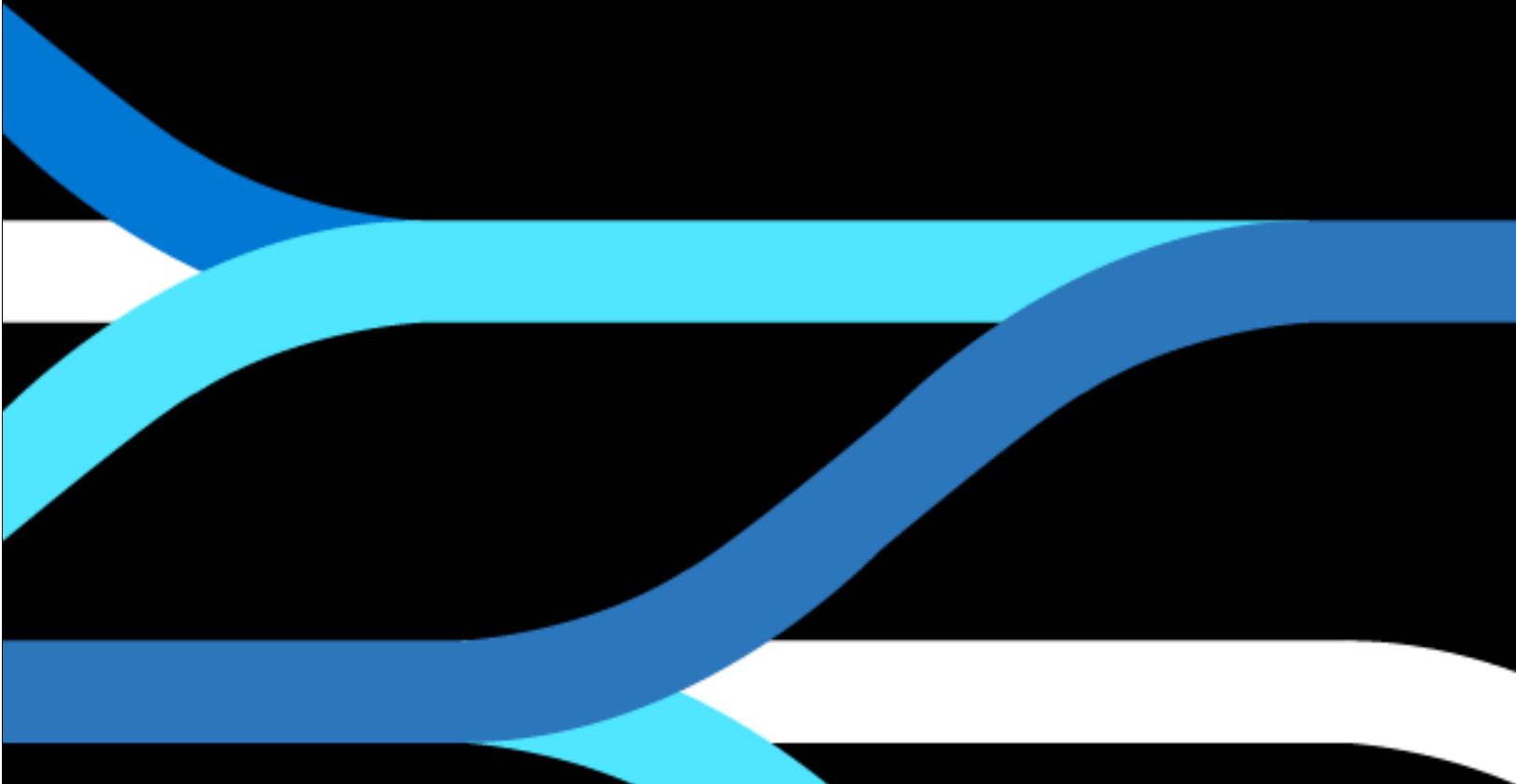


Azure Updates
Quarter 2

Azure updates: Quarterly retrospective

April to June 2019



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Foreword

Microsoft Azure is an ever-expanding set of cloud services to help your organization meet your business challenges. It's the freedom to build, manage, and deploy applications on a massive, global network using your favorite tools and frameworks.

The Azure Updates Quarterly Retrospective describes all the latest Azure product and service releases, updates, and changes from April 2019 through June 2019. To see all Azure updates, you can either browse this [site](#) or download a PDF file.

Global availability

On June 19, 2019, Microsoft cloud services—Microsoft Azure and Microsoft Office 365—became generally available from new datacenter locations in the UAE. The delivery of cloud services from Dubai and Abu Dhabi expands on existing investments in the wider Middle East region. It marks the first time that the Microsoft Cloud, featuring Azure, Office 365—and soon to be followed by Dynamics 365—is available directly from datacenters located in the UAE.

Date	Status	Title
June 19, 2019	Available	First Microsoft cloud regions in Middle East now available

Compliance

We've added Federal Risk and Authorization Management Program (FedRAMP) High certification to all Azure US datacenters, as well as DoD Impact Level 5 (IL5) certification to all Azure Government datacenters, building on our industry-best 91 compliance offerings. Additionally, we launched our first Azure Blueprints for ISO 27001, PCI DSS, and UK G-Cloud OFFICIAL certifications.

FedRAMP High certification

As of May 2019, we added the ability to provide Azure public services that meet US FedRAMP High impact level and extend FedRAMP High Provisional Authorization to Operate (P-ATO) to all of our Azure public regions in the United States. (FedRAMP High was previously available only to customers using Azure Government.) Additionally, we increased the number of services available at High impact level to 90, including powerful services like Azure Policy and Azure Security Center, as we continue to drive to 100 percent FedRAMP compliance for all Azure services per our [published listings and](#)

[roadmap](#). We continue to support more services at FedRAMP High impact levels than any other cloud provider. While FedRAMP High in the Azure public cloud will meet the needs of many US government customers, certain agencies with more stringent requirements will continue to rely on Azure Government, which provides additional safeguards such as the heightened screening of personnel.

Making compliance easier with Azure Blueprints for ISO 27001, PCI DSS, and UK G-Cloud

We recently released our new Azure Blueprints mapped specifically to three important compliance offerings: ISO 27001, PCI DSS, and UK G-Cloud. Azure Blueprints is a free service that enables you to define a repeatable set of Azure resources that implement and adhere to standards, patterns, and requirements. The new blueprints each map a core set of policies to the standard for any Azure deployed architecture, allowing you to quickly create new environments with compliance built into the Azure infrastructure. Use Azure Blueprints to set up governed Azure environments that can scale to support production implementations for large-scale migrations.

Learn more on the [Azure Blueprints documentation page](#).

DoD IL5 scope expands to cover to all Azure Government regions

In May 2019, Microsoft partnered with the Department of Defense (DoD) to expand the IL5 Provisional Authorization (PA) granted by the DoD to all Azure Government regions. With this expanded coverage, Azure now provides more platform as a service (PaaS) features and services at IL5 than any other cloud provider, and mission owners can take advantage of managed services to increase productivity.

Date	Status	Title
April 2, 2019	Available	Video Indexer is now ISO, SOC, HiTRUST, FedRAMP, HIPAA, PCI certified

Product Updates

AI + Machine Learning

Azure Bot Service

With updates to the Azure Bot Service SDK and tooling, as well as to cognitive services like Speech and Language Understanding, it's now easier to extend your brand to your customers through conversational experiences. Additionally, with services like QnA Maker, it's now easier to build, manage, and deploy Q&A bots without having to code. We'll continue to simplify the bot creation process while empowering your organization with the ability to customize the conversational solution for your business.

All Azure Bot Service updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
May 6, 2019	Available	Microsoft Bot Framework enhancements
May 6, 2019	In preview	QnA Maker now supports multi-turn dialogs
May 6, 2019	In preview	Language Understanding now has analytics dashboard
May 6, 2019	In preview	New series of Azure Bot Framework enhancements now available

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Azure Cognitive Services

All of these new services and capabilities cater to the evolving needs of applying artificial intelligence (AI) to solve business problems.

In the Vision category, we added the Form Recognizer service for data entry automation and the Ink Recognizer service which enables developers to enhance productivity workflows from content by recognizing digitally inked content.

In the Decision category, we added the Personalizer service, the first reinforcement-learning-based AI service, that creates relevant experiences for each user to drive user

engagement and ROI for businesses. We also added Conversation Transcription, an advanced speech-to-text capability, that increases in-person meeting efficiency by enabling all participants to fully engage—creating a conversation log in real time and identifying who said what—so they can quickly follow up on next steps.

Additionally, Neural Text-to-Speech, which creates more natural sounding voices for virtual assistants, and computer Vision Read for enhanced optical character recognition (OCR) became generally available.

Finally, Anomaly Detector, Speech-to-Text, and Text-to-Speech are now available for running in containers for low-latency scenarios.

All **Azure Cognitive Services** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 2, 2019	Available	Cognitive Services Custom Vision is now available
April 2, 2019	Available	Anomaly Detector is now available
May 7, 2019	Available	Significant new updates to Azure Cognitive Services
June 6, 2019	Available	Cognitive Services Text Analytics' Named Entity Recognition is now available
June 20, 2019	In preview	Public Preview: Immersive Reader, an Azure Cognitive Service

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Azure Search

Azure Search is an AI-powered cloud search service for modern mobile and web app development. Azure Search is the only cloud search service with built-in AI capabilities that enrich all types of information to easily identify and explore relevant content at scale. In order to enable developers to search, explore, and uncover insights across more types of content at larger scale, the following update is now available:

Cognitive search capability: Cognitive search, now generally available, helps developers apply a set of composable cognitive skills to extract knowledge from a wide range of

content. Deep integration of cognitive skills within Azure Search enables the application of facial recognition, key phrase extraction, sentiment analysis, and other skills to content with a single click. This knowledge is organized and stored in a search index, enabling new possibilities for exploring the data. Cognitive search delivers improved throughput capabilities with increased processing speeds that are up to 30 times faster than in preview make it possible to complete tasks that previously took up to an hour in only a couple of minutes. Cognitive search is now natively supported to extend the types of data that can be stored and searched (this was the [most requested Azure Search](#) feature). Raw datasets can now include hierarchical or nested substructures that don't break down neatly into a tabular rowset, such as multiple locations and phone numbers for a single customer. An extended library of [prebuilt skills](#) has been added based on customer feedback. Improved support for processing images, added ability to create conditional skills, and shaper skills that allow for better control and management of multiple skills in a skill set are now available. Plus, entity recognition provides additional information to each entity identified, such as the Wikipedia URL. Cognitive search allows you to search across large volumes of content and the two new service tiers for Storage Optimized workloads in Azure Search offer significantly more storage at a reduced cost per terabyte when compared to the Standard tiers. These are ideal for solutions with a large amount of index data and lower query volume throughout the day, such as internal applications searching over large file repositories, archival scenarios when you have business data going back many years, or e-discovery applications. The Storage Optimized service tiers are also a great fit for applications that incorporate the new cognitive search capabilities in Azure Search, where you can use AI-powered components to analyze and annotate large volumes of content, such as PDFs, office documents, and rows of structured data.

