2 October 2024 Christopher Geckert

GeckertConsulting

SQL Konferenz 2024

Azure 101 for Data Engineers

Introduction

- Freelancer
- English/German



Christopher Geckert

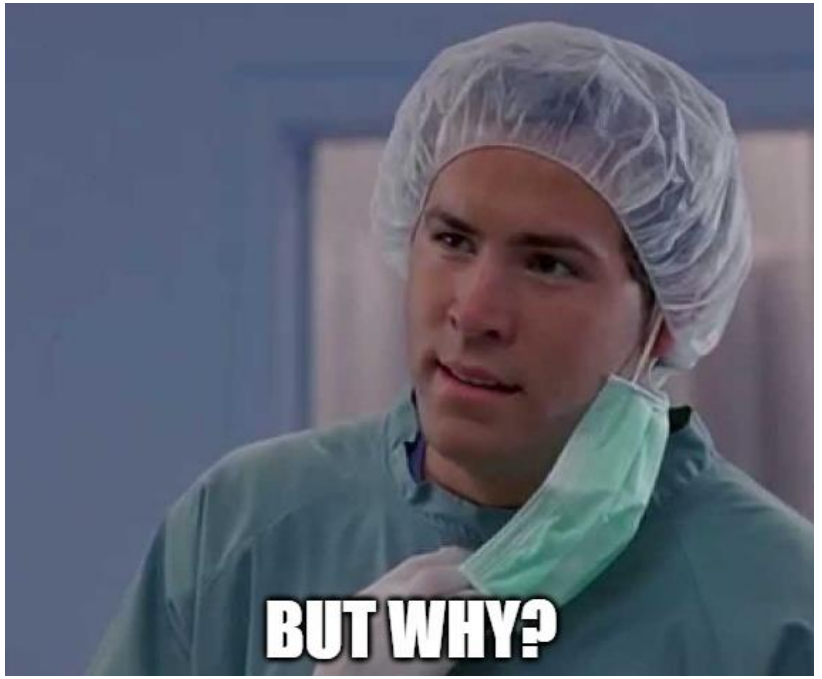
Data Solution Architect

Timeline

- Why?
- General Concepts
- Azure Networking Components
- On Prem Network
- Azure Landing Zone
- Data Landing Zone

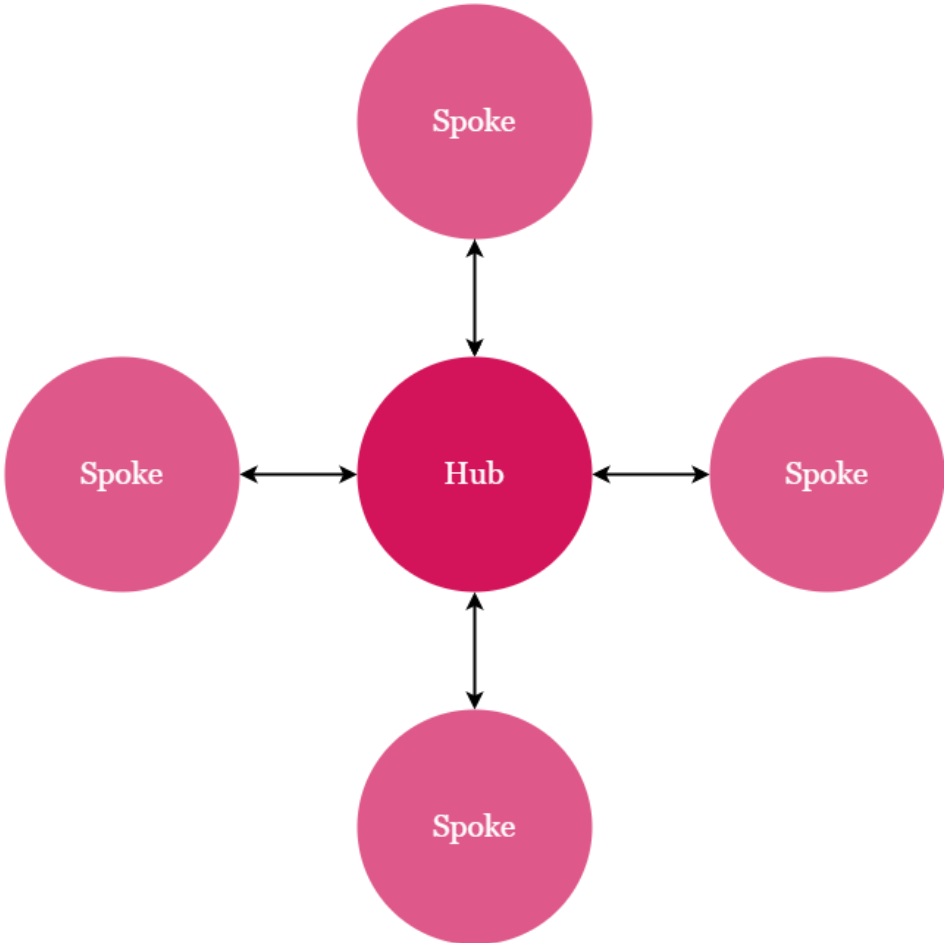
Why?

