

Azure Learning Map

Cloud Comparisons	https://docs.microsoft.com/en-us/azure/architecture/aws-professional/services https://endjincdn.blob.core.windows.net/assets/endjin-cloud-platform-comparison.pdf http://8kmiles.com/azure-virtual-network-vs-aws-virtual-private-cloud/

Tools to Create Azure Resources

Portal	https://portal.azure.com
Cli	https://docs.microsoft.com/en-us/cli/azure/install-azure-cli
Cloud Shell	
PowerShell	
SDK	https://azure.microsoft.com/en-in/downloads/
Storage Explorer	http://azurestorageexplorer.codeplex.com/
Resource Explorer	https://resources.azure.com

IAAS

VM	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-manage-vm
Network	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-virtual-network
cloud-init	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-automate-vm-deployment
Availability Set	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-availability-sets
Scale Set	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-create-vmss https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/monitoring-overview-autoscale https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-autoscale-overview
Vertical Scale	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/vertical-scaling-automation?toc=%2fazure%2fvirtual-machines%2flinux%2ftoc.json
disk	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-manage-disks

Load Balancer	External https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-load-balancer doc https://opbuildstorageprod.blob.core.windows.net/output-pdf-files/en-us/Azure.azure-documents/live/load-balancer.pdf internal https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-get-started-ilb-arm-cli
Case Study	https://docs.microsoft.com/en-us/azure/virtual-machines/linux/create-cli-complete https://docs.microsoft.com/en-us/azure/virtual-machines/linux/quick-create-powershell
Azure Low priority VM (preview)	http://blog.spotinst.com/2017/05/14/microsoft-azure-low-priority-vms/
IP address	https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-ip-addresses-overview-arm
Availability Zones	https://social.technet.microsoft.com/wiki/contents/articles/51828.azure-vms-availability-sets-and-availability-zones.aspx?Redirected=true

Containers

Container Service	https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough <p>Microsoft's Azure Container Service (ACS) is now Azure Kubernetes Services (AKS)</p> <p>When creating a service, you have the option of automatically creating a cloud network load balancer. This provides an externally-accessible IP address that sends traffic to the correct port on your cluster nodes <i>provided your cluster runs in a supported environment and is configured with the correct cloud load balancer provider package.</i></p> <p>Note: If your account doesn't have the Azure AD and subscription permissions to create a service principal, the command generates an error similar to Insufficient privileges to complete the operation.</p>
Serverless containers	https://docs.microsoft.com/en-us/azure/container-instances/container-instances-quickstart

data platform

Blob	https://docs.microsoft.com/en-us/azure/storage/blobs/storage-quickstart-blobs-cli https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-how-to-use-blobs/ <p>Block (file upload) vs page- IAAS (random read,write) blob, append blob (Eg. logging, auditing)</p> https://www.red-gate.com/simple-talk/cloud/cloud-data/working-azure-blob-storage-service/
SnapShot	

File	<p>smb protocol https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-how-to-use-files/</p>
Azure Storage	<p>classic https://docs.microsoft.com/en-us/azure/storage/storage-powershell-guide-full</p> <p>RM https://artofshell.com/2016/05/automate-azure-blob-storage-powershell/</p> <p>java : https://azure.microsoft.com/en-us/documentation/articles/java-download-azure-sdk/</p>
throughput	<p>https://docs.microsoft.com/en-us/azure/storage/storage-scalability-targets</p> <p>check list https://docs.microsoft.com/en-us/azure/storage/storage-performance-checklist</p> <p>https://docs.microsoft.com/en-us/rest/api/storageservices/deciding-when-to-use-azure-blobs--azure-files--or-azure-data-disks</p> <p>shared disk https://stackoverflow.com/questions/19620645/shared-drive-between-azure-virtual-machines</p>
Table	<p>https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-how-to-use-tables/</p> <p>https://github.com/azure/azure-storage-java</p>
Sql Azure	<p>https://azure.microsoft.com/en-in/documentation/articles/sql-database-get-started/</p>