All **Azure Search** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 2, 2019	Available	Azure Search—New storage optimized service tiers are now in preview
May 6, 2019	Available	New knowledge mining capabilities in Azure Search
May 6, 2019	Available	The Cognitive Search feature of Azure Search is now available
May 6, 2019	Available	Azure Search now supports complex search types

May 18, 2019	Available	Azure Search Basic Unit and Standard Unit Resource GUID change
May 18, 2019	Available	Azure Search Document Cracking Image Extraction Resource GUID name change

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Azure Machine Learning service

Here are recent updates and improvements to Machine Learning Service.

AI, the new automated machine learning user interface, is now in preview. It enables business domain experts to train machine learning models on data in just a few clicks, without writing a single line of code. Boost productivity for developers and data scientists across skill levels with integrated zero-code and code-first authoring experiences, as well as automated machine learning advancements for building high quality models easily. The visual interface is a powerful drag-and-drop workflow capability that simplifies the process of building, training, and deploying machine learning models. The new notebooks VM-based authoring is directly integrated into Machine Learning Service, providing a code-first experience for Python developers to conveniently build and deploy models in the workspace experience.

Enterprise-grade capabilities to deploy, manage, and monitor models with MLOps (DevOps for machine learning) are now available. We've added hardware accelerated models for unparalleled scale and cost performance and model interpretability for transparency in model predictions. A new Azure DevOps extension for Machine Learning and the Machine Learning CLI are now available to submit experiments from a DevOps Pipeline, track code from Azure Repos or GitHub, trigger release pipelines when a Machine Learning model is registered and automate end-to-end Machine Learning deployment workflows using Azure DevOps Pipelines. In addition to acceleration available with GPUs, it's now possible to scale from cloud to edge with Machine Learning hardware accelerated models, powered by field-programmable gate arrays (FPGA). These hardware accelerated models are now generally available in the cloud, along with a preview of models deployed to Data Box Edge.

We've also added open-source capabilities that provide choice and flexibility to customers with MLflow implementation, ONNX runtime support for TensorRT and Intel nGraph, and the new Azure Open Datasets service that delivers curated open data to improve model accuracy. An updated version of ONNX Runtime is now available fully supporting ONNX 1.5 (including object detection models such as YOLOv3 and SSD). With ONNX Runtime, developers now have a consistent scoring API that enables hardware

acceleration thanks to the general availability of NVIDIA TensorRT integration and the preview of Intel nGraph integration. ONNX Runtime is used on millions of Windows devices as part of Windows Machine Learning.

ML.NET allows you to train, build, and ship custom machine learning models using C# or F# for scenarios such as sentiment analysis, issue classification, forecasting, and recommendations. Along with the ML.NET 1.0 release, we're also adding new preview features like the power of automated machine learning (AutoML) and new tools like ML.NET CLI and ML.NET Model Builder, which means adding machine learning models to your applications is now only a right click away.

All **Azure Machine Learning service** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 6, 2019	Available	Innovations in Azure Machine Learning
May 6, 2019	Available	ML.NET 1.0
May 6, 2019	In preview	New features for Azure Machine Learning are now in preview
May 6, 2019	Available	New features for Azure Machine Learning are now available

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Analytics

HDInsight

Azure HDInsight now supports Apache Hadoop 3.0, demonstrating our continued commitment to supporting open source analytics and making Azure the first cloud provider to offer transformational capabilities, such as full ACID transactions and deeper interoperability between Spark and Hive. HDInsight also now offers Enterprise Security Package (enabling Kerberos-based authentication and fine-grained, role-based access control and auditing using Apache Ranger), BYOK encryption for Kafka, and Autoscale for Spark, Hive, and Map Reduce applications.

Developers now have their choice of virtual machine (VM) SKUs (Ev3, ESv3) in an Azure public and gov region near them. Many developers will find it easier to debug and

diagnose large Apache Spark jobs using playback, automatic data skew detection, and other innovative enhancements.

All **HDInsight** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 17, 2019	Available	Apache Hadoop 3 on Azure HDInsight 4.0 is now available
April 23, 2019	Available	Azure HDInsight is now available in China East 2
April 24, 2019	Available	Changes to HDInsight cluster configuration access
May 6, 2019	In preview	HBase accelerated writes in Azure HDInsight is now in preview
May 6, 2019	In preview	Autoscale for Azure HDInsight is now in preview
June 19, 2019	In preview	HDInsight Tools for VSCode: Hive Table Preview
June 20, 2019	Available	HDInsight Tools for VSCode: Enhanced PySpark Interactive Query
June 26, 2019	Security	Security Advisory: Patching Azure HDInsight clusters to address Linux Kernel TCP vulnerabilities

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Azure Databricks

Managed MLflow is now generally available on Azure Databricks and will use Azure Machine Learning to track the lifecycle. This approach enables organizations to develop and maintain their machine learning lifecycle using a single model registry on Azure. Managed Delta Lake on Azure Databricks is also generally available. With Delta Lake, Azure Databricks customers get greater reliability, improved performance, and the ability

to simplify their data pipelines. Additionally, Apache Spark is now accessible to the .NET developer ecosystem with .NET for Apache Spark.

All **Azure Databricks** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 24, 2019	Available	Managed MLflow and Managed Delta Lake on Azure Databricks are now available
April 24, 2019	Available	.NET for Apache Spark is now available

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Azure Stream Analytics

Azure Stream Analytics has added several features that enable you to build larger streaming pipelines and connect more easily the world of IoT with the world of big data.

The maximum size of streaming pipelines has been increased by 40 percent, allowing you to use up to 192 streaming units (compared to 120 previously). This enables you to process roughly up to 12 million events per minute or 13 GB per minute (19 trillion events per day) on a single pipeline while delivering milliseconds latency. Additionally, most data sinks now support parallel writers, enabling higher throughput, and newly released improvements to Cosmos DB output adapter double the throughput rate.

The addition of custom deserializers (built-in C#), available in preview, enables you to process incoming data in any format. In addition to the formats supported out of the box (JSON, CSV and AVRO), it's now possible to ingest formats such as Protobuf, XML, or binary formats.

Native support for egress in Apache parquet format is also in preview. By outputting data in Parquet format in a data lake, you can take advantage of Azure Stream Analytics to power large-scale streaming ETL and run batch processing, train machine learning algorithms, or run interactive queries on your historical data.

Azure Stream Analytics also improved the support for built-in geospatial analytics. The addition of the WKT geospatial format opens new opportunities for developers. In addition, Stream Analytics added support for geospatial index of reference data,

providing faster processing to support, for example, much larger scale fleet management and connected cars scenarios.

On the tooling side, you can now also use the newly released VS Code Extension for Azure Stream Analytics. This extension enables the cross-platform development of Stream Analytics jobs (Windows, Linux, Mac) and enables you to develop and test streaming jobs locally and deploy them to the cloud. Additionally, Azure Stream Analytics tools for Visual Studio are now generally available. With Visual Studio, develop and test your jobs locally, and deploy them to production with continuous integration and continuous deployments.

In addition to running in the cloud and on Azure IoT Edge, we added the support of Azure Stack (in preview). This feature, enabled on the Azure IoT Edge runtime, uses custom Azure Stack features, such as native support for local inputs and outputs running on Azure Stack (Event Hubs, IoT Hub, and Blob storage, for example). Use this to build hybrid architectures that can analyze your data close to where it's generated, lowering latency and maximizing insights.

All **Azure Stream Analytics** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 2, 2019	Available	New geospatial features in Azure Stream Analytics are now generally available
April 6, 2019	Available	Set custom metadata properties for Stream Analytics output
April 9, 2019	Available	Azure Stream Analytics tools for Visual Studio April 2019 Update
May 6, 2019	In preview	Implement custom de-serializers in Azure Stream Analytics (in preview)

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SQL Data Warehouse

In April 2019, Reserved Capacity pricing went into effect. This allows you to reserve compute power for existing and future clusters.

To enhance performance, we've released Materialized Views, Result-set Caching, and Workload Importance, so you now have improved query performance and reduced time-to-insight. Use Workload Importance to directly influence the run order of queries. Additionally, Dynamic Data Masking, which enables administrators and data developers to control access to sensitive data, allowing it to be safer and more restricted, is now available.

All **SQL Data Warehouse** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 19, 2019	Available	Reserved Capacity Pricing for Azure SQL Data Warehouse is now generally available
May 8, 2019	Preview	JSON data support for Azure SQL Data Warehouse is now in preview
May 8, 2019	Preview	Dynamic Data Masking for Azure SQL Data Warehouse is now in preview
May 8, 2019	Preview	Ordered Clustered Columnstore Indexes for Azure SQL Data Warehouse is now in preview
May 8, 2019	Available	Workload Importance for Azure SQL Data Warehouse is now generally available
May 8, 2019	Preview	Result-set Caching for Azure SQL Data Warehouse is now in preview
June 26, 2019	Available	Azure Data Factory enriches PolyBase support for loading data into SQL DW

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Event Hubs

Event Hubs clusters provide a single-tenant offering that guarantees the capacity to ingest millions of events per second while boasting a 99.99 percent SLA. Event Hubs is now the streaming backplane for much of Azure, and Event Hubs clusters power both Microsoft Teams and Microsoft Office client application telemetry pipelines. In addition, clusters work seamlessly with the Apache Kafka ecosystem as a fully managed PaaS solution, offering the scalability of a single-tenant streaming platform without the hassle of managing Kafka clusters. Use this self-serve experience to create an Event Hubs cluster for your largest workloads and have it up and running within minutes through the Azure portal or through Azure Resource Manager.

