



## Case Study: Oracle Installation at Leading Govt. Organization

### About the Company:

This Govt. Body was created as a Committee in October 2005. Their role was to develop, drive and support various initiatives within the Government to transform government services in the country. A key objective of this transformation was to establish a modern, efficient and citizen-centric e-Government platform to match the best in the world. The Role of this govt. body is to

- Supervise the implementation of the e-Government program in Government entities.
- Sponsor initiatives and mature assets and competencies that it deems of critical importance for the e-Government project.
- Propose policies and technology standards for government and relevant entities to achieve a comprehensive quality in reaching the highest levels of efficiency, confidentiality, and safety in the e-Government project.
- Issue rules and guidelines regarding the implementation of IT policies and the technical specifications, and communicate them to all the Government entities.
- Submit the guidelines to the Council regarding the IT sector and the e-Government.

### Business Challenges

This Govt. Organization was to be the server of other govt. organizations and their infrastructure for which it was must that their system was running all the time without any unplanned downtime. To achieve the maximum uptime availability it was must to design the system that gives the high availability and redundant support. Challenge was to achieve the above stated with the limited budget that has been given to the organization.

### Nihilent's Role:

Nihilent has designed the architecture for the Oracle Database implementation. Nihilent has suggested installing 2 Node Oracle 10g RAC Database using the Oracle ASM technology with the redundancy on network side. 2 Network adaptor card has been suggested for High availability. 2 network card connections were assigned to 2 different network switches for high availability of network.



Initially the Cost of the project was going high due to license cost of the cluster software. A suggestion was given to use the Oracle ASM technology for cluster database which comes free with the Oracle Database. This resulted into the saving of more than USD\$ 30,000 on cluster license cost.

Upon successful installation of ASM 10g 2 Node installation various fail over test has been carried out. One of the tests of network card failure was not giving the expected result and both the node was crashing at the time of test. Upon doing the further study we found that the on-board network card is faster than the ad-on network card and due to this when ever Network cable is removed from on-board network card the ad-on card was having some delay in taking over the node information. To overcome this issue Heartbeat time out and network idle time change has been carried out and test was carried out successfully.

### **Benefit Achieved**

With above setup Govt. Body could achieve the saving on the License cost of OS Cluster software. They could achieve the high availability on the Database side along with the scalability for the future requirement.