Data Protection | Rapid Recovery

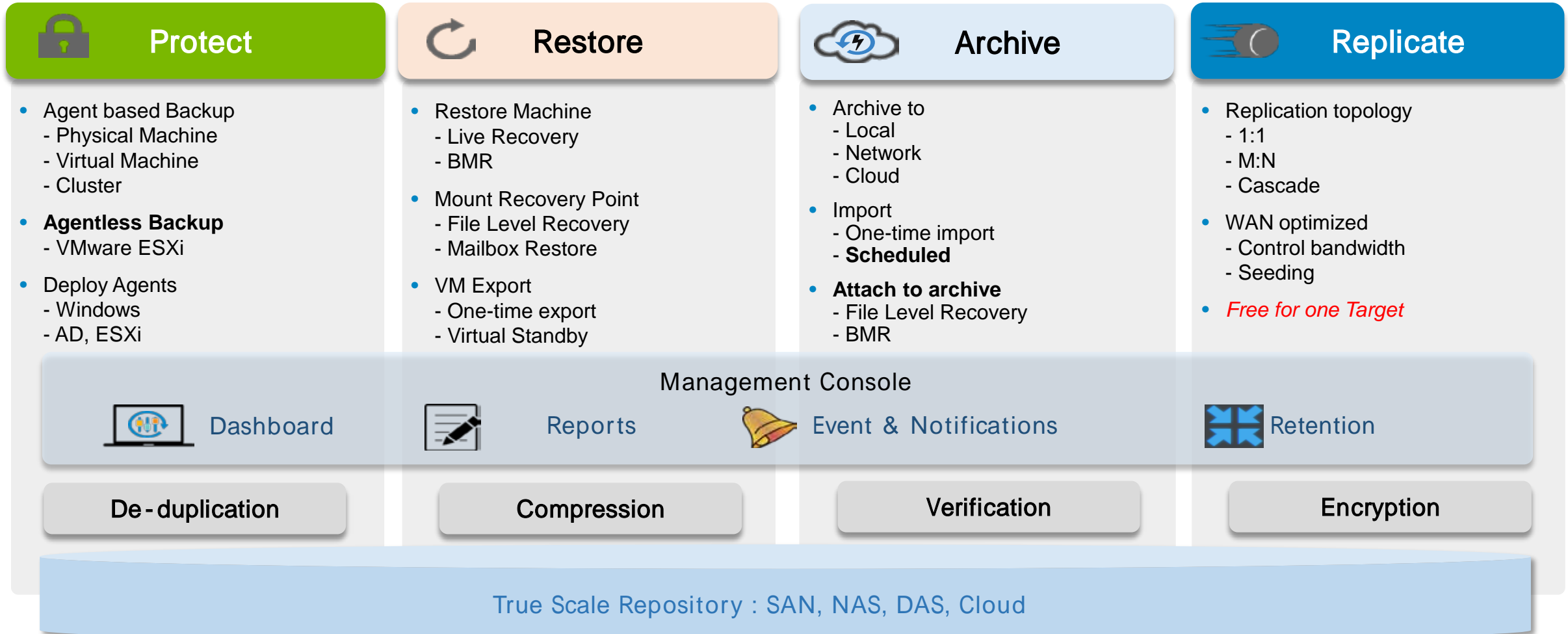x86   DR

Tel : 070-8257-4307
HP   :010-2776-4307
E-mail   pyosungsu@gmail.com
Homepage   :
www.datatrend.co.kr

