

AZURE Journey

Guidelines

Cloud

AWS, Google, Oracle and Azure are the multi-indweller cloud services that are based on their cloud computing model where the cloud service provider supply resources like database, applications, and storage over the internet.

Public Cloud consists of a wide range of cloud services and products including

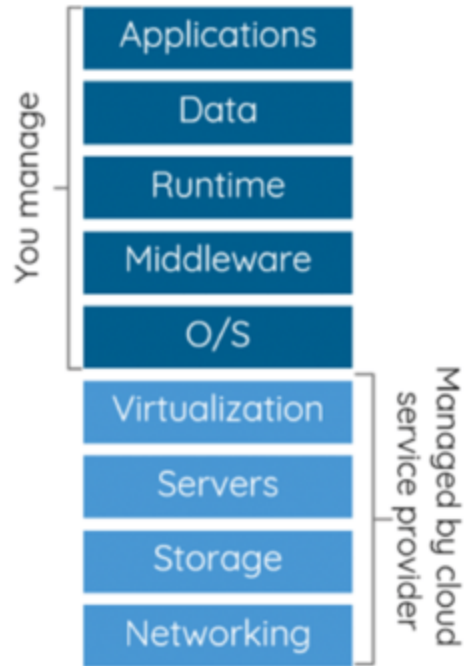
- Software as a Service (SaaS),
- Infrastructure as a Service (IaaS), and
- Platform as a Service (PaaS).

Each cloud services provider supplies multiple products according to the user requirements over the internet. Most commonly used cloud services include –

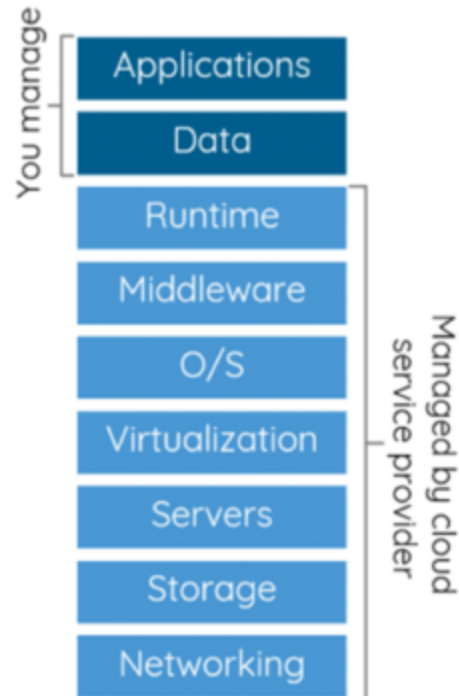
- Compute
- Storage
- Database
- Networking and Content Delivery
- Management tools
- Development Tools
- Security

The cloud computing stack

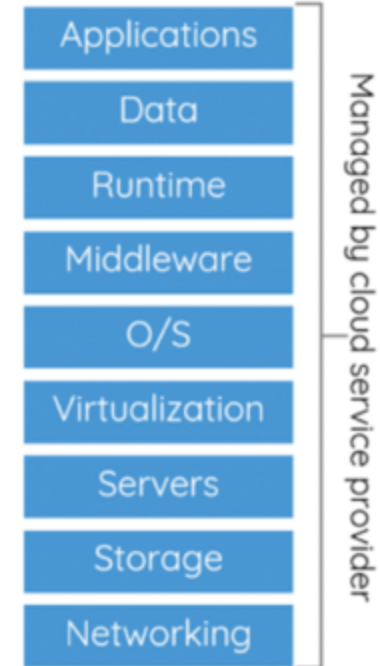
Infrastructure-as-a-service



Platform-as-a-service

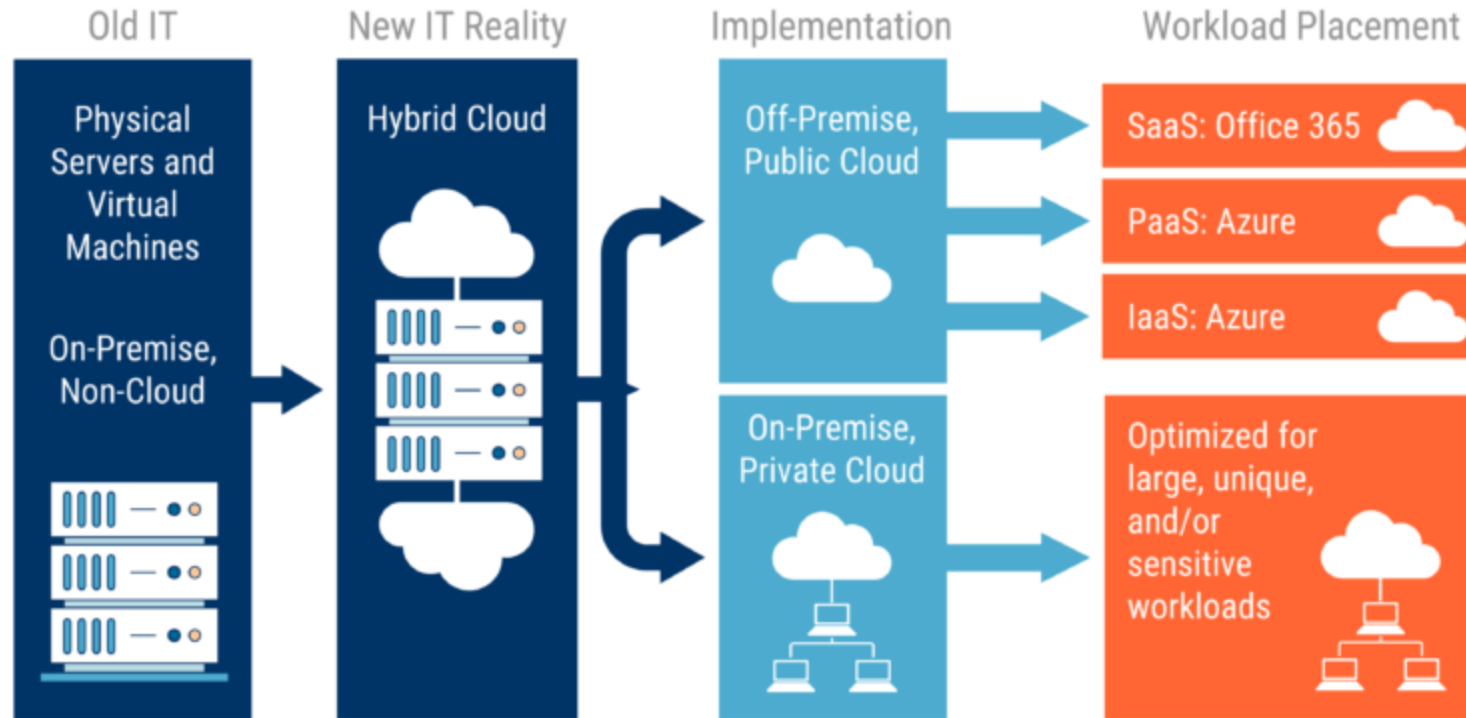


Software-as-a-service



Source: CloudOnMove

The evolution and implementation of hybrid-cloud



Source: Microsoft.com



Running VMs on Azure is often less expensive than on AWS or GCP

Azure bills per-minute (rounded down), while AWS and GCP bill per-second

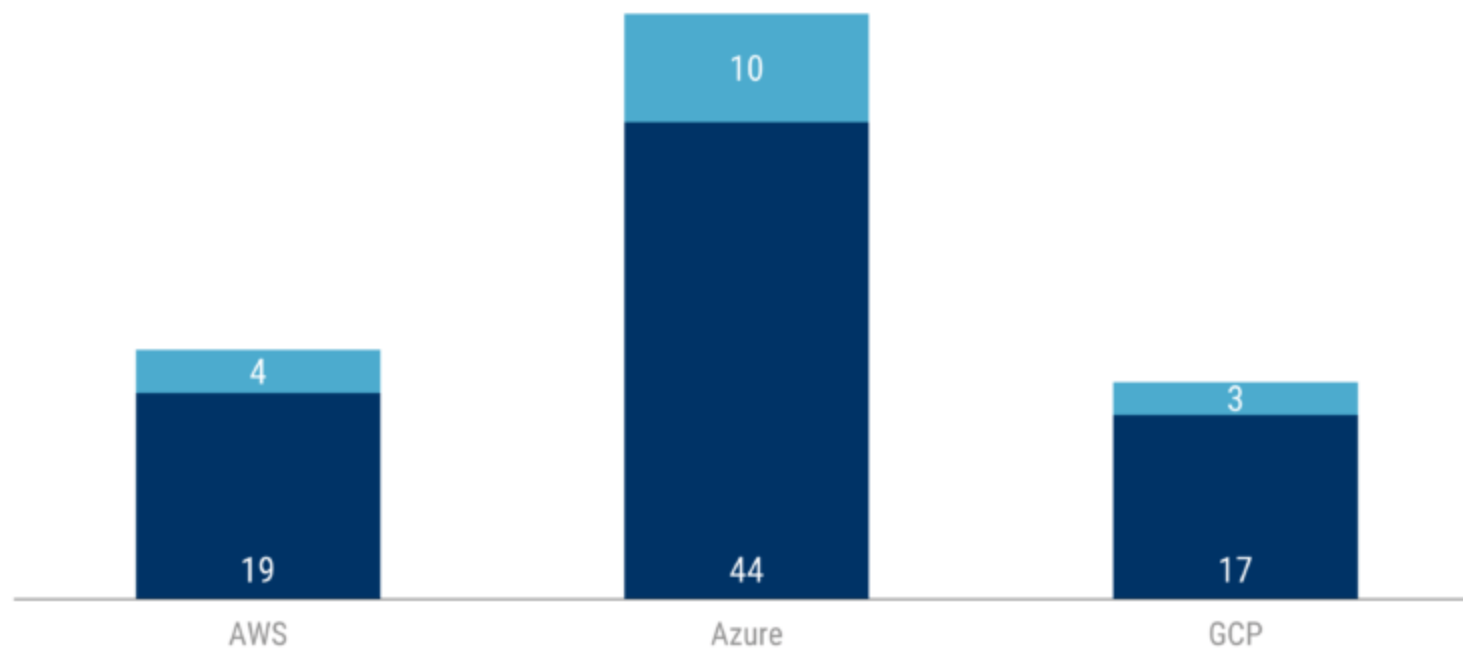
Type	Virtual CPUs	Memory	AWS	Azure	GCP
General Purpose	2	8GB	\$0.0928	\$0.0850	\$0.1070
	4	16GB	\$0.1856	\$0.1700	\$0.2140
	8	32GB	\$0.3712	\$0.3390	\$0.4280
Compute Optimized	2	4GB	\$0.0850	\$0.0850	\$0.0813
	4	8GB	\$0.1700	\$0.1690	\$0.1626
	8	16GB	\$0.3400	\$0.3380	\$0.3253
Memory Optimized	2	16GB	\$0.1330	\$0.1330	\$0.1348
	4	32GB	\$0.2660	\$0.2660	\$0.2696
	8	64GB	\$0.5320	\$0.5320	\$0.5393

