



Microsoft Adaptive cloud

Azure Arc Jumpstart - get going fast

.



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Jan Egil Ring
Cloud Solution Architect
Microsoft

Microsoft Adaptive Cloud Momentum



Gartner

Magic Quadrant Distributed Hybrid Infrastructure



Gartner

Source

Microsoft Azure



Single control plane with Azure Arc

Infrastructure

Connect and operate hybrid resources as native Azure resources

Azure Arc-enabled infrastructure



Arc Server



K8s



Windows



SQL Server



SQL DB



PostgreSQL



Web Apps



Functions



Logic Apps



Machine Learning

Services

Deploy and run Azure services outside of Azure while still operating it from Azure

Azure Arc-enabled services



Multi-cloud



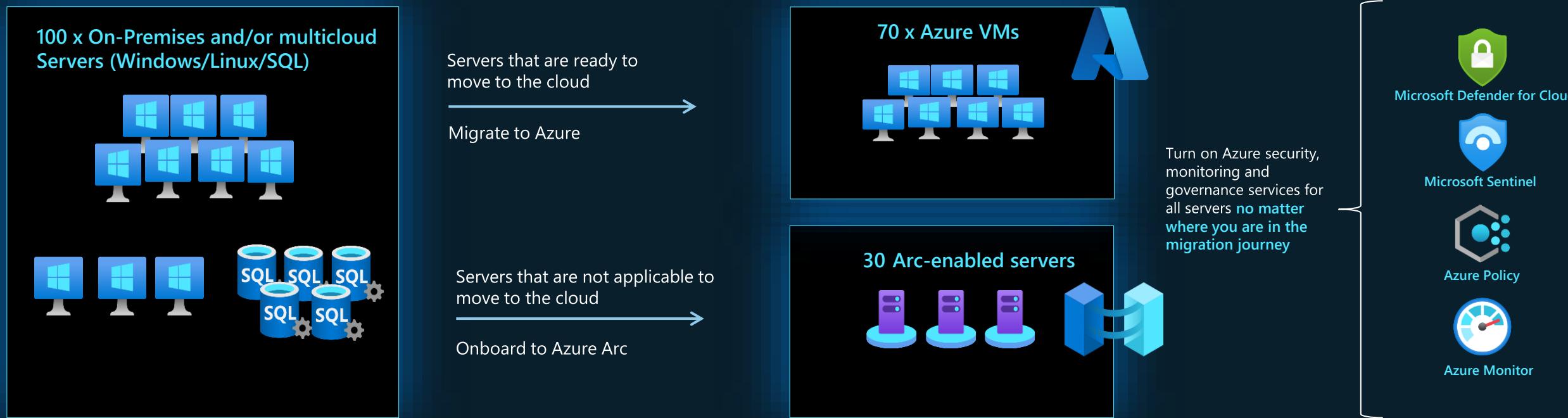
Datacenter



Edge

Migrate and Modernize to Azure on your own terms

Azure Arc helps you consistently secure and govern infrastructure across hybrid environments as you migrate and modernize.





Fabrikam Azure Tenant



Azure Arc-enabled infrastructure & services



Azure Arc



Bare-Metal Servers Windows & Linux Servers Kubernetes Bare-Metal / VM



Azure Arc SQL Server Azure Arc SQL Managed Instance Azure Arc PostgreSQL Hyperscale

Azure Arc Data Controller

Fabrikam On-Premises Datacenter



Fabrikam Multi-Cloud Workloads

Arc Jumpstart

Extensive. Automated. Open-Source. Community Driven.



aka.ms/ArcJumpstart

Arc Jumpstart mission

The Arc Jumpstart is designed to provide a “[zero to hero](#)” experience so you can start working with Azure Arc right away!

The Jumpstart provides [step-by-step guides](#) for independent Azure Arc scenarios that incorporate [as much automation as possible](#), detailed screenshots and code samples, and a [rich and comprehensive experience](#) while getting started with the Azure Arc platform.

Our mission is for you to have a working Azure Arc environment spun-up in no time so the user can [focus on the core values of the platform](#), regardless of where your infrastructure may be, either on-premises or in the cloud.

The Jumpstart universe

Jumpstart
Scenarios



Jumpstart
ArcBox



Jumpstart
LocalBox



Jumpstart
Agora



Jumpstart
Drops



Docs



YouTube



Open source



Demos



Diagrams



Community

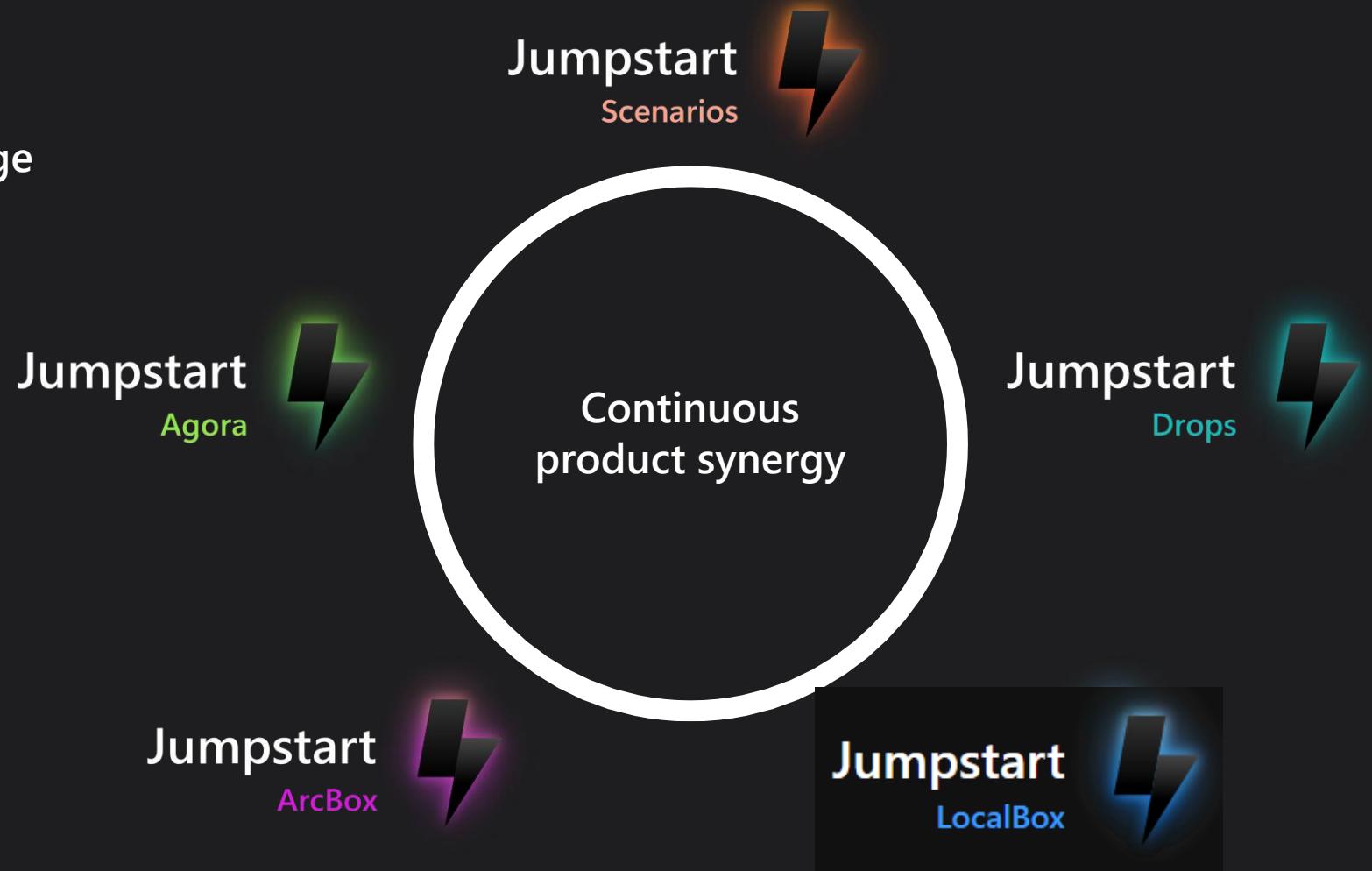


Arc Jumpstart – Why it was created?

- Azure Arc is unique, encompasses many aspects of Azure management
- Documentation of other platforms/clouds architecture/implementation non-existent
- Self sufficient scale enablement accelerator for Microsoft sellers and partners
- Community enabler
- Simplified product implementation experience relative to Microsoft Docs (MSLearn)

Jumpstart engineering principles

- User never fail mentality
- Where possible, automate all things
- Modular-first approach
- Attention to details
- Embracing open-source
- Public Preview and GA products usage



Arc Jumpstart – Committed to open-source



Demo

aka.ms/ArcJumpstart

Jumpstart
ArcBox



Fully automated Azure Arc sandbox

Arc Jumpstart – ArcBox use cases

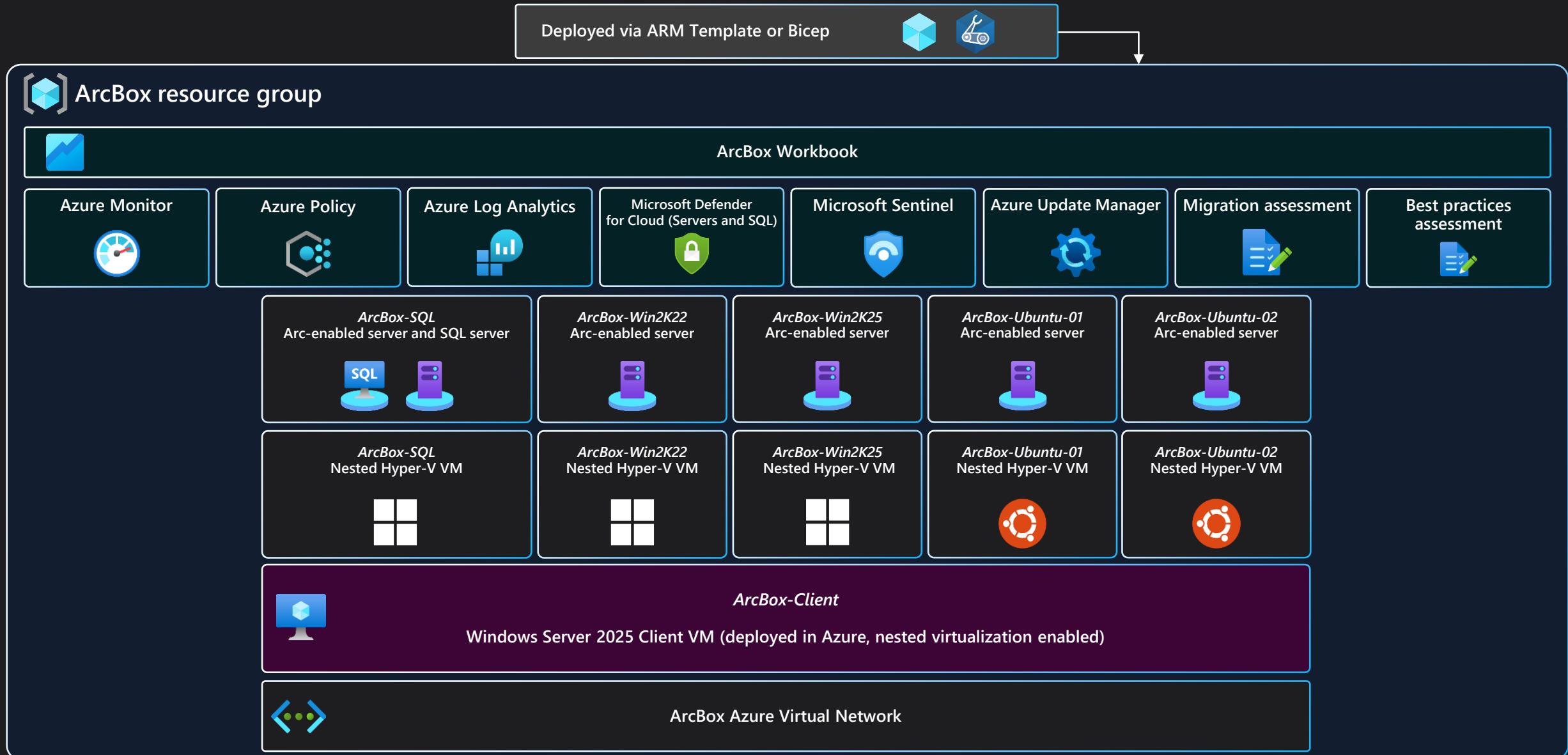
- Sandbox environment for getting hands-on with Azure Arc
- Accelerator for Proof-of-concepts or pilots
- Used as the reference implementation for Azure Arc Landing Zone Accelerators
- Training tool for Azure Arc skills development
- Demo environment for customer presentations or events
- Rapid integration testing platform

Arc Jumpstart – ArcBox flavors

ArcBox comes in multiple “flavors”, or configurations, which can be selected to best suit your needs. Currently, the available flavors are:

- [ArcBox for IT Pros](#) ArcBox for IT Pros focuses specifically on Arc-enabled servers and SQL Server enabled by Azure Arc functionality.
- [ArcBox for DevOps](#) ArcBox for DevOps focuses specifically on Azure Arc-enabled Kubernetes and the experience for DevOps engineers.
- [ArcBox for DataOps](#) ArcBox for DataOps focuses specifically on SQL Server enabled by Azure Arc and Arc-enabled SQL Managed Instance.

