

Core Azure Architectural Components



Azure AD

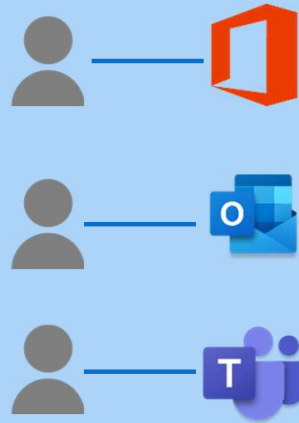
- Cloud based identity management service
- Identity solution for M365 products and Azure subscriptions



Azure Subscriptions



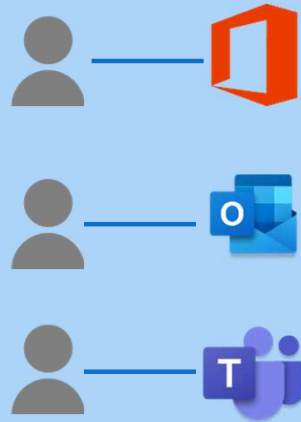
Per-User



Azure Subscriptions



Per-User



Consumption

Azure Subscription



Azure AD

- Cloud based identity management service
- Identity solution for M365 products and Azure subscriptions
- Azure AD Tenant represents an organization

Windows AD:

- Manage on-premises identities
- Supports Kerberos and NTLM

Azure AD:

- Manage cloud-based identities
- Supports SAML, OAuth, and OpenID

*Windows AD identities can be replicated to Azure AD to support hybrid identities



