REALIZE
Hyper-Convergence – Pathway to the Agile and Efficient Data Center
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Presented by:
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We are living in a world of change. It’s NO LONGER - “BUSINESS AS USUAL”

70% of Global 2000 CEOs will center their strategies around Digital Transformation by 2017¹

40% of businesses in the top 20 of every industry, will be disrupted by 2018²

50% of the workforce will be Millennials by 2020³

1. IDC – Digital Transformation Predictions (source)
2. PNC – Digital Disruption Challenges (source)
3. PWC - Millennial at Work: Reshaping the workplace (source)
INTEL’S VIRTUOUS CYCLE
OF GROWTH

- Cloud & Data Center
- Memory
- FPGA
- Things & Devices

Connectivity

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innovation ACROSS ALL INDUSTRIES

“Digital fusion”

Blending of Traditional and Digital Business Models

Traditional BUSINESS

Digital BUSINESS

Smart Agriculture
3D Printing in Healthcare
Wearables (Industrial/Lifestyle)
Robotic Surgery
Autonomous Cars
Human Augmentation
New business models are driving an explosion of data & sophisticated analytics.

- 1.5 gigabytes per day
- 20 gigabytes per minute
- 40 gigabytes per minute
- 200 gigabytes per minute
The data center must **EVOLVE** to handle the needs of **tomorrow**

- Liquid & light
- Self-governing
- The end of storage
- Unbounded
- Ubiquitous intelligence
The data center will be **liquid & light**.
The data center will become self-governing.

- Nomadic workloads
- Predictive & dynamic
- Self-aware
The End of storage

- Data will be persistent and available

3D Xpoint

Distributed data

Software-defined storage

5G

Converged
Network transformation will make data center capability unbounded
Ubiquitous Intelligence will pervade from the data center to the edge.
The data center of the future will power Transformative Innovations.
How will Intel enable this TRANSFORMATION?

Innovation
Open Ecosystem
Scale
Modernizing the Data Center From Optimization to Innovation

Focus is on Technology
Increase Efficiency, Security, Flexibility, and Adaptability
- Data Center Optimization
- Virtualization
- Visibility
- Policy-Driven/Enabled

Create Efficiency and Enable Services Accessibility
Software Defined Infrastructure (Compute, Storage, Networking, Self-Service Portal)
- Respond Quickly to Opportunities
- Accelerate New Service Deployments
- Empower Users with Easy Accessibility to Services

Drive Business Innovation
Big Data and Advanced Analytics
- Use High Performance Data Analytics to Identify Opportunities, Respond to Competitive Threats
- Optimize Operations Through Predictive Analysis
- Improve Time-to-Market
- Enhance Customer Value with New Products and Services

Create greater value in IT
Portfolio: Blueprint for Cloud

Benefits

- Fastest time to value
- Optimized and tuned for use case
- Greatest risk reduction
- Solution lifecycle automation

Consumption models

BUY

- Dell EMC Hybrid Cloud System for Microsoft®
- Microsoft® Cloud Platform System Premium powered by Dell EMC
- VCE VxRack™ System 1000 with FLEX Nodes

BUILD

- Dell EMC Hybrid Cloud System for VMware®
- Dell EMC Red Hat OpenStack® Cloud Solution

Maximum flexibility
Validated for use case Heterogeneity with lower risk
Component lifecycle automation and control
Dell/EMC Nutanix Solutions

Consolidate compute and storage into a single chassis with XC Series web-scale converged appliances, powered by Nutanix software. XC Series appliances install quickly, integrate easily into any data center, and can be deployed for multiple virtualized workloads including desktop virtualization, database and private cloud projects.

Solution benefits
• Hyper-converged – Seamlessly integrates server and storage resources in a self-healing system
• Software-Defined – Delivers all services through software using proven Dell and Intel hardware
• Distributed – All data, meta data and operations are distributed across the entire cluster
• Scale Out – Increases performance linearly by adding capacity one node at a time

Differentiation
• Based on Dell’s proven x86 platforms and Nutanix web-scale software
• Quick and easy deployment of new workloads
• Backed by Dell EMC’s Global Service and Support organization

Product Details:
XC630, XC730, XC430, XC6320

Dell PowerEdge Server Platforms:
R630, R730XD, R730, R430, C6320

• Compute: All platforms use the latest generation of Intel Xeon E52600v4 processors
• SSD capacity ranges from 400GB – 1.6TB
• HDD capacity ranges from 1TB – 4TB
• Memory configs: 64GB – 1.5TB
• Integrated networking: Intel X540-T2, I350 1GB, X520 dual port, and I350 1 GB dual port
• Nutanix License: Nutanix Starter, Pro, and Ultimate License
Intel® RSD – Revolutionizing the Datacenter

- Quickly and dynamically configure customized systems to meet your needs
- Discover, compose, and monitor infrastructure using powerful, modern API-based software
- Buy and upgrade only what you need and when you need it
- Secure the benefits of choice, interoperability, flexibility, and industry-wide innovation
Intel® RSD – Software Management Foundation

Industry-standard interoperability across multiple vendors

Flexible management architecture allows a range of implementation options

- Resource Discovery
- System Composability
- Resource Telemetry
- Resource & System Management

Orchestration
Microsoft®  VMware®  OpenStack™  Custom

POD Manager
Discovery/Boot/Configuration/Telemetry

Firmware API

Rack Management Module (RMM) +
Pooled System Management Engine (PSM)

Compute Resources  Storage Resources  Network Resources
Software-defined datacenter foundation

Open, agile and efficient

Dell EMC DSS 9000
Rack-scale Infrastructure

- Up to 96 third-width nodes per rack to maximize density
- Next-gen rack-level management via RESTful APIs (Redfish and Intel RSD support)
- Half- and full-width sleds to maximize compute and storage flexibility
The data center is

FUELING INNOVATION &

TRANSFORMING INDUSTRIES