



# Moving Business Suite Fiori Launchpad from on-premise to the BTP Launchpad service

John Patterson | @jasper\_07

John.Patterson@SecondPhase.com.au

Slides for this presentation - <https://bit.ly/3JoEXma>

# Disclaimer

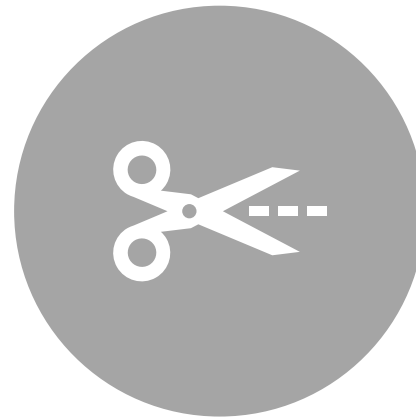
All views expressed in this presentation are based on my observations alone and do not represent views of any of my customers



# Platform Modernization Project



LIFT AND SHIFT THE FIORI  
LAUNCHPAD AS/IS



DECOMMISSION SAP  
ENTERPRISE PORTAL / J2EE

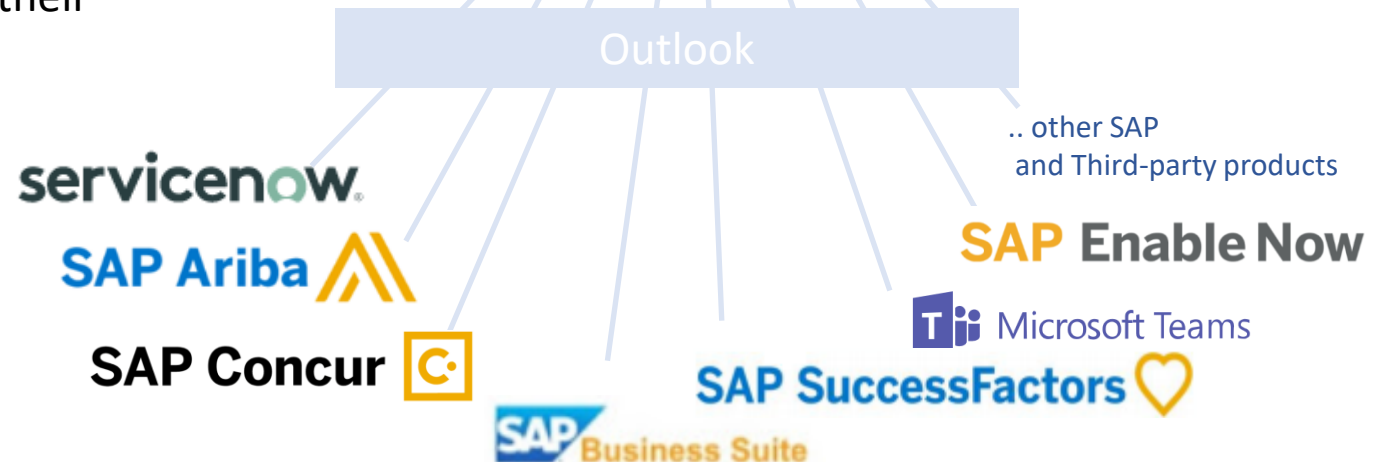
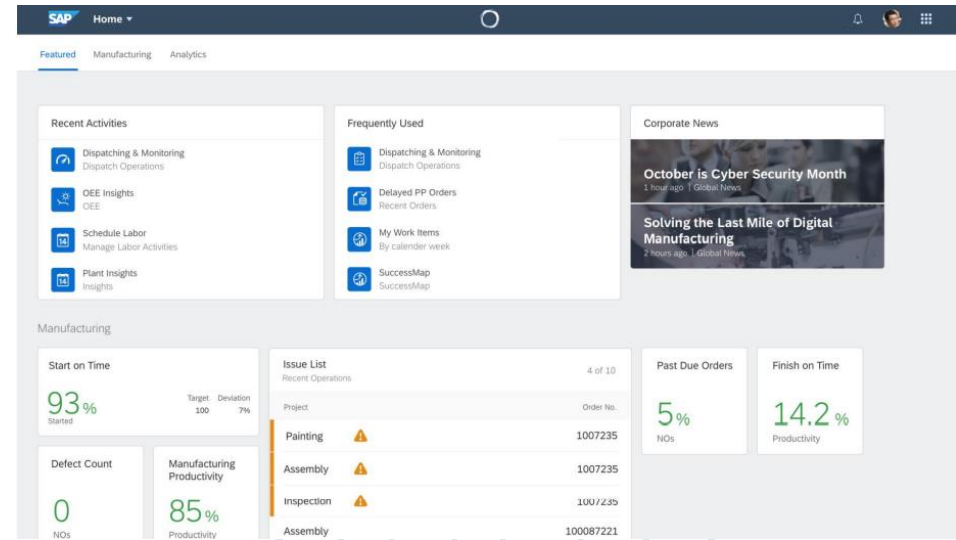


