Global Azure Bootcamp 2019

Azure Governance & Security Hardening

Agenda

- Management Groups – how to better structure your tenant.
  - DEMO –Management Groups.
- Azure Policy – enforce resource compliance.
  - DEMO – Azure Policy.
- Azure Blueprints – compliance at scale.
- Azure Key Vault – SSL Certificate management.
  - DEMO – Key Vault & SSL certificates.
- Azure Key Vault – Credentials & Encryption keys management.
  - DEMO – VM, SQL and Storage Account BYOK encryption.
  - DEMO – Azure Policy Compliance Monitoring.
- Questions.

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About Me

- Fabien Gilbert – fabien.gilbert@appliedis.com
- 12+ years in IT Consulting in France and in the US.
- Currently Cloud Infrastructure Consultant with AIS.
- Help clients on their journey to the Cloud.

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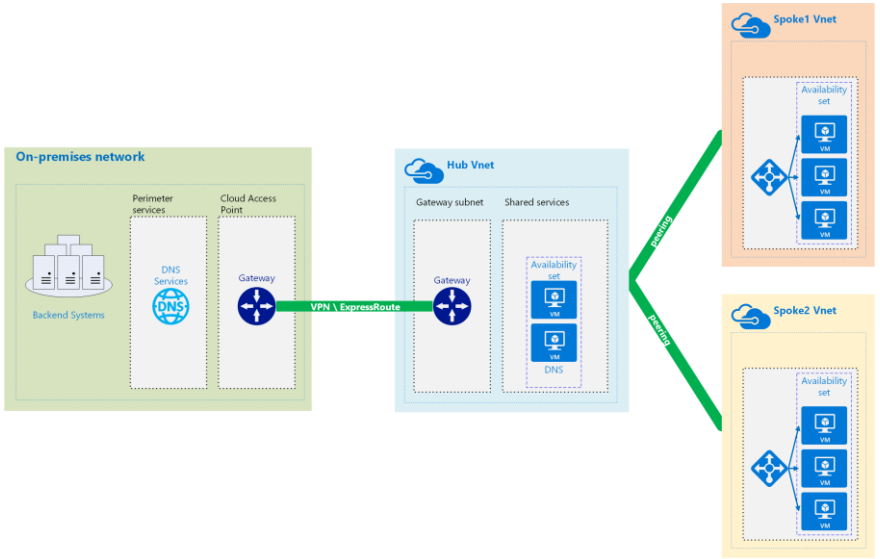
Nice-to-haves

- ✓ Familiarity with Hub & Spoke Topology.
- ✓ Experience with Role Based Access Control.
- ✓ Understanding on Identity & Access Management
- ✓ PowerShell scripting experience.



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Azure tools for IT Governance

- Management Groups
- Policy
- Blueprints
- Key Vault

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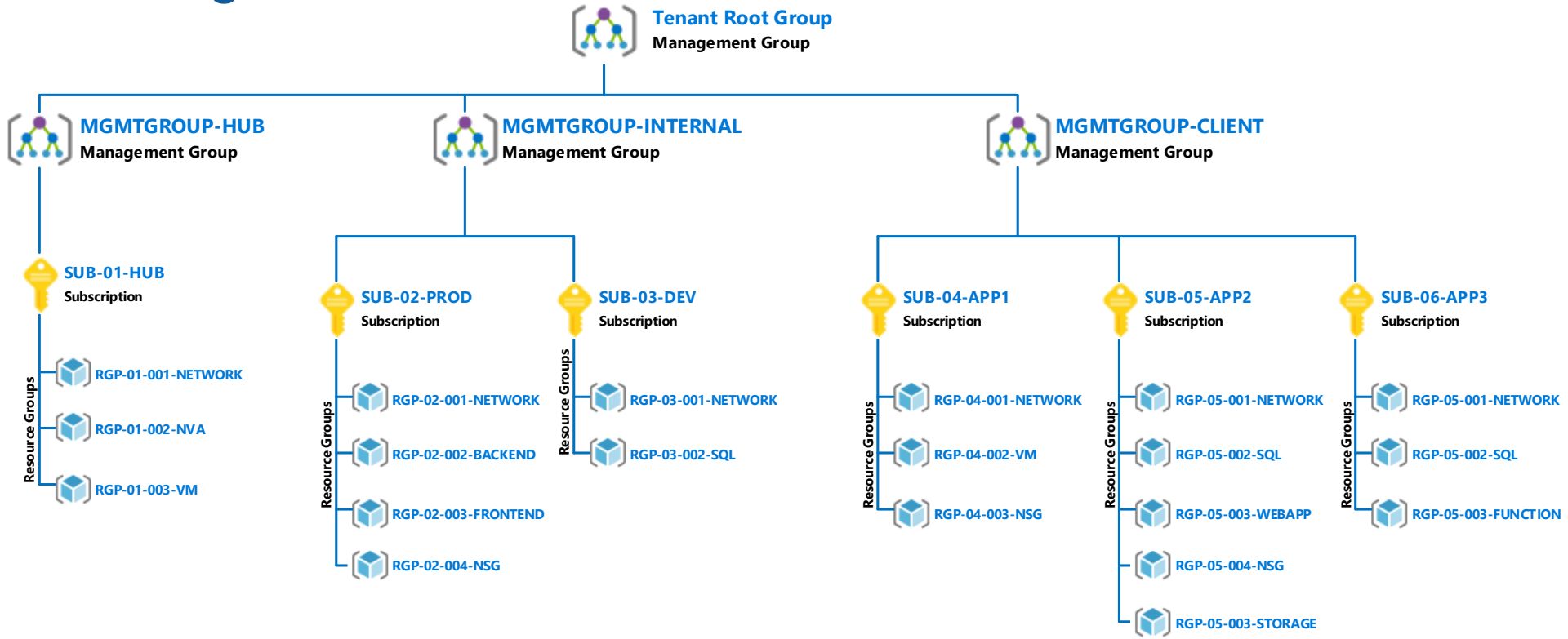
Management Groups



