



# **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

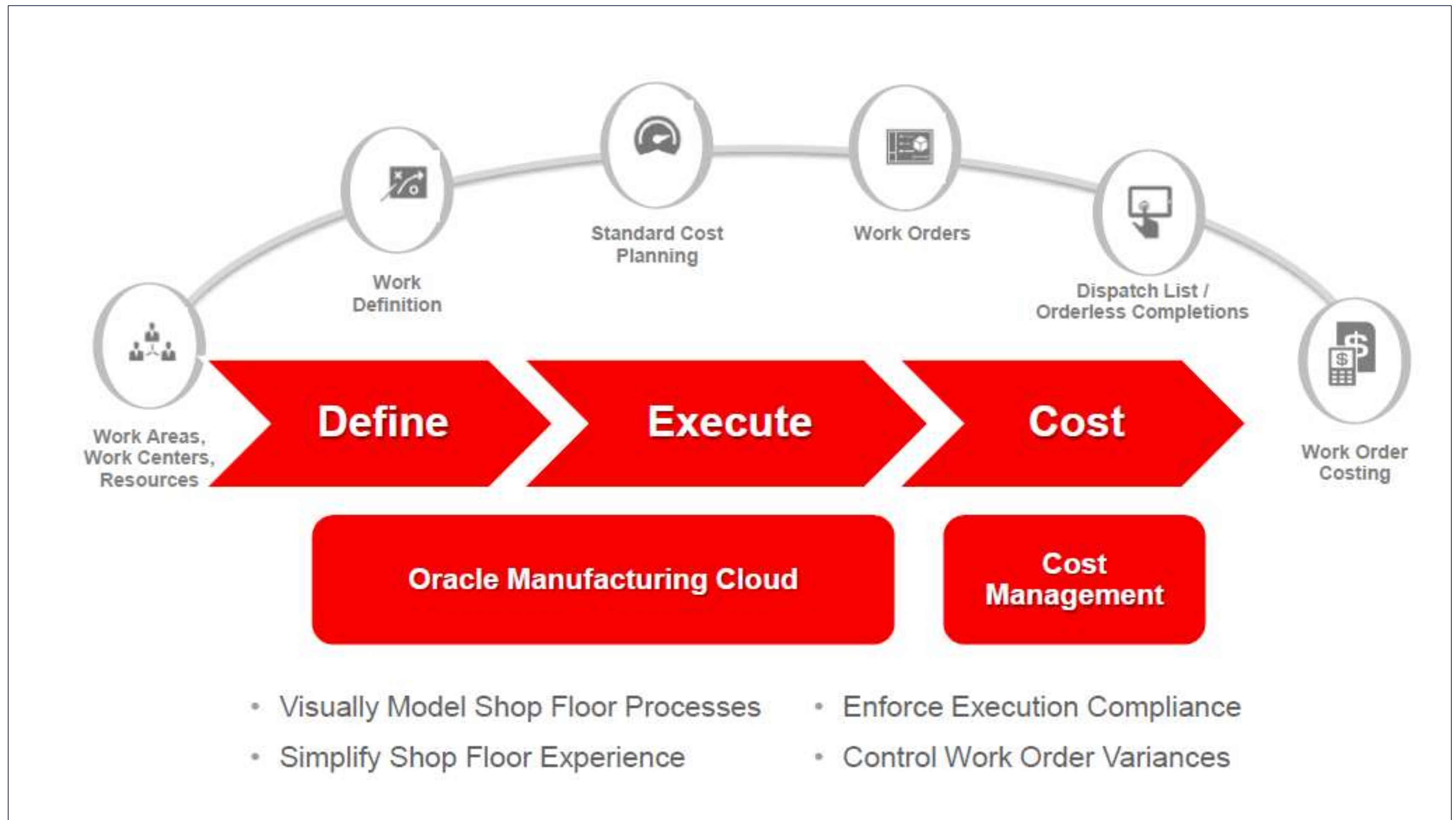
- IT Experience : 10 years of experience as Oracle supply chain and planning consultant
- 2+ years of experience in Oracle Fusion Implementations

# Agenda

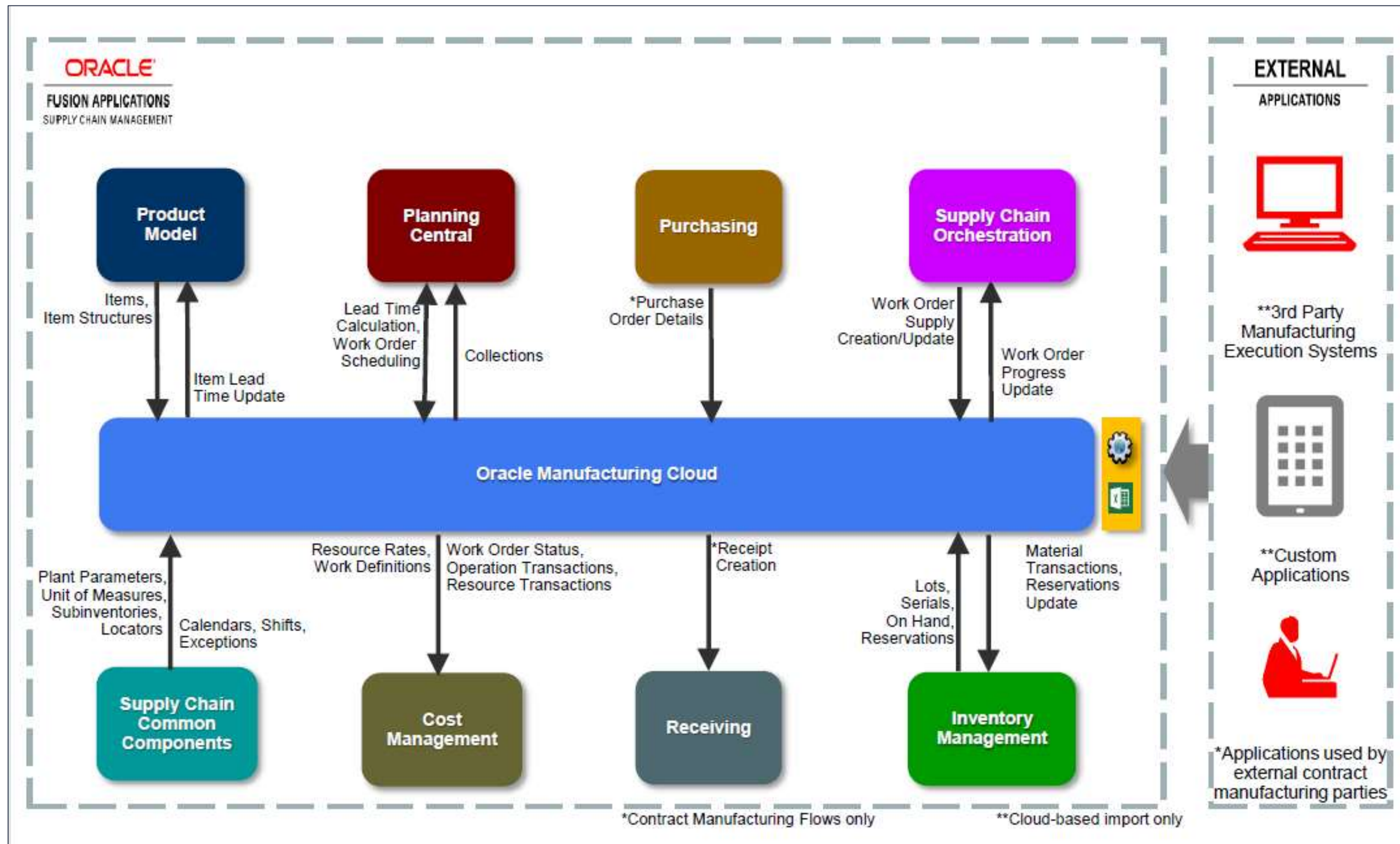
- Manufacturing cloud overview
- Functional Architecture
- Cloud manufacturing capabilities
- Cross functional flows
- Cloud manufacturing major roles
- Manufacturing cloud setup overview
- Manufacturing plant data setup
- Work Definition Overview
- Work Execution Overview
- Costing
- Reports
- Shop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