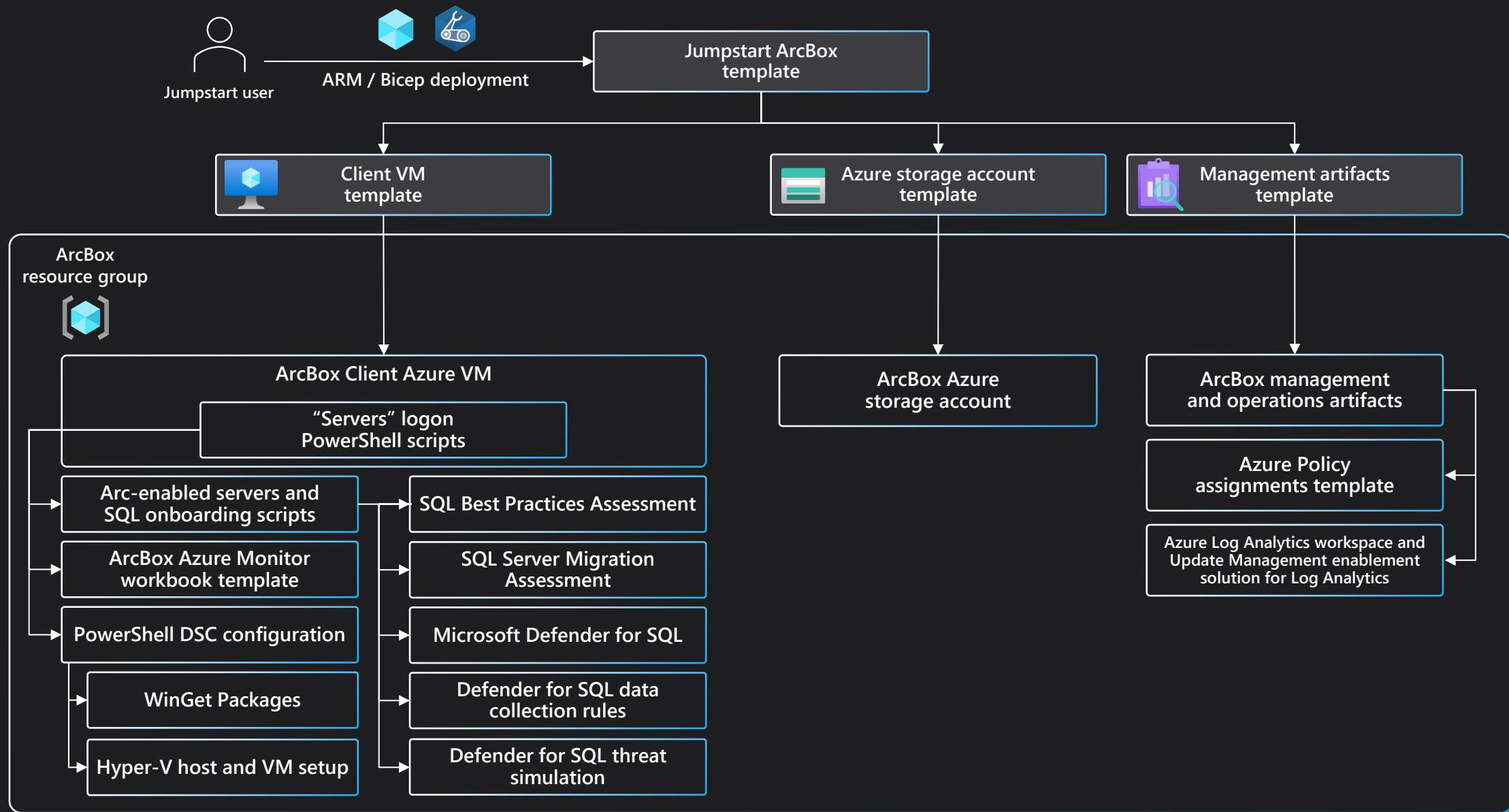
Arc Jumpstart – ArcBox ITPros architecture



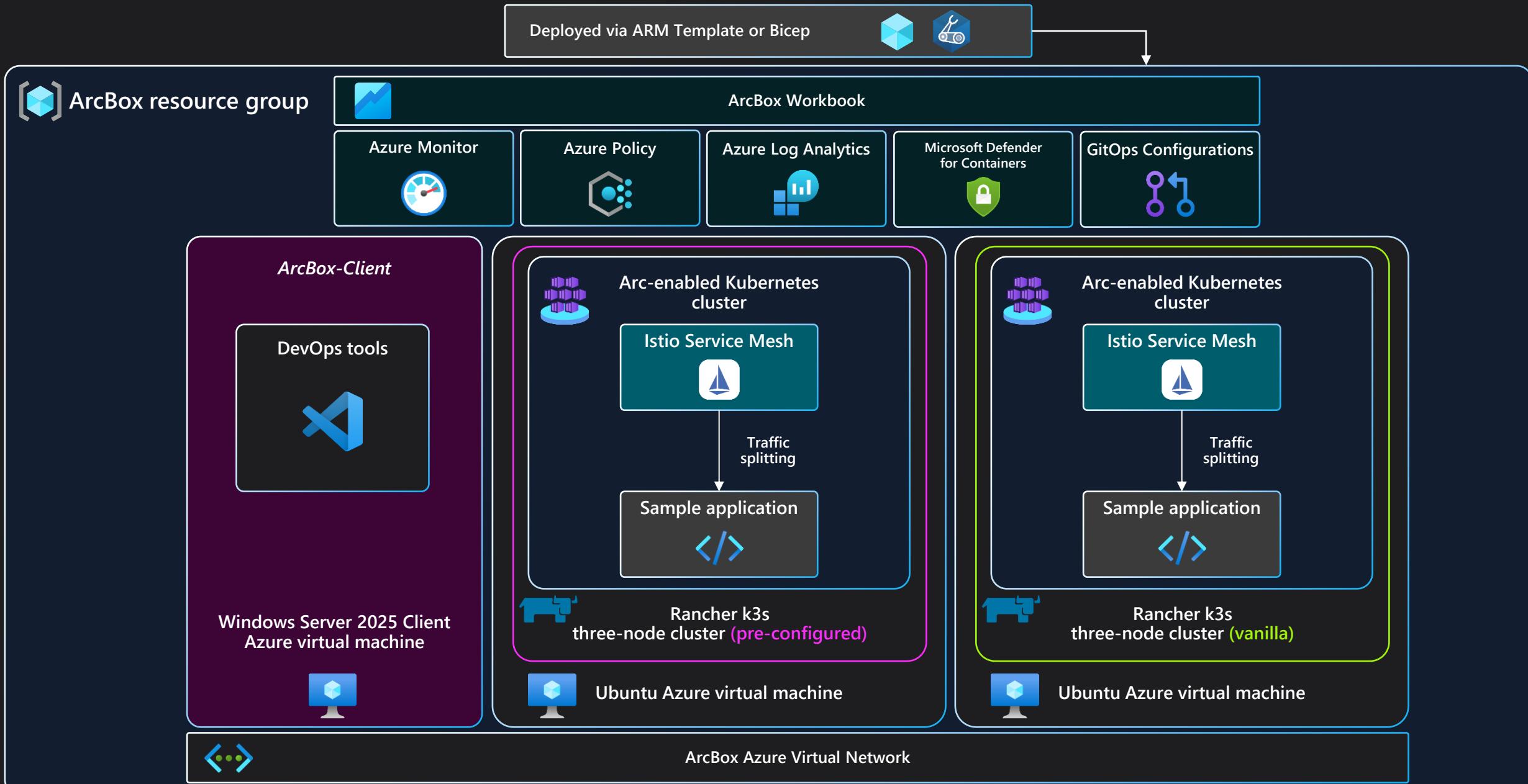
Demo

ArcBox deployment & usage

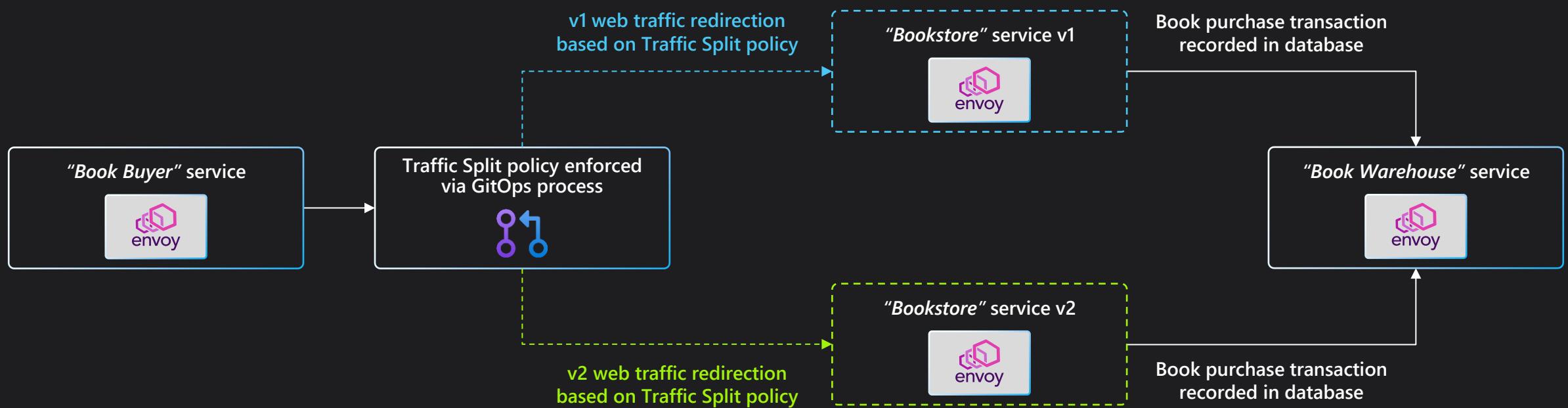
Arc Jumpstart – ArcBox ITPros ARM/Bicep deployment automation flow



