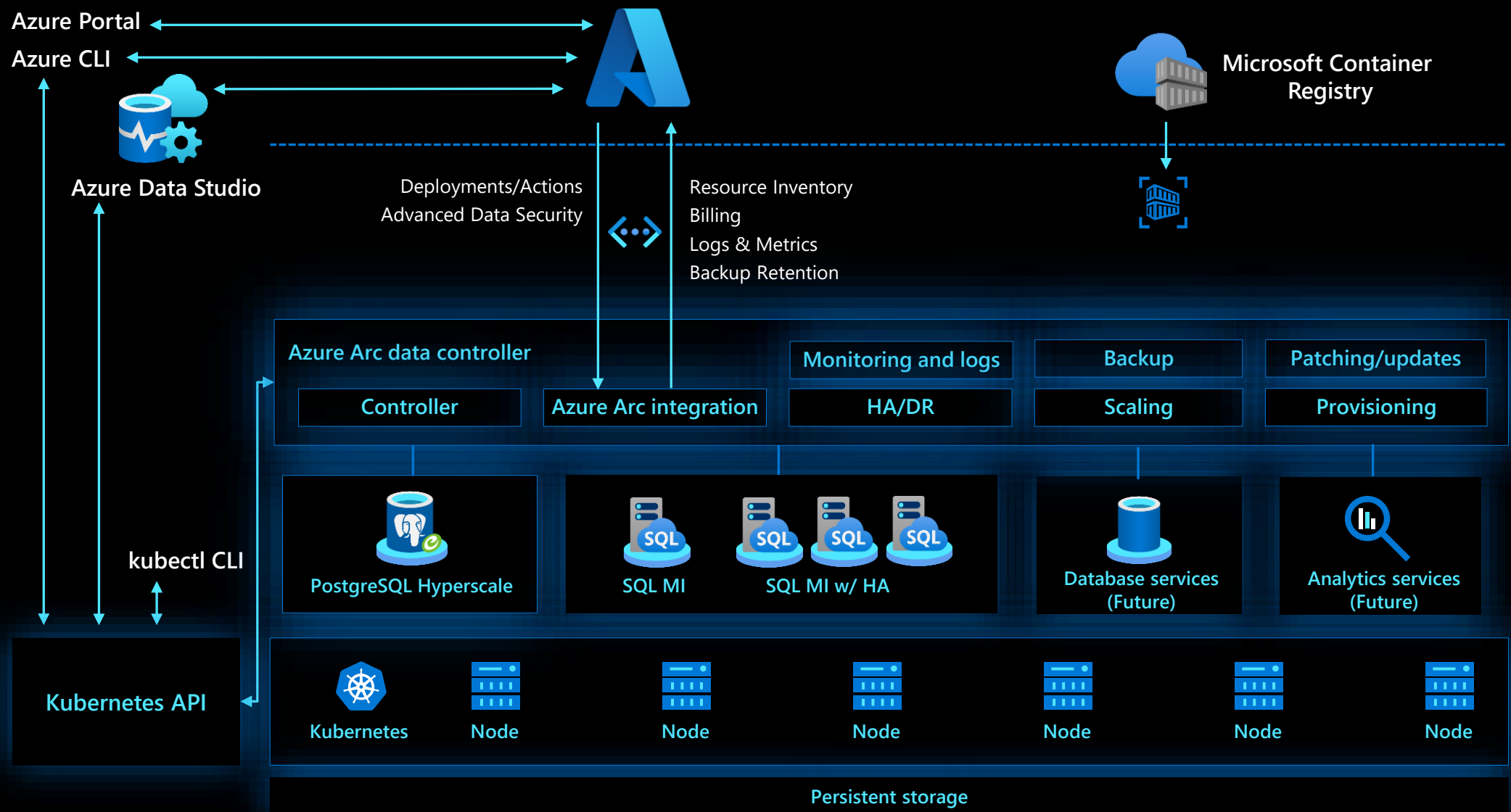




# Azure Arc Solutions on **AIS** Cloud

# Azure Arc-enabled Data Services Architecture



- Access Management Portal & Dashboarding Policy & Governance
- Monitoring Logging & Analytics Cost Management
- Security Patch Management BC/DR
- MSP 3rd Party Solutions Integration
- Service Health & Support

