



Red Hat Fuse 7.5

Release Notes for Red Hat Fuse 7.5

What's new in Red Hat Fuse

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Abstract

These notes provide an overview of the changes between Red Hat Fuse releases.

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CHAPTER 1. FUSE 7.5 PRODUCT OVERVIEW

1.1. FUSE DISTRIBUTIONS

Fuse 7.5 is provided in the form of three different distributions, as follows:

Fuse standalone

The classic distribution of Fuse, supported on multiple operating systems. This distribution is supported for the following container types:

- Apache Karaf
- JBoss Enterprise Application Platform (EAP)
- Spring Boot

Fuse on OpenShift

The distribution of Fuse for running integration applications on OpenShift (supported on the Red Hat Enterprise Linux operating system). In this case, the supported container types are provided in the form of docker-formatted container images:

- Java image (for Spring Boot)
- Apache Karaf image
- JBoss EAP image

Fuse Online

The distribution of Fuse for non-expert integrators with a simplified workflow accessed through a browser based UI. This distribution is available for the following kinds of deployment:

- Pre-installed on the OpenShift Online Professional tier
- On a [Red Hat Managed Integration](#) cluster
- For installation on an on-premises OpenShift cluster

1.2. NEW FEATURES

Fuse 7.5 includes several major component upgrades and a large selection of new features. For details, consult the *new features* sections for each of the Fuse distributions:

- [New features for Fuse Online](#)
- [New features for Fuse on OpenShift](#)
- [New features for Fuse standalone](#)

1.3. SUPPORTED CONFIGURATIONS

For information about supported configurations, standards, and components in version 7.5, see the following Customer Portal articles:

- [Red Hat JBoss Fuse Supported Configurations](#)
- [Red Hat JBoss Fuse Supported Standards](#)
- [Red Hat JBoss Fuse Component Details](#)

CHAPTER 2. FUSE ONLINE

Fuse Online provides a web browser interface that lets a business expert integrate two or more different applications or services without writing code. It also provides features that allow the addition of code if it is needed for complex use cases.

Fuse Online runs an integration on OpenShift as a Spring Boot application that uses Apache Camel. As a Technology Preview feature, Camel K is available as an additional runtime.

2.1. ABOUT FUSE ONLINE DISTRIBUTIONS

Fuse Online is Red Hat's web-based integration platform. [Synthesis](#) is the open source project for Fuse Online. Fuse Online runs in these OpenShift environments:

Host Environment	Installation
OpenShift Online OpenShift Dedicated	Red Hat installs and provisions Fuse Online on Red Hat infrastructure.
OpenShift Container Platform	Customer installs and manages.

2.2. NEW FEATURES IN FUSE ONLINE 7.5

Fuse Online 7.5 provides the following new features:

- The following connectors, which were Technology Preview features in the previous release, are now supported:
 - [Jira](#) lets you connect to a Jira server to obtain, update or add issues.
 - [Receive Email](#) lets you create connections to an IMAP or POP3 email server to obtain messages.
 - [Send Email](#) lets you create connections to an SMTP email server and send messages.
- [API provider integrations now support operation flows that handle errors.](#)
The OpenAPI document that defines the API provider integration operations can now specify possible return codes for each operation. When you add to the flow for that operation, you can map each possible connection error to one of these return codes.
- [Conditional flows](#) are now supported. This was a Technology Preview feature in the previous release.
You can add a **Conditional Flows** step to a simple integration's flow or to an API provider integration operation flow. When you add a **Conditional Flows** step, you specify one or more conditions for the integration to evaluate against the integration data at run time. For each condition, you create a flow, which can have the same connections and steps that you can add to a simple integration. This lets you create an integration that determines its execution path based on the data that the integration is operating on. When you add a **Conditional Flows** step, you decide whether to use the basic conditional expression builder, which is suitable for most integrations, or the advanced expression builder, which lets you specify a conditional expression in Camel Simple Language.

2.3. CHANGES IN FUSE ONLINE 7.5

Fuse Online 7.5 changes Fuse Online 7.4 features as follows:


- Changes to the data mapper:
 - In a mapping from multiple source fields to one target field, you can now [apply one of the following transformations to the source fields](#): **Add, Average, Concatenate, Contains, Count, Divide, Format, Item At, Maximum, Minimum, Multiply, Subtract**.
 - Mapping from a collection field to a non-collection field now concatenates the source values and inserts the result in the target field. In previous releases, only the last value in the collection was mapped to the target field. To change the default concatenation behavior, you can apply a transformation, other than **Concatenate** to the source field.
 - Mapping from a non-collection field to a collection field now splits the source value at a delimiter and creates a collection element for each split value. In previous releases, the target collection always contained just one element.
- If you are running Fuse Online on OpenShift Container Platform (OCP) on premise, the feature changes are:
 - The name of the **CONTROLLERS_EXPOSE_VIA3SCALE** server environment variable has changed to **OPENSIFT_MANAGEMENT_URL_FOR3SCALE**. When the **OPENSIFT_MANAGEMENT_URL_FOR3SCALE** variable is set for a particular OpenShift project, the default behavior is that APIs for API provider integrations in that project are discoverable by Red Hat 3scale.
 - For API provider integrations, you can now disable discovery for a particular integration. You do this in the Fuse Online integration summary after publishing the integration.
 - The public REST API endpoints that mark integrations for particular environments now require existing environment labels. That is, you must create the environment label before you can assign it to an integration. In previous releases, an endpoint created an environment label if it did not already exist.
 - You can no longer configure OpenShift so that Fuse Online users bypass the page that prompts for authorization for Fuse Online to access the user's OpenShift account.

2.4. UPGRADING EXISTING INTEGRATIONS THAT ARE RUNNING ON OPENSIFT ONLINE

When Fuse 7.5 is released, the Fuse Online infrastructure on OpenShift Online is automatically upgraded. During the infrastructure upgrade, any existing integrations that are running on OpenShift Online continue to run both during and after the upgrade. However, the existing integrations continue to run with the *older* versions of Fuse libraries and dependencies.

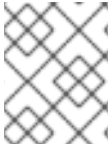
After you receive an email message that lets you know that the Fuse Online infrastructure has been upgraded to the new release, upgrade your existing integrations by republishing them (not just restarting them). Do this as soon as you can.

To republish your integrations, in your Fuse Online environment, in the left navigation panel, click **Integrations**. Then do the following for each integration:

1. To the right of the integration entry, click  and select **Edit**.

2. When Fuse Online displays the integration for editing, in the upper right, click **Publish**.

Publishing forces a rebuild that uses the latest Fuse Online dependencies.



NOTE

The Fuse Online user interface shows a warning if any element of an integration has a newer dependency that needs to be updated.

2.5. IMPORTANT NOTES

Important notes for the Fuse 7.5 release of the Fuse Online distribution:

- The Fuse Online installation procedure assumes that the container registry is internal. Fuse Online does not support or test the use of external container registries, custom registries, or registries in disconnected environments.
- Upgrade of Fuse Online 7.4 to 7.5.1 works correctly. Upgrade of Fuse Online 7.4 to 7.5 did not work because of the following issues: [ENTESB-12327](#) and [ENTESB-12328](#). These issues are resolved in Fuse Online 7.5.1.
- In this release, connections to Kafka do not support SSL. It is expected that this will change in a future release.
- A Fuse Online account is limited to a specific number of integrations that can be running at one time. For details, see the pricing plan. If you are using a Fuse Online evaluation account, then only one integration at a time can be running.
- An OpenAPI schema that you upload to Fuse Online might not define input/output types. When Fuse Online creates a custom API client from an OpenAPI schema that does not specify input/output types then it is not possible to create an integration that maps integration data to fields that the API client can process or from fields that the API client processed. If an integration requires data mapping to or from a custom API, then when you upload the OpenAPI schema, click **Review/Edit** to open API Designer, which is an API editing tool, and add input/output type specifications.
- An OpenAPI document that you use for a custom API client connector or for an API provider integration cannot have cyclic schema references. For example, a JSON schema that specifies a request or response body cannot reference itself as a whole nor reference any part of itself through any number of intermediate schemas.

2.6. OBTAINING TECHNICAL SUPPORT

To obtain technical support, in Fuse Online, in the left navigation panel, click **Support**. Use the **Support** page to download diagnostic information for all integrations or for one or more integrations that you choose. The page also provides a link for opening a support ticket and providing the diagnostic information that you downloaded.

2.7. TECHNOLOGY PREVIEW FEATURES

This release includes the Technology Preview features that are listed below.



IMPORTANT

Technology Preview features are not supported with Red Hat production service level agreements (SLAs), might not be functionally complete, and Red Hat does not recommend using them in production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process. For more information, see [Red Hat Technology Preview features support scope](#).

