# Real world observations from a Midsize Enterprise company transitioning to a Virtualized Environment

GERRIE

Flash Memory Summit

DELLEMC

# SC Series Storage

**SC All-Flash**

**Leading performance**

High IOPS and throughput, low latency

**Leading efficiency**

Advanced tiering, Intelligent Dedupe and Compression
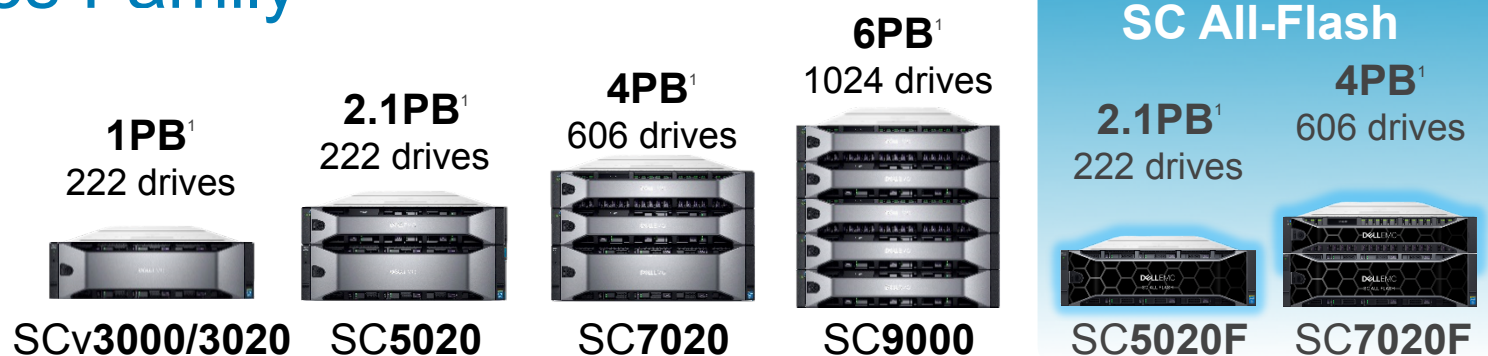
**Enterprise features**

Federated, multi-protocol, highly integrated

**Lowest price**

<$1/GB effective for all-flash with all software included

**DELL**EMC

# SC Series Family

**1PB**[1]
222 drives

**2.1PB**[1]
222 drives

**4PB**[1]
606 drives

**6PB**[1]
1024 drives

**SC All-Flash**

**2.1PB**[1]
222 drives

**4PB**[1]
606 drives

SC**v3000/3020**  SC**5020**  SC**7020**  SC**9000**  SC**5020F**  SC**7020F**

| | SCv3000/3020 | SC5020 | SC7020 | SC9000 | SC5020F | SC7020F |
|---|---|---|---|---|---|---|
| **Memory/Proc.** | 32GB 6c/1.7GHz | 128GB 8c/2.4GHz | 256GB 2x 8c/2.5GHz | 512GB 2x 8c/3.2GHz | 128GB 8c/2.4GHz | 256GB 2x 8c/2.5GHz |
| **Media** | Hybrid (0-100% Flash) | | | | All-Flash | |
| **Protocols** | FC, iSCSI, SAS | | FC, iSCSI | FC, iSCSI, FCoE | FC, iSCSI | |
| **Data reduction** | Compression | Compression + Deduplication | | | | |
| **Multi-array** | Federation (Live Migrate), Snapshot Mobility, Volume Advisor, Replication | | | | | |
| **Business continuity** | Sync Replication, Auto-Failover (Live Volume), Metro DR, RecoverPoint for VM, D@RE[2] | | | | | |
| **Management** | HTML 5 Unisphere for SC, CloudIQ, Dell Storage Manager, Openstack, QoS, Vvols | | | | | |
| **Architecture** | Dynamic RAID Tiering, Always Thin, Virtualized Page Pool, Distributed Sparing | | | | | |

1 – Max raw capacities assume 7.3 firmware and 2MB page size. 4MB and 512K page size options also available. For maximum flash performance, 512K page sizes are recommended. Discuss performance and expansion capacity needs with your Dell EMC representative or Authorized Partner.

2 – External key manager

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# Gerrie Electric



## Overview

- Canadian, family owned business in operation since 1957
- One of Canada's largest independent electrical distributors
- Annual sales in excess of $150 million
- Well-known and respected in the industry
- Reputation built on service

## Markets Serviced

- Industrial, OEM, Contractor, Institutional, Commercial, IP Network, Utility, and Retail

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# Business Challenges

## Operational Transition

- Moving from older HDD storage to flash
- First time implementation of Virtualized environment

## Speed and Availability

- Need real-time report generation
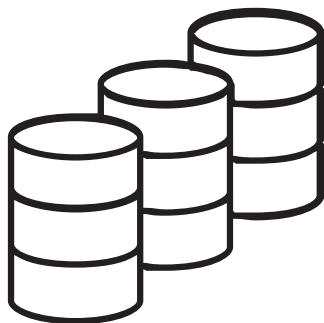- Downtime not an option

## Customer Satisfaction

- Top priority
- Customers cannot tolerate downtime
- High customer satisfaction needed

# IT Challenges

**Security**

**Email**

ORACLE
**ERP**

Microsoft
Dynamics CRM

Microsoft
SQL Server

**SC Series Storage**

## Business Needs

- 24X7 access
- Single support contact
- Ease of use and scale
- High performance
- Affordable

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# Storage Solution

| PowerEdge | SC7020 |
|-----------|--------|
| PowerEdge | |
| PowerEdge | PS Series |

## SC runs all SQL, ERP, CRM, email, Authentication Security

# Business Results

## Metrics

- 75% less power than before, space reduction from 12U-15U to 3U
- 40,000 IOPS reads of 2GB
- Negligible latency and zero wait for our customers
- Reads 2 GB sequential

## Customer satisfaction

- Data what they want when they want it
- Instant access to almost everything
- SC gives real time data, very fast, very efficient
- Reports in minutes rather than hours

# Virtualized Environment  Recommendations

- Cloud Considerations

- Network Challenges

- VM Migration

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We're an all dell shop

Unparalled software services hardware support

Easiest way to do business

We need application and infrascture

All mission critical apps (phone, ERP, databases) run on HW

    we need the best, we partner with Dell

    We cant afford downtime, everything has to be online all the time

    extended hours for services, 24 hour support


We have PowerEdge servers 410, 810, PS series and SC7020

    SC with all flash was desirable, easy migration from PS to SC

    SC runs all SQL, ERP, CRM, email. Authentication Security

My experience with the SC Series

    Fantastic numbers and performance

    The SC series has exceeded expectations

    We don't spend a lot of time reconfiguring or worrying

    "it just works" and "it does what you want it to do"

    It is the product they want for virtualized environments

Results

- 75% less power than before
- 12U-15U to 3U
- 18 MB/s to
- Much faster 300 MB
- 40,000 IOPS reads of 2GB
- Negligible latency

- Reads 2 GB sequential
- Zero wait

Customer satisfaction
- Data what they want when they want it
- Instant access to almost everything
- They insist upon it
- No wait times when customers are placing an order
- Eliminated wait times
- SC gives real time data, very fast, very efficient
- Reports in minutes rather than hours

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