



ONTAP AI auf der Suche nach dem „Einzig Wahrem“

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Die IT Welt ändert sich gerade fundamental



Traditionsunternehmen werden durch die neuen digitalen Player verdrängt



Die Herausforderung

Wie generiert man Mehrwert aus den Daten?

AI Services sind eine große Herausforderung

40%

of Digital
Transformation
initiatives will use
AI services by 2019

50%

of enterprise
infrastructure will
employ artificial
intelligence by 2021

Source IDC – Storage Workloads : Understanding The 2nd Chapter, July 2018

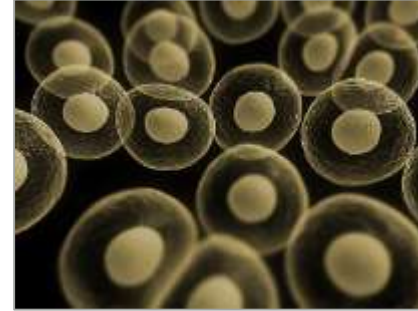
Wo sind die Use Cases?



Social, Media,
Internet and Cloud



Cyber
Security



Life
Sciences



Internet of
Things



Financial
Markets



Autonomous
Machines/Vehicles

SOURCE: GOOGLE



Made with
VideoShow

Auch das NetApp Data Management Portfolio ändert sich ...