Arc Jumpstart – ArcBox DevOps architecture



Arc Jumpstart – ArcBox DevOps “Bookstore” Service Mesh architecture

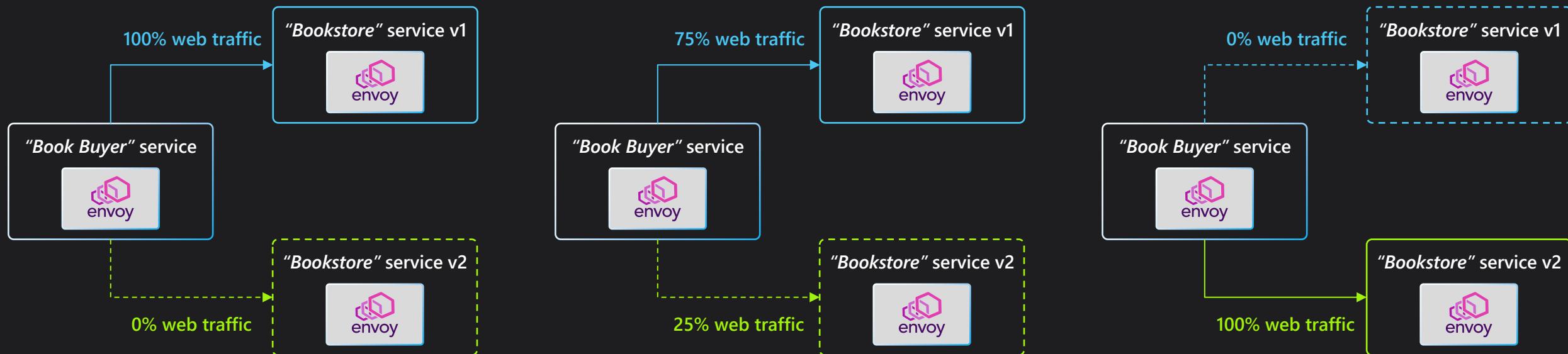


Arc Jumpstart – ArcBox DevOps “Bookstore” Service Mesh Interface (SMI) Traffic Split (Blue/Green)

v1 in production

v1 in production / v2 integration tests

v2 in production

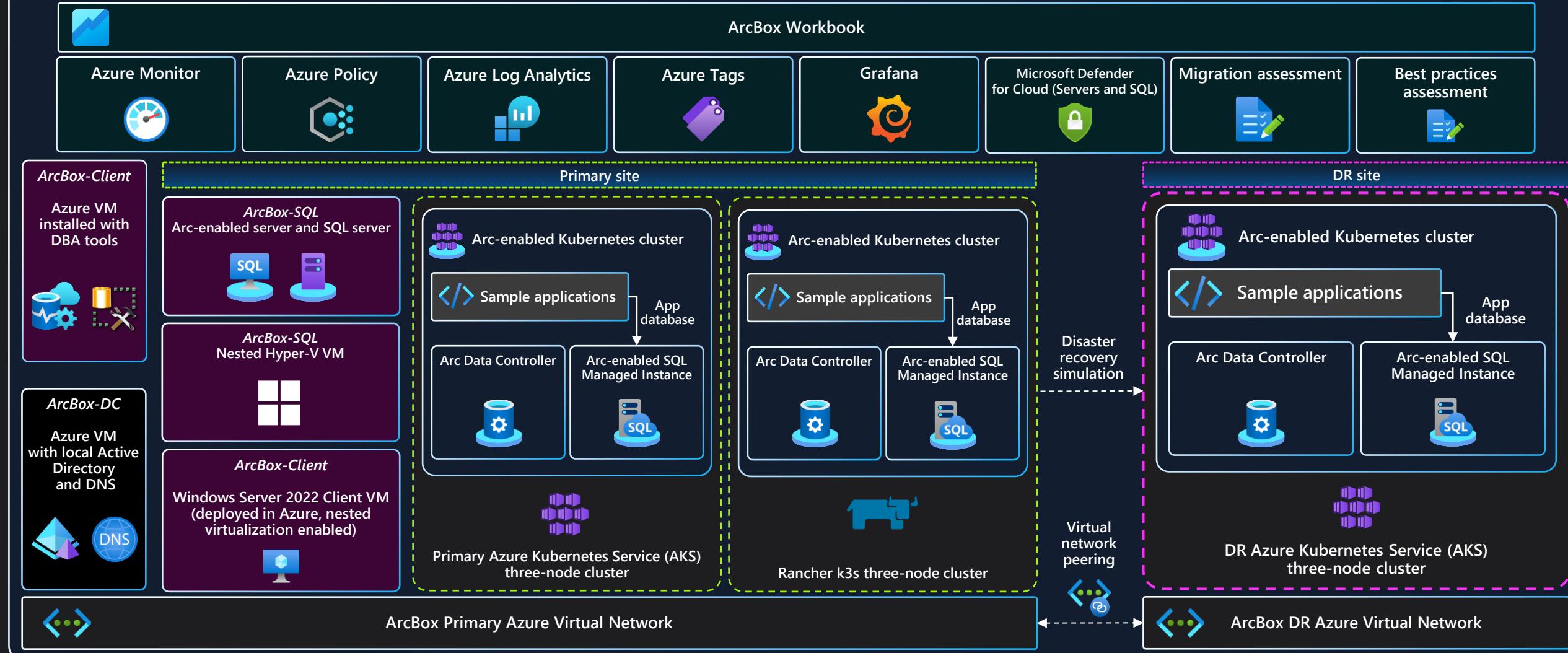


Arc Jumpstart – ArcBox DataOps architecture

Deployed via ARM Template or Bicep



ArcBox resource group



Jumpstart
LocalBox



Fully automated Azure Local sandbox

Azure Local replaces Azure Stack HCI



Consistent software platform, Portal, and APIs



Low-spec, low-cost edge servers

Simpler, smaller hardware for light computing requirements.

NEW PREVIEW



Connected servers (formerly Azure Stack HCI)

Choose from over 100 hyperconverged server platforms from major OEMs.

✓ GA



Disconnected operations

Meet strict data residency regulations with a permanently disconnected option.

NEW PREVIEW

Existing customers of Azure Stack HCI will transition seamlessly to Azure Local with the next software update.

Hello Jumpstart community and fellow HCIBox enthusiasts,

Jumpstart HCIBox is the flagship sandbox for exploring Azure Local without requiring physical hardware. **Azure Local is the new name for what was known as Azure Stack HCI.**

Due to the rename, the Jumpstart team is considering options for renaming HCIBox to reflect the Azure Local name change.

We have identified several candidates, none of which are our favorite yet. We'd love your help in selecting the new name to replace HCIBox. Let us know your thoughts with a poll vote or in the comments.

Thanks!

Results: What should the new name for HCIBox be?

LocalBox

85%

LocBox

15%

LocalKit

0%

LocalDevKit

0%



mgodfre3 last week

Jumpstart-AzureLocalaaB (as a Box?)



lucacopilot last week

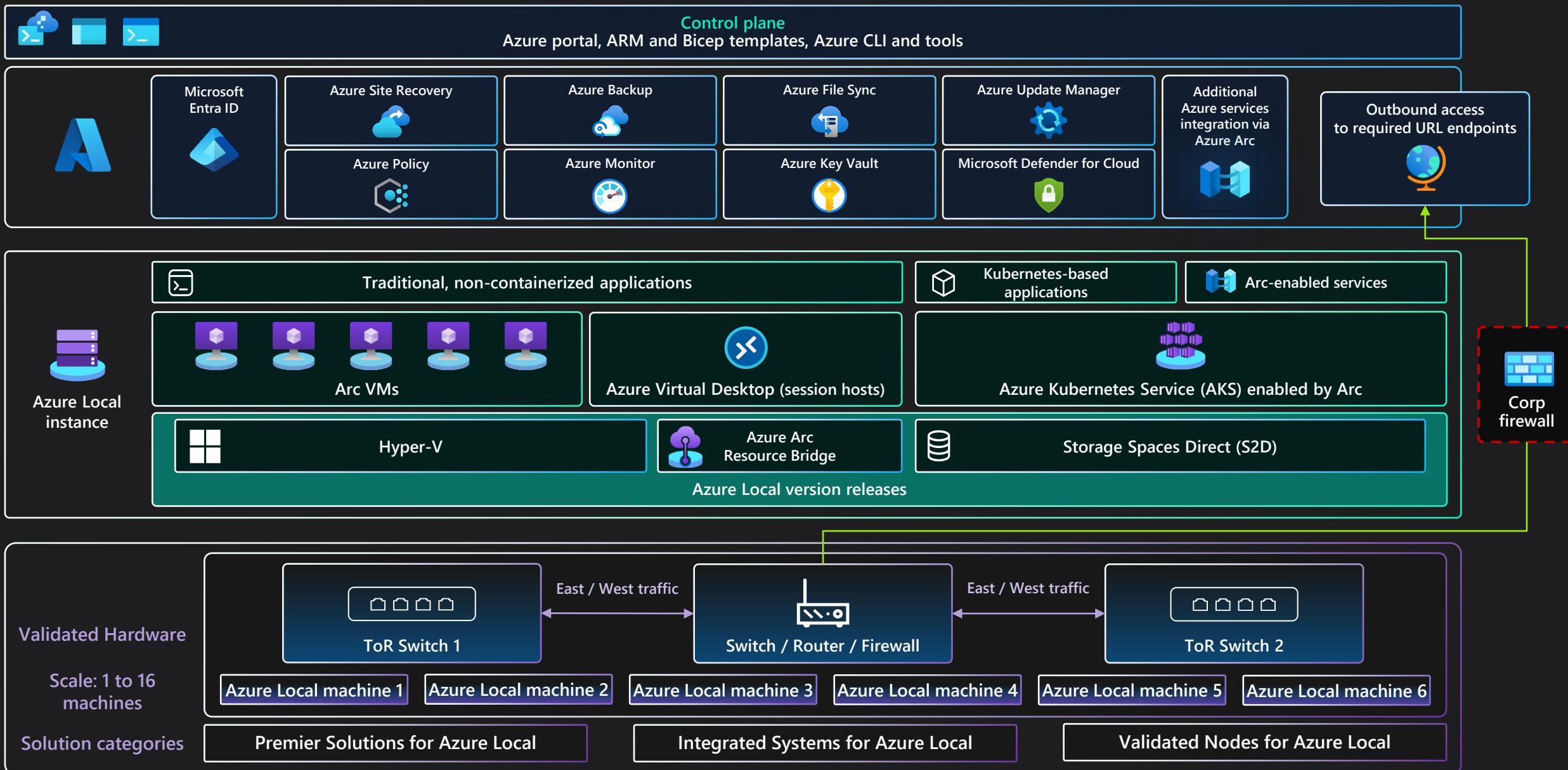
AzLocalBox
or
AzureLocalBox



Jumpstart
Local



Azure Local – Solution reference architecture

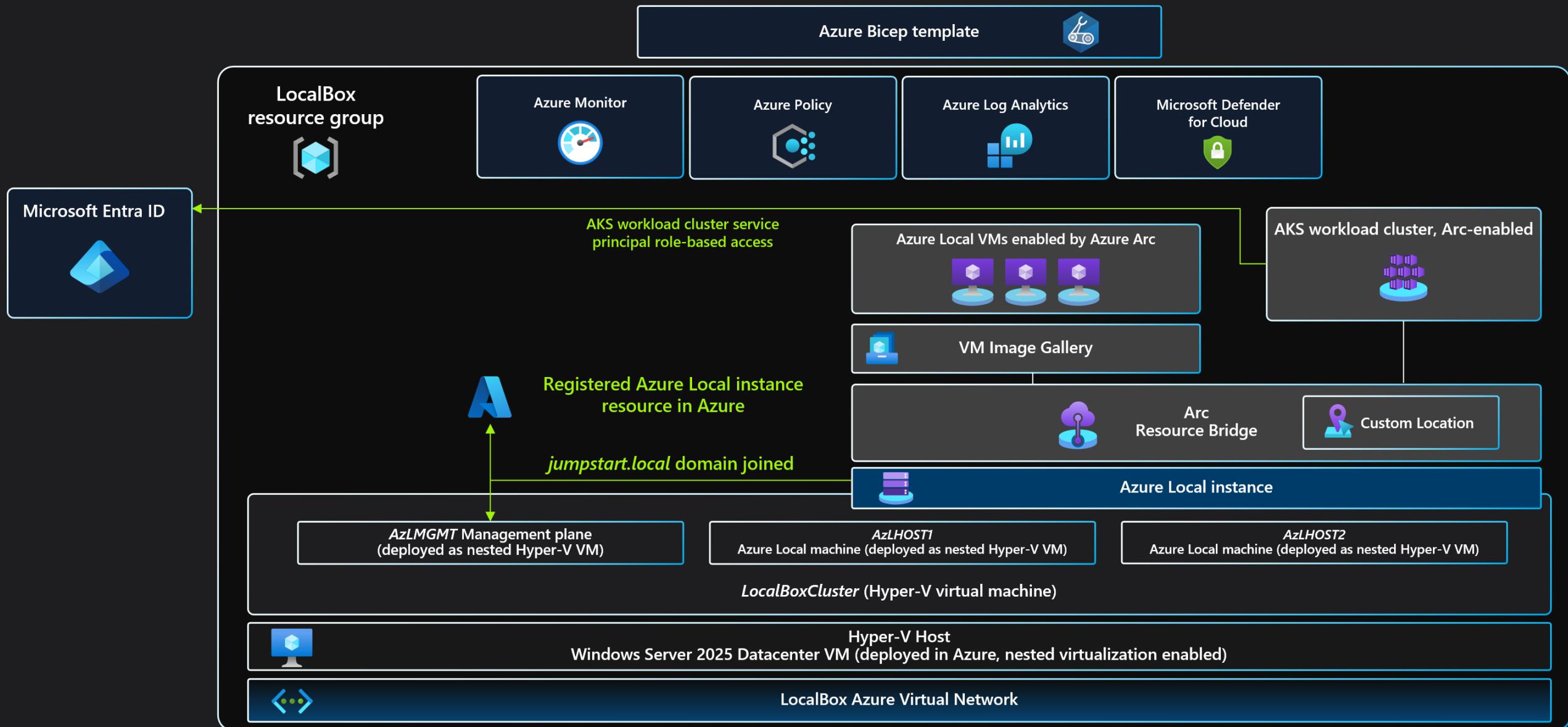


- Numerous Azure Local lab guides at varying levels of completeness or quality
- Lack of end-to-end automation to deploy Azure Local with integrated Azure Arc services
- Need to provide partners and customers with a complete sandbox for testing and training
- Need for faster times to test/POC without waiting for hardware procurement or other delays
- Laying the ground for future Azure Local Landing Zone Accelerator

