The Leader in Cloud Integrated Enterprise Storage

INTRODUCTION

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Agenda

- Introduction
- Product Overview
- ROI & Differentiation
- Case Studies & Validation
- Demo
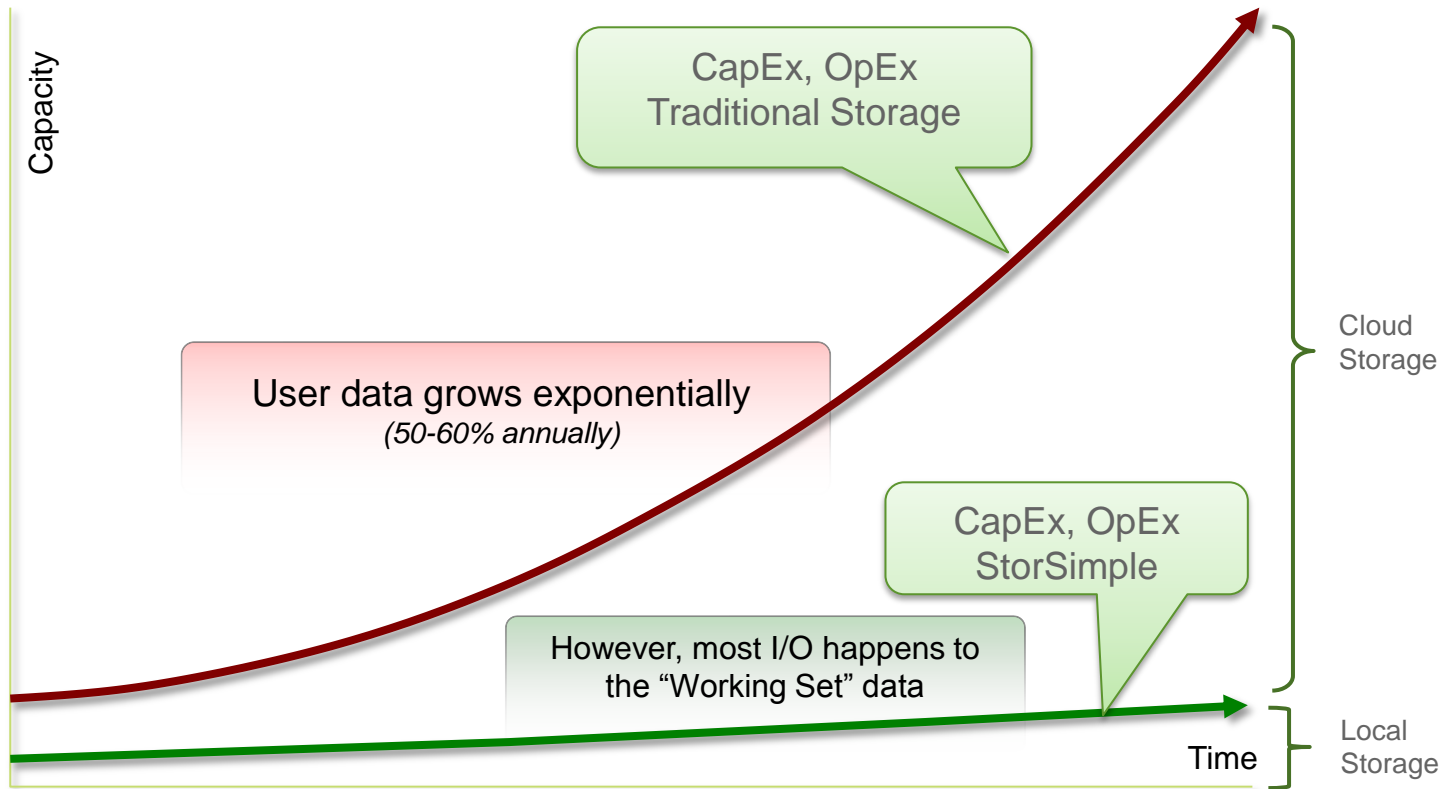
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StorSimple is the Leader in Cloud Integrated Enterprise Storage

- **Certified for Windows Server 2008 R2**
  - First and Only Cloud Integrated Storage Appliance on the list

- **Certified for VMware**
  - First and Only Cloud Integrated Storage Appliance on the list

- **Storage Magazine - Product of the Year 2011**
  - Gold Award – Storage Systems

- **VMWorld 2011 – Best of Show Finalist Award**
  - Only Cloud Storage Solution on the list

- **Microsoft BizSpark Partner of the Year 2011**
  - For Enabling Rapid Customer Deployment and Success with Azure

- **Gartner Cool Vendor 2010**
  - The First & Only Gartner Cool Vendor on Cloud Storage

- **Others**
  - Best Cloud Company 2011 – The Execulence Award
  - Grand Prize for Best of Show – Interop Japan 2011
  - Most Promising Cloud Solution at the UP Cloud Computing Conference
  - Best Storage Hardware Award from SQL Server Magazine 2011
  - Only Cloud Storage Solution on the Dow Jones/VentureWire Top 50 Startups to Watch" List in 2010

StorSimple Focus Applications and Workloads

Capacity (y-axis) / **Time** (x-axis)

CapEx, OpEx
Traditional Storage

User data grows exponentially
(50-60% annually)