Tel : 070-8797-6547
HP   010-2584-1976
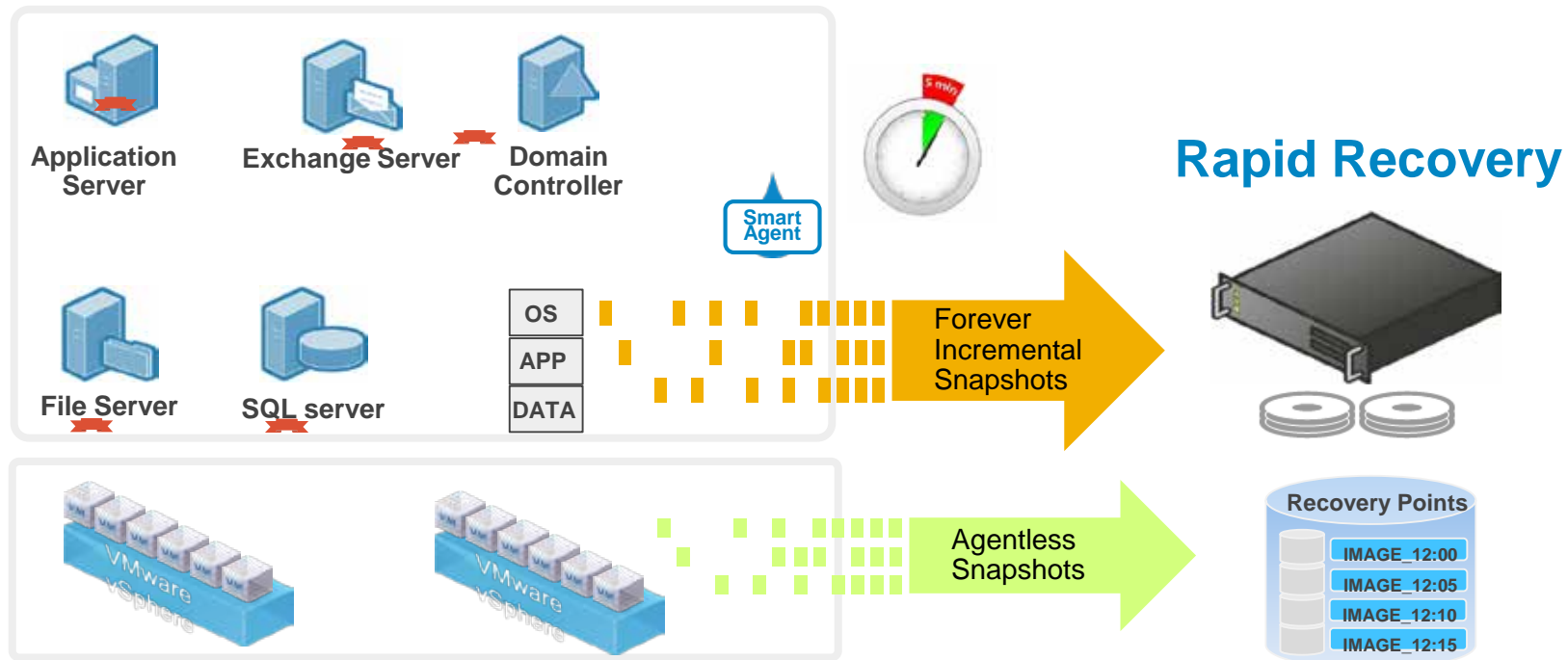E-mail   gbkwon@gluesys.com
Homepage   www.gluesys.com
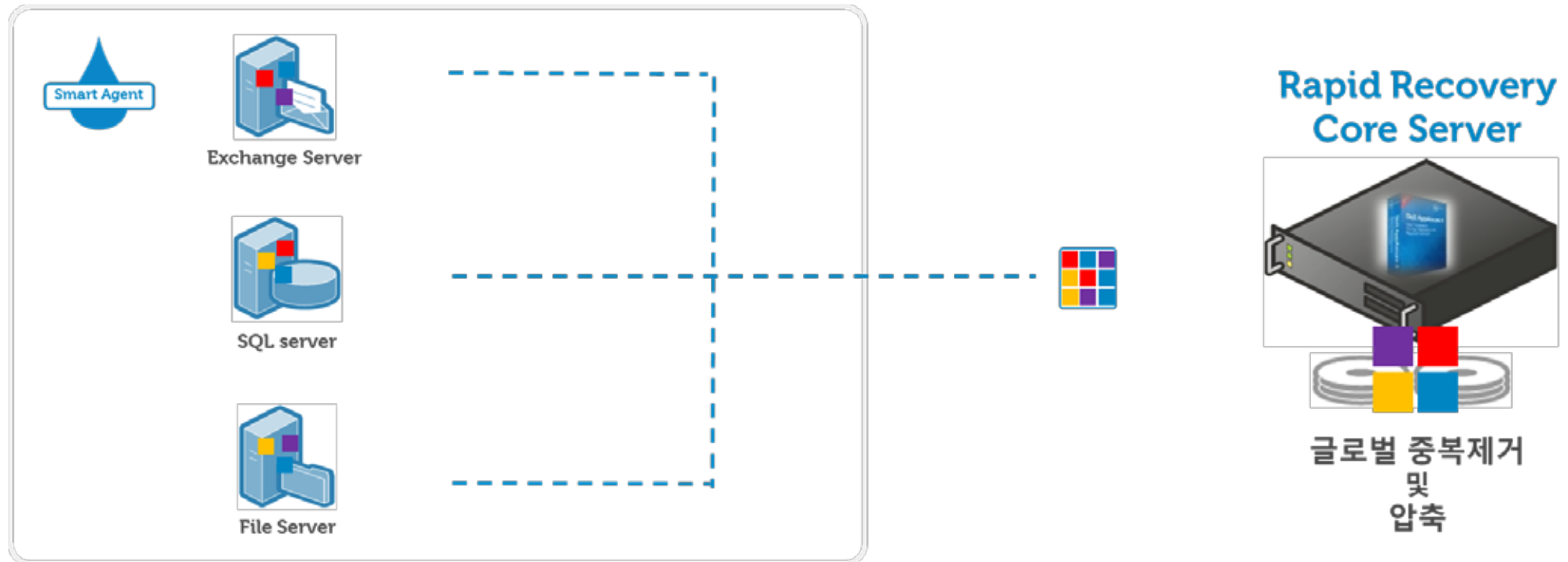
Rapid Recovery Overview: x86