... fundamental

Systems & Software Services BU

Modernize your SAN

Flash Innovation

Win the Future with Data & AI

FabricPool - Cloud Connected Flash

Sync SnapMirror

MetroCluster IP

AFF Performance & Capacity
Guarantee

End2End NVMe

NDAS

MAX Data

Cloud Data Services BU

Cloud Central

Cloud Storage

Cloud Volumes / Azure NetApp Files

Cloud Analytics

Cloud Insights

Cloud Controls

NetApp Kubernetes Service

Data Services

Cloud Sync

Cloud Secure

Cloud Tiering

SaaS Backup

Cloud Backup Service

Cloud Infrastructure Services BU

NetApp HCI

Hybrid Cloud Infrastructure

StorageGrid WebScale

Object Storage

Solidfire

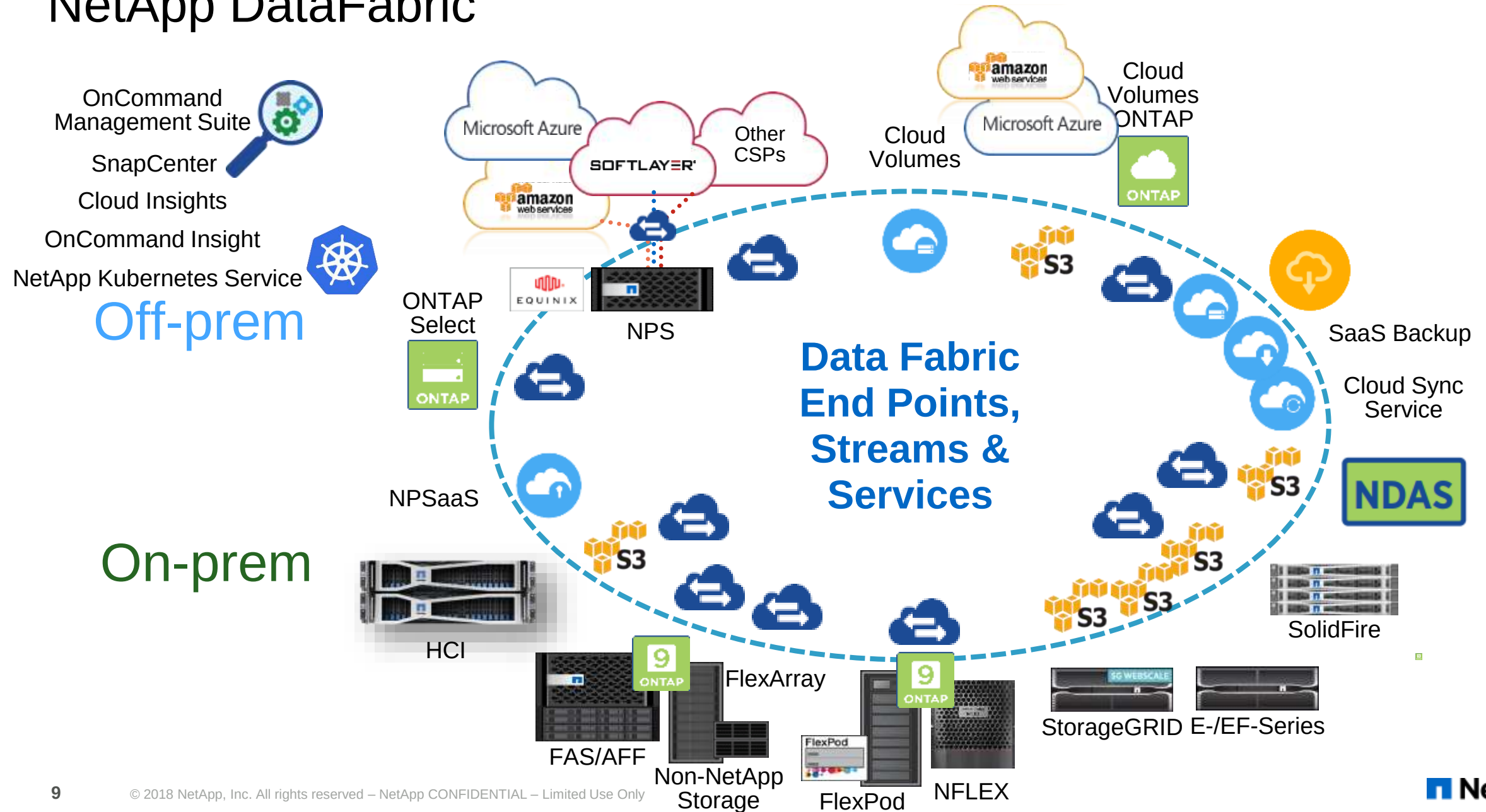
Scaleout Storage

Converged Infrastructure

FlexPod

NFLEX

NetApp DataFabric



ONTAP Select in Flexiblen Form Faktoren



ONTAP Select Validated Partners





AI in der Praxis - NetApp Active IQ

Eine Infrastruktur im Wandel der Zeit



Es war einmal

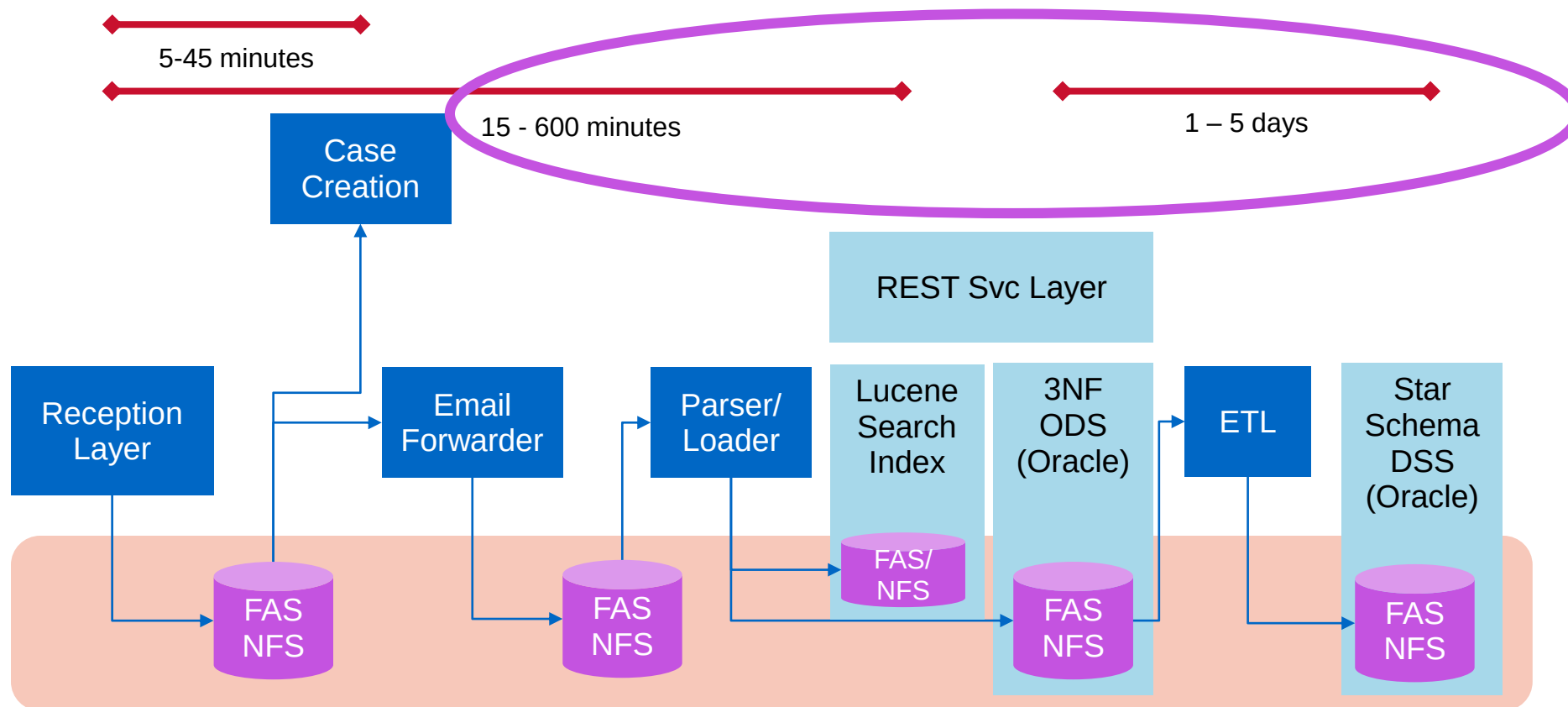
... der erste Gehversuch (v0: 1995 - 2011)

... der erste Gehversuch (ASUP v0: 1995 - 2011)

