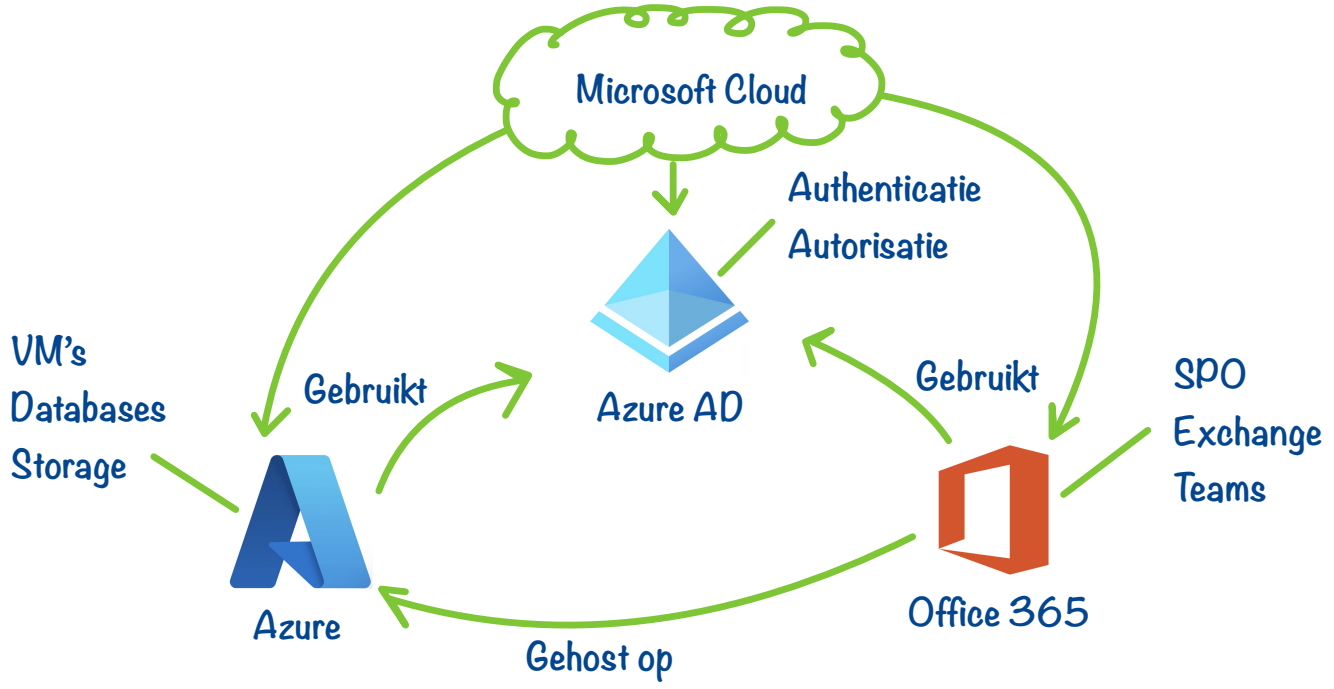
Azure Fundamentals - AZ-900 03-05-2022

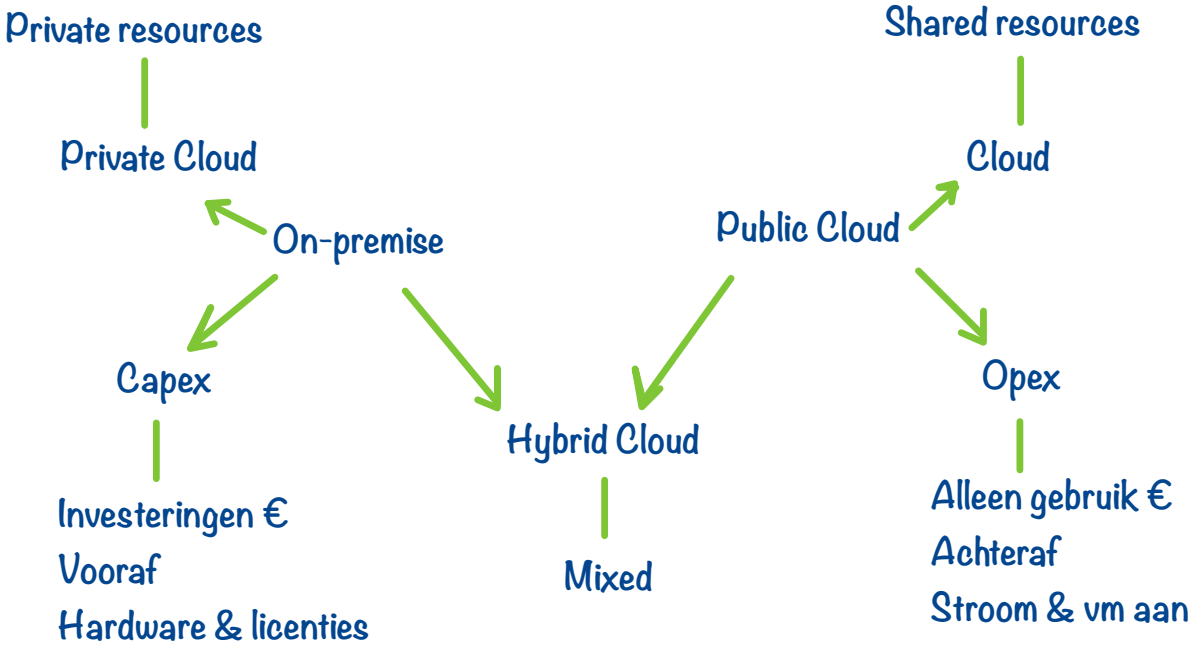
40 - 60 vragen

700 of hoger

85 minuten

- Cloud concepts
- Azure core services
- Azure Core solutions and management tools
- General en network security
- Identity, governance, privacy en compliance
- Cost management en SLA


Microsoft Cloud
Authenticatie
Autorisatie
Azure AD
VM's
Databases
Storage
Gebruikt
Gebruikt
SPO
Exchange
Teams
Azure
Office 365
Gehost op


Private resources
Private Cloud
On-premise
Capex
Investeringen €
Vooraf
Hardware & licenties
Hybrid Cloud
Mixed
Shared resources
Cloud
Public Cloud
Opex
Alleen gebruik €
Achteraf
Stroom & vm aan

Scalability	Up en down schalen
Elasticity	Schalen on-demand
Agility	Snel deployen
DR/redundancy	Hosting * dc's
Global reach	Wereldwijde dc's
Pay-as-you-go	Alleen gebruik €

