

From AWS to Azure

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For those who are familiar with the AWS world, and are coming into Azure, you will find a lot of similarities between the two platforms. But there might be things getting in the way. To start, the terminology is different.

So I decided to sit down and put together this guide that will help those familiar with AWS to get introduced into the world of Azure.

Microsoft has a web page that they maintain to compare AWS to Azure here from a sales perspective:

<https://azure.microsoft.com/en-ca/overview/azure-vs-aws/>

You can see that Microsoft claims Azure can be 5 times cheaper in some cases than the pricing of AWS.

Then when we get technical, they have a web page that talks about the services that AWS offers vs Azure:

<https://docs.microsoft.com/en-us/azure/architecture/aws-professional/services>

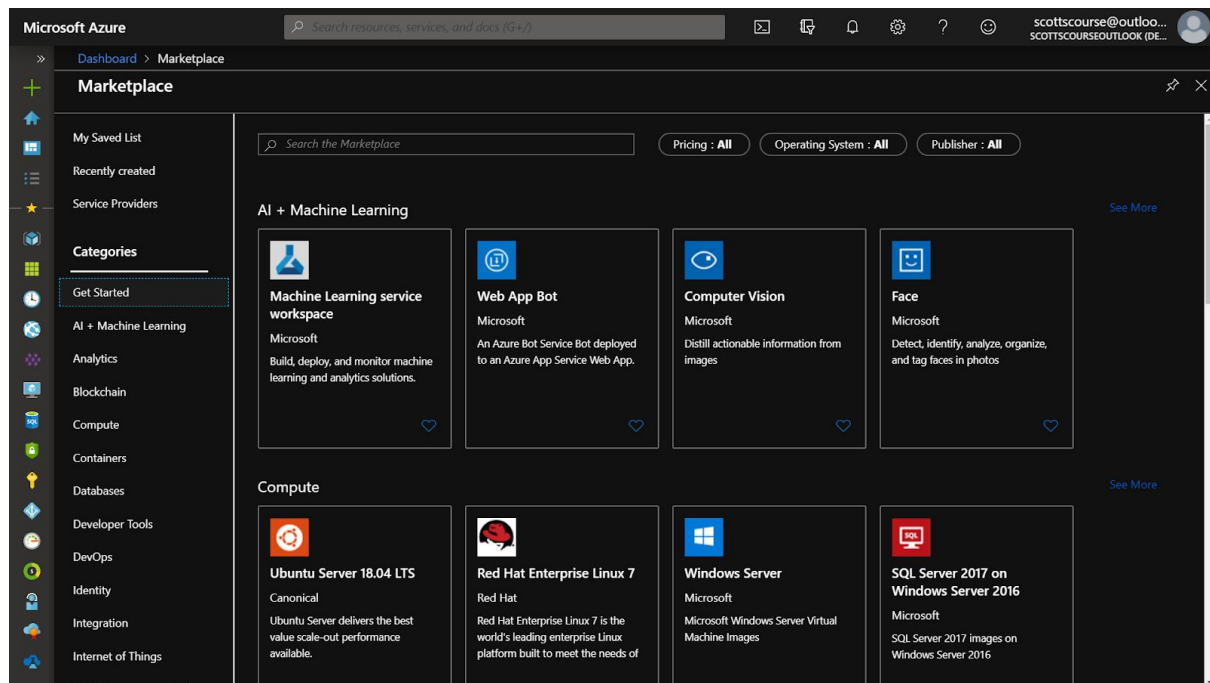
The following document will cover what AWS offers, and what Azure offers that is equivalent.

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Marketplace

Both AWS and Azure have a “marketplace” where vendors offer their computing and networking products for rent. You can find virtual machines, firewalls, and even clusters of VMs here.

