Mobility for Enterprise Asset Management

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Learning points

- Business needs for mobile asset management: Device and mobile infrastructure evolution drives adoption
- SAP’s mobility strategy
- Status and outlook: Mobilizing SAP Enterprise Asset Management
The context: Mobility 2.0

Mobility 1.0

Extend the enterprise

Mobility 2.0

Transform the enterprise

Transformation and mobilization of enterprise asset management
Key mobility trends: 2011 & beyond

Number and type of IP connected device is dramatically changing

- 1B smart phones and 1.2B mobile workers by 2013\(^1\)
- Large enterprises expect to triple their smartphone user base by 2015

Mobility is driving the “consumerization” of IT

- 46% of large enterprises supporting personal owned devices\(^2\)
- 2 billion downloads of 140,000 apps from Apple App Store

Increasing demand for enterprise applications

- 20% of mobile workers are getting business apps from app stores today
- 50% of organizations planning to deploy mobile apps in 12 months\(^3\)

\(^{1}\) IDC Forecast  \(^{2}\) Forrester Forecast, 2010  \(^{3}\) Gartner and Forrester Analyst Calls
We have entered the fourth generation of computing which will drive the next wave of enterprise productivity.
The device and business process evolution

- Voice
- Paper
- Technology
- “Feature Phone”
- Computer
- Smart Phone
- Highly Networked Devices

- Multiple manual steps
- Reducing process steps / mobilizing certain processes
- Mobilizing business

- “Stone Age”
- Walkie Talkie
- Cell Phones
- Dial-Up
- Internet
- 3G / Wireless Internet
- 4G

Real Experience. Real Advantage.
Mobility accelerates business

Mobility enables you to:
- Connect to enterprise data
- Consume information
- Control your business

Anytime, anywhere

Customer

Executive

Maintenance & Operations

IT

Service

Partner

Sales

Mobile commerce
Approvals
Scheduling and dispatch
Time and expense
Work order
Mobile users need more than one application type

“Mobile Enterprise” requires a portfolio that addresses the users' natural usage patterns

Roles with complex interaction
- Tasks with high degree of judgement needed
  - Assets, Sales, Service
- Usage patterns
  - Power, knowledge & complex forms

Roles with simple interaction
- Repetitive tasks
  - Logistics, Production
- Usage patterns
  - Alerts, notifications, messaging, simple forms

Role demands both complex and simple mobile application
SAP supports organizations to efficiently and sustainably manage the whole lifecycle of physical assets in terms of performance, risks, and expenditures to achieve and maintain the stated business objectives:

- Integrated asset management processes to collaborate across all related activities such as finance, HR, risk, and compliance — easily deployable in modular implementable steps
- Asset intelligence and a holistic view of performance, risks and expenditures throughout an asset’s lifecycle to ensure efficient utilization of assets
- Continuous and proactive operational risk management to support instant decisions and minimize disruption
- Leverages the SAP Business Suite
Mobility for enterprise asset management processes

Business context
Mobile asset management involves the tracking, monitoring, and work order management around business assets, with a particular emphasis on location, condition, and state.

Current situation
- Most asset management processes today are paper-based, with no immediate access to equipment or spare parts data, equipment history, or actual machine run time
- Error prone or no recording of data

Outcome opportunity
- Enable data access and data entry anywhere, avoiding errors and speeding up end-to-end business process
- Minimize manufacturing or supply chain interruptions due to asset malfunction or breakdowns.
- Increase maintenance worker efficiency
- Increase asset visibility and performance
SAP solution and partner strategy
Enable the transformation of the enterprise

Mobile platform
- Deliver a platform for enterprises, partners, and SAP to build mobile applications, as well as secure and manage the devices the applications run on

SAP mobility applications
- Deliver a set of SAP applications to our customers that can be deployed quickly

Mobile services
- Offer a set mobile services that allows enterprises and partners to market, transact, engage, manage and analyze their relationship with their customers

Partner
- Ensure that customers have a rich set of applications to choose from
- Plan to have majority of mobile application developed by partners
- Consider customer needs and market goals
Mobilizing SAP Enterprise Asset Management

History

2004 2005 2006 2007 2008 2009 2010 2011

3/2009: Co-Innovation Partnership with Syclo for Mobile Asset Management and Field Service Applications

5/2010: SAP acquires Sybase

2011: Co-Innovation Partnership with SIGGA for the Latin American market

* SAP Workforce Scheduling and Optimization can include a mobile component (no stand-alone mobile asset management)
Mobilizing SAP Enterprise Asset Management

Outlook

5/2011: SAP announces new mobile app

SAP EAM Work Order

SAP mobility platform

Sybase SUP

SAP NetWeaver WAS/PI

SAP WSO by ClickSoftware *

ClickSoftware Platform / Sybase SUP (planned)

Syclo SMART Mobile Suite

Syclo Agentry Platform / Sybase SUP (planned)

Custom Solutions from SAP Consulting and Custom Development

SAP NetWeaver Mobile Infrastructure / SAP NetWeaver Mobile / Sybase Unwired Platform (SUP)

2004  2005  2006  2007  2008  2009  2010  2011

* SAP Workforce Scheduling and Optimization can include a mobile component (no stand-alone mobile asset management)
SAP EAM Work Order mobile app

Standard solution for mobilizing SAP Enterprise Asset Management

Notification Management
- Create, view, and edit notifications and related objects (activities, items, tasks)

Work Order Management
- Create, view, and edit work orders
- Display related business partners and historical data
- Record working time and material consumption
- List, calendar, and map view

Technical Object Management
- View equipments and functional locations
- Display technical object on a map
- Display associated documents
- Display history and characteristics