Source: ParkMyCloud's Cloud Pricing Comparison 2018, Azure.Microsoft.com



Azure data centers are located in more regions globally

● Current Regions ● Upcoming Regions

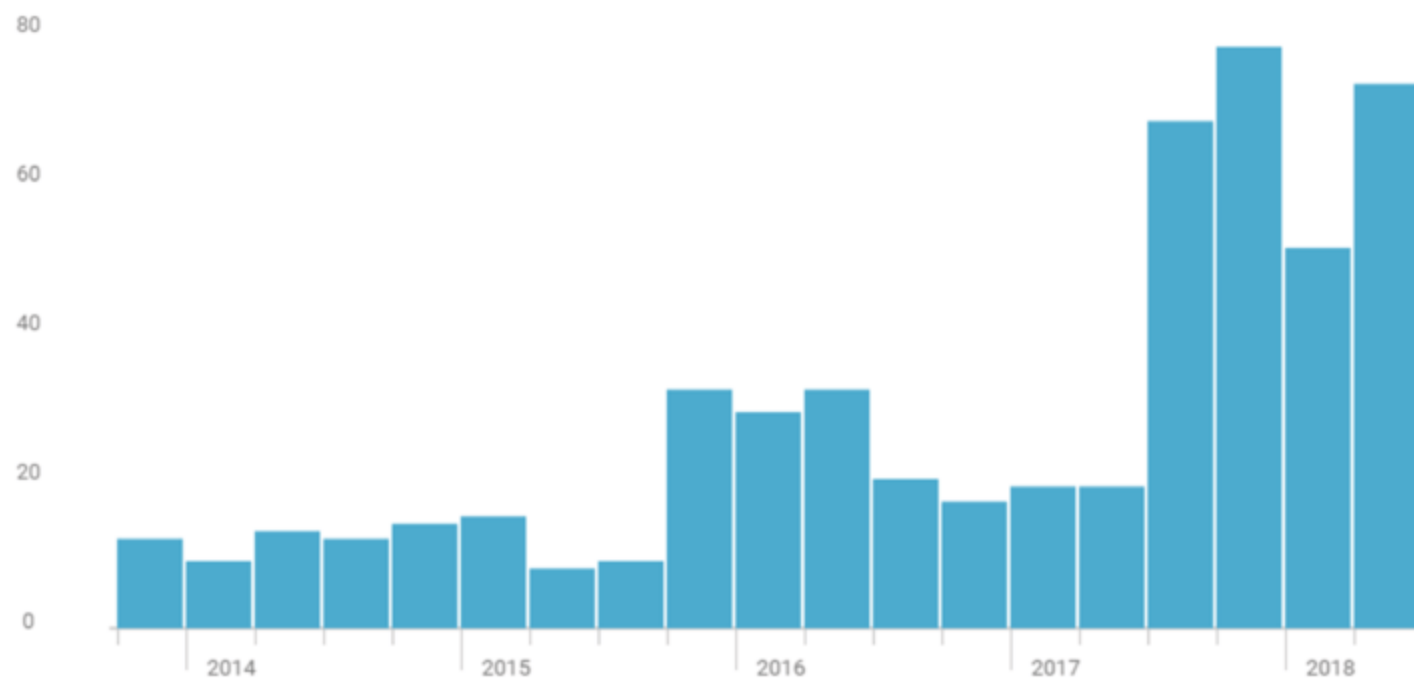


Source: AWS, Azure, and GCP Websites
Two Azure Government Secret region locations undisclosed



Multi-cloud strategies become a focus for tech companies

Quarterly mentions of 'multi-cloud' or 'multi cloud' on earnings calls, Q4 2013 – Q2 2018

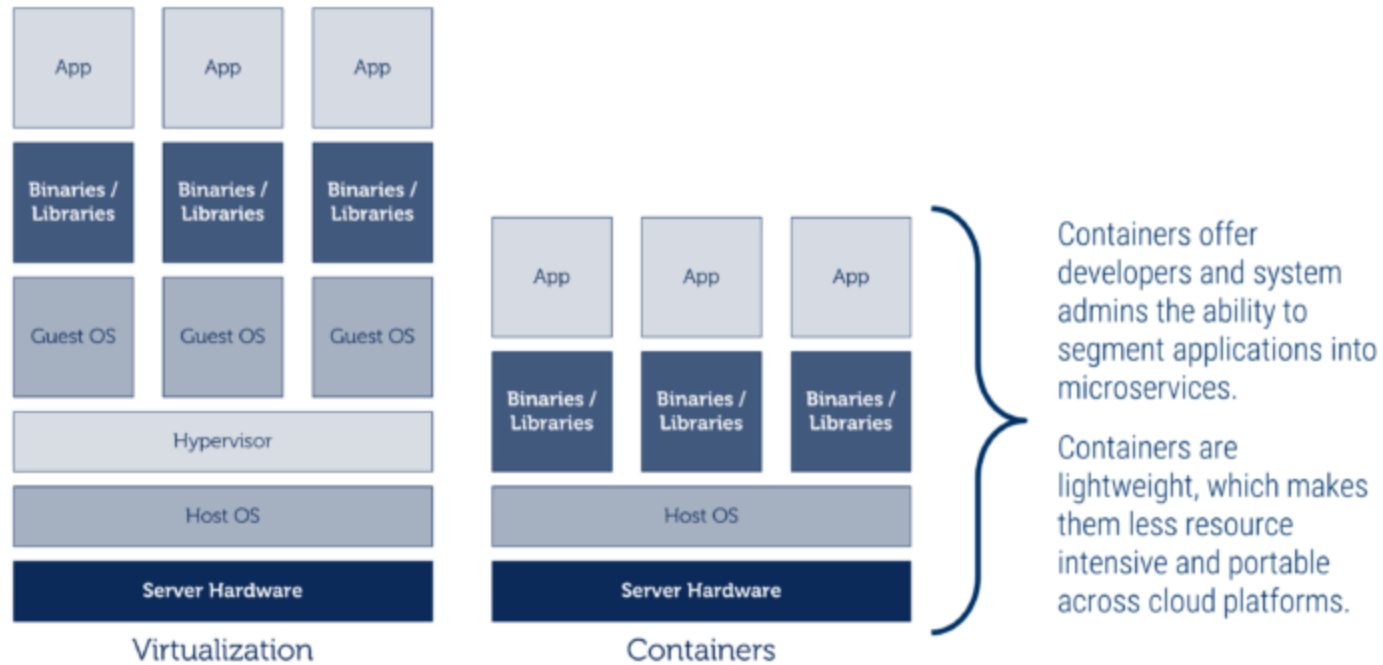


Source: cbinsights.com

Represents the quarter in which the earnings call took place

CBINSIGHTS

Containers facilitate multi-cloud adoption



Source: Cloud Academy



The multi-cloud ecosystem

Private companies that raised equity financing between 6/24/2016 – 6/24/2018

Security & Governance



Containers & Microservices



Orchestration & Automation



Integration & Migration



Logging & Monitoring



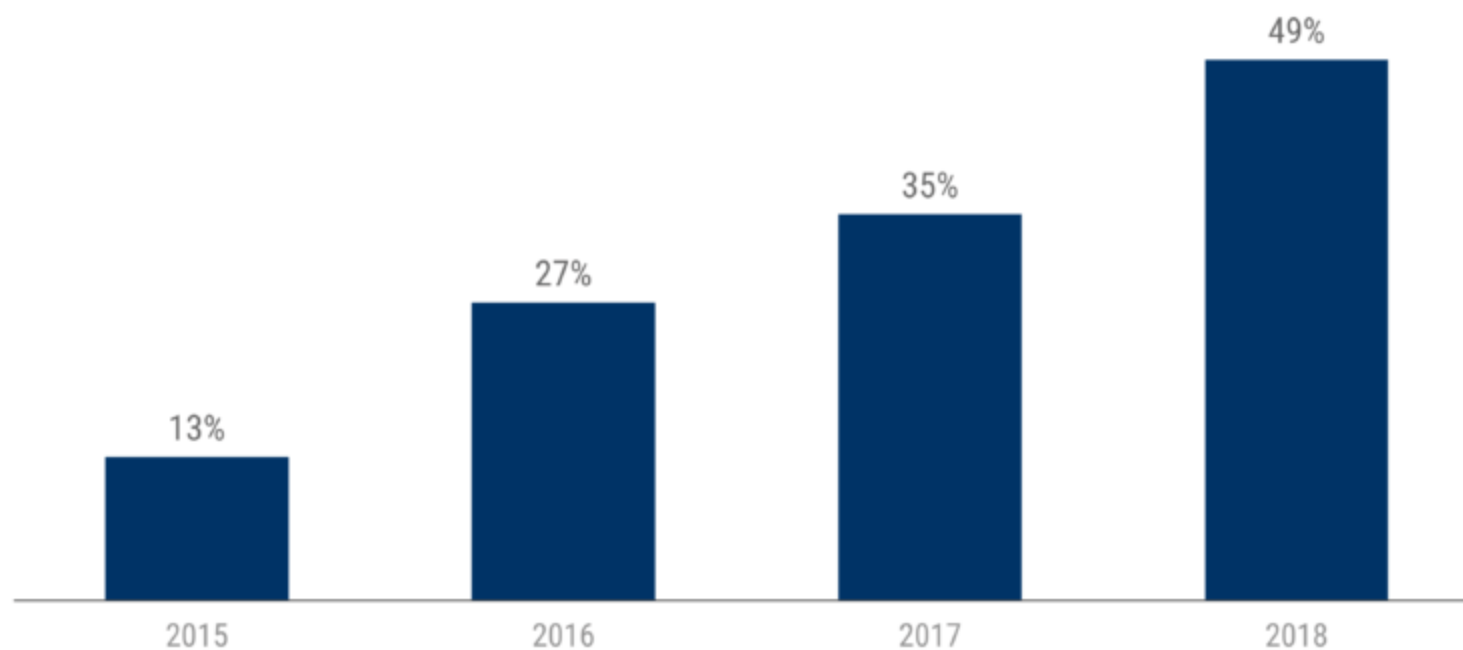
Cost Management





Docker is the most popular containerization tool used today

Docker adoption by technical professionals across broad cross-section of organizations, 2015 – 2018



