

The background of the image is a photograph of a large, multi-story building with a prominent central dome and many windows, situated behind a line of trees. In the foreground, there is a body of water with a small sailboat. The entire image has a dark blue overlay. At the bottom, there is a horizontal bar with a colorful geometric pattern in shades of blue, green, yellow, and orange.

ODTUG Kscope25

dallas - ft worth june 15 - 19

Welcome

EXTENDING FUSION CLOUD ERP WITH APEX, A REAL-WORLD EXAMPLE



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APEX



ORDS



EBS & Fusion

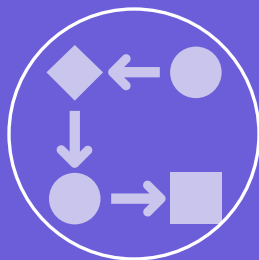


Database

AGENDA



Business
Case



Solution



Demo



Business
Impact



Business Case

Extending Fusion Cloud ERP with APEX, A REAL-WORLD EXAMPLE

BUSINESS CASE

As a controller,

I need the ability to consistently account and record all transactions affecting cash flow

so that I can dynamically model the fully loaded cashflow statement in near real time during period close (3 days)

and prepare to tell the stories to my stakeholders at close.



BUSINESS CASE

My key acceptance criteria are:

- 1. Enable posting to Extra segment in the CoA for only valid account combos to drive consistent cashflow reporting lines.*
- 2. Allow manual journals against accounts controlled by sub-ledgers with elevated approval.*
- 3. Journal can be entered via web interface or upload from Excel workbook.*
- 4. Provide visibility to journal status in real-time without having to log into Oracle Fusion.*



WHY WE SELECTED APEX



1. Rapid development and deployment in 8 weeks
2. Low code, low maintenance
3. Leverage existing Autonomous Database - no additional cost for user license
4. Real time integration with Fusion using public APIs
5. Dynamically scale ADB performance to support high transaction volume during period close
6. Easily supported by existing team with SQL knowledge

The Solution

Extending Fusion Cloud ERP with APEX, A REAL-WORLD EXAMPLE

APEX on Oracle Autonomous Database (ATP)