Arc Jumpstart – LocalBox use cases

- Sandbox environment for getting hands-on with Azure Local without the need for physical hardware
- Accelerator for Proof-of-concepts or pilots
- Training tool for Azure Local and hybrid Arc skills development
- Demo environment for customer presentations or events
- Rapid integration testing platform

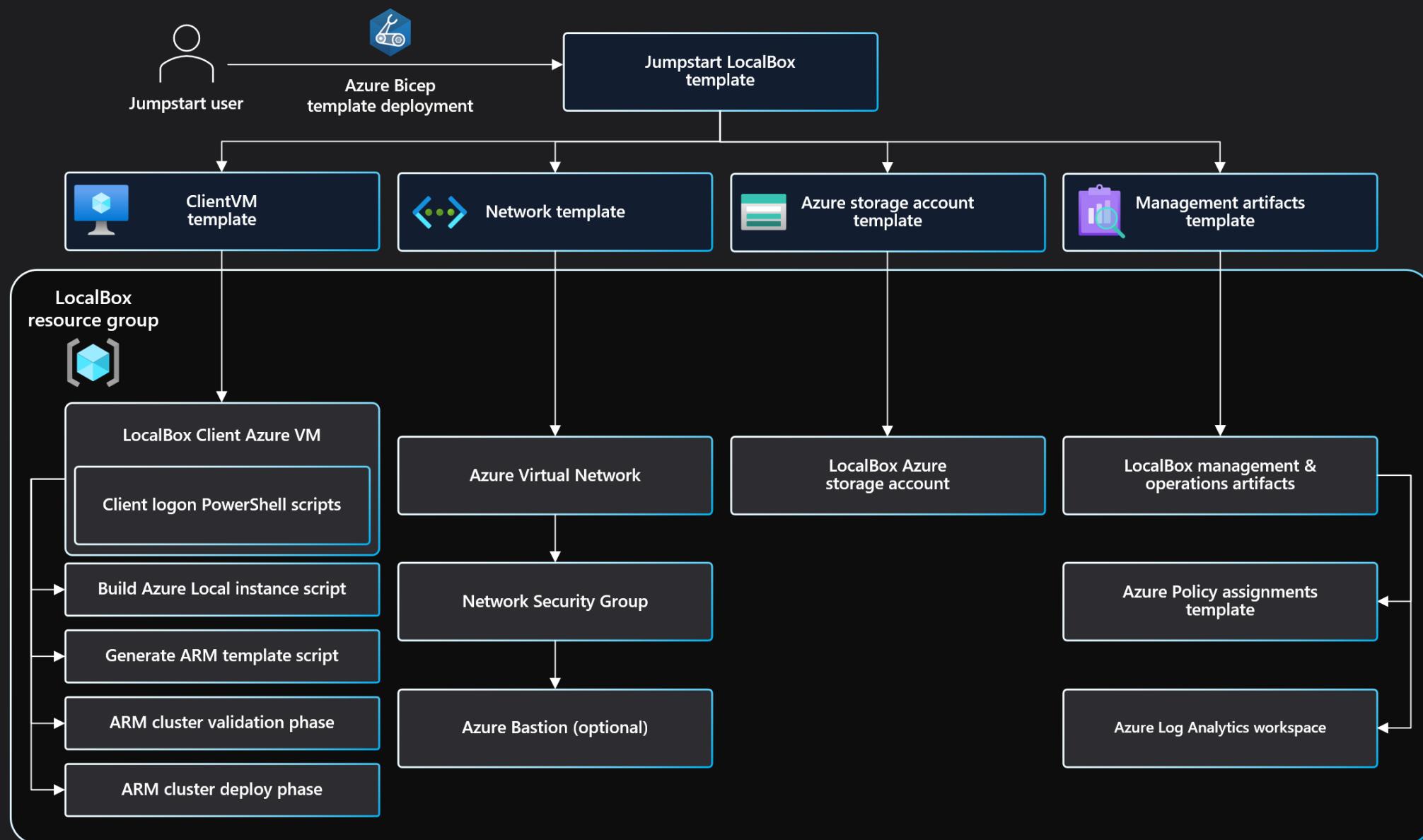
Arc Jumpstart – LocalBox architecture



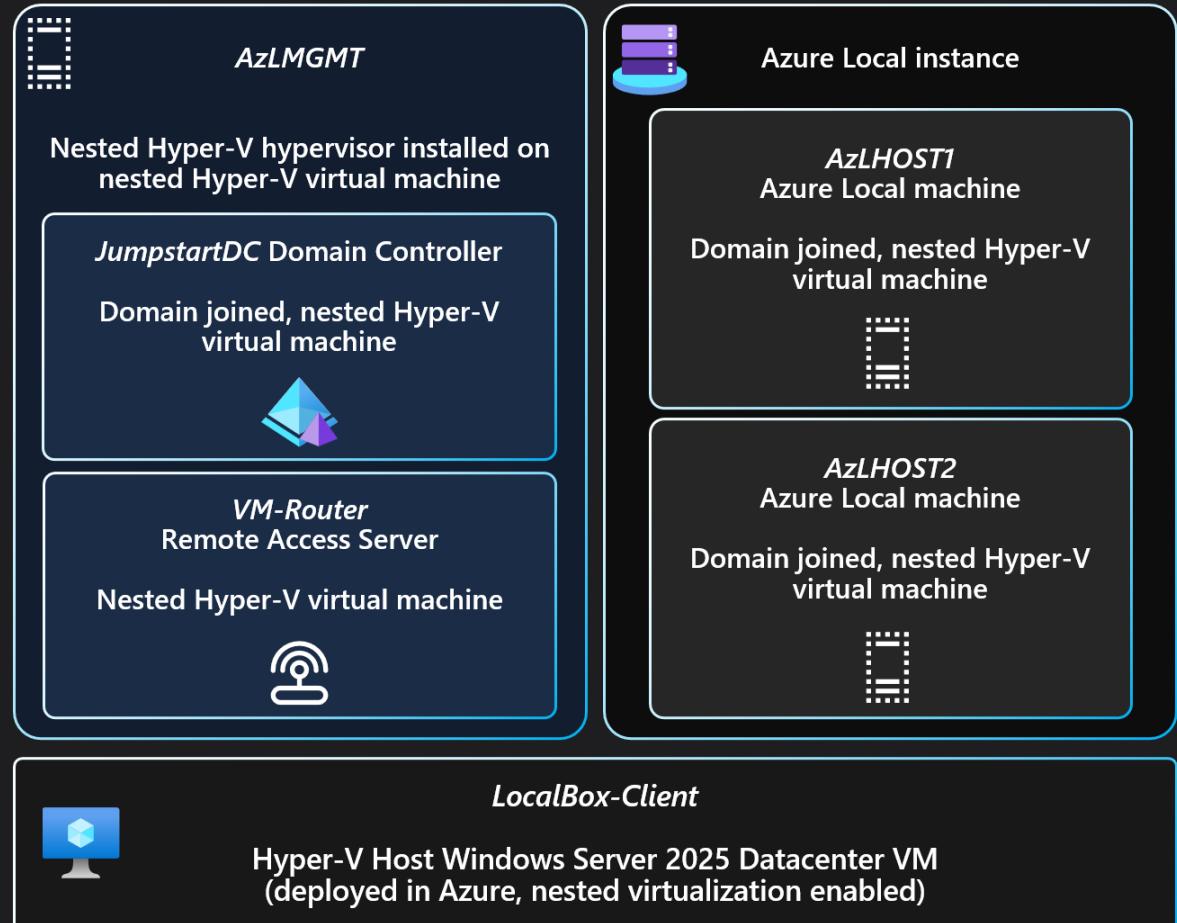
Demo

LocalBox

Arc Jumpstart – LocalBox Bicep deployment automation flow



Arc Jumpstart – LocalBox Nested virtualization architecture



Deploy Azure Local using local identity with Azure Key Vault (preview)

Article • 03/11/2025 • 3 contributors

↳ Feedback

In this article

[Overview](#)

[Benefits](#)

[Prerequisites](#)

[Configure DNS server for Azure Local](#)

[Deploy Azure Local via the portal using local identity](#)

[Post-deployment steps](#)

PRODUCT BACKLOG ITEM 2148

2148 Deploy LocalBox using local identity with Azure Key Vault

 Jan Egil Ring 0 Comments HCI LocalBox +

State	<input checked="" type="radio"/> Backlog	Area	ACX Evaluation and Community Enablement\Jumpstart Engineering
Reason	 Moved to state Backlog	Iteration	ACX Evaluation and Community Enablement\CY25H1

Description

Add support for the *Azure Local using local identity with Azure Key Vault* deployment option.

Phase 1: Evaluate and assess how the architecture will look like. The DC can be removed, but also assess whether we can skip the MGMT and Router VM in order to lower ~~hw~~-requirements for deploying on SFF.

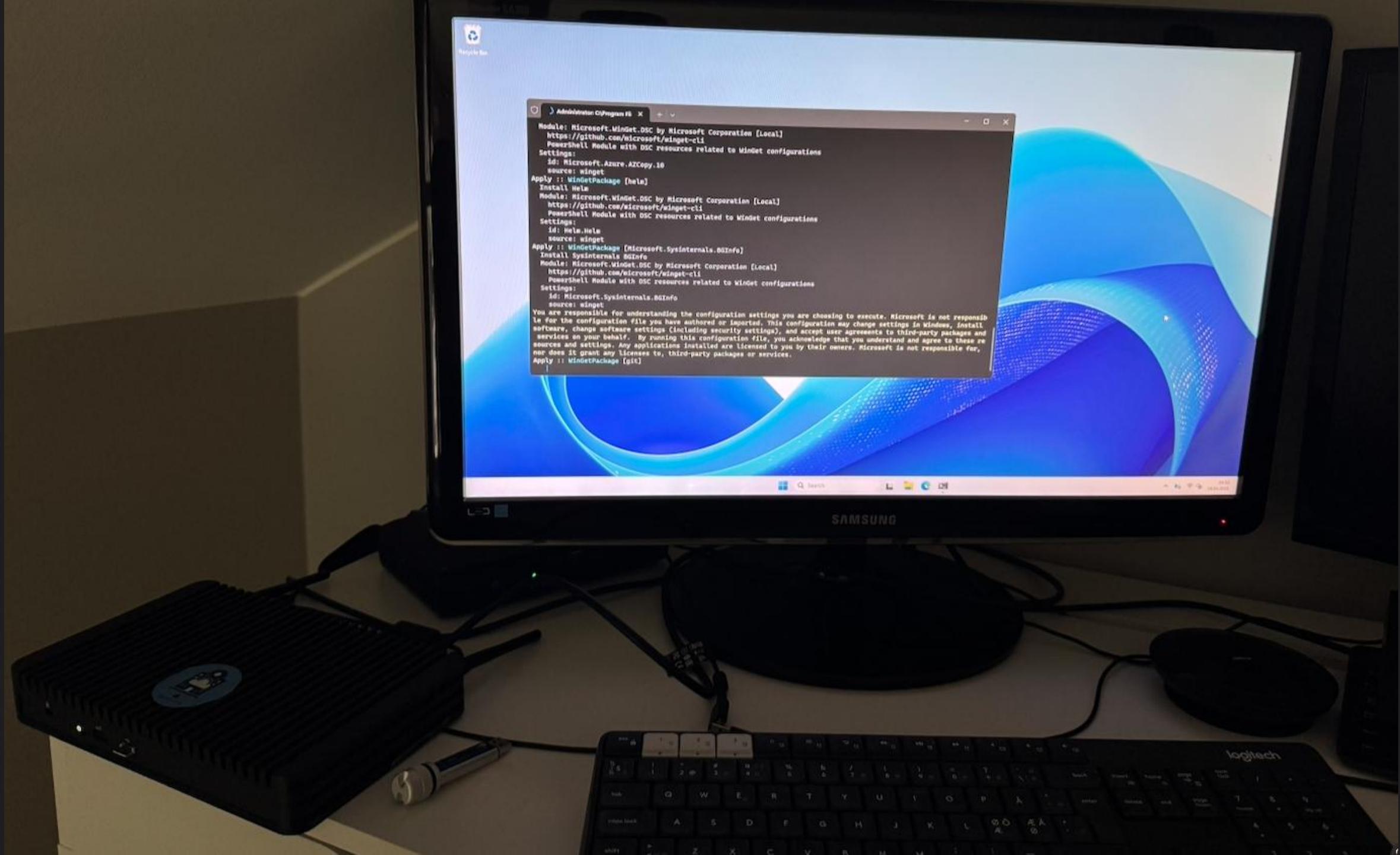
Phase 2: Implementation of automation in feature-branch.