DR

Protect

- Agent based Backup
  - Physical Machine
  - Virtual Machine
  - Cluster
- **Agentless Backup**
  - VMware ESXi
- Deploy Agents
  - Windows
  - AD, ESXi

Restore

- Restore Machine
  - Live Recovery
  - BMR
- Mount Recovery Point
  - File Level Recovery
  - Mailbox Restore
- VM Export
  - One-time export
  - Virtual Standby

Archive

- Archive to
  - Local
  - Network
  - Cloud
- Import
  - One-time import
  - **Scheduled**
- **Attach to archive**
  - File Level Recovery
  - BMR

Replicate

- Replication topology
  - 1:1
  - M:N
  - Cascade
- WAN optimized
  - Control bandwidth
  - Seeding
- *Free for one Target*

Management Console

Dashboard   Reports   Event & **Notifications**   Retention

De- duplication   Compression   Verification   Encryption

True Scale Repository : SAN, NAS, DAS, Cloud

Protect Continuously: 5

- IO
- 5 è 5
- è 1% CPU

Protect:

-                                : 80%

-           (Repository)

Recovery: Universal Recovery ™

- **The ultimate flexibility for disaster recovery**

- OS Image HW Platform /

- VM Host (or) Migration

- P2P, P2V, P2C, V2V, V2P, V2C, C2P, C2V

Virtual

Physical

5
/

Cloud

Rapid Recovery

Virtual Server

Bare Metal Restore

Dissimilar hardware

Identical hardware

Amazon S3
MS Azure
RackSpace
OpenStack

Recovery: Verified Recovery™

- Data(MS SQL Server, MS Exchange)
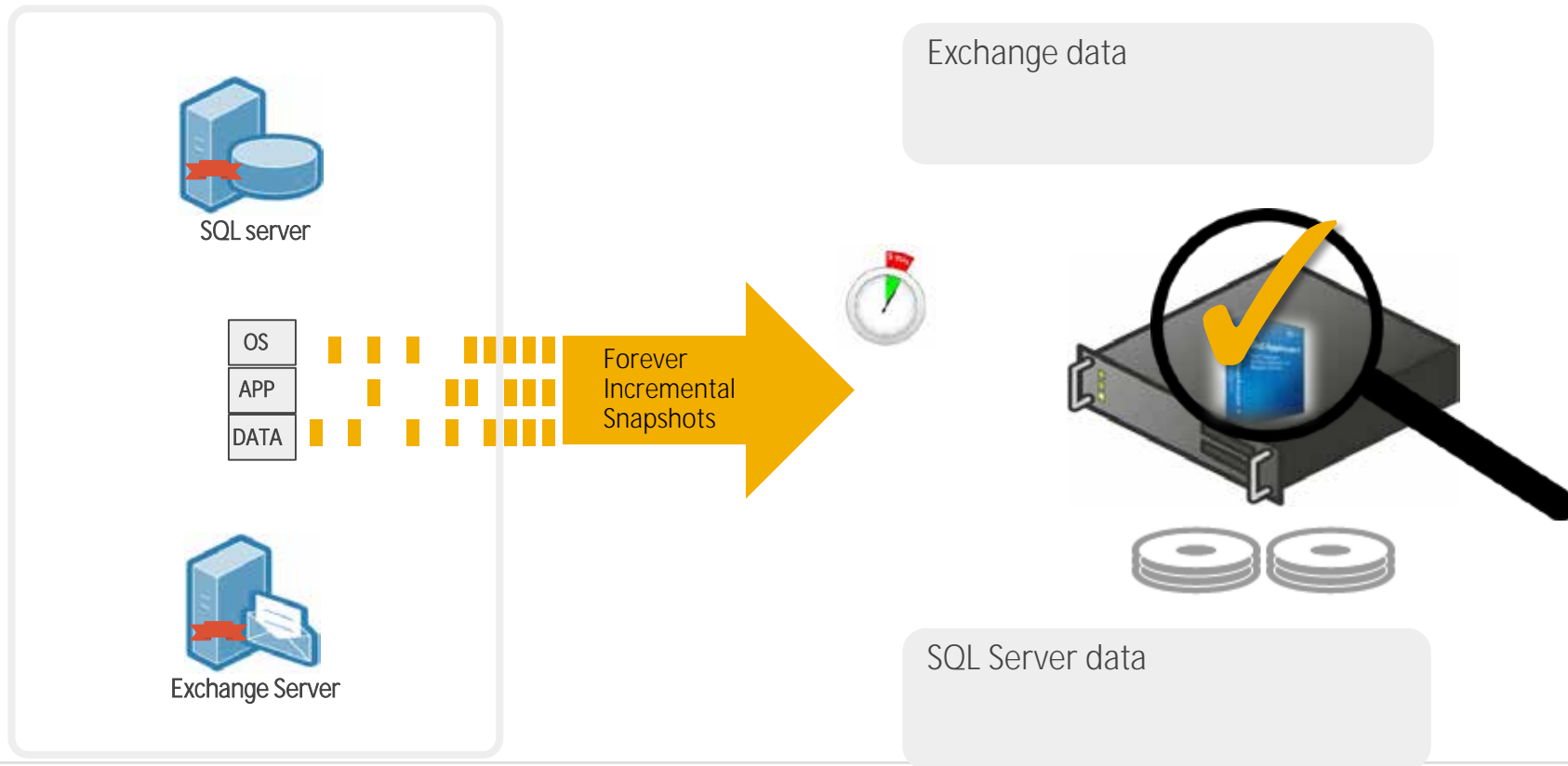
-

SQL server

OS
APP
DATA

Forever
Incremental
Snapshots

Exchange Server

Exchange data

SQL Server data

Friday, Sep 12, 2014
ü 01:00 – C: D: E: F:
ü 01:30 – C: D: E: F:
ü 02:00 – C: D: E: F:
ü 02:30 – C: D: E: F:
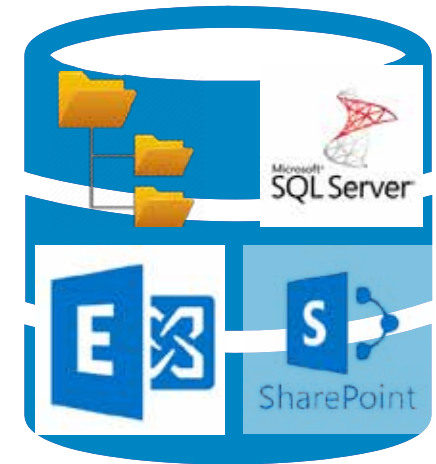ü 03:00 – C: D: E: F:
ü 03:30 – C: D: E: F:
ü 04:00 – C: D: E: F:
ü 04:30 – C: D: E: F:
ü 05:00 – C: D: E: F:
ü 05:30 – C: D: E: F:
ü 06:00 – C: D: E: F:
ü 06:30 – C: D: E: F:
ü 07:00 – C: D: E: F:
ü 07:30 – C: D: E: F:
ü 08:00 – C: D: E: F:
ü 08:30 – C: D: E: F:
ü 09:00 – C: D: E: F:

.

.

Recovery: Live Recovery™

- data   (SQL, Exchange, SharePoint   )

-                               ,   (on-demand)
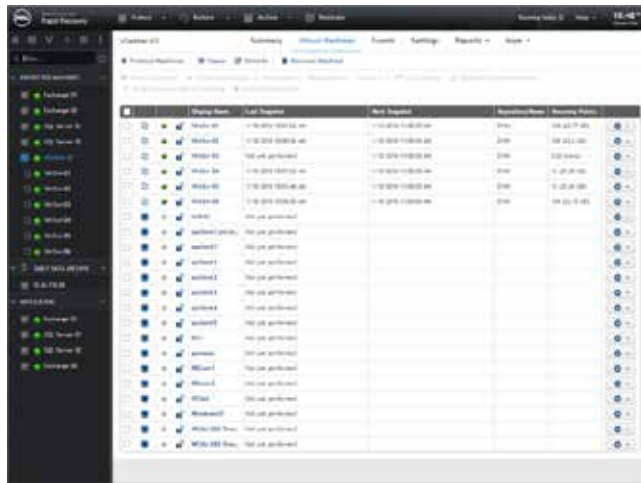
metadata
- directory structure
- security descriptors
- NTFS file attributes
- free space map
- and so on

