

NetXMS-JIRA Integration

Installation Manual

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Introduction

This module provides integration between NetXMS and JIRA, providing operator with ability to create JIRA issues directly from NetXMS management console, based on pending alarms.

When deployed and configured, both systems notify each other about changes — comments are propagated in both ways and when issue goes thru workflow in JIRA, NetXMS will change alarm status accordingly.

Prerequisites

1. REST API should be enabled in JIRA configuration (enabled in default configuration)
2. New or existing JIRA project where NetXMS will create issues
3. JIRA user with permissions to create issues in that project and comment on own issues. NetXMS use this user to create issues and attach alarm comments to corresponding issues
4. NetXMS user with access to all nodes. Required permissions:
 - a. Read
 - b. View Alarms
 - c. Acknowledge Alarms
 - d. Terminate Alarms

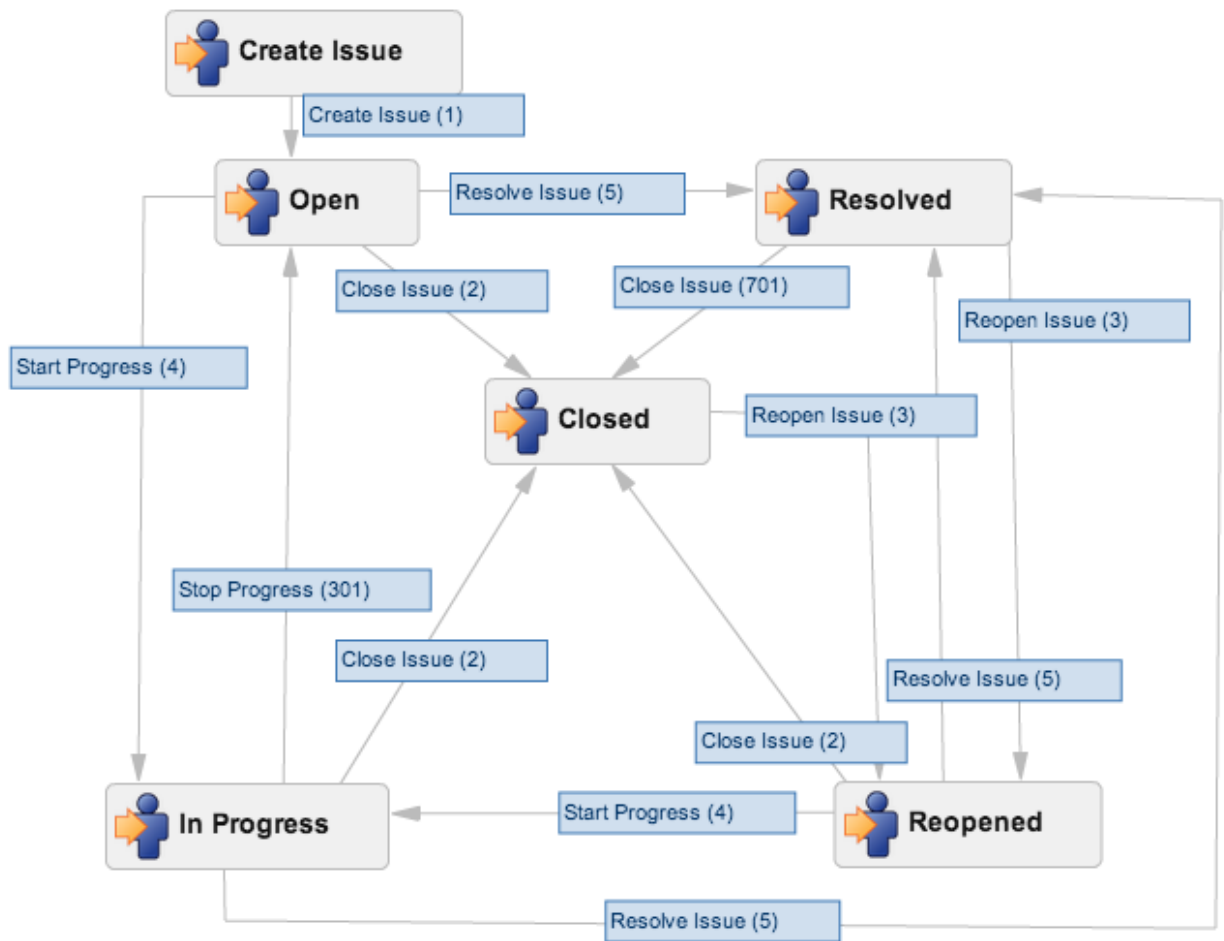
Mapping JIRA workflow transitions to NetXMS alarms

Since JIRA workflow can be much more sophisticated than alarm states in NetXMS, JIRA Administrator should decide which workflow transition should change NetXMS alarm state.

