Red Hat Fuse 7.11

Release Notes for Red Hat Fuse 7.11

What's new in Red Hat Fuse

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Legal Notice

Abstract

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

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MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see our CTO Chris Wright's message .

CHAPTER 1. FUSE 7.11 PRODUCT OVERVIEW

1.1. FUSE DISTRIBUTIONS

Fuse 7.11 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:

- On an OpenShift Dedicated (OSD) cluster.

- For installation on an on-premises OpenShift cluster

1.2. NEW FEATURES

Fuse 7.11 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. FUSE 7.11.1 NOTES

For **Fuse on OpenShift** 7.11.1, the BASEURL for image streams is **https://github.com/jboss-fuse/application-templates/blob/application-templates-2.1.0.fuse-sb2-7_11_1-00016-redhat-00002/**.

For **Fuse Online**, to upgrade from Fuse 7.10 to 7.11.1, follow the instructions in Section 2.4, "Upgrading from Fuse Online 7.10.x to 7.11.x requires manual upgrade steps".

For **Fuse standalone**, set the 7.11.1 **fuse.version** property to the corresponding BOM version as listed in Section 4.4.1, "BOM File for Fuse 7.11.1" .

See also Section 8.5, "Bugs resolved in Fuse 7.11 and 7.11.1" .

1.4. IMPORTANT NOTES

CVE-2020-8908 guava

A temp directory creation vulnerability exist in Guava versions prior to 30.0. We recommend updating Guava to version 30.0 or later, or update to Java 7 or later, or to explicitly change the permissions after the creation of the directory if neither are possible.

Red Hat CodeReady studio is scheduled for sunset

Red Hat CodeReady studio is scheduled for sunset. JBoss Tools(community) is the succeeding toolkit.

1.5. SUPPORTED CONFIGURATIONS

IMPORTANT

For running Fuse in Apache Karaf, we recommend OpenJDK 8u282 or OpenJDK 8u302. Do not use OpenJDK 8u292, which has a known issue affecting the credential store (see ENTESB-16417). OracleJDK 1.8.0_291 is also affected by this issue.

For information about supported configurations, standards, and components in version 7.11, see the following Customer Portal articles:

- Red Hat Fuse Supported Configurations

- Red Hat Fuse Supported Standards

- Red Hat 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.

2.1. ABOUT FUSE ONLINE DISTRIBUTIONS

Fuse Online is Red Hat's web-based integration platform. Syndesis is the open source project for Fuse Online. Fuse Online runs in these OpenShift environments:

Host Environment	Installation
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 7.11

These features are new in Fuse Online 7.11:

- **Support for connecting to Red Hat Managed Kafka**
  To support connecting to Red Hat Managed Kafka, the Kafka Message Broker connector includes the following fields:

  - Security Protocol

  - SASL Mechanism

  - Username

  - Password

  - SASL Login Callback Handler Class

  - OAuth Token Endpoint URI
    For more information, see Chapter 15, "Connecting to Kafka" in *Connecting Fuse Online to Applications and Services*.

- **Integration labels**
  When you save an integration, you can apply one or more labels to it. A label is a key-value pair tag that you can apply to an integration (or other OpenShift resource) for later filtering and selecting in OpenShift. For example, an OpenShift admin user can filter the list of running pods or deployments by label.

- **Integration environment variables**
  Optionally, when you save an integration, you can set one or more environment variables that Fuse Online applies to the integration Pod. You can use these environment variables to set Spring Boot configuration options, for example, to set **SERVER_MAX_HTTP_HEADER_SIZE**. Existing environment variables set manually are preserved.

Note that setting these environment variables in Fuse Online when you save an integration does not change or impact any other environment settings set manually, for example, through the OpenShift web console interface.

- **Maven mirror setting**
  You can specify the Maven repository that you want Fuse Online to use for accessing Maven artifacts when it builds integrations. In the Syndesis custom resource, specify the Maven repository as the value of the **components:server:features:maven:mirror** setting.

2.3. CHANGES IN FUSE ONLINE 7.11

Fuse Online 7.11 changes Fuse Online 7.10 features as follows:

- **To install the AMQ Broker, use the todo addon option**
  In previous releases, the AMQ Broker was installed with Fuse Online by default. Starting with Fuse Online 7.11, if you want to install the AMQ Broker, set the Fuse Online **todo addon** option to **true**. This option also enables the sample **Todo** app, the sample PostgreSQL database, and connector for testing integrations. For more information about setting the **todo addon** option, see Adding sample data to a Fuse environment running on OCP in *Installing and Operating Fuse Online on OpenShift Container Platform*.

- **Data Mapper supports CSV data**
  For any Fuse Online connector that has an action for which you can define a data shape, you now have the option to specify a CSV instance (in addition to the options to specify JSON schema, JSON instance, XML schema, or XML instance). For example, in a Webhook connection, you can specify a CSV file as a data output type for an action.

2.4. UPGRADING FROM FUSE ONLINE 7.10.X TO 7.11.X REQUIRES MANUAL UPGRADE STEPS

If you installed Fuse Online 7.10.x and want to upgrade to Fuse Online 7.11.x.x, you must manually upgrade to Fuse Online 7.11.x.0.

1. In the **Administrator** perspective of the OpenShift Container Platform web console, navigate to **Operators** > **Installed Operators**.

2. Click the **Red Hat Integration Fuse Online 7.10.2** Operator.

3. Click the **Subscription** tab.

4. Verify that **Update approval** is set to **Manual**:

   - If **Update approval** is set to **Manual**, skip to the next step.

   - If **Update approval** is set to **Automatic**:

     a. Click **Automatic**.

     b. In the **Change Update Approval Strategy** dialog, select **Manual** and click **Save**.

5. Under **Update channel**, click **7.10.2**.

6. For the **Change subscription update channel**, select **7.11.x**.
   Note: The **latest**, **candidate**, and **stable** channels are Technology Preview features.

7. Under **Upgrade status**, click **Upgrade available**.

8. Click **Preview InstallPlan** and then **Approve**.

9. Verify that the operator has fully completed the upgrade to Fuse Online 7.11.0:

   a. Navigate to the **Operators** > **Installed Operators** page and click **Red Hat Integration Fuse Online**. The **Operator Details** page opens.

   b. Select the **Syndesis** tab. The status for the Fuse Online instance (the default name is **app**) initially shows **Installed** (to indicate that Fuse Online 7.11.0 is installed). It then progresses through several phases (**Installing**, **Starting**, and **Installed**). When it reaches the **Installed** phase again, the upgrade to 7.11.0 is complete.

10. Navigate back to the **Operators** > **Installed Operators** page, and then click **Upgrade available** for the **Red Hat Integration Fuse Online** operator.

11. Click **Preview InstallPlan** and then **Approve**.

12. Verify that the operator has fully completed the upgrade to Fuse Online 7.11.x:

    a. Navigate to **Networking** > **Routes** and click on the location link for **syndesis** to open the Fuse Online web console.

    b. In the upper right corner of the Fuse Online console, click the **?** icon and then select **About**.

    c. Verify that the **About** page includes **7_11_x** in the version number.

2.5. UPGRADING FUSE ONLINE INTEGRATIONS

To upgrade a Fuse Online environment that is running on OCP on-site, you must update Fuse Online by using the operator and then republish any running integrations as described in Upgrading Fuse Online .

On OCP 4.9, when you upgrade to 7.10 by using the operator, the following warning is displayed during the Fuse Online Operator upgrade process:

W1219 18:38:58.064578 1 warnings.go:70] extensions/v1beta1 Ingress is deprecated in v1.14+, unavailable in v1.22+; use networking.k8s.io/v1 Ingress

This warning appears because clients (that Fuse Online uses for the Kubernetes/OpenShift API initialization code) access a deprecated Ingress version. This warning is *not* an indicator of complete use of deprecated APIs and there is no issue with upgrading to Fuse Online 7.10.

2.6. IMPORTANT NOTES FOR FUSE ONLINE

Important notes for the Fuse 7.11 release of the Fuse Online distribution:

- Support for Fuse Online is now deprecated as Fuse 7 is now in the maintenance support. There will not be any future development for Fuse Online when Fuse 7 moves out of support.

