Cloud Computing Forum & Workshop III

Panel – Cloud Computing: Adopter’s Long-term View

April 7, 2011
Today’s Panel Members

• Simon Szykman, Chief Information Officer, Department of Commerce
• Andrew Tait, Deputy Director, G-Cloud, Apps Store and Data Centre Consolidation
• Oliver R. Goodenough, Co-Director, Law Lab, Berkman Center for Internet & Society, Harvard University and Professor of Law, Vermont Law School
• Yoshiaki Tojo, Director, Ministry of Economy, Trade & Industry
• David LeDuc, Senior Director, Public Policy, Software & Information Industry Association
Introducing…

Andy Tait

Head of Public Sector Strategy

VMWare (UK)

Former, Deputy Director G-Cloud Programme, Cabinet Office

Cloud in the Public Sector:

The Long Term View ……..
A Consolidated Data Centre Estate

- A significant reduction in the numbers of Operating Data Centres.
- High Levels of the remaining infrastructure Virtualised.
- High levels of automation and common management tools.
- Cost and Complexity reduced.
- Multiple Private (or Community) Clouds Exist.
G-Cloud Assets and Services

- Wholesale change to the approach of Public Sector ICT delivery.
- Many common or utility applications exist such as email and collaboration tools.
- To Impact Level 2 (IL2) applications are delivered from trusted elements of the Public Cloud, as first choice.
- At IL3 (Restricted) applications are delivered from one of the many Private Clouds within the Public Sector Network.
The Applications Store

- The Application Store for Government is the Open Marketplace for ICT.
- The ASG contains both Certified Services and a competitive ‘Sandpit’ for innovation.
- Products and Services are delivered at the “Latest Best Price”.
- Procurement is performed in advance, so solution selection is legal, simple and performed with confidence.
Cloud Computing Presents
Hard Problems

Oliver R. Goodenough
Berkman Center for Internet & Society,
Harvard University
NIST Cloud Computing Forum & Workshop III
Gaithersburg, MD, April 7, 2011
Three Hard Problems

• Privacy and Security: The Interests of Various Players Don’t Line Up Consistently
• Interoperability and Standards are a Public Good #1 – Private profit can be made by avoiding solutions
• Interoperability and Standards are a Public Good #2 – Public goods game problems of coordination, first mover, free rider, etc.
Privacy & Security Interests Conflicts

• On Cloud issues, allies on one aspect of the puzzle may have clashing interest on others.

• Matrix of Factors:
  – For Whom
  – Against Whom
  – What Data Context
  – What Location and Time of Data
  – How to Establish Limits
  – What Platform
  – What Data Stage
Interoperability and Standards are a Public Good # 1

• Private profit can be made by avoiding solutions
  – Established private standards
  – Sunk costs by provider and purchaser
  – “Brand Loyalty”
  – Barriers to entry by new players

• Role of Government as big purchaser to break log-jam
  – Public/private action concerns
Interoperability and Standards are a Public Good # 2

• Public Goods Game Problems (even when problem #1 not present)

• Role of Government in Solving
  – Also solvable privately as well – Elinor Ostrom and the Nobel Prize

• Different Flavors of Challenge
  – Coordination
  – First mover
  – Free rider

• Public/Private Blends