Maximo Anywhere 7.5.1

Taking Mobile Worker Efficiency to the Next Level

A Detailed Review

Dave Calvert – Product Manager, Maximo's Mobile Solutions

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Mobile Trends

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An increasing number of mobile workers

5.0%

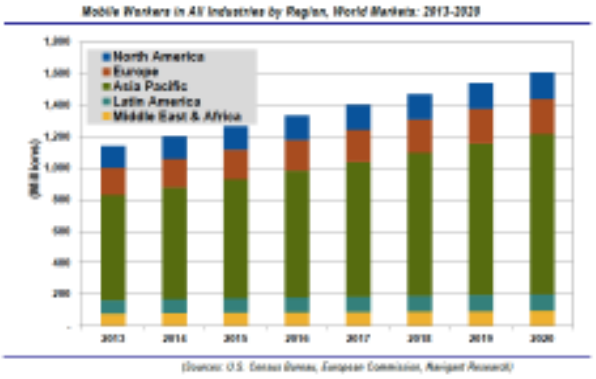
CAGR of worldwide mobile workers from 2013-2020 mobile workers on a worldwide basis.

120 Million

Expected total mobile workers in Asia Pacific by 2020

172 Million

Expected total mobile workers in the Eurozone countries by 2020



Results from the “Upwardly Mobile” Enterprise study:

Approximately 90% of all companies are looking to sustain or increase their investment in mobile technologies over the next 12-18 months

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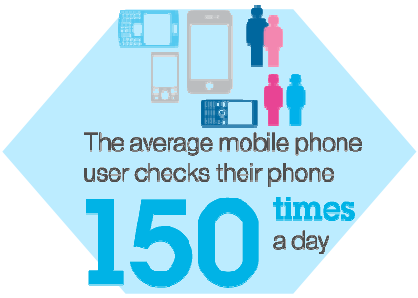
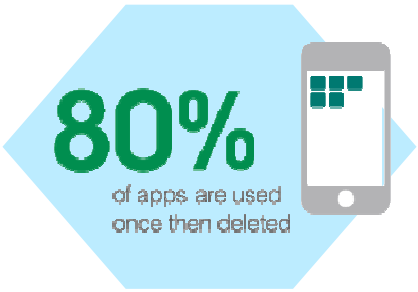
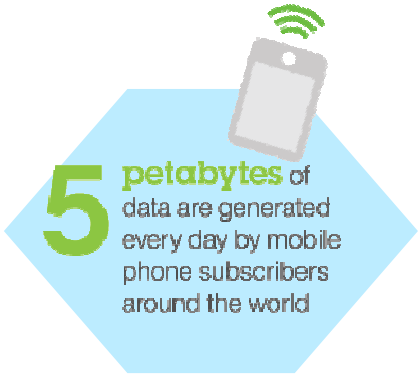
Mobile is Changing Interactions and How Work Gets Done



The average mobile phone user checks their phone **150** times a day



80% of apps are used once then deleted



5 petabytes of data are generated every day by mobile phone subscribers around the world

By 2015,

2/3 of the workforce will own a smartphone, and **40%** of the workforce will be mobile

Fewer than half of all companies have a mobile strategy, and this is despite the fact that **73%** of strategy leaders have realized ROI on their investments.

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Gartner has recognized IBM as a Leader in the Magic Quadrant for Mobile Application Development Platforms

Magic Quadrant for Mobile Application Development Platforms

Ian Finley, Van L. Baker, Ken Parmelee, David Mitchell Smith, Ray Valdes, Gordon Van Huizen Aug 7, 2013

"As unprecedented numbers of enterprises build mobile applications, the mobile application development platform market continues to grow and evolve rapidly."

This Magic Quadrant graphic was published by Gartner, Inc. as part of a larger research note and should be evaluated in the context of the entire report. The full report is available at http://ibm.co/13TU2Dm

Figure 1. Magic Quadrant for Mobile Application Development Platforms

Source: Gartner (August 2013)

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Our Overall Strategic Goals

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Now Available

Key Investment and Deliverable

- Focused development of the Anywhere platform and applications
  - Leverage IBM's Worklight as mobile platform
  - Reduce customer costs with single platform for entire portfolio (Maximo, TRIRIGA, Industry Solutions)
  - Runs on modern o/s and Smart devices (phones, tablets), leveraging device specific capabilities
  - Supports connected and disconnected scenarios
  - Easily tailor the mobile UI, for delivered applications

Benefits:

- Single platform
- Ease of Access from anywhere
- Multiple devices

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Maximo/TRIRIGA Anywhere Roadmap