CapEx, OpEx
StorSimple

However, most I/O happens to
the "Working Set" data

Cloud
Storage

Local
Storage

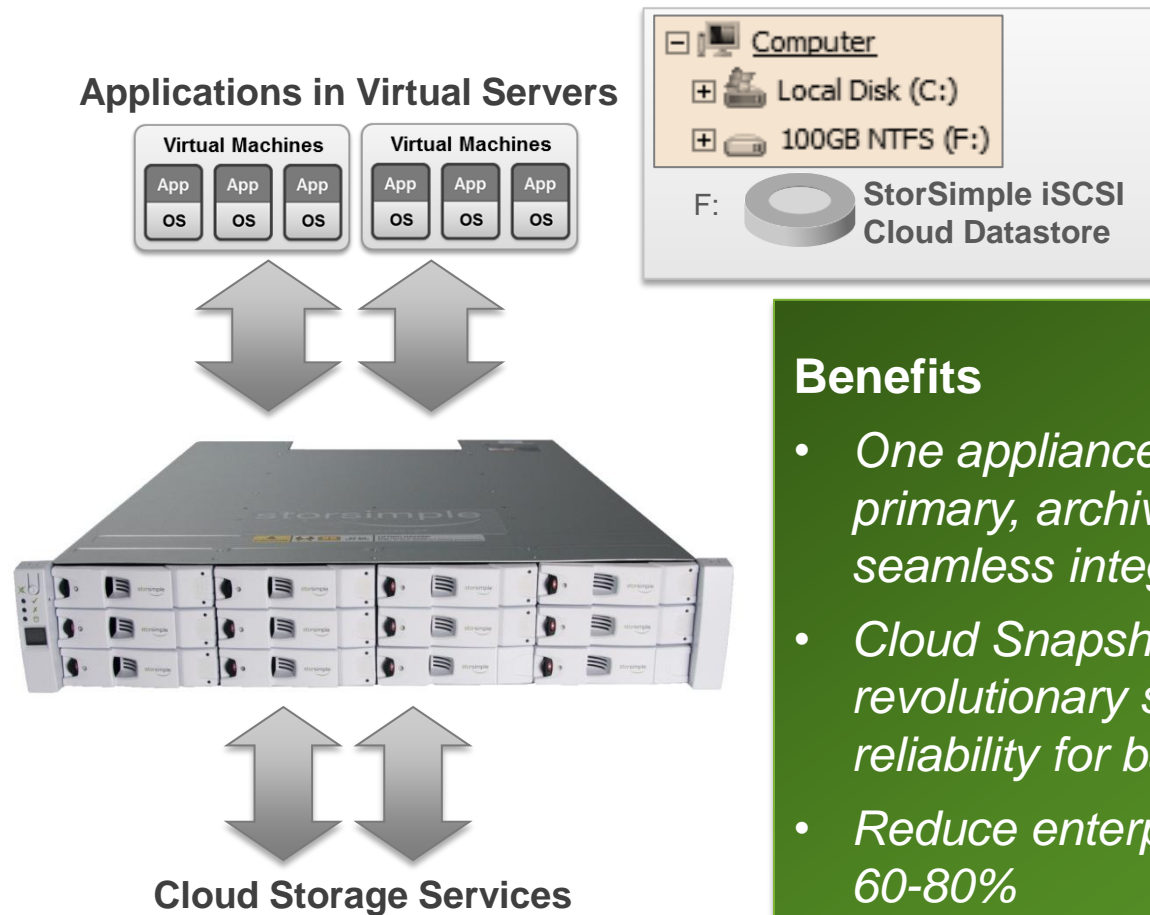| **Archives**	**Shared Drives**	**SharePoint**	**Email**	**Content Management**	**Virtual Machines**
• Media • Engineering • Logs, Records • EMR / PACS • Legal • Construction	• File Servers • NAS • CIFS • NFS	• Collaboration • Content & Records Management • Business Intelligence	• Exchange DAG Replica & Archive Folders • Email Archives	• Documentum • Livelink • Opentext • Filenet	• VM Sprawl • Regional Office Storage • VM Archives

StorSimple Cloud Integrated Enterprise Storage

Connects Windows & VMWare Servers to Cloud Storage in minutes with no application modification

Applications in Virtual Servers

Virtual Machines

App	App	App
OS	OS	OS

Virtual Machines

App	App	App
OS	OS	OS

Computer
- Local Disk (C:)
- 100GB NTFS (F:)