- **Data virtualization**
For Fuse Online development environments that run on OpenShift Container Platform on-site, data virtualization is a container-native service. It integrates data from multiple heterogeneous sources, including relational databases, files, web services, and SaaS repositories. In Fuse Online, developers can create a virtual database image that defines a custom, logical view of their source data. They can then deploy that image on OpenShift. Applications connect to the virtual database over a standard OData, REST, or JDBC interface, and can run SQL queries across all of the data sources, even those that do not support SQL.

To enable data virtualization, see [Installing Fuse Online on OCP](#).
- **Connectors for:**
 - [Amazon DynamoDB](#)
 - [Box](#)
 - [Knative](#)
 - [MongoDB](#)
- **[Conditional expressions for mapping data fields](#)**
In the data mapper, you can specify a conditional expression and apply it to one data mapping. For example, a conditional expression can specify evaluation of a source field and how to populate the target field if the source field is empty. The limited set of expressions that you can specify are similar to Microsoft Excel expressions. In this release, a conditional expression cannot refer to a field that is a collection.
- Camel K is available as an additional runtime.
- For a REST API client that uses OAuth, when you create an API client connector, you can change the default OAuth2 behavior of connections that you create from that connector. Fuse Online vendor extensions to the OpenAPI specification support the following:
 - Providing client credentials as parameters.
 - Obtaining a new access token based on HTTP response status codes.

CHAPTER 3. FUSE ON OPENSHIFT

Fuse on OpenShift enables you to deploy Fuse applications on OpenShift Container Platform.

3.1. SUPPORTED VERSION OF OPENSHIFT

Fuse on OpenShift is now supported on OpenShift Container Platform 4.1. For details of the supported version (or versions) of OpenShift Container Platform to use with Fuse on OpenShift, see the [Supported Configurations](#) page.

3.2. SUPPORTED IMAGES

Fuse on OpenShift provides the following Docker-formatted images:

- **fuse7/fuse-java-openshift** – Spring Boot
- **fuse7/fuse-karaf-openshift** – Apache Karaf
- **fuse7/fuse-eap-openshift** – Red Hat JBoss Enterprise Application Platform
- **fuse7/fuse-console** – Fuse console
- **fuse7/fuse-console-operator** – Fuse console operator
- **fuse7/fuse-apicurito** – Apicurito REST API editor
- **fuse7/fuse-apicurito-generator** – Apicurito REST application generator
- **fuse7-tech-preview/fuse-apicurito-operator** – API Designer Operator

3.3. NEW FEATURES IN FUSE 7.5

Fuse on OpenShift provides following new features in version 7.5:

- Spring Boot 2 runtime is now supported on OpenShift.
- Fuse on OpenShift is now supported on OpenShift 4.1.
- Fuse Console operator:
Fuse Console operator simplifies the procedures for installing, upgrading, and uninstalling the Fuse Console on OpenShift. For details of how to use the Fuse Console operator, see [Set up the Fuse Console](#).



NOTE

In order to keep the connection between the Fuse Console proxy and the Jolokia agent secure, it is necessary to generate, sign and deploy a client certificate. This must be done manually, as an admin procedure, after installing Fuse Console on OCP 4.x.

3.4. TECHNOLOGY PREVIEW FEATURES

The following features of Fuse on OpenShift are *Technology Preview* only and are not supported in Fuse 7.5:

Data Virtualization

Red Hat Data Virtualization is a container-native data virtualization service, based on the Teiid data virtualization project. Red Hat Data Virtualization combines data from multiple heterogeneous sources, such as relational databases, files, web services, and SaaS repositories. For more details, see [Data Integration](#).

API Designer operator installation

You can install the API Designer operator from the Operator Hub of OpenShift Container Platform 4.1. The API Designer operator provides you access to a Technology Preview of the API Designer operator for Fuse on OpenShift. The API Designer operator simplifies the procedures for installing, upgrading, and uninstalling API Designer on OpenShift. For details on how to install the API Designer operator, see [Installing Fuse Imagestreams and Templates on the OpenShift 4.x Server](#).



NOTE

Neither the API Designer operator nor the API Designer instance that it installs are supported. This technology preview feature is not suitable for testing on a production environment.

3.5. IMPORTANT NOTES

Important notes for the Fuse 7.5 release of the Fuse on OpenShift distribution:

Container Development Kit (CDK) 3.10 is the recommended version for use with Red Hat Fuse 7.5 on OpenShift 3.11

We recommend that developers use CDK 3.10 to try out applications on OpenShift 3.11. CDK is not available for OpenShift 4.



NOTE

CDK is provided only as a convenience for developers and is not a supported OpenShift distribution.

CHAPTER 4. FUSE STANDALONE

4.1. SUPPORTED CONTAINERS

Fuse standalone 7.5 is supported on the following runtime containers:

- Spring Boot 1 and Spring Boot 2 (standalone)
- Apache Karaf
- Red Hat JBoss Enterprise Application Platform (JBoss EAP)

4.2. NEW FEATURES IN FUSE 7.5

The main new features of Fuse standalone in version 7.5 are:

You can now upgrade EAP without needing to reinstall

Previously in Fuse 7.x, you needed to reinstall EAP to upgrade which required a re-deployment. From Fuse 7.5, you can apply a hot patch to successfully upgrade. See how to do this in the [Installing a Fuse hotfix patch on JBoss EAP](#) section of the "Installing on JBoss EAP".

4.3. TECHNOLOGY PREVIEW FEATURES

The following features of Fuse standalone are *Technology Preview* only and are not supported in Fuse 7.5:

Saga EIP

The Saga Enterprise Integration Pattern (EIP) is a technology preview feature and features only the *In-Memory* Saga service (which is not suitable for a production environments). The LRA Saga service is *not* supported. For more details, see section [Saga EIP](#) of the "Apache Camel Development Guide".

4.3.1. Fuse Tooling support for Apache Camel

Fuse Tooling provides a cross-platform, cross-IDE approach to Camel application development, with Apache Camel language support extensions or plugins for Visual Studio Code, Eclipse IDE, and Eclipse Che.

For Visual Studio Code, you can also add an extension that provides WSDL to Camel Rest DSL support.

Note: These features are already included by default with Fuse Tooling for Red Hat CodeReady Studio.

Visual Studio Code features

The [Language Support for Apache Camel](#) extension provides the following features for Camel URIs:

For XML DSL and Java DSL:

- When you type, the editor provides code completion for Camel components, attributes, and the list of attribute values.
- When you hover over a Camel component, the editor shows a brief description of the component (from the [Apache Camel component reference](#)).
- As you edit the file, the editor performs an Apache Camel validation check on the Camel code.

For XML DSL only:

- You can navigate to Camel contexts and routes in the VS Code **Outline** panel and in the **Go > Go to Symbol in File** navigation panel.
- When you type, the editor provides code completion for referenced IDs of **direct**, **direct VM**, **VM** and **SEDA** components.
- You can find references for **direct** and **direct VM** components in all open Camel files.

The [WSDL 2 Camel Rest DSL](#) extension ([wsdl2rest](#) implementation) provides WSDL to Camel Rest DSL support. By specifying an existing WSDL file, you can use this extension to generate a Camel Rest DSL + CXF solution for REST-style access. The WSDL file can be located either on your local file system or from an accessible web URL.

To access the **Language Support for Apache Camel** and **WSDL to Camel Rest DSL** features, you add one or more extensions.

The [Apache Camel Extension Pack](#) installs the following VS Code extensions:

- [Language Support for Apache Camel](#)
- [OpenShift Connector](#)
- [Java Extension Pack](#)
- [Spring Boot extension pack](#)
- [Project initializer by Red Hat](#)
- [WSDL 2 Camel Rest DSL](#)

Optionally, you can install the extensions individually.

For more details, see the following readme files:

- Readme for [Apache Camel Extension Pack](#)
- Readme for [Apache Camel Language Server Protocol for Visual Studio Code](#)
- Readme for [WSDL to Camel Rest DSL](#)

Eclipse IDE features

The **Language Support for Apache Camel** Eclipse plug-in provides the following features for Camel URIs:

In the generic Eclipse text editor for both XML DSL and Java DSL: * When you type, the editor provides code completion for Camel components, attributes, and the list of attribute values. * When you hover over a Camel component, the editor shows a brief description of the component (from the [Apache Camel component reference](#)).

When you use the Eclipse XML or Java editor, only the auto-completion feature is provided.

To access the **Language Support for Apache Camel** features, you install the Eclipse plug-in from the Eclipse Marketplace. For more details, see the [readme file](#) for Apache Camel Language Server Protocol for Eclipse IDE.

Eclipse Che features

The **Language Support for Apache Camel** plugin for Eclipse Che 7 provides features for Camel URIs and XML DSL only.

- When you type, the editor provides code completion for Camel components, attributes, and the list of attribute values.
- When you hover over a Camel component, the editor shows a brief description of the component (from the [Apache Camel component reference](#)).
- When you save the file, the editor performs an Apache Camel validation check on the Camel code.