Maximo Anywhere 7.5

Dec 12, 2013

Platform
- Connected/Disconnected
- Android OS (4.x +)
- Barcode

- **Application Functionality**
- Maximo Basic Work Mgmt
  - •Work List
  - •View Details
  - •Feedback
  - •Actuals (labor, Materials)
  - •Work Log
  - •Status Changes
  - •Create new or follow up work orders
- Support for Esri off-line Maps
- Approvals app

Maximo

Maximo Anywhere 7.5.1

Sept 2014

Platform
- iOS support (ver 7.x)
- Application editor assistance (Dev persona)

- **Maximo Anywhere 7.5.1**
  - •Additional Work Mgmt
  - •Meters
  - •Failure hierarchies
  - •Attachments
- **TRIRIGA Anywhere 10.4**
  - •Work/Task Mgmt
    - Work List, status, and feedback
    - Time Log
    - Barcode scanning and attachments
    - ESRI Offline maps

Q4 2014

- •Create Work Tasks/step completion
- •Actual and Planned Materials and Parts

Maximo & TRIRIGA

Maximo Anywhere next

1H 2015

Platform
- Windows OS support
- Add'l mobile app config. Tooling
- App admin assistance (query, and role mgmt)

Application Functionality
- **Maximo**
  - •Specifications
  - •Inspections
  - •Add'l map functions & resource location awareness
  - •Inventory and Asset Mgmt bundles
  - •Industry Solutions
- **TRIRIGA**
  - •Space Audits
  - •Workplace Reservations
  - •Inspections
  - •Assessment
  - •Punch list

Maximo & TRIRIGA

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Value of the Anywhere Platform

- Seamless connected and disconnected support
- Performance, Scalability and Reliability of communication through OSLC
- Extensibility – Extensible resource model in line with MBOs
- Security – Authentication and Authorization
- UI Components (complex list, toolbar, etc)
- Features and capabilities
  - Offline maps
  - Turnkey Barcode scanning on fields and lists
  - Additional ones being added (attachments, hierarchies)
- Domain knowledge included in out of the box applications
- Mobile First Role and Task based apps
- Portability

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The Work Management Bundle

Highlights In a Nutshell….

The Work Management bundle consists of a Work Execution app & Approvals app that run on Android or iOS devices.

Designed to get the work to the field technician, provide the details they need, a means to quickly feedback on the work completed, and move to the next job… with or without a connection

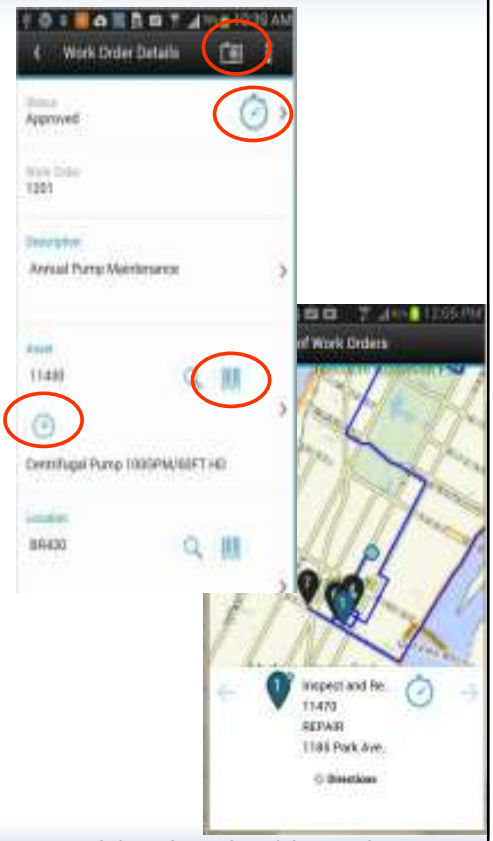
View the spatial location of assigned work, obtain directions, all in connected or disconnected environments!

Easily execute work, reduce errors at the point of performance, and improve efficiency!

Bundled with Worklight Consumer Edition v6.1

ESRI for the mapping of Work Order Locations

Requires Maximo v7.5.0.6 or higher



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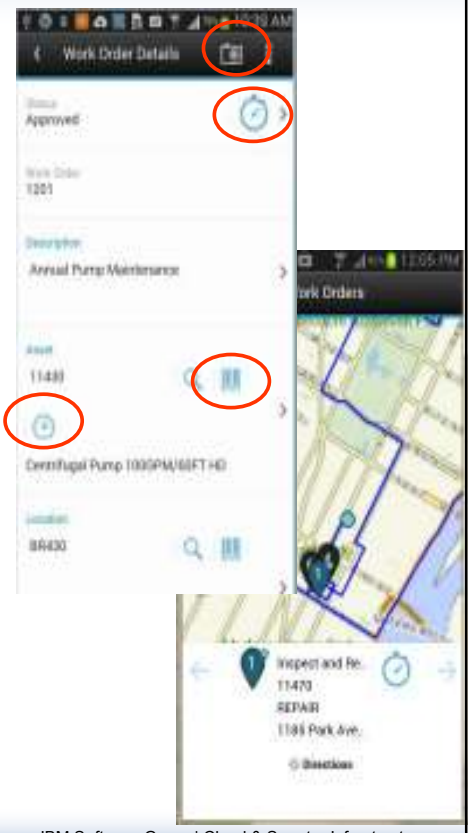
Work Management Application Bundle

