



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

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Disclaimer

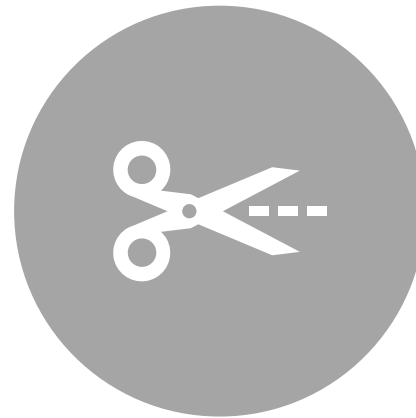
All views expressed in this presentation are based on my observations alone and do not represent views of any of my customers



Platform Modernization Project



LIFT AND SHIFT THE FIORI
LAUNCHPAD AS/IS



DECOMMISSION SAP
ENTERPRISE PORTAL / J2EE

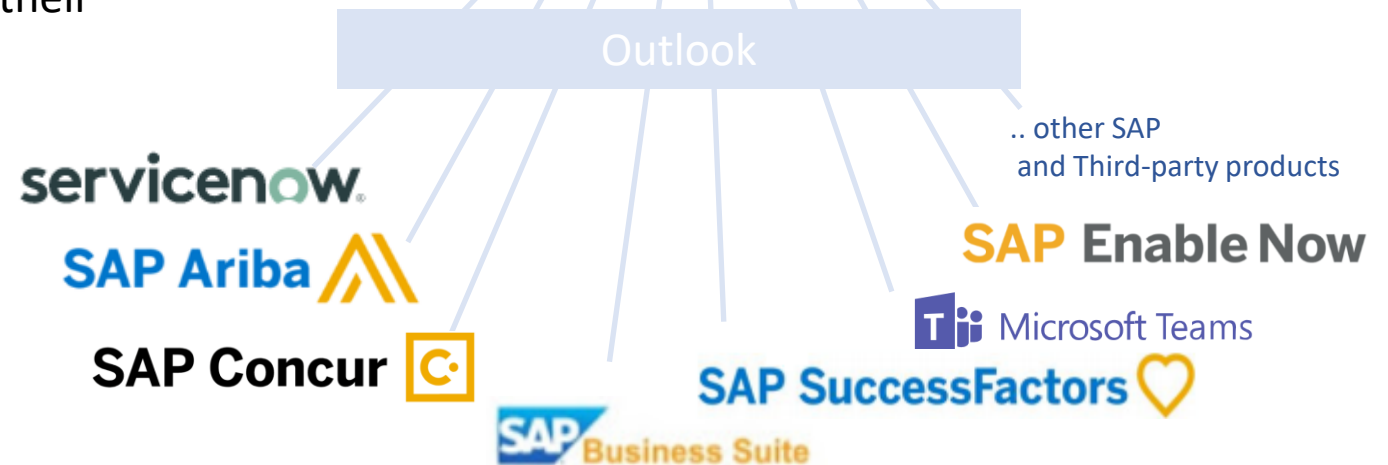
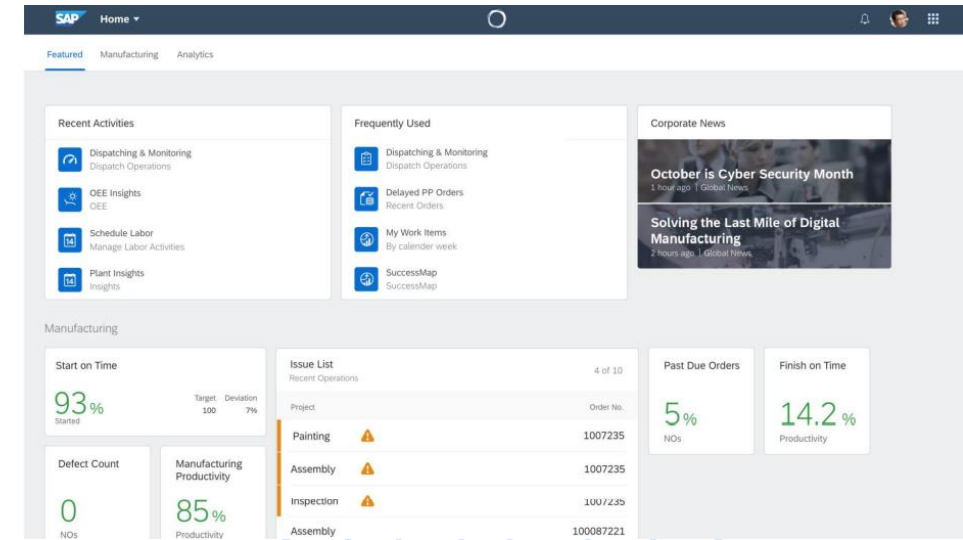