ORACLE®



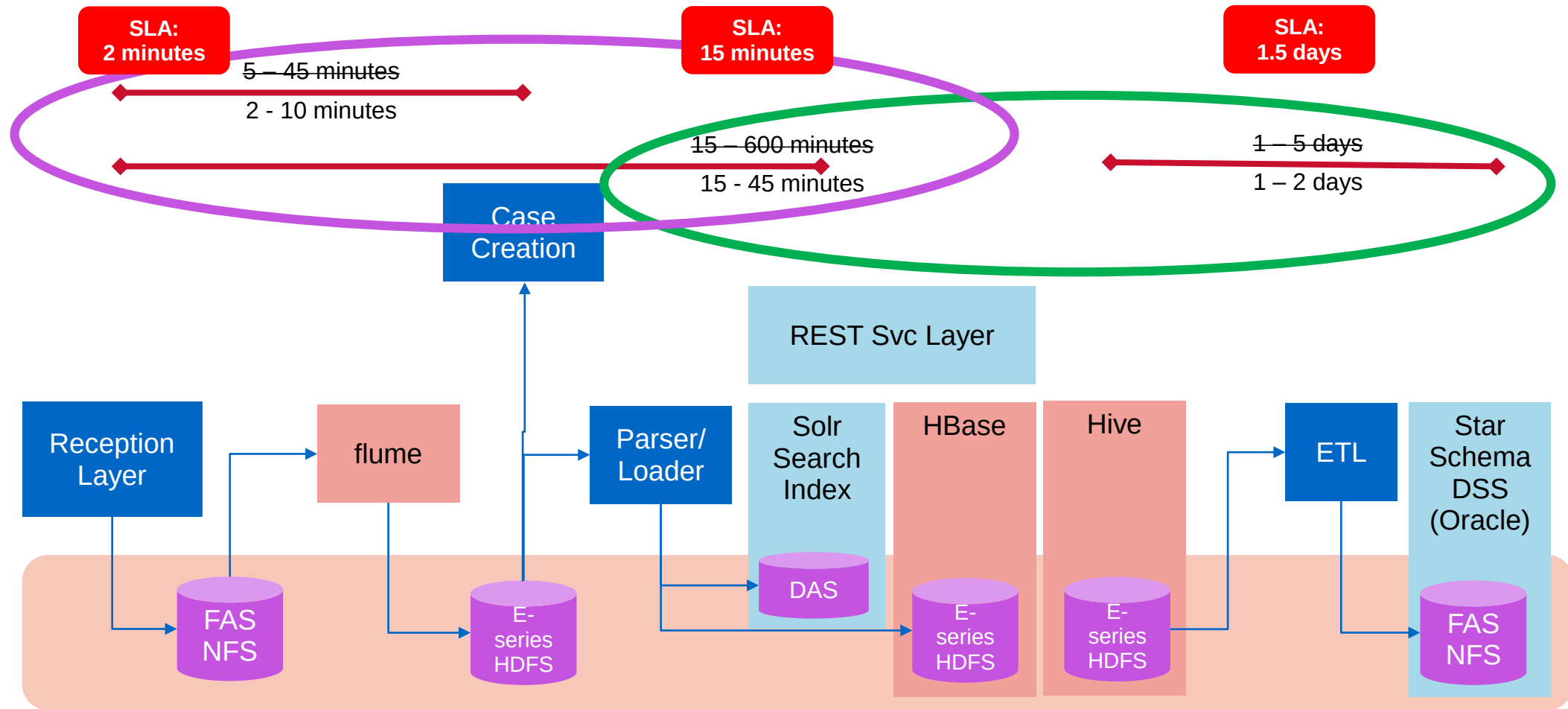
100 TB / Jahr





Better luck next time

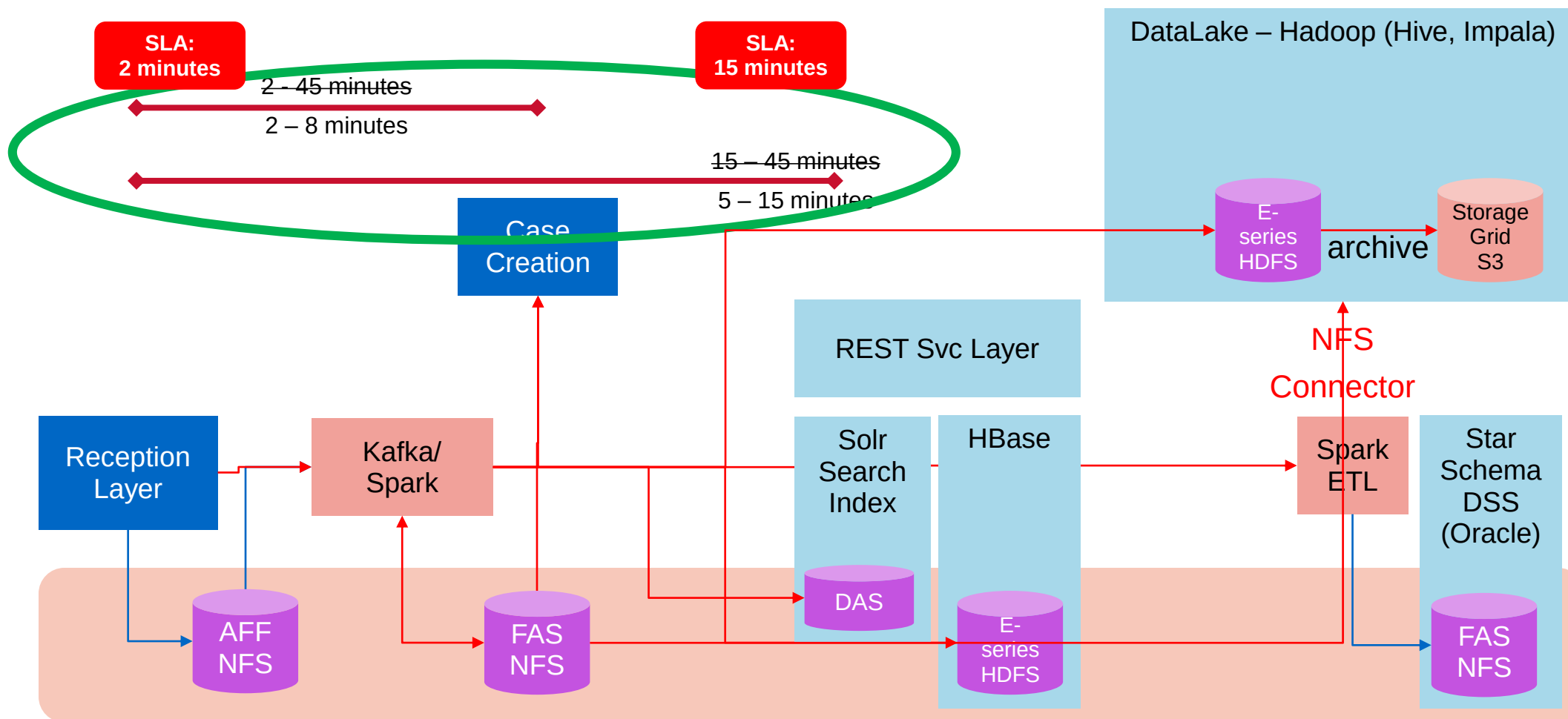
... da war doch was mit “Big Data”?! (v1: 2012 – 2016)



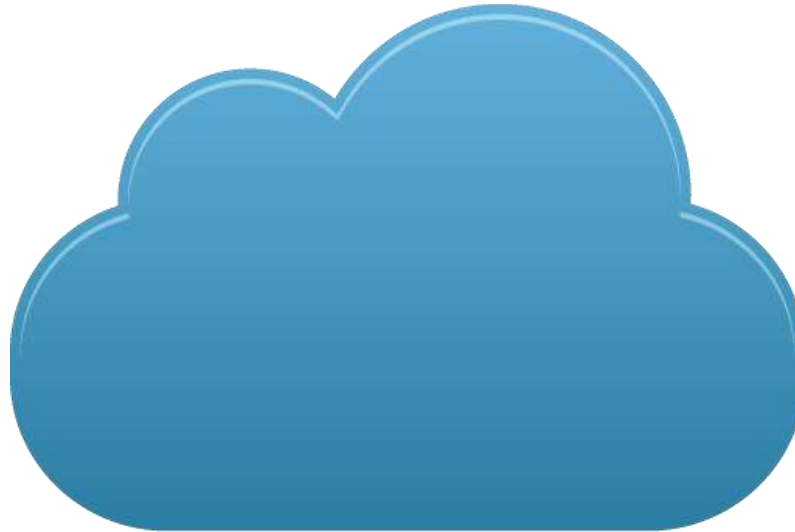


It feels right, but ...

... die eigenen Produkte optimaler nutzen! (v2: 2016 – 2017)



How about

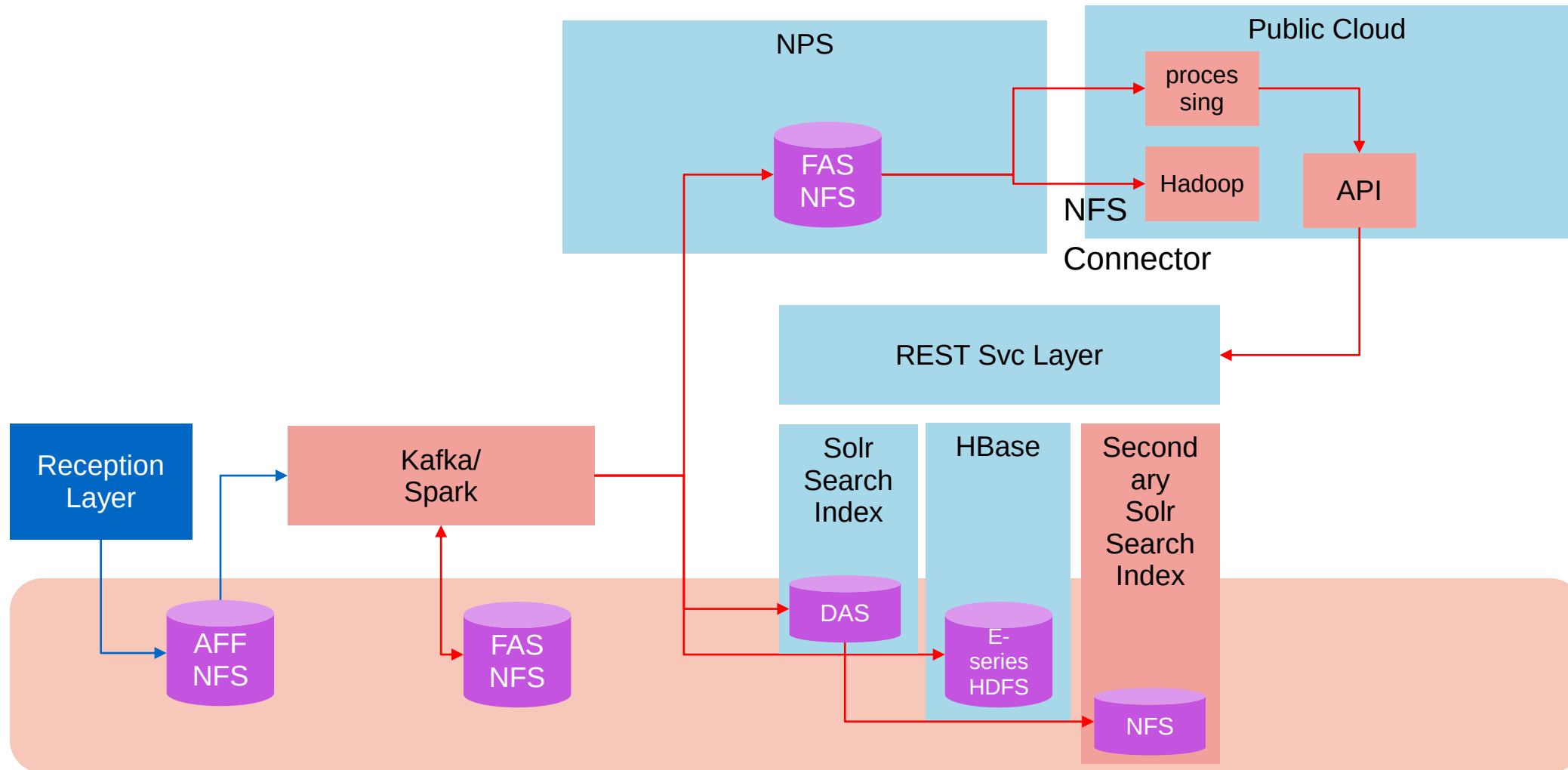


???



