Chapter 7

CHOICE Project †

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I) OVERVIEW

The initial concept of the project started in the year 2001, after the formation of the new state of Chattisgarh from it erstwhile parent state of Madhya Pradesh. The project was conceived under a smart city concept aimed to provide electronic citizen services harnessing the IT and communications infrastructure.

An initial agreement was inked around 2001 between the major stakeholders, CMC and the Govt. of Chhatisgarh. It was decided to develop a pilot project in the city of Raipur. The scope of the project was turnkey implementation aspects including system consultancy and study, BPR, design & development of the software & project, networking, supply & commissioning of the hardware and provision of support services including training and maintenance.

Situation before the initiative

The prominent challenge for the nascent state of Chhattisgarh (project) was to create a system through which the citizens of the state may avail services from public offices with care, courtesy and utmost ease. The major business challenge prior to implementing CHOICE project:

- Lengthy delays in application processing
- Inefficient work-flows
- Poor transparency, affecting the efficiency and tarnishing the reputation of the state government
- The lack of an audit trail left the state government exposed to allegations of corruption

Project Objective(s)

† * *Winner of CSI e-Gov Awards, 2009-2010*
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The basic goals of implementing the CHOiCE Project:

- To establish electronic citizen service interface across Chhattisgarh State to deliver more than 130 e-governance services at citizen doorsteps.
- To ensure the stability, availability, and security of the service centers with a strong Server end support .
- To introduce a 'single window' experience for residents, enabling them to pay tax, electricity, and water bills, search for property records, birth issuance certificates, income , domicile services etc.
- To improve communication between government administrators and citizens by building an interactive Web portal to disseminate information and submit grievances.
- To adopt transparent, best-practice business guidelines, ensuring staff and residents track the progress of a payment or query, enhance efficiency and productivity as a result of automating manual processes.
- To lower the costs by adopting a centralized architecture, enabling the platform to be administered and supported from one location.
- To create a centralized database to store critical business data for accurate and correct information, since these applications have legal implications, so to handle personal and private information of the citizens.
- To provide easy access to information by enabling senior managers and staff to access data across different departments via a web-based interface.
- To provide data redundancy by creating a single data entry point.
- (10)To involve common citizen in the participation and delivery of citizen service enabling employment generation.

II) RESULT INDICATORS

1. Key Performance

a. Stakeholder services and benefits achieved through ICT interventions

- Successfully implemented in Raipur as a pilot project.
- Successfully rolled out in another 5 district of the state in 2008.
- More than 3,90,000 digital certificates have been issued to the citizens using CHOiCE.
- Approximately, 100 registered kiosks are in operation for service delivery at the citizen's doorstep.
- Increased usage of citizen services across 6 districts.

- 50% of urban population of the state is covered under the 6 districts, where the project is currently.
- 7 New citizen services developed for user requested correction in the certificates issued.
- Common work-flow engine implemented for all the citizen services, resulting in faster decision making, using easy to operate interface.
- New MIS reports have been developed with graphical representation to monitor the usage and performance across kiosks and government users, showing an improvement in turn around time.
- Statewide roll out currently under progress in the remaining 12 districts of the Chhattisgarh state.

b. % of services covered as ICT interventions

CHOiCE covers more than 80 G2C (Govt. to Citizen) & 50 G2G (Govt. to Govt.) services.

c. Geographical Spread in the State achieved

Started as a Pilot Project in Raipur (Capital, Chhattisgarh) district, currently running in 6 districts (Rajnandgaon, Durg, Bilaspur, Sarguja - Ambikapur, Bastar - Jagdalpur) and statewide rollout in remaining 12 districts is under progress.

2. Efficiency improvement

a. Time saving / improvements in the delivering the above set of services.

- Substantially reduced the application processing time from days to minutes.
- Average no. of days taken for service request completion is (Last 1 year Data-compiled):
- Raipur – 2 days, Rajnandgaon – 1 day, Bilaspur – 2 days, Durg – 3 days, Bastar – 3 days & Sarguja – 3 days.
- Curtailed the waiting time for certain services from 15-20 days to 1 or 2 days.

b. Cost savings for delivering above set of services.

- CHOiCE is based on PPP model (Public Private Partnership) in which Citizen (rural or urban) DOES NOT need to come to state capital or district headquarter to get govt. service i.e. Travelling Cost Saving for

Citizen.

