



# Oracle Manufacturing Cloud – Manage Your Shop Floor Efficiently

**NCOAUG**  
NORTH CENTRAL ORACLE APPS USER GROUP



# Who Is NexInfo?

## SUMMARY

- Consulting company focused on helping clients achieve Operational Excellence via an optimal blend of Business Process & Software consulting services
- Deep domain expertise, including: Integrated Business Planning (IBP/S&OP), Enterprise Resource Planning (ERP), Product Lifecycle Management (PLM), Customer Relationship Management (CRM), Enterprise Planning Management (EPM), Human Capital Management (HCM), Predictive Data Analytics, Security, & Business Transformations
- Founded in 1999 and managed by computer industry & business process professionals
- Clients include emerging companies and Fortune 1000 corporations
- Recognized in the industry, including features in Gartner Reports, The Silicon Review (50 Smartest Companies of the Year 2016 and 10 Fastest Growing Oracle Solution Providers 2017), and CIO Review (100 Most Promising Oracle Solution Providers 2015)

## PARTNERS



## CORPORATE INFO

- HQ in Orange County, CA with offices in Redmond, WA, Chicago, IL, Bridgewater, NJ, Dublin, Ireland, Chennai & Bangalore, India
- Operations across the United States, Europe (Ireland, UK, Switzerland, Belgium) & India



# Presenter Information

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Name : Mahesh Naalla

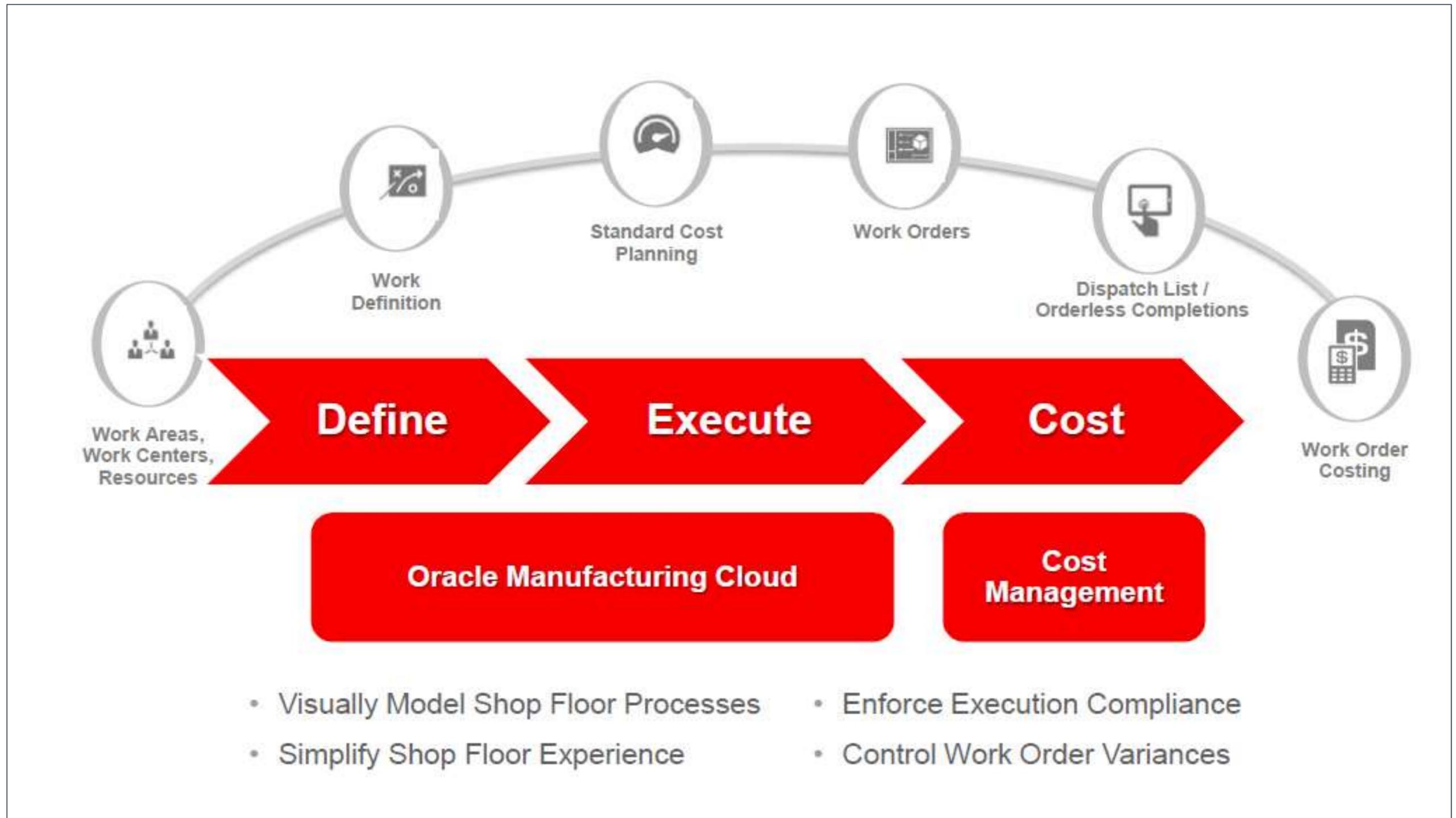
Experience : 10+ Years of Industry and IT Experience

- IT Experience : 10 years of experience as Oracle supply chain and planning consultant
- 2+ years of experience in Oracle Fusion Implementations

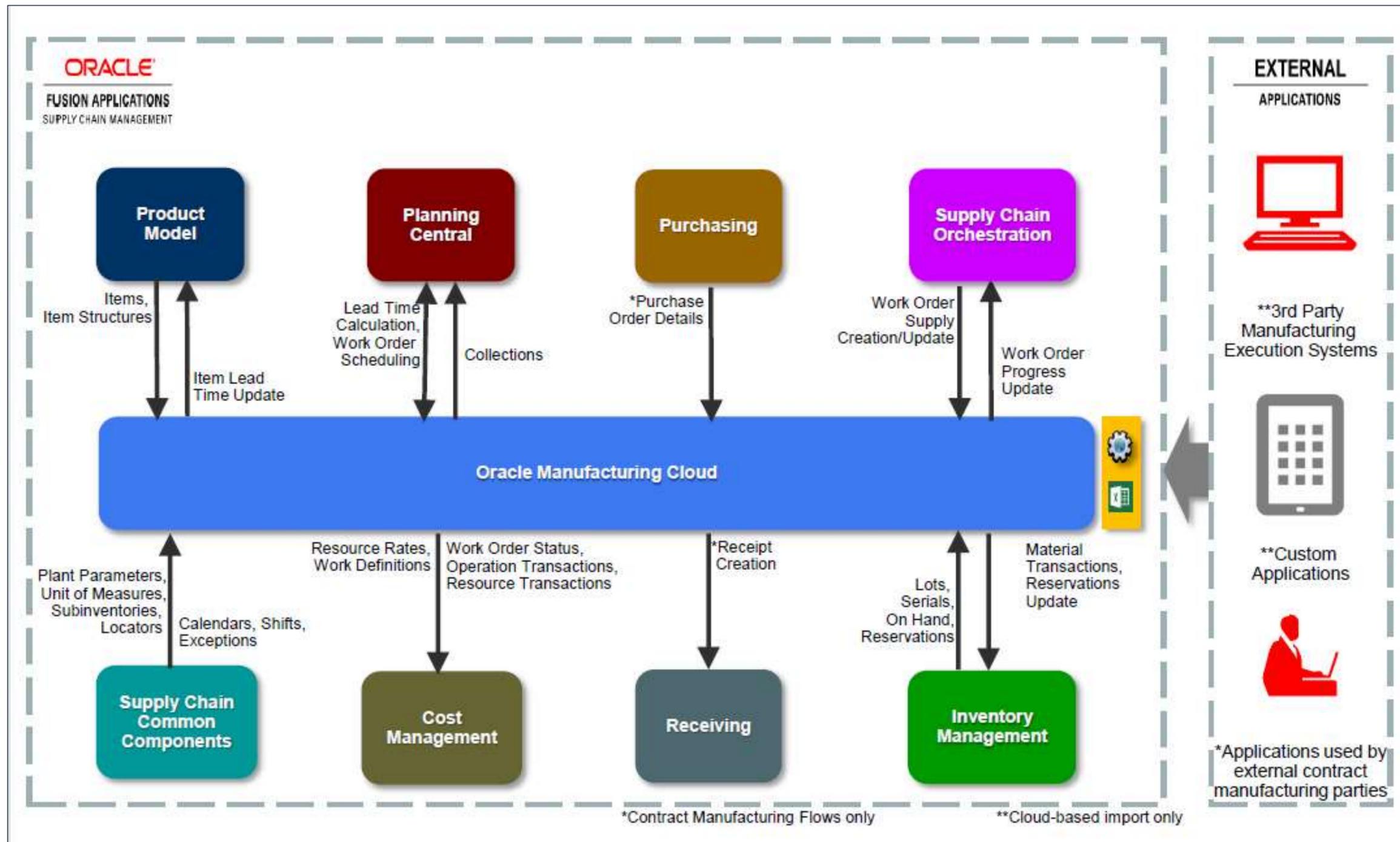
# Agenda

- Manufacturing cloud overview
- Functional Architecture
- Cloud manufacturing capabilities
- Cross functional flows
- Cloud manufacturing major roles
- Manufacturing cloud setup overview
- Manufacturing plant data setup
- Work Definition Overview
- Work Execution Overview
- Costing
- Reports
- Shop floor execution via mobile or tablet

