

IT Strategies in Government Policies: A Case Study of M.P.

(Part – II: With Proposed Modular Cloud Architecture for Digitization)

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Abstract: Digitization is required for fast growth in proportion to the time of current need. This paper is representing the final case study, results and the newly proposed simulated idea to give a new direction for state digitization by the digitization of its rural and urban area. The technical growth of rural and urban area could form efficient digitization with accuracy in each task execution in both areas. State government services to the state peoples and people satisfaction with these services represent the state growth and state growth could affect country growth positively. Make in country is the second aspects through which any country can grow technically like all other top ranking developing country. The shown module in this paper could work under the observation of state head like Chief Minister and country head could observe this entire module from State Chief Minister.

Keywords: IT Strategies; New State Government Policies(NSGP); State Education System (SES); Smart Health Care System(SHCS).

I. INTRODUCTION

To form existence in digital world with high impact is most require maintaining pollution free, safe, secure and highly connected country by its each corner point of state, cities and villages. Country digitization means digital growth. Digital Growth could define by a fine growth of each corner point of any country i.e. each person, each field (natural agriculture growth), and each industrial growth by applying smarter technique to form smart country. Various smarter technique of current technology could help to build country smarter. In this paper we have a final case study of Madhya Pradesh which is the state of India that support digital India by making its rural and urban area as much smarter as possible by current technology with fulfilling the smart state (digital state) criteria which is defined by central government of India for efficient execution of digital India project. In the previous case study [01] the shown main aspects in which various IT project and strategies are working as back bone to execute governing bodies of MP.

1. Smart Infrastructure and Urbanization (SIU).
2. Smart Health Caring System (SHSC).
3. Smart Education and Learning System (SELS).
4. Smart Agriculture Revitalization (SAR).
5. Smart Government Services and Public Administration (SGSPA)
6. Smart Business Establishment (SBE).
7. Smart and healthier environment (SHE).
8. Smart Tourism System (STS).

State are working on above criteria then following criteria for smart city selection assigned by central government to achieve the aim of digital state as earlier as possible.

Table 1.1: Required Criteria which are too satisfied.

S.No.	Criteria
1.	Increase over Census 2011 or Swachh Bharat baseline on number of household sanitary latrines (whichever is less)
2.	Making operable Online Grievance Redressal System with response being sent back to complainant
3.	At-least first monthly e-newsletter published
4.	Electronically place project-wise municipal budget expenditure information for the last two financial years on the website
5.	Levy of compensatory penalty for delays in service delivery
6.	Collection of internally generated revenue (e.g. taxes, fees, charges) during the last three FYs 2012-15
7.	Payment of salaries by ULB up-to last month.
8.	Audit of accounts for FY 12-13.
9.	Percentage contribution of tax revenue, fees and user charges, rents and other internal revenue sources.
10.	Percentage of establishment and maintenance cost of water supply.
11.	Percentage contribution of internal revenue sources (self-generated) used for capital works during FY 2014-15.

12.	Percentage of City-level JnNURM Reforms achieved.
13.	Percentage of completion of Projects sanctioned upto March, 2012 under JnNURM

Each aspiring city competes for selection as a smart city in what is called a ‘City Challenge’. There are two stages in the selection process.

These conditions precedent have to be met by the potential cities to succeed in the first round of competition and the highest scoring potential smart cities will be shortlisted and recommended to participate in Stage 2 of the Challenge.