F: **StorSimple iSCSI Cloud Datastore**

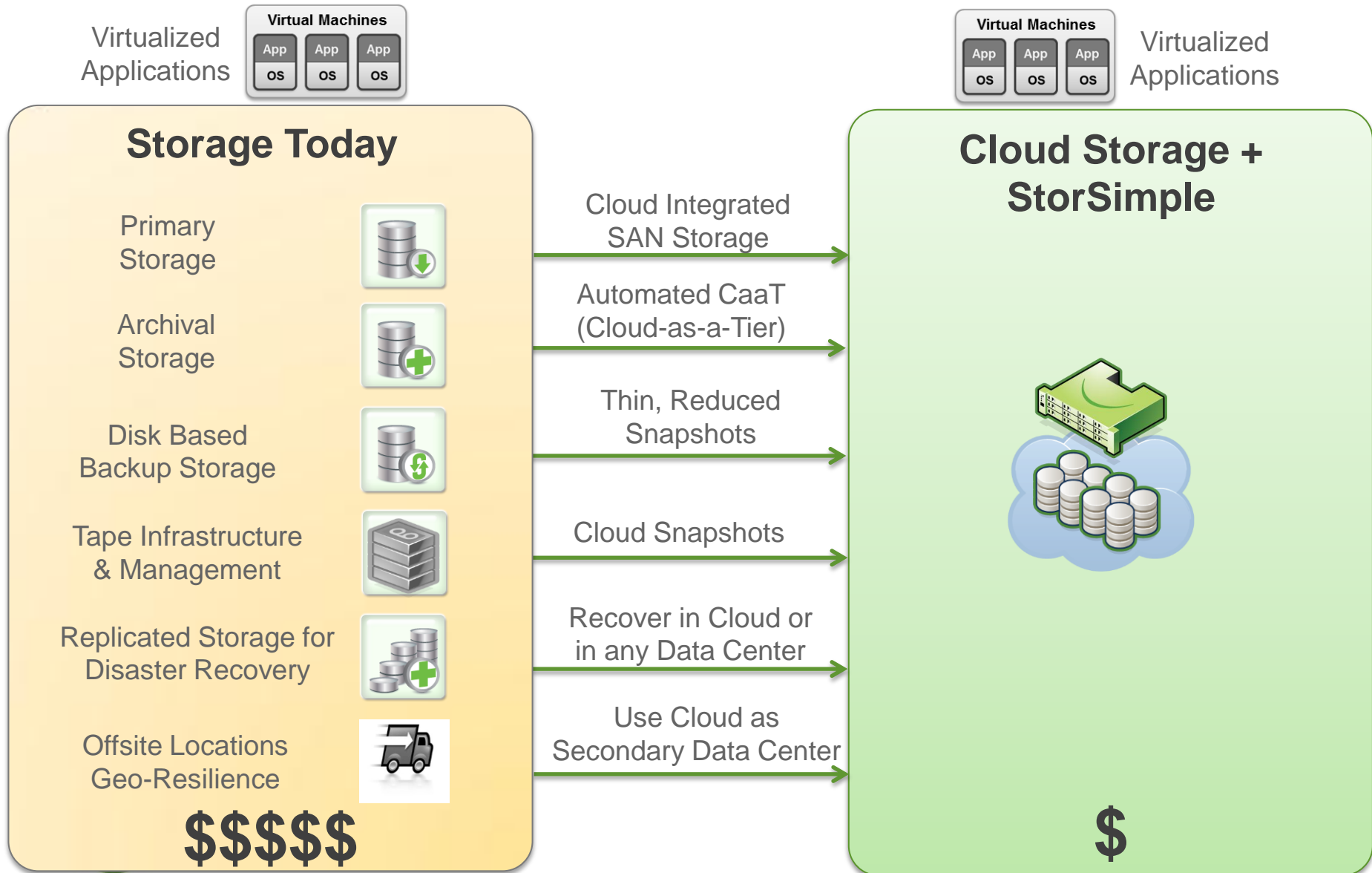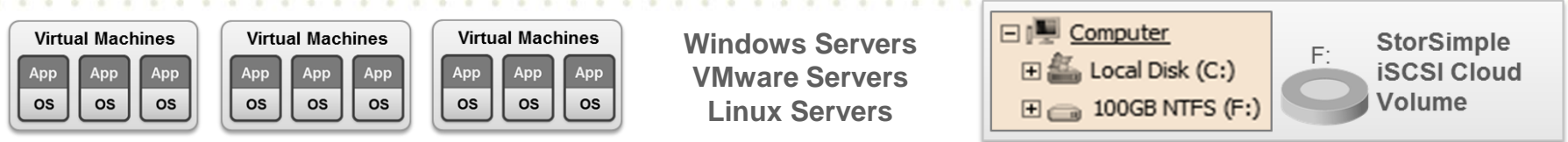storsimple

Cloud Storage Services

Benefits

- *One appliance that consolidates primary, archive, backup, DR through seamless integration with the cloud*

- *Cloud Snapshots that enable revolutionary speed, simplicity & reliability for backup, recovery.*

- *Reduce enterprise storage TCO by 60-80%*

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Next Generation Simplified Storage

One appliance that consolidates all storage functions integrated into Cloud Storage

Virtualized Applications

Virtual Machines
App OS | App OS | App OS

Virtual Machines
App OS | App OS | App OS

Virtualized Applications

Storage Today

Primary Storage

Archival Storage

Disk Based Backup Storage

Tape Infrastructure & Management

Replicated Storage for Disaster Recovery

Offsite Locations Geo-Resilience

$$$$$

Cloud Storage + StorSimple

Cloud Integrated SAN Storage

Automated CaaT (Cloud-as-a-Tier)

Thin, Reduced Snapshots

Cloud Snapshots

Recover in Cloud or in any Data Center

Use Cloud as Secondary Data Center

$

Cloud Integrated Enterprise Storage Explained

Virtual Machines
App OS App OS App OS

Virtual Machines
App OS App OS App OS

Virtual Machines
App OS App OS App OS

Windows Servers
VMware Servers
Linux Servers

Computer
- Local Disk (C:)
- 100GB NTFS (F:)

F: **StorSimple iSCSI Cloud Volume**

Cloud Integrated Enterprise Storage

SAN Storage
- **Activity-based Tiering**
- **SSD for Active Data**
- **High Capacity SAS**
- **Data Reduction Integrated with Tiering**
- **Thin, Reduced Snapshots**
- **Thin Provisioning**

with **Integrated Cloud Data Management**
- **Automated Cloud-as-a-Tier (CaaT)**
- **Cloud Thin Provisioning**
- **Cloud Snapshots**
- **In-Cloud Disaster Recovery**
- **Location Independent Recovery**
- **Cloud Data Reduction**
- **Cloud Storage WAN Optimization**

- **Volume-level Cloud Mapping**
- **Cross Cloud Data Migration**
- **Cross Cloud Clones**
- **Cloud Data Mirroring**
- **Cloud Volumes from On-Premise Data**
- **Virtual Volumes for Cloud Compute**
- **Cloud Data-at-Rest Encryption**

on an **Enterprise Class Platform**
- **Microsoft & VMware Certified**
- **StorSimple Monitoring of Cloud Services**
- **Enterprise Application Consistency**

- **High Availability - No Single Point of Failure**
- **Hot Swap for All Components**
- **Non Disruptive Software Upgrades**

