Disaster Recovery and Cloud Technologies

DISASTERS, THEY HAPPEN. BE PREPARED!

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IT DISASTERS, THEY HAPPEN. BE PREPARED!

ARE YOU PREPARED THEY WEREN'T?

Even the largest of companies fail to prepare for a disaster!

Negligence

May 2011 - Amazon Web Services off the air for 4 days!

Aug 2011 – Gmail off the air for 3 days!

Dec 2010 – Hotmail off the air for 3 days!

Overload

July (30th) 2012 – Northern India power outage – 320M affected!

July 31st Central India power outage – 620M affected, largest in history!

Malicious

September 2012 – Go daddy off the air for 6 hours !

June 2012 – G4S Security firm hacked – over 300 clients exposed

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HOW TO PREPARE?

Start Planning

5 basic steps to business continuity planning

Step 1: Risk Assessment – Defining the probability of a risk occurring

Step 2: Business Impact Analysis (BIA) – RPO and RTO

Step 3: Plan Development – Get involved!

Step 4: Plan Implementation – Discuss, organise and educate

Step 5: Plan Testing & Maintenance – Test, Test, Test!

When in doubt, always ask the "what happens if" question

"In preparing for battle I have always found that plans are useless, but planning is indispensable"

Dwight D. Eisenhower
34th president of US 1953-1961 (1890 - 1969)

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SO WHAT CAN YOU DO ABOUT IT?

IT Disaster Recovery and the Cloud

Choose a reputable company!

There are over 100`s cloud providers - which one?

- **Credentials – ISO27001 a benchmark (amongst others)**

- **Datacentre Tier – 1,2,3, 3+,**

- **Due diligence – ask to see their Disaster Recovery Plan!**

- **Regulatory Compliance – I.e. PCI-DSS (Ccard transactions)**

- **Beware the broker! – not every Cloud has a silver lining** ☹

Remember, you can delegate authority but not responsibility!

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DIFFERING LEVELS OF IT CONTINUITY

Back Up to and Restore from the Cloud – Online backup

Applications and data remain on-premises, with data being backed up into the cloud and restored onto on-premises hardware when a disaster occurs.

In other words, the backup in the cloud becomes a substitute for tape-based off-site backups.

Back Up to and Restore to the Cloud – Cloud based DR

Data is not restored back to on-premises infrastructure; instead it is restored to virtual machines in the cloud. This requires both cloud storage and cloud compute resources. The restore can be done when a disaster is declared or on a continuous basis (pre-staged).

Pre-staging DR VMs and keeping them relatively up-to-date through scheduled restores is crucial.

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DIFFERING LEVELS OF CONTINUITY CONT..

Replication of Virtual Machines in the Cloud – Cloud to Cloud

For firms that require aggressive recovery time (RTO) and recovery point objectives (RPOs), as well as application awareness, replication is the data movement option of choice. Replication to cloud virtual machines can be used to protect both cloud and on-premises production instances.

In other words, replication is suitable for both cloud-VM-to-cloud-VM and on-premises-to-cloud-VM data protection

The benefits provide important features for disaster recovery:

- VM startup can be easily automated, lowering recovery times
- Virtualisation eliminates hardware dependencies, potentially lowering hardware requirements at the backup site.
- Application agnostic state replication software can be run outside of the VM, treating it as a black box.
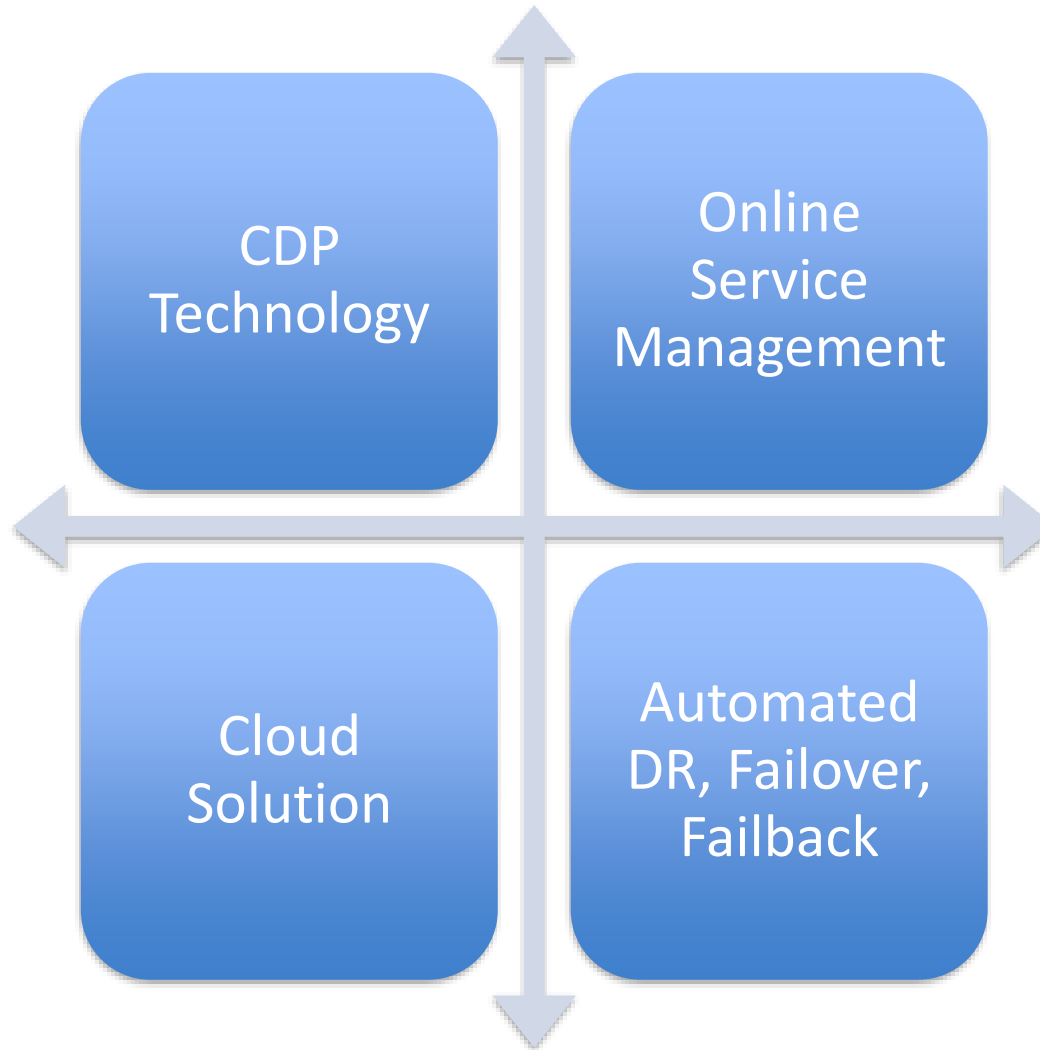
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ENTER DR AS A SERVICE (DRAAS)

Enter the world of virtual computing

Microsoft   **VMware**

"SERVER FARM"   G.STRID

DRaaS feature advantages

CDP Technology

Online Service Management

Cloud Solution

Automated DR, Failover, Failback

DRaaS feature advantages

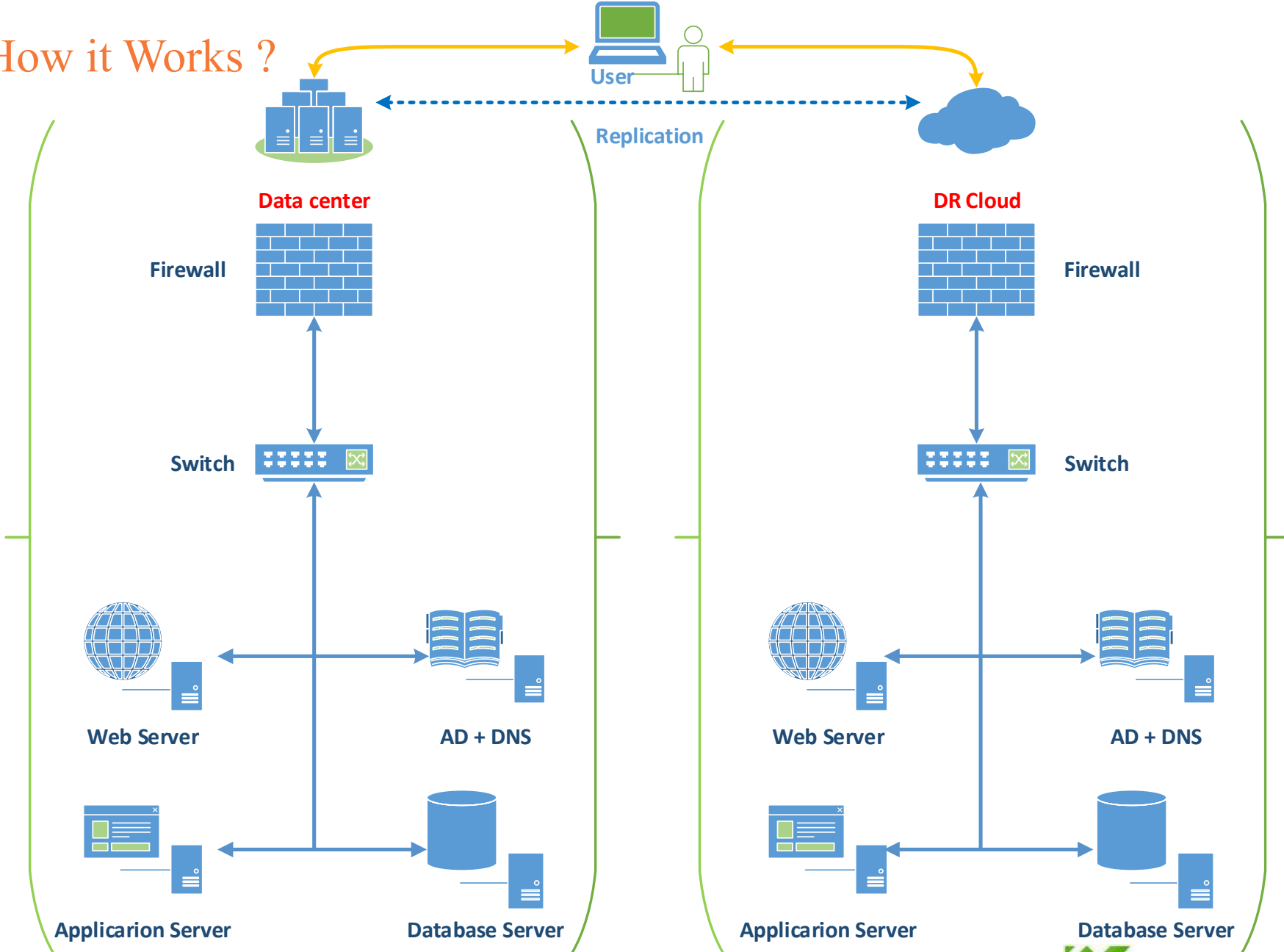|	
CDP Technology	**Meets Stringent SLAs** RPO=Near Zero to 30 min RTO=30 min to few hours
Online Portal for DR Service Management	**Customer Dashboard** Monitoring of service, RPO/RTO balance check Performance
Cloud Solution	**On Demand provisioning** Faster implementation, scalable, high-available
Automated DR setup, replication, recovery & Fail back	**Guaranteed Apps Recovery, No Special Skills Needed** DBA skills not required
WAN optimization, Data encryption with QOS	**Optimized Network** Compression, Encryption supported