- Installation of Fuse Online is no longer supported on OCP 3.11.

- Fuse Online no longer supports Camel K runtime or the KNative connector.

- When Fuse Online is installed and provisioned on Red Hat infrastructure, the account is limited to a specific number of integrations that can be running at one time. For details, see the pricing plan.

- 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.

- Since Fuse 7.8, 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.

- On OCP 4.9 (or later), the **application-monitoring** project no longer works. It is a prerequisite for monitoring Fuse Online integrations and infrastructure components with Prometheus and Grafana.
  To work around this issue, you can use the built-in monitoring stack (in the **openshift-monitoring** namespace) to use the **openshift-user-workload-monitoring** feature and the **grafana-operator** to use the **ops addon** as described in the following *Adding Fuse Online monitoring resources (Prometheus and Grafana) on OCP 4.9 (or later)* procedure.

2.6.1. Adding Fuse Online monitoring resources (Prometheus and Grafana) on OCP 4.9 (or later)

Prerequisites

- Fuse Online is installed and running on OCP 4.9 (or later) on-site.

- The **oc** client tool is installed and it is connected to the OCP cluster in which Fuse Online is installed.

- You have **admin** access to the OCP cluster.

- Your Fuse Online installation is configured with the **ops addon** enabled. If required, you can enable it with this command:

  ```
  oc patch syndesis/app --type=merge -p '{"spec": {"addons": {"ops": {"enabled": true}}}}'
  ```

Procedure

1. If there is an existing **openshift-monitoring** configuration, skip to Step 2.
   Otherwise, create an **openshift-monitoring** configuration, that sets the user workload monitoring option to **true** and then skip to Step 3:

   ```
   oc apply -f - <<EOF
   apiVersion: v1
   kind: ConfigMap
   metadata:
     name: cluster-monitoring-config
     namespace: openshift-monitoring
   data:
     config.yaml:
       enableUserWorkload: true
   EOF
   ```

2. If there is an existing **openshift-monitoring** configuration:

   a. Check the existing **openshift-monitoring** configuration to determine whether the **user workload monitoring** option is set to **true**:

   ```
   oc get -n openshift-monitoring cm/cluster-monitoring-config -
   ojsonpath='{.data.config\.yaml}'
   ```

   If the result is **enableUserWorkload: true**, the **user workload monitoring** option is set to **true**. Skip to Step 3.

   If the result shows any other configurations, continue to the next step to enable the monitoring of user workloads by editing the ConfigMap.

   b. Open the ConfigMap file in an editor, for example:

   ```
   oc -n openshift-monitoring edit cm/cluster-monitoring-config
   ```

   c. Set **enableUserWorkload** to **true**. For example:

   ```
   apiVersion: v1
   kind: ConfigMap
   metadata:
     name: cluster-monitoring-config
     namespace: openshift-monitoring
   data:
     config.yaml:
      enableUserWorkload: true
   ```

   d. Save the ConfigMap file.

3. Use the following command to watch the status of the pods in the **openshift-user-workload-monitoring** namespace:

   ```
   oc -n openshift-user-workload-monitoring get pods -w
   ```

   Wait until the status of the pods is Running, for example:

   ```
   prometheus-operator-5d989f48fd-2qbzd   2/2     Running
   prometheus-user-workload-0                 5/5     Running   prometheus-user-workload-1
   5/5     Running
   thanos-ruler-user-workload-0           3/3     Running
   thanos-ruler-user-workload-1           3/3     Running
   ```

4. Verify that the Fuse Online alert rules are enabled in Prometheus:

   a. Access the internal prometheus instance

   ```
   oc port-forward -n openshift-user-workload-monitoring pod/prometheus-user-workload-0
   9090
   ```

   b. Open your browser to **localhost:9090**

   c. Select **Status**> **Targets**. You should see three **syndesis** endpoints.

d. Press **CTRL-C** to terminate the **port-forward** process.

5. From the OperatorHub, install the Grafana Operator 4.1.0 to a namespace of your choosing, for example, to the **grafana-middleware** namespace.

6. Add a cluster role and a cluster role binding to allow the **grafana-operator** to list nodes and namespaces:

    a. Download the cluster role YAML file from the **grafana-operator** website:

    ```
    curl https://raw.githubusercontent.com/grafana-operator/grafana-
    operator/master/deploy/cluster_roles/cluster_role_grafana_operator.yaml >
    tmp_role.yaml
    ```

    b. Add cluster permission for the **grafana-operator** to read other namespaces and nodes:

    ```
    cat <<EOF >> tmp_role.yaml
      - apiGroups:
          - ""
        resources:
          - namespaces
          - nodes
        verbs:
          - get
          - list
          - watch
    EOF
    ```

    ```
    oc apply -f tmp_role.yaml
    ```

    ```
    oc apply -f - <<EOF
    apiVersion: rbac.authorization.k8s.io/v1
    kind: ClusterRoleBinding
    metadata:
      name: grafana-operator
    roleRef:
      name: grafana-operator
      kind: ClusterRole
      apiGroup: ""
    subjects:
      - kind: ServiceAccount
        name: grafana-operator-controller-manager
        namespace: grafana-middleware
    EOF
    ```

7. Enable the **grafana-operator** to read Grafana dashboards from other namespaces by using the **DASHBOARD_NAMESPACES_ALL** environment variable to limit the namespaces:

    ```
    oc -n grafana-middleware patch subs/grafana-operator --type=merge -p '{"spec":{"config":
    {"env":[{"name":"DASHBOARD_NAMESPACES_ALL","value":"true"}]}}}'
    ```

8. Check that the **grafana** pods are recreated:

    ```
    oc -n grafana-middleware get pods -w
    ```

9. Optionally, view the **grafana-operator** logs:

   ```
   oc -n grafana-middleware logs -f `oc -n grafana-middleware get pods -oname|grep grafana-operator-controller-manager` -c manager
   ```

10. Add a Grafana custom resource to start a Grafana server pod, for example:

    ```
    oc apply -f - <<EOF
    apiVersion: grafana.integreatly.org/v1beta1
    kind: Grafana
    metadata:
      name: grafana-middleware
      namespace: grafana-middleware
    spec:
      config:
        auth:
          disable_signout_menu: true
        auth.anonymous:
          enabled: true
        log:
          level: warn
          mode: console
        security:
          admin_password: secret
          admin_user: root
      dashboardLabelSelector:
      - matchExpressions:
        - key: app
          operator: In
          values:
          - grafana
          - syndesis
      ingress:
        enabled: true
    EOF
    ```

11. Allow the **grafana-operator** to read monitoring information:

    ```
    oc -n grafana-middleware adm policy add-cluster-role-to-user cluster-monitoring-view -z grafana-serviceaccount
    ```

12. Add a **GrafanaDatasource** to query **thanos-querier**:

    ```
    oc apply -f - <<EOF
    apiVersion: grafana.integreatly.org/v1beta1
    kind: GrafanaDataSource
    metadata:
      name: prometheus-grafanadatasource
      namespace: grafana-middleware
    spec:
      datasources:
        - access: proxy
          editable: true
          isDefault: true
          jsonData:
    ```

```
        httpHeaderName1: 'Authorization'
        timeInterval: 5s
        tlsSkipVerify: true
    name: Prometheus
    secureJsonData:
      httpHeaderValue1: "Bearer $(oc -n grafana-middleware serviceaccounts get-token
grafana-serviceaccount)"
      type: prometheus
      url: "https://$(oc get route thanos-querier -n openshift-monitoring -
ojsonpath='{.spec.host}')"
    name: prometheus-grafanadatasource.yaml
EOF
```

13. View the grafana server log:

    ```
    oc logs -f `oc get pods -l app=grafana -oname`
    ```

14. Access the grafana URL and view the Fuse Online dashboards:

    ```
    echo "https://"$(oc -n grafana-middleware get route/grafana-route -ojsonpath='{.spec.host}')
    ```

2.7. OBTAINING TECHNICAL SUPPORT FOR FUSE ONLINE

To obtain technical support, in the Fuse Online console, 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.

