



Storage Software Strategy

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Pulse2012

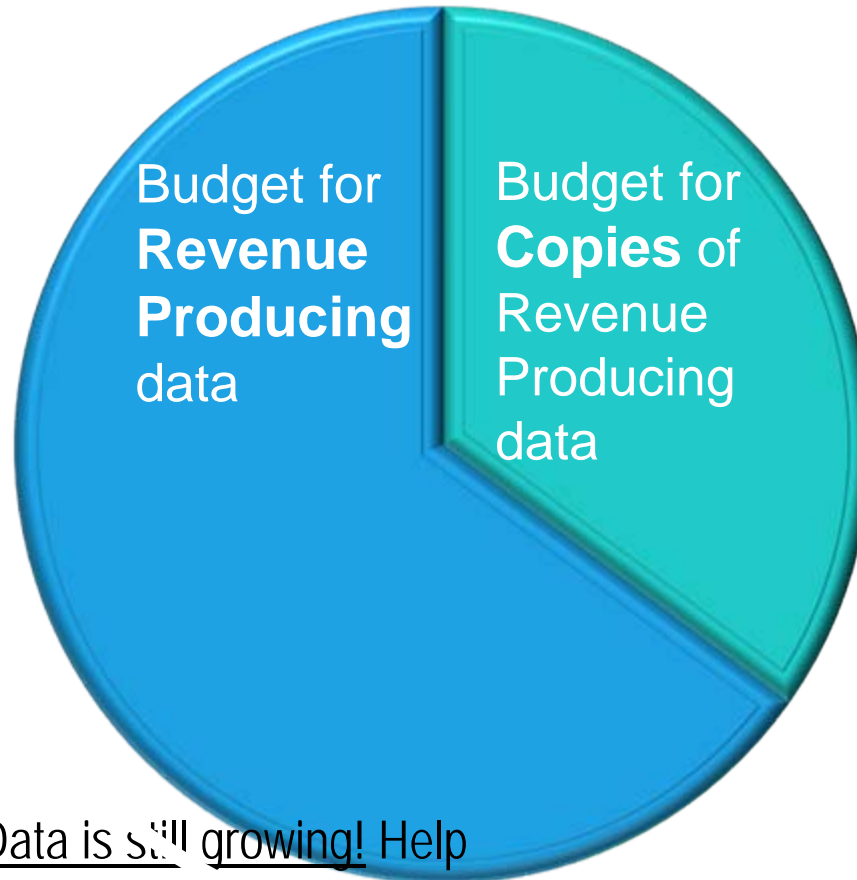
Meet the Experts. Optimise your infrastructure.

May 31 - June 1

Sheraton on the Park Hotel, Sydney

It's a common problem we all face...

Storage Budget



Do this with dramatically better efficiency through storage virtualization

Shrink this as a percentage of the pie through Data Protection modernization

Data is still growing! Help ensure the total size of your storage budget remains controlled.



IBM Storage Software Suite

The Value:

Unified Recovery

Free IT from the cost and complexity of **legacy data management products**

Get ahead of runaway data growth and Big Data

Be online quicker and **access clones faster**

Transform your backup infrastructure into a service

Central Management and Storage hypervisor

Dramatically improve utilization of **your physical storage assets**

Deliver tier-1 service **regardless of hardware choice**

Balance workload, manage lease termination, improve datacenter performance

Optimize your people **for the challenges of day-to-day operations**



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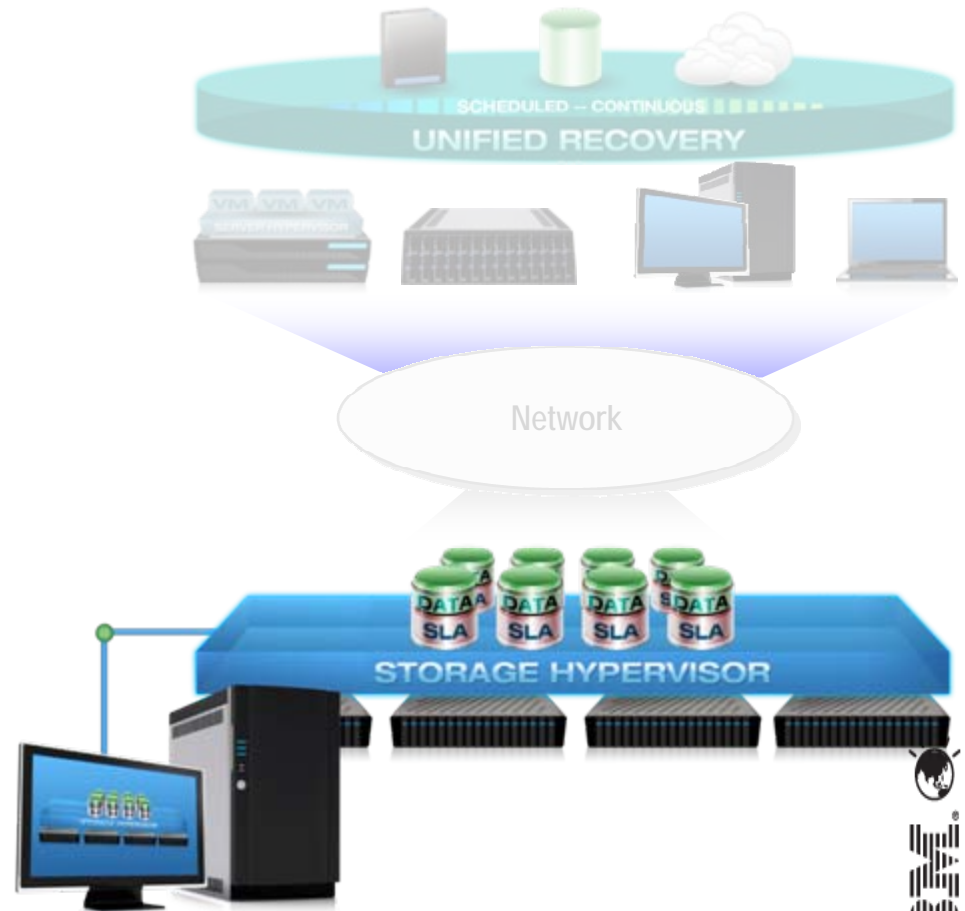
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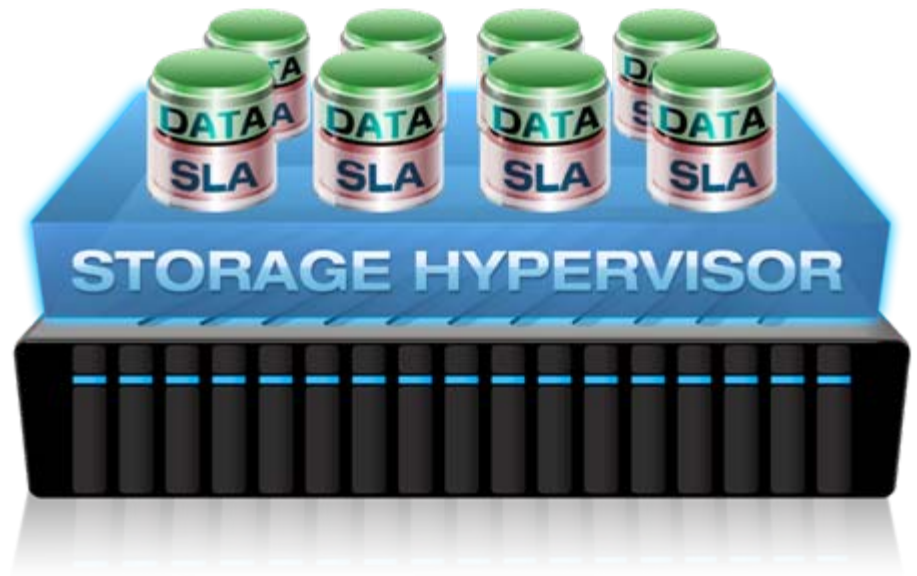
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Pooled Physical Resources

- Value: Dramatically improve utilization of **your physical storage assets**
- How? Pooled physical resources from **virtually any disk array vendor or tier**

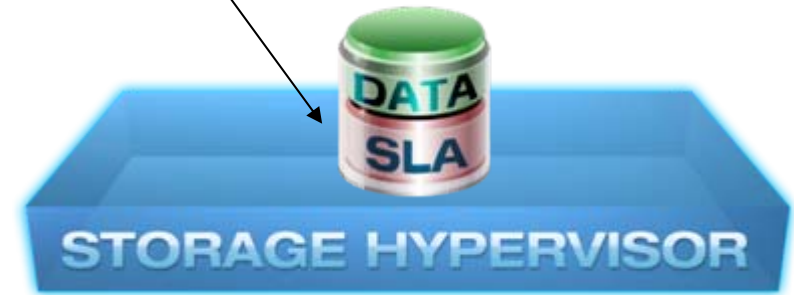


Common Capabilities



- **Value:** Deliver tier-1 service **regardless of hardware choice**
- **How?** Common capabilities **delivered by the storage hypervisor**
 - I/O caching, thin provisioning, automated tiering, application-integrated snapshot and mirroring, mobility-driven disruption avoidance

SLA (Service Level Agreement) is encapsulated with the data in a virtual volume.