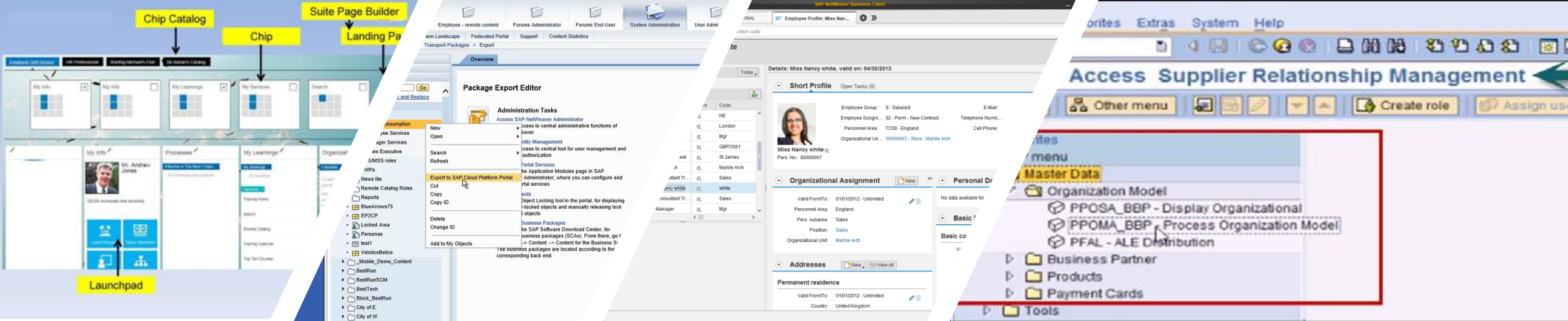
MIGRATE FROM ON-PREM
ADFS TO AZURE AD (IPS + IAS)

