Agenda

- What is “cloud computing” and its promised benefits?
- What are the regulatory and jurisdictional challenges re cloud computing that impede its widespread adoption?
- What are our proposed solutions?
What is “cloud computing”?

- Depends who you ask . . .
- Cloud computing provides software and computing power to users as a service, in a dynamic and scalable manner, over the Internet.
- Many different “flavors” of cloud computing:
  - Consumer vs. enterprise
  - Public, dedicated, or private cloud
  - Software as a service (SaaS), platform as a service (PaaS) or infrastructure as a service (IaaS)
- Benefits include:
  - More agility and scalability
  - Access from any device (PC, Phone, Multi-Function Devices, TV...)
  - Cost savings/efficiencies
  - New technologies available sooner
  - Access to unprecedented computing power
- Isn’t this just outsourcing?
What are the regulatory and jurisdictional challenges re “the cloud”? 

• In many respects, the policy issues are the same as those that have been addressed with online services over the past 15+ years. 
• But as more data moves into the cloud, cracks in the framework, ambiguities in the law, and other policy challenges become more exposed. 
• For instance . . .
Data security

- What are the security risks (and benefits) of the cloud?
- Service provider practices
  - Does the service provider have a documented information security program, and what does it say?
  - What security certifications does the service provider have?
- What are the responsibilities of each party, e.g. in the event of a data breach?
Data privacy vs. Law enforcement access

• What is the right balance between individual privacy rights and the need for government entities to catch criminals and terrorists?
• Should it make a difference if you store your data in your home or in the cloud?
• In the US, applicability of 4th Amendment to the cloud is unclear; similar issues arise internationally
• US jurisdictional reach (Bank of Nova Scotia) raises significant customer concerns
Cross-border data flows

• Efficiencies and other benefits of cloud computing are best achieved when data can flow freely across borders
• Privacy laws that restrict such flows can be an impediment
  • European restrictions
    • Safe harbor, model clauses, binding corporate rules (BCRs)
  • Canadian provincial rules (e.g. FOIPPA in British Columbia) related to public sector data and other "blocking statutes."
Jurisdictional tensions

• Where is the data?
• Tensions created by different countries asserting jurisdiction over data
  • Tension between privacy rules requiring minimization and data retention obligations, esp. in Europe
  • Law enforcement access
  • Human rights concerns
• How much does the location of the data matter?
Proposed Solutions

• To realize the promise of cloud computing, we must address users’ concerns that moving their personal data to the cloud might render it less secure and less private.
• We need to build confidence in the cloud.
• Some ideas for doing so . . .
Self-Regulatory Initiatives

- Service provider approaches to cloud services that maximize user control and transparency:
  - Data export and portability
  - Transparency (and in some cases, choice) regarding geographic location of data
  - Software + services model vs. cloud-only offerings
  - Transparency and choice for any secondary uses of data (e.g., targeted advertising, operating vs. improving the service)
- Global Network Initiative (www.globalnetworkinitiative.org)
Improved user education and awareness

Questions to ask a cloud service provider:

• What is the provider’s policies regarding data usage?

• What are the companies security practices and what certifications does it have?

• Where are the data centers in which the data will be stored?

• What controls and choices are available?
A call for government action

- **ECPA Modernization and Reform**
  - Your data at stored in the cloud should receive the same protections as your data stored at home
- **Cloud Computing Advancement Act**
  - CFAA amendments to increase penalties for malicious hacking
  - Private right of action for cloud service providers
  - Adequate law enforcement resources and training
  - Truth in Cloud Computing principles
- **Promote Common Approaches to Jurisdiction**
  - Need for greater bilateral and multilateral engagement by governments
Cloud Policy Resources

• Microsoft resources re cloud privacy at: http://www.microsoft.com/privacy/cloudcomputing.aspx

• Microsoft resources re cloud policy at: http://www.microsoft.com/presspass/presskits/cloudpolicy/

• Microsoft resources re cloud services: http://www.microsoft.com/cloud