NetXMS supports four alarm states:

1. Outstanding — initial state, can't be set from JIRA side
2. Acknowledged — operator is aware of the problem and it's in progress ("Acknowledge" action)
3. Resolved — problem is resolved but alarm stays in the list until verified and terminated by supervisor ("Resolve" action)
4. Terminated — problem is resolved and verified, alarm is removed from the list ("Terminate" action)

Sample workflow (JIRA default workflow):



Sample mapping:

Transition	NetXMS post-function action
Start Progress	Acknowledge
Resolve Issue	Resolve
Close Issue	Terminate
<i>All other transitions</i>	<i>Ignored</i>

NetXMS Configuration

In management console, go to “Configuration → Server Configuration” and either change or create following parameters:

Parameter name	Description
HelpDeskLink	For JIRA integration is should always be set to "jira.hdlink" (without quotes)
JiraIssueType	Name of the JIRA issue type, which will be used by NetXMS. Sample value: "Task" (without quotes)
JiraLogin	Login of the JIRA user
JiraPassword	Password of the JIRA user
JiraProjectCode	Project Key in JIRA.
JiraServerURL	URL of JIRA installation. Example: " http://localhost:8080/jira ". Please note, that trailing slash ("/") should be removed!

When all parameters are set, restart NetXMS server. Sample log record of successful start:

```
[25-Apr-2014 14:16:07.894] [INFO ] Helpdesk link module JIRA (version 1.2.14) loaded successfully
```

JIRA Configuration

Integration plugin consists of two components — “event listener” and “workflow post-function”. Event listener receive notifications about events which are not related to project workflow (e.g. “Delete issue”, “Add Comment”) and require no configuration. Workflow post-function should be added to workflow related to the project (as described in [Workflow configuration](#) section later on).

Plugin deployment

1. In “Administration” select “Manage Add-ons”:

Administration

▼ Projects (1)

[All 1 projects](#) • [Project Categories](#) • [Add Project](#)

▼ Plugins

Add-ons

[Find New Add-ons](#)

[Manage Add-ons](#)

[Requested Add-ons](#)

[Audit Log](#)

[JIRA Update Check](#)

[OSGi](#)

Application Links

[Application Links](#)

Source Control

[CVS Modules](#)

[FishEye Configuration](#)

[Perforce Job Integration](#)

2. Select "Upload Plugin" on the right:

 [Upload Plugin](#)

[Update All](#)

mediately.

[Disable](#)

3. Select file ("netxms-connector-1.2.14.jar") and click "Upload":

Upload Plugin

Upload the .jar file for a custom or third-party plugin here.

From my computer

[Choose File](#)

netxms-conne...r-1.2.14.jar

OR

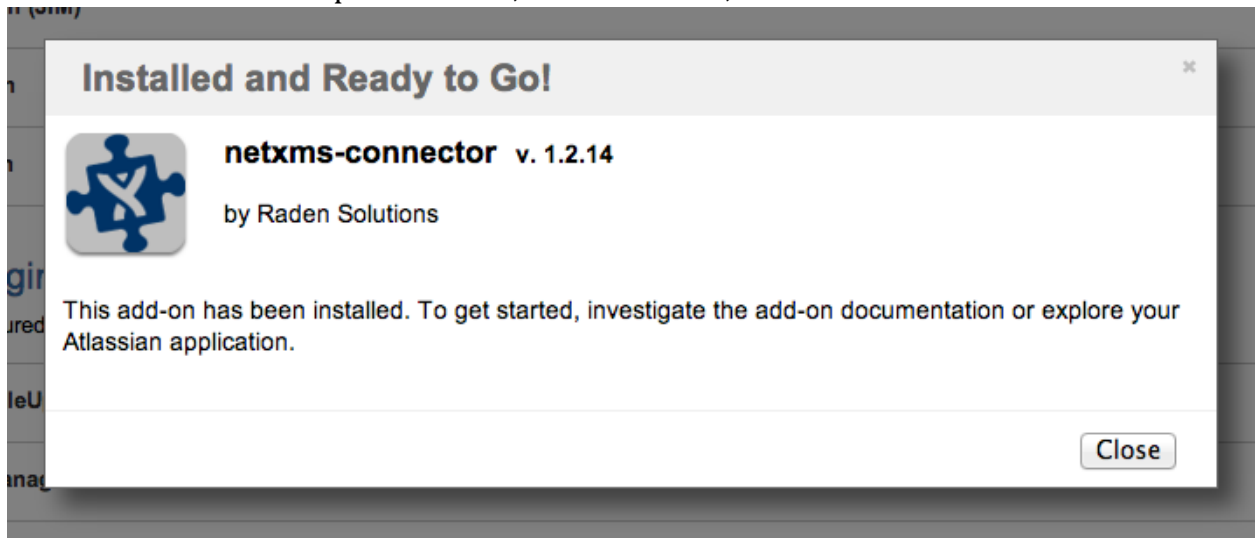
From this URL

2

[Upload](#)