Cosmos	<p>https://docs.microsoft.com/en-us/azure/cosmos-db/multi-region-writers</p> <p>Throughput: Azure Cosmos DB Table API gives highly scalable throughput which is backed with SLAs and its upper bound support is up to >10 million operations per table. On the other hand, variable throughput model in Azure Storage Table has scalability limit 20,000 per operations.</p> <p>easy to create a geographic performance by having Cosmos DB replicate data to another region. You just indicate the region and data are replicated in real-time. And better yet, you can keep communicating with your app as you did before and Cosmos DB will figure out which database in which region is the most performant for you. Keep in mind though, that replicas are always read-only replicas, and you only have one writable node.</p> <p>performance.</p> <p>takes care of indexes automatically. There is no need for you to tune your database, this happens automatically. On top of this, performance is part of the SLA, where Microsoft promises a maximum of 10ms latency for reading operations and 15ms latency for write operations.</p> <p>different APIs to talk to it. You can use the original (SQL-like) DocumentDB query language, JavaScript, Gremlin, MongoDB and Table Storage.</p> <p>Consistency: Five well-defined consistency levels are available in ACDTA which can turn on and off automatically. Consistency is strong only in primary region and eventual in other regions when it comes to AST.</p> <p>https://docs.microsoft.com/en-us/azure/cosmos-db/consistency-levels</p> <p>SLAs: 99.99% availability is given on AVDTA while you can increase availability by adding more regions. The same level of SLAs availability is given on Azure Storage Table.</p>
Cosmos	<p>https://scalegrid.io/blog/cassandra-vs-mongodb/</p>
Document	<p>https://russellyoung.net/2016/06/18/managing-documentdb-with-powershell/</p> <p>https://docs.microsoft.com/en-us/azure/documentdb/documentdb-manage-account-with-powershell</p> <p>https://docs.microsoft.com/en-in/azure/documentdb/documentdb-get-started</p>
Graph	<p>https://blogs.msdn.microsoft.com/tsmatsuz/2017/07/04/azure-cosmos-db-gremlin-graph-tutorial/</p> <p>https://docs.microsoft.com/en-us/azure/cosmos-db/create-graph-gremlin-console</p> <p>https://tinkerpop.apache.org/docs/current/reference/#gremlin-console</p>
Azure Batch	<p>https://docs.microsoft.com/en-us/azure/batch/batch-account-create-portal</p> <p>https://docs.microsoft.com/en-us/azure/batch/batch-dotnet-get-started</p>
MySQL (preview)	

Postgres (Preview)	
Analytical data	
Azure Data Lake Store	https://docs.microsoft.com/en-us/azure/data-lake-store/data-lake-store-get-started-cli-2.0 Data Lake vs Blob https://www.codit.eu/blog?tag=big%20data pricing https://azure.microsoft.com/en-in/pricing/details/data-lake-store/ https://azure.microsoft.com/en-us/resources/videos/data-lake-billing-model/ compari
Azure Data Lake Analytics	https://docs.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-get-started-cli2 https://docs.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-get-started-portal USQL https://docs.microsoft.com/en-us/azure/data-lake-analytics/data-lake-analytics-u-sql-get-started https://msdn.microsoft.com/en-us/library/mt706196.aspx https://raw.githubusercontent.com/Azure/Azure-DataFactory/master/Samples/U-SQL%20Sample%20Input%20File/SearchLog.tsv U-SQL vs Spark SQL https://stackoverflow.com/questions/35575080/azure-spark-sql-vs-u-sql case study https://docs.microsoft.com/en-us/azure/machine-learning/machine-learning-data-science-process-data-lake-walkthrough

