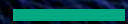


**Hewlett Packard
Enterprise**

HPE Simplivity.

**Scalability, efficiency, availability, density,
simplicity and... more**



Luca Parelli – Marco Perini

THE HYPERCONVERGED EXPERIENCE MAKES LIFE EASIER



Simple to Deploy

Software-defined infrastructure
abstracted from hardware

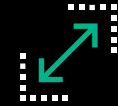
Single pool of centrally
orchestrated resources



Simple to Manage

Unified management
eliminates silos

Policy-based automation
removes manual processes



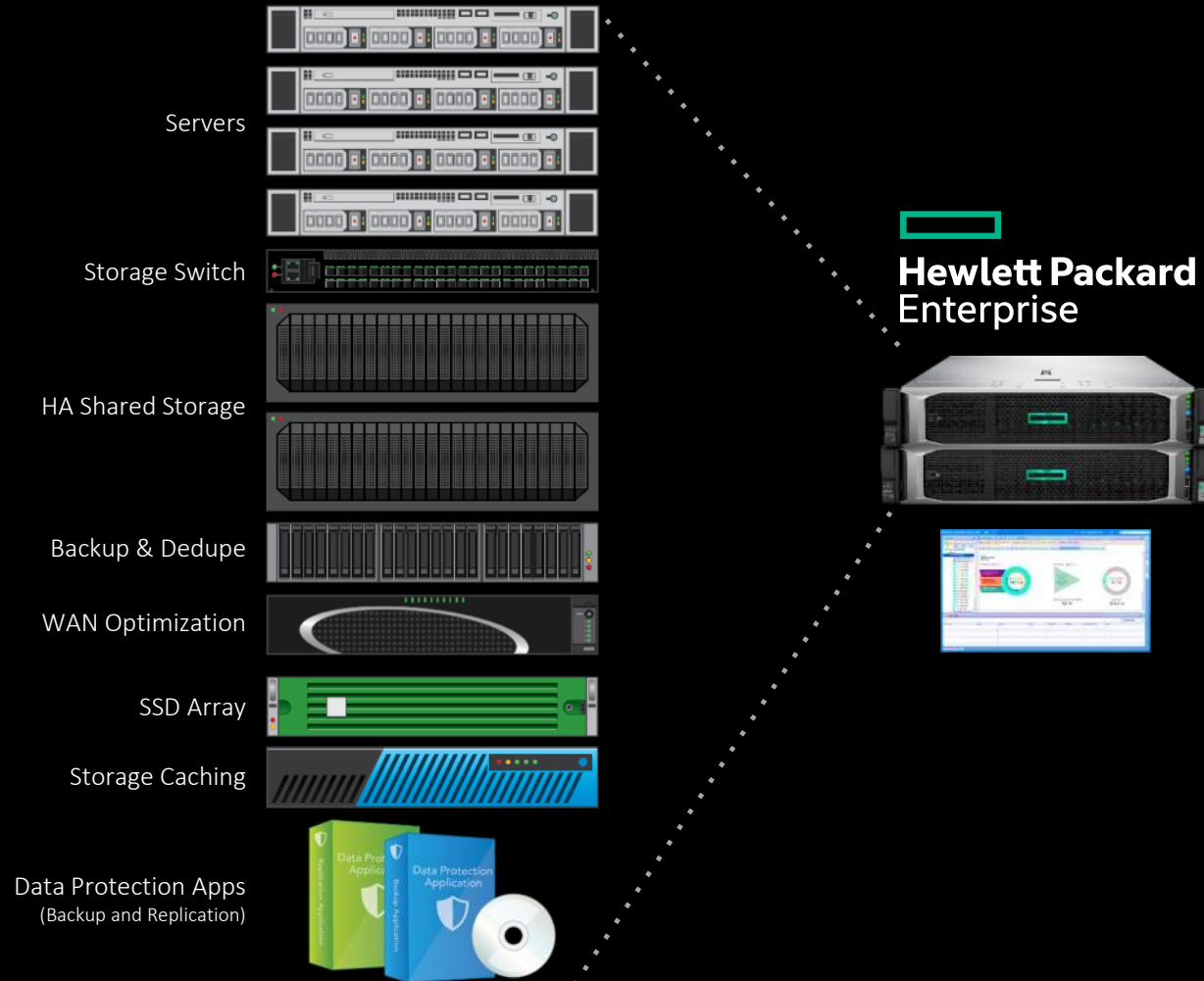
Simple to Scale

Predictable scalability
of compute and storage

Start small and easily
scale out in increments



REDUCE COSTS AND DATA CENTER FOOTPRINT



- Lowers upfront costs
- Reduces energy consumption
- Eliminates OPEX
- Avoids endless refresh cycles
- No IT Silos

Powered by
HPE SimpliVity
Data Virtualization Platform

69% Cost savings

10:1 Device Reduction

47:1 Average Storage Efficiency

Reported in Forrester Total Economic Impact Study, May 2019

HPE MAKES HYBRID IT SIMPLE WITH SOFTWARE-DEFINED INFRASTRUCTURE

Fast

4.5X

Better application performance
than traditional IT

Innovative VM-centric management and mobility
speed deployment and app performance to free IT
to focus on their business

Powerful & Efficient

<1

Minute to backup
and restore a 1TB VM -
Guaranteed

All IT infrastructure and advanced data services for
virtualized workloads in a single building block and
increase storage efficiency – guaranteed!

Multi-Cloud

69%

Cost savings compared
to traditional IT

Transform your VM environment into an enterprise
cloud that delivers cloud-like speed, operations and
economics across all your private clouds.



