

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

III. NAME OF CATEGORY- 'INNOVATIVE USE OF TECHNOLOGY IN e-GOVERNANCE'

1. Coverage – Geographical and Demographic :-

(i) Comprehensiveness of reach of delivery centres,

Maharashtra State Data Centre (MahaGov Cloud)

(ii) Number of delivery centres

Centralized Delivery Centre-One

(iii) Geographical

(a) National level – Number of State covered

(b) State/UT level- Number of District covered

ALL

(c) District level- Number of Blocks covered

Please give specific details:-

All Maharashtra State department, districts, boards, Govt. undertakings covered under SDC scheme

(iv) Demographic spread (percentage of population covered)

>90%

2. Situation Before the Initiative (Bottlenecks, Challenges, constraints etc with specific details as to what triggered the Organization to conceptualize this project #):

-No common IT infrastructure, department use to have their own IT infrastructure

-Higher procurement cost to the individual department, a lot of delays due to lack of expert IT resources.

-Department preferred manual processing causing a lot of delays in implementation of projects

-Trend analysis was difficult due to non-availability of data online

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

3. Scope of Services/ Activities Covered (Relevance of choice of application for client/ agency, Extent of e-enablement in terms of number of services, Extent to which step in each service have been ICT- enabled #)

I. System Integration Services

Design, Procure, implement and commission all the data center physical and IT (active and passive) components

II. System Maintenance Services

Undertake maintenance services of all the components being procured and installed through this RFP to ensure that overall uptime commitment of 99.74%

III. Help desk services

Design, Procure, implement, operate and maintain the help desk components to resolve user department issues and incidents

IV. Backup / Restore Services

Design, Procure, implement, operate and maintain the shared backup and restore components and provide backup and restore services to the user department.

V. Storage Services

Design, Procure, implement, operate and maintain the shared storage components and provide storage administration and management services to the user departments

VI. Security Services

Design, Procure, implement, operate and maintain the shared security components like Firewall, IPS, HIDS, Antivirus for providing security services to the user departments

VII. OS and Data base support services

Provide administration, patch upgrade and update management services for OS and Database to the user departments.

VIII. Performance Monitoring and Capacity Management Services

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

Design, Procure, implement, operate and maintain the monitoring components and provide performance monitoring and capacity management services

IX. Change Management services

Provide change management services to the user departments as per the agreed conditions.

X. Vendor Management

Provide vendor management support as per the severity level / escalation mechanism agreed with the user department.

XI. Messaging Services

Provide Unified Messaging Services to the authorized users of Government of Maharashtra.

XII. Application Related Services

Provide certain Application related services like Application Maintenance / Enhancement / Migration.

4. Strategy Adopted

(i) The details of base line study done,

Baseline study to setup SDC was carried out by Department of IT, Govt. of India. SDC has been identified as one of the important element of the core infrastructure for supporting e-Governance initiatives of NEGP. SDC acts as mediator and convergence point between open unsecured public domain and sensitive government environment

(ii) Problems identified,

The design of Data Centre represents many challenges and was a complex task as it involves many stakeholders, state department having varying requirements, access mechanisms and delivery channels to the citizens.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

(iii) Roll out/implementation model,

Department of IT has given two options to the state to roll out SDC. 1. State and NIC together form a composite team. While sovereign control of the data/application shall be with the state. The physical infrastructure may be outsourced. 2. The state leverages the capability of existing commercial Internet Data Centres for which different Data Centre models were available.

Maharashtra State Data Centre used first option to roll out SDC in the state.

(iv) Communication and dissemination strategy and approach used.):

Communication and disseminations strategy used as follow:

Periodic Project Reviews

Customer Review Meetings

Internal Review Meetings

Change Management

5. **Technology Platform used-**

(i) Description,

Instead of going ahead with a giant leap towards providing the complete Cloud Services, GoM initiated the services by implementing IaaS and PaaS.

In order to kick start the initiative, a Proof of Concept on virtualization was started in November 2011 by using VMWare and Microsoft Hyper V. The overall capacity for each of the resources was increased to a desirable level which ranged from CPU, RAM, NIC, Licenses, software, etc. For effective operations and management, the Data Center team was provided with necessary trainings.

