Dell EMC Unity & SC Series: Midrange Storage Portfolio Overview
The IT struggle

Innovation

& agility
What the Research shows

Achieving Stage 4 IT Transformation leads to:

- 6x Faster Time To Provision
- 8x More Coop With LOB
- 2x More Likely To Beat Earnings
- 4x Faster App Delivery
- 14% Cost Reduction For Critical Apps
- 3x IT Projects Ahead Of Schedule
- $44M More On New Innovation Projects

ESG 2017 IT Transformation Maturity Study
Where to begin

3 Phase Transformation Process

MODERNIZE

• Leverage Modern Infrastructure
• Right tool for the job
• Simple & Powerful

AUTOMATE

• Self-service provisioning capabilities
• Running IT like a service provider/public cloud

TRANSFORM

• With Senior Exec Support
• Transform
  – People
  – Process
• Business & IT Alignment
Foundation of the Modern Data Center

- **All Flash**
  - Reduce costs (# of drives, power, floor space, more)
  - Consistent and predictable performance

- **Scale-Out**
  - Lower entry costs and scale as you grow
  - Manage massive capacity with fewer resources

- **Software-Defined**
  - Automated provisioning and business agility
  - Flexible and programmable data services

- **Cloud-Enabled**
  - Policy driven service delivery
  - On/off premises data and/or application mobility

**Protection and Trust**
- Security/Governance
- Encryption
- Data Protection
- Services/Support
Sudden impact of All Flash on applications

Before Dell EMC All-Flash

Data Migrated

After Dell EMC All-Flash
The new Dell EMC Midrange Family

COMMON TOOLS FOR MANAGEMENT, MOBILITY & PROTECTION

Dell EMC Unity 600/650F
Dell EMC Unity 500/550F
Dell EMC Unity 400/450F
Dell EMC Unity 300/350F

SCv2000/2020
SC5020
SC7020
SC9000

SC Series

Dell EMC Unity

POWERPATH
VIFR
RECOVERPOINT
AVAMAR
NETWORKER
Product strengths

DELL EMC UNITY

ALL FLASH
- SIMPLE • FLASH DENSITY • INLINE EFFICIENCY
- CONSISTENT RESPONSE TIME • CLOUD TIER

UNIFIED
- UNIFIED FILE & BLOCK • APP, SW DEFINED OR CONVERGED • DATA IN PLACE UPGRADES

SC SERIES

HYBRID
- GRANULAR TIERING • 0-100% FLASH
- EFFICIENCY FOR HYBRID

BEST ECONOMICS
- INTELLIGENT COMPRESSION & DEDUPE
- PERSISTENT SOFTWARE LICENSES
## SC Series & Dell EMC Unity benefits

<table>
<thead>
<tr>
<th>Simple</th>
<th>Customer installable and serviceable with CloudIQ™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inline Compression</td>
<td>Inline compression for balanced cost/performance</td>
</tr>
<tr>
<td>Unified</td>
<td>Transactional and traditional file workloads with block</td>
</tr>
<tr>
<td>Flexible</td>
<td>Converged, software defined or cloud enabled. DIP upgrades.</td>
</tr>
<tr>
<td>Federated</td>
<td>Scale-up block with the ability to federate arrays</td>
</tr>
<tr>
<td>Compression &amp; Deduplication</td>
<td>Post-process compression/dedupe for flash &amp; hybrid max cost savings</td>
</tr>
<tr>
<td>SAS Front-end</td>
<td>Option to connect using SAS inter-connect</td>
</tr>
<tr>
<td>Metro DR</td>
<td>Transparent Metro DR for block with Live Volume Auto Failover</td>
</tr>
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</table>

Dell EMC Unity

SC Series
SC Series Hybrid-Flash value

- MOST ECONOMICAL STORAGE SOLUTION
- MIXED MAINSTREAM WORKLOADS
- SCALABLE GENERAL PURPOSE STORAGE
SC Series flexible Hybrid-Flash configurations

- **ALL HDD**
- **ALL FLASH**

- All Flash, Some Flash or No Flash
- Start with one configuration, covert to another
- Designed to fit all block workloads and budgets
## SC Series Hybrid-Flash family