All **Event Hubs** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 3, 2019	Available	Event-driven Java with Spring Cloud Stream Binder for Azure Event Hubs is now available
April 6, 2019	Available	Set custom metadata properties for Stream Analytics output
May 4, 2019	In preview	Self-serve experience with Event Hubs Preview

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Azure Data Explorer

Recently, Data Explorer significantly enhanced the integration with Azure Storage and Azure Data Lake Storage Gen 2, enabling one-click ingestion of new data elements and introducing the ability to natively ingest parquet files. External tables support allows users to query data files in their native format in the data lake and also to export data into them, both as a one-time operation and in continuous fashion.

To enable richer scenarios of real time IoT analytics, we added support for Azure IoT hubs, enabling you to route information directly from IoT hubs to Azure Data Explorer, including the IoT hub's system properties like device identity to deliver trustworthy data collection. For the data scientists among us, we introduced a Spark connector that allows both uploading data into Azure Data Explorer as a result of a batch Spark job as well as

the ability to run a Spark job on data in Azure Data Explorer, pushing down predicates to minimize cost, latency, and bandwidth.

Now it's possible to upload Machine Learning models and the python code that runs them to Azure Data Explorer. This will allow you to execute them as part of the Azure Data Explorer query language (KQL) for evaluating and operationalizing the models, scoring every piece of data being streamed into Azure Data Explorer. On the safety side, we added support for virtual networks, Azure Availability Zones, and Encryption@rest for data both in cold and hot storage.

Last but not least, we introduced more hardware SKUs enabling production deployments under USD500, which makes the extreme performance of Azure Data Explorer available for more scenarios and users. We supported a common ask by developers to enable cost efficient operation during low volume development and test periods with a dev/test SKU that supports development activities for USD0.30 per hour.

And coming in September, the ability to consume reserved compute instances will be available with additional reserved instances discounts that can lower compute costs up to 60 percent.

All **Azure Data Explorer** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 6, 2019	In preview	Public Preview of tighter integration of Azure Data Explorer with Python and Spark
May 6, 2019	In preview	Public Preview of Azure Data Explorer capabilities to integrate deeper with ADLS Gen 2

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Blockchain

Azure Blockchain Service

Azure Blockchain Service is now available. It simplifies the formation, management, and governance of consortium blockchain networks, allowing businesses to focus on workflow logic and app development. Azure Blockchain Service deploys a fully managed consortium network and offers built-in governance for common management tasks, such

as adding new members, setting permissions, and authenticating user applications. The service is already receiving enterprise traction—J.P. Morgan’s Ethereum platform, Quorum, is the first ledger available in Azure Blockchain Service, enabling Microsoft and J.P. Morgan to offer the first enterprise-grade Ethereum stack to the industry. To support developers of all types as they build applications on this new foundation, extensions for VS Code and our Power Platform are now available, making it easier than ever to create and compile smart contracts, deploy them to a network in Azure, and connect those smart contracts to consuming applications using tools like Logic Apps and Flow.

All **Azure Blockchain Service** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 6, 2019	In preview	Azure Blockchain Service is now available in preview
May 6, 2019	Available	J.P. Morgan blockchain partnership
May 6, 2019	Available	Blockchain and Microsoft Power Platform integration
May 6, 2019	In preview	Azure Blockchain Service
June 26, 2019	In preview	Azure Blockchain Workbench 1.7 integration with Azure Blockchain Service

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Compute

Virtual Machines

Shared Image Gallery is now generally available. Shared Image Gallery simplifies the ability to share applications with others in your organizations and across regions. This results in several benefits including easier custom management of virtual machines in Azure, quick concurrent deployment of thousands of virtual machines (VMs) from a custom image, and automatic creation of replicas of source images to scale VM/VMSS deployments. And Image Builder is integrated with Shared Image Gallery for end-to-end image management and distribution. These are essential tools required to manage infrastructure at scale.

Generation 2 VMs in Azure (now available) allow IT organizations to build large virtual machines (up to 12 TBs) and provision OS Disks sizes that exceed 2 TBs while bringing support for UEFI Boot architecture in Azure. Some of these capabilities are particularly important to run memory intensive applications.

Lastly, Azure VMware Solutions, which enable you to more seamlessly move VMware-based workloads to Azure, is now available. Azure VMware Solutions deliver a comprehensive VMware environment in Azure, providing another option to move your workloads to Azure. Capitalize on your existing VMware investments, skills, and tools, including VMware vSphere, vSAN, and vCenter while taking advantage of the scale, performance, and innovation of Azure. Once in Azure, you'll be able to modernize your VMware workloads through integration with Azure services such as Azure AI and Analytics enabling new, intelligent experiences.

HPC

Two new HPC VMs designed to provide supercomputer-grade performance and scalability with the best price-performance on the public cloud are now available. The HC-series VMs are optimized for applications driven by dense computation, where the HB-series VMs are optimized for HPC applications driven by memory bandwidth requirements.

NVv3, which is architected to support remote visualization workloads and other graphics intensive applications, is now generally available.

Microsoft and Cray jointly released three new offerings. Two of the offerings focus on industry-specific scenarios (manufacturing and EDA), while the third features Cray ClusterStor as an HPC high performance file system option both for Cray deployments in Azure as well as for usage with your H-series VMs.

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Azure Disk Storage

Larger managed disks sizes (8 TiB, 16 TiB, and 32 TiB) supporting up to 20,000 IOPS and 900 Mbps on a single disk recently became available. This helps to scale the disk capacity up to eight times over previous sizes, and triples the performance of Premium SSDs, Standard SSDs, and Standard HDDs. In addition, disk sizes up to 64 TiB on Ultra Disks is supported and is now in preview.

New functionalities are coming to managed disks. The direct upload to Azure Managed Disk sizes (32 GiB to 32 TiB) is in private preview will become generally available soon. This capability helps simplify the upload of an on-premises VHD or restore of a VHD to Azure Disks by removing the need to stage data in a storage account. Additionally, incremental snapshots to managed disks functionality has entered private preview.

Ultra Disks are now in private preview and will be generally available soon. This service offers extremely scalable performance that can enable customer workloads to get up to 160K IOPS and 2 Gbps B/W at sub-millisecond latency, all with a single disk with no caching. Ultra Disks are designed for business critical, data-intensive workloads such as SAP HANA, NoSQL databases like Mongo DB, and real time OLTP workloads.

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SAP HANA/M Series

The Azure Mv2, now generally available, is the first 6 TB SAP HANA certified VM in the public cloud, while GCP has a 6 TB and a 12 TB VM currently in preview. Those should be generally available soon. We're also working to launch a 12 TB Mv2 by the end of September 2019 and to expand the availability of Mv2 VMs to Europe regions.

All Virtual Machines updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
May 6, 2019	Available	Azure VMware Solutions is now generally available
May 6, 2019	In preview	Red Hat Enterprise Linux BYOS images now available
May 6, 2019	In preview	Announcing Ephemeral OS Disk in Public Preview
May 6, 2019	Available	Azure Shared Image Gallery is now generally available
May 9, 2019	Available	Corrected billing for Azure SQL Data Warehouse and other Azure services
May 14, 2019	Available	High-Performance Computing Virtual Machines are now available in South Central US, Western Europe
May 20, 2019	In preview	Generation 2 virtual machines in Azure – Public Preview

May 29, 2019	Available	Azure Mv2 Virtual Machines offering up to 6 TB memory are now generally available
May 29, 2019	In preview	Azure App Configuration is now available in preview
May 30, 2019	Available	Azure Monitor for VMs has a new data set for bound ports
May 31, 2019	Available	Azure Monitor for VMs is now available in West US 2
June 6, 2019	Available	High-Performance Computing Virtual Machines are now available in West US 2, East US
June 12, 2019	In preview	Advanced Data Security available for SQL Server on Azure Virtual Machines
June 18, 2019	In preview	Azure Bastion - RDP and SSH over SSL - now available for Preview

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Azure Batch

The latest updates to Batch were designed to provide flexibility in task resource file identification and processing. Updates include the general availability of Batch Explorer v2, cost tracking in Azure Cost Management, new versions of rendering applications, and significant improvements to the cloud provider plug-in for the Thinkbox Deadline render manager, along with other new developments.

All Batch updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
April 22, 2019	Available	Azure Batch updates now available

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Containers

Azure Container Registry

Container Registry support for OCI artifacts and Helm 3 includes the addition of upstream enhancements to support new registry artifact types, including singularity image files (SIF) and Helm 3. The Helm 3 chart repositories bring native push, pull, and update capabilities to the Helm CLI, while benefiting from the capabilities of Azure Container Registry, including integrated authentication, geo-replication, web hooks, and multiple repositories in a single registry.

All **Container Registry** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 17, 2019	In preview	Azure Container Registry singularity image files (SIF) support is now in preview
May 29, 2019	In preview	Azure Container Registry—Open Container Initiative (OCI) new artifact registry types supported (in preview)
May 29, 2019	In preview	Azure Container Registry—Helm 3 support is now in preview
June 26, 2019	Available	Azure Container Registry is now generally available in South Africa North

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Azure Functions

When enterprise customers are building applications, a serverless approach usually comes with concerns around cold start, multi-cloud support, and security. The latest innovations to Azure Functions close key gaps for these customers building mission critical apps, taking advantage of event-driven containers by [hosting Azure Functions in Kubernetes environments](#), providing stateful functions for advanced scenarios, expanding our capabilities around managed security, unlocking cloud automation scenarios, or enabling a new range of [low latency and networking scenarios](#). New releases and

improvements also focus on [providing a better end-to-end experience](#) when building serverless applications through better integration with other services and tools, simplifying development, and streamlining DevOps practices.

All **Azure Functions** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 3, 2019	In preview	Azure Functions Premium plan
April 29, 2019	In preview	PowerShell support in Azure Functions
May 7, 2019	In preview	Durable Functions now supports a new stateful entities pattern
May 7, 2019	Available	Expose a Function App via API Management by linking it to a new or existing API is now available

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Azure Service Fabric

Updates to Service Fabric include shared upcoming investments (such as the availability of SDKs through WebPI), enhanced Windows Server support, and a warning about upcoming breaking changes on the new release.

All **Service Fabric** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 15, 2019	Available	Service Fabric Version 6.4 CU5 Refresh Release
April 15, 2019	In development	Service Fabric version 6.5 runtime and SDK are in development

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Azure Kubernetes Services (AKS)

Developer productivity:

A serverless container capability called AKS virtual nodes is now generally available. AKS virtual nodes allow you to rapidly scale applications using cloud-based serverless containers that run directly on the Azure infrastructure. Not only are these containers fast to start, but they provide serverless container infrastructure with the simplicity of IaaS, and without the complexity of virtual machines. With no virtual machine infrastructure to manage, patch, update, or monitor, virtual nodes enable you to focus even more of your attention on applications and not managing infrastructure.

