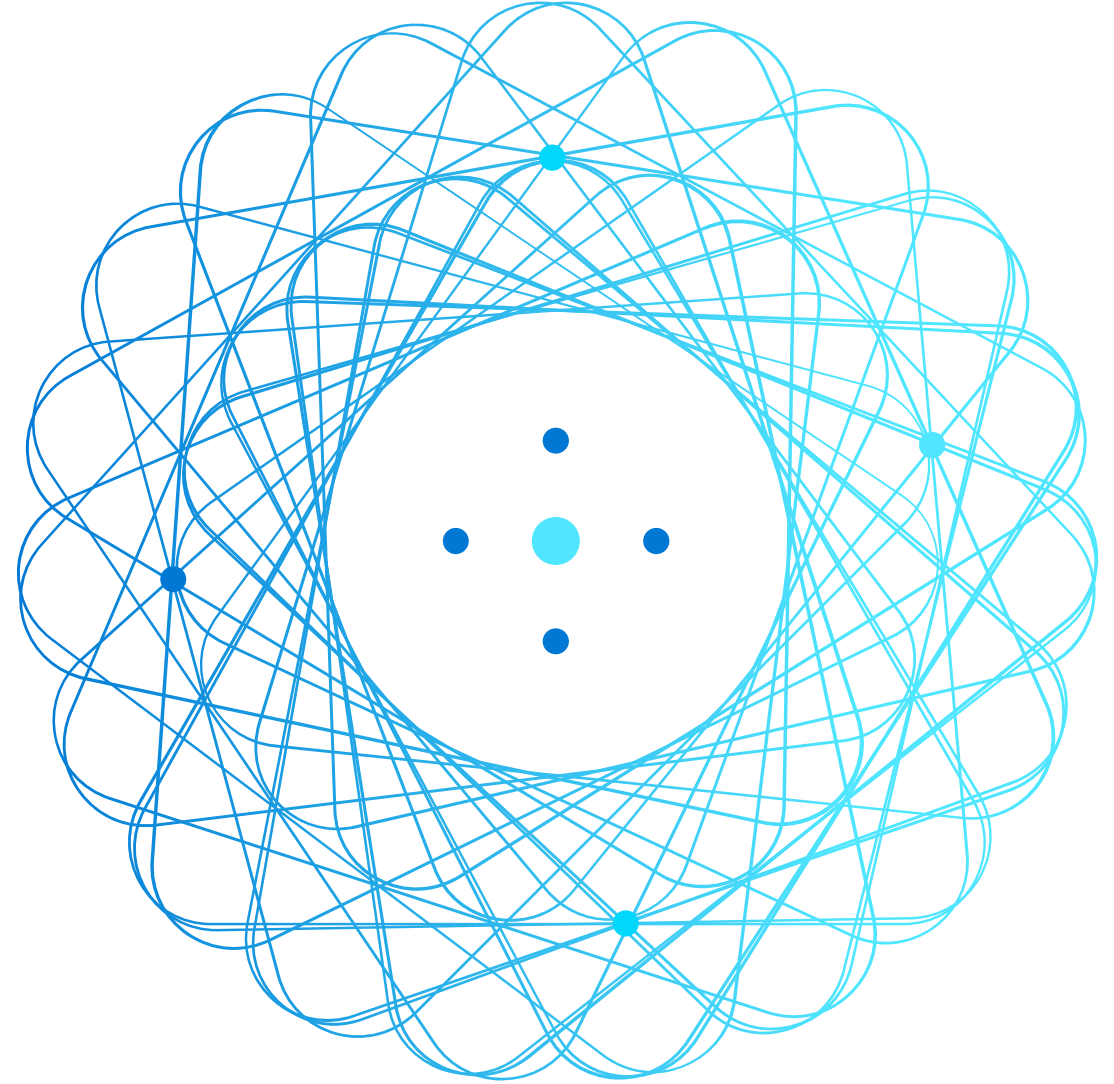
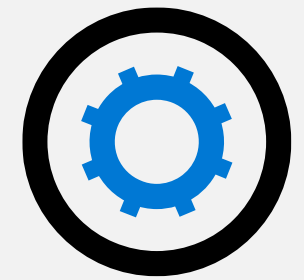