### Models and Capacities

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
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<tbody>
<tr>
<td>SCv2000/2020</td>
<td>672TB 168 drives</td>
</tr>
<tr>
<td>SC4020</td>
<td>1PB 192 drives</td>
</tr>
<tr>
<td>SC5020</td>
<td>2PB 222 drives</td>
</tr>
<tr>
<td>SC7020</td>
<td>3PB 500 drives</td>
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<tr>
<td>SC9000</td>
<td>4PB 1024 drives</td>
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</tbody>
</table>

### Key Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>SCv2000/2020</th>
<th>SC4020</th>
<th>SC5020</th>
<th>SC7020</th>
<th>SC9000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory/Proc.</td>
<td>16GB, 2.5GHz 4c</td>
<td>32GB, 2.5GHz 4c</td>
<td>128GB, 2.4GHz 8c</td>
<td>256GB, 2.5GHz 8c</td>
<td>512GB, 3.2GHz 8c</td>
</tr>
<tr>
<td>Network I/O</td>
<td>FC, iSCSI, SAS</td>
<td>FC, iSCSI, SAS</td>
<td>FC, iSCSI, SAS</td>
<td>FC, iSCSI</td>
<td>FC, iSCSI, FCoE</td>
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<tr>
<td>Data reduction</td>
<td>NA</td>
<td></td>
<td></td>
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<tr>
<td>Multi-array</td>
<td>Repl. (SCv)</td>
<td></td>
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<tr>
<td>Tiering</td>
<td>Single Tier</td>
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<tr>
<td>Management</td>
<td>Dell Storage Manager, 3rd-party integrations, QoS, VVols</td>
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</tr>
<tr>
<td>Architecture</td>
<td>Dynamic RAID tiering, “thin”</td>
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</tbody>
</table>

### Additional Features
- Intelligent deduplication & compression (SSDs and HDDs)
- Replication (SC, multi-hop), federation, DR / Business Continuity
- Full auto-tiering (1-3 tiers), 0-100% flash (Hybrid)
- Dell Storage Manager, 3rd-party integrations, QoS, VVols
- Dynamic RAID tiering, “thin”
- DIP upgrade from SC4020

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[Image of SC Series models with specifications and features]
The new Dell EMC SC5020

- Up to 45% more IOPS than SC4020
- 3X bandwidth, 2X capacity
- Lower install cost (ProDeploy)
- Federation, Business Continuity
- Data Progression, RAID tiering

Accelerate your workloads, automate your cost savings

Major upgrade to popular SC4020

- 8-core Intel processors
- 4X more memory
- 12Gb SAS expansion I/O
- Intelligent Post-process Dedupe & Compression
- New 3U form factor (30 internal drive bays)
- Modular I/O (FC, iSCSI, SAS)
SC5020: More I/O flexibility, redundancy

**Mezzanine options**
- (4) 10Gb iSCSI SFP+
- (4) 10Gb iSCSI Base-T

**PCIe options**
- (2, 4) 16/32Gb Fibre Channel
- (4) 12Gb SAS
- (2, 4) 10Gb iSCSI SFP+
- (2) 10Gb iSCSI Base-T

- Dual hot-swap controllers
- (2) Mini-SAS-HD X4 12Gb SAS
- USB
- 1Gb Mgmt. LAN
- Micro USB / Serial Debug
- Dual hot-swap PSUs
Granular auto-tiering (data progression)

Achieve simultaneous performance and cost goals
- Directs ALL incoming writes to Tier 1 drives at fastest RAID levels
- Moves inactive data to lower-cost drives, space-efficient RAID levels

Enables cost-effective all-flash and hybrid solutions
- Separates reads from writes

Seamless integration with Storage Center OS
- Snapshots, Replication

Get the performance you need – while buying fewer of your most expensive drives
Intelligent compression and deduplication

- Automated efficiency methods work together to maximize your savings
- Post-process operation compresses and dedupes inactive data
- Delivers the lowest $/GB with hybrid and data efficiencies
SC Series storage efficiency features

**Thin Provisioning**
Automatically recover free space. On average, customers reduce storage by 2.3x

**Thin RAID**
Dynamic RAID provisioning, no need to pre-allocate. Use the performance of ALL the drives in your array for any RAID level, anytime

**RAID Tiering**
Write data at RAID 10, then automatically convert to RAID 5/6 on the same drives. Performance of RAID 10 @ cost of RAID 5/6

**Thin Clones**
Create clones from replays with no additional copies. Perfect for cloning Virtual servers or virtual desktops

**Thin Writes**
Pattern recognition reduces writes on thick provisioned volumes and VMs

**Thin Clones**
Create clones from replays with no additional copies. Perfect for cloning Virtual servers or virtual desktops

**Deduplication**
Data reduction on an average of 4:1 and up to 10:1 for VMWare environments

**Compression**
An average of ~60% in MS environments of data reduction on data that is compressed
Live Volume Federation: Scale, DR, migrate, & more

Virtualized LUN mapping allows moving LUNs between systems without interrupting workloads.

