The Importance of Managed Services in Enterprise-Class Cloud Deployments

Chris Gaudlip – Virtustream Global Services CTO
Agenda

• Market dynamics
• Managed Services methodology and solutions
• Winning with Virtustream Managed Services
The Shift in Cloud Adoption

**Phase 1: On-Demand Infrastructure**

- **PRODUCTS**
  - Initial Cloud Engagements
  - Focused on Infrastructure
- **CUSTOMERS**
  - Developers, SMBs
- **WORKLOADS**
  - Test & Development
  - Project-Based
  - “Public Clouds Dominate”

**Phase 2: Management of Cloud Environments**

- **Cloud Computing Revenue**
  - 22% CAGR 2015-2020
- **Focus**
  - Greater Traction with Management Products & Vertical Offerings
- **CUSTOMERS**
  - Enterprise Adoption usage
- **WORKLOADS**
  - Product & Mission-Critical
  - “Focus shifting to Private/Hybrid Clouds”

**PHASE TRANSITION**

- Investments, product intros & new deals point to:
  - Increase in private activity leading to comfort with public cloud.
  - Higher-end data
  - Shift up the stack

**2015**

- **$17 billion**

**2016**

- **$46 billion**

A Changing Conversation

- Public vs. Private
- Infrastructure
- Server Deployment
- Self-Service
- Supply Utility

- Hybrid
- Applications
- Service Delivery
- Managed Services
- Deliver Business Value
What Customers are Saying:

**We Need Digital Agility**
Personalization / Service / Speed / Security

**Cloud First**
We’re implementing a “cloud first” policy

**Where Do I Start?**
Help me realize the business benefits rapidly
Managed Services
Maximize Performance, Reduce Complexity & Leverage Best-In-Class Expertise

Complete Managed Services Portfolio
- Storage
- Backup & Recovery Services
- Private and Hybrid Clouds

Comprehensive Solutions
- ITIL-based operational standards
- Performance underpinned by service-level guarantees
- Alert management with performance & capacity reporting
- Flexible consumption-based models
- Seamless coverage through global delivery network
- Collaborative governance model
Cloud Transformation

Align to the cloud era with guaranteed outcomes, pay-as-you-go billing.

**TRANSFORM**
- On-boarding, migrate, upgrade, and support services
- Full operating system, application, and DBA services
- Provide a true managed cloud

**AUTOMATE**
- Assess business needs
- Define strategies, create plans
- Build outcomes based on cloud concepts and methodologies

**MODERNIZE**
- Software-defined infrastructure services for cloud
- Improve efficiency, resiliency, performance, and agility
- On premise IT technologies and staff
Key Priorities

More than just choosing the right technology

It’s about choosing the right Managed Services and partner to realize change at a competitive pace.

Application Transformation
- Cloud-enable traditional apps
- Provide cloud-native platform
- Consider on/off premises cloud
- Provide business agility & speed

Operational Automation
- Bring cloud automation and agility to enterprise apps and ops
- Save time & money via automation
- Implement cloud concepts and methodologies

Infrastructure Modernization
- Evolve platform to assure efficiency, resiliency, performance, and agility
- Modernize to ensure the best return on technologies and staff
Delivering Business Services

Products
- Engineered architectures
- Reference architectures
- Converged infrastructure
- HW components

Services
- Advanced Managed Services
- Standard Managed Services
- Foundation Managed Services
- Scope-based services

Reference Architecture

Service Catalog

Private On-premise

Shared Off-premise

Private Off-premise
# Simple Explanation of the Solution

## Operational flexibility and choice

<table>
<thead>
<tr>
<th>Choose Capability</th>
<th>Foundation or Standard Managed Services</th>
<th>Advanced Managed Services</th>
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</thead>
<tbody>
<tr>
<td><strong>Application</strong></td>
<td>• Onboarding &amp; Transition</td>
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<tr>
<td>SAP S/4HANA</td>
<td>• Reports</td>
<td>• Transformation</td>
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<tr>
<td>Pivotal Cloud Foundry</td>
<td>• Fixed SLAs</td>
<td>• Custom Reports</td>
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<tr>
<td>Data Lake / Big Data</td>
<td>• Fixed Changes/Month</td>
<td>• Customized SLAs</td>
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<tr>
<td>OpenStack</td>
<td>• Remote Monitoring</td>
<td>• Change Management</td>
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<tr>
<td><strong>Platform</strong></td>
<td>• Service Desk</td>
<td>• Service Desk</td>
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<tr>
<td>Enterprise Hybrid / Native Cloud</td>
<td>• Fixed PM Hours</td>
<td>• Tailored PM Hours</td>
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<tr>
<td>Pivotal Cloud Foundry</td>
<td>• Incident &amp; Event Mgt</td>
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<td>Off-Premises Cloud</td>
<td>• ITSM Integration</td>
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<tr>
<td><strong>Infrastructure</strong></td>
<td>• Run Books</td>
<td>• Custom Run Books</td>
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<tr>
<td>Dell EMC Storage</td>
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<td>• Integration With Ticketing</td>
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<tr>
<td>Converged Infrastructure</td>
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<td>Backup &amp; DR</td>
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**Select Service Needs**

