

ORACLE

Oracle Energy and Water  
Customer Edge  
Conference

# Work and Asset Management Recent Releases and Roadmap

Dive in for an overview of Oracle's work and asset management solutions roadmap.

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Product Management

Asset Technology

March 12, 2023



# Speakers

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**Rahul Desai**

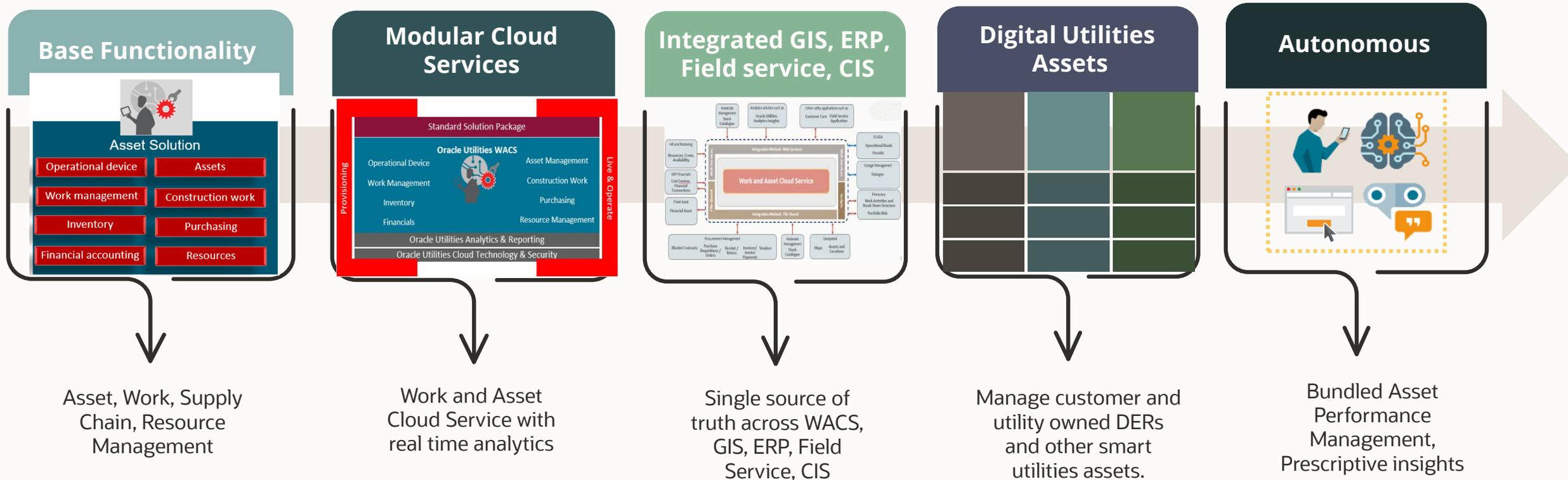
Director, Product  
Management



**Daryl Hillen**

Senior Product Manager

# The **Evolution** of Oracle Utilities Work and Asset Platform



# Solution portfolio



**Work and Asset Cloud Service**

**Digital Asset Cloud Service**

**Oracle Field Service**



**Work and Asset Management**

**Digital Asset Management**

Managing Utility-owned generation, transmission and distribution assets



Managing Utility or Customer owned “controllable” assets

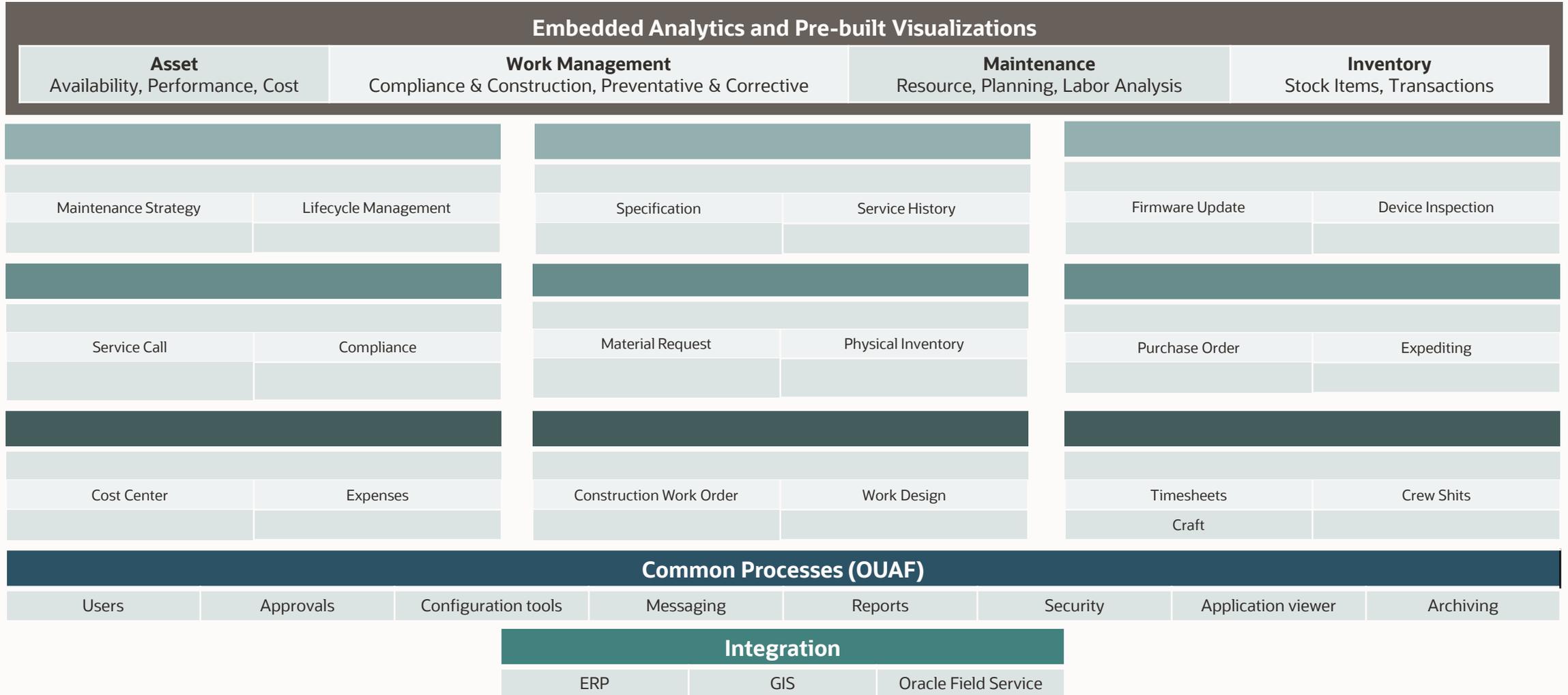


Scheduling, Routing and Mobility access of work

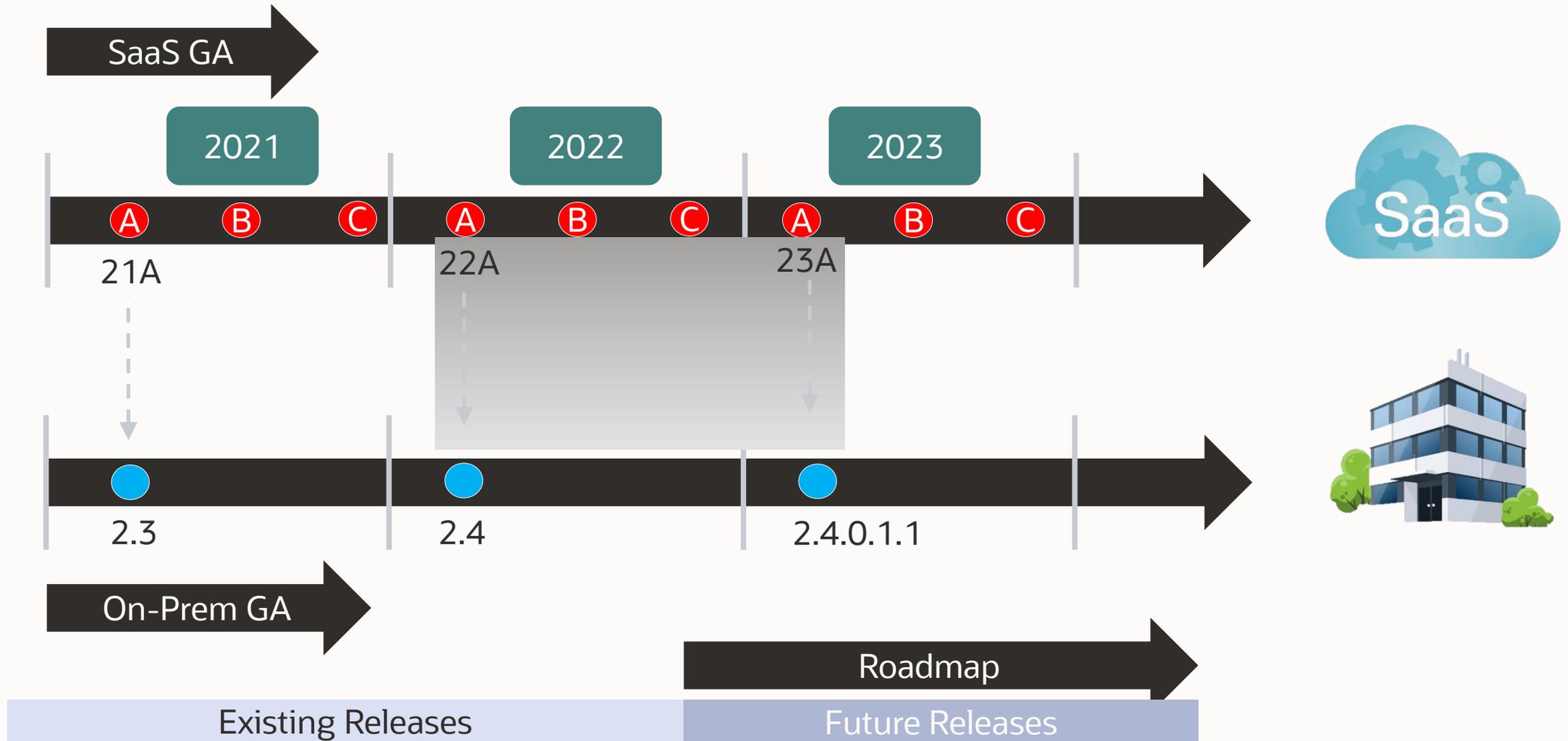


# Complete. Built-in. 100% Utility-focused.

## Oracle Utilities Work and Asset Cloud Service (WACS)



# Work and Asset Release Timeline



# Investment Themes



## Optimizing for the User

Improve user experience with modern Redwood styling, unified search, persona driven UX and new capabilities in asset and work management.