Rapid Recovery Console

-
-

# Live Recovery functional diagram

Windows

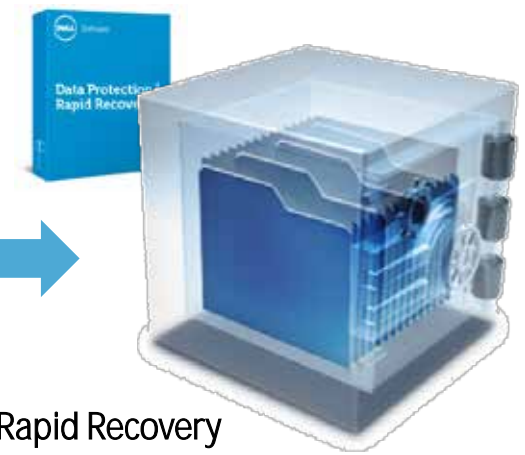Machine crashes, all data lost or is inaccessible. However, Rapid Recovery has a backup of the entire machine.

Backup server

Core

Step 1:
Use Rapid Recovery to recover the Operating System volume to the new target.

Windows

Step 2:
Rapid Recovery presents data volumes to the restored OS as accessible disk/files so that requesting applications and users can access data immediately.

Step 3:
Rapid Recovery restores data volumes to the target machine. Data requested by users is restored first, on demand.

Recovery: -Local Mount Utility

-                                       ,

(File, SQL Database, Exchange Message)

- PC   network drive   mount point

- Image   Data   File
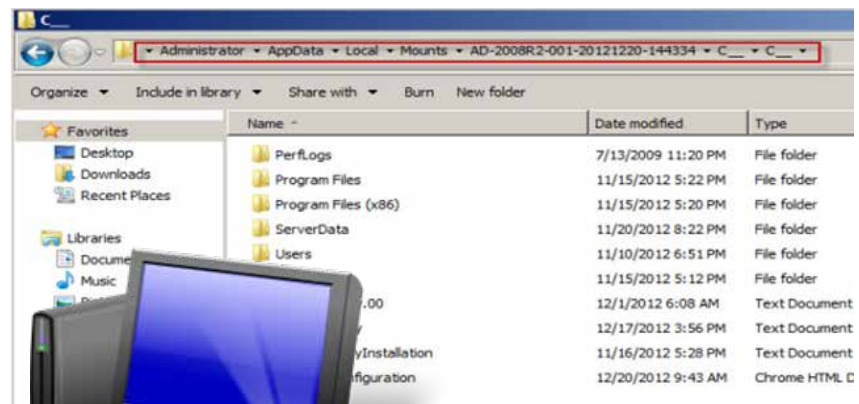
Server/Desktop

Mount Point
Backup Storage Direct Access

Rapid Recovery

Recovery: Archive

-               NAS   2
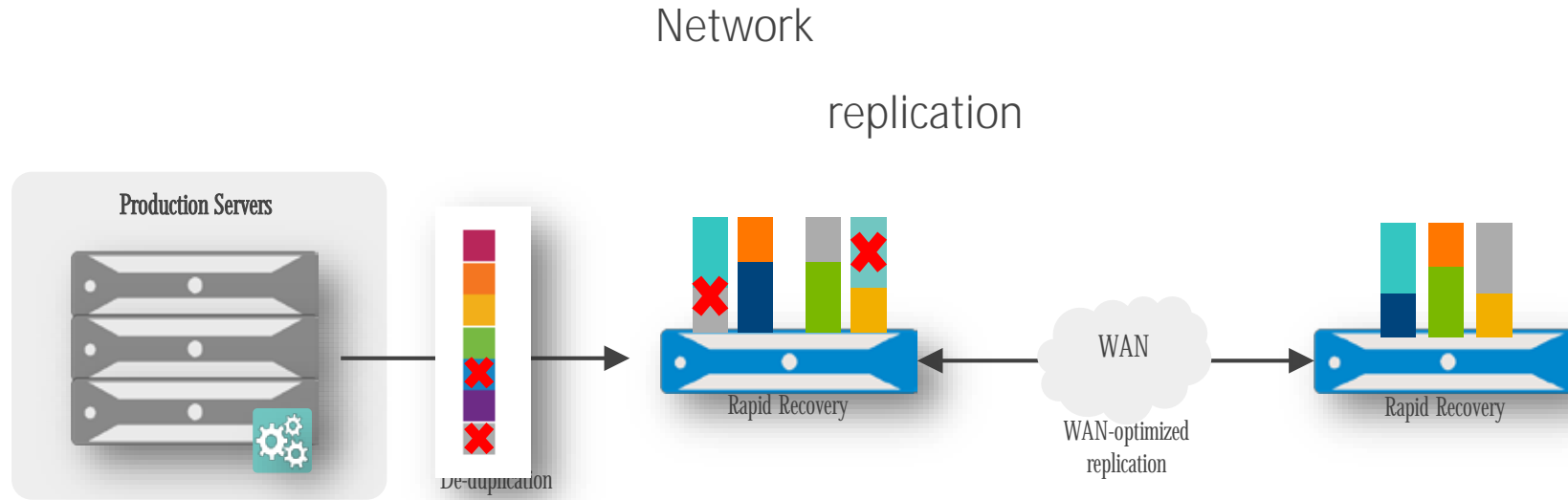-   Cloud Connector
-

