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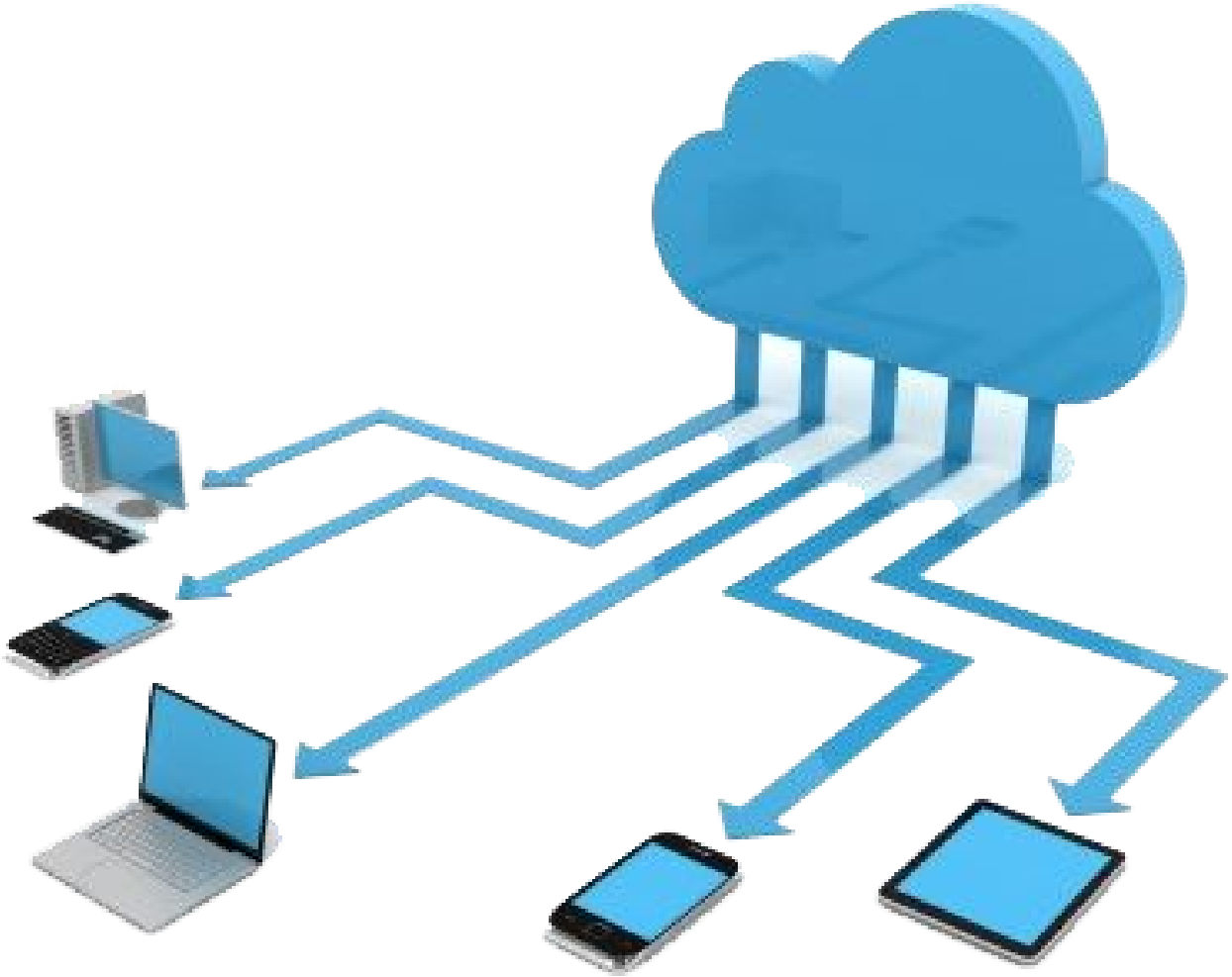

European Digital Forum

Regulatory challenges to the adoption of Cloud Computing in Financial Services

April 27, 2017

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Banking on (the public) cloud has basically 3 conceptual advantages

Agile Innovation

- Higher **agility, efficiency and productivity → increased ability to innovate**.
- Focus and internal resources shift from administration of IT infrastructure to **refocus on innovation and fast time to market** of new products and services
- Ubiquitous (authorized) network access **from any country** where the bank is present
- Employees and customers can **connect in a multi-channel environment**

