

# Lift and Shift vereinfacht mit Azure Migrate

Funktionen und  
Einrichtung

# Wer bin ich ☺

Gregor Reimling

Cloud Architect @ **sepago**<sup>®</sup>



Gründer des [#AzureBonn](#) Meetups



[info@reimling.eu](mailto:info@reimling.eu) | [info@azurebonn.de](mailto:info@azurebonn.de)



[@gregorreimling](#) | [@azurebonn](#)



[www.reimling.eu](http://www.reimling.eu)




[www.neutralien.com](http://www.neutralien.com)




# Azure Migrate – Agenda

- Allgemeines
- Funktionen
- Demo & Einrichtung
- Migration
- Fazit
- Links



**Migrate your on-premises datacenter to Azure**


Discover, assess and migrate your on-premises applications using Microsoft or third-party tools, or [find an expert](#) to help with your migration. [Learn more](#)



**Discover, assess and migrate servers**

Discover, assess and migrate your on-premises VMware and Hyper-V virtual machines or Physical servers to Azure.


[Assess and migrate servers](#)



**Assess and migrate databases**

Assess and migrate your on-premises databases to Azure SQL Database Managed Instance or Azure SQL Database.


[Assess and migrate databases](#)



**Assess and migrate web apps to Azure**

Assess and migrate .NET and PHP web apps to Azure's Platform-as-a-Service, Azure App Service.

[Assess and migrate web apps](#)



**Migrate on-premises data to Azure**

Use the Data Box offline family of products to move large amount of data to Azure.

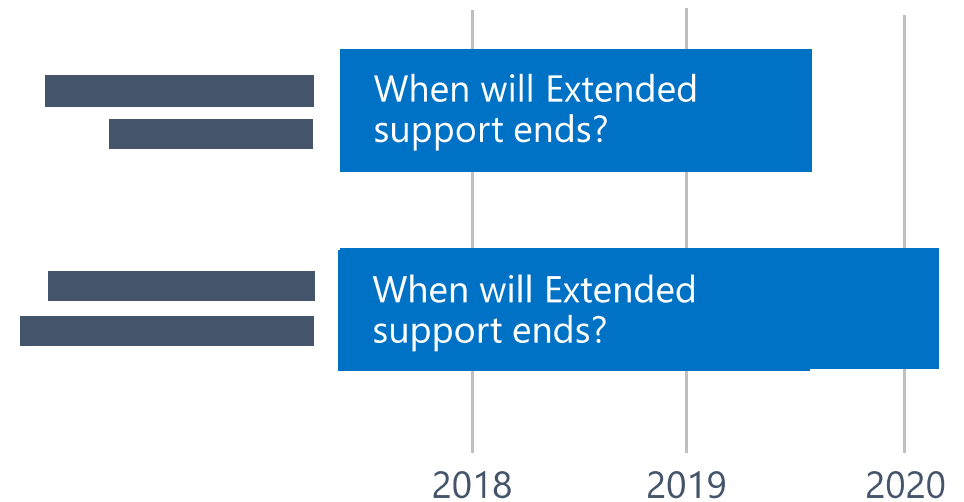
[Order a Data Box](#)

# Overview of server product lifecycle

End of support means the end of security updates

Product release

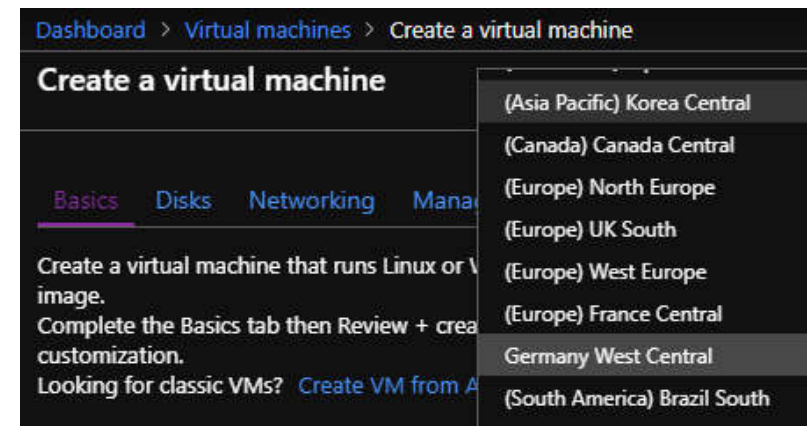
End of support



Find lifecycle support deadlines at: [support.microsoft.com/lifecycle](https://support.microsoft.com/lifecycle)

