Cloud Basics
Is this your Bird’s-Eye View of the Cloud?
Everyone is Talking About Cloud

How will we ensure workload mobility and protection within a multi-cloud environment?

How should we change our data center and infrastructure approach to ensure IT resilience?

How should we change evolve our application and architecture strategies?
Enterprises are Seeing the Value in Adopting a Hybrid or Multi-Cloud Strategy

Gartner predicts that by 2019, an estimated 70% of enterprises will have a hybrid cloud strategy.

By 2020, over 90% of enterprises will use multiple cloud services and platforms.

—IDC Futurescape: Worldwide Cloud 2018 Predictions
What is Multi-Cloud?

Move data and workloads in, out, and in between more than one cloud with full orchestration and automation.
Why Use a Multi-Cloud Strategy?

- Work seamlessly across many different cloud providers
- Distribute services and workloads across platforms for optimized performance
- Take advantage of cost efficiencies by using the right cloud for the right workload
- Avoid vendor lock-in
What is Hybrid-Cloud?

Pairing of an on-prem datacenter built on cloud technologies (private cloud) with a public cloud.
Why Use a Hybrid Cloud Strategy?

• Leverage onsite resources and the public cloud seamlessly, and easily to respond to new and changing business requirements.

• Use internal, private cloud environments for the most rigorous and secure workloads and public cloud for test and development, backup, or disaster recovery as their organization allows.
Considerations When Choosing a Strategy

**Upfront Investment** – The initial investment for each deployment option varies. A financial evaluation of private and public cloud deployments and the expected ROI tells how this initial IT investment can pay off in the long run.

**Qty. of Data** – How much data will you store in the cloud? With public cloud you’ll pay per GB, but with private cloud you typically purchase your resources upfront.

**Longevity of Data** – How long will you store your data? Are there industry or government requirements around how long you need to store data sets?

**Performance Requirements** – What do you need your IT infrastructure to do and how well does it need to be done? If you’re in need of computing resources as a core, mission-critical business function, then you need to weigh each option accordingly.

**Access Patterns and Locations** – How global is your business? This can determine where you locate your resources for optimal performance.

**Security and Confidentiality** – Cloud and data security vary tremendously across your deployment options, so be sure to understand what’s at stake.

**Service Level Agreements** – How important is ‘uptime’ to your business operations? Public cloud outages have affected a lot of businesses. What would outages do to yours without Zerto?

**In-House Technical Resources** – Do you have the technical resources available in-house to operate and maintain your private cloud?
Getting Started with Cloud
Data Protection Use Cases

- Customer A
  - Simple Migrations
  - DRaaS
  - Reverse DRaaS

Cloud Provider

- DATACENTER A
- DATACENTER B

- Offsite Backup
- In-Cloud BC/DR

Cloud Provider
Multi-Cloud Agility with Zerto
Zerto Offering

Migration

• Migration between Public Clouds
• Migration to Public Cloud and protect between Public Clouds
• Test application within platforms before migration

Automation

• File-level recovery from Journal
• Automatic conversion of VMs
• One single user interface and experience
Multi-Cloud, Hybrid Cloud
Any2Any: Multi-Cloud, Hybrid Cloud Architecture

[Diagram showing cloud architectures with Zerto, Azure, IBM Cloud, and Zerto CSP connected to on-premises locations through various cloud services]
Any2Any: Multi-Cloud Hybrid Cloud Architecture
Any2Any: Microsoft Azure
Azure-to-Azure

New Azure regions support Azure Government, Germany, China
Any2Any: IBM Cloud
IBM Cloud-to-IBM Cloud
Any2Any: AWS

- No performance impact
- No agents
- One experience, one platform

Replication and Automation

On-Premises
Any2Any: Multi-Cloud

Inter-Cloud – Public Cloud-to-Public Cloud

* Azure to AWS One-to-Many is supported
Multi-Site & Multi-Tenancy

- Any distance, min 5Mbps
  - Multi-Datacenter Replication
    - Any number of sites

- Protect multiple satellite offices
  - Datacenter Consolidation & Protection
    - Migrate workloads seamlessly

- Flexible, cost effective, scalable
  - Disaster Recovery as a Service
    - Managed service & recovery

- Shared service architecture
  - Enable Self-service & Multi-tenancy
    - App owners, orgs & customers
Multiple Clouds – One Interface
Protect, Transform & Innovate

Continuous Availability
- Outages & Disruptions
- Ransomware Attacks
- Complete Data Protection

Workload Mobility
- Infrastructure Modernization
- Consolidations & Migrations
- Testing & DevOps

Multi-Cloud Agility
- Cloud Integration & Migration
- Multi-Cloud Hybrid Cloud
- Analytics Across Clouds
Resilience Management with Zerto Analytics

- Empower intelligence-led transformation
- Real-time and historical analytics and reporting
- View protection and consumption data across multi-site, multi-cloud environments
- Aggregated and consolidated information from multiple ZVMs
Visibility Across Multi-Site, Multi-Cloud
Analytics, Reporting, Monitoring

- Multi-site, multi-cloud
- View protection across all clouds
- End-to-end security
- SaaS driven platform
- No VPN — No ZVM access
Outages & Disruptions
Cloud Integration & Migration
Infrastructure Modernization
Complete Data Protection
Testing & DevOps
Consolidations & Migrations
Ransomware Attacks
Analytics Across Clouds

The IT Resilience Bundle

Multi-Cloud, Hybrid Cloud