Preparing your critical systems for Cloud DR/BC
Virtualization and cloud implications on DR/BC and beyond

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Virtualization and cloud computing trends

DEF: cloud computing n.

Leveraging external computing capabilities over the network to cut costs, increase scale, gain best practices and improve business agility

82% of businesses have deployed or plan to use cloud services in 2011

Source: Gartner
Decade strong trend of virtualization

- **2000+: Wave 1**
  - IT Production: *Hardware Efficiency* (File, Print, Web, etc.)

- **2008+: Wave 2**
  - Line of Business: *Resiliency* (Core Apps)

- **2010+: Wave 3**
  - IT-as-a-Service: *Agility* (Flexibility, Self-Service, Cloud Federation)

*Source: VMware*
Xtium background and depth

- **Founded:** 2004, private, profitable, service enabler-model
  - One of **only 3** certified hosting providers for VMware, Microsoft and SAP
  - Largest global virtual private cloud provider for VMware Zimbra (NYSE: VMW)
  - Largest virtual private cloud service provider for SAP stack (CRM, ECC, BI)
    - including enterprise, production environments, e.g., NASDAQ: PEGA, NASDAQ: LPSN

- **Based:** Valley Forge, PA and Las Vegas, NV
  - Forty (40) globally certified, multi-tenant datacenters; plus locations in:
    - San Francisco, CA
    - Wilmington, DE
    - Las Vegas, NV
    - London, UK
    - Nashville, TN
    - Hong Kong, CN

- **Footprint:** 20 engineers; 78 customers; 4,258 application payloads
  - Pioneered infrastructure-as-a-service, IaaS, now on v. 6.0
  - x86-based operational evolution of the SaaS delivery model

- **Focus:** cloud-based IT disaster recovery, hosting, managed services

- **Expertise:** operational bridge from on-premise to “on-cloud”
  - OPT™ Cloud Appliance and NeverTape™ backup technologies
  - NeverSleep™ hybrid-stack monitoring with synthetic transactions

- **Strategy:** mid-market leader in virtual private cloud services
  - N+2™ resilience services connecting on-premise IT systems to “on-cloud”
  - “2-for-1” benefit with higher service levels plus on-ramp to cloud
Next generation IT/DR-as-a-Service positioning

“Limo drive” to your cloud

Integrated virtual private cloud service

- New “architect and delegate” model offers an evolutionary, high impact, 2-step process to leverage the emerging IT trends
- Step 1: You **design** infrastructure and application architecture using distributed virtual private cloud services (IaaS)
  - User deployment
  - Feature/function topology
  - Geographic reach
- Step 2: You **delegate** the design execution and maintenance while controlling technology roadmap and total cost of ownership
  - Just-in-time resource provisioning
  - Infrastructure-as-a-Service (subscription)
  - SLA-driven strategic relationship

Bridging the gap between “on-premise” to “on-cloud” to create a **private cloud network** connecting mid-market businesses to the Cloud
Key approach where you’re in control

BUILD AND MAINTAIN
- Expertise
- Operations
- Deployment
- Security
- Configuration
- Support
- Maintenance
- Monitoring
- Testing

ARCHITECT AND DELEGATE
- One Vendor
- One Consistent Bill
- One Contact for Support
- One Point of Accountability

SLA-DRIVEN SERVICE DELIVERY
- Expertise
- Deployment
- Security
- Configuration
- Testing
- Support
- Maintenance
- Monitoring
- Operations
Alternatives to satisfy the cloud demand

<table>
<thead>
<tr>
<th>Decision Criteria</th>
<th>build &amp; maintain</th>
<th>co-location</th>
<th>outsourcing</th>
<th>architect &amp; delegate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cost of Ownership</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Speed, Flexibility &amp; Scalability</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
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<tr>
<td>Technical Expertise</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
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<tr>
<td>Roadmap Control &amp; Integration</td>
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When buying decisions are driven by:
- TCO and Service Level
- Speed to Market & Flexibility
- Technical Expertise
- Control over roadmap
- Businesses choose "architect & delegate"
Cloud building blocks and focus

High service level—“LIMO-RIDE” to your private cloud

IT Projects
- IT consultants, project-based
- Virtualization and on-boarding
- SAN fabric and monitoring
- WAN replication, acceleration
- Security and networking
- Database and performance

Operations & OPT™ Experts

Applications, OS & Hardware
- Servers, Firewalls, Switches
- Operating systems
- Application Licensing
- Single Instance, Multi-tenant

Space, Power & Cooling
- Physical Security
- Power and Cooling
- Bandwidth and Connectivity
Cloud Topology: VRC-VF with N+2™ in VRC-LV
How it would work for you

Xtium's OPT™ on-premise appliance
- Non-invasive replication
- WAN acceleration
- Monitoring and alerting
- One-step transition to the cloud
## Benchmarking Considerations

<table>
<thead>
<tr>
<th>Benchmarking Criteria</th>
<th>Private Cloud (Xtium)</th>
<th>Build &amp; Maintain (On-Premise)</th>
<th>SaaS (MSFT/GOOG/SFDC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Over Roadmap Direction and Strategic IT Advantage</td>
<td>●</td>
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<tr>
<td>Distributed, Global, Multi-Vendor Topology</td>
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<tr>
<td>Multi-Tenant, Shared-cost, Variable Economics</td>
<td>●</td>
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<td>●</td>
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<tr>
<td>Future-proof HW/SW, Centralized Data Management, DR, BC</td>
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<tr>
<td>On- and Off-premise transition; no technology lock-ins</td>
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<tr>
<td>On-demand resource provisioning (SAN, CPU, VM, BW, Licensing)</td>
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<tr>
<td>Open Systems and Standards; Application Agnostic</td>
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<tr>
<td>Multi-Landscape Integration (e.g., ERP, Financials, CRM, BI)</td>
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<tr>
<td>Comprehensive, Proactive Monitoring Controls and Processes</td>
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**functionality key:**
- ○  missing, costs more
- ●  passing grade
- ●  meets or exceeds
Practical considerations for preparing your critical systems for DR/BC in the cloud

• Strategic commitment to virtualization and the cloud-first stack
  – How to be physical
  – *How to be and prefer virtual*
  – SAN fabric considerations
  – Bandwidth considerations (MPLS vs. dedicated)
  – Using View VDI as next generation “facilities seats”

• Practical, low risk approach
  – Deploy DR-as-a-Service first, using virtualization as an enabling technology to get to the cloud
  – After getting comfortable with DR-as-a-Service, transition to either on-premise or on-cloud production services, always retaining the transition and federation flexibility
  – Work one application fabric at a time
  – WAN Optimization and User Experience Acceleration as a Service
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