- Support of PPP Model where KIOSK Agents (registered agent by govt. who allows to submit application on behalf of citizen) working as Private Body i.e. self employment & Saving Application Entry Cost for Govt.
- The biggest open source based G2C project ensuring easy horizontal proliferation of the system with no extra cost.

c. Time Saving for availing the services (reduction in cycle time)

- Instant MIS reports for planning, budgeting, monitoring & evaluation enabled
- Instant identification of delay points has enabled prompt administrative action

III) ENABLER INDICATORS

1. Processes

a. Major front end process changes and implemented

- Soft Changes for multi browser support (now including IE for Windows users).
- Changes for Biometrika & Smartcard compatibility in Linux OS (Redhat & BOSS) other than Windows.
- Included advance open source reporting tools (Jasper) for MIS reporting.
- Completely Configurable Digital Work-Flow.
- SMS & Email alert notification system.

b. Major back end process changes and implemented

- Database - from Oracle 8i to Oracle 10g EE (on 2 nodes RAC – Real Application Cluster)
- Tomcat Webserver – from Tomcat 4.0 to 5.5 (running 2 nodes with load balancer)
- Included Application Load Balancer & ISP Load Balancer
- Server H/W – From Sun E-450 Server to Advance Sun SPARC Enterprise T2000 Servers
- People and Resources

2. *People and Resources*

a. *Project management & Monitoring – Full time team in place*

- A Team of 22 engineers deployed for support at district level and at central control room,
- 1 Dedicated project manager
- 3 Engineers - For Maintenance of CHOiCE Software
- 6 Engineers - For infrastructure and administration support CHOiCE Facility management
- 12 Engineers- for hand holding support at District level (2 engineers /district)
- Achievements of training of internal & external members on the new system
- A formal training has been imparted to government users and kiosk operators during the rollout phase, approximately 325 users have been trained. Refresher training has also been organized from time to time, as and when required by the district administration.
- Presentations, live demonstration and hands on are the various methodologies adopted for training the end users.

b. *Change management strategy defined and implemented*

An AMC of application software is in place with a dedicated technical team of 3 engineers for addressing change management. It has been effectively utilized for several enhancements in the application to meet up with the new requirements and technological changes in a long span of 8 years.

Inclusion of new services like multi-browser support, fully configurable workflow engine, performance enhancements, new MIS reports, new admin module development, master data upload interface, dashboards for kiosks and government users, enhanced user interface, uniformity across all services, upgradation of application servers, and database servers are some of the highlights which have been addressed under this activity.

Earlier **Mr. Aman Kumar Singh** (IRS - Indian Revenue Services), now **Mr. Vinod Gupta (CEO, CHiPS, IES)** and **Mr. Raman Singh** (Chief Minister, Chhattisgarh) have the overall control on all IT related activity in the state.

c. Leadership support (Political, Bureaucratic) and its visibility

The cost of costly equipment like Biometrika & Smartcard Reader with smartcard is currently being borne by Govt. Itself. With the bank guarantee from kiosk (100% refundable) ,kiosks can better utilize the existing setup like PC's, Printer's or Scanner's etc.

3. Technology

a. Disaster Recovery & business continuity plan defined & implemented

- A robust back-end is implemented with database in 2 nodes cluster and application on 2 nodes with load balancer for maximum availability of the application.
- 2 dedicated leased lines from 2 different service providers are being used for seamless communication.
- CG SWAN (State Wide Area Network) is supporting the application across the state with high-end infrastructure.
- Disaster recovery is under way as a state data center is coming up.

b. Technological solution cost effective and maintenance over time

CHOiCE Project is completely based on Open Source (Linux OS – Redhat, BOSS, Netscape Browser, J2EE, Tomcat Webserver & Turbine Velocity Framework) except the database (i.e. Oracle 10g) for dependability and robustness.

c. Security and confidentiality standards defined and implemented

- 3 Level security:

  Level 1: User name/Password authentication

  Level 2: Biometric authentication

  Level 3: Class III digital certificate for digital signature (embedded in a smart card implementing Public Key Infrastructure (PKI) along with smart card for Privacy, Authenticity, Integrity & Non-repudiation)

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