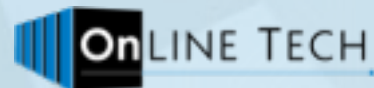


Making Backup Great Again

With Data Protection as a Service

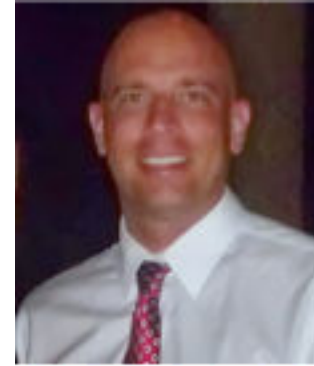


Presenters



Aaron Lake

Principal Cloud Architect
Online Tech



Jason Duchnowski

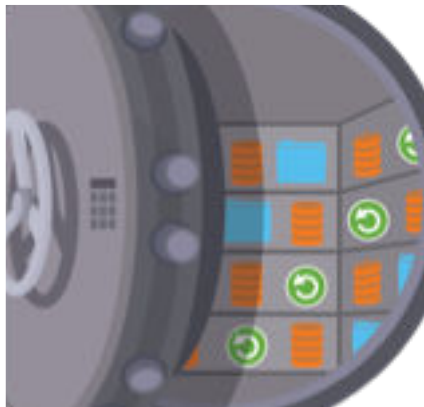
Senior Solutions Architect
Actifio

Who is Online Tech?



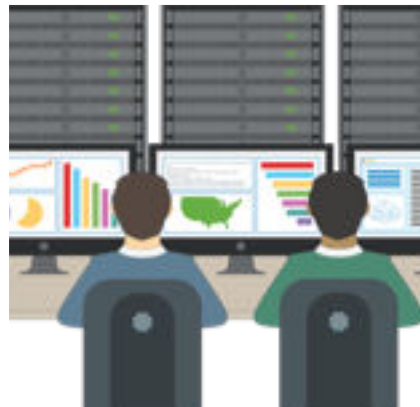
Cloud Services

- ✔ Managed Public Cloud
- ✔ Virtual Private Cloud
- ✔ Dedicated Private Cloud
- ✔ Hybrid Cloud



Data Protection

- ✔ Fresh data faster
- ✔ Recover from disasters in minutes
- ✔ Meet long-term storage requirements



Colocation

- ✔ 7 diverse data center locations
- ✔ Secure, compliant dedicated hosting



Compliance and Security

- ✔ Independent annual audits
- ✔ Your complete security toolkit
- ✔ Defense-in-depth approach

72%

of companies have experienced an IT outage in the last year

Source: Gartner BCM Survey

<https://www.gartner.com/doc/3200321/survey-analysis--bcm-survey>

94%

were not able to
meet the expected
RPOs and RTOs

Source: Gartner BCM Survey

<https://www.gartner.com/doc/3200321/survey-analysis--bcm-survey>

Typical Data Protection Solutions



Power Interruption or
Hardware Failure

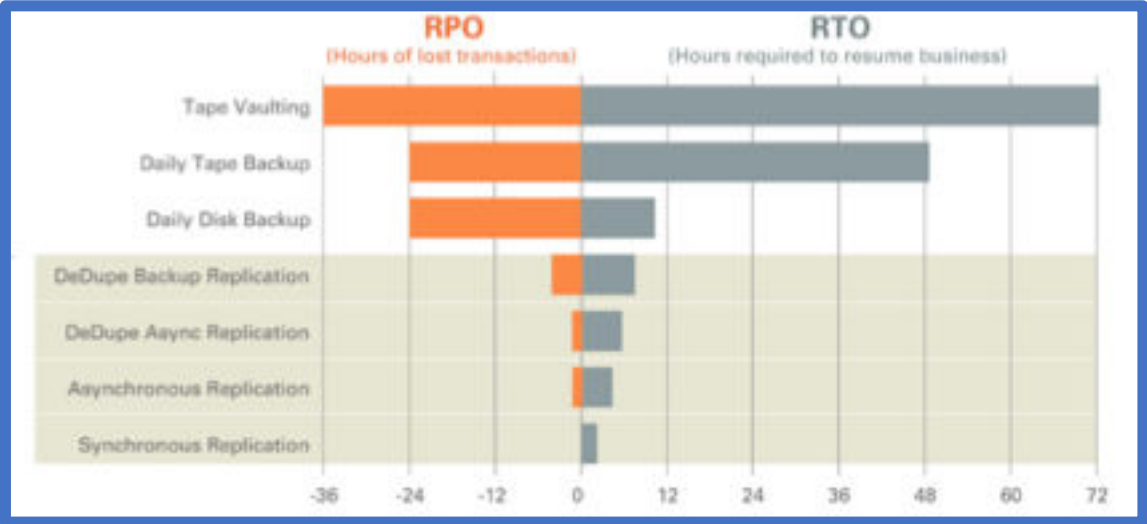


Cryptolocker Virus
Infection

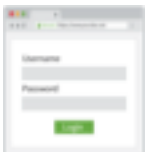


File deletion, Application
or Human Error

Minimize Impact



Rewind and recover from any point in time



Sites



Apps



VMs



Files

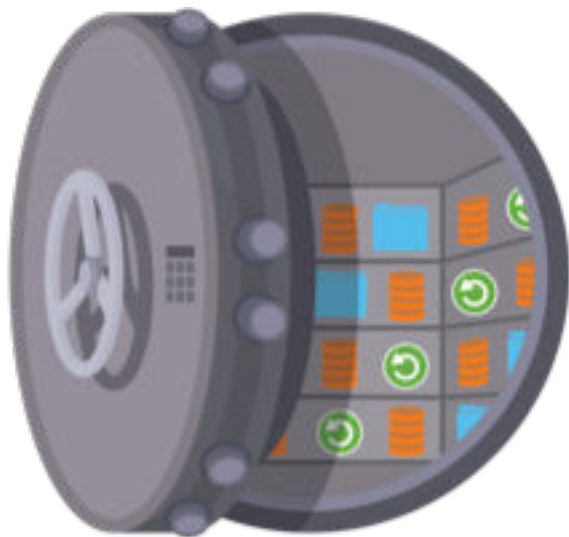


Data Protection as a Service

Offsite backup, with a little extra

Data Protection as a Service offers broad data protection by combining the convenience of local backup for instant restores with offsite copies for additional protection, and long-term archiving storage to meet your compliance needs.