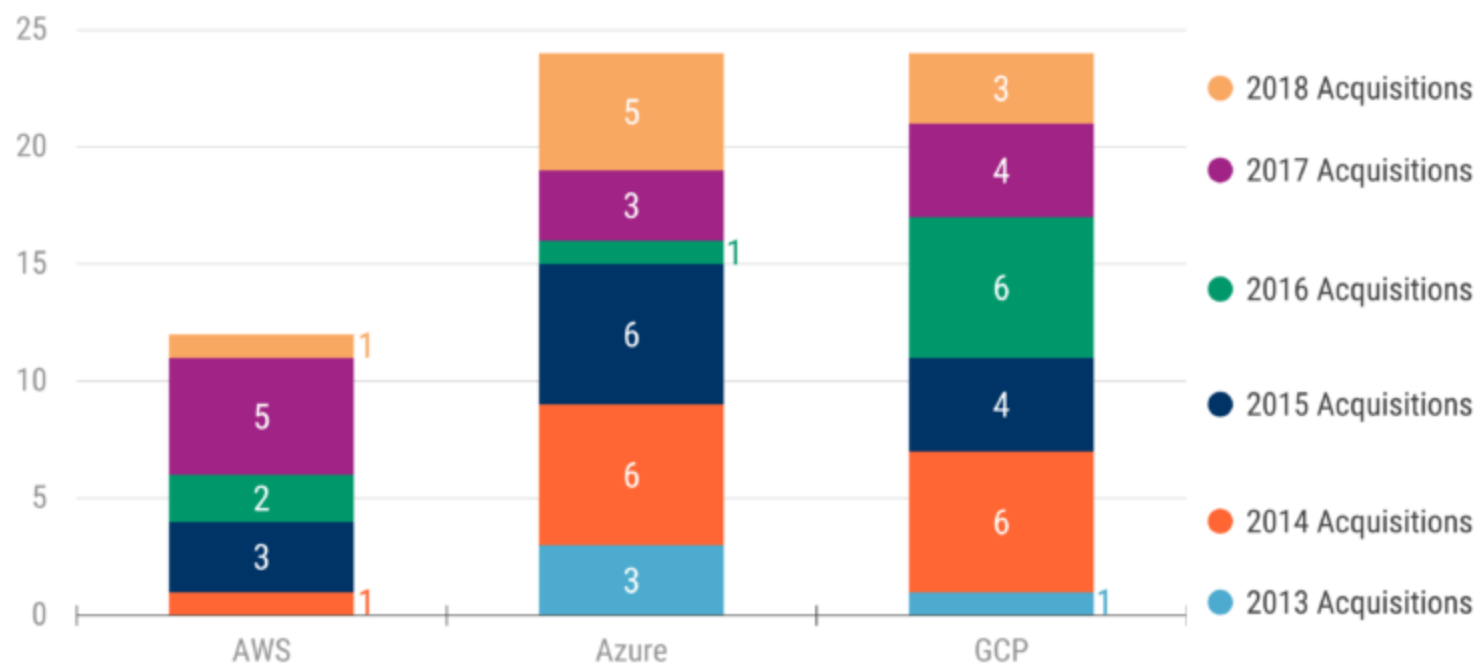
Source: Respondents of RightScale's 2018 State of the Cloud Report

 CBINSIGHTS



Azure and GCP have acquired 2X as many cloud companies as AWS

Total cloud-related acquisitions by year, 2013 – 2018 YTD (8/2/2018)



Source: cbinsights.com

CBINSIGHTS

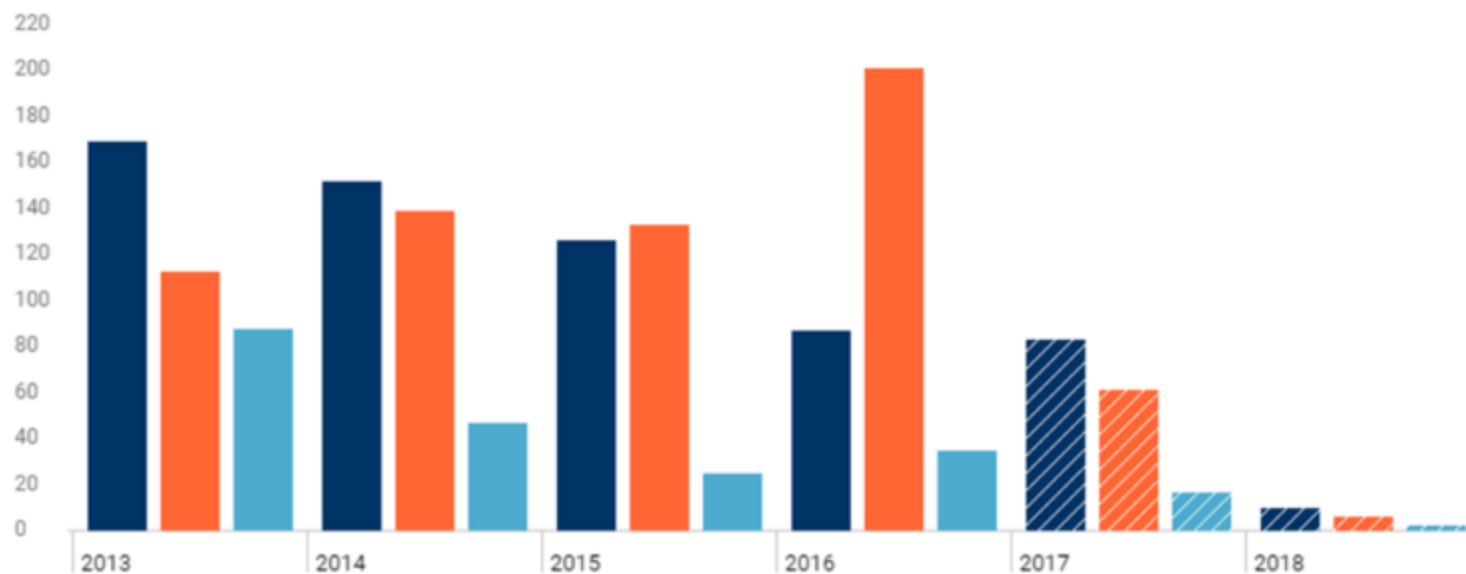


Microsoft overtakes Amazon's total applications for cloud patents

Total patent applications including "cloud" by application date, 2013 – 2018 YTD (7/20/2018)

