opshub

DATASHEET

JIRA Integration with GitHub and Jenkins

The integration of JIRA with GitHub and Jenkins gives the project management team complete control over the codes being committed in the source code repository. It also creates complete traceability for all workitems in JIRA. With complete traceability for each workitem in the ecosystem, it is easier for enterprises to fulfill compliance requirements.

Integration overview

In an Application Lifecycle Management (ALM) ecosystem, the choice of systems and the collaboration between the cross-functional teams play a great role. While the choice of systems impacts the productivity of a team, the cross-functional collaboration helps the teams get complete context of the business requirements.

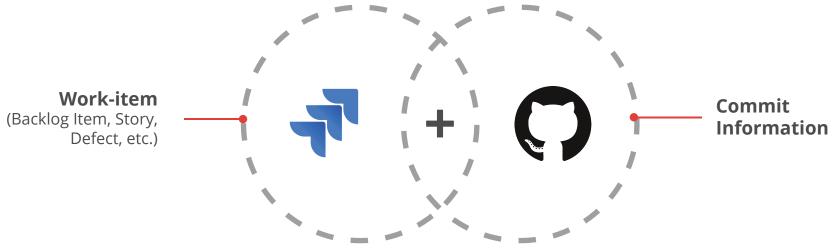
Best-of-breed systems such as JIRA, Jenkins, and GitHub bring rich functionalities to the ecosystem. When GitHub is integrated with JIRA and Jenkins, all stakeholders have real-time visibility into the commits made by the development team. It is also easier to enforce authentic commits against each work item, and access the changes/edits made to the commit files from JIRA itself.

How JIRA - GitHub - Jenkins integration is beneficial for an enterprise

- Track commit volume, track commit trends and edits/changes to commit files in real time
- Enforce authentic commits to make sure each commit is happening against a scheduled and open workitem
- Eliminate manual effort to close JIRA workitem by automating the state transition on GitHub commit

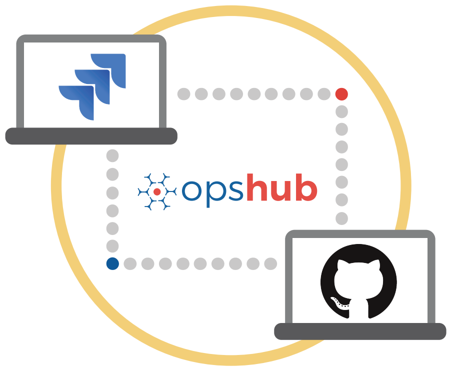
How OpsHub Integration Manager integrates JIRA, GitHub, and Jenkins

OpsHub Integration Manager integrates JIRA with GitHub and Jenkins bi-directionally. It ensures that all historical and current data is available to each user, in that user's preferred system, with full context, in real-time. All the details related to a commit made against a work-item in JIRA can be tracked from JIRA itself. For example, for each commit that development team makes in GitHub, GitHub synchronizes a 'commit entity' linked to the specific requirement id back to JIRA. Each 'commit entity' includes information such as 'who did the commit?', 'when was the commit done?', and 'which part of the code was committed?'. The integration of Jenkins also ensures elimination of developer's effort to close JIRA workitem by automating the state transition on GitHub commit.



With JIRA + GitHub + Jenkins integration, enterprises can:

- Make better and faster decisions
- Enforced checkpoints to ensure quality check-ins
- Ensure complete traceability of a 'requirement'
- Ensure quality delivery in stipulated time
- Leverage the best of functionality and collaboration in the delivery ecosystem



Entities that can be synchronized between JIRA and GitHub

The popularly synchronized entities between JIRA and GitHub are on the left:

Benefits of integration for JIRA and GitHub users

JIRA users	GitHub users
Complete traceability from JIRA to source code in GitHub	Each commit can be traced back to its respective workitem at any given point in time from GitHub itself
Visibility into the volume, quality of commits, and commit trends in real-time	Enforced checkpoints ensure that no mandatory steps/checks are missed while making a commit – this leads to high success rate for commits
Reduced dependency on manual communication to track the completion of a task	

Features of OpsHub Integration Manager

- Supports unidirectional as well as bi-directional synchronization between 50+ systems
- Maintains complete history and audit trail among integrated systems
- Allows traceability between code to requirement, tickets to defects, and many other entities
- Provides a robust failure management and recovery mechanism
- Can be hosted by OpsHub, installed on-premise, or deployed in a customer cloud

Pre-requisites to run OpsHub Integration Manager

Supported Operating Systems

Windows

- Windows Server 2012 R2
- Windows Server 2012
- Windows Server 2008 R2 (64 bit)

Linux

- RHEL 5.2 + (64 bit)
- RHEL includes Cent OS and Fedora

Tested on the following versions:

- CentOS release 5.5 (Final)
- CentOS release 5.6 (Final)
- CentOS Linux release 7.1.1503 (Core)
- Fedora 20

Database Prerequisites

The underlying database should be installed to install and run OpsHub Integration Manager. The database user created for OpsHub Integration Manager should have schema level and read write privileges.

- MySQL Server
- MS SQL
- Oracle
- HSQLDB