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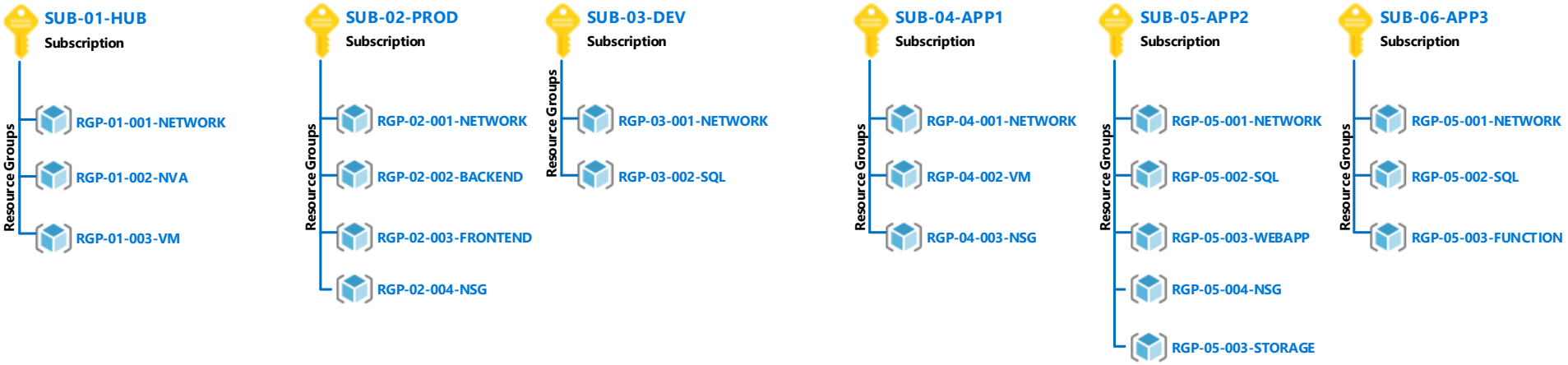
Management Groups



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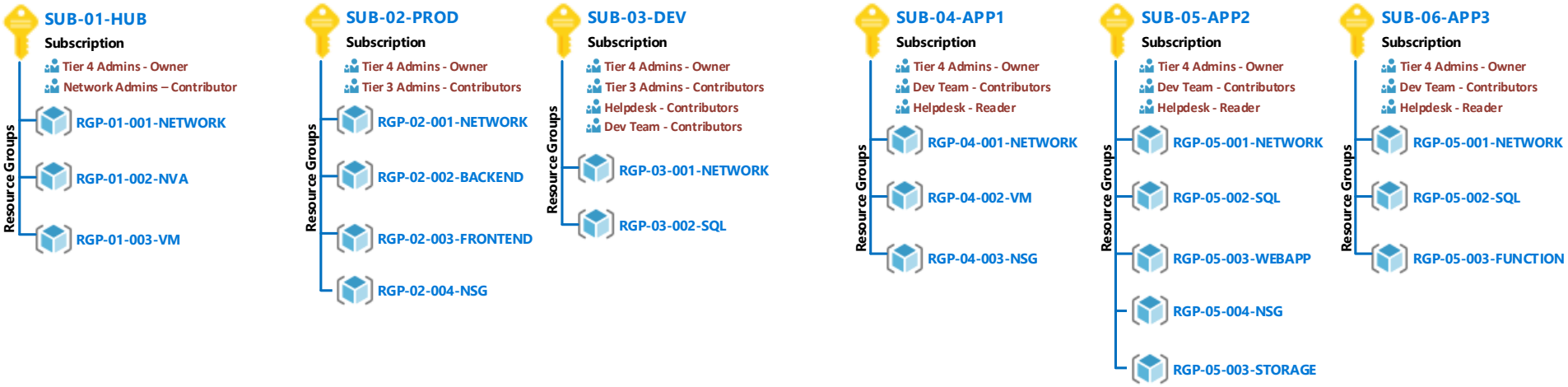
Management Groups