● Amazon ● Microsoft ● Google

Number of Patents



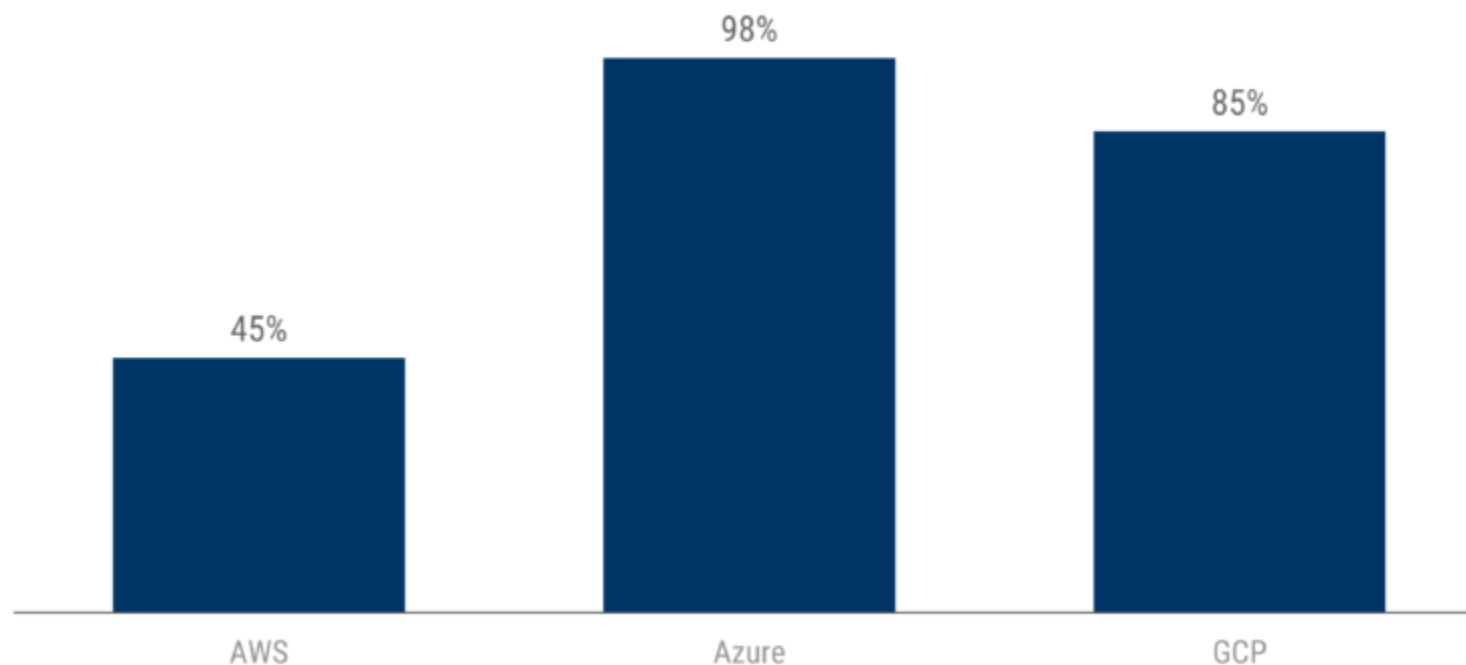
Source: CB Insights' Patent Analytics

CBINSIGHTS



Azure annual growth 2X that of AWS, GCP close behind Azure

Estimated IaaS growth year-over-year, 2016 – 2017



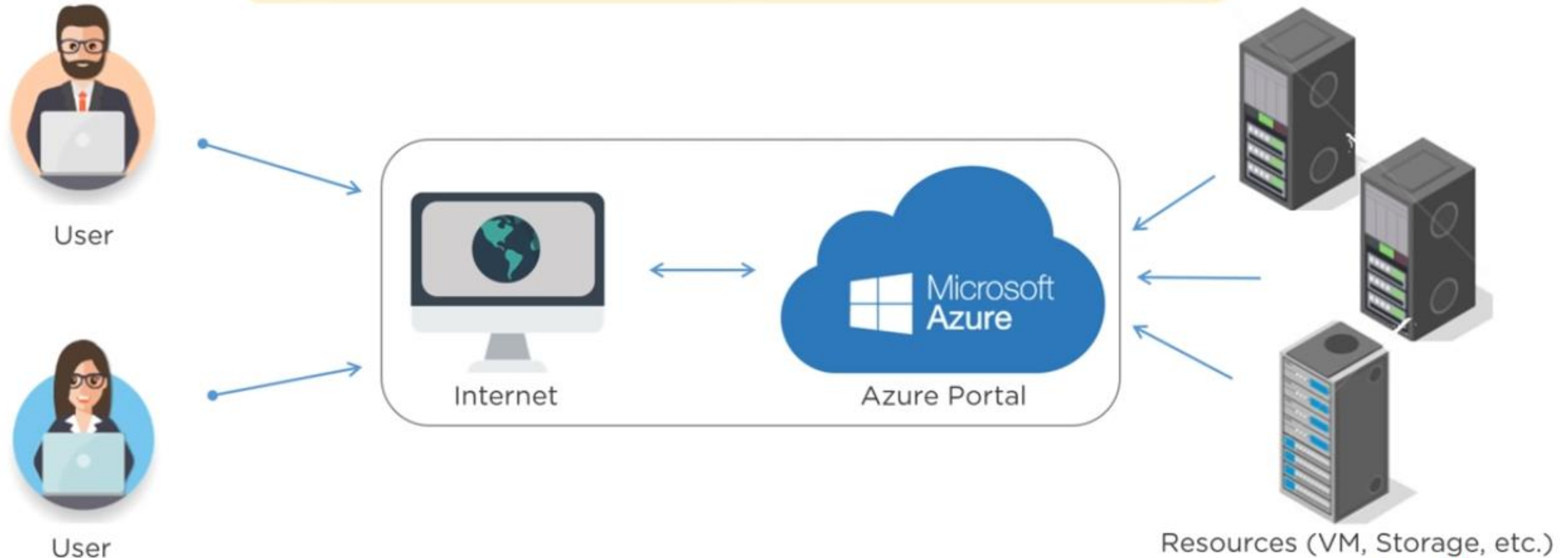
Source: Canalys

CBINSIGHTS

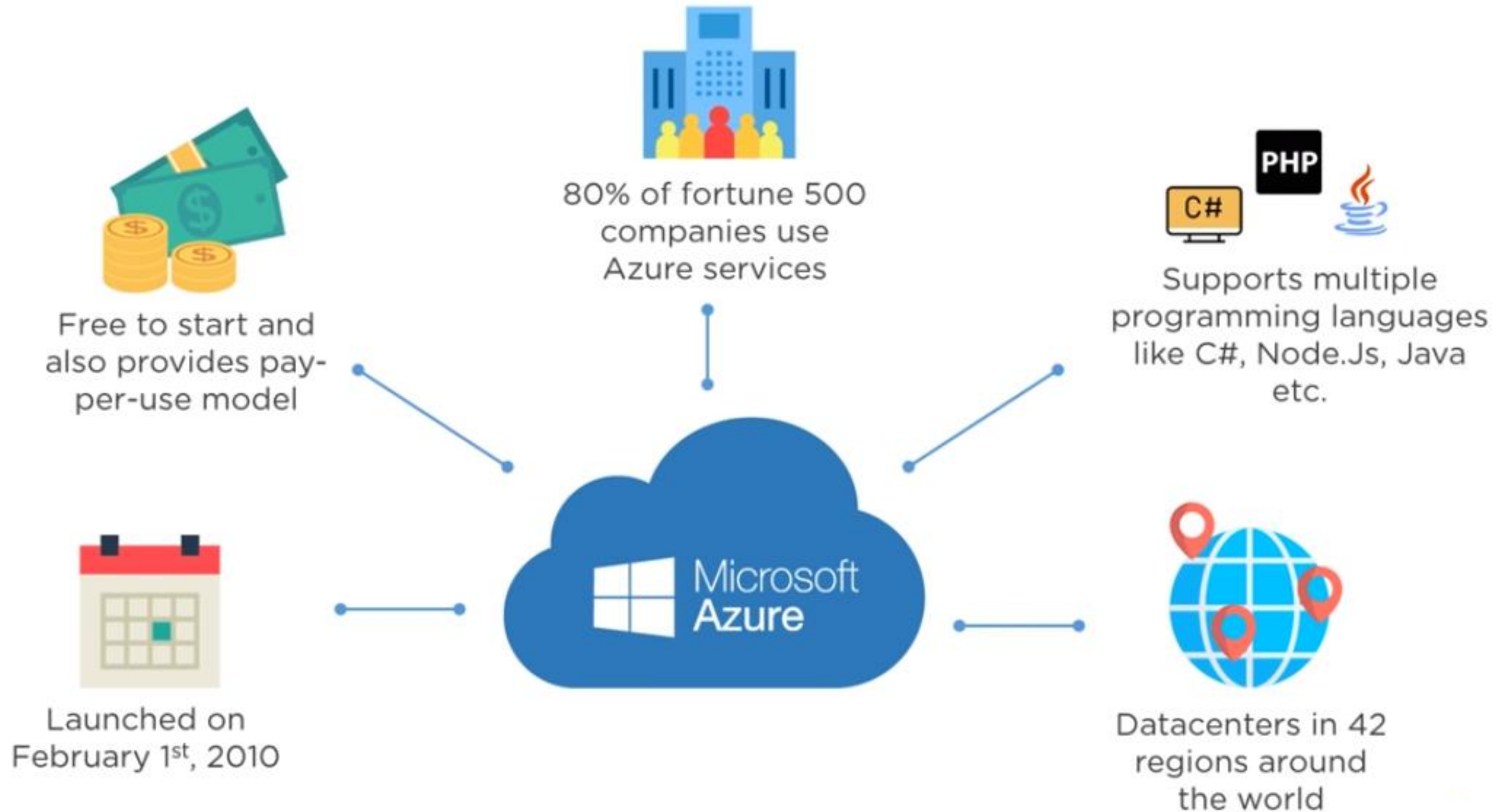
<https://www.cbinsights.com/research/amazon-google-microsoft-multi-cloud-strategies/>

What is Azure?

Azure is a cloud computing platform and an online portal to access and manage resources and services provided by Microsoft



What is Azure?



Azure Services

Azure services are divided into 18 categories and contains more than 200 services



Compute



Networking



Storage



IoT



Migration



Mobile



Analytics



Containers



AI + Machine
Learning



Integration



Management
Tools



Developer
Tools



Security



Databases



DevOps



Media



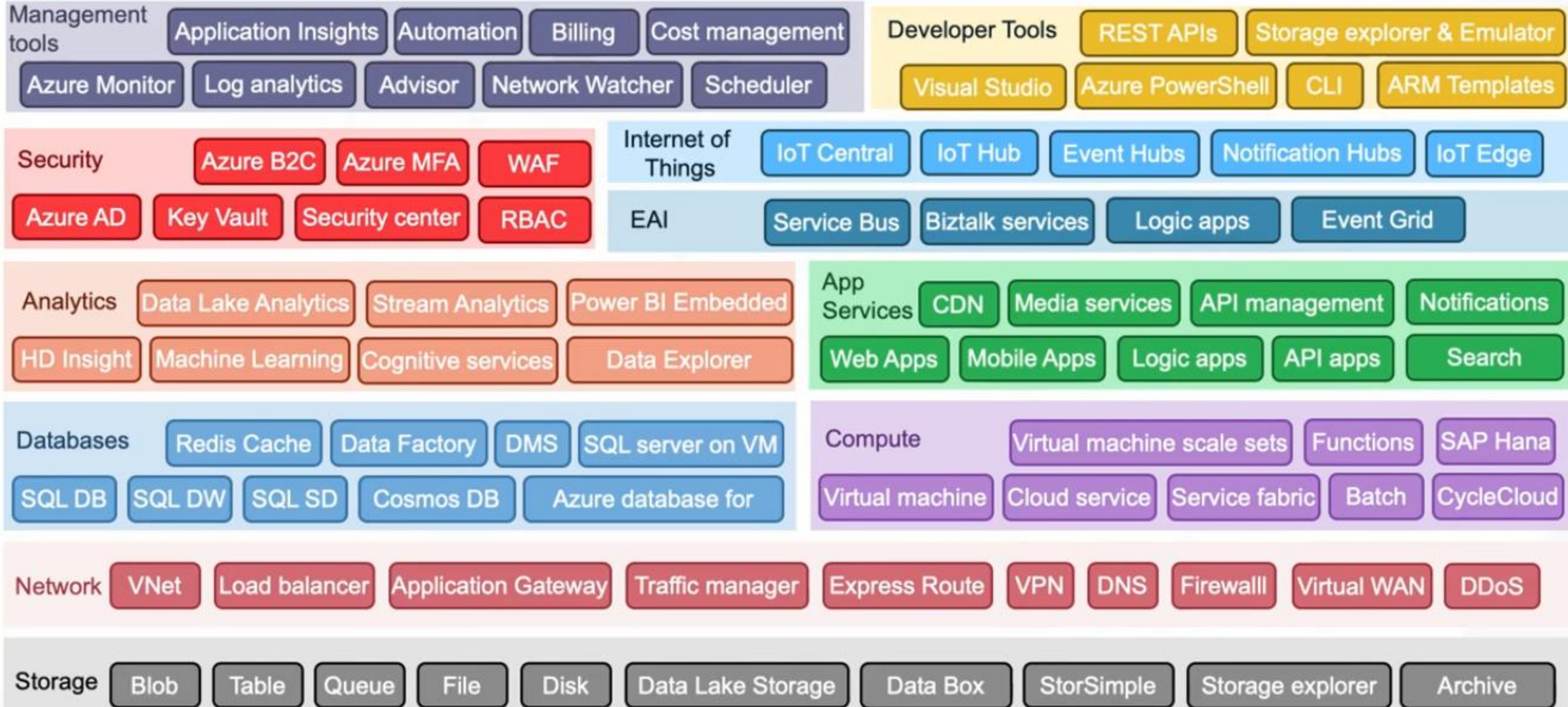
Identity



Web

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10,000 feet view of Azure services



Azure Services - Compute



Compute



Virtual Machine

Create windows or linux
virtual machines of any
configuration in a matter
of seconds



Cloud service



Service Fabric



Functions

Azure Services - Compute



Compute



Virtual Machine



Cloud service



Service Fabric



Functions

Users can create scalable applications within the cloud using the virtual machines whose provisioning, load balancing and health monitoring are handled by Azure post-deployment

Azure Services - Compute



Compute



Virtual Machine



Cloud service



Service Fabric

Service Fabric simplifies
microservice development and
application lifecycle
management



Functions

Azure Services - Compute



Compute



Virtual Machine



Cloud service



Service Fabric



Functions

Easily build applications using serverless functions in any programming language of the user's choice

Azure Services - Networking



Networking

Azure CDN services are used for delivering high bandwidth content to users worldwide



Azure CDN



Express route



Virtual Network



Azure DNS

Azure Services - Networking



Networking



Azure CDN



Express route

Express route lets on-premise networks into Microsoft cloud through a private connection



Virtual Network



Azure DNS

Azure Services - Networking



Networking



Azure CDN



Express route



Virtual Network



Azure DNS

Virtual Network enables
Azure resources to
securely communicate
with each other

Azure Services - Networking



Networking



Azure CDN



Express route



Virtual Network



Azure DNS

Azure DNS is a hosting service that allows the user to host their DNS domains in Azure

Azure network



Virtual network — Azure Virtual Network is a representation of customer own network in the cloud where customer can fully control IP address blocks, DNS settings, security policies, and route tables within this network.