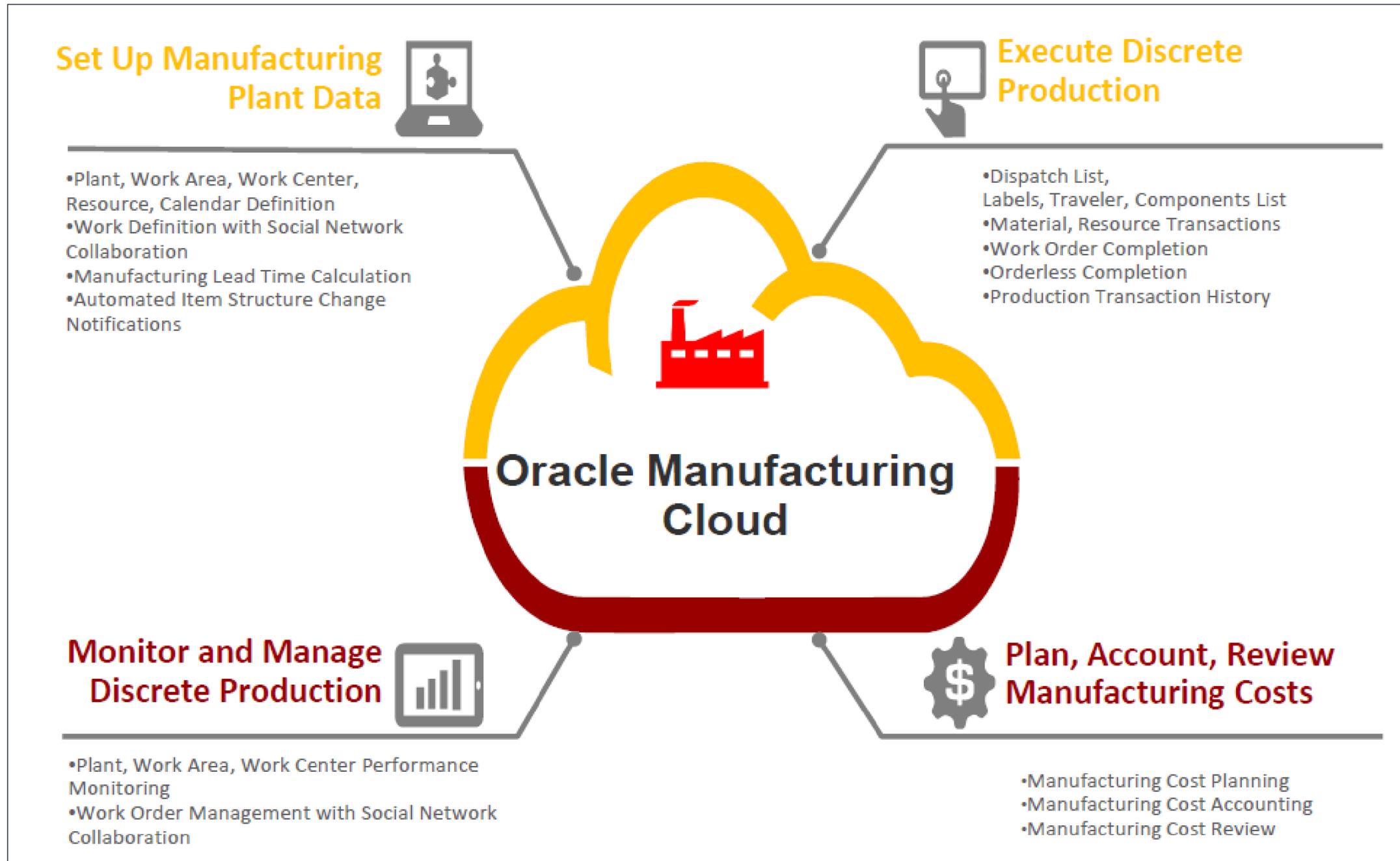
# Manufacturing Cloud Overview



# Functional Architecture



# Cloud Manufacturing Capabilities



# Cloud Manufacturing Capabilities

The screenshot displays a software interface for editing a work definition. The main window is titled "Edit Work Definition Details: VJ Final Assembly - Main". It includes a search bar for "Work Definition" and a navigation toolbar. The central area shows a process flow with three steps:

- 10 Tablet Assembly\_SO\_VJ**: Tablet Assembly VJ, dated 7/12/16 1:25 PM -
- 20 Tablet Testing\_SO\_VJ**: Tablet Testing VJ, dated 7/17/16 11:59 AM -
- 30 Tablet Packing\_SO\_VJ**: Tablet Packing VJ, dated 7/17/16 11:59 AM -

Each step includes a gear icon and the text "Planning :". Arrows indicate the sequence from Assembly to Testing to Packing. On the right, the "Item Structure: Primary" panel shows a tree view with a root node "VJ Final Assembly VJ Final..." containing two sub-nodes: "VJ Component 1 VJ Component 1" (1 Ea, 7/12/16 1:20 PM -) and "VJ Component 2 VJ Component 2" (1 Ea). A green checkmark is visible next to the first component.

# Cloud manufacturing capabilities

The screenshot displays the VISION software interface. At the top, the VISION logo is on the left, and a search bar with the text "What do you need to do or find?" is on the right. Below the logo, there are two main navigation buttons: "Work Definition" (orange) and "Work Execution" (blue). The main content area is titled "Edit Work Definition Details: VJ Final Assembly - Main". It includes a version control section with "Version 5", "Start Date 7/17/16 11:59 AM", "End Date", "Item Revision 0", and "Date 7/17/16 11:59 AM". A search bar contains "Search: Work Definition". Below this, a flow diagram shows three sequential steps:

- 10 Tablet Assembly\_SO\_VJ**  
Tablet Assembly VJ  
7/12/16 1:25 PM -  
Planning :
- 20 Tablet Testing\_SO\_VJ**  
Tablet Testing VJ  
7/17/16 11:59 AM -  
Planning :
- 30 Tablet Packing\_SO\_VJ**  
Tablet Packing VJ  
7/17/16 11:59 AM -  
Planning :

Arrows indicate the flow from the first step to the second, and from the second to the third. On the right side of the interface, there is a "Social" button and a panel titled "Oracle Social Network" which contains the text "This Work Definition is not shared in Oracle Social Network." and a "Share" button.

# Cloud Manufacturing Capabilities

The screenshot displays the VISION cloud manufacturing interface. The main content area is titled "Edit Work Definition Details: VJ Final Assembly - Main". It shows a process flow with three steps:

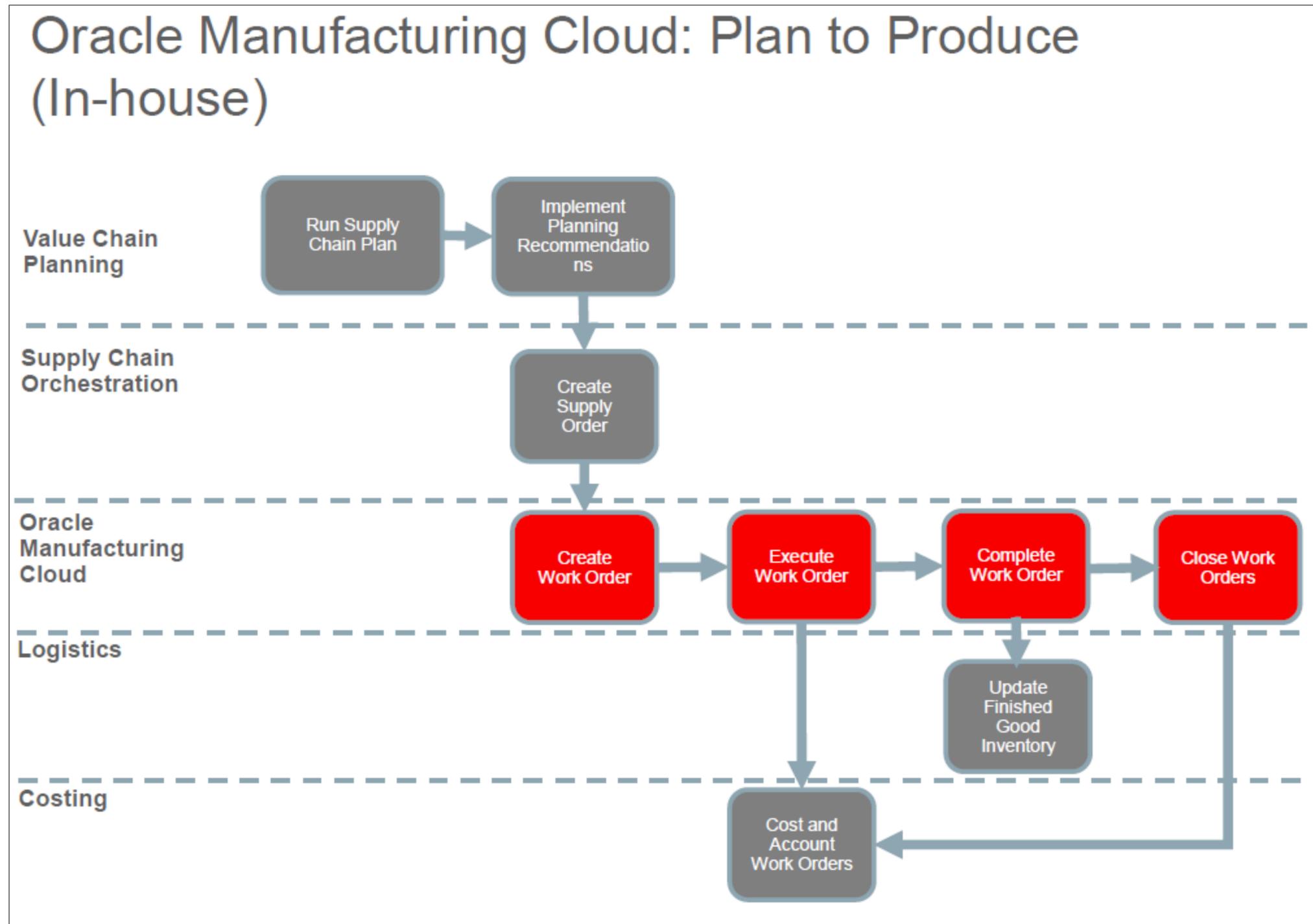
- 10 Tablet Assembly\_SO\_VJ**: Tablet Assembly VJ, 7/12/16 1:25 PM - Planning :
- 20 Tablet Testing\_SO\_VJ**: Tablet Testing VJ, 7/17/16 11:59 AM - Planning :
- 30 Tablet Packing\_SO\_VJ**: Tablet Packing VJ, 7/17/16 11:59 AM - Planning :