- ✔ Erase accidents or power failures with one click, and restore local databases 10TB or more in minutes
- ✔ Choose how long you keep your local data
- ✔ Meet compliance requirements with easily accessible long-term data archiving storage
- ✔ Instantly clone and sanitize production databases for dev/testing purposes



INSTANT RECOVERY STORAGE

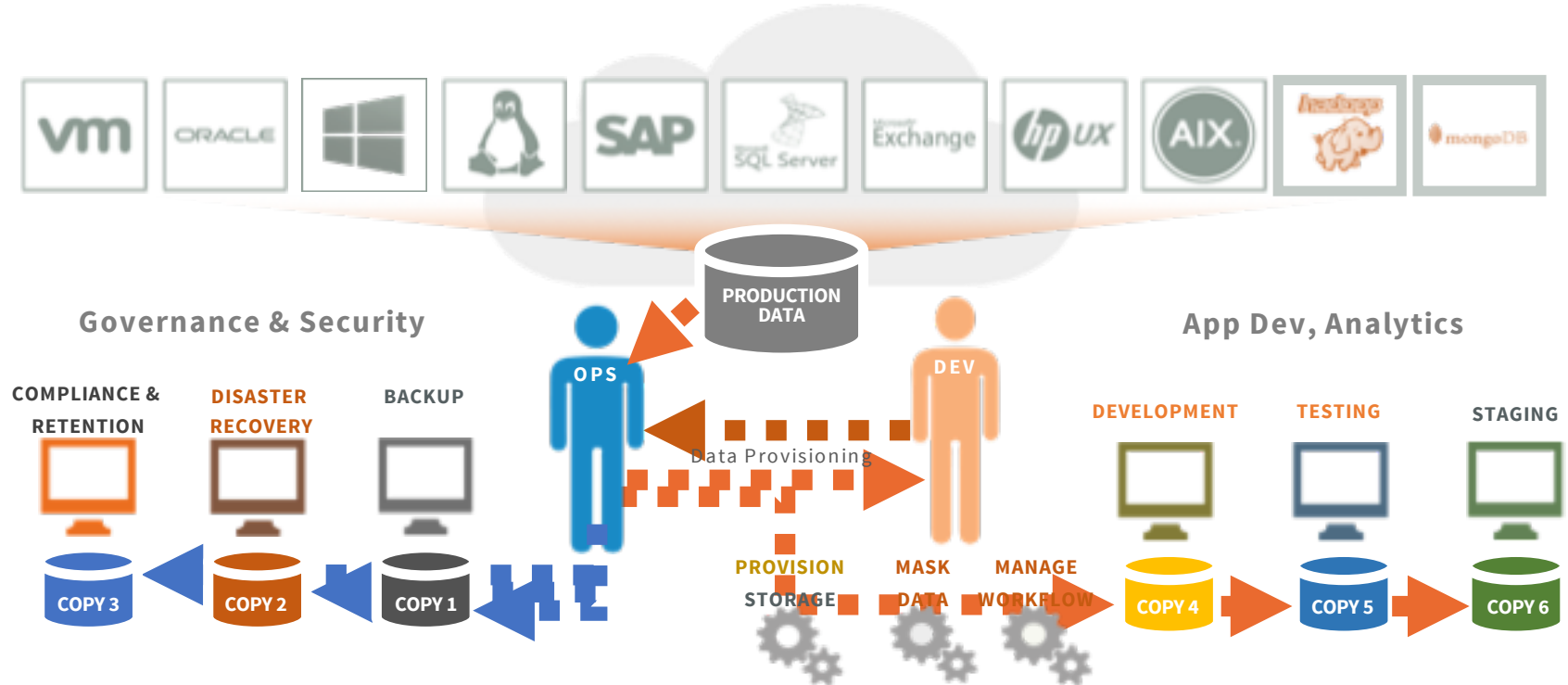


COMPRESSED AND ENCRYPTED