- **Android and iOS support (Maximo 7.5.0.6)**
- **Maximo back end integration**
- **Connected/Disconnected operation**
- **Work Execution application**
  - Receive work
  - Review planned details, materials, labor, tools, task details
  - Feed back on actual materials, labor, tools
    - Provide Meter readings and Failure Codes
    - Review Attachments and provide photos linked to work
  - Start/Stopwatch buttons (quick, minimum click completion)
  - Review map (ESRI) with assigned work locations, directions
  - Status changes, create new work, create follow-up work
  - Work Log (voice to text)
  - Barcode scanning
- **Work Approvals application**



*Underlined elements new for Maximo Anywhere 7.5.1

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Licensing

MAXIMO

- **Authorized User Licensing**

  Mobile Only: Requires only the Maximo Anywhere licensing to use the Work Management mobile apps

  Mobile & Desktop: Requires Maximo Anywhere and appropriate Maximo core entitlement

  "**Add-on**" metric to respect a customers past investment in Maximo

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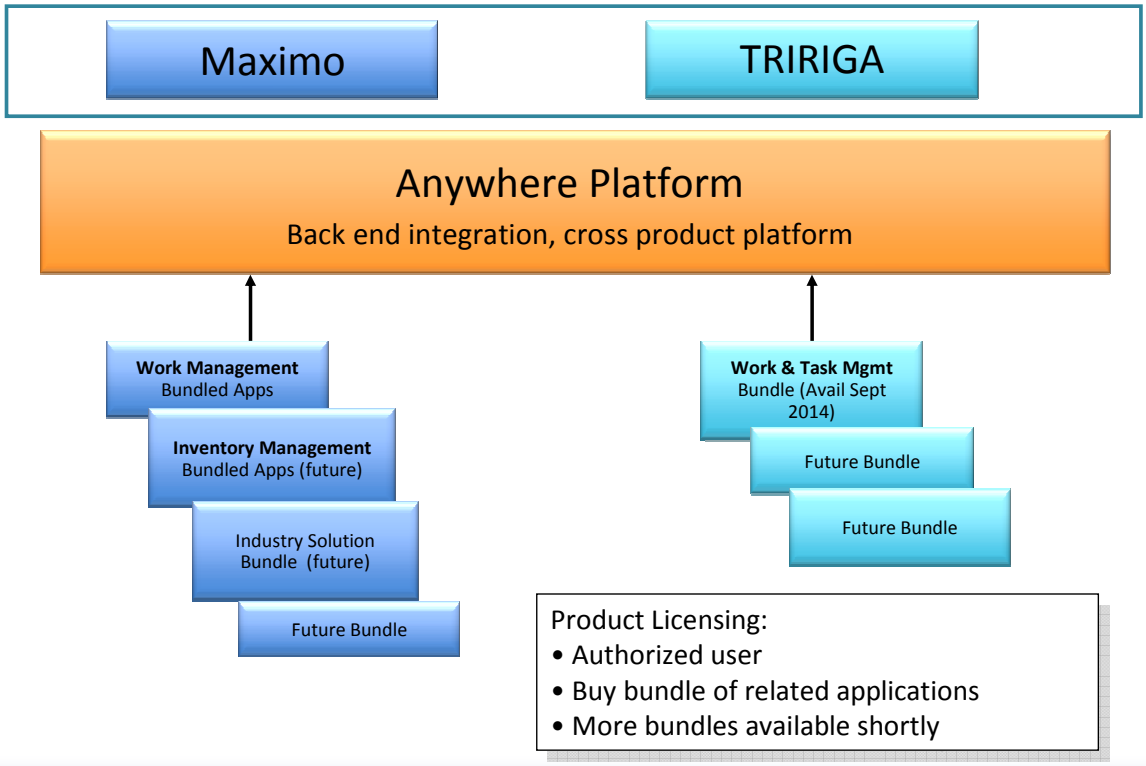
Mobile Bundling Structure



Product Licensing:
- Authorized user
- Buy bundle of related applications
- More bundles available shortly