To activate this plugin for Eclipse Che, you need to edit your workspace's configuration. For details on how to activate it, see [this Red Hat Developers blog entry](#).

4.4. BOM FILES FOR FUSE 7.5

To configure your Maven projects to use the supported Fuse 7.5 artifacts, use the BOM versions documented in this section.

4.4.1. BOM File

To upgrade your Fuse standalone applications to use the 7.5 dependencies, edit the Maven **pom.xml** and change the versions of the BOMs and Maven plugins listed in the following table:

Table 4.1. Maven BOM and plugin versions for 7.5 using the BOM

Container Type	Maven BOM or Plugin Artifact groupId/artifactId	Version for Fuse 7.5
Spring Boot 1	org.jboss.redhat-fuse/fuse-springboot-bom	7.5.0.fuse-750029-redhat-00002
	org.jboss.redhat-fuse/fabric8-maven-plugin	7.5.0.fuse-750029-redhat-00002
	org.jboss.redhat-fuse/spring-boot-maven-plugin	7.5.0.fuse-750029-redhat-00002
Spring Boot 2	org.jboss.redhat-fuse/fuse-springboot-bom	7.5.0.fuse-sb2-750029-redhat-00003
	org.jboss.redhat-fuse/fabric8-maven-plugin	7.5.0.fuse-sb2-750029-redhat-00003
	org.jboss.redhat-fuse/spring-boot-maven-plugin	7.5.0.fuse-sb2-750029-redhat-00003
Apache Karaf	org.jboss.redhat-fuse/fuse-karaf-bom	7.5.0.fuse-750029-redhat-00002

Container Type	Maven BOM or Plugin Artifact groupId/artifactId	Version for Fuse 7.5
	org.jboss.redhat-fuse/karaf-maven-plugin	7.5.0.fuse-750029-redhat-00002
JBoss EAP	org.jboss.redhat-fuse/fuse-eap-bom	7.5.0.fuse-750029-redhat-00002

For more details about using the BOM, see [Fuse Migration Guide](#).

4.5. IMPORTANT NOTES

Important notes for the Fuse 7.5 release of the Fuse standalone distribution:

Fuse on EAP is upgraded to use JBoss EAP 7.2.3 (from JBoss EAP 7.2)

The Fuse 7.5 release now runs on the JBoss Enterprise Application Platform (EAP) 7.2.3 container (upgraded from JBoss EAP 7.2 in the previous release of Fuse). For more details, see [JBoss EAP 7.2.0 Release Notes](#).

ENTESB-10923: camel-linkedin quickstart is not working

The **camel-linkedin** component has been removed in Fuse 7.5.



IMPORTANT

Although removed from Fuse 7.5, the **camel-linkedin** component is likely to be restored in a later release.

CHAPTER 5. DEPRECATED AND REMOVED FEATURES

If you need any assistance or have any questions about the upcoming changes in Fuse 7, contact support@redhat.com.

5.1. DEPRECATED

The following features are deprecated in Fuse 7.5 and may be removed in a future release:

PHP, Python, and Ruby scripting languages are deprecated in Camel applications

The PHP, Python, and Ruby scripting languages are deprecated in Camel applications since Fuse 7.4 and will be removed in a future release. The Camel community has deprecated PHP, Python, and Ruby since Camel 2.19 (see [CAMEL-10973](#)). This applies to all Fuse containers types: Apache Karaf, JBoss EAP, and Spring Boot.

HP-UX OS is deprecated

The HP-UX operating system is deprecated since Fuse 7.2 and support for this operating system could be removed in a future release of Fuse. In particular, note that the JBoss EAP 7.2 container has already dropped support for HP-UX and, consequently, any future version of Fuse on JBoss EAP that runs on JBoss EAP 7.2 will *not* be supported on HP-UX.

Camel MQTT component is deprecated

The Camel MQTT component is deprecated in Fuse 7.0 and will be removed in a future release of Fuse. You can use the Camel Paho component instead, which supports the MQTT messaging protocol using the popular [Eclipse Paho](#) library.

Camel LevelDB component is deprecated on all operating systems except for Linux

Since Fuse 6.3, the Camel LevelDB (**camel-leveldb**) component is deprecated on all operating systems except for Red Hat Enterprise Linux. In future, the Camel LevelDB component will be supported only on Red Hat Enterprise Linux.

BatchMessage class from the Camel SJMS component is deprecated

The BatchMessage class from the Camel SJMS component is deprecated in Fuse 7 (deprecated in Apache Camel since version 2.17) and may be removed from a future version of Apache Camel and Fuse.

5.2. REMOVED IN FUSE 7.5

The following features were removed in Fuse 7.5:

Support for integration with MS SQL Server 2014 has been dropped in 7.5

MS SQL Server 2014 is no longer tested and supported for integrations with Fuse 7.5. We recommend that you use one of the more recent versions of MS SQL Server instead – for example, MS SQL Server 2016 or 2017.

Camel LinkedIn component has been removed in 7.5

The **camel-linkedin** component has been removed in Fuse 7.5.



IMPORTANT

Although removed from Fuse 7.5, the **camel-linkedin** component is likely to be restored in a later release.

5.3. REMOVED IN FUSE 7.3

The following features were removed in Fuse 7.3:

Camel YQL component has been removed in 7.3

The Camel YQL component has been removed in Fuse 7.3.

OpenJPA and OpenJPA3 Karaf features have been blacklisted in 7.3

The **openjpa** feature and the **openjpa3** feature have been blacklisted (removed) from the Apache Karaf container in 7.3. For a Java Persistence Architecture (JPA) implementation, use the supported **hibernate** feature instead.

camel-jetty Karaf feature has been blacklisted in 7.3

The **camel-jetty** feature has been blacklisted (removed) from the Apache Karaf container in 7.3, because it uses Jetty 8. Use the **camel-jetty9** feature instead.

pax-jms-oracleaq Karaf feature has been blacklisted in 7.3

The **pax-jms-oracleaq** feature has been blacklisted (removed) from the Apache Karaf container in 7.3, because it requires 3rd party, non-free Oracle AQ libraries.

camel-elasticsearch component has been removed from Fuse on EAP (Wildfly Camel) in 7.3

The **camel-elasticsearch** component has been removed from Fuse on EAP (Wildfly Camel) in 7.3. Use the newer **camel-elasticsearch-rest** component instead.

5.4. REMOVED IN FUSE 7.2

The following features were removed in Fuse 7.2:

Camel XMLRPC component has been removed in 7.2

The Camel XMLRPC component has been removed in Fuse 7.2.

Camel Netty component has been removed in 7.2

The Camel Netty component has been removed in Fuse 7.2. It is recommended that you use the Camel Netty4 component instead.

5.5. REMOVED IN FUSE 7.0

The following features were removed in Fuse 7.0:

Support for Red Hat JBoss Operations Network (JON) has been removed in 7.0

Since Fuse 7.0, Fuse on Karaf no longer supports JON and no longer provides JON plugins for integrating with the JON runtime.

Embedded ActiveMQ broker has been removed in 7.0

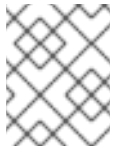
Since Fuse 7.0, Fuse on Karaf no longer provides an embedded ActiveMQ Broker. Customers should connect to a supported remote broker directly. For more information on our supported brokers, refer to the "Supported Messaging Providers" section of the [Red Hat Fuse Supported Configurations page](#).

Fuse integration pack has been removed in 7.0

Support for running rules and processes is provided by components shipped with Red Hat JBoss BPM Suite and Red Hat JBoss BRMS.

Karaf console commands for child container administration have been removed in 7.0

Since Fuse 7.0, the Karaf console commands for child container administration are *not* supported. That is, the console commands prefixed by **instance:** (Karaf 4.x syntax) and the console commands prefixed by **admin:** (Karaf 2.x syntax) are not supported.



NOTE

In the Fuse 7.0 GA release, the **instance:** commands are not blacklisted. This is a known issue.

SwitchYard has been removed in 7.0

Since Fuse 7.0, SwitchYard has been removed, and you should use Apache Camel directly instead. For more detailed information, see the knowledge base article, [SwitchYard Support Plan After Releasing Fuse 7](#).

Support for Fabric8 1.x has been removed in 7.0

Since Fuse 7.0, Fabric8 v1 has been replaced by Fuse on OpenShift (previously, Fuse Integration Services), which includes components of Fabric8 v2 technology. Fuse on OpenShift provides a set of tools and Docker-formatted images that enable development, deployment, and management of integration microservices within OpenShift.

Although Fuse on OpenShift has a different architecture, it fulfills the same provisioning, automation, central configuration and management requirements that Fabric8 v1 provides. For more information, see [Fuse on OpenShift Guide](#).

Camel components for Google App Engine have been removed in 7.0

The Camel components for Google App Engine (**camel-gae**) have been removed in Fuse 7.0.