# Kurz notiert – Azure Global DE

- [Seit 28.08.19 verfügbar](#)
- 2 Regionen
  - Germany West Central -> Frankfurt
  - Germany North East -> Berlin
- Services :
  - Azure VMs ( A, B-, D-, E-, F- and M-Series)
  - SQL Managed Instance
  - Und vieles mehr
- Office 365 & Dynamics voraussichtlich Q1/2020
- [Weitere Details](#)



# Azure Migrate - Choice of tools

Goal is successful Azure migration: Pick the right tool for the job



## We embrace ISV solutions

MOVERE

Cloudamize

CloudAtlas®

BitTitan

appOrbit



CHEF™

STRATOZONE®

turbonomic

CloudEndure®

Zerto

Corent

intigua

stiim™

ATTUNITY

DATOMETRY



Ispirer

Informatica

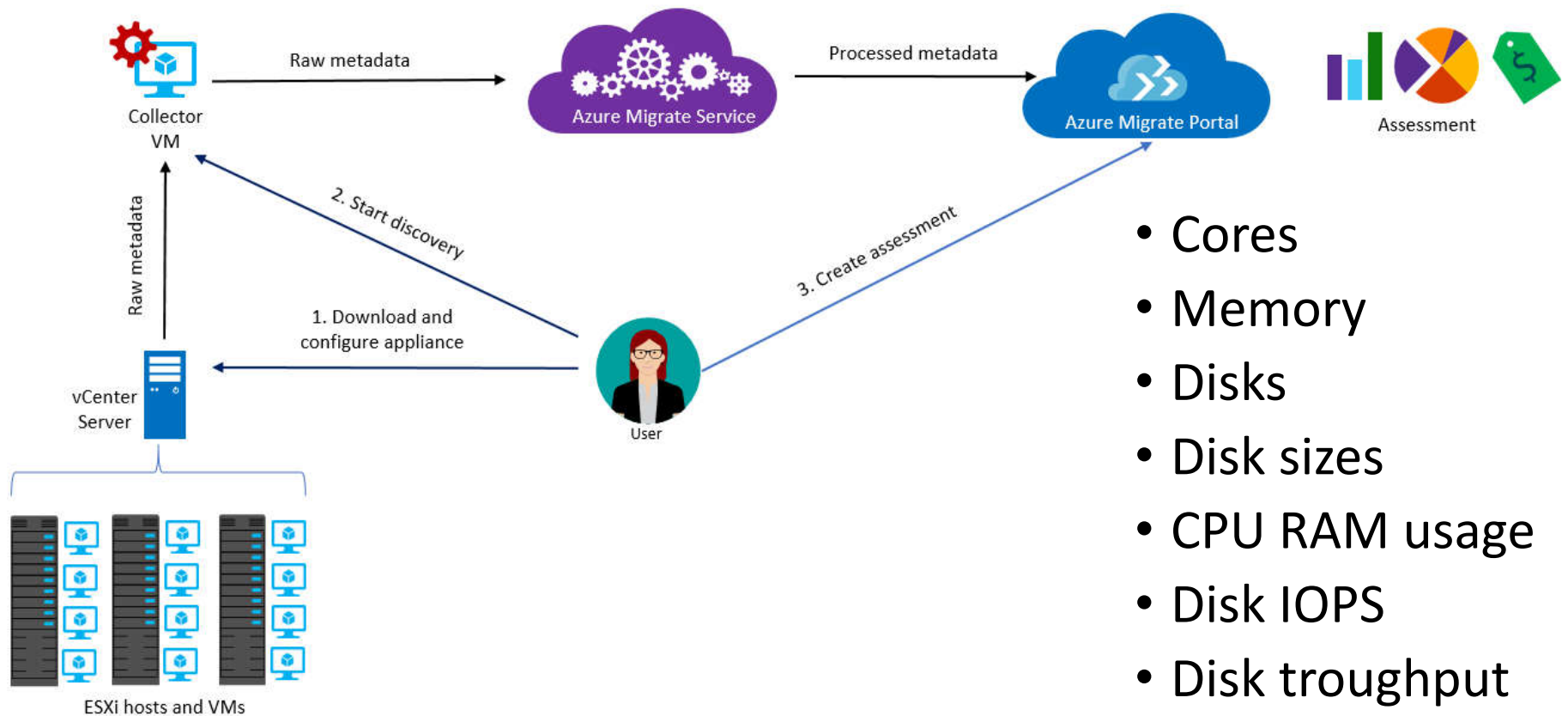
QuerySurge

<https://docs.microsoft.com/en-us/azure/migrate/migrate-services-overview>

# Azure Migrate – Überblick

- [Seit 11.07. als Version 2 GA](#)
- Zentraler Service für alle Migrationsprojekte
  - Server Assessment und Migration
  - Database Assessment und Migration
- Kann nun VMware und Hyper-V Umgebungen bewerten
- Benötigt eine Appliance pro Hypervisor (keine VM Agents)
- Ergebnisse werden zentral in Azure bereitgestellt