Phase 3: Documentation and release.

Jumpstart LocalBox 25H2 roadmap

- Support for LocalBox Client VM and Azure Local cluster in separate regions
- Azure Spot VM support  
- Remove service principal dependency and transition to Managed Identity (coming soon!)
- netsh NAT mappings for easier access to nested VMs on Azure Local cluster
- Graceful shutdown
- Dedicated PowerShell modules

```
Administrator: C:\Windows\system32\WindowsPowerShell\v1.0\> winget install -e Microsoft.Winget.DSC Microsoft.Winget.DSC --source winget
Module: Microsoft.Winget.DSC by Microsoft Corporation [Local]
  https://github.com/microsoft/winget-cli
  PowerShell Module with DSC resources related to Winget configurations
Settings:
  id: Microsoft.Azure.AZCopy.10
  source: winget
Apply :: WingetPackage [helm]
Install Helm
Module: Microsoft.Winget.DSC by Microsoft Corporation [Local]
  https://github.com/microsoft/winget-cli
  PowerShell Module with DSC resources related to Winget configurations
Settings:
  id: Helm.Helm
  source: winget
Apply :: WingetPackage [Microsoft.Sysinternals.BGInfo]
Install Sysinternals BGInfo
Module: Microsoft.Winget.DSC by Microsoft Corporation [Local]
  https://github.com/microsoft/winget-cli
  PowerShell Module with DSC resources related to Winget configurations
Settings:
  id: Microsoft.Sysinternals.BGInfo
  source: winget
You are responsible for understanding the configuration settings you are choosing to execute. Microsoft is not responsible for the configuration file you have authored or imported. This configuration may change settings in Windows, install software, change software settings (including security settings), and accept user agreements to third-party packages and services on your behalf. By running this configuration file, you acknowledge that you understand and agree to these resources and settings. Any applications installed are licensed to you by their owners. Microsoft is not responsible for, nor does it grant any licenses to, third-party packages or services.
Apply :: WingetPackage [git]
```



April 2025

Release highlights

- Jumpstart and the new [Azure.Arc.Jumpstart.Common](#) PowerShell module is now part the [PowerShell Gallery](#). See [annoucment](#) from the team.
- New Jumpstart Drop: [Arc Insights PBI Dashboards Powered by Jumpstart](#)
- Total of 4 new Jumpstart Drops in the release
- All ArcBox OS images updated with latest patch level
- ArcBox bug fixes and documents update
- HCIBox improvements for VM lifecycle
- Telemetry enhancements
- [New Arc Jumpstart video training series](#)

Jumpstart ArcBox

- Bug / Issue: Unable to start ArcBox-Client HyperV servers - ARC Jumpstart ITPro install #3143
- Bug / Issue: SQLQueryStress broken URL #3145
- Feature Request: Add GUIDs for JS Telemetry #3136
- Docs Feature: Move ArcBox parameters into table #679

Jumpstart HCIBox

- Feature Request: Missing provider requirement #3138
- Feature Request: Support StandardE32sv6 in HCIBox #3140
- Feature Request: Add GUIDs for JS Telemetry #3136

Jumpstart Agora

- Bug / Issue: Contoso Supermarket Scenario Uses Unsupported Kubernetes Version #3174
- Feature Request: Add GUIDs for JS Telemetry #3136
- Bug / Issue: Contoso Motors - define InfluxDB Admin password & comment deployGPUNodes #3180
- Bug / Issue: Agora base image credentials not aligned to the JS OS images baseline #3191

Jumpstart Scenarios

- Bug / Issue: StorageProfile is not accepted value for agentPoolProfiles in AKS under Jumpstart ML Scenario #3170
- Feature Request: Azure Arc-enabled data services - April release #3181
- Docs Feature: Update PowerShell version and PowerShell module versions in the Automanage Machine Configuration custom configuration scenarios #678

Jumpstart Drops

- New: [Arc Insights PBI Dashboards Powered by Jumpstart](#)
- New: [Azure Arc Connectivity Check](#)
- New: [Azure Arc SQL Tags Inheritance](#)
- New: [Graph User Photo Sync Automation](#)

Jumpstart SDK

- Feature Request: Add [Azure.Arc.Jumpstart.Common](#) module #66

Jumpstart Lightning

- [Arc Jumpstart video training series](#)
- [Arc SQL Best Practices Assessment | SHOULD YOU?](#)

Arc Insights PBI Dashboards Powered by Jumpstart

Arc Insights PBI Dashboards Powered by Jumpstart

by [Mark Jones](#) | [View on Github](#)

Last updated April 21, 2025

Overview

Arc Insights PBI Dashboards Powered by Jumpstart

The Arc Insights Power BI (PBI) dashboards provides users with a single pane of glass insights and visualizations for your servers, enabled by Arc or as Azure virtual machines. The dashboard covers a range of scenarios including Server Inventory, SQL Instances on Virtual Machines, SQL Databases on virtual machines and Extended Security Update (ESU) cost forecasting. With the Arc Insights PBI Dashboards Powered by Jumpstart, you have a **rich set of Dashboards about your Arc connected estate, available in minutes, not weeks**, which can then be customized to suit your individual requirements. Using Power BI over Azure out-of-the-box dashboards provides several benefits to users which include:

1. Power BI provides a platform to visualize and share your IT Infrastructure with users, without the need for Azure portal access.
2. Power BI has a rich programming language allowing for more advanced queries and joining of datasets that sit outside Azure.
3. Power BI has numerous visualization options to build feature-rich dashboards. The Arc Insights Power BI Dashboards utilize the Power BI connector for Azure Resource Graph, which connects the dashboards to your Azure subscription(s), visualizing all your servers, whether

[Jumpstart Drop](#)



Arc Jumpstart | Server Inventory

Location

Arc	Azure
-----	-------

Subscription

All	▼
-----	---

Resource Group

All	▼
-----	---

Server Name

All	▼
-----	---



Total Servers

15

Cores

27

Memory (GB)

57



Azure Servers

3

Cores

11

Memory (GB)

44



Arc Servers

12

Cores

16

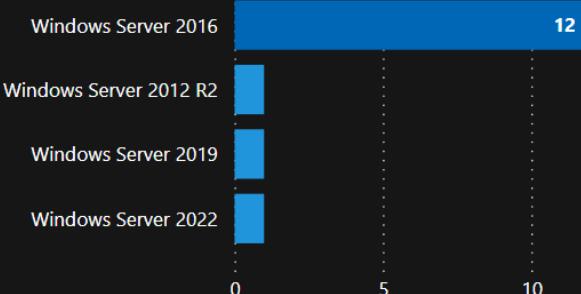
Memory (GB)

13

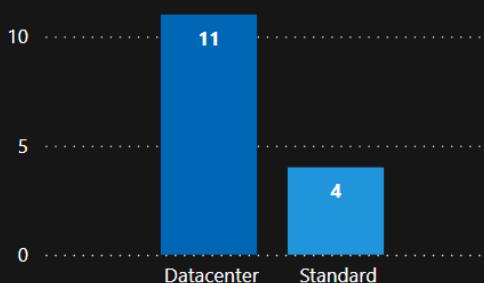
100%

Arc SQL
Extensions
Installed

Operating System Versions



Operating System Editions



Arc Provisioning State

● Succeeded



Arc Agent Version

● 1.47.02843.1892 ● 1.48.02881.1941



Name	Type	Resource Group	Cores	Memory(GB)	SQL Detected	OS Version	AzureSKU
FS01	Arc	Demo-ArcResource	1	1	false	6.3.9600.21620	Unknown
SQL01	Arc	Demo-ArcResource	4	2	true	10.0.14393.7785	Unknown
SQL02	Arc	Demo-ArcResource	2	1	true	10.0.14393.2248	Unknown
SQL03	Arc	Demo-ArcResource	1	1	true	10.0.14393.0	Unknown
SQL04	Arc	Demo-ArcResource	1	1	true	10.0.14393.0	Unknown
SQL05	Arc	Demo-ArcResource	1	1	true	10.0.14393.0	Unknown
SQL06	Arc	Demo-ArcResource	1	1	true	10.0.14393.7428	Unknown
SQL07	Arc	Demo-ArcResource	1	1	true	10.0.14393.0	Unknown
SQL08	Arc	Demo-ArcResource	1	1	true	10.0.14393.0	Unknown
SQL09	Arc	Demo-ArcResource	1	1	true	10.0.14393.0	Unknown
SQL10	Arc	Demo-ArcResource	1	1	true	10.0.14393.0	Unknown
vm-ArchHostServer	Azure	demo-ar	8	32	Unknown	10.0.20348.3328	Standard_D8s_v3
vm-FS01	Azure	demo-sqlvm	1	4	Unknown	10.0.14393.7876	Standard_DS1_v2
vm-SQL11	Azure	demo-sqlvm	2	8	Unknown	10.0.17763.7136	Standard_D2s_v3
WEB01	Arc	Demo-ArcResource	1	1	false	10.0.14393.5717	Unknown
Total			27	57			

Server Status

● Disconnected ● Connected ● VM running ● Expired

Disconnected			Connected		VM running
SQL03			SQL06	SQL07	FS01
SQL04			SQL08		SQL01
SQL05			SQL09		vm-Archos...
					vm-FS01
					vm-SQL11
					Expired

Jumpstart Homepage



Arc Jumpstart | SQL Inventory

Location

Arc

Azure

Subscription

All

Resource Group

All

Server Name

All

▼



Total SQL Instances

12

Cores

18

Memory (GB)

21



Azure SQL Instances

1

Cores

0

Memory (GB)

8



Arc SQL Instances

11

Cores

18

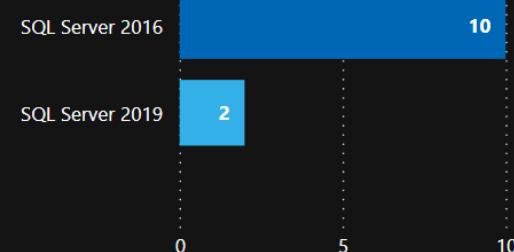
Memory (GB)