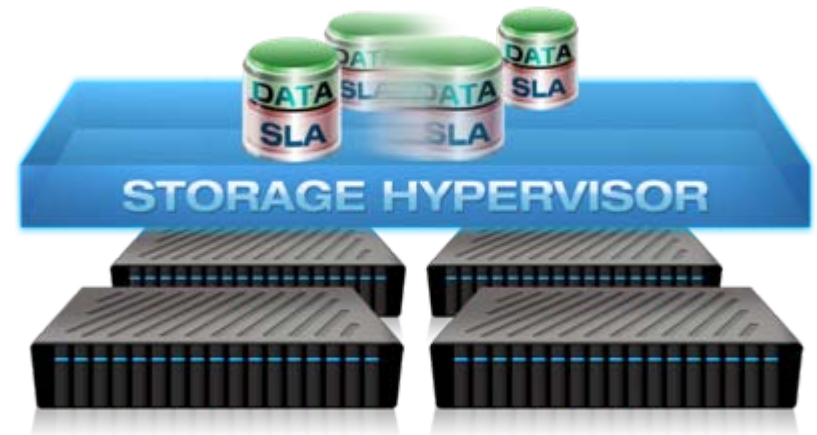


The desired service is delivered by the Storage hypervisor independent of the underlying hardware platform.



Mobility

- **Value:** Balance workload, manage lease termination, improve datacenter performance
- **How? Mobility of virtual volumes between any physical disk arrays**
 - Move on the fly, snapshot or mirror between arrays...
 - ...In a single physical datacenter or across two physical datacenters up to 300km apart