Amazon S3 Cloud Storage

Rackspace, HP & Dell Clouds on Openstack

AT&T and other clouds based on Atmos

Google Cloud Storage

VMWare Cloud Foundry Storage

Windows Azure Cloud Storage

Nirvanix/IBM Cloud Storage
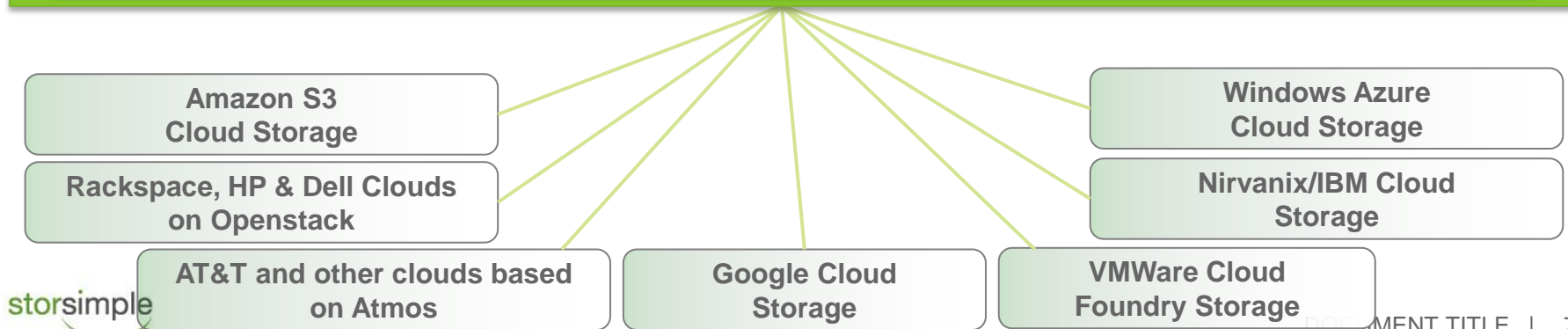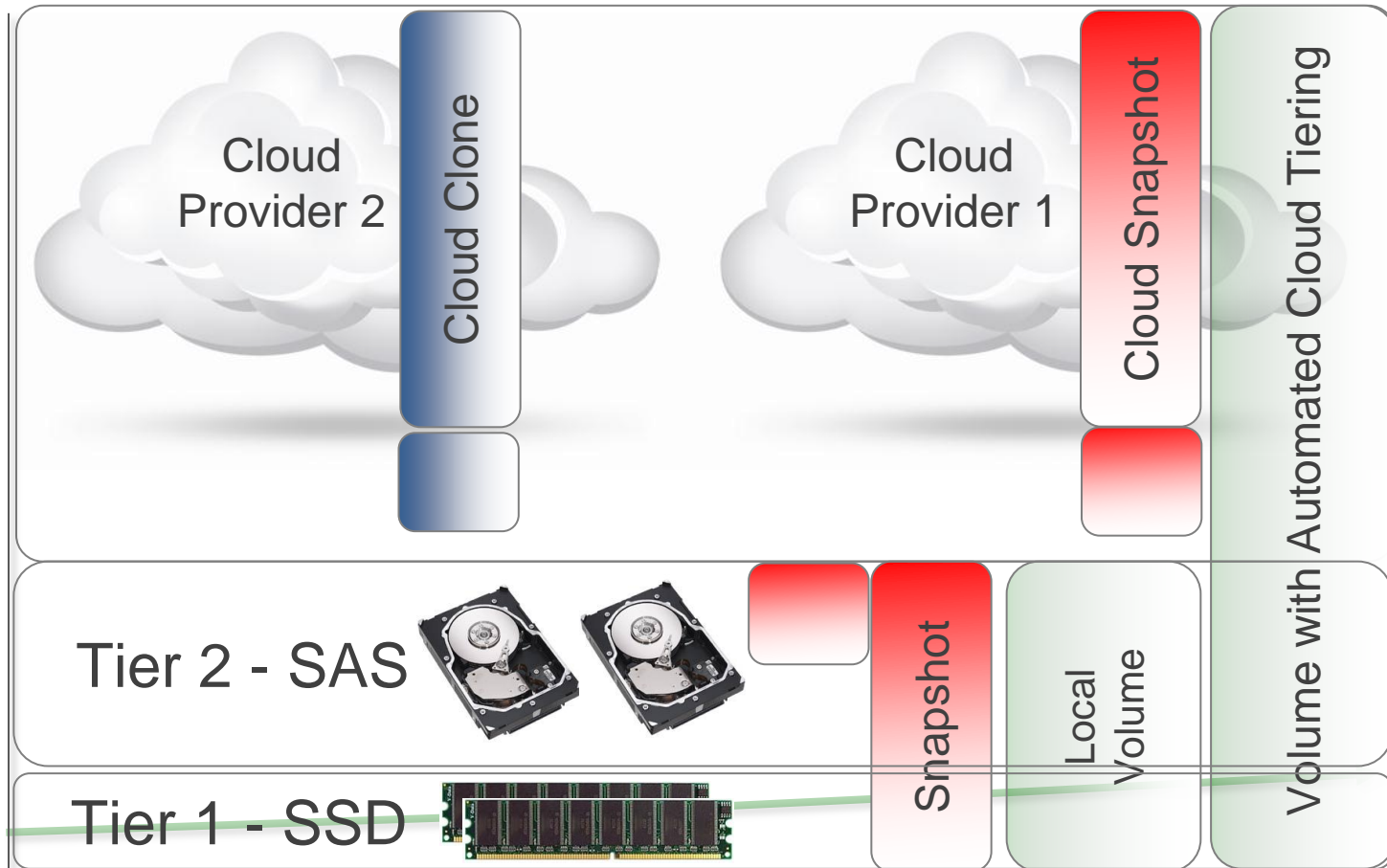
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StorSimple Provides Compelling Value

