Mobile Technology for Electricity Field Services Personnel at the City of Cape Town

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Purpose of Presentation

To describe how the City of Cape Town Electricity Department is using Mobile technology to manage fault reporting and work distribution to First Line response technicians.
What will be Presented

- Preview the project background
- Outline the old and new processes
- Benefits of going mobile
- Challenges converting from paper based to Mobile
- Way Forward
- Considerations when implementing Mobile
Project Background

- Pilot Project completed in May 2010 using SAP (MAU) purpose:
  - To field test the solution for:
    - Meeting of Business Need
    - Ease of use
    - Connectivity and Synchronization time
  - Different brands of devices
  - Limited number of devices
Project Background

Why Mobile?

- Job cards are cumbersome
- Job cards are time consuming
- Job cards do not always have all the information or if information was present it might not be correct
- Time delay in capturing job card information into the system
Business Process (Old vs New)

CWMP Job Card Returned at end of shift. Captured following day.

Mobile Device

CWMP

FILE CABINET
Process on the Device

1. Technician enters application on device
2. Synchronizes to receive new Notifications and update system with entries
3. New Notifications Displayed giving job details
4. At job completion end date and time captured

5. Fault reporting mostly via drop down except for long text
6. Sets Completed Indicator
7. Synchronizes to update system
Mobile Application

Internet Explorer

http://localhost:4444/me/servlet/c

SAP

Hello MOBI W/C EDE640

Log Off Info Messages Settings Manage
Passwords Trace

• XMAU

Back Menu
Synchronisation
Notification

Internet Explorer
http://localhost:4444/XMAU/notifi

SAP
Notification Management

Notifications
All Notifications  Local Notifications

Notif  IS-U Activity  Type  Equip.  Func. Loc.  A
1002590974  Other  C3  100196407  207386

FLICKERING LIGHTS / JEMAIN
Partner: LOMBARD JM & LOMBARD ACJ, VILLAGE GREEN CLOSE 13, 7140 STRAND
Conn. Obj.: VILLAGE GREEN CLOSE 13, 7140 STRAND

<< < > >>
Total: 1  Page: 1/1
Malfunction End

Reported by: WTITUS
Plant: 6130
Priority: 3-Medium
Short Text: FLICKERING LIG
Work Center: EDE640
Malf. Start: 16.02.2011 14:06
Malf. End: 17.02.2011 05:31
Cause
Complete

Task: 2
Short Text: GIVE JOB TO JE
Start: 16.02.2011 14:07
End: 23.02.2011 09:06
Complete: 17.02.2011 03:35
TaskGrp.: City Complaints
Task Code: First line response
Release: checked
Complete: checked
Compl. By:
Benefits of going Mobile

- Reduced Paper Work, Man Power and Errors in Data Capturing
- More time available for actual field work
- Reduced Cost (Est. at 3.5 years to recoup)
- More Up to Date status with clean audit trail
- Guided to follow the established business process
- Changes to master templates done centrally
- Notification remains on device till completed
Benefits of going Mobile

This notification was copied to a mobile device

MOBI
Benefits of going Mobile

Average Number of Days to Close Notification

Number of Days

- 2010 - Pre Mobile
- 2011 - Post Mobile
Challenges converting to Mobile

- Correct technical resources
- Acceptance of the new solution by the Technicians
- Majority of problems
  - Incorrect Password entered
  - Device Connectivity
  - Application Problems
Way Forward

- Rollout to the rest of the First Line Response areas – 81 devices in total
- Additional functionality such as:
  - Attaching a picture to the Notification
  - Display the fault location on a map on the device
  - SMS alerts to the device
  - Develop Maintenance Inspection application for distribution assets – Maintenance Environment
Implementation Considerations

- **Business Process** must be in place
- Device Selection
- Training
- Support
- Size and Mission Criticality of first mobile project
- Connectivity
By implementing a Mobile Solution the Electricity Department was able to:

- Improve service delivery to our community
- Better manage and report on the status of service calls
- Data capturing errors greatly reduced
- Reduction in the man power required to do the data capturing allowing for more essential value added tasks
Questions

Thank You