Basic information

2013/2063(INI) INI - Own-initiative procedure	Procedure completed
Unleashing the potential of cloud computing in Europe **Subject** 1.20.09 Protection of privacy and data protection 2.10.03 Standardisation, EC/EU standards and trade mark, certification, compliance 2.40 Free movement of services, freedom to provide 2.40.02 Public services, of general interest, universal service 2.80 Cooperation between administrations 3.30.06 Information and communication technologies, digital technologies 3.30.25 International information networks and society, internet 3.45.08 Business environment, reduction of the administrative burdens 3.50.15 Intellectual property, copyright 4.60.06 Consumers' economic and legal interests	

Key players

European Parliament

Committee responsible	Rapporteur	Appointed
ITRE Industry, Research and Energy	DEL CASTILLO VERA Pilar (PPE)	25/10/2012
	Shadow rapporteur TRAUTMANN Catherine (S&D) ROHDE Jens (ALDE) ANDERSDOTTER Amelia (Verts/ALE) TOŠENOVSKÝ Evžen (ECR)	

Committee for opinion	Rapporteur for opinion	Appointed
ECON Economic and Monetary Affairs	The committee decided not to give an opinion.	
IMCO Internal Market and Consumer Protection	VERHEYEN Sabine (PPE)	10/10/2012
JURI Legal Affairs (Associated committee)	GERINGER DE OEDENBERG Lidia Joanna (S&D)	15/04/2013
LIBE Civil Liberties, Justice and Home Affairs (Associated committee)	SARGENTINI Judith (Verts/ALE)	26/11/2012

European Commission	Commission DG	Commissioner
	Communications Networks, Content and Technology	KROES Neelie

Key events

Date	Event	Reference	Summary
27/09/2012	Non-legislative basic document published	COM(2012)0529	Summary
18/04/2013	Committee referral announced in Parliament		
18/04/2013	Referral to associated committees announced in Parliament		
14/10/2013	Vote in committee		
24/10/2013	Committee report tabled for plenary	A7-0353/2013	Summary
10/12/2013	Decision by Parliament	T7-0535/2013	Summary
10/12/2013	Results of vote in Parliament		
10/12/2013	End of procedure in Parliament		

Technical information

Procedure reference	2013/2063(INI)
Procedure type	INI - Own-initiative procedure
Procedure subtype	Initiative
Legal basis	Rules of Procedure EP 55
Other legal basis	Rules of Procedure EP 165
Stage reached in procedure	Procedure completed
Committee dossier	ITRE/7/10792

Documentation gateway

European Parliament

Document type	Committee	Reference	Date	Summary
Committee opinion	IMCO	PE504.198	04/06/2013	
Committee draft report		PE506.114	19/06/2013	
Amendments tabled in committee		PE516.774	06/09/2013	
Committee opinion	LIBE	PE504.203	19/09/2013	
Committee opinion	JURI	PE514.601	23/09/2013	

Committee report tabled for plenary, single reading		A7-0353/2013	24/10/2013	Summary
Text adopted by Parliament, single reading		T7-0535/2013	10/12/2013	Summary

European Commission

Document type	Reference	Date	Summary
Commission document (COM)	COM(2012)0529	27/09/2012	Summary
Commission response to text adopted in plenary	SP(2014)260	06/05/2014	

National parliaments

Document type	Parliament /Chamber	Reference	Date	Summary
Contribution	DE_BUNDESRAT	COM(2012)0529	03/12/2012	
Contribution	PT_PARLIAMENT	COM(2012)0529	25/02/2013	

Other institutions and bodies

Institution/body	Document type	Reference	Date	Summary
EDPS	Document attached to the procedure	N7-0090/2013 OJ C 253 03.09.2013, p. 0003	16/11/2012	Summary

Unleashing the potential of cloud computing in Europe

2013/2063(INI) - 27/09/2012 - Non-legislative basic document

PURPOSE : to unleash the Potential of Cloud Computing in Europe.