## Simplifying Integrations

Expanding integrations with Field Service and ERP. New integration with Customer Cloud and 3<sup>rd</sup> party Mobile Inventory/Barcoding solutions.



## Access to Analytics

Data segregation for analytics visualization and contextual insights within application.



## Modernizing GIS interface

Optimize map view within the application and alignment with latest ESRI technology changes.



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# Optimizing for the User - Redwood Stylesheet and Unified Search

## Tying the User Experience all together

Oracle Utilities Work and Asset Management WAM 24000 WACS 22A MASTER DEMO

Home Page Main Approvals Work Inver

Approval Summary

Activity Reconciliation

- Change Request
- Invoice Header
- Purchase Order Header
- Purchase Requisition Hea...
- Timesheet
- Work Order
- Work Request

Gas Main, Mattande Ln, In Service @Gas Main - Mattande Ln, Naperville  
Asset ID: 409825604956  
In Service - Mattande Ln, Naperville  
Description: Mattande Ln

Roadway, Mattande Lane BTW Bernette Ct and Camarie Ct  
Asset ID: 441334783630  
In Service - Mattande Lane, Naperville  
Description: Mattande Lane BTW Bernette Ct and Camarie Ct

Roadway, Mattande Lane BTW Camarie Ct and Jamal Ct  
Asset ID: 529296798275  
In Service - Mattande Lane, Naperville  
Description: Mattande Lane BTW Camarie Ct and Jamal Ct

Status Dashboard

- Approved
- Closed
- Expired
- Old Active
- Planning

Permit Dashboard Details

Filters: Status APPROVED

	PERMIT	Permit Number	Detailed Description	Status	Effective Date	Expiration Date
1	20210000000003, Lockout/Tagout Permit with LOTO Zone, Approved	20210000000003	Lockout/Tagout Permit with LOTO Zone	APPROVED	2021-06-01	2021-06-01

Update Portal Profile User

Work List

Current Context

Bookmarks

- 1S. User Group Services Management
- 2S. Maintenance Object - Asset
- 3S. Business Object: General Asset
- 4S. Zone: Asset Cost Summary
- 5S. Business Object: Asset Type
- 6S. Menu: Asset
- 7T. Timesheet Query
- 8T. Employee: Harding, Kyle
- 9T. Employee: Goel, Sudhanshu
- 10T. Timekeeper Query



# Dynamic Approval Routing

Add New Approvers to an Existing Approval Request with no Disruption to the Current Approval Routing

## Make Approval Routing more flexible

- Support existing Approvers adding additional Approvers (To Do Roles) to the existing Approval Routing
- Eliminates the need for creating many flavors of Approval Profiles for one-off scenarios
- Eliminates the need for re-submission or re-approval of the Approval Request

### Approval Request

**Main**

Information: Purchase Order Header 99103069795773 (\$125,902.00), From: Daryl Hillen, Due By: 06-30-2022

Approval Profile: [Purchase Order High Amount Approval](#)

Status: Approval In Progress

Requested By User: [Hillen, Daryl](#)

Requested Amount: \$125,902.00

Request Date/Time: 06-27-2022 06:47PM

Due Date: 06-30-2022

Requesting Document: [PO220000013, Rev:0, Power Transformer needed, Pending Approval](#)

**Record Actions**

[Agree](#) [Reject](#) [Add Approvers](#)

**Record Information**

---

**Approvers**

**Current**

Sequence	To Do Role	Approval Type
20	<a href="#">High Amount Approver</a>	Standard

**Future**

Sequence	To Do Role	Approval Type
30	<a href="#">Management Approver</a>	Standard

**Historical**

User	To Do Role	Action	Date
<a href="#">Hillen, Daryl</a>	<a href="#">Standard Approver</a>	Approved	06-27-2022

# Template Construction Work Order

Avoid Repeat Planning of the Same Work for Similar Jobs

**Template Construction Work Orders and Work Activities can be used to plan the basic construction work just like regular Construction Work Orders and Activities but without any specific location information**

- Saves planners time when creating common construction work
- Create a Construction Work Order from a Template Construction Work Order by providing just a few more pieces of information, e.g. Asset Location or Work Location

Template Construction Work Order: CT0000002, MVA - Replace ... [Create Construction Work Order](#) [Add](#) [Search](#) [Bookmark](#) [Refresh](#)

**Main** Cost Log

Template Construction Work Order ☑ ^

Main ⊙ ^

Template Construction Work Order Number	CT0000002
Information	CT0000002, MVA - Replace Pole and install anchor
Description	MVA - Replace Pole and install anchor
Detailed Description	MVA - Replace Pole and install anchor
Status	Active
Grand Total	\$1,326.52
Planner	
Project	
Crew	
Work Class	Unplanned
Work Category	Repair
Work Priority	7 - Urgent
Allow Auto Close	Yes
Required By Lead Days	0
Construction Work Order Business Object	Construction Work Order <span>☑</span>

Record Actions ⊙ ^

[Edit](#) [Duplicate](#) [Delete](#) [Deactivate](#)

Record Information ∨

Template Construction Work Activities ⊙ ^ [Add Template Construction Activity](#) ☑

- ▶ [CT0000002/1, MVA - Replace Pole, Construction Distribution](#)
- ▶ [CT0000002/2, Install down guy and anchor, Construction Distribution](#)

# Order on Demand

Allow Reorder Creation for Stock Items, Only if there is a Demand



## Controls when REORDER is Generated

- New Logic to control when the Reorder Review is generated
- Generate the Reorder Review only when there is demand
  - Avoid high priced stock items sitting in the storeroom
  - Avoid incurred tax liability
- Utilize the configuration of the Stock Item Detail – ‘Order On Demand’

# Order on Demand

Allow Reorder Creation for Stock Items, Only if there is a Demand

Oracle Utilities Work and Asset Management

Stock Item: 0000001 (Bearing, Block, Pillow, Fixed, Winklepress)

Main Bill of Materials Log

Stock Item

Main

Information 0000001 (Bearing, Block, Pillow, Fixed, Winklepress)

Status Active

Stock Item Code 0000001

Description Bearing, Block, Pillow, Fixed, Winklepress

Detailed Description Bearing, Block, Pillow, Fixed, Winklepress

Record Actions

Edit Delete Duplicate Deactivate

Record Information

Accounting Information

Commodity Coding Information

Stock Item Information

Stock Item Category Bearing

Hazardous No

Hazardous Type

Lot Managed No

Shelf Life Days 0

Capital spare No

Tracked Asset Information

Miscellaneous Information

Vendors

Stock Item Availability

	Storeroom	Inventory	% of Total Inventory	Reserved	On Demand	In Repair	In Transfer	In Receipt	On Order	Lot Hold	Pending Return	Available	Price
1	Central Storeroom	14.00		0.00	23.00	0.00	0.00	0.00	0.00	0.00	0.00	-7.00	\$428.52
2	North Canton Storeroom	24.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.00	\$258.96
3	<b>Total</b>	<b>38.00</b>		<b>0.00</b>	<b>23.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>17.00</b>	<b>\$0.00</b>

On Demand Quantity - On Hand Quantity - In Repair Quantity - Pending Order Quantity - On Order Quantity <= 0  
NO Reorder Record is Generated

If On Demand Quantity - On Hand Quantity - In Repair Quantity - Pending Order Quantity - On Order Quantity <= 0 then No Re-Order Review Record is generated

If On Demand Quantity - On Hand Quantity - In Repair Quantity - Pending Order Quantity - On Order Quantity > 0 then a Re-Order Review Record is generated for that Quantity

# Complex Maintenance of CUs on Work Design and Template Construction Work Order/Activity

22C

Edit all data elements of the CU List instead of having to delete the row and start again

Before 22C

Add CU
✕

---

Design Element ^

Design Element
170000005, 1, DE: 1 - Single Overhead Extension to service new subdivision - S. end of Falcon Drive - Overhead - \$8,746.77