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

Part of the Early Adopters Care (EAC) Program

Business Content to be Migrated

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

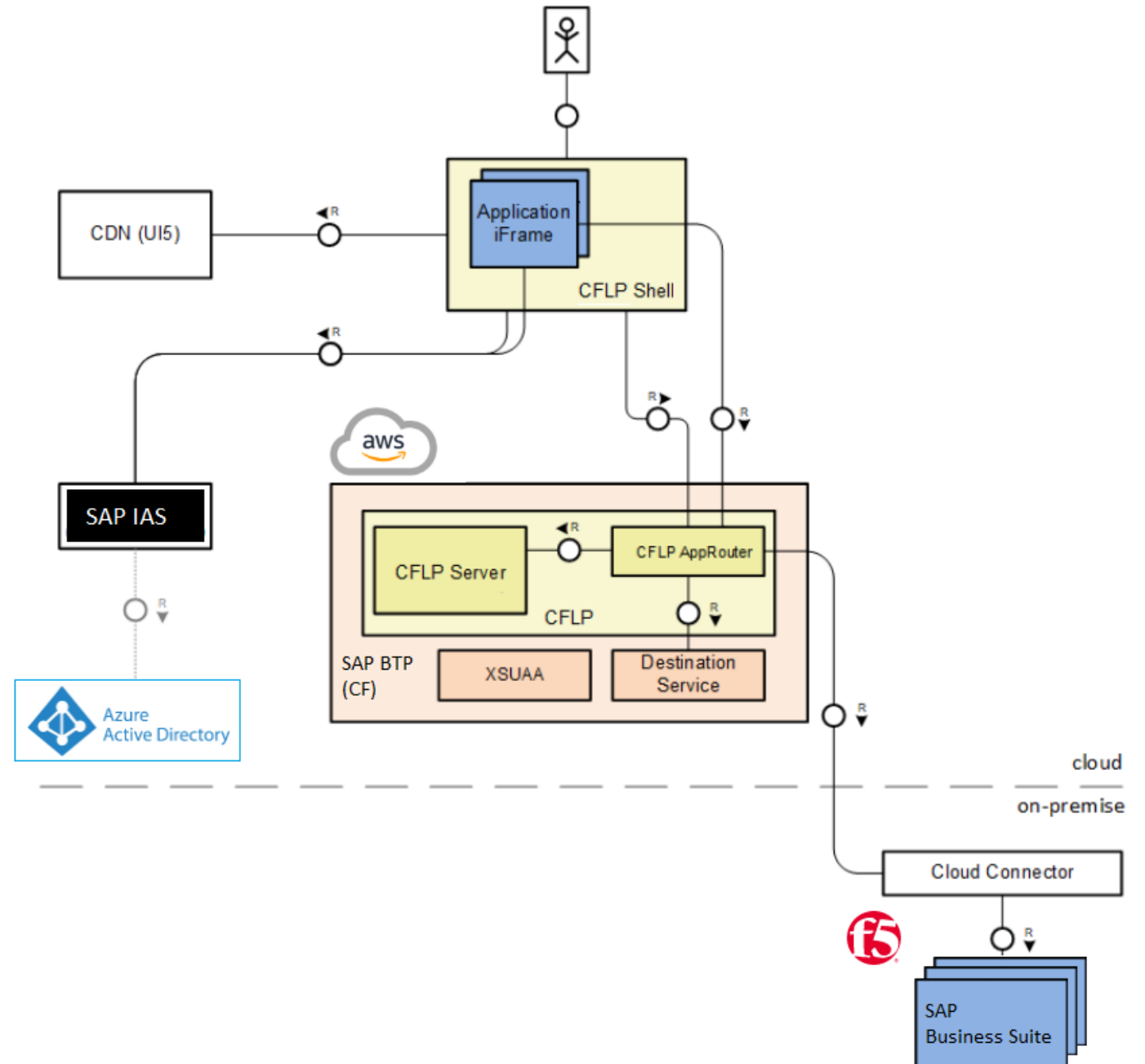
- Launchpad Services connects to a content provider (e.g S/4HANA)
- Provider system exposes app configuration and content structure via CDM (common data model)
- Content admin can browse & select specific role from provider and assign it to site / users