Management Group



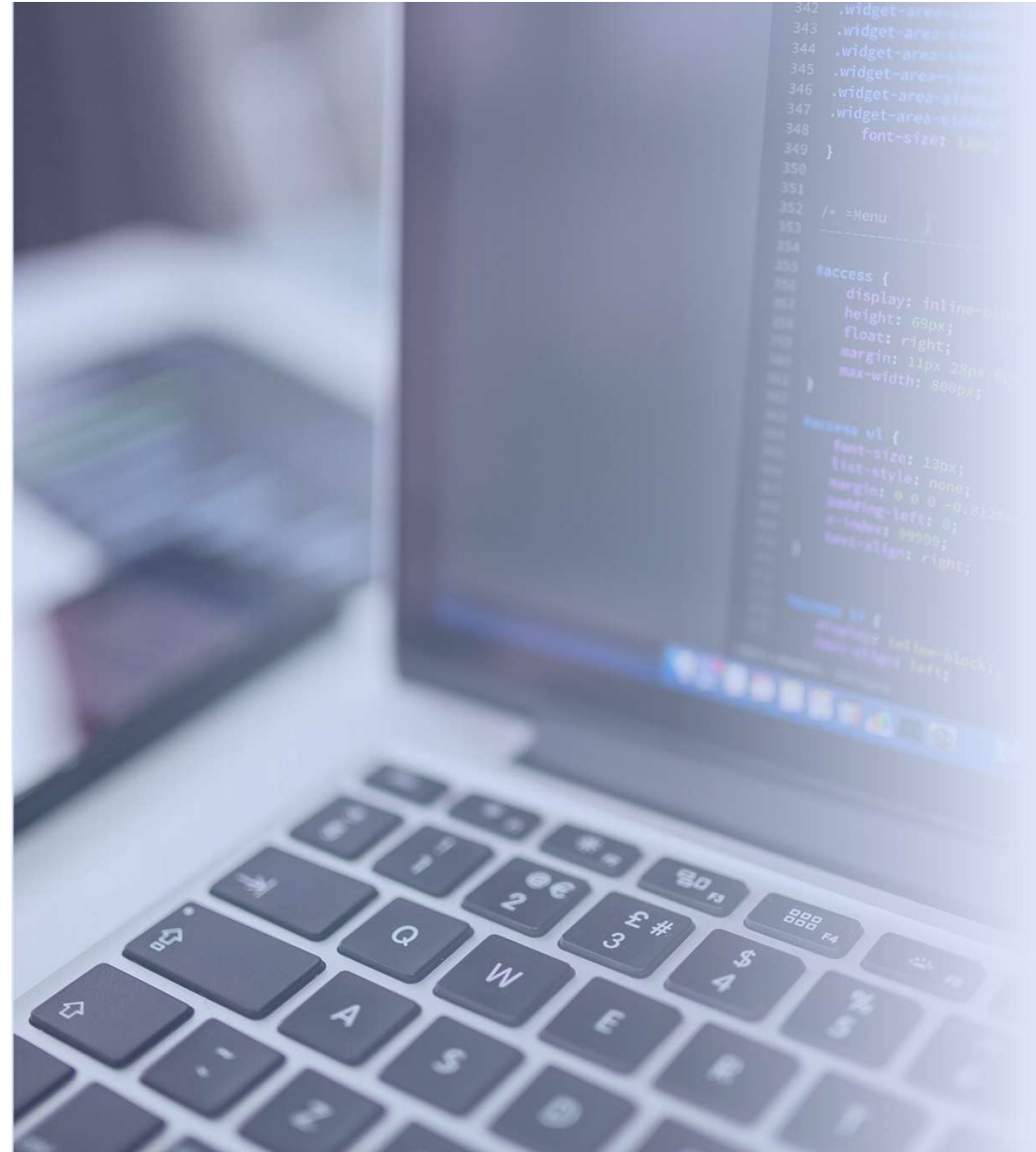
Azure AD



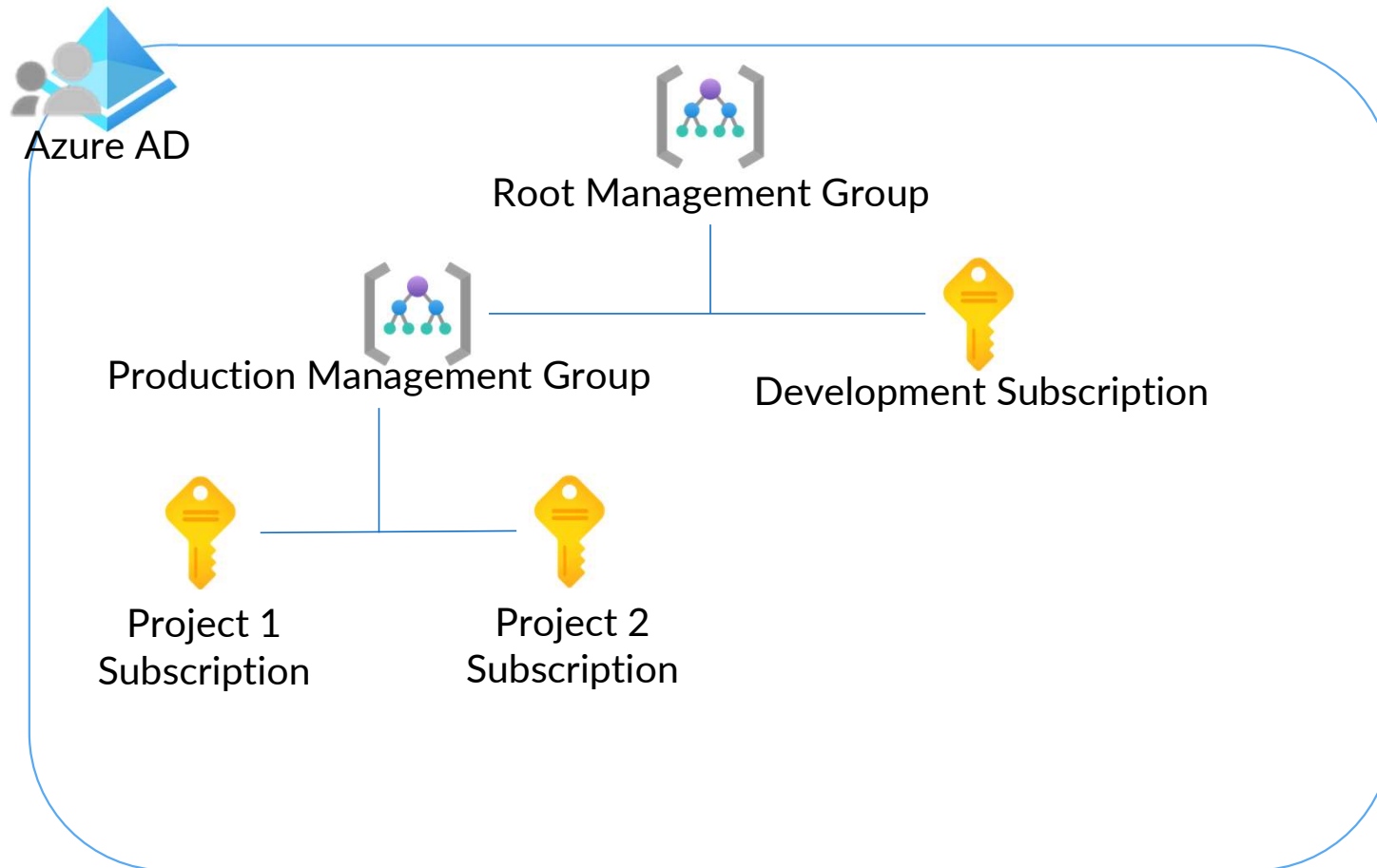
Root Management Group

Management Group

- Container for access permissions and policies for compliance
- Settings applied to a Management Group are inherited by subscriptions within the management group