2.8. TECHNOLOGY PREVIEW FEATURES IN FUSE ONLINE

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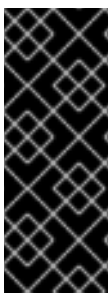
IMPORTANT

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.

- **Fuse Online auditing**
  Fuse Online supports basic auditing for changes made by any user to the following Fuse Online components:

  - **Connections** – The **Name** and any other fields shown on the connector's **Details** page in the Fuse Online web console.

  - **Connectors** – The **Name** field.

  - **Integrations** – The **Name** field.

- Conditional expressions for mapping data fields

In the data mapper, you can specify a conditional expression and apply it to a 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.

- **Document scope for user-defined properties in data mapper**
  In the data mapper, you can specify a scope for properties that you define for source and target mappings. In the **Mapping Details** panel, click **Add** (+) next to **Properties**. In the **Create Property** dialog. for the new **Scope** option, you can select the current message header, a message header from a previous step, or **Camel Exchange Property** for Camel-specific properties.

- **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

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:

Image	Platform	Supported architectures
fuse7/fuse-java-openshift-rhel8	Spring Boot	AMD64 and Intel 64 (x86_64)
fuse7/fuse-java-openshift-jdk11-rhel8	Spring Boot	AMD64 and Intel 64 (x86_64)
fuse7/fuse-java-openshift-openj9-11-rhel8	Spring Boot	IBM Z and LinuxONE (s390x) IBM Power Systems (ppc64le)
fuse7/fuse-karaf-openshift-rhel8	Apache Karaf	AMD64 and Intel 64 (x86_64)
fuse7/fuse-karaf-openshift-jdk11-rhel8	Apache Karaf	AMD64 and Intel 64 (x86_64)
fuse7/fuse-eap-openshift-jdk8-rhel7	Red Hat JBoss Enterprise Application Platform	AMD64 and Intel 64 (x86_64)
fuse7/fuse-eap-openshift-jdk11-rhel8	Red Hat JBoss Enterprise Application Platform	AMD64 and Intel 64 (x86_64)
fuse7/fuse-console-rhel8	Fuse console	AMD64 and Intel 64 (x86_64) IBM Z and LinuxONE (s390x) IBM Power Systems (ppc64le)
fuse7/fuse-console—rhel8-operator	Fuse console operator	AMD64 and Intel 64 (x86_64) IBM Z and LinuxONE (s390x) IBM Power Systems (ppc64le)
fuse7/fuse-apicurito-generator-rhel8	Apicurito REST application generator	AMD64 and Intel 64 (x86_64)
fuse7/fuse-apicurito-rhel8	Apicurito REST API editor	AMD64 and Intel 64 (x86_64)

Image	Platform	Supported architectures
fuse7/fuse-apicurito-rhel8-operator	API Designer Operator	AMD64 and Intel 64 (x86_64)

3.3. NEW FEATURES IN FUSE 7.11 ON OPENSHIFT

Fuse on OpenShift provides following new features in version 7.11:

- Fuse Console performance tuning (OpenShift 4.x only)
  You can tune the performance of the Fuse Console by setting any of the **clientBodyBufferSize**, **proxyBuffers**, and **subrequestOutputBufferSize** environment variables.

  Note: This feature is not supported on OpenShift 3.11.

- Support for JDK 11
  Fuse 7.11 offers support for building the Fuse on OpenShift quickstarts using JDK 11.

- Running quickstarts with **openshift-maven-plugin**
  Fuse 7.11 uses new **openshift-maven-plugin** when building and running the Fuse on OpenShift quickstarts with Maven archtypes.

- Support for IBM Power Systems, IBM Z, and LinuxONE
  Fuse 7.11 adds support for IBM Power Systems(ppc64le), IBM Z, and LinuxONE (s390x) on Red Hat OpenShift Container Platform 4.9 and later.

> **NOTE**
>
> In Fuse 7.11, installing the Fuse on OpenShift imagestreams and templates on IBM Power Systems, IBM Z, and LinuxONE is **not** supported. Only the components that can be installed with Fuse on OpenShift Operators are supported on IBM Power Systems, IBM Z, and LinuxONE.

3.4. IMPORTANT NOTES

Important notes for the Fuse 7.11 release of the Fuse on OpenShift distribution:

Support for Fuse 7.11 on OpenShift Container Platform (OCP) 4.9 or later

Fuse 7.11 contains updates that enable it to work with OpenShift Container Platform (OCP) 4.9 or later. If you plan to upgrade to OCP 4.10, you must upgrade Fuse to version 7.11 **before** you upgrade OCP to version 4.10. Earlier versions of Fuse (prior to 7.10) do not support OCP 4.9 or later.

Data Virtualization has been removed

Data Virtualization is deprecated since Fuse 7.7 and has been removed from Fuse 7.8.

Spring Boot 1 is has been removed

Spring Boot 1 is deprecated since Fuse 7.7 and has been removed from Fuse 7.8. We recommend that you migrate your Spring Boot applications to Spring Boot 2, following the guidance in the Spring Boot 2.0 Migration Guide.

Fabric8 Maven plugin is removed

Fabric8 Maven plugin is completely removed from Fuse 7.10 and replaced with OpenShift Maven plugin since Fuse 7.10. Use OpenShift Maven plugin to build and deploy your applications.

Running quickstarts with JDK11

Use the correct JDK11 profile during the compile time if you want to use JDK11 based image at runtime. When building and deploying the quickstarts using JDK11, ensure that you have installed JDK11 on your build machine and then build your quickstarts using the correct JDK11 profile.

Changes in spring-boot artifact Id

In Fuse 7.11, Spring Boot is upgraded to 2.5.13. In this new version **spring-cloud-starter-kubernetes-config** artifact id is changed to **spring-cloud-starter-kubernetes-client-config**.

Quickstart Spring-Boot RHOSAK fails because of spring-boot upgrade

The **eap-camel-jpa** quickstart has been removed

The **eap-camel-jpa** quickstart has been removed from Fuse 7.8 due to an issue with a dependency.

Jolokia not externally accessible since Fuse 7.8

Starting in Fuse 7.8, Jolokia default protocol is switched from HTTP to HTTPS.

FIPS-enabled Jolokia agent becomes unavailable

In OCP FIPS-enabled Jolokia agent becomes unavailable due to unsupported security encoding.

CHAPTER 4. FUSE STANDALONE

4.1. SUPPORTED CONTAINERS

Fuse standalone 7.11 is supported on the following runtime containers:

- Spring Boot 2 (standalone)

- Apache Karaf

- Red Hat JBoss Enterprise Application Platform (JBoss EAP)

4.2. NEW FEATURES IN FUSE 7.11

The main new features of Fuse standalone in version 7.11 are:

Java 11 is supported for Apache Karaf

Java 11 is now supported on the Apache Karaf runtime.

4.3. TECHNOLOGY PREVIEW FEATURES

The following features of Fuse standalone are *Technology Preview* only and are not supported in Fuse 7.11:

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.

Visual Studio Code features

> **NOTE**
>
> VS Code Apache Camel extensions are community features. They are not supported by Red Hat.

The Language Support for Apache Camel extension provides features for Camel URIs, such as the following:

For XML DSL and Java DSL:

- You can navigate to endpoints 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 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.

- You can specify a specific Camel Catalog version by selecting **File → Preferences → Settings → Apache Camel Tooling → Camel catalog version**.

- You can use "Quick fix" features to address invalid enum values and unknown Camel URI component properties.

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.

For Properties:

- Completion for Camel component property

- Diagnostic

To access the **Language Support for Apache Camel**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

- XML Language Support

- AtlasMap Data Transformation editor

- Didact Tutorial

- Tooling for Apache Camel K

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 AtlasMap Data Transformation editor

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).

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 in 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 save the file, the editor performs an Apache Camel validation check on the Camel code.

To activate this plugin for Eclipse Che, you can use the "Apache Camel based on Spring Boot" stack or edit your workspace configuration.