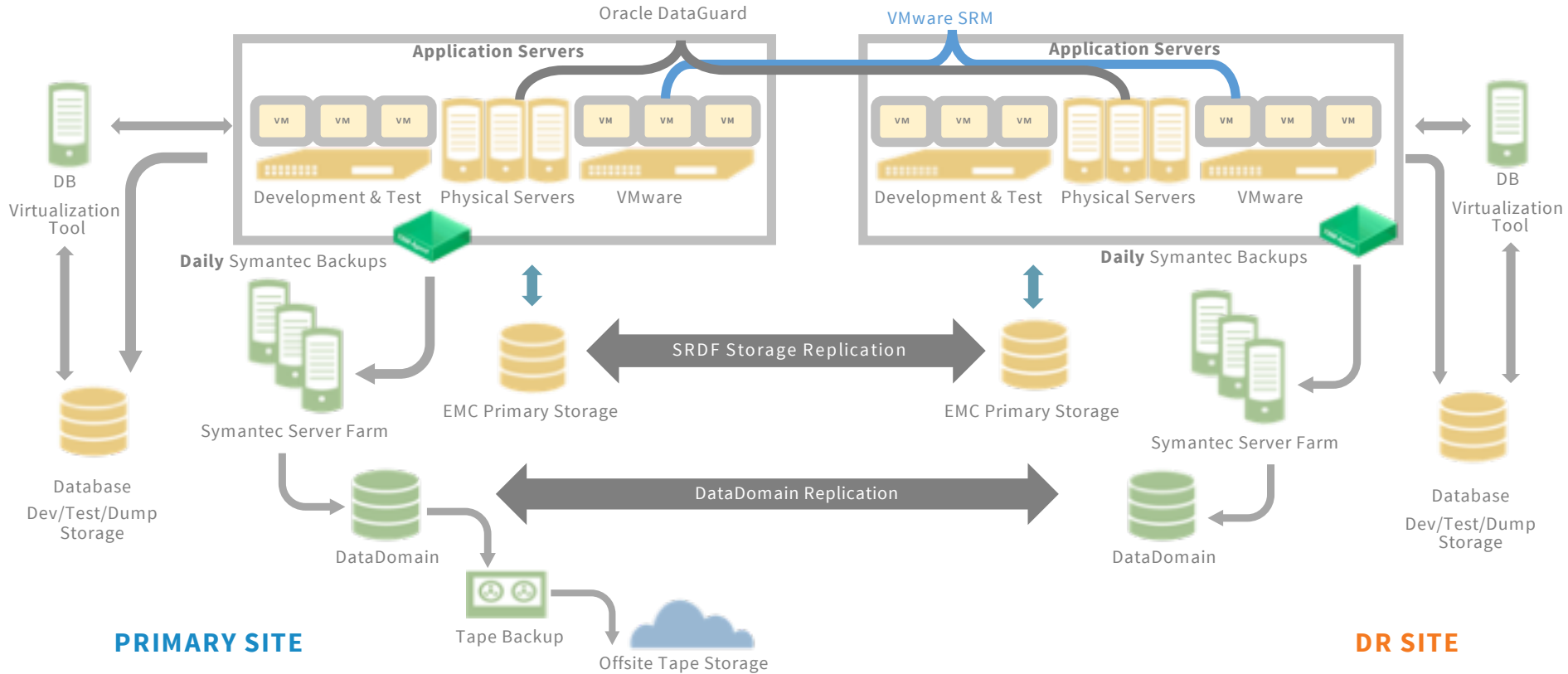
LONG-TERM ARCHIVING

The Data Challenge of Digital Transformation

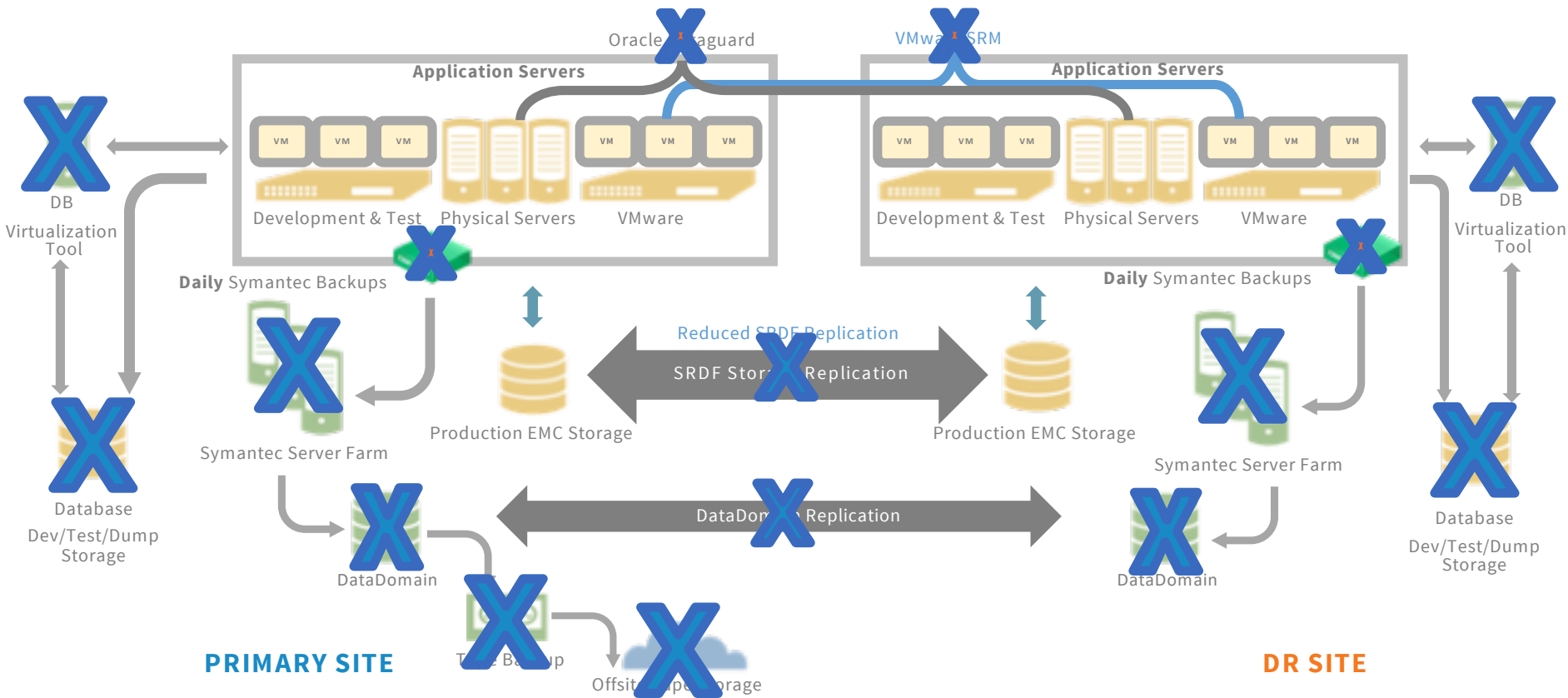


**TOO MUCH TIME, SOFTWARE, STORAGE, EXPENSE, COMPLEXITY
EXPONENTIALLY GREATER WHEN EXTENDING TO HYBRID CLOUD**

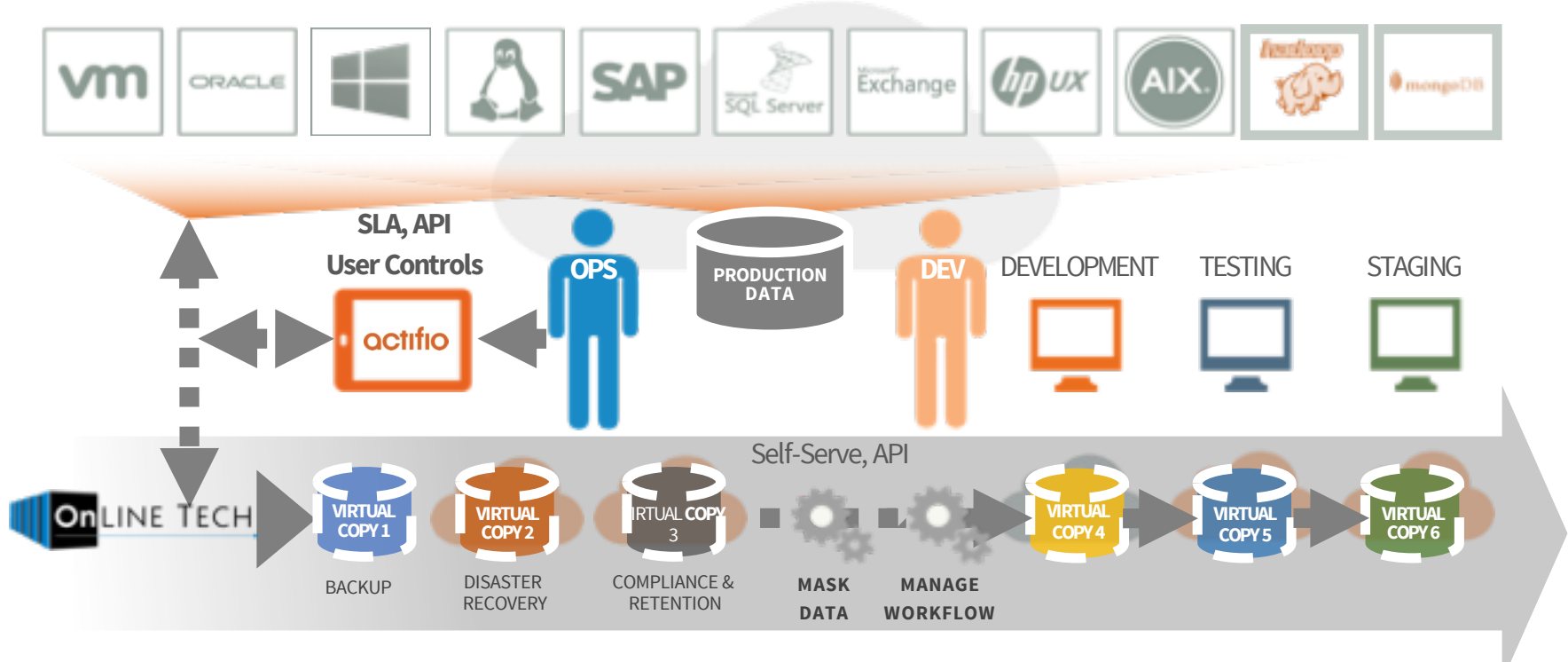
Initial State Technical Architecture



DPaaS Impact: Radical Simplification

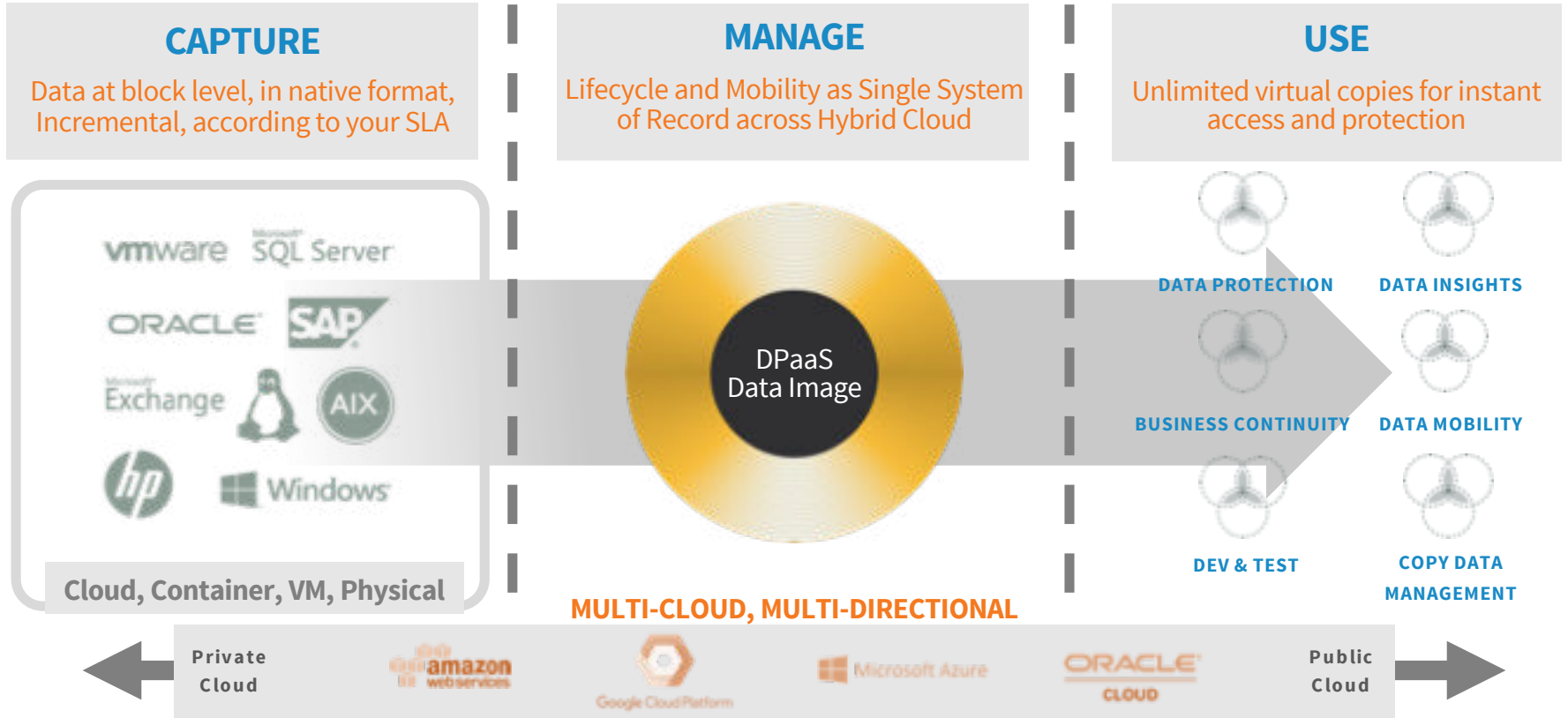