Azure Pipelines for AKS: The new integration between Azure Pipelines and AKS, (now available in preview) makes it even easier to go from a git repository to a container running in AKS, or in any other Kubernetes environment on-premises or in any public cloud, and to a scenario where every change you make rolls automatically through validation, testing, canary, and ultimately production on Azure.

Azure Dev Spaces for AKS: As customers start onboarding developers to a Kubernetes environment, they often run into the challenge of setting up development environments, with right dependencies, in a productive manner. To address this challenge, we released Dev Spaces for Azure Kubernetes Service, which allows quick onboarding of developers with minimal dev machine setup. It also supports having team members iterate and debug different parts of an application in parallel in the same Azure Kubernetes Service cluster and test their code end-to-end without replicating or mocking-up dependencies.

Azure Container Registry support for OCI artifacts and Helm 3: Container Registry support for OCI artifacts and Helm 3 includes the addition of upstream enhancements to support new registry artifact types, including singularity image files (SIF) and Helm 3. The Helm 3 chart repositories bring native push, pull, and update capabilities to the Helm CLI, while benefiting from the capabilities of Azure Container Registry, including integrated authentication, geo-replication, web hooks, and multiple repositories in a single registry.

Enterprise-grade platform:

Azure Policy for AKS: Azure Policy support for AKS, available in preview, adds another layer of security to Kubernetes application development. Azure Policy uniformly applies policies to Azure resources, like Kubernetes clusters, dramatically simplifying the task of initializing and maintaining compliant environments for Kubernetes applications. These assurances are a critical component of Enterprise DevOps since policy establishes the guard-rails of behavior. With the right guard-rails in place, developers are free to act without asking for permission from central gatekeepers, enabling the true practice of DevOps in secure and compliant environments.

Kubernetes everywhere:

Preview of Windows Server Container Support: Windows Server containers can now be deployed and orchestrated in AKS, enabling new paths to migrate and modernize Windows Server applications in Azure. With customers running applications on Linux and Windows, the ability to manage Windows and Linux containers side by side in the same Kubernetes cluster with the exact same APIs, tools, and support opens an abundance of new scenarios. For example, you can now add Windows node pools to an existing Virtual Network, or deploy a Linux container running a reverse proxy or Redis cache and an IIS application in a Windows container in the same Kubernetes cluster, and even as part of the same application, all with consistent monitoring experience and deployment pipelines.

Regional expansion: AKS was recently made generally available in seven additional regions, bringing the total worldwide AKS availability to 28 regions.

Azure Red Hat OpenShift: As a jointly engineered, supported, and fully managed service from Microsoft and Red Hat, Azure Red Hat OpenShift offers flexible, self-service deployment of fully managed OpenShift clusters. Customers can focus on application development as the master, infrastructure, and application nodes are patched, updated, and monitored. Apps run on Red Hat’s OpenShift security hardened Kubernetes platform built on world-class Azure infrastructure offering an industry-leading SLA of 99.9 percent availability.

Community-led innovation:

Kubernetes-based Event-driven Autoscaling (KEDA): KEDA is an open source project jointly developed with Red Hat. Use KEDA to auto-scale deployments in your Kubernetes cluster in response to events like a Kafka stream, Cloud Events, or many other event providers. It can be used in any Kubernetes environment, on-premises, or in any cloud, such as Azure Kubernetes Service and Red Hat OpenShift.

Service Mesh Interface (SMI): Microsoft, in partnership with Linkerd, HashiCorp, Solo.io, Kinnvolk, and Weaveworks, and with support from Aspen Mesh, Canonical, Docker, Pivotal, Rancher, Red Hat, and VMware, has launched Service Mesh Interface (SMI), an open source project that defines a set of common, portable APIs that provide developers with interoperability across different service mesh technologies, including Istio, Linkerd, and Consul Connect.

All **Azure Kubernetes Service (AKS)** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
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April 9, 2019	Available	General availability: Azure Kubernetes Service in South Central US, Korea South, and Korea Central
April 17, 2019	Available	Pod security policy for Azure Kubernetes Service (AKS) is now available in preview
April 26, 2019	Retiring	Azure Kubernetes Service: Kubernetes 1.9 end-of-life notice
April 30, 2019	Available	General availability: Azure Kubernetes Service in North Central US and Japan West
May 6, 2019	Available	Azure Kubernetes Service virtual nodes
May 6, 2019	Available	Azure Dev Spaces for Azure Kubernetes Service
May 6, 2019	In preview	Azure Policy for AKS is now in public preview
May 6, 2019	In preview	Azure Kubernetes Service (AKS) multi node pools is in preview
May 6, 2019	In preview	Authenticated IP for Azure Kubernetes Service (AKS) is now in preview
May 6, 2019	Available	Azure Kubernetes Service (AKS) virtual node is now available
May 7, 2019	Available	KEDA: Kubernetes-based event-driven autoscaling
May 8, 2019	Available	Azure Red Hat OpenShift now available
May 14, 2019	Available	General Availability: Azure Dev Spaces

May 16, 2019	Available	Kubernetes integration with Azure Pipelines is now available
May 17, 2019	Available	Azure Kubernetes Service (AKS) now supports Windows Server containers
May 28, 2019	Available	General availability: Azure Kubernetes Service in South Africa North
June 4, 2019	Available	General availability: Azure Kubernetes Service in China (China East2 and China North2)

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Azure Red Hat OpenShift

As a jointly engineered, supported, and fully managed service from Microsoft and Red Hat, Azure Red Hat OpenShift offers flexible, self-service deployment of fully managed OpenShift clusters. Customers can focus on their application development as the master, infrastructure, and application nodes are patched, updated, and monitored. Apps run on Red Hat's OpenShift security hardened Kubernetes platform that's built on world-class Azure infrastructure and offers an industry-leading SLA of 99.9 percent availability.

All **Azure Red Hat OpenShift** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 8, 2019	Available	Azure Red Hat OpenShift now available

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Databases

Azure SQL Database

Our recent investments in SQL Database support a variety of workloads, big or small. SQL Database Hyperscale is now generally available and allows a database to grow as needed,

effectively eliminating the need to pre-provision storage resources. Hyperscale enables virtually instantaneous backups and significantly accelerates restores from hours—or even days—to minutes. With support for up to 100 TB of storage, SQL Database Hyperscale removes the limits to app growth.

In addition, we've launched a serverless compute option into preview, Azure SQL Database serverless, which provides an alternative to provisioned compute options and is optimized for workloads that are unpredictable, have periods of inactivity, or where compute requirements are variable or unknown. Serverless allows compute and memory to scale independently based on the workload requirements. Compute is also automatically paused during periods of inactivity and then resumed, eliminating the requirements of managing capacity and reducing costs.

All **Azure SQL Database** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 6, 2019	Available	Azure SQL Database Hyperscale support for single databases is now available
May 6, 2019	In development	Azure SQL Database Edge
May 6, 2019	Available	Azure SQL Database managed instance SKU recommendation for Data Migration Assistant is now available
May 6, 2019	In preview	Azure SQL Database serverless compute tier is now in preview
June 12, 2019	Available	General availability: 4 vCore Azure SQL Database managed instances on Gen5 hardware
June 12, 2019	Available	Dev/test pricing option for individual Visual Studio subscribers is now available for Azure SQL Database managed instance

June 14, 2019	Available	Default backup retention period for DTU-based Azure SQL databases is changing soon
June 26, 2019	In development	New Active geo-replication optimization is coming to production soon in Azure SQL DB

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Azure Cosmos DB

There are new capabilities to offer real-time operational analytics directly against data distributed globally in Azure Cosmos DB. Recently released in preview, built-in support for Apache Spark enables incredibly fast time-to-insight as analytics are served against the local database replica closest to users. A preview of native Jupyter notebooks support across all Azure Cosmos DB APIs and data models is also now available, so developers can now interactively run queries, execute ML models, and explore and analyze the data stored in their Cosmos databases. The notebook experience also enables easy exploration with the stored data, building and training machine learning models, and performing inferencing on the data using the familiar Jupyter notebook experience directly inside the Azure portal.

Further enhancing the developer experience, a preview of the Azure Cosmos DB API for etcd is now available. It enables developers to enjoy Azure Cosmos DB-backed etcd and power their self-managed Kubernetes clusters on Azure. In addition, Azure SQL query capabilities have been expanded, and the Azure Cosmos DB v3 SDKs for Java, .NET, and Javascript are now generally available.

All Azure Cosmos DB updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
May 6, 2019	In preview	Notebook support for all Azure Cosmos DB APIs is in preview
May 6, 2019	In preview	Built-in support for Apache Spark in Azure Cosmos DB now in preview

May 6, 2019	In preview	Azure Cosmos DB notebook experience
May 6, 2019	Available	Azure Cosmos DB API for Spark and etcd
May 7, 2019	In preview	Azure Cosmos DB API for etcd in preview
May 15, 2019	Available	Enhanced Azure Resource Manager support for Azure Cosmos DB is now available
May 15, 2019	Available	Azure Cosmos DB Operator role for role-based access control (RBAC) is now available
May 15, 2019	Available	Enhanced SQL API query functionality in Azure Cosmos DB is now available
May 15, 2019	Available	Upgraded Gremlin API functionality for Azure Cosmos DB is now available
June 12, 2019	In preview	Direct connectivity support Java async SDK-Preview
June 12, 2019	Available	Azure Cosmos DB—Direct connectivity support for Java Async SDK is now in preview

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Data Factory

The mapping data flows capability in Azure Data Factory is now in preview, enabling code-free data transformation at scale. This means Data Factory has moved beyond a data ingestion and movement service and is now a comprehensive ETL offering. The importance of this capability has transformed the service from a data ingestion and movement service to a comprehensive ETL offering, leading us to recast this product to convey the new value proposition. We now describe Azure Data Factory as follows: Azure Data Factory is a hybrid data integration service that simplifies ETL with any data, from any source, at scale. Built for all data integration needs and skills, Data Factory allows

users to work the way they want, by building data pipelines in Python, .NET, or ARM or completely code-free and maintenance-free within the intuitive visual environment.

Users can choose from a breadth of connectivity options. Data Factory offers a growing portfolio of more than 80 natively built connectors for data integration that address on-premises, cloud, and multi-cloud settings. The connectors are maintenance free and provided as part of the fully managed service at no additional cost. To further speed up data integration, users can take advantage of the predefined Data Factory templates to execute common tasks such as building pipelines, copying from a database, executing SQL Server Integration Services (SSIS) packages in Azure, and doing ETL. In addition, Data Factory empowers users to efficiently prepare massive, unstructured data sets at scale with the visual environment for data wrangling.