**Federated systems**
- Easy optimization of multiple arrays under unified management
- Volume Advisor suggests best LUN locations
- Balance workloads on demand

**Disaster recovery**
- Auto-failover to 100% synchronized backup volumes
- Always in sync: RTO/RPO = 0
- Primary to Backup LUN

**Data migration**
- No need to re-map servers
- Move volumes seamlessly between arrays

Dell - Internal Use - Confidential
Investment protection: Cross platform replication

SC SERIES

REPLICATION

PS SERIES

SC SERIES

RECOVERPOINT VM REPLICATION

VMAX

 XTREMIO

Dell EMC Unity
Built-in migration

PS SERIES

MD SERIES

THIN IMPORT

SC SERIES

Migrates LUNs (no snaps) from PS and MD series to SC series

Built-in solution: self-service without requiring any third party tool

Offers both offline and online thin import depending on use case

Online minimally disruptive: requires unmount and mount
Centralized Cloud and Web-based management

HTML-5 BASED
UNISPHERE FOR SC

- COMPATIBLE WITH MOST MODERN BROWSERS
- UNISPHERE STYLE MODERN LOOK AND FEEL
- NO SEPARATE DOWNLOAD OR INSTALL REQUIRED

DELL STORAGE MANAGER

- CENTRAL MANAGEMENT AND MONITORING OF SC AND PS ARRAYS
- ADVANCED FEATURES
- SUPPORTS UP TO 10 ARRAYS

CENTRAL MONITORING, AND REPORTING FOR MIDRANGE
- CLOUD BASED
- SUPPORT PLANNING AND OPTIMIZATION
Harnessing a Cloud of opportunity

Opportunity:
With the cloud services market continuing to grow, Itconic wanted to create a highly flexible platform on which to bring cloud IT to its customers.

Solution:
The company deployed a Dell end-to-end solution featuring Dell PowerEdge servers and Dell Storage SC Series arrays with Intel® Xeon® processors, and Dell Networking technology. Dell ProSupport helps maximize uptime.

Results:
- **Supports innovation** for customers through flexible IT
- **Drives up to 50 per cent business growth** with cloud services offering
- **Achieves 50 per cent saving** on cost of alternative switching technology
- Avoids vendor lock-in to **maintain efficiencies**
- Ensures enterprise-class client services with **responsive support**

We gained a future-ready network for our cloud services by working with Dell. Our goal from the start was to avoid any technology that would limit the business in the future.

– José Ignacio López García, Head of Cloud Services, Itconic
Dell EMC Unity’s All-Flash value

CONSISTENT RESPONSE TIME

SIMPLE TO SETUP, MANAGE AND USE

NEW USES & APPLICATION OPPORTUNITIES
The Dell EMC Unity All-Flash line-up

Optimized for All-Flash Performance and Simplicity

MORE FIREPOWER
4 NEW ALL FLASH BROADWELL MODELS
Up to 40% more cores; 2X the memory

SUPER DENSE DISK SHELF
500TBe per rack unit All-Flash density
New 80 drive 3U disk shelf

4X MORE FILE POWER
256TB File System
Compression (inline) for both Block & File

INTEGRATED COPY DATA MANAGEMENT
AppSync support and snapshot mobility
Combined with thin clones - application integration for iCDM
Block snapshot archive to Cloud

DYNAMIC POOLS
New advanced RAID technology
Enables single-drive expansion and faster rebuilds

SECURE
D@RE External Key Manager

Covered In-Depth in “Storage.40 Dell EMC Unity: All Flash What’s New”
More firepower