Use Cases auslagern

... die Cloud Adoption (v3: 2017 – 2018)



Das Active IQ Ecosystem – Status Quo

A massive dataset that contains rich community wisdom



300,000 Data fabric assets



3.7 PB Data lake



70 Billion Data points processed daily



15,000 Users



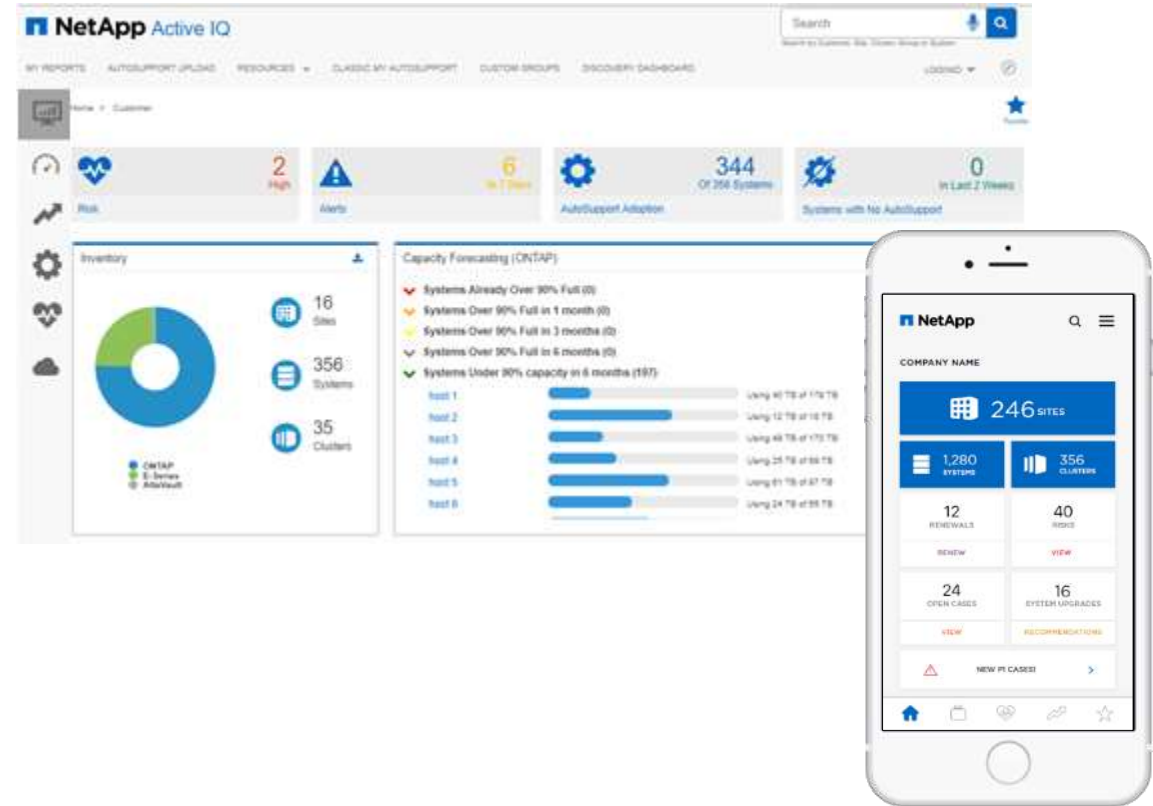
135 TB Data processed per month



6+ Hadoop clusters

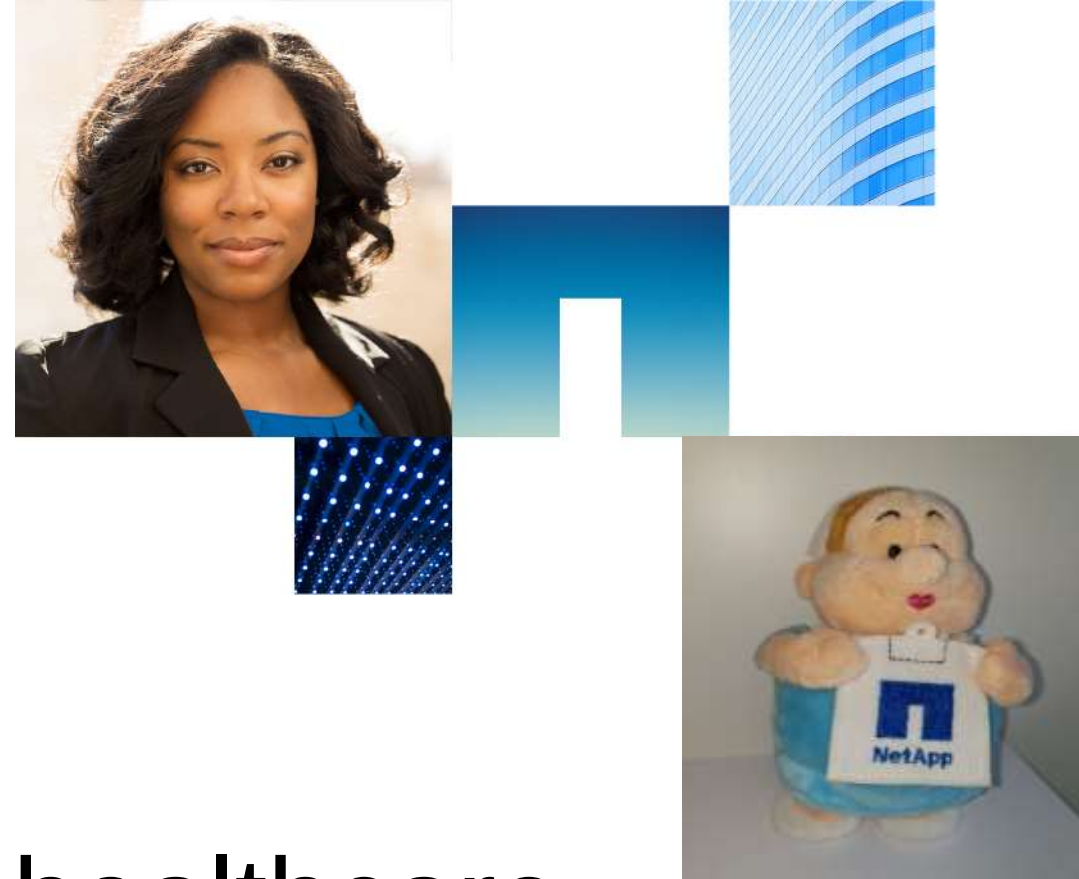
Active IQ: AI and Predictive Insights

- Actionable intelligence
- Predictive, self-healing care
- Global analytics at your fingertips