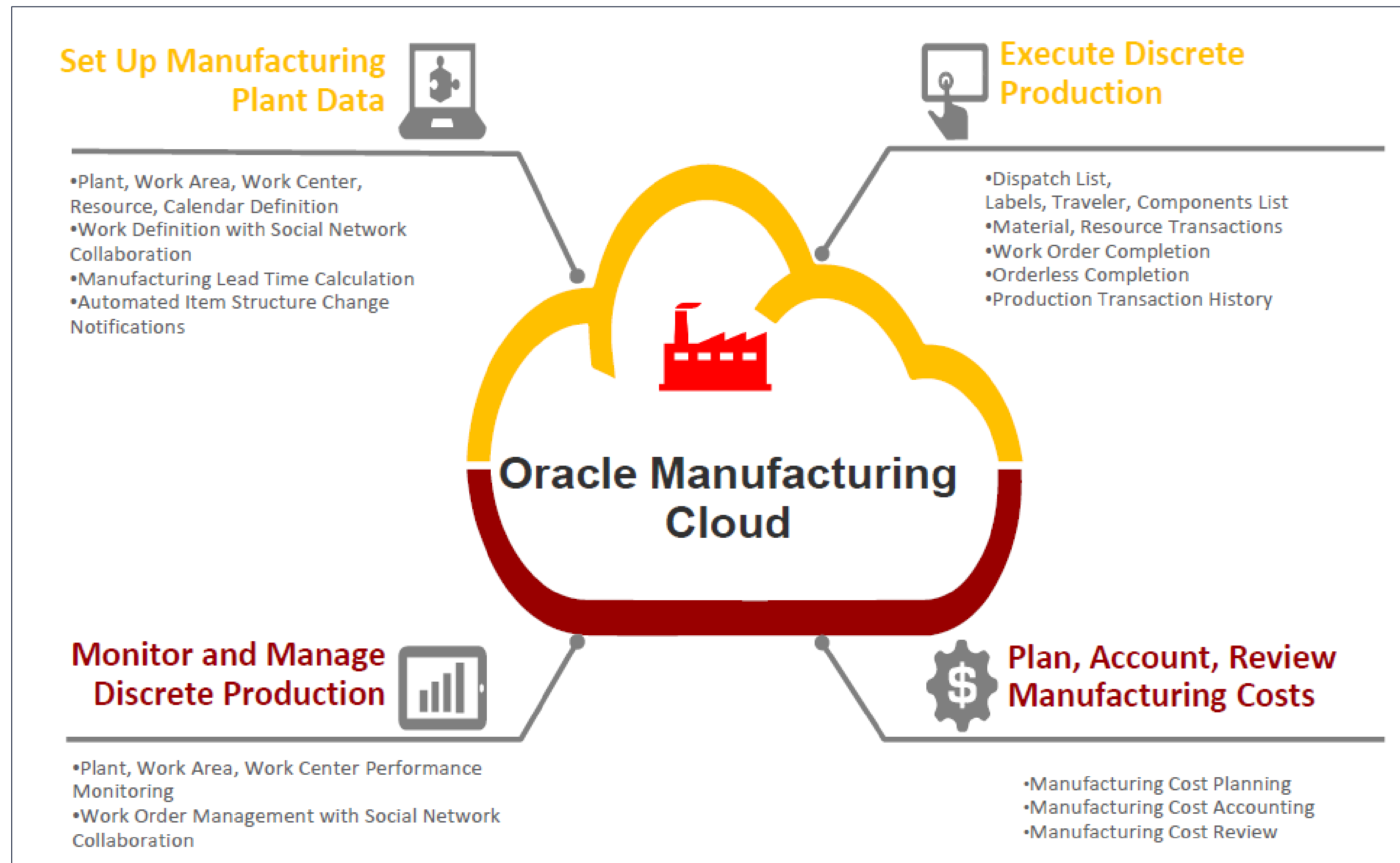
# Manufacturing Cloud Overview



# Functional Architecture

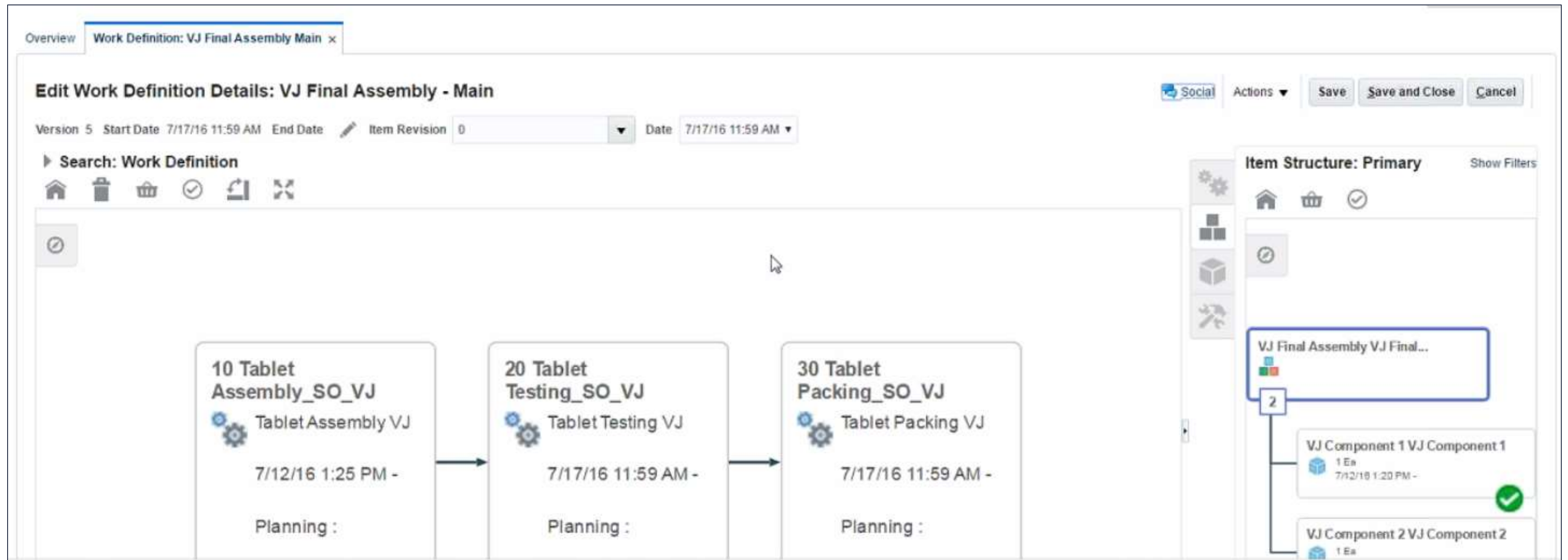


# Cloud Manufacturing Capabilities





# Cloud Manufacturing Capabilities





# Cloud manufacturing capabilities

The screenshot displays the VISION software interface for editing a work definition. The top navigation bar includes the VISION logo, a search bar, and icons for Work Definition and Work Execution. The main content area is titled 'Edit Work Definition Details: VJ Final Assembly - Main' and 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 :

Arrows indicate the sequence from Assembly to Testing to Packing. A right-hand sidebar shows the 'Oracle Social Network' section with a 'Share' button and a message: 'This Work Definition is not shared in Oracle Social Network.'