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

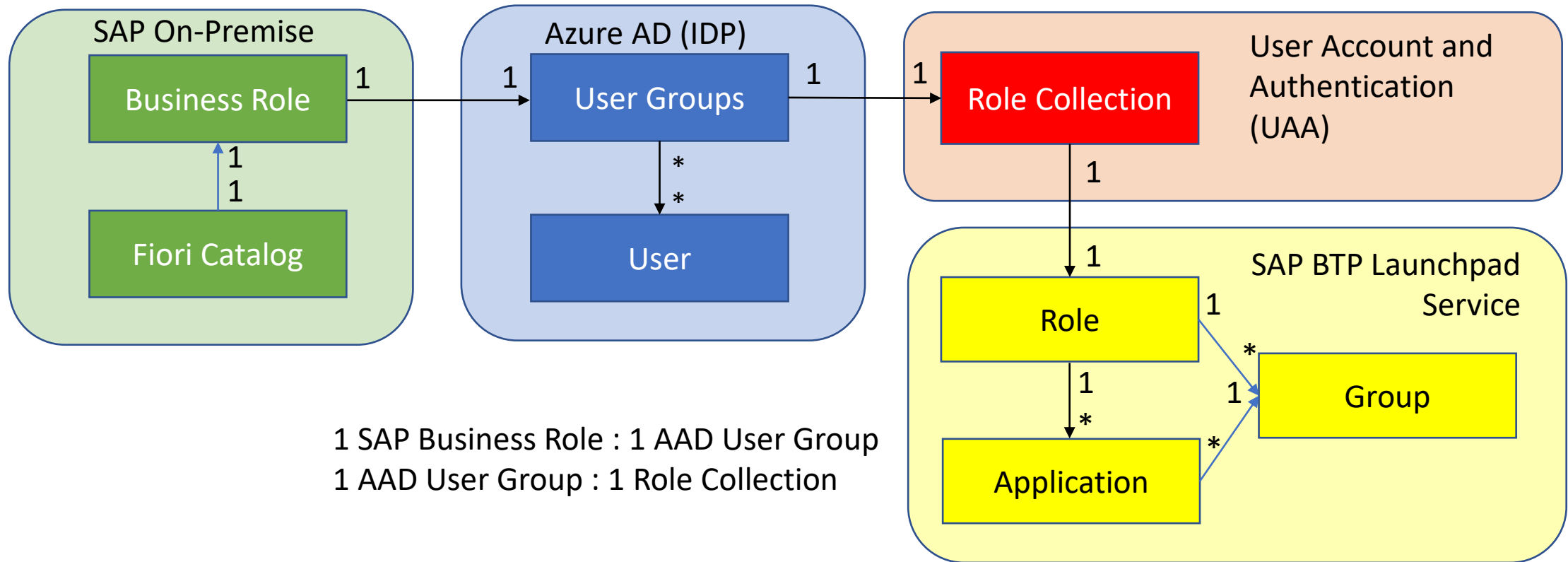
*with Content Federation approach you can use Web Dynpro Compatibility Mode which wraps the Web Dynpro Application in an NWBC URL, useful for use cases which still uses OBN (Object Base Navigation)

Tunneled 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 (1) (5/5)

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

General

Title: Test API

ID: Test_API

Description:

Additional Info

Created: Aug 1, 2021, 11:46:33 AM

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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" with a subtitle "Enables you to manage service instances, roles, templates, and collections." Below the title are buttons for "Show API Key", "Download SDK", and "Add to API Explorer". The "API References" tab is selected, showing a list of API endpoints. The left sidebar has a navigation menu with "Attribute Mapping" highlighted. The main content area lists several endpoints:

Method	Endpoint	Description	Try out	Code Snippet
GET	/sap/rest/authorization/v2/identity-providers/{origin}/attributes/rolecollections	Returns role collections and their attributes for an identity provider.		
GET	/sap/rest/authorization/v2/identity-providers/{origin}/rolecollections/{roleCollectionName}	Returns the attributes for a role collection.		
GET	/sap/rest/authorization/v2/identity-providers/{origin}/attributes/{attributeName}/{attributeValue}	Returns all role collections with a specific attribute name and value.		
GET	/sap/rest/authorization/v2/identity-providers/{origin}/attributes/{attributeName}/rolecollections/{roleCollectionName}	Returns a specific role collection that contains a specific attribute.		
POST	/sap/rest/authorization/v2/identity-providers/{origin}/attributes	Add an identity provider attribute with a value to a role collection.		
DELETE	/sap/rest/authorization/v2/identity-providers/{origin}/attributes/{attributeName}/{operator}/{attributeValue}/rolecollections/{roleCollectionName}	Deletes an attribute mapping from a role collection.		