HPE SIMPLIVITY 3D EVOLUTION

HARDWARE

SW / HW defined
Intel / AMD
Full Flash / Hybrid



SOFTWARE

Omnistack 4.1.0 u1
Rapid DR 3.5
WAN Optimization for Edge
New functionalites

INTEGRATION

HPE Cloud Volumes
Google Anthos
StoreOnce Integration
CTERA
Veeam (ToD)



CUSTOMER SURVEY—HPE SIMPLIVITY DATA VIRTUALIZATION PLATFORM

Guaranteed data efficiency

- Always-on compression and deduplication
- All data at inception, globally
- Consistent, high performance with offload to HPE OmniStack Accelerator Card in some models
- Guaranteed 90% capacity savings across primary storage and backup

100:1



234 customers surveyed
Over 1/3rd achieve **100:1 data efficiency**
Over half see > 50% performance improvements

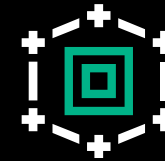
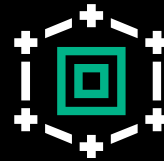
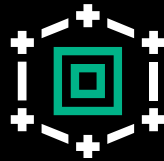
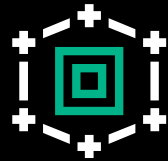


<https://www.techvalidate.com/tvid/C39-9B5-4FF> April 2018

<https://www.techvalidate.com/tvid/57D-FAC-AFC>, August 2018

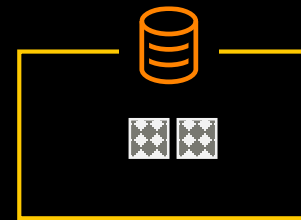
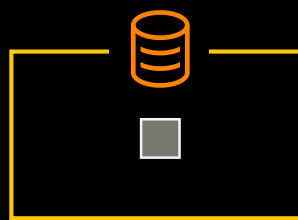
HPE SIMPLIVITY DATA VIRTUALIZATION PLATFORM

VMs



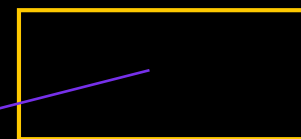
Data Virtualization Platform

Presentation layer



All data written/registered to virtualization platform

Data Management layer



Persistent storage

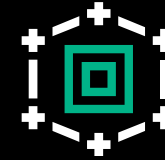
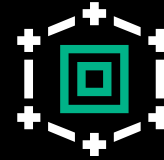
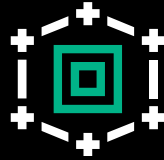
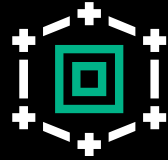


Only unique data written to disk

“The best IO is the one you don’t have to do.”

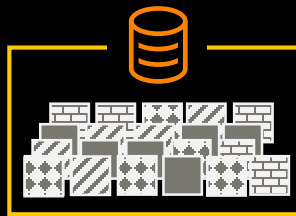
HPE SIMPLIVITY DATA VIRTUALIZATION PLATFORM

VMs



Data Virtualization Platform

Presentation layer



Data Management layer



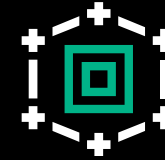
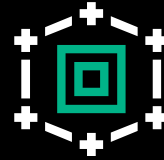
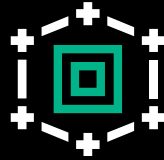
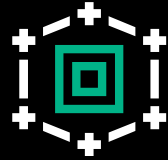
Persistent storage



“The best IO is the one you don’t have to do.”

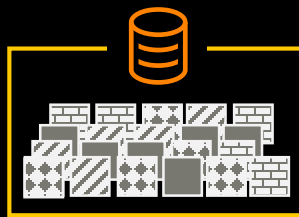
HPE SIMPLIVITY DATA VIRTUALIZATION PLATFORM

VMs



Data Virtualization Platform

Presentation layer



Data Management layer



Persistent storage



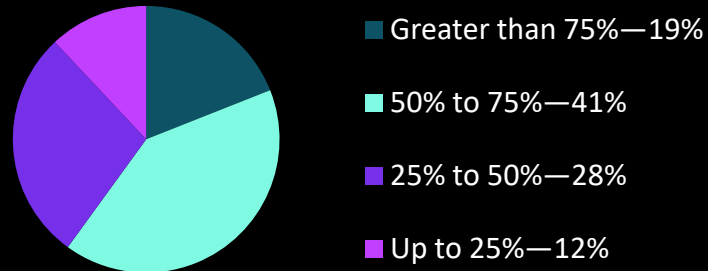
“The best IO is the one you don’t have to do.”

DRAMATICALLY FASTER APPLICATION PERFORMANCE

Enhanced Performance

- Data locality shortens hops
- Inline dedupe, compression reduces IO, speeds performance
- Data Virtualization Platform limits network traffic
- All-Flash yields predictable performance with low latency