13

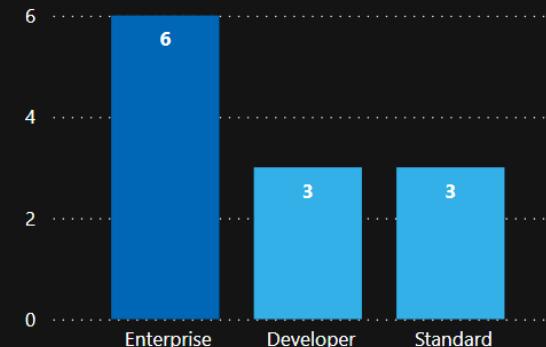
16.67%

Instances
within Patch
Window

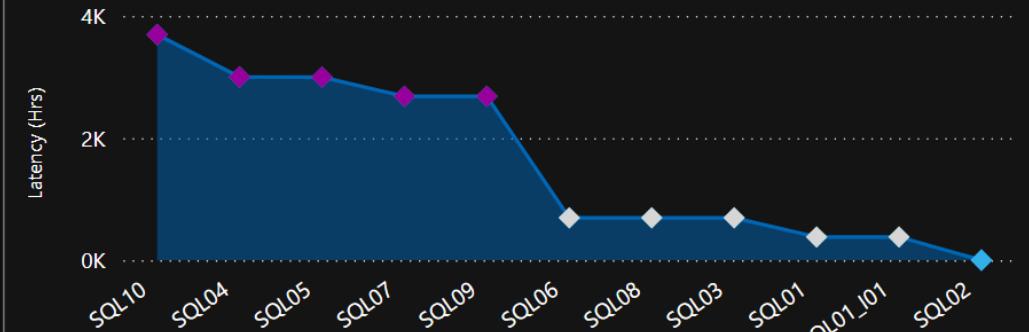
SQL Versions



SQL Editions



Hours since last contacted



SQL Instance	Type	SQL Type	Cores	Mem (GB)	Backup Policy	AVG	FCI	Version #	# Patches Out	Age of Patch (Days)	Patch Status
SQL01	Arc	Engine	4	2	No	No	No	13.0.7050.2	0	0	Ok
SQL01_I01	Arc	Engine	4	2	No	No	No	13.0.7050.2	0	0	Ok
SQL04	Arc	Engine	1	1	No	No	No	15.0.2000.5	51	1942	Update
SQL08	Arc	Engine	1	1	No	No	No	15.0.2000.5	51	1942	Update
SQL02	Arc	Engine	2	1	No	No	No	13.0.1601.5	80	3086	Update
SQL03	Arc	Engine	1	1	No	No	No	13.0.1601.5	80	3086	Update
SQL05	Arc	Engine	1	1	No	No	No	13.0.1601.5	80	3086	Update
SQL06	Arc	Engine	1	1	No	No	No	13.0.1601.5	80	3086	Update
SQL07	Arc	Engine	1	1	No	No	No	13.0.1601.5	80	3086	Update
SQL09	Arc	Engine	1	1	No	No	No	13.0.1601.5	80	3086	Update
SQL10	Arc	Engine	1	1	No	No	No	13.0.1601.5	80	3086	Update
vm-SQL11	Azure	Engine	0	8	Unkno...	Unkno...	Unkn...	Unknown	Unkn...	Unkn...	Unkn...
Total			18	21					25486		

SQL Status

● Disconnected ● Connected ● VM running ● Expired



Jumpstart Homepage



Arc Jumpstart | Database Inventory

Database Type

System

User

Subscription

All

Resource Group

All

Database Count

11

User DBs

11

System DBs

44



Total SQL Instances

12

Cores

18

Memory (GB)

21



Azure SQL Instances

1

Cores

0

Memory (GB)

8



Arc SQL Instances

11

Cores

18

Memory (GB)

13

Database Status

Online



Database Collations

SQL_Latin1_Ge... Latin1_Gene...



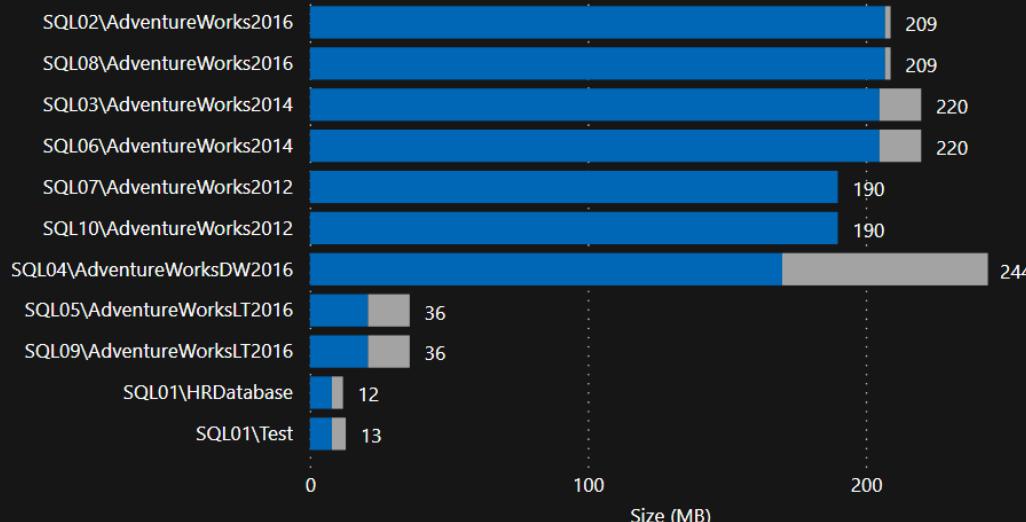
Database Recovery

Simple Full

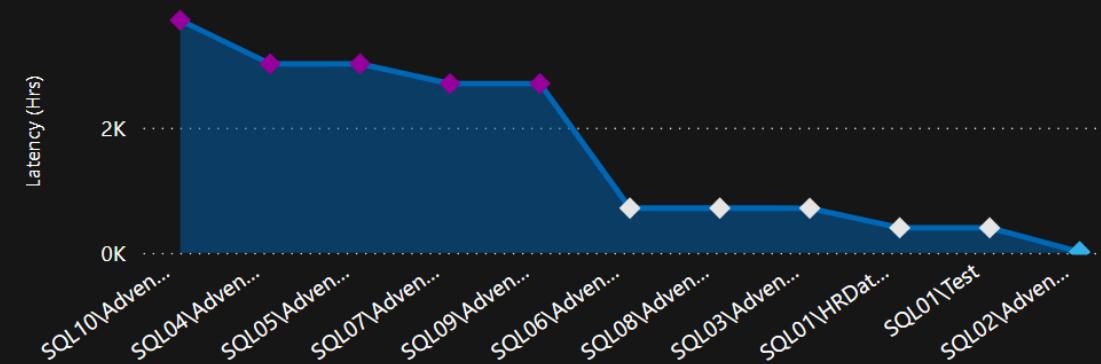


Database Size

Size (MB) Sum of SpaceAvailableMB



Database Hours since last contacted



Database Options

Database	Auto Close	Auto Shrink	Auto Create Stats	Auto Update Stats	Trustworthy	Read Only	Encrypted	Comp. Level
SQL01\HRDatabase	0	0	1	1	0	0	0	130
SQL01\Test	0	0	1	1	0	0	0	130
SQL02\AdventureWorks2016	0	0	1	1	0	0	0	130
SQL03\AdventureWorks2014	0	0	1	1	0	0	0	120
SQL04\AdventureWorksDW2016	0	0	1	1	0	0	0	130
SQL05\AdventureWorksLT2016	0	0	1	1	0	0	0	110
SQL06\AdventureWorks2014	0	0	1	1	0	0	0	120
SQL07\AdventureWorks2012	0	0	1	1	0	0	0	110
SQL08\AdventureWorks2016	0	0	1	1	0	0	0	130
SQL09\AdventureWorksLT2016	0	0	1	1	0	0	0	110
SQL10\AdventureWorks2012	0	0	1	1	0	0	0	110

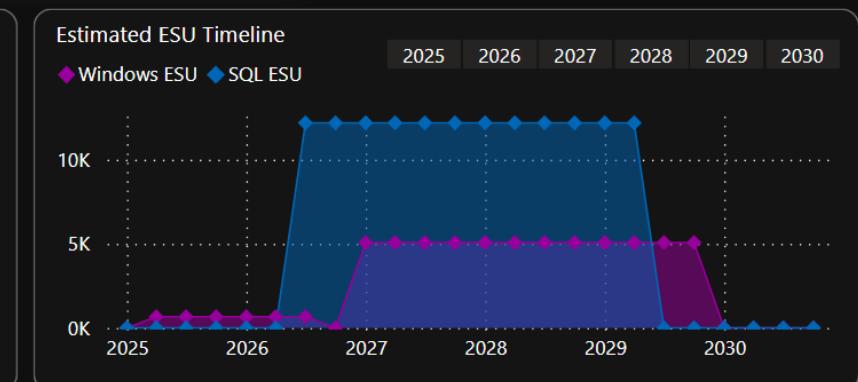
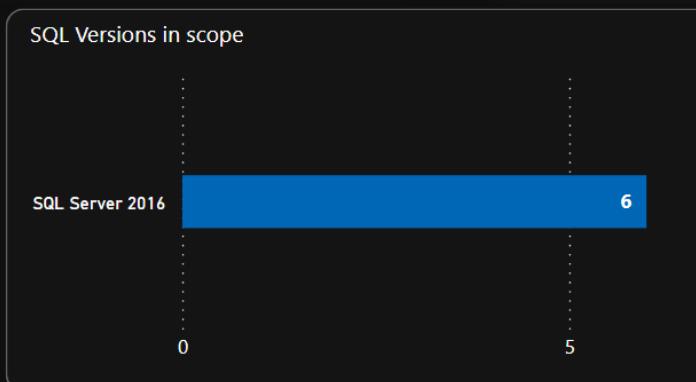
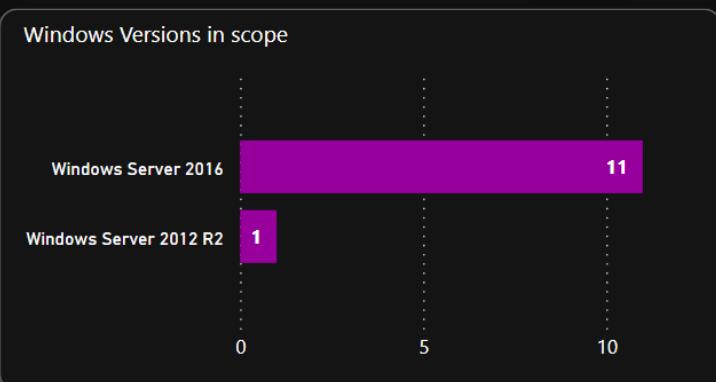
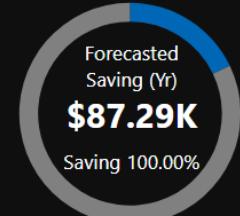
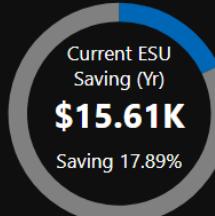
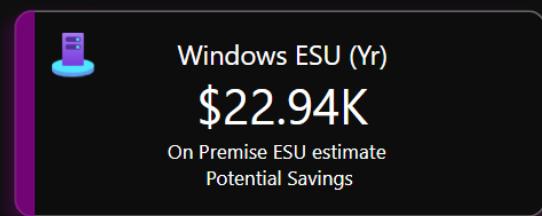


All

All

All

All



Forecasted ESU Cost - Windows Server

OS Version	No. Servers	No. Cores	ESU Cores *	Est Cost Yearly
Windows Server 2016	11	15	88	\$20,300.16
Datacenter	7	10	56	\$18,480.00
Standard	4	5	32	\$1,820.16
Windows Server 2012 R2	1	1	8	\$2,640.00
Datacenter	1	1	8	\$2,640.00
Total	12	16	96	\$22,940.16

Forecasted ESU - SQL Server

SQL Version	No. Instances	No. Cores	ESU Cores *	Est Cost Yearly
SQL Server 2016	6	13	24	\$48,738.00
Enterprise	3	7	12	\$45,402.00
Standard	3	6	12	\$3,336.00
Total	6	13	24	\$48,738.00

Predicted ESU Avoided

OS Version	# Servers	# of Cores	Total ESU Avoided
Windows Server 2016	1	1	\$2,640.00
Datacenter	1	1	\$2,640.00
vm-FS01	1	1	\$2,640.00
Total	1	1	\$2,640.00

SQL Version	# Instances	# of Cores	Total ESU Avoided
SQL Server 2016	1	0	\$12,972.00
Enterprise	1	0	\$12,972.00
vm-SQL11	1	0	\$12,972.00
Total	1	0	\$12,972.00

*The information provided regarding the Extended Security Updates (ESU) minimum core requirements for SQL Server and Windows is based on current licensing rules. It is assumed that all servers in this report are virtual. All figures for ESU in this report are estimates and not official quotes. Please consult the official Microsoft documentation or your licensing provider for the most accurate and up-to-date information.

