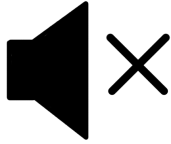


Nov 16, 2021

Source Control – Setup, Usage, REST APIs and CI/CD using REST APIs

Nithiyanandhakumar Sellamuthu, Lead SME, GCS

Housekeeping Tips



- Today's Webinar is scheduled for **1 hour**
- The session will include a webcast and then your questions will be answered live at the end of the presentation
- All dial-in participants will be muted to enable the speakers to present without interruption
- Questions can be submitted to "All Panelists" via the **Q&A option** and we will respond at the end of the presentation
- The webinar is **being recorded** and will be available on our **INFASupport YouTube channel** and **Success Portal** - where you can download the **slide deck** for the presentation. The link to the recording will be emailed as well.
- Please take time to complete the **post-webinar survey** and provide your feedback and suggestions for upcoming topics.

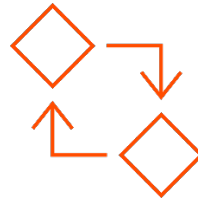
Feature Rich Success Portal



Bootstrap trial and
POC Customers



Enriched Customer
Onboarding
experience



Product Learning
Paths and Weekly
Expert Sessions



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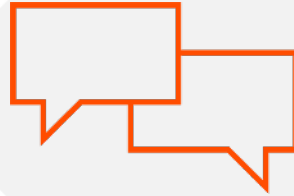
Tailored training and
content
recommendations

More Information



Success Portal

<https://success.informatica.com>



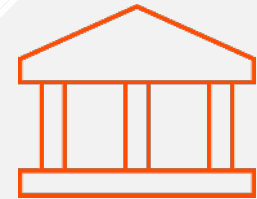
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Documentation

<https://docs.informatica.com>



University

<https://www.informatica.com/in/services-and-training/informatica-university.html>

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Nov 16, 2021

IICS Source Control

Nithiyanandhakumar Sellamuthu | Lead SME


Agenda

- Use cases
- Source Control Management offerings
- Source Control Configuration
- Source Control UI Features
- REST APIs
- CI/CD using REST APIs
- Source Control best practices
- Demo
- Q&A

Use Cases

- Asset Backup Management
- SDLC – Code promotion
 - Promotion of assets across environments from repo
 - Rollbacks
- Deployment Automation (with REST APIs)

Source Control Management offerings

Product	SaaS	Self-hosted (On-Premise)
GitHub	✓	✓
 GitLab		✓
 Bitbucket		✓
 Azure DevOps	✓	
 git Generic repo	N/A	✓

Source Control Configuration - Licenses

On Premise Repository	Cloud Repository
Source Control GitRepoConnectApp_R1	Source Control

Fixed Width File Format	Data Integration	Mappings	Subscription		Dec 31, 2022
GitRepoConnectApp_R1	Platform	Packages	Trial	Feb 16, 2021	Dec 31, 2021
Google Apigee Cloud App Integration Features	Application Integration	Application Integration	Subscription	Dec 24, 2020	Dec 31, 2022
-	-	-	-	-	-
SnowflakeScanner	Platform	Packages	Subscription	Oct 26, 2021	Dec 31, 2021
Source Control	Platform		Trial		Dec 31, 2021
SqlServerScanner	Platform	Packages	Subscription	Oct 26, 2021	Dec 31, 2021

Source Control Configuration – Cloud Repository

☒ **Enable Source Control**

Git Configuration

☒ **Allow Push to Git Repository** ⓘ

Push/Write into Git is enabled. Only recommended for Dev IICS Org.

Platform:

Cloud ▼

Git Repository URL: *

https://github.com/nithysellamuthu/MyProj

Git Branch Name:

dev

Git branching if required and it's maintained outside IICS

☒ **Allow OAuth access to Git** ⓘ [Install Git Access App at Github](#) ⓘ

Source Control Configuration – On Premise Repository

Enable/Disable Components in Agent Group

ServicesConnectorsAdditional Services

Select the services to enable for the Secure Agent group. If your selection requires additional services or connectors, they will be automatically enabled. Services and connectors that are required by enabled services cannot be disabled.