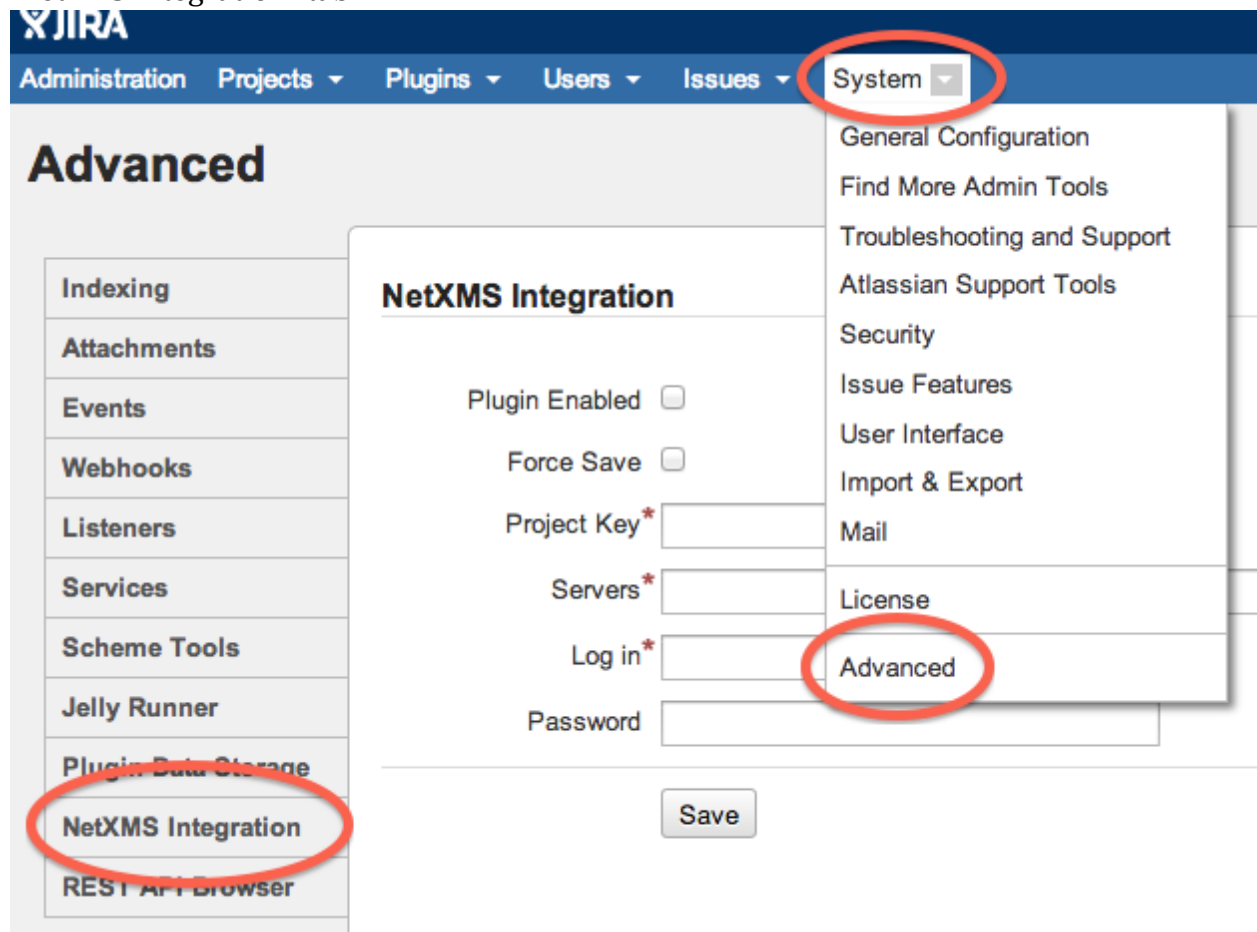
[Cancel](#)