Rapid Recovery

NAS

Archiving

Mount & File Level Recovery

Recovery Points

IMAGE_12:00
IMAGE_12:05
IMAGE_12:10
IMAGE_12:15

Archiving

Microsoft Azure
openstack

Mount & File Level Recovery

rackspace
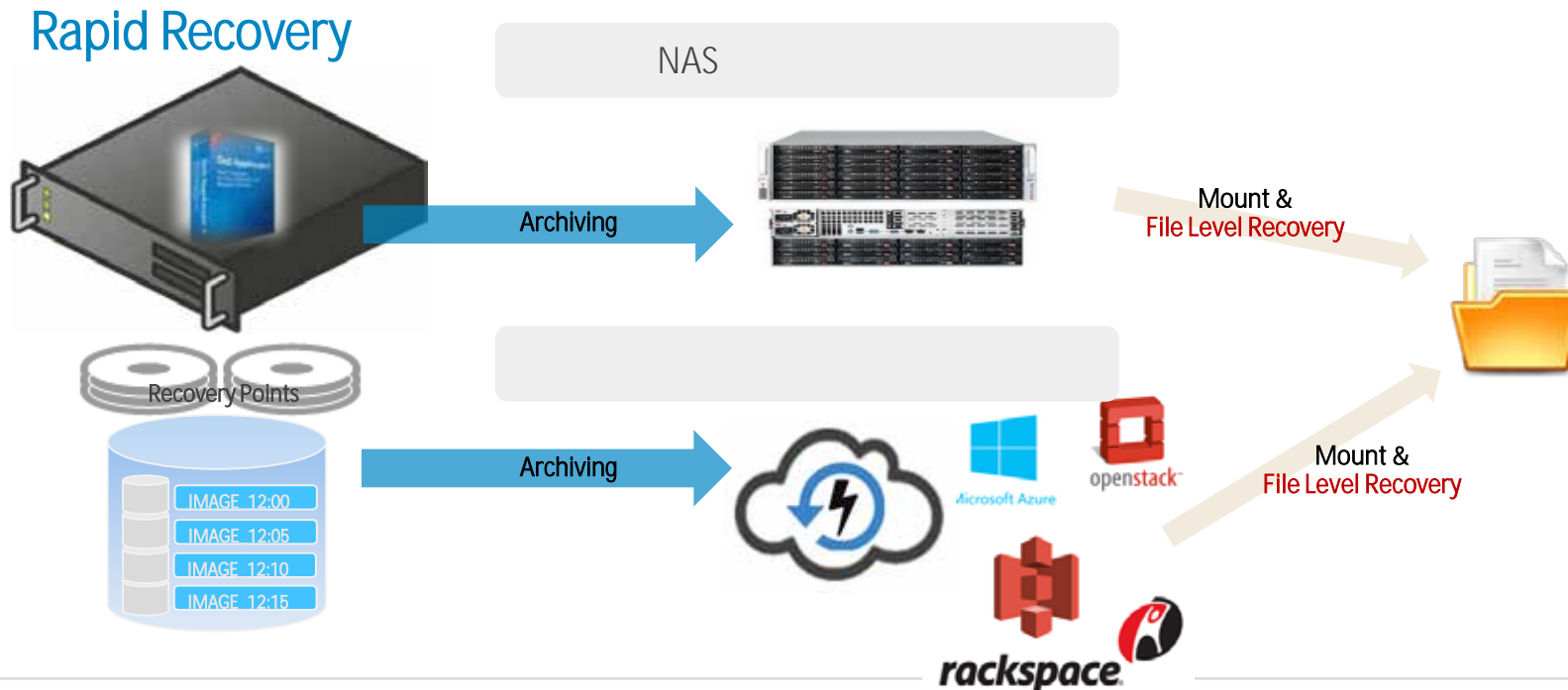
Recovery: Virtual Standby(or Export)