<p>Azure Data Factory</p>	<p>https://docs.microsoft.com/en-us/azure/data-factory/quickstart-create-data-factory-powershell</p> <p>https://docs.microsoft.com/en-us/azure/data-factory/data-factory-azure-blob-connector</p> <p>https://docs.microsoft.com/en-us/azure/data-factory/data-factory-copy-activity-tutorial-using-azure-portal</p> <p>https://docs.microsoft.com/en-us/azure/data-factory/data-factory-build-your-first-pipeline</p> <p>https://docs.microsoft.com/en-us/azure/data-factory/data-factory-build-your-first-pipeline-using-editor</p> <p>https://docs.microsoft.com/en-us/azure/data-factory/data-factory-copy-activity-tutorial-using-azure-portal</p> <p>http://www.winwire.com/wp-content/uploads/2017/02/Step-by-Step-Azure-Data-Factory-Tutorials-1.pdf</p> <p>Data Factory vs SSIS http://www.radacad.com/wp-content/uploads/2016/05/SqlBits2016_RezaRad_ADFvsSSIS.pdf</p> <p>http://www.jamesserra.com/archive/2017/03/azure-data-factory-and-ssis-compared/</p>
<p>Azure SQL Data Warehouse</p>	<p>https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-get-started-tutorial</p> <p>loading data https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-overview-load</p> <p>https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-load-with-data-factory</p> <p>MPP vs Map Reduce https://www.flydata.com/blog/introduction-to-massively-parallel-processing/</p> <p>Sql server vs warehouse https://key2consulting.com/comparison-of-azure-sql-database-to-azure-sql-data-warehouse/</p> <p>Lake vs warehouse https://www.blue-granite.com/blog/bid/402596/top-five-differences-between-data-lakes-and-data-warehouses</p> <p>https://azure.microsoft.com/en-in/resources/videos/build-2016-azure-data-lake-and-azure-data-warehouse-applying-modern-practices-to-your-app/</p>
<p>Machine Learning</p>	<p>https://azure.microsoft.com/en-in/documentation/articles/machine-learning-create-experiment/</p> <p>https://docs.microsoft.com/en-in/azure/machine-learning/machine-learning-publish-a-machine-learning-web-service</p> <p>PROCESS BLOB DATA https://docs.microsoft.com/en-us/azure/machine-learning/machine-learning-data-science-process-data-blob</p>

HDInsight (Spark)	https://azure.microsoft.com/en-in/documentation/articles/hdinsight-apache-spark-jupyter-spark-sql/
Azure Data Bricks	https://docs.azuredatabricks.net/getting-started/quick-start.html https://docs.azuredatabricks.net/getting-started/spark/machine-learning.html#ml-notebook

Streaming data

Event Hub	https://azure.microsoft.com/en-in/documentation/articles/event-hubs-csharp-ephcs-getstarted/ https://docs.microsoft.com/en-us/azure/event-hubs/event-hubs-dotnet-standard-getstarted-receive-eph csv: https://stackoverflow.com/questions/30868467/how-to-send-data-as-csv-on-eventhub-for-azure-stream-analytics/30870640 Java: works with only java 8
Kafka (preview)	
Stream Analytics	https://www.codit.eu/blog/2015/01/azure-stream-analytics-getting-started/ https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-real-time-fraud-detection <pre> SELECT System.Timestamp AS WindowEnd, Name, COUNT(*) INTO output1 FROM input1 where Age > 25 GROUP BY Name , TUMBLINGWINDOW(minute, 1) </pre>
Azure HDInsight (Storm, Spark streaming)	

Messaging

Queue	https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-how-to-use-queues/
Service Bus Queue	https://gist.github.com/rberrelleza/2221610 https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-manage-with-ps https://azure.microsoft.com/en-in/documentation/articles/service-bus-dotnet-get-started-with-queues/
Service Bus Topic	https://azure.microsoft.com/en-in/documentation/articles/service-bus-dotnet-how-to-use-topics-subscriptions/