Additional Services

☐ Enabled Additional Services

☒ Self-hosted Git Repo

☐ EDC Integration

Agent Service Details

Service Name	Enabled/Disabled	Status	Version	Last Update Time
Data Integration Server	Enabled	✓ Up and Running	61.0.10	Nov 10, 2021 8:01:09 AM
Mass Ingestion	Enabled	✗ User Stopped	15.6	Nov 10, 2021 7:32:47 AM
Data Integration Server	Enabled	⚠ Starting up	61.0.11	Nov 11, 2021 8:57:12 AM
GitRepoConnectApp	Enabled	✓ Up and Running	1.0.15	Nov 10, 2021 7:33:24 AM
Common Integration Components	Enabled	✓ Up and Running	14.0.2	Nov 10, 2021 6:55:07 AM
OI Data Collector	Enabled	✗ User Stopped	23.1	Nov 10, 2021 7:33:36 AM

Source Control Configuration – On Premise Repository

```
[root@innithyrhelvm01 apps]# pwd
/root/infraagent/apps
[root@innithyrhelvm01 apps]# ll
total 4
drwxr-xr-x  8 root root   83 Nov 10 01:28 Administrator
drwxrwxr-x  8 root root 4096 Nov 10 01:44 agentcore
drwxr-xr-x  9 root root  101 Nov 10 01:54 Common_Integration_Components
drwxr-xr-x 13 root root  158 Nov 10 02:27 Connector_Service
drwxr-xr-x 17 root root  232 Nov 11 03:59 Data_Integration_Server
drwxr-xr-x  9 root root  101 Nov 10 02:33 GitRepoConnectApp
drwxr-xr-x  5 root root   86 Oct  3 12:06 jdk
drwxr-xr-x  6 root root   53 Jul 11 11:56 MassIngestionRuntime
drwxr-xr-x  6 root root   53 Aug 13 06:40 OpsInsightsDataCollector
drwxr-xr-x  4 root root  267 Nov 11 03:59 runAJobCli
[root@innithyrhelvm01 apps]#
```

```
[root@innithyrhelvm01 GitRepoConnectApp]# ll
total 12
drwxr-xr-x 5 root root  194 Nov 10 02:02 1.0.13.1
drwxr-xr-x 5 root root  194 Nov 10 02:35 1.0.14.1
drwxr-xr-x 6 root root  208 Nov 10 02:33 1.0.15.1
drwxr-xr-x 2 root root    6 Mar 25 2021 conf
drwxr-xr-x 2 root root    6 Mar 25 2021 data
drwxr-xr-x 2 root root    6 Mar 25 2021 ext
drwxr-xr-x 2 root root 8192 Nov 11 00:00 logs
[root@innithyrhelvm01 GitRepoConnectApp]#
```

Source Control Configuration – On Premise Repository

☒ **Enable Source Control**

Git Configuration

☒ **Allow Push to Git Repository** ⓘ

Platform:

On-Premise ▼

Git Repository URL: *

https://github.com/nithysellamuthu/MyProj

Git Branch Name:

dev

Runtime Environment:

Nithy_Linux_SA_Group ▼

Agent through which Git
repo connectivity will be
made

☐ **Allow OAuth access to Git** ⓘ [Install Git Access App at Github](#) ⓘ

Source Control Configuration – User Profile



Settings

Source Code Control Credentials

Git Repository URL: `https://github.com/nithysellamuthu/MyProjects.git`

Git Branch Name: `dev`

☒ OAuth Access

Drop Authentication

User Name: `nithysellamuthu`

Last Login: `Sep 22, 2021, 9:09 PM`

☐ Personal Access Token

Git User Name: * ?


Personal Access Token: *

Informatica GCS india-Nithy ▾



Nithiyanandhakumar Sellamuthu
nsellam_suborg

Profile

 Settings

Log Out

Source Control UI Features

- Checkin
 - Pushes/Writes an asset into Git from IICS
- Checkout
 - Checks out from IICS and put a lock on it. No activity with Git
- Undo Checkout
 - Undo above action
- Unlink
 - Disconnect the link between IICS and Git for that asset

Source Control UI Features

- Pull from Git (Explore page)
 - First Pull of the Asset
 - When required to Pull assets from multiple locations inside a Project
- Pull (Individual Asset)
 - Subsequent Pull action on a single asset, single folder, single project
- Delete (Check out first and then Delete)
 - To delete from IICS and Git

Source Control UI Features

- Filter options to identify Source Controlled assets

The screenshot displays the Informatica Source Control interface. At the top, there is a navigation bar with 'Explore' and 'All Projects' dropdowns. On the right, buttons for 'Pull from Git...', 'New Project', and 'Import...' are visible. Below the navigation bar, the 'All Projects (29)' section includes a search bar and a filter icon. A dropdown menu for 'Add Field' is open, listing various filter options. The main area contains a table of projects with columns for 'Updated On' and 'Description'.