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Globalization

IBM Maximo and TRIRIGA Anywhere supports the following languages:

Phase 1 languages

- English
- Brazilian Portuguese
- Czech
- Danish
- Dutch
- French
- Finnish
- German
- Hungarian
- Italian
- Japanese

Phase 2 languages

- Korean
- Norwegian
- Polish
- Russian
- Simplified Chinese
- Spanish
- Swedish
- Traditional Chinese

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Functional View of the Maximo Anywhere 7.5.1 Product

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iOS Support

New With Maximo Anywhere 7.5.1

- Maximo Anywhere 7.5.1 introduces support for iOS devices such as iPads and iPhones
- iOS versions 7.x
- Screens look, feel, and behave similar to their Android counterparts

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Seamless Connected/Disconnected Response

- All Maximo Anywhere applications support the following connection scenarios:
  - **Connected** – The device has connectivity to the Worklight/Maximo servers at all times
  - **Unplanned Disconnected** – The device expects to have connectivity, but occasional loss of connectivity is possible
    - Occasional short term dead spots where connectivity is not 100% dependable
    - Unexpected network outages
  - **Planned Disconnected** – The user will have connectivity at the start of the day where they can connect and download required data, but then expect to become fully disconnected as they go to do their work - only returning to connectivity at a later time to synchronize their data and download new fresh data.
- The user will see virtually no difference in application usage in any of these three scenarios.. Refreshes occur in the background eliminating user action or perceptible knowledge that a refresh is occurring

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Error Handling

- Users are visually notified of errors
- The Work List drop down menu will be marked red indicating that work orders with errors exist
- The Work List drop down menu will contain an additional work list called Work Orders with Errors
- User allowed to undo changes or correct and resend

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Supports Barcode Scanning

Barcode scanning uses the device's camera and is launched by taping on the bar code icons on the worklist screen or next to the bar code enabled fields.

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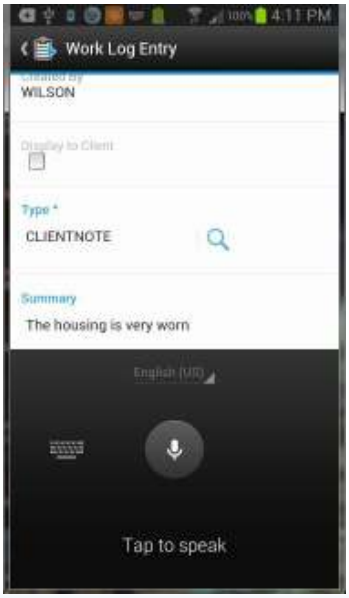
Voice to Text Support

Supports Voice-to-Text (if supported by the chosen device) to effortlessly fill fields



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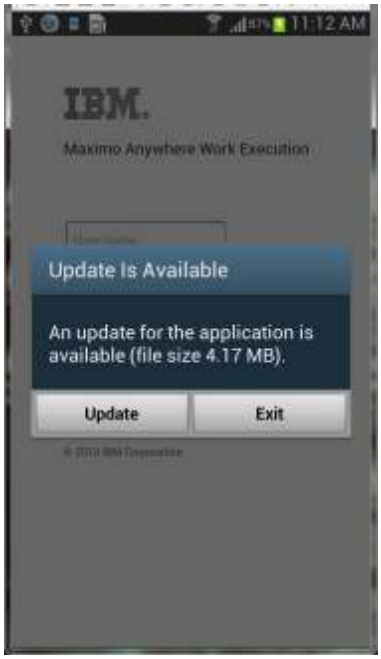
Application Updates

- Worklight Application Center looks after managing updates
- When connectivity exists, application updates (i.e. app configuration changes being deployed to the mobile community) will be recognized
- The user will be prompted to update their application. It will be downloaded and the application will be re-launched



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The Work Execution Application

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Work List Screen

- Displays the work orders delivered to the device in the sort order selected
- Technicians may select other saved queries and alter the sort orders
- Shows the mobile technician
  - Number of current assignments
  - Scroll up and down the work list
  - View the status of the work order via timer color
- Simply tap on any work order to see it's details

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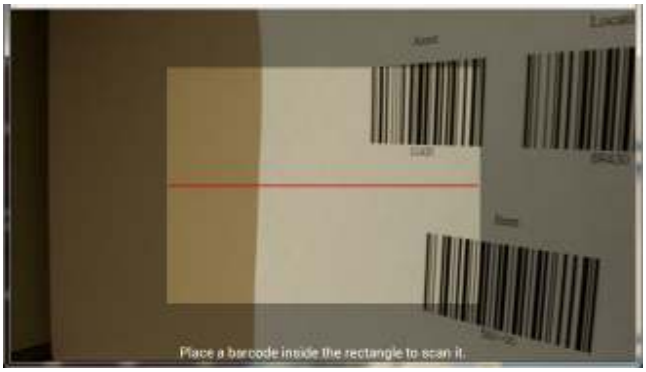
Bar Code Scan Asset on Work List

