


Client	: Maharashtra State Election Commission	
Industry	: Government	
Website	: <a href="http://www.mahasec.com">www.mahasec.com</a>	
Contact Person	: Chandan Dange	
Application Name	: eNlight- Innovative & Intelligent Cloud Solution	

## Profile

The State Election Commission of Maharashtra has been established on 26rd April 1994 as per the provisions of Article 243 K & 243 ZA of the Constitution of India to conduct all rural & urban local body's elections.

Greater public information and sufficient sensitization, transparency and capacity building, and empowerment of the citizen are key areas which are addressed by the State Election Commission. The Commission's website has been built with a view to generate greater public awareness about the electoral Law and process, and rights and duties of the voters. Extracts from the relevant Laws, Model Code of Conduct, Electoral Rolls for elections to Local Bodies, qualifications and disqualifications of the candidates for contesting elections, forms to be used for nominating candidate, appointment of election/ polling/ counting agents, list of valid nominations, list of final contestants, counting of votes and declaration of results, and various other issues pertaining to conduct of elections, and the relevant formats are made available on the website.

In other words, the State Election Commission is responsible for the preparation of the Electoral rolls and conduct of an Election to the Local Bodies in the State of Maharashtra in a free, fair and impartial manner.

### Challenges

State Election Commission of Maharashtra needed a dynamic cloud hosting platform that could address to their huge database needs and a disaster recovery solution to provide maximum security to their mission critical data.

### Solution

eNlight Cloud Computing Platform and Disaster Recovery as a Service on eNlight Cloud Servers

## Business Challenge

---

The Election Commission of Maharashtra has a plethora of information available on their website, right from ongoing election programmes to voter awareness campaigns. They have also procured a web application that can be accessed by the common man and the government bodies to get the corresponding information about elections as per the region. They have more than 1.5 crore records in their database and huge amount of traffic has been witnessed on their website especially during election period. Due to such increase in traffic, their servers were overloaded which led to frequent downtime. They also were in need of a disaster recover solution at a justified cost.

The processing and smooth functioning of the application with more than 1.5 crore records in their database was of primary concern. Sudden traffic spikes also resulted in disk failure.

They used dedicated servers with database clustering to balance load, but during peak traffic this set-up didn't suffice to cope up with the load.

High initial investment and subsequent high maintenance costs for the set-up.

The servers were underutilized during non-peak hours and they were in need of a flexible solution that ensured optimum usage of resources.

Security of mission critical data was also of utmost importance.

Unavailability of monitoring system and manual intervention required to perform day-to-day activities.

## Solution

---

ESDS recognized that the basic requirement for smooth functioning of the website as well as the software was to provide sufficient resources as per the need. ESDS suggested their in-house developed Auto scalable and intelligent cloud platform eNlight for the State Election Commission of Maharashtra, which seamlessly addressed all their concerns. eNlight automatically allocates and de-allocates resources as per the application load with no limitations on server resources. eNlight's Disaster Recovery Solution ensured mission critical data was secured with minimum upfront and maintenance cost. The distinct characteristics of the solution offered are as follows:

**Virtual Auto scalable platform:** Their set-up was migrated to eNlight cloud platform with four servers- two web servers, one database server and one backup server. The complete set-up was on Auto Scaling. As soon as the services went live from eNlight cloud set-up, all the concerns were addressed to and resolved instantly. The Web servers were provided with the necessary compute to manage huge queries.

**Access to unlimited resources:** The huge RAM requirements of database were addressed to as CPU and RAM allocated wasn't fixed and could scale up as per resource requirement. eNlight's intelligent scaling technology allows RAM and CPU resources to automatically scale up and down depending on the application needs. The database server comprising of more than 1.5 crore records scaled seamlessly from 1GB to 34 GB of RAM on any given day.

**Provision of Monitoring System:** eNlight comes with a control panel interface that can Create VMs, Edit Settings, Start, Shutdown and Reboot VMs, Forecast VM bills and perform many more critical day to day functions. eNlight facilitated automation in the day-to-day management of their server in order to simplify and smoothen the entire process.

**Security of mission critical data:** The backup server synchronized their mission critical data every three hours to drastically minimize any data loss. eNlight's Disaster Recovery Solution

## Solution Benefits

---

**Cost efficient:** Huge amount of money saved due to optimum usage of resources due to eNlight's Auto scaling technology. Disaster recovery solution reduced the cost drastically which would otherwise be invested in a traditional DR set-up.

**Zero downtime:** There wasn't any downtime experienced on eNlight even during peak hours of website traffic.

**Performance:** eNlight ensured zero downtime, their website and web application worked smoothly without any performance bottlenecks.

**Unlimited resource availability:** No restrictions on the RAM and CPU usage as eNlight virtual machine does not have any resource limitations.