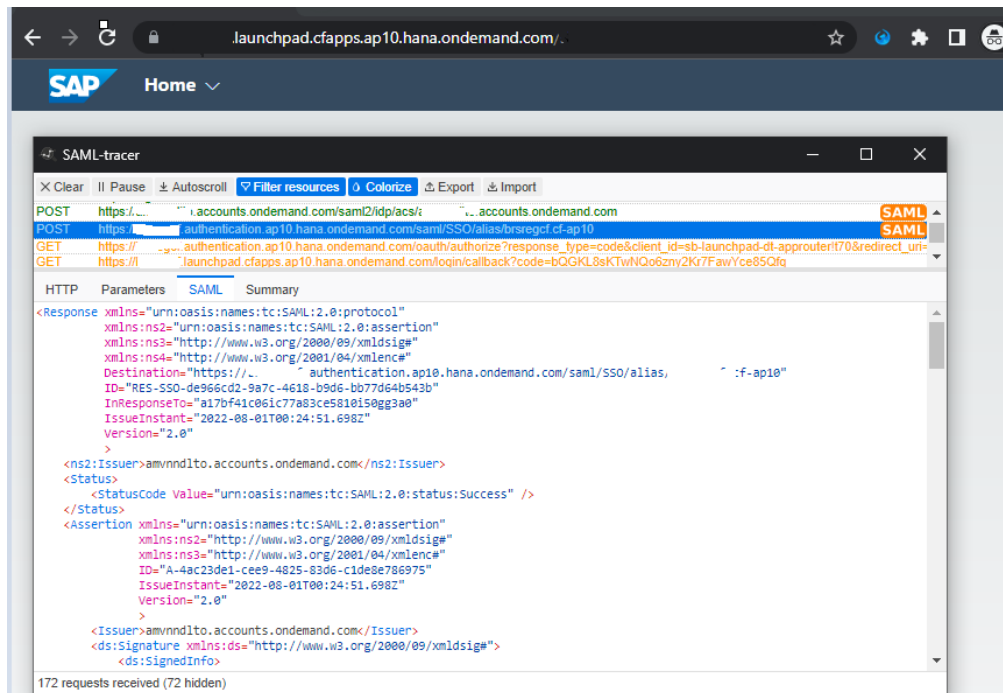
<https://api.sap.com/api/AuthorizationAPI/resource>