DPaaS Simplifies Digital Transformation

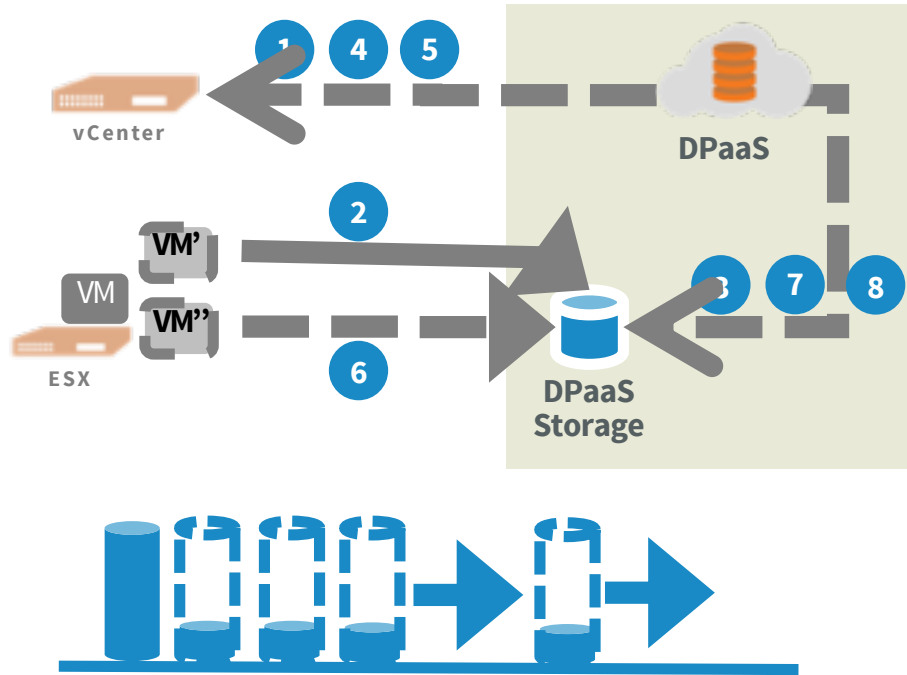


**DPaaS: SINGLE SYSTEM OF RECORD
SELF-SERVE INSTANT DATA ACCESS + DATA GOVERNANCE + HYBRID CLOUD**

Online Tech DPaaS: How It Works

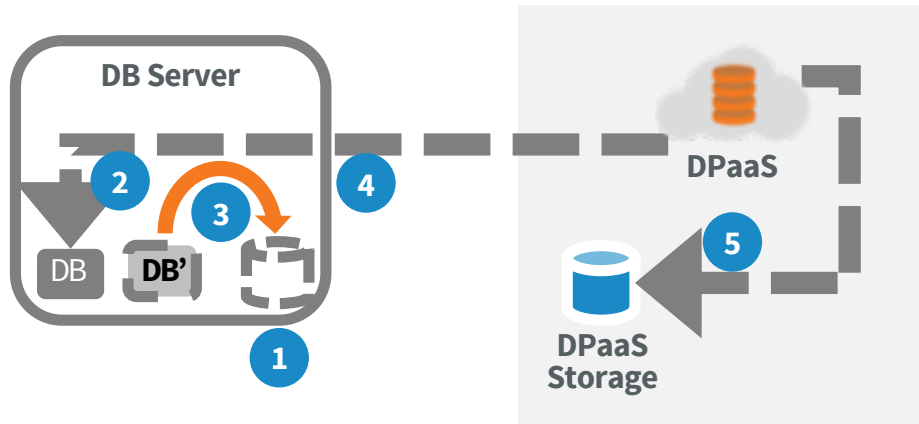


Data Protection For Virtual Environments

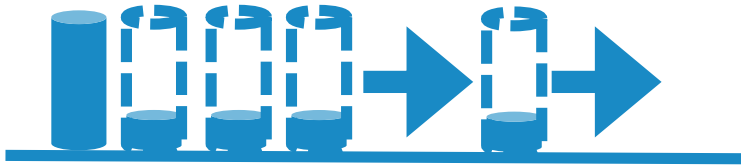


Even though each backup is incremental, DPaaS synthesizes a PIT (point in time) virtual full