	Updated On	Description
Bundles	Oct 25, 2021, 8:53 PM	
S_CRM	Apr 27, 2021, 7:37 PM	IDW Crm DataWarehouse
nect_Claims_Conversion	Jul 15, 2021, 10:43 PM	Project Abbreviation: CCCC -- Contains Objects for Claim Conversion from LEL to Common Stage to Clai...
	Feb 11, 2020, 9:30 PM	Auto-generated Default Project
	Oct 16, 2020, 7:26 PM	Demo Project for Jeff Koss
TL	Mar 15, 2021, 3:31 PM	

Source Control UI Features

- How to see Version History for an Asset / How to Pull directly from an Asset?

The screenshot displays the Informatica Source Control interface. At the top, a header bar shows the asset name '04215650_SFDC_Oracle', its type 'Mapping', the last update 'Nov 11, 2021, 2:39 PM', and the current state 'Making a small change'. A right-hand menu contains options: Properties..., View, Edit, Run, New Mapping Task..., Check In, Check Out, Unlink, and Pull (highlighted). Below this, a 'Pull' dialog is open, showing a progress bar with '1 Select Git Version' and '2 Review Selection'. The dialog prompts the user to 'Select which root Git version of the selected projects you'd like to pull.' Below the prompt is a table of commit hashes.

Check In Time	Git Hash	Git User Name	User Name	Git Summary
Nov 11, 2021, 2:39 PM	9057786	nithysellamuthu	nsellam_suborg	Second change
Oct 26, 2021, 7:13 PM	a1b1a36	nithysellamuthu	nsellam_suborg	Test

Source Control – REST API

- commitHistory

GET

/public/core/v3/commitHistory?<query parameters>

- Request the commit history for all of your organization's projects and assets or request the history for a particular project or asset.
- Example request : */public/core/v3/commitHistory/?q=path=='Nithy/Repro/04215650_SFDC_Oracle' and type=='DTEMPLATE'*

- Pull

POST

/public/core/v3/pull

- Resource to retrieve objects from Git repository and load them into IICS organization. A single asset or pull any number of projects can be pulled.