The right sidebar, titled "Oracle Social Network", shows a post by Vijay Korupolu from 1 minute ago. The post content is: "Name' was set to 'Main'. Item' was set to 'VJ Final Assembly'. Production Priority' was set to '1'. Version' was set to '5'. Start Date' was set to 'Sunday, July 17, 2016 11:59 AM UTC'." Below the post is a notification for "scm00 instructor" with the text "This person participates in similar Work Definition." and "Add" and "Ignore" buttons.

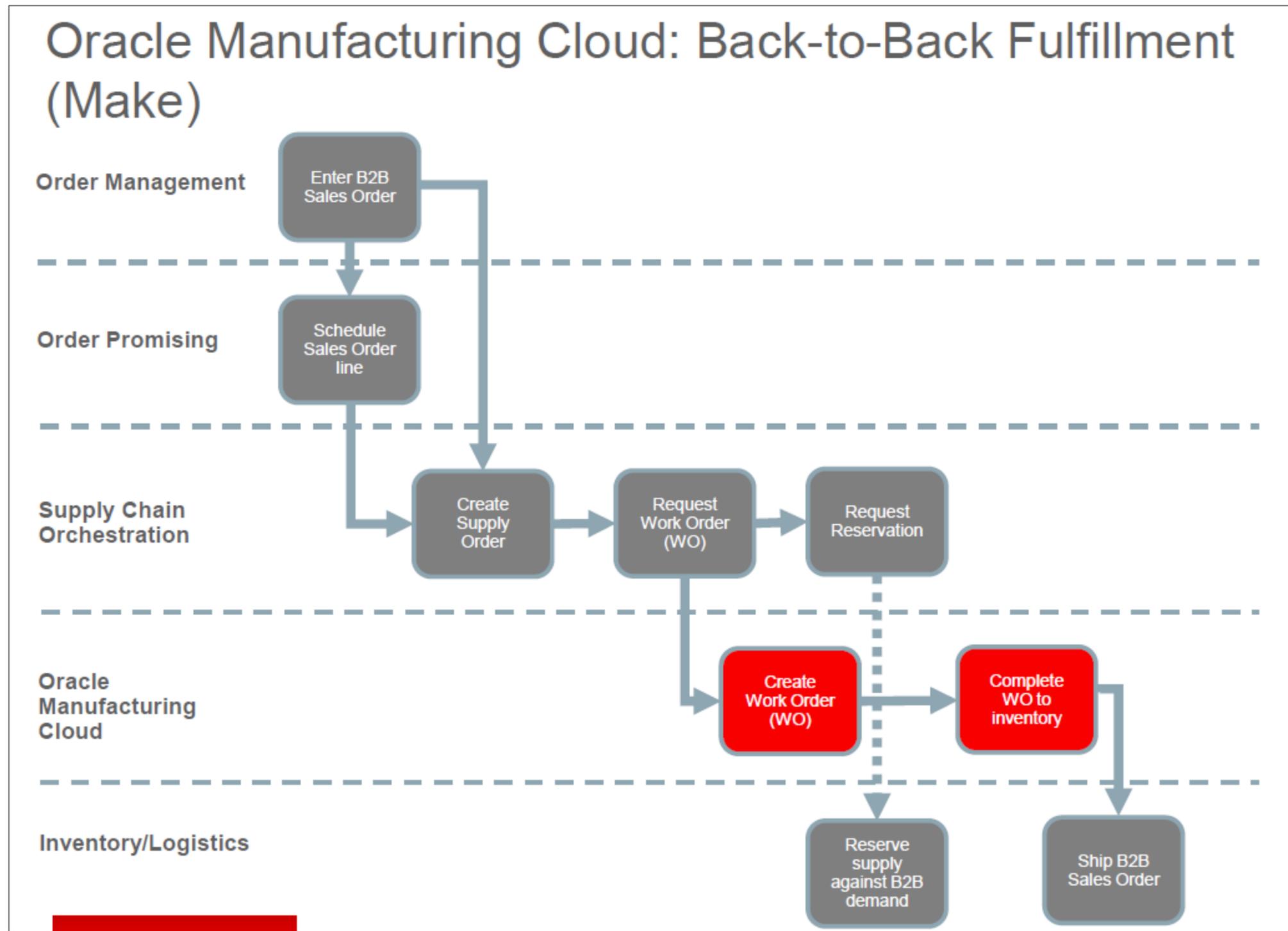
# Cross Functional Flows

- Oracle Manufacturing Cloud: Plan to Produce (In-house)
- Oracle Manufacturing Cloud: Back-to-Back Fulfillment (Make)
- Oracle Manufacturing Cloud: Configured Item Fulfillment (Make)
- Oracle Manufacturing Cloud: Contract Manufacturing

# Cross Functional Flows Cont.



# Cross Functional Flows Cont.



# Cloud Manufacturing Major Roles



## Work Definition

- Manage Work Definitions
- Manage Work Definitions in Spreadsheet
- Print Work Definition Report
- Process Item Structure Changes to Work Definitions
- Calculate Manufacturing Lead Times
- Manage Work Definition Names

## Plant Setup

- Manage Standard Operations
- Manage Resources
- Manage Work Centers
- Manage Work Areas

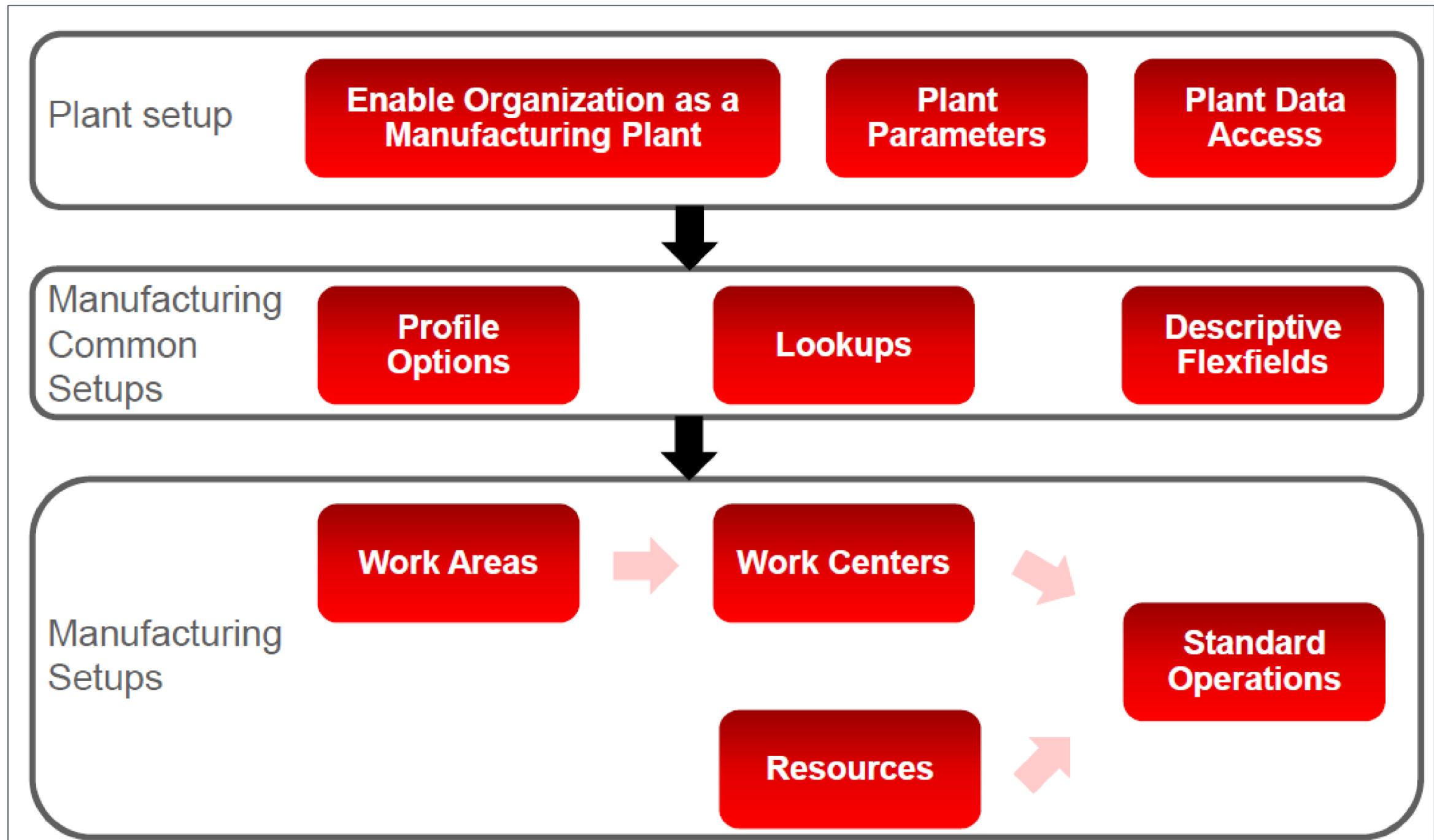
## Manage Production

- Manage Work Orders
- Manage Production Exceptions
- Manage Supplier Operations
- Close Work Orders
- Transfer Transactions from Production to Costing
- Review Product Genealogy
- Manage Production Calendar
- Manage Work Center Resource Calendar