MS SQL & Oracle



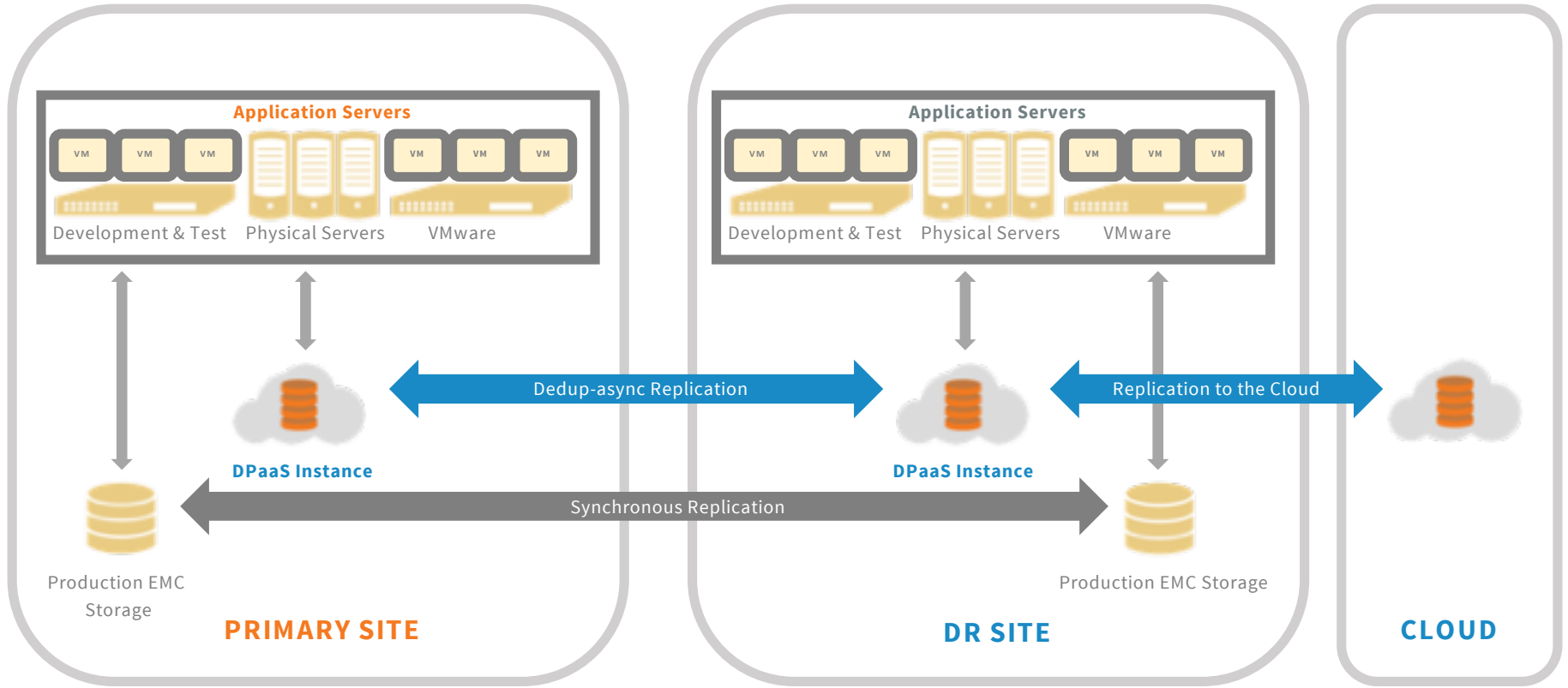
- 1 Mount staging disk on Database server
- 2 Snapshot using API (VSS for SQL, RMAN for Oracle)
- 3 Copy and merge changed blocks
 - Changed blocks are tracked using DPaaS CBT for SQL
 - Oracle RMAN Image Copy + Incr Merge
- 4 Unmount staging disk on DB server
- 5 DPaaS takes an internal “Virtual Full” snapshot



With every incremental, DPaaS synthesizes a PIT (point in time) virtual full

DPaaS eliminates recurring full Backups for very large DBs. This frees up CPU, memory, storage IO, network IO on your mission-critical production applications.