---

Compatible Unit Assignment ^

Compatible Unit	Quantity	Price Type	Responsible Party	Contractor Bid	Usage	Cost Center
*W2ASCR / Wire, #2 6/1 ACSR Sparrow / Install	287.00000	Derived	Internal		Distribution Conduct	36500 - Distribution Overhead Con
*XMFR50KVA120240V / Transformer, 50KVA, 120-240V / Install	1.00000	Derived	Internal		Distribution Transfor	36800 - Distribution Line Transferr
*DOWNGUY / Guy Assembly, Down 5/16" / Install	1.00000	Derived	Internal		Distribution Pole	36400 - Distribution Poles, Towers
*PW453 / Pole - Wood, 45 Foot, Class 3 / Install	3.00000	Derived	Internal		Distribution Pole	36400 - Distribution Poles, Towers
*ANCHOR / Anchor, 1" Helix / Install	1.00000	Derived	Internal		Distribution Pole	36400 - Distribution Poles, Towers
*INSPPIPHFA / Insulator, Line - 2.4 KV Porcelain, 7.2 KV Rated and Pole Top Pin for single phase installation. / Install	3.00000	Derived	Internal		Distribution Pole	36400 - Distribution Poles, Towers



# Complex Maintenance of CUs on Work Design and Template Construction Work Order/Activity

22C

Edit all data elements of the CU List instead of having to delete the row and start again

Now in 22C

Add CU
✕

---

Design Element

Design Element
170000005, 1, DE: 1 - Single Overhead Extension to service new subdivision - S. end of Falcon Drive - Overhead - \$8,746.77

Compatible Unit Assignment

Compatible Unit	Quantity	Price Type	Responsible Party	Contractor Bid	Usage	Cost Center
*W2ASCR / Wire, #2 6/1 ACSR Sparrow / Install	287.00000	Derived ▾	Internal ▾		Distribution Conduct ▾	36500 - Distribution Overhead Con ▾
*XMFR50KVA120240V / Transformer, 50KVA, 120-240V / Install	1.00000	Derived ▾	Internal ▾		Distribution Transfor ▾	36800 - Distribution Line Transfor ▾
*DOWNGUY / Guy Assembly, Down 5/16" / Install	1.00000	Derived ▾	Internal ▾		Distribution Pole ▾	36400 - Distribution Poles, Towers ▾
*PW453 / Pole - Wood, 45 Foot, Class 3 / Install	3.00000	Derived ▾	Internal ▾		Distribution Pole ▾	36400 - Distribution Poles, Towers ▾
*ANCHOR / Anchor, 1" Helix / Install	1.00000	Derived ▾	Internal ▾		Distribution Pole ▾	36400 - Distribution Poles, Towers ▾
*INSP1PHFA / Insulator, Line - 2.4 KV Porcelain, 7.2 KV Rated and Pole Top Pin for single phase installation. / Install	3.00000	Derived ▾	Internal ▾		Distribution Pole ▾	36400 - Distribution Poles, Towers ▾

Save
Cancel



# Service History & Measurements on the Construction Work Activity

Create Service Histories and Measurements Against those Assets you just Installed

Construction Work Activity: 220000046 / 1, Install Hydrant, Required By 06-30-2022, Active Add Search Bookmark Refresh

Main Compatible Units Resources Cost Permit Log

Construction Location Details 🔍 📄 ⤴

Construction Location	Asset Type	Planned	Issued Stock	Completed	Bid	CU Actions	Asset Actions	Delete
Hydrant - 304 Camarie Ct, Naperville <sup>^</sup>						Add CU		
HYDRANT-IRON-3' / Hydrant, Iron, 3' / Install <sup>^</sup>	Hydrant	1	1	1		Update Completed		
Hydrant, Badge Number DEHHYD001, In Service @ Hydrant - 304 Camarie Ct, Naperville <sup>✓</sup>								
Hydrant, Badge Number DEHHYD001, In Service @ Hydrant - 304 Camarie Ct, Naperville <sup>✓</sup>								

Service History Types 📄 ⤴

Service History Type	Add
Reset Asset Condition Service History	
PM - Hydrant Inspection	
PM Event- Bi-Annual Shutdown	
PM Event- Annual Shutdown	
Leak Discovery - Water	
Hydrant Inspection Questionnaire	
General SH	
General Repair SH	
Failure	
Downtime	

Asset Service History 📄 ⤴

Effective Date/Time	Service History	Action
06-27-2022 09:05PM	Hydrant Inspection Questionnaire, Date: 06-27-2022 09:05PM	

Measurement Types 📄 ⤴

Measurement Type	Add
Gallons Flow, Gallons Flow	

Measurements 📄 ⤴

Reading Date/Time	Value	Status	Measurement Type	Measurement
06-27-2022 12:00AM	120.00	Final	Gallons Flow, Gallons Flow	120.00, 06-27-2022 12:00AM, Gallons Flow, Gallon Flow, Final



# Stock Item Reconciliation on Construction Work Activity

Ensure Stock Items Identified as Property Units have been Correctly Estimated Against

Construction Work Activity: 190000012 / 2, Upgrade 50 kVA 120/240V Transformer to 75 kVA, Required By 06-07-2019, Active Add Search Bookmark

Main Compatible Units Resources Cost Permit Log

Construction Location Details ⊙

Construction Location	Asset Type	Planned	Issued Stock	Completed	Bid	CU Actions	Asset Actions	Delete
<b>Pole Mounted Transformer - Mattande Ln. 3 PN of North Ave</b> <span>^</span>						<input type="button" value="Add CU"/>		
XARM10FT / Crossarm - 10 foot / Install <span>^</span>		1		1				
XARM10FT / Cross-arm - 10 foot / Remove <span>^</span>		1		1		<input type="button" value="Update Completed"/>		
XMFR50KVA120240V / Transformer, 50KVA, 120-240V / Remove <span>^</span>	Transformer - Overhead Tracked	1		1		<input type="button" value="Update Completed"/>		
Transformer - Overhead Tracked, 4542-65p, TX002, Transformer, 50 kva, 120/240V <span>⌵</span>								
Transformer - Overhead Tracked, 4542-65p, TX002, Transformer, 50 kva, 120/240V <span>⌵</span>								
XMFR75KVA120240V / Transformer, 75kVA, 120-240V / Install <span>^</span>	Transformer - Overhead Tracked	1	1	1		<input type="button" value="Update Completed"/>		
Transformer - Overhead Tracked, STX75KVA003, TX75KVA003, Overhead Distribution Transfor <span>⌵</span>								
Transformer - Overhead Tracked, STX75KVA003, TX75KVA003, Overhead Distribution Transfor <span>⌵</span>								

Stock Issues To Reconcile ⊙

Stock Item	Property Unit	Quantity
0002212 (Cross-arm, Wood 10' w/ Steel Braces)	Cross-arm	1

Stock Item is flagged as a Property Unit, so a CU should likely have been estimated that has this Stock Item as a Reconciliation Stock Item.



# Work Order Attachment

Attachments will copy upon duplication or from Template Work Orders

Work Order: 220000013, Required By 05-03-2022, Planning, Street Light Repair, 1 Activity

Add Search Bookmark Refresh

Main Cost Activity Resource Tree Log

### Work Order

**Main**

Work Order Number: 220000013

Information: 220000013, Required By 05-03-2022, Planning, Street Light Repair, 1 Activity

Description: Street Light Repair

Detailed Description: Street Light Repair

Status: Planning

Required By Date: 05-03-2022

Requestor: Hillen, Daryl

Work Request/Service Call

Originating Work Order

**Work Details**

**Accounting Information**

**Record Actions**

Edit Delete Duplicate Submit for Approval Cancel Print

Create Template

**Record Information**

**Additional Processes**

Create Follow Up Work Request

Create Follow Up Work Order

**Access Control**

Owning Organization: Electric

---

### Activity Info

Add Activity Add Activity(s) From Template Work Order

	Type	Information
1	Activity (WI)	220000013 / 1, Street Light Repair, Required By 05-03-2022, Planning

---

### Follow Up Work Order and Work Request

---

### Notes

Add

---

### Attachments

Attach Add File Add URL

	View	Attachment	Related Object	User	Create Date/Time	Delete
1	<a href="#">View</a>	Grainger, Created: 01-10-2023 06:26PM		Hillen, Daryl	01-10-2023 06:26PM	
2	<a href="#">View</a>	RA_Tailgate_Safety_Meeting_Form.doc, Created: 01-10-2023 06:25PM, Word Document		Hillen, Daryl	01-10-2023 06:25PM	
3	<a href="#">View</a>	Power System Safety Rules, Created: 07-11-2016 10:43AM, PDF Document	Document: Power System Safety Rules, Instructions, Document, Active	Hillen, Daryl	01-10-2023 06:24PM	



# Planned Asset

Support Installation of non-Tracked Assets during Activity Completion and within CWM

Asset: Pole - Wood, Badge Number 21205, In Service @ Pole - Ft Pierce, N 7th St. SWC A E ... Add Search Bookmark

**Main** Maintenance Tree View Statistics Asset Disposition Asset Performance Log

**Asset**

**Main**

Information	Pole - Wood, Badge Number 21205, In Service @ Pole - Ft Pierce, N 7th St. SWC A E Backus Ave. - 21205A
Asset Type	Pole - Wood
Detailed Description	Pole - Wood
Status	<b>Planned</b>
Asset Ownership	
Ownership Information	
GIS Asset Class	

**Record Actions**

Edit Delete Duplicate  
Take Out of Service Retire Change Location

**Record Information**

**Access Control**

Owning Organization **Electric**

**Asset Disposition Detail**

Asset Disposition	Planned
Effective Date/Time	07-19-1977 11:57AM
Location	Pole - Ft Pierce, N 7th St. SWC A E Backus Ave. - 21205A