HPE SimpliVity speeds application performance

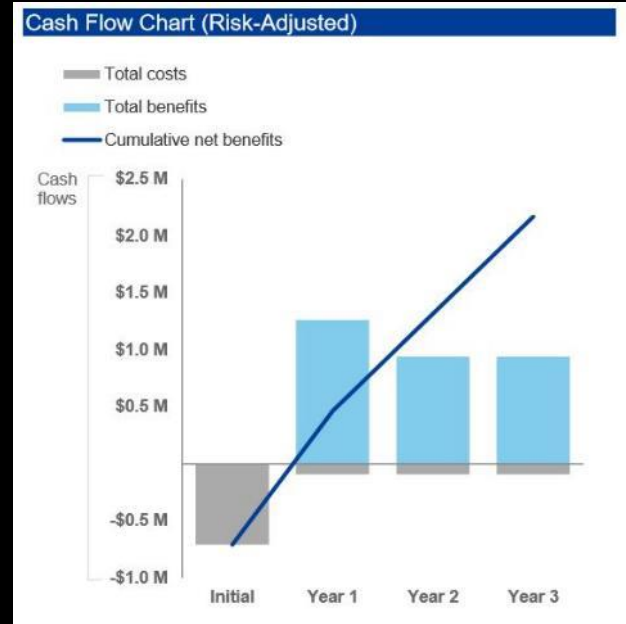


88% of customers see dramatic increases in application response times

COST EFFICIENCIES AND STREAMLINED OPERATIONS VERSUS LEGACY IT

Superior economic results

- Avoid costs for servers and legacy Storage
- Avoid Software Licensing Costs
- Lower data center power, space, cooling
- Lower Backup/DR Labor
- Reduced system upgrade expenses



FORRESTER®

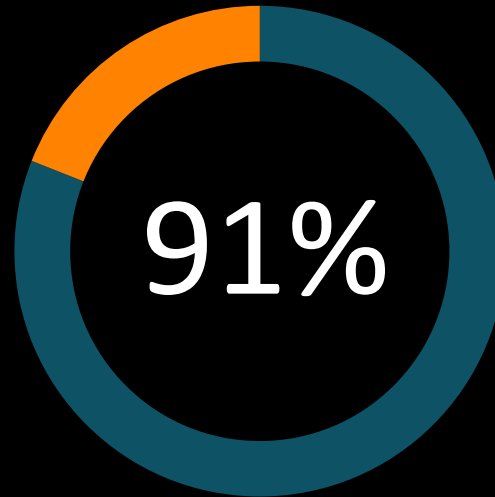
Reduce costs
by 69%

¹Reported in Forrester Total Economic Impact Study, 2017

MORE INNOVATION, LESS ADMINISTRATION

Global VM-centric management and mobility

- Policy-based, VM-centric management
- No LUNS, shares, or volumes
- Right-click operations
- Native tool integration and REST API for extensibility
- Single view of all data centers and ROBOs



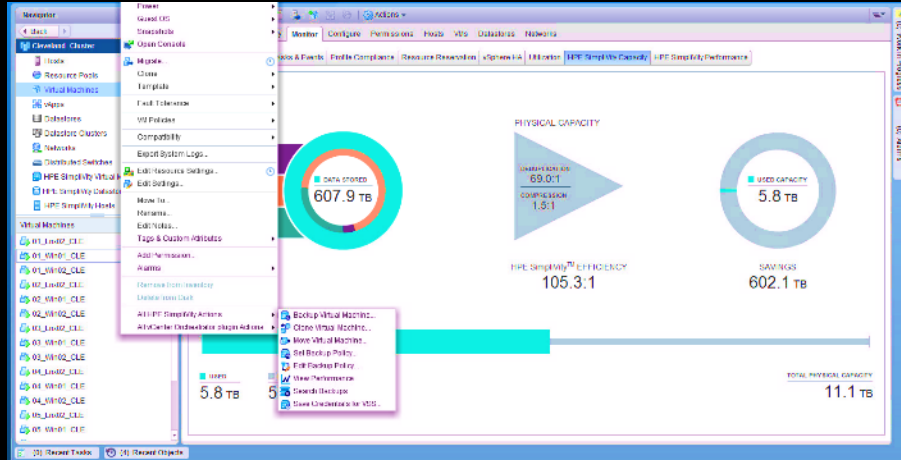
increase in time available to spend on new projects



Source: IDC Research, [HPE SimpliVity Drives Operational Efficiency and Customers are Benefiting,](#) August 2018

VM-CENTRIC MANAGEMENT

Alignment of data to VMs managed through vCenter

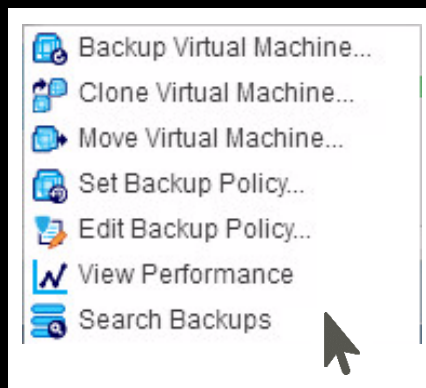


Over half (57%) of customers benefitted from an average of

53%

increase in staff productivity

Just a few clicks to...



- Simple, intuitive interface
- No LUNs, shares, or volumes
- Empowers IT generalists and VM admins
- Familiar tools and interfaces like VMware vCenter® and vRealize®



HPE SIMPLIVITY DATA VIRTUALIZATION PLATFORM

Built-in resiliency, backup, and disaster recovery

- Full, logical backups with near-zero overhead
- Guaranteed 60-second restore of a 1 TB VM
- Granular RTOs and RPOs from hours to seconds
- Simple, affordable offsite DR
- RAIN and RAID protection of data
- Policy-based automation for backups and retention

51%

of customers using HPE SimpliVity built-in data protection retired existing third-party backup or replication (IDC)¹

70%

improvement in backup/recovery and DR reported by HPE SimpliVity customers (IDC)¹

57%

of HPE SimpliVity customers reduced recovery times from days or hours to minutes (TechValidate)²