- Understand your colleagues
- Understand Networking issues
- Understand where your data is transported
- Understand how data is transported
- Help to find best solution



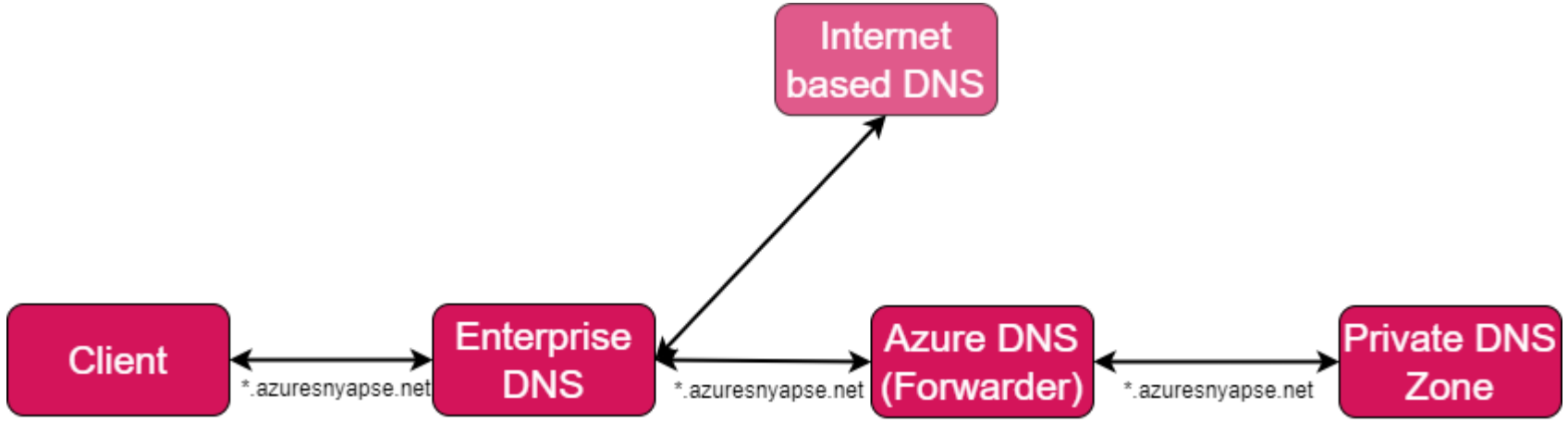