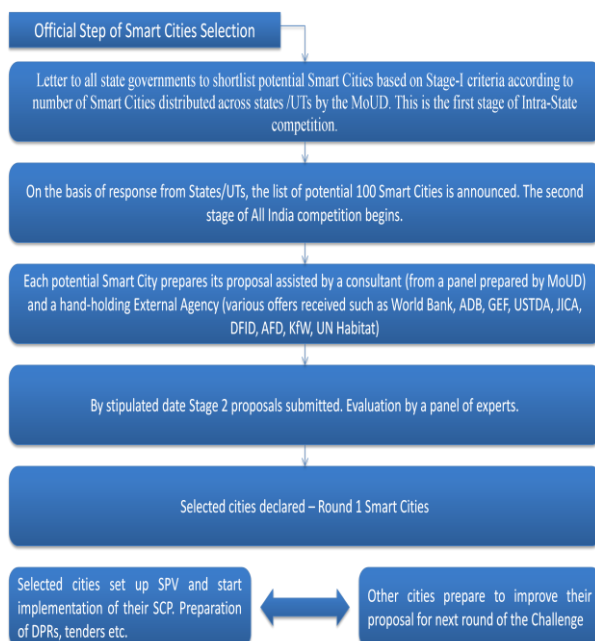


Fig.: 1.1 Step by Step Criteria of smart city selection

II. FINAL CASE STUDY REPORT

India aiming to achieve digital India by make in India and by making cities smarter first. The Madhya Pradesh is the state which is trying achieving name as digital sate by digitizing its rural and urban area. This section covering all possible projects those are working in the direction to place the sate in track through which state could get aim of digital sate as earlier as possible. These projects with their task efficiency and report card is disclosing below.

A. Gyandoot

In the Gyandoot scheme of things, the twenty-one centres where Soochanalayas have been established cater not only to the twenty-one villages proper but also to surrounding 25-30 villages. Soochanalayas have been established in the buildings of such Gram Panchayats which are located either at block headquarters or at prominent haat bazaar places or are prominent villages on major roads which are important from the point of the catching bus etc. Thus, each Soochanalaya caters to approximately 15 Gram Panchayats

and about 25 to 30 villages. The benefits cover wide-ranging information needs of all villagers, not merely those belonging to co-operatives. Thus, the Gyandoot network benefits over half a million villagers living in 311 Gram Panchayats and over 600 villages.

Soochanalayas : Soochanalayas are 21 client sites / nodes working as rural cybercafe-cum-cyberoffices. Each Soochanalaya provides services to about 15 Gram Panchayats, 25 to 30 villages, 20,000 to 30,000 population. The intranet will cover 5 out of 13 Blocks in the district and 3 out of 7 Tahsils in the district in the initial phase. The Soochanalayas are located on the roadside and are central villages where people normally travel. These Soochanalayas cater to over half a million villagers in 311 Gram Panchayats and about 600 revenue villages.

Brief profile of the proposed additions to the Gyandoot Intranet.

i. District Weather Report for farmers: The daily weather forecast of Dhar district by the Meteorology Department, GoI, Bhopal office will be made available to farmers through Gyandoot Soochanalayas before the end of July. The State Agriculture Department will also be providing agro-meteorological advice to farmers based on the weather report.

ii. Avedan: Forms of everything ranging from taxes to government schemes and offices will be available within a week through the gyandoot Intranet. The villagers will have access to all application forms required and necessary for Panchayat to Central government ranging from application for mutation of land to form for arms license.

iii. Gram-Haat: This facility would be started within a month where auction facility for farmers and villagers are available for land, agricultural machinery, bullocks or equipment or other durables. It will open new horizon of e-transactions in the rural areas.

iv. Supporting the Soochanalaya: Seven Soochanalaya are given powers of petition writing and stamp vendor. To achieve the aim of developing Soochanalaya as INFORMATION CENTRE the applications for starting STD PCO, acquiring fax/photocopier etc. have been invited which will eventually be financed through banks.

B. Janmitra Kendra

Jan Mitra Samadhan Kendra proposes to function as a mini-Collectorate for Villagers and also to obviate need to visit District Collectorate for official work. Looking to the gaining popularity of these Centres, Hon'ble Chief Minister of the State visited Navgaon Centre on 20th October 2009 and appreciated the time bound service delivery system adopted in these Centres & efforts put in by all the concerned in this project to a great extent. Establishment of these Jan Mitra Samadhan Kendra's & it's service delivery system have resulted in reduction of service load in District

Samadhan Kendra (which were established in each District on initiative of present Chief Minister and operational successfully with technical support from NIC District Centres).