4. Installation could take up to a minute, when it's done, close this window:



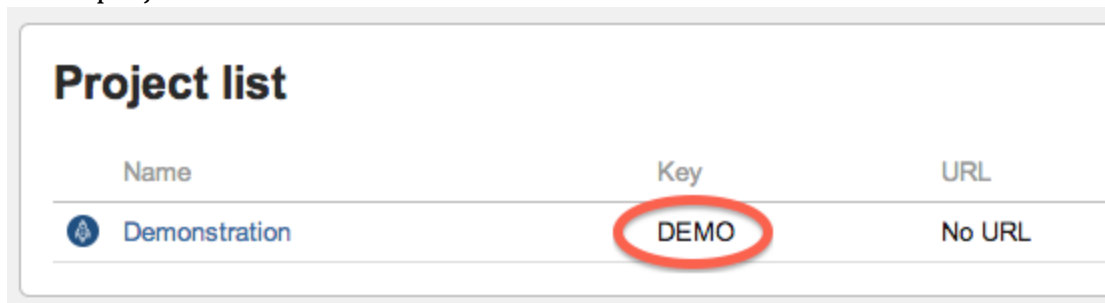
Plugin configuration


To access configuration page for the plugin, go to “System → Advanced” and select “NetXMS Integration” tab:



Possible configuration options

1. “Plugin Enabled” — global on/off switch, plugin completely cease any activity when turned off (default).
2. “Force Save” — by default, plugin will verify configuration before saving (connectivity to all servers, credentials). This checkbox allows to bypass this step completely and save configuration even if one of more NetXMS servers are rejecting provided credentials or do not respond at all)
3. “Project Key” — Key of the project, where issues from NetXMS will be created. This key will be also used in workflow operations — plugin will process events related to this project:



Name	Key	URL
 Demonstration	DEMO	No URL

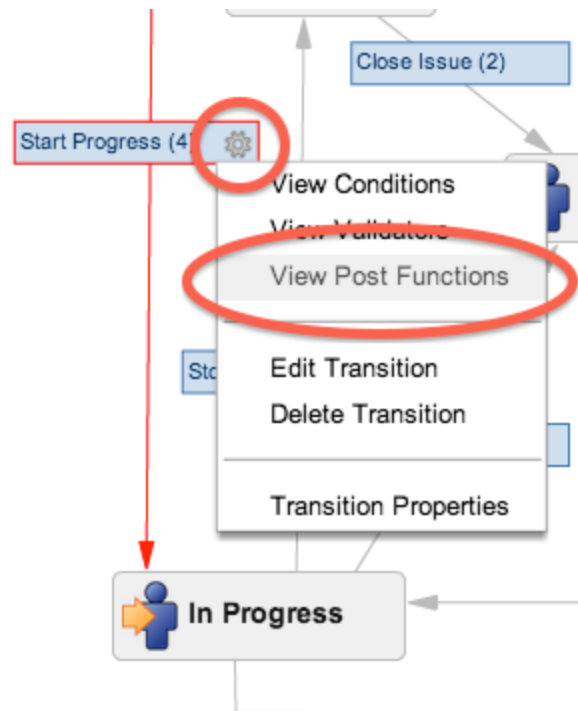
4. “Servers” — addresses of up to a 3 NetXMS servers, can be either IP address or hostname.
5. “Log In” — system user login in NetXMS (see [Prerequisites](#))
6. “Password” — system user password in NetXMS (see [Prerequisites](#))