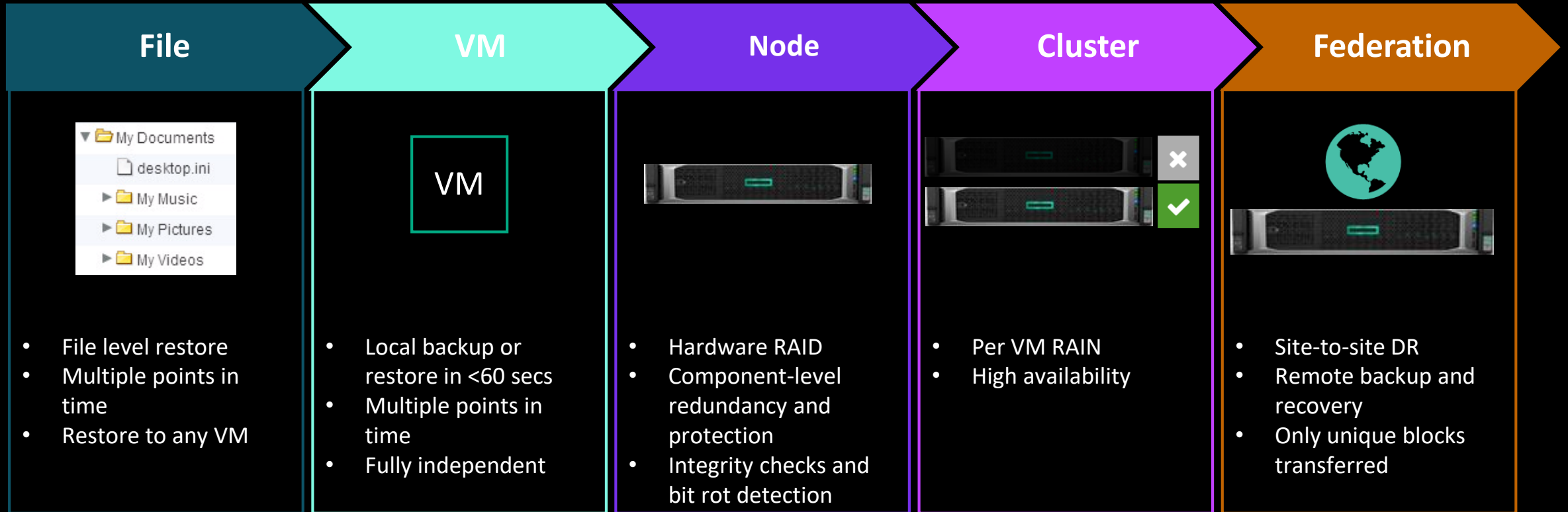


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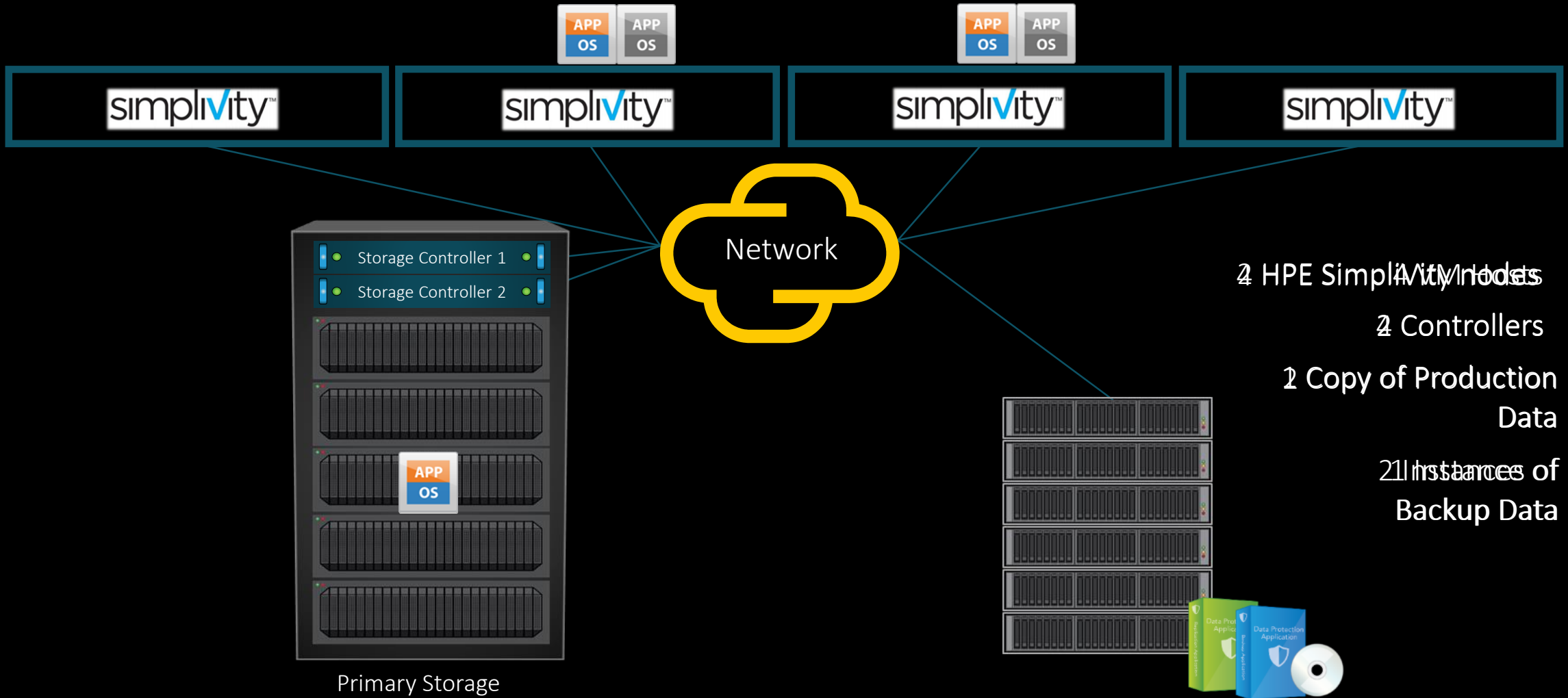
Minute to backup or restore a 1 TB VM

