A Thought On "Datacenter as A Small / Medium Scale Industry in Emerging Economies"

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Abstract: **Cloud Technology is emerging very fast and it has become no more rocket science with wide scale development of open source solutions. The cloud and big data are evolving at a great velocity and so there is a need for infrastructure to manage them. Social network sites, many web applications are generating data at enormous velocity. The web is also growing at enormous speed. The total number of websites has reached more than a billion. The number of mobile applications is grown to the extent of 2 million in android play store alone.The cost of clouds for hosting/usage of smartphone applications is very high. There is also much of network latency while accessing these applications from the cloud. So there is also a need for infrastructure that is closer to the smart phones (Mobile Cloud Computing).**

Keywords : **Cloud Technology; Social Network Sites; Network Latency;**

I. INTRODUCTION

There is a demand in market to store these data and hosting applications. A real digitalization of country could happen only through the setting up the clouds and these needs can only be met with indigenous cloud setup.

- Many small data centers could be setup across the country as a small/Medium scale industry.
- It should be made possible so that any middle class businessman/person can invest for building up a small data center with help of government and private firms. He/she can then charge money for data usage.
- These kinds of small datacenters can also be run with renewable energy sources.
- These small data centers could be setup in anywhere across the country with minimum standards and license from the government.

These small data centers can be virtualized into one or more big virtualized data centers. Any government applications, Customer (Indian/Foreign) applications, Mobile applications can be hosted. These small infrastructures could also be used like CDN. These data centers as a whole will be fault tolerant, data replication everything will be managed.

II. REASONS FOR POSSIBILITY

- Evolution of high speed networks. The network has become cheaper and can be setup with ease.
- The government with private partnership could help in connecting these data centers with fiber optic cables.
- Open source software for setting up the cloud (Open stack and open compute)
- Make in India and Digital India campaign, could impact on setting up the clouds.
- Any Private company wanting to make their clouds hybrid cloud, can give it in the form of

agencies to setup the cloud and can extend them as public clouds.

III. ADVANTAGES

- Could largely help in Digitalization of country, paperless exams / transactions, e-governance, Skill India.
- The cost of building large datacenter (virtualized) can somehow will be reduced considerably for the government, as it will be shared.
- Locality of applications for mobile users, network latency (RTT) will be reduced.
- Can encourage many Startups across the country.
- Create Many Self Employed Entrepreneurs
- Can also help other underdeveloped and developing countries by hosting their applications at cheaper rate and these countries can trust India.
- These data centers can also contain backup data if any other company wants to store its data.
- Tolerant to infrastructure failures, due to data stored at multiple sites.
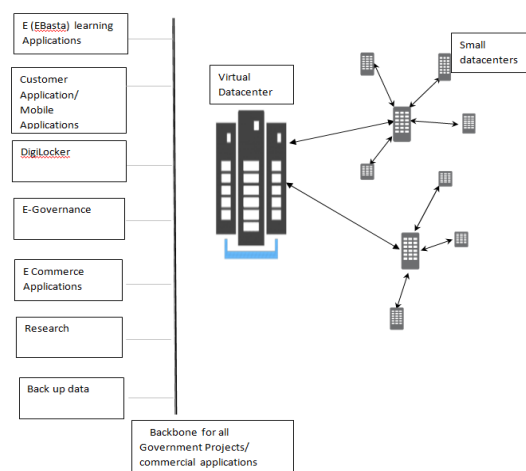
IV. CONCLUSION

As usual cloud security issues such as security and privacy will also be applicable here and Interoperability among the data centers is also a big challenge. Ancient India was a World Knowledge Center. Now it is author's wish that India has to become a World Data Center Hub.

V. ACKNOWLEDGEMENTS

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