WORKS ACROSS ALL
NETAPP SYSTEMS



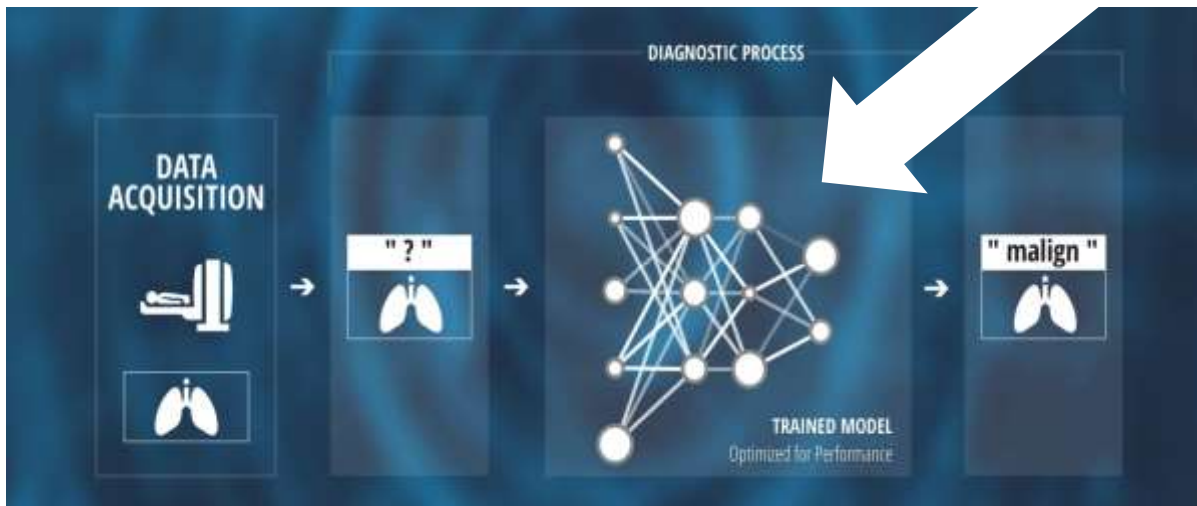
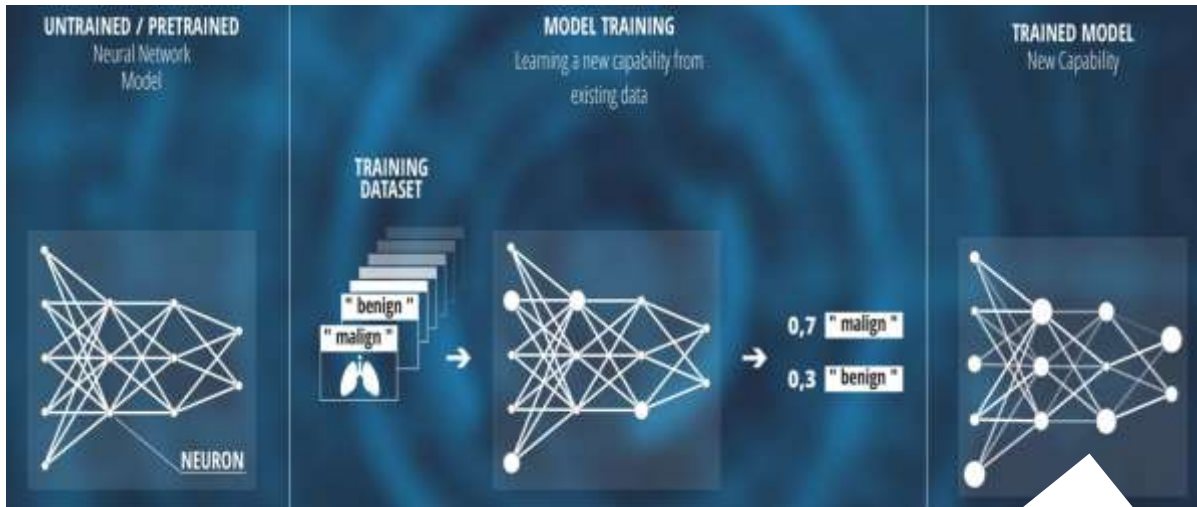


ONTAP AI in der Praxis - healthcare

Beurteilung der Daten und die Erstellung von Befunden

Die Medizinische Hochschule Hannover (MHH)

Herausforderungen – KI unterstützte Befundung



NetApp ONTAP AI, Powered by NVIDIA





ONTAP AI in der Praxis – das „Flenst“

Auf der Suche nach dem „Einzig Wahrem“

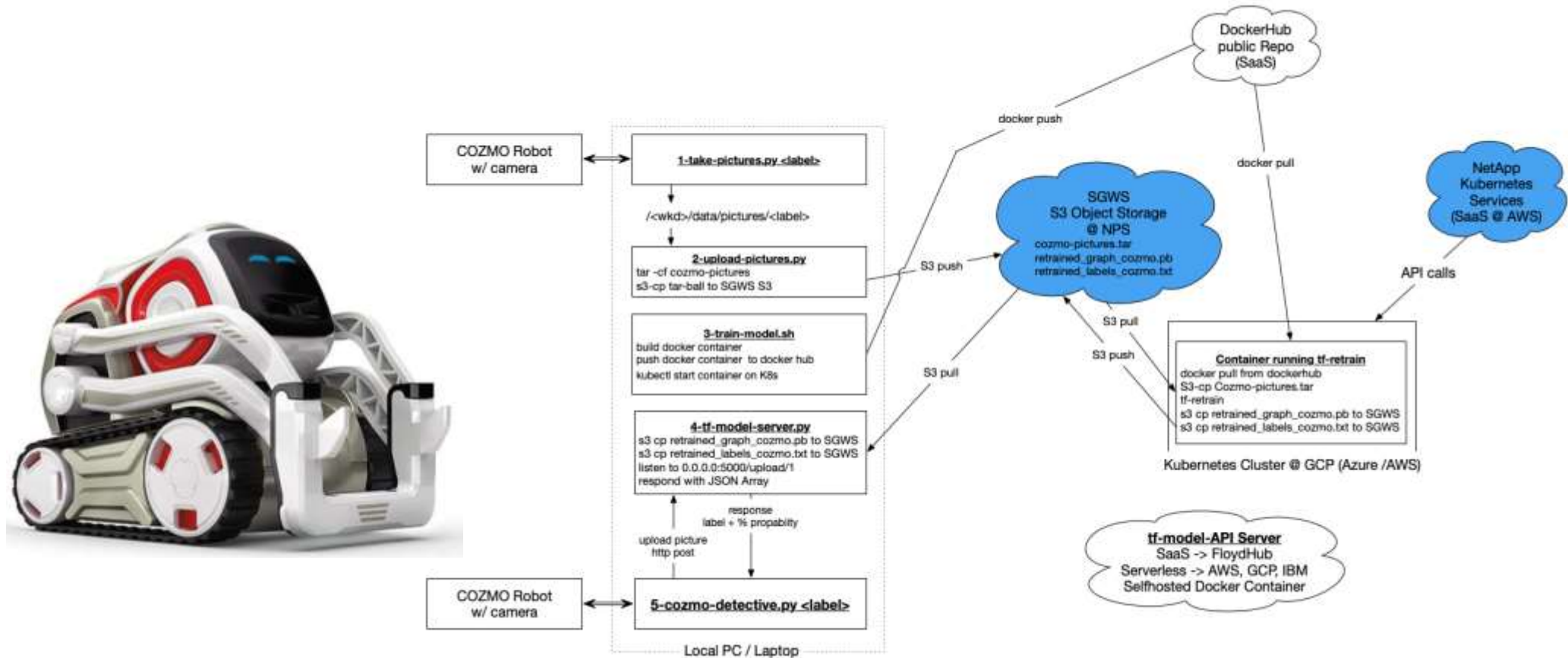
Als NetApp SE steht man vor ähnlichen Herausforderungen ...

... z.B. welches Bier entspricht welchem ONTAP Release?



Wie könnte man das lösen?