Camel jBPM component has been removed in 7.0

The Camel jBPM component (**camel-jbpm**) has been removed in Fuse 7.0.

Tanuki based wrapper for installing Fuse as a service has been removed in 7.0

The Tanuki based wrapper scripts – generated using the **wrapper:install** Karaf console command – for installing Fuse as a service have been removed in Fuse 7.0. To install the Apache Karaf container as a service, it is recommended that you use the new **karaf-service-*.sh** scripts from the **bin/contrib** directory instead.

Smooks has been removed in 7.0

Since Fuse 7.0, the Smooks component for SwitchYard has been removed.

BPEL has been removed in 7.0

BPEL (based on the [Riftsaw](#) project) has been removed from Fuse 7.0. If you are currently using BPEL, it is recommended that you consider migrating to the Red Hat JBoss BPM Suite.

Design Time Governance has been removed in 7.0

The Design Time Governance component has been removed in 7.0.

Runtime Governance has been removed in 7.0

Since Fuse 7.0, the Runtime Governance (RTGov) component has been removed.

S-RAMP has been removed in 7.0

The SOA Repository Artifact Model and Protocol (S-RAMP) component has been removed in Fuse 7.0.

bin/patch script has been removed in 7.0

The **bin/patch** script (**bin\patch.bat** on Windows O/S) has been removed in a Fuse 7.0.

Spring Dynamic Modules (Spring-DM) is not supported in 7.0

Spring-DM (which integrates Spring XML with the OSGi service layer in Apache Karaf) is not

supported in Fuse 7.0 and you should use the Blueprint framework instead. Using Blueprint XML does not prevent you from using the Java libraries from the Spring framework: the latest version of Spring is compatible with Blueprint.

Apache OpenJPA is not supported in 7.0

The [Apache OpenJPA](#) implementation of the Java Persistence API (JPA) is not supported in Fuse7.0. It is recommended that you use the [Hibernate](#) implementation instead.

5.6. REPLACED IN FUSE 7.0

The following features were replaced in Fuse 7.0:

Geronimo transaction manager has been replaced in 7.0

In Fuse 7.0, the Geronimo transaction manager in the Karaf container has been replaced by [Narayana](#).

Jetty container has been replaced in 7.0

In Fuse 7.0, the Jetty container has been replaced by [Undertow](#). Initially, this change applies only to internal use of the Jetty container (for example, in the Karaf container). Other Jetty components might be removed in a future release.

CHAPTER 6. UNSUPPORTED FEATURES IN FUSE 7.5

The following features are unsupported in Red Hat Fuse 7.5.

Apache Karaf EclipseLink feature is unsupported

The Apache Karaf EclipseLink feature is **not** supported in Fuse, because this feature depends on JPA 2.2, while the Karaf container for Fuse 7.2 is aligned with JPA 2.1.

Apache Aries Blueprint Web module is unsupported

The Apache Aries [Blueprint Web](#) module is **not** supported in Fuse. The presence of an example featuring Blueprint Web in the community edition of Apache Camel (provided as a separate download) does **not** imply that this feature is supported in Fuse.

The PHP scripting language is not supported in Apache Camel on Apache Karaf

The PHP scripting language is **not** supported in Camel applications on the Apache Karaf container, because there is no OSGi bundle available for PHP. The PHP scripting language is deprecated in Camel applications on the JBoss EAP container and on the Spring Boot container.

The Python scripting language is not supported in Apache Camel on Apache Karaf

The Python scripting language is **not** supported in Camel applications on the Apache Karaf container, because there is no OSGi bundle available for Python. The Python scripting language is deprecated in Camel applications on the JBoss EAP container and on the Spring Boot container.

CHAPTER 7. KNOWN ISSUES

The following subsections describe the known issues in version 7.5.

7.1. CVE SECURITY VULNERABILITIES

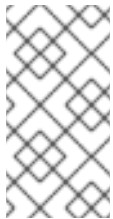
As a middleware integration platform, Fuse can potentially be integrated with a large number of third-party components. It is not always possible to exclude the possibility that some third-party dependencies of Fuse could have security vulnerabilities. This section documents known security vulnerabilities affecting third-party dependencies of Fuse 7.5.

[ENTESB-12489 CVE-2019-9827 - Fuse Console standalone on Amazon Web Services](#)

Due to security concerns, you should not deploy a standalone Fuse application to Amazon Web Services (AWS). This restriction applies to all supported standalone environments (Spring Boot 1.x and 2.x, Karaf, and Red Hat JBoss Enterprise Application Platform). If you want to deploy the Fuse Console standalone on AWS, it is highly recommended that you upgrade to Fuse 7.7 or later and disable the Fuse Console's proxy servlet by setting the **hawtio.disableProxy** system property to **true**.

[CVE-2017-12629 Solr/Lucene -security bypass to access sensitive data - CVE-2017-12629](#)

Apache Solr is a popular open source search platform that uses the Apache Lucene search engine. If your application uses a combination of Apache Solr with Apache Lucene (for example, when using the Camel Solr component), it could be affected by this security vulnerability. Please consult the linked security advisory for more details of this vulnerability and the mitigation steps to take.



NOTE

The Fuse runtime does *not* use Apache Solr or Apache Lucene directly. The security risk only arises, if you are using Apache Solr and Apache Lucene together in the context of an integration application (for example, when using the Camel Solr component).

[Multiple CVEs Multiple CVEs related to jackson-databind security vulnerability](#)

Applications that use the FasterXML **jackson-databind** library to instantiate Java objects by deserializing JSON content are potentially vulnerable to a *remote code execution* attack. The vulnerability is not automatic, however, and it can be avoided if you take the appropriate mitigation steps.

At a minimum, the following prerequisites must all be satisfied before an attack becomes possible:

1. You have enabled polymorphic type handling for deserialization of JSON content in **jackson-databind**. There are two alternative ways of enabling polymorphic type handling in Jackson JSON:
 - a. Using a combination of the **@JsonTypeInfo** and **@JsonSubTypes** annotations.
 - b. By calling the **ObjectMapper.enableDefaultTyping()** method. This option is particularly dangerous, as it effectively enables polymorphic typing globally.
2. There are one or more *gadget classes* in your Java classpath, which have not yet been blacklisted by the current version of **jackson-databind**. A gadget class is defined as any class that performs a sensitive (potentially exploitable) operation as a side effect of executing a constructor or a setter method (which are the methods that can be called during a deserialization). The gadget blacklist maintained by the Jackson JSON library is the last line of defence against the remote code execution vulnerability.

It is the existence of a large number of gadget classes which explains why there are many individual CVEs related to the **jackson-databind** vulnerability. There are different CVEs related to different kinds of gadget class.

If you do need to use the **jackson-databind** library in your application, the most important measure you can take to mitigate the risk is this: *avoid polymorphic type handling in Jackson JSON and on no account should you call the **ObjectMapper.enableDefaultTyping()** method.*

7.2. FUSE ONLINE

The Fuse Online distribution has the following known issues:

ENTESB-12327 Upgrade 7.4 → 7.5 stuck because of missing komodo image

When upgrading from Fuse Online 7.4 to 7.5, the upgrade process gets stuck scaling the komodo-server pod to 1, because of a missing image. RESOLVED in 7.5.1.

ENTESB-12328 Postgres upgrade from 9.5 to 9.6 won't use the old data dir

When upgrading from Fuse Online 7.4 to 7.5, the upgrade process fails while attempting to upgrade Postgres from version 9.5 to 9.6. RESOLVED in 7.5.1.

ENTESB-12175 Camel-k integrations stay deployed even when deleted in UI

In Fuse 7.5, if Camel K is enabled and you delete an integration in the UI, the Camel K integration continues to run, but isn't displayed in Fuse Online. To work around this issue, first stop the integration in the UI and then delete it with the **kamel delete** command.

ENTESB-12174 API Provider running on camel-k has empty parameters

In Fuse 7.5, if Camel K is enabled and you create an API Provider action that uses query parameters, the parameters are empty.

ENTESB-11780 E7: Upgrade from 7.4 using operatorhub (OCP4)

You cannot upgrade a Fuse Online installation from 7.4 to 7.5 using OperatorHub. You need to make a clean installation of Fuse Online 7.5, manually export integrations from the old 7.4 installation, and then import the integrations into the new 7.5 installation. This issue will be addressed in Fuse 7.6

ENTESB-12040 Komodo server and syndesis-dv present after upgrade

After upgrading an on-premises installation of Fuse Online from 7.4 to 7.5, there will be both a **komodo-server** pod and a **syndesis-dv** pod present in the upgraded cluster. The **komodo-server** pod is redundant and can be scaled back to **0**.

ENTESB-11633 Increase the default time on SQL queries

In Fuse Online, SQL queries can fail if they take too long to complete (for example, queries applied to a large table). The default timeout for SQL queries in Fuse Online is 15 seconds. This issue will be fixed in Fuse 7.6.

