

Blue Mountain Labs

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Where Cloud Computing Meets Enterprise Architecture

Understanding the Relationships



SOA and Cloud Computing

- One can consider cloud computing the extension of SOA out to cloud-delivered resources, such as storageas-a-service, data-as-aservice, platform-as-a-service -- you get the idea.
- The trick is to determine which services, information, and processes are good candidates to reside in the clouds, as well as which cloud services should be abstracted within the existing or emerging SOA.



The Basic Idea



Organizing the Clouds

Testing-as-a-Service

Management/Governance-as-a-Service

Application-as-a-Service

Platform-as

-a-Service

Process-as-a-Service

Information-as-a-Service

Database-as-a-Service

Storage-as-a-Service

Infrastructure-as-a-Service

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Security-as-a-Service

Integration-as-a-Service

IT is Skeptical



- Enterprise IT is understandably skittish about cloud computing.
- However, many of the cloud computing resources out there will actually provide better service than on-premise.
- Security and performance are still issues.

However, Not So Fast



- Not all computing resources should exist in the clouds.
- Cloud computing is not always cost effective.
- Do your homework before making the move.

When Cloud Computing may be a Fit

- When the processes, applications, and data are largely independent.
- When the points of integration are well defined.
- When a lower level of security will work just fine.
- When the core internal enterprise architecture is healthy.
- When the Web is the desired platform.
- When cost is an issue.
- When the applications are new.

When Cloud Computing may not a Fit

- When the processes, applications, and data are largely coupled.
- When the points of integration are not well defined.
- When a high level of security is required.
- When the core internal enterprise architecture needs work.
- When the application requires a native interface.
- When cost is an issue.
- When the application is legacy.

Start with the Architecture



Understand:

- Business drivers
- Information under management
- Existing services under management
- Core business
 processes

Getting Ready

- So, how do you prepare yourself? I have a few suggestions:
 - First, accept the notion that it's okay to leverage services that are hosted on the Internet as part of your SOA. Normal security management needs to apply, of course.
 - Second, create a strategy for the consumption and management of cloud services, including how you'll deal with semantic management, security, transactions, etc.
 - Finally, create a proof of concept now. This does a few things including getting you through the initial learning process and providing proof points as to the feasibility of leveraging cloud computing resources.



Stepping to the Clouds

- 1. Access the business.
- 2. Access the culture.
- 3. Access the value.
- 4. Understand your data.
- 5. Understand your services.
- 6. Understand your processes.
- 7. Understand the cloud resources.
- 8. Identify candidate data.
- 9. Identify candidate services.

- 10. Identify candidate processes.
- 11. Create a governance strategy.
- 12. Create a security strategy.
- 13. Bind candidate services to data and processes.
- 14. Relocate services, processes, and information.
- 15. Implement security.
- 16. Implement governance.
- 17. Implement operations.





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Other Thoughts

- External cloud services should function like any other enterprise application or infrastructure resource.
- You should evaluate cloud providers using similar validation patterns as you do with new and existing data center resources.
- Cloud resources should appear native.
- Consider Private Clouds.
- Watch the hype, the resources are new, but the patterns of architecture are familiar.



Thanks! david@bluemountainlabs.com

- Blogs:
 - InfoWorld "Real World SOA"
 - Intelligent Enterprise
 - eBizq.net
- Weekly Podcasts
 - InfoWorld SOA Report
 - Cloud Computing Podcast
- Columns

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- SOA Journal
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