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

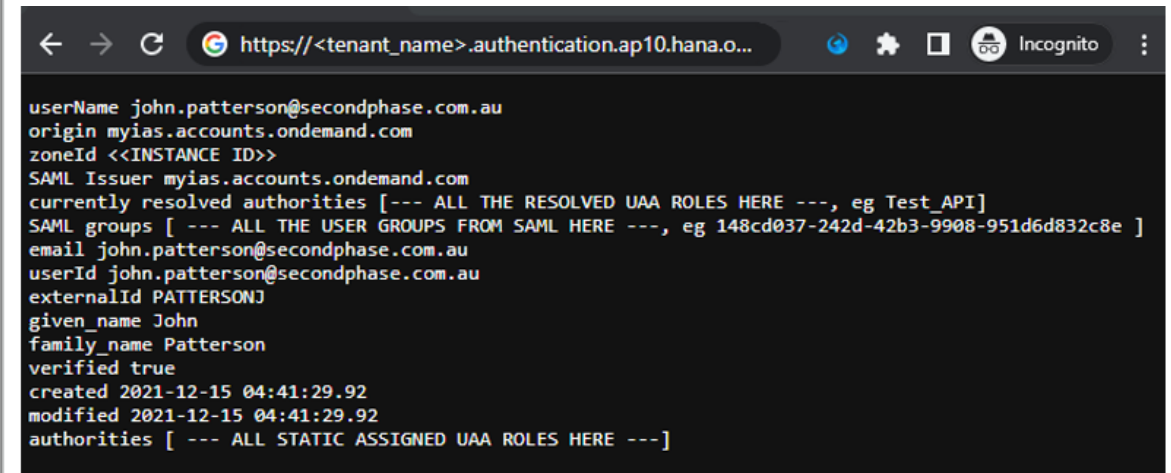
The screenshot shows a Postman API request configuration. The method is "POST" and the URL is "https://api.authentication.ap10.hana.ondemand.com/sap/rest/authorization/v2/identity-providers/myias.accounts.ondemand.com/attributes/". The "Body" tab is selected, and the data is in "raw" format (JSON). The JSON body is as follows:

```
1 {
2   "attributeName": "Groups",
3   "attributeValue": "148cd837-242d-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

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>

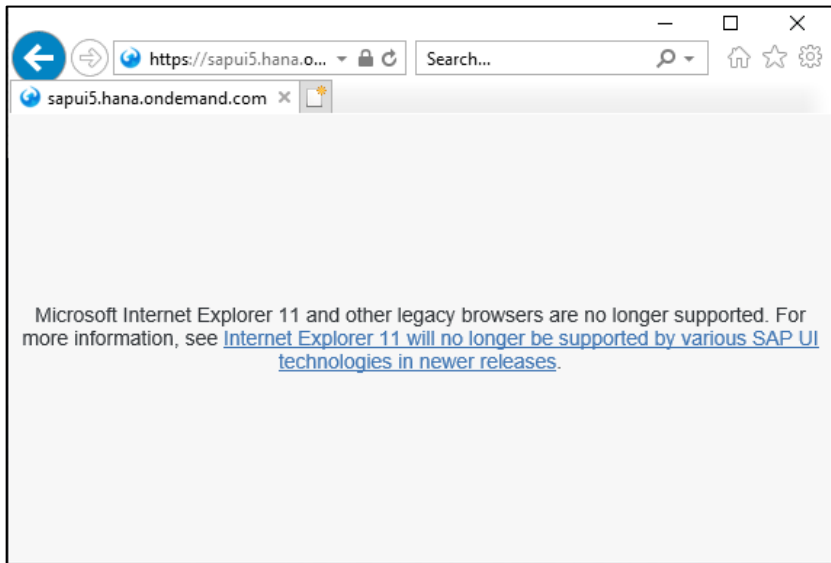
I raised 38 OSS #EAC-LP messages in 12 months (20 High)