ENTESB-11407 [1.7.8] No activities after small load (~80000 messages in 20hours)

Performance testing has shown that the activity tracking logic can result in an exceptionally high number of dead tuples in the database used by Fuse Online to track activities. This issue causes a general slowdown in any operation that requires reads from the database, most notably accessing the list of integrations from the UI or refreshing the activities of an integration. The workaround for this issue is to perform periodic maintenance of the database by issuing the SQL statement **VACUUM FULL ANALYSE jsondb**.

Here are the steps to perform this task:

```
# check to see if there are dead tuples (not vacuumed)
$ oc exec -c postgresql $(oc get pod -l 'syndesis.io/component=syndesis-db' --no-headers=true -o=custom-columns=x:.metadata.name) -- bash -c "echo SELECT schemaname, relname,
```

```
n_live_tup, n_dead_tup, last_autovacuum FROM pg_stat_all_tables WHERE relname =
'jsondb'|psql -U syndesis"
```

```

schemaname | relname | n_live_tup | n_dead_tup |      last_autovacuum
-----+-----+-----+-----+-----
public    | jsondb |    26893 |   491210 | 2019-07-17 09:26:51.264029+00
(1 row)
```

```
# since there are 491210 dead tuples, perform the following
```

```
# scale down the server
```

```
$ oc scale --replicas=0 dc syndesis-server
```

```
# terminate all running connections
```

```
$ oc exec -c postgresql $(oc get pod -l 'syndesis.io/component=syndesis-db' --no-headers=true -
o=custom-columns=x:.metadata.name) -- bash -c "echo SELECT pg_terminate_backend(a.pid)
FROM pg_locks l join pg_stat_activity a ON a.pid = l.pid WHERE l.mode = 'ExclusiveLock' AND
a.username = 'syndesis'|psql -U syndesis"
```

```
FATAL: terminating connection due to administrator command
server closed the connection unexpectedly
```

```
This probably means the server terminated abnormally
```

```
before or while processing the request.
```

```
connection to server was lost
```

```
command terminated with exit code 2
```

```
# the preceding FATAL error is expected, because the statement also closes the connection psql
is using
```

```
# execute `VACUUM FULL ANALYSE`
```

```
$ oc exec -c postgresql $(oc get pod -l 'syndesis.io/component=syndesis-db' --no-headers=true -
o=custom-columns=x:.metadata.name) -- bash -c "echo VACUUM FULL ANALYSE jsondb|psql -
U syndesis"
```

```
VACUUM
```

```
# scale up server
```

```
$ oc scale --replicas=1 dc syndesis-server
```

5458 Operator tries to update outdated Syndesis resource

When installing Fuse Online using the operator, the following error occurs multiple times, but it can be ignored as it has no significant effect on the installation:

```
{
  "level": "error",
  "ts": "1558617960.2453232",
  "logger": "controller",
  "msg": "Error reconciling",
  "action": "*action.startupAction",
  "phase": "Starting",
  "error": "Operation cannot be fulfilled on syndesises.syndesis.io \"app\": the object has been modified; please apply your changes to the latest version and try again",
  "stacktrace": "github.com/syndesisio/syndesis/install/operator/vendor/github.com/go-logr/zapr.(*zapLogger).Error\n\t/go/src/github.com/syndesisio/syndesis/install/operator/vendor/github.com/go-logr/zapr/zapr.go:128\ngithub.com/syndesisio/syndesis/install/operator/pkg/controller/syndesis.(*ReconcileSyndesis).Reconcile\n\t/go/src/github.com/syndesisio/syndesis/install/operator/pkg/controller/syndesis/syndesis_controller.go:120\ngithub.com/syndesisio/syndesis/install/operator/vendor/sigs.k8s.io/controller-runtime/pkg/internal/controller.(*Controller).processNextWorkItem\n\t/go/src/github.com/syndesisio/syndesis/install/operator/vendor/sigs.k8s.io/controller-runtime/pkg/internal/controller/controller.go:215\ngithub.com/syndesisio/syndesis/install/operator/ven"
```

```

dor/sigs.k8s.io/controller-runtime/pkg/internal/controller.
(*Controller).Start.func1\n\t/go/src/github.com/syndesisio/syndesis/install/operator/vendor/sigs.k8s.io/
controller-
runtime/pkg/internal/controller/controller.go:158\ngithub.com/syndesisio/syndesis/install/operator/ven
dor/k8s.io/apimachinery/pkg/util/wait.JitterUntil.func1\n\t/go/src/github.com/syndesisio/syndesis/instal
operator/vendor/k8s.io/apimachinery/pkg/util/wait/wait.go:133\ngithub.com/syndesisio/syndesis/instal
operator/vendor/k8s.io/apimachinery/pkg/util/wait.JitterUntil\n\t/go/src/github.com/syndesisio/syndesis:
install/operator/vendor/k8s.io/apimachinery/pkg/util/wait/wait.go:134\ngithub.com/syndesisio/syndesis:
install/operator/vendor/k8s.io/apimachinery/pkg/util/wait.Until\n\t/go/src/github.com/syndesisio/syndes
s/install/operator/vendor/k8s.io/apimachinery/pkg/util/wait/wait.go:88"}

```

ENTESB-10577 Apicurito does not support YAML Open API spec files

In Fuse 7.4 on OpenShift, Apicurito generates OpenAPI specification files in YAML format *by default*, but is not capable of re-importing the generated YAML file. Only JSON format can be imported into Apicurito at the moment.

698 DB Connector: SQL parser doesn't recognize parameters for LIKE

In SQL statements containing the **LIKE** keyword (for example, **DELETE FROM TODO WHERE task LIKE '#:param'**), the **LIKE** keyword cannot be used with datamapper parameters, such as **:#param**.

7.3. FUSE ON OPENSIFT

This section lists issues that affect the deployment of Fuse applications on OpenShift. For details of issues affecting specific containers, see also the sections for Spring Boot, Fuse on Apache Karaf, and Fuse on JBoss EAP. The Fuse on OpenShift distribution has the following known issues:

ENTESB-12941 prometheus doesn't work with OCP 4.4

In Fuse 7.5.0, the Prometheus image that is packaged with Fuse 7.5.0 does not work on OpenShift Container Platform (OCP) 4.4. If you attempt to install the Fuse 7.5.0 Prometheus image on OCP 4.4, you will get the following error:

```
error: unable to recognize no matches for kind "Deployment" in version "apps/v1beta2"
```

This issue does not affect Prometheus on OCP 4.3, however.

ENTESB-11712 [Hawtio] Add a configuration in OSGi doesn't work

In Fuse 7.5.0 on OCP 3.11, when using Fuse Console (Hawtio) on Apache Karaf on OCP 3.11, the Add configuration button in the OSGi tab does not work.

ENTESB-12224 Fuse console - Select a container dropdown vague behaviour

In Fuse 7.5.0 on OCP 4 and on OCP 3, after connecting to an application through the Fuse Console, the **Select a container** dropdown menu behaves unreliably, sometimes showing other deployed Fuse containers and sometimes not.

ENTESB-11131 OLM manifest for the Fuse Console operator

In Fuse 7.5.0 on OCP 4, the Fuse Console (Hawtio) cannot be installed using an operator from the Operator Hub.

ENTESB-12241 OSGi pages not working on OCP 4.1

In Fuse 7.5.0 on OCP 4, for an application deployed on Apache Karaf on OCP 4.1, when monitoring the application through the Fuse Console (Hawtio), it is not possible to view the OSGi pages.

ENTESB-12238 [SB2] Quickstarts arquillian test fail

In Fuse 7.5.0, some of the Spring Boot 2 quickstarts (generated either from Maven archetypes or quickstart templates) fail to build and deploy to OpenShift. The following Spring Boot 2 Maven archetypes are affected:

- **spring-boot-camel-archetype**
- **spring-boot-camel-infinispan-archetype**
- **spring-boot-cxf-jaxrs-archetype**
- **spring-boot-cxf-jaxws-archetype**

And the following Spring Boot 2 templates:

- **spring-boot-2-camel-template**
- **spring-boot-2-camel-infinispan-template**
- **spring-boot-2-cxf-jaxrs-template**
- **spring-boot-2-cxf-jaxws-template**

To work around this issue, after generating a Maven project for one of these quickstarts, edit the project's Maven **pom.xml** file to add the following dependency:

```
<dependency>
  <groupId>org.assertj</groupId>
  <artifactId>assertj-core</artifactId>
  <version>2.4.1</version>
  <scope>test</scope>
</dependency>
```

ENTESB-10577 Apicurito does not support YAML Open API spec files

In Fuse 7.4 on OpenShift, Apicurito generates OpenAPI specification files in YAML format *by default*, but is not capable of re-importing the generated YAML file. Only JSON format can be imported into Apicurito at the moment.