General Concepts

- Hub and Spoke



General Concepts

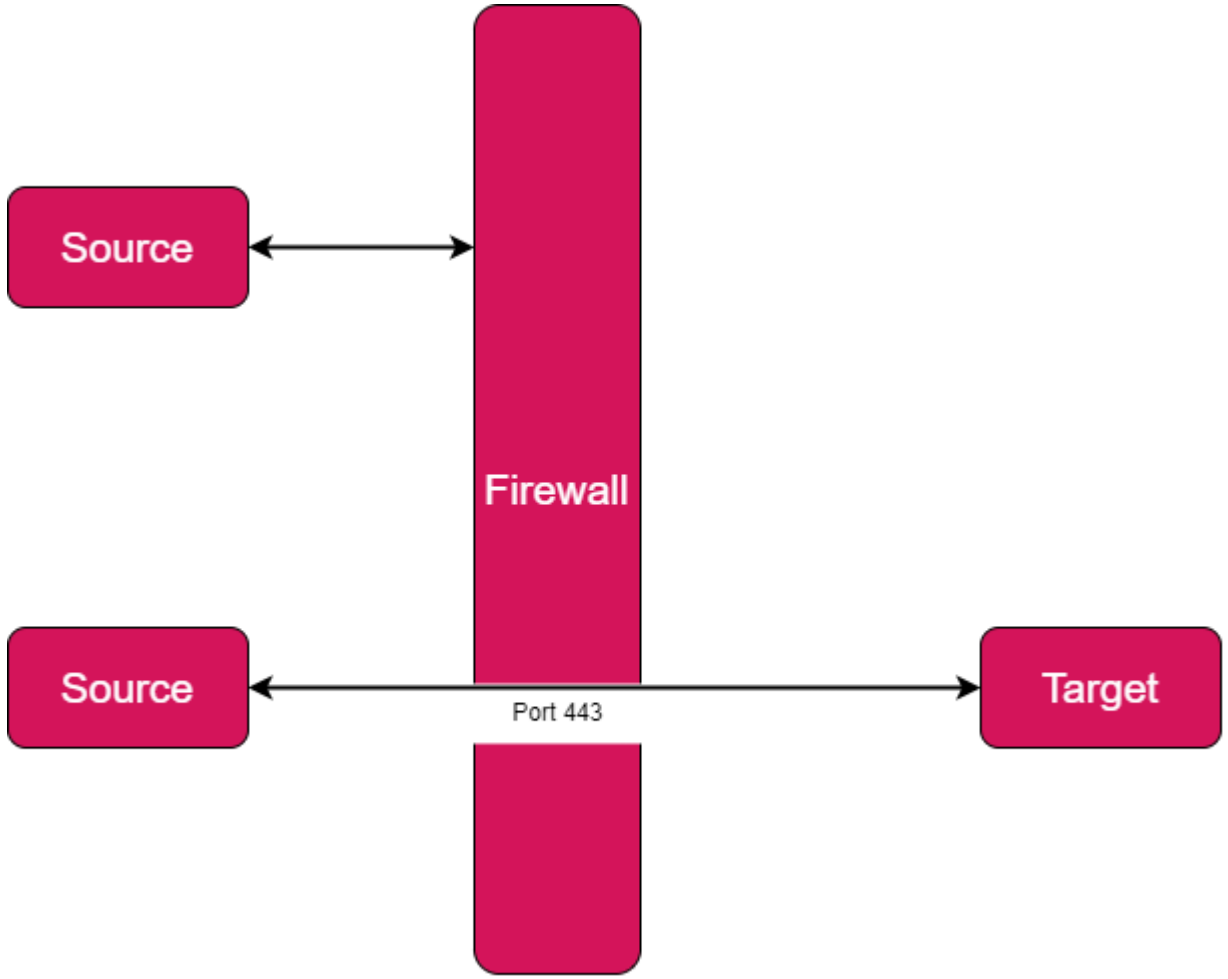
- DNS
  - Your Client needs to know who to talk to



- (Remember: its always DNS)