- The Barcode icon on the top of the work list screen will activate the device camera to scan an Asset, resulting in a filtered work list



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Work Order Detail Screen

- The Work Order detail screen shows the basic header level fields for the work order as well as a list of all the related data such as Tasks, Planned Materials, etc.
- The start/stop timer may be operated from the work detail screen
- Magnifying glass lookup, bar code scan, and meter icons
- Camera icon for initiating the creation of a photo
- Numeric indicators of the presence and quantity of supporting records in all categories

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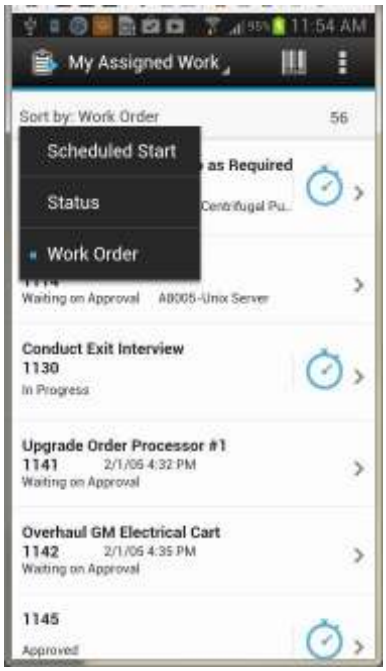
Sort Menu

- Technicians may sort their work list by:
  - Scheduled Start Date
  - Status
  - Work Order Number
- New sort criteria may be created
- The sort order will dictate the route order when displayed on the map.



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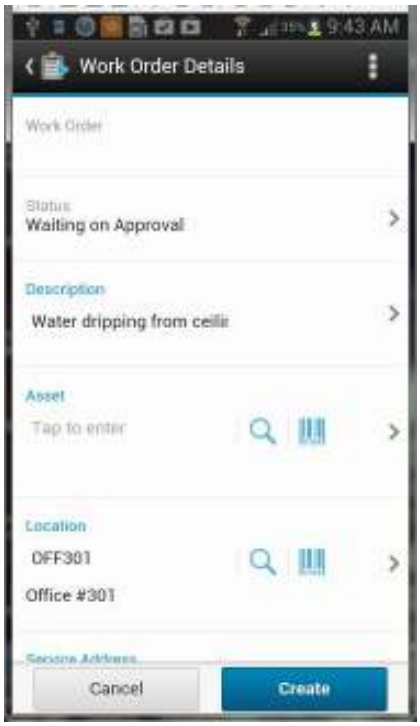
Create Work Order (and Follow Up Work Order)

- Technicians may create new work orders on the device
- A work order detail screen will be presented
- Follow Up Work Orders will default some basic information from the originating work order and create a relationship with that originating work order



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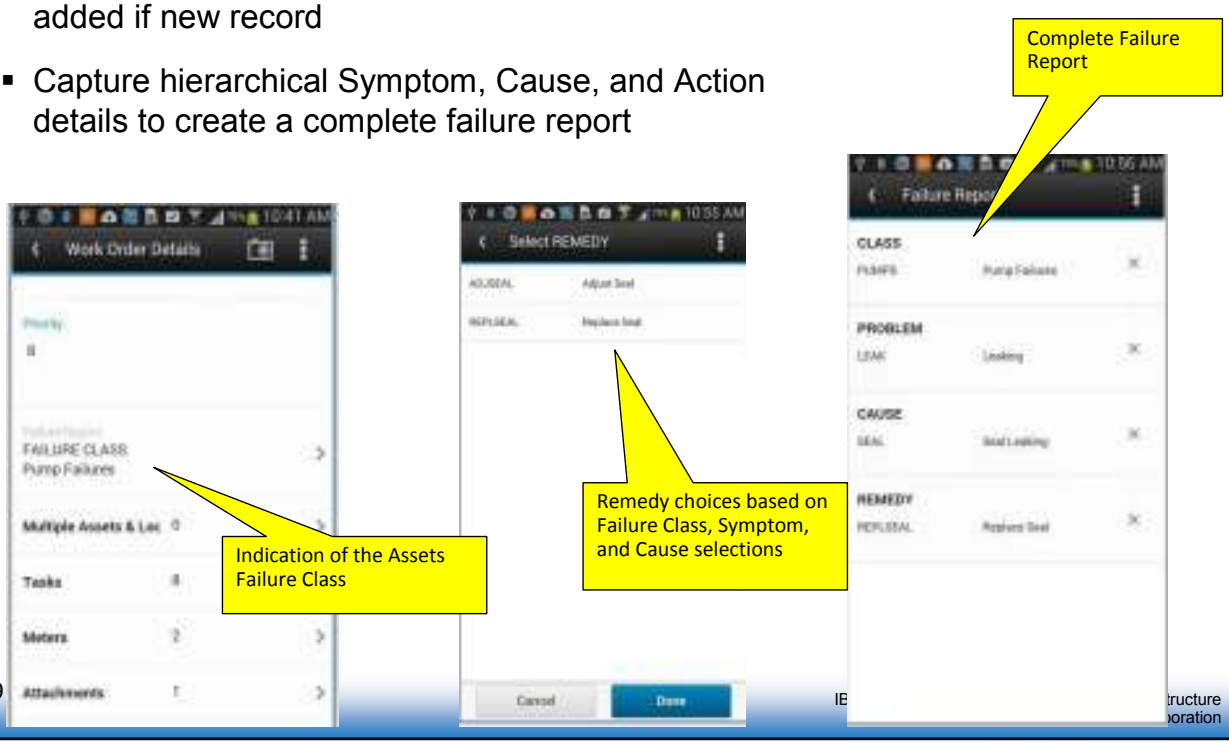
Failure Reporting