Load balancer — Azure Load Balancer is a layer 4 (TCP, UDP) load balancer that distributes the incoming traffic among the healthy instances of services defined in load-balanced set. It can be internet facing or internal load balancing.



Application Gateway— It is an Application Delivery Controller providing many layer 7 load balancing capabilities. It accepts traffic and based on rules that are defined with it, routes the traffic to the appropriate back-end instances



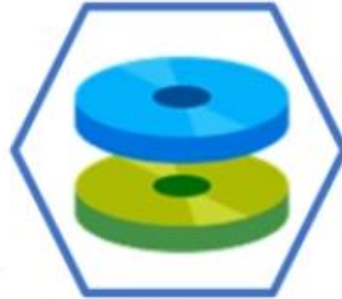
Traffic manager — Azure Traffic Manager allows you to control distribution of user traffic for service end points in different data centers. Traffic Manager uses the Domain Name System to direct client requests to the most appropriate end point based on the traffic-routing method and health of end points.

Azure Services - Storage



Storage

Provides cost-effective
HDD/ SSD options
which can be used with
Azure Virtual Machines



Disk Storage



Blob Storage



File Storage

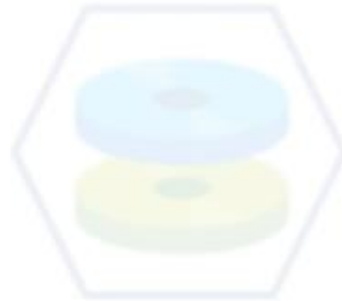


Queue Storage

Azure Services - Storage



Storage



Disk Storage



Blob Storage

Blob storage is optimized for storing massive amounts of unstructured data, such as text or binary data



File Storage



Queue Storage

Azure Services - Storage



Storage



Disk Storage



Blob Storage



File Storage

Managed file storage in the cloud that are accessible via industry standard server message block (SMB) protocol



Queue Storage

Azure Services - Storage



Storage



Disk Storage



Blob Storage



File Storage



Queue Storage

Queue storage provides durable message queuing for large workloads and can be accessed from anywhere in the world

Azure Storage services



Blob — Azure blob storage is a service that provides ability to store unstructured data into the cloud as objects/blobs. A blob can be a document, media file or application installer. Blob storage also called as object storage



File — Azure file storage is a service that offer shared file storage in the cloud using standard Server Message Block (SMB) Protocol. With this, you can migrate legacy applications that rely on file shares quickly and without costly rewrites.



Queue — Azure queue storage provides cloud messaging between application components. It enables application decoupling and asynchronous communication of messages



Tables — Azure table storage enables you to store structured NoSQL data in the cloud. It is key/attribute store with a schemaless design. Table storage offer much cheaper storage than traditional SQL.

Azure Storage services



Data Lake Store – Azure data lake store is a hyper-scale repository for big data analytic workloads. It is built for large scale analytic systems that require massive throughput to query and analyze large amounts of data.



StorSimple – StorSimple addresses massive data growth by taking advantage of economical cloud storage for inactive data, while keeping your mission critical data on-premises for high level performance. It provides automated archive and cost effective backup solution.



Backup – Azure Backup can be used to backup and restore your data in the cloud. It can replace your on-premise backup solution with a cloud-based solution that is reliable, secure and cost-effective.

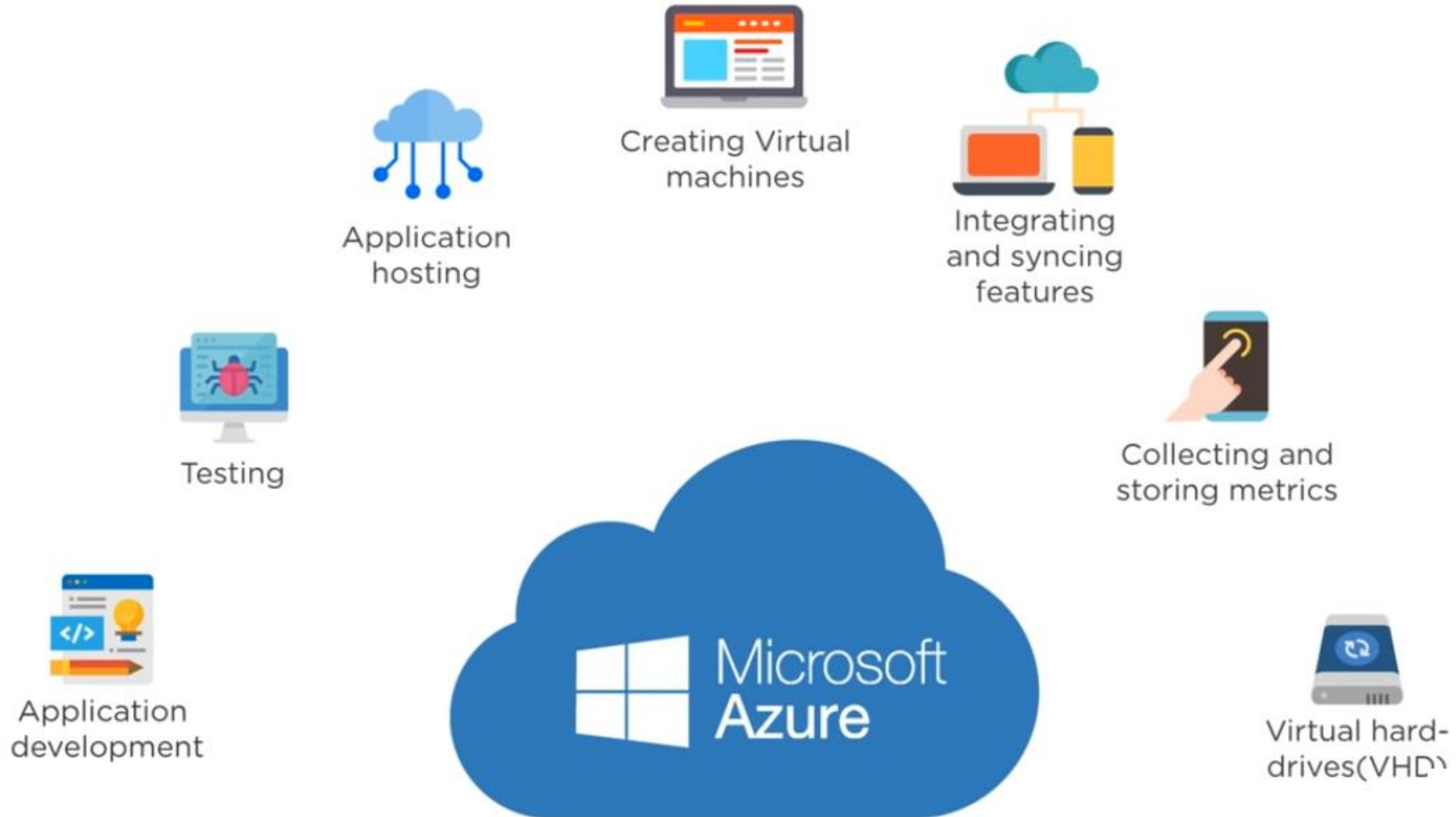


Site Recovery – Azure Site Recovery orchestrates replication of workloads running on-premises physical servers and virtual machines from a primary datacentre to the cloud or to a secondary datacentre. It enables you to take application consistent snapshots and achieve near synchronous replication.