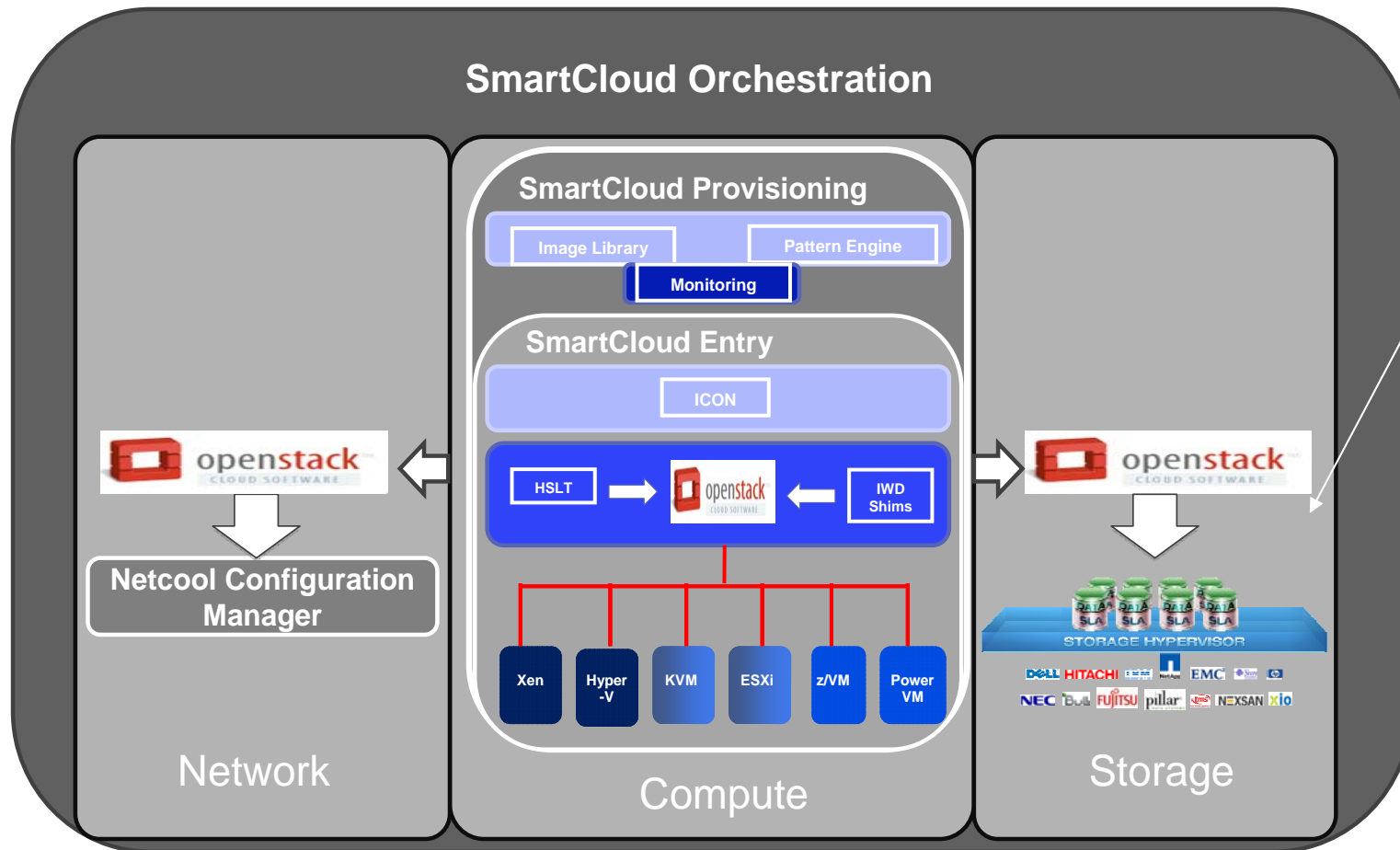
Centralized Management

- **Value:** Optimize your people for the challenges of day-to-day operations
- **How?** Centralized management
 - Visualization, health, capacity, performance
 - Storage services catalog, automated provisioning, pay-per-use



Cloud Integration

- Value: Optimize storage infrastructure with cloud techniques
- How? Storage service catalog, Automated provisioning, Pay-per-use



Nova – storage (SMAC – block)

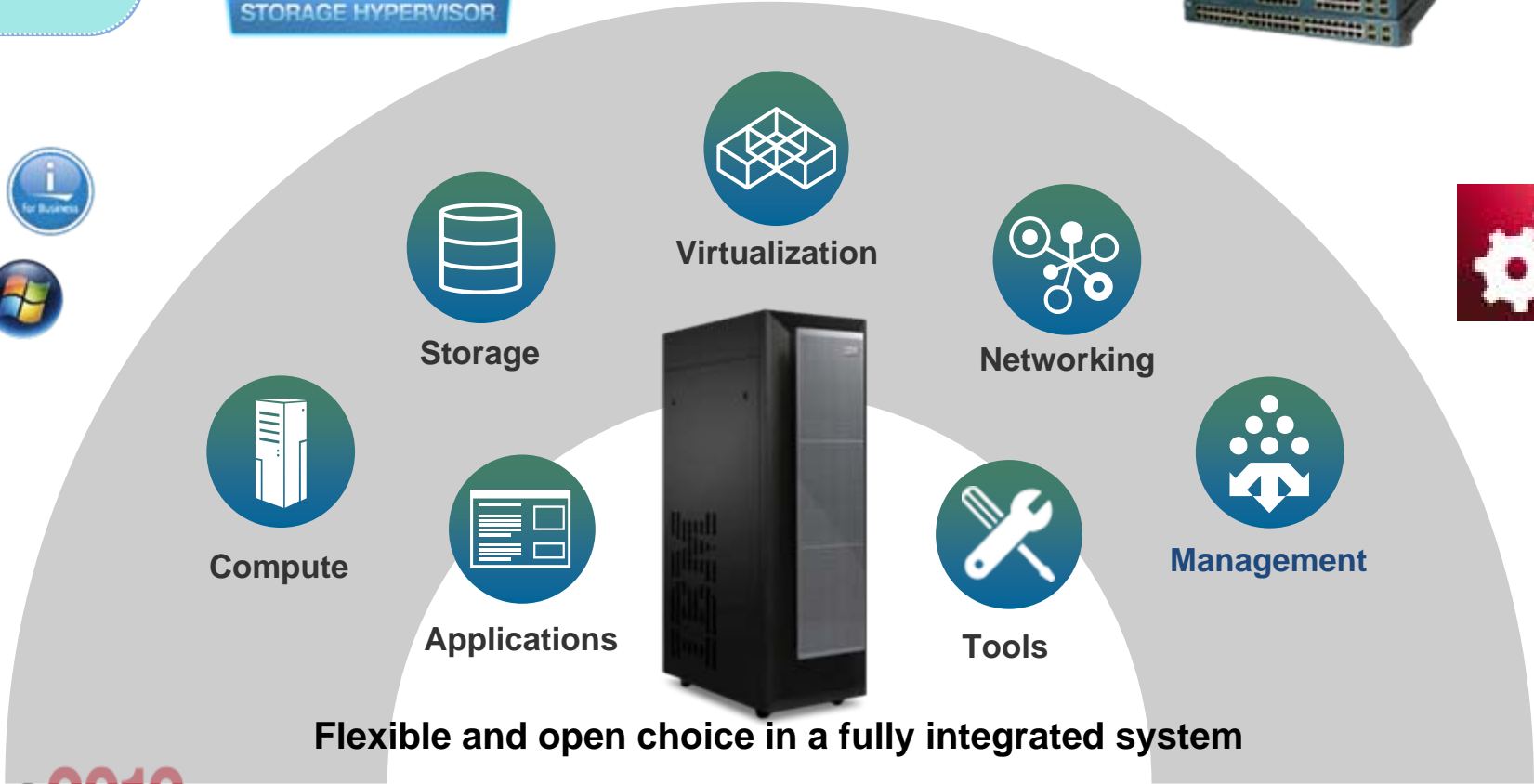
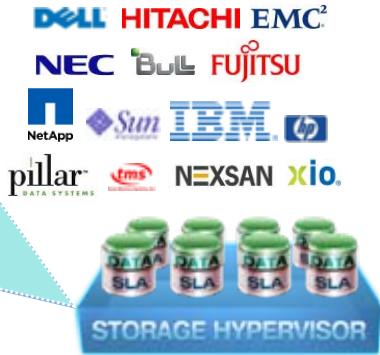
There is also ‘SMAC – file’ here connected to the common file stack from SONAS or V7000U
And there is a ‘SMAC – object’ coming but likely not consumed by Nova