# Cloud Manufacturing Capabilities

The screenshot displays the VISION cloud manufacturing interface. The main header features the VISION logo and navigation icons for Work Definition and Work Execution. A search bar is present with the text "What do you need to do or find?". The main content area shows the "Edit Work Definition Details: VJ Final Assembly - Main" page. It includes fields for Version (5), Start Date (7/17/16 11:59 AM), End Date, Item Revision (0), and Date (7/17/16 11:59 AM). Below these fields is a "Search: Work Definition" section with icons for home, trash, list, checkmark, and expand. The main workflow area shows three steps in a sequence:

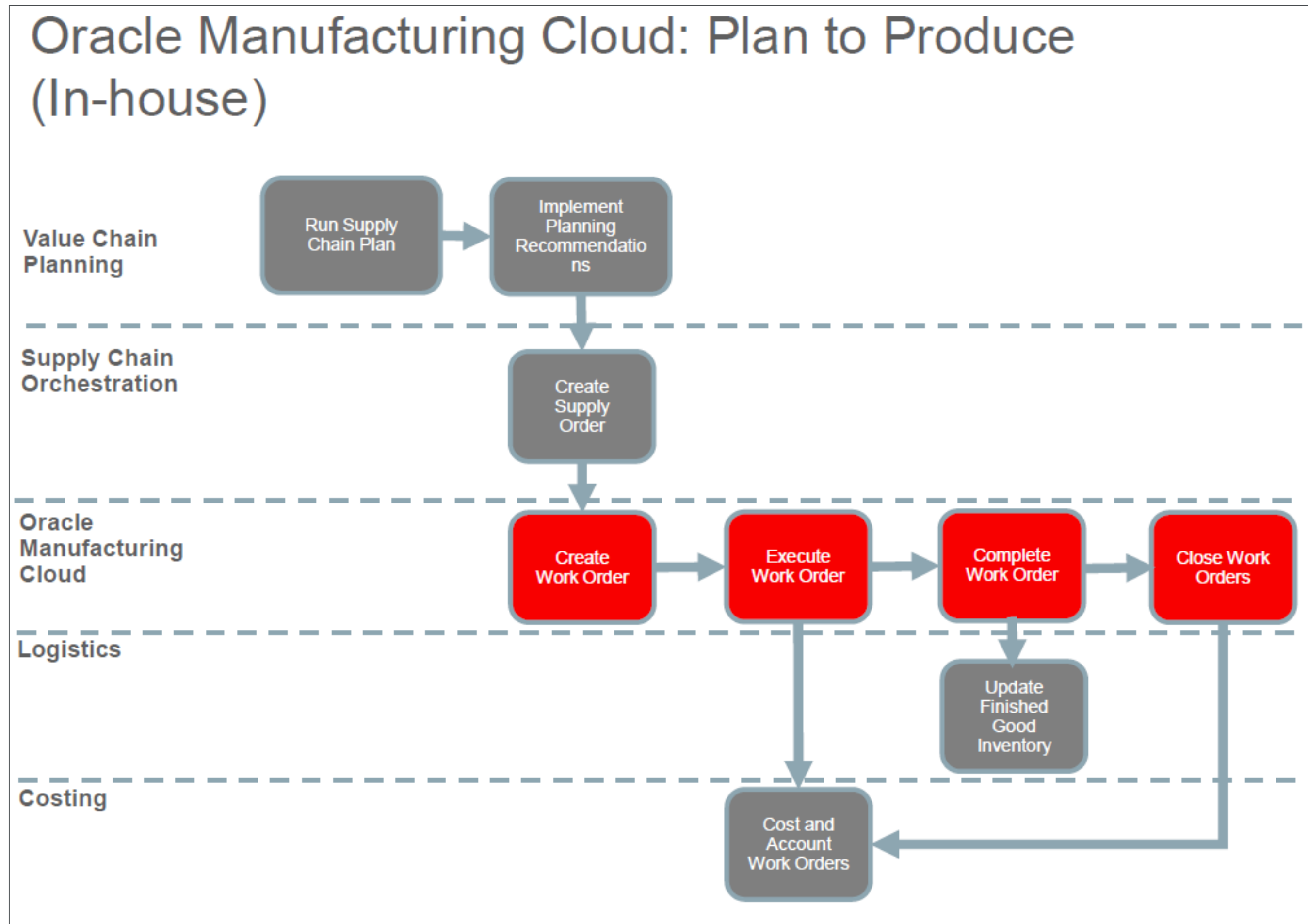
- 10 Tablet Assembly\_SO\_VJ**  
Tablet Assembly VJ  
7/12/16 1:25 PM -  
Planning :
- 20 Tablet Testing\_SO\_VJ**  
Tablet Testing VJ  
7/17/16 11:59 AM -  
Planning :
- 30 Tablet Packing\_SO\_VJ**  
Tablet Packing VJ  
7/17/16 11:59 AM -  
Planning :

On the right side, there is a sidebar titled "Oracle Social Network". It shows a post by Vijay Korupolu with details about the work definition update. Below the post is a section "Add to Work Definition: VJ Final Assembly -..." with a user profile for "scm00 instructor" and buttons for "Add" and "Ignore".

# Cross Functional Flows

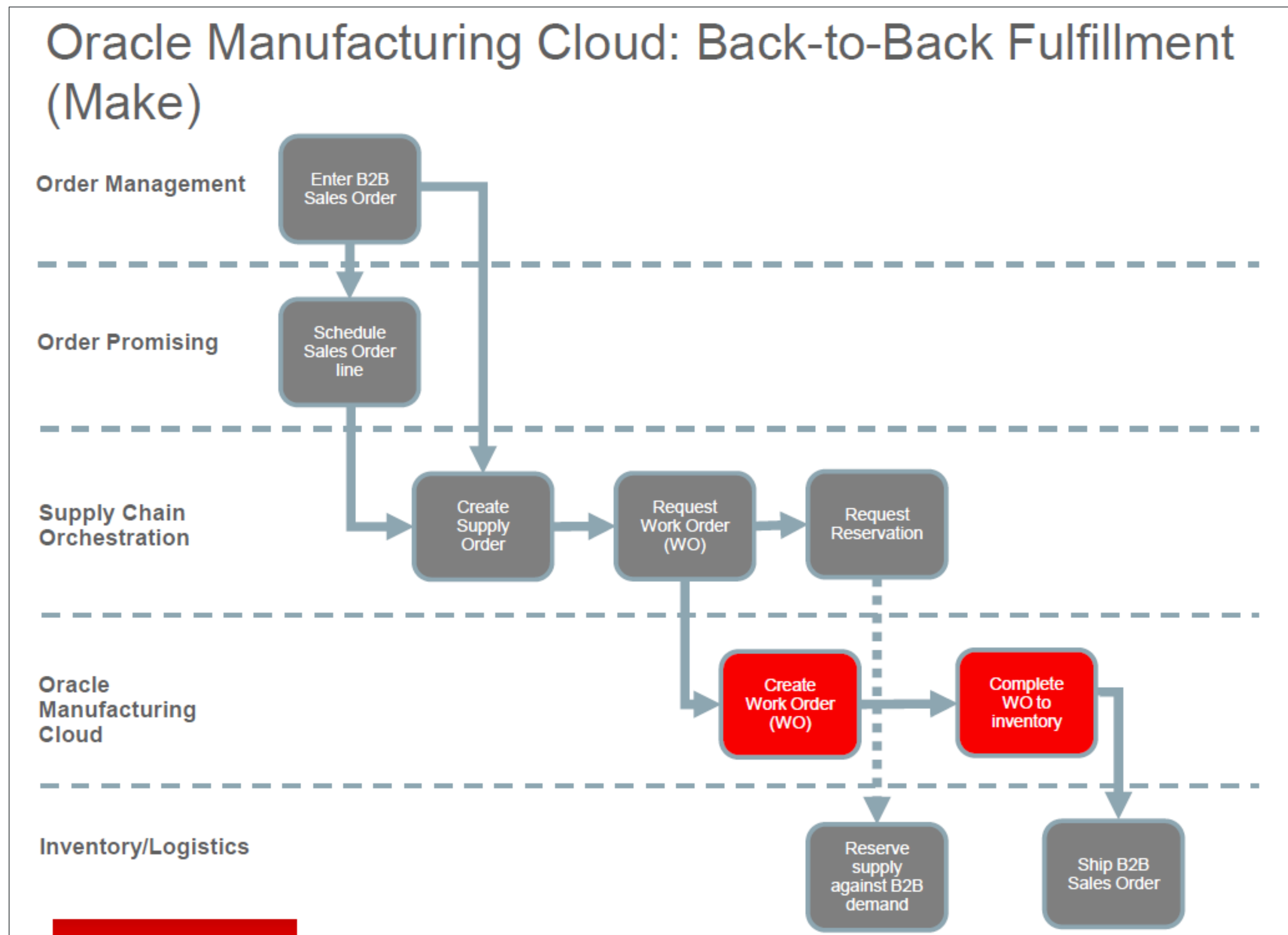
- Oracle Manufacturing Cloud: Plan to Produce (In-house)
- Oracle Manufacturing Cloud: Back-to-Back Fulfillment (Make)
- Oracle Manufacturing Cloud: Configured Item Fulfillment (Make)
- Oracle Manufacturing Cloud: Contract Manufacturing

