

Jurisdiction in the Cloud: Clear Rules to Build Confidence in Cloud Computing

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Cloud Computing and Jurisdiction

- Why cloud matters: Distinguishing business and technical aspects of cloud computing
- Traditional notions of jurisdiction and some examples in the cloud context
- Solutions or ways forward?

Cloud Computing Creates Significant New Opportunities for Business & Government

Cost
Efficiency

Agility

Cloud
Computing

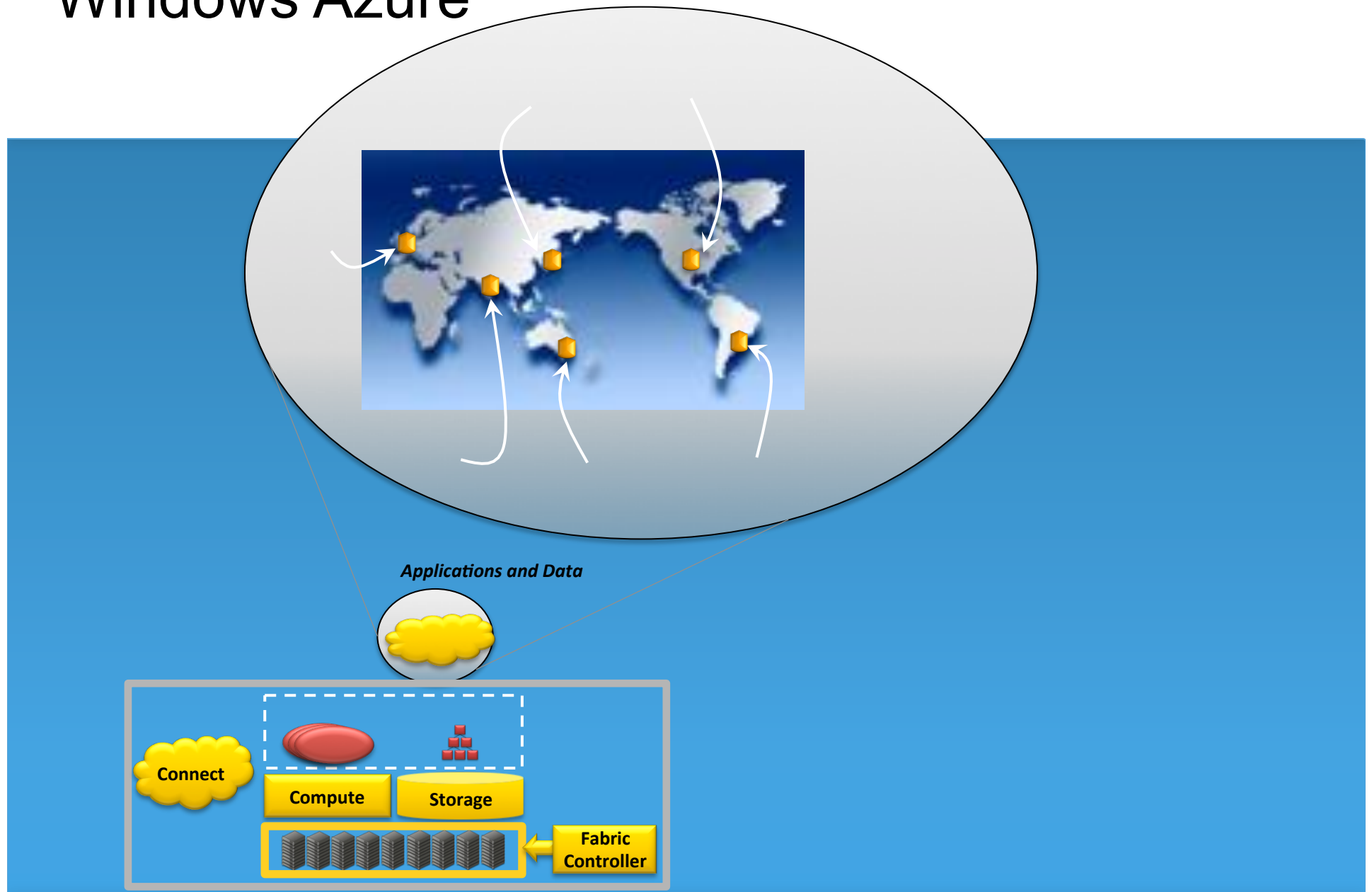
Innovation

Economic
Growth

Windows Azure: Distributed Computing and Data Storage

- “Regardless of how it’s stored—in blobs, tables, or queues—all data held in Windows Azure storage is replicated three times. This replication allows fault tolerance, since losing a copy isn’t fatal.”
- “On Windows Azure, an application typically has multiple instances, each running a copy of all or part of the application’s code. Each of these instances runs in its own Windows virtual machine (VM)... [A] developer creates applications using Web roles and/or Worker roles, then tells Windows Azure how many instances of each role to run. Windows Azure silently creates a VM for each instance, then runs the application in those VMs.”