All Data Factory updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
May 6, 2019	Available	Azure Data Factory enhancements
May 22, 2019	Available	Mapping Data Flows feature is now available in Azure Data Factory
June 25, 2019	Available	Preserve ACLs when upgrading from ADLS Gen1 to Gen2 using Azure Data Factory
June 26, 2019	Available	Now available: Ingest data from Oracle database performantly using Azure Data Factory
June 26, 2019	Available	General availability: Azure Data Factory in China East 2
June 26, 2019	Available	New connectors available in Azure Data Factory: SAP Table and SAP BW via Open Hub

June 26, 2019	Available	Clean up files by built-in delete activity in Azure Data Factory
June 26, 2019	Available	Azure Data Factory enriches PolyBase support for loading data into SQL DW

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Azure Database for PostgreSQL

Azure Database for PostgreSQL’s capabilities has been expanded through the acquisition of Citus Data. Now with Hyperscale (Citus) in preview, developers can effectively scale out their single node Postgres databases across hundreds of nodes. The agility and flexibility of this scaling functionality brings high performance and open source compatibility to Postgres databases managed by Azure Database for PostgreSQL.

In addition to high performance scaling, Azure Database offers multi-layered security, Azure IP Advantage, and the industry-leading reach of Azure, all with flexible pricing. Also, we’re now previewing 16TB/20K IOPS which further enhances our storage and performance capabilities for community PostgreSQL. The preview of our support for PostgreSQL 11.0, which will bring our service up to date with the latest versions of PostgreSQL, will also be launched soon.

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Azure Database for MySQL and MariaDB

New built-in intelligence features for Azure Database for MySQL and MariaDB optimize your database performance and extend data security with Advanced Threat Protection. In addition, we’ve optimized our offer for high performance and read-intensive workloads by extending our performance capabilities with 16 TB storage and 20 IOPs, as well as by adding read replica to enhance the ability to scale out reads.

Easily migrate your existing MySQL or MariaDB instances or build new on Azure using the languages and frameworks of your choice like PHP, .Net, and Java. Tight integration with Azure App Services allows for seamless deployment of WordPress, Drupal, and other popular apps.

All **Azure Database for PostgreSQL, MariaDB, MySQL** updates from April 2019 to June 2019 are listed below. See all the latest Azure updates.

Date	Status	Title
April 3, 2019	Available	Performance Recommendations for Azure Database for PostgreSQL now available
April 3, 2019	Available	Query Store for Azure Database for PostgreSQL now available
April 3, 2019	Available	Query Performance Insights for Azure Database for PostgreSQL now available
April 17, 2019	Available	Azure Database for PostgreSQL Read Replica is now generally available
April 17, 2019	Available	Azure Database for MariaDB: New compute options are now generally available
May 6, 2019	In preview	Hyperscale (Citrus) is now in preview on Azure Database for PostgreSQL
May 7, 2019	In preview	Hyperscale service tier for select Azure database engines
May 15, 2019	Available	Read replica across regions for Azure database services for MySQL and PostgreSQL
May 15, 2019	Available	The Oracle extension on Azure Database for PostgreSQL is now available
May 15, 2019	Available	Read Replica across regions for MySQL and PostgreSQL
June 12, 2019	In preview	Azure Database for PostgreSQL support for

		PostgreSQL 11 is now in preview
June 12, 2019	Available	Additional server parameters for Azure Database for MySQL now available
June 12, 2019	In preview	Azure Database for MariaDB read replica is in preview
June 12, 2019	In preview	Intelligent Performance for Azure Database for MariaDB is now in preview
June 12, 2019	In preview	Intelligent Performance for Azure Database for MySQL is now in preview
June 12, 2019	Available	Azure Database for MariaDB support for MariaDB 10.3 is now available
June 26, 2019	Available	South Africa regions MySQL, PostgreSQL, MariaDB
June 26, 2019	Available	Storage auto-grow for Azure Database for MariaDB now generally available
June 26, 2019	Available	Storage auto-grow for Azure Database for MySQL now generally available
June 26, 2019	Available	Storage auto-grow for Azure Database for PostgreSQL now generally available

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Developer tools

Azure Lab Services

Azure Lab Services enables you to quickly set up a classroom lab environment in the cloud. An educator creates a classroom lab, provisions Windows or Linux virtual machines, installs the necessary software, and makes them available to students. The students

connect to virtual machines (VMs) in the lab and use them for their projects, assignments, and classroom exercises.

Recently, Azure Lab Services team added support to connect labs to on-premises resources. This is extremely useful for scenarios where there's a need to connect the lab to an on-premises licensing server to acquire licenses for software installed on all virtual machines. In some cases, licensing servers also require the machine to be in a specific IP address range, so we added the ability to provide an IP address range, allowing virtual machines in the lab to be created in the specified IP address range for communicating with licensing servers.

We also added the ability to save images in Azure Shared Image Gallery so that the image can be re-used at a later time to create a new lab. This is extremely useful for professors and trainers, since they teach the same content in multiple classes. Creating an image with necessary software and saving it for later re-use significantly improves their productivity.

We introduced GPU size to enable creation of Data Science/AI/Machine Learning labs, added support for sending emails from Azure Lab Services, and added a configurable setting to open a remote desktop port on Linux machines so users can connect to their Linux virtual machines using Remote Desktop Connection as needed.

All **Azure Lab Services** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 2, 2019	Available	Azure Lab Services updates: GPU size, saving images, and connecting to on-premises resources
May 8, 2019	Available	Azure Lab Services updates: GPU size, saving images, and connecting to on-premises resources

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Azure DevTest Labs

Our focus for DevTest Labs over the past few months was to make the service a central place for development teams to use and configure all relevant Azure services. In this context, we recently enabled integration with Azure Shared Image Gallery service, so lab owners can enable images from a shared location for their lab users to create resources

from. This feature enables sharing of images across multiple labs, subscriptions, and regions.

Another integration we recently started supporting is the ability to configure a remote desktop gateway for a lab to ensure secure access to the virtual machines without having to expose the RDP port. This approach is more secure because the user authenticates directly to the gateway machine or can use company credentials on a domain-joined gateway machine to connect to their machines. The lab also supports using token authentication to the gateway machine, allowing users to connect to their lab virtual machines without having the RDP port exposed to the internet.

We also added a new PowerShell module to enable lab owners to manage their labs at scale. This feature is especially useful for scenarios where customers have multiple labs and would like to update policies and lab settings across these labs. It provides composable functions to create, query, update, and delete labs, virtual machines, custom images, and lab environments. We continue to expand and invest in more Azure Service integrations that will include Azure Bastion, Azure Key Vaults, and Managed Service Identities in the near future.

All **Azure DevTest Labs** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 15, 2019	Available	Reserved instance pricing in the Dev/Test Offer
June 4, 2019	Available	Azure DevTest Labs: Configure a shared image gallery in your lab
June 12, 2019	Available	Azure DevTest Labs: PowerShell module to simplify management of labs

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DevOps

Azure DevOps

New features aimed at making Azure DevOps a better DevOps platform for teams building any app, using any technology, and targeting any platform, were recently made

available. The first iteration of unified pipelines, which allows developers to use the declarative YAML syntax for Azure Pipelines, was introduced in late 2018 for continuous integration and continuous delivery. This was one of the most-highly requested features. New capabilities to integrate Azure DevOps deeply with Kubernetes have also been implemented, allowing customers to get deeper insights on how containers are deployed on the platform. This supports all Kubernetes environments, including Azure Kubernetes Service and OpenShift, as well as other clouds and hybrid environments.

The way you can purchase Azure DevOps has also been improved. Among the most relevant changes, Azure Artifacts has moved to a consumption-based model, with 2 GB free for each organization; Basic license is now offered at a flat price for all customers, with five users free, and includes Azure Artifacts for Azure DevOps Server; and new Basic and Test Plans licenses are now available at a lower price.

Lastly, our services are easier to get started with and to use. Developers can now sign into Azure DevOps (as well as Azure and other Microsoft online services) using their existing GitHub account without needing to create a separate identity. There are new apps available for integrating with Azure DevOps and managing certain activities from Microsoft Teams and Slack. In addition, incremental improvements have been made to Azure DevOps to improve the user experience, based on customers' feedback.

All **Azure DevOps** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 11, 2019	Available	Manage organization billing in Azure DevOps: Sprint 150 Update
May 2, 2019	Available	Azure Pipelines app for Teams, improved GitHub and Azure Boards integration: Sprint 151 Update
May 6, 2019	Available	Azure now supports GitHub identity single sign-on
May 6, 2019	Available	Azure Pipelines update for Kubernetes deployments
May 6, 2019	Available	Unified pipelines

May 6, 2019	Available	Visual Studio Subscription with GitHub Enterprise offering
May 16, 2019	Available	Kubernetes integration with Azure Pipelines is now available

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Identity

Azure Active Directory (Azure AD)

Recent Azure AD innovation was focused on delivering advanced identity security and governance capabilities for identity admins, as well as improved experiences for app developers building on the Microsoft identity platform. Both Azure AD password protection and identity secure score were made generally available to advance identity security capabilities, allowing organizations to enforce stronger password policies across their hybrid identity infrastructure and gauge opportunities to increase their security posture. The preview of entitlement management—which automates employee and partner access requests, approvals, auditing, and review for any app integrated with Azure AD—was the final piece to add a complete identity governance solution to Azure AD. Finally, there’s now a clean library stack for JavaScript and .NET developers to better integrate Microsoft identity into their apps—as well as an improved app registration experience and GitHub identity support for Azure AD and Microsoft accounts—to provide diverse authentication experiences.