Self-Service Journal Entry

Manual Entry or
Excel Upload

Apply Mars
Specific Rules

Mars Specific
Approval Rules

Validate Code
Combinations

Workflow

Human task
Approvals

Post Journal
to Fusion

Wait for
Callback

Complete
Process

Fetch Errors

REST API



ORDS
REST API

Oracle Fusion Cloud ERP

Validate GL Code Combinations
SOAP API

Asynchronous ESS Job

Unzip & Import
CSV File

Journal Import

Process Complete

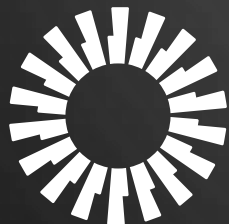
Callback

BI Publisher CSV Reports

Journal Import
Errors

Journal Details

TECHNOLOGY



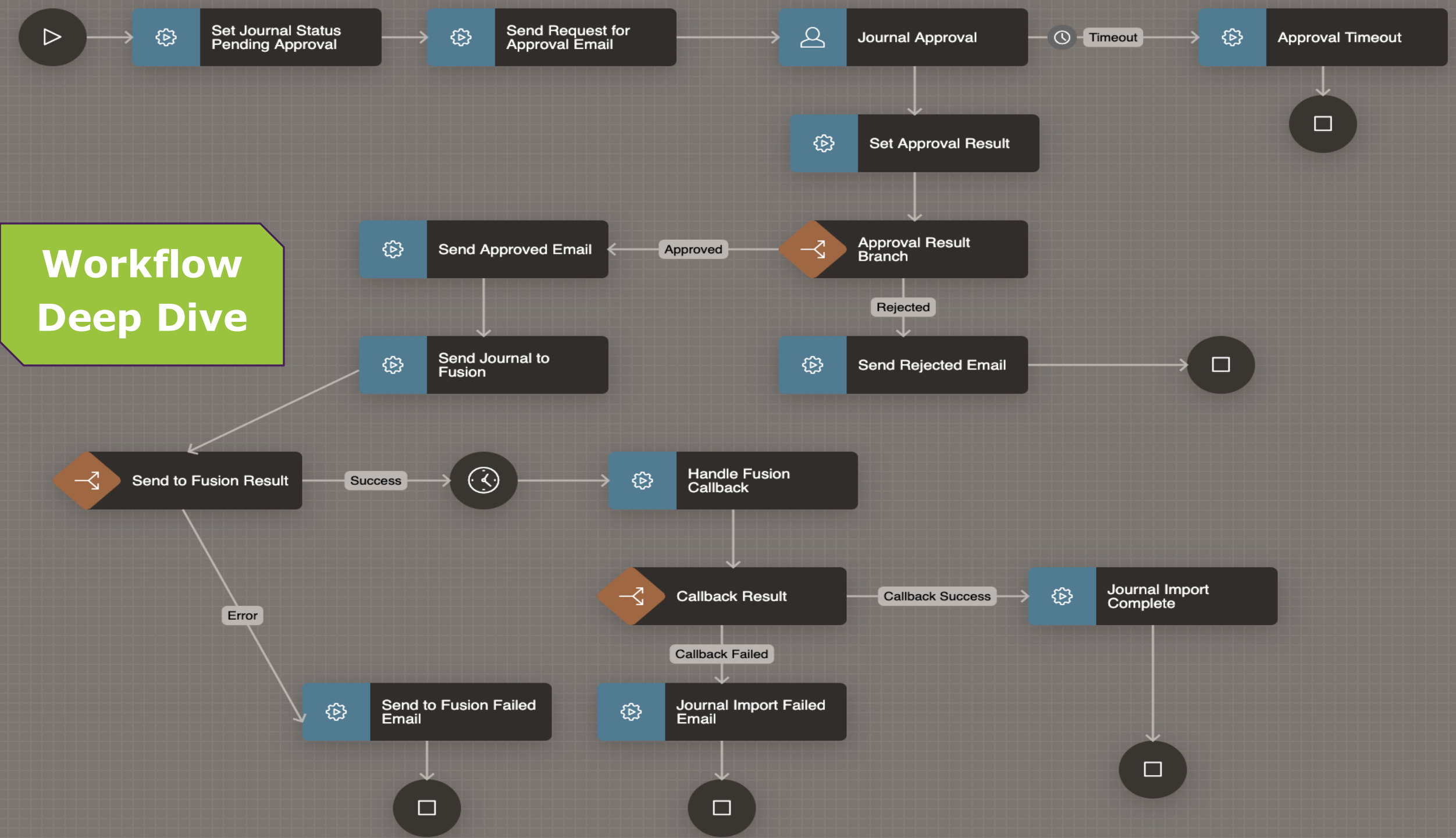
- Oracle APEX on OCI ATP Database
- Okta for Single Sign-On
- Oracle REST Data Services (ORDS)
- OCI Email Delivery Service
- PL/SQL for Business Logic

APEX FEATURES USED



- APEX Automations - Scheduling
- APEX Workflow - Approval & Orchestration
- Fusion REST Data Sources – Real-Time Access
- APEX_WEB_SERVICE - REST & SOAP APIs
- APEX_DATA_PARSER - Parse Excel Uploads
- APEX_ZIP - ZIP FBDI Files
- APEX_MAIL - Notifications

Workflow Deep Dive



FUSION INTEGRATION DEEP-DIVE

REST SOURCE SYNC?

- Reference Data Sync - Oracle Integration Cloud
 - Ledgers, BUs, Value Sets, GL Periods...
 - Improve performance of APEX reports
- Code Combination Validation
 - Validate against a locally synced Combo table (1.5m) first
 - Validate Code Combinations Before Batch Submission
 - SOAP API - fscmService/AccountCombinationService
- ERP Integration REST API
 - One-stop shop for Journal Import
 - REST API - fscmRestApi/resources/11.13.18.05/erpintegrations