## Execute Production

- Review Dispatch List
- Report Production Exception
- Create Inspection
- Inspections
- Report Material Transactions
- Report Resource Transactions
- Report Orderless Completion
- Report Orderless Return
- Review Production Transaction History

# Manufacturing Cloud Setup Overview



# Manufacturing Plant Data Setup

- Define Plant Hierarchy and Process Standards
  - ✓ Production calendar & plant controls

### Plant Details

\* Manufacturing Calendar

### Material

\* Default Supply Subinventory       \* Default Completion Subinventory

Default Supply Locator       Default Completion Locator

### Work Definition

Starting Operation Sequence       Phantom Operation Inheritance

Operation Sequence Increment

### Work Execution

Work Order Prefix

Work Order Starting Number

Default Overcompletion Tolerance Percentage

Default Transaction Mode

Default Transaction Quantity

Capture Level for Serialization Operations

Material Reporting Level for Serialization Operations

Allow Quantity Changes During Backflush

Lot Selection During Backflush

Default Work Order Traveler Template

Default Label Template

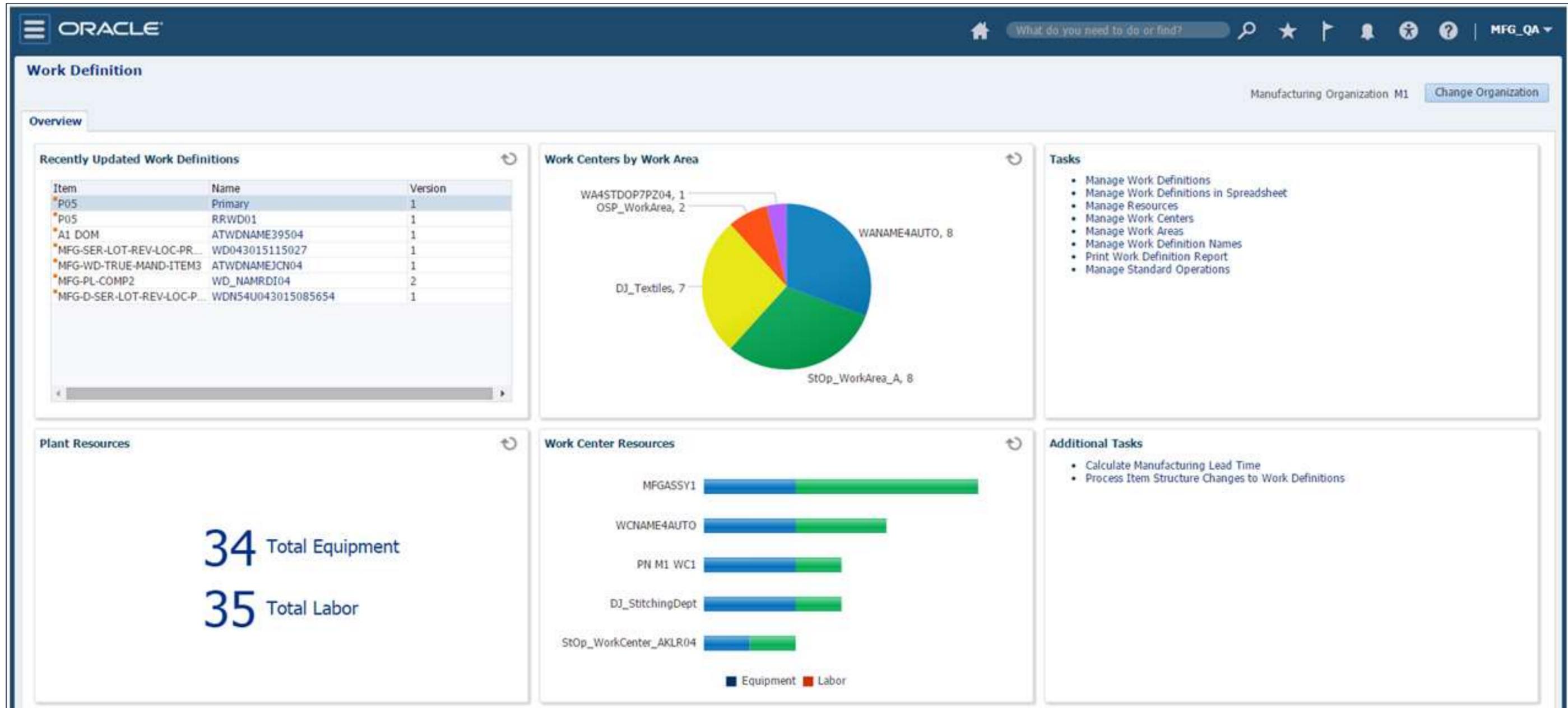
Include component yield in material requirements

Automatically associate serial numbers during work order import

### Outside Processing

Purchase Requisition Trigger

# Work Definition Overview



# Work Definition Overview Cont.

✓ Work centers, work areas & resources

Manufacturing Organization GUTHY\_INV [Change Organization](#)

Overview Manage Work Centers x **Work Center: Work Center 1 (GUTHY\_INV) x**

### Edit Work Center: Work Center 1

[Save](#) [Save and Close](#) [Cancel](#)

#### General Information | [Show Less](#)

* Name	<input type="text" value="Work Center 1"/>	* Work Area	<input type="text" value="Work Area 1"/>
* Code	<input type="text" value="Work_Center_1"/>	Supply Subinventory	<input type="text"/>
Description	<input type="text"/>	Supply Locator	<input type="text"/>
		Inactive On	<input type="text"/>

#### Resource Availability

View ▼ Format ▼ + x [Clear Shift Units](#)

Resource	Inactive On	Default Units Available	Available 24 Hours	Nex_General Shift	Resource Calendar
Resource1		1	✓		

# Work Definition Overview Cont.

✓ Standard operations

Operation Type In-house

\* Name

\* Code

Description

\* Work Center

Work Center Code Work\_Center\_1

Work Center Description

Count point

Automatically transact

Inactive Date

Attachments None +

Default for automatic work definition

▲ Resources

View ▾ + ×

* Sequence	* Resource	* Units Assigned	Basis	* Usage	* Inverse Usage	UOM Name	Scheduled	Principal	Charge Type
10	Resource1	1	Variable	1	1	HR	No	<input type="checkbox"/>	Automatic