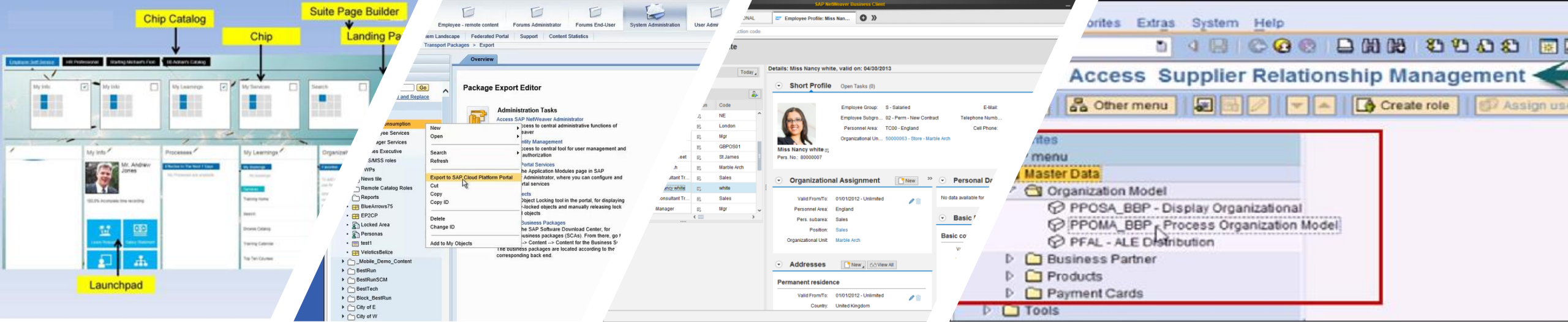
MIGRATE FROM ON-PREM  
ADFS TO AZURE AD (IPS + IAS)

# Central Fiori Launchpad - Vision

A single pane of glass, which integrates content from SAP products and third-party applications in a uniform manner, allowing end users to centrally access the content they need to fulfill their tasks

- Central homepage providing unified corporate branded user experience
- Role-based access to content
- Streamlined integration of applications and content from cloud and on-premise products
- Convenient single sign-on to connected products
- Central services such as inbox, notifications, search, help and documentation
- A platform to enable users to perform many of their day-to-day tasks on mobile devices





- 60+ business roles
- 140+ Fiori Tiles, many more applications
- HR Renewals / LPD\_CUST / NWBC / Portal
- 7 Systems / ECC / GW / SRM / SSF / Ariba ..
- Lots of old SAPUI5 apps built before Fiori

Business  
Content to be  
Migrated

Part of the Early Adopters Care (EAC) Program

# Approaches for Content Integration



## Manual Integration

- Integrate and configure single apps
- Available app templates
  - SAP Fiori / SAPUI5
  - Web Dynpro ABAP
  - SAP GUI for HTML
  - Dynamic URL (we used for NWBC\*)



