

Get Started With SQL Server in Azure



Jes Borland

Sr SQL Engineer



Download scripts & slides

- <https://github.com/grrlgeek/azure-sql-server>

Why Azure?

Rapidity



Real Microsoft expertise. Real business value.™

Resiliency



Real Microsoft expertise. Real business value.™

Resources



Real Microsoft expertise. Real business value.™

The Azure Periodic Table

Explore the power and possibilities of Azure

<http://www.concurrency.com/landing/azure-periodic-table>

 DATA FACTORY	Explore the power and possibilities of Azure							 TRAFFIC MANAGER	
http://www.concurrency.com/landing/azure-periodic-table									
 STREAM ANALYTICS	 EVENT HUBS				 SQL DATABASE	 SQL DATA WAREHOUSE	 DOCUMENTDB	 AZURE SEARCH	 EXPRESSROUTE
 MACHINE LEARNING	 HDINSIGHT	 VIRTUAL MACHINES	 CLOUD SERVICES	 BATCH	 REMOTEAPP	 STORAGE	 STORSIMPLE	 AZURE REDIS CACHE	 VIRTUAL NETWORK
 AZURE AD	 MULTI-FACTOR	 BACKUP	 SITE RECOVERY	 SERVICE BUS	 BIZTALK SERVICES	 SCHEDULER	 AUTOMATION	 OPERATIONAL INSIGHTS	 DNS
 WEB APPS	 MOBILE APPS	 NOTIFICATION HUBS	 API MANAGEMENT	 MOBILE ENGAGEMENT	 APP SERVICES	 API APPS	 LOGIC APPS	 KEY VAULT	 APPLICATION GATEWAY
 VISUAL STUDIO	 APPLICATION INSIGHTS	 MEDIA SERVICES	 MEDIA INDEXER	 MEDIA ENCODING	 MEDIA PROTECTION	 MEDIA PLAYER	 MEDIA STREAMING	 CDN	 VPN GATEWAY

Azure fundamentals

Regions

- Currently, there are 26 regions
 - US
 - Europe
 - Asia
 - Japan
 - Brazil
 - Australia
 - India
 - China
 - Canada



What do those data centers look like?

- Microsoft Datacenter Tour:
https://www.youtube.com/watch?v=zXsoygN_v7A
- Datacenter Infrastructure – Fact Sheets, Whitepapers:
<https://www.microsoft.com/en-us/cloud-platform/global-datacenters>

How you pay for it

- Free trial - One month, up to \$200
- Visual Studio/MSDN subscriptions
- Enterprise Agreements
- Resellers
- Prepaid subscriptions - 12 months, 5% discount
- Pay as you go with a credit card
- Find out more at <https://azure.microsoft.com/en-us/pricing/>

Compliance

- HIPAA/HITECH
- ISO 27001
- ISO 27018
- PCI DSS Level 1
- Azure Trust Center: <https://azure.microsoft.com/en-us/support/trust-center/compliance/>

Secure cross-premises connectivity

- Point-to-site VPN
 - Configured on *each* client
 - Doesn't require a compatible VPN device
 - Doesn't require an internet-facing IPv4 IP address
- Site-to-site VPN
 - Configure compatible VPN device with Azure VPN Gateway
 - VPN device must have an Internet-facing IPv4 IP address
- Express Route
 - "More reliability, faster speeds, lower latencies and higher security"
 - More money
 - Limited locations and service providers
- Channel 9: Azure Network Infrastructure
<https://channel9.msdn.com/Blogs/Azure-and-the-Modern-Data-Center/Azure-Network-Infrastructure>

Networking Inside Azure

- Virtual Networks (VNets)
 - Virtual Network Overview: <https://azure.microsoft.com/en-us/documentation/articles/virtual-networks-overview/>
 - VNets are isolated from each other. Want them to talk? Set up a VPN.
 - ...but VMs in the same VNet can communicate on private Ips.
- Can divide into subnets
- Can put behind load balancer
- Set up gateways between VNets
- Set up a VNet before any VMs or services
- MVA: Azure Networking Fundamentals for IT Pros
https://mva.microsoft.com/en-US/training-courses/azure-networking-fundamentals-for-it-pros-8917?I=R70kv0B3_6104984382

Network Security Groups (NSGs)

- Reduce communication between resources in two subnets
 - Simpler is better

What are you paying for?

- Network (VPN Gateways, Public IP Address, Express Route)
- Compute (VMs)
- Licensing (SQL Server)
- Storage (disks)
- Throughput (SQL Database)
- Automation
- Data Out

Management

- Portal

- Classic Portal
- Portal
- You can't manage all features from either one:
<https://azure.microsoft.com/en-us/features/azure-portal/availability/>



- PowerShell

- Learn it and **love** it
- Download and install <https://azure.microsoft.com/en-us/documentation/articles/powershell-install-configure/>
- Cmdlet Reference <https://msdn.microsoft.com/en-us/library/azure/dn708514.aspx>