FUSION INTEGRATION DEEP-DIVE

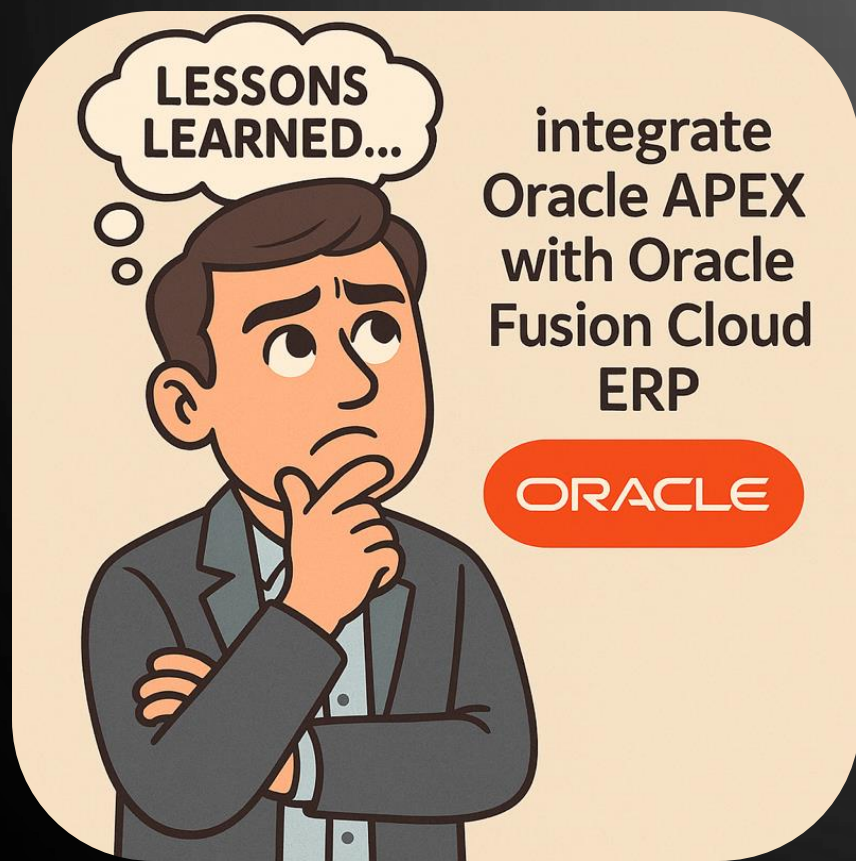
- Add Journal Attachments
 - SOAP API - `fscmService/ErpObjectAttachmentService`
- Custom BI Publisher Reports
 - Query failed journal lines
 - Query batch details of newly created batch
 - SOAP API - `xmlpserver/services/ExternalReportWSSService`
- Oracle REST Data Services (ORDS)
 - ESS Job Callback API

Demonstration

**Create a Fusion Journal
from a Spreadsheet**

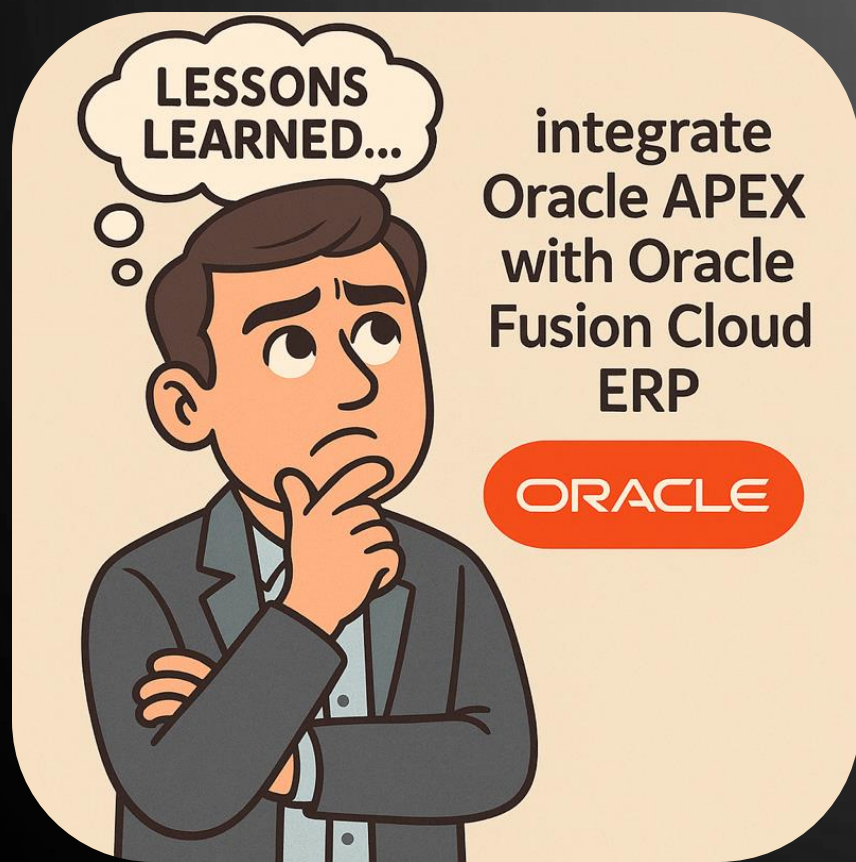
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LESSONS LEARNED