**Fully Customized**

- Onboarding & Transition
- Transformation
- Custom Reports
- Customized SLAs
- Change Management
- Service Desk
- Tailored PM Hours
- Incident & Event Mgt
- ITSM Integration
- Custom Run Books
- Integration With Ticketing
Virtustream Managed Services Coverage

Services across infrastructure, platform, and applications

**INFRASTRUCTURE**
- Storage
- Backup
- Disaster Recovery

**PLATFORM**
- Converged Infrastructure
- Enterprise Hybrid / Native Cloud
- Pivotal | VMware

**APPLICATIONS**
- Big Data
- SAP S/4HANA
- Other Applications
Infrastructure

Storage, backup and disaster recovery

**Business Driven**
Engage with a strategic partner to deliver ITaaS and tailor support to your business requirements

**Customer-Centric**
Proactive approach to IT operations with a focus on customer requirements enables continuous improvement via delivery excellence

**Operational Experts**
Extensive storage and backup experience combined with proven governance and process methodology provides operational excellence

**Technology Experts**
Trained, certified managed service professionals trained on EMC storage and backup technologies ensure a successful engagement
Platform

Enterprise Hybrid and Native Cloud, Converged Infrastructure, Pivotal, VMware

Manage multiple infrastructure and cloud architectures
- Staff augmentation in managing diverse technology
- Standard and repeatable frameworks
- ITIL adherence, TSIA awarded

Provide ITaaS to end users
- Standard templates ease consumption
- Charge back and showback
- Monitor and manage workloads on/off premise.

Support for tenant operations and new cloud processes
- Multi-tenant cloud deployment
- Cloud service lifecycle management
- Automation to deliver efficient cloud
On-demand provisioning of experts to improve ongoing effectiveness of a client’s cloud-based information technology assets

Virtustream’s Application Management Services Stack

- Application management
- DB & app administration
- VM & OS administration
- Network services
- Facilities, computing infrastructure & storage units

- Performance tuning, capacity planning, resource optimization
- SAP basis, Oracle apps DBA, Security upgrades, patches, issue resolution
- Admin, installation, upgrades, patches, security
- Backup and disaster recovery, 24x7, Helpdesk redundant carriers
- Physical plant, virtualized compute, storage and I/O hardware

Flexible, Consumption Based Approach
- Service catalog – order only what you need
- Best-in-Class People
- Increase availability, stability, performance

Application Platform Expertise
- Clients maximum return on investment

Application Automation and Innovation
- Self healing and hands off administration
Professional Services Offerings

- Virtustream Advisor Services
- IaaS Onboarding
- Application Migration to Virtustream Enterprise Cloud
- Cloud Service Provider (CSP) Enablement
- IMS Onboarding & Program Management
- Systems Integration
Onboarding Services
Proven transition methodology

- Staffing & Onboarding
- Process Integration
- Service & Technology Reporting
- Technology Management Integration
# Award-Winning Repeatable Service Management

Multi-phase approach ensures success with continuous improvements

<table>
<thead>
<tr>
<th>Service Start-Up</th>
<th>Service Strategy</th>
<th>Service Operations</th>
<th>Continuous Improvement</th>
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</table>
| • Establish steady-state  
  • Transfer operations  
  • Establish governance and operations | • Perform steady-state service  
  • Optimize services  
  • Establish best practices | • Meet performance standards  
  • Comprehensive SLAs and measurements | • Perpetual learning  
  • Drive innovation  
  • Implement enhancements  
  • Share benefits  
  • Improve quality  
  • Be more efficient  
  • Be more economical |
Virtustream Wins TSIA STAR Award

• Judges unanimous in Virtustream selection.
• Business evolved from a product-attached solution to a fully integrated, managed XaaS solution.
• Recurring services revenue increases more than double those of the industry
• Dramatically higher growth and operating margin performance compared to industry

Innovation in a Managed XaaS Solution
Team Skills Summary
Professional, certified experts

[Logos of various certifications and accreditations]
Single Source for Managed Services

End-to-end management & operation of Dell Technologies family of businesses and 3rd party technologies

DELL TECHNOLOGIES

PARTNERS

VENDORS