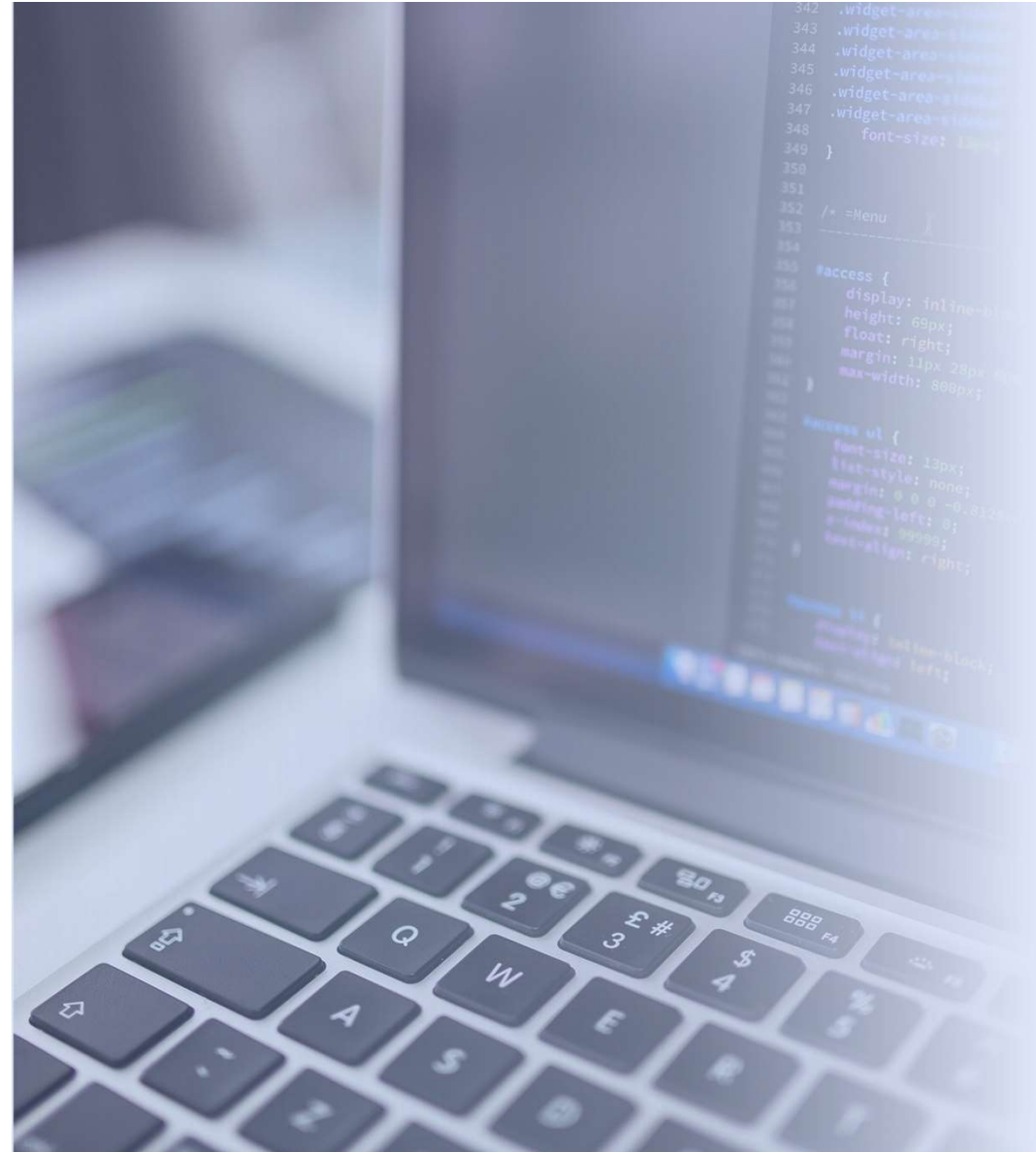


Azure Subscriptions

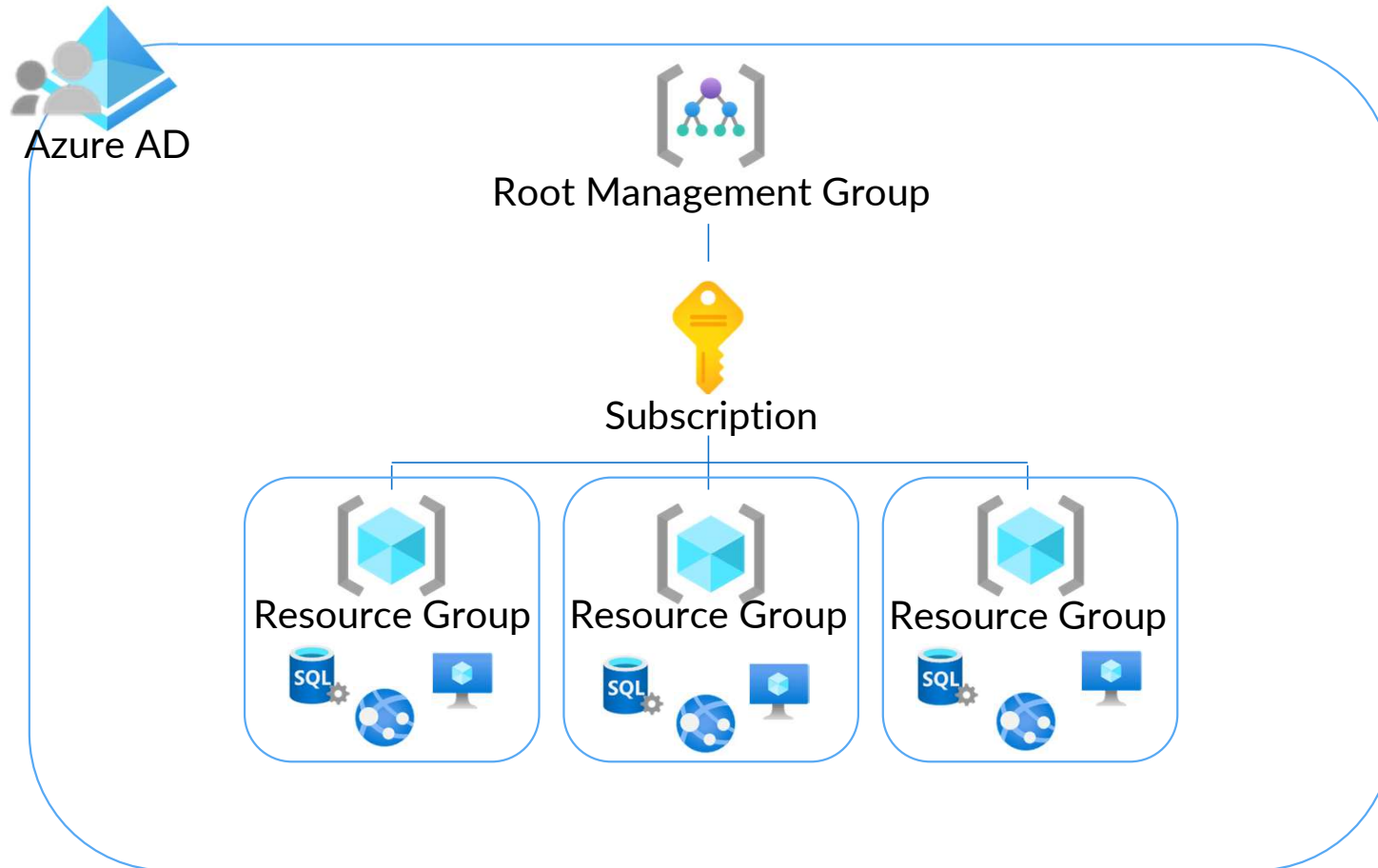


Azure Subscription

- Agreement with Microsoft to use Azure Cloud Services
- Billing context
- A tenant can have multiple subscriptions
- Security boundary