# Work Definition Overview Cont.

✓ Item structures

Item Structure Details

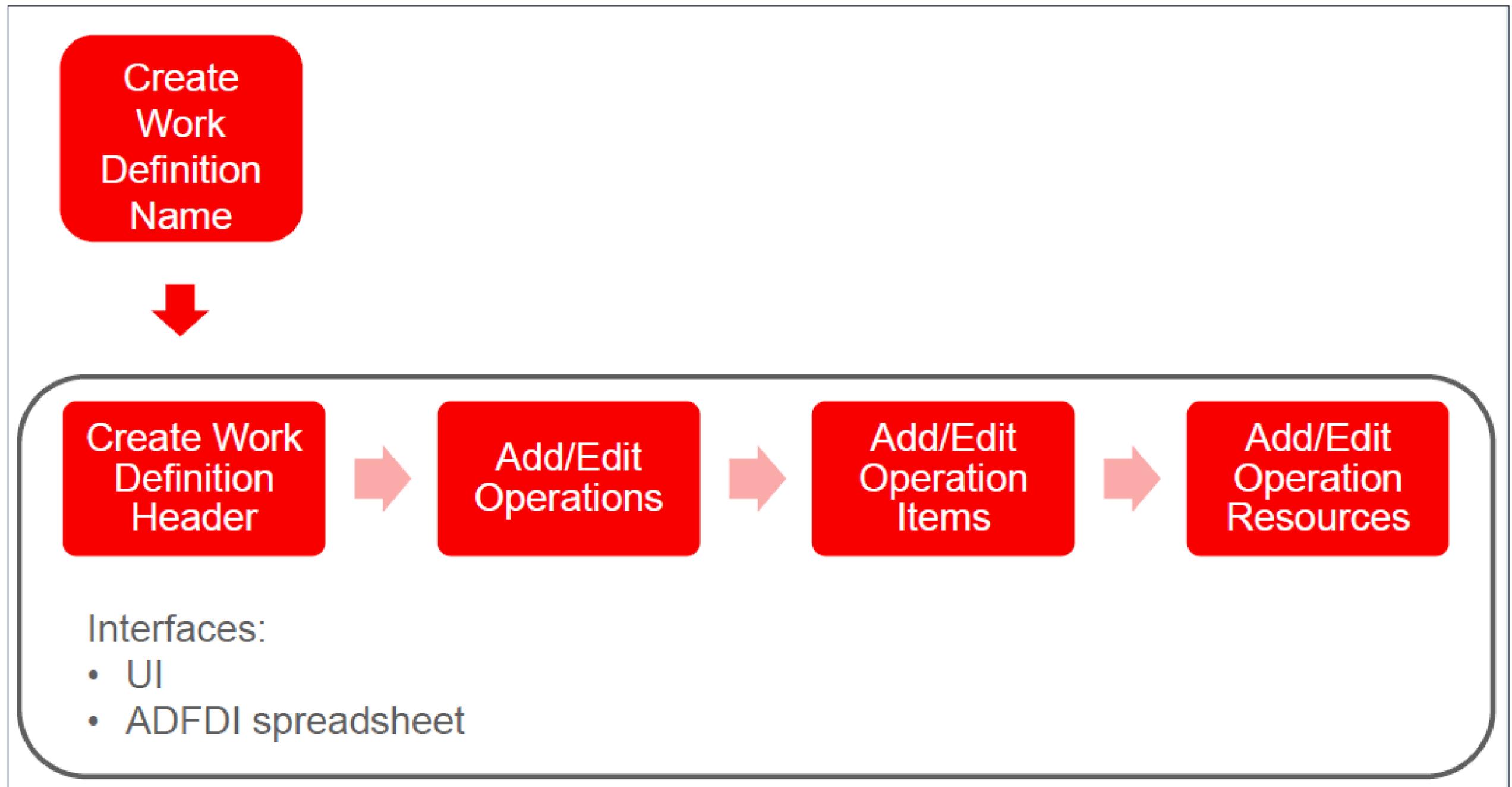
Actions View Format Freeze Detach Wrap Date 2/2/17 11:49 AM View Summary

Search

Item	Item Description	Item Sequence	Start Date	End Date	Quantity	Inverse Quantity	Structure Item Type	Enforce Integer Requirement	Basis	Planning Percent	Yield
DEMO_ASSEM	Demo Assembly										
CM4751101	8" Display w/Ca...	30	2/2/17 11:49 AM		1	1	Standard	None	Variable	100	1
CM4751103	Quad Core 1.9...	60	2/2/17 11:49 AM		1	1	Standard	None	Variable	100	1
SB4751105	Memory 1GB D...	90	2/2/17 11:49 AM		1	1	Standard	None	Variable	100	1
SB4751108	16GB	120	2/2/17 11:49 AM		1	1	Standard	None	Variable	100	1
CM4751111	Connectivity Wi...	150	2/2/17 11:49 AM		1	1	Standard	None	Variable	100	1
CM4751113	Camera - Prima...	180	2/2/17 11:49 AM		1	1	Standard	None	Variable	100	1

# Work Definition Overview Cont.

- Work definition flow



# Work Definition Overview Cont.

- Work definition setup

Overview Manage Work Definitions x Work Definition: AS49000\_64 - Main x

### Edit Work Definition Details: AS49000\_64 - Main

Version 2 Start Date 6/1/15 5:09 PM End Date Item Revision 0.1 Date 6/1/15 5:09 PM

Search: Work Definition

10 Tablet Assembly  
Tablet Assembly Line  
5/9/15 8:41 PM -  
Planning :

20 Tablet Testing  
Tablet Testing Line  
5/9/15 8:41 PM -  
Planning :

30 Tablet Packing  
Tablet Packing Line  
5/9/15 8:41 PM -  
Planning :

40 Adhoc Test -0520  
Chassis Assembly Line  
6/1/15 5:09 PM -  
Planning :

Items

- 6 CM64059 Front and Back Front...

Resources

- 1 LCD\_PAE LCD Panel Assembly...