## Content Federation

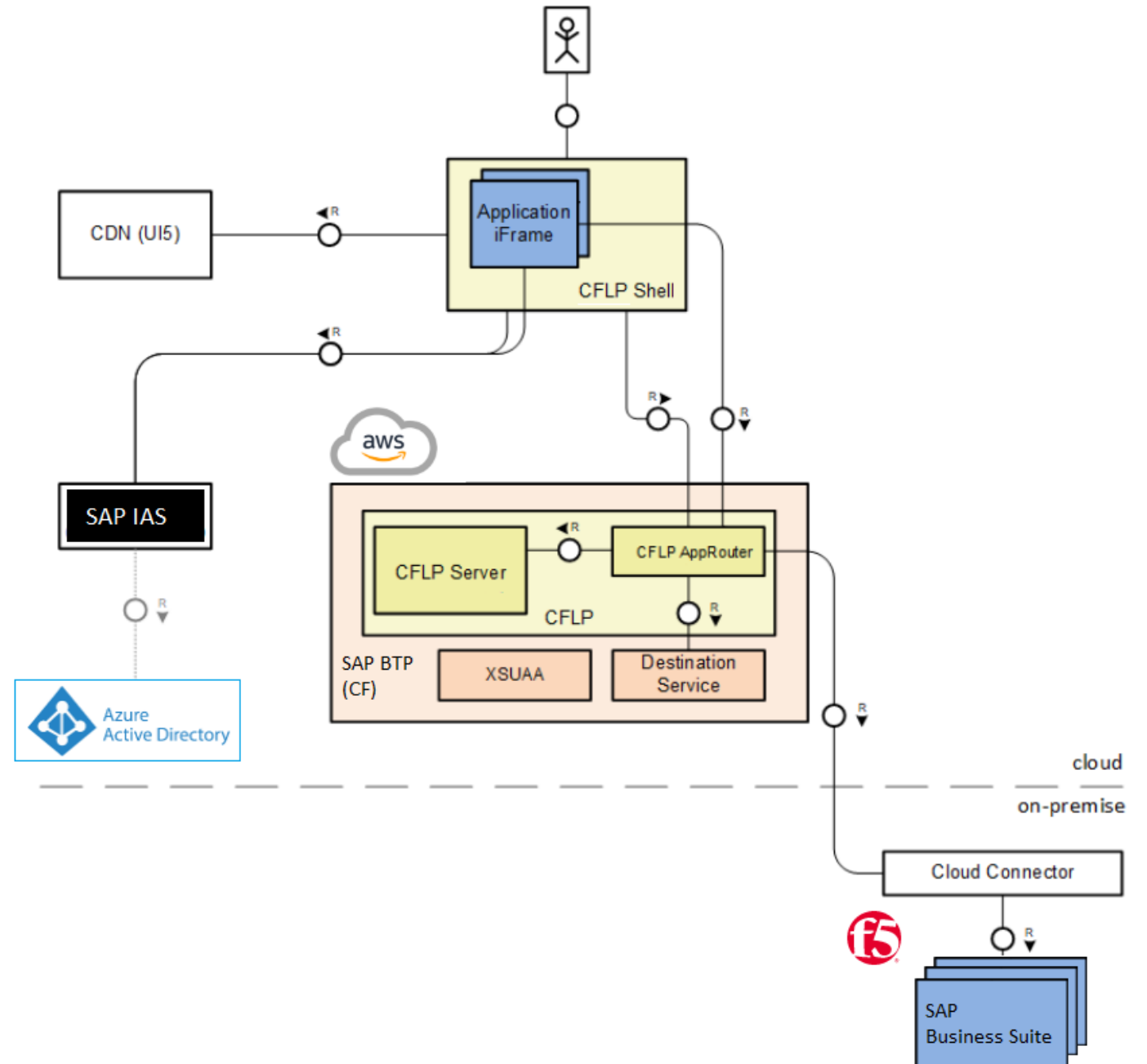
- Launchpad Services connects to a content provider (e.g S/4HANA)
- Provider system exposes app configuration and content structure via CDM (common data model)
- Content admin can browse & select specific role from provider and assign it to site / users

Content Federation wasn't available at the time we configured, would have made life easier

\*with Content Federation approach you can use Web Dynpro Compatibility Mode which wraps the Web Dynpro Application in an NWBC URL, useful for use cases which still uses OBN (Object Base Navigation)

