



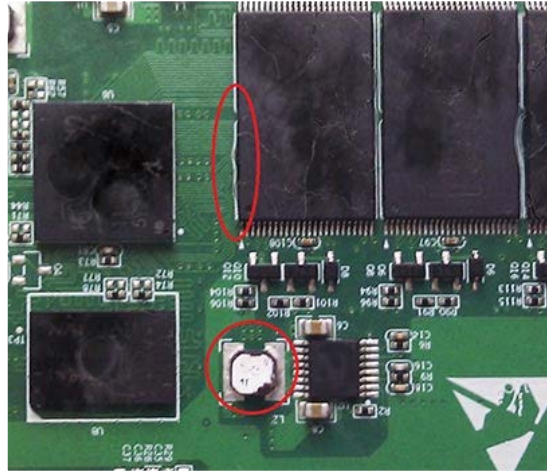
Protecting Your Data from Data Loss

Sean R. Barry

Where Does Data Loss Start?



- Disasters
- Flood
- Storm



- Storage Risks
- Failures



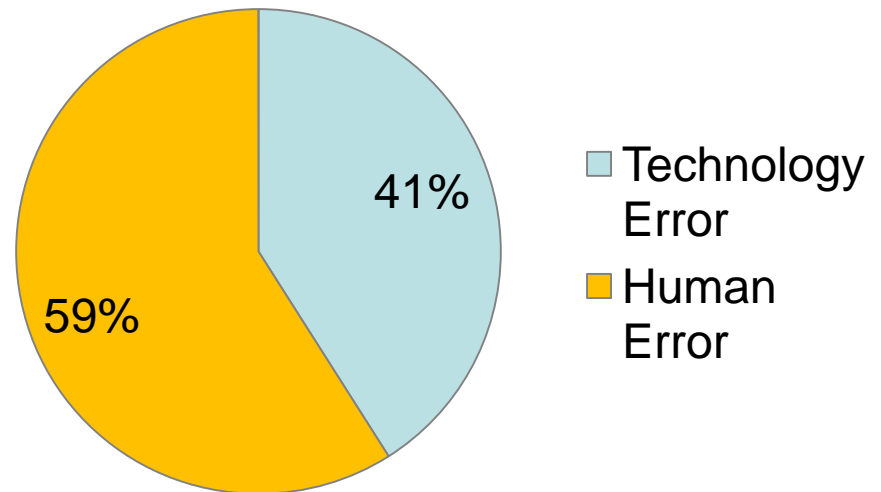
- Human Error
- Mistakes

Human Error - Security

■ Human Error Failures

- Failure to Follow the Rules (intentional or unintentional)
- Failure to Understand the Rules (lack of training)
- Other elements
 - Security Policy Non-compliance (49%)
 - Lack of Security Expertise (37%)
 - Lack of Security Training (36%)
 - Inadequate IT Staff time to Manage Security Threats (30%)
 - Failure of IT Staff to Follow Procedure (21%)
 - Inadequate Security Policy (18%)

Perceived Causes of Security Breaches



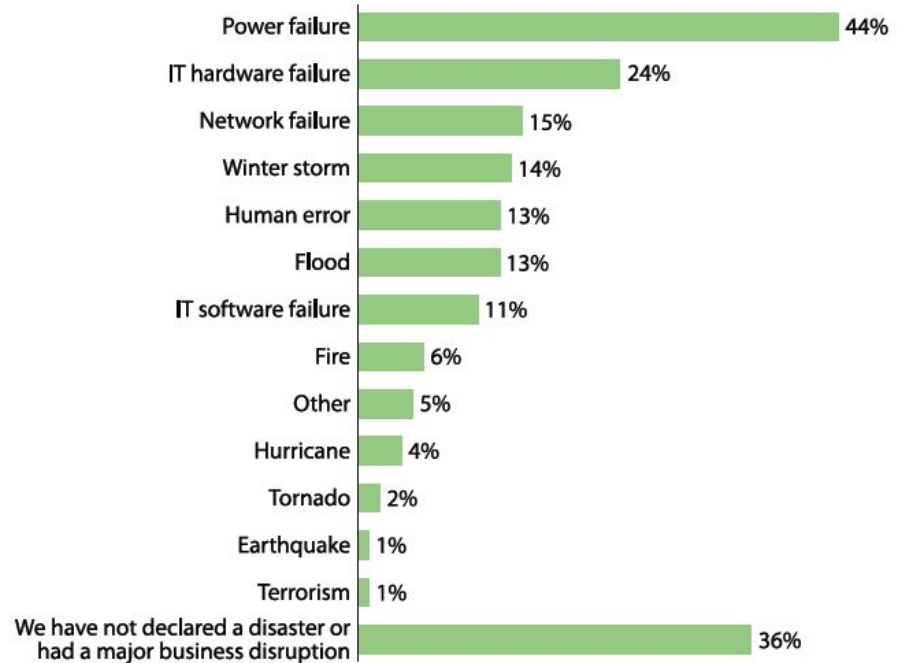
Source: CompTIA's 8th Annual Security Trends 2010 Study
Base: 254 U.S. IT and Business Executives