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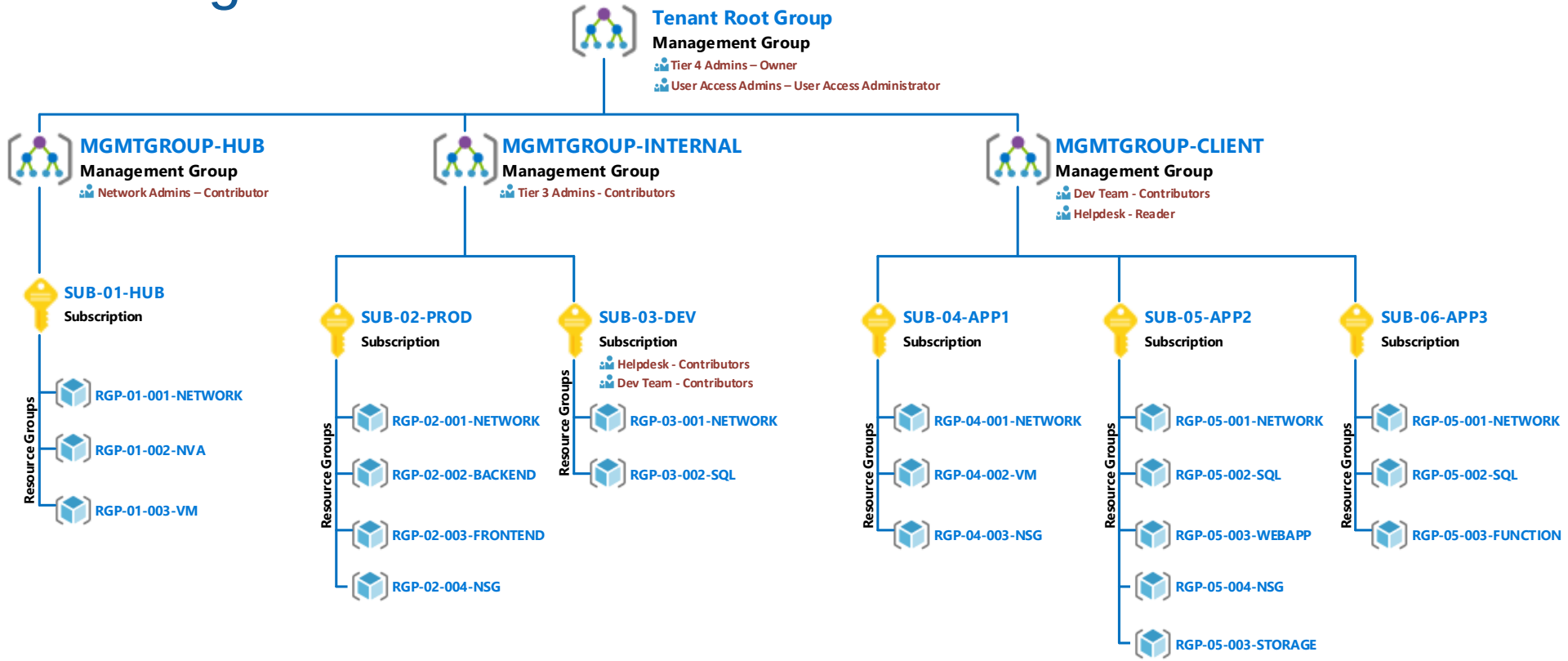
Management Groups



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Azure Management Groups
Demo

- Management Groups in the Portal.
- Management Group script creation.
- Management Group child subscription assignment.
- Management Group Role Assigments.

https://github.com/FabienGilbert/AzureBootcamp

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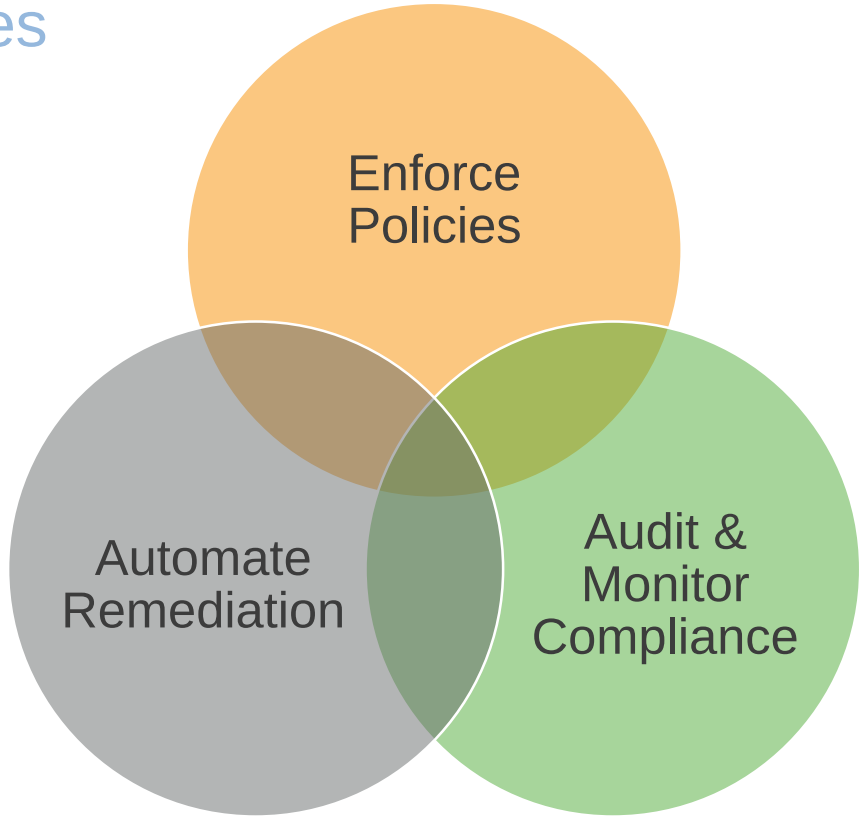
Azure Policy
What it does