New With Maximo Anywhere 7.5.1

- Failure Class present from the Asset record or can be added if new record
- Capture hierarchical Symptom, Cause, and Action details to create a complete failure report



Failure Reporting cont'd

New With Maximo Anywhere 7.5.1

- Although modifyable, Maximo Anywhere will download the entire failure hierarchy to the device.
- Just as is the case within Maximo, the app is capable of handling a failure hierarchy "modified" by the customer to accommodate an additional level
- Sequencial listing of appropriate Failure, Cause, and Remedy codes will be shown

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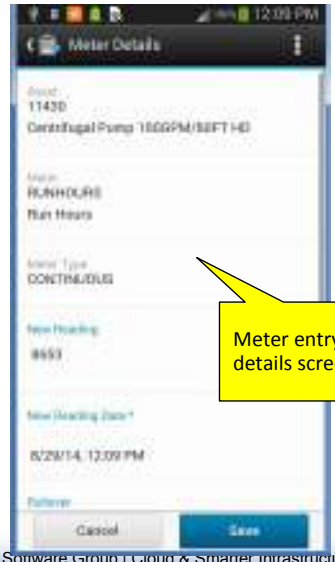
Meter Readings

New With Maximo Anywhere 7.5.1

- Capture readings for all asset or location meters on the downloaded work orders or tasks
- Respect continuous, gauge, and characteristic meters
- Rollovers
- Entries are date, time, and user stamped

Illustration of all meters present for the Asset or Location

Meter indicator showing that a meter is present on the Asset or Location



Meter entry details screen

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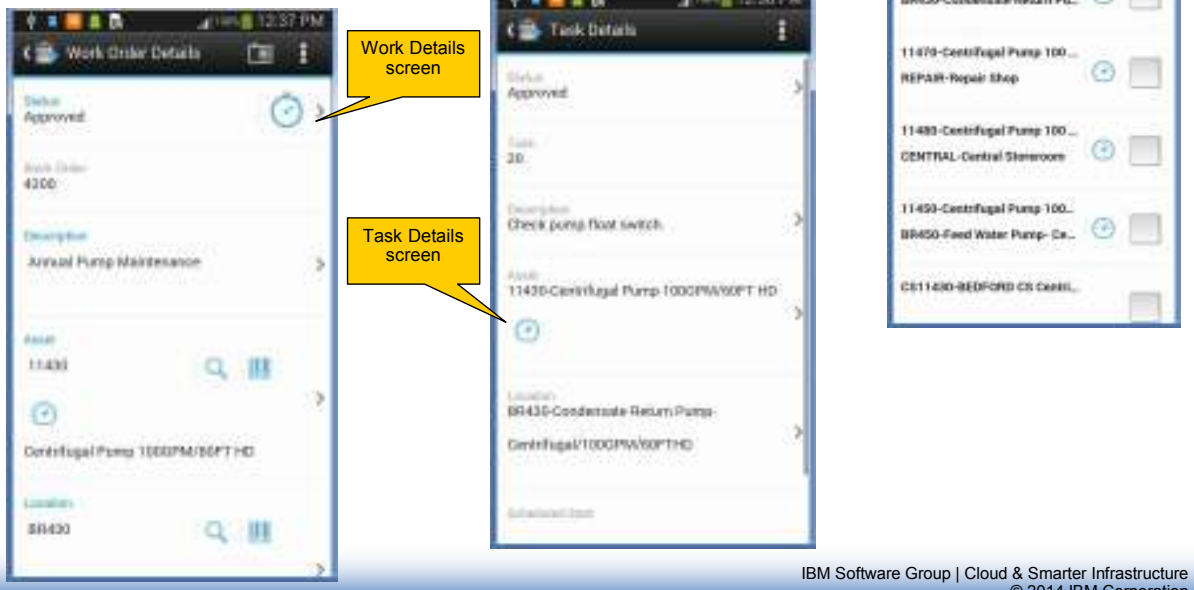
Meter Readings cont'd