# 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

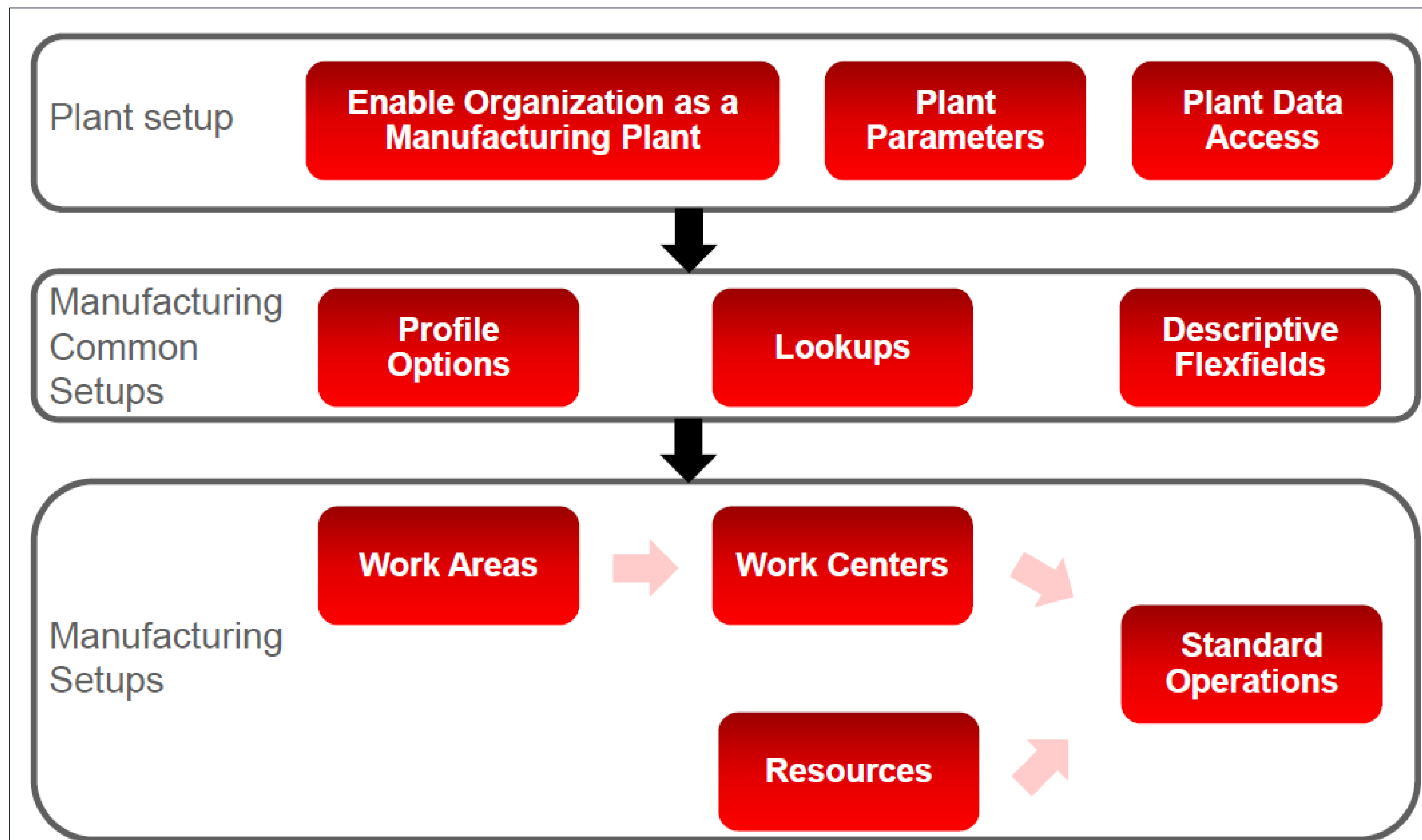
## Manage Production

- 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 Nex\_Ind\_Work Schedule ▼

**Material**  

\* Default Supply Subinventory Subinv1 ▼

\* Default Completion Subinventory Subinv1 ▼

Default Supply Locator

Default Completion Locator

**Work Definition**  

Starting Operation Sequence 10

Operation Sequence Increment 10

Phantom Operation Inheritance Material Only ▼

**Work Execution**  

Work Order Prefix

Work Order Starting Number 1,000

Default Overcompletion Tolerance Percentage

Default Transaction Mode All ▼

Default Transaction Quantity Both ▼

Capture Level for Serialization Operations Operation ▼

Material Reporting Level for Serialization Operations Operation ▼

Allow Quantity Changes During Backflush None ▼

Lot Selection During Backflush Manual ▼

Default Work Order Traveler Template

Default Label Template

☐ Include component yield in material requirements

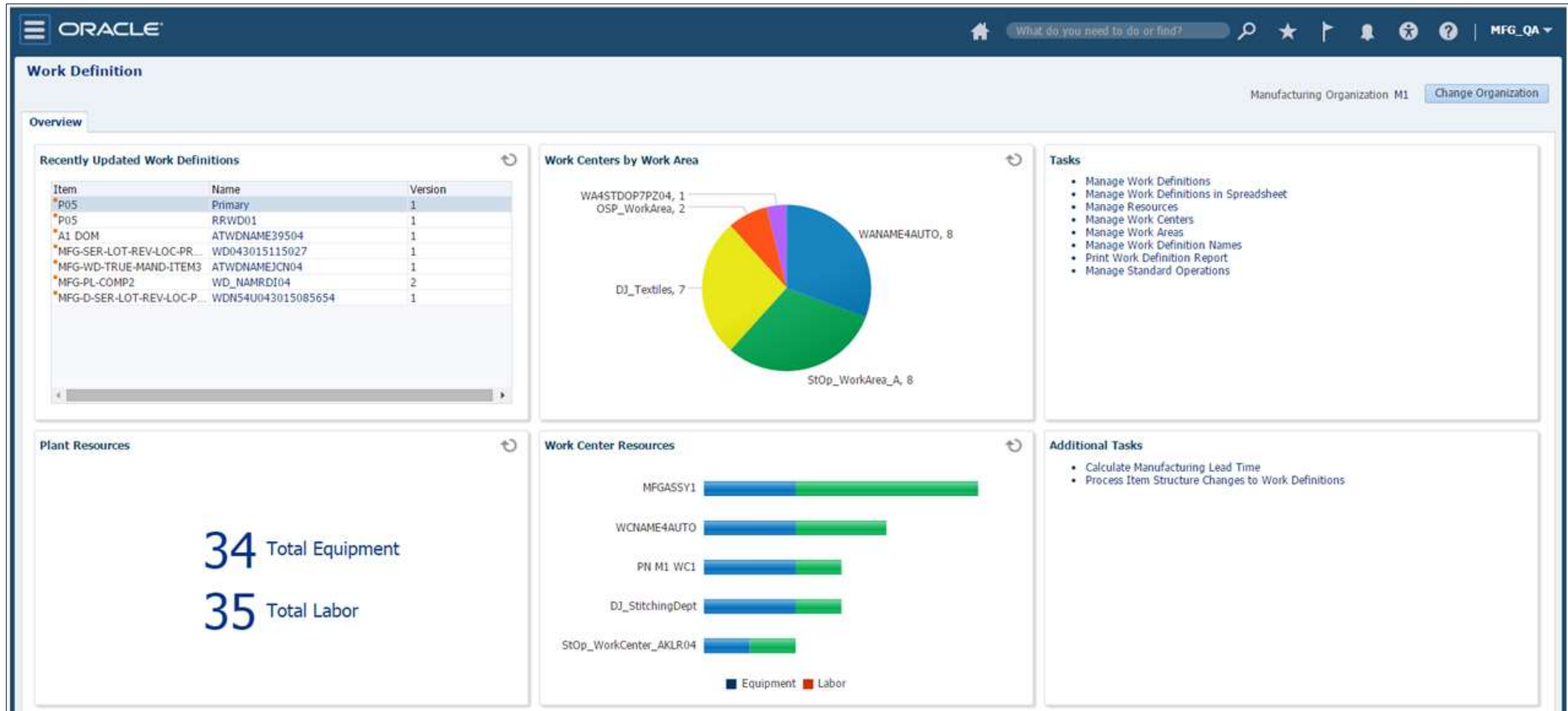
☒ Automatically associate serial numbers during work order import