Configuration

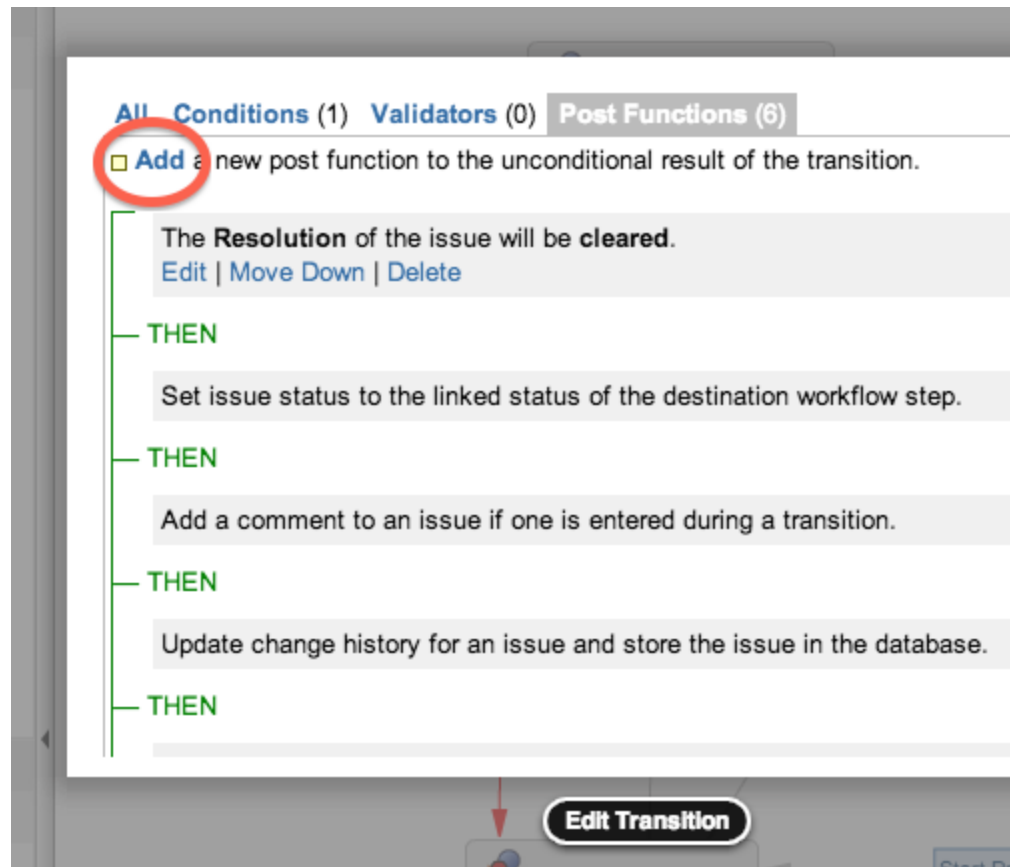
1. Set “Project Key”
2. Set address for one or more servers
3. Set login and password
4. Select “Plugin Enabled”
5. Click “Save”. Plugin will verify configuration and provide feedback. If one or more NetXMS servers are not responding (e.g. they are not configured yet), you can select “Force Save” to overrule verification process and save configuration.

Workflow configuration

1. Create new Workflow Schema if required
2. Copy existing or create new Workflow
3. Assign Workflow to the project, where NetXMS will create issues
4. Modify transitions to call plugin’s post-function and change related alarm in NetXMS
 - a. Click on a “cog” icon on a transition and select “View Post Functions”:



- b. Click on “Add a new post function to the unconditional result of the transition”:



- c. Select “NetXMS Modify Alarm” and click “Add”:

<input type="radio"/>	Create Perforce Job Function	Creates a Perforce Job (if required) after completion of transition.
<input checked="" type="radio"/>	NetXMS Modify Alarm	Modify status of related NetXMS alarm
<input type="radio"/>	Notify HipChat	Send a notification to one or more HipChat rooms
<input type="radio"/>	Trigger a Webhook	If this post-function is executed, JIRA will post the data in JSON format to the URL specified.
<input type="radio"/>	Update Issue Field	Updates a simple issue field to a given value.

- d. Select desired alarm action (Acknowledge / Resolve / Terminate) and click "Add":

Add Parameters To Function

Add required parameters to the Function.

Change related NetXMS alarm status to:

- ✓ Acknowledged
- Resolved
- Terminated

- e. Repeat for all required transitions
5. Publish workflow changes

Testing

1. Right click on alarm in NetXMS and select "Create ticket in helpdesk system":

DCI 178	Copy message to clipboard
DCI 179	Export to CSV...
DCI 247	Alarm details
DCI 246	Comments
DCI 243	
DCI 248	Create ticket in helpdesk system
DCI 255	(Internal: Server.AverageDBWriterQ...
DCI 184 (Internal: Server.AverageConfigura...	3
DCI 257 (Internal: Server.AverageDBWriterQ...	19
DCI 256 (Internal: Server.AverageDBWriterQ...	19
DCI 181 (Internal: Server.AverageDBWriterQ...	3

- In a moment, issue will be created and Helpdesk ID will be show in corresponding column:

	Count	Comments	Helpdesk ID
ageConfigura...	21		DEMO-8
ageDCIQueui...	21		
ageDBWriterQ...	21		

- Right click on the alarm and select "Show helpdesk ticket in web browser" to navigate to the issue in JIRA:

J	Export to CSV...	20
3		20
	Alarm details	20
	Comments	20
	Show helpdesk ticket in web browser	20
		24.04.20
		24.04.20

- Try to go thru workflow steps configured earlier and check that alarm status in NetXMS changes.
- Try to leave alarm comment in NetXMS and check that it is propagated to JIRA
- Try to leave issue comment in JIRA and check that it is propagated to NetXMS
- Try to delete issue in JIRA, Helpdesk ID should be cleared in NetXMS