Resources remote afgenomen

Cloud computing

On-premise

Data

Applicatie

Middleware

OS

Virtualisatie

Compute

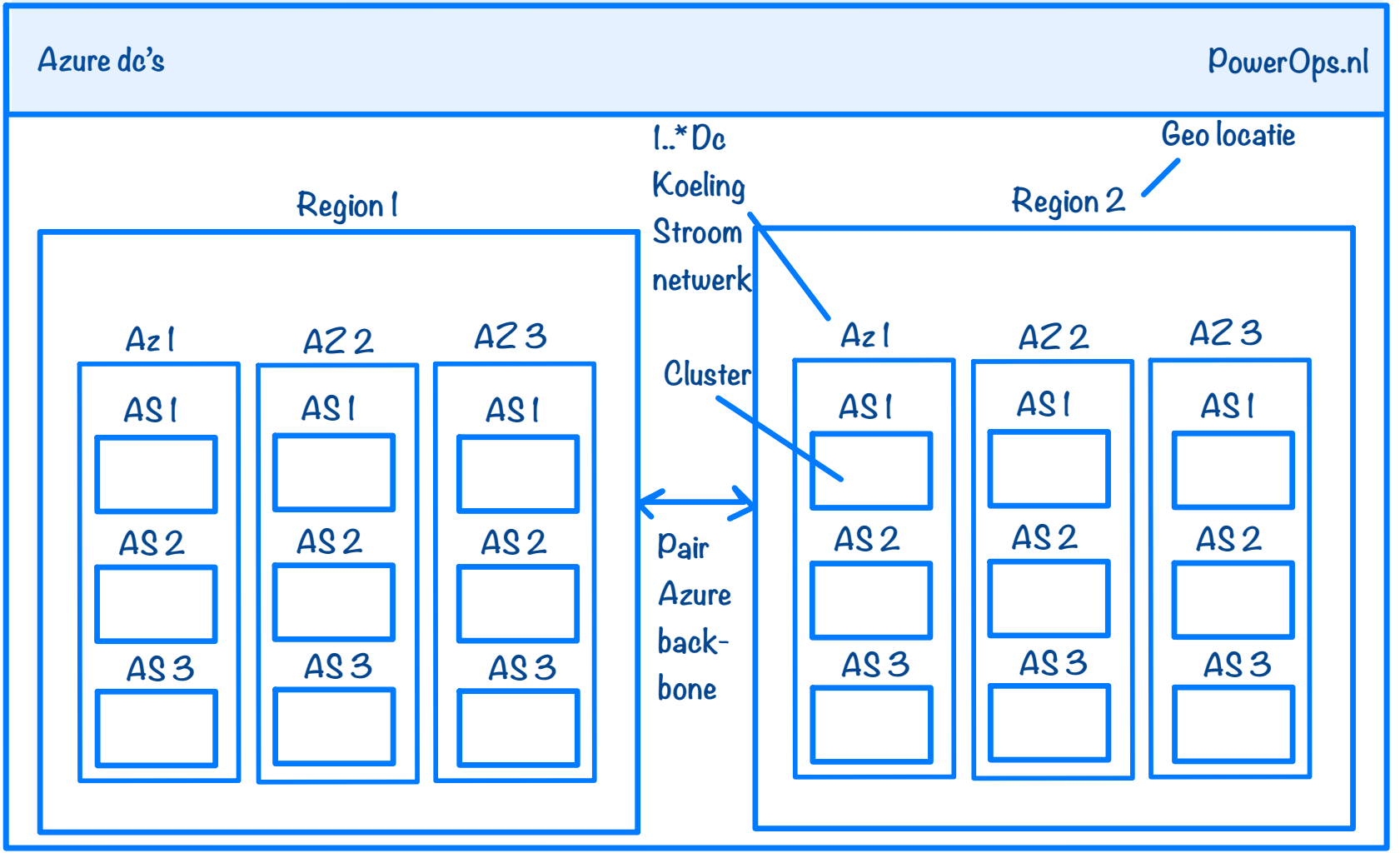
Storage

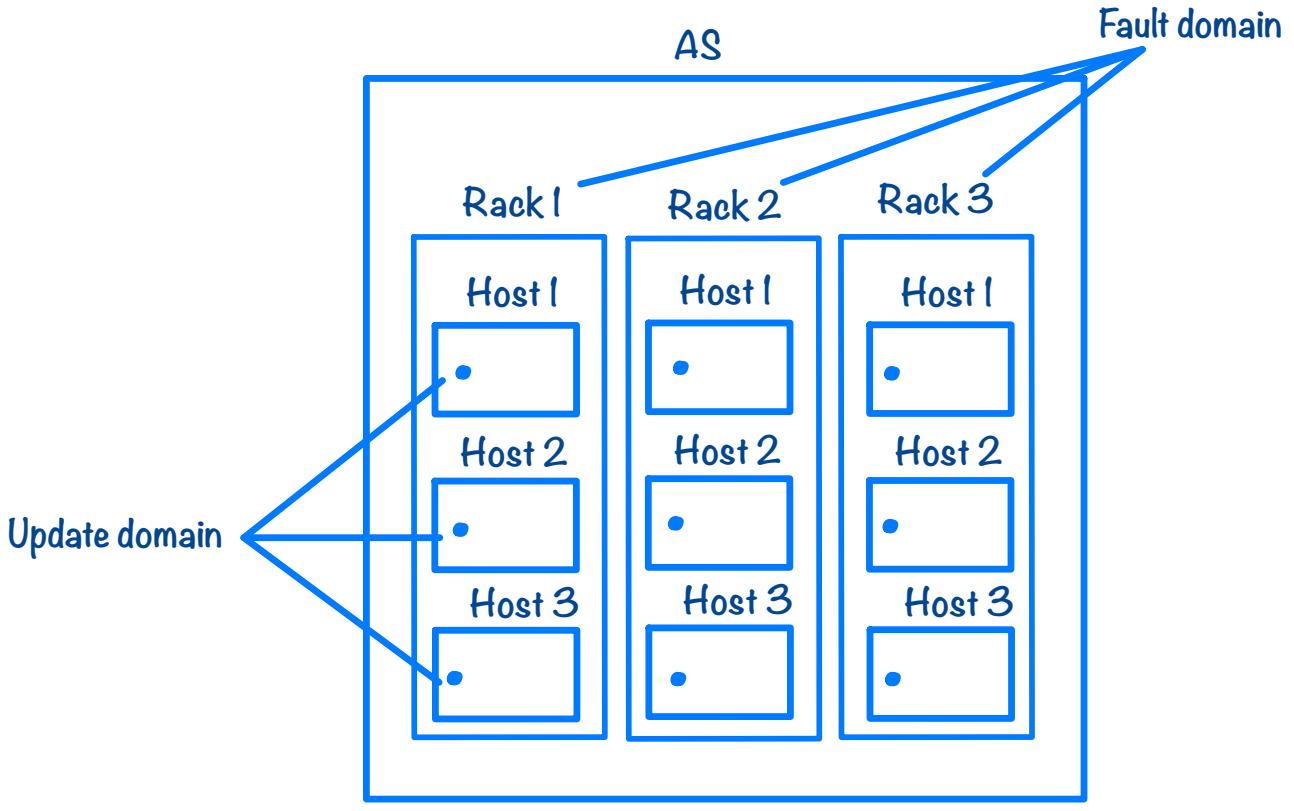
Netwerk

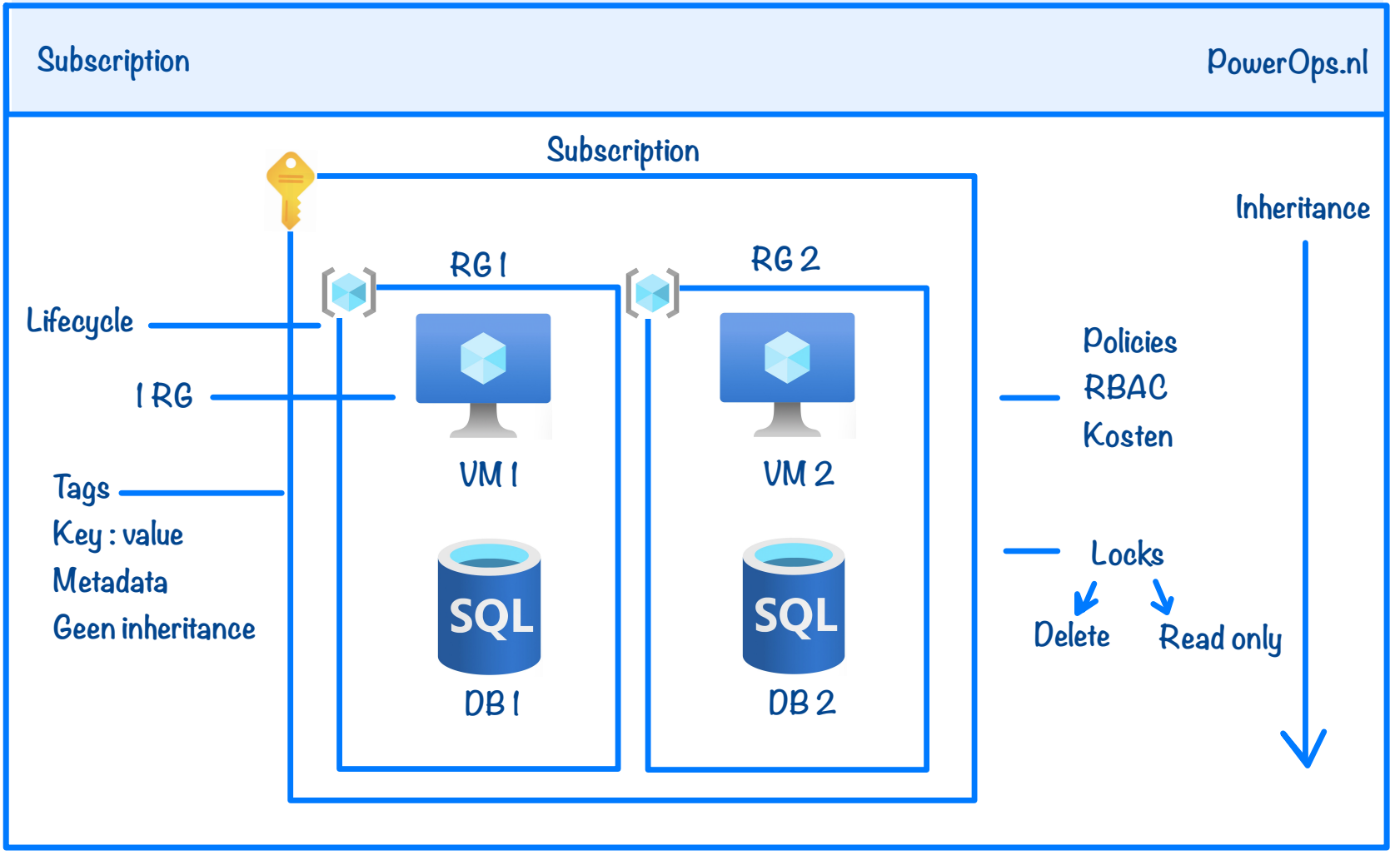
SaaS — Office 365

PaaS — Azure SQL

IaaS — Azure Compute

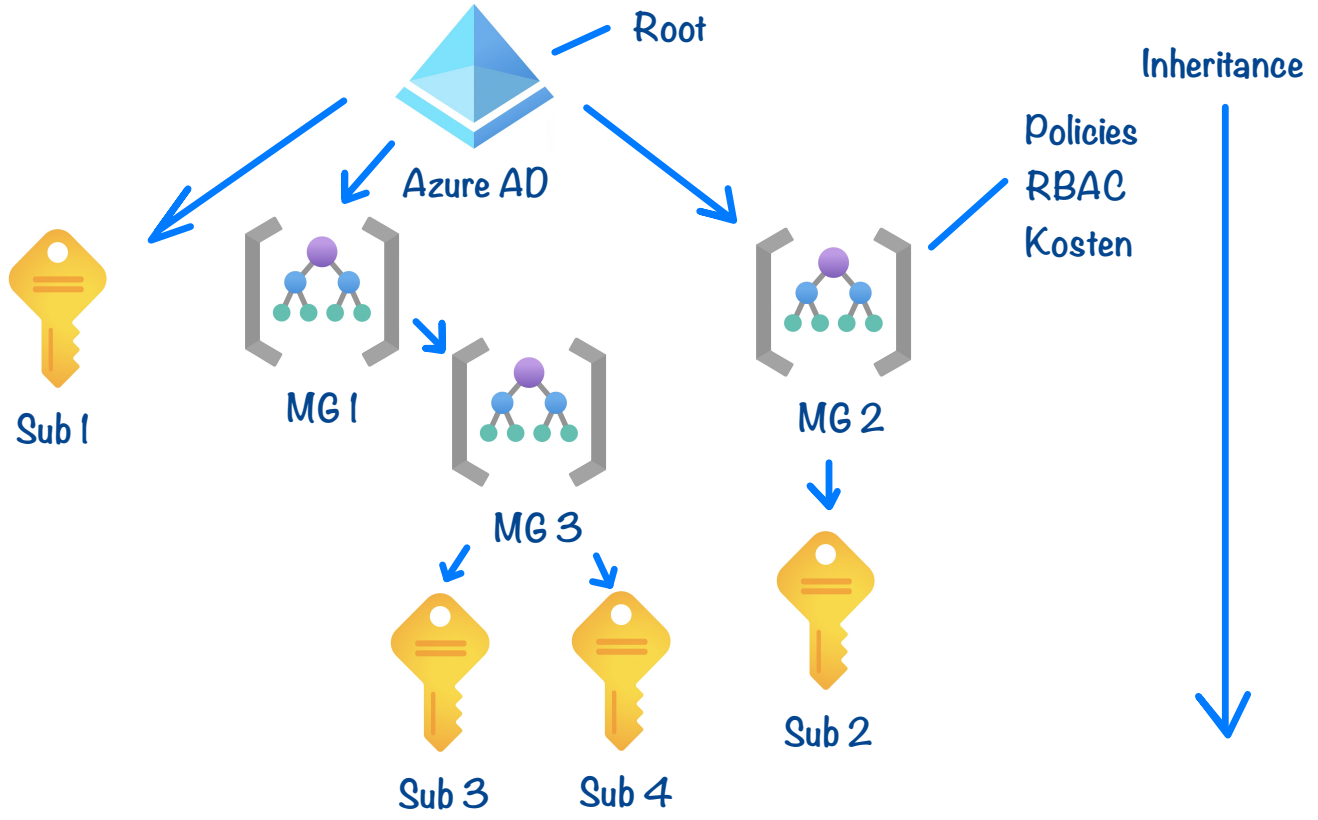

Azure dc's
PowerOps.nl
1..* Dc
Koeling
Stroom
netwerk
Geo locatie
Region 1
Region 2
Az 1
AZ 2
AZ 3
Cluster
AS 1
AS 2
AS 3
Pair
Azure
back-
bone


AS
Fault domain
Rack 1
Rack 2
Rack 3
Host 1
Host 2
Host 3
Update domain

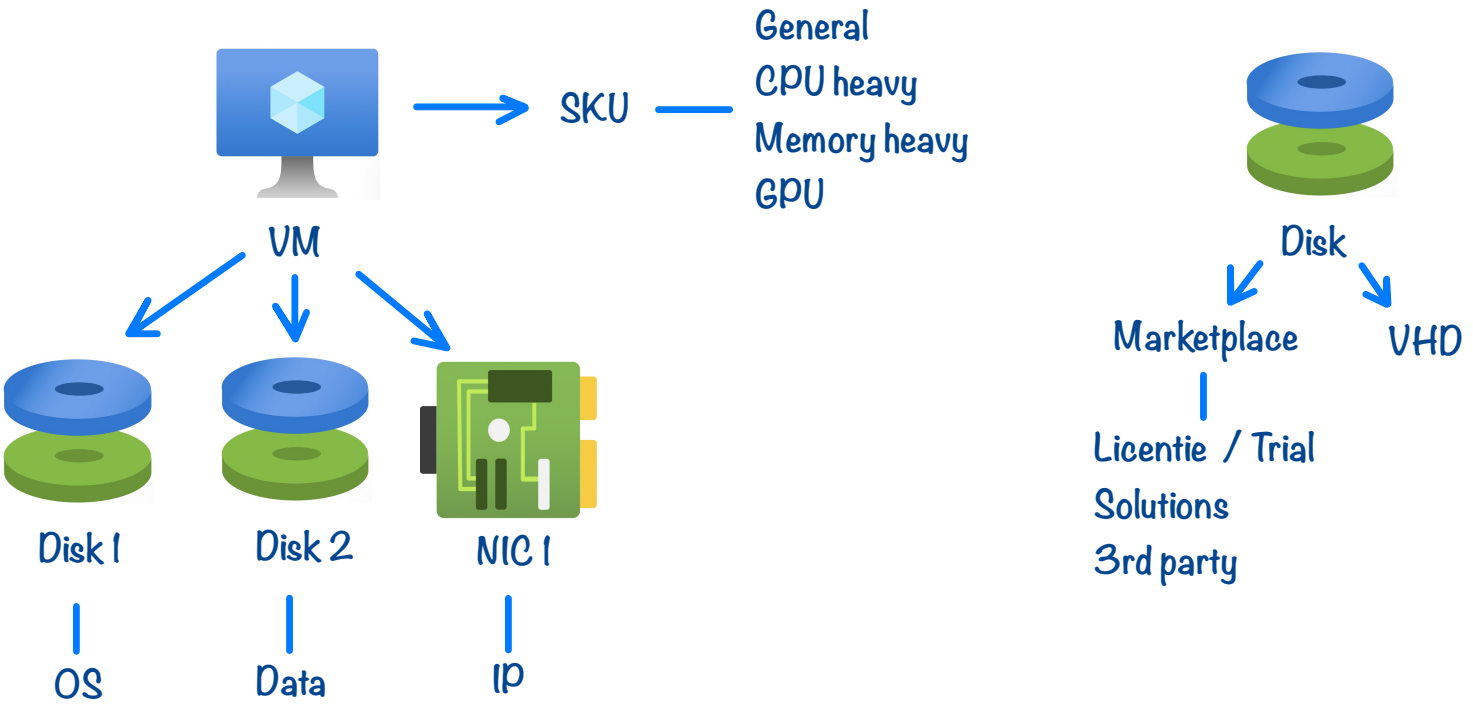

Subscription
PowerOps.nl
Subscription
Inheritance
RG 1
RG 2
Lifecycle
1 RG
Tags
Key : value
Metadata
Geen inheritance
VM 1
VM 2
SQL
SQL
DB 1
DB 2
Policies
RBAC
Kosten
Locks
Delete
Read only

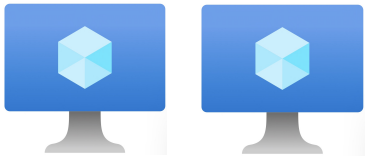
Hiërarchie

PowerOps.nl



Automatische registratie
Eenmalig
Per resource type
Endpoint beschikbaar
Subscription
Resource Providers


SKU
General
CPU heavy
Memory heavy
GPU
VM
Disk 1
Disk 2
NIC 1
OS
Data
IP
Disk
Marketplace
VHD
Licentie / Trial
Solutions
3rd party