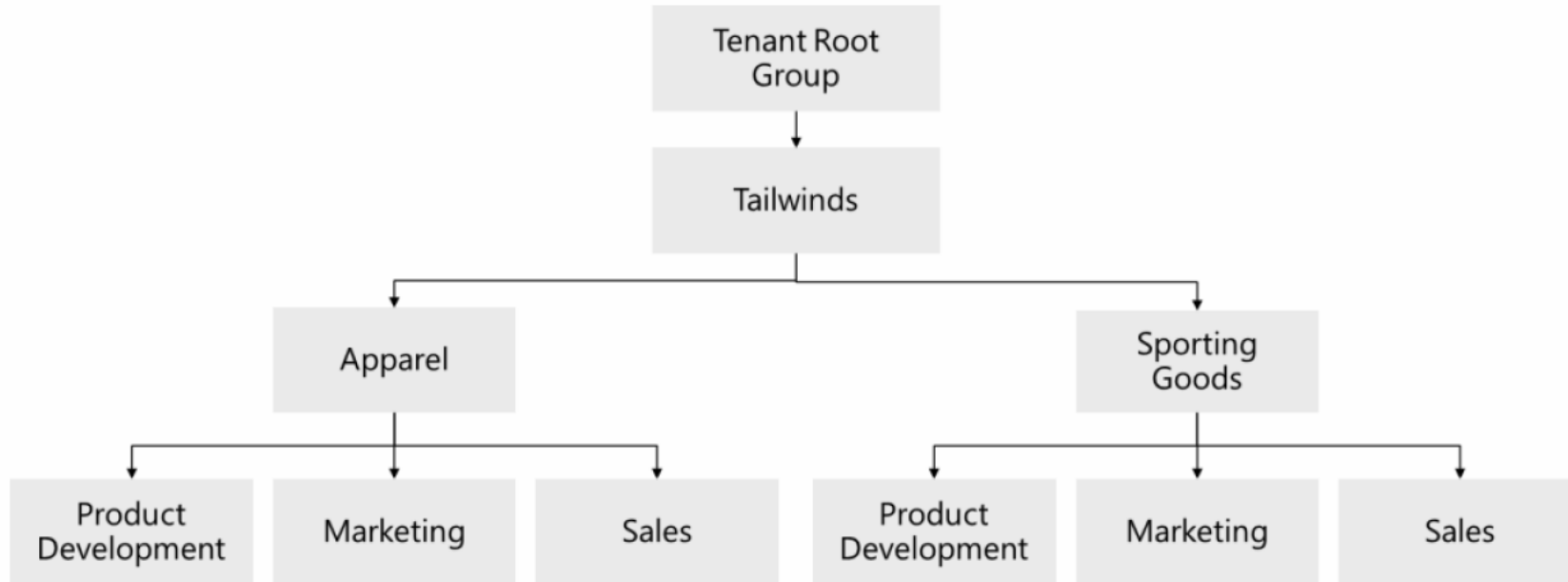
AZ-305 Case Study



Design a governance solution



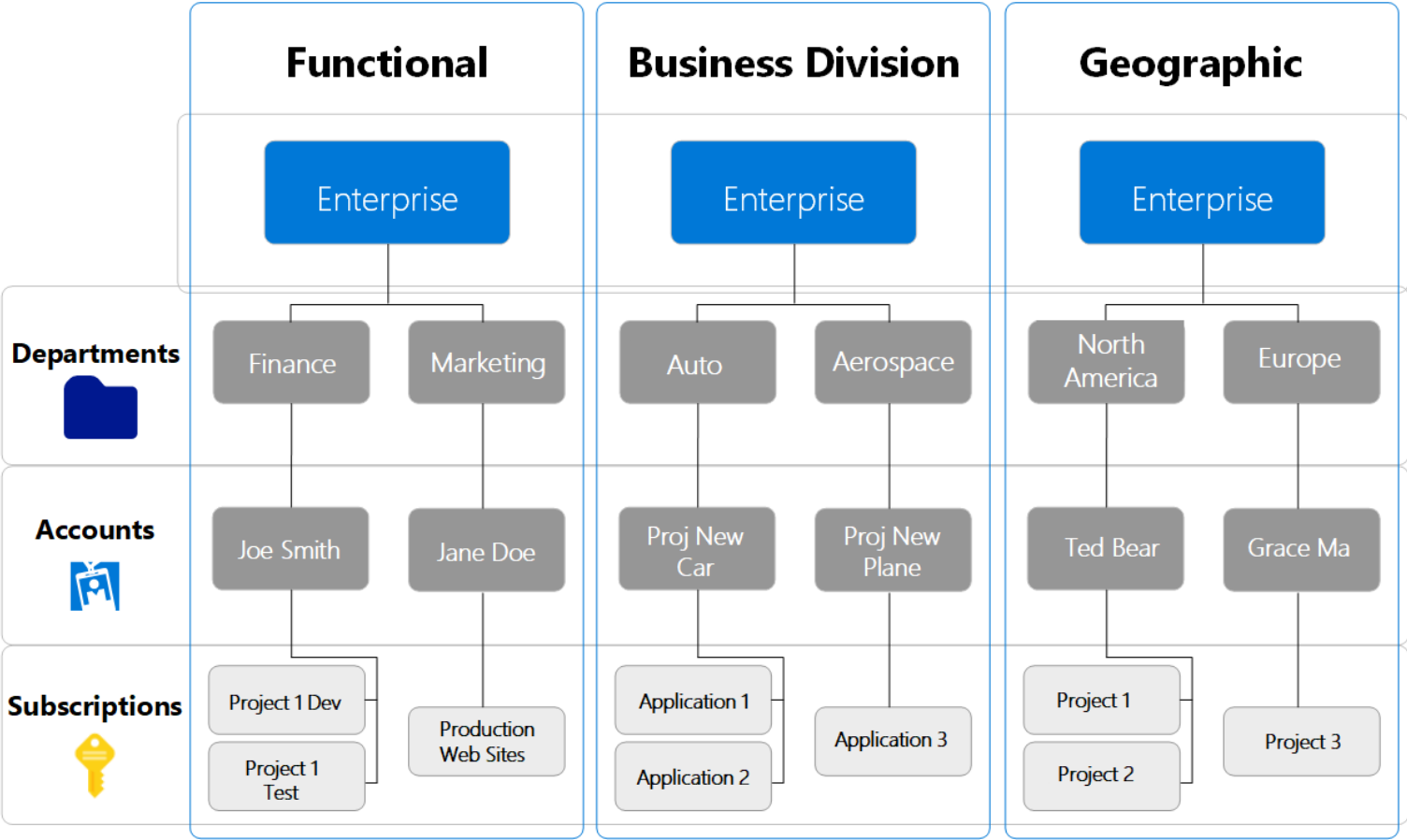
Cost and Accounting



Separate cost reporting for dev, test, production:

- Subscription
- Tagging

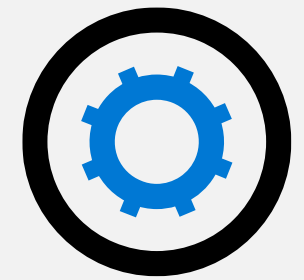
Enterprise Portal Hierarchy



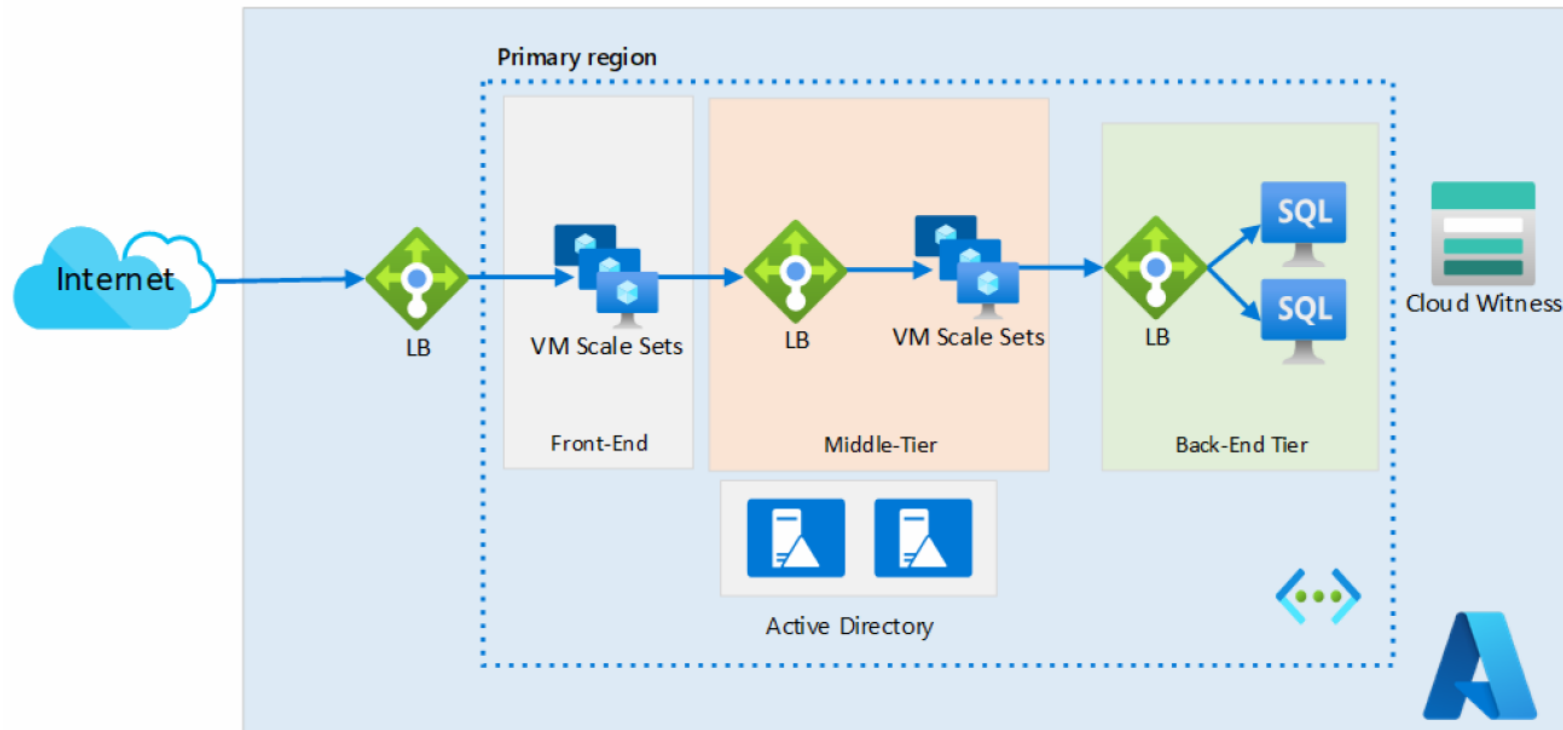
New Development Project

- Use tagging for the project resource groups and resources
 - Use policy to ensure tagging is in place
- Or use a separate subscription
- Assign policy to ensure top pricing tier VMs are not provisioned
- Assign policy to ensure naming convention
- Monitor non-compliant resources