General Concepts

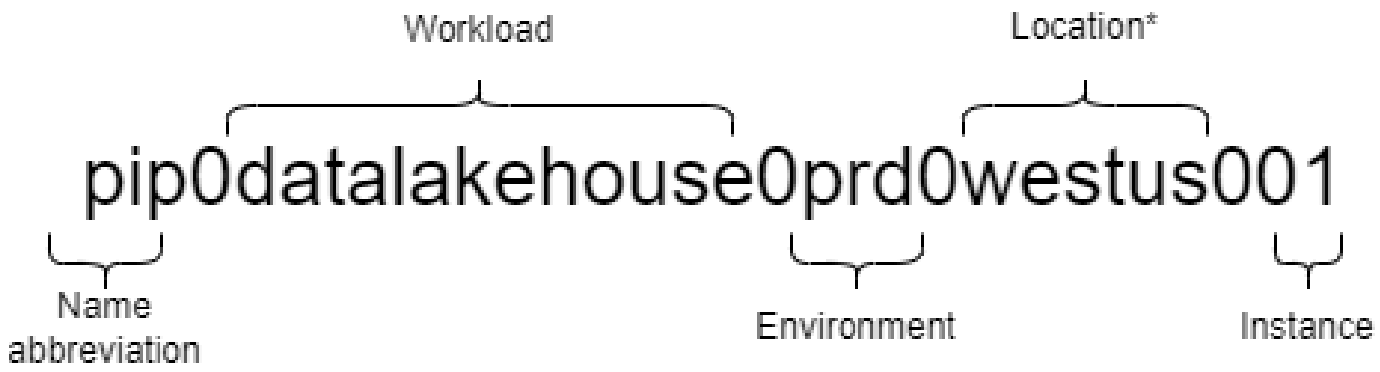
- Firewall
  - Blocks Traffic
  - Matching conditions allow traffic



- (If its not DNS its a Firewall)

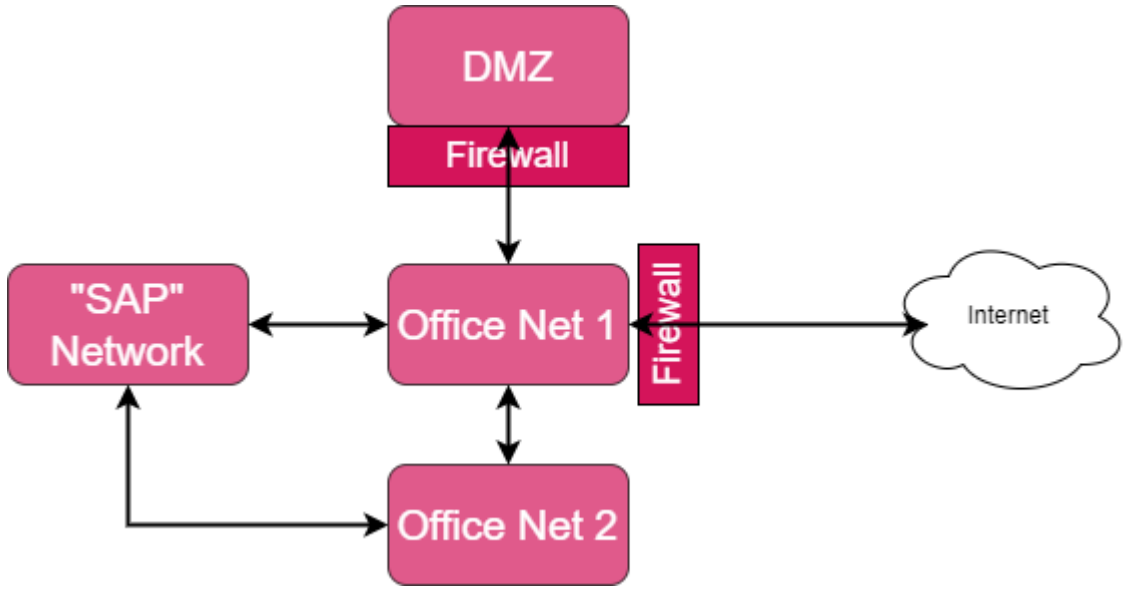
General Concepts

- Ressource Names



- https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/ready/azure-best-practices/resource-abbreviations
- https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/ready/azure-best-practices/resource-naming

On Prem Networking



- Office Networks for each location
- Separate Networks for special applications (e.g. SAP)
- DMZ
  - Secure separate Network
  - Often some kind of production Network

- (when admins had full control)

Azure Networking Components

Firewall vs NSG





Costs per GB & per hour

Usually used in Hub

Managed Firewall Service (Advanced configuration possibilities & L7 Paket inspection)