Example - Customer ROI with StorSimple for a 50TB production data

| Function	Traditional Storage Products	Traditional Storage Cost	Cost with StorSimple
Primary & Archival Storage	Storage Array with associated software	$100,000	$70,000
Backup & Disaster Recovery	Backup Media Server & Software	$25,000	
	Disk backup with de-duplication	$100,000	
	Tape backup Infrastructure	$50,000	
	Storage system for Disaster Recovery Time Objective (RTO) of 1 week or less	$100,000	
Capital Cost for the Customer		375,000	$70,000
Annual Platinum Support Costs (20%)		$75,000	$14,000
Cloud Storage Costs		0	$25,000
3 year customer cost		**$600,000**	**$187,000**
	Other customer benefit	None	• Tape eliminated • Ability to use the cloud as secondary data-center • Power/space/cooling savings • Administrator time savings

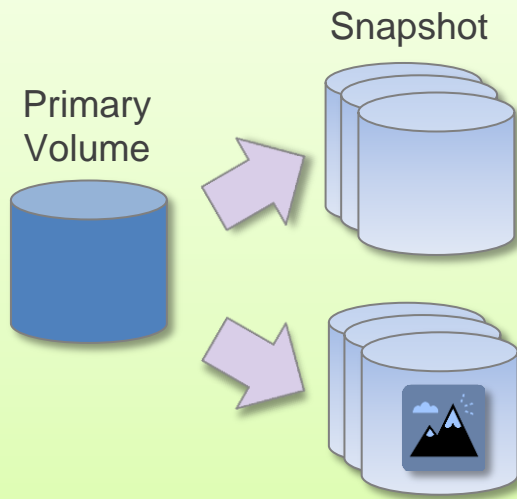storsimple

Cloud Snapshots and Cloud Clones

Incremental, De-duplicated, Compressed, Encrypted

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Cloud Snapshots & Clones offer revolutionary simplicity in data-protection & disaster recovery

Backup, restore & DR today – inefficient, complex, laborious, risky

Primary Volume → Snapshot → Virtual Tape / Replication → Physical Tape → Off-site Tape Storage
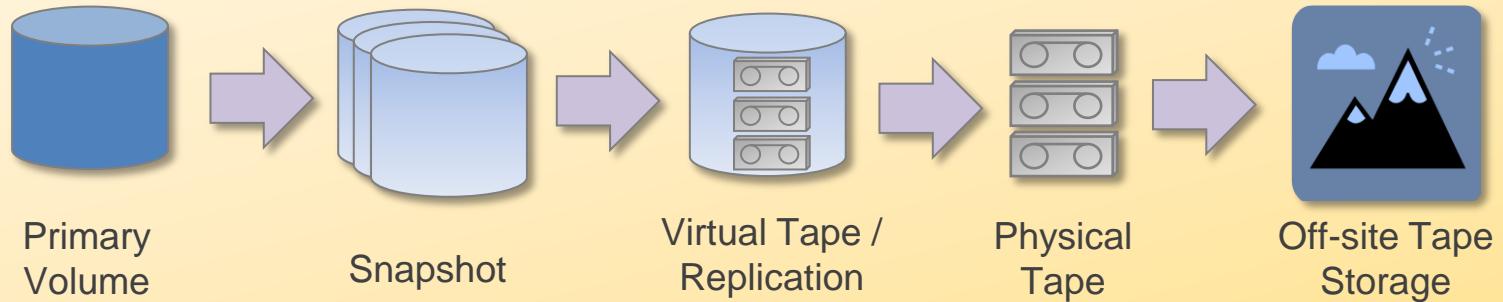
Backup, restore & DR with StorSimple – optimized, automated, reliable

Snapshot

Primary Volume

Cloud Snapshot & Clones
(Off-Site Backup, Real-Time Restore)

How Cloud Snaps & Clones Work?