Risk Mitigation

- Mitigates traditional technology risks:
  - **capacity**
  - **redundancy**
  - **resilience** concerns.
- Greater control in the management of variable IT demand.
- New commercially viable methods to implement **security controls**

Cost benefits

- **Reduced initial capital expenditure** compared to traditional IT infrastructure
- Efficient management of computing capacity for **peak periods and growth** → variable **scalability**

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EU authorities have already identified some issues which are being explored in consultations

Commission: European Data Economy

Free flow of data and data localisation restrictions (for other reasons than the protection of personal data)
eg. Bank of Spain 2/2016 - notification requirement for every outsourcing project (approval up to 1 month) is indirect obstacle
Deadline 26 April

EBA (upcoming): Use of Cloud by Financial Institutions

Focus on:

- Regulatory **inconsistencies** at EU level
- **Harmonization** of EU financial supervisors' approach
- **Clarity** for aspects in which banks need to have the control.
- **IT risk**

Expected for summer 2017 - Will be input for Guidance on Cloud (Q4), to be integrated into updated Outsourcing Guidance

In order to accelerate the cloud adoption, the regulatory and supervisory approach should shift from analogical to digital...

Building blocks for a "cloud culture"

Distributed location of data and access to data is no obstacle → free flow of data

- Not **always easy to restrict technologically the positioning** of customers data to a specific region/ country/ continent → against "cloud principle"
- **Access (eg. for audit) from any location** with data access

Strategic infrastructure: Business continuity, termination and exit without disruption of service

- **Distributed and easily scalable and geographically shiftable processing** → business continuity easier
- **CSP can ensure service continuity to supervisors**
- **Resolution regimes** not dependant on bank-owned data processing center → can be adapted

Remaining security concerns are without foundation

- Cloud is just **as secure as having the data in a bank's own servers.**
- Cloud service providers do **invest more in security and have more and always updated certifications** than cloud customers organisations → migrating to the cloud contributes to **security improvements for the whole financial industry**

A certain cloud culture in financial regulators and supervisors would be helpful

- **Create a cloud computing culture** and a better understanding of the benefits and the underlying technology.
- **Know-how and dedicated resources** to identify practical interpretations of regulatory requirements that work across multiple jurisdictional and regulatory frameworks.
- Capacity to **supervise and interact with new activities** (cloud based services) **and new players** (cloud service providers) → define effective supervision and oversight of a public cloud service provider (together with other supervisors, eg. for Cyber-security, Data Protection,...), and its supply chain relationship with banks

… which would enable the adaptation of the regulatory framework for financial services to the cloud economy…

Building blocks for an adapted regulatory framework

Level Playing Field

- **across EU and vs other geographies**: currently different data protection rules in EU Member States; or international data transfers rules and the different criteria followed by national data protection authorities outside the EU → **level internationally and intra-EU**
- **vs other (non-financial) industries and also new fintech players:** eg Legal and regulatory constraints and the higher compliance risk for banks vs fintechs which do not have same supervision → **activity based approach**

Harmonization and standardization

- **Harmonization of criteria followed by EU financial supervisors (notification/approval requirements)** → faster and cross-border cloud adoption
- **Harmonization between sectoral and horizontal regulation: Standard clauses which set out the minimum requirements** -e.g. for audit- will facilitate compliance and will ensure an equal interpretation of eg. the data protection regulation between CSP and their customer banks.
- International harmonization for easier **international data-transfers** and competitive cloud offers → **updated/reinforced US-Privacy Shield and other data flow agreements (ideally in FTAs): eg. Mercosur**

Risk based approach

- Would enable -step by step- also (instead of excluding) migration of **core-banking-functions**
- **Proportionate** risk-based approach to due diligence and to contracts between CSPs and the banking sector.
- The EC should facilitate the establishment of a protocol on the **transparency of risks by activity**

Management of data

- Management of data (GDPR; including security, data breach reporting) and ensuring that new obligations soon to come into effect (such as privacy by design and default) can be effectively met in a public cloud environment → **clarify in cloud context** (eg. responsibilities controller vs processor).

… with a particular focus on the outsourcing regulation

Building blocks for an adapted regulatory framework: outsourcing

Outsourcing regulation for cloud → specific considerations to reduce time to adopt cloud

- Financial supervisors should **switch from a case by case decision on requirements** (with the corresponding delays for notification and approval), **to pre-approved contracts for specific types of initiatives** or alternatively contractual clauses e.g. regarding **security or general certifications of CSPs**, reporting, audit clauses.