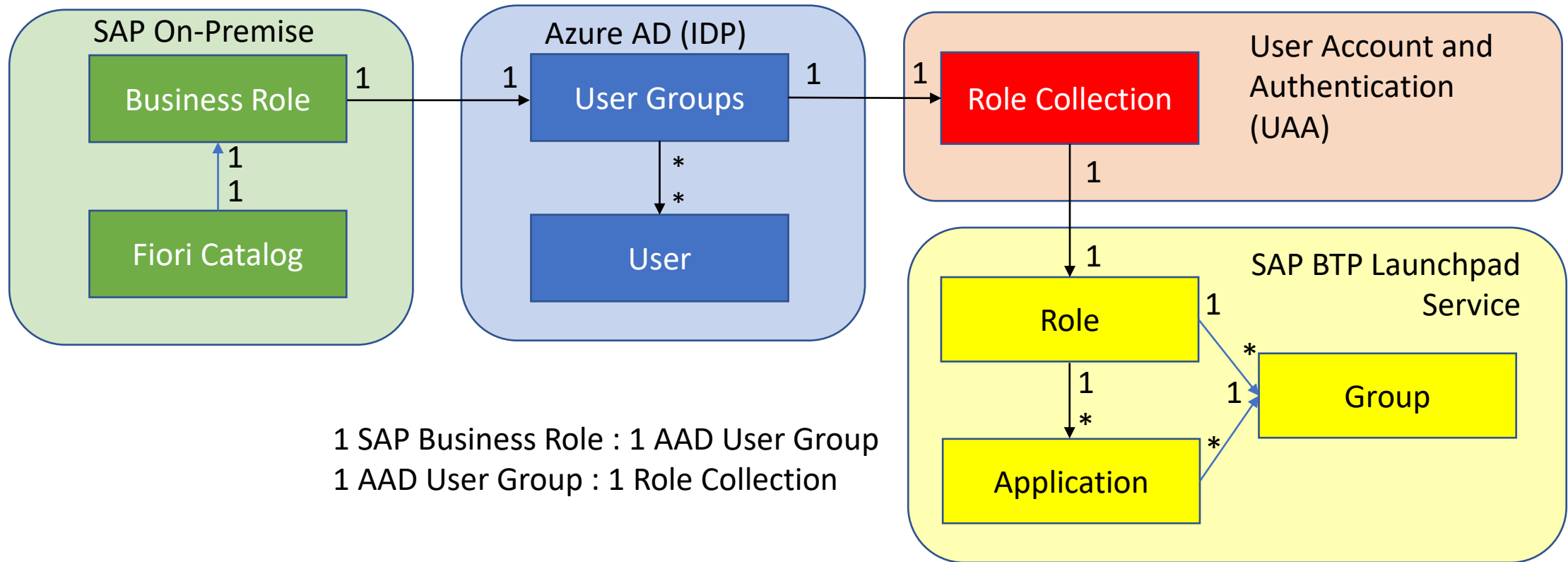
# Tunnelled Access

Principal Propagation using X.509 TLS Client-Certificates





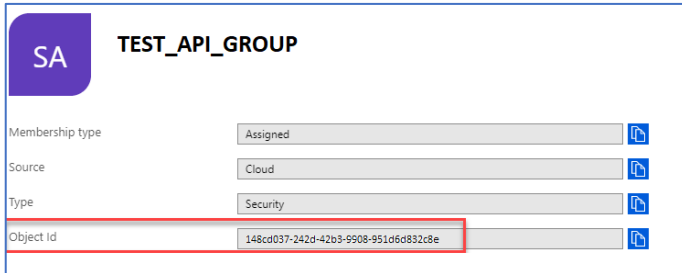
# Role Mapping



\*On-Premise the Fiori content was driven by Catalogs, Catalogs are different in BTP Launchpad  
N.B. there is a limit of 250 dynamic groups for users in AAD



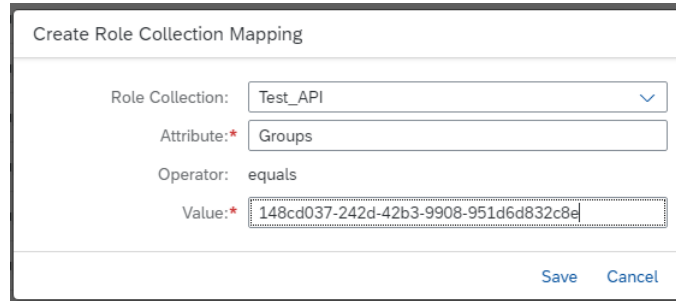
## Azure AD Claim



SA TEST\_API\_GROUP

Membership type	Assigned
Source	Cloud
Type	Security
Object Id	148cd037-242d-42b3-9908-951d6d832c8e

## BTP Role Collection mapping

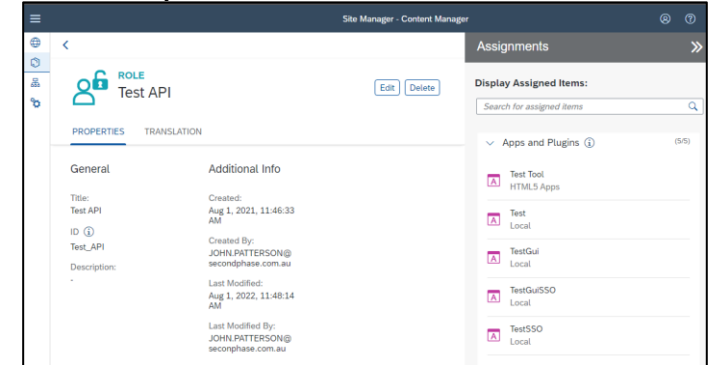


Create Role Collection Mapping

Role Collection:	Test_API
Attribute:*	Groups
Operator:	equals
Value:*	148cd037-242d-42b3-9908-951d6d832c8e

Save Cancel

## Launchpad Role



Site Manager - Content Manager

ROLE Test API

Assignments

Display Assigned Items:

Search for assigned items

Apps and Plugins (5)

- Test Tool HTML5 Apps
- Test Local
- TestGui Local
- TestGuiSSO Local
- TestSSO Local

General	Additional Info
Title: Test API	Created: Aug 1, 2021, 11:46:33 AM
ID: Test_API	Created By: JOHN.PATTERSON@secondphase.com.au
Description:	Last Modified: Aug 1, 2022, 11:48:14 AM
	Last Modified By: JOHN.PATTERSON@secondphase.com.au

# User Group Mapping

# BTP Authorization API

The screenshot shows the SAP API Business Hub interface for the Authorization API. The page title is "Authorization" and it includes a description: "Enables you to manage service instances, roles, templates, and collections." There are buttons for "Show API Key", "Download SDK", and "Add to API Explorer". Below this, there are tabs for "API References" and "Details". The main content area is titled "API Environment" and shows a list of endpoints. The endpoint `/sap/rest/authorization/v2/identity-providers/{origin}/attributes` is highlighted in green, indicating a POST method. The endpoint `/sap/rest/authorization/v2/identity-providers/{origin}/attributes/{attributeName}` is highlighted in red, indicating a DELETE method. A sidebar on the left contains navigation links for "Applications", "Roles", "Role templates", "Role collections", and "Attribute Mapping".