All **Azure Active Directory** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 2, 2019	Available	Azure AD password protection
April 2, 2019	Available	The identity experience framework orchestration platform of Microsoft Azure Active Directory B2C (Azure AD B2C) is now available

April 2, 2019	Available	Reduced pricing for Azure AD B2C
April 10, 2019	In development	More sign-in options for Microsoft accounts in Microsoft 365
April 10, 2019	In development	Home realm discovery during sign-in for Microsoft 365 services
April 23, 2019	Available	Azure Active Directory activity logs integration with Diagnostics Logs for Azure Log Monitor and Log Analytics in Azure Monitor
April 24, 2019	In preview	Group claims in Azure AD tokens
April 30, 2019	In preview	Azure AD entitlement management
May 1, 2019	In preview	Authentication session management in Azure AD Conditional Access
May 6, 2019	Available	Azure AD support in GitHub Enterprise
May 6, 2019	Available	Microsoft Authentication Library for Javascript
May 6, 2019	Available	Unified application registration experience
May 6, 2019	In development	GitHub Identity support for Azure
May 6, 2019	In preview	Azure Active Directory B2C in China
May 7, 2019	Available	Microsoft Authentication Library for .NET

May 14, 2019	Available	Expansion of the password character limit in Azure AD
May 16, 2019	In preview	Azure AD Conditional Access policy for the combined MFA and password reset security info registration experience
May 21, 2019	Available	Identity Secure Score in the Azure AD Portal

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Integration

Azure Event Grid

The [latest updates to Event Grid](#) add capabilities that will enable higher performance and more advanced event-driven architectures, simplifying events management, providing increased resiliency and [reliability](#), and tackling bigger challenges with support for larger events or expanding the capabilities for multitenant applications. Event-driven architectures are increasingly replacing and outpacing less dynamic polling-based systems, bringing the benefits of serverless computing to IoT scenarios, data processing tasks, or infrastructure automation jobs. Companies all around the world are taking an event-driven approach to create new experiences in existing applications or migrate those applications to the cloud, and Azure Event Grid is investing in supporting these companies by building more powerful and complex solutions.

All Event Grid updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
May 29, 2019	Available	Event Domains generally available in Event Grid
May 29, 2019	Available	Geo Disaster Recovery available in Event Grid
May 29, 2019	Available	Event Grid can now publish events to Service Bus
May 29, 2019	In preview	Events up to 1MB in Event Grid - public preview

May 29, 2019	In preview	IoT Hub device telemetry events in Event Grid - public preview
May 29, 2019	Available	Advanced filtering generally available in Event Grid
June 26, 2019	In preview	Azure Data Lake Storage Gen2 support for Event Grid Notifications is now in preview

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Azure Logic Apps

New updates to Logic Apps focus on improving the developer experience when creating workflows and increasing the utility of the platform for the enterprise.

A number of improvements for developers have been made within the Logic Apps designer, including the ability to write inline code and new tools for the recently released Visual Studio 2019.

For the enterprise, new enterprise-ready connectors for high value scenarios, such as supply chain and procurement are now available. Additionally, the integration service environment for Logic Apps, which gives enterprise customers the ability to run an isolated Logic Apps environment, is now generally available. This allows for more predictability in terms of performance, an isolated data environment, as well as other additional improvements.

All Logic Apps updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
April 10, 2019	Available	Logic Apps is now available in US Gov Virginia region
April 17, 2019	Available	Azure Logic Apps Tools for Visual Studio 2019
May 6, 2019	In preview	Inline Code for Azure Logic Apps is in preview

May 7, 2019	Available	New-and-improved SAP connector is now generally available
May 29, 2019	Available	Integration service environments (ISE) are now generally available

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Azure API Management

A number of recent developments for API Management focus on enabling the developer audience through the release of our Consumption tier and on improving the enterprise offering.

API Management Consumption tier is a competitively priced tier for developers comparable to other offerings, such as AWS API Gateway.

In addition, the enterprise offering is improved through the release of a brand new, completely customizable developer portal that further enables enterprises to communicate effectively to both internal teams and the external world through their APIs.

All API Management updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
April 3, 2019	In development	New developer portal in Azure API Management is in development
April 3, 2019	In development	Support for new redirect of URLs of Azure AD B2C is in development
April 5, 2019		Azure API Management update April 4
April 15, 2019	In development	Self-hosted API Management gateway is in development
May 7, 2019	Available	Expose a Function App via API Management by linking

		it to a new or existing API is now available
May 7, 2019	Available	Improved distributed tracing of serverless applications built with Functions and API Management is now available
May 29, 2019	Available	Azure API Management Consumption Tier is now generally available
June 12, 2019	In preview	New developer portal in API Management is now in preview
June 28, 2019	In preview	Azure API Management extension for Visual Studio Code is now in preview
June 28, 2019	Available	API Apps Icon Removed from Azure Marketplace Web category in the Azure Portal

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Azure Service Bus

In April 2019, we added a new migration tool that can be used to upgrade existing multi-tenant Service Bus standard namespaces to dedicated premium namespaces, with no changes in configuration.

All Service Bus updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
April 2, 2019	Available	Upgrade your existing Service Bus standard namespaces to premium in-place

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Internet of Things

Azure IoT Edge

In May 2019, a major new update to IoT Edge was released, adding features that make it easier to run business-critical workloads at the edge despite harsh conditions for connectivity and using the infrastructure and OSes you already know. A preview of IoT Edge support for Kubernetes is also now available along with the availability of support for Windows 10 IoT Enterprise, giving you the ability to use IoT Edge with the feature rich infrastructure and OSes needed at the edge. IoT Edge extended offline support, which allows your IoT solutions to operate in remote locations and harsh conditions without reliable connection to the cloud, is also now generally available. Finally, new troubleshooting and provisioning capabilities, making it easier to set up IoT Edge in production deployments, have been recently released.

All Azure IoT Edge updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
April 3, 2019	In preview	Azure Security Center for IoT in public preview
May 6, 2019	In development	IoT Plug and Play
May 7, 2019	Available	Azure IoT Edge 1.0.7 release is now available

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Azure IoT Central

Multiple new capabilities for Azure IoT Central were recently released. These are designed to simplify IoT Central for developers and to enable integration to existing enterprise and line of business solutions. These new capabilities enable more customized visualizations, secure and scaled device management, and integration with existing customer business applications.

First, rules and alerts enable the creation and monitoring of alerts on events that affect device health and usage—all backed by Azure Stream Analytics. New Visualization options and dashboard customization capabilities enable you to create custom views for different types of users. Inbound and outbound data connectors allow operators to integrate with partner systems (whether upstream to ingest data from other clouds, or downstream to bring data into business applications). Finally, device management

enables you to manage devices at scale with ease, from copying and saving jobs to easier onboarding of new devices.

All **Azure IoT Central** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 6, 2019	In preview	IoT Plug and Play announcement at Build

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Azure Sphere

With the recent release of the new Azure Sphere OS, new scenarios are now open to customers and partners with a preview of OS and SDK support for the real-time cores in Azure Sphere MCUs, improved tools and libraries, and new connectivity options (including ethernet connectivity for the Azure Sphere Security Service and general application connectivity).

All **Azure Sphere** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 3, 2019	In preview	Azure Security Center for IoT in public preview
April 10, 2019	In preview	Update 19.04 for Azure Sphere public preview now available for evaluation
April 24, 2019	In preview	Update 19.04 for Azure Sphere public preview now available in Retail feed
May 16, 2019	In preview	Update 19.05 for Azure Sphere public preview now available for evaluation
May 31, 2019	In preview	Azure Sphere 19.05 Release Unlocks new features in the MT3620

June 24, 2019	In preview	Update 19.06 for Azure Sphere public preview now available for evaluation
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Azure Maps

Azure Maps recently announced the preview of the Mobility Service, APIs for obtaining real-time location, intelligence for public transit networks, as well as service updates and vehicle sharing (scooter, bike, shared vehicles) information. This service was the first iteration of releases following our new partnership with leading global transit intelligence provider, Moovit. Real-time transit intelligence has applications across a number of industry solutions, including retail, smart city solutions, and field service.

In addition, Spatial Operations Service is now generally available. The purpose of this service is to provide advanced spatial analytics and common geometric calculations for customers (notably within the IoT space) with applications such as geofencing, closest point, and point in polygon services.

All Azure Maps updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
May 6, 2019	In preview	Azure Maps Mobility Services is now in preview
May 7, 2019	Available	Spatial Operations for Azure Maps are now generally available

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Management and governance

Azure Advisor

Azure Advisor has a new experience for reviewing your security recommendations through a tighter integration with Azure Security Center. A detailed view of your Security Center recommendations is now available directly in Advisor, and you can access those recommendations programmatically through Advisor REST APIs, CLI, or PowerShell. This new experience will make it faster and easier to remediate your security recommendations. In addition, Advisor has introduced a new bulk action feature that will

allow you to dismiss or postpone multiple recommendations at once. This feature will save you remediation time and help you focus on the recommendations that matter most. Finally, Advisor introduced more than 20 new high availability, performance, and cost recommendations, enabling you to find even more ways to optimize your Azure resources and get more out of Azure.

All **Azure Advisor** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
June 12, 2019	Available	Enhanced experience for Azure Advisor security recommendations

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Azure Backup

In May 2019, we announced that Network Security Groups (NSG) service tags for Azure Backup were available. These help to ease the process of running backups in an environment locked down using NSGs. With this, you now have the option to simply use the 'AzureBackup' tag to allow outbound access to Azure Backup for your workload (SQL server) agent running inside the VM, instead of managing the whitelisting of required IPs. Apart from backup of SQL in VMs, use the Azure Backup service tag to back up locked down VMs using MARS agent.

All **Azure Backup** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 16, 2019	Available	Network Security Group service tag for Azure Backup is now available

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Azure Monitor

Azure Monitor now has a full stack and seamless monitoring solution. Other updates include end-to-end monitoring for AKS, integrated access control for logs, intelligent and scalable alerts, and a number of updates for application performance monitoring. In

In addition, Monitor continues to expand to more regions and improvements are being made to tooling and agents.