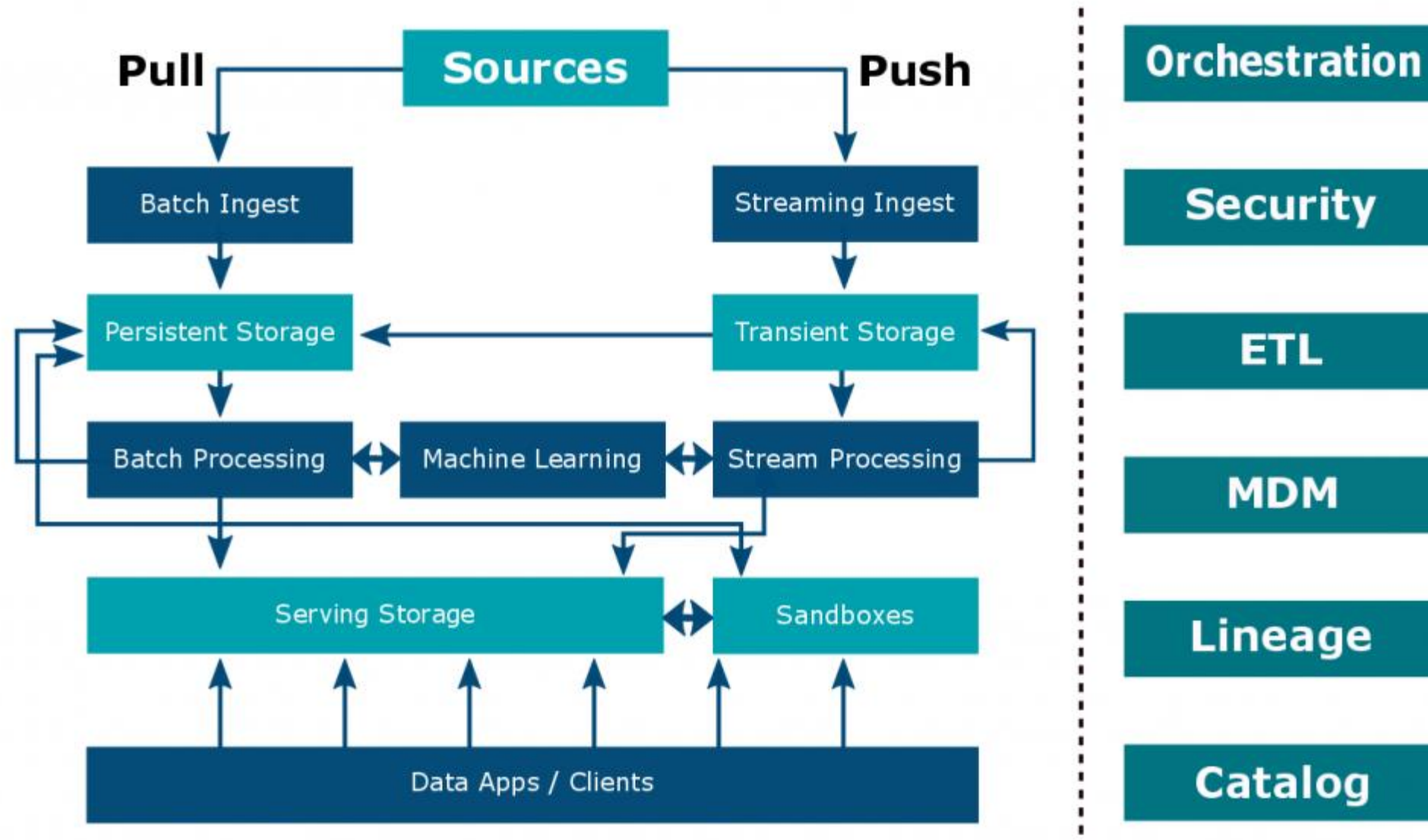
Azure Storage services

Import/Export — Azure Import/Export allows you to securely transfer large amounts of data to Azure blob storage by shipping hard disks to an Azure data center. This service is useful in situation where large amount of data in TB's needs to be migrated in and out of the cloud.

Uses of Azure



Mapping AWS, Google Cloud, Azure Services to Big Data Warehouse Architecture



	Open Source	Amazon AWS	Microsoft Azure	Google Cloud
Batch Ingest	Sqoop File Transfer Flume StreamSets	AWS Data Transfer Services (various options)	Import/Export Service Data Factory	Cloud DataFlow
Streaming Ingest	Flume StreamSets	Amazon Kinesis Firehose	Event Hubs IOT Hub	Cloud DataFlow
Persistent Storage	HDFS RDBMS	S3, Glacier RDS	Storage Blob HDFS SQL Database	Persistent Disk Google Cloud Storage Cloud SQL
Transient Storage	Kafka	Kinesis	Event Hubs IOT Hub HDInsight (Kafka)	Cloud Pub/Sub Cloud IoT Core

Batch Processing	Hive Flink, Spark MapReduce PostgreSQL	EMR Spark EMR Hadoop EMR Presto AWS Batch Redshift	Azure Batch HDInsight (Spark/Map Reduce) SQL Data Warehouse Data Lake Analytics	Cloud Dataflow (open source Apache Beam) Cloud DataProc (Spark, Hadoop)
Stream Processing	Flink Spark Beam	Amazon Kinesis Streams Amazon Kinesis Analytics EMR Spark	Stream Analytics HDInsight (Storm, Spark)	Cloud Dataflow (open source Apache Beam) DataProc (Spark, Hadoop)
Machine Learning	Scikit Tensorflow Spark MLlib TensorFlow etc. Huge number of libraries	Lex Polly Recognition Amazon Machine Learning	Azure ML Cognitive Services	Natural Language SpeechTranslation Vision Video ML Engine

Serving Storage Graph	JanusGraph	N/A Marketplace Only, e.g. OrientDB	N/A Marketplace only, e.g OrientDB	N/A
Serving Storage BI/EDW	Impala + Kudu	Redshift Athena	SQL Data Warehouse	BigQuery
Serving Storage Search (keywords + facets)	Solr	Amazon CloudSearch Amazon Elasticsearch	Azure Search	N/A Marketplace, e.g. Solr
Serving Storage RDBMS	PostgreSQL	RDS	SQL DB	Cloud SQL
Serving Storage NoSQL	HBase	DynamoDB	HDInsight (HBase) CosmosDB	BigTable Spanner DataStore
Sandboxes Notebook	Zeppelin	EMR Zeppelin	Azure Notebooks	Cloud Datalab

Sandboxes Data Science or Preparation Platform	Dataiku DSS Community Edition (not open source)	N/A Marketplace only, e.g. Dataiku DSS	N/A Marketplace only, e.g. Dataiku DSS	Cloud DataPrep (beta). Under the hood this is Trifacta.
Clients/Data Apps	Superset (BI)	Quicksight	PowerBI	Google Data Studio
Orchestration	Airflow	AWS Data Pipeline	Data Factory	N/A Marketplace
ETL Tool	N/A	AWS Glue (beta)	Data Factory	N/A Marketplace
MDM Hub	N/A	N/A Marketplace	N/A Marketplace	N/A Marketplace
Lineage	N/A	AWS Glue (beta)	N/A	N/A
Catalog	N/A	AWS Glue (beta)	Data Catalog	N/A Marketplace

<https://medium.com/@ubethke/mapping-aws-google-cloud-azure-services-to-big-data-warehouse-architecture-5dfec54409fa>

Microsoft Azure



The cloud service map is a guide laid out in a convenient table that helps easily learn about each service the user is interested in. The Azure cloud service map has been categorized into 13 sections. Few comparisons have been shared below.

The [cloud service map](#) (PDF available for [download](#)) is broken out into **13 sections** to make navigation between each service simple:

1.Marketplace – Cloud marketplace services bring together native and partner service offerings to a single place, making it easier for customers and partners to understand what they can do.

2.Compute – Compute commonly refers to the collection of cloud computing resources that your application can run on.

3.Storage – Storage services offer durable, highly-available, and massively-scalable cloud storage for your application, whether it runs in the cloud or not.

4.Networking & Content Delivery – Allows you to easily provision private networks, connect your cloud application to your on-premises datacenters, and more.

5.Database – Database services refers to options for storing data, whether it's a managed relational SQL database that's globally distributed or multi-model NoSQL databases designed for any scale.

6.Analytics and big data – Make the most informed decision possible by analyzing all of the data you need in real time.

7.Intelligence – Intelligence services enable natural and contextual interaction within your applications, using machine learning and artificial intelligence capabilities that include text, speech, vision, and search.

8.Internet of Things (IoT) – Internet of Things (IoT) services connect your devices, assets, and sensors to collect and analyze untapped data.

9.Management & monitoring – Management and monitoring services provide visibility into the health, performance, and utilization of your applications, workloads, and infrastructure.

10.Mobile services – Mobile services enable you to reach and engage your customers everywhere, on every device. DevOps services make it easier to bring a higher quality app to market faster, and a number of engagement services make it easier to deliver performant experiences that feel tailored to each user.

11.Security, identity, and access – A range of capabilities that protect your services and data in the cloud, while also enabling you to extend your existing user accounts and identities, or provisioning entirely new ones.

12.Developer tools – Developer tools empower you to quickly build, debug, deploy, diagnose, and manage multi-platform, scalable apps and services.

Databases

Service	Description	AWS	Azure
Relational database	SQL Database is a high-performance, reliable, and secure database you can use to build data-driven applications and websites, without needing to manage infrastructure.	RDS	SQL Database including Postgres and MySQL
NoSQL—document storage	A globally-distributed, multi-model database that natively supports multiple data models: key-value, documents, graphs, and columnar.	DynamoDB	Cosmos DB
NoSQL—key/value storage	A non-relational data store for semi-structured data.	DynamoDB and SimpleDB	Table Storage
Caching	An in-memory-based, distributed-caching service that provides a high-performance store typically used to offload non-transactional work from a database.	ElastiCache	Redis Cache
Database migration	Focuses on migration of database schema and data from one database format to a specific database technology in the cloud.	Database Migration Service (Preview)	SQL Database Migration Wizard

IoT

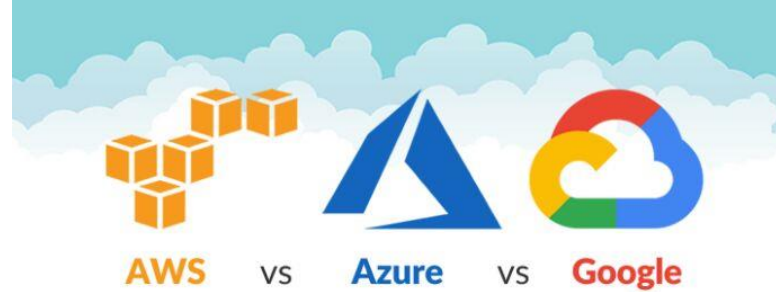
Service	Description	AWS	Azure
Internet of Things	Provides a preconfigured solution for monitoring, maintaining, and deploying common IoT scenarios.	AWS IoT Other Services (Kinesis, Machine Learning, EMR, Data Pipeline, SNS, QuickSight)	IoT Suite (IoT Hub, Machine Learning, Stream Analytics, Notification Hubs, Power BI)
	A cloud gateway for managing bi-directional communication with billions of IoT devices securely and at scale.	AWS IoT	IoT Hub
	Infrastructure and modules to create IoT gateway solutions.	AWS Greengrass — Software for Connected Devices	IoT Edge
Streaming data	Allow mass ingestion of small data inputs, typically from devices and sensors, to process and route data.	Kinesis Firehose Kinesis Streams	Event Hubs

Mobile Services

Service	Description	AWS	Azure
Pro app development	Provides backend mobile services for rapid development of mobile solutions, identity management, data synchronization, storage and notifications across devices.	Mobile Hub	Mobile Apps Xamarin Apps
	Offers the technology to rapidly build cross-platform and native apps for mobile devices.	Mobile SDK	Mobile Apps
	Provides authentication capabilities for mobile applications.	Cognito	Mobile Apps AAD B2C
App testing	Services to support testing mobile applications.	AWS Device Farm	Xamarin Test Cloud (front end)
Analytics	Supports monitoring and feedback collection for the debugging and analysis of a mobile application service quality.	Mobile Analytics	HockeyApp Application Insights
Enterprise mobility management	Provides mobile device management, mobile application management, and PC management capabilities from the cloud.		Intune

Enterprise Integration

Service	Description	AWS	Azure
Enterprise app integration	Connects apps, data, and devices anywhere with cloud-based connectors that includes Salesforce, Office 365, Twitter, Dropbox, Google services, and more.		Logic Apps
Enterprise application services	Delivers the full spectrum of CRM through five individual apps that work together seamlessly: Sales, Customer Service, Field Service, Project Service Automation, and Marketing.		Dynamics 365
	Fully integrated cloud service providing communications, email, and document management in the cloud and available on a wide variety of devices.	Amazon WorkMail Amazon WorkDocs	Office 365
Content management in the cloud	A tool for individuals, teams, and organizations to intelligently discover, share, and collaborate on content from anywhere and on any device.		SharePoint Online
Commercial PAAS-IAAS-DBaaS framework	A hybrid cloud platform that lets users deliver Azure services from their organization's datacenter.		Stack



The most defining cloud battle of the present time is AWS vs Azure vs Google. Choosing one public cloud from three is considered a challenging task, let's make it easy!