Grow with Dell EMC Unity All-Flash

<table>
<thead>
<tr>
<th>Model</th>
<th>Processor</th>
<th>Memory</th>
<th>Capacity</th>
<th>LUN</th>
<th>File System</th>
<th>VVOL</th>
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<tbody>
<tr>
<td>Dell EMC Unity 350F</td>
<td>6c / 1.7GHz</td>
<td>96 GB Memory</td>
<td>2.4 PB</td>
<td>1000</td>
<td>64 TB ➔ 256 TB</td>
<td>9000</td>
</tr>
<tr>
<td></td>
<td>10c / 2.2GHz</td>
<td>128 GB Memory</td>
<td>4 PB</td>
<td>1500</td>
<td>64 TB ➔ 256 TB</td>
<td>9000</td>
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<tr>
<td>Dell EMC Unity 450F</td>
<td>14c / 2.0GHz</td>
<td>256 GB Memory</td>
<td>8 PB</td>
<td>2000</td>
<td>64 TB ➔ 256 TB</td>
<td>13500</td>
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<tr>
<td></td>
<td>14c / 2.4GHz</td>
<td>512 GB Memory</td>
<td>16 PB</td>
<td>6000</td>
<td>64 TB ➔ 256 TB</td>
<td>30000</td>
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<td>Dell EMC Unity 550F</td>
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<tr>
<td>Dell EMC Unity 650F</td>
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</tbody>
</table>
Dell EMC Unity: Architected for All-Flash

- 3D TLC NAND flash drive
- Multi-core optimized for best CPU utilization and low latency
- Intelligent flash wear leveling
- Zero impact drive firmware based garbage collection
- Per object in-memory log for consistent low response time
- Write coalescing with full stripe writes to minimize IO
- Inline compression
- Mix different flash drive types and capacities for lowest cost
Unmatched Flash density

Q3-16
7.68TB
76TB USABLE PER U

Q4-16
INLINE COMPRESSION
300TB EFFECTIVE PER U
15.36TB
152TB USABLE PER U

Q2-17
DENSE SHELF
500TB EFFECTIVE PER U
3.84TB
38TB USABLE PER U
3.2TB
32TB USABLE PER U
Intelligent wear leveling for Flash drives

- Wear information of Flash drives propagated up the software stack to other Dell EMC Unity OE software components
  - Slice allocation requests now take into account wear level
  - Wear information is propagated at the RAID Group level per storage resource
    - Decide which RAID Group to allocate new slices to balance wear across other RAID Groups
  - Dell EMC Unity’s additional Intelligence
    - Wear leveling is implemented to extend the life of flash drives and the algorithm ensures that the flash drives within a private RAID group wears evenly
      - Dell EMC Unity has implemented additional SSD replacement procedure to account for this behavior

- Wear alerts are generated at 180, 90, and 30 days

- Proactive copy (PACO) is automatically initiated at 30 days to spare drive
Unified architecture: Installs in <30 minutes

DUAL-CONTROLLER UNIFIED DESIGN

12Gb SAS BACKEND (2 PER SP)

BUILT-IN
10GbT IP PORTS
(2 PER SP)

BUILT-IN 16/8/4Gb FC OR 10GbE IP OPTICAL PORTS
(2 PER SP)

OPTIONAL IO MODULES
(2 PER SP)

12Gb SAS BE (4-PORT) | 16/8/4Gb FC (4-PORT) |
1GbT IP (4-PORT) | 10GbT IP (4-PORT) |
10GbE IP OPT (2-PORT) | 10GbE IP OPT (4-PORT)
Simple to manage and use

HTML-5 BASED UNISPHERE
- COMPATIBLE WITH MOST MODERN BROWSERS
- EASY NAVIGATION, SIMPLE WORKFLOWS
- MODERN LOOK AND FEEL
- UNIFIED MGMT. PARADIGM

NEW UNIFIED CLI AND REST API
- EASIER APP INTEGRATION
- SIMPLE HTTP COMMANDS
- API ACCESS FROM CLI, BROWSER, APP AND SCRIPT
Dell EMC Unity All-Flash array: Dynamic Pools

Maximize performance & efficiently save space and budget

TRADITIONAL POOL

Flash drives

Distributed sparing and more flexible pool size

ADD SINGLE DRIVE TO POOL
HIGHER SPACE UTILIZATION
FASTER REBUILD TIME
SIMPLER AND LOWER TCO
Automated iCDM with Dell EMC Unity & AppSync

Minimize copy costs, extend the business value of your AFA storage with app-aware copy data management

Business Challenge: Everyone Needs a Copy

Different stakeholders Different applications Different storage Different destinations Data protection

Solution: Application-aware Automation

SIMPLE: Copy creation & scheduling across applications with self service for app owners

SMART: Automates discovery and awareness of applications & Dell EMC Unity copy/replication services relationship & adapts to changes

