

**WE
CAN DO
SO MUCH
TOGETHER**

Certification Schemes for Cloud Computing

SMART 2016 / 0029

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TECNALIA

Brussels, June 29th, 2017


Agenda



01 Context



02 Current
situation



03 Challenges

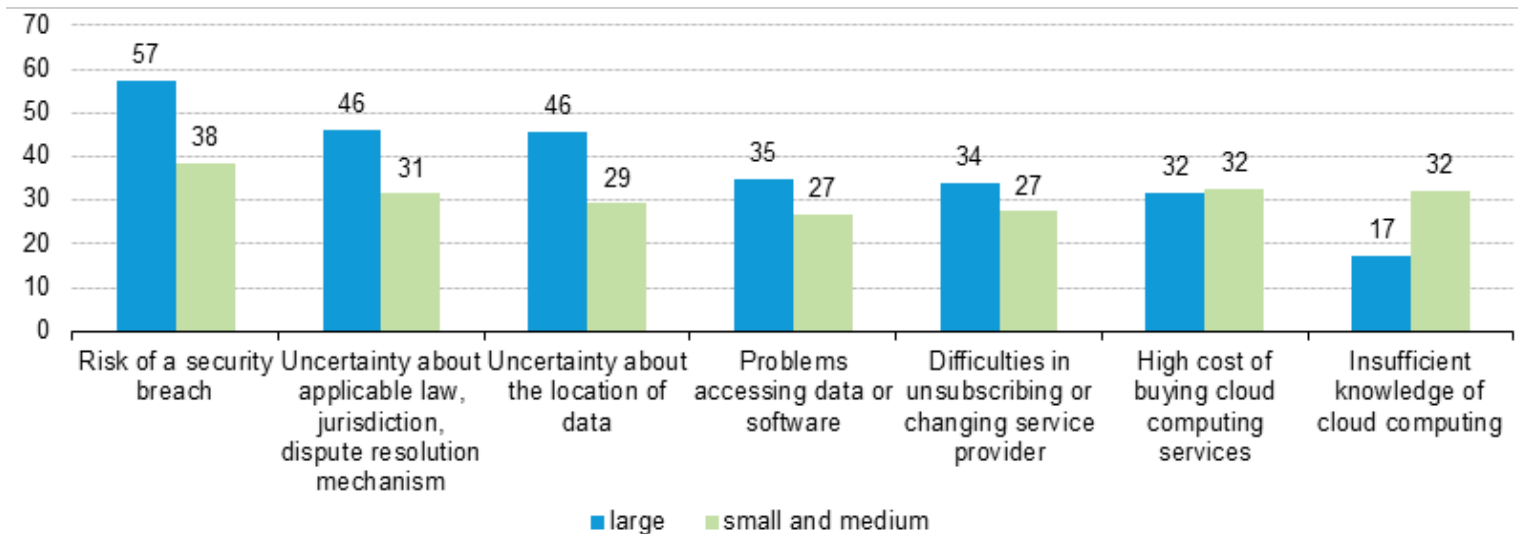


04 Scenarios



01 Context and Motivation

- What is limiting enterprises from using cloud computing services?



Factors limiting enterprises from using cloud computing services, by size class, EU-28, 2014 (*)

- This can be extended to the Public Sector

(*) Source: Eurostat, 2014

01 Context and Motivation

- Key indications to create new strategies and policies for the adoption of cloud computing (*)
 - **Raise awareness** and educate users and SMEs on cloud security.
 - **Improve the transparency** of cloud services: continuous monitoring mechanisms, accountability through, for example, **certification** and other mechanisms.
 - **Flexible policy approaches** towards cloud security to allow further technological advancements.
 - **Data Protection**, where and how they are stored, accessed, transferred and processed.
 - **Strengthen cooperation** and define clear **procurement guidelines** built on cooperation between industry and public sector.