• Independent backup copy of the data volume is created in the cloud

• Changes to the volume are transferred daily

• Cloud Snaps & Clones are a daily off-site backups for a data-volume

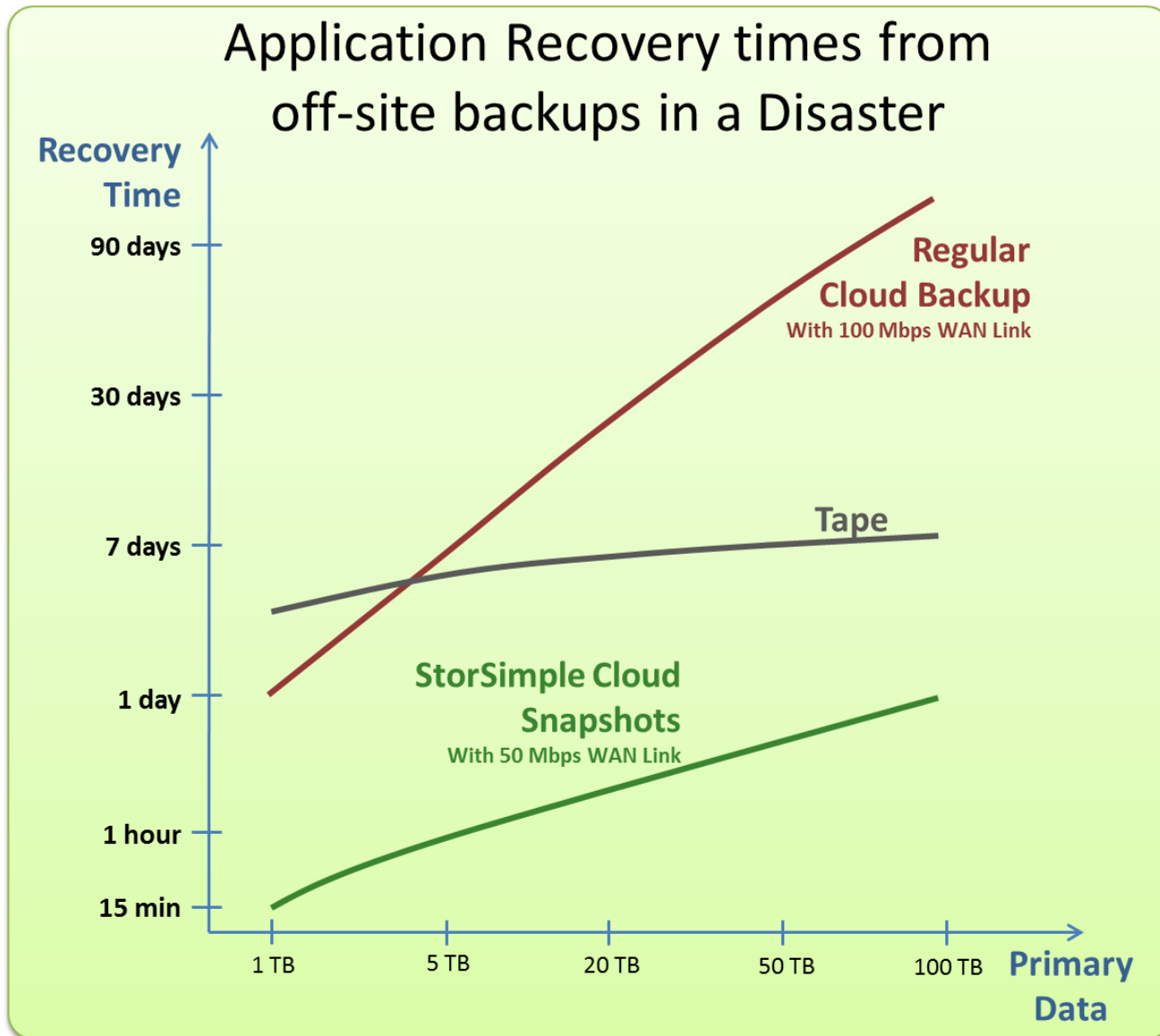• Cloud Snaps & Clones can be mounted like snapshots for restore

Why are they better?

• **Backup is now as easy as snapshots**

• **Off-site backups & archives are online and easily validated**

• **Real-time restores from off-site backups (from days to minutes)**

• **Integrated, easy to test disaster recovery**

• **Truly eliminates tape**

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Live Archive Testing and Cloud based Disaster Recovery with Global Validation
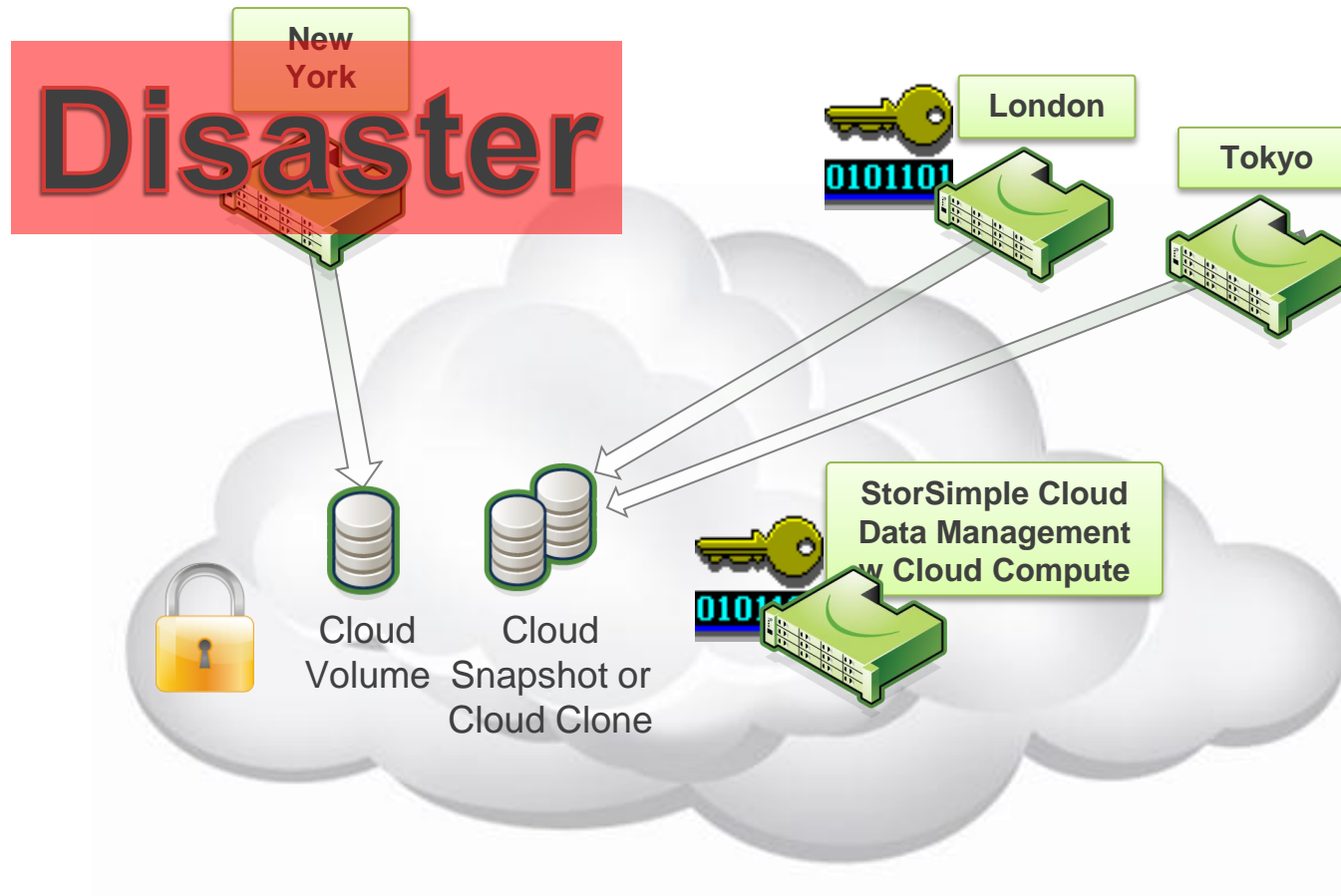
Remove the need for tape validation
Recover in any location with low cost utility billing
Cloud as the backup data-center for a disaster

