Business Continuity & the Microsoft Cloud

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Agenda

- Build a customized Business Continuity portfolio of services that will keep business data safe and network administrators employed!
- Viable solutions for backup, restore, and disaster tolerance missions using just the right set native Microsoft technologies
- Features and price points favorable to the solutions architect
- DEMO: Microsoft Azure Backup and Restore
Precept

All employed network administrators have good backup.
Azure Paired Regions

Microsoft Public Cloud = Disaster Tolerant by design
Backup vs Business Continuity

- Data backup answers the questions: is my data safe? Can I get it back in case of a failure?

- Business continuity, on the other hand, involves thinking about the business at a higher level, and asks: how quickly can I get my business operating again in case of system failure?

- Thinking about data backup is a good first step.
What is Business Continuity

Sorting out the question marks...
The definition of Business Continuity

- “Business Continuity is the **activity** performed by an organization to ensure that critical business functions will be available to everybody that must have access to those functions.

- Business Continuity **is not** something implemented at the time of a disaster.”
The components of Business Continuity

- BCP (Business Continuity Plan)
- BCM (Business Continuity Methodology)
- BIA (Business Impact Analysis)
- TRA (Threat and Risk Analysis)
- SLA (Service Level Agreements)
- Change Management
BCP - Business Continuity Plan

- It all starts with your Business Services
- Identify them
- Classify them (BIA)
- Map out the technology
- Processes and Routines
BIA – Business Impact Analysis

- If something happens, how does that impact my business?
- Urgent vs. non-urgent
- Create a plan that presents the different scenarios
- Recovery requirement
BIA cont. Determine - RPO and RTO

- **RPO:**
  
  How much data can you afford to lose?

- **RTO:**
  
  How long can the service be down?

- **Recovery Point Objective** refers to the amount of time between data protection events and reflects the amount of data that potentially could be lost during a disaster recovery.

- **Recovery Time Objective** refers to duration of time and a service level within which a business service must be restored after a disaster.
TRA - Threat and Risk Analysis

- Hurricane
- Power cut
- Cyber attack
- Fire
- Sabotage
- Flood
- Earthquake
- Etc.
The choice of technology
Workloads drive the BC tool choices

- **SQL**
  - SQL ➔ Azure
  - Site Recovery Manager with SQL Always-ON
  - Azure Backup

- **File and Folder**
  - Windows Backup
  - Backup to Azure

- **System State / BMR**
  - Windows Backup Feature
  - DPM

- **Active Directory ➔ Azure**

- **Exchange**
  - Windows Backup
  - DPM
  - Exchange DAGs and Dumpster V2

- **SharePoint**
  - Central Admin / Management Shell
  - DPM

- **Hyper-V / Vmware**
  - DPM
  - Windows Azure Site Recovery
System Center 2016

- Operations Manager to monitor and manage:
  - Windows Backup
  - Hyper-V Replica
  - System Center Data Protection Manager (DPM)
  - Windows Azure Subscription and Virtual Network Health
  - SQL Server Backup Jobs
  - Exchange Distributed Availability Group (DAG) Health
  - Active Directory Replication Health
- Monitor manual failover of workloads on DR site activation
Azure Site Recovery

- Simplify your BCDR strategy
- Provide flexible replication
- Easy failover and recovery
- Eliminates secondary datacenter
Heterogeneous Disaster Recovery
for VMware vSphere-based VMs & Physical Servers with InMage Scout

- **Source:** VMware vSphere VMs & Physical Servers
  - Contoso Primary Location (On-Premises/Service Provider)
- **Download InMage Scout**
- **Microsoft Azure Site Recovery**
- **Config Server** – Used for Centralized Management of InMage Scout
- **Master Target** – Used as a repository & for retention
- **Process Server** – Used for Caching, Compression & Encryption
- **Target:** VMware vSphere VMs
  - Contoso Secondary Location (On-Premises/Service Provider)
- **InMage Scout Data Channel**
Shielded VM

- Can shielded VM’s be part of a Business Continuity Plan?
Azure Backup

- Backup Azure IaaS
- Basic DR within the cloud concept
- RTO
Azure Backup supports 4-TB disks

Register-AzureRmProviderFeature -FeatureName "InstantBackupandRecovery" -ProviderNamespace Microsoft.RecoveryServices
Microsoft Azure Backup Server (MABS)

- Protect application workloads such as Hyper-V VMs, Microsoft SQL Server, SharePoint Server, Microsoft Exchange, and Windows clients
- Back up a VMware server to Azure

https://docs.microsoft.com/en-us/azure/backup/backup-azure-vmware
Microsoft Azure Backup Server (MABS)
Microsoft Azure Backup Server (MABS)

- **Download MABS:**

- **Support matrix:**
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Survey is below session description at http://elus18.expertslive.us
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