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Barriers to the Internet Economy
Perspectives from the Cloud Computing Community in Asia Pacific

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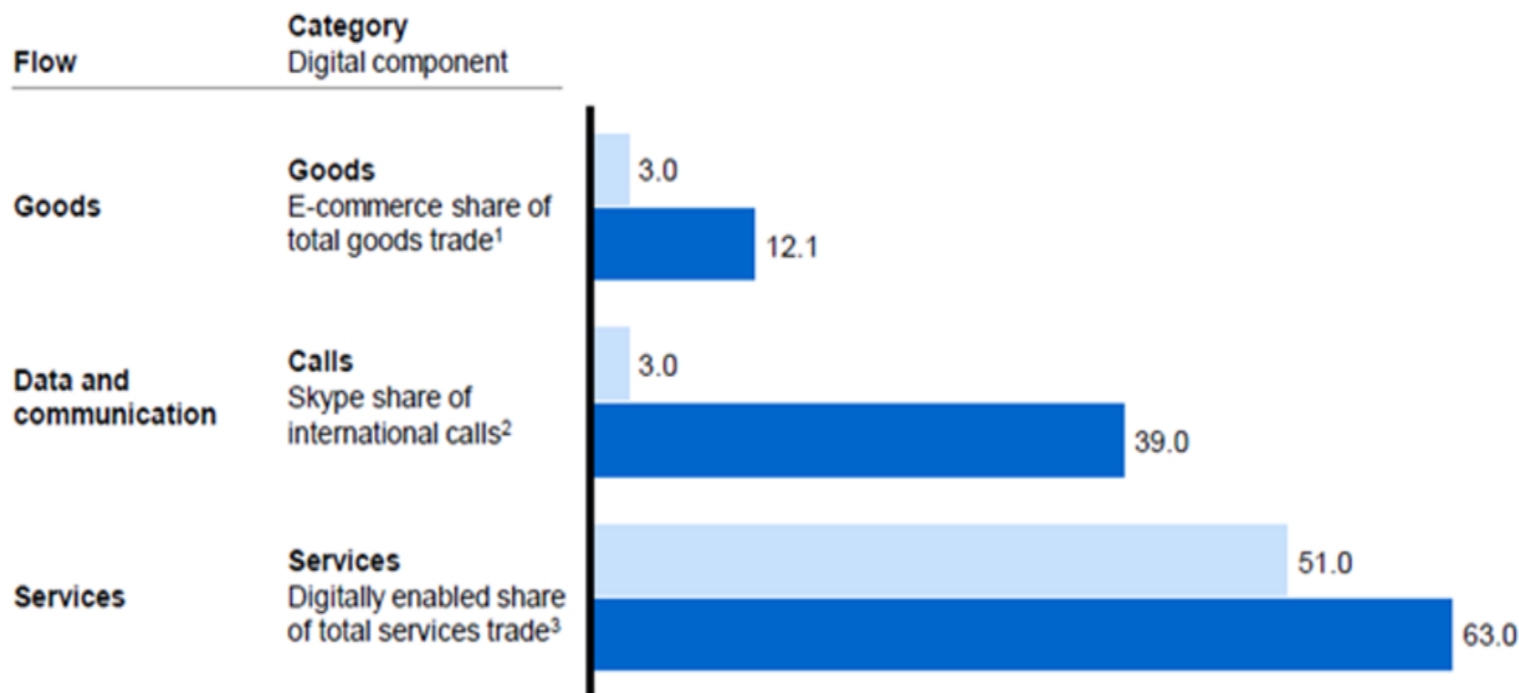mayann@asiacloudcomputing.org

Data Transfers are the Lifeblood of the Internet Economy

Growth patterns in cross-border trade in goods, services, e-commerce, financial flows etc

The digital component of global flows is growing quickly

Share of selected cross-border flows that are digital
%

Flow	Category Digital component	2005	2013
Goods	**Goods** E-commerce share of total goods trade[1]	3.0	12.1
Data and communication	**Calls** Skype share of international calls[2]	3.0	39.0
Services	**Services** Digitally enabled share of total services trade[3]	51.0	63.0

1 Based on China data.
2 Excludes other VOIP minutes.
3 Based on US data.
NOTE: 2005 values for services are calculated by interpolating from prior and subsequent years based on constant growth rates.
SOURCE: iResearch; Telegeography; OECD; US Bureau of Economic Analysis; McKinsey Global Institute analysis