FRICTIONLESS: Everyone is on the same page with a transparent copy workflow
Snapshot shipping

Retention period = 7 days

Retention period = 90 days

RetentionPolicy = 50 years
Simple built-in migration from VNX

**INTEGRATED MIGRATIONS**

VNX1/VNX2 → Dell EMC Unity

- **FC, iSCSI, NFS & SMB**
  - MIGRATION FROM VNX

- **BUILT-IN SOLUTION**: SELF-SERVICE WITHOUT REQUIRING ANY THIRD PARTY TOOL

- **MIGRATES LUNS, FILESYSTEMS, QUOTAS, ACLS, AND EXPORTS**

- **TRANSPARENT TO FILE APPLICATIONS, MINIMALLY DISRUPTIVE FOR BLOCK**
Scalable enterprise file system

Addresses traditional and transactional NAS use cases

- **256 TB SCALE-UP FILE SYSTEM**
  Scales to 256TB usable capacity per file system with higher overall limits

- **INLINE COMPRESS**
  Pointer based snaps with simple space reclaim and low IO impact

- **NEW VMDK IMPLEMENTATION**
  Independent VMDK clones with up to 256 clones across multiple levels

- **SPACE EFFICIENT SNAPSHOTS**
  Pointer based snaps with simple space reclaim and snap mobility to remote site

- **FILE SYSTEM SHRINK**
  Reclaim free blocks and shrink file system to reflect new capacity

- **SIMPLIFIED QUOTAS**
  User and Tree Quotas with ability to change online

- **FAST FAILOVERS**
  In-memory log replay for fast non-disruptive failovers

4x more File Power! Q2 2017
Policy-based cloud tiering using CTA

Free up capacity with the benefits of cloud economics

- Reduce backup windows
- Improve TCO
- Physical, Virtual, HA

Archive ‘cold’ data to cloud

AUTOMATIC POLICY-BASED
PUSH OUT SELECTED DATA BASED ON-POLICIES

TRANSPARENT, NON-DISRUPTIVE
NO CHANGE TO APPS; NO IMPACT TO USERS

ON DEMAND RECALL
EASILY RECALL DATA WHEN NEEDED

Public Clouds
Private Clouds
Software Defined, Dell EMC Unity VSA

Agile, virtual storage

VIRTUAL STORAGE APPLIANCE

NFS | CIFS | iSCSI

FILE | BLOCK | VVOL

HTML5 UNISPERE

VSI | ESI | ESA | VAAI REST API

VMWARE ESX

USE CASES
TEST DEV | RAPID DEPLOYMENT
REMOTE BRANCH OFFICES | LOW-COST STORAGE
RETAIL | EDUCATION | HEALTHCARE | CLOUD | NAS
IN SOFTWARE DEFINED INFRASTRUCTURE (SCALEIO OR VSAN)

COMMUNITY EDITION

• COMMUNITY SUPPORT
• FREE DOWNLOAD
• 4TB CAPACITY LIMIT

PROFESSIONAL EDITION

• EMC SUPPORT
• SUBSCRIPTION LICENSE
• 10TB | 25TB | 50TB

Easy In-Place Upgrade
Supply chain experts streamline logistics management with Dell EMC Unity

Challenges
- Data growth overloading legacy storage
- Poor application performance sapping employee productivity

Solutions
- Dell EMC Unity
- VMware vSphere

Applications
- Microsoft SQL Server & Dynamics
- Manhattan Associates
- TMW Systems

Results
- Improved I/O performance by 1,600 percent
- Reduced heavy-duty reporting from four minutes to 30 seconds
- Simplified LUN reconfiguration from 24 hours to nearly instantaneous
- Shrinked data center footprint from 20 to two rack units

“People notice how much faster everything is now. They don’t need to sit around waiting for reports anymore.”