Business Impact to Data Loss

■ Cost of Business Disruption Events

- 47% Stated They Knew the cost of Disruption
- 15% Entered a Figure
- \$145,000 per hour USD (avg)

6-1 "What was the cause(s) of your most significant disaster declaration(s) or major business disruption?"



Base: 200 disaster recovery decision makers and influencers at business globally (multiple responses accepted)

Source: Forrester/Disaster Recovery Journal November 2010 Global Disaster Recovery Preparedness Online Survey

58346

Source: Forrester Research, Inc.

Users Demand Anywhere, Anytime Access

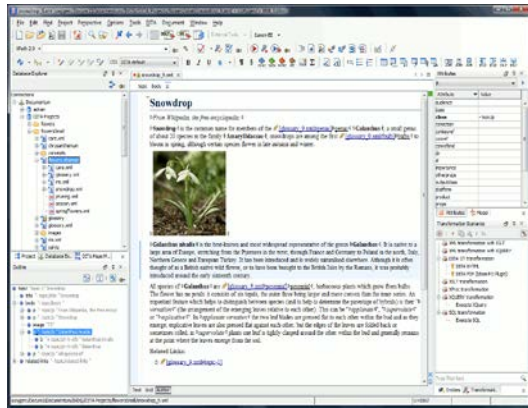
Need access to content via HTTP/S (REST, SOAP), IFS, NFS, CIFS