**Outside Processing**  

Purchase Requisition Trigger Work order release ▼



# 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

SaveSave and CloseCancel

General Information | Show Less

\* Name

Work Center 1

\* Code

Work\_Center\_1

Description

\* Work Area

Work Area 1

Supply Subinventory

Supply Locator

Inactive On

Resource Availability

View ▼

Format ▼

+

×

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 TypeIn-house

\* Name

Operation1

\* Code

Op1

Description

\* Work Center

Work Center 1

Work Center Code

Work\_Center\_1

Work Center Description

☒ Count point

☐ Automatically transact

Inactive Date

Attachments

None

+

☐ Default for automatic work definition

▲ Resources

View ▼

+




















×

Detach

	* 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.

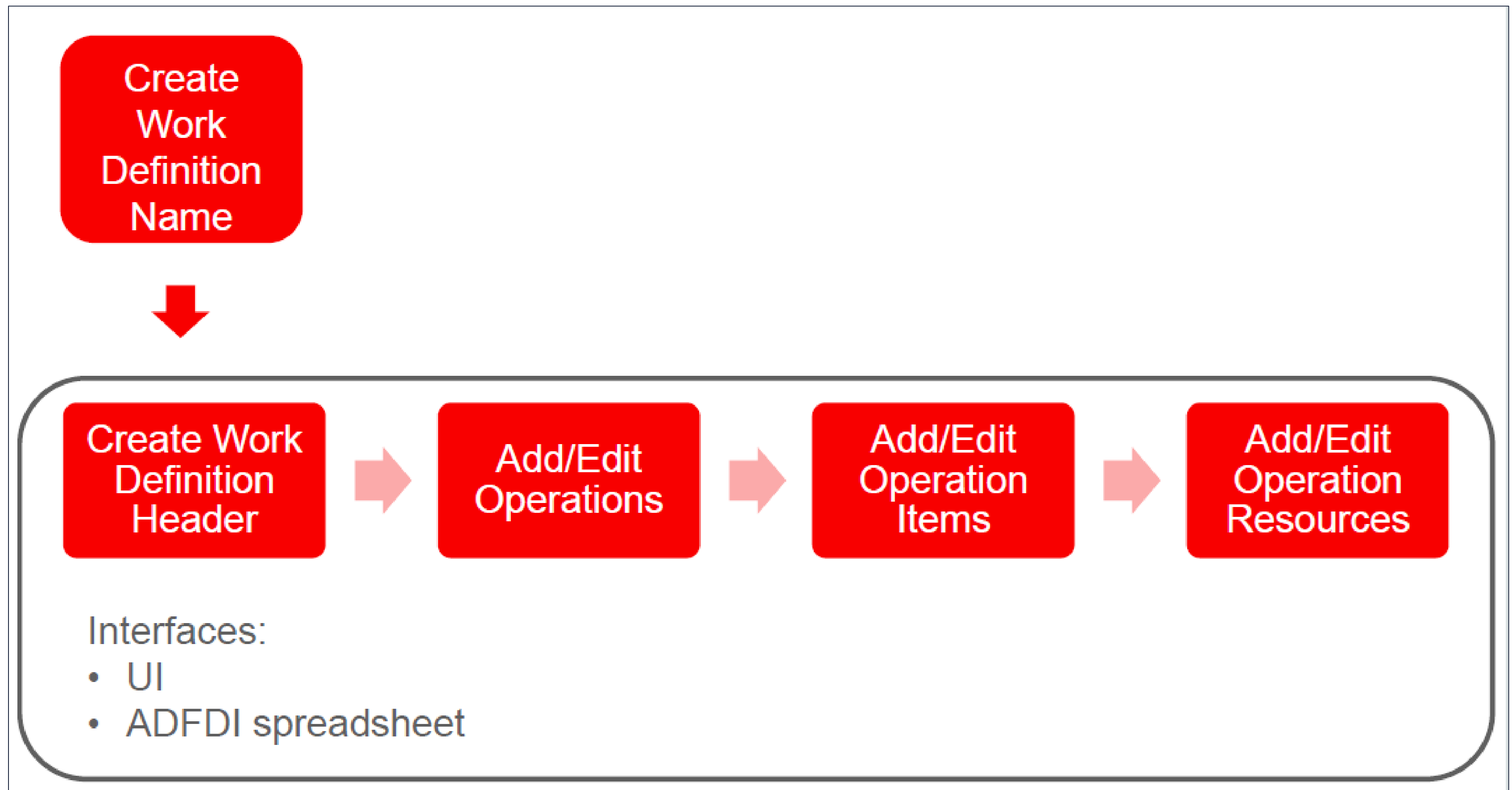
✓ Item structures

Item Structure Details												
Actions ▾ View ▾ Format ▾     Freeze  Detach     Wrap Date 2/2/17 11:49 AM   View Summary												
Search <input type="text"/> 												
Item	Component Details											
	Item Description	Item Sequence	Start Date	End Date	Quantity	Inverse Quantity	Structure Type	Item	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