The benefits of virtualization were achieved after the PoC and soon the next step of moving to complete implementation of Cloud Setup was initiated. The fully operational cloud was commissioned in May 2012. With all the modules of Cloud implemented the stakeholders could realize the value of using

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

shared resources from the State Data Centre. It has surely improved the major constraints of operation with better quality of service, reduced time for infra provisioning and lower cost of hosting. Following technologies used in SDC:

VMware vCentre

Microsoft HyperV

(ii) Interoperability

Yes

(iii) Security concerns

Maharashtra State Data Centre ISO 27K security certified

(iv) Any issue with the technology used

No

(v) Service level Agreements(SLAs) (Give details about presence of SLA, whether documented, whether referred etc. #)

SLA of 99.74%. Documents available

6. **Demonstrate innovative use of ICT for development** (Give details about use of new and emerging technology, innovative usage of ICT for process change to improve quality of the life/ organizational effectiveness, relevance of technology to provide the service #)

Use of virtualization and cloud technology of VMware and Microsoft,

Following project got fast deployment lifecycle in Maharashtra:

- 1) RTO project of Autorichshaw Lottery: Completely online project deployed within a week
- 2) ITI admission throughout State: More than 20 Crores project estimated completed within 4 Crores. Resources increased instantly as per load using cloud technology
- 3) IGR project running from MahaGov Cloud generating huge revenue to the state
- 4) Land record project for digitization of data and making online

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

available to public moving very fast due to use of cloud services

- 5) More than 150 websites and application from various department of Maharashtra has been hosted on MahaGov cloud

7. **Citizen Centricity** (Give specific details on the following#)

- (i) Impact on effort, time and cost incurred by user,

Effort: Effort reduced due to centralized consultancy, implementation, rollout, maintenance, operations etc.

Cost: Drastically reduced to department moving from Capex model to pay per use model

Time: Project rollout within weeks period. Example: RTO project of Autorichshaw Lottery: Completely online project deployed within a week

- (ii) Feedback/grievance redressal mechanism,

Composite Team (comprises of NIC and Directorate of IT) spare 1 hour daily for feedback,grievence. Weekly, fortnightly review meeting taking place regularly. Monthly review meeting held headed by Principal Secretaty IT on regular basis.

- (iii) Audit Trails,

Audit trails, Logs maintained as per guidelines from central and state

- (iv) Interactive platform for service delivery,

Interactive face to face, telephonic, online channels available for smooth service delivery

- (v) Stakeholder consultation

Prior implementation, during implementation and after implementation stakeholders meeting is a part of project implimentation

8. **Adaptability and Scalability** (Give details about Local language support, ability to leverage shared Government infrastructure, Standardization of technology used (hardware, software, application etc. #)

Local Language support available: Marathi

All websites developed are GIGW, W3C compliant.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

Infrastructure used:

Cloud:

VMware: vCentre

Microsoft: Microsoft HyperV

Platform:

- Windows 2008, Windows 2012, Linux 6.3, Cent OS 5.0, ESX 5.1

Database:

- **SQL Server 2008, SQL Server 2012**
- MySQL 5.5
- PostgreSQL 8.4, 9.2
- Oracle 11, 12
- DB 2

Webservers:

- ***IIS – Windows Platform (Dot Net)***
- ***Apache Web Server***
- ***Apache Tomcat 6.3, 7.0.***

9. Adaptability Analysis

(i) Measures to ensure adaptability and scalability

Regular reviews with various stakeholders. Cloud products used are easily scalable, flexible.

(ii) Measures to ensure replicability

DR implementation in place. Using VMware cloud feature replicability is been tested.

POC of cloud burst successfully done with BSNL to test reliability part

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

of cloud services

(iii) Restrictions, if any, in replication and or scalability

No

(iv) Risk Analysis

As a part of new project, SDC team do the risk analysis. Based on CISO recommendation project is either accepted or rejected.

10. **New Models of Service Delivery** (Give details about type of partnership model use, Links to/Supported by Public/Private Organization Links provided to relevant websites etc. #)

Dedicated team DCO provided services 24x7. Composite team (composition of NIC,DIT) present onsite on all working days. Management team of NIC and DIT takes monthly review. Onsite Third Party Audit team deployed to keep a watch on service delivery

11. **Efficiency Enhancement** (Give specific details about the following #)

(i) Volume of transactions processed

More than 150 department hosted their websites and application

(ii) Coping with transaction volume growth

15-20% volume growth per quarter

(iii) Time taken to process transactions,

Project go live within a week

(iv) Accuracy of output,

100%

(v) Number of delays in service delivery

No delay in service delivery

12. **User convenience** (Give specific details about the followings #)

(i) Service delivery channels (Web, email, SMS etc.)

All channels used for service delivery

(ii) Completeness of information provided to the users,

100%

(iii) Accessibility (Time Window),

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

Round the clock(24x7)

(iv) Distance required to travel to Access Points

No travel required. Every details available online

(v) Facility for online/offline download and online submission of forms,

Available

(vi) status tracking

Available. CA service desk fully implimented

13. **Sustainability** (Give details about sustainability w.r.t. technology (technology used, user privacy, security of information shared – Digital Encryption etc. #), Organization (hiring trained staff, training etc. #), financial (Scope for revenue generation etc. #))

Project is on BOOT model for period of 5 years. DCO is performing service delivery as per SLA of 99.74%. All security measures strictly followed. Project has undergone ISO27K security certification and certified. ISO20K certification underway.

