1. Introduction

Open Forum Europe welcomes the European Parliament initiative and believes it has an important role to play in accompanying the fulfilment of Cloud Computing's potential in Europe. OFE has been actively engaged in the recent debates around Cloud Computing and the work of the Commission on this issue. We believe that 'Unleashing the Potential of Cloud Computing in Europe' is an ambitious Communication and OFE looks forward to continuing to work with the Commission as it unfolds. However, OFE believes some specific issues still need to be properly addressed and provides the following preliminary input and expertise.

2. Context

By any measure,Cloud Computing has clearly gained greater attention over even the past few years. Yet because of the huge market interest, there are many dangers, both in its understanding,
in planning for its implementation, and in potential response by legislators and market influencers. We believe the following key elements should be considered in forging a consistent, forward-thinking Cloud strategy.

• *Not a Single Entity*
Cloud encompasses different services (software or applications as a service, platform as a service, infrastructure as a service, data as a service) and deployment models (public, private, hybrid, community). Furthermore, the business models built on cloud technology offerings demonstrate an ever growing variety and nuances of application. Whilst there are common factors, there equally will be many different drivers and needs between, for example, in the establishment of private facilities and those where public services are offered. *One size is unlikely to fit all.*

• *Evolution not Revolution*
Cloud represents the natural evolution rather than a revolution in information technology architecture and management. There is already substantial operational experience with cloud technologies, and the technology and the architecture in which it operates has been part of the computing landscape for decades. Driven by economics and availability, Cloud Computing is increasingly within the reach of businesses and individual customers, and the move to Cloud based systems will happen the same way as central mainframes moved to distributed systems, and as we now see personal computers moving to mobile devices. The needs for a *transition strategy are very different from establishing a new market.*

• *Market Discontinuity*
Cloud Computing, while evolutionary in terms of technology, is providing opportunities to change the way we do business in the digital economy. Possible market discontinuity may occur as new practices pose challenges to current business practice. Some players will see it as an opportunity, others as a threat. There will also be opportunities to reinsert bad commercial and technical practice, e.g. lock-in. *Any such attempts, potentially under the veil of protection, must be viewed with caution.*

• *A Global Market*
It would be unrealistic to believe that Europe alone can drive this market opportunity – it is global by definition. What Europe can do is maximise the opportunity for its companies--particularly SMEs-- and governments by both maximising the regulatory and business environment for its exploitation and supporting its growth for the benefit of the European economy. *It can encourage new local SMEs and still both be a global influencer and active user.*

• *Cloud as a further step on the transition to services*
The single market in digital services becomes an increasing issue for attracting investment in early stage offerings based in the EU. *A proactive agenda to build a true single market in digital services as well as a complementary research, innovation and availability of investment/financing is needed*

to foster the proper environment and capacity for global competition.

• Services Driven from the User Perspective
As a services based set of models, the needs and expectations of the end user, especially individual end users, become priority, and the criteria and any government initiatives will need to credibly consider the user perspective. Browser-based mobile access becomes the norm and all the issues recognised in respect of the openness of the Internet are reinforced. *User confidence and trust, security and privacy are fundamental.*

• Interoperability and portability
In the same way as the Internet itself itself has been built from day 1 on the basis of 'openness' so must Cloud Computing. Interoperability is a fundamental challenge that can only be realised by full adoption of 'open standards' AND implementation of reasonable commercial practices including the ability of users to move freely between suppliers without undue restriction, either because of technical or commercial limitations.

3. Openness as a basis

The Commission Communication identifies three key issues to be addressed by European legislators: standards, contract terms, and the role of the public sector. OFE believes that openness should be the cornerstone of the actions implemented to answer these challenges., so as to create the level playing fields that will enable strong user participation without limiting innovation and product differentiation.

Cutting through the jungle of standards

Standardisation has long been a crucial tool in IT to ensure quality, security, vendor neutrality and interoperability. This is no different for cloud computing. Rather than building from scratch, we should therefore use lessons learned over the years from standardisation and apply them to cloud computing. Open standards should be used for interoperability at all levels, and especially for compatibility between different cloud offerings and for data portability.

Having recently adopted a new [Regulation](#) allowing standards developed by fora and consortia to be identified in public procurement, the EU should make sure this applies in practice in cloud computing, notably for the European Cloud Partnership.

The Commission has chosen to task the European Telecommunications Standards Institute (ETSI) to coordinate a road mapping exercise with the stakeholders. OFE has [questionned that decision](#), fearing for the transparency and neutrality of this key process. These concerns have not yet been alleviated, and further guarantees should be provided to ensure a transparent, inclusive debate around cloud standards.

The EU should be especially prudent – indeed, quite hesitant -- about setting up certification schemes for cloud services. As a very innovative and fast-moving area, it is inherently difficult for public authorities to keep up with the pace of the market. Such certification schemes, even if "voluntary," become de-facto if endorsed or promoted by the government. Balanced solutions such as industry-lead self-certification schemes are much more likely to improve the readability of the different cloud offerings without stifling innovation. Certification must not become a barrier for entry for SMEs, nor a method of lock-in to major or dominant suppliers.

Safe and fair contract terms and conditions

Whilst we must recognise the substantive differences between business-to-business and business-to-consumer contracts there is currently a major threat of lock-in through imposition of terms that limit transfer of contract or via unduly restrictive SLA conditions. Switching supplier and using multi-supplier solutions should be made as accessible and secure for users as possible.

Another important concern with regards to contract terms is the identification of which law applies to which

data. Cloud is by nature border less, and limiting its scope limits the economic benefits, both for providers and users of the service. At the moment the applicable law over data stored in the cloud is not always clear. This naturally leads to fear, uncertainty and doubts for the users, which is in turn hijacked by some providers to gain unfair competitive advantages. The EU should strive to provide greater legal certainty on privacy rules and data security.

Establishing a European Cloud Partnership

Public procurement has the potential to play an important, if not leading, role in fostering enhanced trust and broader adoption of cloud services. We have already seen several national initiatives to set up governmental cloud computing programs. Europe has a key role to play in this area, by identifying common needs and pooling public requirements. More than any other services, the full benefits of cloud computing can only be reaped in a truly integrated, cross-border digital market. The EU needs to move fast if it wants to stay relevant in this area. National initiatives are already well under way, while the current European plans are not expected to yield concrete results before at least a few years. Additional efforts should be put in speeding up this agenda.

Notes:

OpenForum Europe (OFE) is a not-for-profit member organisation based in both Brussels and the UK, established to support an 'open' and competitive IT market in Europe. OFE is supported by some of the most influential ICT companies including Deloitte, Google, IBM, Oracle, and Red Hat, but also particularly works in strong partnership with a long list of both national and European partners.
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