- Servergruppen und Bewertung zur Cloud Readiness
- Weitere Anbieter enthalten

# Azure Migrate Overview

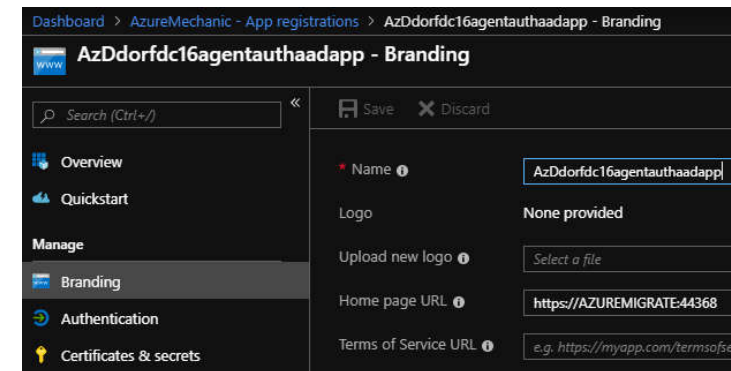


<https://cloudblogs.microsoft.com/industry-blog/en-gb/cross-industry/2019/01/24/how-to-prepare-for-a-move-to-azure-with-azure-migrate/>



# Azure Migrate - Voraussetzungen

- Account mit Berechtigung um Migrate Project zu erstellen
- Account registriert Azure Migrate Appliance in Azure
  - Erstellt 2 Azure AD Apps für Appliance Kommunikation
- Appliance Zugriff via PowerShell Remoting auf Hyper-V Hosts
- [Konfigurationsskript für Hyper-V VMs](#) verfügbar
  - Check PS Version, Admin Rechte, Erstellt User Konto, Aktiviert WinRM und PS Remote
- [Appliance selbst](#)
  - Host min. WS2012R2 | 16GB RAM | 8 vCPU
  - Hyper-V Integration Components on VMs



# Azure Migrate - Vorbereitung



# Azure Migrate – Server Migration

- Basiert auf Azure Site Recovery Komponenten
- Kann via Azure Migrate Portal ausgeführt werden
- Für Hyper-V agentenlos möglich
- Für [VMware Migration agentless](#) in Preview
  - Mobility Service auf VMs notwendig (agentenbasiert)
- **VNET Design sollte bereits vorhanden sein**