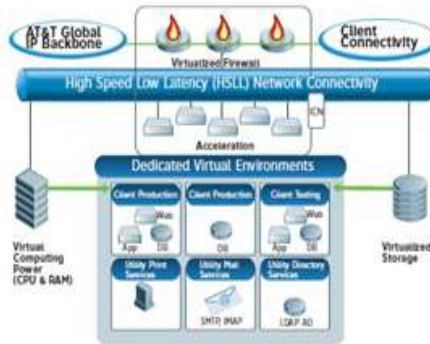


Challenge: New Application Paradigm

Next-Generation Web, Cloud and Mobile Applications are Standard



AT&T Synaptic InfrastructureSM
An On-Demand IT Ecosystem



Big Data Challenges



Unstructured Content

Prepare for digital universe explosion—34.2 zettabytes of growth 2020



Distributed Big Data

Aggregate data as a business advantage; manage as one system

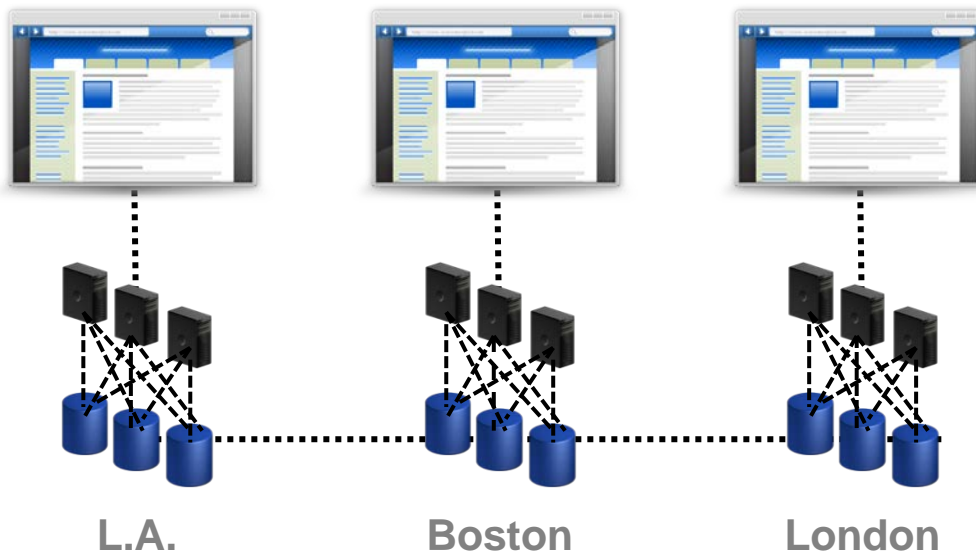


Accessibility

Make available around the globe—from any device—any location

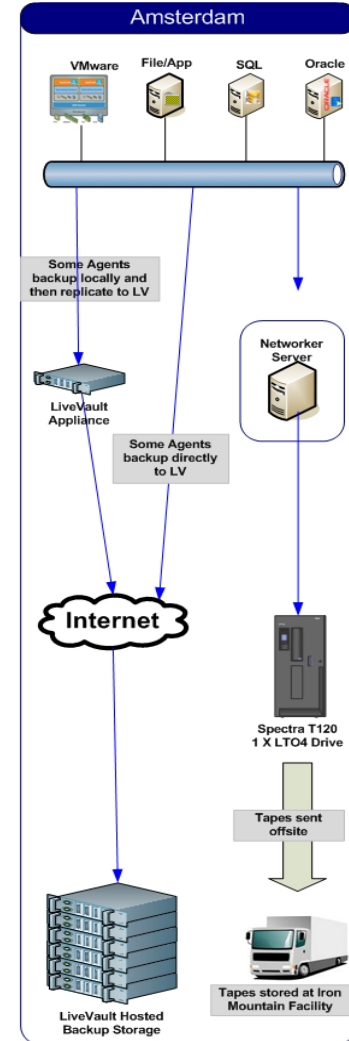
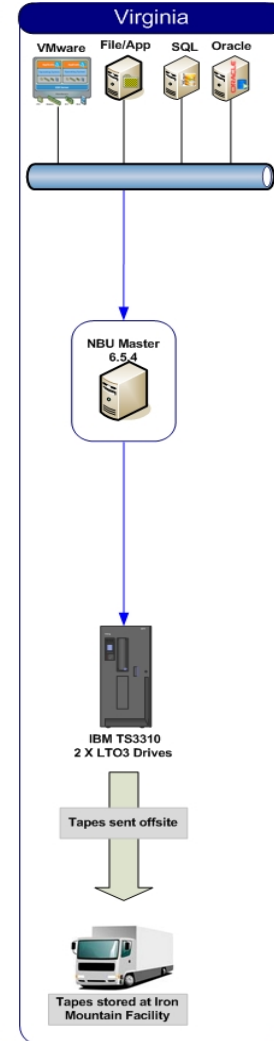
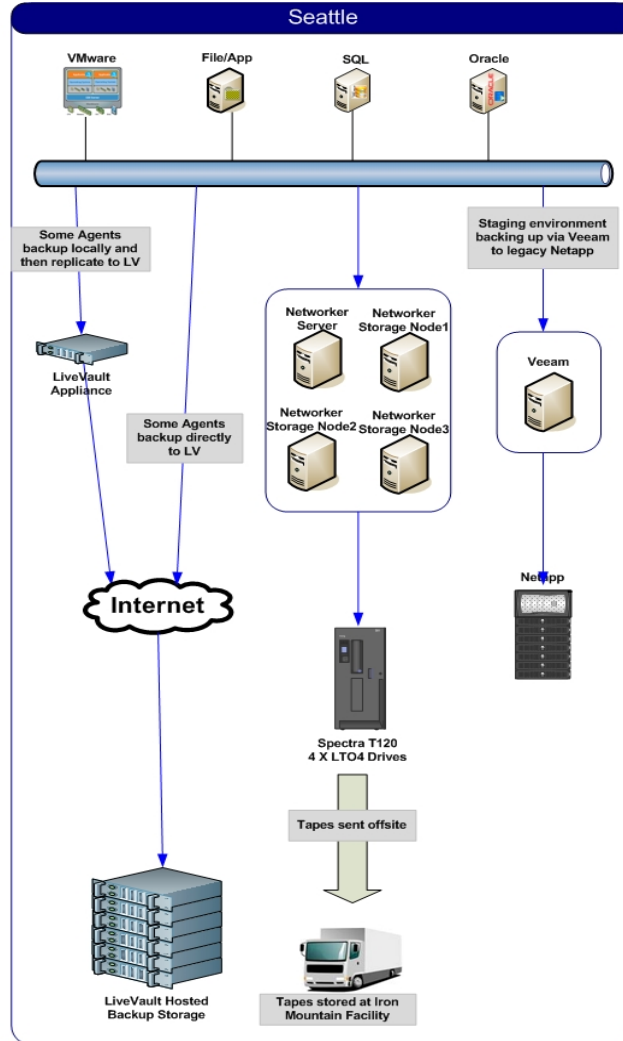
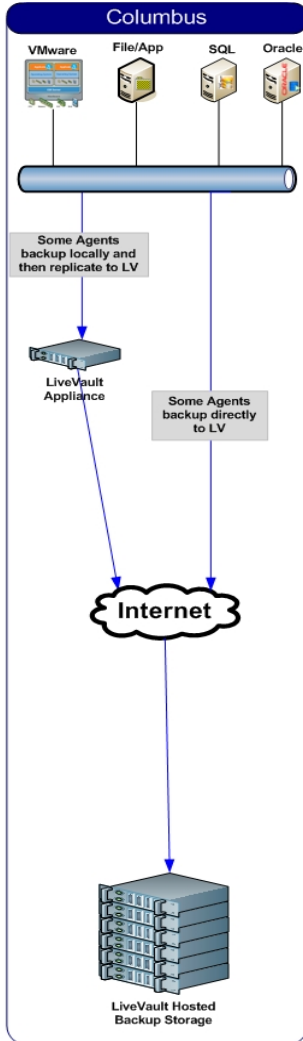
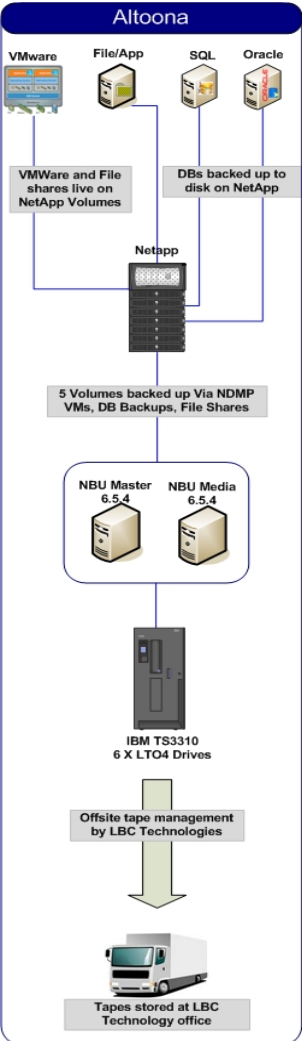
Traditional Storage Approach