- Virtual Machine

- Standby VM   Æ Near Zero RTO

- ESXi   Hyper-V, VirtualBox   Hypervisor

Replication

-
- M:N

Network

replication

Production Servers

De-duplication

Rapid Recovery

WAN

WAN-optimized
replication

Rapid Recovery
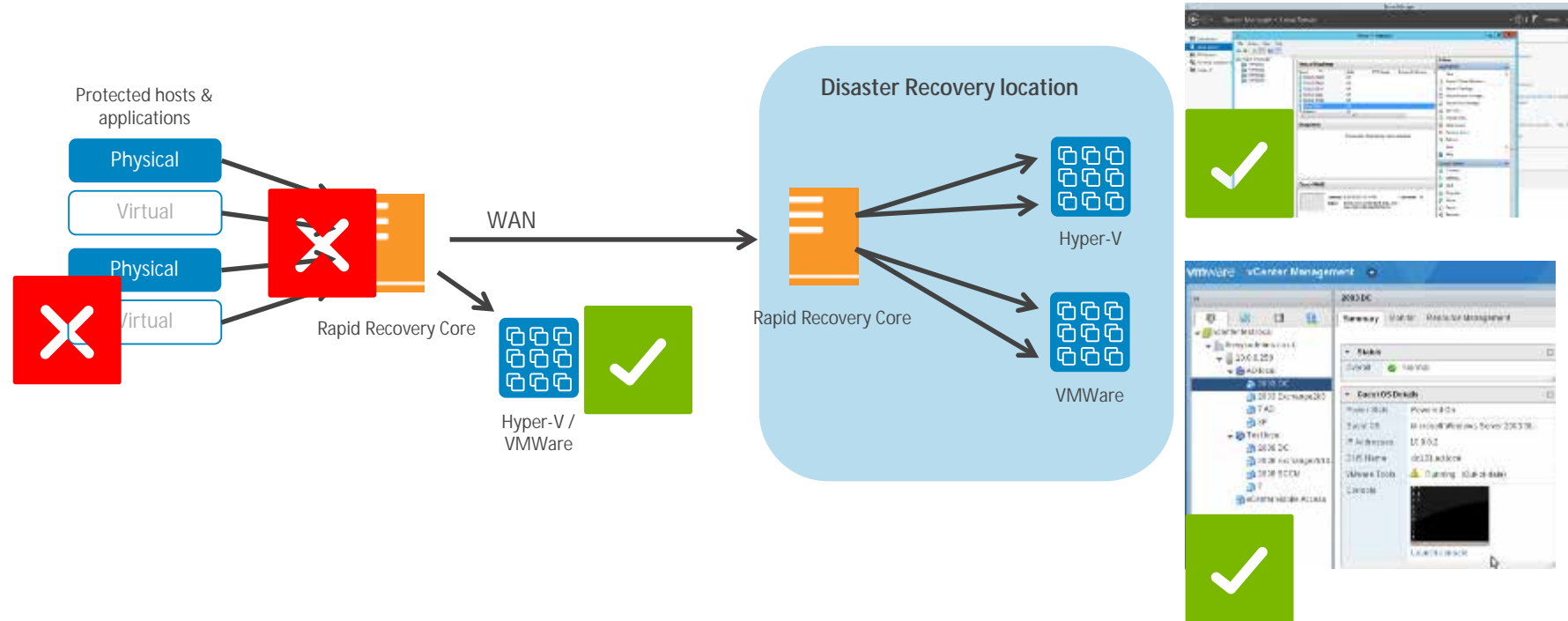
Simple Replication

Source → Target
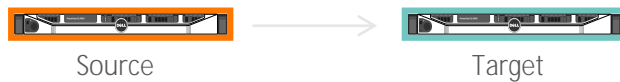
Cascaded Replication

Source → Target A → Target B

Multi-Point Replication

Source1 → Target A

Source1 → Target B

Target C → Source2

Target D → Source2
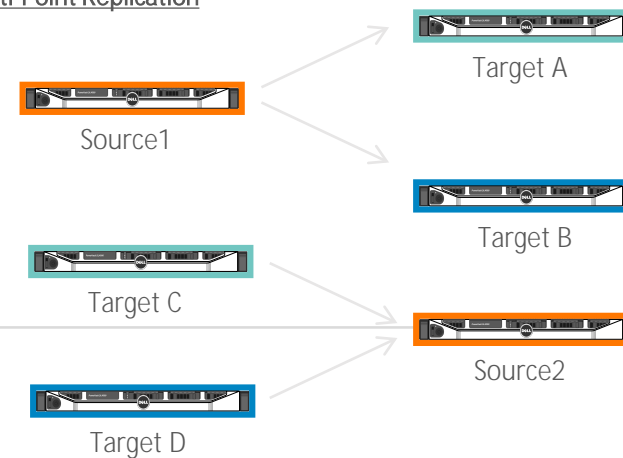
Replication + Virtual Standby