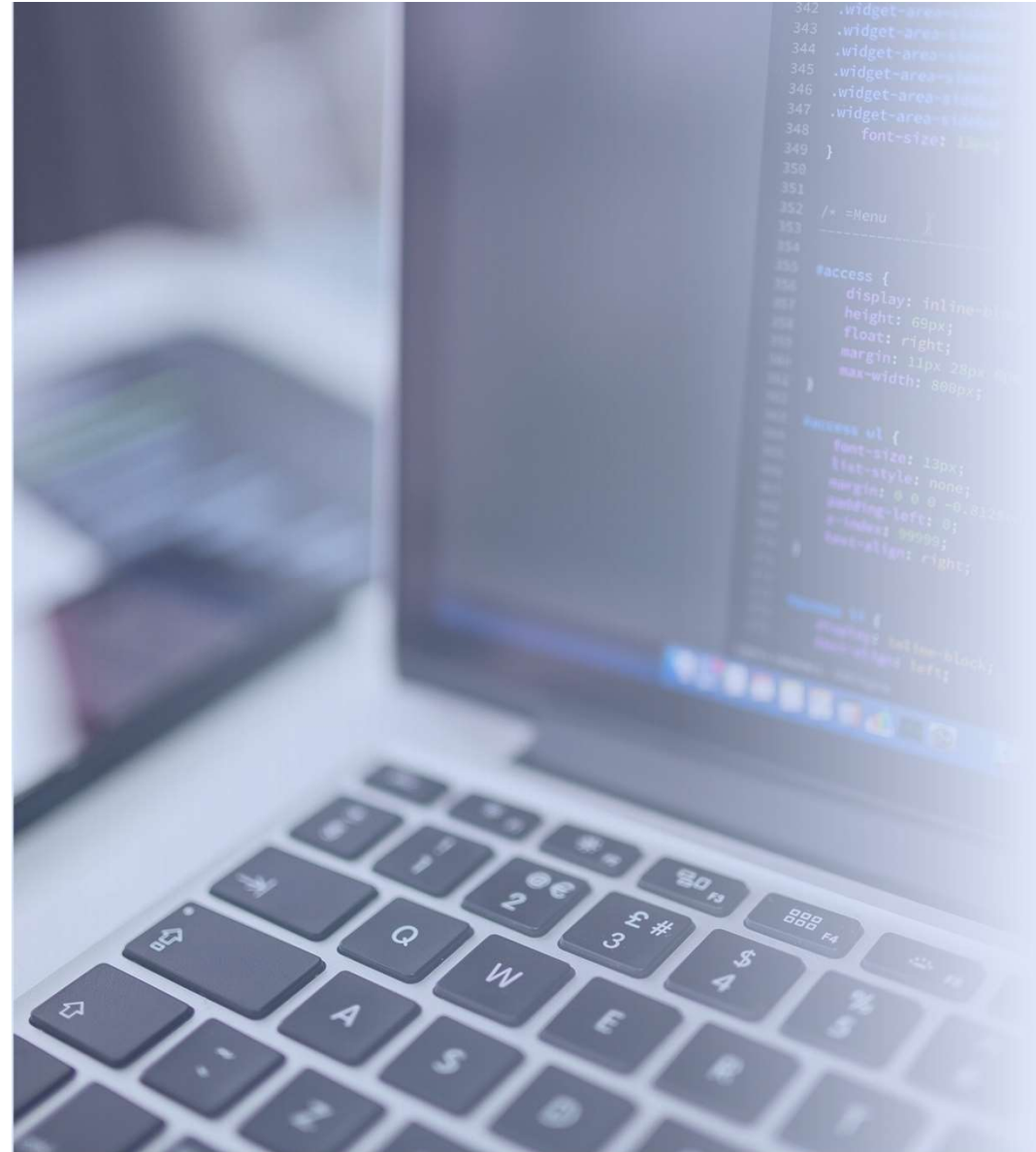


Resource Group

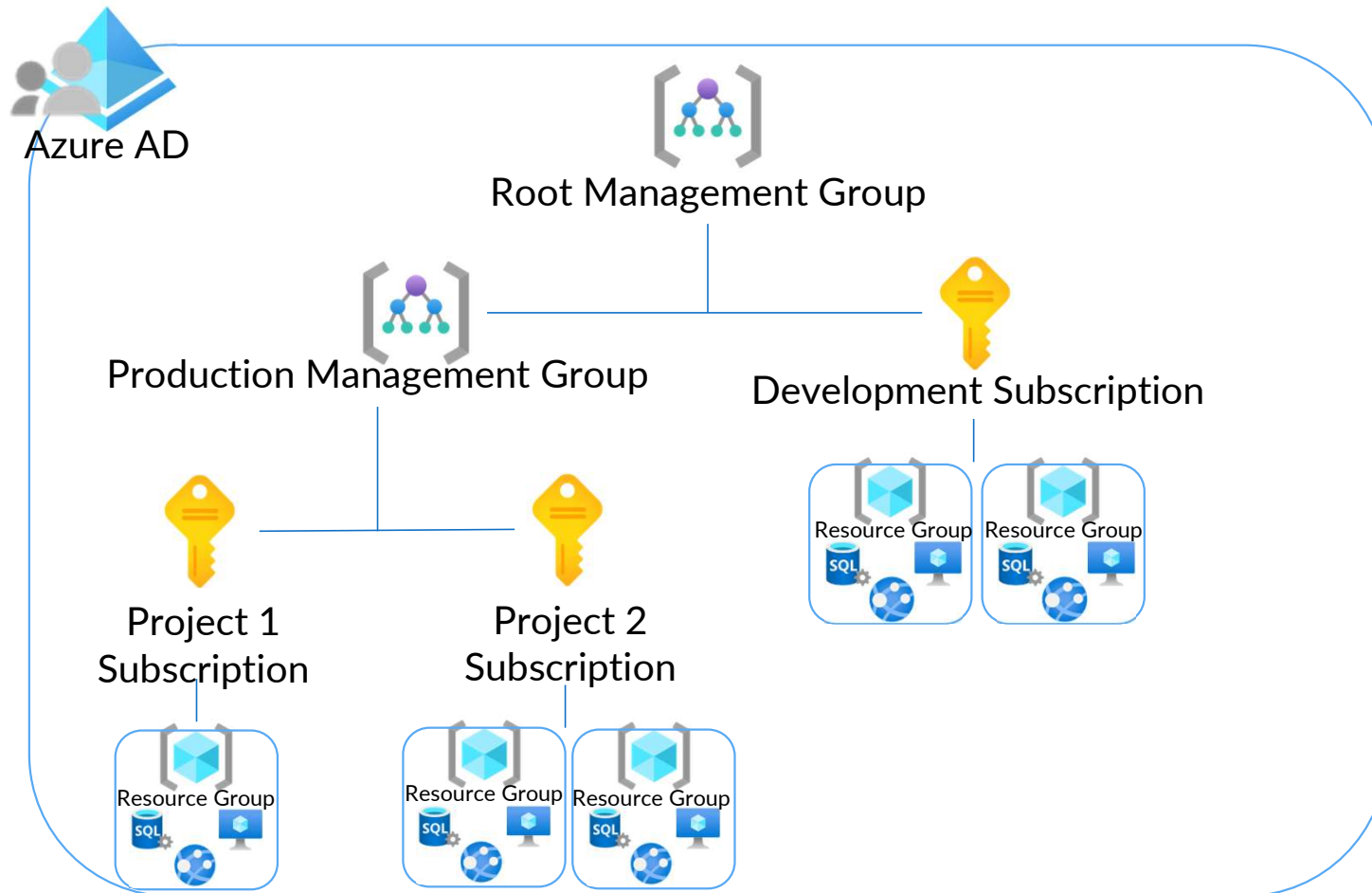


Resource Group

- Logical container for resources with a similar lifecycle
- Security boundary, resources inherit resource group permissions
- Billing scope