¹IDC white paper, "[HPE SimpliVity Hyperconvergence Drives Operational Efficiency and Customers are Benefiting](#) 2016 TechValidate survey of HPE SimpliVity infrastructure customers

MAXIMIZE UPTIME AND PREVENT DATA LOSS



DOING MORE WITH LESS

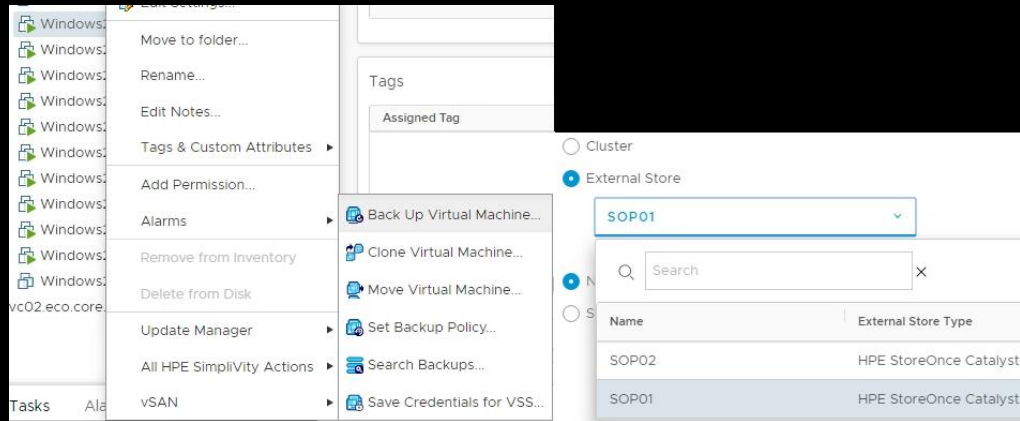


- 4 HPE SimpliVity Nodes
- 2 Controllers
- 1 Copy of Production Data
- 21 Instances of Backup Data



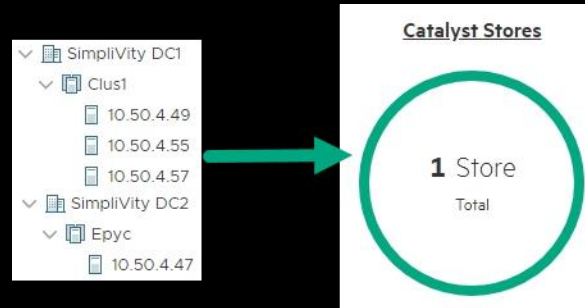
HPE SIMPLIVITY WITH HPE STOREONCE

Cost Effective Secondary Backup



Backup to HPE StoreOnce just like it is another SimpliVity Cluster

Maximum Backup Efficiency



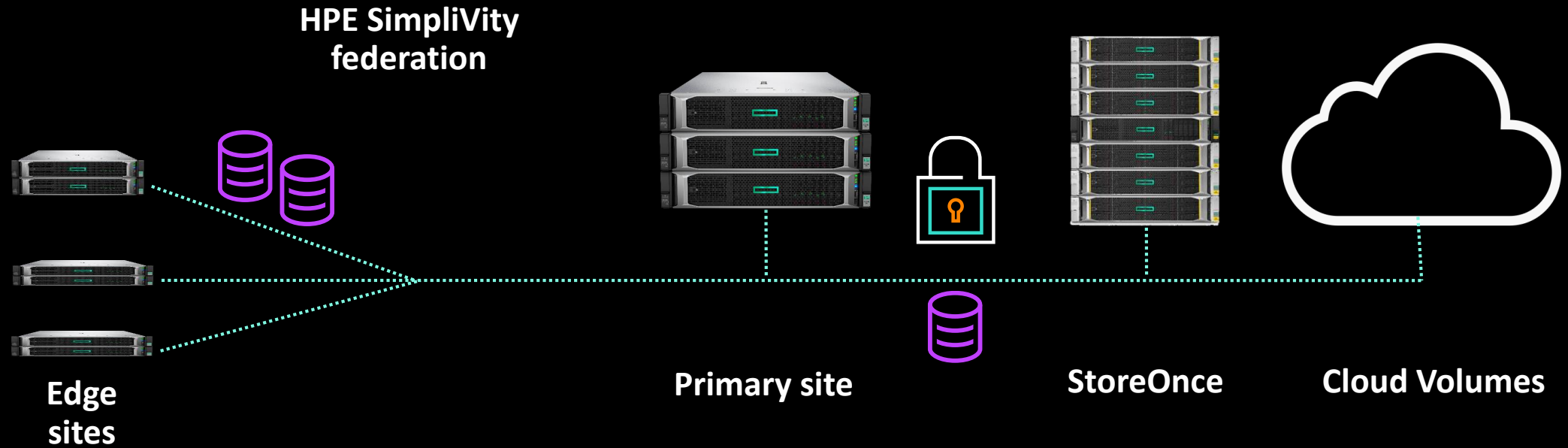
Dedup and compress your backups directly to HPE StoreOnce. **No other software needed**