BACKGROUND : ‘Cloud computing’ can be understood as the storing, processing and use of data on remotely located computers accessed over the internet. This means that users can command almost unlimited computing power on demand, that they do not have to make major capital investments to fulfil their needs and that they can get to their data from anywhere with an internet connection. Cloud computing has the potential to slash users' IT expenditure and to enable many new services to be developed.

Like the web, cloud computing is a technological development that has been ongoing for some time and will continue to develop. Unlike the web, cloud computing is still at a comparatively early stage, giving Europe a chance to act to ensure being at the **forefront** of its further development and to benefit on both demand and supply side through wide-spread cloud use and cloud provision.

Fragmentation of the digital single market due to differing national legal frameworks and uncertainties over applicable law, digital content and data location ranked highest amongst the concerns of potential cloud computing adopters and providers.

The Commission therefore aims at enabling and facilitating **faster adoption of cloud computing** throughout all sectors of the economy which can cut ICT costs, and when combined with new digital business practices, can boost productivity, growth and jobs.

In a preparatory study undertaken for the Commission, it is estimated that the public cloud would generate **€250 billion in GDP in 2020** with cloud-friendly policies in place against €88 billion in the "no intervention" scenario, leading to extra cumulative impacts from 2015 to 2020 of €600 billion. This translates into the creation of **2.5 million extra jobs**.

CONTENT : on the basis of an analysis of the overall policy, regulatory and technology landscapes and a wide consultation of stakeholders, undertaken to identify what needs to be done to achieve that goal, this document sets out the **most important and urgent additional actions**. It delivers one of the main actions foreseen in the Communication on e-Commerce and online services.

This strategy does not foresee the building of a "European Super-Cloud". However, one of the aims is to have **publicly available cloud offerings** ("public cloud") that **meet European standards** not only in regulatory terms but in terms of being competitive, open and secure.

Completing the Digital Single Market by moving as rapidly as possible to adoption and implementation of the Digital Agenda proposals that are on the table is the essential first step

towards making Europe cloud-friendly. These actions concern : Digital Agenda Actions "opening-up access to content" ; Digital Agenda Actions to "Make Online and Cross-Border Transactions Straightforward ; Digital Agenda Actions on Building Digital Confidence. But to move up a notch to become cloud-active, a climate of certainty and trust must be further developed so as to stimulate the active adoption of cloud computing in Europe.

To deliver on these goals therefore the European Commission will launch three cloud-specific actions:

Key Action 1 – Cutting through the Jungle of Standards.

Currently, individual vendors have an incentive to fight for dominance by locking in their customers, inhibiting standardised, industry-wide approaches. Despite numerous standardisation efforts, mostly led by suppliers, clouds may develop in a way that lacks interoperability, data portability and reversibility, all crucial for the avoidance of lock-in.

The Commission will:

- **promote trusted and reliable cloud offerings** by tasking ETSI to coordinate with stakeholders in a transparent and open way to identify by 2013 a detailed map of the necessary standards (inter alia for security, interoperability, data portability and reversibility);
- enhance trust in cloud computing services by recognising at EU-level **technical specifications in the field of information and communication technologies for the protection of personal information** in accordance with the new Regulation on European Standardisation;
- work with the support of ENISA and other relevant bodies to assist the development of EU-wide **voluntary certification schemes** in the area of cloud computing (including as regards data protection) and establish a list of such schemes by 2014.

Key Action 2: Safe and Fair Contract Terms and Conditions.