**Asset Criticality - Medium**

**Identification**

Badge Number	21205
Serial Number	
Pallet Number	
External ID	
SCADA ID	

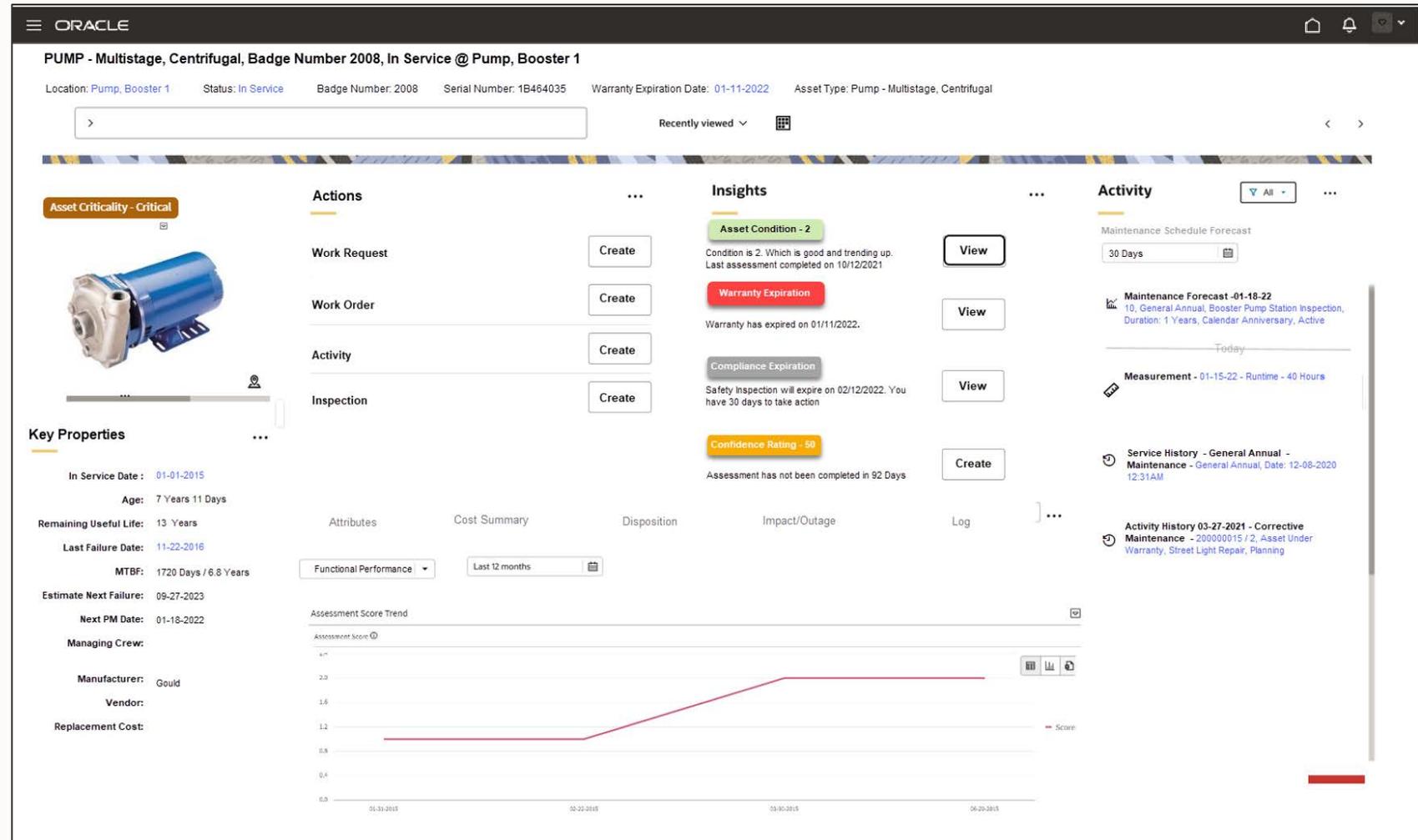


# Persona based UX

Asset 360 - Everything you need to know about an Asset, all in one place

## A better user experience

- ✓ Relevant, Recent and Actionable
- ✓ Critical information delivered to the user
- ✓ Eliminate navigation to multiple portals and clicking on multiple hyperlinks



# Investment Themes



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Optimize map view within the application and alignment with latest ESRI technology changes.



# CCS-WACS Integration for Service Calls

## Query & Update Existing Service Call – CCS Service Call Process Flow

Oracle Utilities Work and Asset Management

Service Call: 20220000000073, Smell of Gas Reported, Created By: External System, Work Created

Main Possible Duplicates Related Documents Log

**Service Call**

**Main**

Service Call Number: 20220000000073  
 Information: 20220000000073, Smell of Gas Reported, Created By: External System, Work Created  
 Description: Smell of Gas Reported  
 Detailed Description: Smell of Gas Reported on Raymond Hall Drive  
 Required By Date: 07-26-2022  
 Status: Work Created  
 Service Category: Gas Service  
 Service Code: Gas Leak Inspection  
 Call Back Required: No  
 Call Back Completed: No

**Service Location Information**

Supplemental Work Location: 97 Raymond Hall Drive, Time Zone: US/Pacific  
 Location:  
 Asset:  
 Address: 97 Raymond Hall Drive, North Attleboro CA, US  
 Building:  
 Room:  
 Position:

**Record Actions**

Edit Close Cancel Create Work Order Create Activity Create Work Request Create Work Design View in Map

**Record Information**

**Access Control**

Owning Organization: Water

**Contact Information**

First Name: Kyle  
 Last Name: Harding  
 Primary Phone: 15082076226  
 Mobile Phone:  
 Home Phone:  
 Create Contact

**Field Information**

Latitude: 0.000000  
 Longitude: 0.000000

**Integration**

**Group Information**

**Contact Relationship**

Link Existing Contact Create New Contact

**Communication Log**

Date	Contact	Communication	Comments	Response	Add File	Attachment	Edit	Remove
07-26-2022 07:37AM		07-26-2022 07:37AM, Phone, Harding, Kyle, Primary Phone: 5082076226	Smell seems to be coming from intersection in front of my house.		Add File			

**Attachments**

Attach Add File Add URL

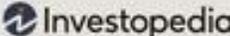


# What's Fixed Assets?



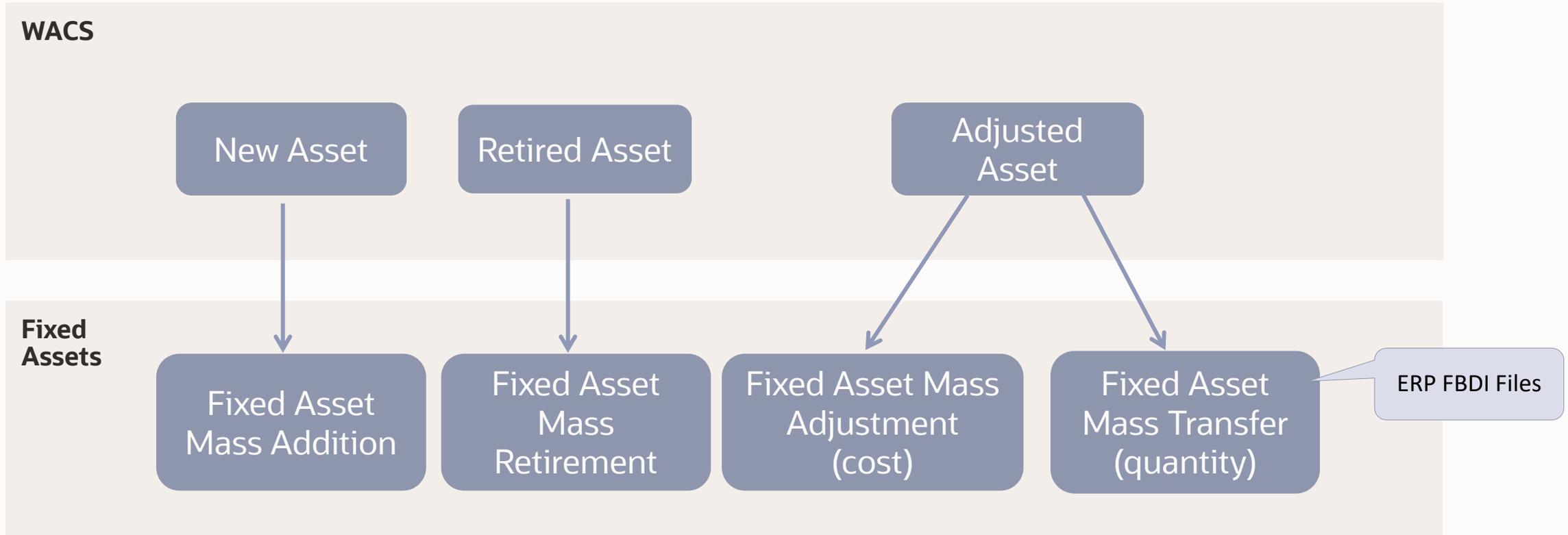
**Fixed Asset**  
*['fɪkst 'ɑːsɛt]*

A long-term tangible piece of property or equipment that a firm owns and uses in its operations to generate income.

