Using Big Data for Crisis Management

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Agenda

1. Introduction
2. Purpose of Big Data for Crises Management
3. Crisis Description
4. Mission & Vision
Crises Management & Business Need

vs.

IT Need

Crises Management & Business Need

- Improve Productivity
- Achieve Compliance
- Reduce Cost

IT Need

- Uptime & Availability
- Security & Control
- Reduce Administration
Business & Industries

Service Desk

Infrastructure

Patch Management

Works flow Execution

Close incidents
And more
Airports & Ports
Update signatures
Analysis
Hospital Statues
Risk management

Big Data Management and Support

1. Comprehensive Data Discovery
2. Common Software Delivery Process
3. Centralized Reporting
4. Remote Administrations and Decision Making
BIG DATA

CHANNELED BIG DATA

BEFORE

AFTER
Crisis Management and Incident Response

Infrastructure
- Oil & Gas
  - Petrol Stations
  - Security
  - Mailing
- Critical Infrastructure
  - Airports
  - Designing
  - Security
- Location
  - Designing
  - Security

Knowledge on Country Infrastructure

Service Delivery & Project Management
- Big Data
  - GIS
  - Hospitals
  - Disparate Databases
  - Sea Ports
- ITIL
- PMP
- MOF
- Software License

Knowledge on Operations

Incidents Response
Multiple collaboration and coordination based on information flow from BIG DATA
Big data Management: is providing Right Information to the Right People in Real Time; Accurately and Adequately for Timely and Efficient Decisions; whereby only the Most Important and Relevant Information goes to who needs it to Support their Decision Making Process and Responsibilities.
UNIQUE Big Data SOLUTIONS
Integrating and Synchronizing Data into Actionable Information for Continuity of Government and Mission Success on a Common Platform
Information Flow Process for Collaboration

- Big Data Management
- Business Continuity

Day to Day Operations
- 999
- Traffic
- Hospitals
- Resources

Crises Management
- Infrastructure
- Crime
- GIS / Sensors

Special Events
- Building Plans

DSS
Crisis Management

Process
- Call received
- Data sent to DSS
- Analysis (type & location)
- Information geocoded & displayed
- Checklist requirements for critical facilities
- Result: Increased notification & response
Crisis Management

- Better visualization
- Route restrictions
- Identified route
- Faster notification
Crisis Management

DSS Hospitals

- Track status in real time
- Improved resource management
- Improved response time
- Tied to mapping/GIS
Crisis Management

- Crime tracking
- Cell phone tracking
- Suspects in area
- Facial recognition

**DSS**

**Crime**

- Jeevan Thankappan
  - Status: Wanted
  - Height: 6’ 0”
  - Weight: 195
  - ID #: 398 - 409
  - Alias: JT

- Chuck Dolejs
  - Status: Criminal record
  - DOB: 18/12/1972
  - Height: 5’ 9”
  - Weight: 219
  - ID #: 312 - 912
  - Alias: Taj Thakore, Ben Muesig

- Mohammad Khaled
  - Status: Cleared
  - DOB: 5/3/1984
  - Height: 5’ 9”
  - Weight: 80 KG
  - ID #: 128 - 104
  - Alias: MK
Crisis Management

Crime Statistics

Intelligent information reporting
Easy to configure
Pie, bar, and line charts
Includes custom dashboards
Crisis Management

- Integration with Google Earth
- Incorporate 3D modeling
- Utilities
- Floor plans
- Security Cameras
Crisis Management

View of City Significant Events

Solution Includes:
- Data integration
- Artificial intelligence
- Custom Reporting

Infrastructure
- Service disruptions
- Outages
- Incidents

News
- Live news
- RSS feeds
- Websites

Natural Hazards
- Weather Warnings
- Tsunami alerts
- Earthquakes
- Cyclone

999
- Fatal accident
- Fire
- Explosion
Data Aggregator

Benefits:
- Management
- Department
- Officers

Protest Alert! Disturbance! Explosion! Threat!

DSS
Benefit of Big Data for DSS

• Robust Information management system
  – Real-time reporting
  – Easy integration
  – KPI’s
  – And more
Best Data Management in terms of Crises for the Nation

Reduce Cost

Crisis Management

Big Data

Risk Management

Business Continuity

Implement Governance Standards

Provide best Decision Making

Day to Day Operations

Provide best support

Social

Environmental Issues

Response & Recovery

Rapid Assessment

Situational Awareness & Common Operation Picture

Actionable Information
Big Data & Crisis Management

Consulting / Governance

Big Data for Crisis Management

- Trusted Information
- Portfolio Management
- Quick and immediate response
- Knowledge Base
- Leadership Management
- Resources Management
- Compliance Management
- Decisions Governance
- Information Governance
- Performance Management
- Vendor Management
- Deliver superior quality of Incident Response

Technical
Advantages
- Providing Right Information to the Right People
- Centralized Management
- Information Accuracy

Disadvantages
- Difficulty to get information
- Limited Access to Information or
- Delay on taking decision