(*) Source: 2015 EU28 Cloud Security Conference

01 Context and Motivation

■ Initiatives (current and past)

“cut through the jungle of standards”

#DigitalSingle Market



EC Communication (2012)

Digital Agenda 2020

National Initiatives

Regulation

ECP

#EUdataFF

ENISA CCSL and CCSM (2013)

Trusted Cloud (DE)

GDPR

C-SIG

Cross-border services

Cloud Standardization Initiative – ETSI (Phase I and Phase II)

Label Cloud (FR)

DSM Cloud Stakeholders

National Strat. Cloud

...

Agenda



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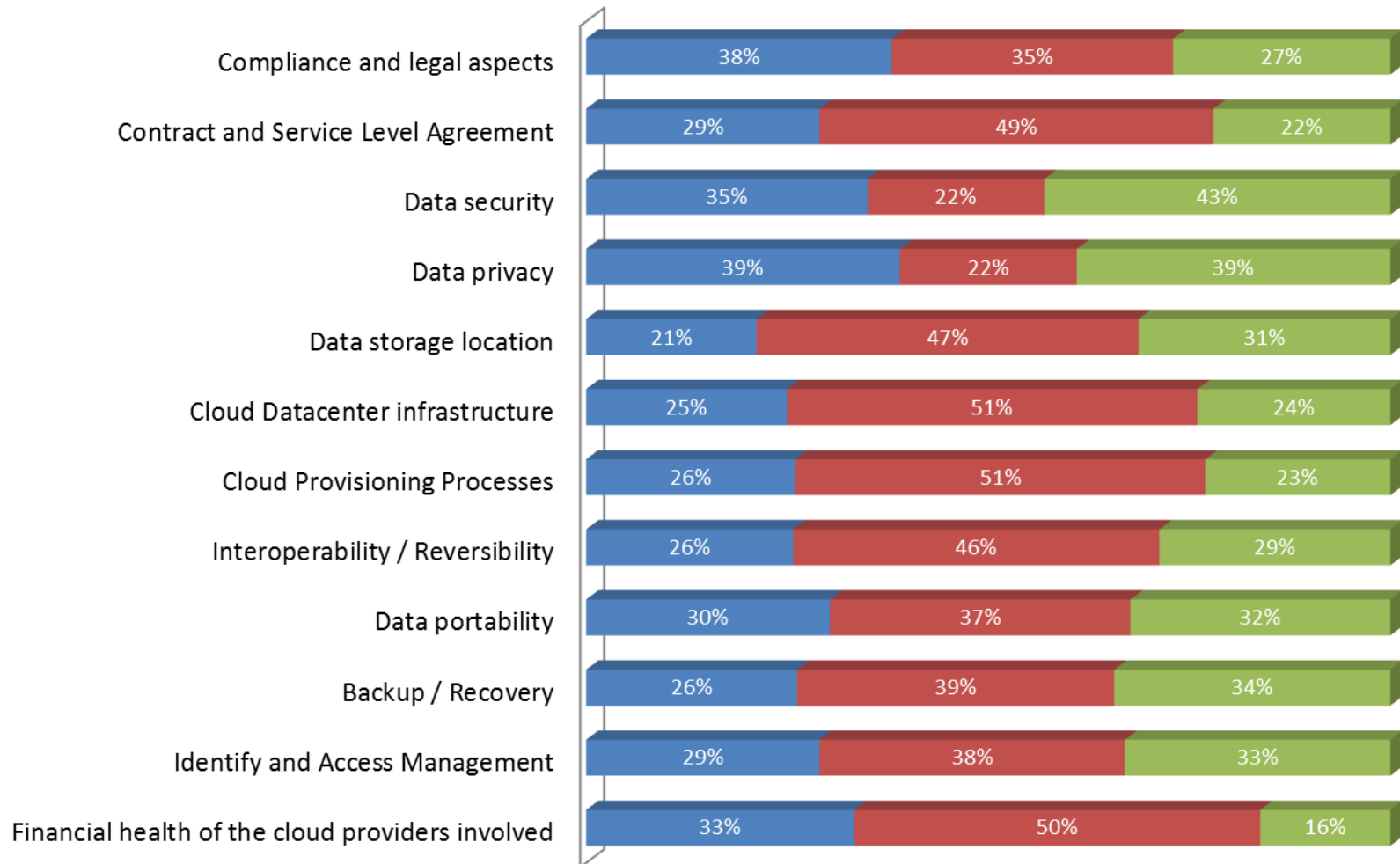