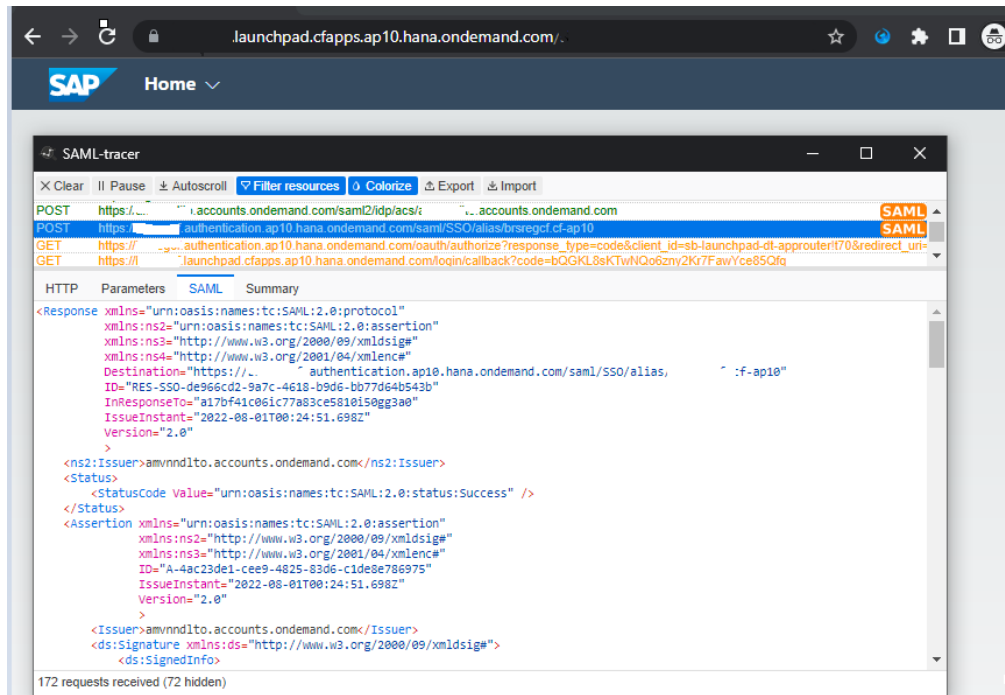
<https://api.sap.com/api/AuthorizationAPI/resource>

## API in Postman to mass mapping with CSV->JSON data file

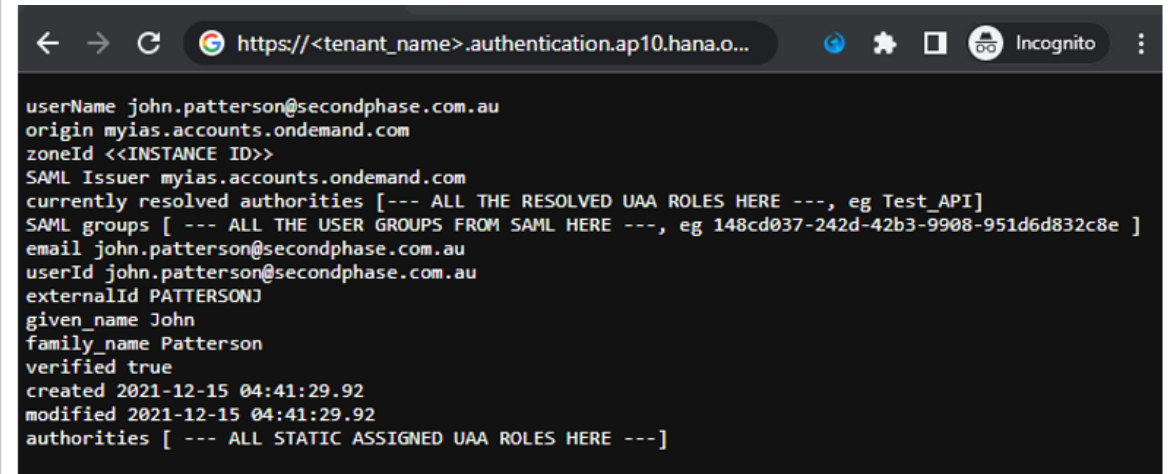
The screenshot shows a Postman API client interface. The request method is "POST" and the URL is `https://api.authentication.ap10.hana.ondemand.com/sap/rest/authorization/v2/identity-providers/myias.accounts.ondemand.com/attributes/`. The request body is set to "raw" and contains the following JSON data:

```
1 {
2   "attributeName": "Groups",
3   "attributeValue": "148cd037-242d-42b3-9908-951d6d832c8e",
4   "operator": "equals",
5   "roleCollectionName": "Test_API"
6 }
```