Traditional IT outsourcing arrangements were typically negotiated and related to data storage, processing facilities and services defined and described in detail and up-front. Cloud computing contracts, on the other hand, essentially create a framework in which the user has access to infinitely scalable and flexible IT capabilities according to his needs. However, currently the greater flexibility of cloud computing as compared to traditional outsourcing is often counterbalanced by reduced certainty for the customer due to insufficiently specific and balanced contracts with cloud providers. The Commission will by end 2013:

- develop with stakeholders **model terms** for cloud computing service level agreements for contracts between cloud providers and professional cloud users, taking into account the developing EU acquis in this field;
- propose to consumers and small firms European **model contract terms and conditions** for those issues that fall within the Common European Sales Law proposal. The aim is to standardise key contract terms and conditions, providing best practice contract terms for cloud services on aspects related with the supply of "digital content";
- reviewing standard contractual clauses applicable to **transfer of personal data to third countries** and adapting them, as needed, to cloud services;
- work with industry to agree a **code of conduct** for cloud computing providers to support a uniform application of data protection rules.

Key Action 3 – Promoting Common Public Sector Leadership through a European Cloud Partnership.

The public sector has a strong role to play in shaping the cloud computing market. As the EU's largest buyer of IT services, it can set stringent requirements for features, performance, security, interoperability and data portability and compliance with technical requirements. Several Member States have started national initiatives such as Andromede in France, G-Cloud in the UK and Trusted Cloud in Germany. But with the public sector market fragmented, its requirements have little impact, services integration is low and citizens do not get the best value for money.

The Commission considers that **pooling public requirements** could bring higher efficiency and common sectoral requirements (e.g. eHealth, social care, assisted living, and eGovernment services such as open data) would reduce costs and enable interoperability. The private sector would also benefit from higher quality services.

This year, the Commission is therefore setting up a **European Cloud Partnership** (ECP) to provide an umbrella for comparable initiatives at Member State level. The ECP will bring together industry expertise and public sector users to work on **common procurement requirements** for cloud computing in an open and fully transparent way.

The Commission will also build on its on-going **international dialogues** with the USA, India, Japan and other countries, as regards, inter alia, key themes related to cloud services, such as data protection; coordination of data security at the global level; cybersecurity, liability of intermediary service providers; standards and interoperability requirements; application of the tax law to cloud services.

Follow-up : the Commission will by the end of 2013 report on the progress on the full set of actions in this Strategy and present further policy and legislative proposals initiatives as needed.

Unleashing the potential of cloud computing in Europe

2013/2063(INI) - 16/11/2012 - Document attached to the procedure

Opinion of the European Data Protection Supervisor (EDPS)

The EDPS welcomes the Communication presented by the Commission on 27 September 2012.

The opinion focuses especially on the challenges that cloud computing poses for data protection and how the proposed data protection regulation would tackle them.

This EDPS' opinion has three goals:

1) **Highlight the relevance of privacy and data protection in the current discussions on cloud computing:** the opinion underlines that the level of data protection in a cloud computing environment must not be inferior to that required in any other data processing context.

2) **Analyse the difficulty of establishing unambiguously the responsibilities of the different actors and the notions of controller and processor**: in this respect, the proposal for a regulation on data protection should:

- expand the circumstances in which a cloud service provider may be qualified as the controller;
- increase the responsibility and accountability of data controllers and processors, by introducing specific obligations such as data protection by design and by default, data security breach notifications, and data protection impact assessments ;
- require controllers and processors to implement mechanisms to demonstrate the effectiveness of the data protection measures implemented ;
- help cloud clients and cloud service providers adduce appropriate data protection safeguards for the transfers of personal data to data centres or servers located in third countries ;
- clarify the obligations of controllers and processors regarding the security of processing and information requirements in case of data breaches ;
- reinforce cooperation of supervisory authorities and their coordinated supervision over cross-border processing operations, which is particularly crucial in an environment such as cloud computing.

3) Identify areas that require further action at EU level from a data protection and privacy perspective. They include, amongst others:

- providing further guidance ;
- standardisation efforts ;
- carrying out further risks assessments for specific sectors (such as the public sector) ; developing standard contract terms and conditions;
- engaging in international dialogue on issues related to cloud computing and ensuring effective means of international cooperation.

Unleashing the potential of cloud computing in Europe

2013/2063(INI) - 24/10/2013 - Committee report tabled for plenary, single reading

The Committee on Industry, Research and Energy adopted the own-initiative report by Pilar del CASTILLO VERA (EPP, ES) on unleashing the potential of cloud computing in Europe.

