



CLOUD COMPUTING A CIO's Perspective

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KEY ISSUES FOR CLOUD COMPUTING

- **Not a new concept in the Navy...but one whose technology maturity now supports the promise.**
- **Gartner defines cloud computing as "a style of computing where massively scalable IT-related capabilities are provided 'as a service' using Internet technologies to multiple external customers."**
- **Cloud computing services are far-reaching**
 - Computational Services “independent” of the physical infrastructure
 - Storage Services – Reduces the need for Server Farms
- **Virtualization**
 - Separate applications from underlying infrastructure
- **Budget**
 - Shift from capital budgets to operating budgets



TRANSITION CHALLENGES

- **Moving from “concept” to “reality”**
 - Cultural shift
 - Storage online vice on server
 - Maintaining control of data
 - ROI – teaching Senior leadership about the value of this investment
- **Move mission critical services to the cloud or just peripheral?**
- **Lack of standardization from vendor to vendor**
- **Security**
 - Third party data storage
 - SOA – security paradigm as a service centrally controlled
- **One Size Fits All**
 - Customization can lead to expense



What Should We Consider?

Advantages

- Rapid Response & Agile Deployment to a Business Problem
- Improved User Mobility and Global Access
- Enables Collaboration
- COOP – self healing and resistant to DNS
- Platform Agnostic
- Reduced Development & Test Costs
- Reduced End-User Maintenance Costs
- “2 heads are better than 1” leads to alternative approaches outside the corporate paradigm
- Efficiency though group policing and “Best –in Class” Solutions

Disadvantages

- More Frequent Changes to the Application Could Impact User Acceptance & Training
- More Frequent Changes could break Legacy Systems
- Investment required...ROI not well understood
- Perceived Operations Loss of Control over Software Releases
- Solutions need to consider impacts to Records Retention, Security, and Privacy Laws & Policies
- Networking large groups of servers conflicts with present security paradigms
- Determining Intellectual Property Ownership