**Discover machines**

Are your machines virtualized? ⓘ

Yes, with VMware vSphere Hypervisor

How do you want to replicate? ⓘ

Select migration type

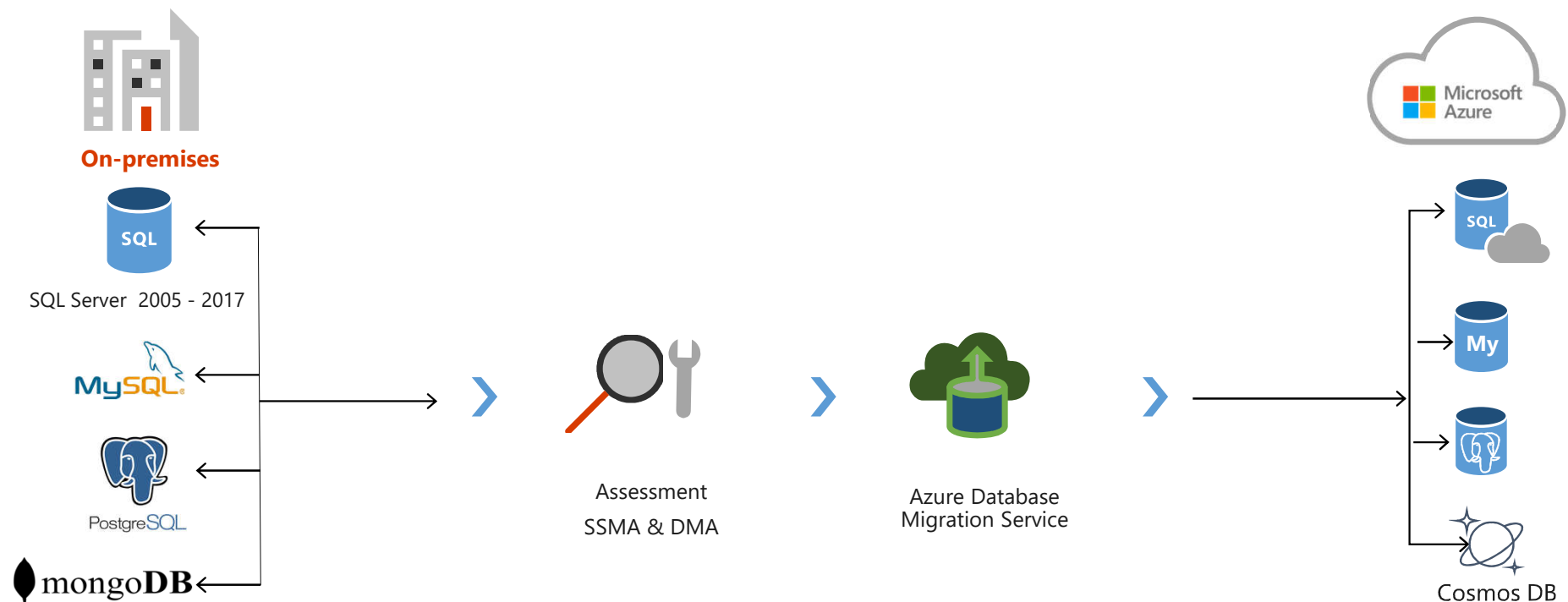
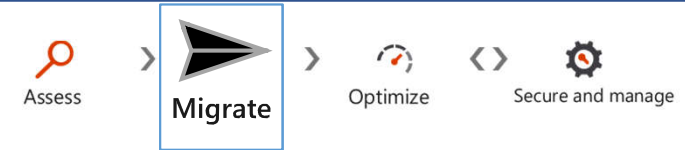
Using agentless replication (PREVIEW)

Using agent-based replication

## ⓘ Note

Agent-based migration with Azure Migrate Server Migration is based on features of the Azure Site Recovery service. Some requirements might link to Site Recovery documentation.

# Migrate Databases using DMA (Database Migration Assessment)




Seamless, end to end solution | Near-zero downtime | Migrate at-scale from multiple sources

<https://docs.microsoft.com/en-us/sql/dma/dma-overview?view=sql-server-2017>

# Azure Migrate – Demo Time

## Migrate your on-premises datacenter to Azure

Discover, assess and migrate your on-premises applications using Microsoft or third-party tools, or find [an expert to help with your migration. Learn more](#) 



### Discover, assess and migrate servers

Discover, assess and migrate your on-premises VMware and Hyper-V virtual machines or Physical servers to Azure.

[Assess and migrate servers](#)




### Assess and migrate databases

Assess and migrate your on-premises databases to Azure SQL Database Managed Instance or Azure SQL Database.


[Assess and migrate databases](#)

### Assess and migrate web apps to Azure

 Assess and migrate .NET and PHP web apps to Azure's Platform-as-a-Service, Azure App Service.