Third Party auditor is ensuring that DCO (Data Centre operator is taking care of putting right resources, providing necessary training etc.)

Project is financially healthy. State has devised revenue generation model (charge back) in cloud online where bills are produced based on allocation and usage of resources. Undertakings, boards, municipalities can be charged to generate revenue for the state.

14. Result Achieved/ Value Delivered to the beneficiary of the project-(share the results, matrices, key learning's, feedback and stakeholders statements that show a positive difference is being made etc):

(i) **To organization**

More than 12 awards received to MahaGov cloud for the innovation. Following department along with their project (website/application) is part of Maharashtra SDC/Cloud:

maharashtra.gov.in	Live
mdd.maharashtra.gov.in	Live
mddapp.maharashtra.gov.in	Live
aadhaar.maharashtra.gov.in	Live

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

accessibleplaces.maharashtra.gov.in	Live
agri.maharashtra.gov.in	Live
ah.maharashtra.gov.in	Live
ahd.maharashtra.gov.in	Live
appl1igr.maharashtra.gov.in	Live
arogya.maharashtra.gov.in	Live
ashramshalarth.maharashtra.gov.in	Live
aua.maharashtra.gov.in	Live
auaqa.maharashtra.gov.in	Live
ayurvedarth.maharashtra.gov.in	Live
barti.maharashtra.gov.in	Live
bhumibhilekh.maharashtra.gov.in	Live
bindunamavali.maharashtra.gov.in	Live
ceo.maharashtra.gov.in	Live
cidco.maharashtra.gov.in	Live
cmrfdemo.maharashtra.gov.in	Live
ctsports.maharashtra.gov.in	Live
cvsports.maharashtra.gov.in	Live
dashboard.maharashtra.gov.in	Live
data.maharashtra.gov.in	Live
dgipr.maharashtra.gov.in	Live
apps.dgipr.maharashtra.gov.in	Live
dgps.maharashtra.gov.in	Live
dhis.maharashtra.gov.in	Live
doi.maharashtra.gov.in	Live
dol.maharashtra.gov.in	Live
dro.maharashtra.gov.in	Live
dtp.maharashtra.gov.in	Live
ec.maharashtra.gov.in	Live
ec6.maharashtra.gov.in	Live
efilingigr.maharashtra.gov.in	Live
egovtraining.maharashtra.gov.in	Live
empprofile.maharashtra.gov.in	Live
envd.maharashtra.gov.in	Live
escholarship.maharashtra.gov.in	Live
esearchigr.maharashtra.gov.in	Live
etribal.maharashtra.gov.in	Live
fda.maharashtra.gov.in	Live
finance.maharashtra.gov.in	Live
gad.maharashtra.gov.in	Live
gms.maharashtra.gov.in	Live

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

gsoigr.maharashtra.gov.in	Live
healthasha.maharashtra.gov.in	Live
healthashasearch.maharashtra.gov.in	Live
healthbondedcandidates.maharashtra.gov.in	Live
healthconstructiontracker.maharashtra.gov.in	Live
healthdoctoravailability.maharashtra.gov.in	Live
healthdoctormasters.maharashtra.gov.in	Live
healthgrievanceredressal.maharashtra.gov.in	Live
healthhrd.maharashtra.gov.in	Live
healthmocp.maharashtra.gov.in	Live
healthnrregistration.maharashtra.gov.in	Live
healthpullsms.maharashtra.gov.in	Live
healthtransferrequest.maharashtra.gov.in	Live
healthtransferrequestgroupb.maharashtra.gov.in	Live
home.maharashtra.gov.in	Live
housing.maharashtra.gov.in	Live
industry.maharashtra.gov.in	Live
it.maharashtra.gov.in	Live
kra.maharashtra.gov.in	Live
kua.maharashtra.gov.in	Live
kuaqa.maharashtra.gov.in	Live
legalservices.maharashtra.gov.in	Live
lj.maharashtra.gov.in	Live
lokrajyaservice.maharashtra.gov.in	Live
lottery.maharashtra.gov.in	Live
mafsuarth.maharashtra.gov.in	Live
mahabhulekh.maharashtra.gov.in	Live
mahades.maharashtra.gov.in	Live
mahaeschol.maharashtra.gov.in	Live
mahahsscboard.maharashtra.gov.in	Live
mahakosh.maharashtra.gov.in	Live
mahalfa.maharashtra.gov.in	Live
masahakar.maharashtra.gov.in	Live
masasdb.maharashtra.gov.in	Live
masasilk.maharashtra.gov.in	Live
masatextile.maharashtra.gov.in	Live
masins.maharashtra.gov.in	Live
mantralayamis.maharashtra.gov.in	Live
marathibhasha.maharashtra.gov.in	Live
mcsma.maharashtra.gov.in	Live
medical.maharashtra.gov.in	Live