File based storage is siloed, complex and hard to scale

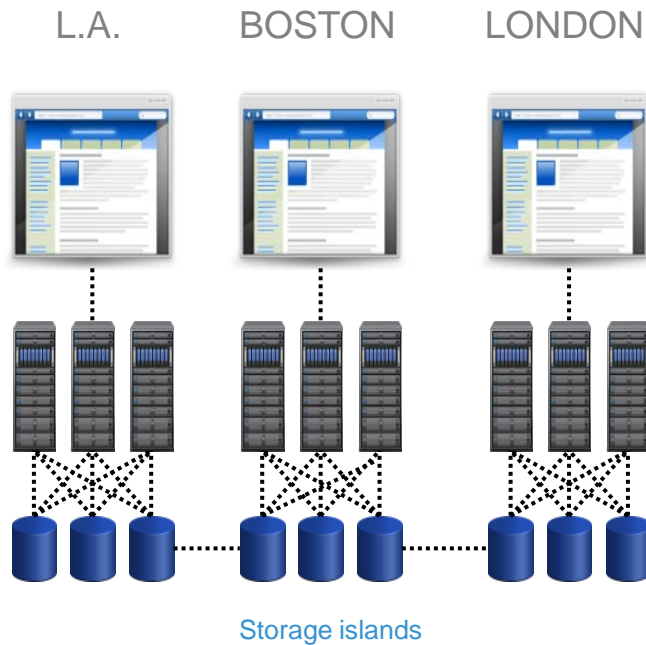


- Windows Servers
- .Net / C#
- NFS mount points to storage
- Objects are sharded in a database (a common approach)
- User's data logically separated (multi-tenant)