End State Technical Architecture

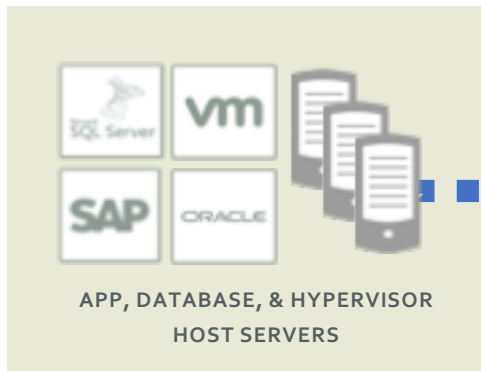


Agile Development Reference Architecture

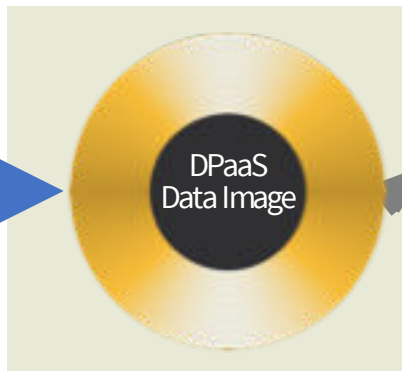
PRODUCTION APPLICATIONS

VIRTUAL DATA PIPELINE

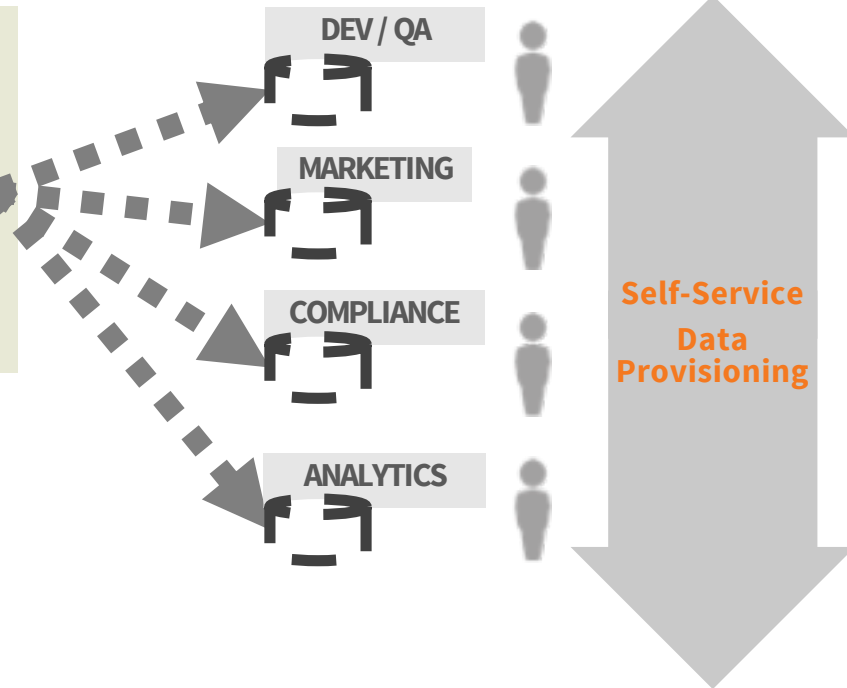