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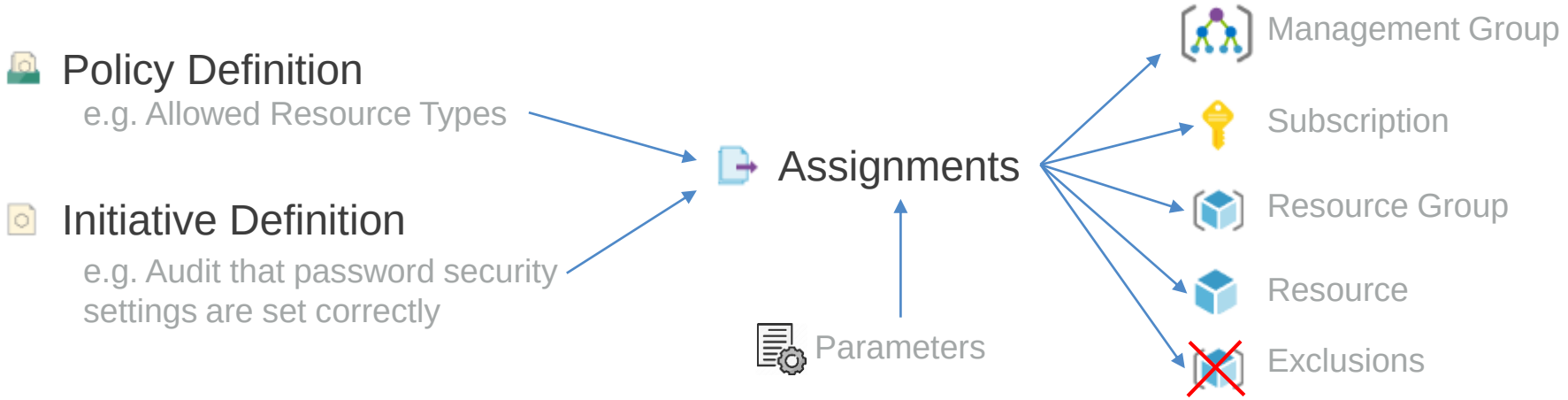
Azure Policy
How it works



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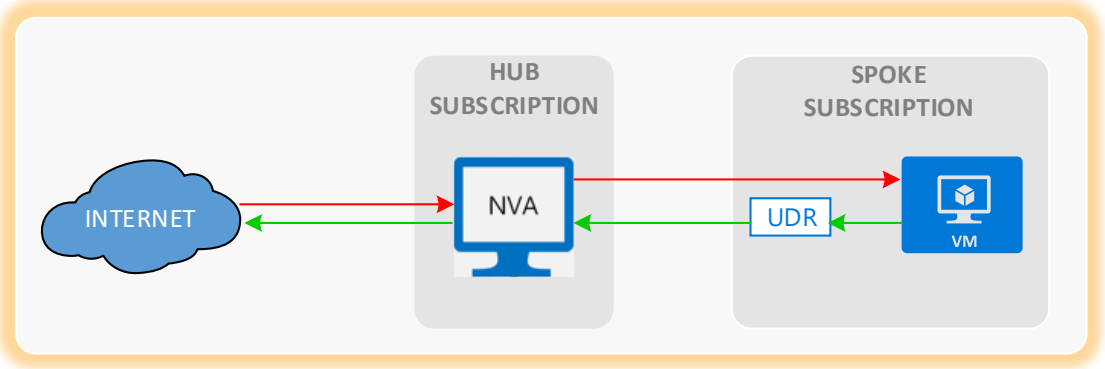
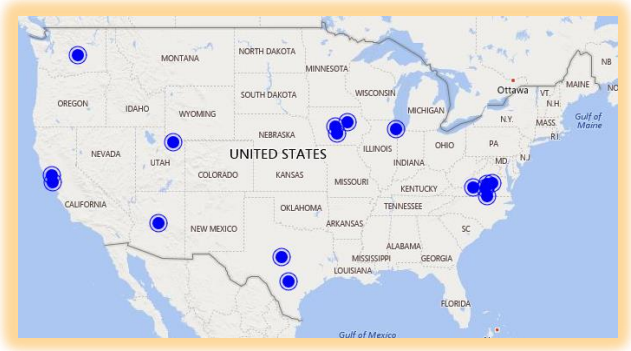
Azure Policy
Examples