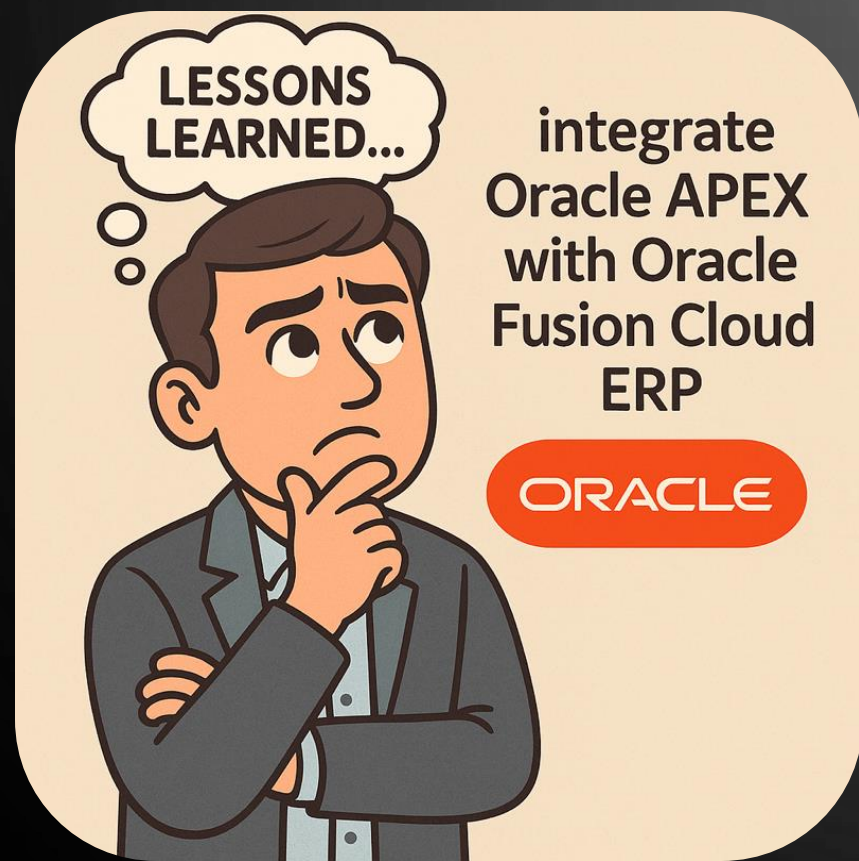
- Integration Logging
 - Log Inbound & Outbound Requests
 - Log payloads
 - APEX UI to Query Logs
- Workflow Monitoring
 - Identify stuck workflows
 - Diagram In-Flight Workflows

LESSONS LEARNED



- Deployments
 - Re-Start Suspended Workflows
 - Re-Start APEX Automations
- Open Door Credentials
 - Enable for Testing
- Only hit a Web Service when you need to

LESSONS LEARNED



- Email Override / Whitelist
- Remote Servers to Store URLs
- Clear Error Messages
- User Help Pages
- Reset Option For Admins

NEW FUSION FEATURES IN APEX 24.2

New in 24.2

Button Click SSO to/from Fusion Apps
& APEX running in OCI


REST Source Support for Boss Style
REST APIs (/api/boss)

[White Paper: Extending Oracle Fusion Cloud
Applications Suite using Oracle APEX](#)

Each year the APEX
Team delivers significant
improvements to the
integration between
APEX & Fusion Apps

Business Impact

Extending Fusion Cloud ERP with APEX, A REAL-WORLD EXAMPLE



BENEFITS REALIZED



- **Near Real-Time Financial Modeling** – Accurate, near real-time cashflow insights for faster period close.
- **Controlled Approvals** – Elevated manual journal approvals sub-ledger-controlled accounts strengthen financial controls and compliance.
- **Consistent Reporting** – Enforced valid account combos ensure reliable financial statements.
- **Efficient Journal Entry** – Seamless web and Excel-based journal submissions streamline workflows.
- **Instant Status Visibility** – Real-time tracking eliminates the need to log into Oracle Fusion.

CONTINUING APEX JOURNEY



Expanding APEX Use Cases:

- ✓ **Master & Reference Data Management – Ensure centralized control & governance**
- ✓ **Document Archiving & Management – Streamline access & retention policies**
- ✓ **Hospital Equipment & Inventory Tracking – Enhance asset visibility & efficiency**

Accelerating Adoption with Key Feature Enhancement:

- 🔥 **Excel Cut & Paste into Interactive Grid – A game-changer for user efficiency and adoption**
 - A highly requested feature for several years ▲ ▲ ▲
 - Planned for Future Release Since 2022

<https://apex.oracle.com/ideas/FR-2479>

ANY QUESTIONS?

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