Storage Optimized for PureSystems



Virtual Storage Center inside PureSystems to centrally manage existing external storage



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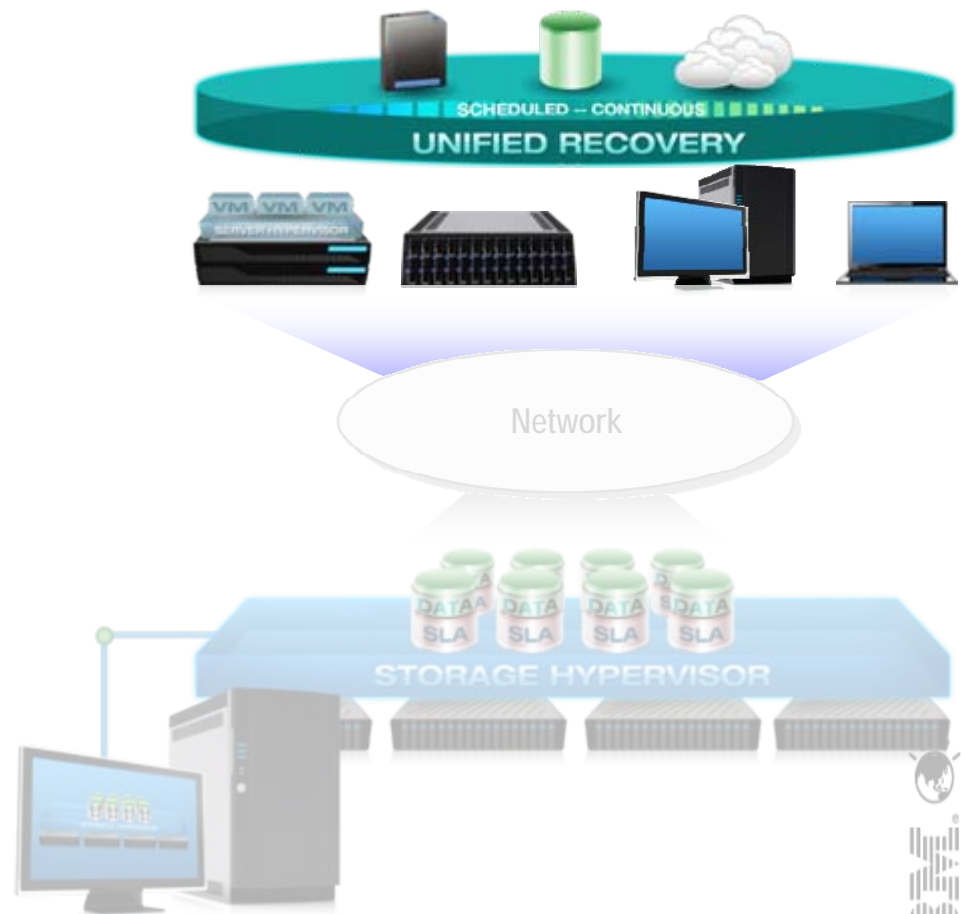
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Unification of Recovery, Retention, HSM