Enforce network boundaries



Enforce geographic boundaries



Prevent cost overruns

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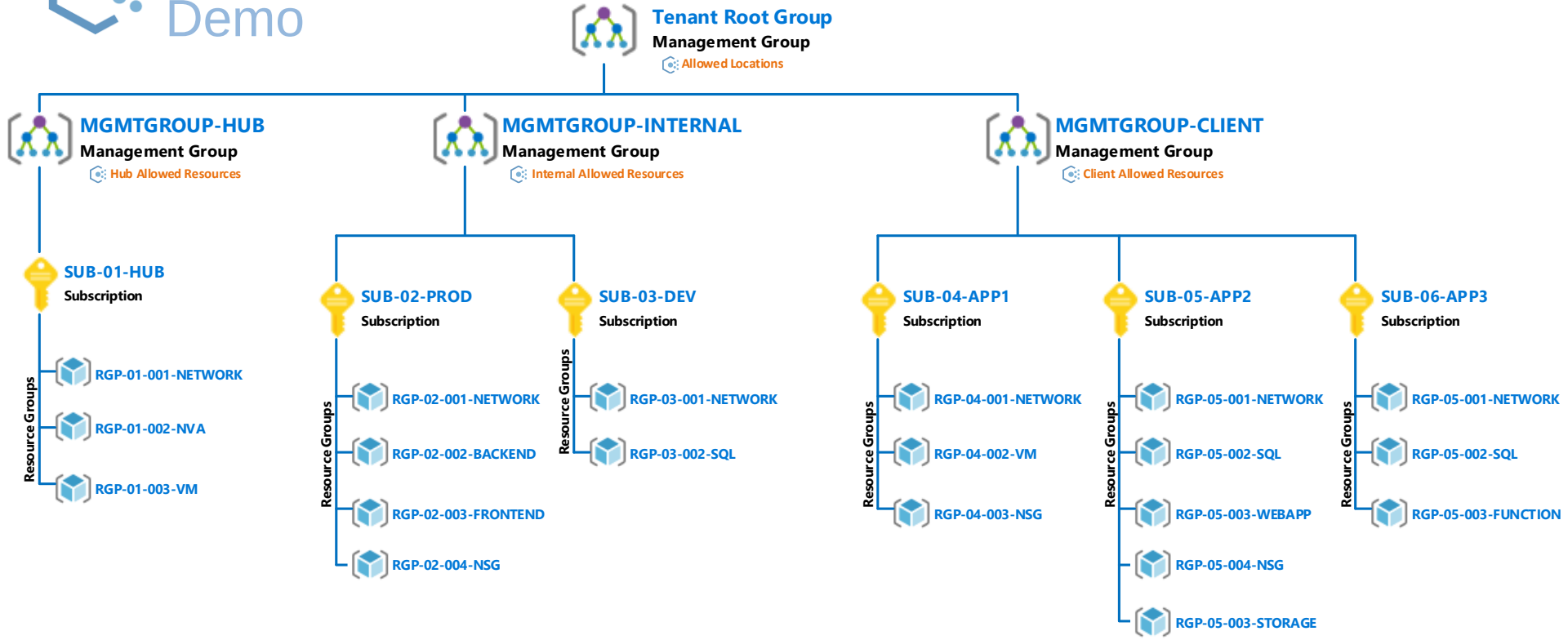
Azure Policy
Demo



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Azure Policy
Demo

- Policy management in the portal.
- Policy assignment script.
- Policy-restricted resource creation.

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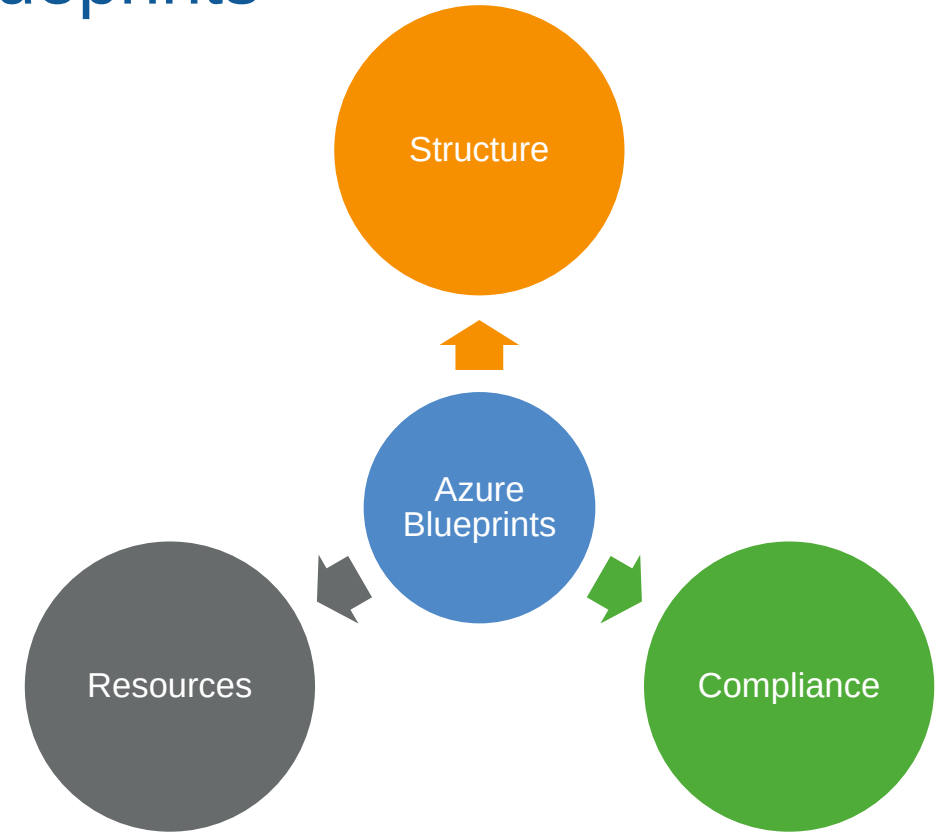
Azure Blueprints
Basics