Design a compute solution

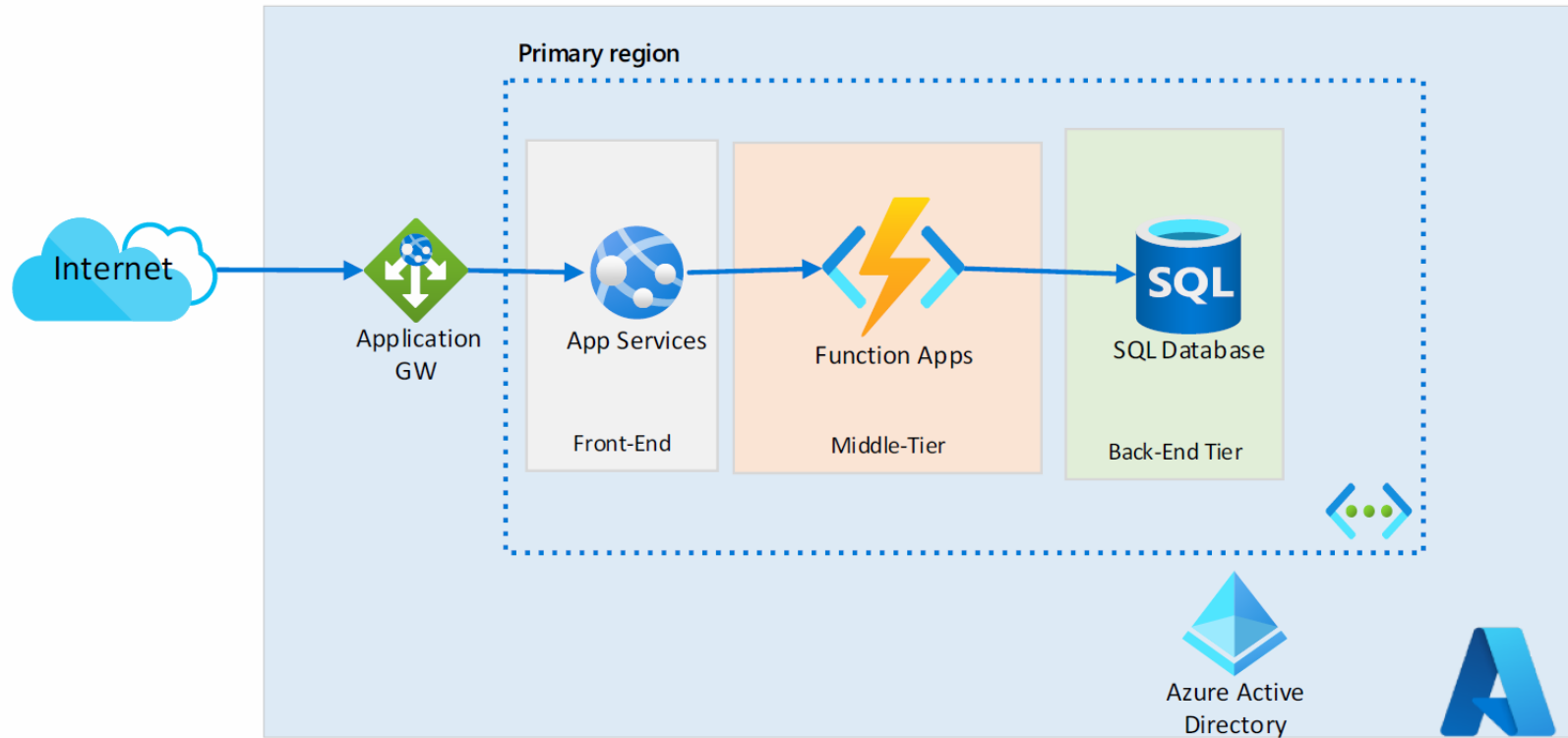


IaaS Solution



Always On Availability Group on VM requires Windows Server Failover Cluster

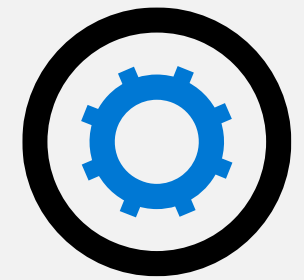
PaaS Solution



Migration effort is required for PaaS

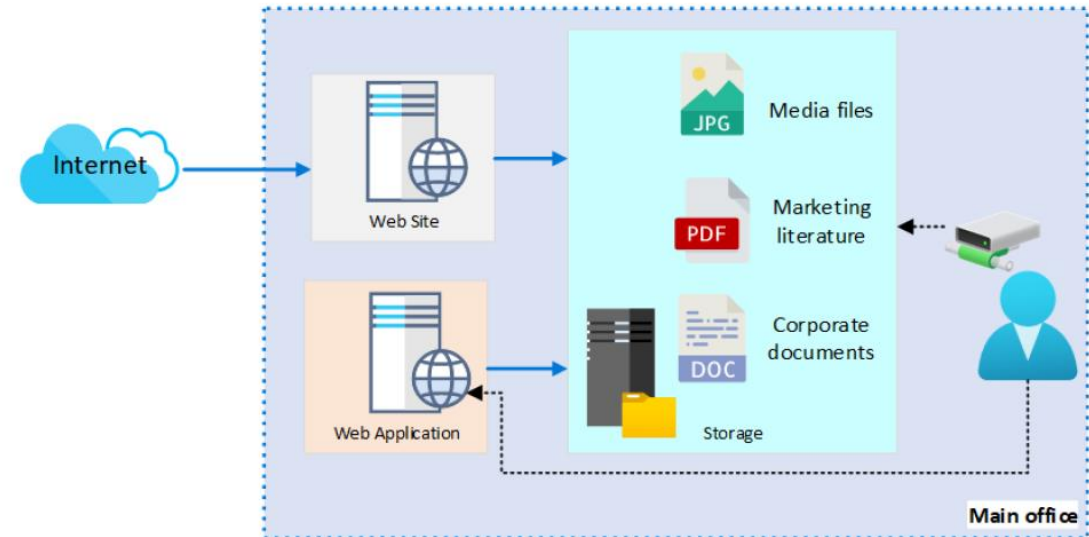
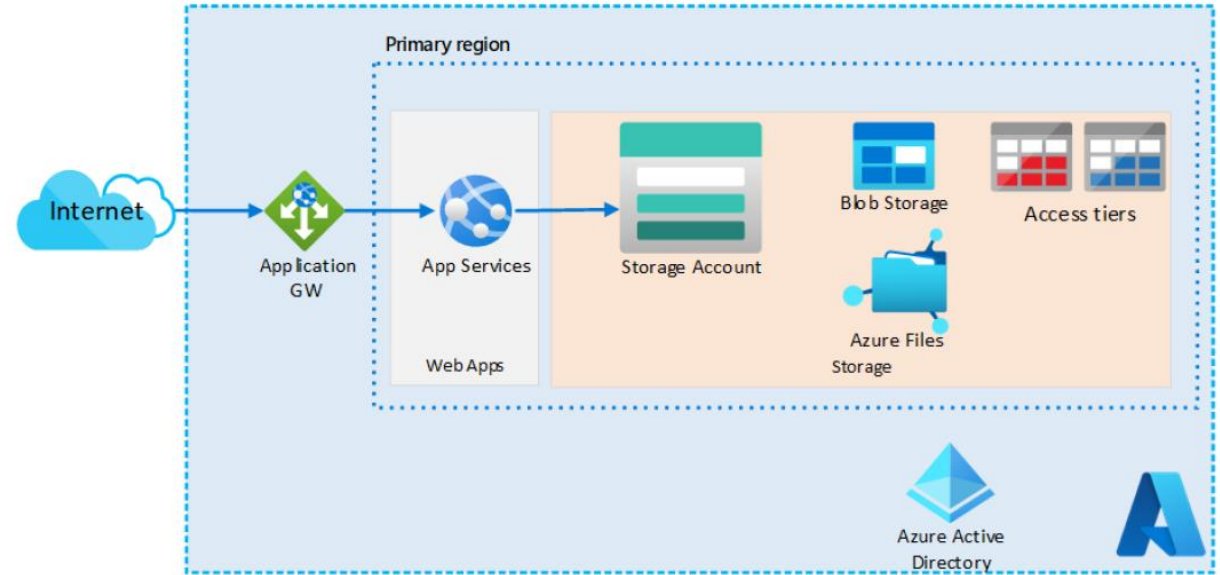
Use API Management to increase flexibility and provide policy control

Design a non-relational storage solution

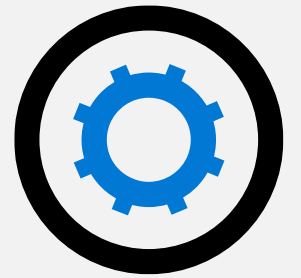


Solution

- Factors to consider:
 - File location, compliance and regulatory requirements, performance, and storage replication
- Blob – Media and corporate files
 - Support immutable policy
- File – Marketing literature
 - File server with File Sync service
- ZRS or GRS
- Hot tier – Files less than 1 year old
- Archive/cool tier for corporate docs older than 1 year
- Lifecycle management
- Immutable storage for HR/legal requirement
- Endpoint for enhanced security

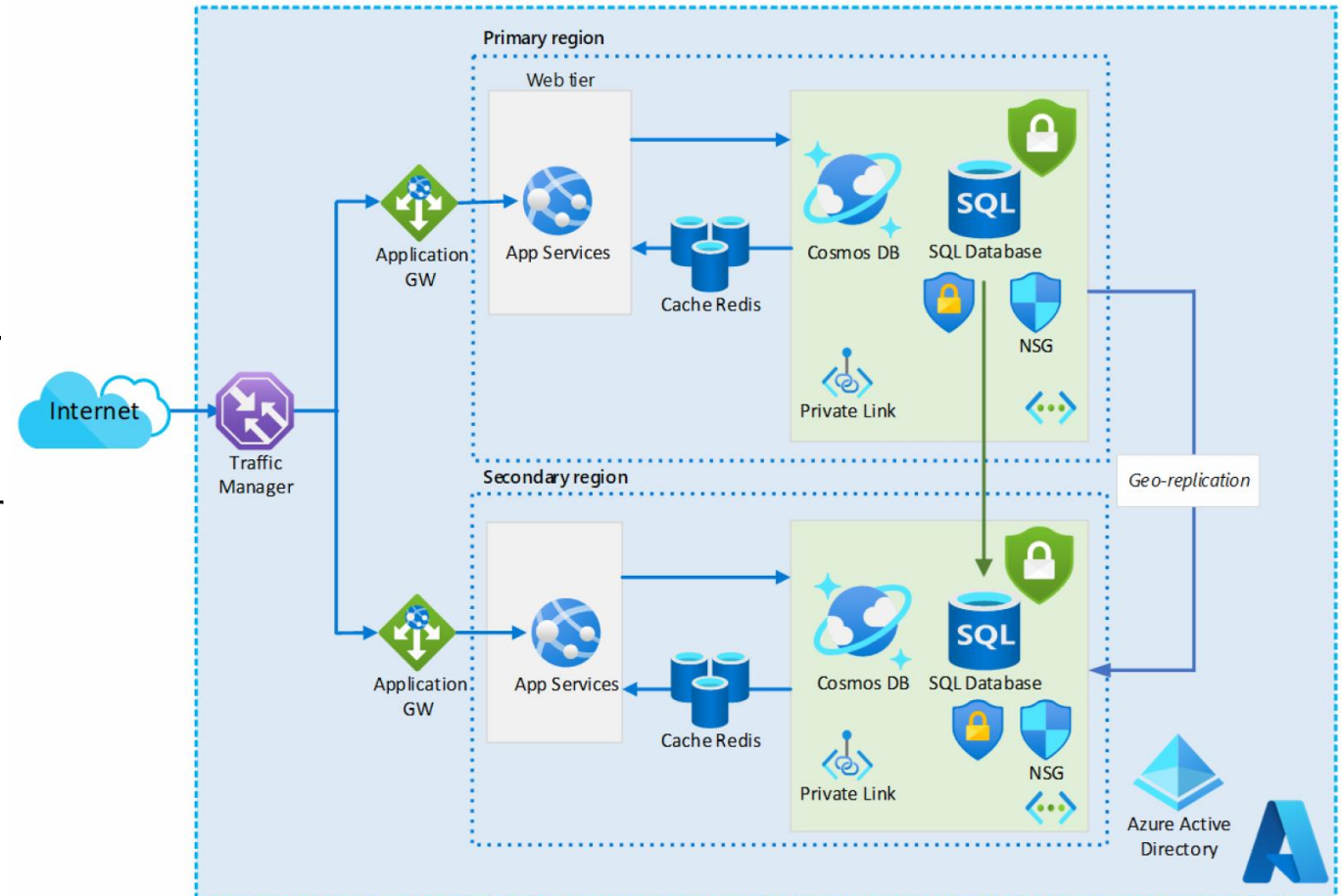


Design a relational storage solution

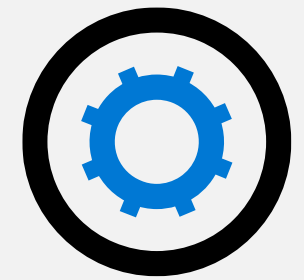


Solution

- High availability
 - Business critical tier for SQL DB with zone redundancy – 99.995% availability
 - High throughput, low latency with 4-node cluster and readable replicas
 - Active geo-replication – Up to 4 readable geo-secondaries
- Performance
 - Move product catalog to Cosmos DB for faster response and global distribution
- Security
 - DB and server level firewall
 - Azure AD authentication
 - Private endpoint, NSG
 - Azure Defender for SQL
 - TDE, Always Encrypted, Dynamic Data Masking

