

Question 5. What regulatory provisions may be mandated so that a customer is able to have control over his data while moving it in and out of the cloud?

Mandate data portability and right to be forgotten for services that host data. It's trivial to do. Data portability is already implemented by most of the major cloud providers, Google, Amazon, etc. included. Right to be forgotten is a relatively recent judicial realization that certain European countries have implemented to acceptable effect.

Question 6. What regulatory framework and standards should be put in place for ensuring interoperability of cloud services at various levels of implementation viz. abstraction, programming and orchestration layer?

As long as the old Internet exists with its centralized services, no such framework can ever possibly exist. The systems of economics and software fragmentation assure this. Standards to exist for certain small subset of things, but they will not be enough as long as the proprietary services have any incentive to compete exclusively.

However, the future of the internet is wholly decentralized, and a lot of foundational work has already been done towards it. A paltry consultation questionnaire with is not ample enough space to discuss them, please visit decentralizedweb.net/ where this very week the very creators of the internet and the world wide web alongside many of the technological pioneers who are building the future talk about their tasks.

The interim solution is to vet only the cloud providers who run open source software exclusively, which is the only sensible solution for state use anyway.

Question 9. What mechanism should be in place for handling customer complaints and grievances in Cloud services? Please comment with justification.

Let the free market handle these things like it does for everything else in this country.

Question 10. Enumerate in detail with justification, the provisions that need to be put in place to ensure that the cloud services being offered are secure.

If the services are NOT verifiably running on open source software, they are not secure.

Question 13. What should be the roles and responsibilities in terms of security of (a) Cloud Service Provider(CSP); and (b) End users?

The service should first and foremost be running open source software which can be independently verified. All sensitive data must be strongly encrypted. And:

- a) The CSP must not have any overriding access to the customer's encrypted data.
- b) The end users' encryption keys must be the only way to access their data on the cloud.

Question 14. The law of the user's country may restrict cross-border transfer/disclosure of certain information. How can the client be protected in case the Cloud service provider moves data from one jurisdiction to another and a violation takes place? What disclosure guidelines need to be prescribed to avoid such incidents?

Such laws are byzantine, nonsensical, unenforcable, anti-constituent, and simply based upon incomplete understanding of how the internet and the economy of the internet works. Broken laws need to be fixed to meet the world, not the other way around.

Question 15. What polices, systems and processes are required to be defined for information governance framework in Cloud, from lawful interception point of view and particularly if it is hosted in a different country?

None. Blanket interceptions are a human-rights violation and anti-constituent, not to mention wholly and utterly unnecessary. There are already practical laws in place that offer warrants in a case-by-case basis acting on the involved parties, and not involving the middle-men, which are the CSP in this case.

Question 16. What shall be the scope of cloud computing services in law? What is your view on providing license or registration to Cloud service providers so as to subject them to the obligations thereunder? Please comment with justification.

The scope of cloud computing services should end exactly in ensuring rights of the customers residing in the state is guarded, such as right to security, portability, and the right-to-be-forgotten. Anything more is not only overreach, but also technically misunderstood, unenforceable, and anti-constituent.

Question 17. What should be the protocol for cloud service providers to submit to the territorial jurisdiction of India for the purpose of lawful access of information? What should be the effective guidelines for and actions against those CSPs that are identified to be in possession of information related to the commission of a breach of National security of India?

There should be NONE. This is a moot and irrational line of questioning.

Question 18. What are the steps that can be taken by the government for:

- (a) promoting cloud computing in e-governance projects.
- (b) promoting establishment of data centres in India.
- (c) encouraging business and private organizations utilize cloud services
- (d) to boost Digital India and Smart Cities incentive using cloud.

a) Use and promote EXCLUSIVELY non-proprietary verifiable open source software on the cloud, preferably custom signed and encrypted software containers on general-purpose cloud platforms. Failure to ensure even one of these parameters means breach of security for e-govt. projects, and perhaps even vendor lock-in for a state that's already lagging grossly behind in technical infrastructure.

b) Don't implement irrational and byzantine surveillance laws and regulation.

c) Don't implement irrational and byzantine surveillance laws and regulation.

d) Hire competent developers and UX designers to build competent citizen-facing software. Rigorously publish the software source that the citizens can verify the quality of the codebase themselves.

Question 19. Should there be a dedicated cloud for government applications? To what extent should it support a multi-tenant environment and what should be the rules regulating such an environment?

There could be, if done competently. If not done competently it would be a massive risk for the entire state. E-govt. ventures India has undertaken so far offer no confidence.

Such a project would be incredibly useful if done right. The conditions of being wholly open-source and transparent would be mandatory for this to even work, and rich public access API's for at least Indian citizen's to access would have to be a strong consideration for any project running on this cloud for its potential to be realized.

Regulation for such an environment would be the same as quality assurance for any modern codebase. Open source, multiple code quality and security verifications both tendered and by the public. None of this is novel to an e-cloud endeavor, competent public-facing software projects have been operating as such for decades.

Question 21. What tax subsidies should be proposed to incentivise the promotion of Cloud Services in India? Give your comments with justification. What are the other incentives that can be given to private sector for the creation of data centres and cloud services platforms in India?

Such a subsidy isn't strictly necessary. The state of India has more important things to subsidize such as renewable energy and ubiquitous internet access.

However, if such a subsidy is considered, it must be to encourage open source software and services that meet the criteria repeatedly described in these answers.

Such services and platforms don't really need incentives to foster, the only thing that needs to be ensured is not repeatedly erecting byzantine laws and regulations that are not only unimplementable and irrational but also make it impossible for services operating under them to compete globally. Failure to do so would doom the Indian cloud software industry if it hasn't already.