[Jumpstart Homepage](#)

Jumpstart Drops



A curated collection of scripts, tools, and other resources from the community

Current challenges

1. Multiple teams spend significant time assisting customers, but knowledge is kept in private repositories, limiting potential benefits of community collaboration.
2. Contributing to Jumpstart can be challenging due to required expertise and high-quality standards.
3. Finding more core maintainers and contributors has become difficult due to recent changes in pre/post-sales teams.

What is Jumpstart Drops?

A new Jumpstart solution that serves as a curated collection of scripts, tools, and other assets that can help developers/IT/OT and Day-2 Operations professionals streamline their day-to-day operations and smooth their Adaptive cloud journey.

The term "**Drops**" refers to small, self-contained pieces of code that can be easily shared and leveraged by others to simplify a particular operation/task or demonstrate the power of a service/product.

It can be a dashboard, sample app, library or a package, a script or an automation, Template, and even tutorial or Guide.

Contribution process



**Create
content**



**Submit
Drop**



**Review
submission**



**Publish
Drop**



**Share & Get
Telemetry**

Demo

Drops

Jumpstart
Agora



Jumpstart for Industries and application development velocity across cloud and edge

Arc Jumpstart – What is “Agora”?

The word "agora" comes from the ancient Greek term for a public gathering place or assembly, and it has come to be used more broadly to refer to any place or forum where people come together for discussion or exchange.



- Demo is not enough; people need to try it by their selves.
- Lack of hands-on artifacts that supports industries storytelling.
- Random repositories are confusing and hard to maintain. One Jumpstart to rule them all.
- Lack of quality “Spaghetti on the wall” mechanism and feedback loop to the product groups.
- Need to meet users where they are.

Arc Jumpstart – Agora industrial vision

Retail



Manufacturing



Healthcare



And more...



Arc Jumpstart – Contoso Hypermarket scenarios

Scenario	Technology stack
Shopper insights using computer vision	Yolo8, RTSP, OpenCV, Rancher K3s, PostgreSQL, Azure Arc
Jumpstart Cerebral - Commercial and Operations assistance with Gen AI	Azure OpenAI, phi3, gpt35turbo, Rancher K3s, InfluxDB, Microsoft SQL Server on Linux
Commercial and operations assistance with Speech-to-Text	Azure AI Speech, Rancher K3s, Azure Arc
Industrial assets observability	Prometheus, Grafana
Shopper insights observability	Prometheus, Grafana
Kubernetes infrastructure observability	Arc-enabled Kubernetes, Rancher K3s, Prometheus, Grafana
Data pipeline and reporting for operational technology (OT)	Azure IoT Operations, Microsoft Fabric, MQTT, Event Hub, Rancher K3s, InfluxDB, PostgreSQL, MQTT simulators
Data pipeline and reporting for commercial sales	Azure IoT Operations, Microsoft Fabric, MQTT, Event Hub, Rancher K3s, InfluxDB, PostgreSQL, MQTT simulators
Predictive analytics using Microsoft 365 Copilot	Microsoft 365 Copilot

Contoso Hypermarket – Technology stack and operations overview



Footfall, Shopper insights, Gen AI Commercial and Operations assistance,
Speech-to-Text (STT) operations, Edge-to-cloud video analytics, Predictive inventory and operations analytics

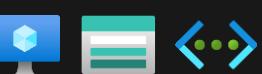
Local infrastructure

Assets



Azure infrastructure

Azure compute, storage and network



Kubernetes



Ubuntu and Rancher K3s



Arc-enabled Kubernetes



Azure Container Registry



Arc-enabled servers



Security and operations

Azure Monitor



Azure Policy



Azure Key Vault



Microsoft Defender for Cloud and Containers



Prometheus and Grafana observability stack



Cost management and billing



Data and IoT

Microsoft Fabric



Azure IoT Operations



Azure Event Hub



SQL Server on Linux



PostgreSQL



InfluxDB



Azure Container Storage enabled by Azure Arc



AI and Computer Vision

Jumpstart Cerebral



Microsoft Copilot



Azure OpenAI



Azure AI Speech



Generative AI models



Computer Vision models



Dev and CI/CD operations

Visual Studio Code



GitHub repositories



GitOps



Data simulators

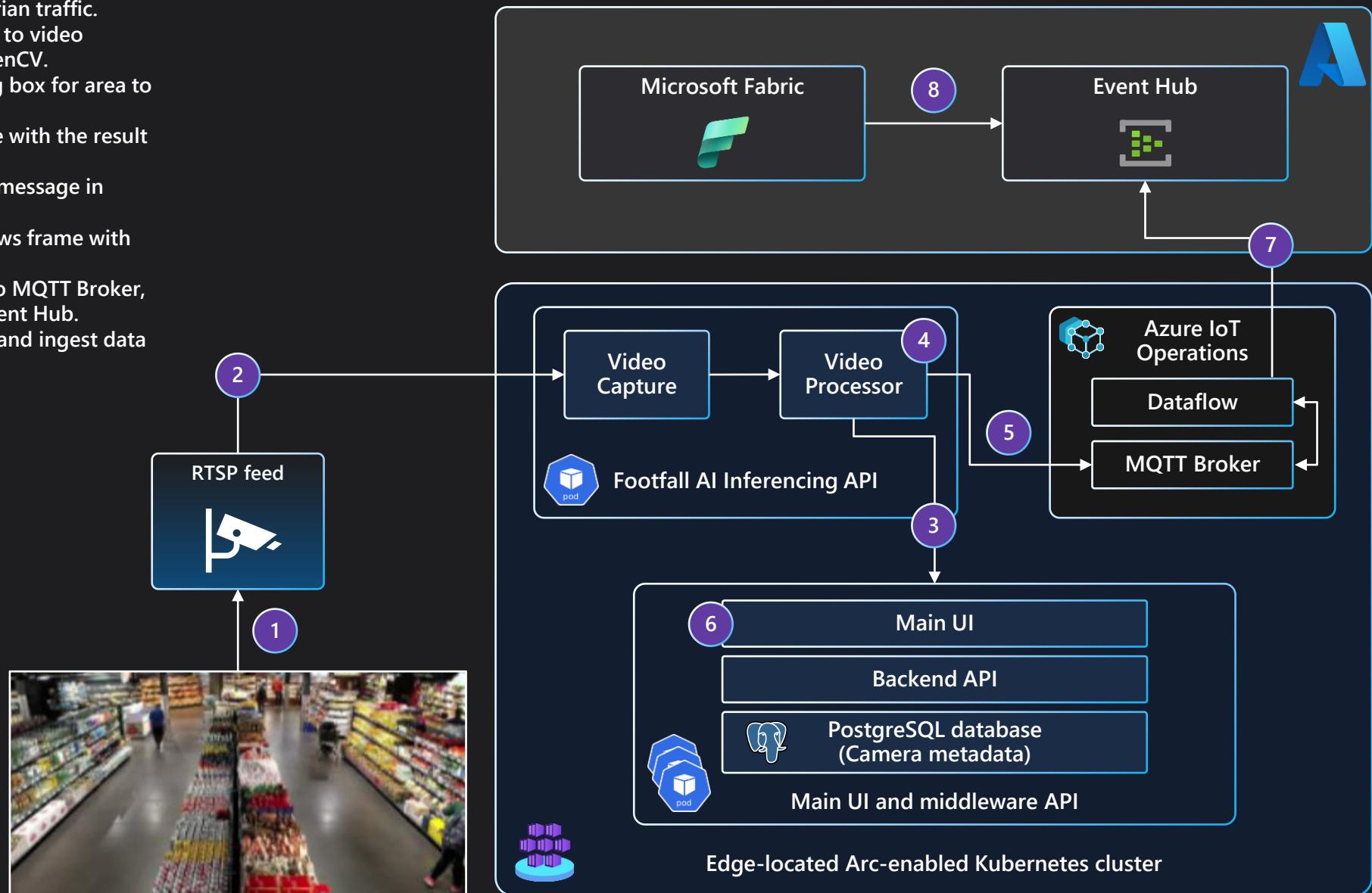


Azure Data Studio

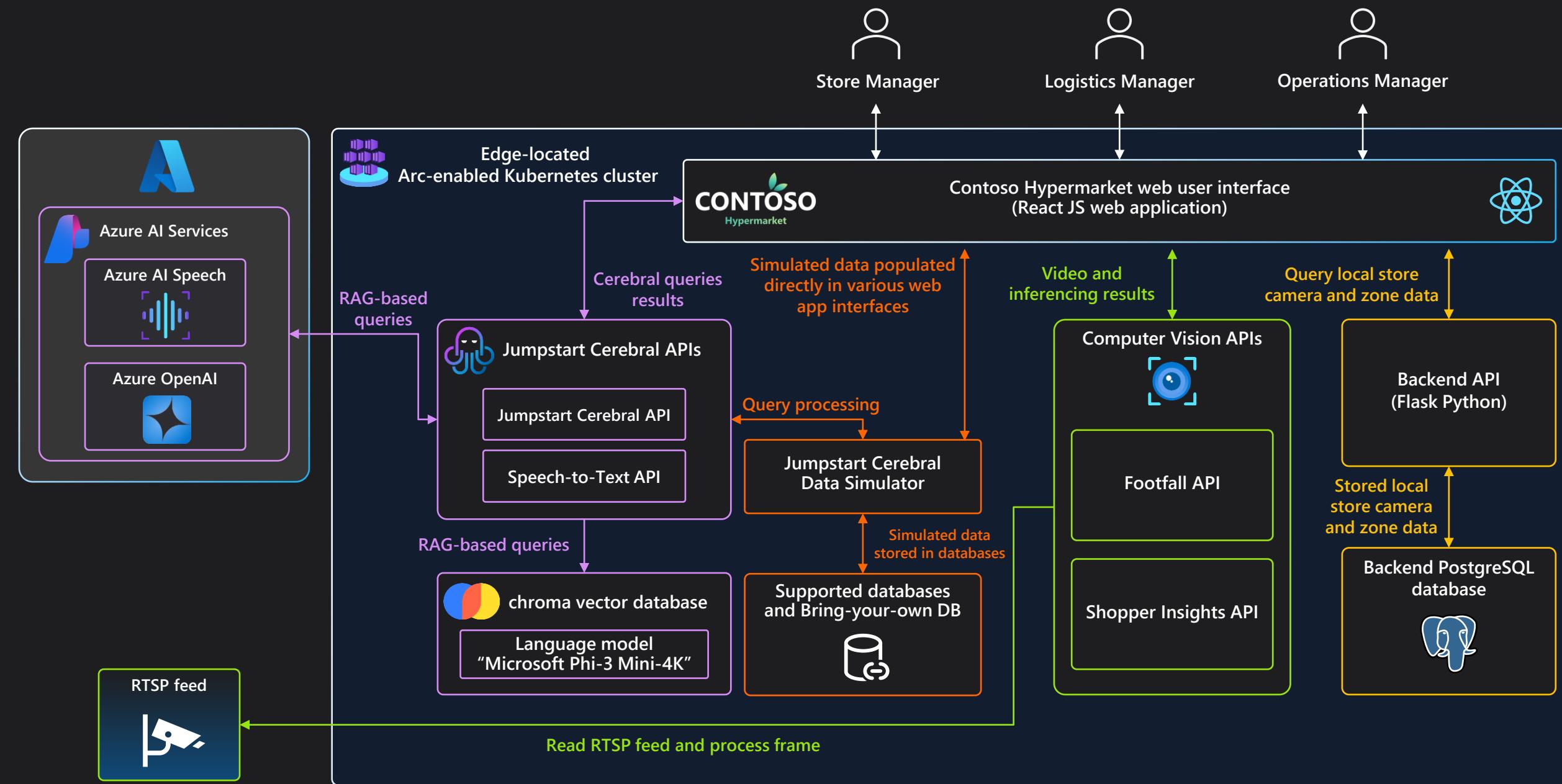


Contoso Hypermarket – Real-time footfall inferencing and shopper insights architecture

1. RTSP video feed captures real-time pedestrian traffic.
2. Video frame extracted from video and sent to video processor for inferencing using Python OpenCV.
3. Video processor retrieves custom bounding box for area to be analyzed from middleware API.
4. The model creates an AI inference response with the result available via API call.
5. Application takes result and publishes MQ message in Azure IoT Operation.
6. Application user interface updates and shows frame with inferencing annotations added.
7. Azure IoT Operations Dataflows connects to MQTT Broker, and relays MQ messaging data to Azure Event Hub.
8. KQL DB, deployed in Microsoft Fabric, pull and ingest data from Azure Event Hub.