Table 1.2: Services offered at Janmitra Kendra

Revenue	1.Income Certificate
	2.Domicile Certificate
	3.Caste Certificate
	4.Khasra Kahtoni Nakal
	5.Application for demarcation
	6.Application for BPL card
	7. Delivering possession of land lease out.
	8.Undisputed mutation
	9.Undisputed partition
	10 Transfer of fire arms owership incase of death or old age
	11.Distribution of Bhu Adhikar evam Rin Pustika
Panchayat Department	1.APL card
	2.Indira GandhiNational old age pension scheme
	3.Social Security Pension
	4.Financial assistance to Widow/Deserted women less then 50 years old
	5.National Family benefits scheme
	6.Mukhya Mantri Majdoor Suraksha Yojna
	7.Sanirman karmkar mandal
	8.Pending Valuation under NREGS
	9.Wage Payment Under Nregs
	10.Demand for work Under NREGS
	11.Birth & Death Certificate
	12.Marriage registration
Health Department	1.Vaccination
	2.Demand of Medicine By depot holder
Woman and Child Development Department	Monitoring of distribution of Nutritional Food
	NRC demand for Severely malnourished children
	Laldi Laxmi Yojna
Agriculture Department	Biogas Nadep vermi pit
	Tubewell Sprinkler Electricity Pump
	Availability of Agriculture
	Balram Well
Veterinary	Water Availability certificate
	Preventive and Curative interventions
	Preventive Vaccination
	Artificial Insemination
PHE	Handpump distribution
	Riser Pipe maintenance
	Single phase Motor Pump

	establishment
Education	Mid Day Meal Distribution
	Schloarship sanction
	Vaccination
Food Depa-rtment (1)	BPL Card and Antyodya Card
Cooperative	Membership
	Kisan Credit Card (District Centre Cooperative Bank)
	Distribution of Crop Loans
	Crop Insurance
MPEB	Domestic and Non Domestic Connection on Low
	pressure (with in 30 metres from the existing LT pole in rural areas)
	One light connection
	Replacement of Transfarmer
Social Justice	Distribution of Equipments for the Disabled

Table 1.2: Performance of executing Jamitra Facilities

Application Received	Application Disposed
From 01.01.2013 to Till date Rural Area	
259243	247680
From 01.01.2013 to Till date Urban Area	
267710	257750
25.09.2009 to 23.02.2013	
822631	751789

There are key advantage delivering services through Janmitra Kendra are Janmitra works on concepts of Time Limit / Alert Time limit service delivery Mechanism. Further this time limit is compressed as much as 50 % of the citizen charter time limit stated in citizen charter of the departments. So actual redressal of the grievances / demands are much faster in Janmitra Center for example.

Demand name	Janmitra Time Limit	Citizen Charter TL
BPL Claim	15 days	30 days
Caste Certificate (Perm)	30 days	90 days
Income Certificate	3 days	7 days
Domicile Certificate	3 days	7 days

Applicant need not visit district head quarter for delivery of service This is saving his/her time and money. As 103993 applications have been disposed off from Janmitra Samadhan Kendra , if it is assumed 300 Rs / application cost saving (Transportation cost , daily wage etc) is availed using Janmitra Kendra .Then it can be estimated total cost saving from Janmitra Kendra is in the tune of Rs 3.1 Crore . Due to effective monitoring (Time limit cases are reported directly to Collector) delivery and quality of service is very good rather than previous models.

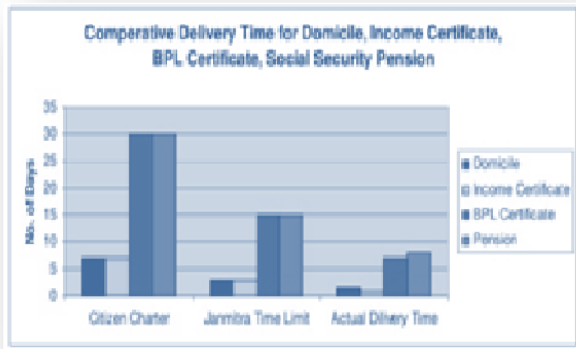


Fig 1.2: Allotted or required Time limit by the Janmitra system



Fig: 1.4 paddy – area Sown, Production and Procured Quantity (area in Lakh Hectare production and procurement in lakh MT)

C. E- Krishi: E-Uparjan:

The E-Upajan is a effort to fulfill the following objective.

- i. To enable smooth, regulated and efficient process of procurement at the Procurement Centers.
- ii. To gain the trust and confidence of farmers through simplification of procedures and transparency of operations, from ‘purchase to payment’.
- iii. To weed out malpractices.
- iv. To develop an ear real-time reporting mechanism of the field level operations, such as forecasting, purchase, transportation, storage, payment etc, to enable better planning, monitoring and management.

It is for farmer’s welfare with proper transparency, efficiency and farmer friendly environment.