VM 1 VM 2

Vertical

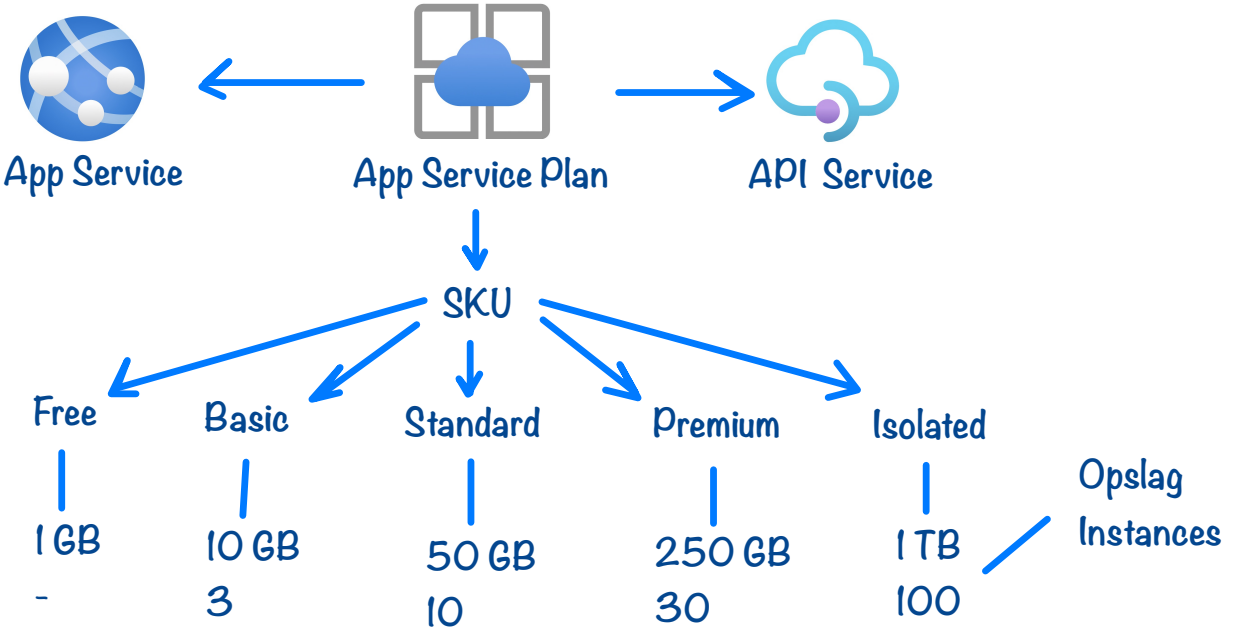
Automatisch
Min / Max

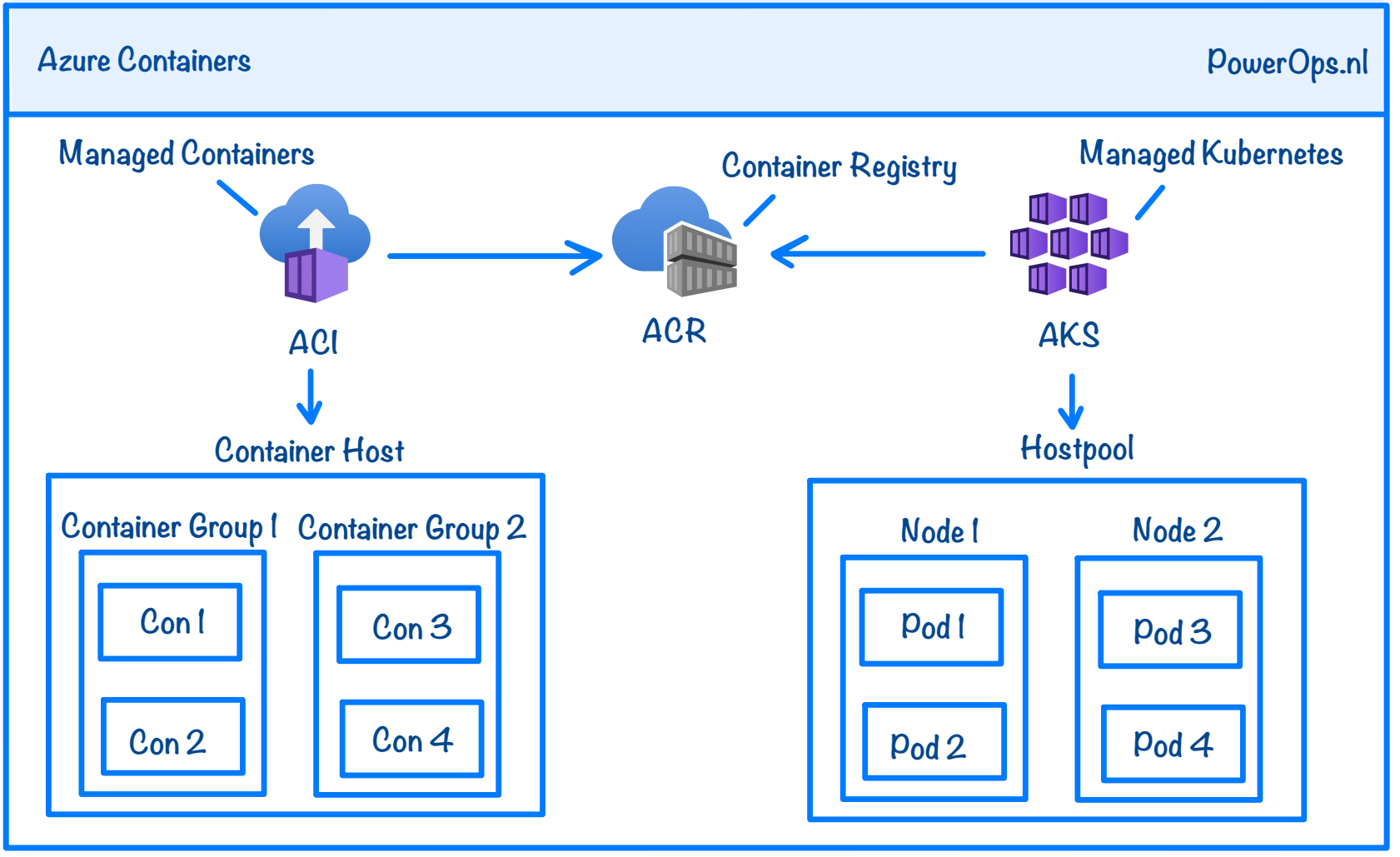
VM Scale Set

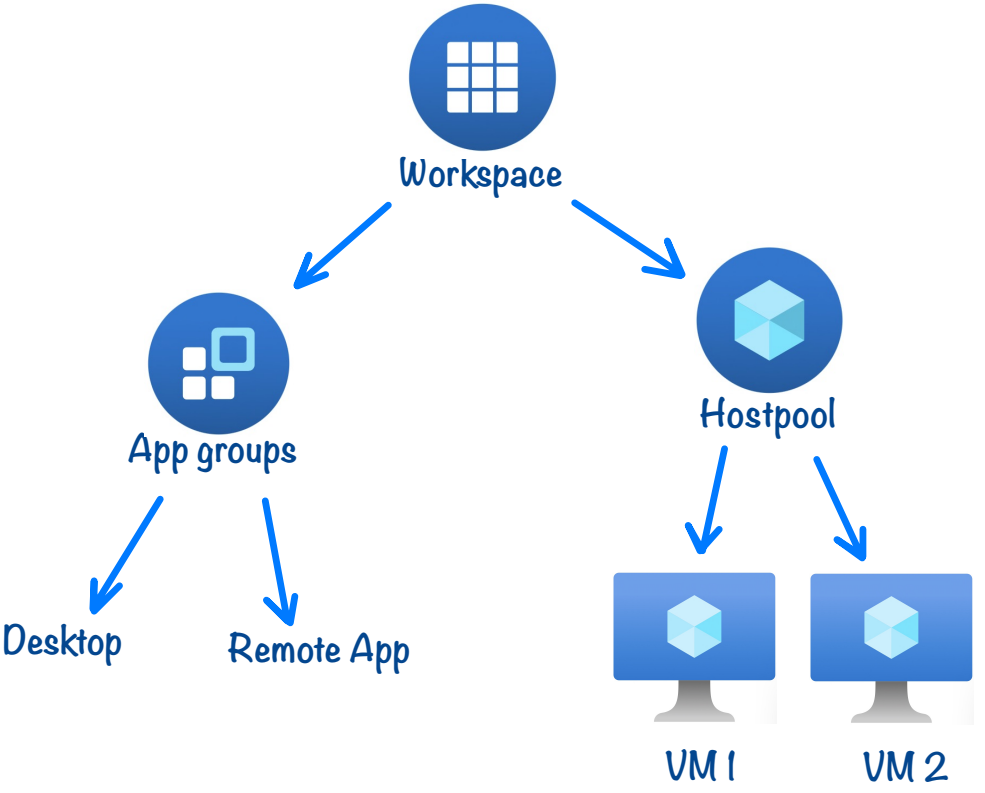
VM 3

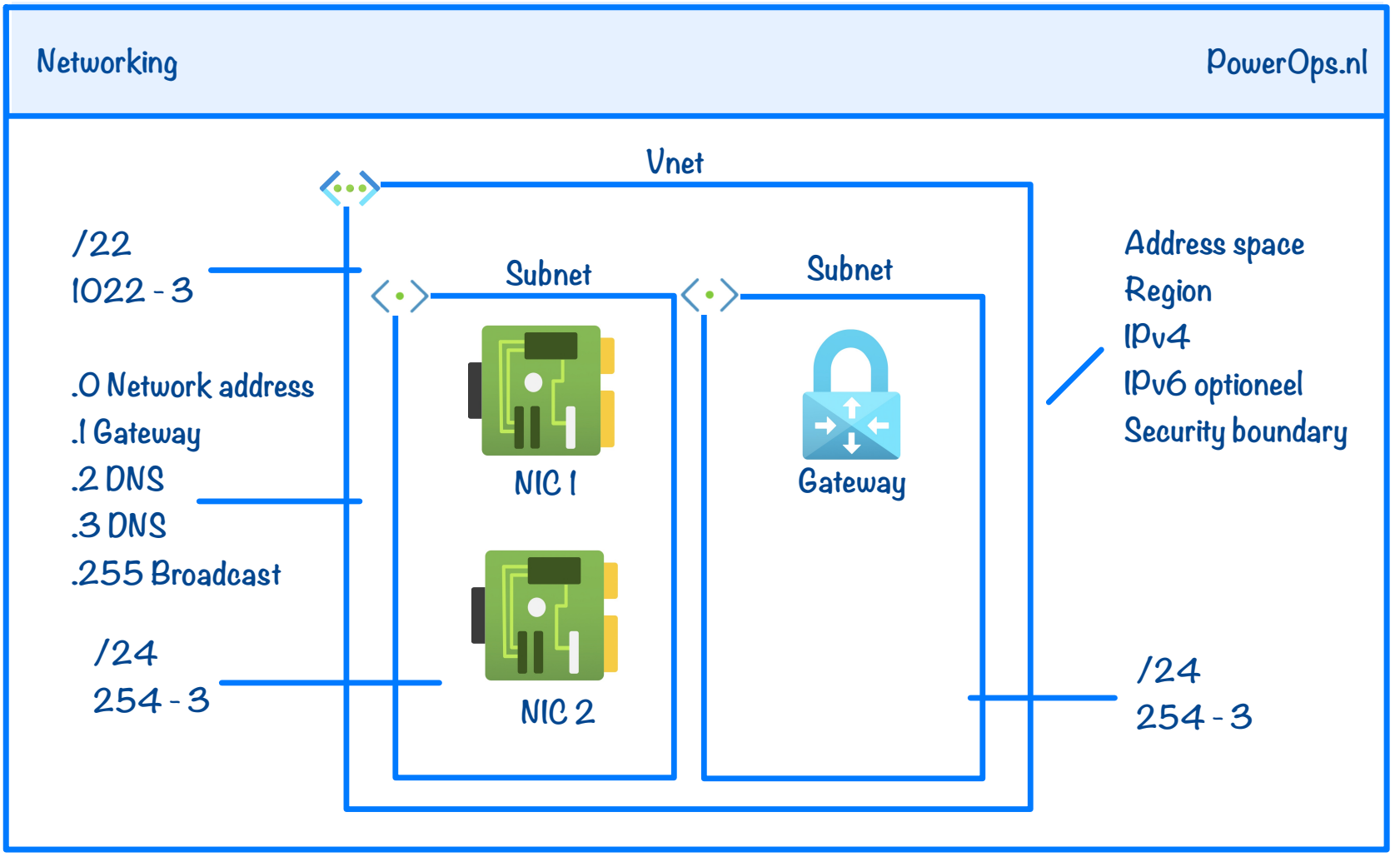
Horizontal

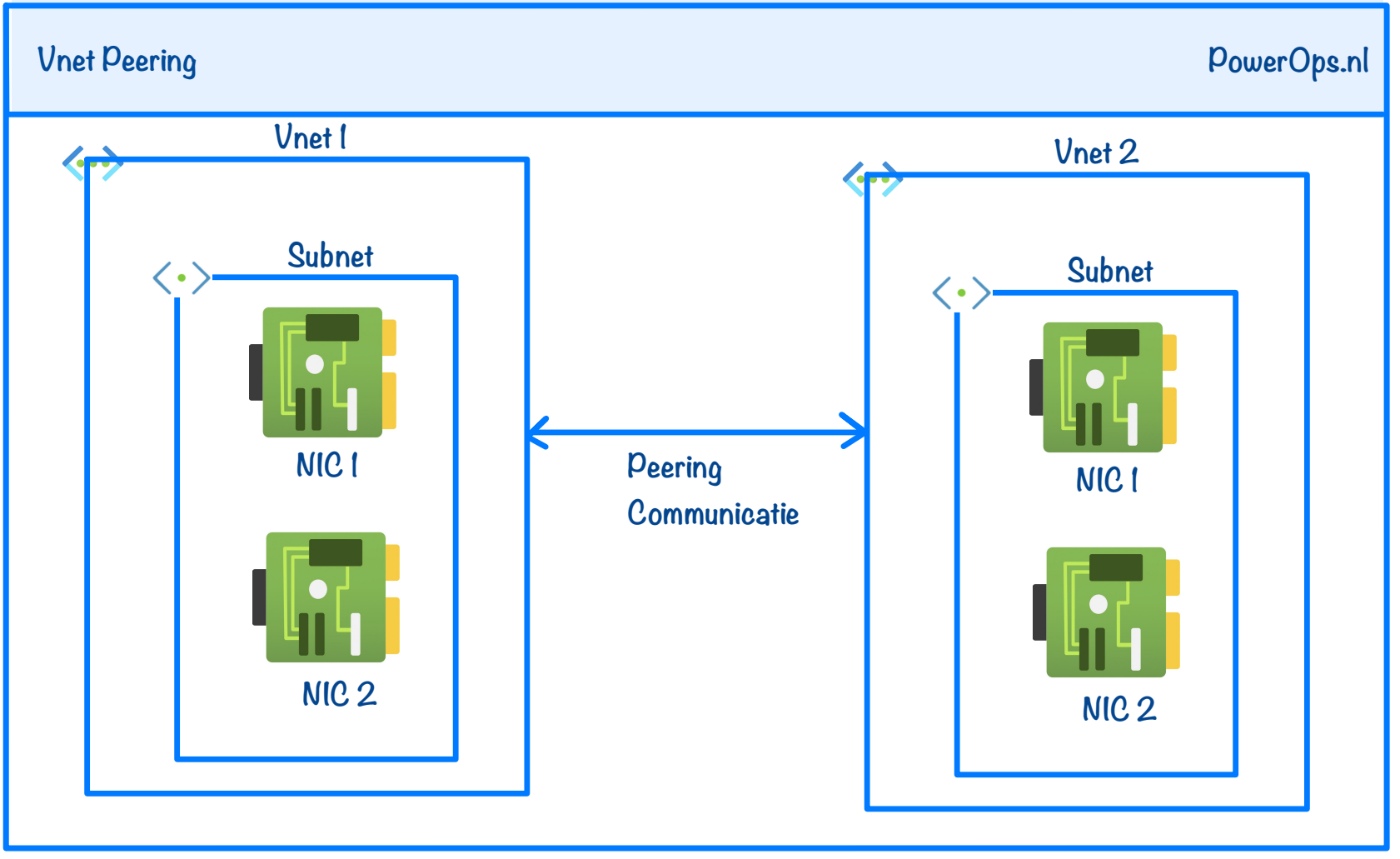
SKU
CPU / Memory

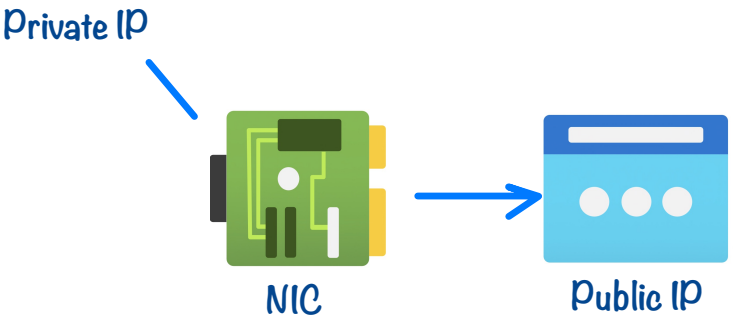

App Service
App Service Plan
API Service
SKU
Free
Basic
Standard
Premium
Isolated
Opslag
Instances
1 GB
-
10 GB
3
50 GB
10
250 GB
30
1 TB
100

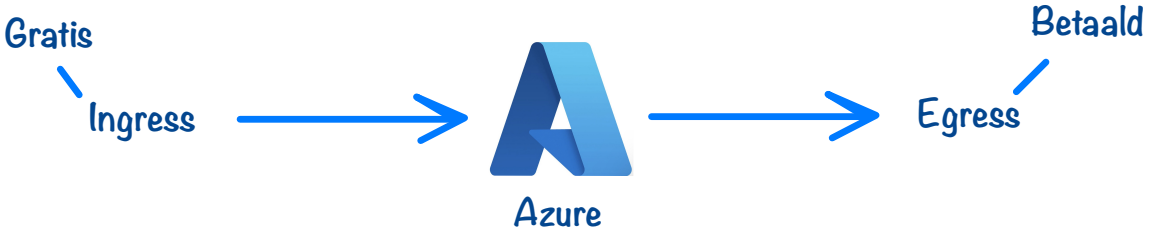

Azure Containers
PowerOps.nl
Managed Containers
Container Registry
Managed Kubernetes
ACI
ACR
AKS
Container Host
Hostpool
Container Group 1
Container Group 2
Con 1
Con 2
Con 3
Con 4
Node 1
Node 2
Pod 1
Pod 2
Pod 3
Pod 4

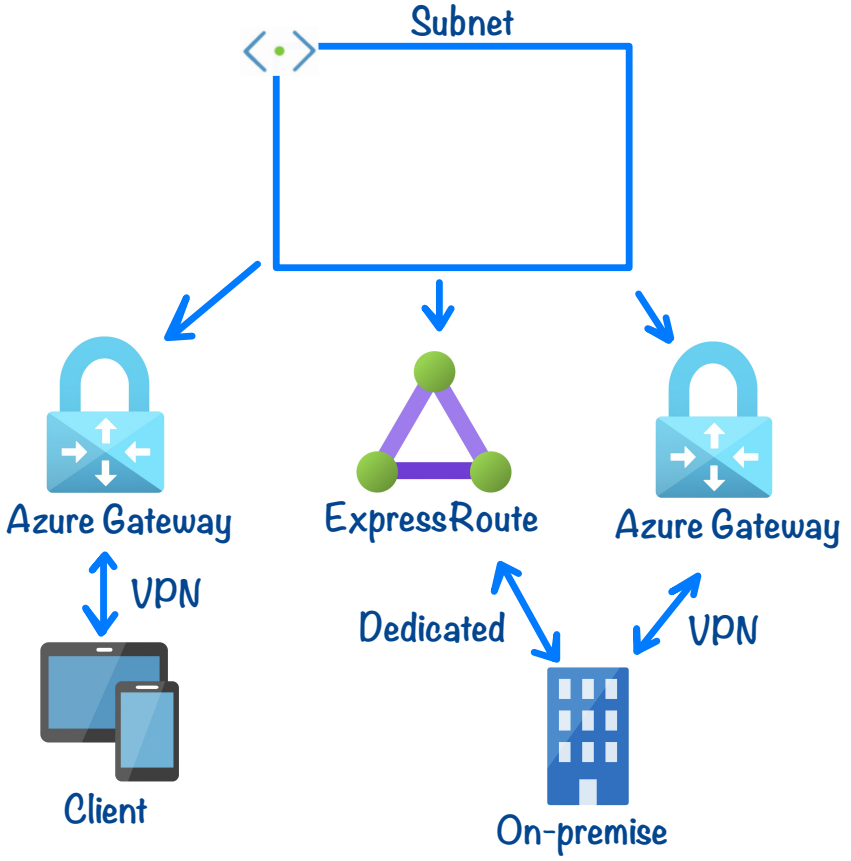

Workspace
App groups
Hostpool
Desktop
Remote App
VM 1
VM 2

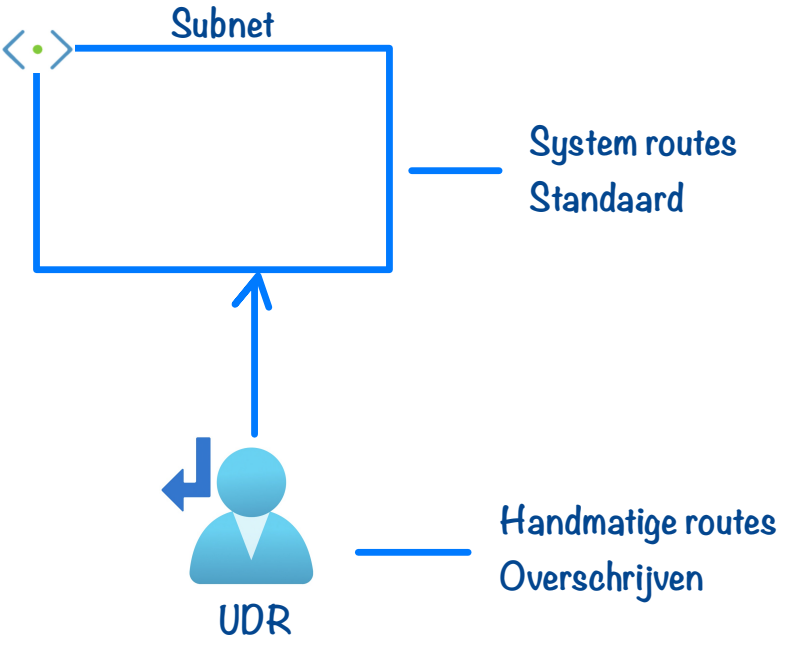

Vnet
/22
1022 - 3
.0 Network address
.1 Gateway
.2 DNS
.3 DNS
.255 Broadcast
/24
254 - 3
Subnet
NIC 1
NIC 2
Subnet
Gateway
Address space
Region
IPv4
IPv6 optioneel
Security boundary
/24
254 - 3


Vnet Peering
PowerOps.nl
Vnet 1
Subnet
NIC 1
NIC 2
Peering
Communicatie
Vnet 2
Subnet
NIC 1
NIC 2