Source Control – REST API

- Checkout

POST	/public/core/v3/checkout
------	--------------------------

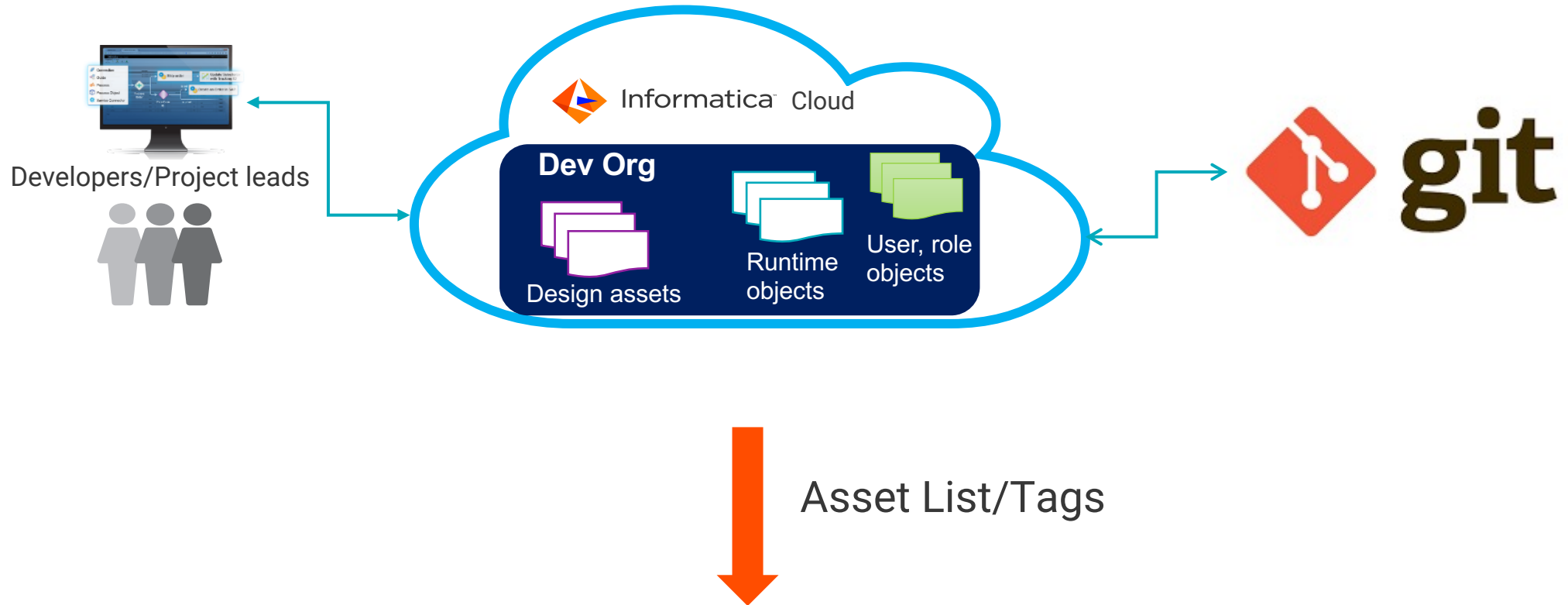
- Checkin

POST	/public/core/v3/checkin
------	-------------------------