Workloads are moving steadily onto the cloud

Data Transfers are the Lifeblood of the Internet Economy

... as workloads move onto the cloud
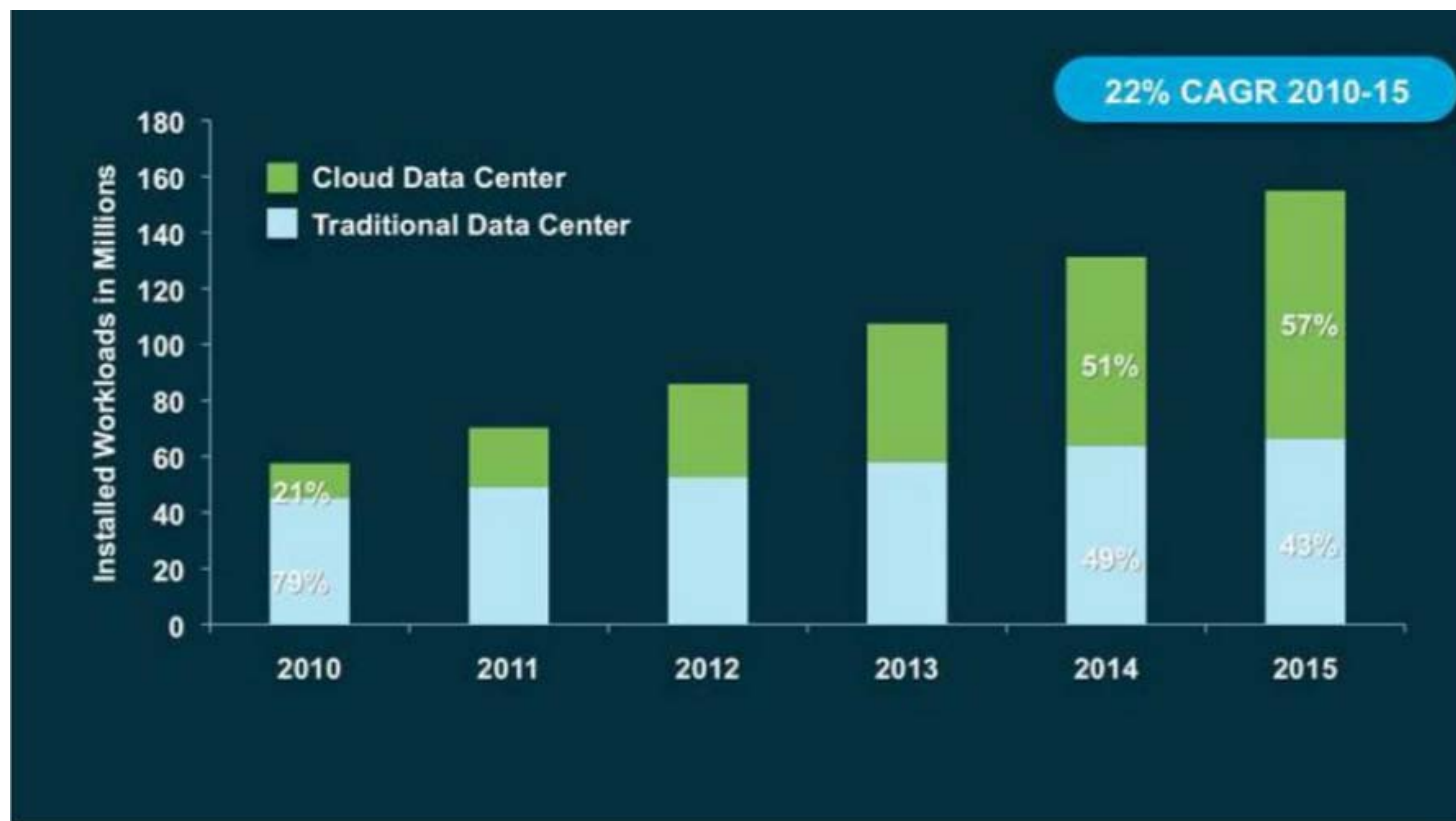
Source: Independent Analyst Shipment Data, Cisco Analysis

Report on Cloud Data Regulations
A contribution on how to reduce the compliancy
costs of Cross-Border Data Transfers

A joint report by
The Asia Pacific Carriers' Coalition (APCC) and
The Asia Cloud Computing Association (ACCA)

APCC
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Cloud Data Regulations: A Contribution on How to Reduce the Compliancy Costs of Cross-Border Data Transfers

Compliance requirements around data management – localisation, data privacy, codes of practice etc increase the cost of business for all sorts which store and move data around – like cloud vendors and telcos

*"The core problems around cloud, telco and other providers who need to transfer data across borders are **how to ensure compliance with an alphabet soup of general and sector-specific laws and regulations,** and codes of practice, and legal judgements, and legal and procedural uncertainties, that differ in their details across so many jurisdictions."*

- EU-yes, "location-based"
- APEC-yes, "accountability-based"
- US-"risk-based"

Challenge Case I: Data Privacy Protection Laws -- Are Cross-Border Data Transfers Allowed?