Private IP
NIC
Public IP

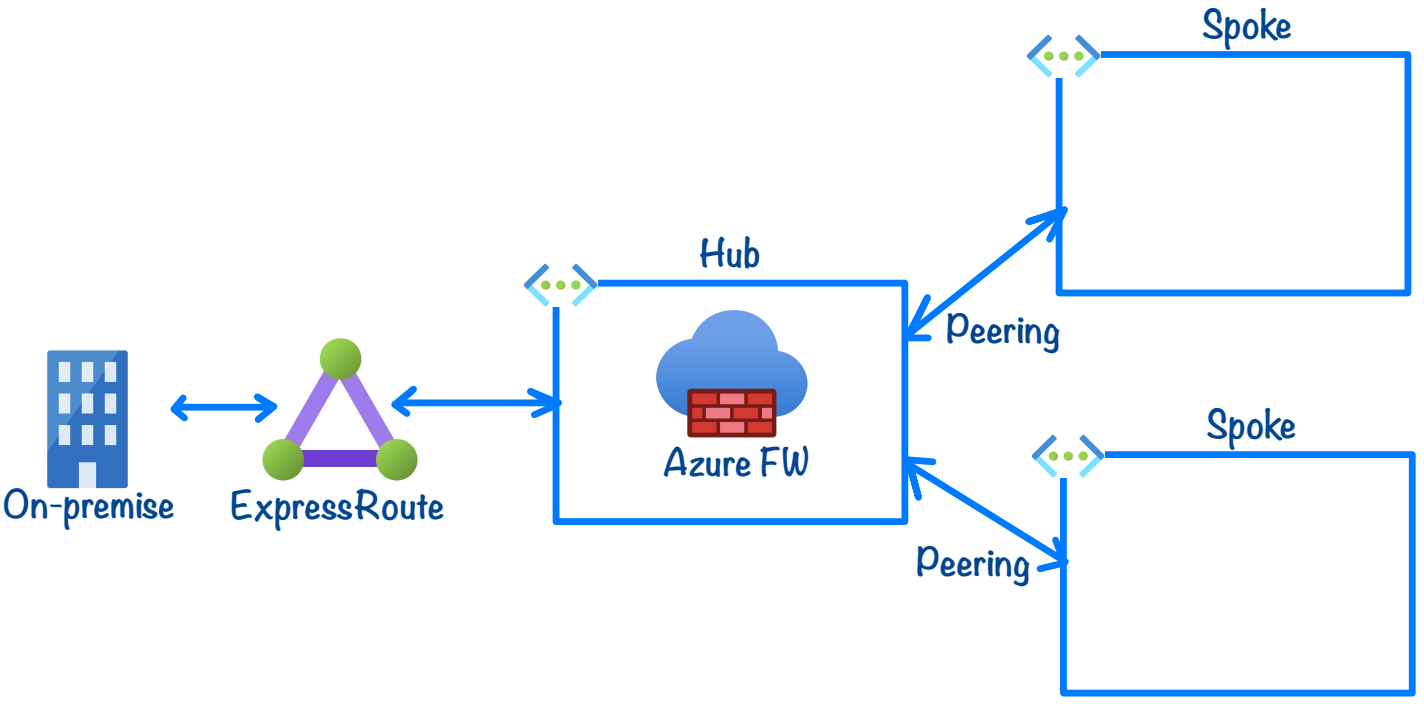

Gratis
Ingress
Azure
Egress
Betaald

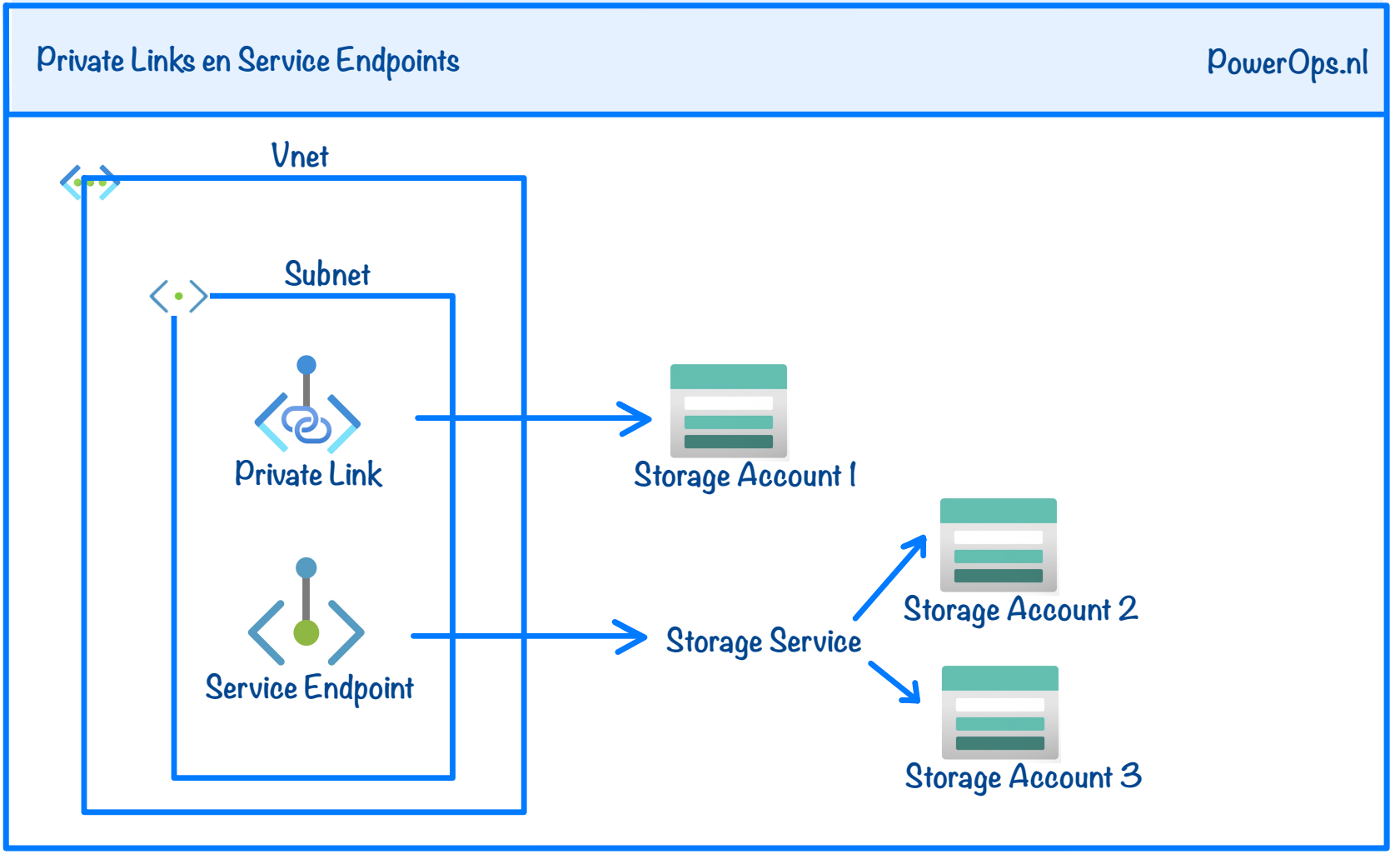

Subnet
Azure Gateway
ExpressRoute
Azure Gateway
VPN
Dedicated
VPN
Client
On-premise

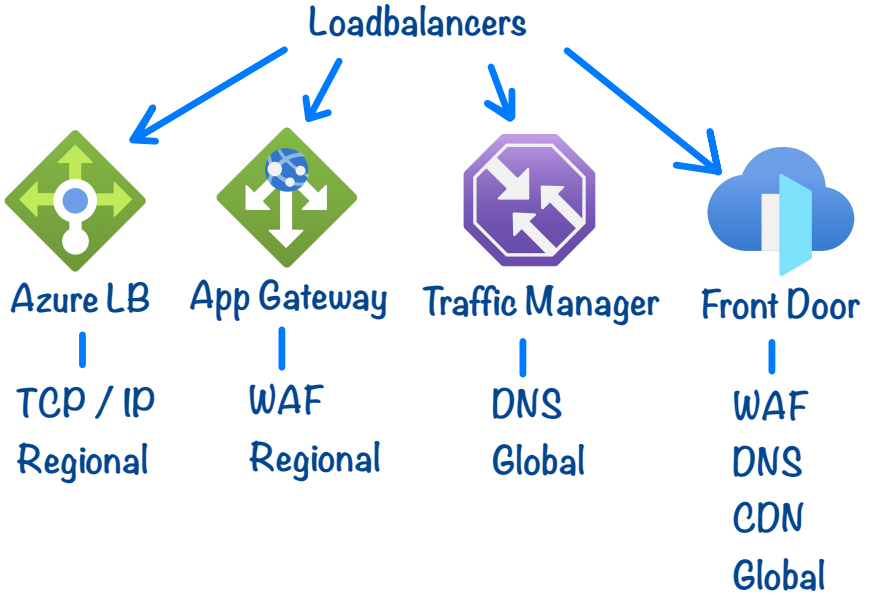

Subnet
System routes
Standaard
Handmatige routes
Overschrijven
UDR

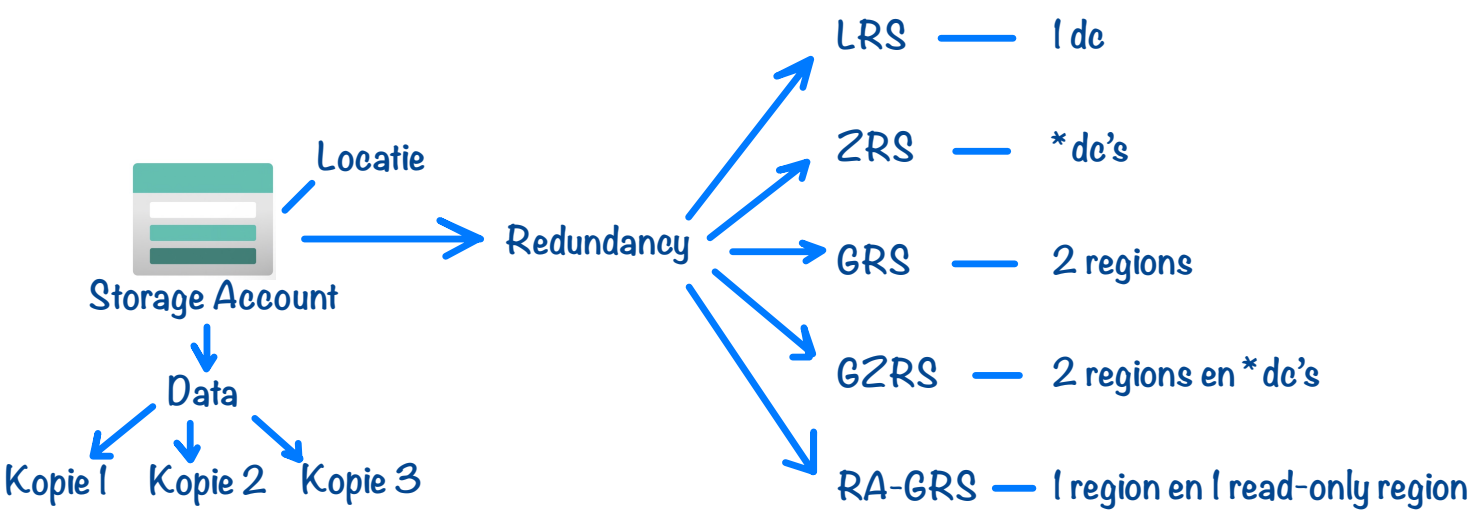
Spoke Hub

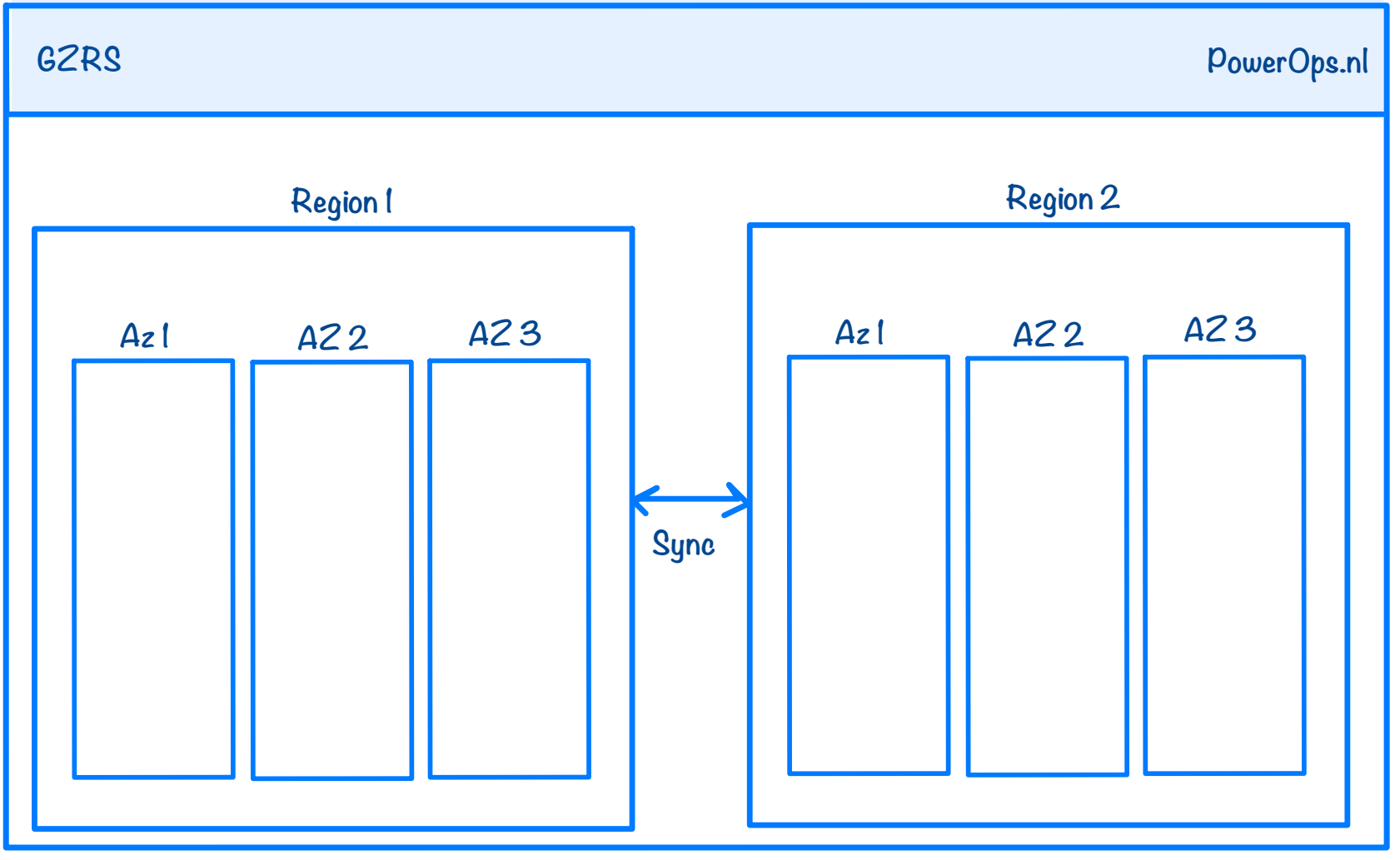
PowerOps.nl




Private Links en Service Endpoints
PowerOps.nl
Vnet
Subnet
Private Link
Service Endpoint
Storage Account 1
Storage Service
Storage Account 2
Storage Account 3

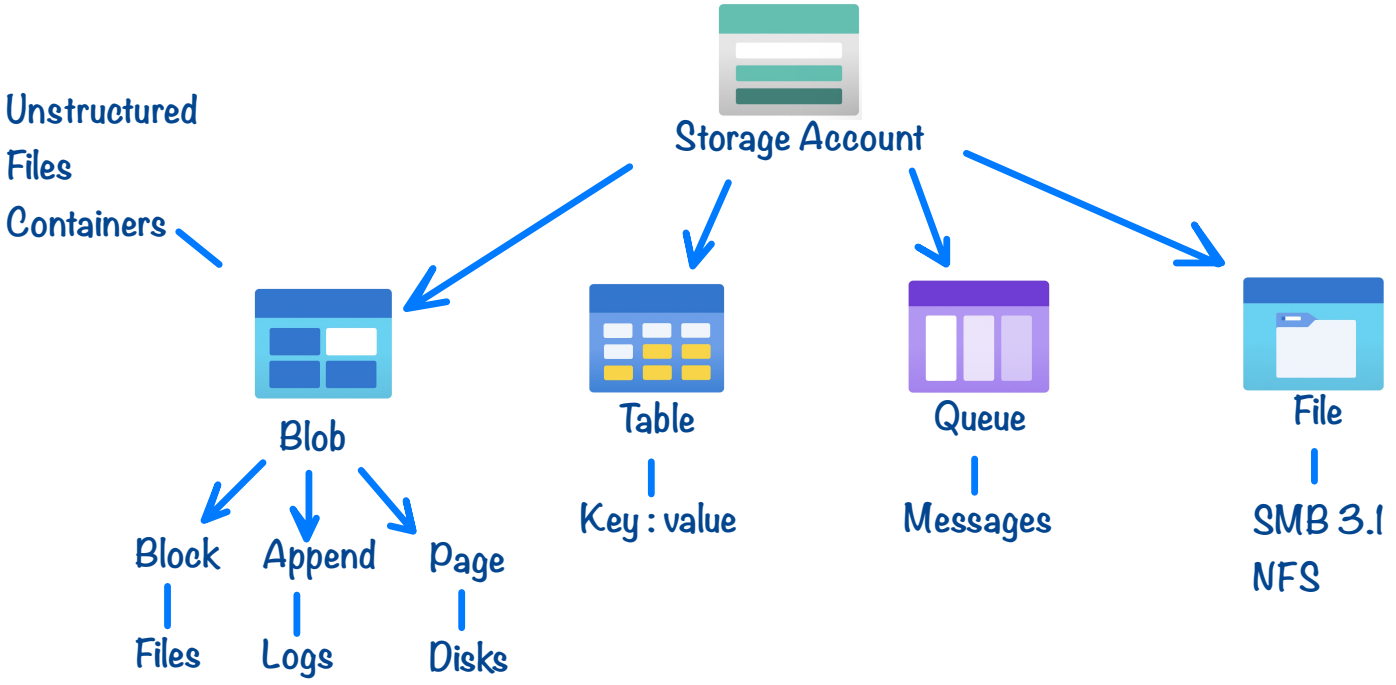

Loadbalancers
Azure LB
TCP / IP
Regional
App Gateway
WAF
Regional
Traffic Manager
DNS
Global
Front Door
WAF
DNS
CDN
Global