4.4. BOM FILES FOR FUSE 7.11 AND FUSE 7.11.1

To configure your Maven projects to use the supported Fuse 7.11 or 7.11.1 artifacts, use the BOM versions documented in this section.

4.4.1. BOM File for Fuse 7.11.1

To upgrade your Fuse standalone applications to use the 7.11.1 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 7.11.1 using the BOM

Container Type	Maven BOM or Plugin Artifact groupId/artifactId	Version for Fuse 7.11.1
Spring Boot 2	**org.jboss.redhat-fuse/fuse-springboot-bom**	**7.11.1.fuse-sb2-7_11_1-00017-redhat-00002**
	org.jboss.redhat-fuse/spring-boot-maven-plugin	**7.11.1.fuse-sb2-7_11_1-00017-redhat-00002**

Container Type	Maven BOM or Plugin Artifact groupId/artifactId	Version for Fuse 7.11.1
Apache Karaf	**org.jboss.redhat-fuse/fuse-karaf-bom**	**7.11.1.fuse-sb2-7_11_1-00017-redhat-00002**
	org.jboss.redhat-fuse/karaf-maven-plugin	**7.11.1.fuse-sb2-7_11_1-00017-redhat-00002**
JBoss EAP	**org.jboss.redhat-fuse/fuse-eap-bom**	**7.11.1.fuse-sb2-7_11_1-00017-redhat-00002**

For more details about using the BOM, see the Migration Guide.

4.4.2. BOM File for Fuse 7.11

To upgrade your Fuse standalone applications to use the 7.11 dependencies, edit the Maven **pom.xml** and change the versions of the BOMs and Maven plugins listed in the following table:

Table 4.2. Maven BOM and plugin versions for 7.11 using the BOM

Container Type	Maven BOM or Plugin Artifact groupId/artifactId	Version for Fuse 7.11
Spring Boot 2	**org.jboss.redhat-fuse/fuse-springboot-bom**	**7.11.0.fuse-sb2-7_11_0-00028-redhat-00001**
	org.jboss.redhat-fuse/spring-boot-maven-plugin	**7.11.0.fuse-sb2-7_11_0-00028-redhat-00001**
Apache Karaf	**org.jboss.redhat-fuse/fuse-karaf-bom**	**7.11.0.fuse-sb2-7_11_0-00028-redhat-00001**
	org.jboss.redhat-fuse/karaf-maven-plugin	**7.11.0.fuse-sb2-7_11_0-00028-redhat-00001**
JBoss EAP	**org.jboss.redhat-fuse/fuse-eap-bom**	**7.11.0.fuse-sb2-7_11_0-00028-redhat-00001**

For more details about using the BOM, see the Migration Guide.

4.5. IMPORTANT NOTES

Important notes for the Fuse 7.11 release of the Fuse standalone distribution:

Java 11 is supported for Apache Karaf

The Fuse 7.11 release supports Java 11 on the Apache Karaf runtime.

Support for Karaf runtimes and JBoss EAP is deprecated

Support for Karaf runtimes and JBoss EAP is deprecated as Fuse 7 will move out of support with the release of Fuse 7.11.

Creating a connection to MongoDB using the MongoClients factory

From Fuse 7.10 and later versions, use **com.mongodb.client.MongoClient** instead of **com.mongodb.MongoClient** to create a connection to MongoDB (note the extra *.client* sub-package in the full path).

This affects any user applications that use **camel-mongodb**, which will now need to create a connection bean as a **com.mongodb.client.MongoClient** instance. Moreover, the methods exposed by this class are not exactly the same as the old class which could require more refactoring of user code.

For example, create a connection to MongoDB as follows:

```
import com.mongodb.client.MongoClient;
```

You can then create the MongoClient bean as shown in following example:

```
return MongoClients.create("mongodb://admin:password@192.168.99.102:32553");
```

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 7.11 and may be removed in a future release:

Support for Fuse Online is deprecated

Support for Fuse Online is now deprecated as Fuse 7 is now in the maintenance support. There will not be any future development for Fuse Online when Fuse 7 moves out of support.

Support for Karaf OSGi runtime and JBoss Enterprise Application Platform (EAP) is deprecated

support for the Karaf OSGi runtime and for JBoss Enterprise Application Platform (EAP) will stop when Fuse 7 moves out of support on June 30, 2024. Camel will no longer be supported on Karaf OSGi or JBoss EAP when Fuse 7 moves out of support.

OpenWire protocol is deprecated

Since Fuse 7.10, use of the OpenWire protocol (which could be used to connect AMQ Broker instances) is deprecated. Note that the OpenWire protocol is also deprecated in AMQ Broker since AMQ Broker version 7.9.0.

wsdl2rest tool is deprecated

Since Fuse 7.10, the **wsdl2rest** command line tool is deprecated. The WSDL 2 Camel Rest DSL extension for VS Code is also deprecated.

Fuse Online install script for installation on OCP 4

Since Fuse 7.8, the Fuse Online install script is deprecated for installing Fuse Online on OpenShift Container Platform (OCP) 4.x versions. On OCP 4.x versions, we recommend that you use the Fuse Online Operator.

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 the 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 7.11

Installation of Fuse Online on OCP 3.11

Installing Fuse online environment 7.11 on OCP 3.11 is not supported. The Fuse Online install script is completely removed for installing Fuse Online on OCP 3.11.

RSA/SHA-1 Ciphers Not Supported by Default by camel-ftp and camel-ssh

From Fuse 7.11, the **camel-ftp** and **camel-ssh** components will no longer support TLS with RSA/SHA-1 cipher by default. Other Camel components that depend on the JSch library may also be affected.
For more information, see this Red Hat Customer Portal Article .

5.3. REMOVED IN FUSE 7.10

fabric8-maven-plugin

The **fabric8-maven-plugin** has been completely removed from Fuse 7.10. We recommend that you use the **openshift-maven-plugin** instead for building and deploying Maven projects in Fuse on OpenShift. The plugin is maintained by Eclipse JKube, which provides extensive documentation for the plugin.

5.4. REMOVED IN FUSE 7.8

Spring Boot 1

Spring Boot 1 is no longer supported in Fuse 7.8. We recommend that you migrate your Spring Boot applications to Spring Boot 2, following the guidance in the Spring Boot 2.0 Migration Guide .

Camel K runtime in Fuse Online

Camel K runtime in Fuse Online (technology preview feature) is no longer supported in Fuse 7.8.

Camel XmlJson component has been removed in 7.8

The Camel XmlJson (**camel-xmljson**) component has been removed in Fuse 7.8.

5.5. 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.

5.6. 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 removed in 7.3

The **openjpa** feature and the **openjpa3** feature have been 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 removed in 7.3

The **camel-jetty** feature has been 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 removed in 7.3

The **pax-jms-oracleaq** feature has been 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.

5.7. 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.

5.8. 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.
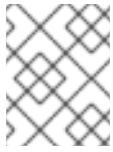
> **NOTE**
>
> In the Fuse 7.0 GA release, the **instance:** commands are not removed. This is a known issue.

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.

5.9. 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 7.11

The following features are unsupported in Red Hat Fuse 7.11.

camel-leveldb component is not supported for Fuse on the IBM PowerPC and Z platforms

When Fuse is installed on the IBM PowerPC or IBM Z platforms, the Camel LevelDB component is not supported.

Installing and running Fuse Online is not supported on OpenShift Container Platform (OCP) 3.11

Installing and running Fuse Online is not supported on OpenShift Container Platform (OCP) 3.11, since Fabric8 Maven Plugin is deprecated in favor of OpenShift Maven Plugin.

Installing Fuse Console using the Operator is not supported on OCP 3.11

Installing Fuse Console using the Operator is not supported and does not work on OpenShift Container Platform (OCP) 3.11. The recommended way to install Fuse Console on OCP 3.11 is to use templates.

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 7.11.

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 common vulnerabilities and exposures (CVEs) related to security that affect third-party dependencies of Fuse 7.11.

