MULTI-CLOUD, ACCÉLÉREZ VOTRE BUSINESS AVEC MICROSOFT AZURE STACK DE DELL EMC

EMMANUEL BERNARD
PRINCIPAL SYSTEM ENGINEER, CLOUD PLATFORM SPECIALIST
DELL EMC

@_ebernard
Why Hybrid Cloud?
The Trend Toward Hybrid Cloud

As we move toward 2018…

- **Hybrid cloud dominates** enterprise cloud strategies
- Integration & modernization of legacy IT to Hybrid cloud will continue to create massive challenges
- **Investment** in application and workload-aware management and analytics tools will increase
- 65% of IT assets will be located offsite in co-location, hosted or cloud datacenters
- 33% of IT "staff" will be employees of third-party service providers
The New Digital Customer

Rising and continuously changing expectations around experiences

Any way

Anywhere

Any time

Intelligent applications are the new face of business
The New Digital Customer

Rising and continuously changing expectations around experiences

- **Always available**
- **Real-time updates**
- **Intelligent interactions**

Intelligent applications are the new face of business
Why Microsoft?
Microsoft Cloud on a Global Scale

34 datacenter regions

More than AWS and Google Cloud combined
Microsoft Cloud Investment

66% of the world

1,000,000 servers

120,000 new customers every month

58% of Microsoft’s business

$15B investment
Developing a Microsoft Hybrid Cloud Strategy

Legacy IT
- Physical Servers and Virtual Machines
- On-premises, non-cloud

New IT Reality
- Hybrid Cloud
  - Public Cloud
  - Private Cloud

Implementation Options
- Microsoft Azure Stack and Public Services
  - Replace
  - Modernize
  - Migrate

Target Cloud Platform
- SaaS: Microsoft Dynamics, Office 365
- PaaS: Microsoft Azure and Microsoft Azure Stack
- IaaS: Microsoft Azure and Microsoft Azure Stack

Advanced Enterprise Virtualization
- Support for Legacy Apps and IT
  - Windows Server 2016 Hyper-V
  - System Center 2016
  - SQL Server 2016

Retire/Keep
Why Dell EMC Cloud for Microsoft Azure Stack?
Dell EMC & Microsoft: A Heritage of Cloud Partnership

Dell EMC:
The first and only Microsoft partner to offer all these cloud solutions
Complete, Adaptive, Converged, Unified Infrastructure

- Workload optimized
- Cloud leveraged
- Intelligent infrastructure
- Converged & unified
- Virtualized

Solutions for a dynamic infrastructure
Built on comprehensive management

Converged operations | Simple self-service | Flexible cloud sourcing
Dell EMC Engineered for Success

Designed for resiliency & tested at scale with complete component lifecycle management

- Overall test status
- Component test status
- Feature test status
- Bug list
- Burn down
Dell EMC Cloud for Microsoft Azure Stack
# A quick is / is NOT breakdown

<table>
<thead>
<tr>
<th>Azure Stack IS</th>
<th>Azure Stack is NOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>An application focused <strong>Hybrid Cloud Platform</strong></td>
<td>A virtualization-replacement play</td>
</tr>
<tr>
<td>Cloud equivalent of a <strong>SAN</strong> delivering self-service IaaS, PaaS, &amp; cloud solutions</td>
<td>A DIY infrastructure sandbox</td>
</tr>
<tr>
<td>Required to maintain <strong>consistency</strong> with Azure Public</td>
<td>A static system that you can deploy and forget</td>
</tr>
<tr>
<td>Dependent on organizational and process <strong>transformation</strong></td>
<td>A “best of luck” effort</td>
</tr>
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</table>
One Fully-engineered Platform for All Cloud Apps

Hybrid cloud platform

- Designed, delivered, supported, and sustained as one
- Developer and IT ops services
- Platform-as-a-service
- Infrastructure-as-a-service