Parnell Aerospace Azure Tenant

Fabrikam Azure Tenant

- Virtual Machines
- Storage
- Network
- App Services
- Kubernetes Service
- Data Services
- Cosmos DB
- Functions

Azure Arc-enabled infrastructure & services

- On-Premises Servers
- Multi-Cloud Workloads
- SQL Server
- SQL Managed Instance
- PostgreSQL Hyperscale
- Data Controller

Fourth Coffee Azure Tenant

Parnell Aerospace On-Premises Datacenter

Parnell Aerospace Multi-Cloud Workloads

Fourth Coffee On-Premises Datacenter

Fourth Coffee Multi-Cloud Workloads



- Bare-Metal Servers
- Windows & Linux Servers
- Kubernetes Bare-Metal / VM
- Azure Arc SQL Server
- Azure Arc SQL Managed Instance
- Azure Arc PostgreSQL Hyperscale



Fabrikam On-Premises Datacenter



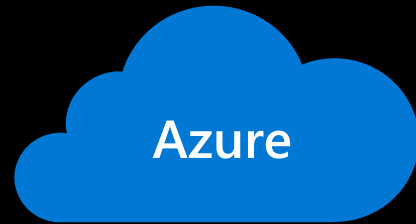
- Azure Arc SQL Server
- Azure Arc SQL Managed Instance
- Azure Arc PostgreSQL Hyperscale