It's not about who has the best regime – it's about the cost that that there are so many

Table 1: Summary of Data Privacy Laws and Data Transfer Provisions

Country	General law on personal data privacy protection	Separate regulator	Register of data controller	Sector-specific regulation	"White list" countries or requirement on data controllers to ensure protection on data transfers	Individual consent required for data transfers	Contract obligations accepted as reason for data transfers	Companies required to appoint 'Data Protection Officer'
Australia	Y	Y	Y	Y	Y	Y	Y	N
New Zealand	Y	Y	N	Y	Y	Y	Y	Y
India	N	N	N	Y	Y	Y	Y	Y
Indonesia	Proposed	N	N	Y	N	Proposed	N	N
Hong Kong	Y	Y	Y/N	Y	Y/N	Y	Y	N
Japan	Y	N	N	Y	Y	Y	Y	N
Malaysia	Y	Y	Y	Y	Y	Y	Y	N
Philippines	Y/N	Y/N	N	Y	Y	Y	Y	Y
Singapore	Y	Y	N	Y	Y	Y	Y	Y
South Korea	Y	N	N	Y	Y	Y	Y	Y
Taiwan	Y	N	N	Y	Y	Y	Y	N
Thailand	Y	N	N	Y	Y	Y	Y	N
EU	Y	Y	Y	Y	Y	Y	Y	Proposed
UK	Y	Y	Y	Y	Y	Y	Y	Y
USA	N	FTC	N	Y	N	By sector	Y	Varies

Note: (i) Y/N means it is on the stature book but not yet implemented.

Qns around liability and compliance: Who are the "data controllers"? Businesses who use data services, the data vendor, the data protection officer? What is "sensitive data"? Who "owns" the data? V expensive to comply across jurisdictions

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Reccs from the report

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APCC

- Uniformity in Regulations - across regimes
- Data Categorization - to allow certain types of data to flow easily/easier
- Bonded Warehousing of Data - to remove liability of intermediaries/data controllers

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Challenge Case II: Financial Services Industry and the Internet Economy

- FSIs
  - Want to adopt cloud
  - Are concerned
  - Regulatory compliance
  - Protecting business processes and data
- CSPs want FSIs to adopt cloud
- Govt Agencies
  - want to encourage efficiencies gained by adoption of new tech like cloud
- Govt Regulators
  - need to maintain regulatory authority and oversight – ensuring FSIs are meeting requirements

Confusion and misunderstanding amplifies concerns.

Asia's Financial Services: Ready for the Cloud

A Report on FSI Regulations Impacting Cloud in Asia-Pacific Markets

Assessment of the cloud-critical FSI regulations for 14 economies

Asia's Financial Services: Ready for the Cloud

A Report on FSI Regulations Impacting Cloud in Asia Pacific Markets

14 Country Asia overview

- A (non-lawyer) reader-friendly overview of the key FSI regulations related to adoption of Cloud Computing.

Scoring

- Categorizes countries as **GREEN**, **AMBER** or **RED** to indicate where they have or don't have certain protections, characteristics or impacts on cloud adoption.

Country annexes

- Detailed outline of relevant regulations with citations and links
- Key Questions Answered
- List of relevant regulatory authorities
- Summary of key requirements

Solutions

- Recommendations to help CSPs and FSIs to work together to address compliance
- Where analysis identifies a problem, the report suggests solutions.
- Solution may be directed at CSPs & FSIs (e.g., to match services/contracts to regulatory compliance needs); or regulators as to possible reforms.

Key Issues

Asia's Financial Services:
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A Report on FSI Regulations Impacting
Cloud in Asia Pacific Markets

Process for Adopting Cloud

Contracts for Cloud Services

Data Location

Data Use Limitations

Data Segregation

Audit, Review and Monitoring

Security

Business Continuity

Exit

Five Reccs for Regulators

Asia's Financial Services:
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Cloud in Asia Pacific Markets

1. Regulations should be tech neutral

2. Should set clear process that should be followed for cloud, as if it were any form of outsourcing – approval for use of cloud services should not be required

3. Cross-border transfer of data should be permitted, subject to appropriate safeguards

4. Regulations should only identify the key issues that should be addressed in cloud contracts – i.e. they should bnot be prescriptive of cloud contracts

5. Third party audits should be an acceptable alternative to audits carried out by FSIs and the regulators

About the Asia Cloud Computing Association

Working Groups and Thought Leadership

The Asia Cloud Computing Association is the apex industry association that represents stakeholders of the cloud computing ecosystem in Asia.

Our mission is to **accelerate the adoption of cloud computing through Asia Pacific** by helping to create a trusted and compelling market environment, and a safe and consistent regulatory environment for cloud computing products and services.

http://www.asiacloudcomputing.org

Contact the Secretariat at info@asiacloudcomputing.org

Public Policy & Regulation

Cloud Readiness Index 2011, 2012, 2014; regular touchpoint meetings with policymakers

Data Governance

Impact of Data Sovereignty on Cloud Computing; Financial Services Industry and Cloud

Cloud Market Segments

Small and Medium Enterprises and the Cloud Computing Market

Emerging Cloud Services

Big data, analysis, Collection, Storage, Use and Query of Data