Resources

- 1 QATech QA Technician

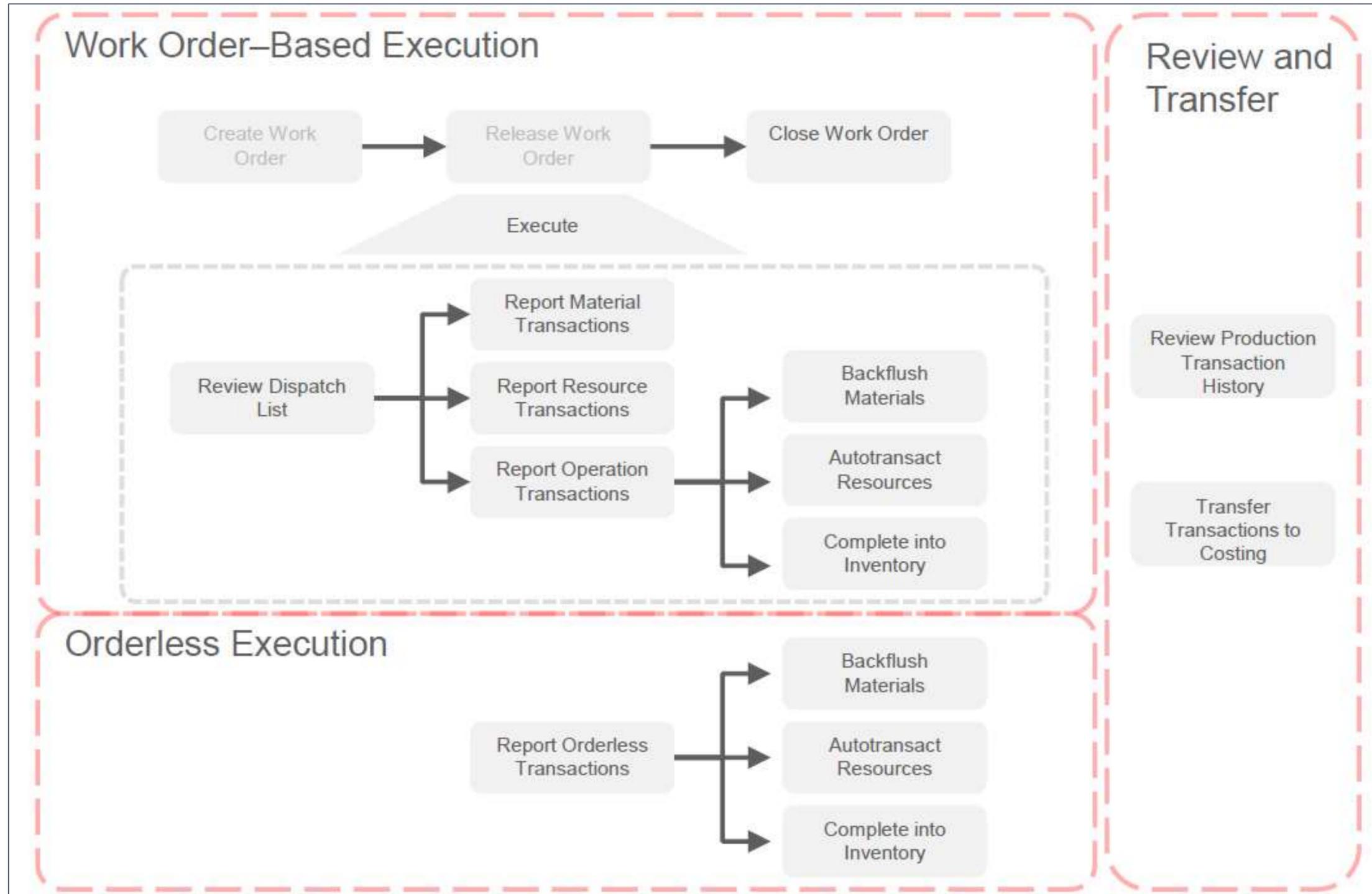
Resources

- 1 L1Tech1 Level 1 Technician

Item Structure: Primary

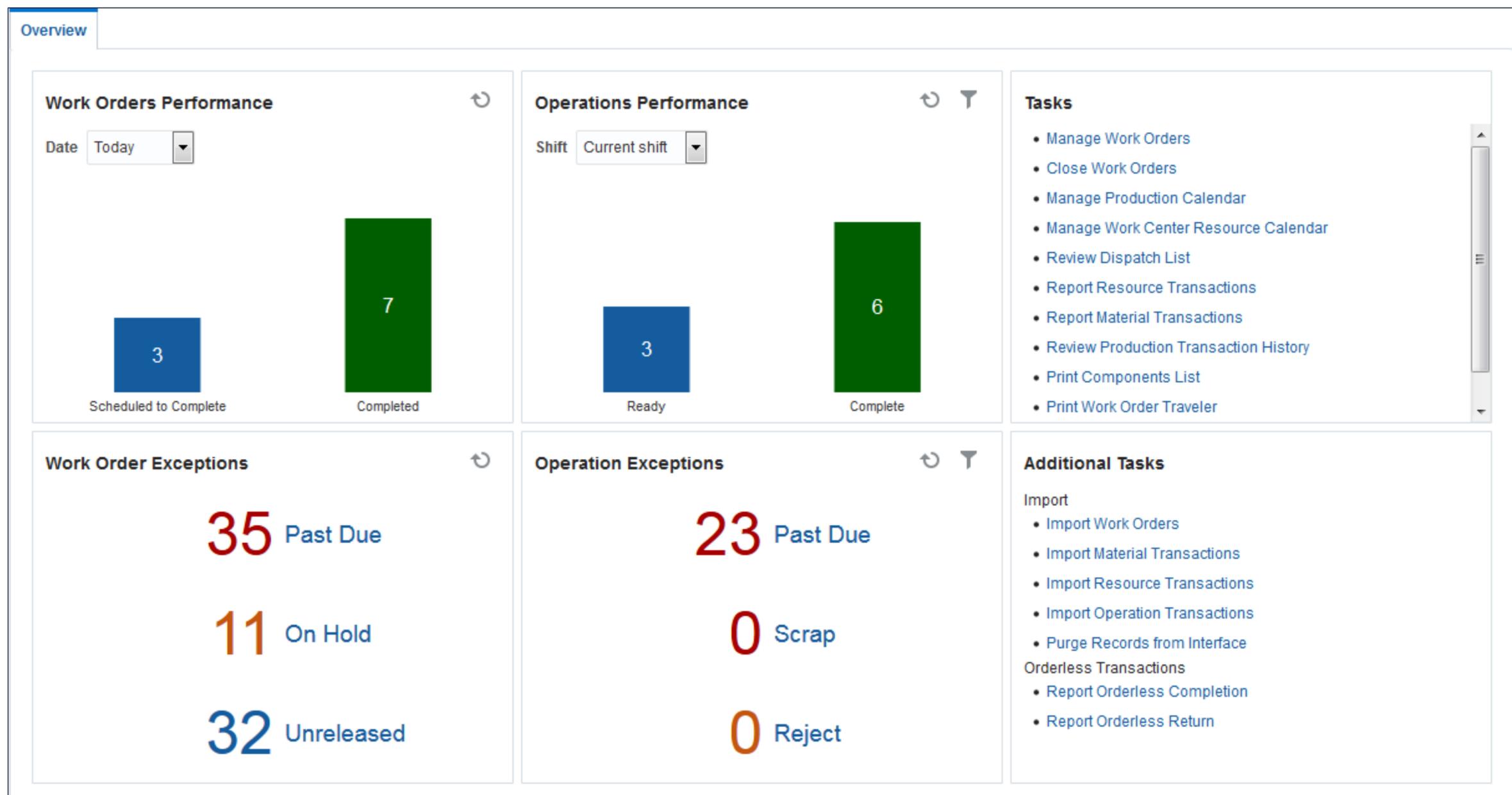
- AS49000\_64 Vario 6...
- 6
- CM64059 Front and... ✓
- CM65032 Processor ✓
- CM65034 WLAN ✓
- CM65040 Battery ✓
- CM65061 Silver... ✓
- CM65052 64 GB... ✓

# Work Execution Overview



# Work Execution Overview Cont.

- Monitor production
- ✓ Quickly see status and take action



# Work Execution Overview Cont.

- Manage production
- ✓ Create work orders
  - **Standard Work Order**
    - Create standard work orders using work definition.
    - Standard work order are created with minimal data entry (Item and Quantity).
    - Start date and primary work definition are defaulted.
    - The work definition is used to explode the material and resource requirements.
  - **Non Standard Work Order**
    - Nonstandard work orders are created for rework, repair, and prototype.
    - It is optional to specify a work definition.
    - In the absence of a work definition, the operation details including components and resource requirements are entered manually.

# Work Execution Overview Cont.

- Manage production
- ✓ Manage work orders



The screenshot displays a web application interface for managing work orders. At the top, there are tabs for 'Overview', 'Manage Work Orders' (which is active), and 'Work Order: DEMO\_2'. Below the tabs, the title 'Manage Work Orders' is followed by a search icon and the text 'Search'. Underneath, the section 'Search Results' is shown. A toolbar contains buttons for 'View', 'Format', '+', 'Release', 'Mass Action', and 'Print to PDF'. The main data area is a table with the following columns: Work Order, Priority, Item, Quantity, UOM, Status, Start Date, Completion Date, and Progress. A single row is visible, representing 'DEMO\_2' with a quantity of 2, UOM of 'Ea', and a status of 'Released'. The start date is '9:29 AM' and the completion date is '9:34 AM'. At the bottom left, it indicates 'Rows Selected: 1' and 'Columns Hidden: 29'.

Work Order	Priority	Item	Quantity	UOM	Status	Start Date	Completion Date	Progress
DEMO_2		DEMO_ASSEM	2	Ea	Released	9:29 AM	9:34 AM	

# Work Execution Overview Cont.

## ✓ Review dispatch list

- Displays work order operations ordered in the sequence to be worked on for a chosen work area and work centers
- Provides several visual cues for shop floor personnel to review and execute work

**Review Dispatch List** Done

▶ Search Saved Search Tablet Division ▼

Actions ▼ View ▼

	Quantity	UOM	Status	Work Order	Item	Work Center	Completion Date		
▶	2	Each	Ready	MFG1-1106 - 10	AS49000_64	Tablet Assembl...	Yesterday 1:06 AM	⚠	Materials ✓ Resources
Complete	2	▼	Reject	0	▲	Scrap	0	▲	Quick Complete Complete with Details Cancel
▶	2	Each	Ready	MFG1-1111 - 10	AS49000_64	Tablet Assembl...	Yesterday 9:00 AM	⚠	Materials * Resources
▶	5	Each	Ready	MFG1-1128 - 10	AS49000_64	Tablet Assembl...	2:15 PM		Materials * Resources
▶	1	Each	Ready	MFG1-1123 - 30	AS49000_64	Tablet Packing ...	8:26 PM		Materials Resources
▶	90	Each	Ready	MFG1-1068 - 30	AS49000_64	Tablet Packing ...	6/2/15 3:50 PM		Materials Resources *
▶	97	Each	Ready	MFG1-1087 - 30	AS49000_64	Tablet Packing ...	6/16/15 4:00 PM		Materials Resources *

# Work Execution Overview Cont.

- ✓ Report production transactions
- Reports progress through the following actions:
  - Quick Complete with just two user clicks
  - Complete with Details by providing additional information
- Reports reversal of operation transactions from Scrap, Reject, and Complete dispatch states to correct errors

Review Dispatch List Done

Search Saved Search Tablet Division

Actions View

	Quantity	UOM	Status	Work Order	Item	Work Center	Completion Date		
▶	5	Each	Ready	MFG1-1128 - 10	AS49000_64	Tablet Assembl...	5/21/15 2:15 PM	⚠	Materials * Resources
Complete	1	^	Reject	2	^	Scrap	1	^	Quick Complete Complete with Details Cancel
▶	1	Each	Ready	MFG1-1123 - 30	AS49000_64	Tablet Packing ...	5/21/15 8:26 PM	⚠	Materials Resources
▶	90	Each	Ready	MFG1-1068 - 30	AS49000_64	Tablet Packing ...	6/2/15 3:50 PM	⚠	Materials Resources *
▶	2	Each	Ready	MFG1-1141 - 10	AS49000_64	Tablet Assembl...	6/9/15 2:20 PM	⚠	Materials * Resources
▶	97	Each	Ready	MFG1-1087 - 30	AS49000_64	Tablet Packing ...	6/16/15 4:00 PM	⚠	Materials Resources *

# Work Execution Overview Cont.



**Complete with Details: MFG1-1128-30: Product**

Item AS49000\_64      Work Order Quantity 5 Each      Work Center Tablet Packing Line

\* Transaction Date 6/25/15 3:09 PM      Attachments None

### Current Transaction

Available to Transact 5 Ready

Transaction Type Complete

Quantity  ^ v

Print label

Transaction Note

### Operation Transaction Summary

Completed 0

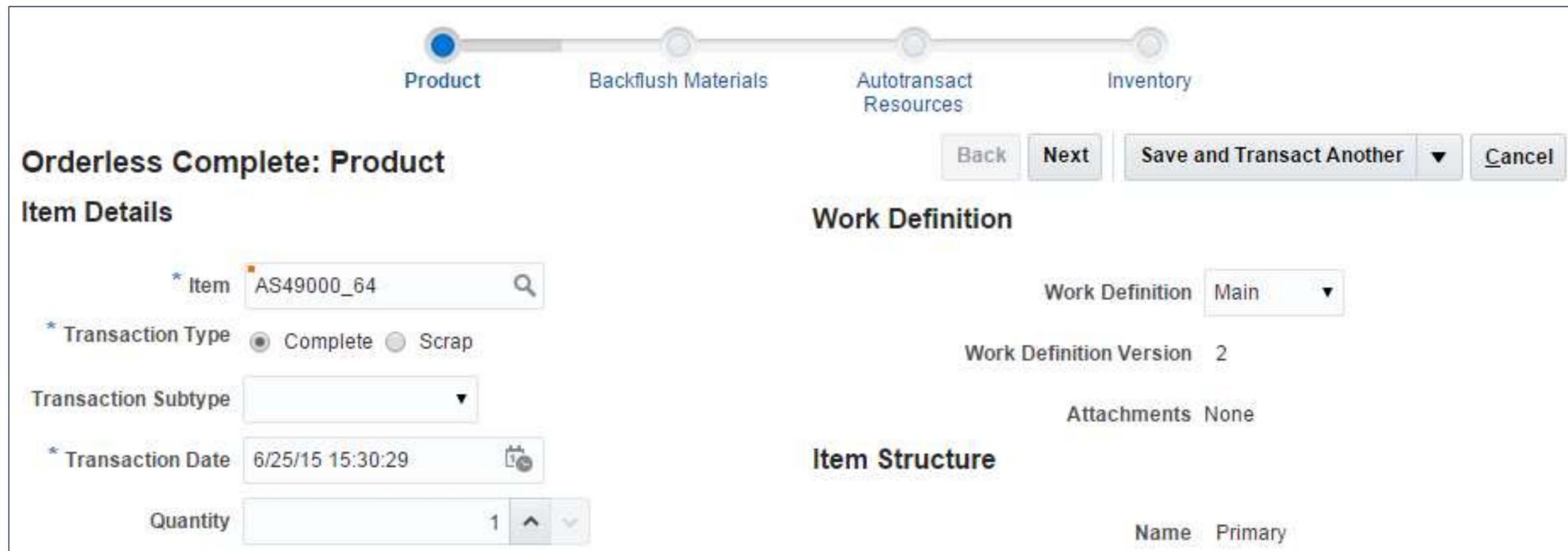
Rejected 0

Scrapped 0

► Additional Information

# Work Execution Overview Cont.

- Report Orderless Transactions
  - Report production activity without creating work orders.
  - Completion or scrap of production units can be reported by referencing a work definition.