Fabrikam Multi-Cloud Workloads



# Azure go Local



Innovation anywhere with Azure

Single control plane with Azure Arc



Bring Azure services to AIS Cloud Infrastructure



Bring Azure Services to your datacenters

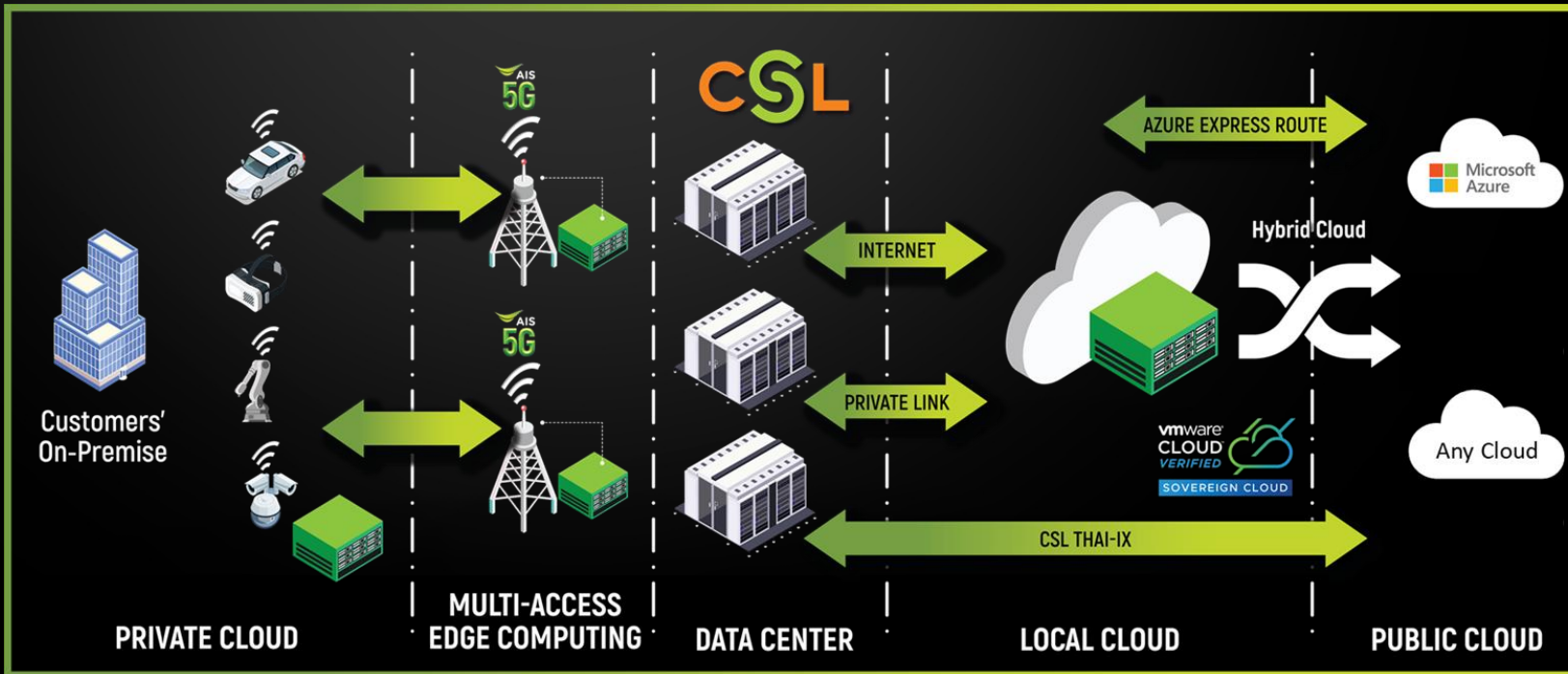


Bring Azure Services to the edge

# AIS Cloud

Intelligent Cloud Ecosystem

Flexible **Edge, Cloud Deployment** for your Agile and Intelligent Applications