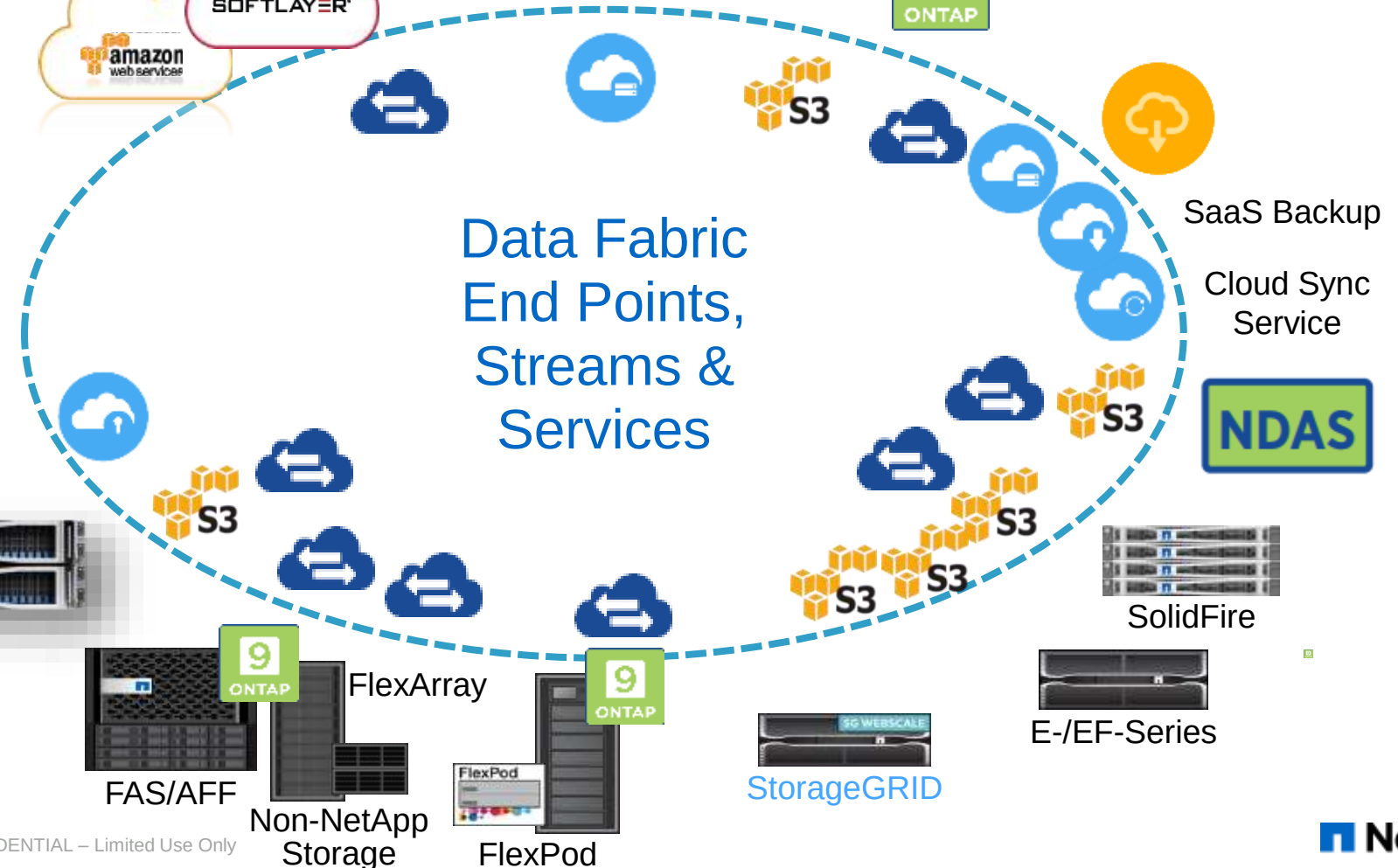
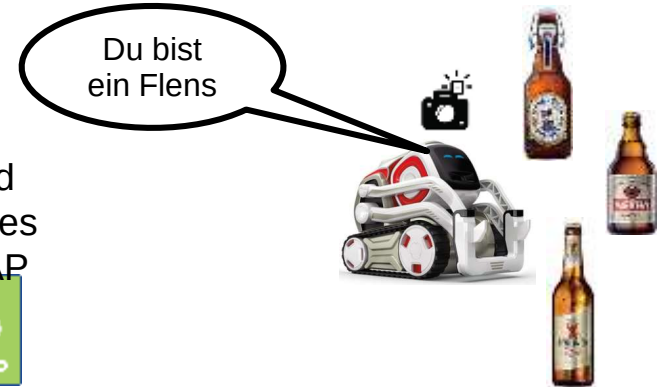
Lass mal kurz überlegen – ungefähr so - aber wir brauchen ein „DingsDa“ mit API und Kamera



COZMO meets NetApp Data Fabric

Off-prem

On-prem



LONG STORY SHORT

8 Wochen & 54 Biere später ...



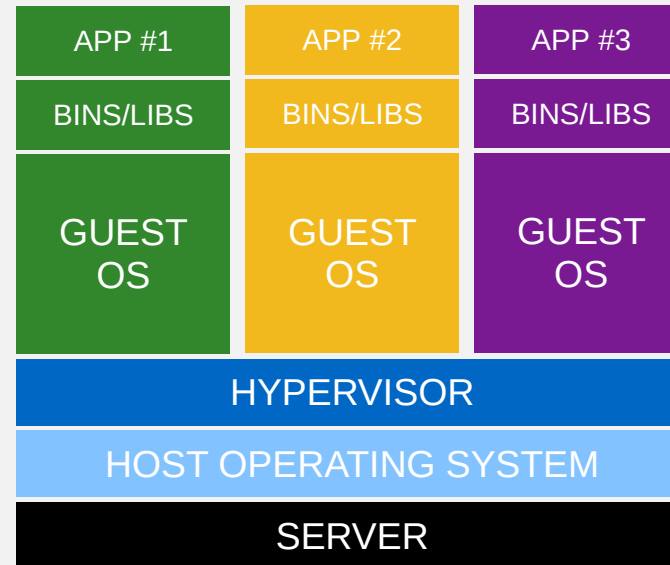
Was ist so charmant an Containern?

Containers fulfill the Promise of Cloud: Agility and Cost Savings and help enable CI/CD

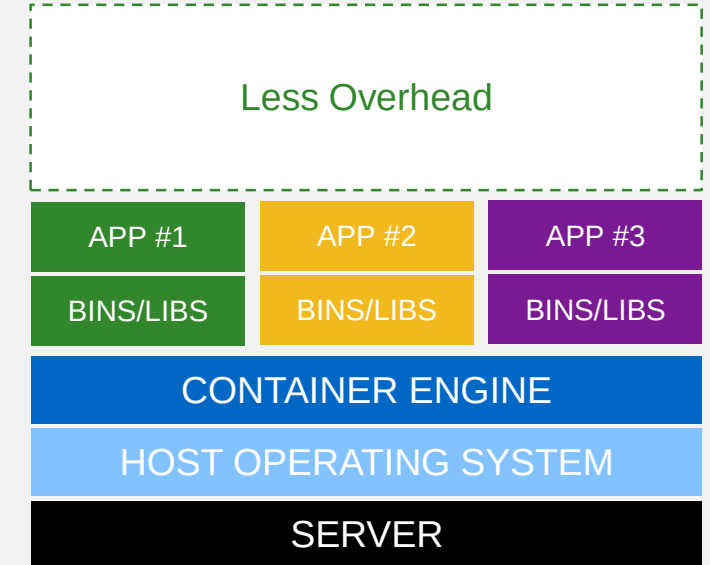
Eigenschaften von Containern:

- Standardized packaging
Support Microservices
- Run on any OS
- Update and launch apps faster
- Lightweight
Support more containers than VMs
- Containers die young
Need data persistence