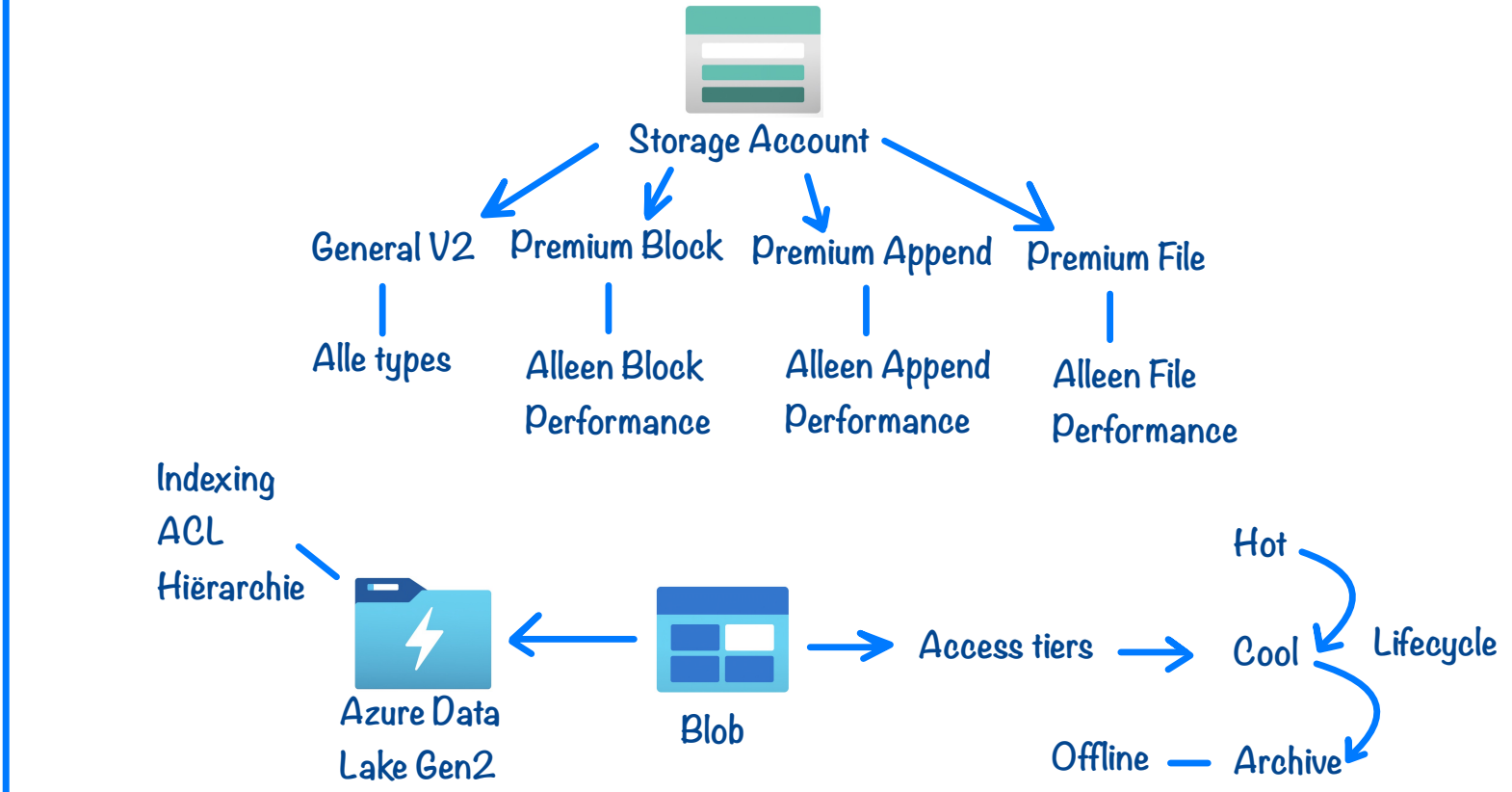

Locatie
Storage Account
Data
Kopie 1
Kopie 2
Kopie 3
Redundancy
LRS — 1 dc
ZRS — * dc's
GRS — 2 regions
GZRS — 2 regions en * dc's
RA-GRS — 1 region en 1 read-only region

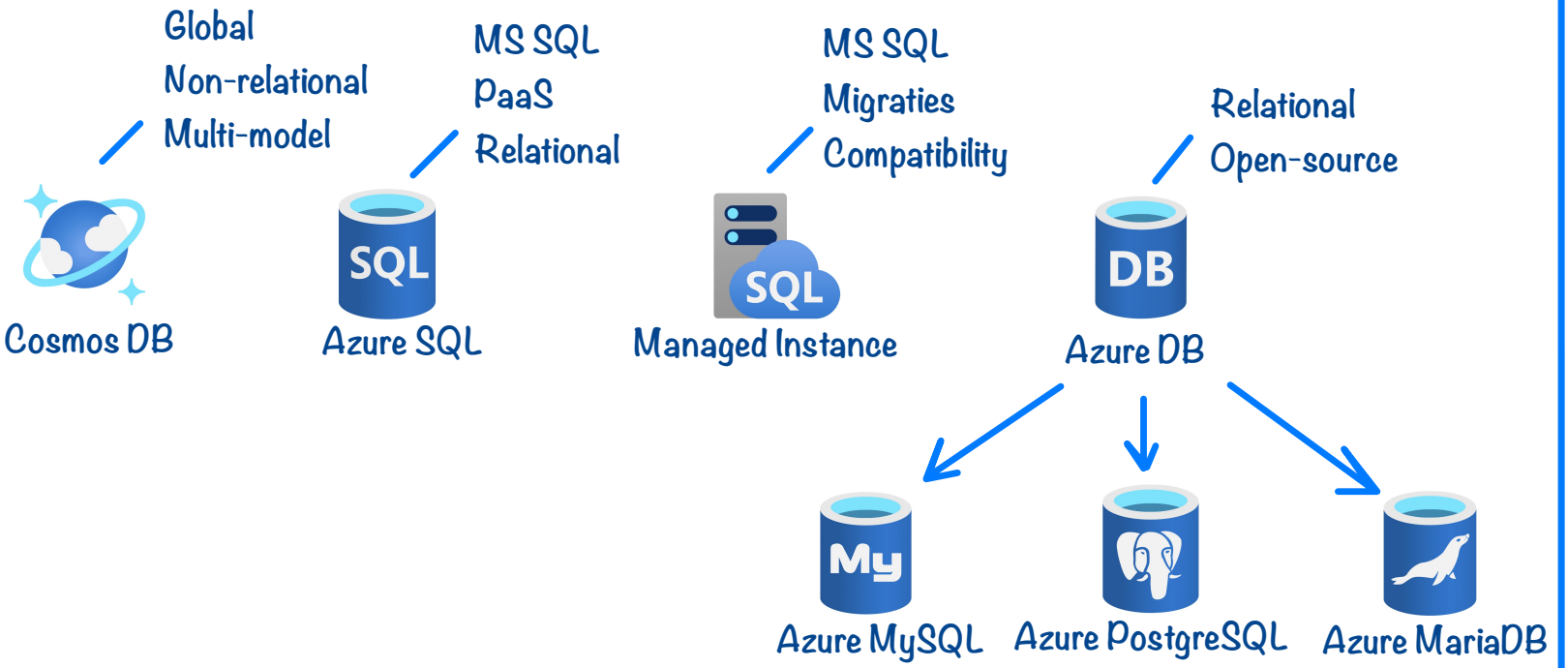

GZRS
PowerOps.nl
Region 1
Az1
AZ2
AZ3
Sync
Region 2
Az1
AZ2
AZ3

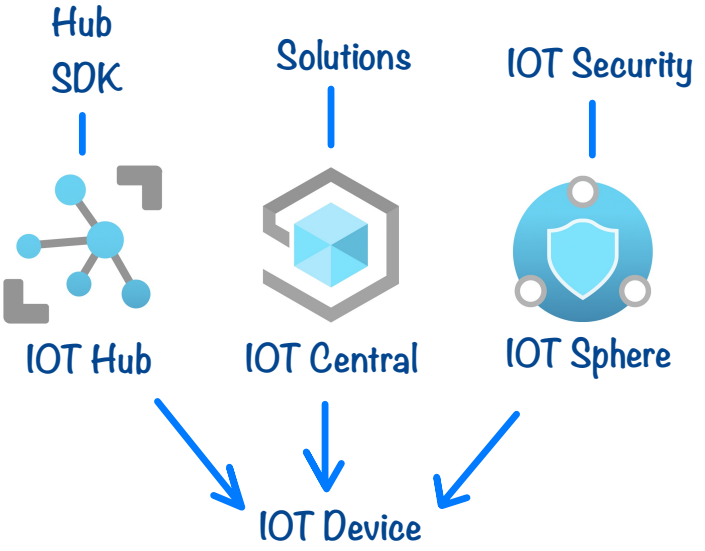
Storage Account types

PowerOps.nl




Storage Account
General V2
Premium Block
Premium Append
Premium File
Alle types
Alleen Block Performance
Alleen Append Performance
Alleen File Performance
Indexing
ACL
Hiërarchie
Azure Data Lake Gen2
Blob
Access tiers
Hot
Cool
Lifecycle
Offline
Archive


Global
Non-relational
Multi-model
Cosmos DB
MS SQL
PaaS
Relational
SQL
Azure SQL
MS SQL
Migraties
Compatibility
SQL
Managed Instance
Relational
Open-source
DB
Azure DB
My
Azure MySQL
Azure PostgreSQL
Azure MariaDB


Hub
SDK
Solutions
IOT Security
IOT Hub
IOT Central
IOT Sphere
IOT Device

Synapse Analytics

- DWH
- ETL
- PaaS

Data Factory

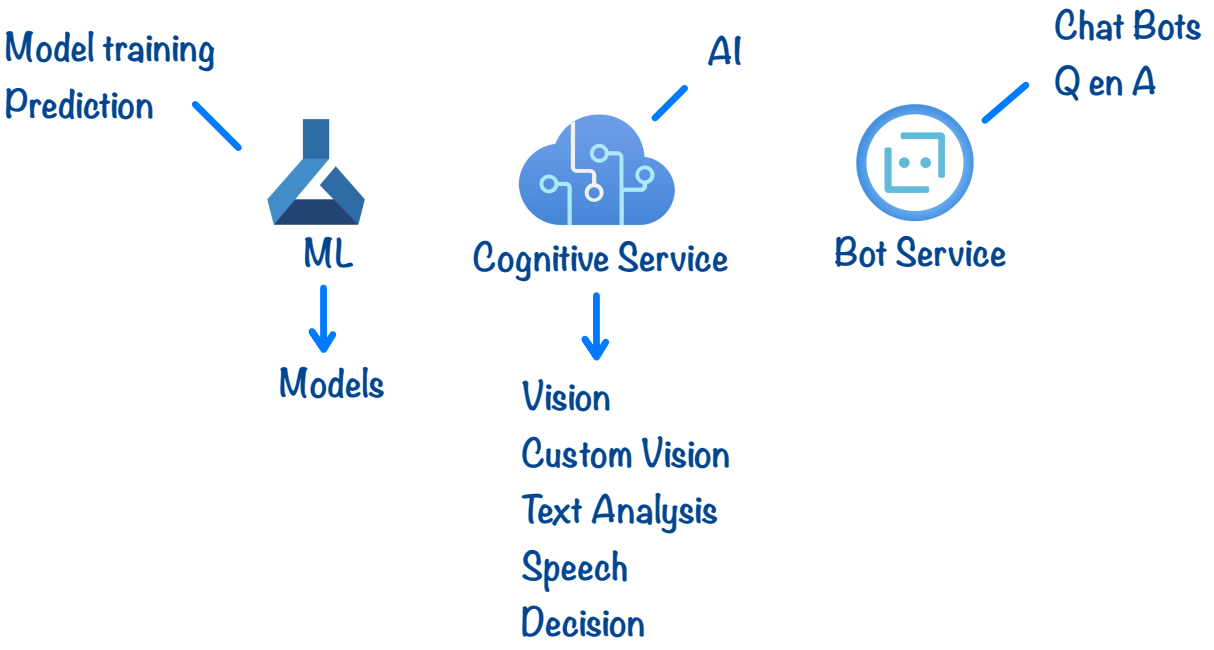
- ETL
- Source
- Sink

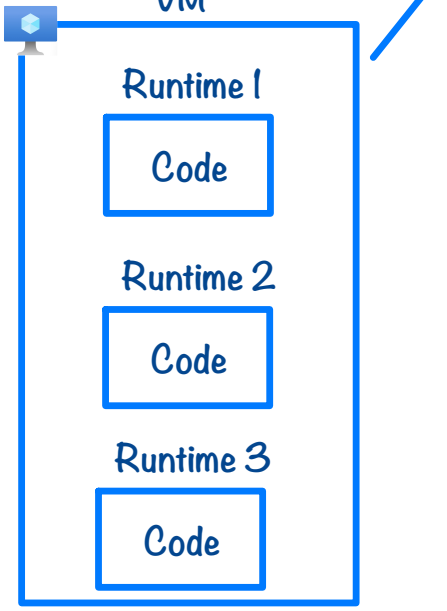
HD Insight

- Apache Hadoop
- Big data

Databricks

- Managed
- Apache Spark
- Big data

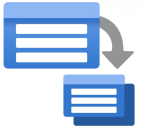

Model training
Prediction
ML
Models
AI
Cognitive Service
Vision
Custom Vision
Text Analysis
Speech
Decision
Chat Bots
Q en A
Bot Service