Simplicity

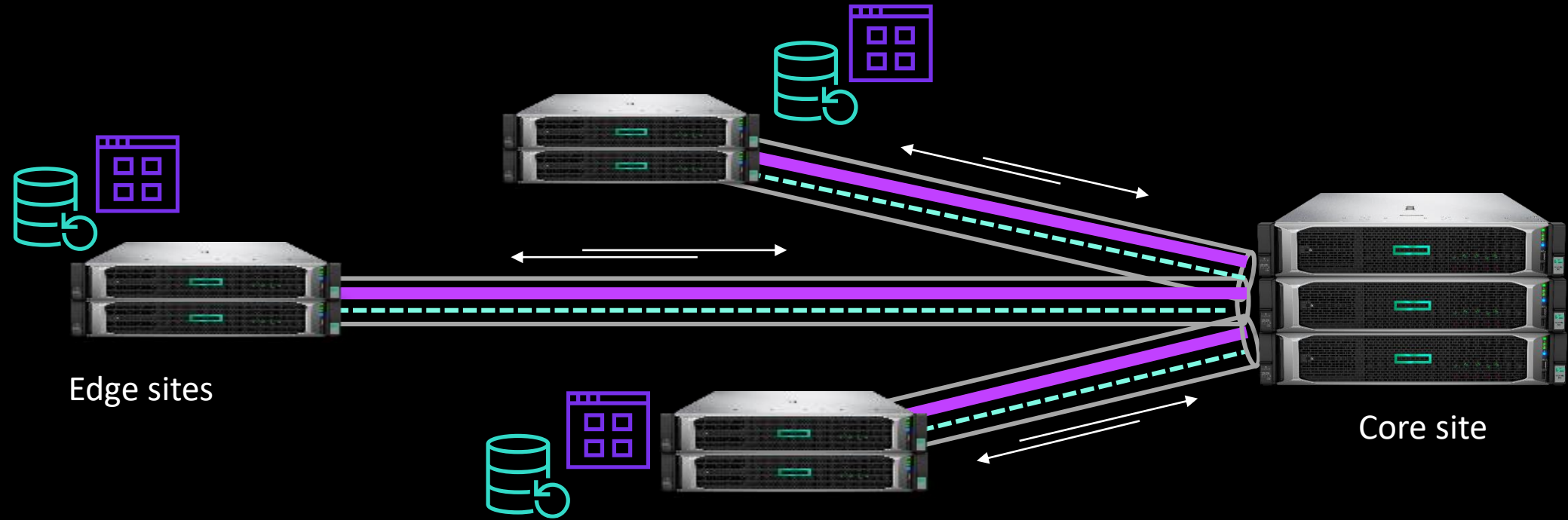
Backup Name	Timestamp	Status	Size	Send Size	Send Duration	Send Completion	Type	Expires	External Store
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2018-11-28T00:00:00-05:00	11/28/18, 11:00 PM	Protected	22.6 GB	0.4 KB	11 mins 43 secs	11/28/18, 11:11 PM	Policy	12/24/18, 11:00 PM	SOP01
2018-11-30T00:00:00-05:00	11/30/18, 11:00 PM	Protected	22.6 GB	71.5 MB	11 mins 7 secs	11/30/18, 11:11 PM	Policy	12/26/18, 11:00 PM	SOP01
2018-11-26T00:00:00-05:00	11/26/18, 11:00 PM	Protected	22.6 GB	133.1 MB	11 mins 7 secs	11/26/18, 11:11 PM	Policy	12/26/18, 11:00 PM	SOP01
2018-12-02T00:00:00-05:00	12/02/18, 11:00 PM	Protected	22.6 GB	127.2 MB	8 mins 1 sec	12/02/18, 11:12 PM	Policy	12/19/18, 11:00 PM	SOP01
2018-11-19T00:00:00-05:00	11/19/18, 11:00 PM	Protected	22.6 GB	0.4 KB	1 min 14 secs	11/19/18, 11:01 PM	Policy	12/18/18, 11:00 PM	SOP01
2018-11-29T00:00:00-05:00	11/29/18, 11:00 PM	Protected	22.6 GB	85.3 MB	11 mins 43 secs	11/29/18, 11:11 PM	Policy	12/26/18, 11:00 PM	SOP01
2018-11-16T00:00:00-05:00	11/16/18, 11:00 PM	Protected	22.6 GB	11.5 GB	6 mins 47 secs	11/16/18, 11:06 PM	Policy	12/15/18, 11:00 PM	SOP01
2018-11-24T00:00:00-05:00	11/24/18, 11:00 PM	Protected	22.6 GB	189.9 MB	11 mins 43 secs	11/24/18, 11:11 PM	Policy	12/23/18, 11:00 PM	SOP01
2018-11-21T00:00:00-05:00	11/21/18, 11:00 PM	Protected	22.6 GB	57.7 MB	8 mins 38 secs	11/21/18, 11:08 PM	Policy	12/20/18, 11:00 PM	SOP01
2018-11-23T00:00:00-05:00	11/23/18, 11:00 PM	Protected	22.6 GB	189.9 MB	9 mins 18 secs	11/23/18, 11:08 PM	Policy	12/20/18, 11:00 PM	SOP01
2018-11-17T00:00:00-05:00	11/17/18, 11:00 PM	Protected	22.6 GB	110.2 MB	7 mins 24 secs	11/17/18, 11:07 PM	Policy	12/16/18, 11:00 PM	SOP01
2018-11-18T00:00:00-05:00	11/18/18, 11:00 PM	Protected	22.6 GB	65.3 MB	8 mins 38 secs	11/18/18, 11:08 PM	Policy	12/17/18, 11:00 PM	SOP01
2018-11-22T00:00:00-05:00	11/22/18, 11:00 PM	Protected	22.6 GB	156.2 MB	12 mins 57 secs	11/22/18, 11:13 PM	Policy	12/21/18, 11:00 PM	SOP01
2018-11-28T00:00:00-05:00	11/27/18, 11:00 PM	Protected	22.6 GB	5.8 MB	8 mins 39 secs	11/27/18, 11:08 PM	Policy	12/27/18, 11:00 PM	SOP01
2018-12-01T00:00:00-05:00	11/30/18, 11:00 PM	Protected	22.6 GB	63.4 MB	8 mins 15 secs	11/30/18, 11:09 PM	Policy	12/30/18, 11:00 PM	SOP01