[Assess and migrate web apps](#)

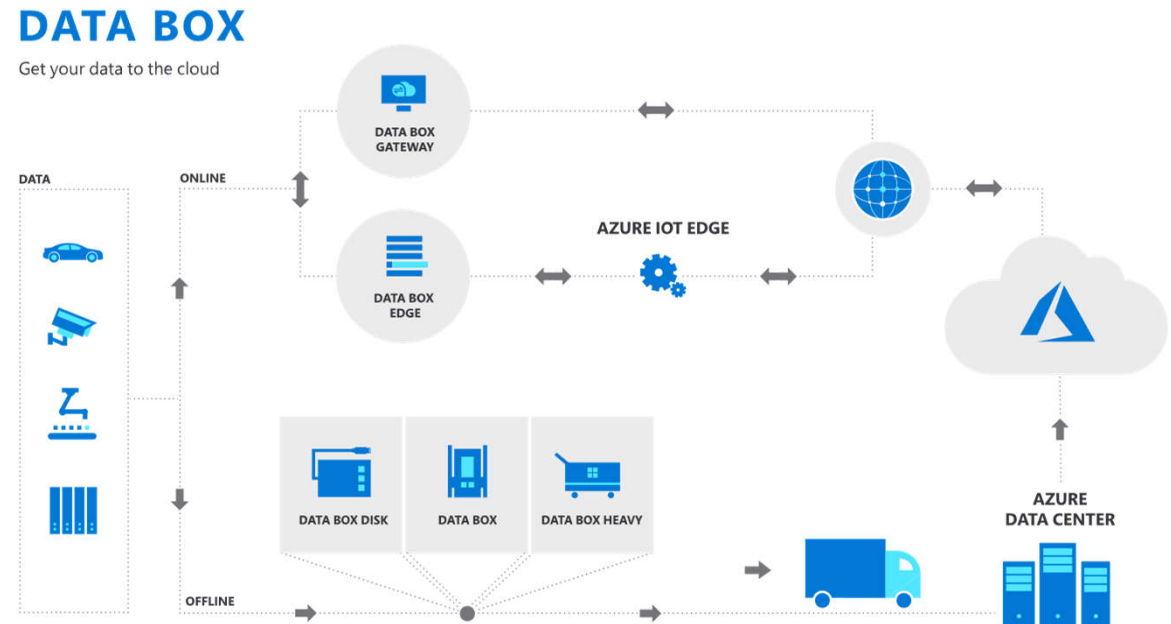
### Migrate on-premises data to Azure

 Use the Data Box offline family of products to move large amount of data to Azure.

[Order a Data Box](#)