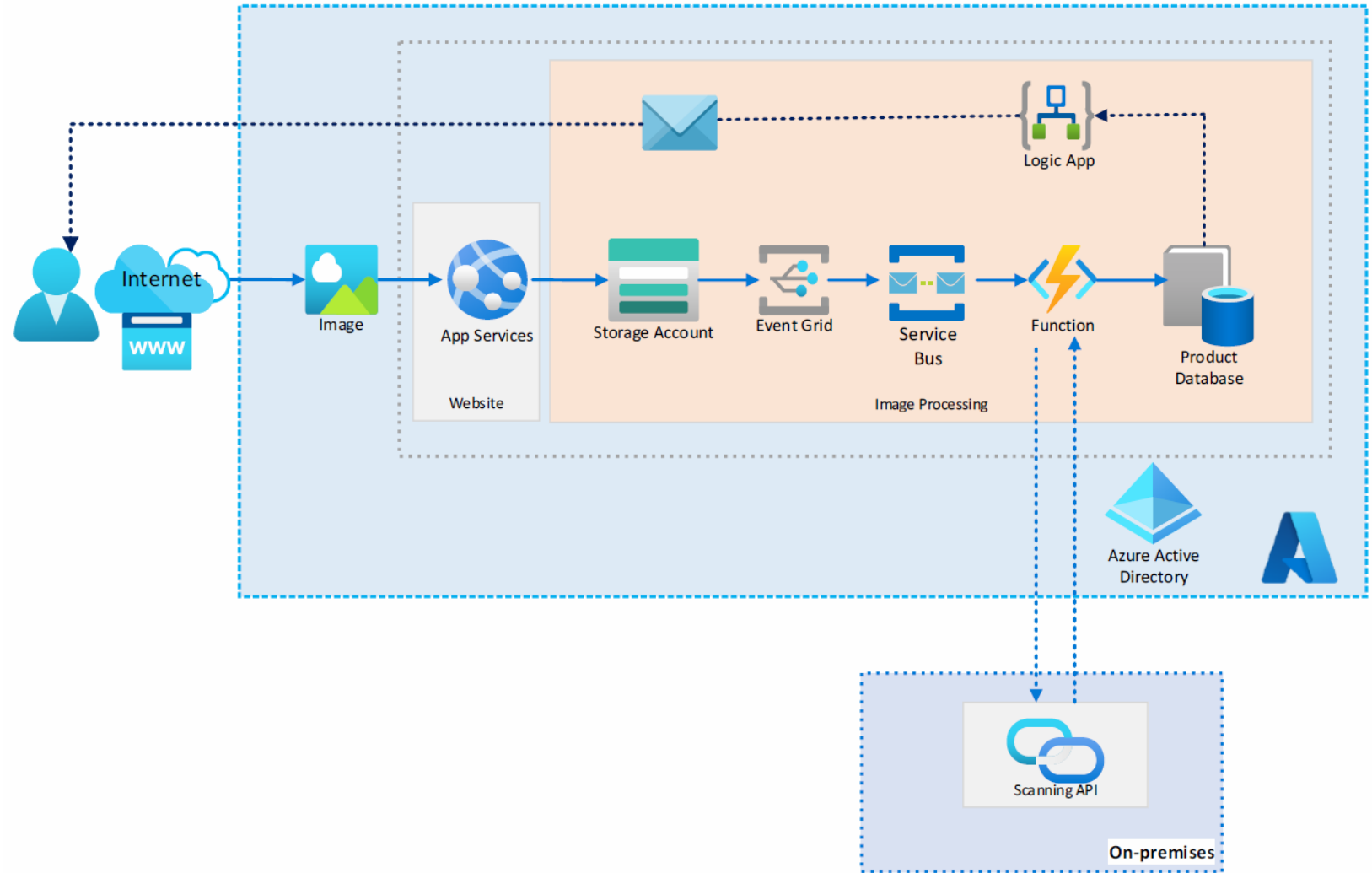


Design an app architecture solution

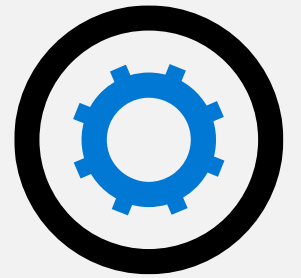


Solution

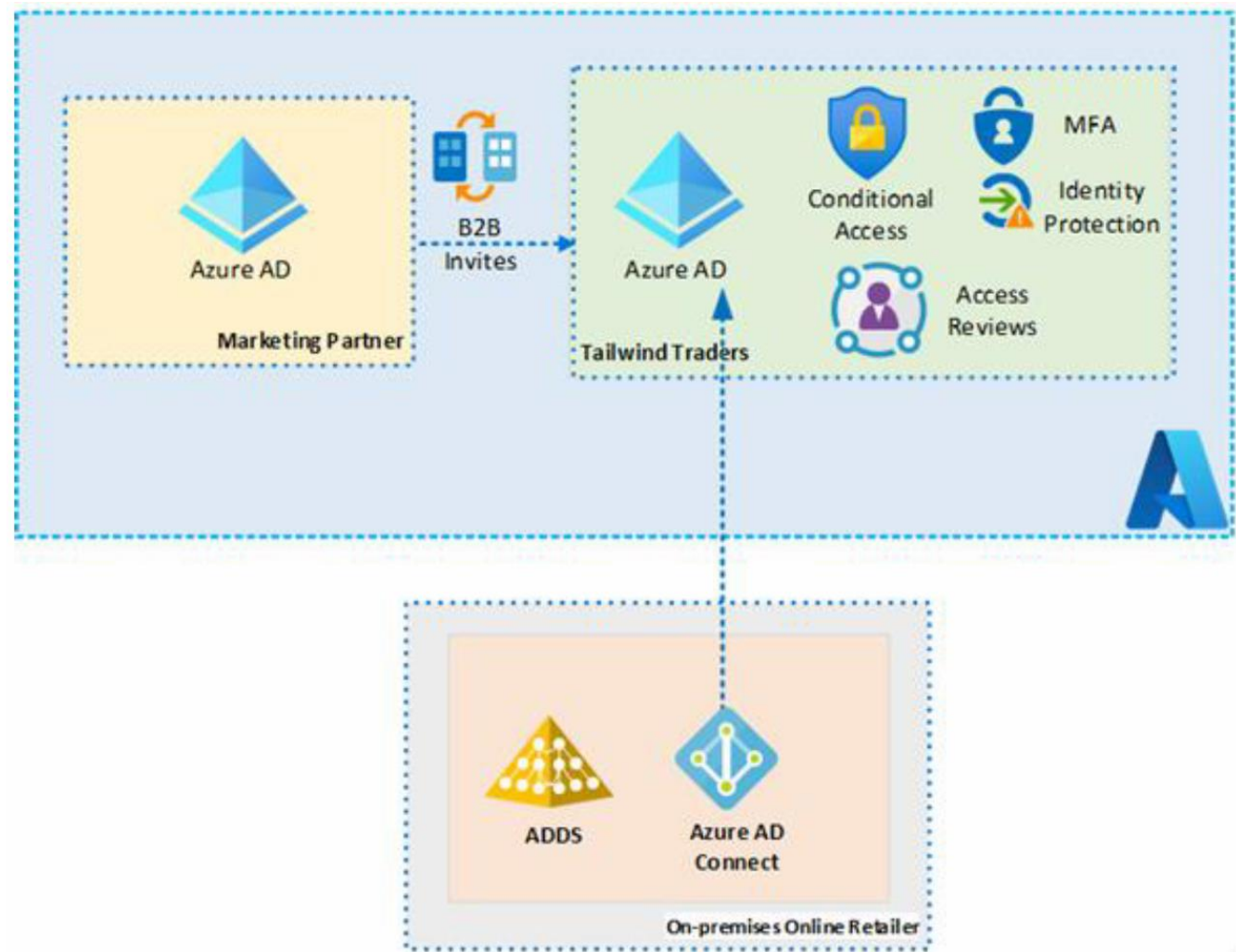
- Service Bus Queue
 - Balance the load for the scanning API
 - Ensure delivery of the image events
- Logic App SQL Server Connector, or Cosmos DB Connector
 - Trigger for inserted / modified item
- Alternatively, use Logic App to call scanning API, update DB and send email