7.4. FUSE ON SPRING BOOT

Fuse on Spring Boot has the following known issues:

ENTESB-12137 [camel-box] not working on SB2

In the Fuse 7.5.0 release, the Camel Box component is not working on the Spring Boot 2 container.

7.5. FUSE ON APACHE KARAF

Fuse on Apache Karaf has the following known issues:

ENTESB-12105 [camel-salesforce-quickstart] Camel salesforce quickstart is not working on Karaf

In Fuse 7.5.0, if you follow the instructions provided in the README for the Apache Karaf **camel-salesforce** quickstart, the application does not build. To work around this problem, instead of building the quickstart using the command **mvn -Pgenerate-pojos clean install** (as described in the README file), enter the following command:

```
mvn clean install
```

In other words, omit the **-Pgenerate-pojos** option from the Maven command.

ENTESB-8140 Start level of hot deploy bundles is 80 by default

In the Fuse 7.0 GA release, in the Apache Karaf container the start level of hot deployed bundles is 80 by default. This can cause problems for the hot deployed bundles, because there are many system bundles and features that have the same start level. To work around this problem and ensure that hot deployed bundles start reliably, edit the **etc/org.apache.felix.fileinstall-deploy.cfg** file and change the **felix.fileinstall.start.level** setting as follows:

```
felix.fileinstall.start.level = 90
```

ENTESB-7664 Installing framework-security feature kills karaf

The **framework-security** OSGi feature must be installed using the **--no-auto-refresh** option, otherwise this feature will shut down the Apache Karaf container. For example:

```
feature:install -v --no-auto-refresh framework-security
```

7.6. APACHE CAMEL

Apache Camel has the following known issues:

ENTESB-12210 XPath evaluation fails with null body using Saxon-HE-9.8.0-8_1

Since Fuse 7.0, an xpath expression throws a NullPointerException (NPE), if executed against a null header or body when Saxon is used as the JAXP provider.

ENTESB-12050 [camel-jetty] java.lang.NoClassDefFoundError: org/eclipse/jetty/util/MultiPartInputStreamParser

Since Fuse 7.5.0, if you define a custom multi-part filter on the Jetty9 component by setting the **multipartFilter** option (or the **multipartFilterRef** option), the custom multi-part filter must be implemented by extending the new **org.apache.camel.component.jetty.MultiPartFilter** class. If you already have a filter implementation that was defined by extending the (deprecated) **org.eclipse.jetty.servlets.MultiPartFilter** class, you must re-implement this class by extending **org.apache.camel.component.jetty.MultiPartFilter** instead.

Note that if you deploy an old custom filter that was implemented by extending **org.eclipse.jetty.servlets.MultiPartFilter** to the Apache Karaf container in Fuse 7.5.0, you will get a **java.lang.NoClassDefFoundError**. This is because the deprecated **org.eclipse.jetty.servlets.MultiPartFilter** class uses the deprecated **org.eclipse.jetty.util.MultiPartInputStreamParser** class, which has been removed from Jetty 9.4.20.

ENTESB-10490 camel-jetty9 with https does not work on IBM java

The default security settings of the Camel Jetty9 component are not compatible with the IBM Java VM. In order to use TLS security with the Camel Jetty9 component on the IBM Java VM, it is necessary to configure the TLS security settings explicitly on the Jetty9 component.

ENTESB-12102 Camel-box quickstart is not working

In Fuse 7.5.0, the **camel-box** quickstart gives an error when you run the sample application. To work around this issue, edit the **camel-box/src/main/resources/OSGI-INF/blueprint/box.xml** file and look for the following line near the end of the route definition:

```
<to uri="box:files/uploadFile"/>
```

Replace this with the following line (which adds the **check=false** URI option):

```
<to uri="box:files/uploadFile?check=false"/>
```

ENTESB-11060 [camel-linkedin] V1 API is no longer supported

Since Fuse 7.4.0, the Camel LinkedIn component is no longer able to communicate with the LinkedIn server, because it is implemented using the LinkedIn Version 1.0 API, which is no longer supported by LinkedIn. The Camel LinkedIn component will be updated to use the Version 2 API in a future release of Fuse.

ENTESB-5231 PHP script language does not work

The PHP scripting language is **not** supported in Camel applications on the Apache Karaf container, because there is no OSGi bundle available for PHP.

ENTESB-5232 Python language does not work

The Python scripting language is **not** supported in Camel applications on the Apache Karaf container, because there is no OSGi bundle available for Python.

ENTESB-2443 Google Mail API - Sending of messages and drafts is not synchronous

When you send a message or draft, the response contains a Message object with an ID. It may not be possible to immediately get this message via another call to the API. You may have to wait and retry the call.

ENTESB-2332 Google Drive API JSON response for changes returns bad count of items for the first page

Google Drive API JSON response for changes returns bad count of items for the first page. Setting **maxResults** for a list operation may not return all the results in the first page. You may have to go through several pages to get the complete list (that is by setting **pageToken** on new requests).

CHAPTER 8. ISSUES RESOLVED IN FUSE 7.5.1

The Fuse 7.5.1 release resolves Fuse Online integration upgrade issues. You need the Fuse 7.5.1 release only if you want to upgrade Fuse Online 7.4 integrations to 7.5. In other words, Red Hat Fuse 7.5.1 is not a full release. It contains updates for only the operator that controls Fuse Online.

The following table lists the issues that are resolved in Fuse 7.5.1.

Table 8.1. Fuse 7.5.1 resolved issues

Issue	Description
ENTESB-12327	Upgrade 7.4 → 7.5 stuck because of missing komodo image
ENTESB-12328	Postgres upgrade from 9.5 to 9.6 won't use the old data dir
ENTESB-12350	OAuth Proxy SAR cannot be overridden in Fuse Online 1.5

CHAPTER 9. FIXED ISSUES IN FUSE 7.5

The following sections list the issues that have been fixed in Fuse 7.5:

- [Section 9.1, “Enhancements in Fuse 7.5”](#)
- [Section 9.2, “Feature requests in Fuse 7.5”](#)
- [Section 9.3, “Clarifications in Fuse 7.5”](#)
- [Section 9.4, “Bugs resolved in Fuse 7.5”](#)

9.1. ENHANCEMENTS IN FUSE 7.5

The following table lists the enhancements in Fuse 7.5.

Table 9.1. Fuse 7.5 Enhancements

Issue	Description
ENTESB-11130	Activate new Fuse Console gateway for OpenShift 4
ENTESB-10853	Pax logging should support log markers
ENTESB-10394	Audit logging enhancement: log origin of auth attempts
ENTESB-10117	Customize Option For Synthesis-UI User Interface
ENTESB-11211	CXF JMS transport with request-reply messaging deletes temporary queues whilst messages are still in flight
ENTESB-11015	spring-boot-camel-infinispan: support for auto download of infinispan server
ENTESB-11660	camel-cxf CxfEndpoint should avoid using cxf interanl api
ENTESB-11640	Allow for updates to DeploymentConfig
ENTESB-11479	Box - allow to map something to the fileld in box connector
ENTESB-10995	Relax installer constrains that check the target EAP version
ENTESB-10841	[Hawtio] Improve handling of HTTP 403 responses
ENTESB-9000	Align all quickstarts to the same way of deploying
ENTESB-10291	camel-undertow unable to handle large data streams
ENTESB-11380	Upgrade to Pax Logging 1.11.0 (that means Karaf 4.2.7)

Issue	Description
ENTESB-11474	Provide instructions about the authentication type in the new API client wizard
ENTESB-11616	Align to JWS 3.1.7 and 5.0.3
ENTESB-11763	DynamoDB UI improvements
ENTESB-10811	Ability to patch EAP 7 without reinstalling EAP
ENTESB-11934	Productised DV Operator CSV requires cleanup

9.2. FEATURE REQUESTS IN FUSE 7.5

The following table lists the features requests in Fuse 7.5.

Table 9.2. Fuse 7.5 Feature Requests

Issue	Description
ENTESB-11510	Customize Option For Syndesis-UI User Interface
ENTESB-11338	Fuse Online clients to use 3scale managed API's
ENTESB-10283	access logging support by embedded camel-undertow consumer endpoint
ENTESB-11595	SB2 for Fuse on Openshift
ENTESB-11514	API Provider: Improve Error Handling
ENTESB-11495	DynamoDB Connector
ENTESB-11503	Operator support for upgrades
ENTESB-11489	Installation Method Consolidation
ENTESB-11494	Conditional Flow Enhancements
ENTESB-11493	Box connector consolidation
ENTESB-10899	Create a connection for published Virtualization in Syndesis
ENTESB-10894	Support Salesforce as source in Data Integration In Syndesis
ENTESB-10892	UI for viewing the preview of View data.