All **Azure Monitor** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 3, 2019	Available	General availability: Azure Log Analytics in France Central, Korea Central, North Europe
April 3, 2019	In preview	Public preview: Azure Log Analytics in CENTRAL US, EAST US 2, EAST ASIA, WEST US, & SOUTH Central US
April 18, 2019	Available	General Availability: Application Insights is now available in East Asia and East US 2
April 22, 2019	Available	General Availability: Azure Monitor for containers is now available in Azure China
April 22, 2019	Available	General Availability: New Azure Monitor alerts experience available in Azure Government
April 30, 2019	Available	General availability: Azure Log Analytics in CENTRAL US, EAST US 2, EAST ASIA, WEST US and SOUTH CENTRAL US
May 2, 2019	Available	Application Insights Availability in Azure US Gov Virginia Region
May 8, 2019	Available	Azure Monitor BUILD 2019 updates

May 18, 2019		Azure Monitor Dynamic Threshold meter name change
May 21, 2019	Retiring	Azure Monitor classic alerts retirement date extended to August 31st, 2019
May 21, 2019	Retiring	Azure log integration tool deprecation
May 22, 2019	Available	Now available: PowerShell cmdlets for Azure Monitor metric and log alerts
May 24, 2019	Available	Application Insights Availability in US West Region
May 28, 2019	In preview	Application Change Analysis for Azure Monitor is now in public preview
May 30, 2019	Available	Azure Monitor AIOps alerts with Dynamic Thresholds is now generally available
May 30, 2019		Azure Monitor for VMs has a new data set for bound ports
May 31, 2019	Available	Log Analytics Agent for Linux 1.10 now available
May 31, 2019	Available	Azure Monitor for VMs is now available in West US 2
June 1, 2019	Available	Azure Monitor for Containers - Updates on Windows AKS Support, UI enhancement, and Node Storage Capacity
June 17, 2019	Retiring	Application Insights connector will retire on June 30, 2019

June 18, 2019	Available	Azure Monitor Log Analytics UI updates
June 21, 2019	Available	Log Analytics Agent for Windows 10.20.18001 now available
June 22, 2019	Available	Log Analytics Agent for Linux 1.11 now available
June 26, 2019	In preview	Azure Monitor for virtual machine scale sets are now in preview
June 26, 2019	In preview	Public preview: Azure Log Analytics in SOUTH AFRICA NORTH, BRAZIL SOUTH, UK WEST and NORTH CENTRAL US

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Azure Policy

Azure Policy allows you to audit or enforce resource configurations at an Azure Resource Manager level. Configurations are also needed in the data plane (inside the services themselves), so recent updates to Policy include making this a reality in as many services as possible. In-guest VM configurations and Keyvault are examples of this effort. Additionally, AKS was recently released to allow you to govern configurations like pods, ingress, and namespaces.

All Azure Policy updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
April 8, 2019	In preview	Azure Policy for AKS is now in private preview
May 6, 2019	In preview	Azure Policy integration and enhanced network security for Azure Kubernetes Service
May 6, 2019	In preview	Azure Policy for AKS is now in public preview

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Azure Cost Management

Azure Cost Management was released in 2018, bringing the Cloudyn functionality into the Azure portal and improving user experience and performance. We also recently released Cost Management for AWS (in preview) to help customers manage cloud spend across their multi-cloud environment.

All **Cost Management** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 6, 2019	In preview	Azure Cost Management multi-cloud for AWS is in preview

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Azure portal

GitHub is one of the largest developer communities, and for millions of developers around the world their GitHub identity has become a critical aspect of their digital life. We now allow developers to sign in with their existing GitHub account to Microsoft online services on any Microsoft sign in page. Use your GitHub credentials to sign in via OAuth anywhere a personal Microsoft account does, including Azure DevOps and Azure.

After signing into GitHub and authorizing the Microsoft application, you'll get a new Microsoft account that's linked to your GitHub identity. During this process, you also have the opportunity to link it to an existing Microsoft account (if you already have one).

All **Azure portal** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 6, 2019	Available	Azure now supports GitHub identity single sign-on
May 13, 2019	Available	Improvements to the Azure portal user experience are now available

June 28, 2019	Retiring	API Apps Icon Removed from Azure Marketplace Web category in the Azure Portal
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Media

Azure Content Delivery Network

Azure Content Delivery Network is a global content delivery network (CDN) solution for delivering high-bandwidth content. Azure Content Delivery Network is a true multi-CDN service, offering choice and the ability to mix CDN networks from Verizon, Akamai, and Microsoft. In addition to its tight integration with sister services, such as Azure storage and Media Services, it continues to benefit from the continuous evolution of our global reach, massive investments in new edge sites, and cache capabilities both within our own global network and also through our partner CDN offerings.

Enhancing the capabilities, feature set, and ability to customize routing behavior and SSL dependencies in Azure Content Delivery Network is critical to our customers. Recent enhancements include the ability to use and manage own SSL certs, along with a new custom rules engine.

All Content Delivery Network updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
April 17, 2019	Available	New features and network expansion for Azure Content Delivery Network
May 6, 2019	In preview	Rules engine for Azure Content Delivery Network is now in preview

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Media Services

Video Indexer continues its fast pace of service updates. We've released several cumulative improvements to the machine learning models, as well as the tools used to manage the models. To help customers meet their compliance obligations, we've

recently achieved multiple certifications. In addition, Azure Media Services is available in the Korea region, and Live Encoder feature set has been improved.

All **Media Services** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 2, 2019	Available	Video Indexer has been enhanced with new features
April 2, 2019	Available	Video Indexer is now ISO, SOC, HiTRUST, FedRAMP, HIPAA, PCI certified
May 6, 2019	Available	Video Indexer: multiple facial recognition enhancements have been added
June 4, 2019	Available	Media Services is now available in Korea Region
June 12, 2019	Available	Premium Live Encoder now supports streaming at 1080p and 30 frames per second

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Migration

Azure Database Migration Service

Use Azure Database Migration Service to perform online migrations of Oracle databases, hosted on-premises or on a virtual machine, to Azure Database for PostgreSQL, with minimal downtime. Azure Database Migration Service enables resilient migrations of Oracle databases at scale and with high reliability. Provision an instance of Azure Database Migration Service from the Azure portal or via Azure PowerShell and create a migration project to perform the migration.

Data Migration tools and Azure Database Migration Service are now integrated with the Azure Migrate hub (this integration is in preview). This is a first step toward providing a unified Azure migration experience. In this release, we're integrating Data Migration Assistant for database assessments and Azure Database Migration Service with Azure Migrate. Doing so provides a single view of the server and database migration progress

and offers details on the relative readiness of the servers and databases migrating to the cloud.

All **Azure Database Migration Service** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 6, 2019	In preview	Oracle to Azure Database for PostgreSQL online migration is in preview

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Networking

ExpressRoute

ExpressRoute is the preferred way for enterprises and many other customers to connect their datacenters to Azure. ExpressRoute extends on-premises networks into the Microsoft cloud over a private dedicated connection, most often provided by a connectivity provider. As Azure grows our global footprint, our network follows, meaning that ExpressRoute sites providing POP (point of presence) for customers to connect to Azure is a constantly growing portion of our global infrastructure. Several new sites have recently been added, providing geo expansion but also increased redundancy in several large metro areas.

While ExpressRoute has been the common way of privately connecting to Azure and the Microsoft cloud services, ExpressRoute Direct is now available, offering 100 Gbps directly into the Azure global network backbone. Targeting support for customers in regulated industries such as banking, finance and government, as well as customers with large data ingest scenarios, ExpressRoute Direct was accompanied by Global Reach—moving ExpressRoute from “connect to” to also offer “connect through”.

Global Reach is a great supplement to, or replacement for, portions of our customer WANs (wide area networks) as it allows for IP transit (on-premises to on-premises) across the Microsoft global network, effectively putting our fiber and subsea cable systems to use for our customers.

All **ExpressRoute** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
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April 12, 2019	Available	General availability: Gateway Transit support for Global VNet Peering
April 17, 2019	Available	ExpressRoute Direct is now available
April 17, 2019	Available	ExpressRoute Global Reach is now available
May 6, 2019	Available	Azure VMware Solutions is now generally available
May 6, 2019	Available	Azure ExpressRoute is generally available in eight additional locations
June 18, 2019	Available	ExpressRoute now supports up to 4 circuits from the same peering location into the VNet

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Azure DNS

Azure DNS, a highly reliable, fast, secure, and scalable solution for hosting public DNS zones, recently became available in the Azure China Cloud. Hosting your domains in Azure is covered by a 100 percent SLA with easy management of DNS records using the same credentials, APIs, tools, and billing as your other Azure services.

All Azure DNS updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
April 18, 2019	Available	General availability: Azure DNS in China regions
June 26, 2019	In preview	Announcing Preview Refresh for Azure DNS Private Zones

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Azure Virtual Network

Azure Virtual Network is the primary and foundational building block for your private network in Azure. It enables Azure resources, such as Azure Virtual Machines to securely communicate with each other, the Internet, and on-premises networks.

In addition to adding basic enhancements around architecting the IP space for simplification in routing and firewall rules, we recently launched full IPv6 support into preview. Today, IPv6 is a fundamental requirement for many public and government agencies and operations. With our latest updates, you'll now have the ability to do more with Azure, as well as more with the growing number of devices within mobile and IoT.

All **Virtual Network** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 12, 2019	Available	General availability: Gateway Transit support for Global VNet Peering
April 23, 2019	In preview	Public Preview: Microsoft adds full IPv6 support for Azure VNets
May 13, 2019	Available	General Availability: Public IP Prefix
June 18, 2019	Available	ExpressRoute now supports up to 4 circuits from the same peering location into the VNet
June 18, 2019	In preview	Azure Bastion - RDP and SSH over SSL - now available for Preview

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Azure Bastion

The Azure Bastion service was recently launched in preview. This is a new, fully platform-managed PaaS service that you provision inside your virtual network. Azure Bastion provides an integrated and simple way to create scalable bastion hosts. It provides secure and seamless RDP/SSH connectivity to your virtual machines directly in the Azure portal

over SSL. When you connect via Azure Bastion, your virtual machines no longer require exposure of a public IP address.

All **Azure Bastion** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
June 18, 2019	In preview	Azure Bastion - RDP and SSH over SSL - now available for Preview

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Azure Application Gateway

A number of updates have been made recently to Application Gateway, WAF, and the Azure portal. Support for rewriting HTTP headers in Application Gateway was added to help customers accomplish several important scenarios, such as removing port information from X-Forwarded-For headers, adding security-related header fields like HSTS/ X-XSS-Protection, and removing response header fields that may reveal sensitive information. The Application Gateway Standard v2 and WAF v2 SKUs were also made available and are now fully supported. The v2 SKUs provide additional capabilities for autoscaling, zone redundancy, and Static VIP, offering enhanced performance and cost savings. Finally, key improvements were made to the Azure portal user experience providing a productive and easy-to-use platform so customers can build, manage, and monitor their service from a single location.

All **Application Gateway** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 16, 2019	Available	Rewrite HTTP headers with Azure Application Gateway
April 30, 2019	Available	Azure Application Gateway Standard v2 and WAF v2 SKUs generally available
May 13, 2019	Available	Improvements to the Azure portal user experience are now available

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Azure Firewall

Azure Firewall is a cloud native firewall-as-a-service offering that protects the resources that are in your virtual networks. It enables IT to centrally govern and log all their traffic flows using a DevOps approach.