CVE-2020-13936 CVE-2020-13936 velocity: arbitrary code execution when attacker is able to modify templates

> An attacker that is able to modify Velocity templates may execute arbitrary Java code or run arbitrary system commands with the same privileges as the account running the Servlet container. This applies to applications that allow untrusted users to upload/modify velocity templates running Apache Velocity Engine versions up to 2.2.
> Fuse 7.9 (and later) has modified its dependencies to ensure that it uses only the Velocity version (that is, version 2.3) that has been fixed to protect against this security vulnerability. If your application code has any explicit dependencies on the Apache Velocity component, we recommend that you upgrade these dependencies to use the fixed version.

ENTESB-8113 CVE-2018-10237 guava: Unbounded memory allocation in AtomicDoubleArray and CompoundOrdering classes allow remote attackers to cause a denial of service [fuse-7.0.0]

> Google Guava versions 11.0 through 24.1 are vulnerable to unbounded memory allocation in the **AtomicDoubleArray** class (when serialized with Java serialization) and the **CompoundOrdering** class (when serialized with GWT serialization). An attacker could exploit applications that use Guava and deserialize untrusted data to cause a denial of service — for more details, see CVE-2018-10237. To avoid this security vulnerability, we recommend that you:
>
> - Never deserialize an **AtomicDoubleArray** instance or a **CompoundOrdering** instance from an unknown source.
>
> - Avoid using Guava versions 24 and earlier (although in some cases it is not possible to avoid the earlier versions).
>
> To make it easier to avoid the earlier (vulnerable) versions of Guava, Fuse 7.7 (and later) has configured its Maven Bill of Materials (BOM) files for all containers to select Guava 27 by default. This means that if you incorporate a Fuse BOM into your Maven project (by adding a dependency on the BOM to the **dependencyManagement** section of your POM file) and then specify a dependency on the Guava artifact *without* specifying an explicit version, the Guava version will default to the version specified in the BOM, which is version 27 for the Fuse 7.7 BOMs.
>
> But there is at least one common use case involving the Apache Karaf (OSGi) container, where it is not possible to avoid using a vulnerable version of Guava: if your OSGi application uses Guava and Swagger together, you are obliged to use Guava 20, because that is the version required by Swagger. Here we explain why this is the case and how to configure your POM file to revert the earlier (vulnerable) Guava 20 library. First, you need to understand the concept of a *double OSGi chain*.
>
> **Double OSGi chain**
>
> Bundles in the OSGi runtime are *wired* together using package constraints (package name + optional version/range) — imports and exports. Each bundle can have multiple imports and usually those imports wire a given bundle with multiple bundles. For example:

```
BundleA
+-- BundleB
|   +-- BundleCa
+-- BundleCb
```

Where **BundleA** depends on **BundleB** and **BundleCb**, while **BundleB** depends on **BundleCa**. **BundleCa** and **BundleCb** should be the same bundle, if the export the same packages, but due to version (range) constraints, **BundleB** uses (*wires to*) a different revision/version of **BundleC** than **BundleA**.

Rewriting the preceding diagram to reflect what happens when you include dependencies on both Guava and Swagger in an application:

```
org.jboss.qe.cxf.rs.swagger-deployment
+-- Guava 27
+-- Swagger 1.5
   +-- reflections 0.9.11
      +-- Guava 20
```

If you try to deploy this bundle configuration, you get the error, **org.osgi.framework.BundleException: Uses constraint violation**.

Reverting to Guava 20

If your project uses both Guava and Swagger libraries (directly or indirectly), you should configure the **maven-bundle-plugin** to use an explicit version range (or no range at all) for the Guava bundle import, as follows:

```
<Import-Package>
   com.google.common.base;version="[20.0,21.0)",
   com.google.common.collect;version="[20.0,21.0)",
   com.google.common.io;version="[20.0,21.0)"
</Import-Package>
```

This configuration forces your OSGi application to revert to the (vulnerable) Guava 20 library. It is therefore particularly important to avoid deserializing **AtomicDoubleArray** instances in this case.

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).

CVE-2021-30129 **mina-sshd-core: Memory leak denial of service in Apache Mina SSHD Server**

A vulnerability in sshd-core of Apache Mina SSHD allows an attacker to overflow the server causing an OutOfMemory error. This issue affects the SFTP and port forwarding features of Apache Mina SSHD version 2.0.0 and later versions. It was addressed in Apache Mina SSHD 2.7.0
This vulnerability in Apache Mina SSHD was addressed by SSHD-1004, which deprecates certain cryptographic algorithms that have this vulnerability. In Fuse 7.10 on Karaf and Fuse 7.10 on JBoss EAP, these deprecated algorithms are still supported (for reasons of backwards compatibility). However, if you are using one of these deprecated algorithms, it is strongly recommended that you refactor your application code to use a different algorithm instead.

In Fuse 7.10, the default cipher algorithms have changed as follows.

Fuse 7.9	Fuse 7.10	Deprecated in Fuse 7.10?
aes128-ctr	aes128-ctr	
	aes192-ctr	
	aes256-ctr	
	aes128-gcm@openssh.com	
	aes256-gcm@openssh.com	
arcfour128	arcfour128	yes
aes128-cbc	aes128-cbc	
	aes192-cbc	
	aes256-cbc	
3des-cbc	3des-cbc	yes
blowfish-cbc	blowfish-cbc	yes

In Fuse 7.10, the default key exchange algorithms have changed as follows.

Fuse 7.9	Fuse 7.10	deprecated in 7.10?
diffie-hellman-group-exchange-sha256	diffie-hellman-group-exchange-sha256	
ecdh-sha2-nistp521	ecdh-sha2-nistp521	
ecdh-sha2-nistp384	ecdh-sha2-nistp384	
ecdh-sha2-nistp256	ecdh-sha2-nistp256	

Fuse 7.9	Fuse 7.10	deprecated in 7.10?
	diffie-hellman-group18-sha512	
	diffie-hellman-group17-sha512	
	diffie-hellman-group16-sha512	
	diffie-hellman-group15-sha512	
	diffie-hellman-group14-sha256	
diffie-hellman-group-exchange-sha1	diffie-hellman-group-exchange-sha1	yes
diffie-hellman-group1-sha1	diffie-hellman-group1-sha1	yes

7.2. FUSE ONLINE

The Fuse Online distribution has the following known issues:

ENTESB-17674 Monitoring Fuse Online with Prometheus and Grafana on OCP 4.9 (or later) requires workaround

On OCP 4.9 (or later), the **application-monitoring** project no longer works. It is a prerequisite for monitoring Fuse Online integrations and infrastructure components with Prometheus and Grafana. To work around this issue, you can use the built-in monitoring stack (in the **openshift-monitoring** namespace) to use the **openshift-user-workload-monitoring** feature and the **grafana-operator** to use the **ops addon** as described in the **Important notes for Fuse Online** section of these release notes.

ENTESB-14518 Jaeger operator installed by Syndesis 1.11 affects other namespaces

Since Fuse 7.8, when you install Fuse 7.8 Online (Syndesis 1.11) on an OpenShift cluster, the Jaeger Operator (which gets installed along with Fuse Online) is configured to manage *All namespaces* by default. A side effect of this behavior is that, in the case where you already have Fuse 7.7 Online (Syndesis 1.10) installed on a cluster and then you install Fuse 7.8 Online in a different namespace, the Jaeger Operator installed with Fuse 7.8 Online tries to manage the (older) Jaeger instance installed on the Fuse 7.7 Online namespace. The result is that a new **syndesis-jaeger** pod — in addition to the existing **syndesis-jaeger** pod — appears in the Fuse 7.7 Online namespace and the new **syndesis-jaeger** pod enters the **CrashLoopBackOff** state. The original Fuse 7.7 Online instance is not affected and the crashed **syndesis-jaeger** pod can be safely ignored.

ENTESB-13966 Discovery of deployed integration API seems disabled but not really

Starting in Fuse 7.7, after creating a new integration containing an API, the integration detail page wrongly implies that 3scale discovery is disabled for this integration. Additionally, the integration detail page does not show the API URL. By clicking this button three times (click **Enable**, then click

Disable, then click **Enable**), you can resynchronize the page so that 3scale discovery is enabled and the API URL is displayed.