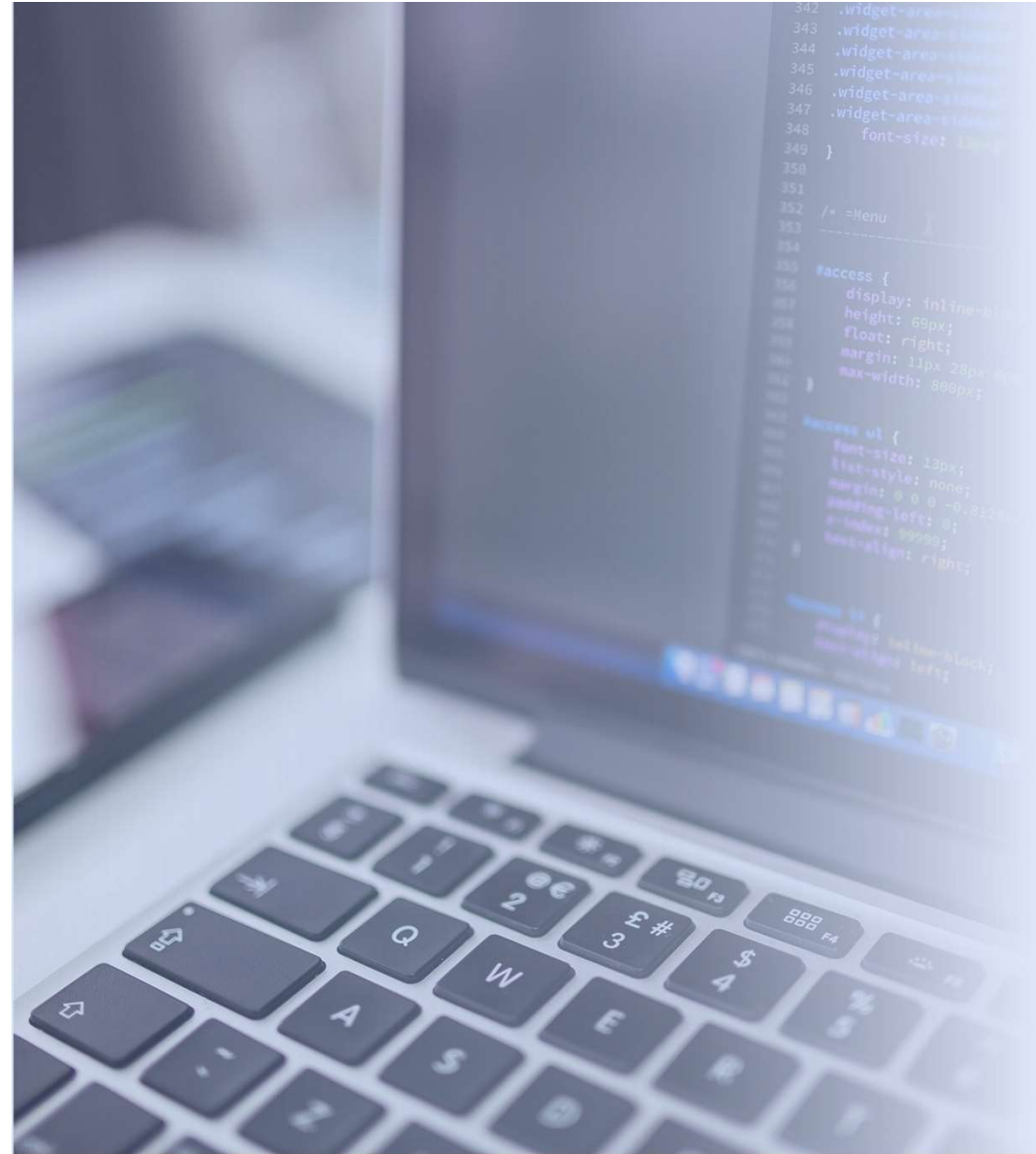


Azure Hierarchy



Azure Resource Manager (ARM)

- Deployment and management service for Azure
- Azure management
 - Portal
 - PowerShell
 - Azure Command Line Interface (CLI)
 - REST
- Declarative templates
 - JSON
 - Bicep
 - Terraform