Recovery times with Cloud Snapshots enables cloud based DR for enterprises

Application Recovery times from off-site backups in a Disaster

- **Regular Cloud Backup** With 100 Mbps WAN Link
- **Tape**
- **StorSimple Cloud Snapshots** With 50 Mbps WAN Link

Recovery Time axis: 90 days, 30 days, 7 days, 1 day, 1 hour, 15 min

Primary Data axis: 1 TB, 5 TB, 20 TB, 50 TB, 100 TB

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The Leader for Cloud Storage in the Enterprise

Vs. Traditional Storage

- Cloud Business Model
- Integrated Cloud Data Management
- 60 – 80% reduction in Storage TCO
- Revolutionary speed, simplicity & reliability for backup, recovery.
- Endorsement and support of major cloud services providers
- Cloud data portability to enables on-demand use of cloud compute

Traditional Storage

Traditional Cloud Backup & Archive

Cloud Storage Gateway
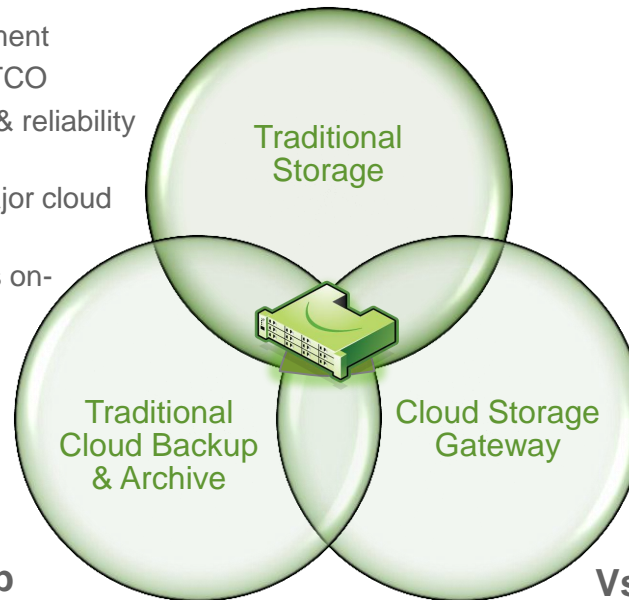
Vs. Traditional Cloud Backup

- Cloud backup recovery times at enterprise data volumes run in weeks and months.
- StorSimple Cloud Snapshots offer 100x faster recovery in minutes/hours.
- Eliminate cost of multiple devices
- Off-site backup is now as easy as snapshots
- Real-time restores from off-site backups
- Integrated, easy to test disaster recovery
- Truly eliminates tape

Vs. Cloud Storage Gateways

- Enterprise Class Platform
  – High-Availability with Hot-Swap Everything
  – Non-Disruptive Software Upgrades
  – VMWare & Windows Certification
- Cloud Snapshots, Clones
- Integrated SAN Storage with SSD/SAS tiering & data reduction
- One appliance that consolidates primary, archive, backup, DR resulting in 60-80% TCO
- Application specific optimizations and consistency
- No cloud vendor lock-in

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BMC Software
VMware Sprawl in the Data Center

bmcsoftware

- Challenges
  - VM "sprawl" – managing over 13,000 VM images
  - Most VM image are not active, but needed to be available immediately if required
  - Backup window not large enough to backup all VM Images
  - Shortage of power and cooling capacity
  - Cost of the storage infrastructure

- Solution
  - Using VMWare Storage DRS with storage pools
  - Existing NetApp storage for high performance / high utilization VMs
  - Cloud-as-a-Tier for VMs using StorSimple
  - Off-load the data-center and defer the need for a new data-center build out

Taking Storage vMotion
to the Cloud

More details at
www.storsimple.com/customers/bmc

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BMC Software
VMware Storage for Remote Offices

bmcsoftware

- Need to improve SLAs from off-site data restores

- Tape restore took 5 days which was a big issue at critical times like end of quarter

- BMC had implemented StorSimple in their data-center for VMWare Sprawl

- BMC realized that StorSimple would be an ideal solution for their remote sales offices

  – All storage functions in one box with DR in the cloud

  – Simple remote office management

"*BMC realized a 5X savings, in capital expenses, over a conventional SAN*

We got the ability to restore data from off-site backups in minutes instead of 5 days"

Gus Chavira,
Virtualization Architect
BMC Software

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Planned Parenthood Mar Monte
File Shares Cloud Data Protection and DR

- Company
  - Largest Planned Parenthood affiliate
  - Provide medical services to over 250,000 patients per year

- Challenges
  - Upfront storage costs
  - Rapid growth of electronic medical records
  - Long-term retention of data
  - HIPAA compliance
  - Need Disaster Recovery on a limited budget

- Solution
  - StorSimple - One Box for Primary, Archival, Backup and DR integrated into the cloud
  - 80% cost savings

> "The comparable hardware would have run upwards half a million dollars"
>
> Dhaval Patel
> Web and Data Architect
> Planned Parenthood Mar Monte