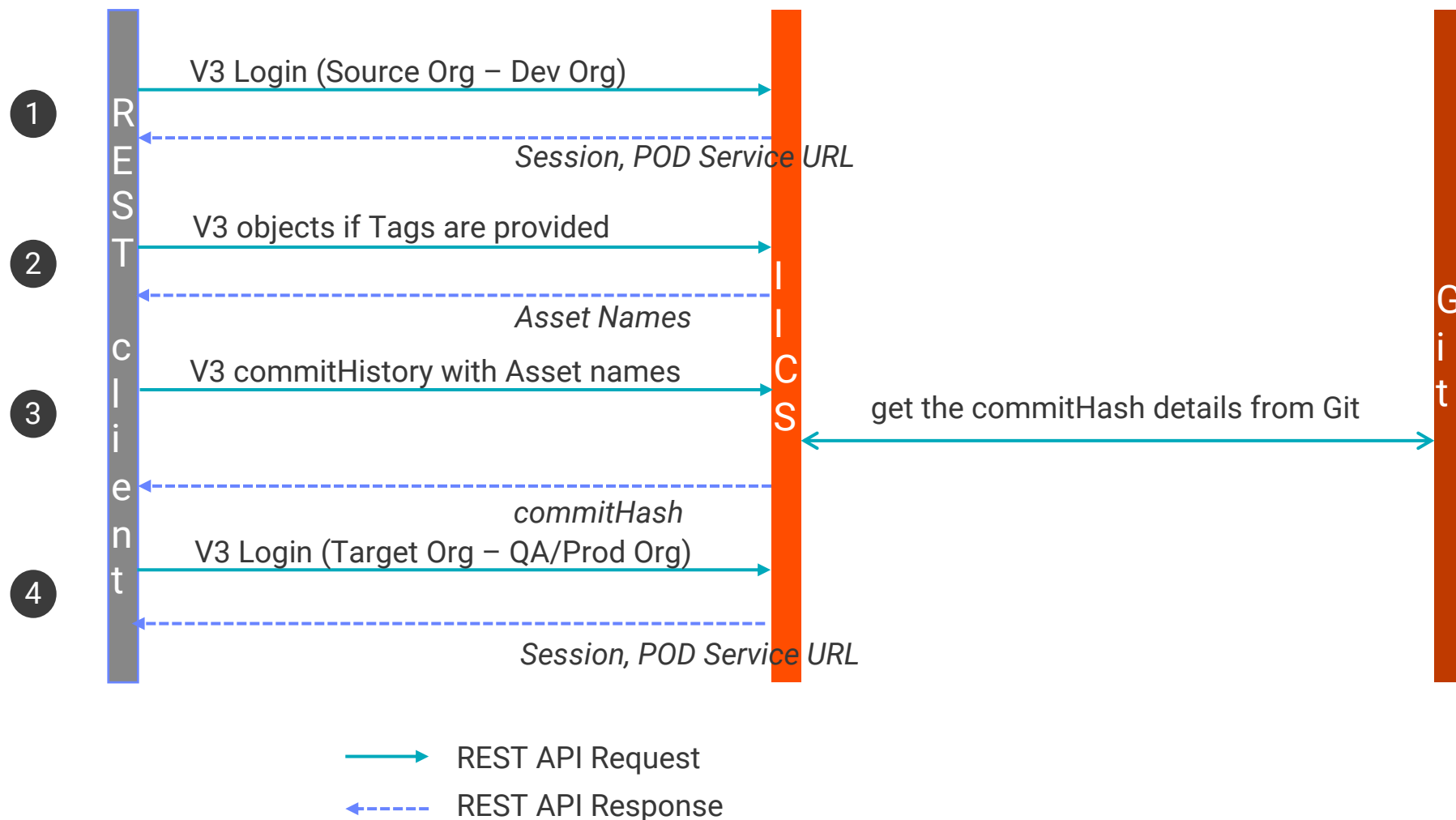
- sourceControlAction

GET	/public/core/v3/sourceControlAction/<action ID>
-----	---

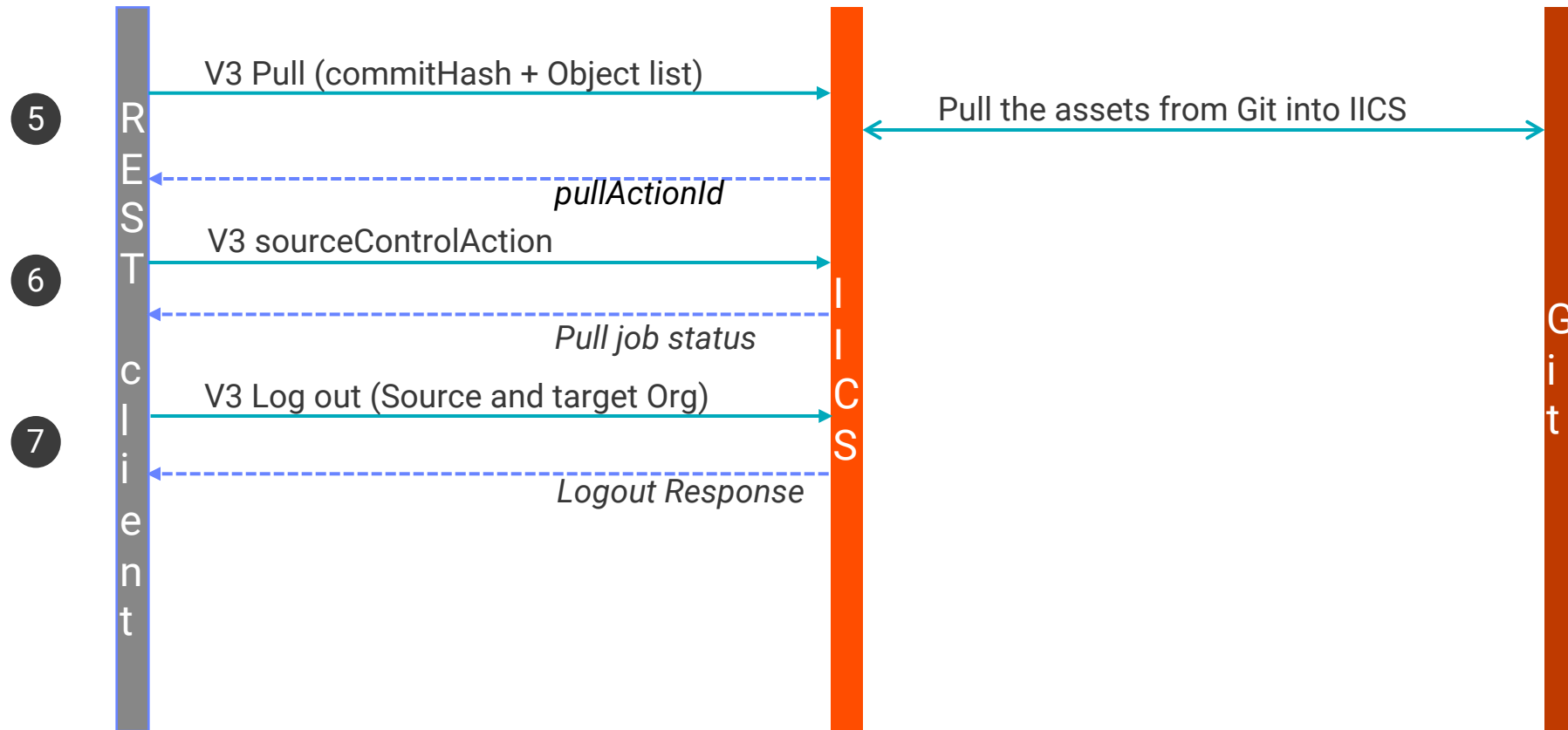
Source Control – CI/CD using source control REST API