Free of charge

Usually used in Spoke

Stateful Firewall (Basic Traffic filter)

Azure Networking Components

- Private DNS Resolver



- Private DNS Zones
  - One per kind of Endpoint



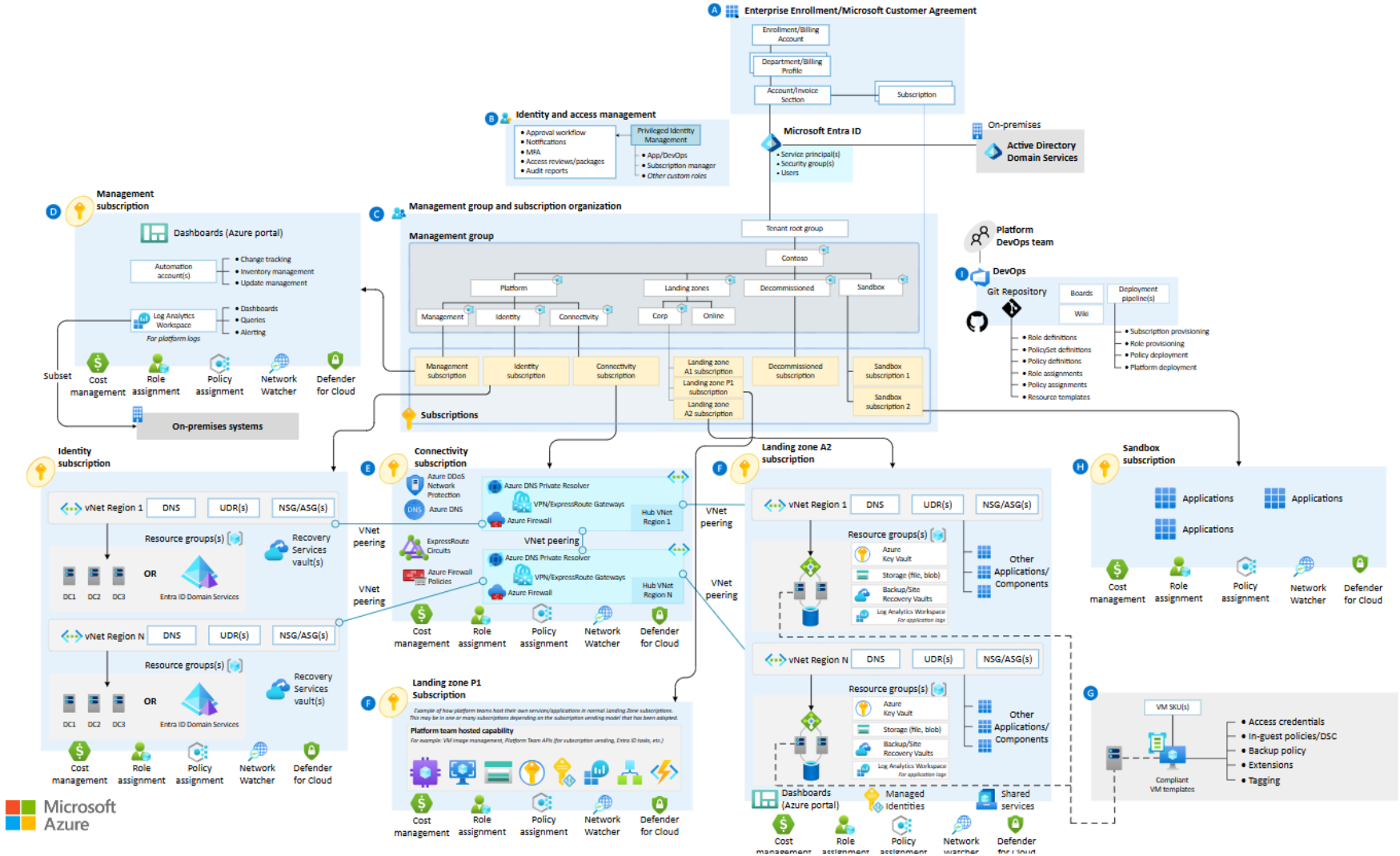
Azure Networking Components

- Vnet 
- Subnet 

Azure Networking Components

- Private Endpoint 
- Virtual Network Interface 
- Private Link (often when Multitennant) 