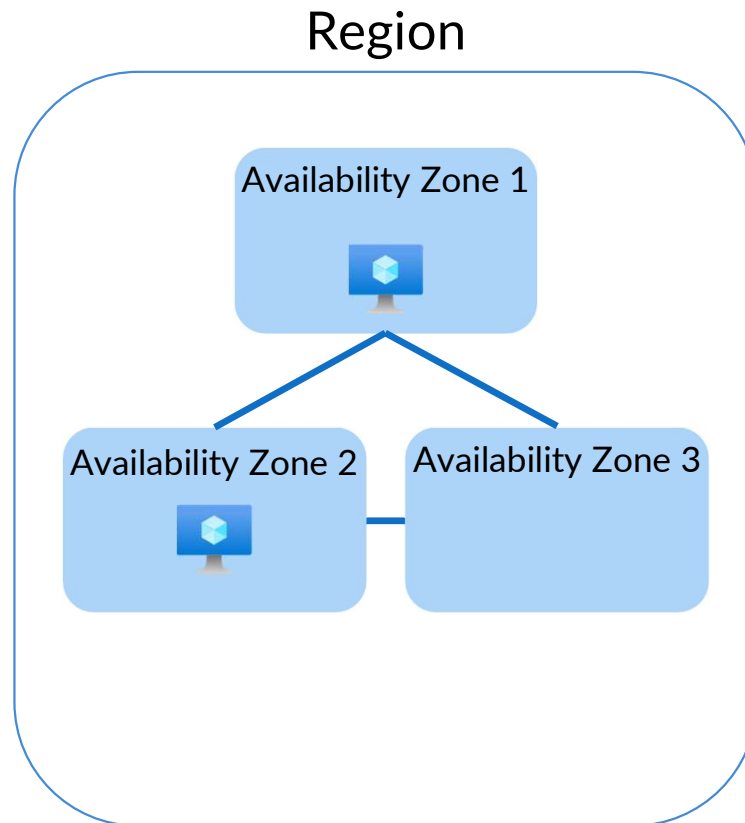


Azure Regions

- Datacenter – Physical location that house a group of networked servers
- Region – A group of datacenters located within latency-defined boundary connected with a dedicated, low-latency network
- Over 60 regions worldwide, available in 140 countries



Availability Zone



Availability Zone:

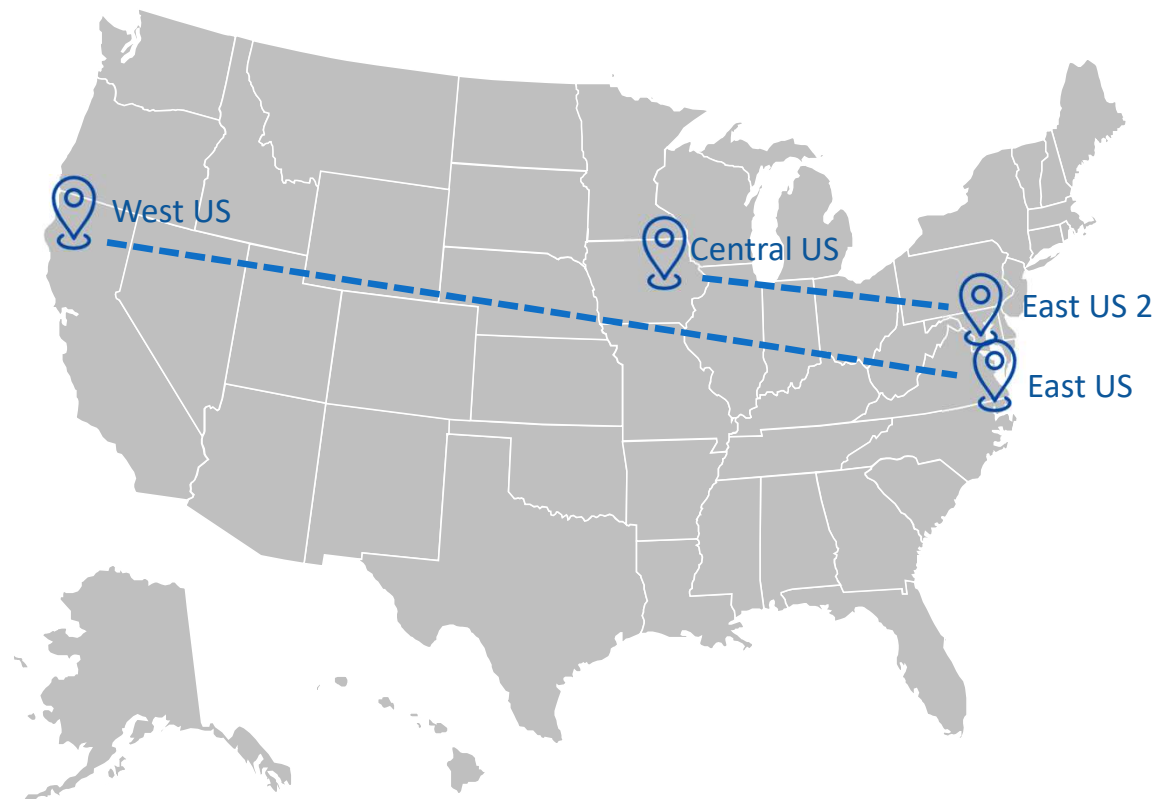
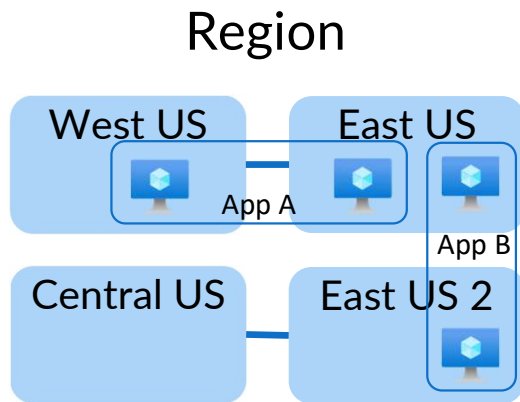
- Physically separate datacenters within a region
- Well connected, latency less than 2ms
- Minimum of three zones in regions that support Availability zones

Azure Paired Regions

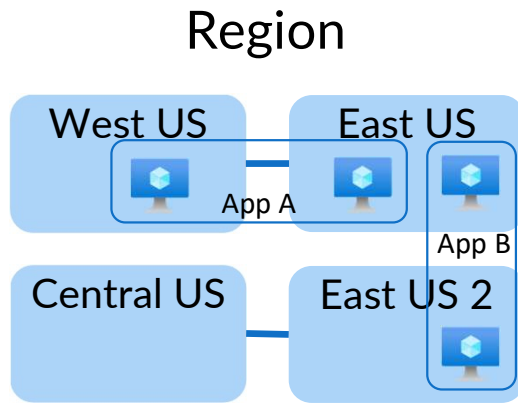
- Paired region – well connected region in the same geography
- Geography – a geo-political boundary for Azure services
- Cross-region replication
 - Region recovery sequence
 - Sequential updating
 - Physical isolation
 - Data residency