Modernize
your business with automated IT service delivery for all apps

Innovate
with cloud-native apps to digitally transform your business

Accelerate
Microsoft Azure Stack adoption with confidence
Broker Azure Services with Confidence

Dell EMC Cloud for Microsoft Azure Stack

- Self-service consumption
- Fully engineered hybrid cloud platform eases deployment and management
- Azure & Azure Stack service definition
- VM encryption and network security controls
- Role-based access control
- Workload deployment across multiple regions
- Backup & restore services

* Some components will be in Preview at Azure Stack GA
Manage with a Consistent Experience

Dell EMC Cloud for Microsoft Azure Stack

<table>
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<tr>
<th>Portal</th>
<th>PowerShell</th>
<th>DevOps tools</th>
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<tr>
<td>Azure Resource Manager</td>
<td></td>
<td></td>
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<td>Azure IaaS</td>
<td>Azure PaaS</td>
<td></td>
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<tr>
<td>Compute</td>
<td>Network</td>
<td>Storage App Service</td>
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<tr>
<td>Cloud-inspired infrastructure</td>
<td></td>
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<tr>
<td>Microsoft Azure Stack</td>
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<td>Cloud infrastructure</td>
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<td>Microsoft Azure Public</td>
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</table>
Empower Developers with Azure tools

Dell EMC Cloud for Microsoft Azure Stack

Self-service portal

Azure Stack Development Tools

...and more!

The choice is yours
Overview of the Stack

Azure Stack Engineered Platform
- Hyper-converged architecture (R7x0XD)
- S\IM\L sizing per scale unit
- Flexible configuration options (Compute/Storage)
- Backup/recovery/archiving
- Data & cloud security
- Delivered and deployed as an integrated system

Integrated Lifecycle Management
- Architecture, hardware, and topology
- Deployment, configuration, provisioning
- Validation
- Monitoring, diagnostics
- Security and privacy
- Business continuity
- Patching and updating
- Field Parts replacement

Min Config
4-Nodes

Dell R7x0XD servers

10GbE ToR Switches or
1GbE Management switch
Dell R4x0 management server

* VM Topology - A1 VM
Embedded Deployment & Support Services

Dell EMC Cloud for Microsoft Azure Stack

Deploy

- Dell EMC rack integration
  - At Merge Center or on site
- Dell EMC software integration
  - Rapidly integrate & configure into your IT environment

Support

- ProSupport Plus & ProSupport for Software
  - Platform-level support covering the hardware, OS, hypervisor, Azure Stack, and Azure Resource Manager

Ensure consistent, accurate results to reduce operational risk
One-contact Support
Dell EMC Cloud for Microsoft Azure Stack

Collaborative support

Support across the entire hybrid cloud platform
### Azure IaaS On-premises: Beyond Traditional Virtualization

<table>
<thead>
<tr>
<th>Virtual Machines (VM) VM Scale Sets</th>
<th>Containers with Docker</th>
<th>Networking</th>
<th>Storage</th>
</tr>
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<tbody>
<tr>
<td>Rapid deployment with automated scaling</td>
<td>Linux and Windows Server containers</td>
<td>Virtual network, load balancer, VPN gateway</td>
<td>Blobs, tables, queues</td>
</tr>
</tbody>
</table>

Services will be available at GA

Additional Azure services delivered through frequent updates to Azure Stack
Azure PaaS Available On-premises

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<th>Fully-managed platforms for high productivity development</th>
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<td>Azure App Service</td>
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<tr>
<td>Web, Mobile, and API apps</td>
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Azure Service Fabric and Azure Container Service will be available. Other services will be available at GA. We will deliver additional Azure services through frequent updates to Azure Stack.
Scaling Azure Stack

- 1+ per region
- Expansion unit
- Fault domain
- Single WSFC
- Shared ToR

• 1+ regions
• Span physical locations

- Single portal URL

Azure Resource Manager

- Homogenous per scale unit
- Single location
- 1 physical admin
- 1 logical admin