ENTERPRISE DPaaS CONSUMERS



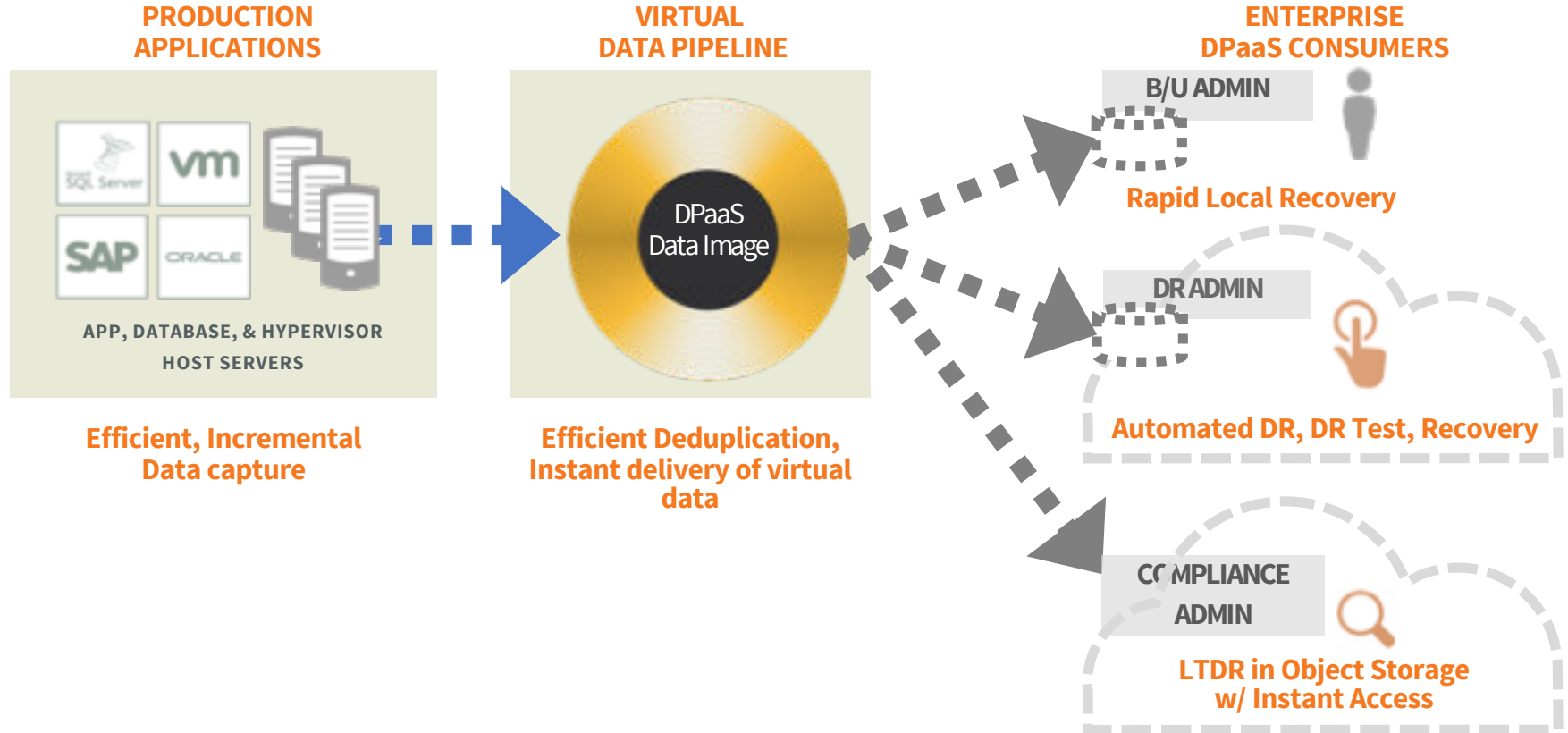
**Efficient
Incremental-Forever
Data Capture**



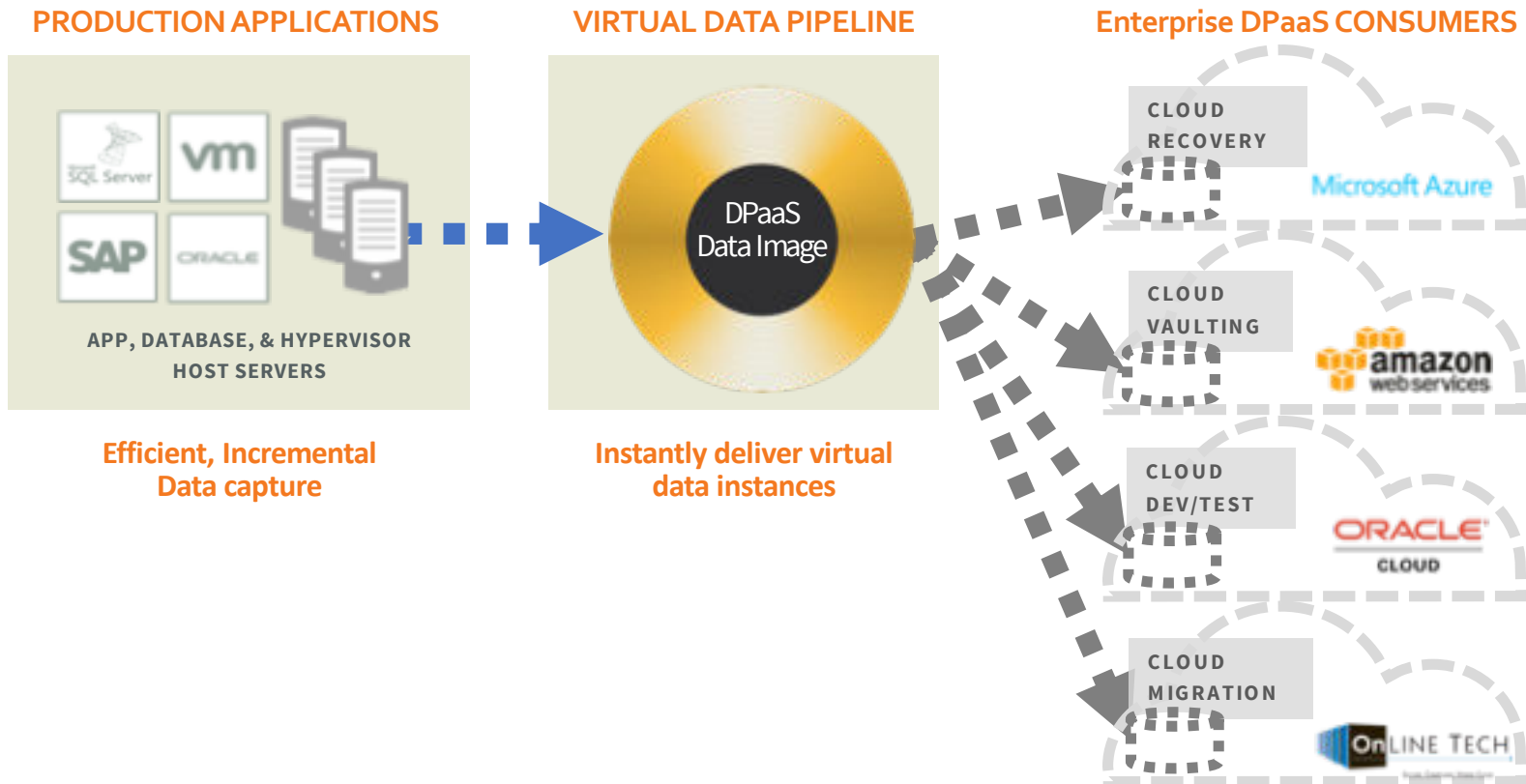
**Instantly deliver
virtual data instances**