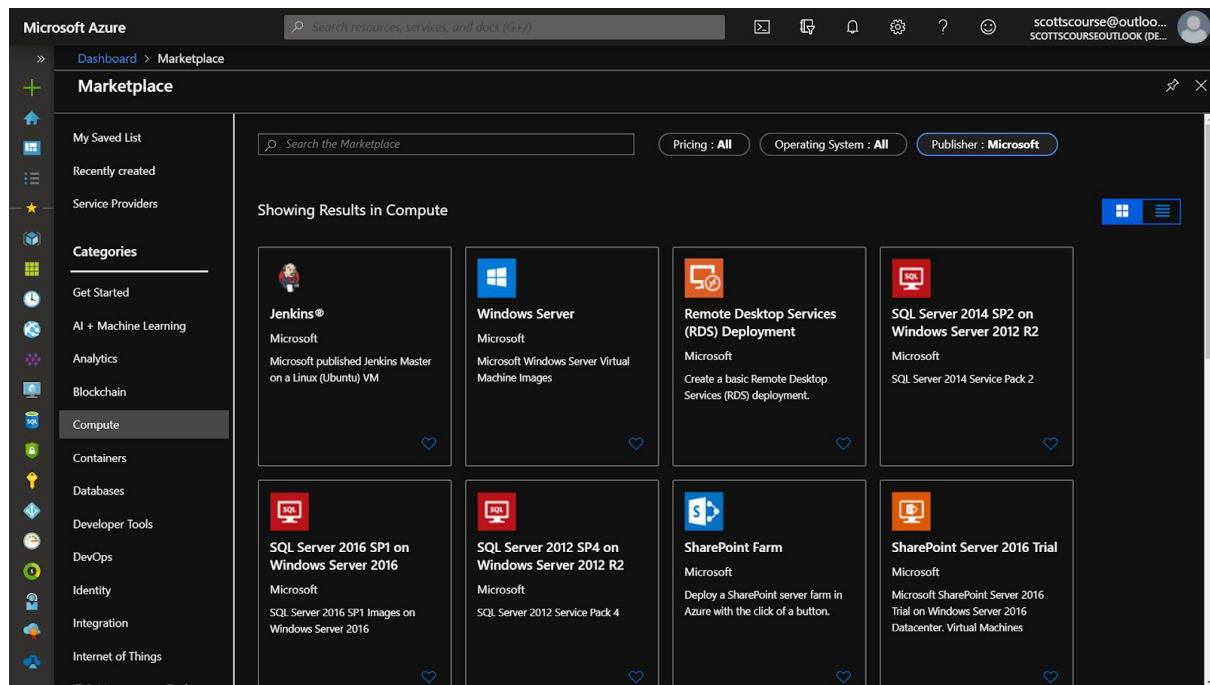


In Azure, the Marketplace contains over 1000 products to choose from. You can search to find what you’re looking for, and it’s also organized into categories along the left side so you can browse.

The filters at the top allow you to narrow your choices by operating system or by Microsoft or third-party publishers.

Compute Offerings

In cloud computing, Compute is the concept of turning over your tasks and applications to the cloud provider to execute. It can be in a virtual machine, or one of their other managed offerings.



AWS Compute	Azure Compute
Elastic Compute Cloud (EC2)	Azure Virtual Machines (VM)
AWS Batch	Azure Batch
AWS Auto Scaling	Virtual Machine Scale Sets (VMSS)
VMware Cloud on AWS	Azure VMware by CloudSimple

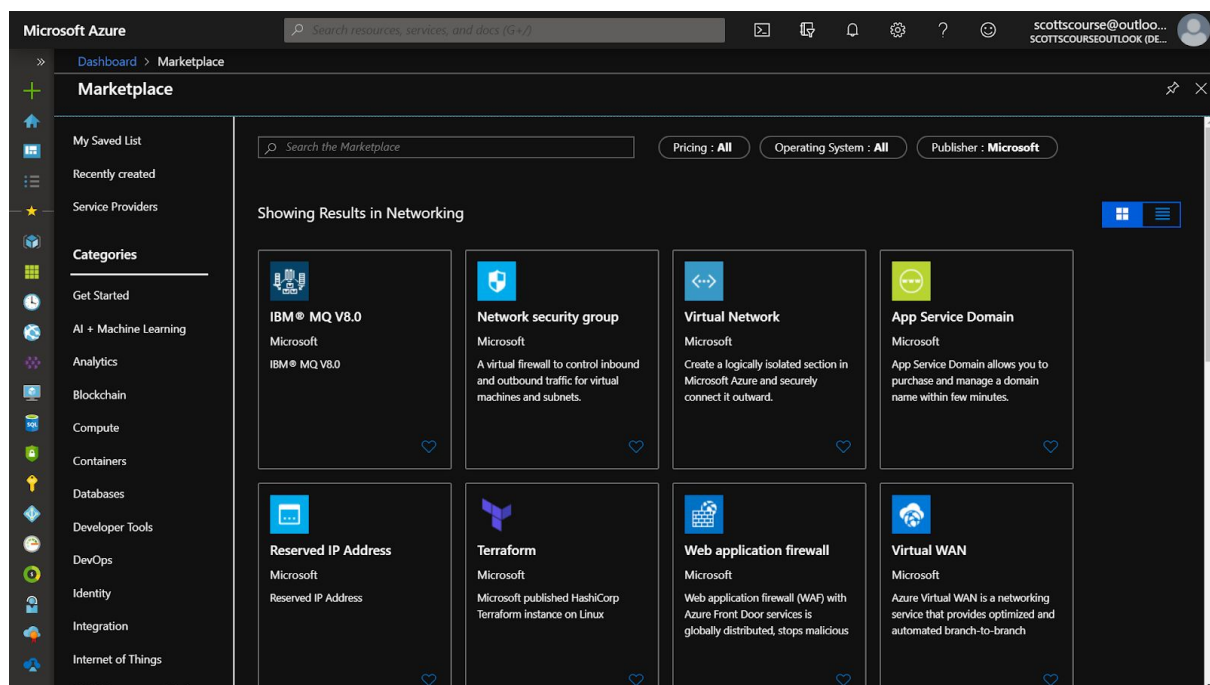
AWS Containers	Azure Containers
EC2 Container Service (ECS), Fargate	Azure Container Instances (ACI)
EC2 Container Registry	Azure Container Registry (ACR)
Elastic Container Service for Kubernetes (EKS)	Azure Kubernetes Service (AKS)
App Mesh	Service Fabric Mesh