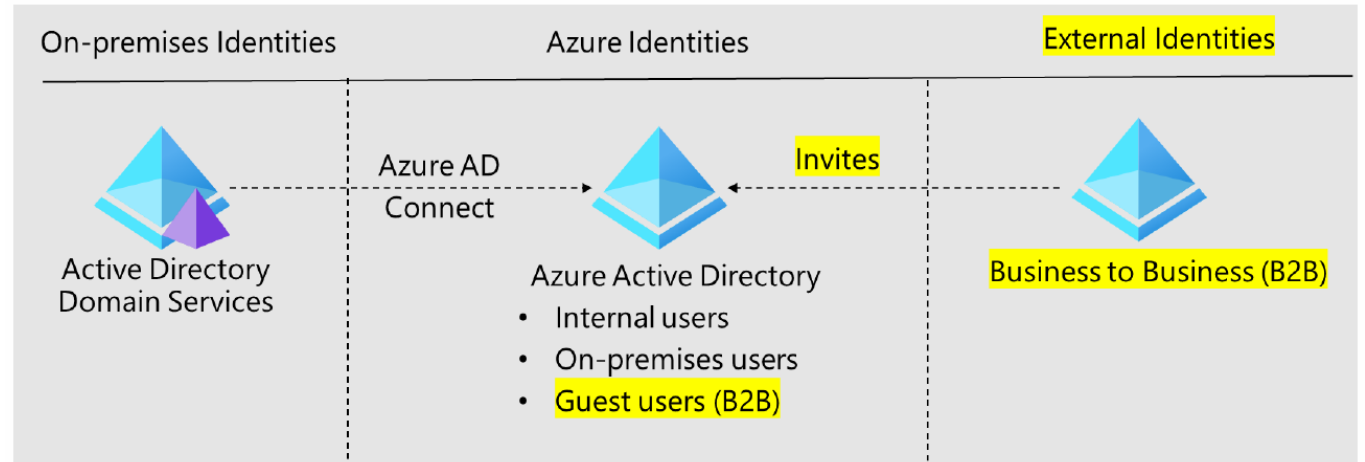
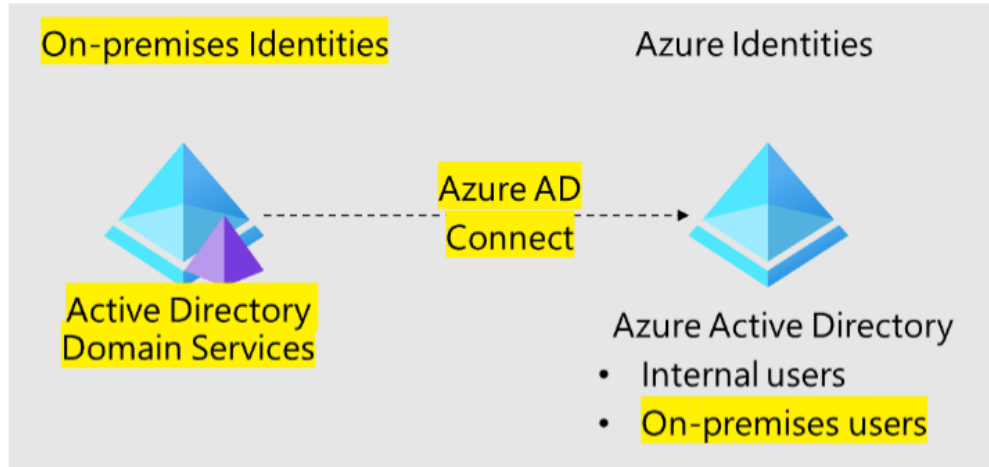
Design authentication and authorization solutions