Per klant
Alleen betalen
voor uitvoering
Eventdriven

Azure Functions

Korte duur
Seconden

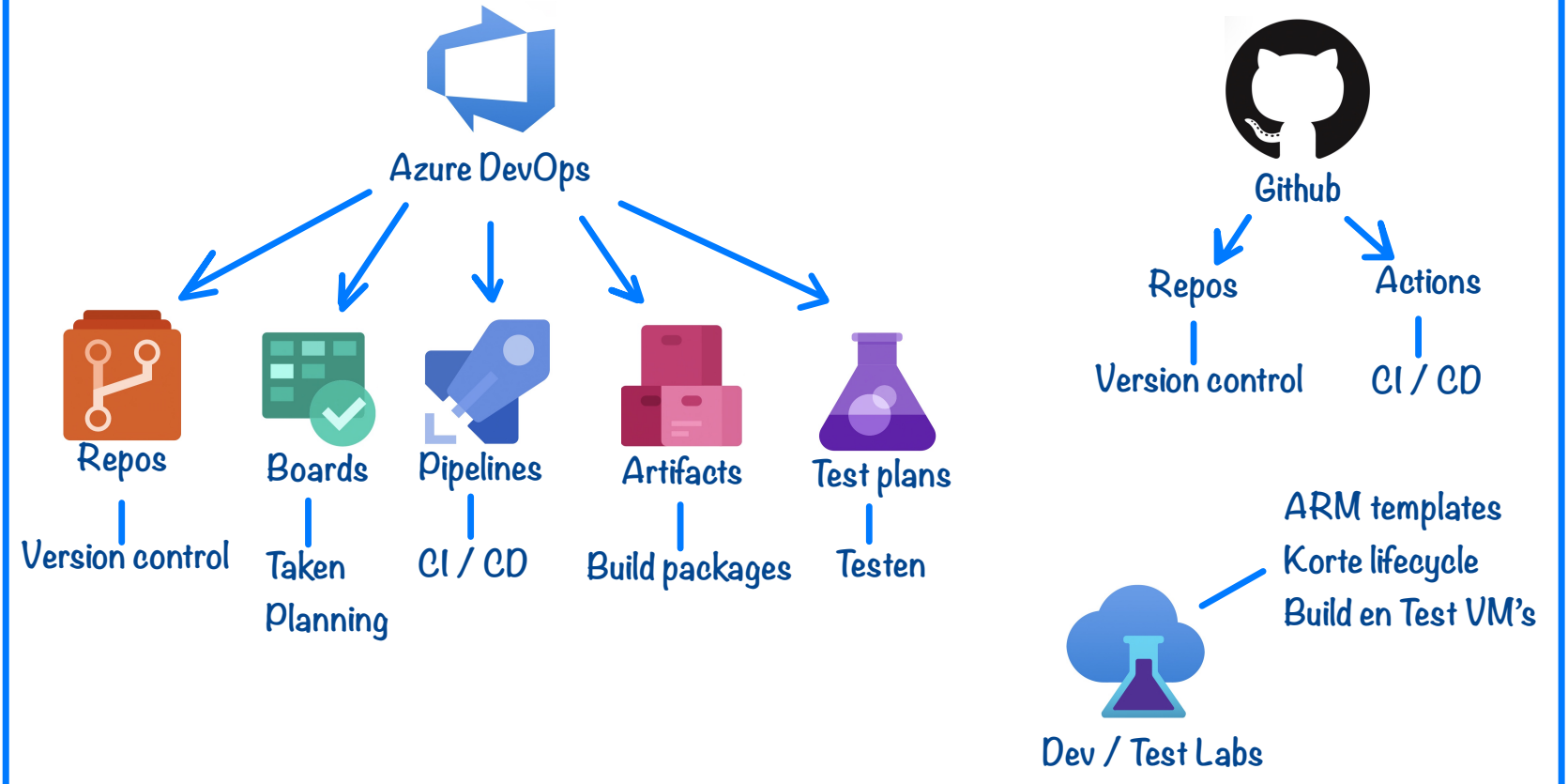


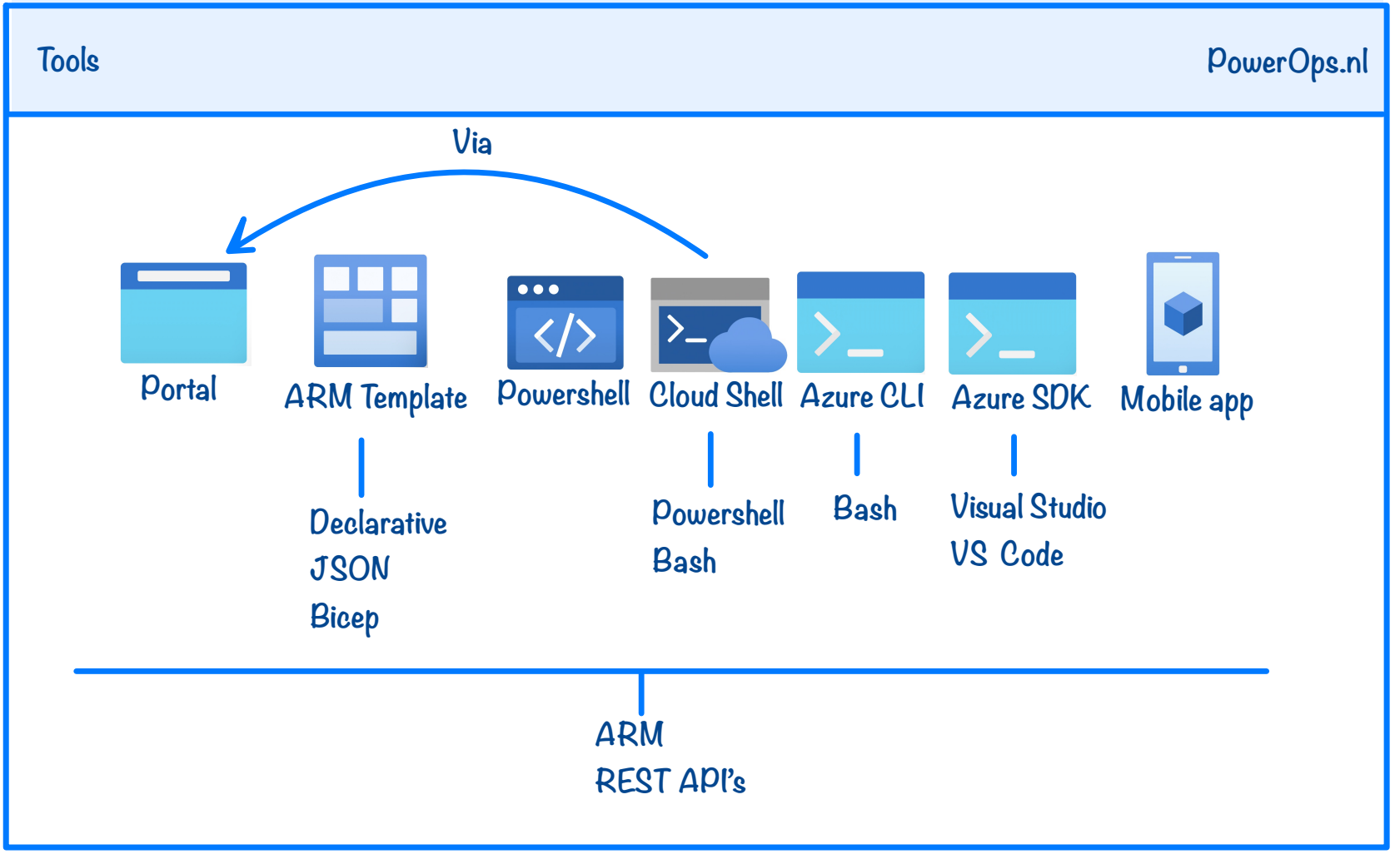
Azure Batch

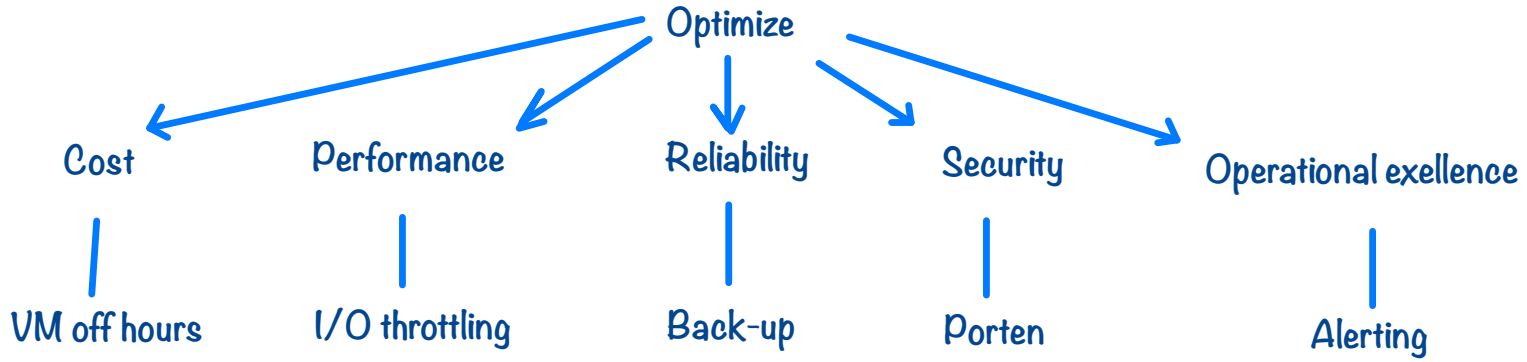
Zware taken
Parallel

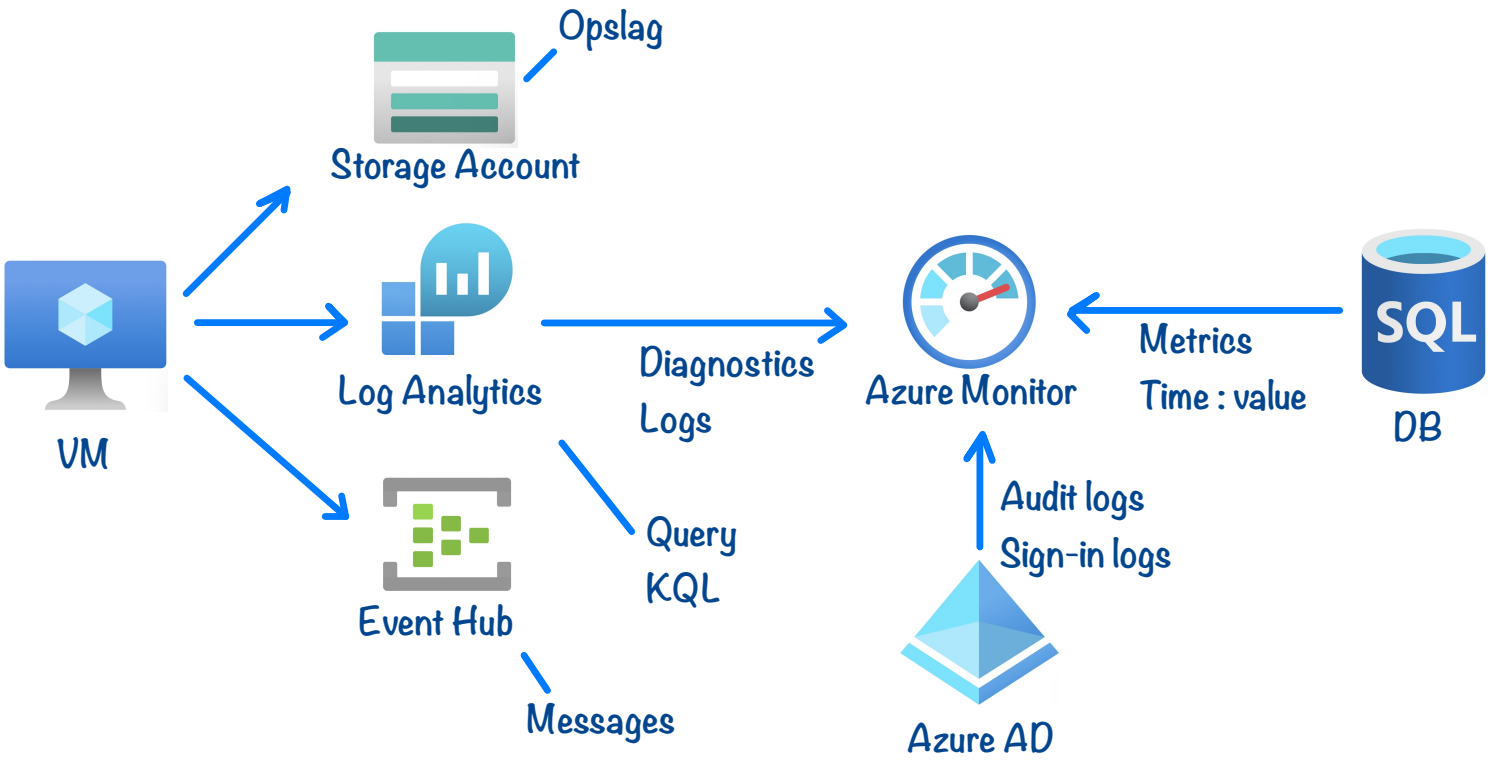
Logic Apps

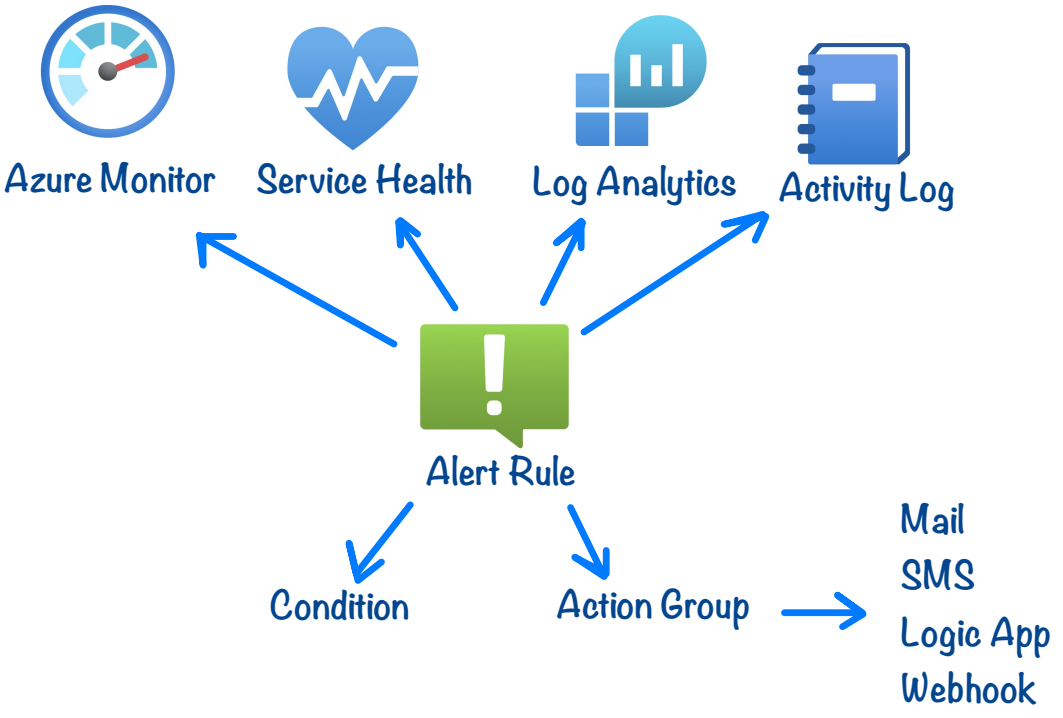
Grafisch
Workflows

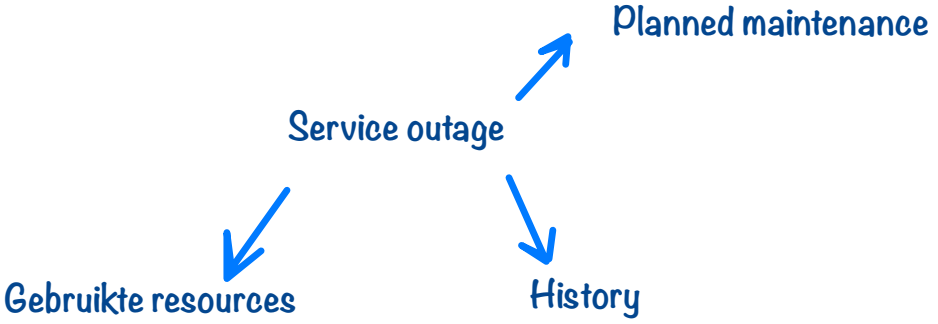

Azure DevOps
Repos
Version control
Boards
Taken
Planning
Pipelines
CI / CD
Artifacts
Build packages
Test plans
Testen
Github
Repos
Version control
Actions
CI / CD
ARM templates
Korte lifecycle
Build en Test VM's
Dev / Test Labs

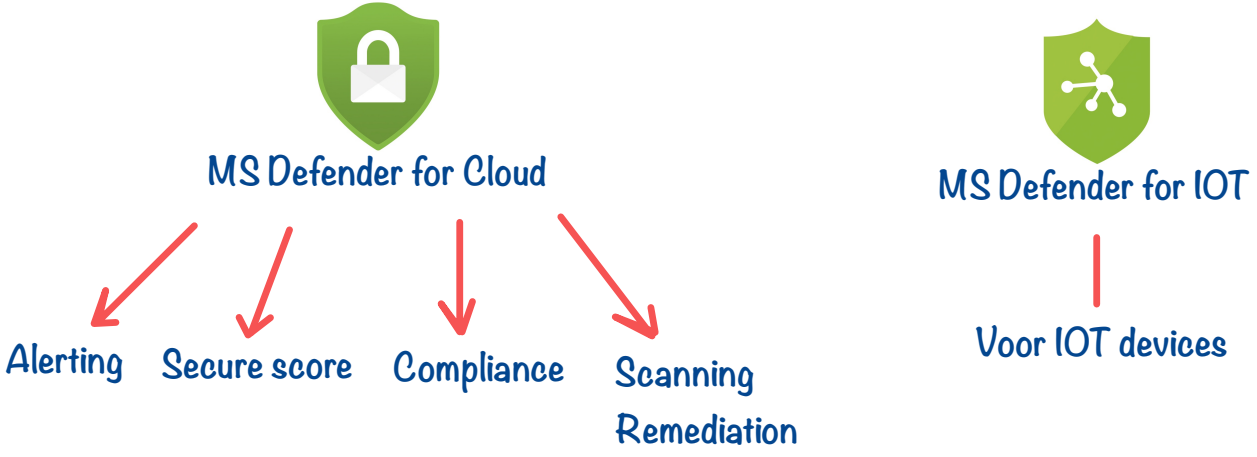

Tools
PowerOps.nl
Via
Portal
ARM Template
Powershell
Cloud Shell
Azure CLI
Azure SDK
Mobile app
Declarative
JSON
Bicep
Powershell
Bash
Bash
Visual Studio
VS Code
ARM
REST API's

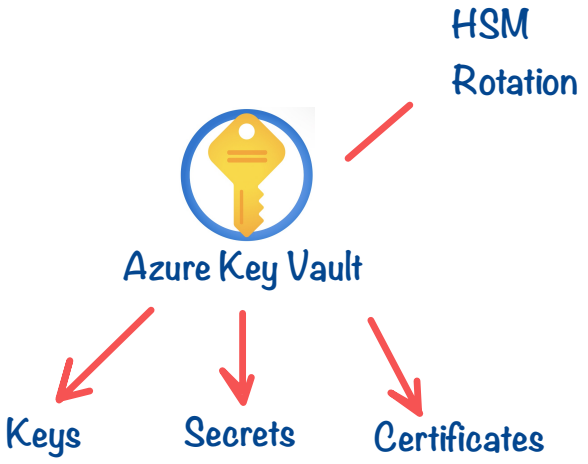

Optimize
Cost
Performance
Reliability
Security
Operational exellence
VM off hours
I/O throttling
Back-up
Porten
Alerting