The Committee on Legal Affairs and the Committee on Civil Liberties, Justice and Home Affairs, exercising their prerogatives as associated committees under Rule 50 of Parliament's Rules of Procedure, were also consulted and gave an opinion on the report.

Members welcomed the Commission's ambition to develop a coherent approach to cloud services, but considered that, in order to achieve the ambitious goals set out by the strategy, a **legislative instrument would have been more adequate for some aspects**. Owing to the limited budget of the Connecting Europe Facility, Members felt that support for broadband deployment needed to be supplemented with assistance provided under other Union programmes and initiatives, including the European Structural and Investment Funds.

The report also stressed the obvious interest for the EU in having **more server farms on its soil** since it would foster trust by ensuring EU sovereignty over the servers.

The cloud as an instrument for growth and employment: cloud computing could become a transformative development in all sectors of the economy, with special relevance in areas such as health care, energy, public services and education. Members noted that **e-skills and digital education** actions in cloud computing development could, consequently, be of extraordinary importance in order to tackle the rising unemployment, especially among young people. They recalled the need to create **more qualification schemes** for specialists managing cloud computing services. They also highlighted the positive impact of cloud computing services on **SMEs,** in particular those established in areas facing economic difficulties.

The EU market and the cloud: the report stressed that the internal market should remain **open to all providers complying with Union law**. They insisted that the Commission take measures to counter the risk that information was accessed directly or indirectly by foreign governments, where such access was not allowed under Union law.

Members also emphasised the importance of ensuring a competitive and transparent Union market in order to provide all Union users with secure, sustainable, affordable and reliable services.

Public procurement: the report encouraged public administrations to consider safe, reliable and secure cloud services in IT procurement, while underlining their particular responsibilities with respect to protection of information relating to citizens, accessibility and continuity of service. It recalled that **data integrity and security must be guaranteed** and unauthorised access, including by foreign governments and their intelligence services without a legal basis under Union or Member State law, prevented.

The Commission was asked to **take the lead in promoting standards** and specifications supporting privacy-friendly, reliable, highly interoperable, secure and energy-efficient cloud services.

Consumers: Members asked the Commission to ensure that any commercial agreements between telecommunications operators and cloud providers are fully compliant with EU competition law and that they allow consumers **full access to any cloud service**, using an internet connection offered by any telecommunications operator.

The Commission was asked to explore appropriate measures to develop a minimum acceptable level of consumer rights in relation to cloud services, covering issues such as privacy, data storage in third countries, liability for data losses and other matters of significant interest to consumers.

Intellectual property: the report urges the Commission to take action to further harmonise laws across the Member States in order to avoid jurisdictional confusion and fragmentation and to ensure transparency in the digital single market. It called, in particular, for **clarification of the intellectual property rights regime** and for a review of the Unfair Commercial Practices Directive, the Unfair Contract Terms Directive and the E-Commerce Directive, which are the most relevant pieces of EU legislation that apply to cloud computing.

The Commission should also:

- establish **a clear legal framework in the field of copyright content in the cloud,** especially with regard to licensing regulations;
- investigate how the cloud storage of copyrighted works **affects the royalties systems** and, more specifically, the ways in which private copying levies that are relevant for certain types of cloud computing services are imposed;
- promote the development of decentralised services based on **free and open-source software** that would enable EU citizens to regain control over their personal data and communication.

Data protection: the report called on the Commission and the Council unequivocally to recognise digital freedoms as **fundamental rights** and as indispensable prerequisites for enjoying universal human rights.

Members regretted the approach in the Commission's communication whereby it failed to mention the risks and challenges attached to cloud computing, and urged the Commission to develop a **more holistic communication** on cloud computing that takes into account, alongside a reference to fundamental rights, at least the following:

- guidelines to ensure full compliance with the EU's fundamental rights and data protection obligations;
- limitative conditions under which cloud data may or may not be accessed for law enforcement purposes,
- safeguards against illegal access by foreign and domestic entities,
- proposals on how to define the 'transfer' of personal data and on how to update standard contractual clauses that are tailored to the cloud environment.