Notification Hub	
Event Grid	https://docs.microsoft.com/en-us/azure/event-grid/custom-event-quickstart https://docs.microsoft.com/en-us/azure/event-grid/custom-event-to-eventhub https://azurebiztalkread.wordpress.com/2018/05/19/azure-service-bus-topic-vs-azure-event-grid-topic/
Patterns	Command Message(Queue) http://www.enterpriseintegrationpatterns.com/patterns/messaging/CommandMessage.html Request-Reply (Queue) http://www.enterpriseintegrationpatterns.com/patterns/messaging/RequestReply.html Event Message (Queue) http://www.enterpriseintegrationpatterns.com/patterns/messaging/EventMessage.html
Computation	
Web App	http://almirvuk.blogspot.in/2015/12/how-to-upload-web-site-to-azure-with.html Auto Scale: https://blogs.msdn.microsoft.com/devschool/2015/05/24/azure-how-to-auto-scale-your-web-apps-web-sites/ deployment slots : https://azure.microsoft.com/en-in/documentation/articles/web-sites-staged-publishing/ After a swap, the slot with previously staged app now has the previous production app. If the changes swapped into the production slot are not as you expected, you can perform the same swap immediately to get your "last known good site" back. Scale Up: https://azure.microsoft.com/en-in/documentation/articles/web-sites-scale/ Load Test https://www.visualstudio.com/en-us/docs/test/performance-testing/app-service-web-app-performance-test
CDN Cache	https://azure.microsoft.com/en-us/documentation/articles/cdn-create-a-storage-account-with-cdn/ <a href="http://<StorageAccountLabel>.blob.core.windows.net/<mycontainer>/myblob">http://<StorageAccountLabel>.blob.core.windows.net/<mycontainer>/myblob <a href="http://<endpointname>.azureedge.net/<mycontainer>/myblob">http://<endpointname>.azureedge.net/<mycontainer>/myblob
Redis Cache	https://azure.microsoft.com/en-in/documentation/articles/cache-dotnet-how-to-use-azure-redis-cache/
Web Job	https://azure.microsoft.com/en-in/documentation/articles/web-sites-create-web-jobs/
Function	https://docs.microsoft.com/en-us/azure/azure-functions/functions-create-storage-blob-triggered-function https://docs.microsoft.com/en-us/azure/azure-functions/functions-bindings-event-hubs http://www.hanselman.com/blog/WhatIsServerlessComputingExploringAzureFunctions.aspx http://flgmwt.github.io/azure/azure-functions/c-sharp/2016/04/04/azure-fns-with-ci.html https://www.codeproject.com/Articles/1110663/Azure-Functions-Tutorial-SQL-Database

Service Fabric	<p>replacing cloud service</p> <p>install :</p> <p>https://blog.geist.no/azure-service-fabric-introduction-getting-it-running/</p> <p>https://azure.microsoft.com/en-us/documentation/articles/service-fabric-get-started/</p> <p>https://azure.microsoft.com/en-in/documentation/articles/service-fabric-reliable-services-quick-start/</p> <p>https://rahulrai.in/post/hands-on-with-azure-service-fabric-reliable-services/</p> <p>Guest Container</p> <p>Services packaged into Windows or Linux containers managed by Docker. Guest executables</p> <p>an arbitrary executable, written in any language, existing app, do not benefit from the full set of features the platform offers, such as custom health and load reporting, service endpoint registration, and stateful compute.</p> <p>Reliable Services</p> <p>Reliable Services is a light-weight framework for writing services that integrate with the Service Fabric platform and benefit from the full set of platform features.</p> <p>Reliable Actors</p> <p>https://mikhail.io/2016/01/fire-and-forget-in-service-fabric-actors/</p> <p>https://docs.microsoft.com/en-us/azure/service-fabric/service-fabric-reliable-actors-get-started</p>
<h2>Facade</h2>	
Application GateWay	<p>The Application Gateway uses Azure Load Balancer at the transport level and then applies the routing rules to support layer-7 (HTTP) load balancing.</p> <p>features</p> <p>https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-introduction</p> <p>getting started</p> <p>https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-create-gateway-portal</p> <p>with ilb</p> <p>https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-ilb-arm</p> <p>Ubuntu VM Scale Set with Application Gateway Integration</p> <p>https://github.com/Azure/azure-quickstart-templates/tree/master/201-vmss-ubuntu-app-gateway</p> <p>content based routing</p> <p>https://vincentlauzon.com/2017/05/08/url-routing-with-azure-application-gateway/</p>
Relay	<p>https://azure.microsoft.com/en-in/documentation/articles/service-bus-relay-tutorial/</p>
Traffic Manager	<p>https://blogs.technet.microsoft.com/canitpro/2015/02/09/step-by-step-managing-traffic-for-workloads-in-azure/</p>

Api Management	<p>get started https://docs.microsoft.com/en-us/azure/api-management/api-management-get-started limit https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-product-with-rules cache https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-cache-vnet vnet https://docs.microsoft.com/en-us/azure/api-management/api-management-using-with-vnet azure ad https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-aad-oauth oauth https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-oauth2</p>
Security	
	<p>https://docs.microsoft.com/en-us/azure/security/azure-security-services-technologies</p>
role based access (RBAC)	<p>https://docs.microsoft.com/en-us/azure/active-directory/role-based-access-control-configure</p> <p>https://docs.microsoft.com/en-us/azure/active-directory/role-based-access-built-in-roles</p>
User Principal	<p>https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/add-users-azure-active-directory</p>
Managed Service Identity	<p>https://docs.microsoft.com/en-us/azure/app-service/app-service-managed-service-identity</p> <p>https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-storage</p> <p>https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-storage-sas</p> <p>https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad</p> <ul style="list-style-type: none"> • A system-assigned identity is tied to your application and is deleted if your app is deleted. An app can only have one system-assigned identity. System-assigned identity support is generally available for Windows apps. • A user-assigned identity is a standalone Azure resource which can be assigned to your app. An app can have multiple user-assigned identities. User-assigned identity support is in preview for all app types. <p>https://joonasw.net/view/azure-ad-managed-service-identity</p> <p>https://blog.kloud.com.au/2018/04/13/demystifying-managed-service-identities-on-azure/</p>