CLOUD SERVICE PROVIDERS		
Amazon - Amazon Web Services (AWS)	Azure - Microsoft	Google - Google Cloud
HOW OLD ARE THESE CLOUD PLATFORMS?		
AWS - 12 years	Azure - 7 years	Google - 6 years
WHICH ONE TO CHOOSE AND WHY?		
Dominant in many features like configuration, monitoring, security, and others - Extensive, mature offerings - Enterprise-friendly services - Open and Flexible - Global reach	- Integration with Microsoft tools - Broad feature set - Ranks first in development and testing tools - Open source support - Hybrid cloud	- Open source support and portability - Discounts & flexible contracts - Designed for cloud-based businesses - DevOps expertise
WHY NOT CHOOSE?		
- Difficult to use - Overwhelming options - Cost management	- Less efficient management tooling - Less "enterprise-ready"	- Lately entered in IaaS market - Less data centres over the world - Fewer services and features
MARKET SHARE		
62%	20%	12%
PRICING		
(All three follow on-demand pricing model and provides a price calculator on the basis of usage)		
Per Hour	Per Minute	Per Minute

- According to Gartner Survey Report, The market for public cloud is predicted to reach from \$260 billion in 2017 to around \$411 billion in 2020.
- Amazon and Microsoft has been named as the leaders in Gartner's infrastructure as a Service Magic Quadrant 2017, Google is following the leaders.
- According to KeyBanc, Amazon lost 6% share while Microsoft Azure moved from 16% to 20%, and Google jumped its share from 10% to 12% in the cloud business.

Services	AWS	Azure	Google
Deploy, Maintain and Manage Virtual Servers	Elastic Compute Cloud (EC2)	Virtual Machines Virtual Machine Scale Sets	Compute Engine
Platform-as-a-Service	Elastic Beanstalk	Cloud Services	Google App Engine
Management Support for Kubernetes Containers	ECS EC2 Container Service EKS	Container Service Container Service (AKS)	Kubernetes Engine
Virtual Private Servers Made Easy	Lightsail	Virtual Machine Image	-
Docker Container Registry	EC2 Container Registry (ECR)	Container Registry	Container Registry
Docker Container Deployment		Container Service	Container Engine
Integrate Systems and Run Backended Logic Processes	Lambda	Functions Event Grid Web Jobs	Cloud Functions (Beta)
Automatic Scale Instances	Auto scaling	Azure app service Scale (PAAS) AutoScaling Virtual Machine Scale Sets	Instance Groups
Instance Families	7	4	4
Instance Types	38	33	18

Storage Services	AWS	Azure	Google
Object Storage Service for Use Cases	Simple Storage Services (S3)	Storage (Block Blob)	Cloud Storage
Archive Storage	S3 Infrequent Access Glacier Data Archive	Storage (Cool) Storage (Archive)	Nearline Coldline
Hybrid Storage	Storage Gateway	StorSimple	Egnyte Sync
Automatic Protection and Disaster Recovery	Disaster Recovery	Site Recovery	
Bulk Data Transfer Solutions	Import/Export Disk Snowball Edge SnowMobile	Import/Export Azure Data Box	Storage Transfer Service
Backup	Object Storage Cold Storage Archive Storage Gateway	Backup	-

Database Services	AWS	Azure	Google
Caching	ElastiCache	RedisCache	CloudCDN
Block Storage	EBS	Page Blobs	Persistent Disks
Object Storage	S3	Blobs and Files	Google Cloud storage Block
NoSQL (Indexed)	DynamoDB	Cosmos DB	Cloud Datastore Cloud Bigtable
NoSQL (Key-value)	DynamoDB SimpleDB	Table Storage	Cloud Datastore
Database Migration	Database Migration Service	Database Migration Service	
Manage Data Warehouse	Redshift	SQL Data Warehouse	
Manage Relational Database-as-a-Service	RDS	SQL Database Database for MySQL Database for PostgreSQL	Google Cloud SQL Cloud Spanner

Networking & Content Delivery	AWS	Azure	Google
Load Balancing Configuration	Elastic Load Balancing	Load Balancer Application Gateway	Cloud Load Balancing
Global Content Delivery Networks	CloudFront	Content Delivery Network	Cloud Interconnect
Manage DNS Name and Records	Route 53	Traffic Manager Azure DNS	Google Cloud DNS
Cross-Premises Connectivity	API Gateway	VPN Gateway	Cloud VPN
Virtual Networking	Virtual Private Cloud	Virtual Network	Subnet
Dedicated, Private Network Connection	Direct Connect	Express Route	-

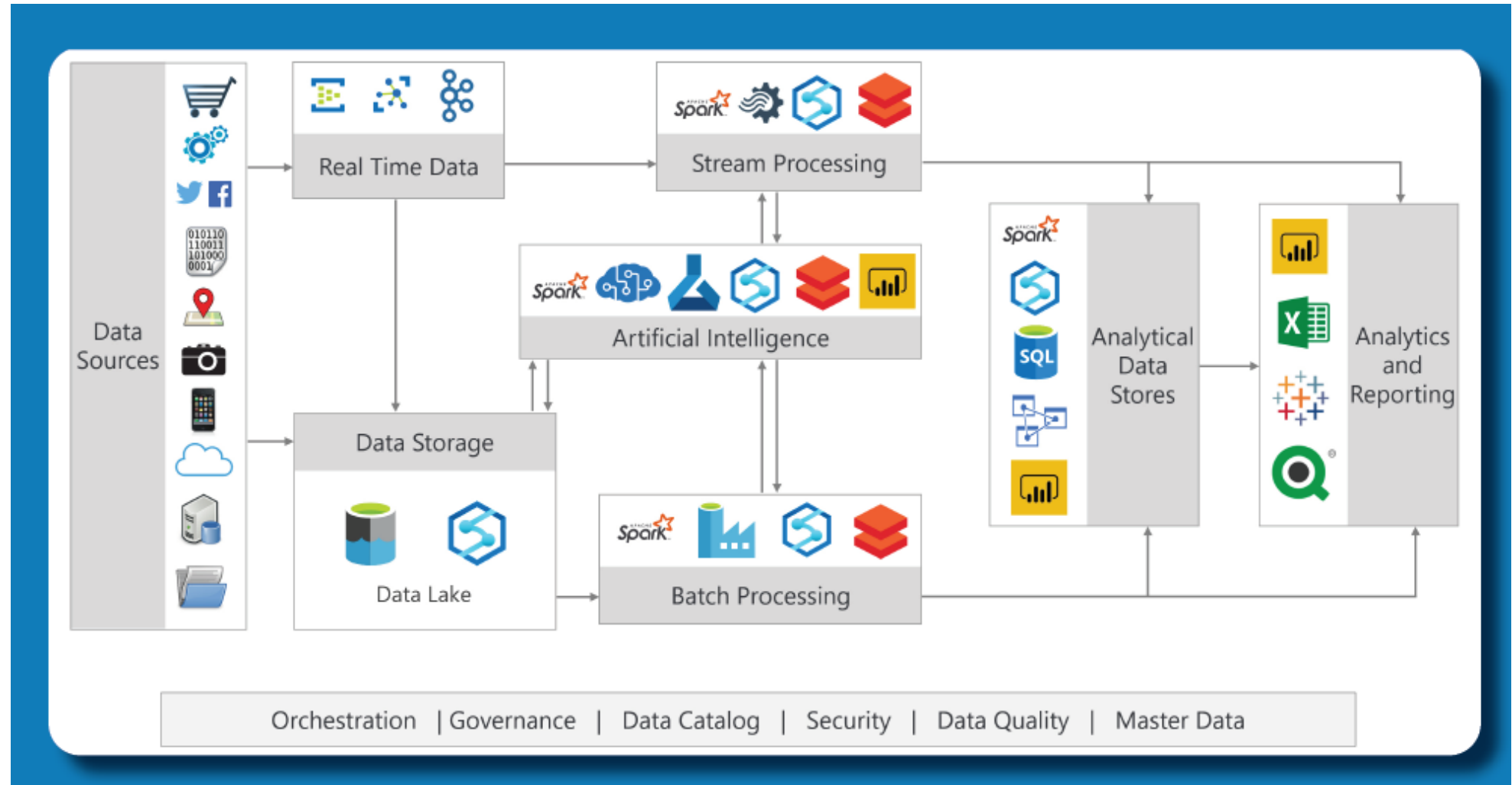
Management & Monitoring	AWS	Azure	Google
Administration	Application Discovery Service System Manager Personal Health Dashboard	Log Analytics Operations Management Suite Resource Health Storage Explorer	Cloud Console
Billing	Billing API	Billing API	Cloud Billing API
Cloud Advisor Capabilities	Cloudwatch X-Ray Management Console	Portal Monitor Application Insights	Stackdriver Monitoring CloudShell Debugger Trace Error Reporting
DevOps Deployment Orchestration	OpsWorks (Chef-based) CloudFormation	Automation Resource Manager VM Extensions	Cloud Deployment Manager
Cloud Resources Management and Monitoring	Trusted Advisor	Advisor	Cloud Platform Security

Development Tools	AWS	Azure	Google
Media Transcoding	Elastic Transcoder	Media services	-
App Testing	Device Farm	DevTest Labs (Backend)	Cloud Test Lab
DevOps	CodeBuild	Visual Studio Team Services	-
Developer Tools	Developer Tools	Developer Tools	-
Git Repositories	AWS Source Repositories	Azure Source Repositories	Cloud Source Repositories

