหรับบทความตอนนี้ผมจะพาทุกท่านไปทำความรู้จักกับ Azure AD กันต่ออีกขั้นหนึ่งครับ รวมถึง Service ตัวใหม่ใน Microsoft Azure ที่มีให้บริการมาซักพักแล้วครับ นั่นคือ "Azure Active Directory Domain Service" หรือ Azure AD DS ครับ ซึ่งแน่นอนว่าเป็นแค่ตัวหรือแค่เรื่องกับ Azure AD นะครับ เราละครับผมขอเริ่มที่เรื่องราวของ Azure AD กันต่อก่อนนะครับ

Azure AD (เพิ่มเติม)

โดยในบทความก่อนหน้านี้ผมได้นำเสนอและอธิบายถึงเรื่องราวของ Azure AD ไปโดยเริ่มจาก Concept จนถึง Azure AD Editions ต่างๆ ไป แต่ยังมี Azure AD อีก 2 แบบ ที่ผมขออนุญาตนำเสนอต่ออีกทีนะครับ นั่นคือ Azure Active Directory B2C และ Azure Active Directory B2B



Thank You 😊