- **Value:** Free IT from the cost and complexity of **legacy data management products**
- **How?** Unification of recovery, retention, HSM
 - Single product solution
 - Physical, virtual, and ‘to the cloud’



Data Reduction

- **Value:** Get ahead of runaway data growth and Big Data
- **How?** Data Reduction **from source to final resting place**
 - Incremental forever, client and server-side deduplication, compression



Instant Recovery of Virtual Environments and Applications



- **Value:** Be online quicker **and** access clones faster
- **How?** Instant recovery of virtual environments and applications
 - Virtual storage snapshot regardless of hardware choice
 - Hardware-assist snapshot for IBM arrays
 - Software snapshot independent of hardware



Always-on Unified Recovery Service

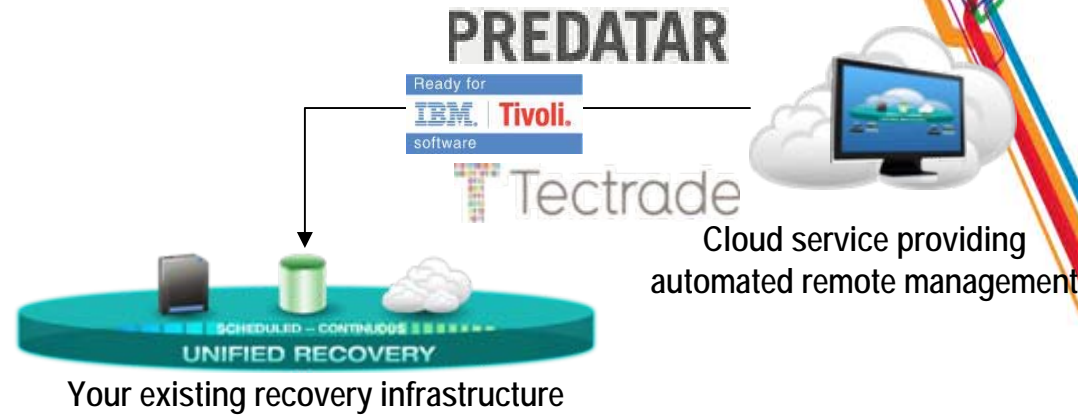


- **Value:** Transform your backup infrastructure into a service
- **How?** Always-on Unified Recovery
 - Replicated recovery, retention, and HSM data and metadata
 - Recover regardless of location

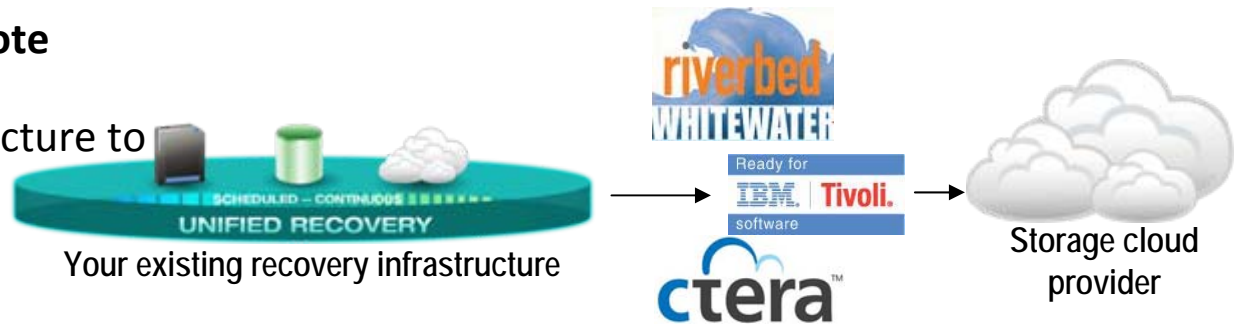


Cloud Integration

- **Value:** Reduce skills dependence **and automate response**
- **How?** Strategically source recovery operations to a cloud service provider