Issue	Description
ENTESB-10370	"Delete duplicate properties
ENTESB-10301	Add support for Change Data Capture events on Salesforce component
ENTESB-10194	Provide the way to set env variable to deployment config of the integration pod
ENTESB-10269	Headers for Status/Error Response Code of SFTP Like CamelFtpReplyCode And CamelFtpReplyString For FTP/FTPS
ENTESB-10186	Fuse Online: Option to install Fuse Online on premise without demo data and app.
ENTESB-11499	[Synthesis] MongoDB connector - TP features
ENTESB-10282	record-request-start-time access logging option for pax-web undertow http web service
ENTESB-11505	IMAP/POP/SMTP Mail Connector
ENTESB-11513	Jira Connector
ENTESB-10896	Provide support for MongoDB as Data Source In Synthesis
ENTESB-11491	Mail connector consolidation
ENTESB-11492	Jira connector consolidation
ENTESB-10500	Develop OpenShift Operator for deploying VDBs
ENTESB-11772	Provide a template to install Fuse Online 7.5 for non operator based environments
ENTESB-10498	Provide OData Source support
ENTESB-11693	Recover custom plugin mechanism for Hawtio v2
ENTESB-10886	OpenAPI Support as data source
ENTESB-10496	Provide rest access with SpringBoot

9.3. CLARIFICATIONS IN FUSE 7.5

The following table lists the clarifications in Fuse 7.5.

Table 9.3. Fuse 7.5 Clarifications

Issue	Description
ENTESB-11366	[Operator] Which version should be deployed by default
ENTESB-11707	Syndesis CR might need configurable tag for upgrade image
ENTESB-10992	How to test karaf + cxf with Openshift 4
ENTESB-11339	Determine all supported configuration options to a Syndesis deployment

9.4. BUGS RESOLVED IN FUSE 7.5

The following table lists the resolved bugs in Fuse 7.5.

Table 9.4. Fuse 7.5 Resolved Bugs

Issue	Description
ENTESB-12237	Camel-k: unable to find catalog for 2.21.0.fuse-750033-redhat-00001
ENTESB-12216	fuse7-fuse-java-openshift:1.5-14 contains weird rpm (scl-utils)
ENTESB-12212	[SB2] Configmap booster is using different health check then other boosters
ENTESB-12207	Jolokia options in fuse-java-openshift image are incorrect
ENTESB-12202	[SB2] Booster circuit breaker fails with no RBAC policy matched at runtime
ENTESB-12182	[SB2][narayana-spring-boot-recovery-controller] NoClassDefFoundError: io/fabric8/kubernetes/api/model/extensions/StatefulSet
ENTESB-12165	[Apicurito] update scenario doesn't work correctly
ENTESB-12143	Fuse online won't provision on online-stg cluster
ENTESB-12142	[OCP4][SB2] Boosters regression OCP3 vs OCP4
ENTESB-12138	[SB2] Circuit breaker booster doesnt work
ENTESB-12133	Fuse Online template: Datavirt seems missing
ENTESB-12107	[ER2] karaf-camel-amq S2I is looking for non existing evironment variable AMQP_SERVICE_PORT
ENTESB-12089	Regression in SB1/SB2 FMP statefulsets creation

Issue	Description
ENTESB-12084	[SB2] Configmap booster - Configmap changes are not reflected
ENTESB-12071	[ER2] Weird behaviour of Fuse Console
ENTESB-12050	[camel-jetty] java.lang.NoClassDefFoundError: org/eclipse/jetty/util/MultiPartInputStreamParser
ENTESB-11864	[ER1] SB 2 quickstarts have non-working readiness/liveness
ENTESB-11784	[ER1] kamel binary from Camel-k image prints non-productized version
ENTESB-11726	ensure CXF can honor JDK-8211883
ENTESB-11719	Choosing Resource Collection in OData allows inserting unexisting resource collection name
ENTESB-11435	[Datamapper] Transformation's delimiter not saved
ENTESB-11398	[Conditional Flow] datashape change is not propagated into condition
ENTESB-11378	Apicurito installation using operatorhub not possible
ENTESB-11204	offliner manifest references RH artifacts using wrong versions
ENTESB-11198	offliner tool needs to download artifacts from repo.spring.io/plugins-release but is not Authorized
ENTESB-11188	Fuse as Windows Service fails to start initially
ENTESB-10694	Problem using Fuse console on OCP4.1 beta
ENTESB-10277	org.jboss.redhat-fuse:maven-bundle-plugin is not used but should be
ENTESB-10188	[Hawtio] No error message when a new endpoint is being created with wrong data
ENTESB-11420	Configuring a connection in integration causes white screen
ENTESB-11397	Invalid API specification form URL in API Provider doesn't show errors
ENTESB-11401	can't create a new entry in todo app in latest syndesis
ENTESB-11404	Add go to operation list to API provider
ENTESB-11399	Datamapper - I must delete mapping twice to make it disappear

Issue	Description
ENTESB-11394	Templates don't accept other file types than txt
ENTESB-11387	PublicAPI: Duplicate tag after import when tag already exists but integration not
ENTESB-11388	""No Data Available"" as uptime when the published integration has not been triggered yet"
ENTESB-11391	Database Invoke stored procedure action dropdown is empty in configuration
ENTESB-11390	Create new connection - connection list items are way too large
ENTESB-11383	[camel-k] Namespace parameter required when trying to publish integration
ENTESB-11386	Manage CI/CD UI doesn't check duplicates
ENTESB-11384	FHIR action page stuck loading
ENTESB-11374	Failure running activity tracking task on thread: Logs Controller [idle]java.lang.NullPointerException: null
ENTESB-11370	[Syndesis] running install_ocp.sh --setup --camel-k --verbose messes up the camel-k download
ENTESB-11377	Fuse Online install 1.7.25 install prometheus from obsolete image with health index F
ENTESB-11351	[Operator] Link syndesis-pull-secret (or create first if it doesn't exist) to syndesis-operator SA
ENTESB-11331	"Bridging http endpoints in camel-undertow throws: ""Error during type conversion from type: org.apache.camel.converter.stream.FileInputStreamCache to the required type"" when the body exceeds spool threshold"
ENTESB-11328	Inconsistent creation of integration using webhook and API-provider
ENTESB-11329	"Black screen after using ""manage in 3scale"" and ""do not expose via 3scale"""
ENTESB-11320	[Upgrade] Upgrade doesn't finish due to errors in operator
ENTESB-11321	"Operator shouldn't upgrade to ""latest"" by default"
ENTESB-11283	[camel-olingo4] Wrong module dependency on EAP

Issue	Description
ENTESB-11282	Google calendars select calendar dropdown changed to text input
ENTESB-11268	Fuse Online: Installation fails for user-name having comma in between.
ENTESB-11270	Set cxf headers while throwing a soap fault
ENTESB-11274	"Syndesis operator deploys ""latest"" syndesis by default
ENTESB-11273	Google spreadsheets changes datatype when Column names are not set
ENTESB-11272	Calendar id changed from select to text input
ENTESB-11264	Need a way to specify alternative Maven repo in syndesis-server-config
ENTESB-11263	The operator automatically resets openshift resources to original state
ENTESB-11265	Unable to run syndesis integration
ENTESB-11247	Detail page of Virtualization doesn't contain state of publishing
ENTESB-11245	Insert/update/delete tasks via TODO app failed
ENTESB-11251	MySQL connection doesn't show in Import Data Source wizard
ENTESB-11252	The margin of the bottom panel with the buttons is too large
ENTESB-11253	Tooltips are not shown in the connection form
ENTESB-11242	Creating a view from the predefined PostgresDB connection doesn't work
ENTESB-11243	""Not SQL Connection
ENTESB-11238	Conditional Flows UI is misaligned & the move buttons don't work
ENTESB-11235	Fuse and FO Operators not available from Operatorhub in Openshift 4
ENTESB-11191	Fix issue with flaky test PubNubPresenceTest.testPresence
ENTESB-11171	""History"" command throws NPE"
ENTESB-11166	Backport request of CAMEL-12451 to Fuse 7.3
ENTESB-11146	ConsullIntegrationTest fails with NoSuchMethodError

Issue	Description
ENTESB-11148	redhat-fuse-7.5.0.fuse-sb2-750001.pom is referencing several 7.4.0 artifacts (including some that are no more available)
ENTESB-11137	Metadata/Schema does not reflect the latest updates from Database in DV
ENTESB-11128	[Apicurito] Broken CSS in About dialog in Apicurito
ENTESB-11121	[camel-yammer] olderThan option is not working on Spring-boot-2
ENTESB-11111	[Hawtio operator] The latest tag for hawtio-online doesn't work
ENTESB-11066	camel http4 exception with empty body
ENTESB-11070	WS-Security in combination with MTOM attachments
ENTESB-11059	[karaf-maven-plugin] client goal + script execution is not working
ENTESB-12083	Circuit breaker booster don't have versions explicitly set in plugins
ENTESB-12030	[ER2] Quickstarts looks for an unexisting GIT_REF
ENTESB-12008	[ER2] DV operator fails to build the builder image
ENTESB-12001	Creating Data Virtualization doesn't work
ENTESB-11977	Allow overriding s2i image in DV operator
ENTESB-11937	DV operator needs a way to specify alternate maven repo
ENTESB-11927	[ER1] dv-operator builds VDBs from community artifacts
ENTESB-11926	[ER1] dv-operator builds VDBs using community s2i image
ENTESB-11920	[ER1][OCP4] Prometheus installation doesn't work
ENTESB-11911	FHIR- create: Error retrieving resource schema for type...
ENTESB-11902	SQL Connections being blocked when Syndesis server not available
ENTESB-11844	Salesforce connection is not visible in the Import data source page
ENTESB-11843	Text field instead of dropdown in the Salesforce connection
ENTESB-11838	Problematic description in camel-kafka