New With Maximo Anywhere 7.5.1

- Valid entries for Characteristic meters (i.e. oil colour or condition) that are present in Maximo as a domain will be shpwn as such on the meter screen
- Meter detail entry available in multiple areas to provide flexible entry options for the filed technician



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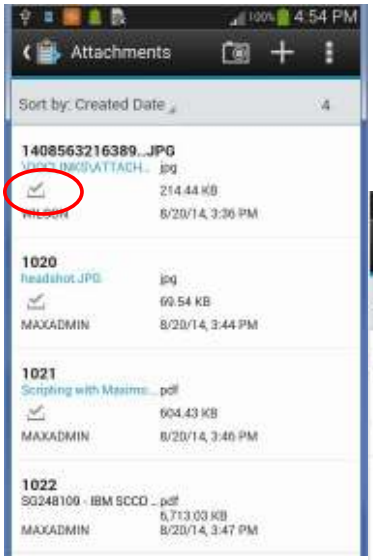
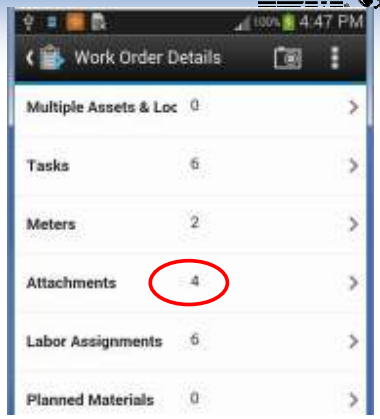
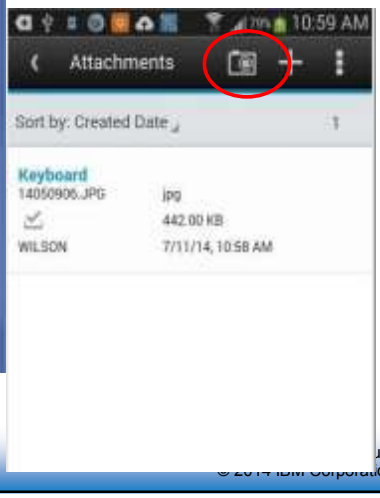
Attachments

New With Maximo Anywhere 7.5.1

- Review documents, drawings, etc from downloaded work orders
- Download to device upon refresh
- Take photos and link them to new or existing work orders, upload to Maximo
- Filter based on size
- Clear visible indicator that the document has been downloaded to the device
- Attach files from the devices gallery







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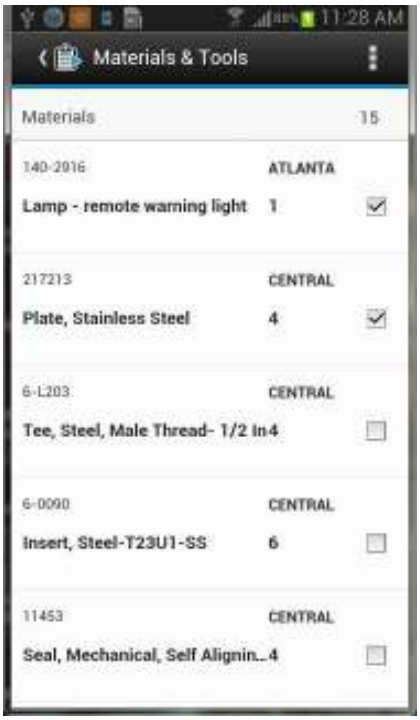
Summary of Required Materials and Tools

- Allows the technician to ensure that they have all materials and tools they will need to address the work delivered to their device
- Convenient check boxes for pick-up list
- Summarized totals



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Map View of Work List

- Work orders with a defined Service Address that have X/Y coordinates calculated will display on the offline map
- Technicians may leverage routes, graphical maps, and turn by turn directions
- Only ESRI mapping is currently supported
- Technicians may adjust the route by changing the sort order of the work orders displayed on their work list
- Start and stop timers are conveniently located on the map view

