What is Dell EMC Cloud for Microsoft Azure Stack?

Harry Meier
Why Hybrid Cloud?
The Trend Toward Hybrid Cloud

Larger circles = most cost and complexity

IDC 2016

Time (months) to mainstream

Organizational impact

IDC 2016

1. Hybrid cloud
2. Industry cloud
3. Cloud core
4. Workload-centric management
5. Public data and analytics
6. Diversified IT
7. Open is mandatory
8. DevOps matures
9. Skills and staffing
10. East-West
Hybrid cloud is now

82% of enterprises are leveraging the cloud.¹

78% want to return apps from public cloud.²

9 out of 10 ITDMs say hybrid cloud is important for a “future-ready” enterprise.²

Yet there are barriers to moving forward.

24% are concerned about long-term cost risks of hybrid cloud.¹

52% are concerned about cloud security.³

¹ Dell Global Technology Adoption Index 2015 Chapter 1
² Dell and Penn Schoen Berland Poll 2015
³ Dell Global Technology Index 2015
The Case for Hybrid Cloud

Seamlessly extend apps and data to the cloud

Write apps consistently and deploy anywhere

Control resources securely wherever they are

Infrastructure  Applications  Data  Users
Why Microsoft?
Microsoft Cloud on a Global Scale

34 datacenter regions

More than AWS and Google Cloud combined
Azure has the deepest and most comprehensive compliance coverage in the industry.
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
- Retire/Keep

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

Agility
Why Dell EMC Cloud for Microsoft Azure Stack?
Complete, Adaptive, Converged, Unified Infrastructure

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

Solutions for a dynamic infrastructure
Built on comprehensive management

Converged operations | Simple self-service | Flexible cloud sourcing
Dell EMC & Microsoft: A Heritage of Cloud Partnership

Dell EMC: The first and only Microsoft partner to offer all these cloud solutions.
Dell EMC Engineered for Success

Designed for resiliency & tested at scale with complete component lifecycle management
Dell EMC Cloud for Microsoft Azure Stack
One Fully-engineered Platform for All Cloud Apps

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

Hybrid cloud platform

Designed, delivered, supported, and sustained as one

Developer and IT ops services

Platform-as-a-service

Infrastructure-as-a-service

Software

Hardware

Support

Services
Broker Azure Services with Confidence

Dell EMC Cloud for Microsoft Azure Stack

- Self-service consumption
- IaaS
- PaaS
- Flexible service delivery
- IT Ops

- Azure & Azure Stack service definition
- VM encryption and network security controls
- Role-based access control
- Workload deployment across multiple regions
- Backup & restore services

Fully engineered hybrid cloud platform eases deployment and management

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

Dell EMC Cloud for Microsoft Azure Stack

Portal | PowerShell | DevOps tools

Azure Resource Manager

Azure IaaS | Azure PaaS
Compute | Network | Storage App Service | Service Fabric*

Cloud-inspired infrastructure

Microsoft Azure Stack
Behind the firewall | Hosted

Developers

One Azure ecosystem
Unified app development
Azure services in your datacenter

IT

Portal | PowerShell | DevOps tools

Azure Resource Manager

IaaS | PaaS

Cloud infrastructure

Microsoft Azure
Public
Empower Developers with Azure tools

Dell EMC Cloud for Microsoft Azure Stack

The choice is yours

…and more!
Azure Stack Engineered Platform
- Hyper-converged architecture (R7x0XD)
- S\M\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

Overview of the Stack
- 10GbE ToR Switches or 1GbE Management switch
- Dell R4x0 management server
- Dell R7x0XD servers
- Min Config 4-Nodes

* 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

- **Virtual Machines (VM) VM Scale Sets**: Rapid deployment with automated scaling
- **Containers with Docker**: Linux and Windows Server containers
- **Networking**: Virtual network, load balancer, VPN gateway
- **Storage**: Blobs, tables, queues

Services will be available at GA
Additional Azure services delivered through frequent updates to Azure Stack
**Azure PaaS Available On-premises**

*Fully-managed platforms for high productivity development*

<table>
<thead>
<tr>
<th>Platform</th>
<th>Description</th>
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<tbody>
<tr>
<td>Azure App Service</td>
<td>Web, Mobile, and API apps</td>
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<tr>
<td>Azure Functions</td>
<td>Serverless computing</td>
</tr>
<tr>
<td>Azure Service Fabric</td>
<td>Always-on, scalable distributed applications</td>
</tr>
<tr>
<td>Azure Container Service</td>
<td>Robust container management</td>
</tr>
<tr>
<td>Cloud Foundry</td>
<td>Open source platform</td>
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</table>

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.
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

Hybrid cloud platform

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

Dell EMC Cloud for Microsoft Azure Stack

- Self-Service Portal
  - Business User
  - Cloud Admin
  - Azure Services
    - Digital marketing
    - Mobile
    - E-commerce
    - Micro-service applications
    - Development and test
    - SharePoint on Azure Stack
  - Automation & service level selection
  - *Backup policy and retention choice
  - *Encrypt VMs anywhere in Azure

Placing business in the drivers seat

*Initially delivered via Dell EMC Consulting Services
<table>
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<th>Why Azure?</th>
<th>Why Dell EMC?</th>
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<tr>
<td>Modernize apps on public/private clouds</td>
<td>The ONLY consistent Azure experience</td>
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<tr>
<td>Write once, deploy anywhere</td>
<td>Most flexible financing</td>
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<tr>
<td>Support micro-services architectures</td>
<td>Integrated &amp; on demand</td>
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<tr>
<td>Reuse common components &amp; apps</td>
<td>Non-disruptive patches/updates</td>
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<td>Extend cloud-native apps</td>
<td>Modular &amp; flexible</td>
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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
Get Started Now
Thank you