 Investopedia

- Fixed assets are items that a company plans to use over the long term to help generate income.
- Fixed assets are most commonly referred to as property, plant, and equipment.
- Fixed assets are subject to depreciation to account for the loss in value as the assets are used, whereas intangibles are amortized

# WACS Fixed Asset Processes



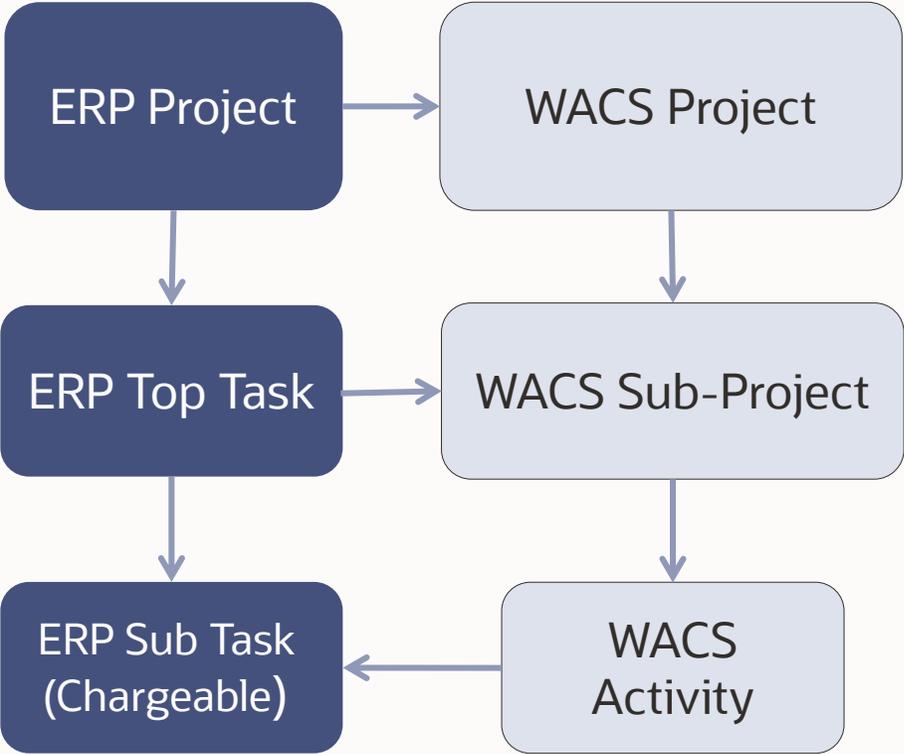
# WACS Fixed Assets Extract

## Fixed Asset Extract Data Area (New)

This DA defines all the data that need to be extracted and is used by the new File Integration Type above.

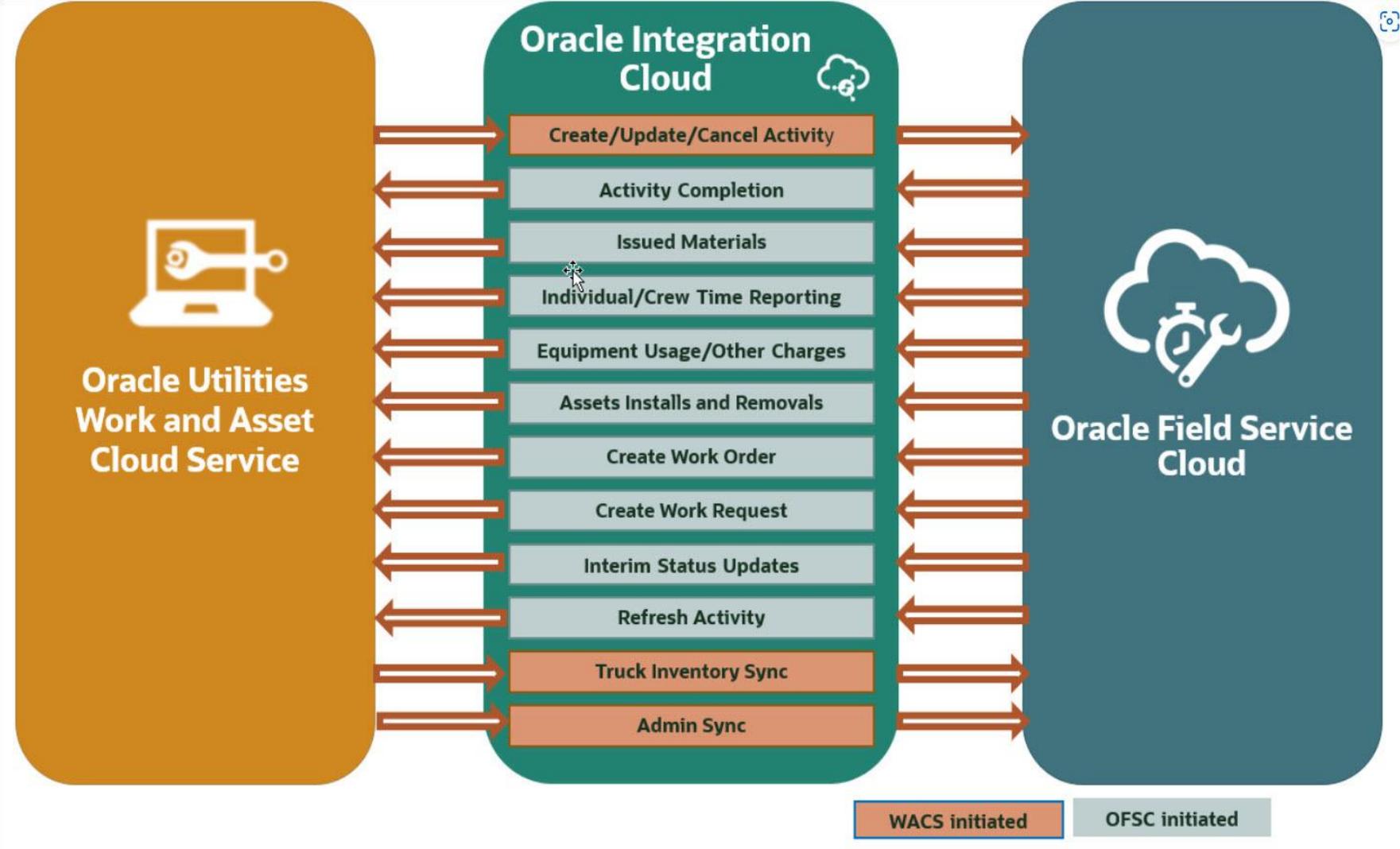
- Action, A for addition, R for retirement, C for change/adjustment
- Asset ID, the WAM asset id
- Fixed Asset Number
- Asset Description
- Badge Number
- Serial Number
- Manufacturer
- Model
- Owning Organization
- Property Unit
- Customer Contributed Flag
- Account Segment 1
- Account Segment 2
- .....
- Account Segment 10
- Tax Jurisdiction, this is just a placeholder for now for integration and ERP.  
Currently there is no place for such information in WAM and no process for maintaining it.  
Implementations could extend the system to have it.
- Quantity
- Cost
- Project ID, WAM project id
- ERP Project Number
- Parent Project ID
- Parent ERP Project Number
- Activity ID, the CWA ID
- Work Order ID
- Work Order Number
- In Service Date
- Retirement Date
- Transaction Date
- GEN\_PROC\_ID
- MAINT\_OBJ\_CD
- PK\_VALUE1