More details at
www.storsimple.com/customers/pph

CPP
Integrated Storage Strategy for File Shares and SharePoint

- Company
  - Sole licensee of Myers-Briggs personality tests

- Challenges
  - Need to replace the file servers & NAS devices
  - Primary Storage Costs – All data currently in HDS storage
  - High cost of data protection and disaster recovery with the current solution
  - Extensive use of Tape
  - SharePoint infrastructure expected to see rapid growth

- Solution
  - CPP chose StorSimple + Windows Azure for File Shares & SharePoint instead of NetApp
  - One Box for primary, archival, backup and DR – *"It's a No Brainer"*
  - Eliminate backup software, media server, tape infrastructure and off-site tape services
  - Automatic offsite backups, rapid restore, free up administrator and cloud based disaster recovery without tape
  - Simple management of SharePoint at scale

"*You have one box that allows you to replace your backup software, tape support infrastructure, offsite service and many wasted man-hours. StorSimple just works. It's a no brainer"*

Phillip DeMello,
Director, Network Operations & Support, CPP

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More details at www.storsimple.com/customers/cpp

MedPlast
Integrated Storage Strategy for VMware

- Company
  - MedPlast Medical Devices with 5 Locations in USA

- Challenges
  - Cost of Storage – All data on HDS Fibre Channel Storage
  - Data Domain Backup Targets out of space
  - Backup Window Issues
  - Limited Disaster Recovery Capabilities

- Solution
  - Use Hitachi & Data Domain only for Oracle ERP
  - All other VMs, File Shares and SharePoint on StorSimple 7000 Cloud Integrated Enterprise Storage

- Benefits
  - Dramatic Reduction in Storage Infrastructure Costs
  - Elastic storage – Provision capacity as needed
  - Data Protection - Automatic Offsite Backups, Rapid Restore, Free Up administrator
  - Disaster Recovery for the first time

"We looked at cloud for backup but found that there was much more value with using StorSimple for the production data"

Dan Streufert, Director IT, Medplast

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More details at www.storsimple.com/customers/medplast

Sundance Institute
File Shares/SharePoint/Exchange Cloud Data Protection

- Company
  - Non-profit for independent artists
  - Annual Sundance Film Festival

- Challenges
  - Constantly running out of storage capacity
  - Excessive time to manage backups
  - Peak demands during annual festival

- Solution
  - StorSimple - One Box for Primary, Archival, Backup and DR
  - Cloud integrated storage
  - Microsoft and VMware certification was critical

- Benefits
  - Elastic storage – ability to scale without massive investment
  - Eliminated disk backup - Saved ½ of storage admin's time
  - Fast, easy access to archived data and media
  - Disaster Recovery for the first time

> "We saved ½ of our storage administrator's time by eliminating backups."
> Justin Simmons, Director IT,
> Sundance Institute

More details at: www.storsimple.com/testimonials/sundance-institute/
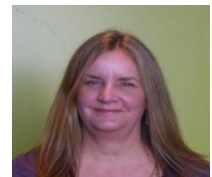
Success with Microsoft in the Cloud

2011
Microsoft Worldwide
Partner Awards

Microsoft

INNOVATION

July 6, 2011

Congratulations, StorSimple!

Congratulations to you and your entire organization on your success this past year and for being recognized as a Microsoft® Worldwide Partner Conference 2011 Partner of the Year Award Winner. From a record 3,000+ submissions, your company was recognized as the top choice for the award category BizSpark Partner of the Year. This achievement represents a superior level of performance in the design and delivery of innovative solutions and services built on Microsoft technologies.

It is remarkable to see how partners like you optimize Microsoft technologies to meet and exceed customer business needs. Your company has demonstrated significant customer focus, originality, deployment, and utilization of advanced features in many Microsoft products. Your solution serves as a showcase example of the positive impact you have had on our mutual customers' business.

Again, congratulations on your selection as BizSpark Partner of the Year. Thank you for your inspired partnership and all that you do for our customers and Microsoft!

Best regards,

Kevin Turner
Chief Operating Officer

Storage Magazine 2011 Product of the Year

StorSimple's 1010 iSCSI cloud storage gateway won the Silver award in this category last year, and StorSimple moves up to Gold this year on the strength of a beefed up platform with larger arrays and more features in 2011.

StorSimple made the 5010 and 7010 bigger -- they're 2U boxes vs. the 1U 1010 appliance -- and added high availability with fully redundant hot-swappable components. They also support 100 TB volumes, twice the size of the 1010. The 5010 can be licensed from 20 TB to 100 TB, while the 7010 licensing ranges from 40 TB to 200 TB. Both appliances include solid-state drives (SSDs) and SAS drives with automated application-aware tiering and primary data dedupe.

Our judges gave StorSimple high scores for innovation, ease of use, functionality and value. "Its key advantage is automated tiering to cloud storage with built-in dedupe/compression reducing cloud storage usage fees," one judge said. Another called the appliances a "good way to splice in cloud storage capacity without tremendous disruption or effort."

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Taneja Group Technology Validation

TANEJA GROUP
TECHNOLOGY ANALYSTS

TECHNOLOGY VALIDATION REPORT

STORSIMPLE – STORING DATA THE RIGHT WAY

JULY 2011

Taneja Group Validated:

10 minutes to useable storage.

Taneja Group Validated:

StorSimple integrates full featured data protection with primary storage.

Taneja Group Validated:

StorSimple storage is disaster protected in the cloud, and StorSimple optimization technology makes large capacity recovery possible in a few hours instead of days.

Taneja Group Validated:

StorSimple is a turnkey primary storage solution with integrated capabilities that will provide full lifecycle storage and do away with multiple storage and protection systems, and unnecessary complexity.

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Get full report at
www.storsimple.com/taneja-report