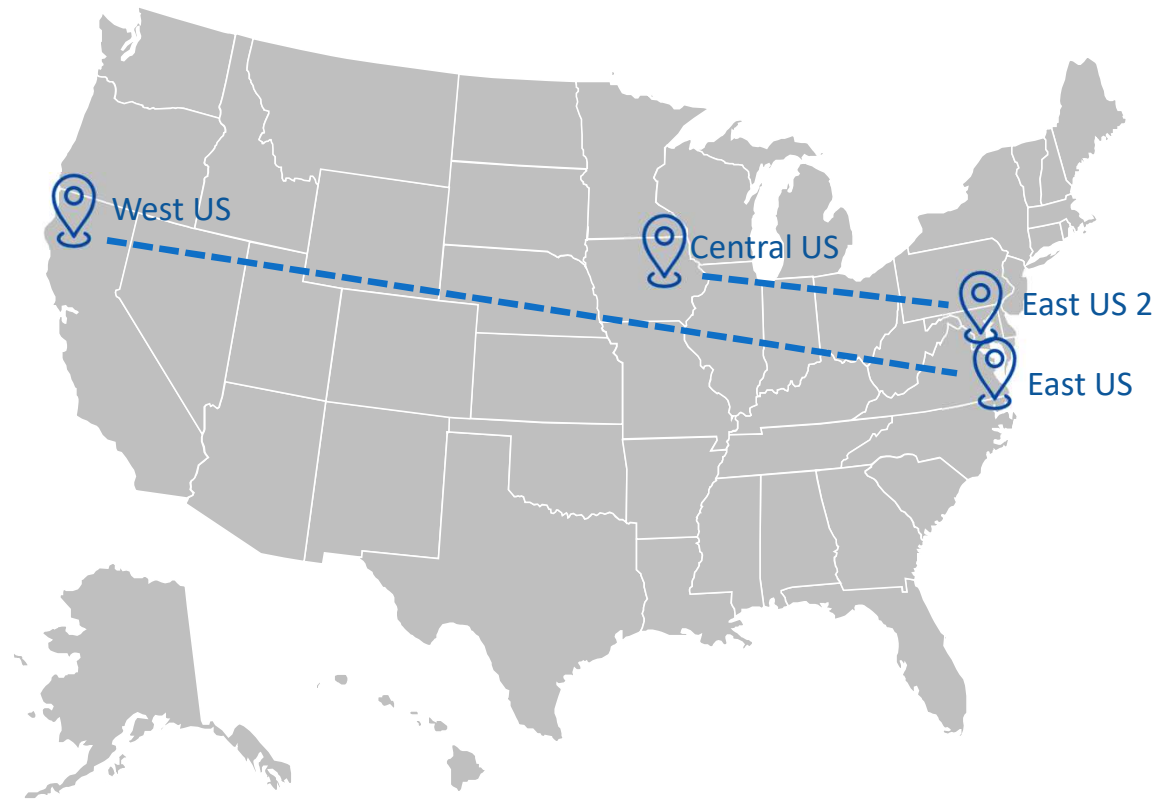
Azure Paired Region



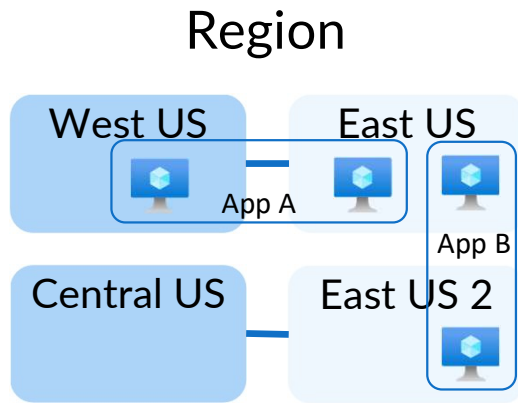
Azure Paired Region



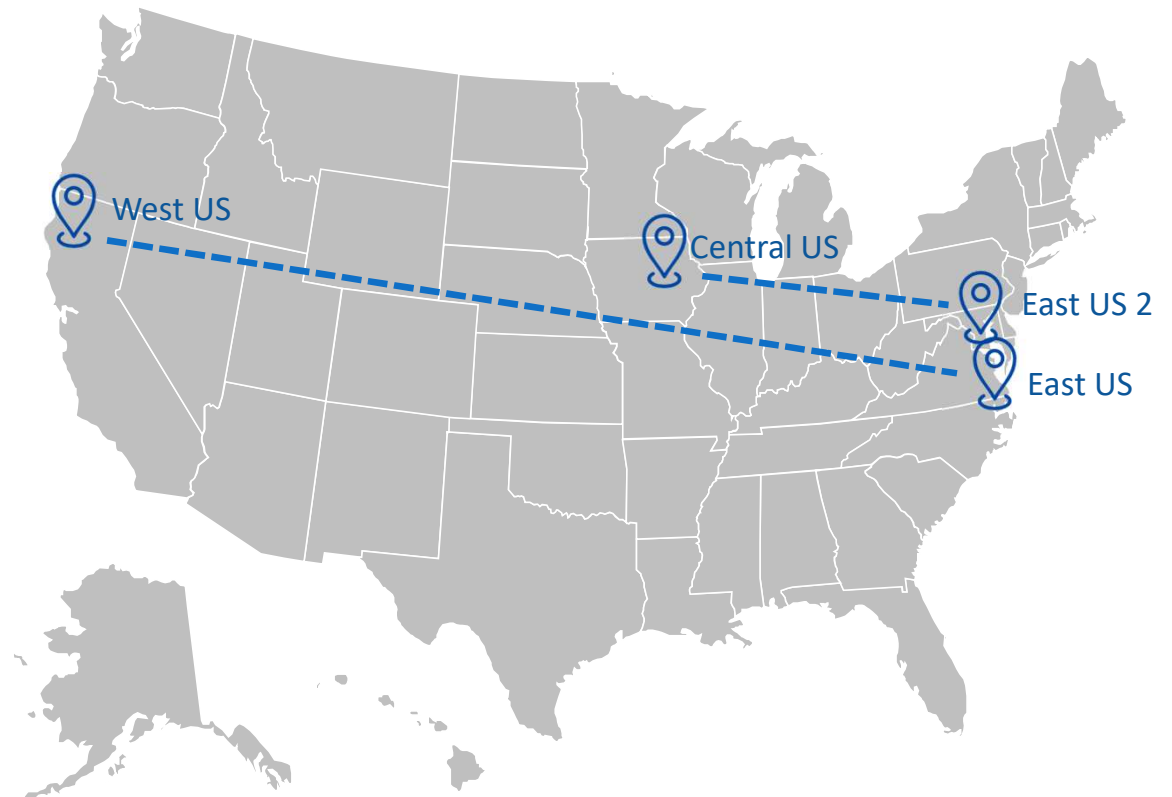
Physical Isolation:
Limits the impact of natural disasters, civil unrest, power outages or physical network outages