Windows Azure



Technical Consequences

- Data is likely “at least” three places at any given time
 - May be “sharded” meaning it is further spread out
 - May be moved to optimize delivery time
- Instances may be spread across data centers
 - Instances are killed and re-spawned at intervals
 - May be moved to balance demand
- “at rest” vs. “in transit”

Legal Uncertainty Clouds Expansion and Adoption of Cloud Computing

mimecast
unified email management



- UK-based provider of “email in the cloud”
- 5th fastest-growing company in Europe¹

impact

- Higher operating costs
- Higher customer prices
- Investment diverted to non-European countries

“It’s counter-productive that we do not have a Single Digital Market in place. Because of the added costs of operating multiple resources in multiple European countries, we have decided to look elsewhere for growth opportunities.”

Justin Pirie, Cloud Strategist, Mimecast

¹Deloitte Technology Fast 500 EMEA 2010

Jurisdiction and the cloud

- Traditional notions of jurisdiction
 - in personam and in rem jurisdiction
- Parties to cloud disputes
 - Cloud infrastructure provider, Cloud service provider and Cloud user; Other third parties, regulators
- How does the issue of jurisdiction arise in the cloud?
 - Contractual disputes
 - Assertion of IPR rights
 - Regulatory actions
 - Law enforcement access

Regulatory enforcement: Data protection regulations

- Patchwork of regulation in this area is a worldwide problem
 - Need for EU harmonization is the tip of the iceberg
 - Variation in *categories* of controls as well as specific *requirements*
 - Some controls that predate modern systems and cloud computing
- Jurisdiction matters
 - Difference between having to comply with one, several or possibly many conflicting or vague sets of requirements
 - A burden and risk that falls disproportionately on small and medium size cloud providers

Law Enforcement Access

- An active topic in recent weeks...
- There are many layers of laws enabling law enforcement access to information stored on service provider
- Is the US Patriot Act unique?

“UK Cloud Computing Interception - nothing new”

“Some UK cloud-computing customers are concerned that they should not entrust US cloud-providers with their data for fear of US law enforcement interception. If interception is so much of a concern they should not only avoid US cloud providers but also should avoid using the UK’s telephone, the Internet, and the postal system. The interception of communications, whether stored in the 21st Century cloud or sealed in 16th Century scrolls, and whether here in the UK or in the US, is nothing new. All communications data, where justified, may be intercepted by the State’s watchful and proportional

eye”
Clive Gringras (2011), available at http://www.olswang.com/pdfs/CloudComputingInterception_CQG.pdf

“Law Enforcement and Cloud Computing ”

“Law enforcement agencies within the EU operate by virtue of the specific powers they are granted to gather information and evidence and many EU Member States possess legislation which grants extensive and often intrusive investigatory powers to national authorities.”

“In the end, law enforcement access to data is not a new issue nor an issue that is specific to cloud computing.”

Tanguy Van Overstraeten (2011) available at
<http://www.linklaters.com/pdfs/mkt/london/Law%20Enforcement.pdf>

“In Defence of the Cloud”

“What should we make of recent reports about the banning by the Dutch government of non EU-based cloud services and the launch by leading providers of EU-only clouds? Is this fierce European protectionism or sensible data protection? If anything, these developments show a trend towards restricting cloud computing services geographically, so that the fuzzy Internet cloud becomes a series of neatly divided gas bubbles. However, instead of a technological uproar against such an aberration, there seems to be a quiet acceptance based on legal constraints and half-baked security arguments. Is data protection being cited once again as the justification for stifling technological progress? That would not be surprising, but it is somewhat unfair and clearly unnecessary.”

Eduardo Ustaran (2011) available at
<http://www.scl.org/site.aspx?i=ed22541>

Solutions- Toward a seamless and borderless cloud

- Greater bilateral and multilateral engagement by governments
 - Some work already under way
 - These agreements take time
- Harmonizing and unifying underlying substantive law
 - E.g., data protection
 - Would be a good first step

Questions?



Thank You