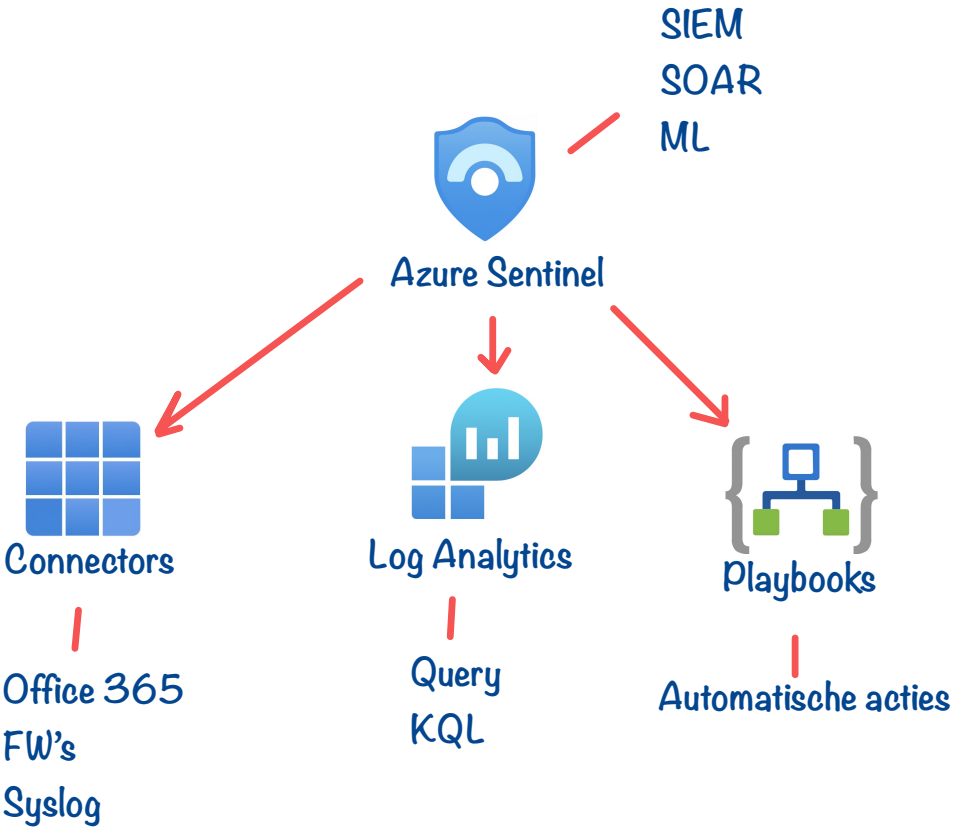

Opslag
Storage Account
VM
Log Analytics
Diagnostics
Logs
Azure Monitor
Metrics
Time : value
SQL
DB
Query
KQL
Event Hub
Messages
Audit logs
Sign-in logs
Azure AD

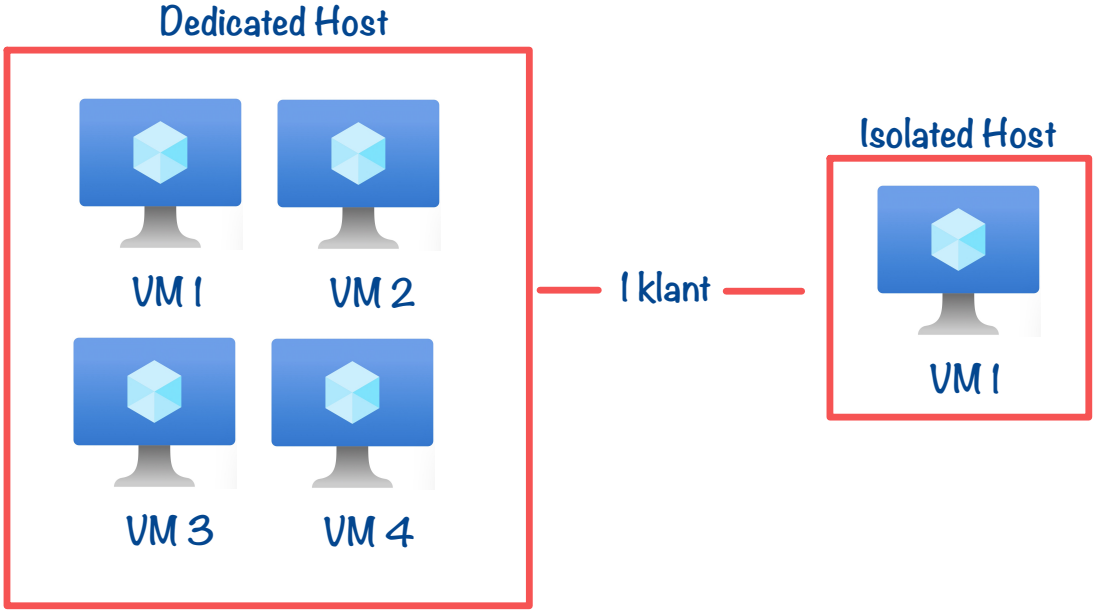

Azure Monitor
Service Health
Log Analytics
Activity Log
Alert Rule
Condition
Action Group
Mail
SMS
Logic App
Webhook

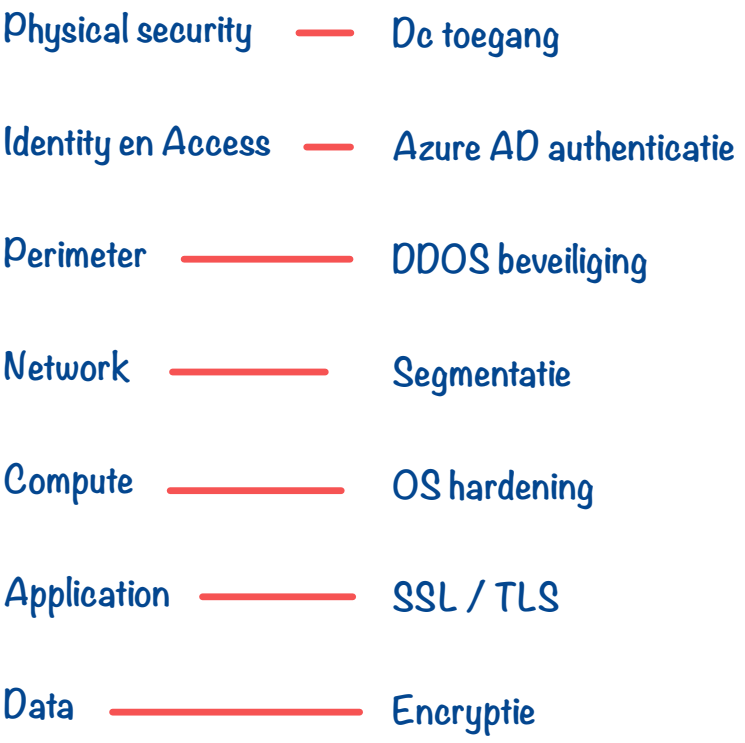

Planned maintenance
Service outage
Gebruikte resources
History

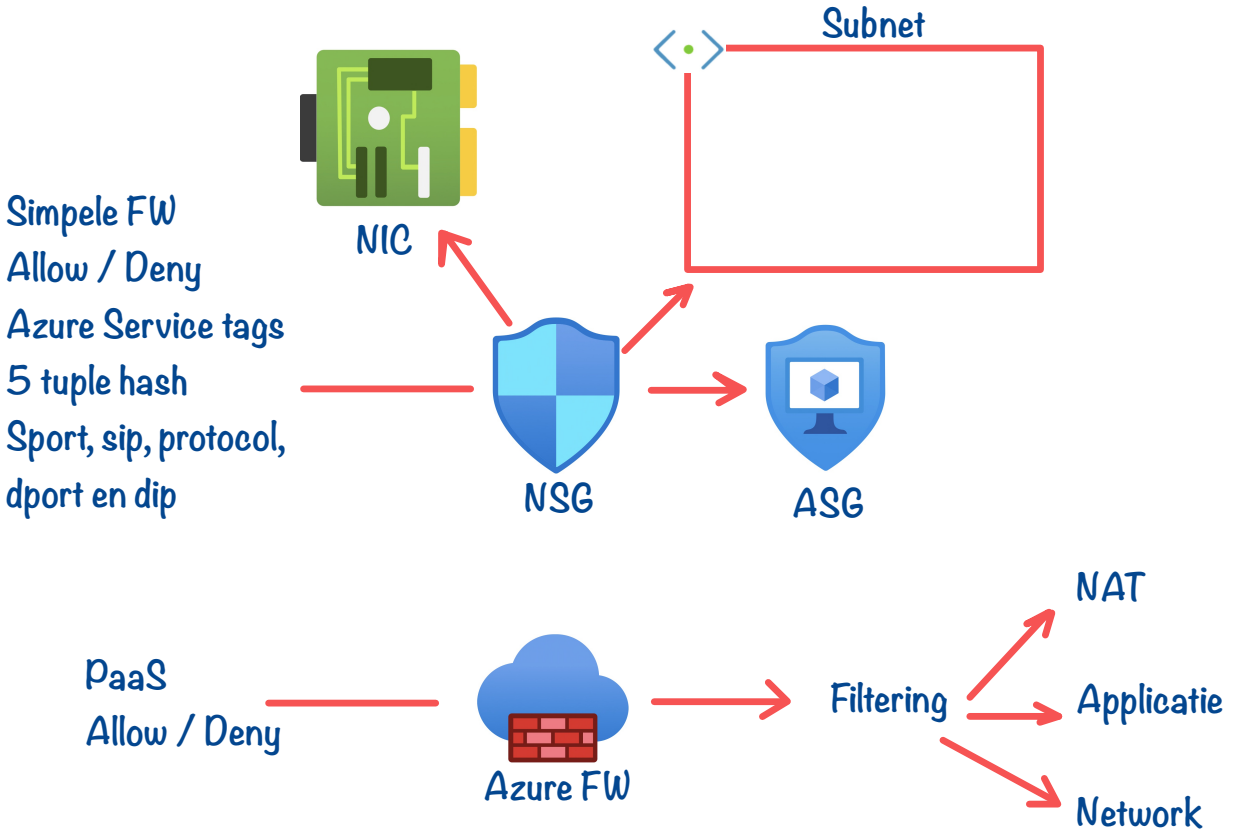

MS Defender for Cloud
Alerting
Secure score
Compliance
Scanning
Remediation
MS Defender for IOT
Voor IOT devices

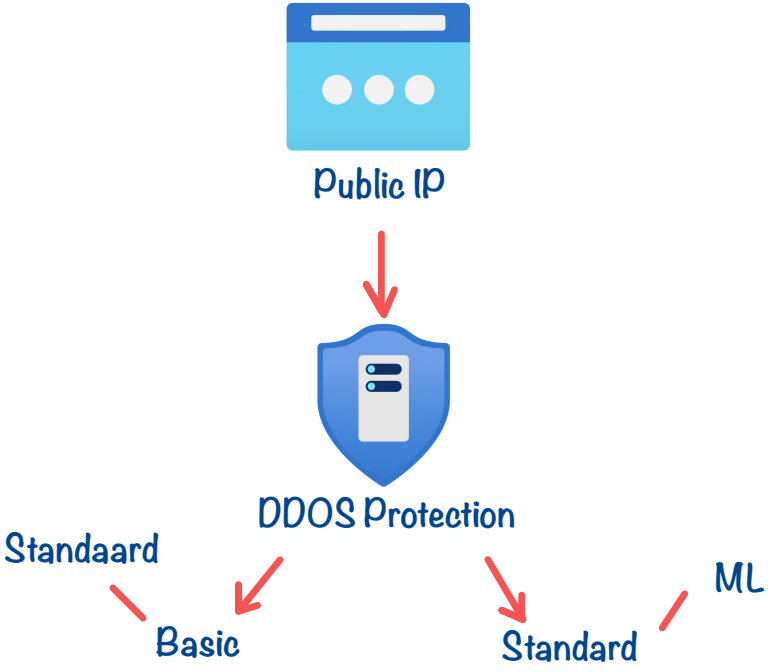

HSM
Rotation
Azure Key Vault
Keys
Secrets
Certificates

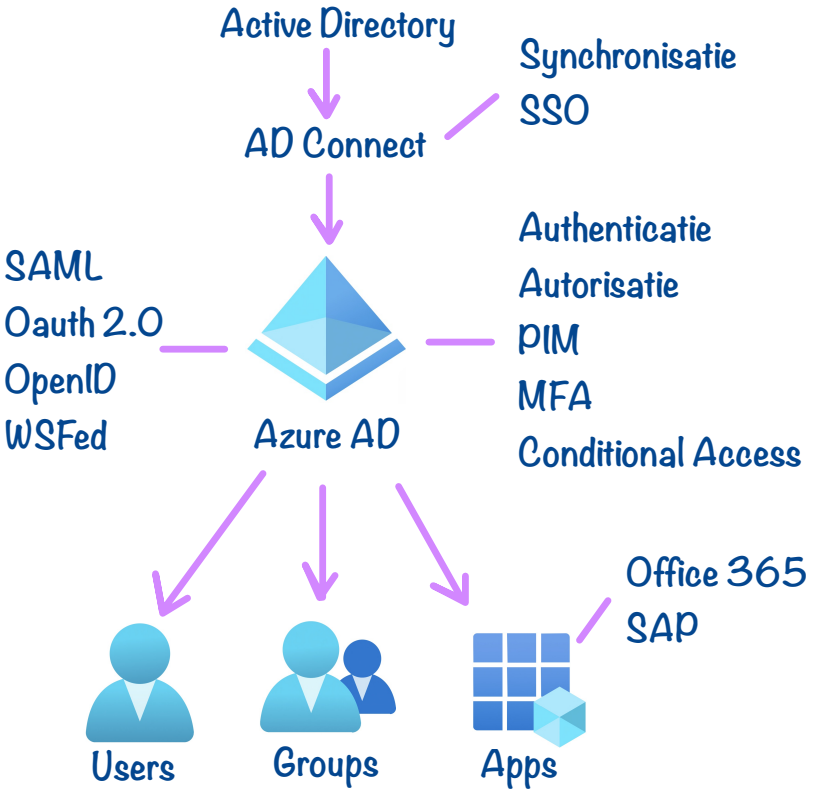

SIEM
SOAR
ML
Azure Sentinel
Connectors
Log Analytics
Playbooks
Office 365
FW's
Syslog
Query
KQL
Automatische acties