Azure Stack
On Premises, Hosted

Public Azure
Flexible Consumption Models Make It Easy

Dell EMC Cloud for Microsoft Azure Stack

Utility
Pay-as-you-go option for Azure and Azure stack software services

Dell EMC Hardware & Software

$ Traditional Capex

Options via Dell Financial Services

The choice is yours
Engineered for Speed

- **Accelerates business velocity**
  - Delivering hybrid cloud services faster than build your own

- **Innovative engineered hybrid cloud platforms**
  - Integrated & fully tested plus roadmap of new capabilities

- **Single source for service & support**
  - Unmatched global services and one contact support

- **Simplified upgrades**
  - New features and components tested and validated across all components

Dell EMC Cloud for Microsoft Azure Stack
# The Power of Azure in Your Data Center

**Dell EMC Cloud for Microsoft Azure Stack**

<table>
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<tr>
<th>Business User</th>
<th>Azure Services</th>
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<tbody>
<tr>
<td>Digital marketing</td>
<td>Mobile</td>
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<td>E-commerce</td>
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<td>SharePoint on Azure Stack</td>
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<th>Cloud Admin</th>
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<tr>
<td>Automation &amp; service level selection</td>
</tr>
<tr>
<td>*Backup policy and retention choice</td>
</tr>
<tr>
<td>*Encrypt VMs anywhere in Azure</td>
</tr>
</tbody>
</table>

## Placing business in the drivers seat

*Initially delivered via Dell EMC Consulting Services*
Modernize Your Business for All Apps

Dell EMC Cloud for Microsoft Azure Stack

Consistent experience for Azure and Azure Stack

Broker self-service with confidence

Protect and secure application data

Flexible consumption makes it easy

Hybrid cloud platform for all apps
Innovate Faster to Achieve Business Outcomes

Dell EMC Cloud for Microsoft Azure Stack

- Increase innovation velocity
- Write once, run in Azure or Azure Stack
- Empower developers

Innovate
Business, developers, and IT ops
Adopt a Hybrid Cloud Business Model with Confidence

Dell EMC Cloud for Microsoft Azure Stack

Engineered for speed and simplicity

Services for your entire cloud journey

Upgrade with ease through validated packages

Single contact support reduces operational risk

Accelerate Business, developers, and IT ops
Eliminating the Budget Barrier with Flexible Consumption Models

Pay for technology on your terms with Payment Solutions for Flexible Consumption

**Growth solutions**
- Flexible Leasing
- Pay as you Grow
- Provision and Pay Ready Capacity

**Variable use**
- Flex On Demand
- Data Center Utility
- Cloud Flex for HCI

**Software solutions**
- Software installment payments
- Transformational License Agreements (TLAs)

Dell Financial Services™ (DFS)
Why Azure?
- Modernize apps on public/private clouds
- Write once, deploy anywhere
- Support micro-services architectures
- Reuse common components & apps
- Extend cloud-native apps

Why Dell EMC?
- The ONLY consistent Azure experience
- Most flexible financing
- Integrated & on demand
- Non-disruptive patches(updates)
- Modular & flexible
Get Started Now
Evaluator Program for Microsoft Azure Stack

Dell EMC Cloud for Microsoft Azure Stack

Dell EMC PowerEdge R630

- **Cores:** E5-2630 (10C, 20T) or E5-2650 (12C, 24T)
- **Memory:** 128GB or 256GB
- **SSD:** 2 x 480GB SAS SSD
- **HDD:** 6 x 1TB SAS HDD

- Azure Stack Admin & Tenant Experiences
- DevOps/Infrastructure-as-Code with ARM templates
- Try Web/Service Fabric services coming at GA
- Visual Studio and PowerShell experience
- Infrastructure-as-a-Service

Get started today with Azure Stack for PoCs and dev/test