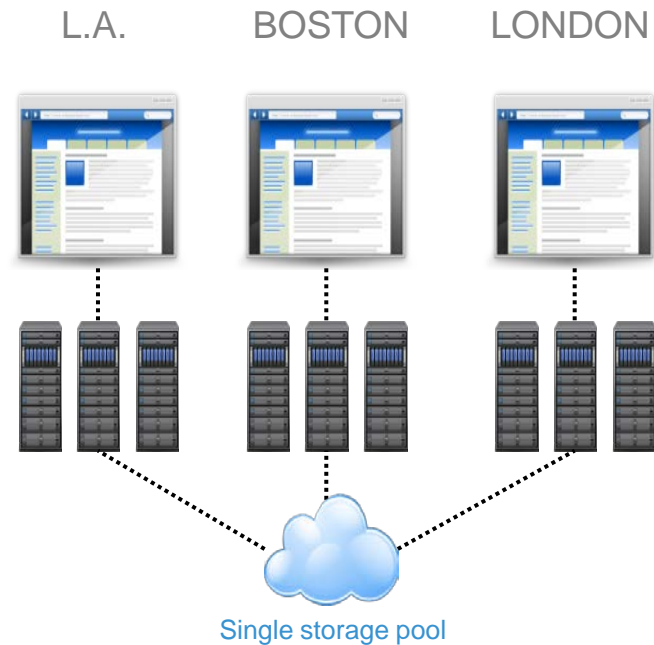
Current State – If Left Unchecked



A New Approach for Data Availability



- Disparate systems
- Manual administration
- One tenant, many systems
- IT provisioned storage



- Single system across locations
- Automated policies
- Many tenants one system
- Self-service access

Aggregate Distributed Big Data

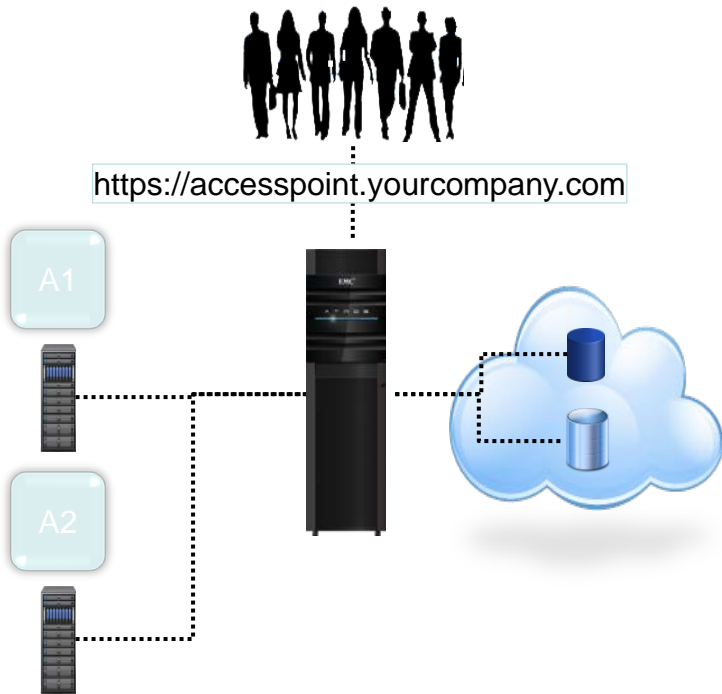
A single system across locations



- Global namespace
 - No need for knowledge of server names or management of mount points
- Common view independent of location
 - Simpler code to write to storage
- Central management and automation
- Single pane of glass across systems

Easily expand storage

Scale out seamlessly with minimal IT involvement



- Simpler code is easier to scale
- Expand capacity and locations
- Add applications and tenants
- Increase performance