# Trouble Shooting User Access



SAML-tracer browser extension



[https://<tenant\\_name>.authentication.<region>.hana.ondemand.com/config?action=who&details=true](https://<tenant_name>.authentication.<region>.hana.ondemand.com/config?action=who&details=true)

# Teething Troubles



Date formatting, no  
EN-AU locale



Theme issues



Unsupported content  
techniques



FLP Back Button not  
working



HTTP Host header  
lost on multiple hops



Performance of  
<iFrame>

I raised 38 OSS #EAC-LP messages in 12 months (20 High)

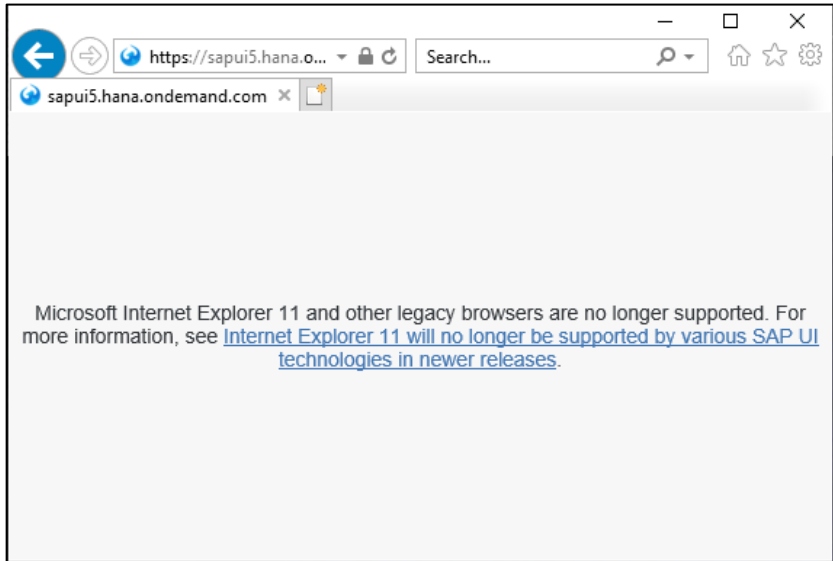
Note most fixes meant either a UI5 patch or a ABAP SNOTE or both

Support for Internet Explorer by SAPUI5 Application Framework will end soon.