04 Scenarios



Domains for certification

■ Less important ■ Important ■ Very important



(*) Source: ETSI CSC

02 Current Situation

- Plethora of standards, schemes and other relevant frameworks



ISO/IEC 17203, ISO/IEC 17826:2012, ISO/IEC 19041, ISO/IEC 19044, ISO 19086, ISO/IEC 19099, ISO/IEC 19831, ISO 19941, ISO 19944, ISO/IEC 20000-1, ISO 22301, ISO/IEC 24760-1, Family of ISO/IEC 2700x, ISO/IEC 29100, ISO/IEC 29101, ISO/IEC 29115.



NIST SP 500-299, Draft NIST SP 500-307, NIST SP 800-125, NIST SP 800-144



OASIS TOSCA, OASIS CAMP



SNIA CDMI, DMTF DSP0243, DMTF DSP0263



CSA CCM, CSA CTP, CSA A6, CSA CAIQ, CSA TCI, CSA PLA, CSA Attestation - OCF Level 2, CSA Attestation - OCF Level 1, CSA Self-Assessment - OCF Level 1



EuroCloud Self-Assessment, EuroCloud Star Audit



Certified Cloud Service –TüV, Rheinland



ITU-T X.1601, ITU-T X.1631

Others



AICPA SOC 1, AICPA SOC 2, AICPA SOC 3

Agenda



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03 Challenges

- Customers need to know and be **assured** that their **data** is **equally safe** no matter where they are located or who provides the service
 - What **security aspects** need to be considered in cloud computing that ensure Free Flow of Data and cross-border?
 - What **regulation aspects** need to be considered / addressed?
- How much would it cost for a European CSP to comply with a certification scheme? And how much would be the cost of no-certification?

03 Challenges

- What should be the **role of the EC?**: let the market decide, identify relevant schemes, define a scheme at EU level

Agenda



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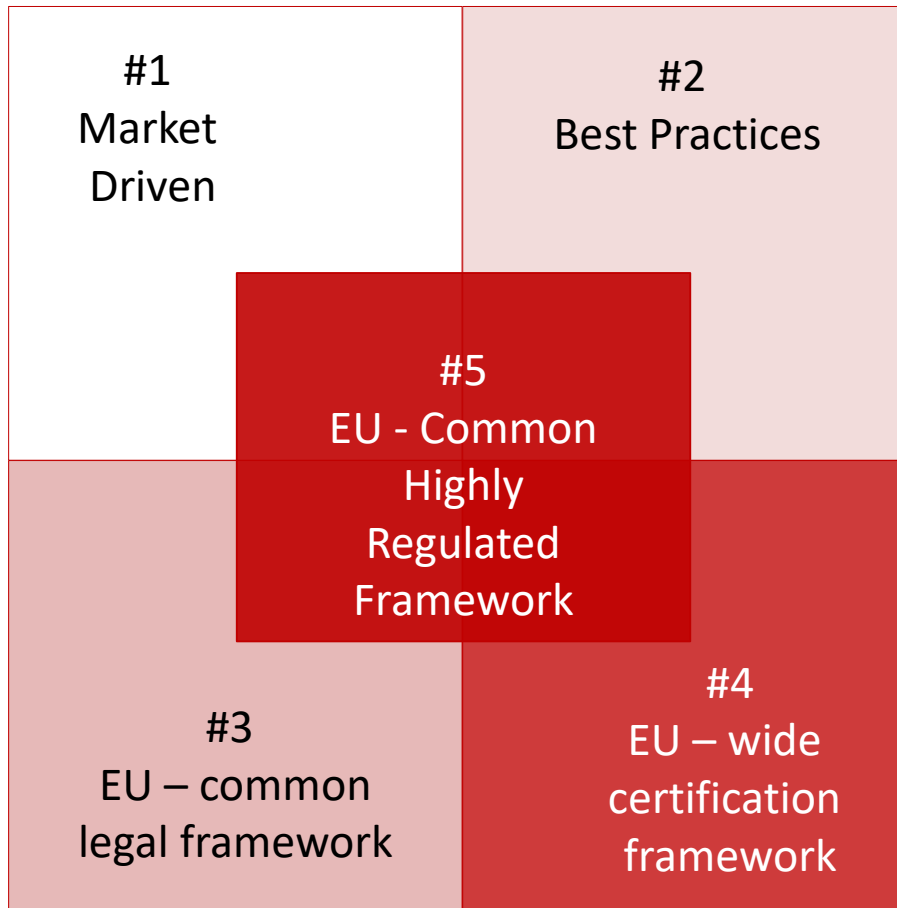
03 Challenges