Azure Firewall service recently became available in Azure Government. It offers fully stateful native firewalling capabilities for virtual network resources, with built-in high availability and auto scaling based on load and needs. Create and enforce connectivity policies across multiple subscriptions and virtual networks using application (FQDN filtering) and network level filtering rules. Azure Firewall provides complete virtual network protection, is fully integrated with the Azure platform, portal UI and services, for outbound, inbound, spoke-spoke, and hybrid connections (both VPN and ExpressRoute).

All **Azure Firewall** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 2, 2019	Available	Azure Firewall is now available in Azure Government

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Azure Application Gateway web application firewall

Web application firewall is now generally available. This is a feature of Azure Application Gateway that provides centralized protection of your web applications—both IaaS and PaaS hosted—from common web attacks such as SQL inject and includes advanced layer-7 controls such as SSL offload, URL routing, and customized traffic filtering based on the OWASP core rule sets. Application Gateway web application firewall is simple to configure and provides continuous monitoring and logging for web applications against exploits.

All **web application firewall** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 31, 2019	Available	Web Application Firewall (WAF) for Azure Front Door

		service is now generally available
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Azure Front Door Service

Azure Front Door Service recently became generally available. It provides a single, secure global entry point for high-performance and highly available apps and is fully supported with a 99.99 percent SLA. Azure Front Door Service enables you to define, manage, and monitor the global routing for your web traffic by optimizing for best performance and instant global failover for high availability.

Application security has been extended to the edge. Previously only available as part of Application Gateway, web application firewall is now available as part of Azure Front Door Service. Application Firewall allows you to define security policies that allow, block, or rate limit access to your web applications delivered through Front Door. Web application firewall configurations are deployed globally within minutes, letting you respond quickly to changing attack patterns.

All **Azure Front Door Service** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 17, 2019	In preview	Web Application Firewall for Azure Front Door is in preview
April 17, 2019	Available	Azure Front Door Service is now available
May 31, 2019	Available	Web Application Firewall (WAF) for Azure Front Door service is now generally available

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Security

Azure Security Center

Security Center has expanded its Gov cloud availability by securing a Fedramp High certification for the US Gov cloud and has also completed its deployment in China national cloud. The Security Center Standard offer was extended with the launch of the regulatory compliance reporting experience, adaptive network hardening, and with the new release of the Linux agent providing broader coverage. Security Center also added support for new Azure resource types by launching Advanced Threat Protection for Azure Storage, and Security Center for virtual machine scale set in April 2019.

All Azure Security Center updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
April 2, 2019	Available	Advanced Threat Protection for Azure Storage is now available
April 2, 2019	Available	Azure Security Center now supports virtual machine (VM) scale sets
April 2, 2019	Available	Regulatory compliance dashboard in Azure Security Center is now available
April 3, 2019	Available	Azure Security Center for IoT in public preview
April 30, 2019	Retiring	Retire and replace specific Security Center features on July 31, 2019
May 6, 2019	Available	Advanced Threat Protection for Azure Storage - now generally available
May 6, 2019	Available	Virtual machine scale set support – now generally available

May 19, 2019	Available	Azure Security Center new analytics agent for Linux
May 19, 2019	Available	Adaptive Network Hardening in Security Center - now generally available
May 22, 2019	Available	General Availability: Azure DDoS Protection Standard introduces DDoS Alert integration with Azure Security Center
May 29, 2019	Available	Adaptive network hardening in Azure Security Center is now available
June 12, 2019	Available	Improved integration of Azure Security Center with Azure Advisor is now available
June 12, 2019	Available	Security Center recommendations and their corresponding policy names are aligned
June 12, 2019	Available	Just-in-time access now supports Azure Firewall

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Azure DDoS Protection

Azure DDoS Protection protects publicly accessible endpoints from distributed denial of service (DDoS) attacks. Azure DDoS protection provides customers with the peace of mind that their services are protected from the impacts of DDoS attacks.

We recently released DDoS alert integration with Azure Security Center into general availability. This provides the ability for DDoS Protection Standard customers to view DDoS alerts in Azure Security Center. This capability is now generally available for all Azure Security Center and DDoS Standard customers. These DDoS alerts will be available for review in the Security Center in near real time without any setup or manual integrations required and will provide details on DDoS attacks detected and automatically mitigated by the service. Customers protecting their virtual networks against DDoS

attacks with Azure DDoS Protection Standard will now have unified visibility into all DDoS attack-related alerts and actions taken to mitigate the attack.

All **Azure DDoS Protection** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
May 22, 2019	Available	General Availability: Azure DDoS Protection Standard introduces DDoS Alert integration with Azure Security Center

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Storage

Storage Accounts

Recent Azure Storage announcements included additional high-performance tiers for Blob and File storage, as well as enhanced compatibility for a go-to utility for ingesting data into Azure. Premium Blob storage and Premium Files became generally available. Both tiers use SSD-based storage to provide high throughput, low latency storage, and unlock new application scenarios for unstructured storage and file storage customers. AzCopy v10, added support for Azure Data Lake Storage Gen2 and for data transfers from S3 into Blob storage.

All **Storage Accounts** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 2, 2019	Available	Managed identities-based authentication for egress to Azure Data Lake Storage Gen 1
April 2, 2019	Available	Premium Blob storage is now generally available
April 26, 2019	Available	General availability: AzCopy v10

April 26, 2019	In preview	Azure Data Lake Storage Gen2 support for Event Grid Notifications is now in preview
April 26, 2019	In preview	Azure Blockchain Workbench 1.7 integration with Azure Blockchain Service

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Azure NetApp Files

Azure NetApp Files, a result of deep collaboration with NetApp, was recently made generally available in select regions.

NetApp Files is a powerful file storage service to run the most demanding file workloads in Azure, without the need for any code modification. It's an Azure first-party service, built on NetApp's ONTAP technology, and is sold and supported by Microsoft. Taking only minutes to set up, NetApp Files enables both Linux and Windows applications to seamlessly migrate and run in the cloud with an on-premises-like experience and performance. NetApp Files is no different from any other Azure first-party service—it can be provisioned and consumed against customers' existing Azure agreement(s), without the need for any term commitments. Additionally, it allows increasingly complex enterprise workloads to run in Azure.

All Azure NetApp Files updates from April 2019 to June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
May 29, 2019	Available	Azure NetApp Files is now generally available

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Azure FXT Edge Filer

Azure FXT Edge Filer appliances support hybrid storage architectures that allow for the optimization of on-premises network-attached storage (NAS), while supporting active archives in Azure Blob.

The Azure FXT Edge Filer appliance is new to Microsoft. Microsoft has redesigned the Avere FXT Edge Filer technology. It's the second product to be released to support high

performance caching from Avere—the first was the Avere vFXT, a virtual caching appliance, for Azure now available in the Azure Marketplace.

Two models allow you to select an appliance right for the workload, as both provide high-performance, low-latency access to file-based data supporting NFS and SMB as well as NAS solutions from NetApp and Dell EMC. The Azure FXT Edge Filers can also sit on-premises and access Azure Blob.

All **Azure FXT Edge Filer** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 5, 2019	In preview	Azure FXT Edge Filer is in public preview

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Data Box

Data Box Disk availability has recently been expanded in the Asia Pacific region, with availability also expanding to Japan and South Korea.

All **Data Box** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 10, 2019	Available	Azure Data Box Disk now available in Japan and Korea
June 26, 2019	Available	Azure Data Box Disk now available in Southeast Asia and Azure Government

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Web

App Service

[Azure App Service](#) enables you to build and host web apps, mobile back ends, and RESTful APIs in the programming language of your choice without managing

infrastructure. It offers autoscaling and high availability, supports both Windows and Linux, and enables automated deployments from GitHub, Azure DevOps, or any Git repo.

App Service recently introduced a free tier for Linux, making it easier than ever for developers to use popular frameworks including Node.js and Python on Azure. Alongside the free tier offering, App Service enhanced the platform’s build system to automatically handle pulling in package dependencies and running custom build scripts, while also substantially increasing build and deployment performance for Python and Node applications. With App Service now supporting all major Python versions, it provides a full featured PaaS platform for the Python community.

Once developers are up and running on App Service, security is frequently the next consideration. Virtual network integration is now available across the breadth of the App Service platform, with both Windows and Linux developers able to securely connect their apps to backend resources including those connected via Express Route. Applications can also secure inbound network traffic behind upstream devices or security providers with App Service’s new virtual network service endpoint integration.

All **App Service** updates from April 2019 to June 2019 are listed below. See all the latest [Azure updates](#).

Date	Status	Title
April 3, 2019	In preview	Public preview: Windows Server 2019 container support in Azure App Service
April 10, 2019	Available	App Service Migration Assistant for ASP.NET applications is now available
May 18, 2019		Azure App Service Basic, Standard, Premium v2 Plans Resource GUID change
May 24, 2019	Available	Java on App Service: Updates and Improvements available
May 28, 2019	In preview	Application Change Analysis for Azure Monitor is now in public preview
May 29, 2019	In preview	Azure App Configuration is now available in preview

June 28, 2019	Available	API Apps Icon Removed from Azure Marketplace Web category in the Azure Portal
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Azure SignalR Service

Azure SignalR Service is now available. It simplifies the process of adding real-time web functionality to applications over HTTP. This allows the service to push content updates to connected clients, such as a single page web or mobile application. As a result, clients are updated without the need to poll the server or submit new HTTP requests for updates.

Azure SignalR Service with ASP.NET now supports existing ASP.NET SignalR applications to scale real-time applications.

All Azure SignalR Service updates from April 2019 – June 2019 are listed below. See all the latest Azure updates .		
Date	Status	Title
May 6, 2019	Available	Azure SignalR Service support for ASP.NET is now available

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Appendix

Definitions	
Service	A stand-alone, consumable resource that's available for Azure subscribers in the portal and is defined as a service in the service tree. Once generally available, it will have its own dedicated SLA, metering (if not free), and status reporting.
Feature	A feature or capability of an Azure service that's surfaced in the portal only once the parent Azure service is selected. Service features come

	in many forms, including APIs, app types, features, or capabilities of a service.
Preview	A feature or service that's been publicly disclosed, and available to all of our customers. Feature and documentation complete. Suitable for limited production use cases, not backed by SLA guarantees, no technical support.
General availability (GA)	GA features/services are open to all customers. Pricing determined and announced. Starting to roll-out to various Azure regions all over the world. Considered stable and fully qualified for production use, backed by SLA guarantees.
Retirement	An Azure service or feature that's being decommissioned and is no longer available for new customers.
Region	A set of datacenters deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network.