AWS Serverless	Azure Serverless
Lambda	Azure Functions
AWS Step Functions, Simple Workflow Service (SWF)	Logic Apps

AWS Web Applications	Azure Web Applications
Elastic Beanstalk	App Service
API Gateway	API Management
CloudFront	Azure Content Delivery Network (CDN)
Global Accelerator	Azure Front Door

Networking Offerings

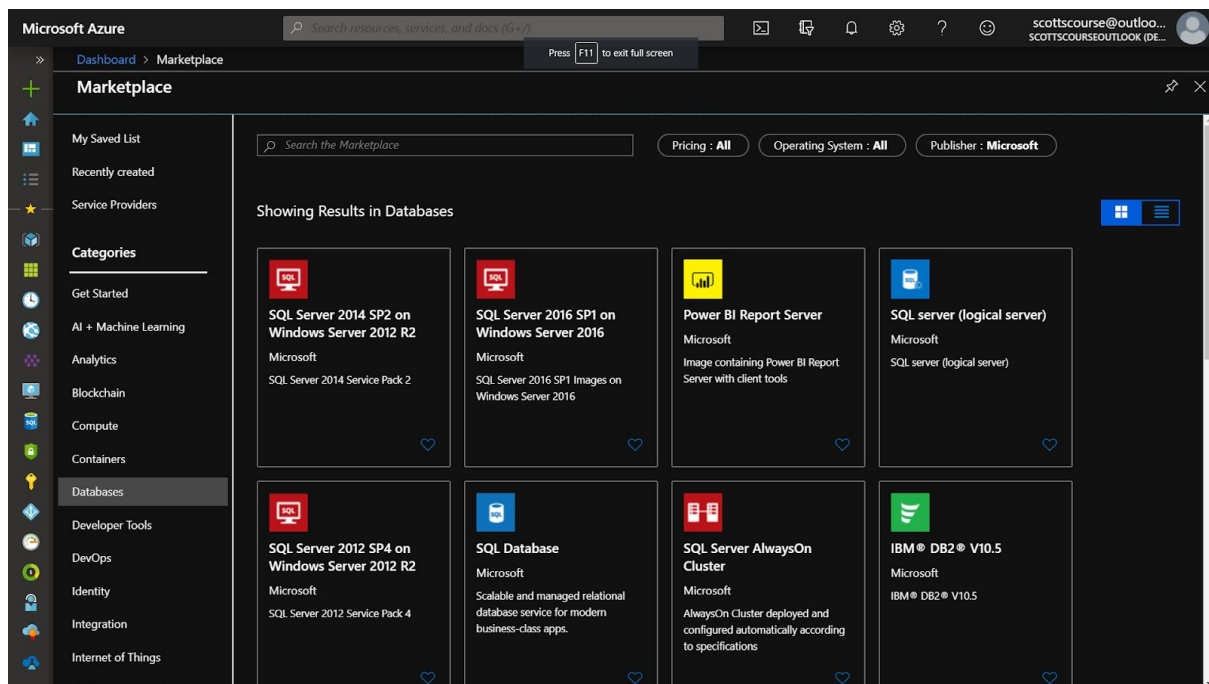
From the network itself, to load balancers and the way traffic is distributed around your applications.