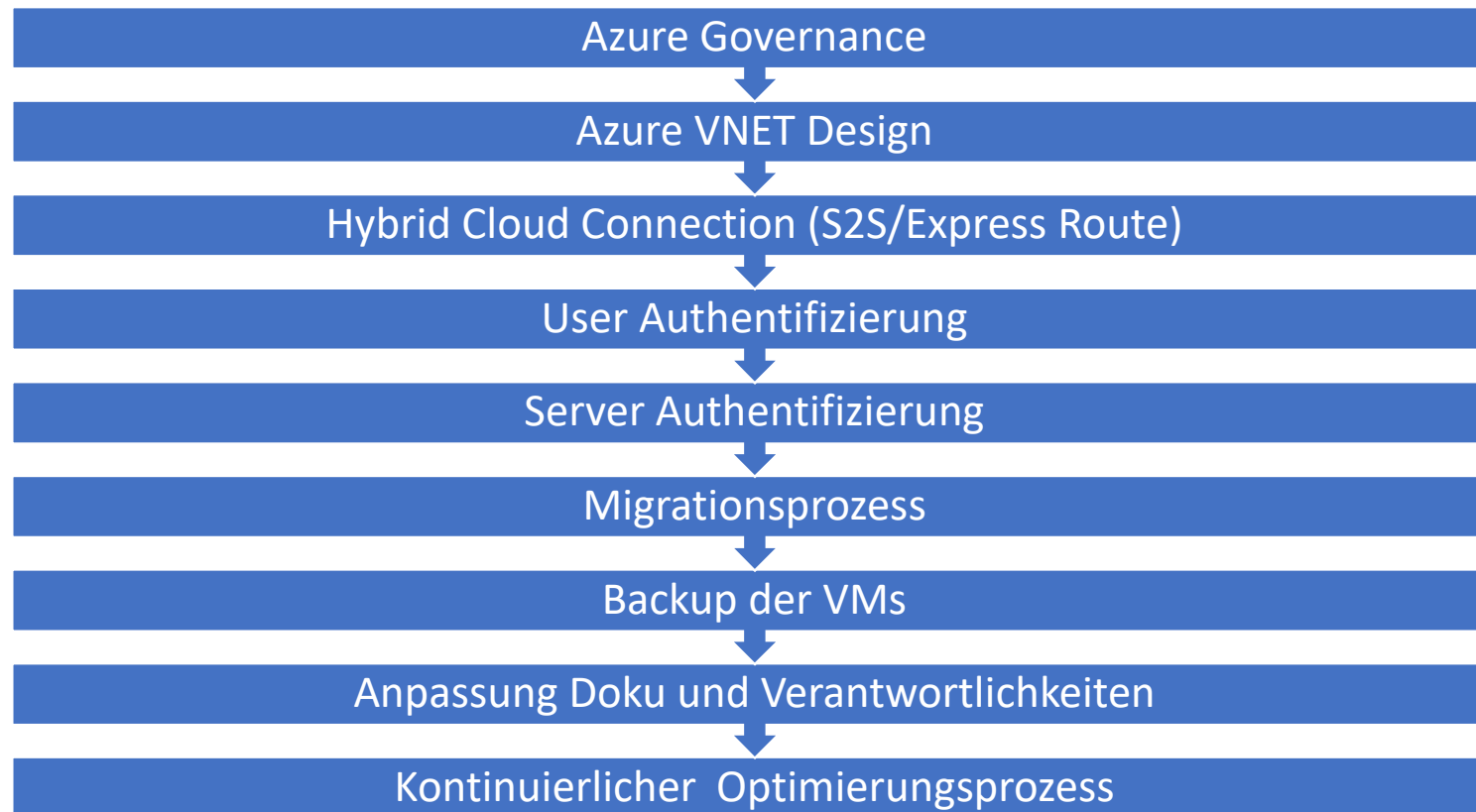
# Azure Migrate – Data Box

- GA since October 2018
- For offline data transfer
- Different sizes available
  - 40TB, 100TB, 1PB
- Data on Databox always encrypted



<https://azure.microsoft.com/en-us/services/databox/>

# Azure Migration Steps





Rehost

Refactor

Rearchitect

Rebuild

On-premises

Azure

Azure

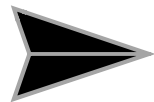
Application tier  
Microsoft

Application tier

Application tier



Assess



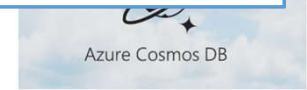
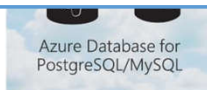
Migrate