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

mfdc.maharashtra.gov.in	Live
mgif.maharashtra.gov.in	Live
mhada.maharashtra.gov.in	Live
mpbccdc.maharashtra.gov.in	Live
mpsp.maharashtra.gov.in	Live
mumbaipolice.maharashtra.gov.in	Live
mumbaipolicegeneralunit.maharashtra.gov.in	Live
nrhmconstructiontracker.maharashtra.gov.in	Live
pa.maharashtra.gov.in	Live
panchayatrajsevarth.maharashtra.gov.in	Live
pdeigr.maharashtra.gov.in	Live
phd.maharashtra.gov.in	Live
plan.maharashtra.gov.in	Live
pwd.maharashtra.gov.in	Live
rajbhavan.maharashtra.gov.in	Live
rdd.maharashtra.gov.in	Live
renewescholarship.maharashtra.gov.in	Live
rfd.maharashtra.gov.in	Live
rgstc.maharashtra.gov.in	Live
rmvs.maharashtra.gov.in	Live
rof.maharashtra.gov.in	Live
ruraldev.maharashtra.gov.in	Live
sadm.maharashtra.gov.in	Live
sahakarayukta.maharashtra.gov.in	Live
salestax.maharashtra.gov.in	Live
samajsevaarth.maharashtra.gov.in	Live
sausevarth.maharashtra.gov.in	Live
school.maharashtra.gov.in	Live
sdchelpine.maharashtra.gov.in	Live
sedconstructiontracker.maharashtra.gov.in	Live
sfc.maharashtra.gov.in	Live
shalarth.maharashtra.gov.in	Live
sharepoint.maharashtra.gov.in	Live
sic.maharashtra.gov.in	Live
sports.maharashtra.gov.in	Live
srdhqa.maharashtra.gov.in	Live
ssp.maharashtra.gov.in	Live
sugar.maharashtra.gov.in	Live
survey.maharashtra.gov.in	Live
techedu.maharashtra.gov.in	Live
trafficpolicemumbai.maharashtra.gov.in	Live

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

tribal.maharashtra.gov.in	Live
trti.maharashtra.gov.in	Live
udd.maharashtra.gov.in	Live
urban.maharashtra.gov.in	Live
usrdh.maharashtra.gov.in	Live
water.maharashtra.gov.in	Live
waterconserve.maharashtra.gov.in	Live
womenchild.maharashtra.gov.in	Live
wrd.maharashtra.gov.in	Live
wrdtest.maharashtra.gov.in	Live
zpdhule.maharashtra.gov.in	Live
zpnashik.maharashtra.gov.in	Live
zpraigad.maharashtra.gov.in	Live
zpthane.maharashtra.gov.in	Live
rfdsheets.maharashtra.gov.in	Live
pwdconstructiontracker.maharashtra.gov.in	Live
mscw.maharashtra.gov.in	Live
egovstatus.maharashtra.gov.in	Live
digitalservicebook.maharashtra.gov.in	Live
mdmu.maharashtra.gov.in	Live
dairy.maharashtra.gov.in	Live
nrhm.maharashtra.gov.in	Live
legalmetrology.maharashtra.gov.in	Live

(ii) To citizen

Citizens are getting benefited as more and more departments providing services online.

(iii) Other stakeholders

-

15. Extent to which the Objective of the Project is fulfilled-(benefit to the target audience i.e.G2G, G2C, G2B, G2E or any other, size and category of population/stakeholder benefited etc):

Objective of the project fulfilled-Beyond 100%

16. Comparative Analysis of earlier Vs new system with respect to the BPR, Change Management, Outcome/benefit, change in legal system, rules and regulations

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

ISO 27K Certified. ISO 20K in progress. CA service desk fully implemented.

Websites/applications live in VMware Private Cloud: 165

Websites/applications live in Microsoft Private Cloud: 37

Only SDC having fully implemented cloud services

17. Other distinctive features/ accomplishments of the project:

Only SDC having IPv6 ready

Only SDC having cloud burst ready with BSNL cloud

Only SDC having chargeback mechanism in place

This is just an indicative list of indicators. Applicant can add on more information based on suitability of the project nominated.