Same right click actions. Create backup policies and report on backup status directly from your VMware vCenter

ADVANCING BUILT-IN BACKUP: EDGE TO CLOUD PROTECTION



NETWORK OPTIMIZATION FOR THE EDGE



**Bandwidth
prioritization**

WAN cost savings

**Performance
optimization**

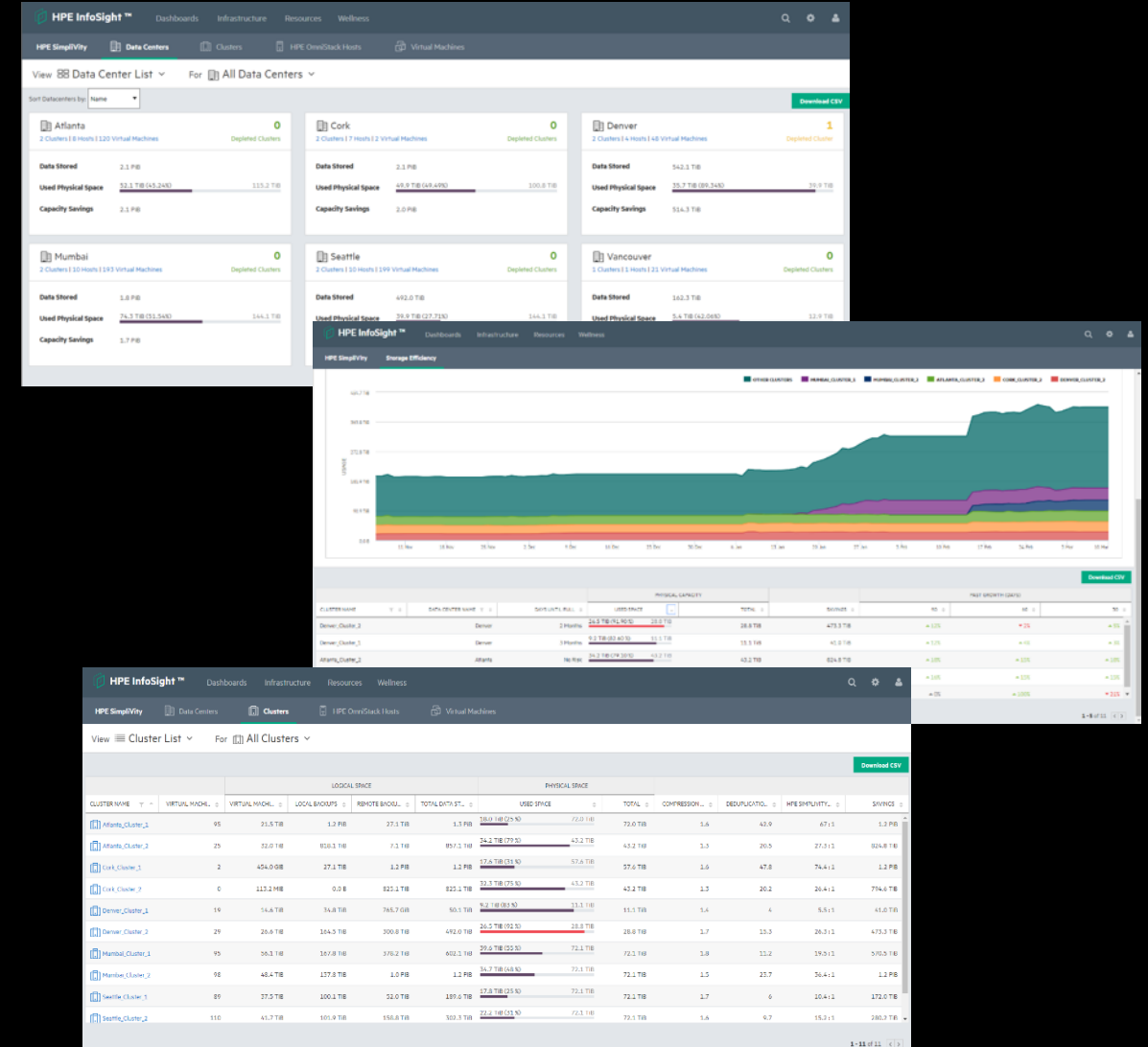
INFOSIGHT FOR HPE SIMPLIVITY

Intelligence changes everything

HPE InfoSight brings simplified, AI-driven operations to transform how infrastructure is managed and supported

InfoSight for HPE SimpliVity

- Provides system details at the federation, cluster, and node levels including historic capacity utilization trends, resource consumption and prediction to full
- Provides visibility to top performing VMs
- Alleviates support issues and reduces operational expenses with automated wellness alerts and case creation
- Provides a unified view of HPE assets



TOP USE CASES

Data center
consolidation

SMB/ROBO

VDI

Cloud
computing

Power graphics-intensive
VDI workloads with NVIDIA Tesla
M10 and P40 GPU accelerator cards