Product Backflush Materials Autotransact Resources Inventory

Back Next Save and Transact Another Cancel

### Orderless Complete: Product

#### Item Details

\* Item AS49000\_64

\* Transaction Type  Complete  Scrap

Transaction Subtype

\* Transaction Date 6/25/15 15:30:29

Quantity 1

#### Work Definition

Work Definition Main

Work Definition Version 2

Attachments None

#### Item Structure

Name Primary

# Costing

- ✓ Transfer production transactions to costing
  - Process to transfer manufacturing execution data and work order status updates to costing
  - Transfers resource transaction data for costed resources only
  - All operation transaction data including complete, scrap, reject, and reverse are transferred to costing

Transfer Transactions To Co...

Process Options   Advanced   Submit   Cancel

Name Transfer Transactions To Costing  
Description Transfer Transactions To Costing  
Schedule As soon as possible

Notify me when this process ends

Submission Notes

Parameters

Plant All

Source System All

# Reports

- Work Definition Report

Presents the manufacturing engineer with the complete view of a work definition

- Work Order Reports

- Print Components List

Generates the components list report for the selected work order

- Print Work Order Traveler

Displays details of: Work Order Header, Configuration Transactional Item Attributes, Product Serials, Work Order Operations, Materials, Resources, Reservations, Attachments

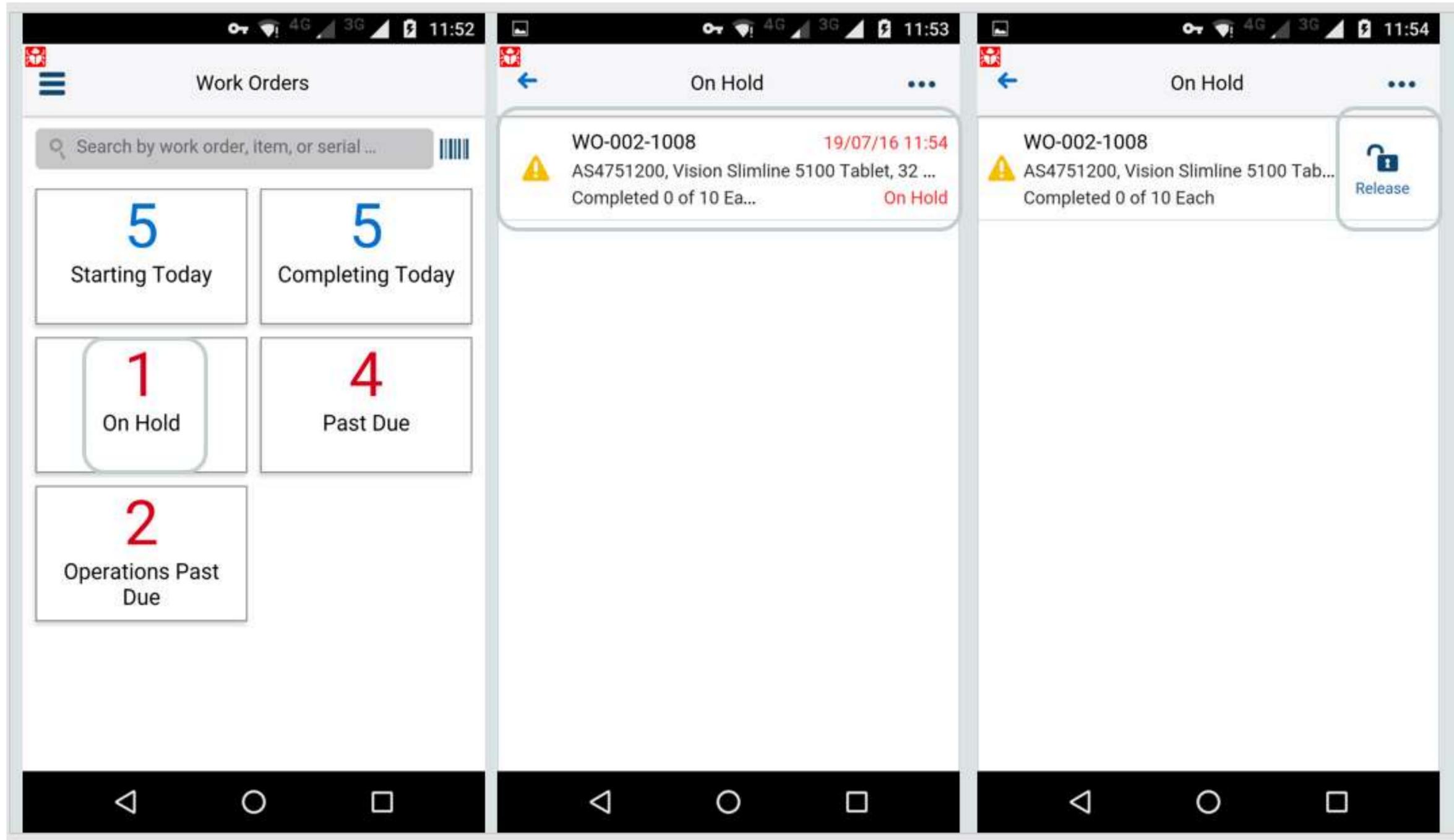
- Print Labels

Enables you to print product labels during production execution

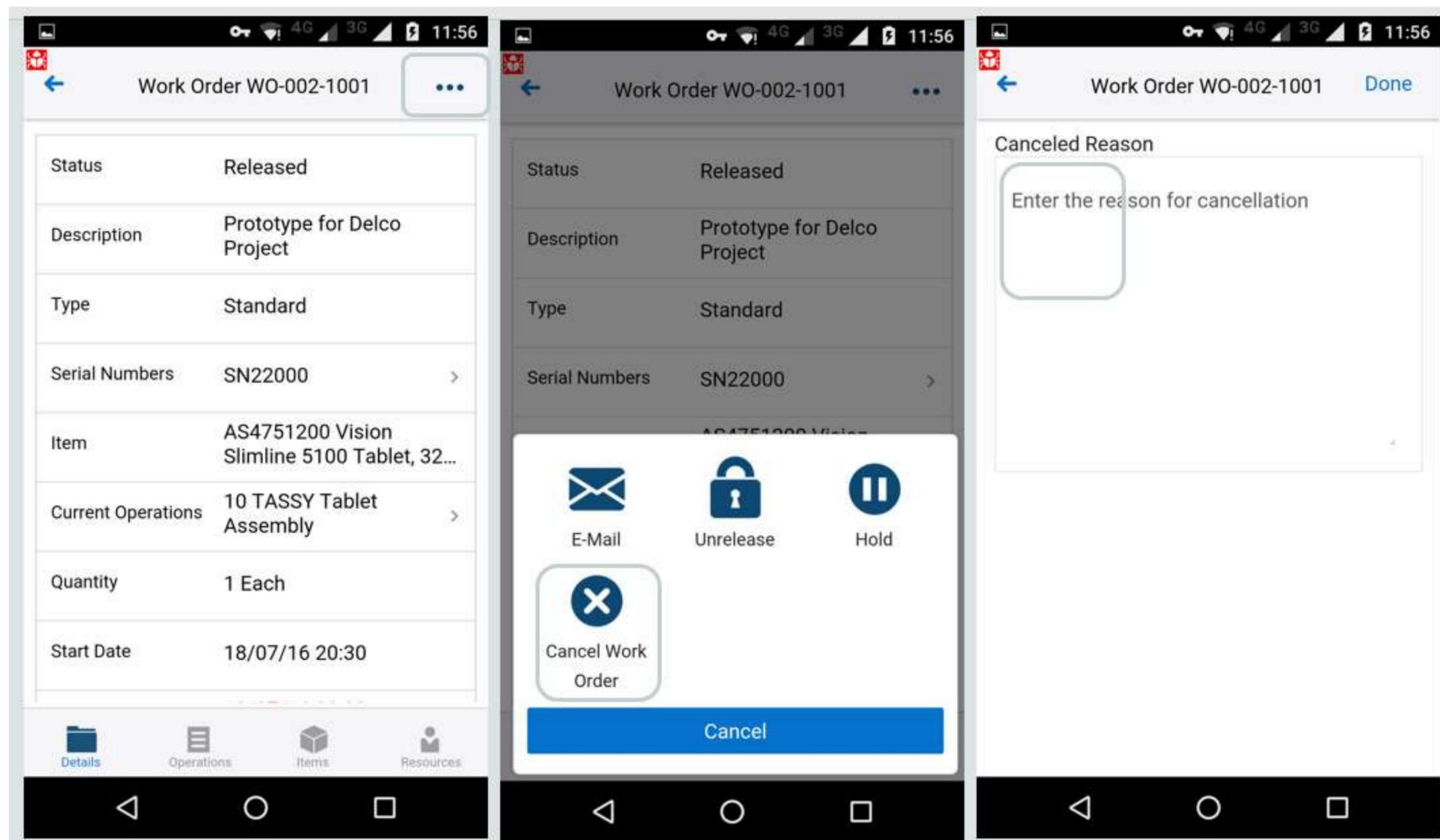
# Shop Floor Execution Via Mobile or Tablet

- Oracle Manufacturing Cloud enables efficient and productive manufacturing operations using a simple and intuitive user interface for shop floor execution.
- Open the mobile application and the home page gives a simple birds eye view of today's work. So that he/she can quickly focus on work orders with statuses that require attention.