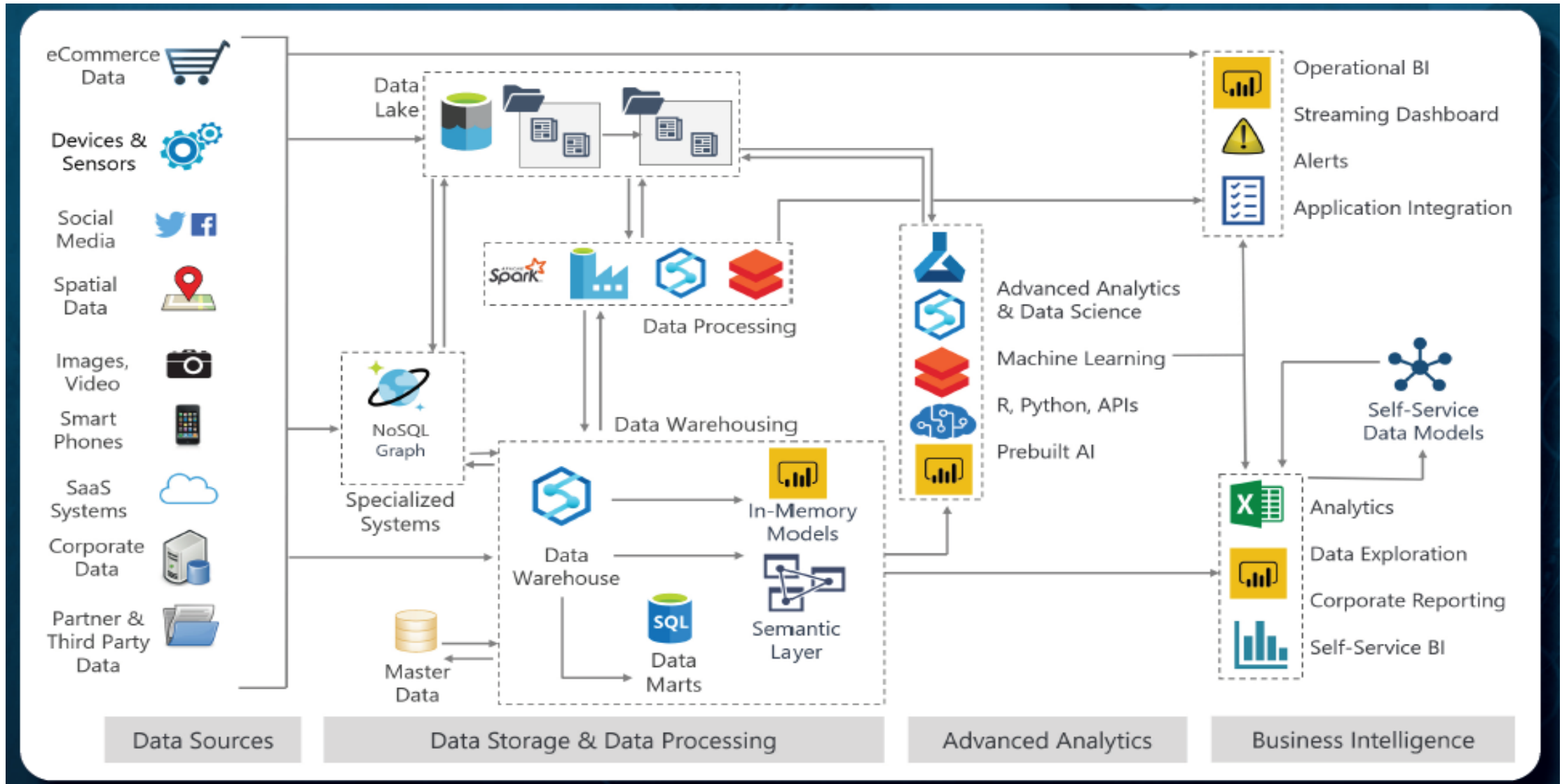
Security Services	AWS	Azure	Google
Authentication and Authorization	Identity and Access Management (IAM)	Active Directory Active Directory Premium	Cloud IAM Cloud Identity-Aware Proxy
Protection with Data Encryption	Key Management Service	Storage Service Encryption	-
Firewall	Web Application Firewall	Application Gateway	-
Identity Management	Cognito	Active Directory B2C	-
Cloud Services with Protection	Shield	DDoS Protection Service	-

Public Cloud	Pricing	Models
Amazon Web Services	Per Hour – Rounded Up	On demand, Spot, and Reserved
Microsoft Azure	Per Minute – Rounded Up Commitments (Prepaid or Monthly)	On Demand- Short Term Commitments (Pre-paid or Monthly)
Google Cloud Platform	Per Minute – Rounded Up (Minimum 10 Minutes)	On Demand – Sustained Use

Modern Data Architecture



Modern Data Architecture



Cloud Services Terminology Guide: Comparing AWS vs Azure vs Google

<https://www.cloudhealthtech.com/blog/cloud-comparison-guide-glossary-aws-azure-gcp>

Self Learning Kit

Check out this AWS vs Azure vs Google Cloud video:

<https://intellipaat.com/blog/aws-vs-azure-vs-google-cloud/>

Cloud Computing Full Course | Cloud Computing Tutorial For Beginners | Cloud Computing | Simplilearn

https://www.youtube.com/watch?v=EN4fEbcFZ_E

In this Cloud Computing Full Course, we'll give you everything you need to know about cloud computing! We'll cover the fundamentals of cloud computing, the cloud lifecycle, and important concepts of AWS, Azure, and the Google Cloud Platform. We'll tell you how you can become a cloud computing engineer, and explain how the three major cloud computing platforms are different from one another. Finally, we'll cover some important cloud computing interview questions that would definitely help you out in a cloud computing interview. Whenever possible, each of these concepts are explained in a practical manner to ensure easy understanding. Now, let's take a deep dive into this cloud computing full course!

Watch this Microsoft Azure Training Tutorial

https://youtu.be/0bNFkl_0jhc

In this Azure training video you will learn end to end about Microsoft azure from scratch. This Azure full course is all you need to get started with this technology. We have covered everything right from basics to the advanced concepts so that you don't have to look for anywhere else.

Azure Full Course - Learn Microsoft Azure in 8 Hours | Azure Tutorial For Beginners | Edureka

<https://www.youtube.com/watch?v=tDuruX7XSac>

This Edureka Azure Full Course video will help you understand and learn Azure & its services in detail. This Azure Tutorial is ideal for both beginners as well as professionals who want to master Azure services. Below are the topics covered in this Azure Tutorial for Beginners video:

Self Learning Kit

Azure Tutorial for Beginners | Microsoft Azure Tutorial for Beginners | Microsoft Azure Full Course

<https://www.youtube.com/watch?v=EeQILt8jLt8>

This 'Azure Tutorial for Beginners' video will help you learn all the major concepts related to Azure comprehensively. Microsoft Azure is one of the leading cloud services. It is a collection of 600+ services that offers teams the ability to implement data storage, email, and many other IT solutions on a flexible scale. Visit Great Learning Academy, to get access to 80+ free courses with 1000+ hours of content on Data Science, Data Analytics, Artificial Intelligence, Big Data, Cloud, Management, Cybersecurity and many more. These are supplemented with free projects, assignments, datasets, quizzes. You can earn a certificate of completion at the end of the course for free. <https://glacad.me/3duVMLE> Get the free Great Learning App for a seamless experience, enrol for free courses and watch them offline by downloading them.

<https://glacad.me/3cSKINl>

Azure Academy : Azure Fundamentals - #1 - What is Cloud

<https://www.youtube.com/watch?v=M7v52Wbe8Dc&list=PL-V4YVm6AmwWLTtwZdI7hcpKqTpFUIKUE>

Microsoft Learn Introduction to Azure

<https://docs.microsoft.com/en-us/learn/azure/?tab=tab-start-a-learning-path>

👉👉 Following topics are covered in this Azure tutorial: 👉👉

01:34 - Why Azure?
06:43 - What you can do with Azure free account?
13:08 - Average Salary of an Azure Solutions Architect
14:15 - What is Azure?
19:05 - Azure Services
26:15 - Demo on Launching a Virtual Machine on Azure cloud
47:45 - Introduction to Cloud Computing
54:02 - Advantages that you get with Cloud Computing
54:55 - Applications or Products of Cloud
57:15 - Cloud Computing Models
01:00:45 - Deployment Models
01:09:10 - Service Models
01:10:56 - Cloud Providers
01:15:50 - Why Microsoft Azure?
01:19:55 - What is Microsoft Azure?
01:20:43 - Azure Core Architecture
01:30:10 - Azure Core Architecture Components
01:33:40 - Azure Resource Manager
01:38:20 - Core Azure Services - Domains
01:45:00 - Core Azure Services - Compute
02:00:13 - Creating a Virtual Machine on Azure
02:24:28 - Core Azure Services - Networking
02:42:30 - Core Azure Services - Storage
02:53:58 - Hands-on: Azure Blob Storage

03:04:35 - Core Azure Services - Database+Analytics
03:18:25 - Core Azure Services - AI + Machine Learning
03:24:12 - Core Azure Services - Identity Services
03:28:00 - Core Azure Services - Management Tools
03:36:10 - Hands-on: Architecting an Application on Azure
04:02:55 - Quiz
04:04:02 - What is Azure DS?
04:06:38 - Features of Azure DNS
04:11:04 - Domain of Azure DNS
04:16:45 - Azure DNS: DNS Zones
04:21:00 - Azure DNS: DNS Records

04:23:15 - Azure DNS: DNS Records Types
04:27:54 - Azure DNS: Registrar
04:28:28 - Azure DNS: Private Domains
04:30:49 - What is Active Directory?
04:37:29 - Before Azure Active Directory?
04:40:09 - After Azure Active Directory?
04:43:20 - Windows Active Directory vs Azure Active Directory
04:43:23 - What is Windows Active Directory?
04:48:06 - Service Audience
04:49:44 - Terminologies in Azure Active Directory
04:53:08 - Adding the Custom Domain in the Azure Active Directory

05:03:30 - Add or Delete users using Azure Active Directory
05:18:24 - Quiz
05:18:46 - What is Virtual Machine?
05:21:58 - What is Azure Virtual Machine?
05:26:16 - Azure VM: Classic and ARM
05:28:00 - Azure VM: Workloads
05:31:58 - Azure VM: Sizing
05:33:33 - Azure VM: ACU

05:35:48 - Azure VM: Disks
05:38:24 - Azure VM: Types of Disks
05:43:08 - Azure VM: Disks used by VMs
05:45:52 - Azure VM: Unmanaged Disks
05:48:26 - Azure VM: Managed Disks
05:52:03 - Implementing Virtual Machines
05:58:08 - Virtual Machine Sizing
06:07:23 - What is Azure Storage?
06:07:44 - Azure Storage: General Purpose v2
06:09:41 - Azure Storage: Pricing
06:10:58 - Azure Storage: Replication
06:11:43 - Azure Storage: Differences
06:12:13 - Azure Storage: Tiers
06:12:51 - Azure Storage: Security
06:14:42 - What is Azure Blob Storage?
06:22:36 - What is Azure File Storage?
06:31:56 - What is Azure Table Storage?
06:33:52 - What is Azure Queue Storage?
07:32:25 - Which Azure Certification to choose?