- i. SMS alter technique reduces waiting queues.
- ii. E-payment eliminate cheque payment.
- iii. Efficient monitoring system through robust database.
- iv. Strong decision support system for optimal procurement center
- v. Transparent and citizen centric digital inclusion to form farmer friendly environment. Checks malpractices produce and linked area.



Fig: 1.3 Wheat – area Sown, Production and Procured Quantity (area in Lakh Hectare production and procurement in lakh MT)

D. State Wide Area Network (SWAN)

The SWAN will provide primary backbone for communication of voice, data and video though out the state and will be an effective tool for implementation of e-Governance Projects. Government wishes to fulfill the following Objectives through SWAN:

1. To ensure anytime and anywhere dissemination of Government services and information related to government.
2. To establish a reliable network for Vertical and Horizontal connectivity throughout the State.
3. To reduce the cost of Communication between government departments at different locations.
4. To provide secure Network infrastructure to enable Electronic Transfer of sensitive data, payments etc.
5. To improve the capacity for disaster management e-Governance services required to be delivered to the citizens are widely vary in nature for different departments. The following are pre-requisites for effective e-Governance service delivery.

- (i) Development of applications of various government departments along with back end computerization.
- (ii) Service delivery platform for citizens (Common Service Centers).
- (iii) Reliable communication network for providing connectivity between service delivery outlets and government departments (State Wide Area Network).
- (iv) State level data centre for data warehousing and hosting of application software.

E. Common Service Centers (CSC)

An Initiative of Government of India & Government of Madhya Pradesh .Being established in the State for delivery of citizen centric services, an assisted project by the Department of Information Technology, Government of India.

A Common Services Center, or CSC in short, is envisaged as a medium to improve the living standard of common man in the rural parts of India, by enabling electronic delivery of information, knowledge, skills and services

which they need the most. It is an initiative of Department of Information Technology, Govt. of India. CSC is expected to reduce the time and cost involved in obtaining some of rural services such as agri/ farm inputs & prices, weather forecast, public grievance redressal, government to citizen information & services etc.

When fully functional, there will be 100,000 CSCs spread over rural India. This means that one in every six villages of India, will be part of a large national network of digital services. Out of these, about 9230 CSCs are envisaged to be set up in Madhya Pradesh.

The CSC is designed as a one-stop-centre for government related services along with a bouquet of several business related services. A beneficiary of the CSC will be able to enjoy a wide variety of services at a nominal cost, in his village.

A. Services of CSC

Common Services Centers can offer a large basket of services through e-medium. Along with this, the CSC proposes to offer useful information for all possible segments of the society be it, students, farmers, senior citizens, unemployed youth, businessmen, women, self help groups etc. For example, a farmer can make use of CSC to learn more about agricultural/ farm inputs, prices, weather conditions, crop insurance etc. He may also use the CSC platform to buy an insurance policy, if wishes so.

B. CSC Scheme in Madhya Pradesh

Government of Madhya Pradesh is working on several enablers for effective implementation of CSC Scheme such as State Wide Area Work, Computerization of Mission Mode Projects, State Data Center, MP Online Portal etc. Initially, CSCs are expected to provide the following services-

Table 1.4: Offered Services by CSC

Indicative Services (Initial Phase)	Indicative Services (Subsequent Phases)
a) Gram Panchayat/ Block level information dissemination on various government schemes including employment related schemes, etc.	a) Land Records, various Certificates
b) Business related services such as data entry, net surfing, photo copy, fax, e-mail etc.	b) Learner's License/ Driving Licenses
c) Information on various depts... of Govt, contact nos, Government Orders, Notifications, Forms etc	c) Utility payments
d) B2C Extension services such as agri related services, banking/ insurance related services, Online application	d) Services of citizen centric depts. Such as Panchayat & Rural Development,

submission for competitive examinations & Results etc	Agriculture, Health etc.
e) Computer related education.	

Departments with large public interface should leverage the benefits of CSCs for electronic dissemination of information/ delivery of services to the rural citizens. Department of Information Technology, GoMP is interacting with the key Government Departments and with other stake holders of the Scheme for implementation of CSC Scheme in MP.

III. PROPOSED MODULAR CLOUD ARCHITECTURE

The proposed idea is bounded in the entire structure which is help full to reduces time of execution of sates task, each step of entire governing operation execution would be in direct supervision of sate chief (Chief Minister). No single activity could happen without his approval and activity approved or is in under consideration of state chief would be in direct supervision of country chief(Prime Minister).