- **Value:** Use the cloud **as your remote electronic vault**
- **How?** Link local recovery infrastructure to public cloud resources



- **Value:** Eliminate the need for local recovery infrastructure
- **How?** Use a "Backed up by IBM TSM" validated cloud service



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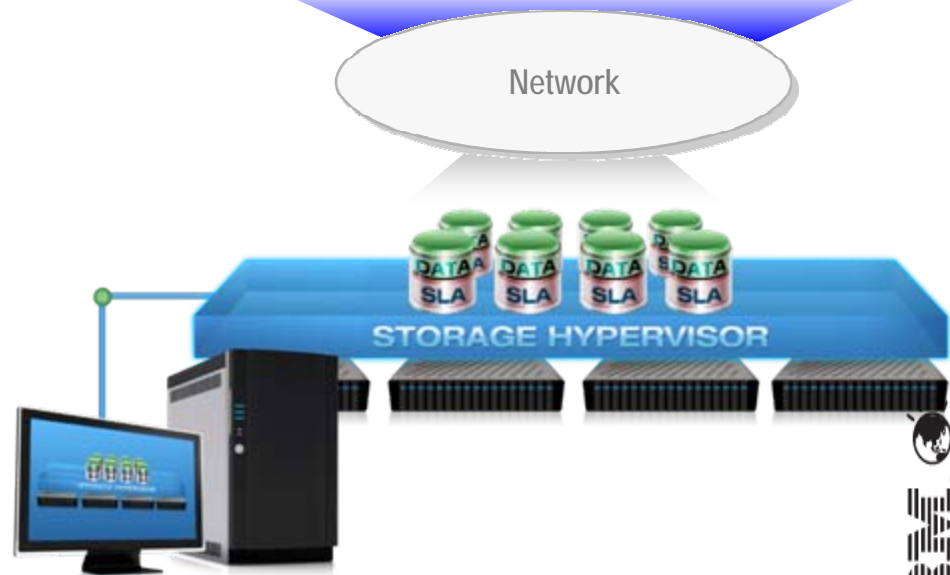
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2012 Storage Announcements

TSM

TSM 6.3 Update – June 2012

TSM SUR - Archive Option

- Additional tier for archive data at lower price

TSM SUR Entry

- Offering for GB market capped at 100 TB at lower price

TSM 6.4 – 2H 2012

- Enhance usability of the VMware solution
- vApp and VM templates support
- Backup configuration wizard
- Improved reporting for VM backups
- Incremental forever backup of VMs
- Strong TSM passwords support
- nSeries – enhanced support for vFiler & SnapMirror
- Enhancements to TDP for Databases for SQL “denali” release
- Enhanced MS Exchange DAG support

TPC

TPC 5.1 – June 2012

Time to Value

- Integrated Web GUI - phase 1
- Cognos Reporting - phase 1
- Fully Integrated Installer

Integration

- Storage Tiering Optimization – (SAGE phase 1, on block)

Interop Expansion

- SoNAS support
- Device/platform currency

Cloud Management

- APIs for Cloud Automation

Virtualization Support

- Enhanced VM Clustering

TPC Packaging

- Simplified Packaging

Replication

- TP Volume Enablement in MGM
- Co-existence with External Failover Application
- Distributed TPC-R on zOS

SVC

SVC 6.4 – June 2012

Manageability/Availability

- Non-disruptive volume move across I/O groups

Efficiency

- Embedded RACE compression

Scalability

- **4-way Storwize V7000 clustering**

Connectivity

- FCoE on current 10 GbE HW
- **Direct Fibre Channel Attach for Windows, Linux, VMware (RPQ only)**

Hardware Platforms (2H12)

July - Pre-installed rack integration

July - field upgrade to Storwize V7000

Unified (from Storwize V7000)

2H12 - Unified File Modules available with SVC (as RPQ request)

The information on the new product is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information on the new product is not a commitment, promise, or legal obligation to deliver any material, code or functionality. The development, release, and timing of any features or functionality described for our products remains at our sole discretion.

Meet the experts. Optimise your infrastructure.

Normal = Applies to both
Bold = Storwize V7000 only
Italics = SVC only





Thank You

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