Digital Rajasthan

Department of IT&C Rajasthan

A Showcase of Advanced & Niche Technologies in the State
The Core of Digital Rajasthan

Raj eGov Framework and Architecture
Digital Rajasthan – Advanced Growth

– First and Biggest State Owned and Managed Big Data Cluster in India
– Only State with already implemented Blockchain Fabric – and live use cases
– Only State which is 100% on SOA, 100% open services, open standards, open platforms
– Only state ensuring the entire infrastructure, platforms, services, softwares and solutions being made available to public on PaaS model through “Rajasthan Stack”
Big Data & Analytics

Utilizing Data to the maximum, in true sense
Big Data & Analytics

– Budget Announcement for the year 2015-16 to implement big data analytics solution.

– Government deals with varieties of data which include structured, unstructured and semi-structured data.

– Volume being generated by various sources of data like web, social media, surveillance video logs is unprecedented.

– The heterogeneous and voluminous data poses problem of quick retrieval of desired data.
Technological Competence

– Engineered Teradata Appliance with 1 PB Storage Capacity
– Hortonworks 2.4 distribution
• Equipped with Research Platform for quick sense of structured, semi structured and unstructured data in the Hadoop
Citizen 360°

Objective / Problem Statement
- Detailed connection between heterogeneous applications
- Citizen profiling for holistic view of attributes
- Citizen's interactions/transactions across Govt departments,
- Citizen’s Master data Management

Synopsis: Holistic view of the citizen profile.

Benefit
- Data insight for Govt Planning and executions for citizen welfares.
- Distributed reporting capabilities for sharing information across Dept.

Analytic Techniques
- Descriptive Analytics
- Visualization
- Referential Integrity

Outcome of Analysis
- Citizen Profile mapping in both application
- Transactions matching based on comprehensive view
- Citizen transaction patterns
- Consumptions/Transactions done via PDS/Emitra.

Source Data
- Bhamashah
- E-Mitra Transactions
- E-Mitra User profile
- PDS
- Transport
Citizen 360°
### Segmentation of Grievances

**Synopsis:** Segmentation of grievances based on areas/departments/cATEGORIES.

### Objective / Problem Statement
- What are the top N common problems based on different categories.
- Defining course of actions based on known issues, directly linked with citizen’s problem.
- Smart and efficient governance.

### Outcome of Analysis
- Segmentation of Grievances Sector / Categories Wise
- Top N grievances in each area.

### Benefit
- Identifications of problem areas category wise.
- Help in defining actions for grievance redressal.
- Problem trend analysis

### Analytic Techniques
- Unsupervised learning.
- Clustering.

### Source Data
- Rajasthan Sampark Grievance Unstructured Data.
Grievances Dashboard
Analysis of Tax Evasion

- Probable tax evasion by the NIL Turnover Return filers Registered Dealers - Analysed the Purchase statement and Sales statement of Registered Dealers of the State which have shown Sales/Purchases to these Dealers who have filed NIL Returns.
Analysis of mining revenue data and finding out those lessees for which Ravanna has been issued despite having pending demand.
Analysis of Transport Data

- Identification of unfit vehicles and calculation of total recovery amount at the time of fitness.
Analysis of Highway Toll Data

- Analysis of NHAI Toll Plaza data to find out vehicles plying overload and calculation of penalty amount as per Transport Department rules on vehicles plying overload.
The Rajasthan Health
Game Changer 3.0

Way Forward with Blockchain
EHR and iHMS
E- Health Records
Electronic Health Records – On Blockchain

– The First and Only Use Case in India
– Fully on Blockchain Technology
– 100% In-House, 100% Open with Open Standards and Open APIs
– Fully Compliant to HIPAA and other international standards / guidelines
– Ready to integrate with Any Hospital Anywhere Anywhere Any Day
Enhancing Patient Healthcare Experience across the state of Rajasthan
Rajasthan Electronic Health Record

Prerequisite / Backend Modules
- Hospital Master & Other Masters
- Appointment Scheduling
- Queue Management
- Blood Bank
- Ward Management
- Nursing Care
- OT Management
- Hospital Administration
- STPs / STGs
- Diet / Kitchen
- Information Kiosk
- Call Center
- Feedback & Grievance

Immediate Core Modules
- Registration
- Investigations
- Pharmacy
- Antenatal Care
- Intranatal & Postnatal Care
- National Health Programs

Electronic Medical Record

Wellness & Screening Modules
- Wellness & Risk Factors Module
- Eligible Couple & Family Planning Module
- Wellness Clinics

Electronic Health Record

Health Information Management System Reports & Dashboard
Dashboard of Electronic Health Record

**Activities**
- Walking and Steps 2.5 KM
  - Date: 27/11/2017

**Allergies**
- Allergic to Pollen
  - Severity: Mild
  - Added on: 27/11/2017

**BMI**
- Height: 177 cms
- Weight: 65.5 Kg
- BMI: 20.91

**Hospital Records**
- Soni Manipal Hospital
  - Visited On: 12/09/2017

**Blood Glucose**
- 100 mg/dl
  - Date: 01/12/2017

**Vitals**
- Blood Pressure: 90/70 mmHg
- Body Temperature: 95.1°F
- Heart Rate: 82 b/m
- Respiratory Rate: 18 b/m

**Lab Test**
- Serum Creatinine: 0.97 mg
  - Date: 28/11/2017

**Medications**
- Paracetamol 500 Milligram (mg)
- SOS
- From: 15/11/2017 to 15/11/2017
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Thank You