Virtual Machine Stack



Containers



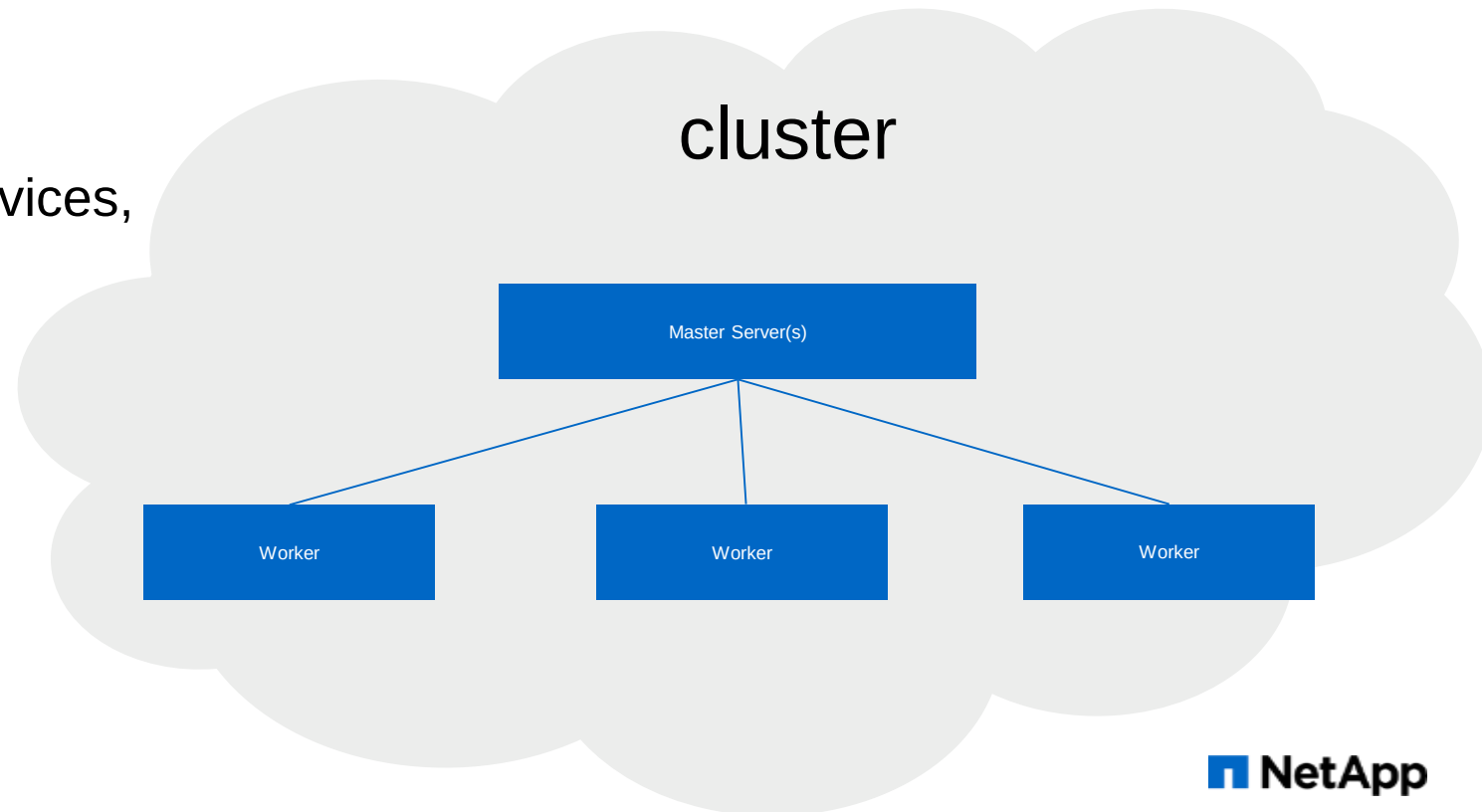
Aber was machen mit den ganzen Containern ???



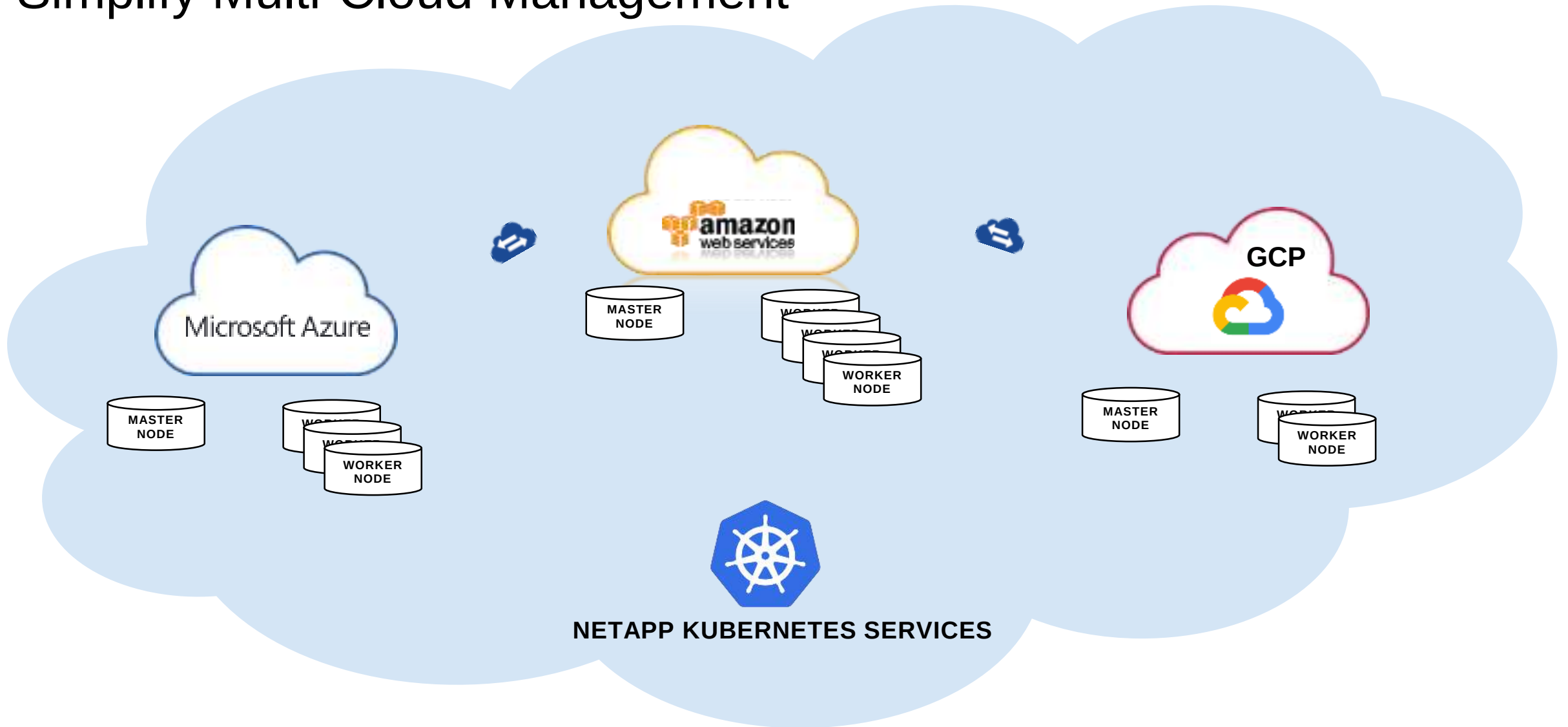
... am Besten orchestrieren

Automates deployment, scale & mgmt. of containers within a cluster:

- Scheduling,
- Scaling,
- Rollbacks/rollout/rolling upgrades,
- Self-healing,
- Manage CPU resources,
- Creates abstraction layer such as services,
- Service discovery
- Storage orchestration, etc.