Source Control – CI/CD using REST API



Source Control – CI/CD using REST API



→ REST API Request
← REST API Response

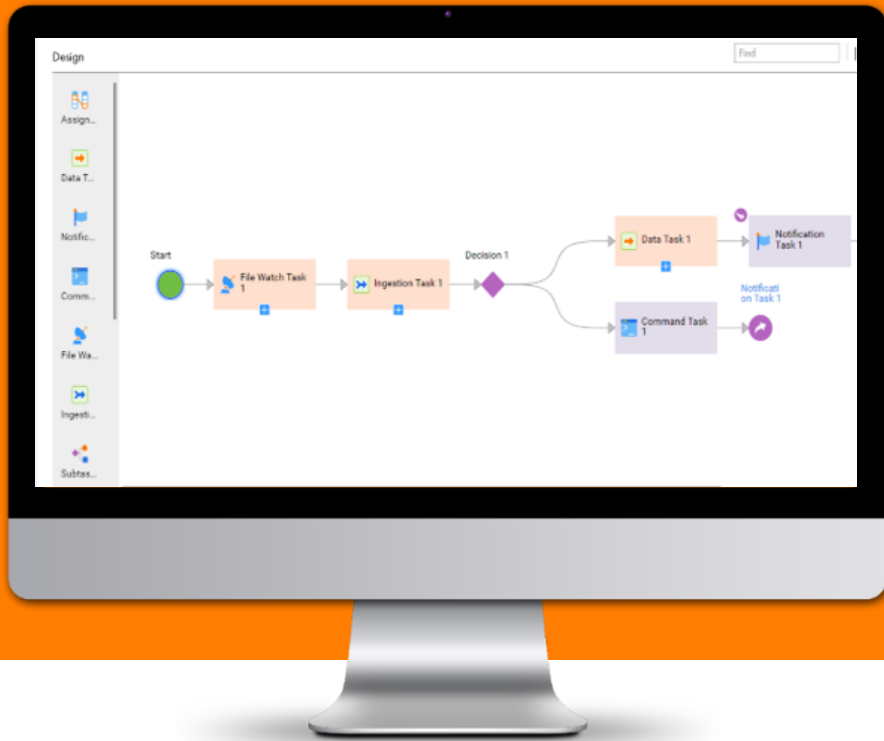
Source Control – Best practices

- We recommend maintaining different Development, Test, Staging, and Production organizations to ensure isolation across environments so that changes meant for say a test environment do not accidentally get deployed to say a production environment.
- Development organizations must be configured for “read/write” (push) access to the Git repository. Non-development organizations (Test/Staging/Production, etc.) should be configured for “read-only” access to the Git repository.
- We highly recommend that you pair only one development organization with a Git repository at a time. If you pair multiple development organizations with one Git repository, then you must ensure that projects do not clash across organizations because one user’s changes could overwrite another user’s changes.

Source Control – Design phase

- Before pulling assets from Git into an organization, create connections and runtime environments in the organization. This allows you to easily and effectively reuse connections and runtime environments in your design objects.
- Be aware of dependencies across projects. Make sure reusable objects such as mappings are present in the repository and organization before they get used, as IICS does not allow saving an asset such as mapping task when the dependent mapping is NOT present.
- Identify all dependencies before performing a check out on reusable objects like mappings, mapplets, and user defined functions.
- Check out all dependent objects in one operation. (For example, when modifying mapping, check out the mapping and all mapping tasks that call this mapping in one operation.)
- Check in all dependent objects as part of a single commit.

Demo



Summary

REST API - [Source control \(informatica.com\)](#)

Source Control - [Source control \(informatica.com\)](#)

Source Control - [Source control and service upgrade settings \(informatica.com\)](#)

Setup KB - [HOW TO: Perform Version Control using GITHUB in IICS \(informatica.co](#)

Please email your CSM or Account Manager
if you have any additional questions on these products

Thank You