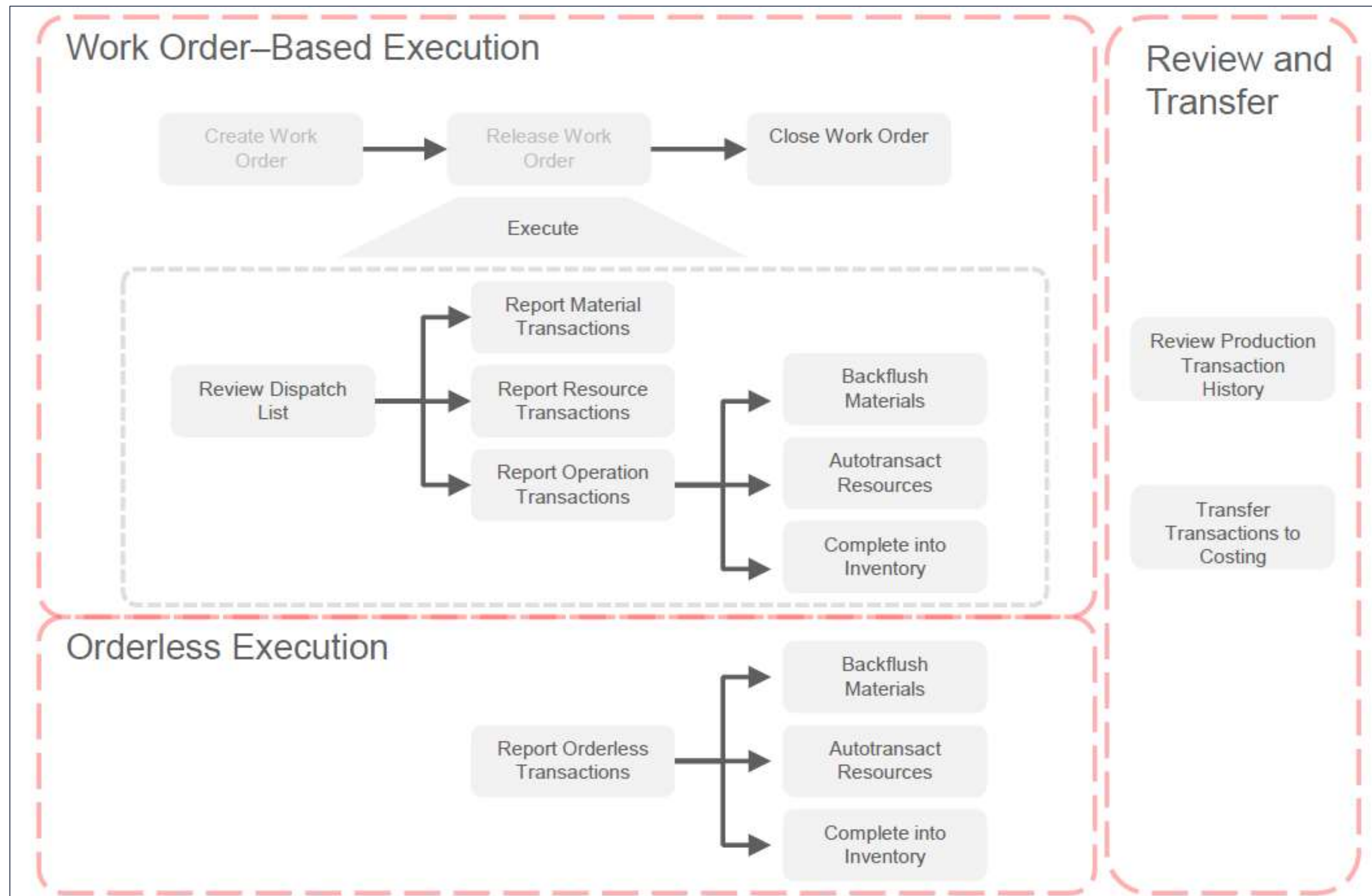


# Work Definition Overview Cont.

- Work definition setup

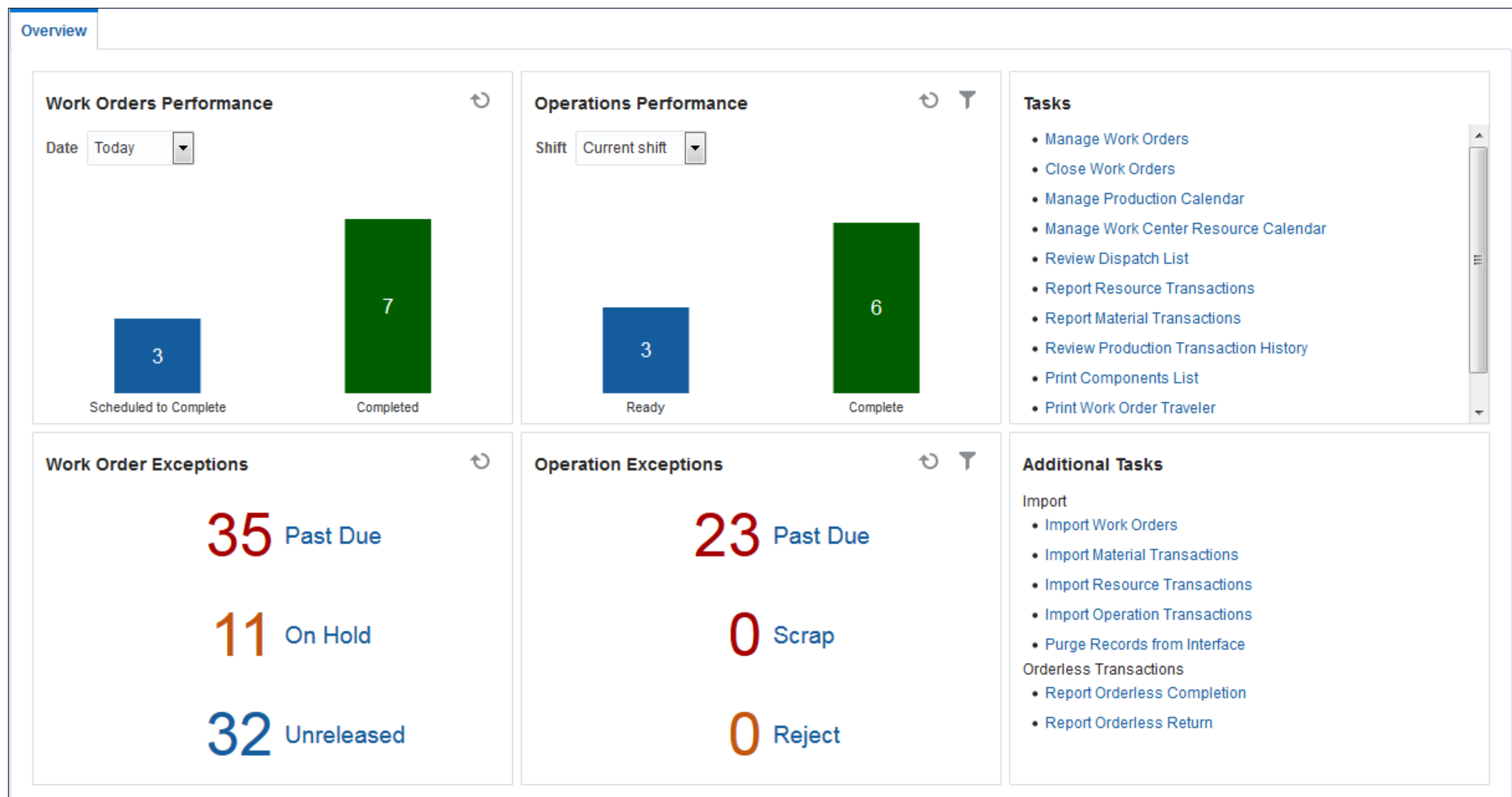
The screenshot displays the 'Edit Work Definition Details: AS49000\_64 - Main' interface. The top navigation bar includes 'Overview', 'Manage Work Definitions', and the active tab 'Work Definition: AS49000\_64 - Main'. The main header shows 'Version 2', 'Start Date 6/1/15 5:09 PM', 'End Date', 'Item Revision 0.1', and 'Date 6/1/15 5:09 PM'. A 'Search: Work Definition' section is present with icons for home, trash, list, check, refresh, and expand. The central workflow consists of four steps: 10 Tablet Assembly, 20 Tablet Testing, 30 Tablet Packing, and 40 Adhoc Test -0520. Each step includes a line name, date, and planning status. Below the workflow, there are sections for 'Items' and 'Resources' for each step. The 'Items' section for step 10 lists 'CM64059 Front and Back Front...' with a quantity of 6. The 'Resources' section for step 10 lists 'LCD\_PAE LCD Panel Assembly...' with a quantity of 1. The 'Resources' section for step 20 lists 'QATech QA Technician' with a quantity of 1. The 'Resources' section for step 30 lists 'L1Tech1 Level 1 Technician' with a quantity of 1. On the right side, the 'Item Structure: Primary' section shows a tree view of the product structure, including 'AS49000\_64 Vario 6...', 'CM64059 Front and...', 'CM65032 Processor', 'CM65034 WLAN', 'CM65040 Battery', 'CM65061 Silver...', and 'CM65052 64 GB...'. Each item has a green checkmark indicating it is selected. The bottom right corner shows a '1/4' indicator.

# 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

Overview

Manage Work Orders x

Work Order: DEMO\_2 x

### Manage Work Orders

► Search

#### Search Results

View ▼ Format ▼ + ▼ Release Mass Action ▼ Print to PDF ▼

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	

Rows Selected 1 Columns Hidden 29

# 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

	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 ^ v Reject 2 ^ v Scrap 1 ^ v 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.