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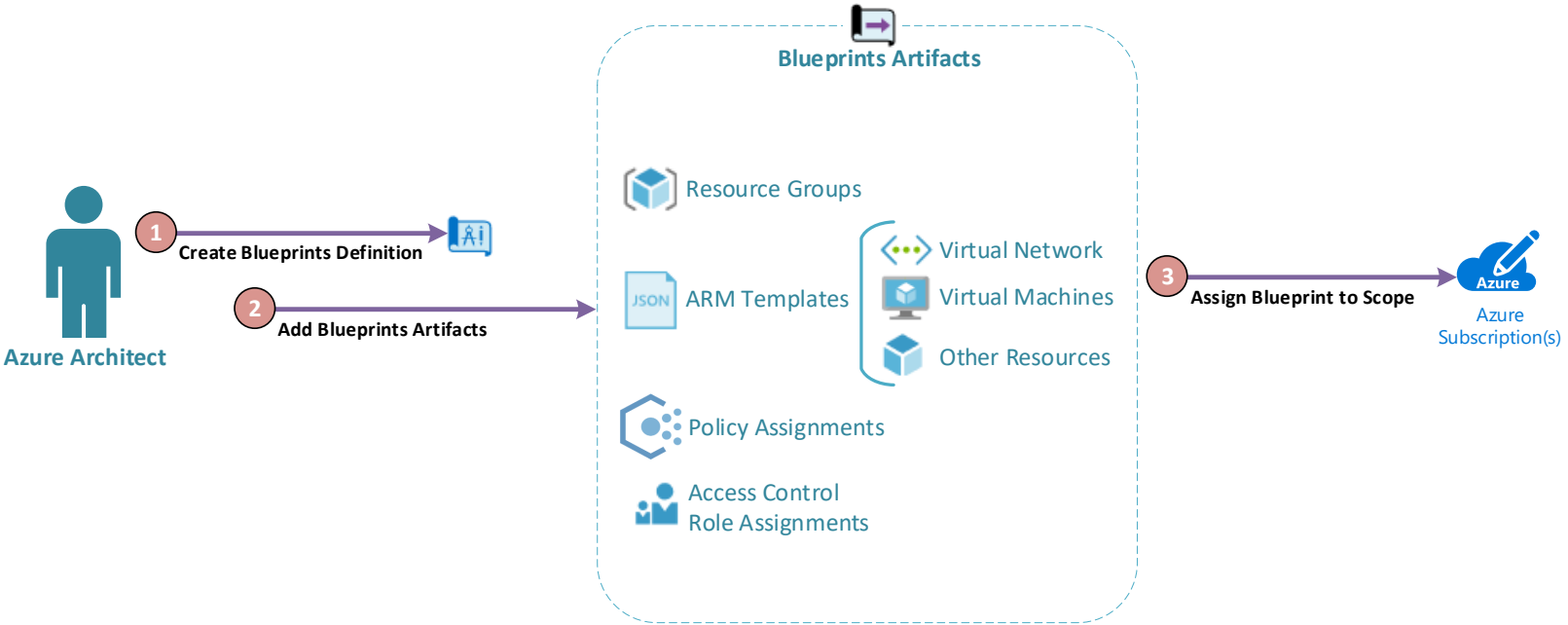
Azure Blueprints
How it works



