

Election results on “Cloud”- In India

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Abstract:

With increasing affordability of PCs and internet penetration, India is all set to have 121 million internet users by December 2011, a study by internet and Mobile Association of India (IAMAI) and IMRB has said. With this internet use in India is expected to enter a critical period of growth with the possibility of becoming the largest internet using country in the world in this decade.

Indian eGovernance policy and plan need to address exponential increase in users logging into Government websites for various services of which few services like election results attracts a sharp spike users for a short time. As more people go online to see polling results on Election Day, the increased traffic can wreak havoc on IT infrastructure not designed for huge spikes in demand. Emerging technologies and “cloud hosting” offers a highly reliable and scalable solution to avoid crashes which are agonizing an irritating.

Introduction:

SWAN, State data centers, and CSC are few of the mission mode projects under National eGovernance Plan (NeGP) in India. Most of the states have developed State Wide Area Networks (SWAN) and the state data centers. Hundreds of thousands of community service centers (CSC) are commissioned using VSAT technology.

Design of eGovernance ICT infrastructures is based on conservative estimates on the number of users without consideration the growth pattern. During schools / college results, polling results on Election Day – there is a sudden increased in traffic wreaking havoc on captive IT infrastructure not designed for huge spikes in demand. It is very common to – election sites or Government sites getting crashed or become irritating slow during election or important results announcement.

There is an urgent need for a holistic review of all existing mission mode projects under NeGP – considering emerging technology options like “cloud hosting” which is considered more reliable and can upscale quickly to avoid crashes. Addition to the technical benefits of the cloud, election commission and other similar institutions would not require maintaining expensive infrastructure for a capability that’s only used sporadically each year. Using cloud technology for elections reporting and results would not only save governments money but would improve “effectiveness” of information dissemination.

EGovernance ICT infrastructures developed or under development needs to be reviewed and re-casted based on – learning derived so far, emerging technologies and their offers, and “selective sharing of resource concept”. Investment in ICT infrastructures has to be optimal for bringing sustainability to eGovernance projects. To avoid duplication - a proper research and investigation should be to be undertaken for ascertaining – possibility of sharing “ICT resources” for different level (national, regional, state and local) of applications. There may be hundreds of Government (both state and central) applications like election results – which are used very sporadic but characteristically encounters “heavy traffic” for a day or two.

Current Election in Five state – A time to experiment “Cloud”?

With the announcement of election in five states – election commission has an opportunity to experiment “election results on cloud”. This will be important to ensure through put and reliability both. At first instance – and also in order to minimize the “risk factor” election commission can work on a “dual strategy” viz – continue with the existing website service and at the same time add a “cloud based service” with same URL. Learning can be drawn by implementing a proper and strong audit and tracking mechanism for the proposed experimentation and - based on the learning and experience – a full fledge cloud based website implementation can be done before the parliament elections.

Stakeholders – who can actively associate in this exercise may include – BSNL (DoT, GoI), NIC(DIT, GoI), NKN (National Knowledge Commission), State election commissioner (five election states), and Agency (ies) offering cloud plate form in India.