Optimize



Secure and manage

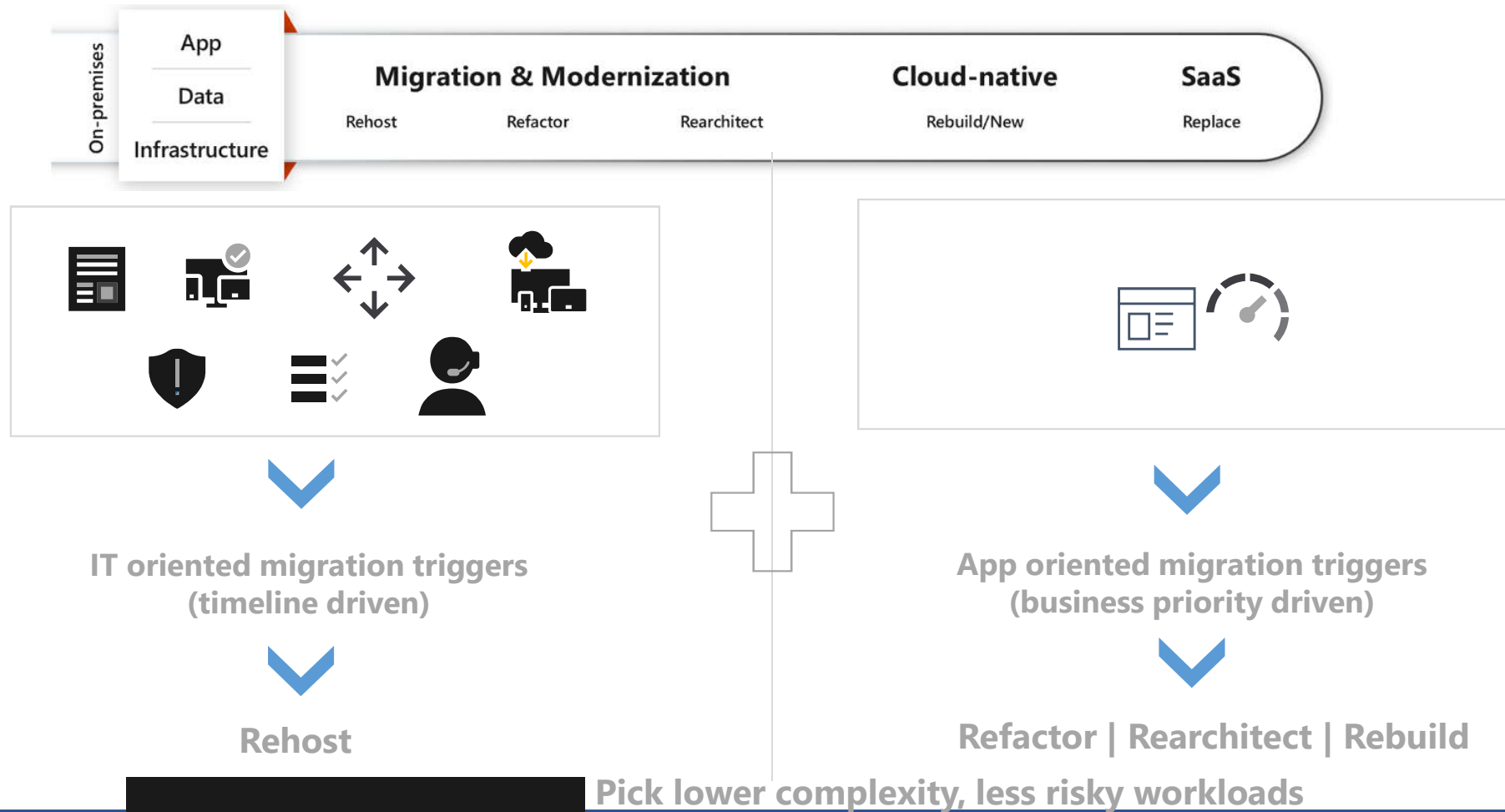


<https://www.microsoft.com/de-de/techwiese/techblog/der-weg-in-die-azure-cloud.aspx>





# Azure Migrate - Plan migration strategies



# Azure Migrate – Licht und Schatten

- Einfach einzurichten, schnelle Ergebnisse 😊
- Kosten: erste 180 Tage frei, danach gering 😊
- Zentrales Blade für Migrations Projekte 😊
- Weitere Tools integriert 😊
- Server Migration basiert auf ASR 😊
- Ohne Änderung erfolgt Server Migration in Ressource Group der Appliance 😞
- Derzeit nicht für physische Server geeignet 😞

# Azure Migrate – Fazit

- Sehr gute Eignung für Lift and Shift Migrationen
- Gibt einen ersten Überblick über Kompatibilität und Kosten
- Services lassen sich gruppieren und erleichtern Bewertung
- Als Entscheidungshilfe und weiteres Vorgehen sehr gut nutzbar
- Zentrales Blade für alle Migrationsprojekte (VMs, DBs, Web Apps, etc.)
- Einfache Einrichtung und schnelle Ergebnisse
- Übernimmt nicht die Planung der Migration ;-)

# Azure Migrate – Quellen und Links

- [TechBlog – Der Weg in die Azure Cloud](#)
- [How to prepare for a move to Azure with Azure Migrate by S. Lean](#)
- [Azure Blog – Introducing the new Azure Migrate](#)
- [Azure Migrate – Dokumentation](#)
- [Azure Migrate – Assess Hyper-V VMs](#)
- [Azure Migrate – How you get started](#)
- [Azure Migrate – Database Migration Service](#)
- [Azure Migrate FAQ](#)
- [Azure Migrate – User Voice Forum](#)
- [Azure Pricing Calculator](#)
- [Azure TCO Calculator](#)



Bewertung 😊

Fragen???

Vielen Dank!



[www.reimling.eu](http://www.reimling.eu)



Azure Meetup

**BONN**

[azurebonn.de](http://azurebonn.de)