# WACS - Fusion Project Integration



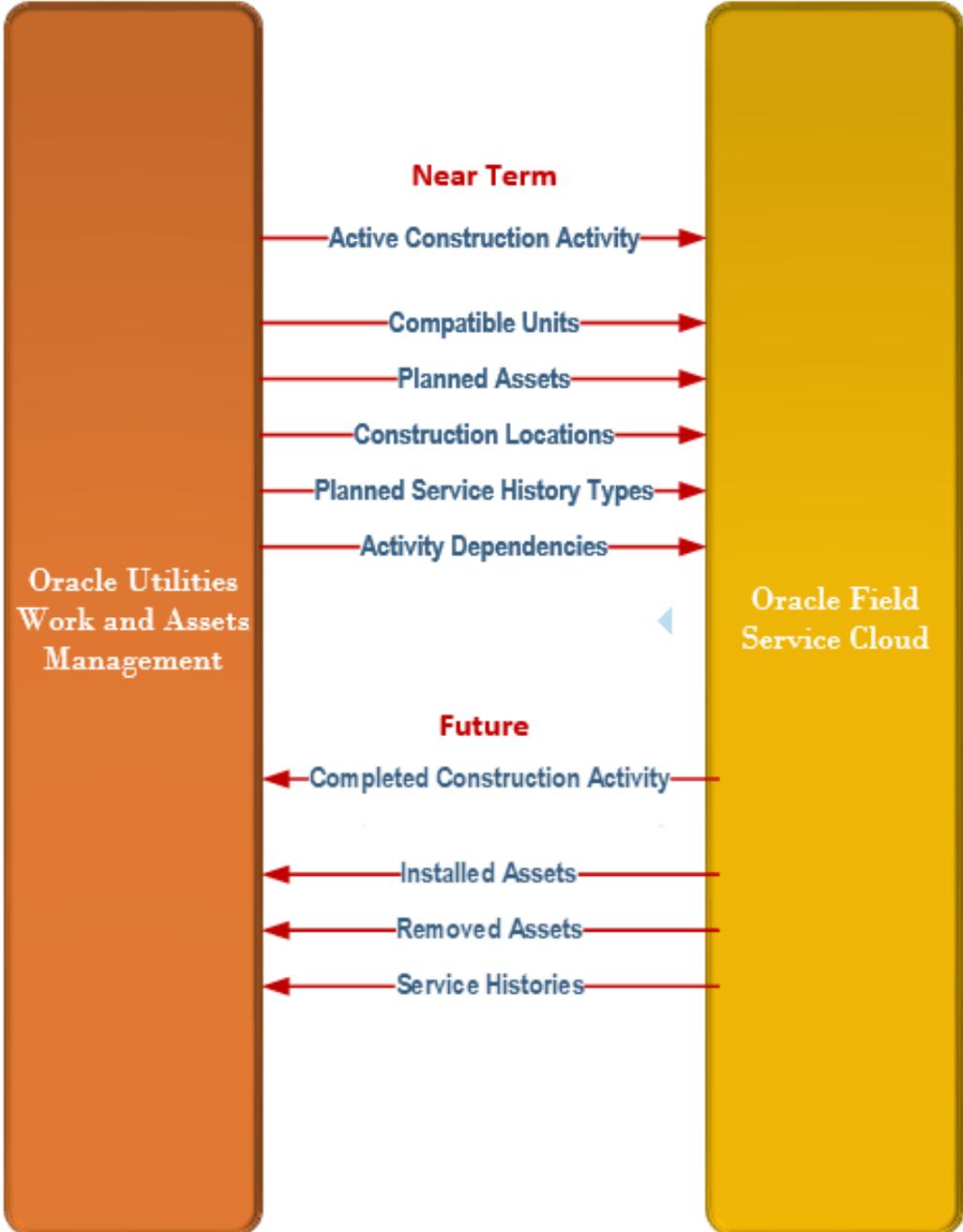
# WACS-OFS Better together

WACS manages initiation, planning and closure while OFS manages scheduling and execution of work.



# CWM-OFS Integration

Roadmap



# CWM-OFS Integration

Roadmap

Construction Work Activity: 220000024 / 1, Renew pole and crossarm, Active

Add Search Bookmark Refresh

Main Construction Locations Compatible Units Resources Cost Permit Log

Construction Location Details ⓘ

🔍 ⌵ ⬆

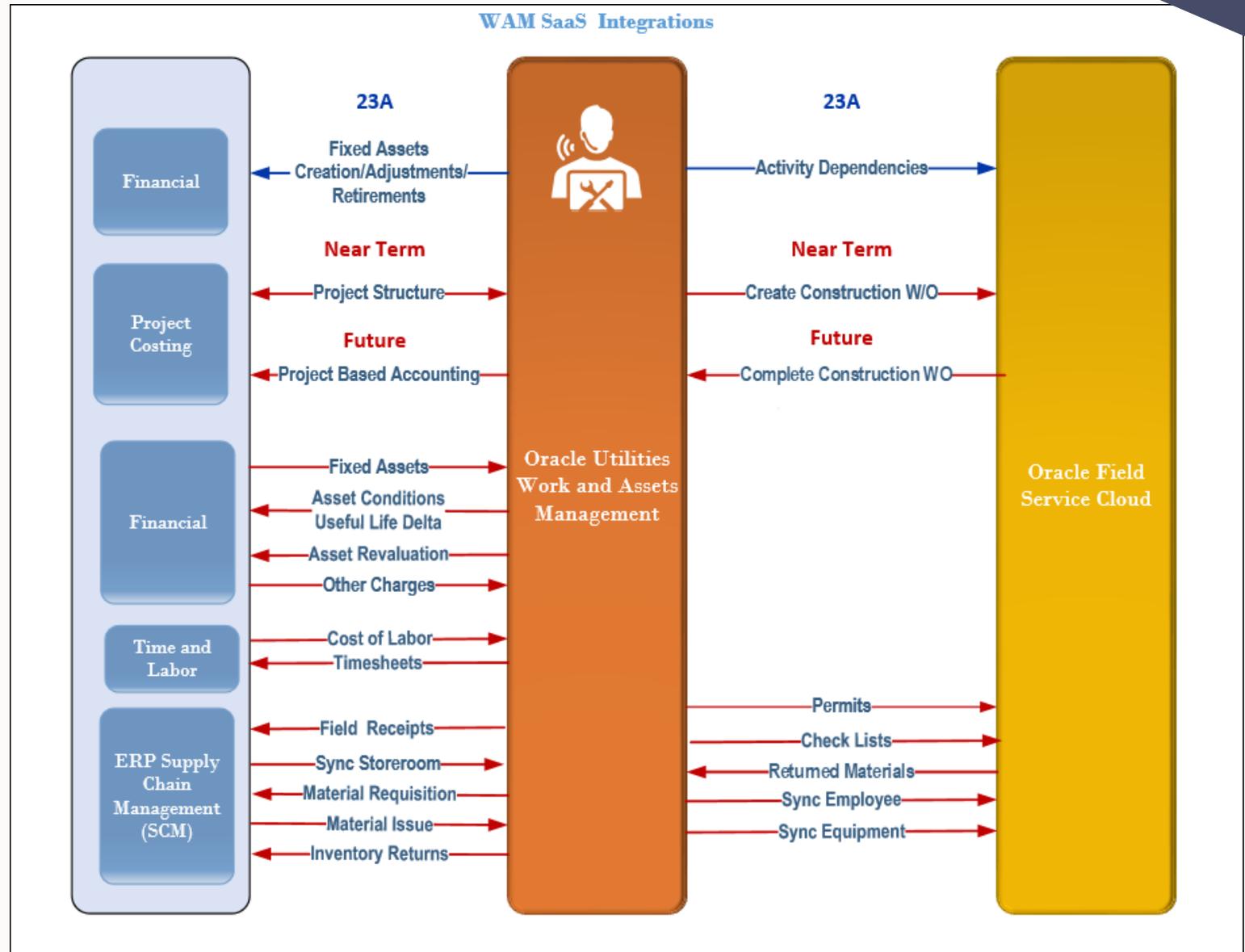
Construction Location	Asset Type	Planned	Issued Stock	Completed	Bid	CU Actions	Asset Actions	Delete
<b>Pole at Arbutus and W 6th Ave.</b> ⬆						Add CU		
 <b>PW403 / Pole - Wood, 40 Foot, Class 3 / Remove</b> ⬆	Pole - Wood	1		1		Update Completed	Remove Asset	
 <b>PW453 / Pole - Wood, 45 Foot, Class 3 / Install</b> ⬆	Pole - Wood	1	1	1		Update Completed		
 Pole - Wood, Badge Number PWDEH006, In Service @ Pole at Arbutus and W 6th Ave. Ⓞ 								
 <b>XARM10FTCOMP / Crossarm - 10 foot - Component / Install</b> ⬆	Crossarm - Non-Tracked Component	1	1	1		Update Completed	Create Asset	
 <b>XARM10FTCOMP / Crossarm - 10 foot - Component / Remove</b> ⬆	Crossarm - Non-Tracked Component	1		1		Update Completed	Remove Asset	



# Integration Roadmap

Expanding Fusion integration to support Fixed Asset, Project, Time Reporting and Supply chain.

Expanding OFS integration to support construction work, permits, and checklist.



# Investment Themes



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Data segregation for analytics visualization and contextual insights within application.



## Modernizing GIS interface

Optimize map view within the application and alignment with latest ESRI technology changes.



# OUAV Subject Areas, Dashboards & Visuals

Asset-Related Subject Areas and Sample Data Visualization Projects

15 Subject Areas

150+ Metrics/Calculations

14 Dashboards with 225+ Visualizations

## Asset performance

- Asset availability
- MTBF, MTTR, Failure Rate
- Asset failure analysis

## Asset Cost

- Asset Life Cycle costing
- Expected life of Asset
- Forecast Preventive Maintenance Cost

## Work Management

- Asset Maintenance strategies.
- Work backlog management
- Preventive Maintenance health

## Resource Management

- Breakdown of Labor hours
- Maintenance cost by resource types.
- Forecast maintenance hours
- Regular vs Overtime hours