Product

Backflush Materials

Autotransact Resources

Inventory

Complete with Details: MFG1-1128-30: Product

BackNextSave and CloseCancel

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

Operation Transaction Summary

Available to Transact 5 Ready

Completed 0

Transaction Type Complete

Rejected 0

Quantity 5

Scrapped 0

Print label

Transaction Note

Additional Information

# Work Execution Overview Cont.

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

**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

Back Next Save and Transact Another Cancel

# 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

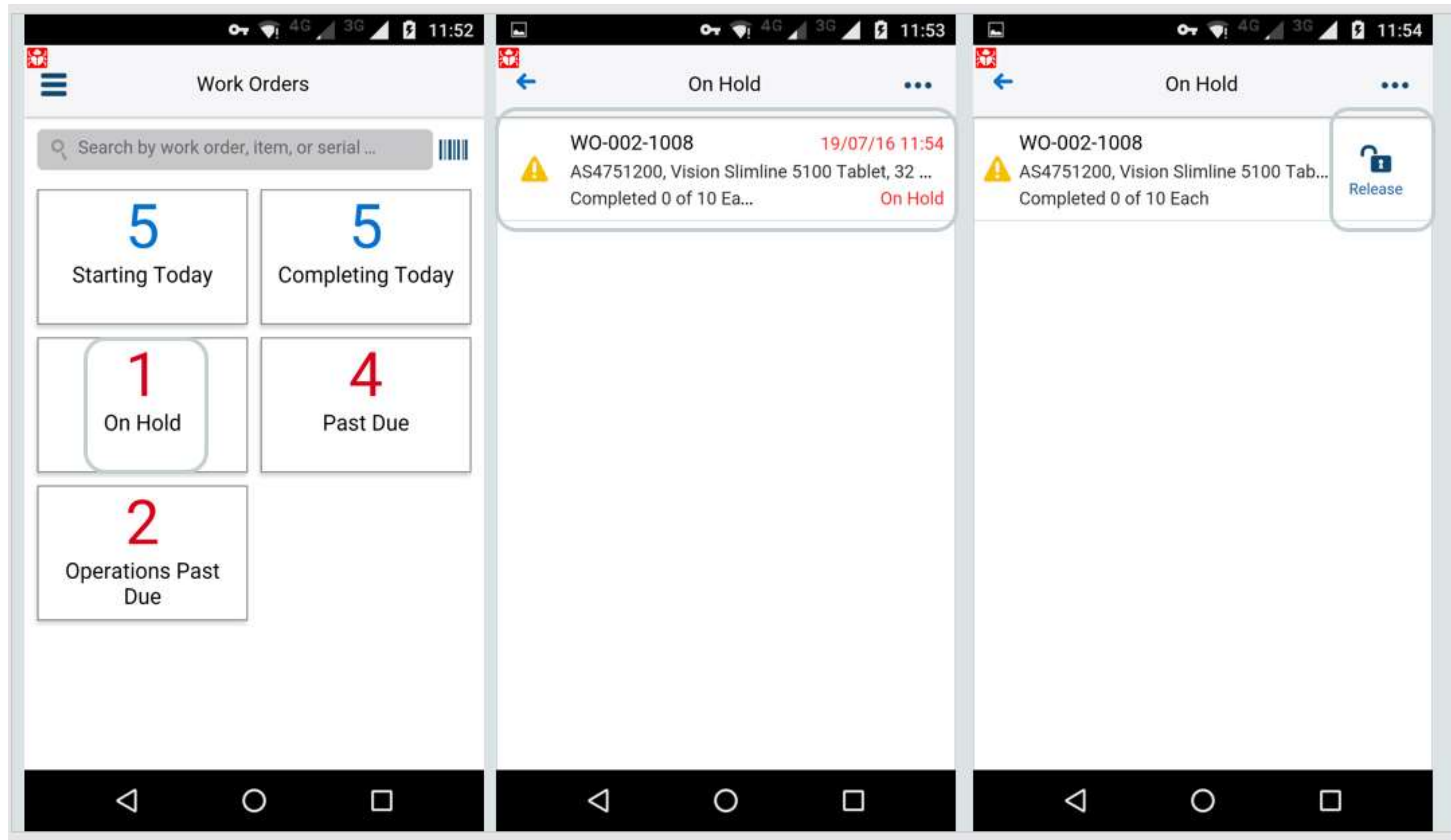
Enables you to print product labels during production execution



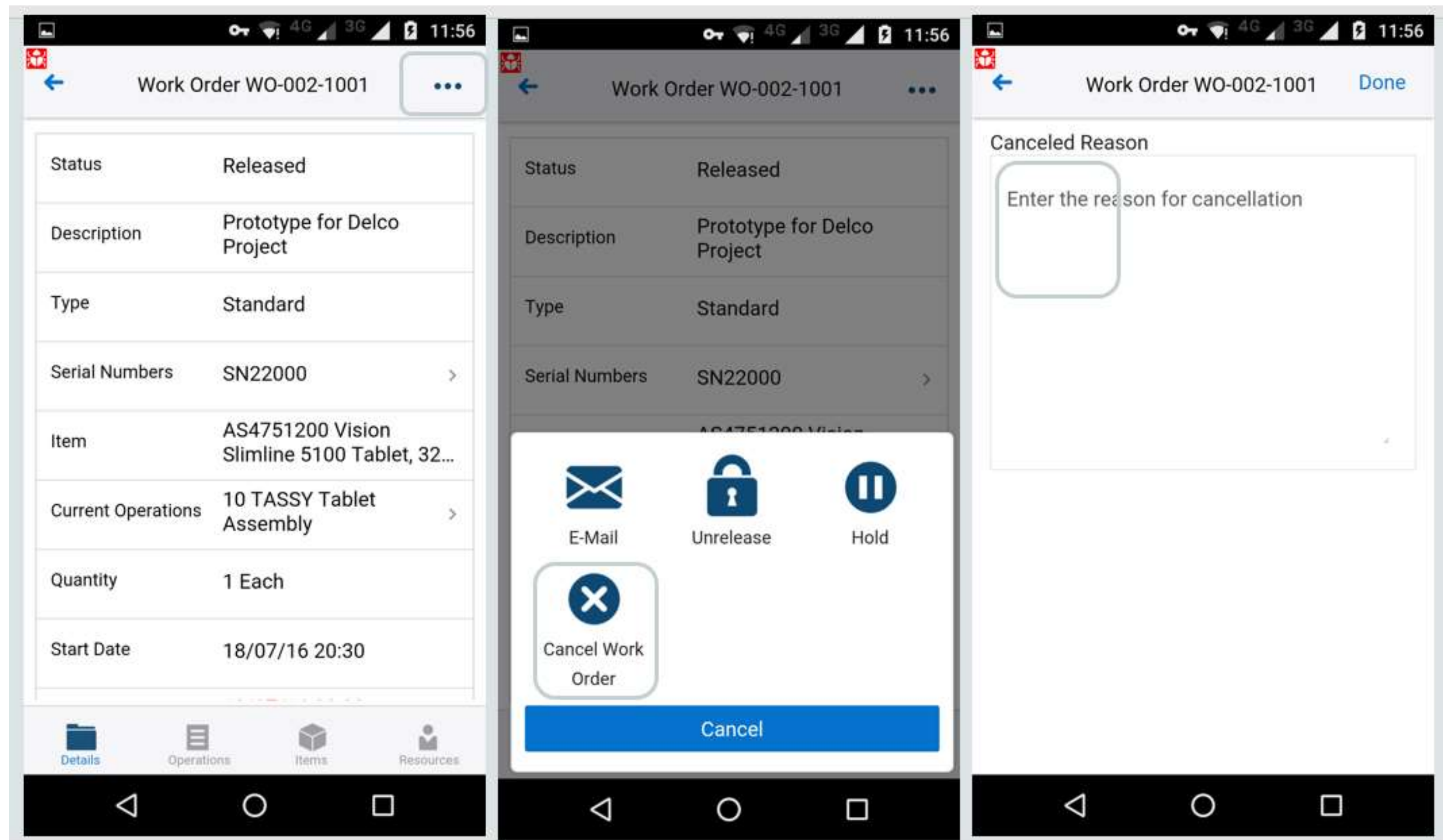
# Shop Floor Execution Via Mobile or Tablet

- 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.