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Task List

- List of Tasks on the work order clearly displayed
- One tap “Complete” button designed for rapid status completion for field technicians
- Detail visible and clear

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Labor Assignment Detail

- Assignments can be modified
  - Reassigned to another field technician
  - May be un-assigned so the scheduler/dispatcher can assign it to someone else
- Entries and time can be reported by individual or on behalf of a crew

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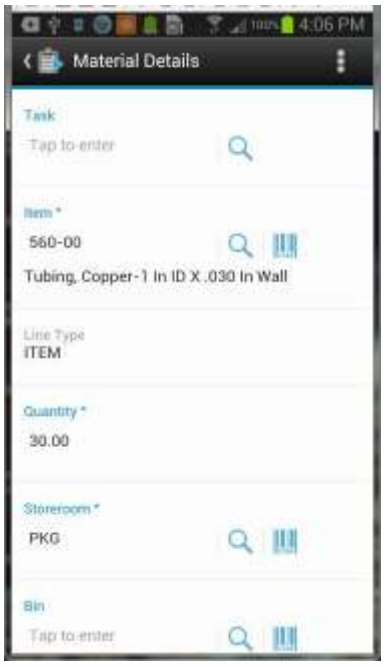
Actual Material Detail/Entry

- Technicians may submit Material consumption via the Material Details screen
- Materials may be searched, or a barcode scan may be used
- Storeroom defaults make entries quicker and more accurate
- Accommodates Rotating Assets



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Work Approval Application

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Work Approval App

- Designed for supervisors, managers and operational leads to easily approve work orders
- Eliminates unnecessary views and features that would otherwise “clutter” the app, targeting a usable, ‘easy to approve work’ experience

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Work Approval - Work List

- Purposely similar to the work list found in the Work Execution application
- No Start/Stop Timer icons
- Simple one tap button to change the status to APPR or CANCEL
- Additional information provided such as Target Start and End Dates, Reported By, Reported Date, GL Account codes so as to aid the supervisor in the approval task
- One tap status change actions are available

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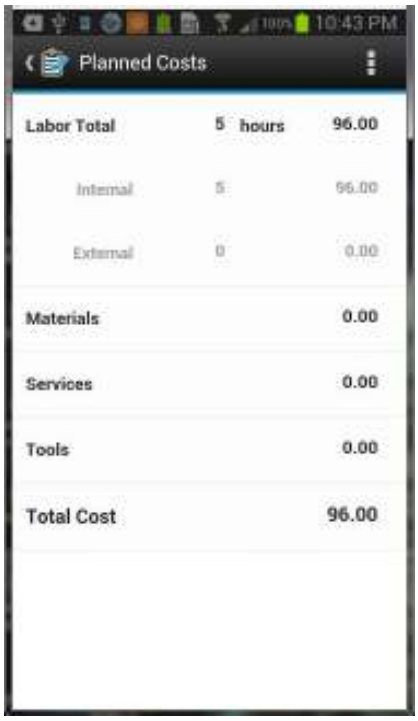
Costs View

- Supervisors may review the planned costs associated with work orders
- The Cost Detail view shows a breakdown of:
  - planned labor hours and costs
  - planned cost of the materials, services, and tools



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Planned Labor

- Foremen or supervisors may review the planned labor for the work order as well as the labor details

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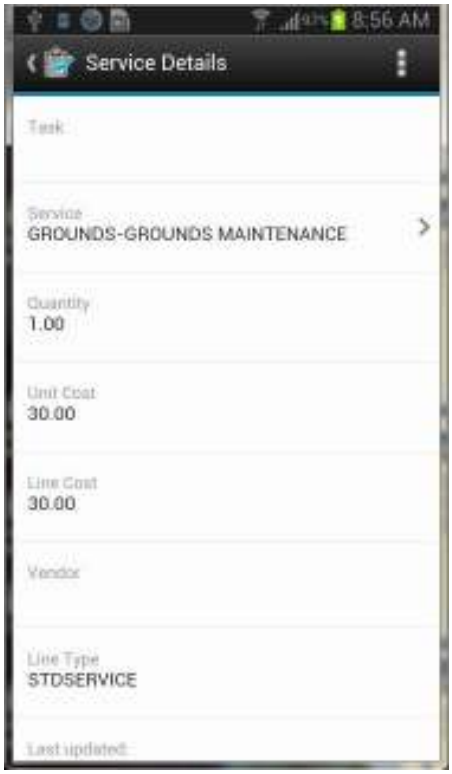
Planned Services

- Supervisors or foremen may review the Planned Services for the work order as well as the Planned Services Detail



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Contacts

Maximo Anywhere

Dave Calvert – Product Management dcalvert@ca.ibm.com

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