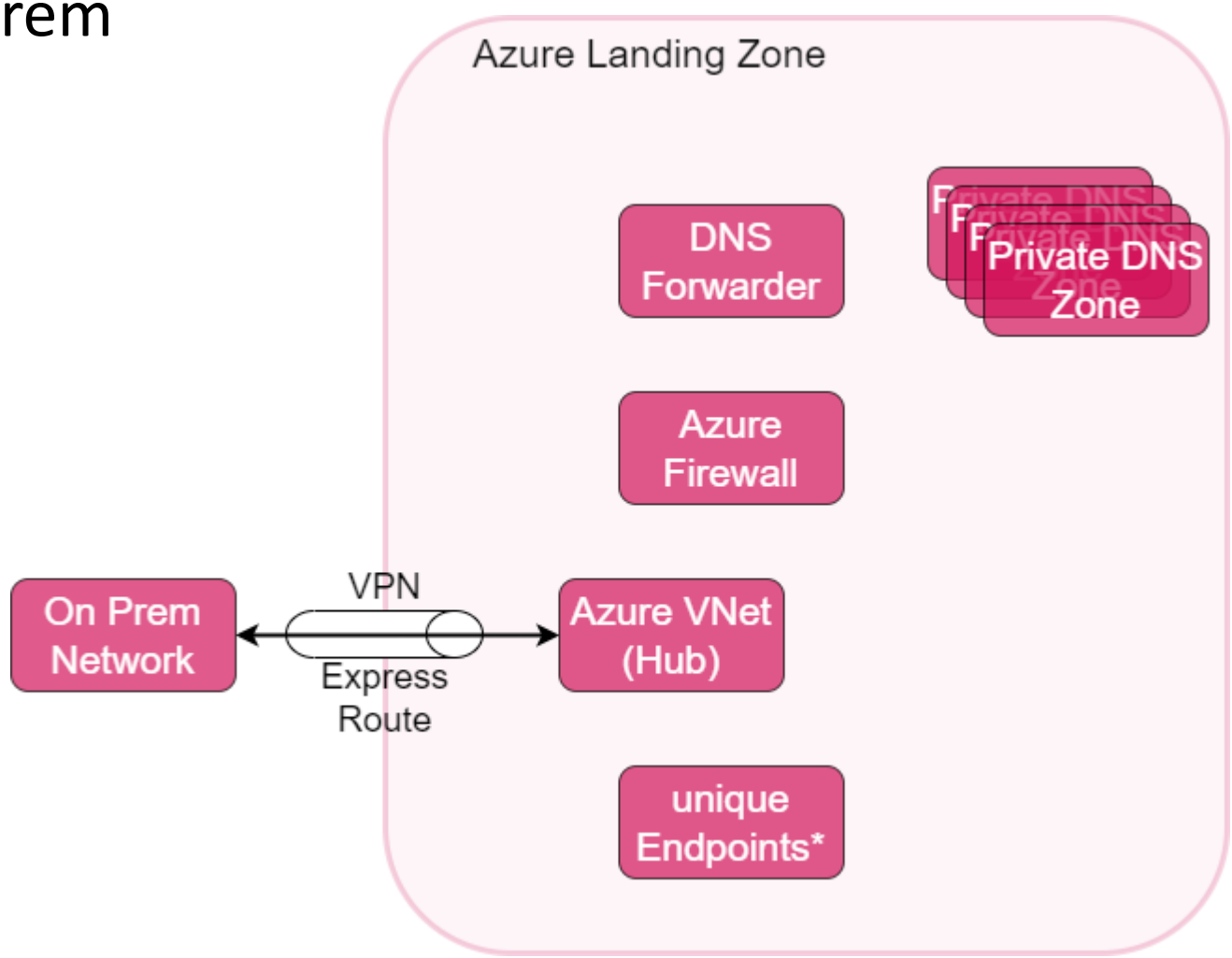
Azure Landing Zone



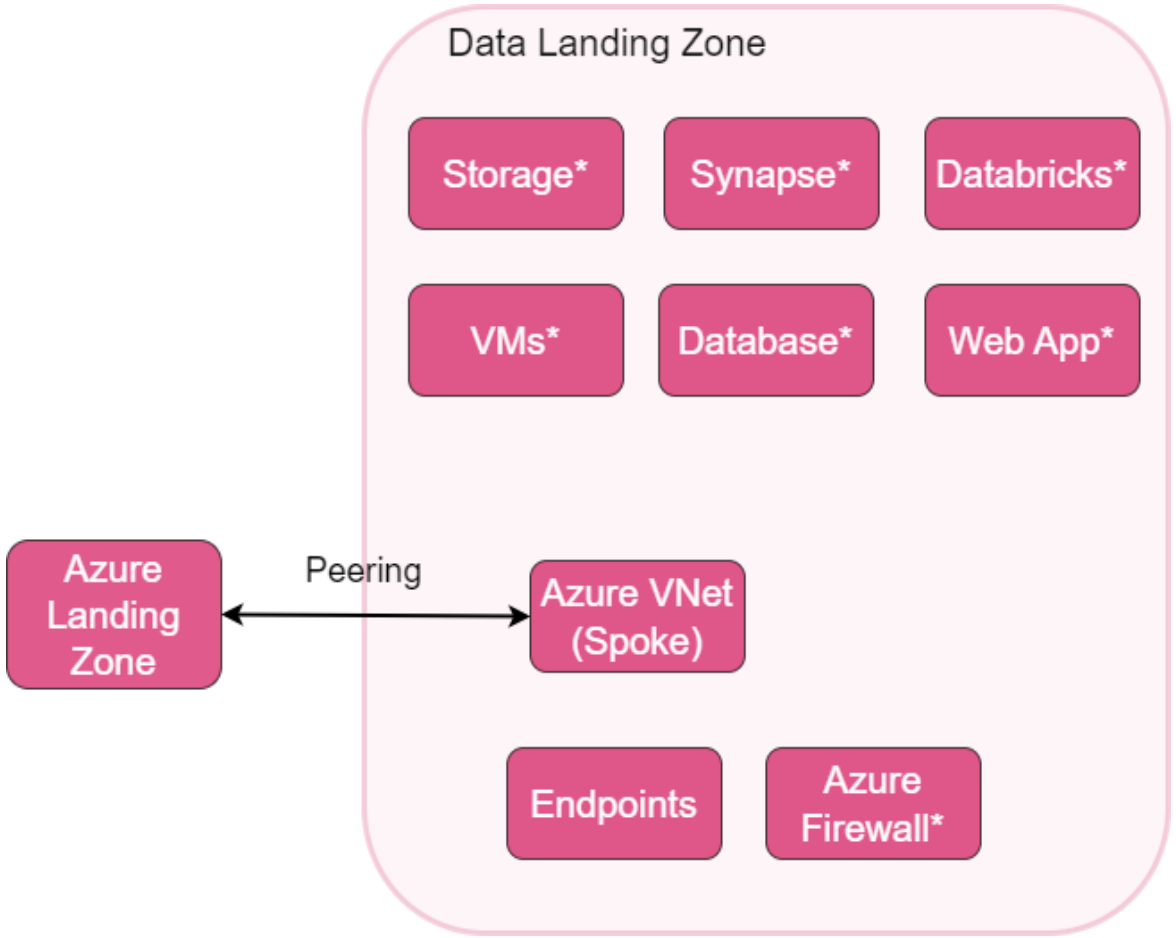
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Azure Landing Zone