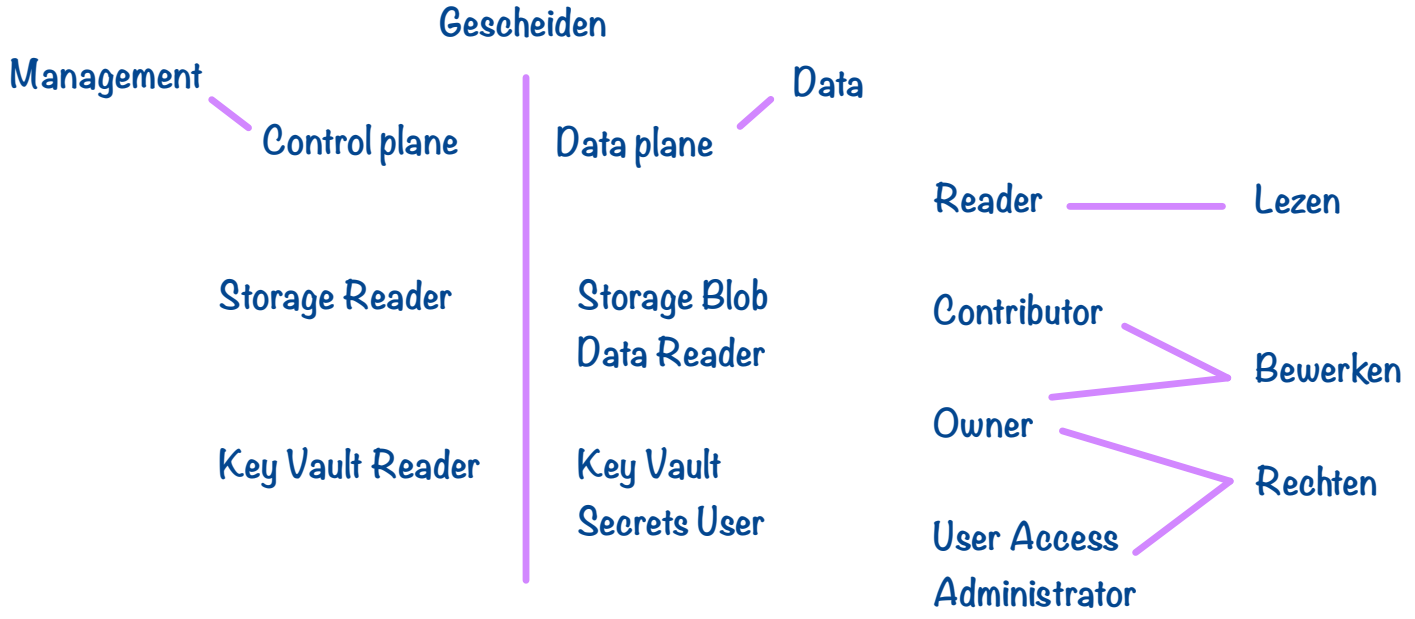

Dedicated Host
VM 1
VM 2
VM 3
VM 4
1 klant
Isolated Host
VM 1

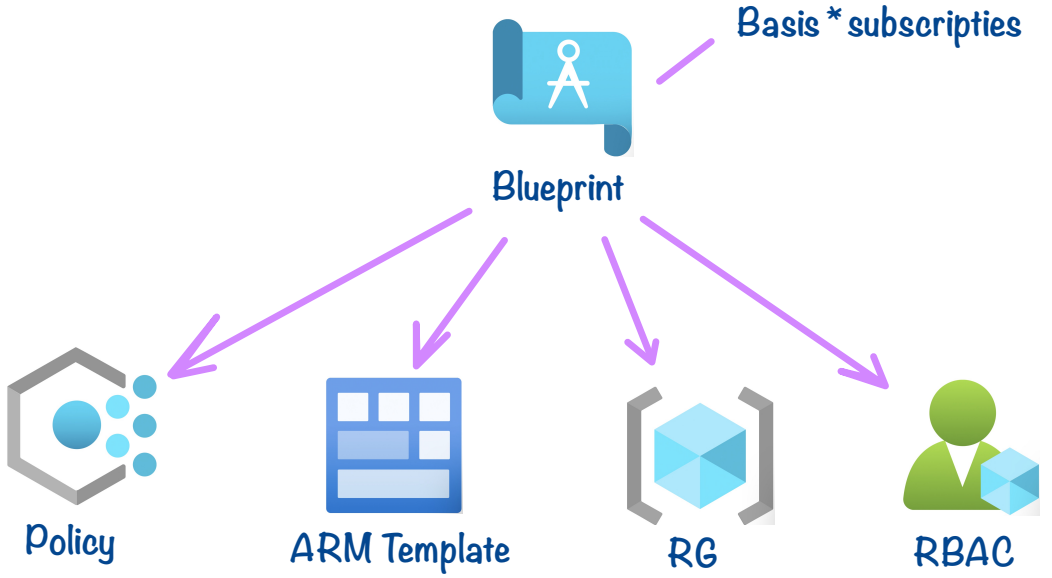

Physical security
Dc toegang
Identity en Access
Azure AD authenticatie
Perimeter
DDOS beveiliging
Network
Segmentatie
Compute
OS hardening
Application
SSL / TLS
Data
Encryptie

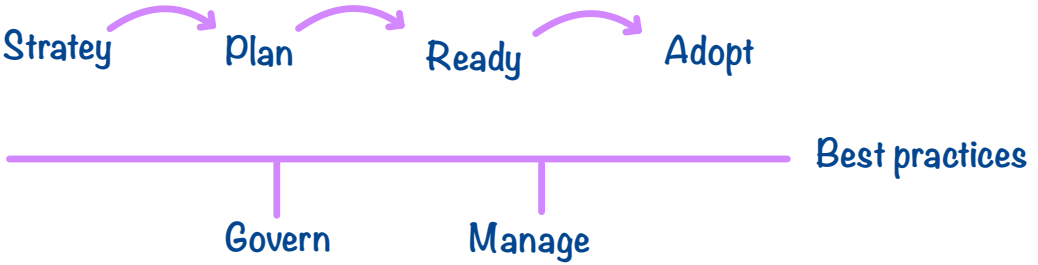

Subnet
NIC
Simpele FW
Allow / Deny
Azure Service tags
5 tuple hash
Sport, sip, protocol,
dport en dip
NSG
ASG
PaaS
Allow / Deny
Azure FW
Filtering
NAT
Applicatie
Network

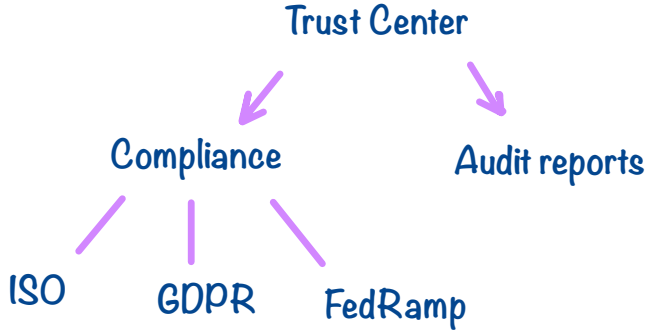

Public IP
DDOS Protection
Standaard
Basic
Standard
ML

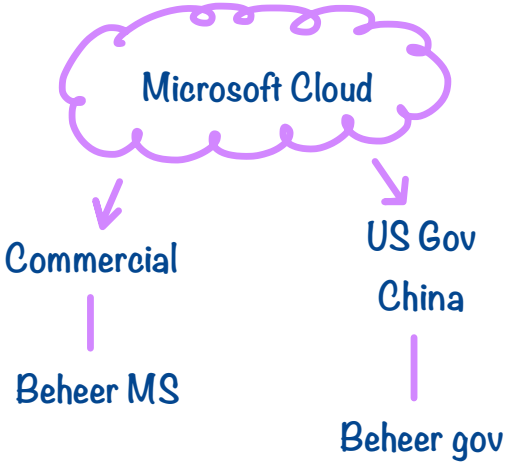

Active Directory
Synchronisatie
SSO
AD Connect
SAML
Oauth 2.0
OpenID
WSFed
Authenticatie
Autorisatie
PIM
MFA
Conditional Access
Azure AD
Office 365
SAP
Users
Groups
Apps


Gescheiden
Management
Control plane
Storage Reader
Key Vault Reader
Data
Data plane
Storage Blob
Data Reader
Key Vault
Secrets User
Reader
Lezen
Contributor
Bewerken
Owner
Rechten
User Access
Administrator


Basis * subscripties
Blueprint
Policy
ARM Template
RG
RBAC


Stratey
Plan
Ready
Adopt
Best practices
Govern
Manage


Trust Center
Compliance
Audit reports
ISO
GDPR
FedRamp


Microsoft Cloud
Commercial
US Gov
China
Beheer MS
Beheer gov

Windows

Pay-as-you-go

BYOL

Hybrid benefit

VM

Spot pricing

90 %
Free capacity
Interruptible
Achteraf betalen

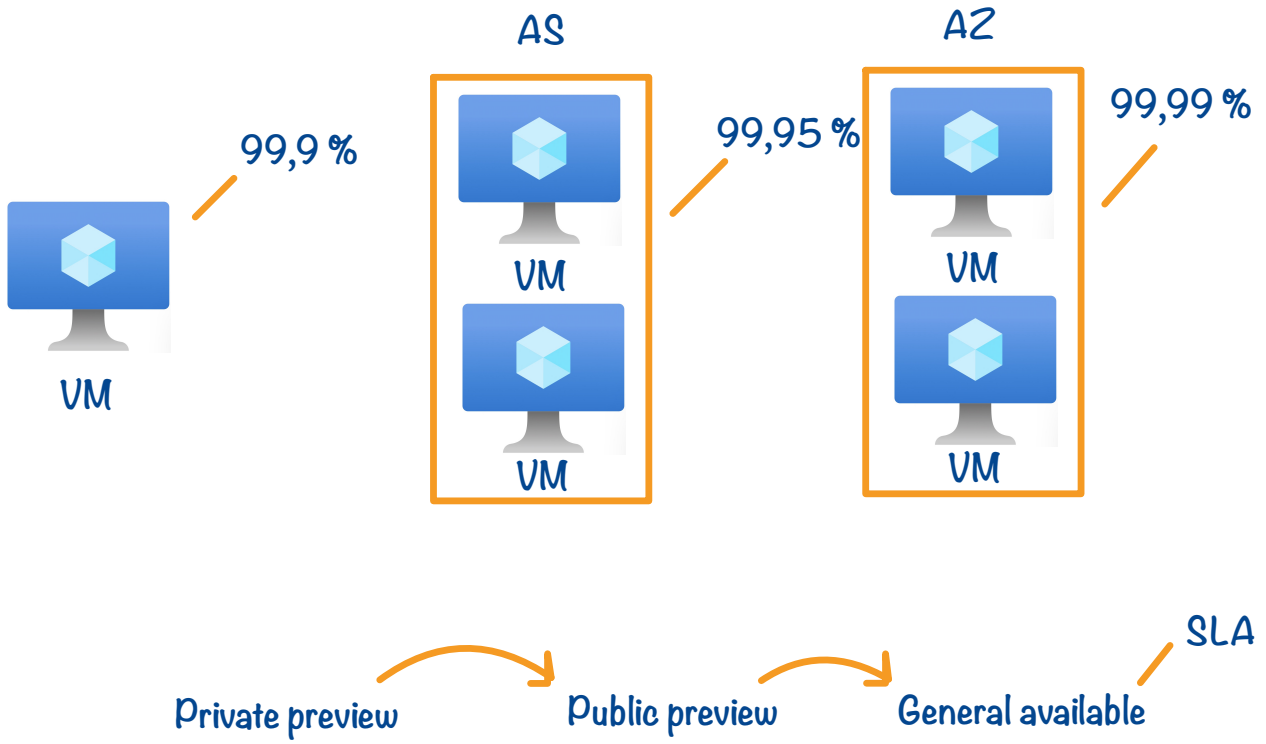
Reserved capacity

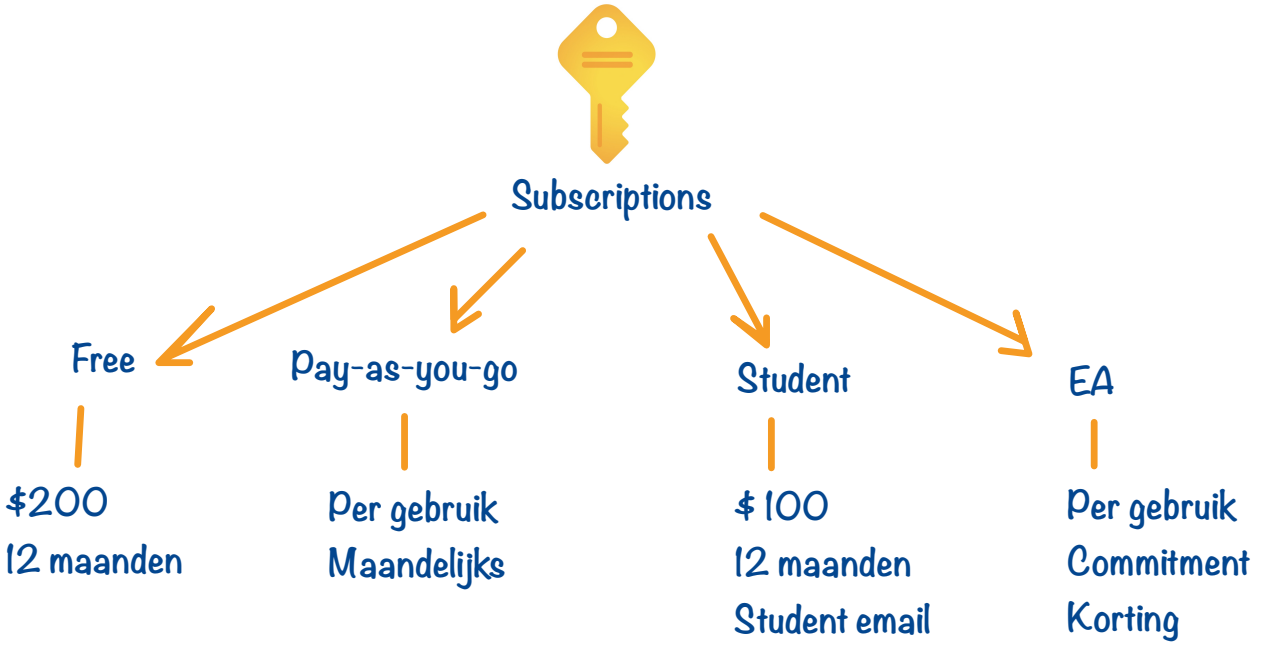
0 %
Reservering capaciteit

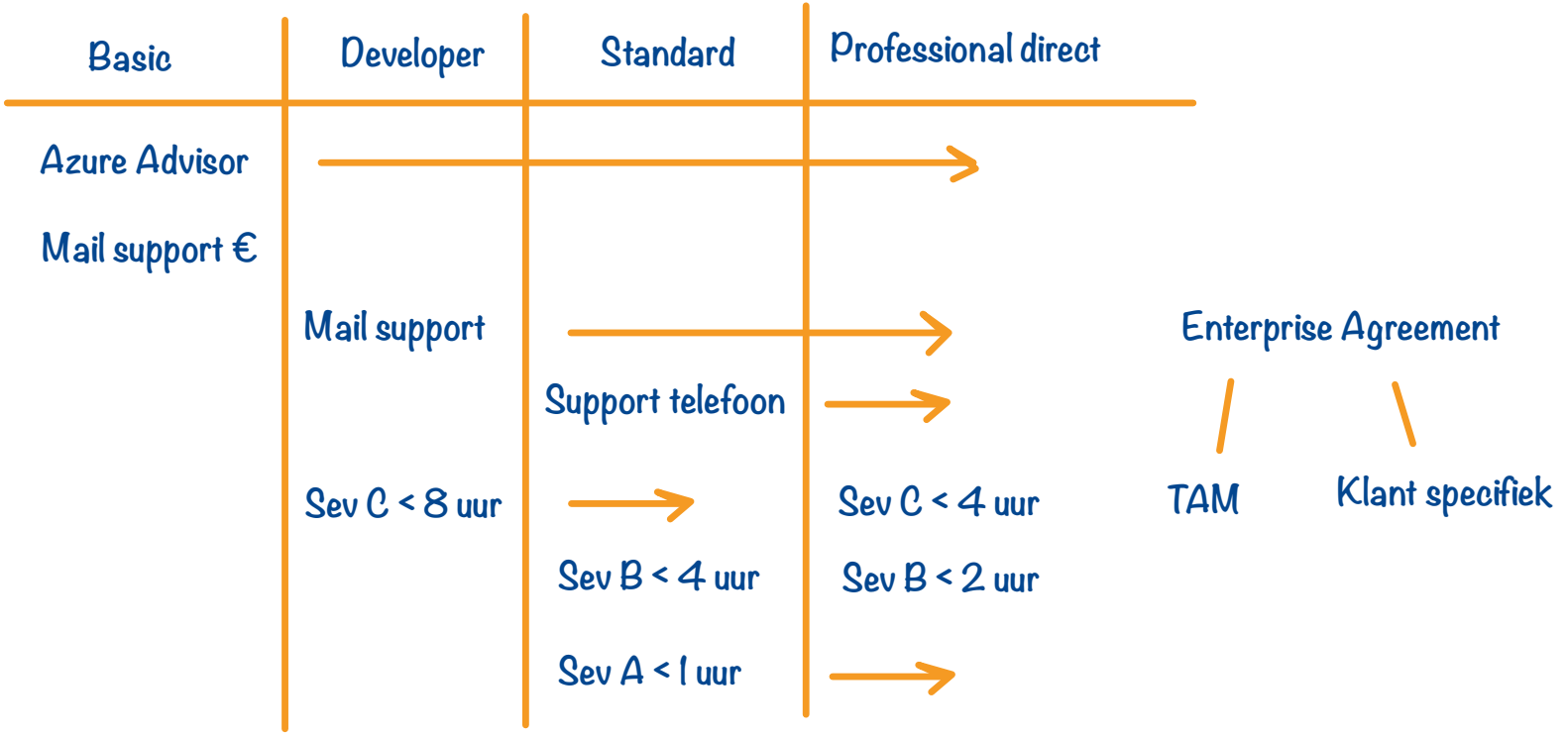
Reserved instance

70 %
1 / 3 jaar
Vooraf betalen

- Pricing calculator
  - Reports
  - Per service / sku
  - Gebruik
- TCO calculator
  - On-prem vs Cloud
  - Stroom
  - Hardware
  - Onderhoud
  - Reports
- Cost Management
  - Analyse
  - Graphs
  - Budgets


AS
AZ
99,9 %
99,95 %
99,99 %
VM
VM
VM
VM
VM
Private preview
Public preview
General available
SLA


Subscriptions
Free
$200
12 maanden
Pay-as-you-go
Per gebruik
Maandelijks
Student
$ 100
12 maanden
Student email
EA
Per gebruik
Commitment
Korting


Basic
Developer
Standard
Professional direct
Azure Advisor
Mail support €
Mail support
Support telefoon
Sev C < 8 uur
Sev C < 4 uur
Sev B < 4 uur
Sev B < 2 uur
Sev A < 1 uur
Enterprise Agreement
TAM
Klant specifiek