Oracle® Cloud

Send New Appointment Details from an EMR Application to a Healthcare Provider

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Preface

This document describes how to install, configure, and run this recipe in Oracle Integration 3.

Topics:

Documentation Accessibility

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Access to Oracle Support

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Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Resources

For more information, see these Oracle resources:

- Oracle Integration documentation on the Oracle Help Center.
- Oracle Cloud at http://cloud.oracle.com.

Conventions

The following text conventions are used in this document.

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.

Convention	Meaning
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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About This Recipe

Use this recipe to send patient details via an email to a healthcare provider when a new appointment is made in an Electronic Medical Records (EMR) application.

> **Note:**
>
> Oracle provides this recipe as a sample only. The recipe is meant only for guidance, and is not warranted to be error-free. No support is provided for this recipe.

Overview

When a new appointment is made for a patient in an EMR application, the recipe receives an event, and subsequently sends an email notification to the healthcare provider with the patient details.

To use the recipe, you must install the recipe and configure the connection and other resources within the recipe. The recipe captures the event that occurs in the EMR application using the MLLP adapter, translates the incoming message into Oracle Integration readable format using the **Healthcare** action, extracts the required data from the HL7 message, and finally sends the data over email to the healthcare provider.

The recipe contains the **New Appointment Notification to Care Provider** integration flow that receives the inbound HL7 messages from the EMR application when a new appointment is made. In this example, the EMR application sends the **SIU_S12 (Notification of new appointment booking)** message.

System and Access Requirements

- Oracle Integration 3
- Oracle Integration for Healthcare Support for HL7

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Before You Install the Recipe

To successfully send email notifications with patient details to a healthcare provider when a new appointment is made in an EMR application, you have to complete the following prerequisite tasks.

1. Create an agent group

   You must create an agent group in Oracle Integration before you can run the connectivity agent installer. Creating the agent group automatically creates an OAuth client application in Oracle Identity Cloud Service. This enables the connectivity agent to use OAuth 2.0 token-based authentication when invoking Oracle Integration endpoints.

   To create an agent group, see Create an Agent Group.

2. Download and install the connectivity agent.

   Download the connectivity agent installer to install the agent in your local environment. During installation, you associate the connectivity agent with the agent group identifier you generated when creating an agent group in Oracle Integration. Ensure that you restrict access to the folder in which you install the connectivity agent to only those users who need to stop and start the agent.

   To download and install the connectivity agent, see Agent Download and Installation.

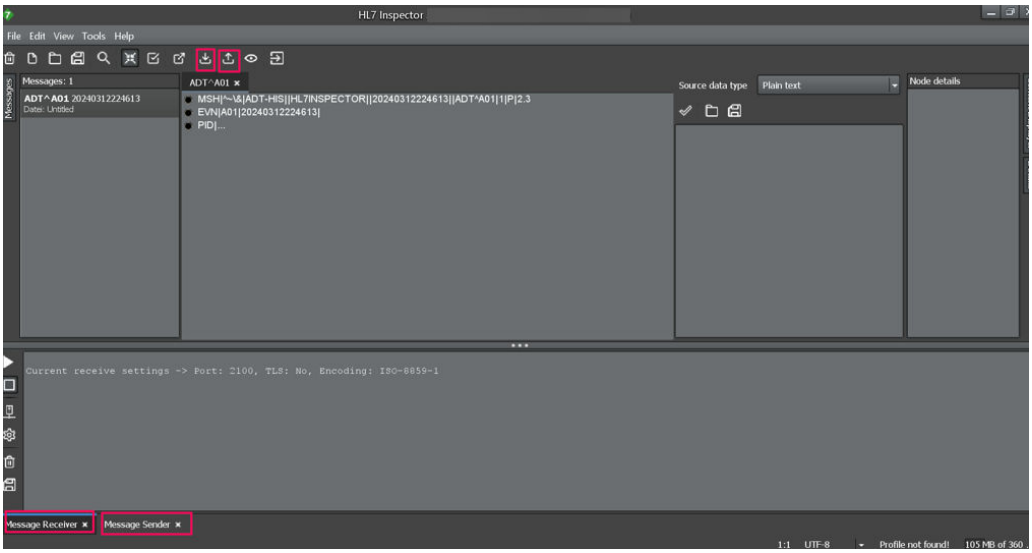
3. Install and use the HL7 Simulator.

   The HL7 Simulator is used to simulate the EMR application to send HL7 messages.

   a. Download and install the HL7 Simulator.

