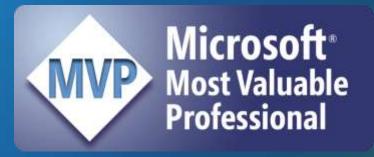
Get Started With SQL Server in Azure



Jes Borland Sr SQL Engineer





Download scripts & slides

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



Why Azure?



Rapidity



Resiliency



Resources



The Azure Periodic Table



Explore the power and possibilites of Azure

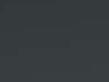
http://www.concurrency.com/landing/azure-periodic-table









































CACHE























DNS









































Azure fundamentals



Regions

- Currently, there are 26 regions
 - o 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 <u>https://channel9.msdn.com/Blogs/Azure-and-the-Modern-Data-Center/Azure-Network-Infrastructure</u>



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 lps.
- 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/azurenetworking-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
 - o 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