Note most fixes meant either a UI5 patch or a ABAP SNOTE or both

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

March 2021



April 2021

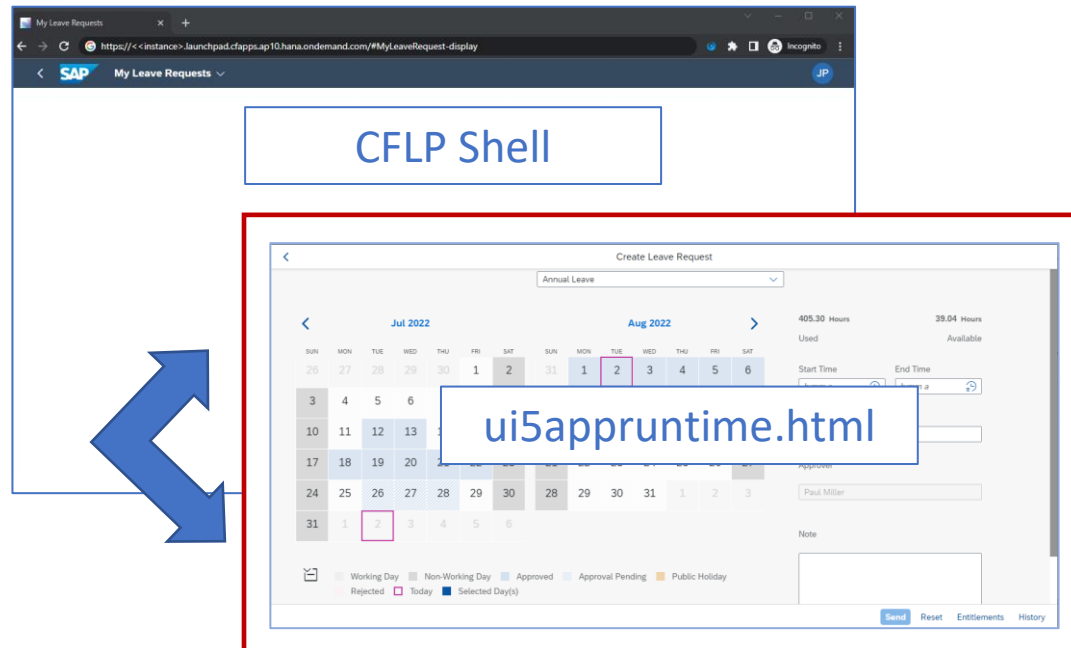


Handy tip for testing CFLP on previous version
</site?sap-ui-version=1.88.1#Shell-home>

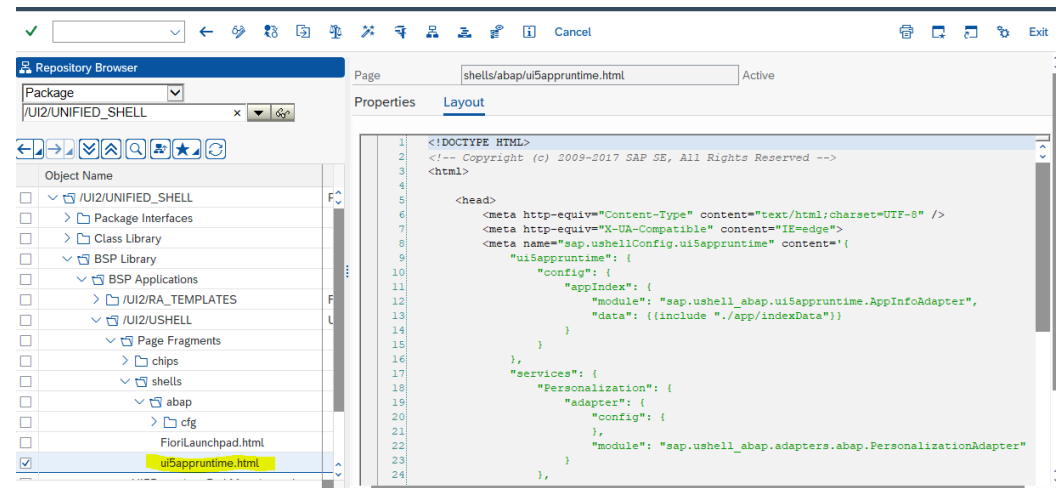
Application Runtime



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

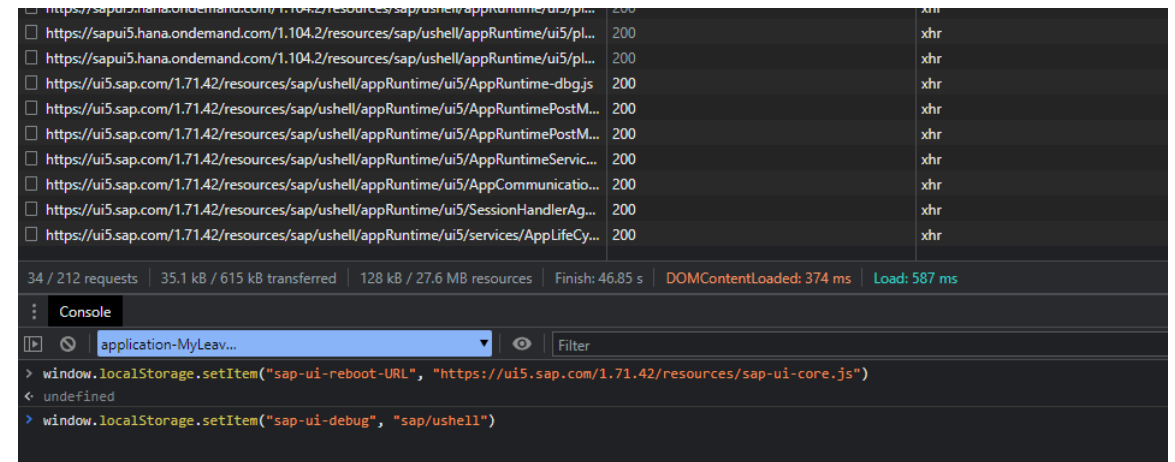
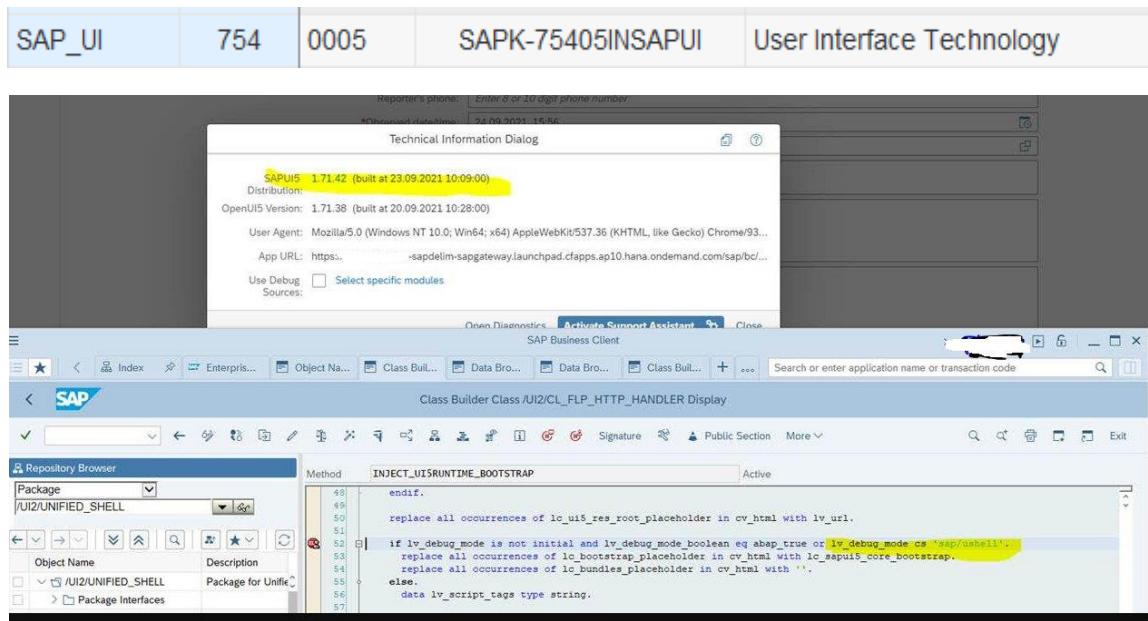
Origin	Purpose	URL Pattern	Description
SETUP	SAPUI5CDN	https://ui5.sap.com/	UI5 from SAP CDN account

<input type="checkbox"/>	<input checked="" type="checkbox"/>	SAP Customizing Implementation Guide
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Activate Business Functions
<input type="checkbox"/>	<input checked="" type="checkbox"/>	SAP NetWeaver
<input type="checkbox"/>	<input checked="" type="checkbox"/>	SAP Gateway Service Enablement
<input type="checkbox"/>	<input checked="" type="checkbox"/>	SAP Gateway
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Notification Channel
<input type="checkbox"/>	<input checked="" type="checkbox"/>	UI Technologies
<input type="checkbox"/>	<input checked="" type="checkbox"/>	SAPUI5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Configure SAPUI5 Bootstrapping
<input type="checkbox"/>	<input checked="" type="checkbox"/>	SAP Fiori

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



<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!