Faster



Secure



Automate



Cost Efficient

## Modern Application Development

- Cloud Native Platform as a Service

## Modern Cloud Infrastructure

- Hybrid / Multi Cloud Deployment
- 5G Intelligent Connectivity

## Modern Data Protection

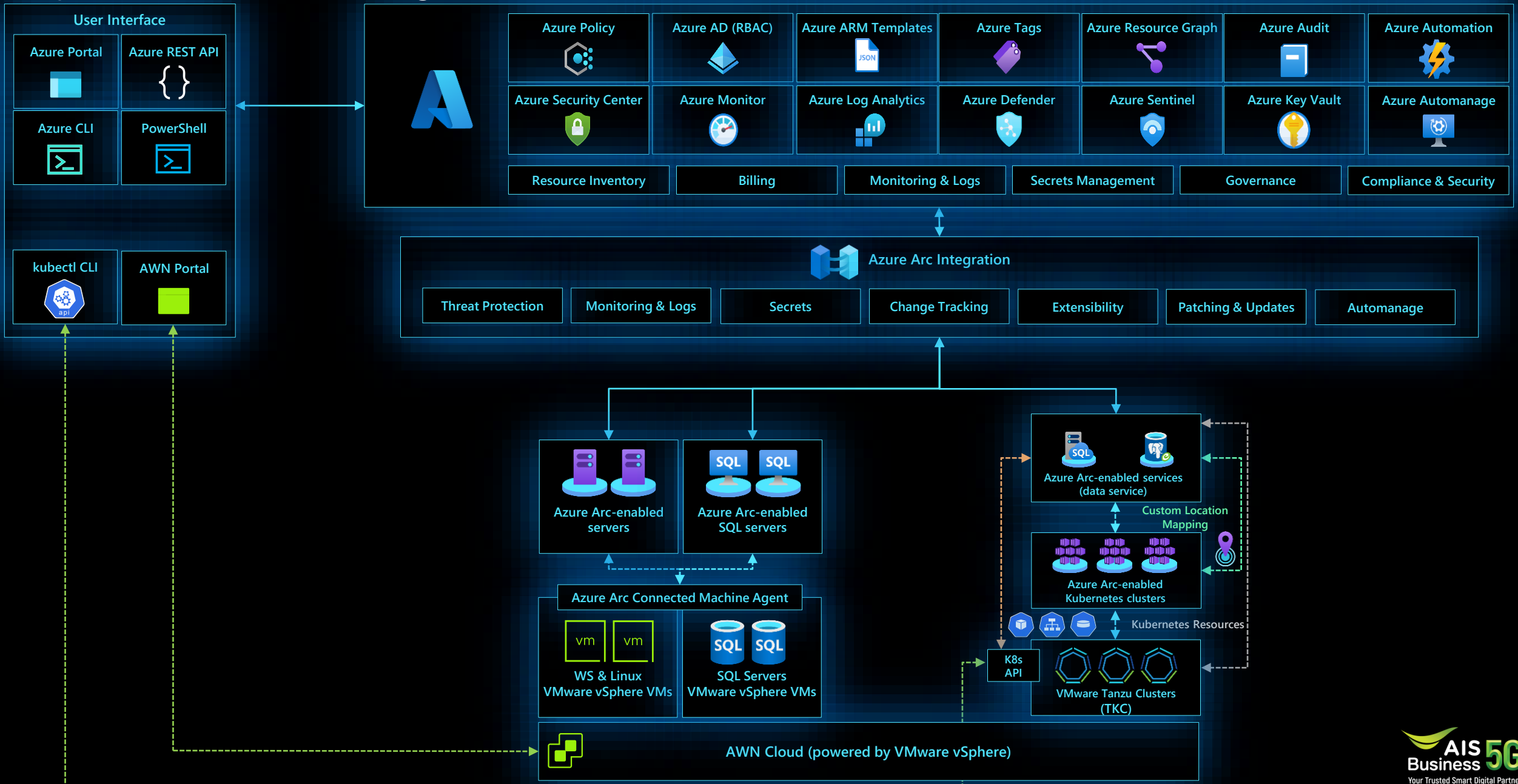
- B-Log: Business Log Platform as a Service
- Veeam Back Up Platform as a Service
- AIS Cloud X | Sovereign Cloud