7.3. FUSE ON OPENSHIFT

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-21335 **patch-maven-plugin does not work with Maven 3.9**

Maven 3.9.2 does not explicitly pass **org.apache.maven.plugin.internal.PlexusUtilsInjector** as dependency graph transformer.
See the Maven issue MNG-6965 for more information.

As a workaround, you an add **plexus-utils** as a **patch-maven-plugin** dependency:

```
<build>
  <plugins>
    <plugin>
        <groupId>org.jboss.redhat-fuse</groupId>
        <artifactId>patch-maven-plugin</artifactId>
        <version>${version.redhat.fuse}</version>
        <extensions>true</extensions>
        <dependencies>
          <dependency>
            <groupId>org.codehaus.plexus</groupId>
            <artifactId>plexus-utils</artifactId>
            <version>3.5.1</version>
          </dependency>
        </dependencies>
    </plugin>
  </plugins>
</build>
```

ENTESB-17895 **[Fuse Console] Upgrade subscription does not update Hawtio**

In Fuse 7.10, if you update the Fuse Console by changing the Operator subscription channel to version 7.10, the Fuse Console remains on vesion 7.9. Even if the the Fuse Console containers and pods have the label 7.10, they are still using the 7.9 images. To work around this problem, perform the upgrade by removing the older version of Fuse Console and then making a fresh install of Fuse Console version 7.10.

ENTESB-17861 **Apicurito generator cannot generate Fuse Camel Project**

In Fuse 7.10, the API Designer (Apicurito) does not work properly, if it is installed via the Apicurito Operator (giving an Invalid Cert Error). To work around this problem:

1. Open a new tab to **https://apicurito-service-generator-apicurito.apps.cluster-name.openshift.com**
   (Replace **cluster-name.openshift.com** with your cluster name.)

2. Accept the certificates.

3. Switch to the application and click on the generate button again.

ENTESB-17836 **[Fuse Console] A newly added route is not displayed in the Camel tree**

In Fuse 7.10, after deploying an application, the route (or routes) is not displayed in the Camel tree on the Fuse Console. You can work around this issue by refreshing the page, which should make the route appear.

ENTESB-19351 FIPS on OCP - Jolokia agent doesn't start due to unsupported security encoding

In Fuse 7.11, in OCP FIPS-enabled Jolokia agent becomes unavailable due to unsupported security encoding.

ENTESB-19352 FIPS on OCP - karaf-maven-plugin assembly goal fails to unsupported security provider

In Fuse 7.11, a binary stream deploy strategy fails on OCP FIPS enabled, with Karaf applications, if we use **karaf-maven-plugin** with assembly goal.

7.4. FUSE ON APACHE KARAF

Fuse on Apache Karaf has the following known issues:

ENTESB-16417 **Credential store is using PBEWithSHA1AndDESede by default**

The security API in OpenJDK 8u292 and in OracleJDK 1.8.0_291 returns an incomplete list of security providers, which causes the credential store in Apache Karaf to fail (because the required security provider appears to be unavailable). The underlying issue that causes this problem is https://bugs.openjdk.java.net/browse/JDK-8249906. We recommend that you use the earlier OpenJDK version, OpenJDK 8u282, or the later OpenJDK version, OpenJDK 8u302, which do not have this bug.

ENTESB-16526 **fuse-karaf on Windows cannot restart during patch:install**

While running **patch:install** in the Apache Karaf container on the Windows platform, under certain circumstances you might encounter the following error when the **patch:install** command attempts an automatic restart of the container:

```
Red Hat Fuse starting up. Press Enter to open the shell now...
100%
[========================================================================]
Karaf started in 18s. Bundle stats: 235 active, 235 total
'.tmpdir' is not recognized as an internal or external command,
operable program or batch file.
There is a Root instance already running with name ~14 and pid ~13. If you know what you are
doing and want to force the run anyway, SET CHECK_ROOT_INSTANCE_RUNNING=false and
re run the command.
```

If you encounter this error, simply restart the Karaf container manually.

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

Starting 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
```

7.5. FUSE ON JBOSS EAP

Fuse on JBoss EAP has the following known issues:

ENTESB-13168 **Camel deployment on EAP domain mode is not working on Windows**

Starting in Fuse 7.6.0, for Fuse on JBoss EAP, the Camel subsystem cannot be deployed on JBoss EAP in domain mode on Windows OS.

7.6. FUSE TOOLING

Fuse Tooling has the following known issues:

ENTESB-17705 **[Hawtio] Logout button disappears**

In Fuse 7.10, after logging in and logging out several times in a row, the **Logout** button is not shown. To work around this issue, you can refresh the page one or more times and the **Logout** button should reappear.

ENTESB-17839 **Fuse + AtlasMap: Unrecognized field "dataSourceType"**

In Fuse 7.11, if user wants to use AtlasMap vscode extension, then they must use version 0.0.9 as Fuse 7.11 is with AtlasMap 2.3.x. Otherwise use AtlasMap standalone 2.3.x but not the vscode-extension.

7.7. APACHE CAMEL

Apache Camel has the following known issues:

ENTESB-19361 / UNDERTOW-2206 **Access logging support by cxf with embedded undertow server on karaf does not log URI**

If the **DECODE_URL** option is **true** (this is the default value for Fuse 7.11.1 karaf runtime), and use **HttpServerExchange** to decode **relativePath** and **requestPath**, the **requestURI** parameter remains encoded.
The dispatch methods (**forward, include**, **async** and **error**) assign the path without decoding it, for **requestPath** and **relativeURL**, which causes dispatching to a path such as **/some%20thing**.

ENTESB-15343 **XSLT component not working properly with IBM1.8 JDK**

In Fuse 7.8, the Camel XSLT component does not work properly with the IBM 1.8 JDK. The problem occurs because the underlying Apache Xerces implementation of XSLT does not support the **javax.xml.XMLConstants#FEATURE_SECURE_PROCESSING** property (see XERCESJ-1654).

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-7469 **Camel Docker component cannot use Unix socket connections on EAP**

Since Fuse 7.0, the **camel-docker** component can connect to Docker only through its REST API, not through UNIX sockets.

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. FIXED ISSUES IN FUSE 7.11, 7.11.1 AND {VERSION–MICRO–1–PATCH–1}

The following sections list the issues that have been fixed in Fuse 7.11:

8.1. ENHANCEMENTS IN FUSE {VERSION-MICRO-1-PATCH-1}

Issue	Description
ENTESB-18335	Ability to patch fuse-karaf-framework
ENTESB-20693	Review patch-maven-plugin → karaf-maven-plugin communication

8.1.1. Fuse Online {version-micro-1-patch-1}

With the fix in ENTESB-18335, you can use patching information from the **patch-maven-plugin** in a Maven project that builds a custom Karaf distribution.

You can do this by passing patch metadata information between **org.jboss.redhat-fuse/patch-maven-plugin** and **org.jboss.redhat-fuse/karaf-maven-plugin** (a repackaged **org.apache.karaf.tooling/karaf-maven-plugin**). However, the format of this information is not compatible with **org.apache.maven.plugins/maven-surefire-plugin**.

Using **org.jboss.redhat-fuse/karaf-maven-plugin**

8.1.1.1. Normal scenario

When using Fuse Karaf, Fuse Spring Boot, and Fuse EAP, it is important to use a relevant BOM, as shown in the following examples:

Fuse Karaf

```
<properties>
    <version.org.jboss-redhat-fuse>7.11.1.fuse-sb2-7_11_1-00017-redhat-00002</version.org.jboss-redhat-fuse>
</properties>

...

<dependencyManagement>
    <dependencies>
        <dependency>
            <groupId>org.jboss.redhat-fuse</groupId>
```

```xml
                <artifactId>fuse-karaf-bom</artifactId>
                <version>${version.org.jboss-redhat-fuse}</version>
                <type>pom</type>
                <scope>import</scope>
            </dependency>
        </dependencies>
    </dependencyManagement>
```

Fuse EAP

```xml
<properties>
    <version.org.jboss-redhat-fuse>7.11.1.fuse-sb2-7_11_1-00017-redhat-00002</version.org.jboss-redhat-fuse>
</properties>

...