## Inventory Management

- Stock Item trends
- ABC analysis
- Vendor distribution
- Value Over Max



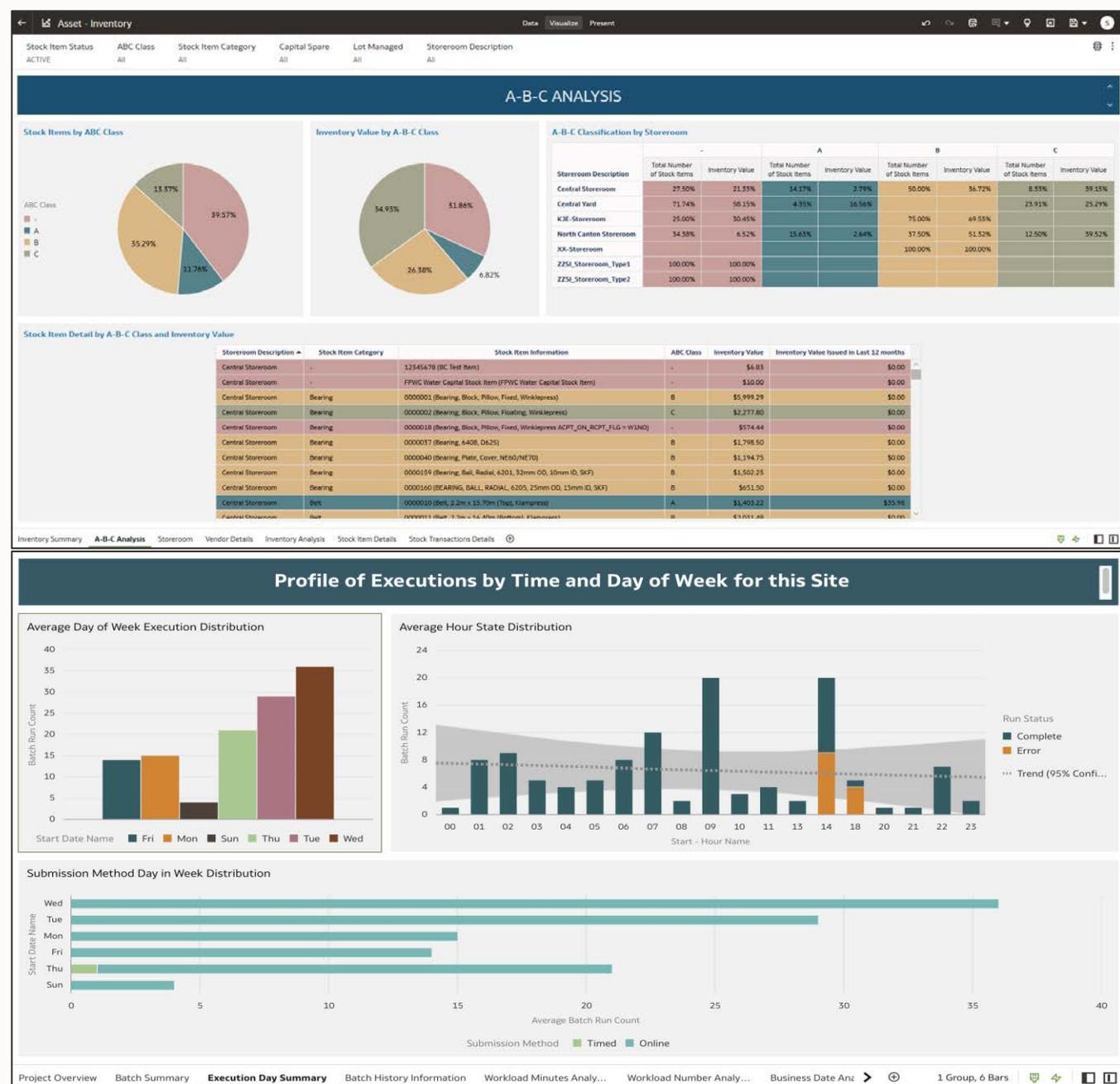
# Recent Release and Roadmap

## Recent Updates:

- Adoption of Redwood style across all the dashboards.
- Common subject areas and visualizations for batch analytics (FW/OUAV)

## Upcoming:

- WACS Owning Organization based data access in OUAV.
- Exposing non characteristics child tables as custom columns.
- Dataset and workbook migration methodology
- Cross drilling between subject areas



# Access to Analytics - Contextual Insights on the Asset Portal

See the Asset Location Criticality and Asset Condition at a glance with configurable widgets

## A better visual experience

- ✓ No need to interpret numerical values
- ✓ The colors can be easily configured
- ✓ No additional configuration or effort required

Oracle Utilities Work and Asset Management

WAM 24000 WACS 22A MASTER DEMO

Asset: Pole - Wood, Badge Number 21205, In Service @ Pole - Ft Pierce, N 7th St. SWC A E B...

Change Request  
Create Change Request

Work List  
Clear

Current Context  
Pole - Wood, Badge Number 21205, In Service @ Pole - Ft Pierce, N 7th St. SWC A E Backus Ave. - 21205A  
Pole - Ft Pierce, N 7th St. SWC A E Backus Ave. - 21205A

Bookmarks  
15. User Group Services Management  
25. Maintenance Object - Asset  
35. Business Object: General Asset  
45. Zone: Asset Cost Summary  
55. Business Object: Asset Type  
65. Menu: Asset  
7T. Timesheet Query  
8T. Employee: Harding, Kyle  
9T. Employee: Goel, Sudhanshu  
10T. Timekeeper Query  
11T. Work Activity: 210000051 / 1  
12T. Crew: Maintenance 1  
13T. Crew: Maintenance 2  
14T. Employee: Hillen, Daryl  
15T. Employee Unavailability Type:

Main Maintenance Tree View Statistics Asset Disposition Asset Performance Log

Asset

Main  
Information Pole - Wood, Badge Number 21205, In Service @ Pole - Ft Pierce, N 7th St. SWC A E Backus Ave. - 21205A  
Asset Type Pole - Wood  
Detailed Description Pole - Wood  
Status In Service  
Asset Ownership  
Ownership Information  
GIS Asset Class

Identification  
Badge Number 21205  
Serial Number  
Pallet Number  
External ID  
SCADA ID

Purchase Order Information  
Vendor  
Vendor Location  
Vendor Part Number  
Purchase Order Line

Specification

Record Actions  
Edit Delete Duplicate  
Take Out of Service Retire Change Location

Record Information

Access Control  
Owning Organization Electric

Asset Disposition Detail  
Asset Disposition In Service  
Effective Date/Time 07-19-1977 11:57AM  
Location Pole - Ft Pierce, N 7th St. SWC A E Backus Ave. - 21205A  
**Asset Criticality - Medium**

Assessment  
Condition Rating 4.00 **Poor**  
Confidence Rating 0.50

Measurement  
Measurement Type

# Investment Themes



## Optimizing for the User

Improve user experience with modern Redwood styling, unified search, persona driven UX and new capabilities in asset and work management.



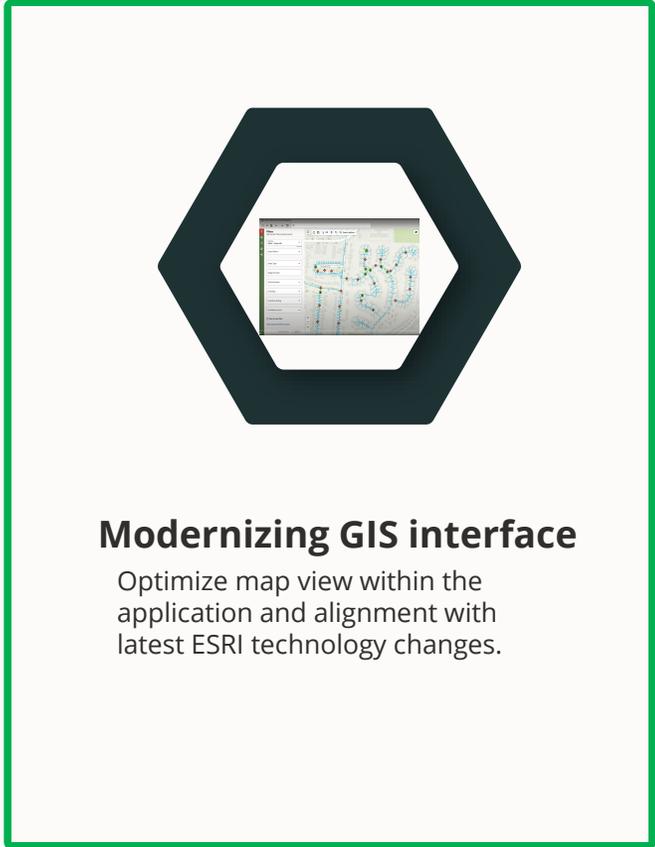
## Simplifying Integrations

Expanding integrations with Field Service and ERP. New integration with Customer Cloud and 3<sup>rd</sup> party Mobile Inventory/Barcoding solutions.



## Access to Analytics

Data segregation for analytics visualization and contextual insights within application.

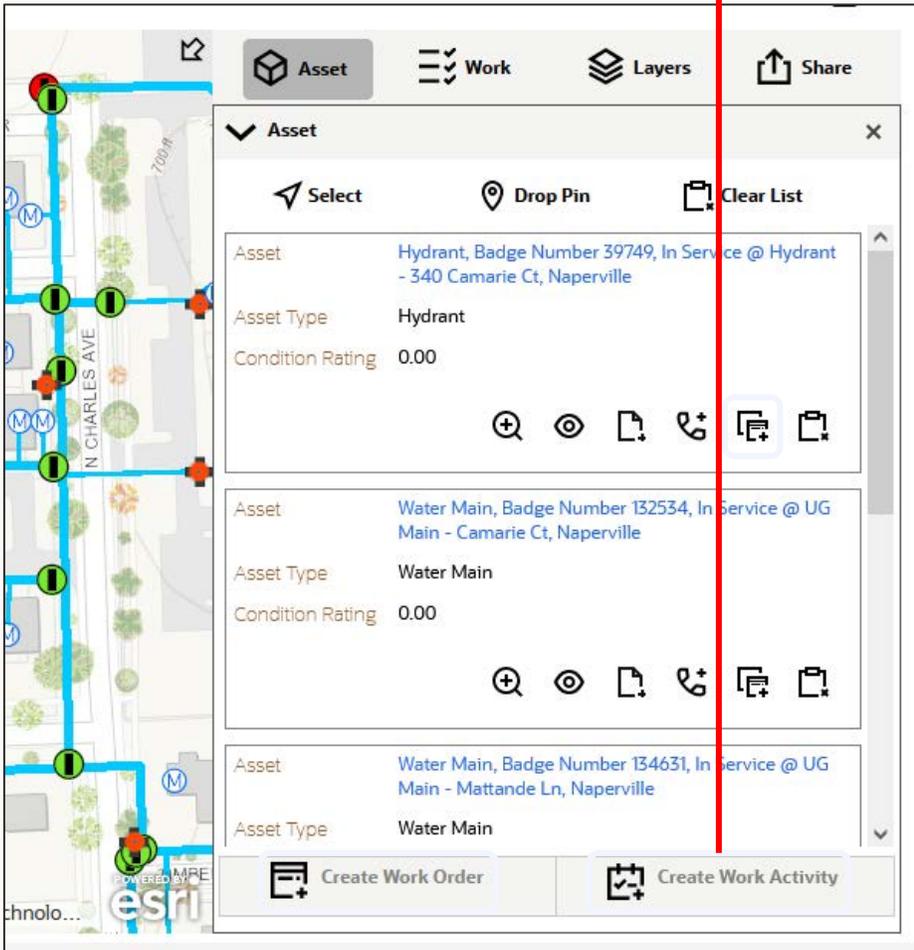


## Modernizing GIS interface

Optimize map view within the application and alignment with latest ESRI technology changes.