Service Principal	https://docs.microsoft.com/en-us/cli/azure/create-an-azure-service-principal-azure-cli?view=azure-cli-latest https://markheath.net/post/create-service-principal-azure-cli https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-create-service-principal-portal <pre>azure ad app create --display-name "climanager" --homepage "http://localhost/climanager" --identifier-uri "http://localhost/climanager" --password "spielpassword"</pre> <pre>az ad sp create-for-rbac --name "jack" --password "spielpassword"</pre> https://docs.microsoft.com/en-us/cli/azure/create-an-azure-service-principal-azure-cli
Shared Access Signature	https://buildazure.com/2017/05/23/azure-cli-2-0-generate-sas-token-for-blob-in-azure-storage/ https://azure.microsoft.com/en-in/documentation/articles/storage-dotnet-shared-access-signature-part-2/ GetBlobSasUriWithPolicy CloudBlockBlob cloudBlockBlob = new CloudBlockBlob("http://127.0.0.1:./temp/sastest.txt."); cloudBlockBlob.Delete(); java : https://blog.persistent.com/index.php/2012/06/22/windows-azure-and-java-working-with-blob-storage/
Storage Service Encryption (SSE)	https://docs.microsoft.com/en-us/azure/storage/storage-service-encryption https://docs.microsoft.com/en-us/azure/storage/common/storage-service-encryption-customer-managed-keys?toc=%2fazure%2fstorage%2fblobs%2ftoc.json
Azure Disk Encryption (ADE)	https://docs.microsoft.com/en-us/azure/virtual-machines/scripts/virtual-machines-linux-cli-sample-encrypt-vm
Security Center	https://docs.microsoft.com/en-us/azure/security-center/security-center-intro https://docs.microsoft.com/en-us/azure/security-center/security-center-get-started https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-azure-security
key vault	https://docs.microsoft.com/en-us/azure/key-vault/key-vault-manage-with-cli https://docs.microsoft.com/en-us/azure/key-vault/key-vault-get-started

Client Side Encryption	https://docs.microsoft.com/en-us/azure/storage/storage-encrypt-decrypt-blobs-key-vault
best practices	https://docs.microsoft.com/en-us/azure/storage/storage-security-guide
web app - service environment	https://docs.microsoft.com/en-us/azure/app-service-web/app-service-app-service-environment-intro
Network Security	<p>list of features https://docs.microsoft.com/en-us/azure/virtual-network/resource-groups-networking</p> <p>https://opbuildstorageprod.blob.core.windows.net/output-pdf-files/en-us/Azure.azure-documents/live/virtual-network.pdf</p> <p>UDR are applied to traffic leaving subnet from any resource (eg.nic attached to vm). you cannot create routes to specify how traffic enters a subnet.</p> <p>https://campus.barracuda.com/product/nextgenfirewallf/article/NGF62/AzureARMUDRWebPortal/</p> <p>https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-create-udr-arm-ps</p> <p>https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview</p> <p>practice https://docs.microsoft.com/en-us/azure/security/azure-security-network-security-best-practices</p> <p>https://docs.microsoft.com/en-us/azure/best-practices-network-security?toc=%2fazure%2fvirtual-network%2ftoc.json</p> <p>https://blogs.msdn.microsoft.com/igorpag/2016/05/14/azure-network-security-groups-nsg-best-practices-and-lessons-learned/</p> <p>case Study https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-vnet-plan-design-arm?toc=%2fazure%2fnetworking%2ftoc.json</p>