04 Scenarios



04 Scenarios



- Mutual recognition
- Promotion of an existing initiative to EU level
- From scratch

Existing Certification Schemes

- European Schemes
- US Scheme
- Other Schemes
-

Existing Standards

- ISO
- NIST
- ETSI
- DMTF
-

Government Policies

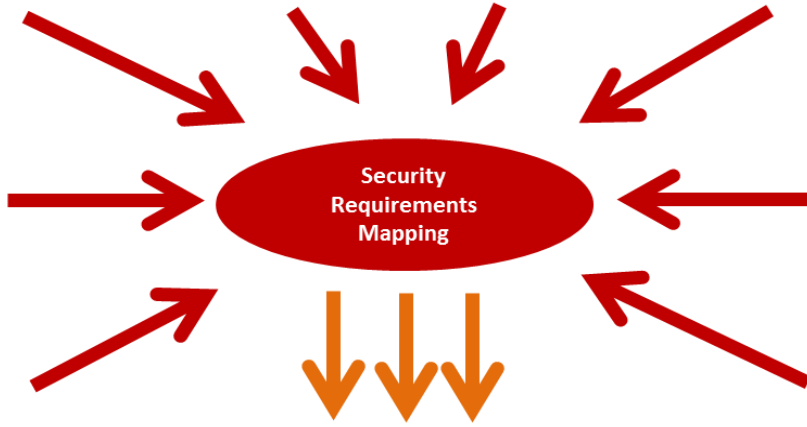
- UE Countries
- Other European countries
- United States
- Australia
-

Public Sector Cloud Computing Strategies

- UE Strategy
- USA Strategy
- Australia Strategy
-

Sectorial and Technical domain Security requirements

- E-Government
- E-Health
- Finance
- Industry 4.0
- Critical Infrastructure
- IOT
- Future Internet
-



Existing Frameworks

- CCSM
- SAF
- Other frameworks
-

Under-development and future schemes and standards

European Initiatives

- DSM
- GDPR

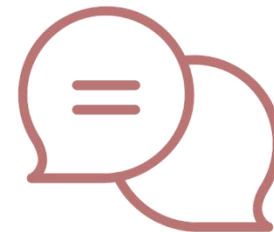
Common Framework

- General Security Requirements
- Sectorial and Technical domain Security Requirements
- Security Requirements and Controls vs Certification Schemes

Public Sector Recommendations and future steps on the role of Public Sector regarding certification schemes

04 Scenarios

- Help us! Have your say! Participate in the survey!
- <https://tinyurl.com/cloudcertification>
- 16th July, 2017, 23:59h





Questions?

Thank you!

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