Summary

Need to have **EU wide guidance on the use of public clouds, streamlining and simplifying compliance**. To make such major strategic investments (from traditional data-centres to a cloud model) a **clear regulatory position ex-ante is key**, so that regulations are not introduced later that prohibit new solutions.

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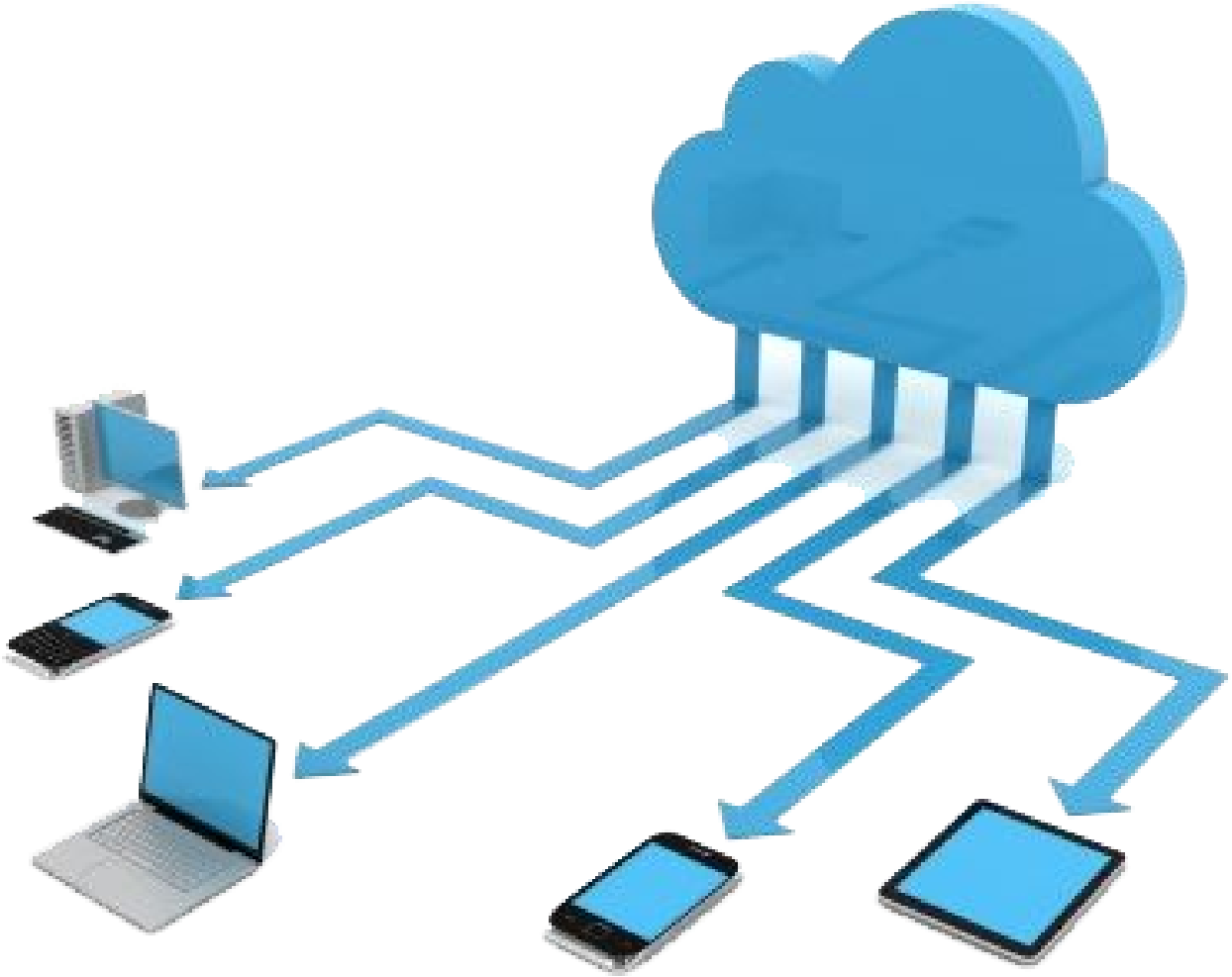

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