## Cloud Availability management

- On boarding and Migration
- Move On-Premise to Cloud
- Cloud to Cloud Disaster Recovery
- Near Zero
- Recovery Point Objective (RPO)

# Azure Arc-enabled Services by AIS

## On-premises and multi-cloud integration



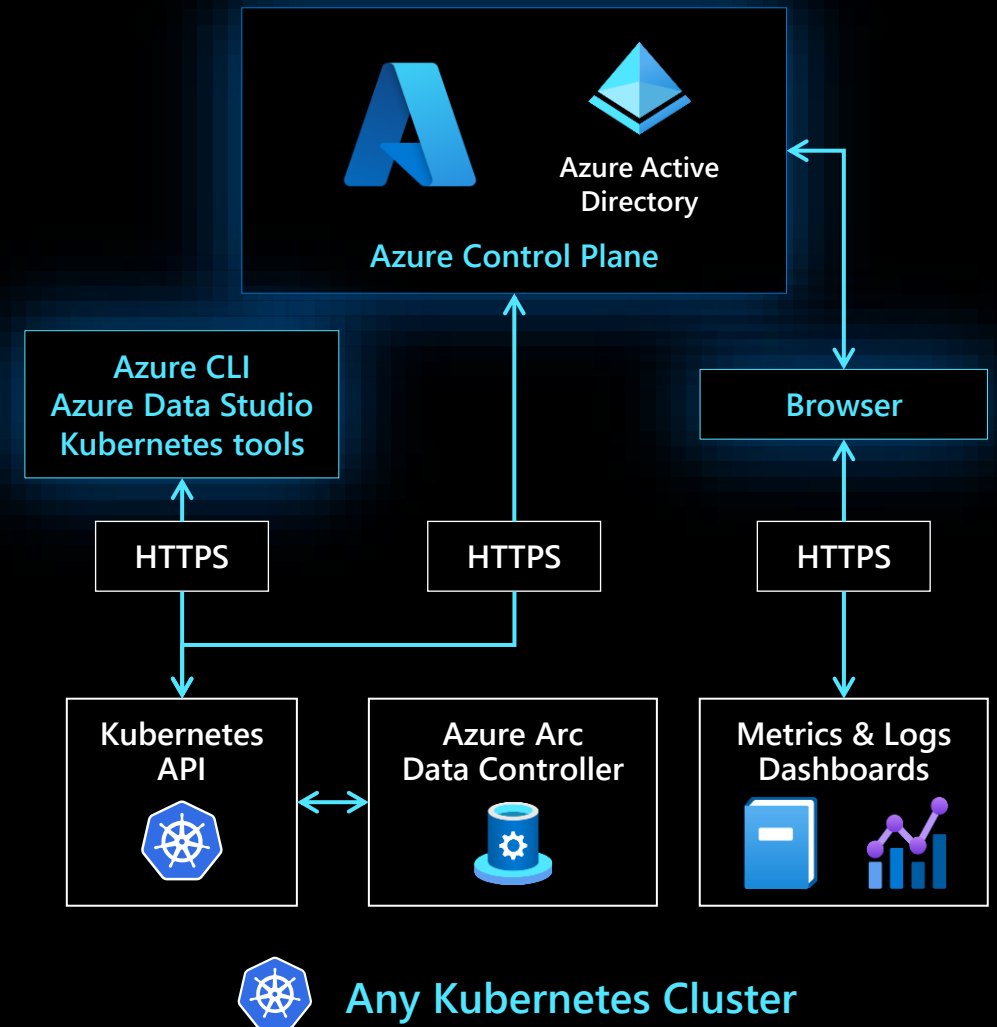
# Azure Arc-enabled Data Services Security (1 of 2)