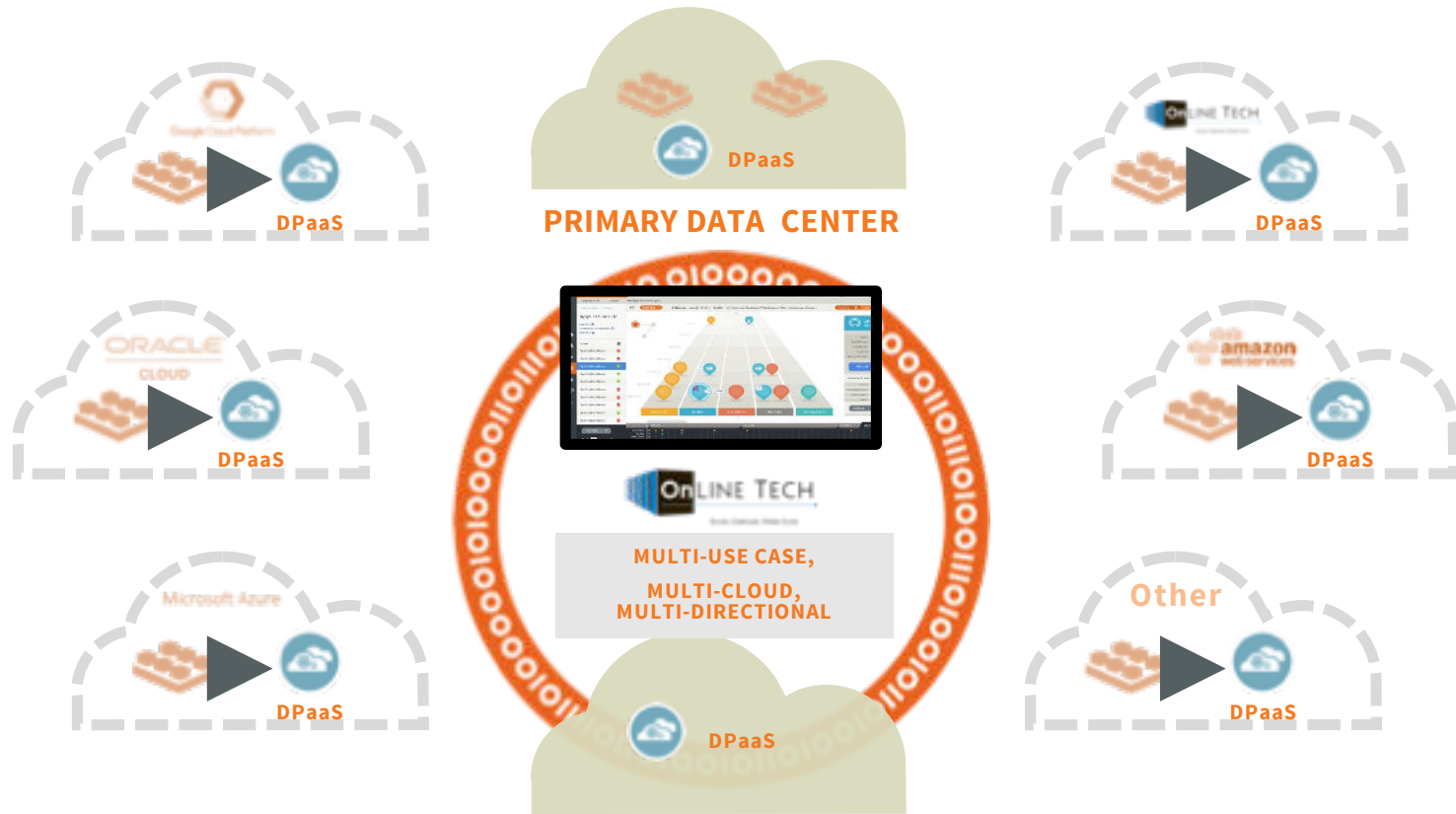
Resiliency Reference Architecture



Hybrid Cloud Reference Architecture



Powering Enterprise Hybrid Cloud



Online Tech Enterprise DPaaS Solutions



IMPROVE BUSINESS RESILIENCY & AVAILABILITY

**Backup, Disaster Recovery,
Long-Term Data Retention /
Vaulting**

Improve internal SLA's while
reducing cost, risk, & complexity



BUILD HIGHER QUALITY APPLICATIONS FASTER

**Test Data Management,
Provisioning / Refresh for ETL
Load, Analytics**

Accelerate app releases;
implement self-service, reduce
deployment issues



ENABLE ENTERPRISE HYBRID CLOUD

**Hybrid Cloud Mobility, Data
Center Migration,
Consolidation**

Management of data
& apps across multi-cloud,
multi-direction

ENTERPRISE DATA PROTECTION-AS-A-SERVICE