VPN	<p>point to site https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-point-to-site-resource-manager-portal</p> <p>https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-point-to-site-rm-ps</p> <p>site to site https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-cli http://www.rebeladmin.com/2016/12/step-step-guide-configure-site-site-vpn-gateway-connection-azure-premises-network/</p> <p>https://blogs.technet.microsoft.com/canitpro/2016/01/11/step-by-step-connect-your-aws-and-azure-environments-with-a-vpn-tunnel/</p> <p>site to multisite</p> <p>vnet to vnet https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-vnet-vnet-cli</p> <p>express route https://docs.microsoft.com/en-us/azure/expressroute/expressroute-connectivity-models</p> <p>When you create a gateway subnet, it must be named 'GatewaySubnet'. If you name it something else, you create a subnet, but Azure won't treat it as a gateway subnet.</p>
Management	
Template	<p>Create https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-create-first-template</p> <p>deploy https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-quickstart-deploy</p> <p>export https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-export-template-cli</p> <p>linked https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-linked-templates</p> <p>copy https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-create-multiple</p> <p>dependancy https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-define-dependencies</p> <p>best practices http://utkarshcloudnet.blogspot.in/2016/05/Azure-Rerource-Manager-Template-ARM-Azure-best-practices-tips.html</p> <p>deployment from portal https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-template-deploy-portal</p>

Monitoring	https://medium.com/devopslinks/the-state-of-monitoring-in-azure-42cc0174c785 https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/monitoring-get-started https://docs.microsoft.com/en-us/azure/azure-monitor/app/website-monitoring https://try.newrelic.com/rs/newrelic/images/Azure_Getting-Started-Guide_FINAL.pdf https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-monitoring diagnostic logs https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/monitoring-overview-of-diagnostic-logs activity logs https://docs.microsoft.com/en-us/azure/monitoring-and-diagnostics/monitoring-overview-activity-logs
Azure Automation DSC	https://docs.microsoft.com/en-us/azure/automation/automation-dsc-getting-started logs https://docs.microsoft.com/en-us/azure/automation/automation-runbook-output-and-messages
Chef DSC	https://www.opsgility.com/blog/2016/01/19/using-chef-on-azure/ https://tryazuremarketplace.com/pdfs/Chef_on_Azure.pdf https://vishwanathsrikanth.wordpress.com/2015/01/11/desired-state-configuration-using-chef-knife-on-azure-part-2/
Automation	https://codehollow.com/2016/07/automatically-shutdown-virtual-machines-azure/ http://www.nullfactory.net/2016/11/scheduling-the-uptime-of-an-azure-virtual-machine/ http://theithollow.com/2016/09/19/get-started-azure-automation/ logs https://msdn.microsoft.com/en-us/powershell/dsc/logresource https://msdn.microsoft.com/en-us/powershell/dsc/debugresource
CI/CD	https://docs.microsoft.com/en-us/azure/jenkins/java-deploy-webapp-tutorial https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-jenkins-github-docker-cicd https://docs.microsoft.com/en-us/azure/container-service/container-service-kubernetes-jenkins https://docs.microsoft.com/en-us/azure/virtual-machines/windows/chef-automation http://carolynvanslyck.com/blog/2013/02/setting-up-jenkins-on-azure/ https://www.visualstudio.com/en-us/docs/build/get-started/aspnet-4-ci-cd-azure-automatic

Backup and Recovery	Backup Vault (classic) Recovery Service (RM) Intro https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-introduction backup https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-backup- Recovery service https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm disaster recovery https://docs.microsoft.com/en-us/azure/storage/storage-redundancy
Pricing	https://stackify.com/lower-azure-pricing-optimize-costs/ https://azure.microsoft.com/en-in/pricing/ https://azure.microsoft.com/en-in/pricing/calculator/
Visual Studio Team Service	http://www.c-sharpcorner.com/article/getting-started-with-visual-studio-team-services/ https://mitra.computa.asia/article/msdn-getting-started-using-visual-studio-team-services-vsts-source-control

A Key Vault is dedicated to one specific region and thus you will not be able to consult data from within a different region. All the secrets and keys will be stored in physical HSMs in that specific region, **the data will never leave that geographic region**. This limitation can cause some headaches when you are planning for disaster recovery.

If your data size is > 10 TB and you want to move it to Azure, we recommend that you use our disk shipping service

If you have a small amount of data you can use bcp to load directly into Azure SQL Data Warehouse.

Use AZCopy (recommended for < 10 TB data)