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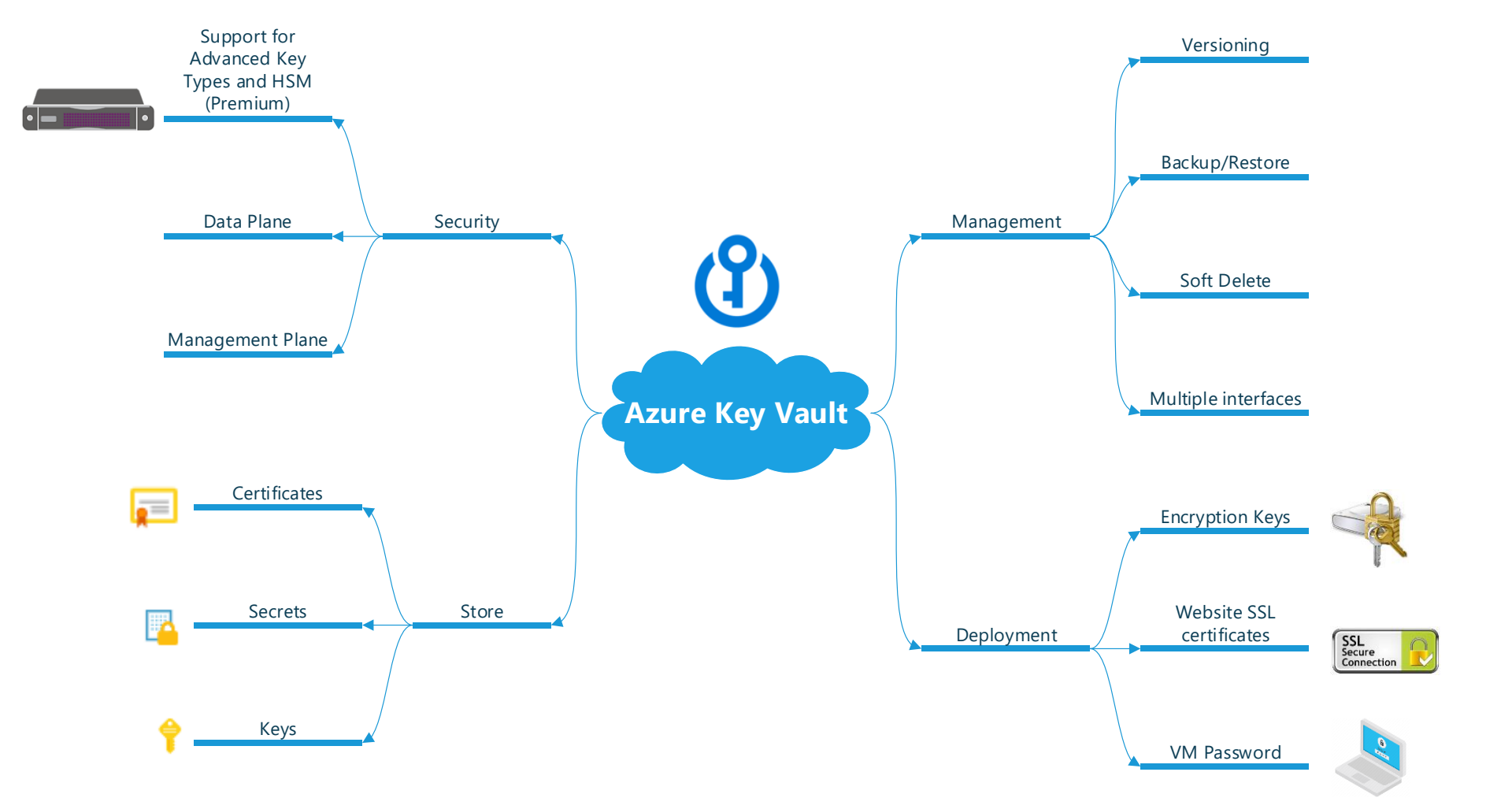

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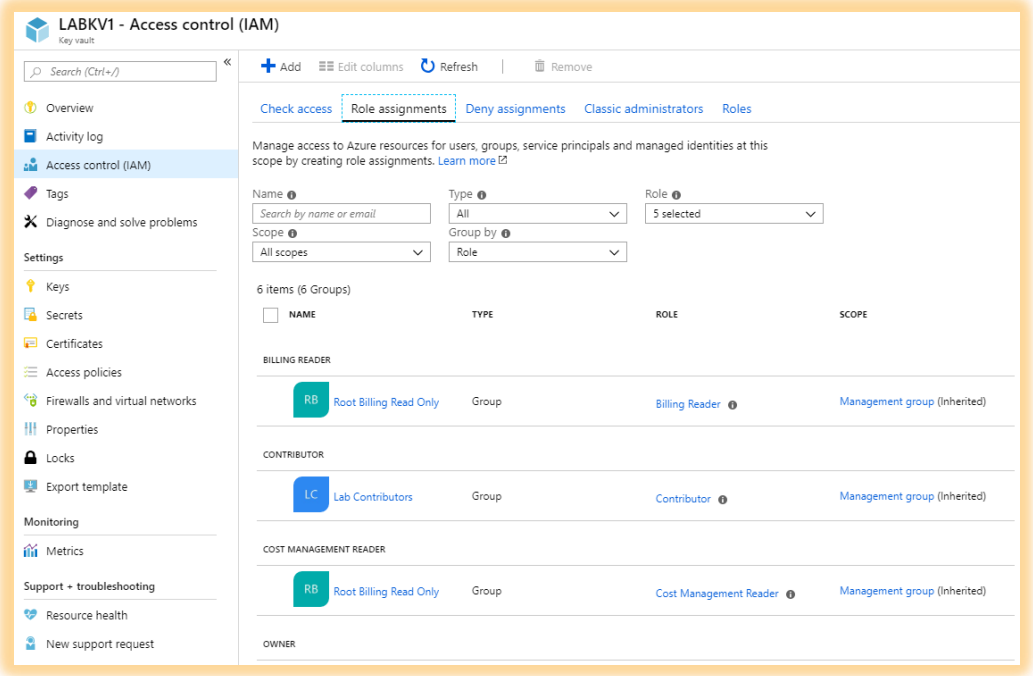
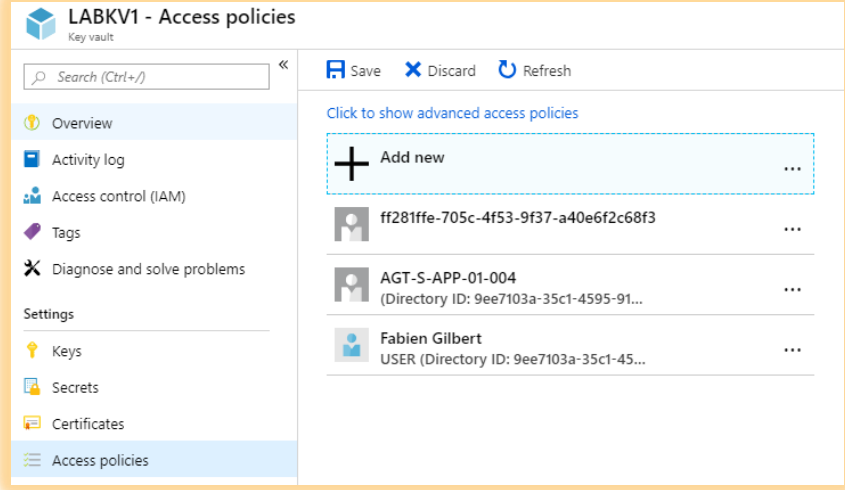
Azure Key Vault
Management Plane & Data Plane