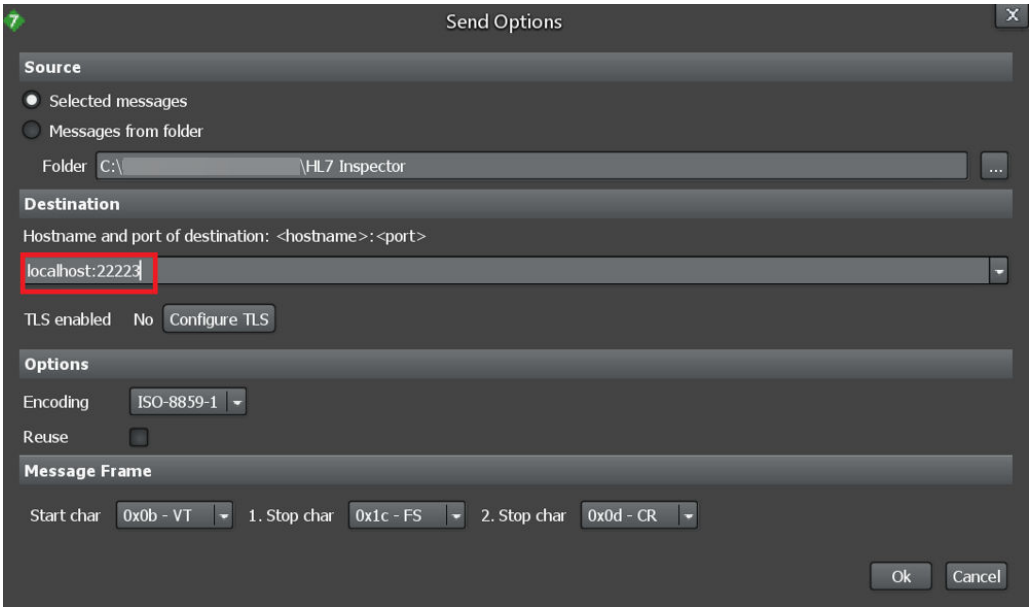
   b. Launch the HL7 Simulator application.

   c. From the top menu bar, select the Send/Receive icons. Message Receiver and Message Sender panes are visible at the bottom of the application window.



   d. In the Message Sender window, select the *Setup Send..* icon. In the <hostname>:<port> field enter `localhost: 22223`.

Message Sender simulates the EMR system to send HL7 V2.5.1 messages.



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Install and Configure the Recipe

On your Oracle Integration instance, install the recipe to deploy and configure the integration and associated resources.

1. On the Oracle Integration Home page, in the **Get started** section, click **Browse store**.
2. Find the recipe you want to install, then click **Get**.

   A message confirms that the recipe was successfully installed, and the recipe card shows **In use**.

3. Click **Configure**  on the recipe to configure its resources.

   The project workspace opens, displaying all the resources of the recipe. Configure the following resources before you activate and run the recipe.

Configure the MLLP Receiving Connection

1. In the Connections section, click the connection name.
2. In the Properties section, enter `22223` as the **Listener Port**.
3. Under **Access Type**, choose **Connectivity agent**, and select the agent group that you created earlier. See Before You Install the Recipe.
4. Click **Save**. If prompted, click **Save** again.
5. Click **Test** to ensure that your connection is successfully configured. In the resulting dialog, click **Test** again.

   A message confirms if your test is successful.

6. To return to the project workspace, click **Go back**  .

Configure the Lookup Table

Edit the **Utility_Lookup** lookup table and update it as per your requirements.

1. In the Lookups section, click the lookup name.
2. In the **EmailTo** lookup key, enter an email ID of your choice to which you want to send the notification about the new appointment.
3. In the **EmailFrom** lookup key, enter an email ID of your choice from which you want to send the new appointment notification.
4. Click **Save**. If prompted, click **Save** again.
5. To return to the project workspace, click **Go back**  .

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Activate and Run the Recipe

After you've configured the connections and other resources, you can activate and run the recipe.

1. In the project workspace, click **Activate**. In the Activate project panel, with the default project deployment selected, choose an appropriate tracing option, then click **Activate**.

   A message confirms that the integration has been activated. Refresh the page to view the updated status of the integration.

2. Run the recipe.

   a. Launch an HL7 Inspector.

   b. Send an HL7 2.5.1 message. For details, see step 3 in Before You Install the Recipe.

   > **Note:**
   >
   > Ensure that the **Message Sender** is open, and Sender is sending to port `22223`.

   c. In the HL7 Inspector, select **File** and then **File Open**. Browse to **SIU_S12_NewAppointment.hl7**. In the Import Options window leave the defaults and click **OK**.

   > **Note:**
   >
   > You can download the following sample hl7 file to run the recipe: NewAppointment.hl7.

   d. Click **Send Selected Message** in the Send Message window. This will send the selected HL7 SIU 2.5.1 message. You'll receive an acknowledgment message confirming that the HL7 message has been sent.

   The **New Appointment Notification to Care Provider** integration flow is now successfully triggered, and it sends the new appointment details to the healthcare provider.

3. Monitor the running of the integration flow in Oracle Integration.

   a. In the project workspace, click **Observe**. You'll see the integration flow being triggered and running successfully.

   b. To manage errors in your project, see Manage Errors in a Project.

4. Check if a new appointment notification has been received in the email ID configured to receive the notification in the recipe's lookup table.

Related Documentation

- *Using the MLLP Adapter with Oracle Integration 3*
- *Live lab for Healtcare Use Case*