Microsoft Azure

AZURE ANNOUNCEMENTS NEWSLETTER

Announcements Summary

DNS	Preview Features – 1 Update
IoT Central	General Availability – 1 Update
Kubernetes Service	General Availability – 2 Updates Preview Features – 4 Updates
Stream Analytics	Preview Features – 1 Update

Total Announcements: 9

Announcements Details

Azure Service: DNS

Preview Features

Azure DNS private resolver is a cloud-native, highly available, and DevOps-friendly service. It provides a simple, zero- maintenance, reliable, and secure Domain Name System (DNS) service to resolve and conditionally forward DNS queries from a virtual network, on-premises, and to other target DNS servers without the need to create and manage a custom DNS solution. Resolve DNS names hosted in Azure Private DNS Zones from on-premises networks as well as DNS queries for your own domain names. This will make your DNS infrastructure work privately and seamlessly across on-premises networks and enable key hybrid networking scenarios.

Announcement: https://docs.microsoft.com/azure/dns/?WT.mc_id=wwc-aces

Documentation: https://azure.microsoft.com/updates/public-preview-azure-dns-private-resolver-hybrid-name-resolution-and-conditional-forwarding/

Azure Service: IoT Central

General Availability

With this update comes the integration of Industrial Connectivity Partners - CloudRail and Omnio. With seamless integration for both greenfield and brownfield scenarios these partners are simplifying the connectivity of assets and the onboarding of data to the Azure Cloud via Azure IoT Central.

For each connectivity partner you can:

Watch a short demo
Watch an IoT show featuring the partner
Follow a connectivity tutorial
Read a blog about integration
Learn more by contacting the partner directly
Bring the page to life by flipping the 'Industrial IoT' toggle at the top of the home page. This experience brings together Industrial IoT (IIoT) learning resources such as architecture diagrams, documentation, and videos.

Announcement: https://apps.azureiotcentral.com/home/iiot

Documentation: https://azure.microsoft.com/updates/iotc-iiot-frontdoor/

Azure Service: Kubernetes Service

General Availability

AKS now supports deploying clusters with no pre-configured Container Network Interface (CNI) plugin. This facilitates use of almost any CNI plugin, whether open source or commercial, which allows you to maintain the same CNI across clusters both in and out of Azure or utilize features from other plugins to enable specific configurations you may require.

Announcement: https://docs.microsoft.com/azure/aks/use-byo-cni?WT.mc_id=wwc-aces

Documentation: https://azure.microsoft.com/updates/generally-available-bring-your-own-container-network-interface-plugin/

General Availability

The Open Service Mesh (OSM) extension is a managed service mesh for Arc-enabled Kubernetes clusters that is lightweight and extensible. It can be configured with Service Mesh Interface APIs, works by injecting envoy proxy as a sidecar to each application instance, and brings a new Azure Portal experience for onboarding. Open Service Mesh covers some of the core features of a service mesh including:

mTLS traffic encryption between microservices
Traffic splitting for canary and blue/green deployments
Fine grained access control policies for microservices communicating over HTTP, TCP, and gRPC
Observability for application performance
Traffic control for ingress with various tools such as Contour
Progressive delivery with Flagger

Announcement: https://docs.microsoft.com/azure/azure-arc/kubernetes/tutorial-arc-enabled-open-service-mesh?WT.mc_id=wwc-aces

Documentation: https://azure.microsoft.com/updates/generally-available-open-service-mesh-extension-for-azure-arc/

Preview Features

HostProcess containers (also referred to as privileged containers) extend the Windows container model to enable a wider range of Kubernetes cluster management scenarios. HostProcess containers run directly on the host and maintain behavior and access similar to that of a regular process.

Announcement: https://docs.microsoft.com/azure/aks/use-windows-hpc?WT.mc_id=wwc-aces

Documentation: https://azure.microsoft.com/updates/public-preview-hostprocess-containers/

Preview Features

AKS now supports Key Management System (KMS) plugin integration which enables encryption at the rest of your Kubernetes data in etcd using Azure Key Vault. You can now store secrets in bring your own key (BYOK) encrypted etcd using KMS.

KMS Plugin for Key Vault is the recommended choice for using a third-party tool for key management. KMS plugin simplifies key rotation, with a new data encryption key (DEK) generated for each encryption, and key encryption key (KEK) rotation controlled by the user.

Features:

Use a key in Key Vault for etcd encryption
Bring your own keys
Provide encryption at rest for secrets stored in etcd

Announcement: https://kubernetes.io/docs/tasks/administer-cluster/kms-provider/

Documentation: https://azure.microsoft.com/updates/public-preview-key-management-system-integration/

Preview Features

AKS now supports the creation of Private Link Service (PLS) to Kubernetes service objects via annotations. Add the appropriate PLS annotation(s) to the service manifest file which also has an annotation of azure-load-balancer-internal and service type of LoadBalancer. This simplifies PLS creation as you will no longer have to hunt down the Azure Load Balancer IP configuration associated with the Kubernetes service to create the PLS. Instead, AKS will provision the PLS resource with the Kubernetes service.

The PLS resource can also be created and associated to a Kubernetes service after the service has been provisioned by simply adding the PLS annotation to the service manifest file.

Announcement: https://kubernetes-sigs.github.io/cloud-provider-azure/development/design-docs/pls-integration/

Documentation: https://azure.microsoft.com/updates/public-preview-aks-private-link-service-integration/

Preview Features

With the new Container Storage Interface (CSI) extensible API, you can now disable and enable any of the AKS supported CSI drivers (disk, files).

Announcement: https://docs.microsoft.com/azure/aks/csi-storage-drivers?WT.mc_id=wwc-aces

Documentation: https://azure.microsoft.com/updates/public-preview-container-storage-interface-extensible-api-for-aks/

Azure Service: Stream Analytics

Preview Features

Stream Analytics now allows you to use managed identities as an authentication mode when connecting to Azure Cosmos DB and Azure Service Bus. You can use either System-Assigned Managed Identity or your own User-Assigned Managed Identity when authenticating. This solves a common challenge when building cloud applications related to credential management. Keeping the credentials secure is important and shouldn't be stored in developer workstations or checked into source control.

Announcement: https://docs.microsoft.com/azure/stream-analytics/cosmos-db-managed-identity?WT.mc_id=wwc-aces

Documentation: https://azure.microsoft.com/updates/cosmosdb-servicebus-asami/