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Azure Key Vault
Demo

- Key Vault ARM template creation.
- Key Vault SSL Certificate generation.
- BYOK Encrypted Storage Account.
- Key Vault Secrets for admin logins.
- VM deployment with Disk Encryption.
- Key Vault SSL Certificate deployment to VM.
- Azure Policy Compliance.

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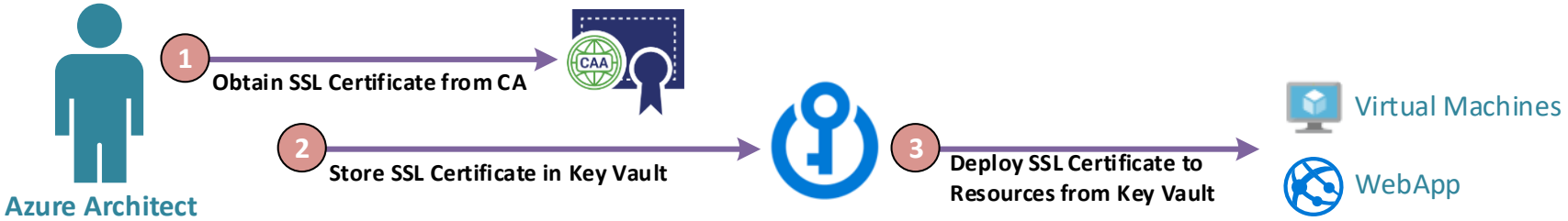
Azure Key Vault

Key Vault SSL Certificate Management



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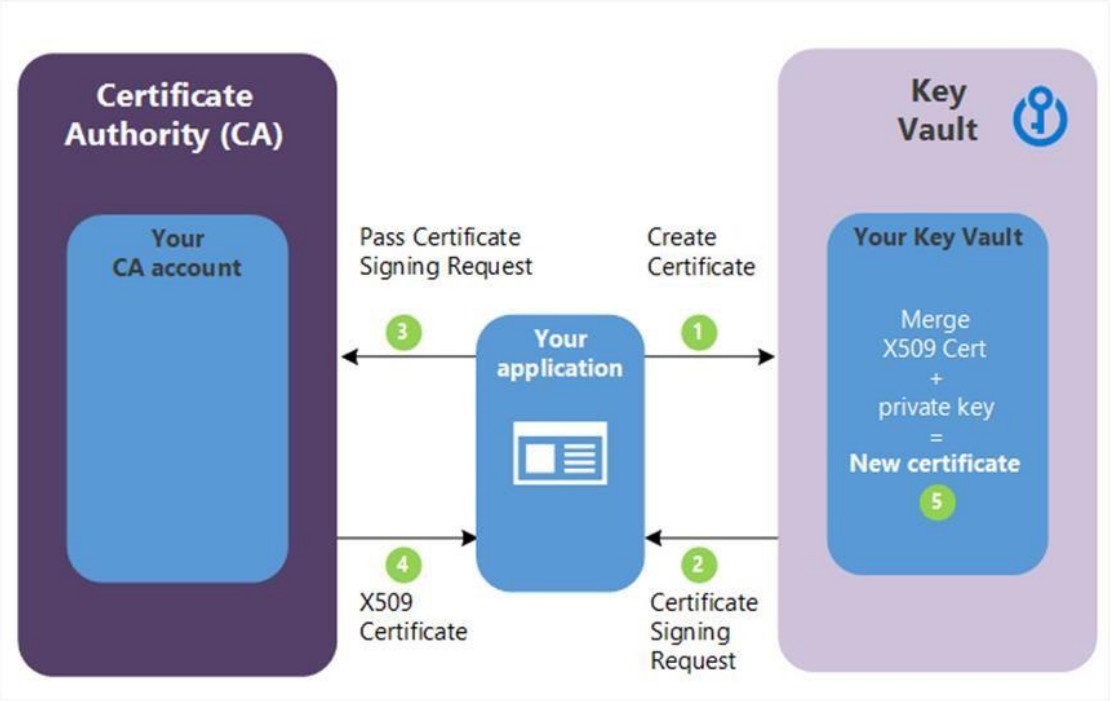
Azure Key Vault
SSL Certificate Generation



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Thank You