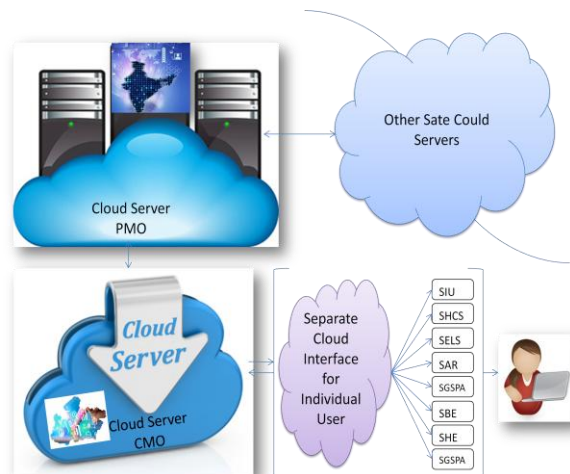


Fig. 1.5: Proposed Cloud Architecture to give fastest service to state public.

Through above proposed cloud server architecture the entire running sub modules could perform their task with time saving and with proper transparency of particular task execution of sate peoples from sate governing bodies or organizations.

In this proposed architecture cloud server and individual cloud interface will perform their task with much transparency and under the two most responsible persons selected by peoples through democratic system. The steps of task flow in proposed modular architecture of cloud is shown below.

Step 1: User person from public or government appointed operator will work on separate cloud interface for individual user. On this interface user can get detailed description of applied forms for specific task which could

be like job application, bidding, complain, domicile application, cost certificate application, RTI etc. categorized under described projects in case study.

Step 2: this applications will saved on Sate cloud server which would be in direct observation of state chief minister through its interface to avoid activity like corruption, useless delay task finishing etc.

Step 3: The State Cloud Server will work in under Observation of Country Chief Prime Minister through PMO Cloud Server Which will contain metadata about each state cloud server.

Step 4: These all process will be in under observation of the person who have applied for specific task.

Step 5: End (With guarantee of 100% Corruption avoidance and 100% transparency from PMO to public).

The all reviewed projects could run under the proposed modular architecture. This module architecture could reduce required time and money from various aspects of each running projects in deferent departments.

The advantages of proposed modular architecture of cloud system.

- i. Time saving in case of each sub module task execution.
- ii. Because of 100% transparency, corruption could reduce up to 100% because nothing could happen without permission of CM or PM.
- iii. Fastest then ordinary server which is being used in various government offices.
- iv. Cheaper because no hardware installation required at client side.
- v. It could be operate able from smart phone, tablet and laptop.
- vi. Almost application and task could be finish with in three working day.

The entire structure would be secure by the character based ASCII Encryption of decryption technique with finger print ID verification system prepared through soft computing approach of finger print recognition mean two step security applied to secure proposed modular structure of cloud as clear in figure below.

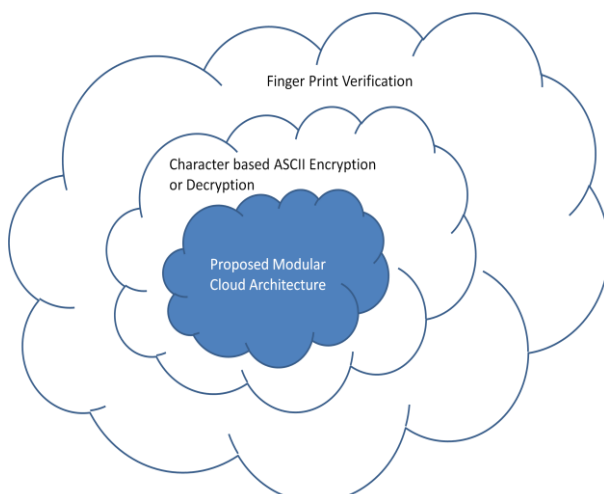


Fig. 1.6: proposed architecture in two step secure region.

IV. CONCLUSION

Through this paper and previous paper of this series we have a case study of the IT strategies of Madhya Pradesh. On the behalf of studied IT plan which are being used in the current effort to achieve the aim of digital state of digital India. Through all running IT projects are performing well to give more services with accuracy and transparency. The proposed modular structure is highly inspired by cloud computing and this proposed cloud structure could do well with time saving and secure system by reference character based ASCII Encryption or Decryption as show in this paper.

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