Production Site

Data

OS Image

Data

OS + Data

OS Image

Data

- Deduplication
- Compression
- Forever incremental Snapshot
- 5

Rapid Recovery

Internet (TCP/IP)

-
- NW

- WAN Replication
- SSL

DR Site

Data

OS Image

Data

OS + Data

OS Image

Data

- Automatic VM Replication
- Time Shift
- HW Platform Free

Rapid Recovery

- OS

Snapshots

Snapshot

Recovery Points

IMAGE_12:00
IMAGE_12:05
IMAGE_12:10
IMAGE_12:15

Recovery Point   - Restore

OS/   (BMR)

-

• Notification Group   /   /

  - Email, Windows Event Log, syslog, SNMP

- &
-
-
- DVM
-
-

Summary table view

-
-

- Snap-shot,

Easily monitor and maintain data protection for critical systems

Rapid Recovery Appliance: DL Series

**DL4300 Backup and Recovery Appliance
(Standard Edition)**

Quest DL1300

1, 2, 3 and 4TB

Quest DL4300
Standard Capacity
Up to 60TB

Quest DL4300
High Capacity

Up to 120TB

Capacity License:

| Feature	Specification
Processor	• Two Intel Xeon E5-2640v3 2.6 GHz
Drives(Internal)	• 2x 300GB SAS drives for OS (2.5″, 10K, 6Gbps) RAID 1 • Standard 5TB Edition • Standard 10~20TB Edition • Standard 30~40TB Edition • Standard 50~60TB Edition
Memory	• 64GB or 128GB RDIMM
Network connectivity	• Dual 4x1GbE Broadcom NIC or 4x1GbE Broadcom NIC and 2x10GbE Broadcom NIC
Maximum physical capacity	• Standard Edition : 5TB - 60TB • High Capacity Edition : 120TB using up to four MD1400 expansion shelves(40TB - 120TB)
Features	• Inline block level deduplication • Snapshots • Live Recovery® • Capacity licensing • Standby Virtual Machines for Disaster Recovery - 2 edition included with license

Rapid Recovery Agent   x86

Microsoft Windows Vista SP2
Microsoft Windows 7 SP1
Microsoft Windows 8, 8.1*
Microsoft Windows 10
Microsoft Windows Server 2008 SP2
Microsoft Windows Server 2008 R2 SP1
 (except Windows 2008 Core)
Microsoft Windows Server 2012
Microsoft Windows Server 2012 R2*

                         :

- * ASP .NET 4.5.x role/feature

- SQL Server : 2005   ,
- Microsoft Exchange : 2007 SP1 Rollup 5 or later, 2010, 2013
- SharePoint 2007, 2010, 2013
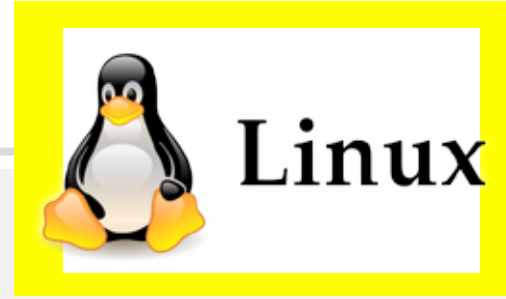
Red Hat® Enterprise Linux® (RHEL) 6.[3~7], 7.0, 7.2
CentOS 6.[3~7], 7.0, 7.2
Oracle Linux 6.[3~7], 7.0, 7.2
Ubuntu 12.04 LTS, 12.10, 13.04, 13.10, 14.04 LTS, 14.10, 15.04, 15.10
SUSE® Linux Enterprise Server (SLES) 11 (SP2 and later), 12

- ext2, ext3, ext4   xfs
-            root

Common Notes

- UEFI
-
  Windows 2008 R2
- Hyper-V CSV   Virtual Export
-

  : Port : 8006, 8009
-                     reboot
- Agentless   VMware Tool
           CBT enable

Rapid Recovery

- Snapshot: incremental
-
- MSSQL, Exchange   Sharepoint

- Live Recovery:
-
-

  (P2V, V2V, V2P, P2P, P2C, V2C C2P, C2V)

-       UI
-
-          WebUI

!

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