The Commission was urged, when negotiating international agreements that involve the processing of personal data, to take particular note of the risks and challenges that cloud computing poses to fundamental rights.

Unleashing the potential of cloud computing in Europe

2013/2063(INI) - 10/12/2013 - Text adopted by Parliament, single reading

The European Parliament adopted a resolution on unleashing the potential of cloud computing in Europe in response to the commission communication on the subject.

Parliament welcomed the Commission's ambition to develop a coherent approach to cloud services, which constituted a significant advancement in information and communication technologies (ICT). It considered, however, that in order to achieve the ambitious goals set out by the strategy, a legislative instrument would have been more adequate for some aspects.

Parliament stressed the following points:

- cloud services must offer **security and reliability**. The safe use of internet services, including cloud computing should be encouraged;
- **Union law should be neutral** and not be adapted to either facilitate or hinder any legal business model or service;
- a strategy on cloud computing should encompass collateral aspects such as the energy consumption of data centres and related environmental issues;
- owing to the limited budget of the Connecting Europe Facility, support for broadband deployment needed to be supplemented with assistance provided under other Union programmes and initiatives, including the European Structural and Investment Funds;

the EU had an **obvious interest in having more server farms** on its soil since it would foster trust by ensuring EU sovereignty over the servers.

The cloud as an instrument for growth and employment: cloud computing could become a transformative development in all sectors of the economy, with special relevance in areas such as health care, energy, public services and education. Parliament stressed, however, that the development of cloud services, in the absence or insufficient availability of broadband infrastructure, **risks widening the digital divide** between urban and rural areas. In this context, Members underlined:

- **the importance of e-skills and digital education actions** in cloud computing development in order to tackle the rising unemployment, especially among young people;
- the need to create **more qualification schemes** for specialists managing cloud computing services;
- the positive impact of cloud computing services on **SMEs**, in particular those established in areas facing economic difficulties.

The EU market and the cloud: Parliament stressed that the internal market should **remain open to all providers complying with Union law**. It insisted that the Commission:

- take measures to counter the risk that information was accessed directly or indirectly by foreign governments, where such access was not allowed under Union law;
- ensure a competitive and transparent Union market in order to provide all Union users with secure, sustainable, affordable and reliable services.

Members welcomed the Commission's intention to establish an EU-wide certification system that would provide an incentive for developers and providers of cloud computing services to invest in better privacy protection.

Public procurement: Parliament invited the Commission and the Member States to speed up the work of the European Cloud Partnership. It encouraged public administrations to consider safe, reliable and secure cloud services in IT procurement, while underlining their particular responsibilities with respect to protection of information relating to citizens, accessibility and continuity of service. It recalled that **data integrity and security must be guaranteed** and unauthorised access prevented.

The Commission was asked to **take the lead in promoting standards** and specifications supporting privacy-friendly, reliable, highly interoperable, secure and energy-efficient cloud services.

Consumers: Members asked the Commission to:

- **raise consumer awareness of all risks** related to the use of cloud services;
- ensure that any commercial agreements between telecommunications operators and cloud providers are fully compliant with EU competition law and that they **allow consumers full access** to any cloud service, using an internet connection offered by any telecommunications operator;

explore appropriate measures to develop **a minimum acceptable level of consumer rights** in relation to cloud services, covering issues such as privacy, data storage in third countries, and liability for data losses.

Intellectual property: Parliament report urges the Commission to take action to further harmonise laws across the Member States. It called, in particular, for **clarification of the intellectual property rights regime** and for a review of the Unfair Commercial Practices Directive, the Unfair Contract Terms Directive and the E-Commerce Directive, which are the most relevant pieces of EU legislation that apply to cloud computing.

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