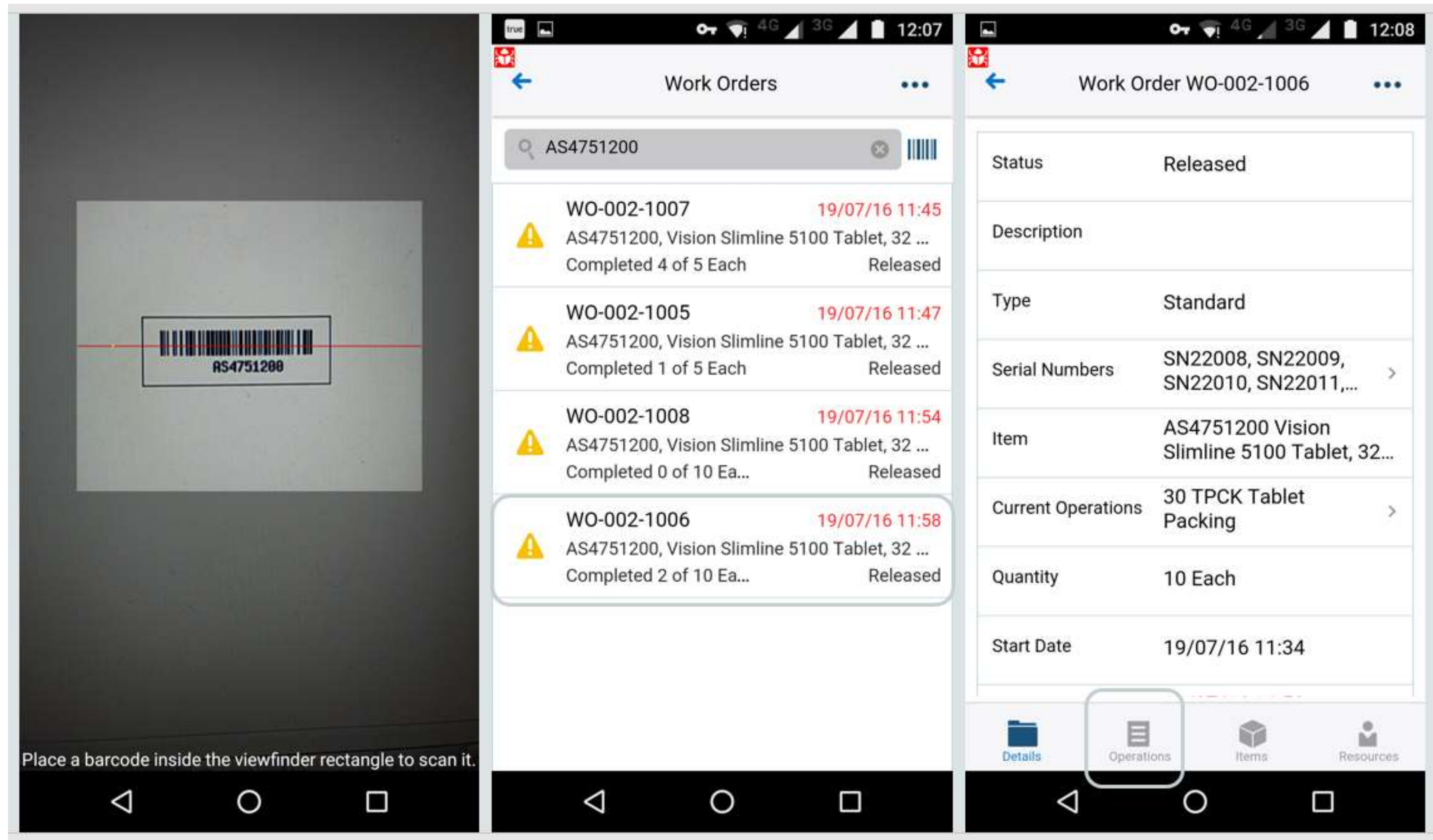
# Shop Floor Execution Via Mobile or Tablet Cont.



# Shop Floor Execution Via Mobile or Tablet Cont.

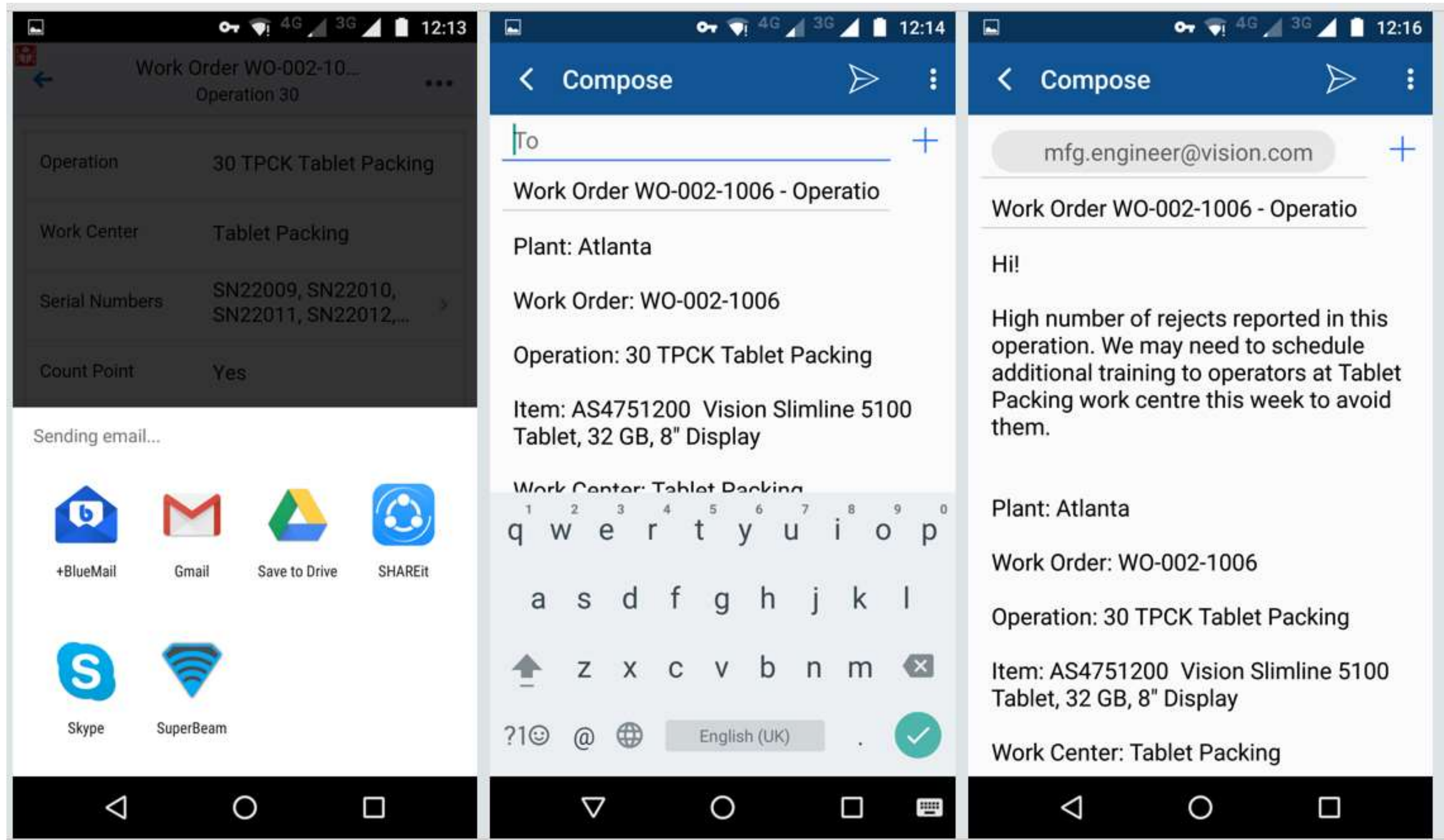


# Shop Floor Execution Via Mobile or Tablet Cont.





# Shop Floor Execution Via Mobile or Tablet Cont.



# Thank you!

## Q&A

# Contact



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