Simplify Multi-Cloud Management





NetApp Lösungsansatz für AI

NetApp ONTAP AI für Erwachsene 😊



SIMPLE

Eliminates design complexity and guesswork
Partners deliver complete solution

INTEGRATED

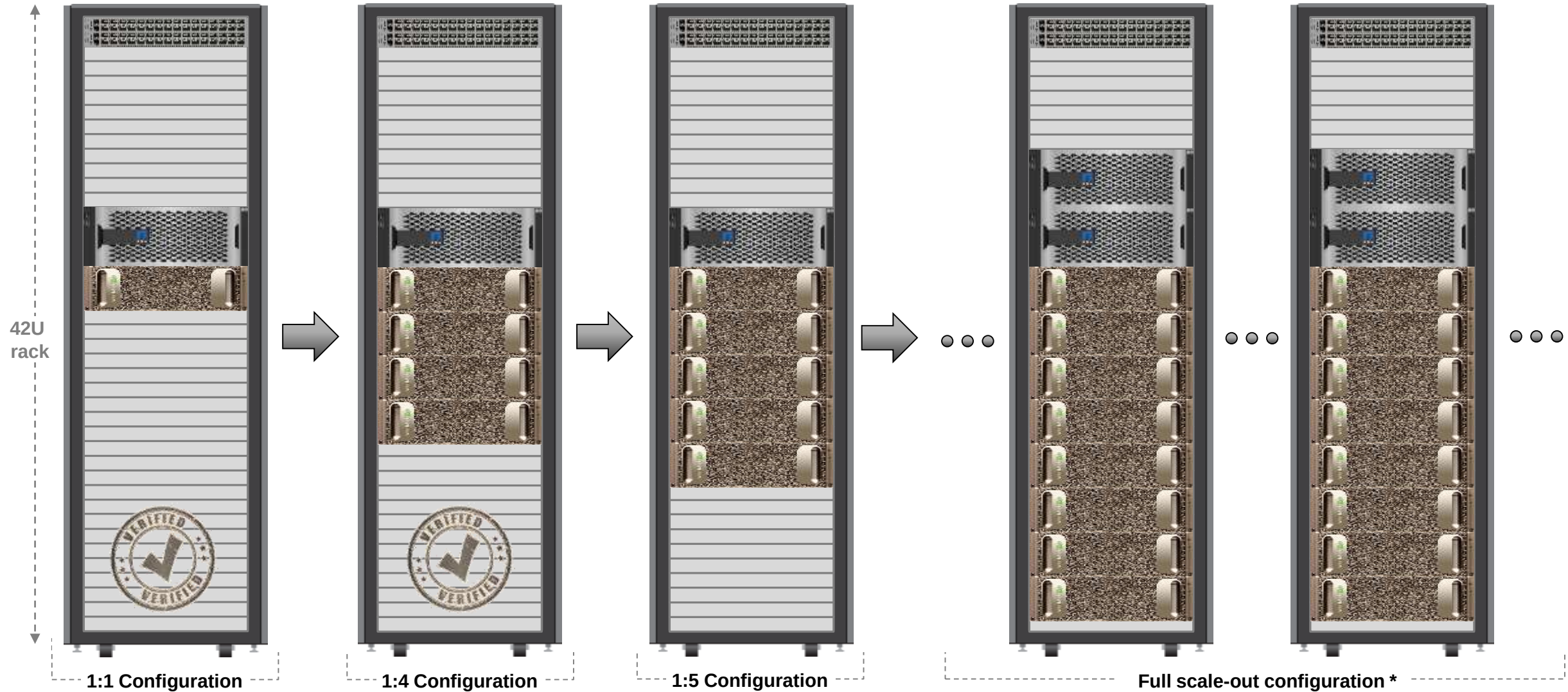
Intelligently manage your data across Edge, Core & Cloud
Deploy AI Frameworks with confidence



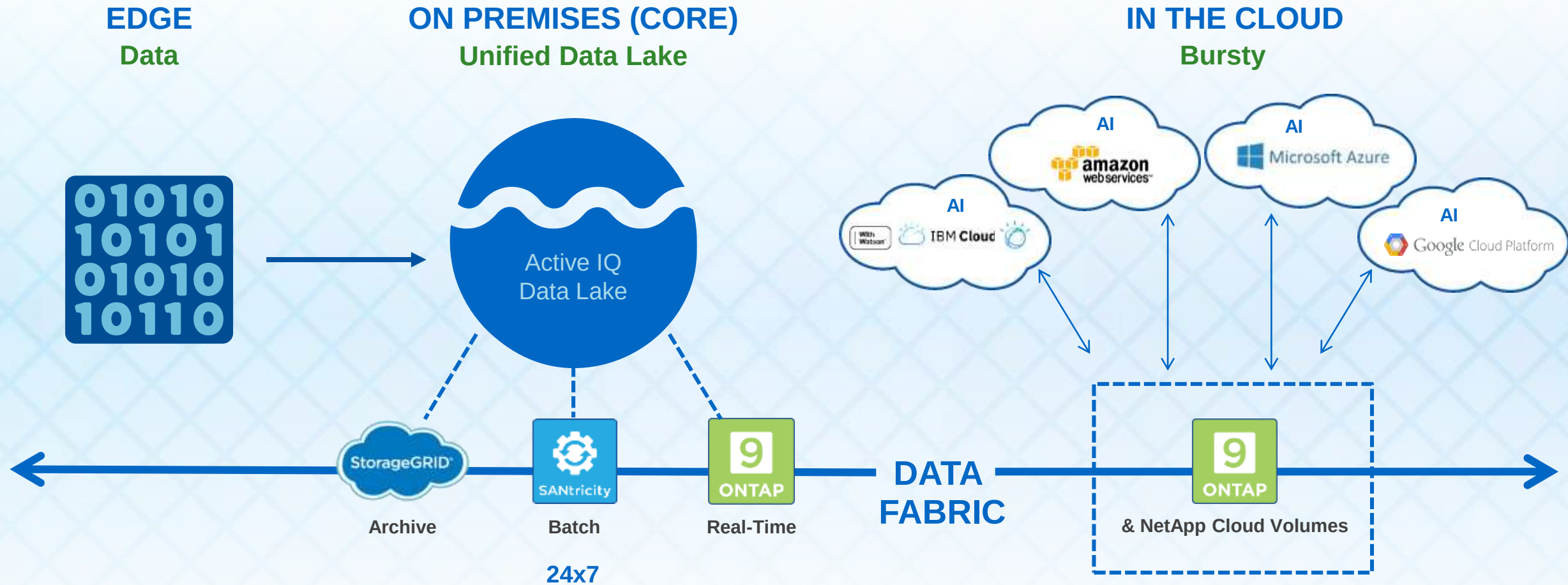
POWERFUL

Scale without limits
Start small and grow non-disruptively

ONTAP AI: Scale Without Limits

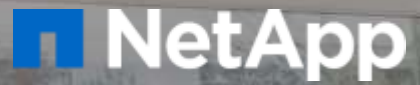


NetApp Services für AI



Was ist wichtig für ihre AI Projekte?

- Ein agiles und effizientes Datenmanagement ist Grundvoraussetzung für AI/DL
- Dev/Ops Plattform auf Containerbasis
- Eine Data Fabric
- Data Services müssen “allen” Clouds verfügbar
- GPU Anbindung (validiertes Design)
- Ein starker Systempartner / Integrator an Ihrer Seite



Weiter Viel Spaß
beim FastLane
IT-Forum