## Secure by default configuration

- Non-root containers
- Least privilege deployment configuration
- Security enabled via HTTPS/TLS/SSL for external endpoints
- System managed certificates

## Directly connected mode

- Azure RBAC integration
- Azure AD Authentication for management operations



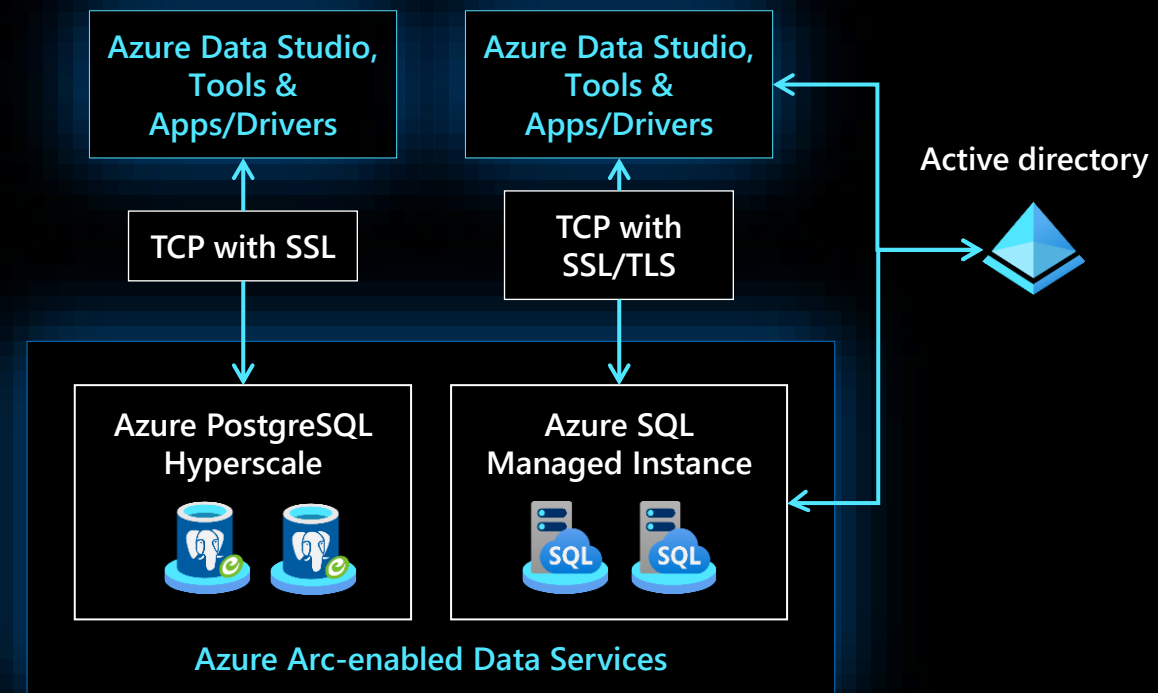
# Azure Arc-enabled Data Services Security (2 of 2)