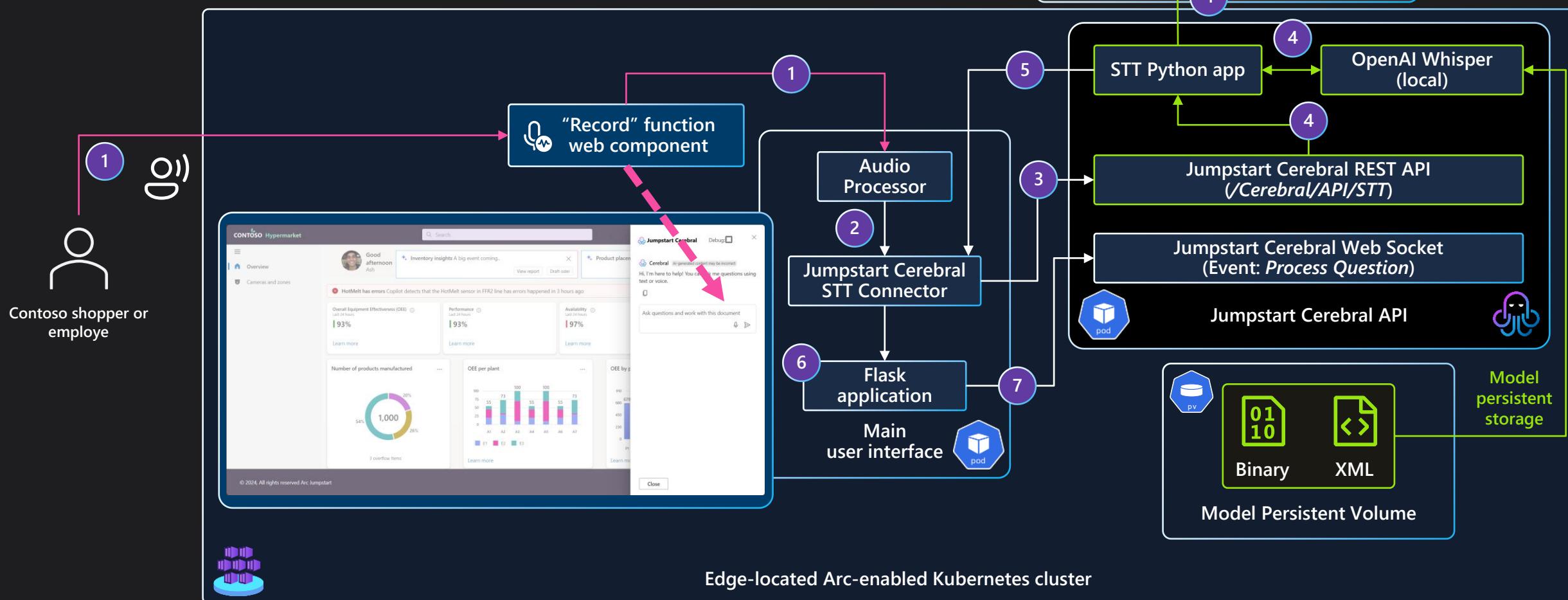


Contoso Hypermarket – Application architecture

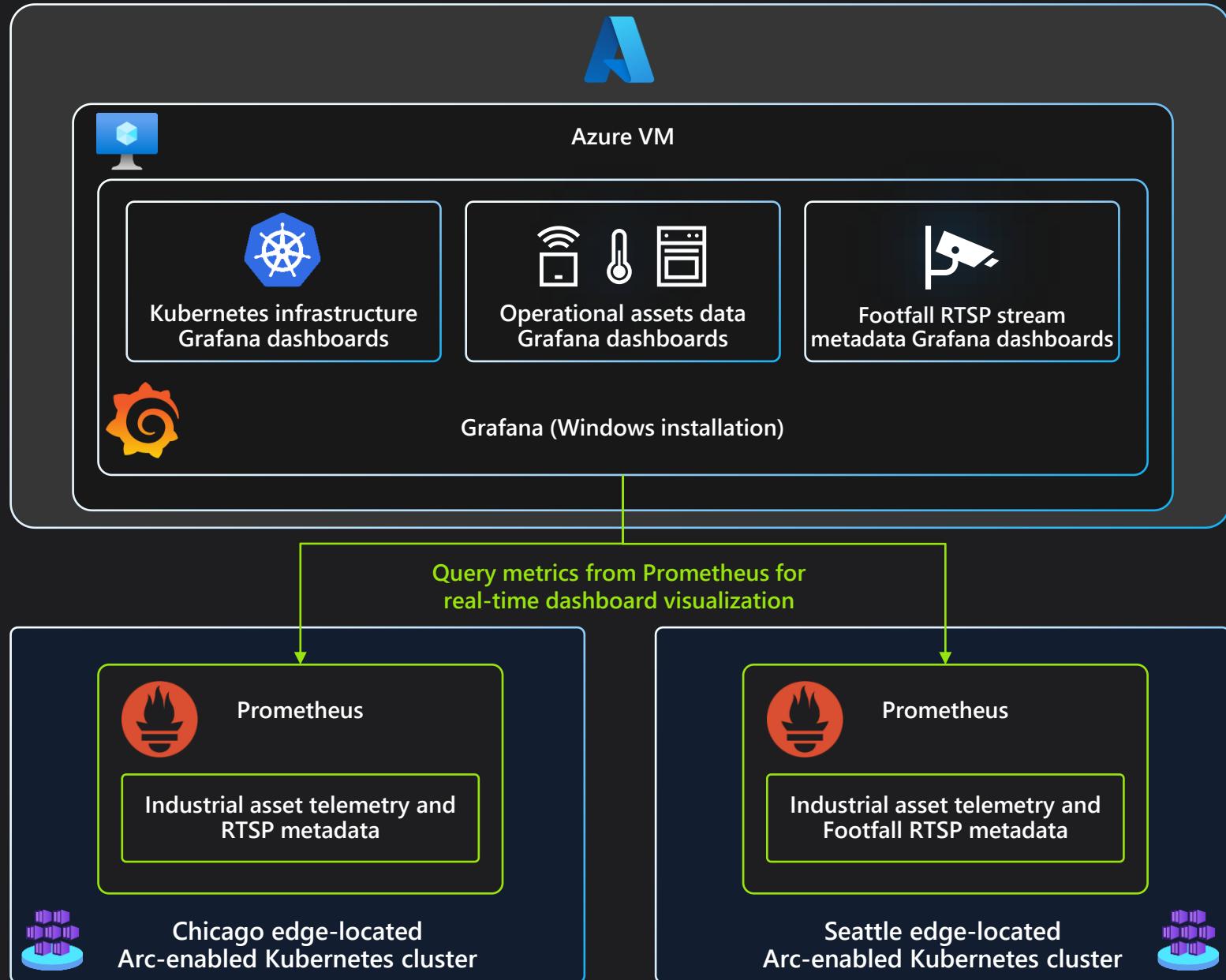


Contoso Hypermarket – Gen AI Commercial and Operations assistance via Speech-to-Text (STT)

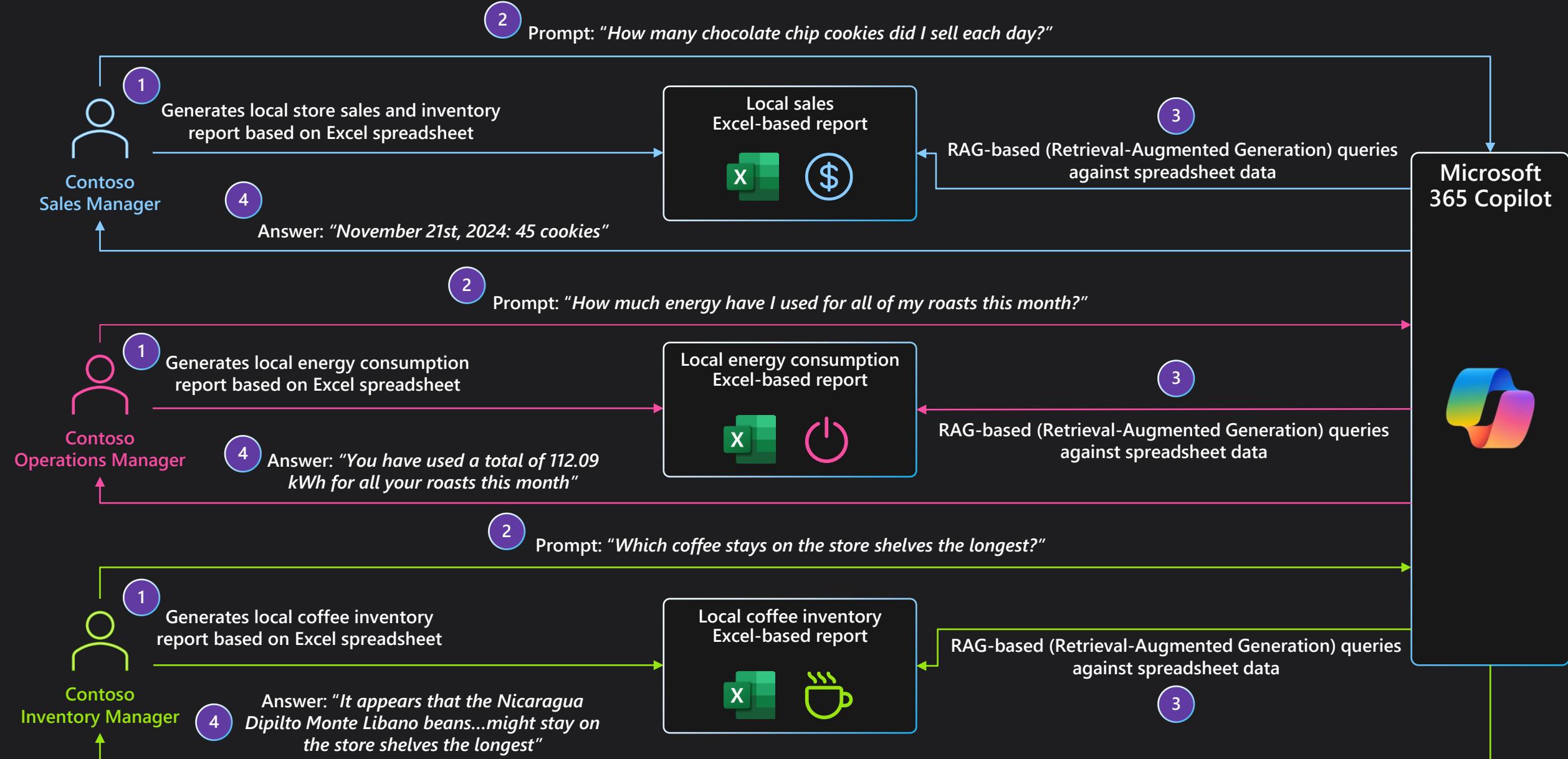
1. Microphone audio feed captures user questions.
2. The Audio Processor function detect if there's voice and creates a blob for submitting to Jumpstart Cerebral.
3. The Cerebral STT connector sends the audio for transcript from speech to text.
4. STT function determines where to run STT – If local model available, use local model; if not use Azure AI Speech service.
5. Once the STT response is received, check if correct response and send it back to main UI
6. Flask application renders the result of the STT in the user interface for user knowledge.
7. Question is sent to Cerebral, which triggers a “Process Question” event, and normal processing flow is triggered.



Contoso Hypermarket – Edge-to-cloud observability stack architecture



Contoso Hypermarket – Predictive inventory and operations analytics with Generative AI



Arc Jumpstart

Extensive. Automated. Open-Source. Community Driven.



[Submit an issue or a feature request](#) or join our
[GitHub Discussions](#) in our GitHub repository

it's simple as that!

aka.ms/ArcJumpstart

Thank you!

ευχαριστώ Salamat Po متشرّم شكرًا Grazie

благодаря ありがとうございます Kiitos Teşekkürler 谢谢

ឧបមុនគ្រែប Obrigado شكريه Terima Kasih Dziękuję

Hvala Köszönöm Tak Dank u Wel **дякую** Tack

Mulțumesc спасибо Danke Cám ơn Gracias

多謝晒 Ďakujem **הודות** තුන්ති Děkuji 감사합니다