- Connection between On Prem and Azure

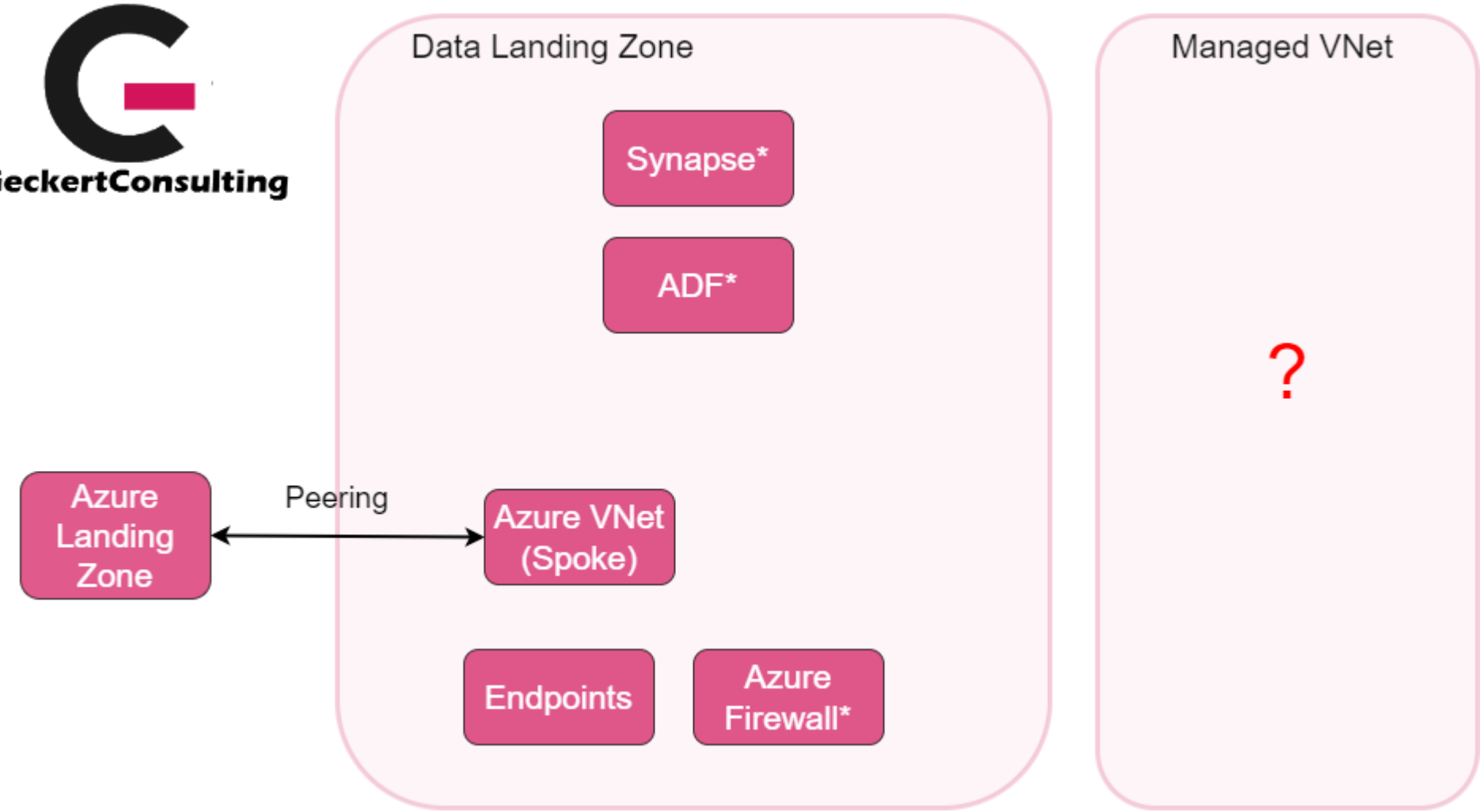


Data Landing Zone



- Your Environment
- Tennant can have multiple
  - e.g.Dev/Tst/Prd
  - Or different Applications

Why does Networking in Synapse and ADF suck?



Q&A



Thank you, for your attention



Christopher Geckert

Data Solution Architect

Please evaluate this session

christopher.geckert@geckertconsulting.com

https://www.GeckertConsulting.com

Feel free to contact me