



Vodafone Response to the TRAI Consultation Paper on Cloud Computing dated 10 June 2016

This is in response to the Consultation initiated by the Authority on the above subject.

We would at the outset like to submit that cloud computing pertains primarily to data storage, computing and IT related activities and is outside the scope of activities under various telecom licenses. There is no pre-condition of a telecom license for doing cloud computing activity. We respectfully submit that in our view this subject falls outside the ambit of TRAI Act.

Notwithstanding the above, we would like to submit a high level response on the benefits of cloud services as also some key principles that may be kept in mind while discussing a regulatory framework for Cloud computing.

1. Benefits of Cloud Computing/services

- a) In essence, cloud computing is the delivery of computing services over the internet. Cloud and hosting solutions allow individuals or businesses to use software and hardware, in most cases managed by third parties, at remote locations.
- b) There is no doubt that cloud adoption is driving a transformation not only in IT infrastructure, but also in the fundamental way companies work to create and deliver value to their customers.
- c) The increasing adoption of IT in enterprises, and the growing volumes of data stored and shared, have brought with them often significant, and growing, overheads in the implementation of in-house computing systems. Time and finance invested in managing IT has increased exponentially alongside reliance on IT systems. Digitisation and data analytics have, in turn, become more important to businesses. As businesses look for new ways to scale back on overhead and infrastructure costs, they are turning increasingly to leveraging the benefits of the cloud. Reflecting this, cloud-related investment has increased dramatically in recent years. A recent IHS report²⁷ suggests global enterprise spending on cloud services and infrastructure could be as much as \$235 billion by 2017.
- d) Some of the advantages of cloud services include
 - **Improved efficiency and availability** as clouds are based on grid computing. This means that the resources of many computers in a network can be applied to a single problem. It also means that the applications can rely on a high availability of IT architecture to minimise downtime.
 - **The ability to scale computing capacity on demand.**
 - **Rapid deployment due to the use of standard, re-usable, and shared software and hardware.** Both public and private clouds can provide self-service access to a shared pool of computing resources.



- Further economic benefits cited in relation to cloud services include **reduced IT capex, reduced IT staff headcount, improved business scalability, faster time to market for new goods and services, more effective mobile working, higher productivity, and an improved ability to enter new business sectors and geographies.**
- a) We attach herewith Vodafone Cloud Barometer 2015 Report, which is the outcome of independent research commissioned by Vodafone with 703 large companies across five continents and 16 countries, including: USA, Canada, UK, Germany, the Netherlands, Italy, Spain, India, Hong Kong, Singapore, Australia, the United Arab Emirates, South Africa, Egypt, Nigeria and Tanzania. We believe that the findings in the report will provide useful data points highlighting the inescapable benefits of cloud services in today's IT driven world.

2. Data localisation/server residency

- a) We note that a number of questions in the consultation paper highlight the relevance of server location to Cloud.
- b) It is a fact that in a globalised information economy, providers of ICT will often deliver their products and services using centralised platforms and architecture, located across multiple jurisdictions. Therefore, any requirement for data localisation can impede effective service delivery as well as increasing costs and altering investment incentives. The economic consequences of this can be significant.
- c) The European Centre for International Political Economy (ECIPE)¹ found that data localisation requirements and related data privacy and security laws could have substantial negative economic impacts, which in the case of India was estimated at GDP losses of 0.1%; also resulting in negative impacts on domestic investment, exports and welfare.
- d) Vodafone believes that it is important to ensure that there are no undue restrictions to transfer of data across borders. Data localisation policies that restrict the international free flow of data should be limited to legitimate measures and clearly articulated specific risks (e.g. national security, public order/ critical infrastructure protection).
- e) Businesses have an expectation that data will be hosted in the Cloud and that this will involve the transfer of data across borders.

¹ European Centre for International Political Economy, 2014, The Costs of Data Localisation: Friendly Fire on Economic Recovery



- f) With regard to the TSPs, whilst they can avail of cloud services as an Enterprise, there are some restrictive clauses in the license that do not allow the TSPs to leverage the benefits of cloud services for/on behalf of their customers.
- g) The license 'bars information identifying user to be sent outside India, thus creating a reluctance in TSPs to avail of cloud benefits for their subscribers. However, similar or more user identifying information is being sent to outside India though subscribers themselves or through handsets or websites.
- h) It may be noted that the provisions of the IT Act are also applicable to the TSPs and hence any separate provision in the license may not be required.

3. Lawful interception (LI)/information governance framework

- a) We understand that one of the challenges in respect of cloud services pertains to lawful interception – which is the sovereign right of every Government.
- b) However, this needs to be applied and implemented in a manner such that it should not be that a “borderless cloud” needs localised national hardware infrastructure to enable local LI – which can sometimes defeat the advantages of cloud services.
- c) It is submitted that while the potential for conflict of laws of different countries do need to be kept in mind, the framework should support cloud computing services, carving out specific and narrow areas of exception. A distinction in this regard may be drawn on the basis of sensitiveness of the data being stored, where a light touch approach can be adopted for general data, while sensitive data can be subject to more rigorous requirements.

4. Data Portability

- a) This is another important area that needs to be looked at while considering a regulatory framework for cloud computing.
- b) Within the EU there is a data portability requirement through the General Data Protection Regulation (GDPR). There has been a lot of discussion around how to make this workable in practice, and whether it is an issue better suited to competition and/or intellectual property law rather than the GDPR. There is also concern that it will lead to disproportionate compliance cost in markets which do not suffer from customer lock-in.
- c) Irrespective, it is important that any such requirement is clear and practicable.
- d) It is important that any requirement does not have a broad scope which makes it unenforceable. Ideally it should be ensured that any requirement is as narrow as possible



and applies only to content which is uploaded to the cloud or created in the cloud and which is transferable to other clouds.

5. Interoperability

- a) This is an area that is linked to the issue of data portability.
- b) Common standards are essential to achieve interoperability for both intra and inter-organisational environments.
- c) Vodafone supports global efforts to ensure the definition and rollout of suitable standards to facilitate easy implementation at the operational level. We note that many standards are still in their early stages and more work is required to coordinate these efforts and harmonise standards in a meaningful way. The consultation asks whether regulation is required in this area. Our position is that regulation needs to stop short of mandating a standard to promote interoperability, so a policy to “encourage” is appropriate, not a policy to “mandate”.

New Delhi
5 September 2016