## Azure Arc-enabled SQL Managed Instance

- Encryption at rest – Transparent Data Encryption
- SSL/TLS encryption on the wire
- SQL login or Active Directory authentication

## Azure Arc-enabled PostgreSQL Hyperscale

- Encryption with pgcrypto extension
- Audit with pgaudit extension





# Arc Data Services Maintenance updates

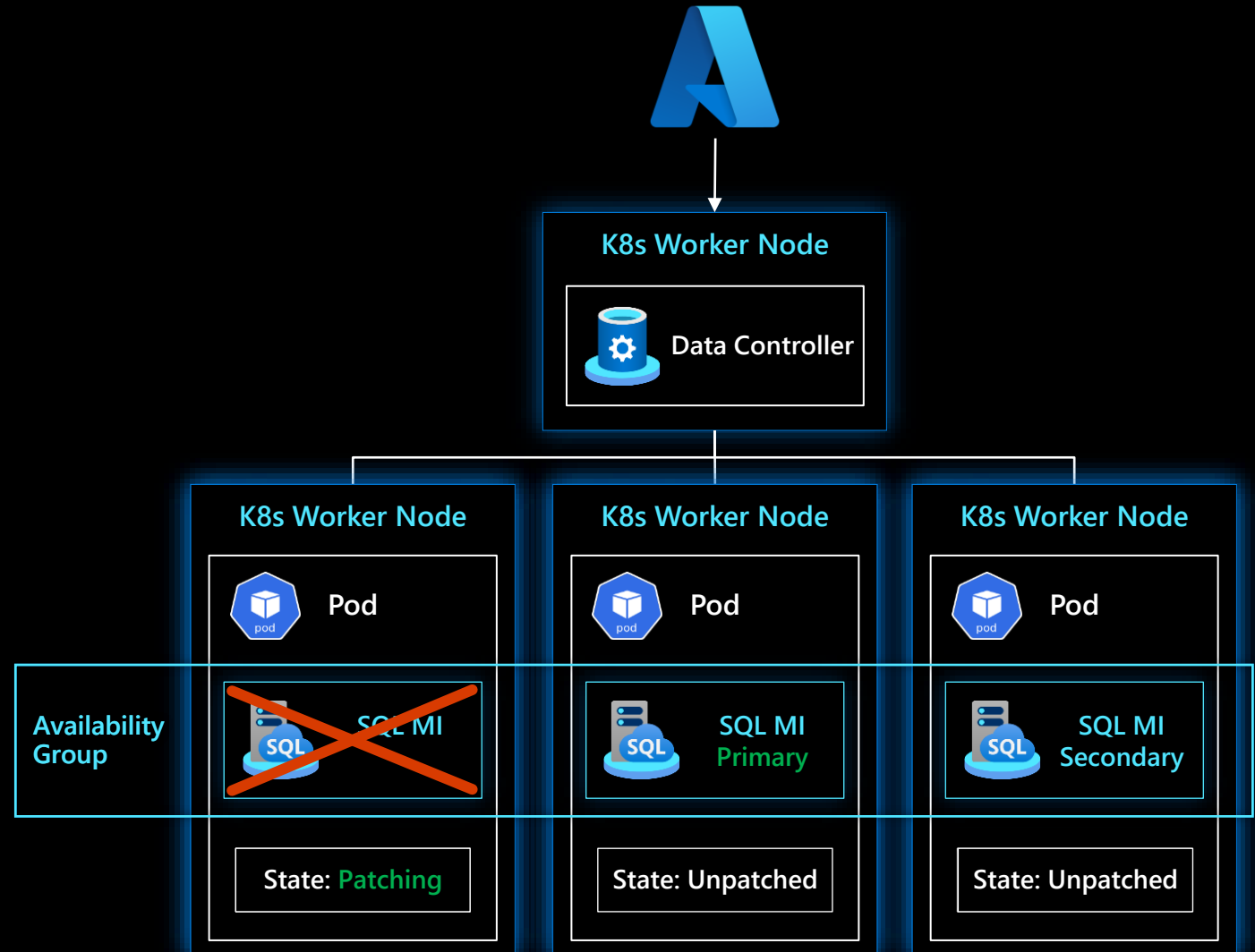
## Directly Connected Mode

- Azure Based System Maintenance Window Updates
- Flexibility to choose your Maintenance Windows

## Indirectly Connected Mode

- Single Maintenance Window for all services

Rolling upgrades without application downtime



# Point-In-Time Restore [PITR]

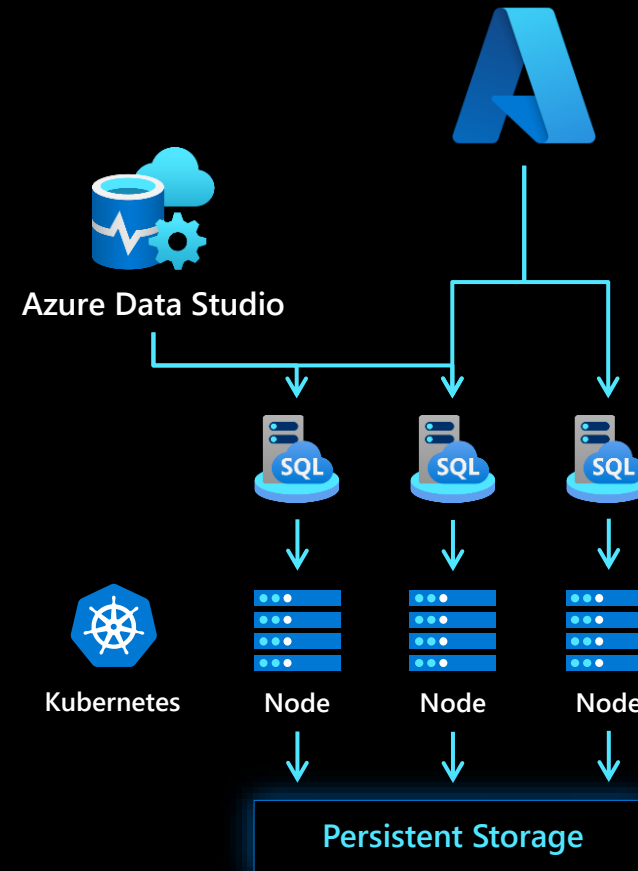
## Simple enablement of Point in Time Restore

Highly configurable settings during create

- PITR settings:
  - Recovery Point Objective as frequently as every 5 minutes, default is 15 minutes
  - Backup retention time is 7 days by default
- Storage settings:
  - Storage class where backups will be stored
  - Volume size for the backup volume
  - Optionally create a persistent volume just for backups

## Simplified Restore Operations

- Simply specify point in time to restore to
- Long term retention data can be sent to Azure storage