AWS Networking	Azure Networking
Virtual Private Cloud (VPC)	Virtual Network
AWS VPN Gateway	Azure VPN Gateway
Route 53	Azure DNS, Azure Traffic Manager
Direct Connect	ExpressRoute
Network Load Balancer	Load Balancer
Application Load Balancer	Application Gateway

Database Offerings

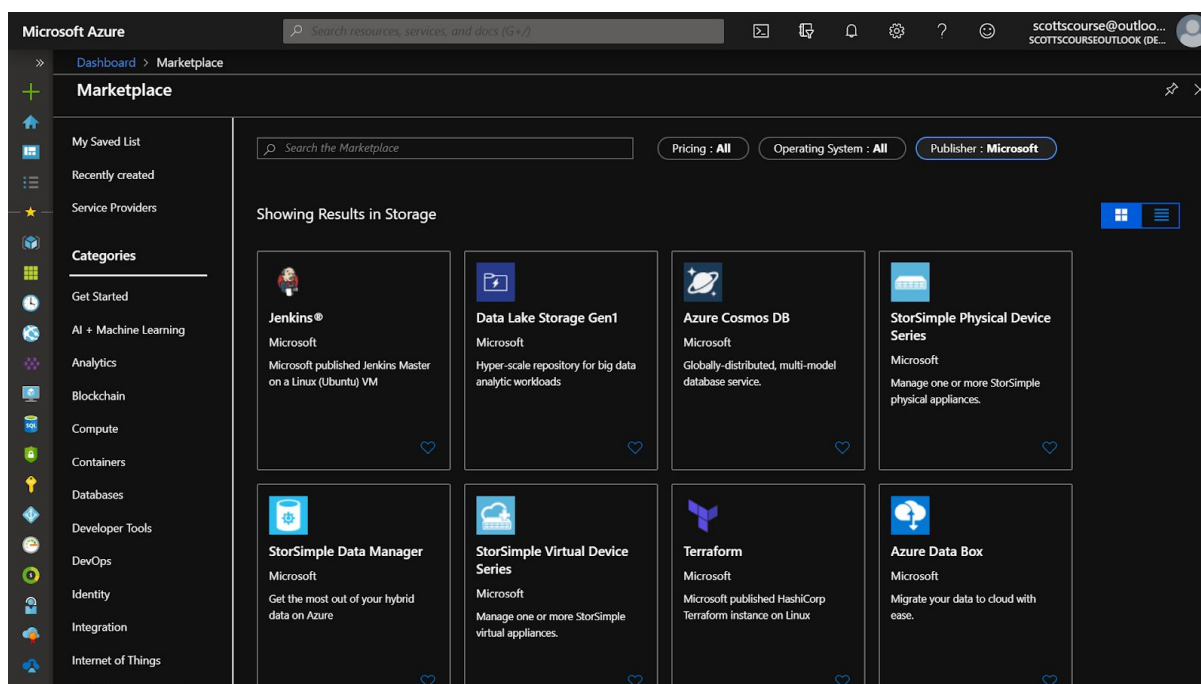
The world has evolved past the plain old Relational Database model into many more models for the Web. Azure and AWS both offer NoSQL and other models. Many of the databases offered by Azure are “managed” in that they will take care of storage, performance and scaling for you. You do have to usually select a tier and will pay according to the tier you chose.



AWS Databases	Azure Databases
RDS	SQL Database, Azure Database for MySQL, Azure Database for PostgreSQL
DynamoDB, SimpleDB	Azure Cosmos DB
ElastiCache	Azure Cache for Redis
AWS Database Migration Service	Azure Database Migration Service