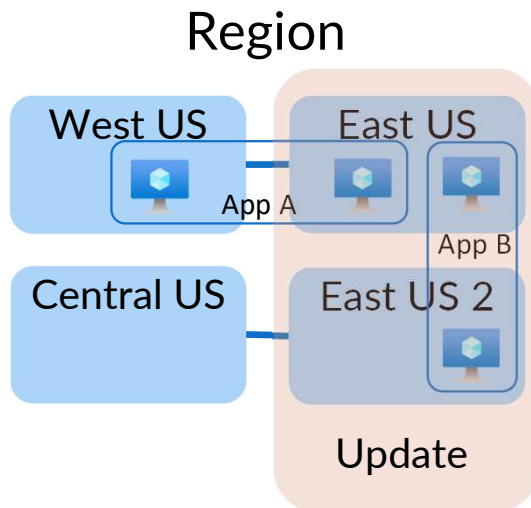
Azure Paired Region



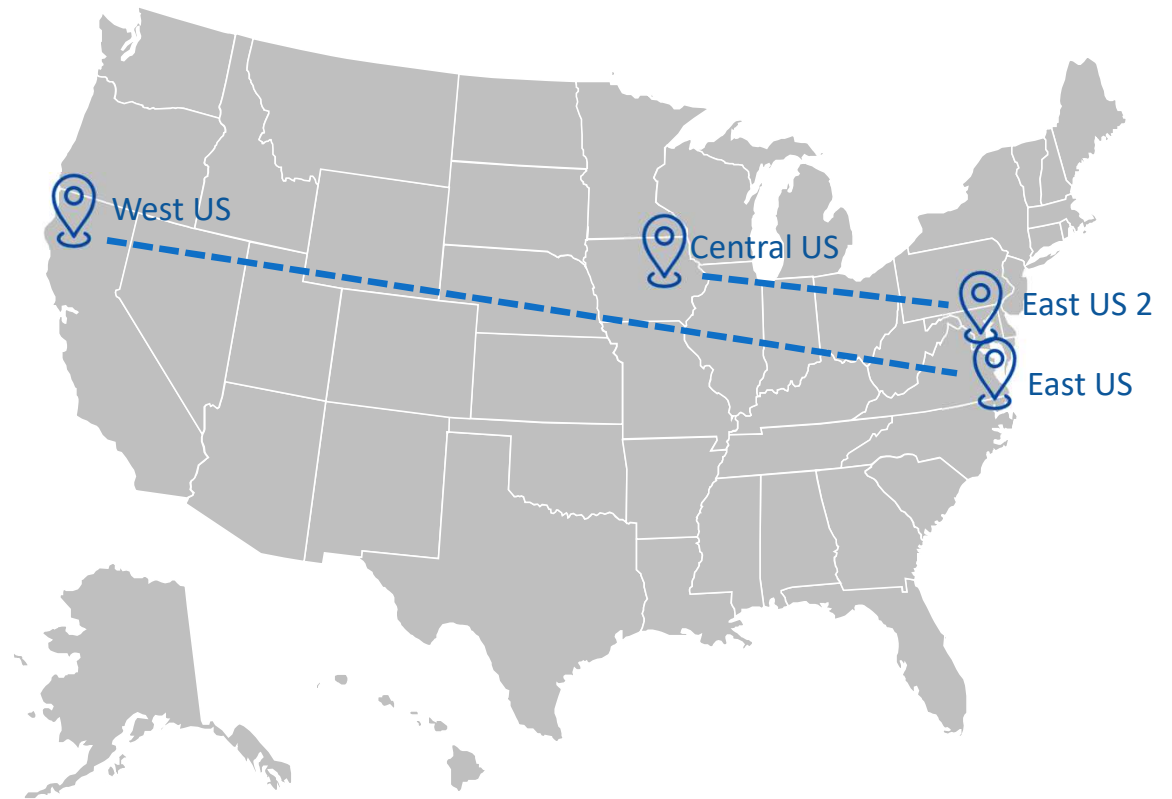
Regional Recovery Sequence:
One of the paired regions
have priority over the other
in the event of a geography
wide failure



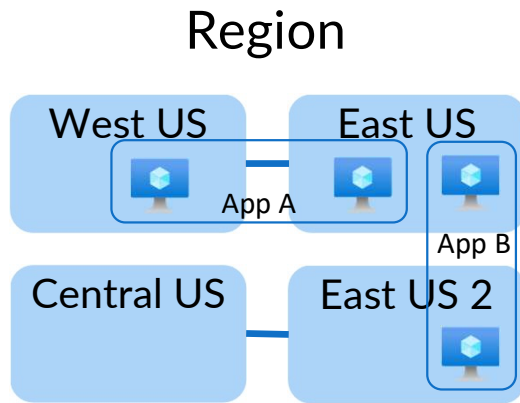
Azure Paired Region



Sequential Updating:
Planned system updates are
staggered across regions



Azure Paired Region



Data Residency:
Data resides in the same
geography to meet tax, law
enforcement and regulatory
requirements