Issue	Description
ENTESB-11825	Karaf as a service does not work on rhel
ENTESB-11831	[ER1 Fuse Console] Operator deploys the community version of hawtio
ENTESB-11821	[ER1] Spring boot 2 quickstarts fail to deploy
ENTESB-11822	[7.5 ER1] Data virtualizations do not deploy because of missing artifacts
ENTESB-11794	Missing artefact inside Spring Boot 2 BOM
ENTESB-11792	[ER1] fis-console-namespace-template.json is broken
ENTESB-11786	Deployment config templates contain hardcoded syndesis container names
ENTESB-11766	Unable to rebuild integration after the upgrade
ENTESB-11768	[ER1] Camel-k doesn't work
ENTESB-11764	[ER1] quickstarts contain wrong version of BOM
ENTESB-11758	Restore behavior of dynamic action metadata lookup form field rendering
ENTESB-11756	Hibernate does not export org.hibernate.proxy package
ENTESB-11716	Unable to install 17 features
ENTESB-11700	Error during publishing Salesforce VDB
ENTESB-11698	Import Data Source shows only one schema for Salesforce connection
ENTESB-11704	AWS dynamoDB example json not working
ENTESB-11692	"Prohibit ""unpublish"" if the virtualization is in use by Integration"
ENTESB-11695	DV UI enabled even when DV is set to disable in Syndesis CR
ENTESB-11690	Scaling Fuse Online integrations incorrectly sets status to 'Stopped'
ENTESB-11683	Setting image tag in Sydesis CR prevents deployment
ENTESB-11674	The error message remains in the dialog after closing it.
ENTESB-11672	SQL Client results are not horizontally scrollable
ENTESB-11678	Backport CAMEL-13986

Issue	Description
ENTESB-11677	Backport CAMEL-13983
ENTESB-11679	Backport CAMEL-13994
ENTESB-11676	Backport CAMEL-12891
ENTESB-11669	Remove docker registry from prometheus image stream
ENTESB-11656	"CXF LoggingInterceptor
ENTESB-11653	Export integrations according to the tag via PublicApi doesn't work
ENTESB-11647	Preview section updates for improved usability
ENTESB-11644	DV Details page title area improvements
ENTESB-11643	Add Cancel button when creating a view or virtualization
ENTESB-11649	AWS dynamoDB - validation shows success on nonexisting table name
ENTESB-11632	Preview data for MySQL data source throws an exception
ENTESB-11628	Data mapper steps doesn't contain any data
ENTESB-11607	Missing second table name in the created view
ENTESB-11608	Inconsistent footer with buttons
ENTESB-11599	When using a connector two times in integration - unable to select different action than the one used in first added
ENTESB-11598	"Virtualizations Page
ENTESB-11593	Choosing channel name in Slack allows inserting unexisting channel name
ENTESB-11578	Conditional flow expression forms usability
ENTESB-11576	Upgrade pod unable to run oc commands
ENTESB-11577	Glitch when trying to select item from the list
ENTESB-11436	Integration flow doesn't continue after DB DELETE and INSERT
ENTESB-10993	Unable to install camel-hystrix and camel-rx (yet again)

Issue	Description
ENTESB-10923	[QUICKSTART] camel-linkedin quickstart is not working
ENTESB-10925	camel rest && swagger does not works correctly on SB2
ENTESB-10924	"camel-linkedin: If accessToken is set
ENTESB-10912	[Hawtio] Camel chart is displayed wrong when a web browser window is expanded
ENTESB-10883	Expose CXF bus as an OSGi Service and refer it in other bundles
ENTESB-10865	Cherry-pick commit
ENTESB-10854	CamelBlueprintTestSupport invokes the call to useOverridePropertiesWithPropertiesComponent() twice
ENTESB-10837	Backport CAMEL-12947
ENTESB-10826	UI button placement
ENTESB-10739	camel-mail isn't dependent on com.sun.mail:javax.mail:jar and should be
ENTESB-10671	camel-jdbc transaction does not work
ENTESB-10521	Not visible items in Fuse Console Preferences
ENTESB-10354	karaf-cxf-rest: Warning: Overwriting existing default context
ENTESB-9112	Missing CXF dependencies in fabric8-project-bom-camel-spring-boot
ENTESB-7748	Review and polish spring-boot-camel quickstart
ENTESB-10167	[Hawtio] Negative numbers in Preferences
ENTESB-11322	Can not execute commands as arguments for client script in Red Hat Fuse 7.4 on Karaf.
ENTESB-12073	[ER2][SB2] Application templates points to non-existing tags
ENTESB-12039	Syndesis DB doesn't deploy on OpenShift 4.2
ENTESB-12018	Syndesis server config is missing integrationLivenessProbeInitialDelaySeconds
ENTESB-12069	[ER2] Custom karaf app fails because Readiness probe doesn't work

Issue	Description
ENTESB-11423	unable to create email connection in the new ui
ENTESB-11862	[ER1] Align spring-boot-camel-rest-3scale to same way of deploying
ENTESB-11765	[ER1] spring-boot-camel-xml pulls wrong FMP version
ENTESB-11970	Syndesis-dv server requires lots of CPU resources
ENTESB-11630	Auto-completion list for tables are not qualified
ENTESB-11781	Preview Table shows the column data is multiple rows
ENTESB-11246	UI shows ERROR during publishing a Virtualization for a moment
ENTESB-11611	Failure to publish a VDB in rhpds
ENTESB-11790	Publish VDB throws an error in the syndesis-dv pod log
ENTESB-11849	[ER1] spring-boot-camel-infinispan is missing readiness/liveness probes
ENTESB-11717	AWS dynamoDB tech preview label
ENTESB-11639	"Error when deleting integration ""Forbidden!Configured service account doesn't have access"""
ENTESB-11959	Data mapper fails when editing already created integration
ENTESB-11711	Syndesis Operator applies wrong change to syndesis-server resource
ENTESB-10902	Camel aggregation fails in a clustered environment with Postgresql as the repository
ENTESB-11916	[ER1] Operator fails to create image stream due to unquoted name
ENTESB-11395	OData connector updates null values with Filter old results turned on
ENTESB-11857	Missing camel-starters inside Spring Boot 1 BOM
ENTESB-11863	[ER1] SB2 quickstarts don't work because of missing class in FMP
ENTESB-11783	[ER1] Custom karaf app fails with null bundle
ENTESB-11685	Missing error message when the integration name is already used
ENTESB-12054	Installing spring-jdbc feature broke loading of camel components

Issue	Description
ENTESB-12048	Jira connector is Technical Preview
ENTESB-11929	[ER1][OCP4][SB1] Watching configmap throws exception
ENTESB-11735	"UI Silently Ignores the ""publish"" error"
ENTESB-11164	Missing qpuid-jms-client in SB2 BOM
ENTESB-11870	Data mapper doesn't map anything when incoming data shape is a collection
ENTESB-11417	[api client connector] swagger file name reaches out of frame
ENTESB-12044	[ER2] Prod build is using community oauth proxy
ENTESB-11662	JDBC bind address to different IP
ENTESB-11867	MongoDB find by id operation throws an error
ENTESB-11721	Specify docker registry per image in Syndesis CR
ENTESB-11868	MongoDB insert operation throws an error causing later steps to be skipped
ENTESB-11853	MongoDB connection does not validate unless non-required field is filled
ENTESB-12010	command shell:history does not work on Fuse 7.4.0
ENTESB-12134	DV operator uses older build of teiid artifacts
ENTESB-12135	Teiid-syndesis didn't align with the redhat version of camel
ENTESB-11350	[Upgrade] Rollback
ENTESB-11415	SQL statement contains text from the previous step
ENTESB-11989	Syndesis operator passes wrong version of camel and camel-k-runtime to camel-k
ENTESB-12027	Unable to patch to 750033-redhat-00002 ER2
ENTESB-12031	Missing some starters in Fuse 7.5.0.ER2 SB BOM
ENTESB-12119	[Apicurito] operator cannot build UI
ENTESB-12147	[Apicurito] operator is not testable

Issue	Description
ENTESB-12131	DV install-operator script fails when creating pull secret
ENTESB-12132	DV install-operator script references master resource yamls