July 13, 2021

IICS Continuous Integration/Deployment

Shiv Patel, Principal Customer Success Technologist,
Sriram Seshadri, Principal Customer Success Technologist
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
- Informatica Concierge
- Tailored training and content recommendations
More Information

- **Success Portal**: https://success.informatica.com
- **Communities & Support**: https://network.informatica.com
- **Documentation**: https://docs.informatica.com
- **University**: https://www.informatica.com/in/services-and-training/informatica-university.html
Safe Harbor

The information being provided today is for informational purposes only. The development, release, and timing of any Informatica product or functionality described today remain at the sole discretion of Informatica and should not be relied upon in making a purchasing decision.

Statements made today are based on currently available information, which is subject to change. Such statements should not be relied upon as a representation, warranty or commitment to deliver specific products or functionality in the future.
IICS Continuous Integration/Deployment
Agenda

1. Target Persona
2. GitHub Native Integration
3. Using REST and CLI
4. Demo
GitHub Native Integration
# IICS-Git: Integrations Supported

<table>
<thead>
<tr>
<th>Product</th>
<th>SaaS</th>
<th>Self-hosted (On-Premise)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GitHub</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>GitLab</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>Bitbucket</strong></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Azure DevOps</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>git</strong> Generic repo</td>
<td>N/A</td>
<td>✓</td>
</tr>
</tbody>
</table>
IICS-Git: On-premise Git repo integration

- The Git Connect agent app requires enabling of GitRepoConnectApp_R1 license for the Org
- Integration is expected to work with any on-premise Git repository, but currently tested with GitLab and GitHub only
  - Customer can use any Git repository, but Informatica can reproduce/verify a reported issue on GitLab or GitHub only
Developers can work concurrently on separate assets

Each Org can be mapped to different branch in same repo. Branches can be merged in Git (outside IICS)
Setup phase:

- 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. Such a sanitized structure also ensures that users do not accidentally push changes to GitHub from a non-development environment.

- Development organizations must be configured for “read/write” (push) access to the GitHub repository. Non-development organizations (Test/Staging/Production, etc.) should be configured for “read-only” access to the GitHub repository.

- We highly recommend that you pair only one development organization with a GitHub repository at a time. If you pair multiple development organizations with one GitHub repository, then you must ensure that projects do not clash across organizations because one user’s changes could overwrite another user’s changes. Also branching support is available as part of the recent release if a single repo is used.
Development phase:

- Maintain golden/master copies of projects that are source controlled.

- Before pulling assets from GitHub 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.
Sample Workflow (with Review process).

- Developer checks code from IICS UI to the dev branch from the dev org.
- If the developer has a code for review to be checked into the QA/UAT/Prod org, they check in and create a pull request.
- Reviewer gets the pull request and goes to the Dev Org and reviews it.
- If reviewer is satisfied, approves the code from Git UI and this trigger can be captured by any CI/CD tool like Jenkins.
- Jenkins picks up the approval trigger and does a cherry pick of the commit code into the QA branch. So only reviewed code gets into QA branch and eventually to Prod branch.
- Use the Git pull API to get the latest version to pull code into upstream orgs.
Demo
CI/CD via REST API and CLI
Object Export/Import - DevOps Flow

Propagate deployment changes from Dev to Prod

Dev Org
- Design assets
- Runtime objects
- User, role objects

DevOps/Developers

Export

External storage
(file system / version control)

Package

Import

PROD Org
- Design assets
- Runtime objects
- User, role objects

Ops/DevOps

External storage
(file system / version control)
**Use Case**
Developer needs to refer to an earlier version of an integration asset for reuse or regression analysis

- Export one or more created assets from Informatica Cloud to external version control systems
- Import the asset(s) back from version control system to Informatica cloud to a desired project / folder
Export/Import Process through APIs

1. REST Client
   - `api/lookup` *(path, objectName)*
   - Object metadata *(guid, path, name, type)*

2. IICS
   - `api/export` *(guid)*
   - Export job ID *(export job status)*

3. REST Client
   - `api/export/{exportJobId}/package`
   - Export package Zip

4. IICS
   - `api/import/package` *(package zip)*
   - Upload Status *(Import job ID)*

5. REST Client
   - `api/import/{importJobId}` *(import properties)*
   - Import Status

6. IICS
   - `api/publish/{importJobId}`
   - Publish Status
Command Line Interface Utility

Allows for the easy execution of the APIs via the command line

https://network.informatica.com/docs/DOC-18245

- Allows for easy integration with Jenkins
Demo
Summary

- Export/import using REST API


- Asset Management CLI

https://network.informatica.com/docs/DOC-18245

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