New User Account

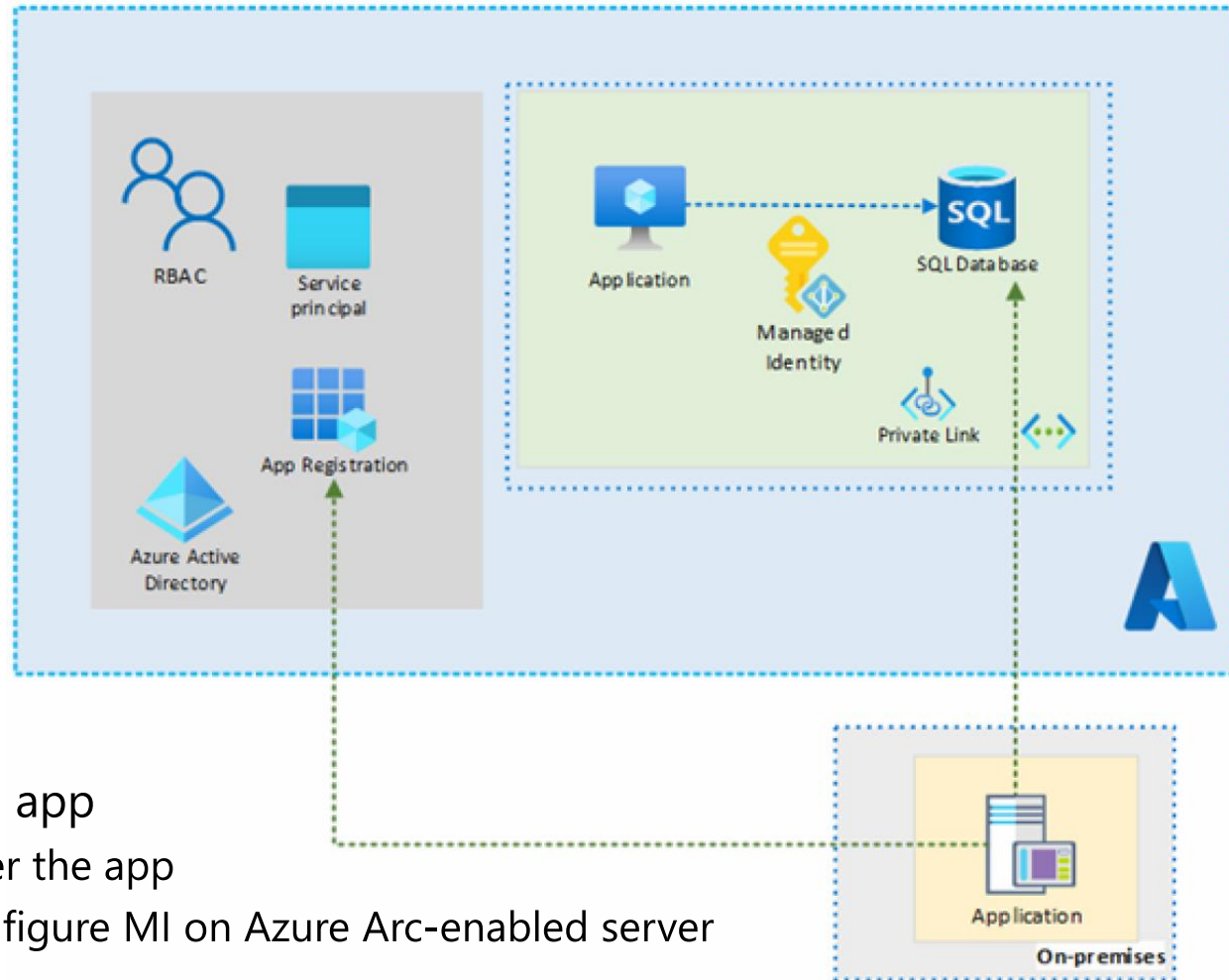


New User Account



- Recommendations
 - Create new group / role for new users
 - Use MFA, conditional access blocking untrusted locations...
 - Use user & sign-in risks in Identity Protection
 - Use access review to ensure right users having the right permission
 - Restrict guest user access
 - Restrict users who can send guest user invites
 - Restrict domains the guest user invites can be sent to