March 2021



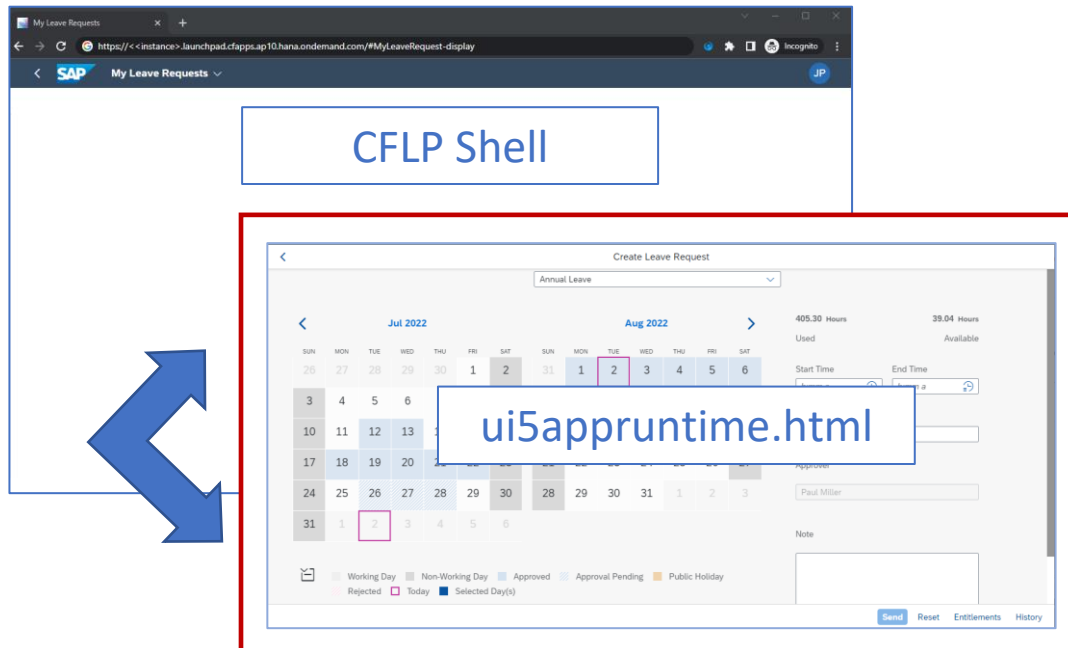
April 2021



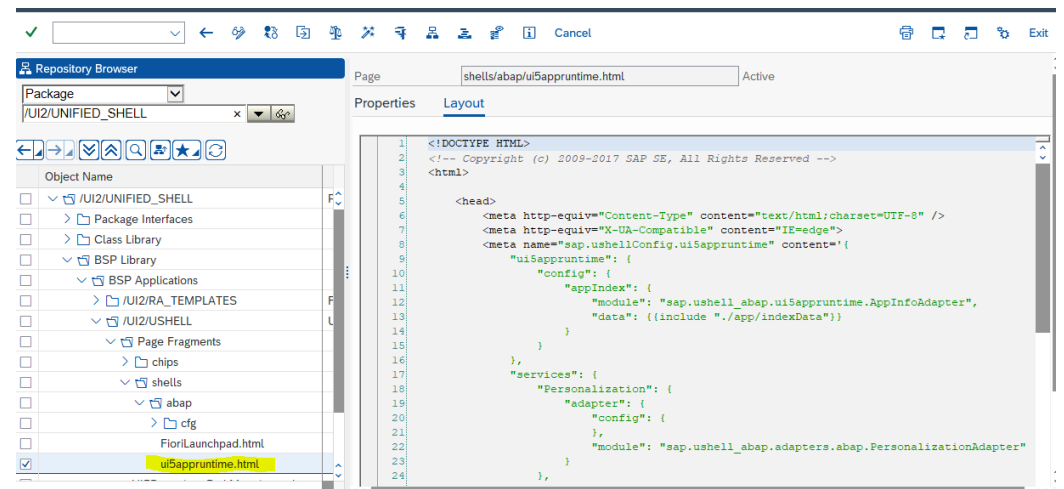
Handy tip for testing CFP on previous version  
</site?sap-ui-version=1.88.1#Shell-home>

# Application Runtime <iFrame>

The ui5appruntime.html is used for integration scenarios where UI5-based apps are included in a central Fiori launchpad



- Ui5appruntime.html is a headless FLP runtime
- UI5 app is reverse proxied from on-prem
- The <iFrame> is sandboxed
- sap.ushell services post messages to communicate
- The sap.ushell.appRuntime need to be in sync
- A lot of latency when un-optimized



# Improvements for Integration of ABAP-based UI5 Apps

- Preload all Ui5 library dependencies via the manifest
- Minify the app and use Component-preload.js
- HTTP/2 all the way down – requires kernel >=7.49
- Use UI5 CDN – requires SAP\_UI >= 754 SP 06
- Measure VPN vs Direct Access
- Review Browser settings and policies (eg Cache)
- Whitelisting \*.hana.ondemand.com on Corporate Proxies and Firewalls
- Deploy UI5 apps to HTML5 Application Repository instead



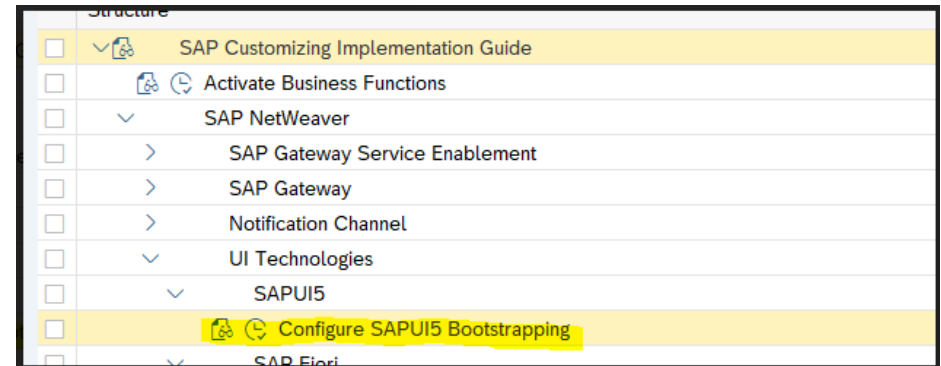


# UI5 CDN

[3013753](#) - Enable SAPUI5 CDN for consumption via BTP Launchpad Service – SAP\_UI >= 754 SP 06  
[2943781](#) - The usage of the SAPUI5 CDN is only allowed for SAP Cloud products

Originally had to get an exemption off UI5 Product Owner  
Now only works if called from cloud

Origin	Purpose	URL Pattern	Description
SETUP	SAPUI5CDN	https://ui5.sap.com/	UI5 from SAP CDN account



The screenshot shows a tree view of the SAP Customizing Implementation Guide. The 'SAPUI5' folder is expanded, and the 'Configure SAPUI5 Bootstrapping' task is highlighted in yellow. The tree structure is as follows:

- Structure
  - ☐  SAP Customizing Implementation Guide
    - ☐  Activate Business Functions
    - ☐  SAP NetWeaver
      - ☐ > SAP Gateway Service Enablement
      - ☐ > SAP Gateway
      - ☐ > Notification Channel
    - ☐  UI Technologies
      - ☐  SAPUI5
        - ☐  **Configure SAPUI5 Bootstrapping**

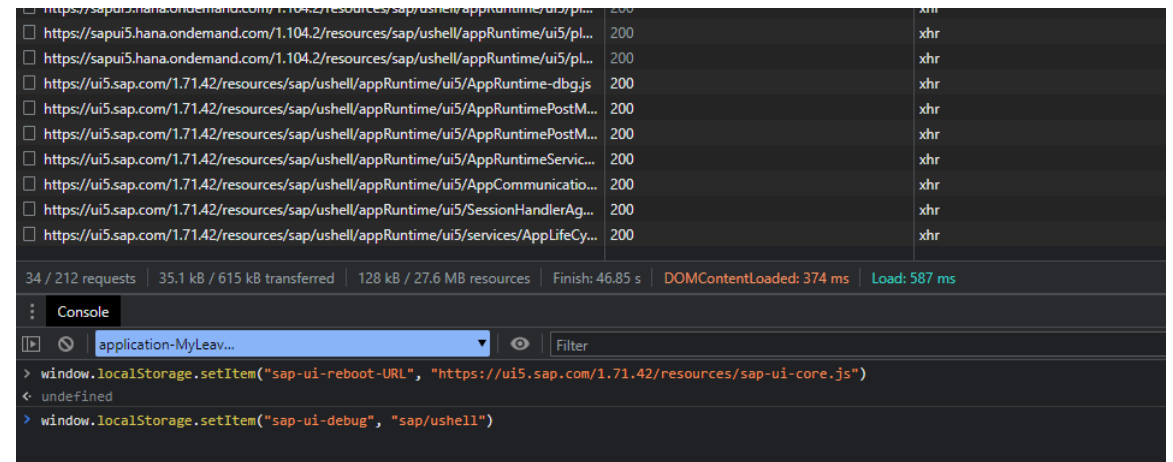
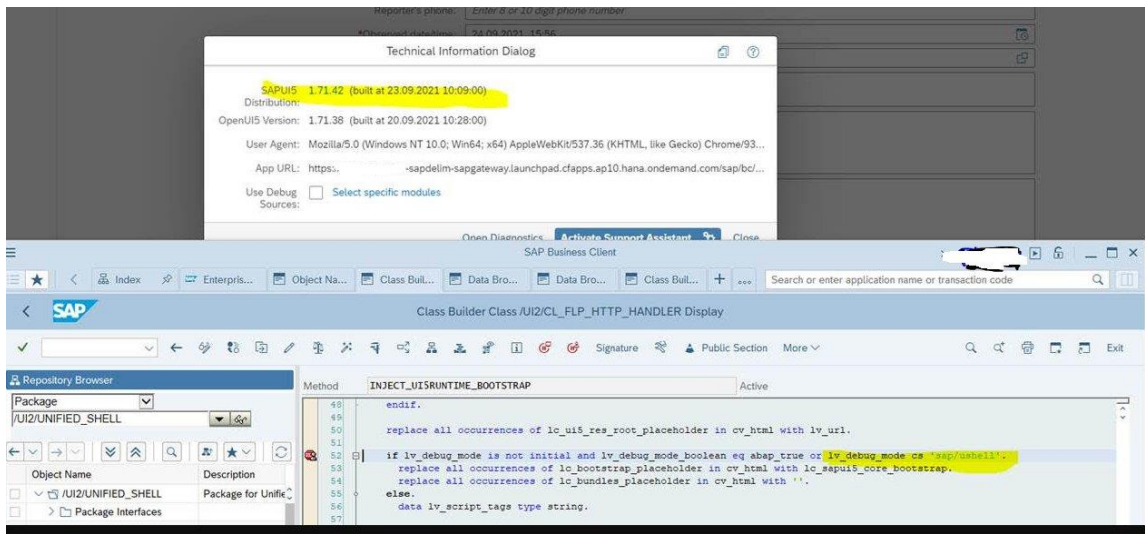
# Debugging an <iFrame>



Prior to the UI5 CDN we used to test a SAPUI5 patch before we implemented, needed for risk assessment

Set the “sap-ui-reboot-URL” and “sap-ui-debug” Local Storage settings in the iFrames console and refresh page

SAP_UI	754	0005	SAPK-75405INSAPUI	User Interface Technology
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<https://newbedev.com/debugging-iframes-with-chrome-developer-tools>

# Lessons Learnt



Patch early, patch often



Use the UI5 CDN



Address performance issues early



Automate where possible



Reach out for help



Build your own tools to fill the gaps



Thank You!