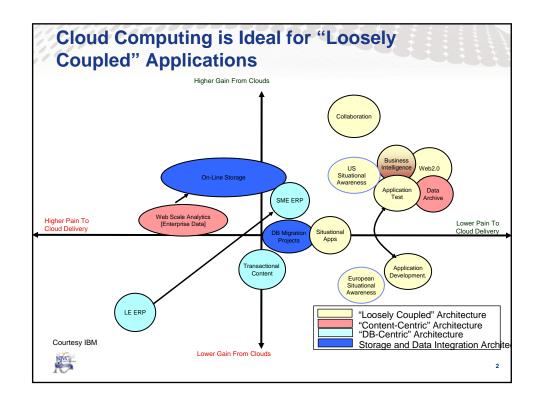
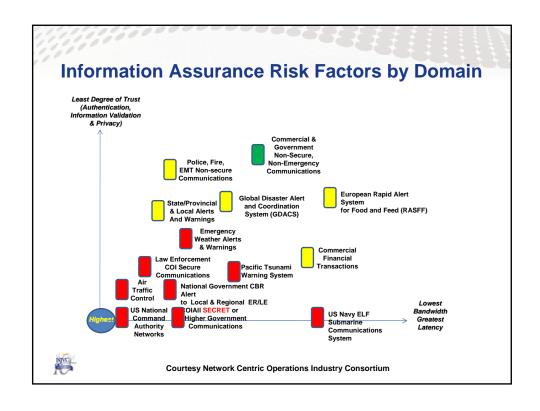
International Cloud Computing: What About the Data?

General Manager, Cloud Computing Services NJVC, LLC







International Cloud Data Environment

- ★Browser-based applications
- ⋆Ubiquitous data access
- ★Global compatibility
- ★Reduced capital requirements
- "Frictionless" Environment (Viral Applications)
- ⋆International marketplace of ideas



International Disaster Response: InRelief.org

United Nations Organizations

 Logistics Cluster (World Food Program).
 One Response ReliefWeb
 UN Population Fund (UNFPA)
 UNICEF
 UN Spatial Data Infrastructure
 UN World Food Programme

International Organizations

* CARE International
Disaster Charter
Doctors Without Borders
International Rescue Committee
Oxfam International
Red Cross
Save the Children
Ushahidi

United States Organizations

* AmeriCares
Direct Relief Person Finder
Project Hope



Scientific Collaboration: NASA & Japan NII

- Jointly served publicly-available selections of Mars Orbiter data sets
- ★ First step in NASA's efforts to demonstrate how cloud standards can facilitate interoperability and data portability for the benefit of the international science community
- * NASA and NII will collaborate on open source reference tions of interpretable cloud ser



Market Collaboration: EuroCloud

"The cloud model stands for global reach, ecosystem partnerships and integration. Our goal in developing EuroCloud is to promote SaaS and cloud services and applications across Europe and encourage its take up. EuroCloud will be an accelerator of business, of technological relationships and application integration. It will represent the cloud industry in Europe -- taking into account local differences -- and be an excellent platform for exchanges with America or Asia."

<u>Austria</u> **Belgium Denmark** Germany Finland **France** <u>Ireland</u> <u>Italy</u> <u>Lithuania</u> Luxembourg <u>Malta</u> **Netherlands** <u>Portugal</u> Spain Slovenia Sweden **Turkey** <u>Ukraine</u> United kingdom

EuroCloud



*Pierre-José Billotte, EuroCloud

Challenges

*Legal Issues

- Differences in consumer protection laws
- Management of transborder data flows
- International data privacy and security safeguards
- Cross border regulatory enforcement
- Electronically Stored Information / E-Discovery

⋆Interoperability, Portability

- Use and consistent implementation of open standards.
- Market consolidation on a limited number of proprietary protocols/interfaces

⋆Increase "Digital Divide"

- Dependency on high broadband speeds at affordable prices
- Reduced incentive for the development of locally-based internet computing expertise and capability

Data Confidentiality, Privacy, Integrity

- ⋆ Data stored, transmitted and processed outside of the organization
- ★Shared computing environments
- ⋆No physical control of data
- Physical and logical access managed by provider
- ⋆No controls to prevent data modification
- No logging events on data (access, modification, transmission)



Regulation and Compliance

- ⋆ Data subject to new laws
- Exposure to foreign governments and subpoenas
- Retention requirements vay among jurisdictions
- *Audit of provider's environment
- Increased complexity to comply with standards