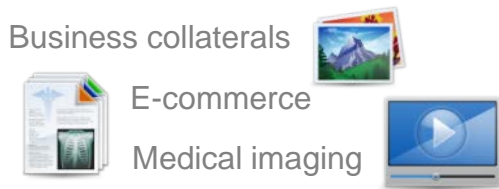


Optimized for Next Gen Web Apps

Seamless access for Web, cloud, and mobile applications

NEXT GEN APPLICATIONS PACKAGED APPLICATIONS

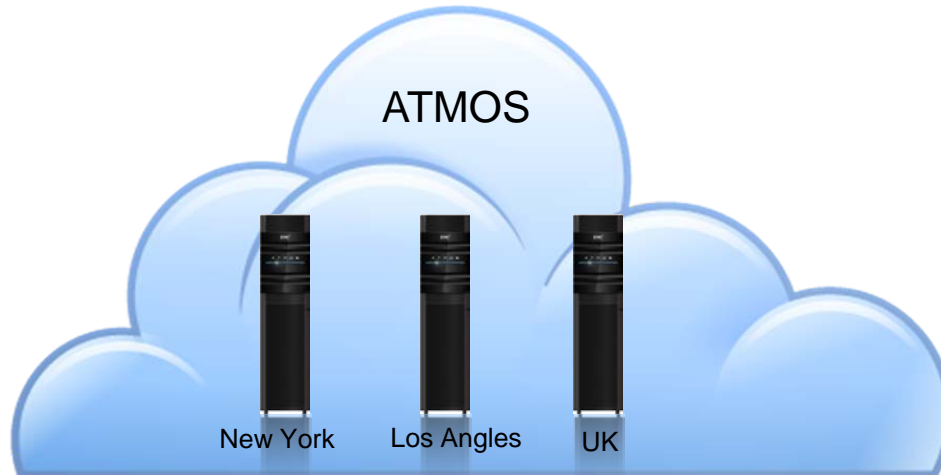
SEAMLESS ACCESS



WEB SERVICES

FILE ACCESS

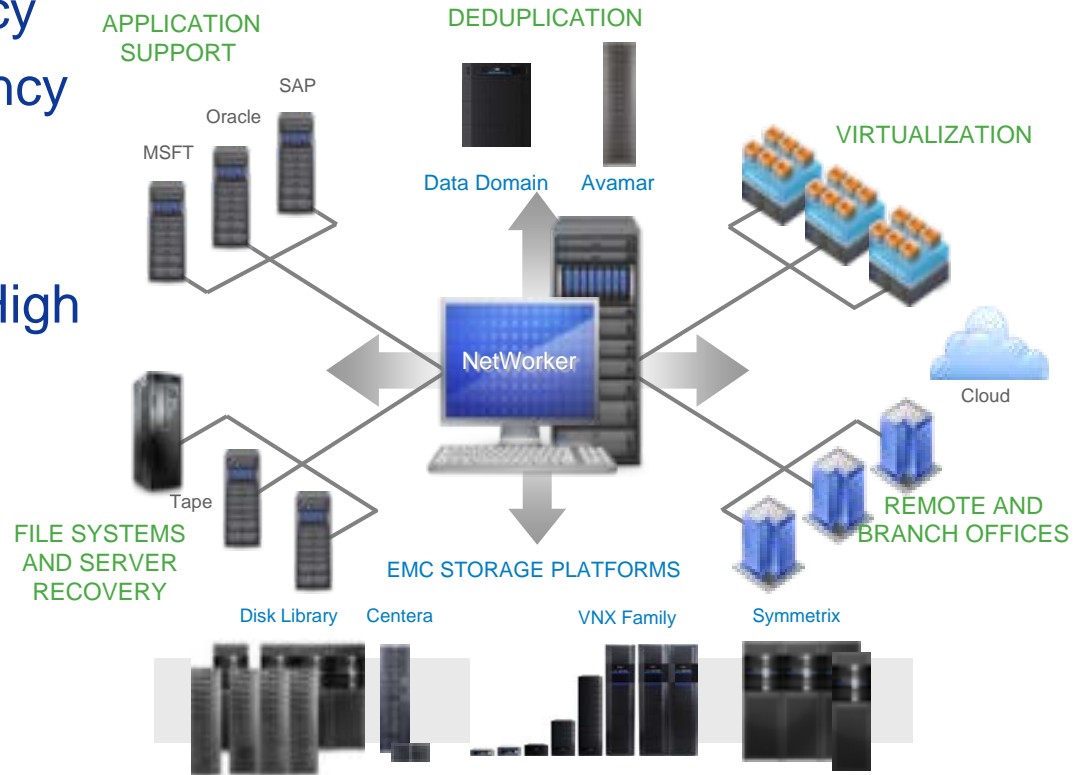
WAN or LAN



Eliminating the impact of Data Loss

A Fully Protected Environment Leverages:

- High Performance for App/DB
- Replication for Redundancy
- Data Backup for Consistency
- Deduplication to Manage Storage Costs
- Private Cloud to Provide High Availability and Security





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