<dependencyManagement>
    <dependencies>
        <dependency>
            <groupId>org.jboss.redhat-fuse</groupId>
            <artifactId>fuse-eap-bom</artifactId>
            <version>${version.org.jboss-redhat-fuse}</version>
            <type>pom</type>
            <scope>import</scope>
        </dependency>
    </dependencies>
</dependencyManagement>
```

Fuse SpringBoot

```xml
<properties>
    <version.org.jboss-redhat-fuse>7.11.1.fuse-sb2-7_11_1-00017-redhat-00002</version.org.jboss-redhat-fuse>
</properties>

...

<dependencyManagement>
    <dependencies>
        <dependency>
            <groupId>org.jboss.redhat-fuse</groupId>
            <artifactId>fuse-springboot-bom</artifactId>
            <version>${version.org.jboss-redhat-fuse}</version>
            <type>pom</type>
            <scope>import</scope>
        </dependency>
    </dependencies>
</dependencyManagement>
```

With these BOMS, you typically declare **karaf-maven-plugin** like this:

Sample karaf-maven-plugin declaration

```
<plugin>
    <groupId>org.jboss.redhat-fuse</groupId>
    <artifactId>karaf-maven-plugin</artifactId>
    <version>${version.org.jboss-redhat-fuse}</version>
    <extensions>true</extensions>
    <executions>
        <execution>
            <id>karaf-assembly</id>
            <goals>
                <goal>assembly</goal>
            </goals>
            <phase>install</phase>
        </execution>
    </executions>
    <configuration>

...
```

8.1.1.2. Using **org.jboss.redhat-fuse/karaf-maven-plugin** for patching

The benefit of using **org.jboss.redhat-fuse/karaf-maven-plugin** is that you can use the same version of the BOM and declare another plugin – the **patch-maven-plugin**:

Sample patch-maven-plugin declaration

```
<build>
    <plugins>
        <plugin>
            <groupId>org.jboss.redhat-fuse</groupId>
            <artifactId>patch-maven-plugin</artifactId>
            <version>${version.org.jboss-redhat-fuse}</version>
            <extensions>true</extensions>
        </plugin>
    </plugins>
</build>
```

With the **patch-maven-plugin** extension, every build is compared to available CVE fixes in Red Hat's Maven repository, meaning every build can be patched according to the metadata provided by the CVE metadata.

8.1.1.3. Fixing the problem of **patch-maven-plugin → maven-surefire-plugin** incompatibility

The fixes to the plugins (**patch-maven-plugin** and **karaf-maven-plugin**) are available in versions that are different from the BOM version.

For a Karaf Maven project, this means the setup can contain different versions in the **fuse** and **plugins** properties:

Sample Karaf Maven Project

```
<properties>
    <version.org.jboss-redhat-fuse>7.11.1.fuse-sb2-7_11_1-00017-redhat-00002</version.org.jboss-redhat-fuse>
    <version.org.jboss-redhat-fuse-plugins>7.11.1.fuse-sb2-7_11_1-00022-redhat-
```

```
00002</version.org.jboss-redhat-fuse>
</properties>

...

<dependencyManagement>
   <dependencies>
      <dependency>
         <groupId>org.jboss.redhat-fuse</groupId>
         <artifactId>fuse-karaf-bom</artifactId>
         <version>${version.org.jboss-redhat-fuse}</version>
         <type>pom</type>
         <scope>import</scope>
      </dependency>
   </dependencies>
</dependencyManagement>

...

<build>
   <plugins>
      <plugin>
         <groupId>org.jboss.redhat-fuse</groupId>
         <artifactId>patch-maven-plugin</artifactId>
         <version>${version.org.jboss-redhat-fuse-plugins}</version>
         <extensions>true</extensions>
      </plugin>
      <plugin>
         <groupId>org.jboss.redhat-fuse</groupId>
         <artifactId>karaf-maven-plugin</artifactId>
         <version>${version.org.jboss-redhat-fuse-plugins}</version>
         <extensions>true</extensions>
         <executions>
            <execution>
               <id>karaf-assembly</id>
               <goals>
                  <goal>assembly</goal>
               </goals>
               <phase>install</phase>
            </execution>
         </executions>
         <configuration>

...