Storage Offerings

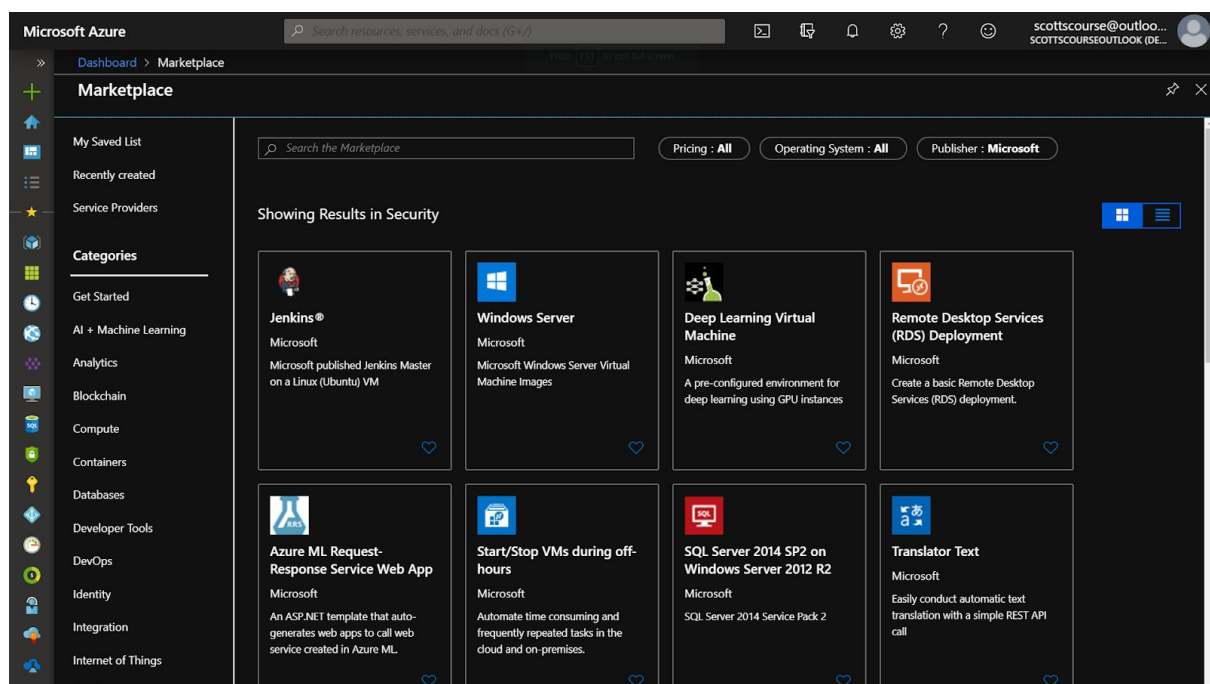
Storage is one of the three foundational pillars of cloud computing. Many companies start by putting their long-term storage into the cloud before committing to a full application migration, because growing storage needs are one of the ongoing problems for companies that use hosted solutions, and saving money on storage is fairly easy to do.



AWS Storage	Azure Storage
Simple Storage Service (S3)	Azure Blob Storage
Elastic Block Store (EBS)	Azure Managed Disks
Elastic File System	Azure Files
S3 Infrequent Access (IA)	Azure Storage, cool tier
S3 Glacier	Azure Storage, archive tier
AWS Backup	Azure Backup
Storage Gateway	StorSimple
AWS Import/Export Disk	Import/Export
Snowball, Snowball Edge, Snowmobile	Azure Data Box

Security Offerings

We can't get far in a conversation about cloud computing without talking about security. There have been some high-profile incidents in recent years of data being taken from cloud storage accounts, and we have to be ever vigilant to watch for making sure our data and applications are secure.



AWS Authentication	Azure Authentication
Identity and Access Management (IAM)	Azure Active Directory, Role Based Access Control
AWS Organizations	Azure Subscription Management, Azure Policy, Management Groups
Multi-Factor Authentication	Multi-Factor Authentication
AWS Directory Service	Azure AD Domain Services (AD DS)
Cognito	Azure AD B2C

AWS Encryption	Azure Encryption
Server-side encryption with Amazon S3 Key Management Service	Transparent Data Encryption (TDE)
Key Management Service, CloudHSM	Azure Key Vault

AWS Firewall	Azure Firewall
Web Application Firewall	Application Gateway with Web Application Firewall (WAF), Azure Firewall

AWS Security	Azure Security
Inspector	Security Center
Certificate Manager	App Service Certificates
GuardDuty	Advanced Threat Protection (ATP)
AWS Artifact	Service Trust Portal
AWS Shield	Azure DDoS Protection

Summary

Hopefully this has helped you see the different types of services offered on each platform. In most cases, there is an 1-for-1 equivalent service on AWS for any Azure service, and vice versa. Occasionally, there are two or three services that make up an equivalence.

Let me know if there's anything not clear here, or anything that needs correcting.

Scott