Business Partner
- Display business partner header and contacts
- List and map view

Inventory Management
- Track and manage inventory
- Material consumption booked on orders updates inventory
SAP EAM Work Order mobile app – UI
**SAP EAM Work Order mobile app – outlook**

*Subject to change*

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**Step 1**
- Q3/ 2011 release for Windows tablets and laptops
- Based on SUP 2.0

**Step 2**
- Available on iPad and Windows Mobile devices
- Migrate to latest SUP version available
- Additional languages
- More feature/functions

**Step 3**
- Available on iPhone and Android devices
- Utility specific solution
- Location based integration – GPS
- More feature/functions
- Reporting capabilities

*Subject to change*
Syclo: SAP’s Co-Innovation partner

Proven solution with 30+ installations

Designed by SAP and our co-innovation partner Syclo, Syclo SMART Mobile Suite for SAP Systems combines the strength of SAP systems with cutting-edge remote technology for unparalleled effectiveness. This comprehensive set of prebuilt, pre-integrated products mobilizes asset maintenance, operator rounds, time/attendance tracking, and materials management.

- Work Orders
- CATS - Time & Attendance
- Notifications on-the-spot
- Measurement Documents

- Cycle Counts
- Goods Issues & Stock Transfers
- Goods Receipt

- Work Orders
- Inspections & Surveys
- Web-Based Status Reporting
- Meter Operations

Note: Syclo can be successfully implemented alongside SAP Workforce Scheduling and Optimization by ClickSoftware.
SIGGA is a 10-year-old company and Brazilian market leader in providing Solutions and Services for EAM. SAP and SIGGA have jointly developed the new version of SIGGA SM2, now an SAP Endorsed Business Solution.

- 9,000+ mobile users
- Certified for SAP ERP R/3 4.7, ECC 5.0 and 6.0
- Multi-Language (EN, PT, ES, DE and FR)
- Multi-Vertical and Unified Solution
  - Inspection and Maintenance Apps
  - Asset Management Apps
- Built-in Auto Update Manager
- WEB Application based on WEB Dynpro ABAP
SAP Custom Development is one of the leading solution providers in the area of SAP Mobile.

**Profile / Expertise:**
- Active within Mobile Projects since 2002
- Many successful projects with worldwide market leaders in the area of bottlers, utilities and automotive
- Global Team of Experts, Architects and Developers
- Solid experience on middleware-based fat client projects
- Close Cooperation with Standard Development and Solution Management

**Device**
(Native & HTML5/JS)

**Sybase Unwired Platform**
- Synchronization & Messaging
- MBO Repository
- Distribution Rules
- Data Consolidation

**Business Suite & 3rd Party Backend**

**DevTool Apps**
- MBO optimized
- Admin/Config Tool
- DevTool for Content
SAP Consulting solution

Mobilizing limited business processes for small/medium user community

Mobile Inspection and Service

- Mobile solution for small/medium business process complexity* scenarios
- No middleware needed – communication based via enterprise services or web services
- Bring instant value through short project length
- InfoKit
  http://infokit.mobilityforsap.com

* Complexity is a combination of the factors: Number of users, amount of data for each user, relationships of data (Example: Customer data with Order history, installed base, installed base history, pricing, )
Other mobile apps published on: SAP EcoHub
http://ecohub.sdn.sap.com or on the Sybase Partner Portal
http://partner.sybase.com/partnerportal/find
SAP product strategy: On Device

- **All** devices
- **All** user experiences
- **Easy to extend**

- **Instant** value
- **Line of business** or **suite**
- **Integrated** to On Premise

- **SOA**-enabled
- **Best-practices** packages
- **Non-disruptive** enhancements

- **Platform**
- **In-Memory**
Mobile devices

The Devices
Collaboration

Analytics

Mobile

- All devices
- All user experiences
- Easy to extend
Afaria – Mobile device management
Managing and securing the device lifecycle

**Manage**
- Assign membership/policies
- Configure devices
- OTA client delivery
- Application deployment

**Secure**
- Establish policies
- Initialize power-on password
- Install and encrypt data
- Install and configure AV, firewall, controls

**Manage**
- Reprovision/reimage device
- Replacement device-same user
- Repurposed device
- Redeploy software assets
- Restore data (after device kill)

**Secure**
- Disable lost/stolen device
- Remote kill/lock
- Access violation lock
- “Data fading”
- Disable device, network, application access

**Manage**
- Track asset
- Update/repair software
- Maintain/modify configuration
- Distribute/update files
- Software license tracking
- Schedule/automate activities
- Device remote control

**Secure**
- Back-up data
- Apply patch/security updates
- Enforce security policies
- Monitor/track security violations/threats
- Compliance activity logging
Holistic picture for technician / plant manager

Core Processes
- Technical Object Management
- Work Order Management
- Inventory Management
- Electronic Signature
- Job Safety / Work Clearance
- Linear Asset Management
- Inspection Rounds
- Barcode / RFID
- GIS / GPS
- Meter Readings (Utilities)
- Disconnections/Reconnections (Utilities)
- Measurements & Counters

Plant Visibility
- Visibility into Manufacturing / Plant Operation
- Real-time Analytics / Monitoring

Other Enterprise Processes
- Time & Attendance
- Travel Expense
- Workflow
- Collaboration / Blogging

Analitics
Real Experience. Real Advantage.
Key takeaways

- Mobility is a key strategic topic for SAP
- SAP standard solution for mobilizing SAP Enterprise Asset Management planned for 2011
- Vibrant partner eco system provides choice for mobile asset management solutions
- Maintenance technicians & plant manager will use mobile devices as their favorite desktop
- Diverse device environment requires mobility platform and device lifecycle management
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