   </plugins>
</build>
```

> **IMPORTANT**
>
> While the BOM version doesn't change, a new version of the BOM is necessary for the **patch-maven-plugin** and the **karaf-maven-plugin**.

8.2. ENHANCEMENTS IN FUSE 7.11 AND 7.11.1

The following table lists the enhancements in Fuse 7.11 and Fuse 7.11.1.

Table 8.1. Fuse 7.11.1 Enhancements

Issue	Description
ENTESB-18702	Performance improvements on Camel File component

Table 8.2. Fuse 7.11 Enhancements

Issue	Description
ENTESB-17528	Remove deprecated algorithms from karaf ssh
ENTESB-19071	More flexible Fuse-Karaf feature patching
ENTESB-19169	Viewing AMQ Brokers from Fuse Console as a GA functionality

8.3. FEATURE REQUESTS IN FUSE 7.11

The following table lists the features requests in Fuse 7.11.

Table 8.3. Fuse 7.11 Feature Requests

Issue	Description
ENTESB-13746	CSV Support in Atlasmap
ENTESB-16465	Add option to not install AMQ Broker
ENTESB-16993	OCP and RHEL FIPS support in Fuse [Standalone/FoO]]
ENTESB-18024	"Create ""latest"" OLM channel"
ENTESB-18633	[Fuse Console] Add a preference to toggle on/off the side nav by default
ENTESB-18785	[Fuse Console] Spring Boot Info view

8.4. COMPONENT UPGRADES IN FUSE 7.11 AND 7.11.1

The following table lists the component upgrades in Fuse 7.11.1.

Table 8.4. Fuse 7.11.1 Component Upgrades

Issue	Description
ENTESB-19997	Upgrade to BouncyCastle 1.72

Issue	Description
ENTESB-19967	Upgrade Artemis plugin to AMQ 7.10.1

The following table lists the component upgrades in Fuse 7.11.

Table 8.5. Fuse 7.11 Component Upgrades

Issue	Description
ENTESB-18673	Align to EAP 7.4.4
ENTESB-18583	Align to Spring Boot 2.5.12 / Spring Framework 5.3.18 / Spring Security 5.5.5
ENTESB-18638	Upgrade to camel-2.23.2.fuse-7_11_0-00012
ENTESB-18997	Align to EAP 7.4.5
ENTESB-18592	Upgrade to Xerces 2.12.2 / SMX 2.12.2_1
ENTESB-18591	Align to ActiveMQ 5.11.0.redhat-630516 (6.3.0.R20)
ENTESB-17724	Upgrade to felix.fileinstall 3.7.x
ENTESB-18735	Fuse Online 7.11 Component Alignment
ENTESB-17238	Upgrade to Undertow 2.2.16
ENTESB-18590	Align to A-MQ 7.8.4
ENTESB-17577	Upgrade to xchange 5.0.11

8.5. BUGS RESOLVED IN FUSE 7.11 AND 7.11.1

The following tables list the resolved bugs in Fuse 7.11, and 7.11.1.

Table 8.6. Fuse 7.11.1 Resolved Bugs

Issue	Description
ENTESB-19998	CVE-2022-42889 commons-text: apache-commons-text: variable interpolation RCE [fuse-7]
ENTESB-19957	EMPTY TAGS IN XML AND NULL VALUES IN JSON VR.2.3.17
ENTESB-19758	Transforming a json body via JSONPath returns a string where the json object keys aren't quoted

Issue	Description
ENTESB-19725	CXF client sends the SOAPAction header without quotes
ENTESB-19721	The MBeanInvocationHandler fix in JIRA ENTESB-19690 was incomplete and it ends up with an UndeclaredThrowableException being thrown.]
ENTESB-19690	Backport KARAF-7234 fix for MBeanInvocationHandler
ENTESB-19687	mimeMultipart dataformat is not included in the XML DSL for marshal/unmarshal
ENTESB-19676	[Hawtio] 014 Missing setting allows cookies to be sent from third parties
ENTESB-19675	[Hawtio] 009 Insecure CORS policy may allow malicious scripts to steal user data
ENTESB-19674	[Hawtio] 005 Web server responses missing referrer-policy header
ENTESB-19673	[Hawtio] 001 Misconfiguration may expose users to Click-jacking
ENTESB-19665	java.lang.ClassNotFoundException: com.mongodb.event.ConnectionPoolCreatedEvent
ENTESB-19635	Review Bootstrap CVEs reported by UPS
ENTESB-19627	Micrometer Dependency Issue wrt Spring Boot and Camel
ENTESB-19626	AutomaticRecovery from RabbitMQ Connection Factory doesn't recover from everythin
ENTESB-19625	fabric8-camel:validate fails downloading the right camel version
ENTESB-19624	Create api connector from wsdl throws Missing property portName
ENTESB-19618	In the split(), camel-jpa producer creates a new EntityManager and does not obtain one from the current transaction
ENTESB-19617	camel-jpa producer does not reuse existing EntityManager in transaction and create its own one
ENTESB-19612	Operator fails to create an Apicurito CR with a route hostname option configured
ENTESB-19586	com.jcraft.jsch module missing bouncycastle dependency
ENTESB-19518	CVE-2022-31129 moment: inefficient parsing algorithm resulting in DoS [fuse-7]

Issue	Description
ENTESB-19516	Cannot build Fuse 7 project with spring-boot-starter-webflux
ENTESB-19504	The "fuse-pax-transx-tm-narayana" bundle is missing "javax.security.cert" import packages
ENTESB-19489	CVE-2022-33980 commons-configuration2: apache-commons-configuration: Apache Commons Configuration insecure interpolation defaults [fuse-7]
ENTESB-19429	For a springboot CXF deployment, "server.shutdown=graceful" does not work as expected
ENTESB-19409	CVE-2021-31684 json-smart: Denial of Service in JSONParserByteArray function [fuse-7]
ENTESB-19386	Multibyte characters garbled when importing a json file by API Designer
ENTESB-19361	access logging support by cxf with embedded undertow server on karaf does not log URI
ENTESB-19341	CVE-2022-2053 undertow: Large AJP request may cause DoS [fuse-7]
ENTESB-19282	Errors when deploying the .kar file
ENTESB-19204	camel-salesforce throwing java.lang.IllegalArgumentException: Buffering capacity 4194304 exceeded
ENTESB-19116	Cannot use a custom route in Fuse Console deployed by Operator
ENTESB-18843	CVE-2022-24785 Moment.js: Path traversal in moment.locale [fuse-7]

Table 8.7. Fuse 7.11 Resolved Bugs

Issue	Description
ENTESB-19362	camel-sftp: check for existance of remote directory using ls is very slow
ENTESB-19356	"Fuse console on OCP — broker management feature is unusable
ENTESB-19343	Fuse Online is not able to be installed on OpenShift 4.11 (nightly build)
ENTESB-19169	Viewing AMQ Brokers from Fuse Console as a GA functionality
ENTESB-18994	Camel Kafka Component unable to load Kerberos LoginModule

Issue	Description
ENTESB-18973	"statistics Level ""RoutesOnly"" include processors metrics"
ENTESB-18964	AMQP connection failover doesn't work when connecting to AMQ Broker via OpenShift routes
ENTESB-18960	CVE-2022-22968 in Fuse 7
ENTESB-18913	Unable to install 6 Karaf features
ENTESB-18849	Attempts to get / read entities fail when using an external transaction context
ENTESB-18848	EntityManager not shared with parent context.
ENTESB-18847	camel-jms - InOut with reply-to-type shared - race condition
ENTESB-18822	CVE-2020-36518 jackson-databind: denial of service via a large depth of nested objects [fuse-7]
ENTESB-18694	enricher causes connection leak
ENTESB-18692	Fuse console operator installed from Operator Hub does not define resource requests or limits
ENTESB-18682	CVE-2022-23913 artemis-commons: Apache ActiveMQ Artemis DoS [fuse-7]
ENTESB-18681	camel-openapi-java - Schema Definitions not generating correctly
ENTESB-18672	"ROUTE_HOSTNAME is not available with the Operator ""Red Hat Integration - API Designer"""
ENTESB-18608	Fuse Online Installation Fails on OpenShift 4.6 and Succeeds on OpenShift 4.8 With Same Hardware and Resources
ENTESB-18558	left/right/end keys do not work in Fuse/karaf shell on Windows through SSH
ENTESB-18534	CVE-2021-22060 springframework: Additional Log Injection in Spring Framework (follow-up to CVE-2021-22096) [fuse-7]
ENTESB-18498	Log4j2 in 7.x is slower than Log4j in 6.x
ENTESB-18493	CVE-2022-21724 jdbc-postgresql: Unchecked Class Instantiation when providing Plugin Classes [fuse-7]
ENTESB-18471	Issue with the ref endpoint

Issue	Description
ENTESB-18439	CVE-2021-22569 protobuf-java: potential DoS in the parsing procedure for binary data [fuse-7]
ENTESB-18428	CVE-2022-23181 tomcat: local privilege escalation vulnerability [fuse-7]
ENTESB-18414	toCharArray fails when used with property in fuse on Windows
ENTESB-18380	input Streeam not closed when jmsMessageType=Stream
ENTESB-18317	Suboptimal locking in CXF
ENTESB-18287	CVE-2021-42550 logback-classic: logback: remote code execution through JNDI call from within its configuration file [fuse-7]
ENTESB-18273	Fuse 7 BlueprintPropertiesParser ConcurrentModificationException
ENTESB-18158	Spring security implementation using aries-blueprint-spring feature
ENTESB-18094	camel-cxf mtomEnabled property is wrongly override
ENTESB-18073	Fuse 7 on EAP 7: ClassNotFoundException: org.springframework.web.context.support.WebApplicationContextUtils
ENTESB-18058	CVE-2021-22096 springframework: malicious input leads to insertion of additional log entries [fuse-7]
ENTESB-18057	The camel-core 2.23.2.fuse-7_10_0-00020-redhat-00001 has jaxb 2.3.0 dependency
ENTESB-18056	Problem parsing JDBC URL for DB2 with properties in pax-jdbc-db2
ENTESB-18048	[CAMEL-14372] Validator component fails with java.lang.IllegalArgumentException: protocol = http host = null
ENTESB-18031	[7.x] NPEs logged when a field is empty/null in SAP Document
ENTESB-17979	CXF producer can not process payloads worth more than 16KB if streaming is off and maxRetransmits > 1
ENTESB-17914	"[7.x] The pax-web-jetty library disabled HTTP TRACE method by incorrectly exposing ""javax.servlet.ServletException"""
ENTESB-17912	Atlas Map - The custom transformation doesn't appear in the dropdown box

Issue	Description
ENTESB-17911	Atlas Map - same name element with a different inline type in the XSD is wrongly cached
ENTESB-17883	LC_ALL cannot be set in Fuse Image 7.9.0
ENTESB-17839	"Fuse + AtlasMap: Unrecognized field ""dataSourceType"" "
ENTESB-17838	[HHH-14229] javax.persistence.ForeignKey doesn't respect ConstraintMode.NO_CONSTRAINT
ENTESB-17779	Fuse console client auth fails when multiple cert authorities are present in jolokia caCert file
ENTESB-17705	[Hawtio] Logout button disappears
ENTESB-17702	"On Camel MLLP component ENTESB-17673 [Hawtio] Latest chrome version differs from RHEL7 and RHEL8
ENTESB-17617	CVE-2021-42340 tomcat: OutOfMemoryError caused by HTTP upgrade connection leak could lead to DoS [fuse-7]
ENTESB-16915	Read timeout doesn't work on camel undertow producer