# More Efficient Creation of Work Orders or Work Activities from the GIS Map Viewer



### Enter Activity Details

**Main**

Activity Type \*

Create individual Activity per Asset/Location \*

Work Order \*

**Asset List** Ⓞ

	Asset	Primary Asset
+ <input type="checkbox"/>	* <input type="text" value="643054749245"/> <input type="text" value="Hydrant, Badge Number 39749, In Service @ Hydrant - 340 Camarie Ct, Naperville"/>	* <input type="text" value="Yes"/>
+ <input type="checkbox"/>	* <input type="text" value="912871335037"/> <input type="text" value="Water Main, Badge Number 132534, In Service @ UG Main - Camarie Ct, Naperville"/>	* <input type="text" value="No"/>
+ <input type="checkbox"/>	* <input type="text" value="400434087813"/> <input type="text" value="Water Main, Badge Number 134631, In Service @ UG Main - Mattande Ln, Naperville"/>	* <input type="text" value="No"/>
+ <input type="checkbox"/>	* <input type="text" value="901226521205"/> <input type="text" value="Water Main, Badge Number 152555, In Service @ UG Main - Camarie Ct, Naperville"/>	* <input type="text" value="No"/>
+ <input type="checkbox"/>	* <input type="text" value="229041486870"/> <input type="text" value="Water Main, Badge Number 130403, In Service @ UG Main - Mattande Ln, Naperville"/>	* <input type="text" value="No"/>

**Asset Location List (No Assets Installed)** Ⓞ

	Location
+ <input type="checkbox"/>	* <input type="text"/>

**Create Work Order and Work Activities from Approved Work Requests or the GIS Map Viewer with fewer mouse clicks and less data re-entry.**

- ✓ Work Order and Work Activity creation takes less time
- ✓ The User sees fewer windows to click through



# GIS Map Viewer Enhancements

Optimized navigation and flow with saved or ad-hoc filtering for Asset selection  
Additional shortcuts to reduce mouse clicks

Roadmap -  
23A

The screenshot displays the GIS Map Viewer interface. The main map area shows a network of blue pipes (GIS - 1" Lateral Asset Location) overlaid on a street map of Naperville, IL. The pipes are connected to various orange markers (Asset Location) along the streets. The interface includes a search bar at the top left with the text "Rosewood Ave, Naperville" and a search icon. Below the search bar, there are navigation controls (home, back, forward, zoom in, zoom out, full screen, and location). The map shows streets such as Rosewood Ave, Amberwood Cr, Lockwood Cr, and Vest Dr. A scale bar at the bottom left indicates 200ft. The bottom of the map shows the text "City of Naperville, County of DuPage, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USG...".

On the right side, there is a filter panel titled "Asset" with a close button (X). The panel includes a "Filter" button and a "Drop Pin" button. Below these, it shows "25 Item(s) - 1 Filter(s) applied". The filter settings are as follows:

Filter	Asset Type	Location Type	Badge Number	Condition Rating	Confidence Rating
Select	GIS - 1" Lateral Pipe	Select	Badge Number	1 - 1	From - To

At the bottom of the filter panel, there are buttons for "Apply", "Reset", "Save", and "Cancel". Below the filter panel, there is a list of items with details for "GIS - 1" Lateral Pipe, {rlw} GIS 1" Lateral Pipe, In Service @GIS 1" Lateral Asset Location" and a condition rating of "0.00/5.00". At the bottom of the interface, there are buttons for "Create Work Order" and "Create Work Activity".



# Default Parent Location

**Extendable Lookup Value**

**Main ⓘ**

GIS Asset Class: POLE  
 Description: Pole (Electric)  
 Detailed Description: Sample mapping for the Pool feature class to the Pole Wood asset type.  
 Status: Inactive  
 Default Asset Type: Pole - Wood  
 Default Asset Location Type: Field Point

**Default Parent Location/Organization: Lightning Arrestor 1 - Bus 1**

**Specific Types based on GIS attributes ⓘ**

GIS Field	GIS Value	Asset Type	Asset Location Type	Skip
POLETYPE	transformerOverHead	Transformer - Overhead		
SUBCLASS	NA			Yes



# Multi-Geo database support

**Asset**

**Main**

Information Transformer - Overhead Tracked, SERTX003, TX003, Transformer, 50 kVA, 120/240V

Asset Type Transformer - Overhead Tracked

Detailed Description Transformer, 50 kVA, 120/240V

Status Installed

Asset Ownership

Ownership Information

GIS Asset Class

**Identification**

Badge Number TX003

Serial Number SERTX003

Pallet Number

External ID

SCADA ID

**Record Actions**

Edit Delete View in Map Duplicate

Store Pending Disposition Change Location

**Record Information**

**Access Control**

Owning Organization Electric

The Owning Org on the Asset/Asset Location will determine the geo- database where the record resides

**Asset**

**Main**

Information Roadway, Mattande Lane BTW Bernette Ct and Camarie Ct

Asset Type Roadway

Detailed Description Mattande Lane BTW Bernette Ct and Camarie Ct

Status In Service

Asset Ownership

Ownership Information

GIS Asset Class

**Specification**

Engineering Specification

Maintenance Specification Roadway - Maintenance

Calendar PM Reset Date

BOM ID

**Asset**

**Main**

Information Roadway, Mattande Lane BTW Bernette Ct and Camarie Ct

Asset Type Roadway

Detailed Description Mattande Lane BTW Bernette Ct and Camarie Ct

Status In Service

Asset Ownership

Ownership Information

GIS Asset Class

**Specification**

Engineering Specification

Maintenance Specification Roadway - Maintenance

Calendar PM Reset Date

BOM ID

**Record Actions**

Edit Delete Duplicate

Take Out of Service Retire Change Location

**Record Information**

**Access Control**

Owning Organization Public Works

**Asset Disposition Detail**

Asset Disposition In Service

Effective Date/Time 01-22-2016 12:22PM

Location Mattande Lane BTW Bernette Ct and Camarie Ct

Asset Criticality - Low

# GIS Map Viewer UX Enhancements

Persona Driven UX experience

Redwood style UX

Filtering, results and toggle between map and table view from the single interface.

The screenshot displays the Oracle Utilities Work and Asset Management interface. The top navigation bar includes a search bar and navigation icons. The main content area is split into two views: a table view on the left and a map view on the right. The table view shows a list of 10 hydrant assets with columns for Asset Title, Badge #, Address, Condition, Confidence, Criticality, Intall Date, and Action. The map view shows a street map with blue lines representing water lines and red dots representing hydrant locations. A red box highlights a text box at the bottom of the table view.

Asset Title	Badge #	Address	Condition	Confidence	Criticality	Intall Date	Action
Hydrant	37998	311 Jamatt Ct, Naperville	1.3	80	5	12/31/1988, 7:00 PM	⊖
Hydrant	38034	850 North Ave, Naperville	1.5	82	6	12/31/1988, 7:00 PM	⊖
Hydrant	39749	937 Rosewood, Naperville	1.4	86	5	12/31/1988, 7:00 PM	⊖
Hydrant	40788	340 Camarie Ct, Naperville	1.3	83	3	12/31/1988, 7:00 PM	⊖
Hydrant	41874	1003 Bernette Ct, Naperville	1.1	82	5	12/31/1988, 7:00 PM	⊖
Hydrant	37998	929 Rosewood, Naperville	1.2	88	7	12/31/1988, 7:00 PM	⊖
Hydrant	42121	420 Dillman Ct, Naperville	1.6	85	2	12/31/1988, 7:00 PM	⊖
Hydrant	43497	304 Camarie Ct, Naperville	1.4	84	4	12/31/1988, 7:00 PM	⊖
Hydrant	43948	990 North Ave, Naperville	1.5	87	5	12/31/1988, 7:00 PM	⊖
Hydrant	44142	3524 Millow, Woodridge	1.9	85	6	12/31/1988, 7:00 PM	⊖

Multiselect - acts like worklist - once action is taken, prompt to update the list



# Work and Asset Solution - Key Roadmap Focus Areas at a Glance



## Optimizing for the User

- Customer driven functional enhancements
- Navigation optimization and click reduction
- Persona driven UX



## Analytics and Insights

- Ability to segregate data by owning organization
- Contextual insights and 360 view within portals



## Simplifying Integrations

- Expanding out of the box integration with Oracle Field Service, Oracle Fusion ERP and Utilities Customer to Meter products
- Expanded REST APIs to work with 3<sup>rd</sup> party mobile barcoding and printing



## GIS Interface Modernization

- Optimize map view to improve efficiency and productivity of asset managers and work planners
- Consume Esri ArcGIS Utility Network services

ORACLE