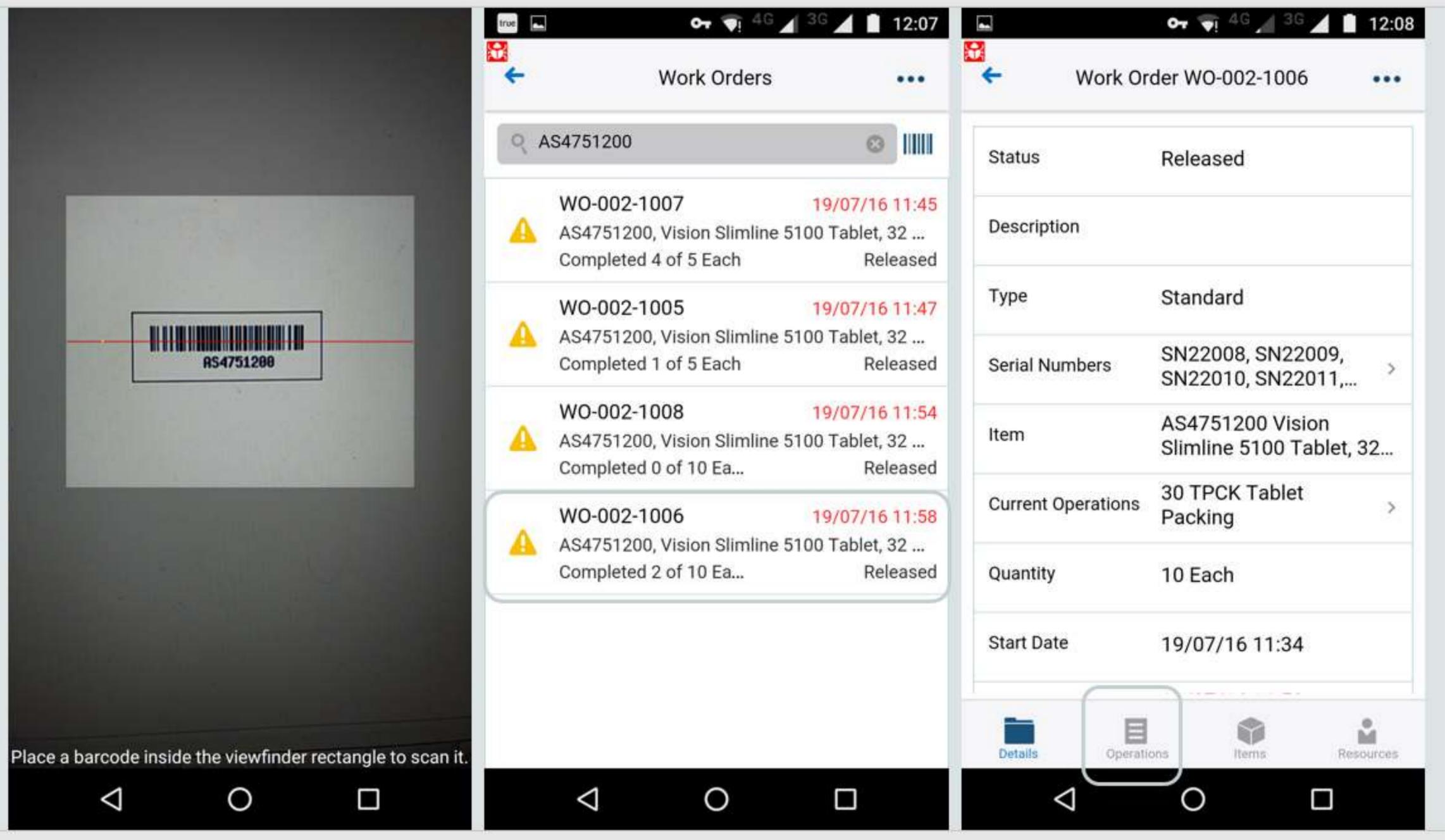
# Shop Floor Execution Via Mobile or Tablet Cont.



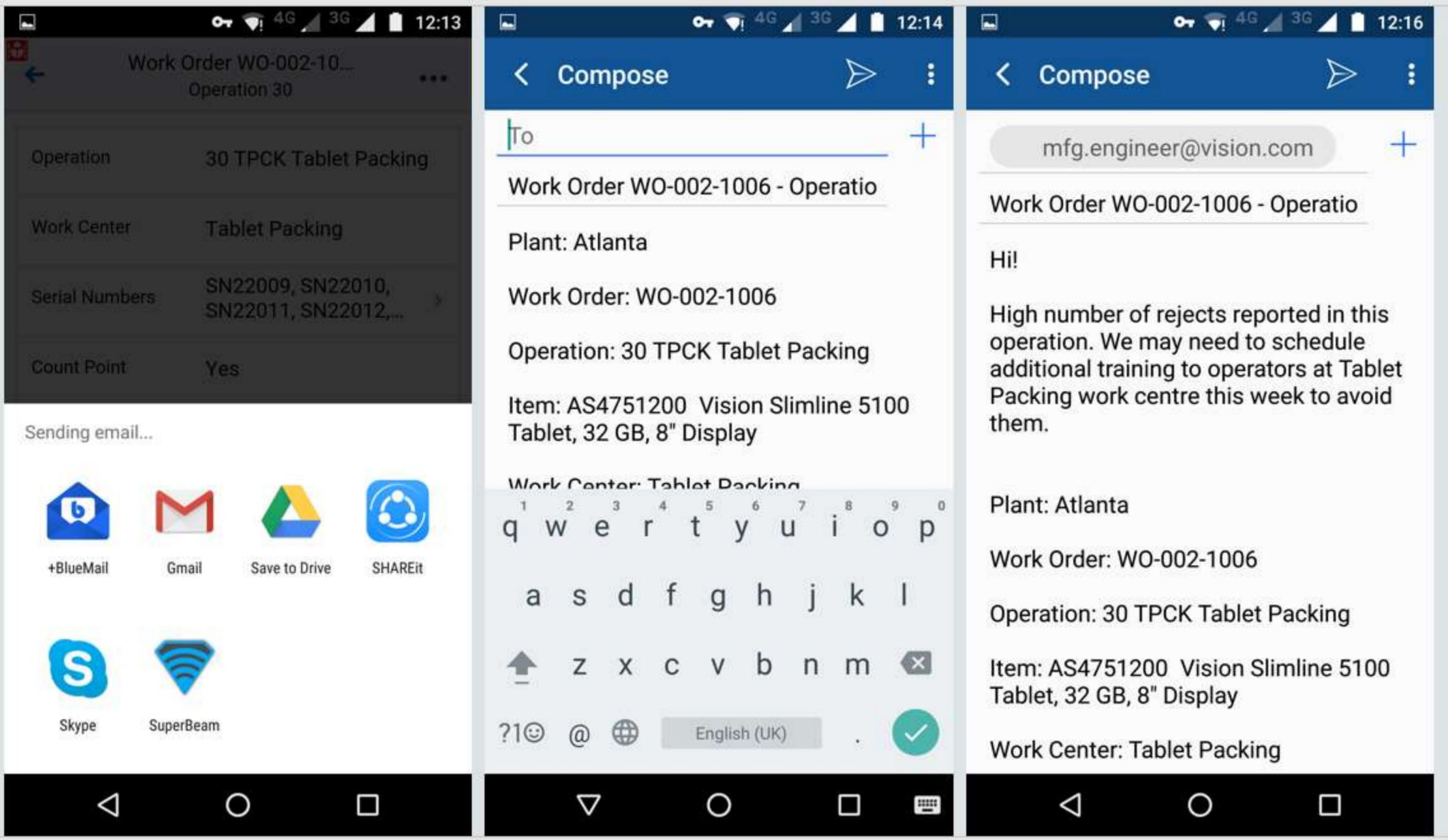
# Shop Floor Execution Via Mobile or Tablet Cont.



# Shop Floor Execution Via Mobile or Tablet Cont.



# Shop Floor Execution Via Mobile or Tablet Cont.



# Thank you!

## Q&A

# Contact



## HEADQUARTERS

1851 East 1st Street, Suite 900  
Santa Ana, CA 92705



## EMAIL

LetsTalk@nexinfo.com



## TELEPHONE

(714) 955-6970



[www.nexinfo.com](http://www.nexinfo.com)