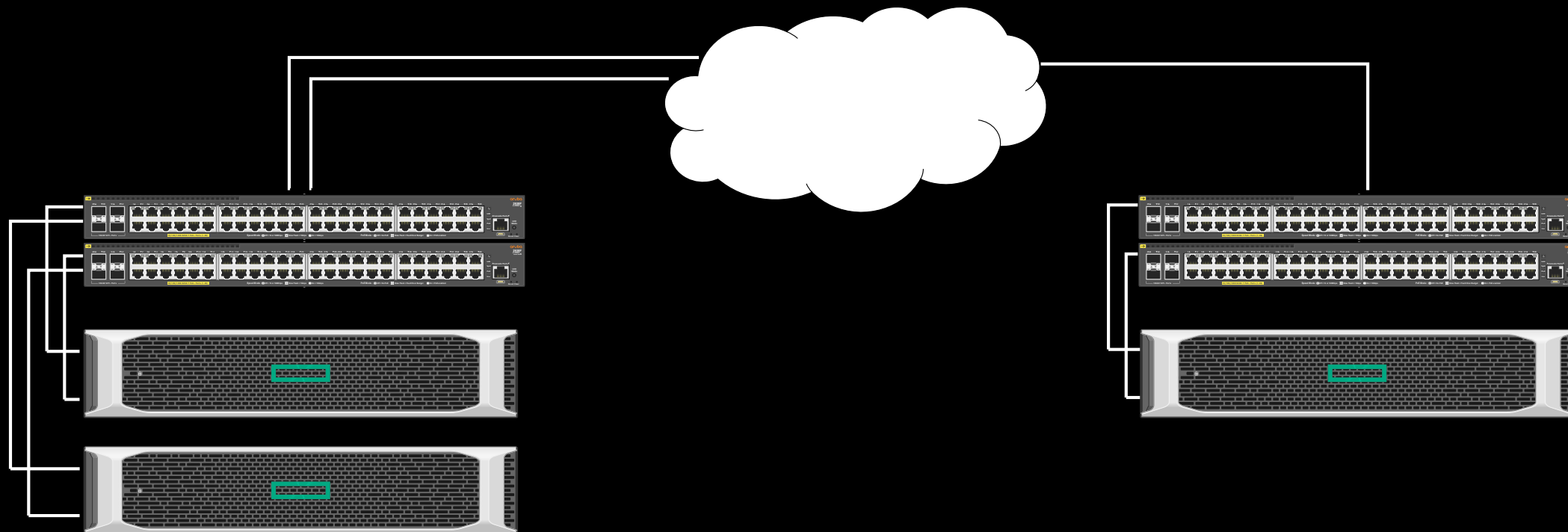
Tier-1
applications

Data
protection

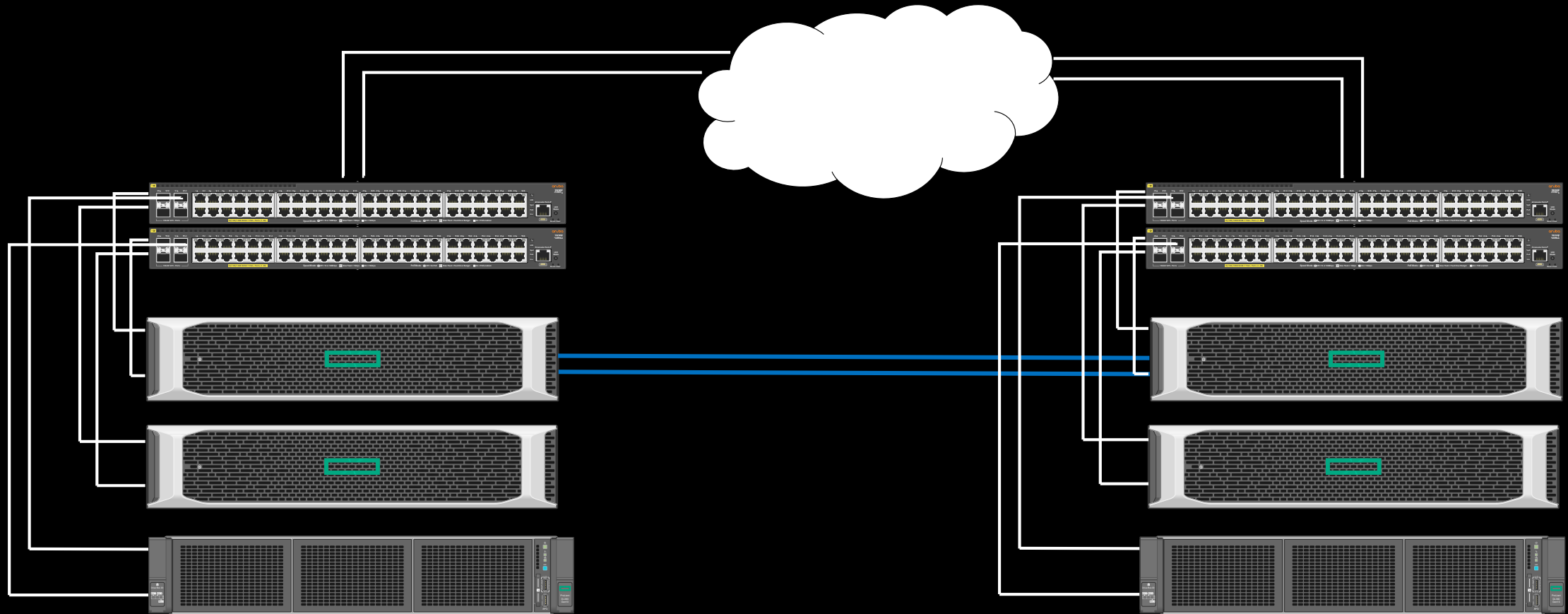
Test/dev



2+1 SOLUTION



MULTI-CED CLUSTER



THANK YOU