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How it Works ?

Data center

DR Cloud

User

Replication

Firewall · Firewall

Switch · Switch

Web Server · AD + DNS · Web Server · AD + DNS

Applicarion Server · Database Server · Applicarion Server · Database Server

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What We Deliver ?

Disaster Recovery as a Service (DRaaS)

- Meet Stringent SLA

- RPO Near Zero to Mins/ RTO Few Mins to Hours

- Customer Dash Board to Monitor Services

- Guaranteed Recovery No Special Skills Required.

- Encryption Supported & 100 % Software Driven Solution.

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Our Approach for DR

Geographic Disaster
- Natural Calamity
- Manmade Calamities

- Multi Cite (Seismic Zones) DC infrastructure
- India's widest network coverage- 1200+ cities
- Workspace Recovery services

DC level Failures
- Network Outages
- Accidents

- Ability to bring up the DR site in <15 mins
- Network DR plan-transitioning end user traffic
- WAN optimization, Encryption & Acceleration

App. Infra failures
- N Tire environment failure
- Sequence corruption

- Application aware automated recovery order
- Heterogeneous application support
- App. Consistent replication-assured recovery

Hard Disk/Volume Failure
- Application Failures
- Data Corruption

- Protection of mixed environments (V2V,P2V)
- Solution for Win/Linux SAP, Oracle, Exchange etc.
- First cloud provider with HP-UX on cloud

File/Folder level failure
- Accidental Deletion
- Human error, mis-configuration

- Continuous recovery window without any break
- Near instant granular file recovery at any point
- Freedom to choose point of recover

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A UNIQUE SERVICE

Disaster Recovery as a Service (DRaaS)

- Higher level of resiliency with hosted technology
- Caters for natural disasters as well as technology failure
- Incorporates the technology that suits your business agility
- Remove or add resiliency as your business dictates
- You can still keep your existing office IT arrangements

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NOW THE SALES BIT…

The TMSPL Continuity Service

- Point and click replication and DR VM creation
- ALL data and systems are replicated over two datacentres (Tier 3+ and Tier 3)
- Instant, near instant recovery objectives (SF/HA DR technology)
- Disaster Recovery Planning (and DR) as standard
- ISO27001, ISO 9001, and PCI-DSS (pending)
- Unique invocation service
- 100% track record for recovery

And we are experts in virtualisation – From 2009!

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AND THE FUTURE?

The TMSPL Continuity Service

- TMSPL implements new "Stealth Technology" military grade!

- Creation of Cloud Standard

- SSD for "instant on" access and performance

- First hosting provider to create the Financial Cloud Community

- 100% track record for recovery

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