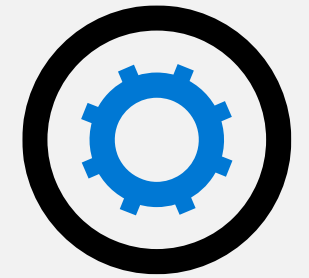
New Application Access



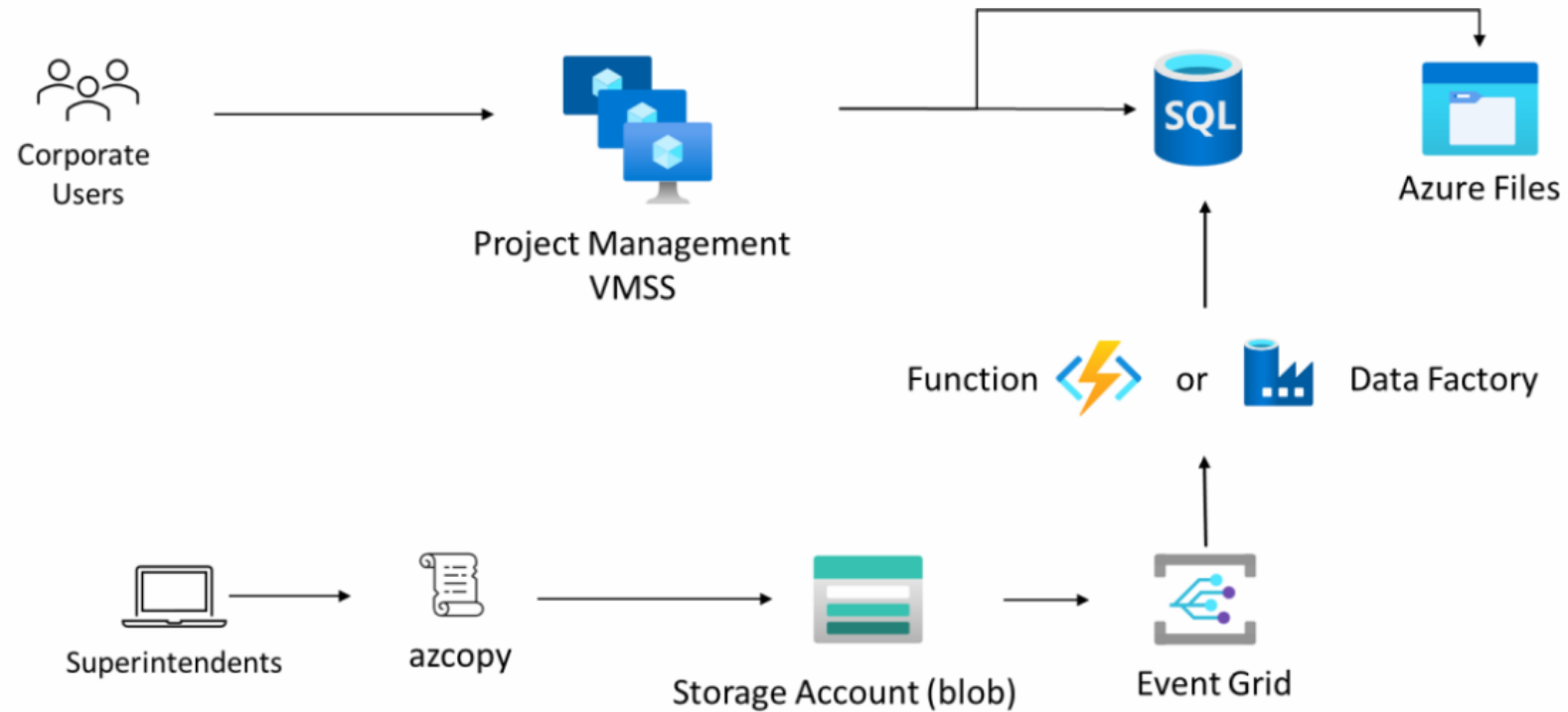
On-prem app

- Register the app
- Or, configure MI on Azure Arc-enabled server

Fabrikam Residences



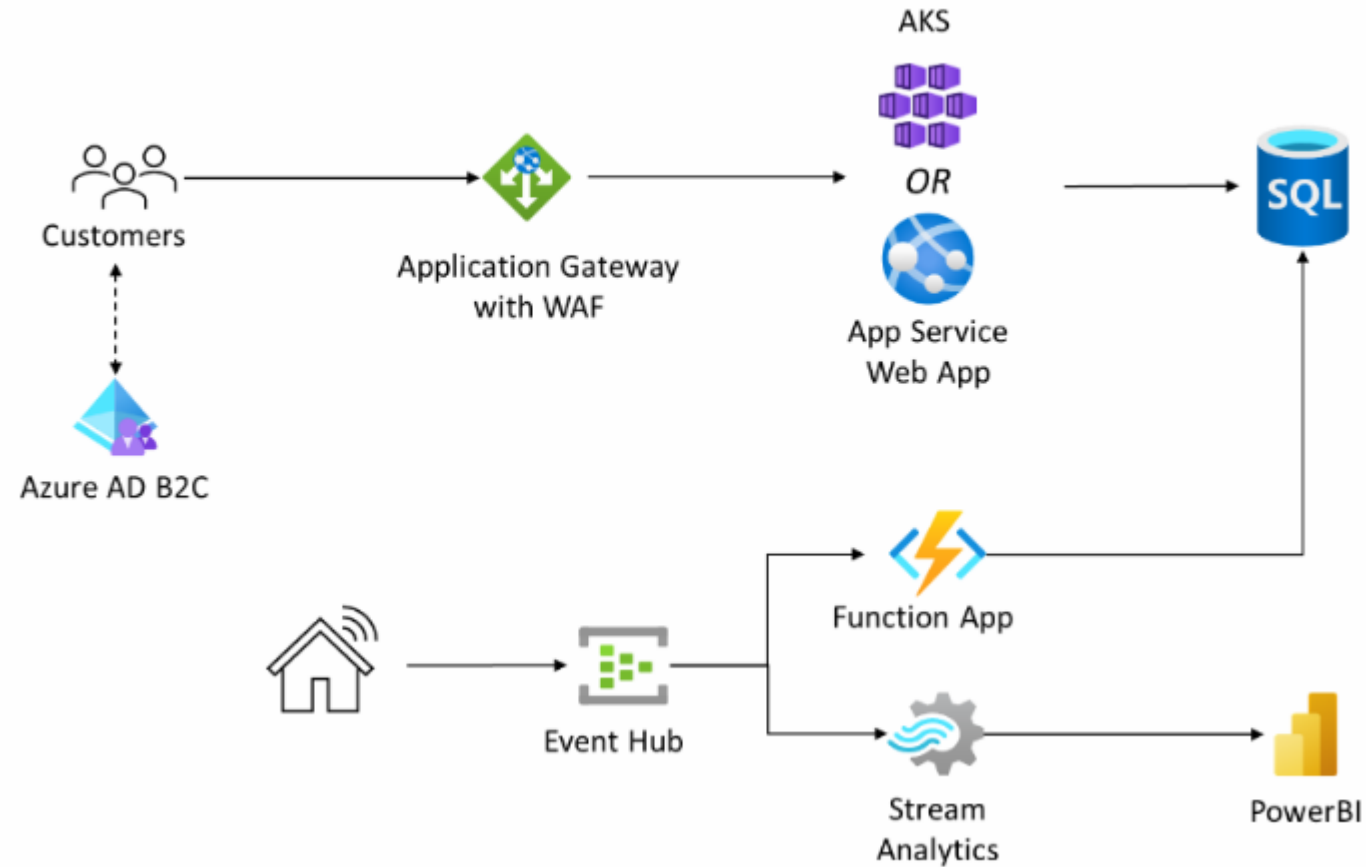
Solution – Project Management



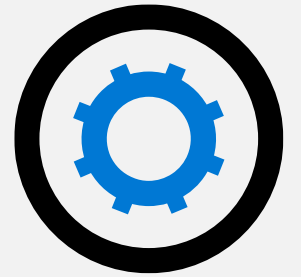
Consider using Private Endpoints for PaaS services to improve security

Solution – New Home Technology

New Home Technology Solution

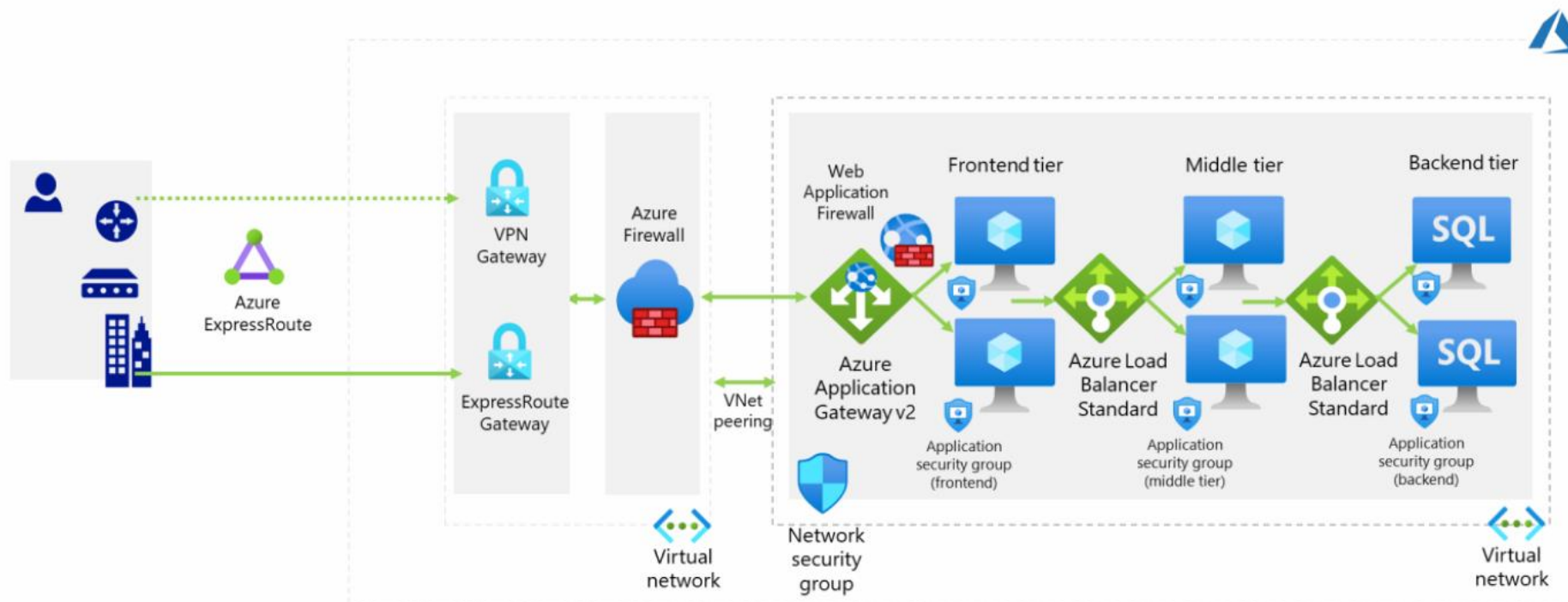


Design a network solution -BI enterprise application



Solution

- 99.99% SLA → Deploy VMs in availability zones
- Zone redundant LB
- Zone redundant App Gateway V2 with WAF
- NSG / ASG
- S2S VPN failover for ExpressRoute
- Zone redundant VPN/ER gateways
- DR site in another region
 - Site Recovery for frontend and middle tiers
 - SQL Server Always On Availability Group with async replication to the secondary site
 - VNet global peering
- Use Managed Identity to access SQL



End of presentation