John Zei
Senior Director of IT Services

“Everyone is more productive.”
Dell EMC Unity delivers

**Flash Efficiency**
- Inline compression
- Dynamic Pools
- Very Dense Shelving
- Many Drive Types

**Simplifies Management**
- HTML5 UI, CLI and REST API
- Extensive Storage Analytics
- Built-In Migration from VNX

**New Enterprise Features**
- Broadwell AFA platforms
- 256TB file system
- Snapshot Shipping
- Integrated Copy Data Management
- D@RE: Internal & External Key Management
- Native Replication
New Dell EMC All-Flash storage efficiency guarantee

- Increase storage efficiency by 75%
- Includes 4 different All Flash arrays
- Proven data efficiency technologies
- No assessment required

Visit: www.dell EMC.com/4to1guarantee
Modern Infrastructure Assessment

Performance Impact
- IOPS
- Response Time
- Bandwidth

Operational Impact
- Power
- Cooling
- Floor Space
- Data Efficiency
- Ease of Use

Server Impact
- Compute
- RAM
- Capacity

Financial Impact
- Current Costs
- Future Costs
- TCO

Business Impact
- Application Data
- Workload Improvement

Network Impact
- New

Data Efficiency
- IOPS
- Response Time
- Bandwidth

Data Performance
- IOPS
- Response Time
- Bandwidth

Data Compute
- RAM
- Capacity

New

Dell - Internal Use - Confidential
Modern Infrastructure Assessment

- VMware Data Collection
- Storage Data Collection
- Application Data Collection
- Network Data Collection

MIT Assessment

- Hyper Converged / SDS
- Converged
- Traditional Component Architecture
Sample Report

#GetModern
## Assessment Output Example

### Current Environment

- **(1) VNX 5500**
- **(1) VNXe3200**
- **(1) Pure m20**
- ~2 Racks
- 202 TB Usable
- **Cooling**: 18K BTU/Hour
- **Power**: 5.3 kW
- **176 ms Response Time**
- **30,388 IOPs***
- **Operational Management**
  - Manual Perf tuning, storage engineering
  - No ability for data reduction
  - Reactive storage tiering

### EMC Unity All-Flash Proposed

- **UNITY 500F**
- 218.09 TB Usable (355.5TB Effective)
- **Cooling**: 2K BTU/Hour
- **Power**: 0.7 kW
- < 0.8 ms Response Time
- **175,000 IOPs***
- **Operational Management**
  - Zero config work, Zero tuning, Zero engineering
  - Always ON and INLINE data services

### Numerical Ratings

- **$12K** in Annual Power & Cooling Savings
- **~98%** Improved Latency
- **1.63:1** Data Reduction
- **88%** Less Power / Cooling
- **91%** Less Rack Space
- **>5x** More Performance

### Operational Management

- **Currently**
  - Manual Perf tuning, storage engineering
  - No ability for data reduction
  - Reactive storage tiering

- **Proposed**
  - Zero config work, Zero tuning, Zero engineering
  - Always ON and INLINE data services

### Data Reduction

- **~2 Racks**
- **~98%**
- **91%**
- **>5x***

### Performance

- **1.63:1**
- **218.09 TB Usable**
- **< 0.8 ms Response Time**
- **175,000 IOPs***

---

**Data Reduction**

- **1.63:1**
- **218.09 TB Usable**
- **< 0.8 ms Response Time**
- **175,000 IOPs***

**Performance**

- **30,388 IOPs***
- **176 ms Response Time**
- **1.63:1**

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**#GetModern**

Dell - Internal Use - Confidential
Our customer commitment

“Because our combination is very complementary… we are fully committed to, supporting and investing in both Dell EMC Unity and Dell EMC SC.”

Michael Dell
Related resources

The best location for all related Dell EMC Unity and the SC Series resources is www.dell EMC.com. Here you will find home pages for both Series. Examples of the items available are:

- **Specification sheets:**
  - Dell EMC SC Series: [https://www.emc.com/collateral/dataandspecs/h16036-dell-emc-sc5020-ss.pdf](https://www.emc.com/collateral/dataandspecs/h16036-dell-emc-sc5020-ss.pdf)
  - Dell EMC Unity All-Flash: [https://www.emc.com/collateral/data-sheet/h16018-unity-all-flash-family-ss.pdf](https://www.emc.com/collateral/data-sheet/h16018-unity-all-flash-family-ss.pdf)

- **Demos and Software Downloads:**

- **Whitepapers:**

- **Videos and Education resources:**
  - Dell EMC SC Series Storage Integration with Microsoft Hyper-V: [http://en.community.dell.com/techcenter/extras/m/white_papers/20443481](http://en.community.dell.com/techcenter/extras/m/white_papers/20443481)
  - Online Training course: Dell EMC Unity Training from Educational Services: [https://education.emc.com/guest/campaign/free unity.aspx](https://education.emc.com/guest/campaign/free unity.aspx)

- **Customer reference case stories**