# Scaling: Azure Arc-enabled SQL Managed Instance

## Scale up via Azure portal and CLI cmd:

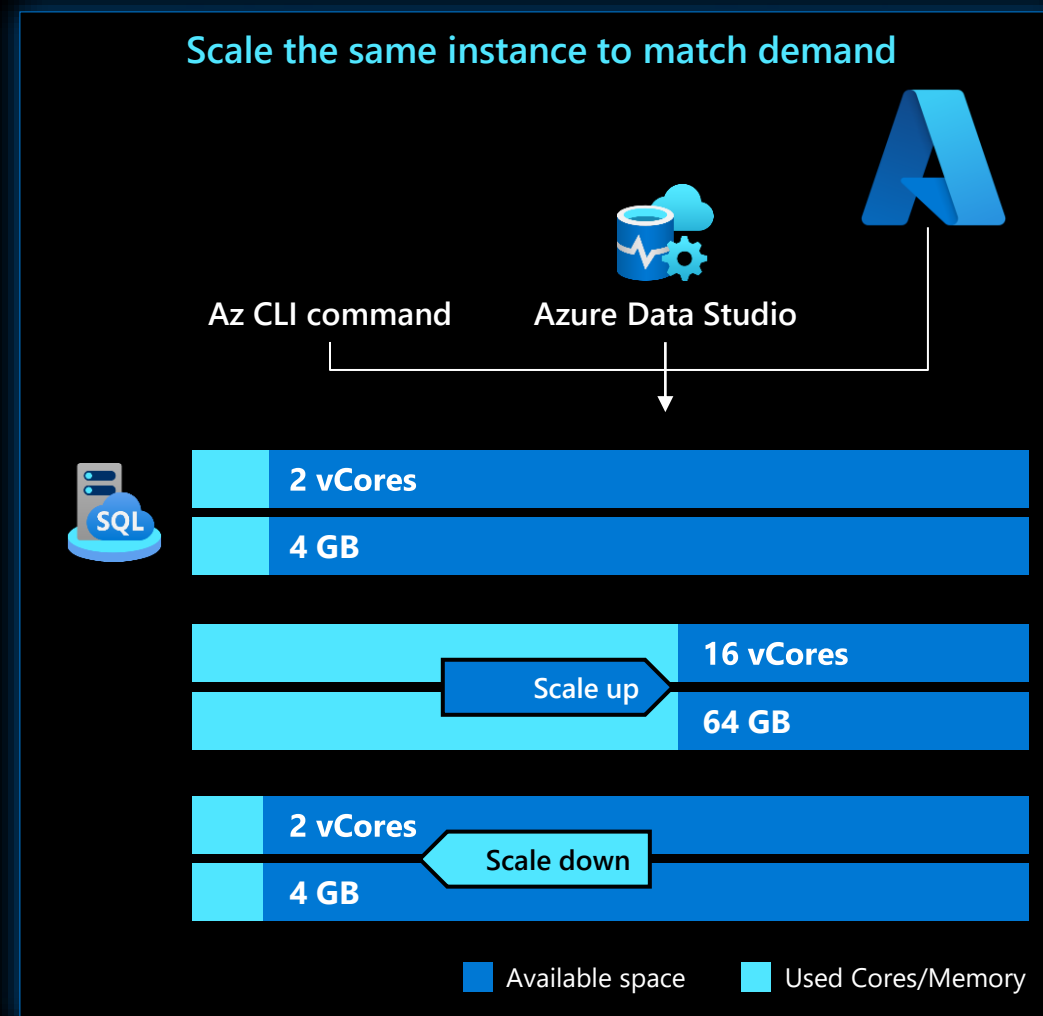
- Increase processing power on your instances in few seconds by adding more vCores and Memory
- Dynamically adjust your SQL instances capacity to match your business demand
- Pay only for the resources consumed.
- Set limits on how much instances can go up to
- Set request are reserved instance will get entire amount allocated

## Scale down:

- Scale your memory and vCores down as demand decreases

## Read Scale out:

- Scale out your read workloads to secondary replica



# Azure Arc-enabled SQL Managed Instance High Availability

- Deploy Azure Arc-enabled SQL Managed Instance with 2 or 3 replicas for increased reliability and scale out performance
- Automated failovers and instance redeployment in event of pod/node failure
- Ability to run read workloads on secondary instances

## Resources

<https://docs.microsoft.com/en-us/azure/azure-arc/data/managed-instance-high-availability>