



PUBLIC

Integration Guide

SAP S/4HANA for EHS Workplace Safety
Integration with Third-Party Systems

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This guide describes the configuration steps for the integration of SAP S/4HANA for EHS Workplace Safety with third-party systems.

1. Prerequisites

1.1. Set Up Incident Management

For more information on setting up Incident Management in SAP S/4HANA, see the product assistance on the SAP Help Portal.

→ [How to Get Incident Management Running | SAP Help Portal](#)

1.2. Create a Business User

To report incidents in SAP S/4HANA, you need to create a business user. For more information on setting up a business user and the roles used in Environment, Health, and Safety, see:

→ [Business User Concept | SAP Help Portal](#)

→ [Business User Management | SAP Help Portal](#)

→ [Roles for Foundation for EHS | SAP Help Portal](#)

1.3. Activate the API

For more information on how to activate the **Environment, Health, and Safety Incident - Create, Read** API, see [Environment, Health, and Safety Incident - Create, Read](#) in the SAP Business Accelerator Hub.

2. Configure Cloud Integration

2.1. Copy the Integration Package

1. Log in to SAP Cloud Integration Web UI.
2. Open the **Discover** tab in the navigation pane on the left, then choose Integrations.
3. Search for and open the integration package **SAP S/4HANA for EHS Workplace Safety Integration with Third-Party Systems**.
4. Choose **Copy** in the top-right corner.
Note: If the integration package is being created for the first time, a message informs you that the integration package has been created. If it already exists, you are prompted to either create a new copy of the package or overwrite the existing integration package content. Choose **Create copy**.

2.2. Deploy a User Credentials Artifact

Configure your user credentials in SAP Cloud Integration to enable authentication with the SAP S/4HANA system.

1. Log in to SAP Cloud Integration Web UI.
2. Open the **Monitor** tab in the navigation pane and select **Integrations**.
3. In the **Manage Security** section, choose **Security Material**.
4. Choose **Create > User Credentials** in the upper right corner and enter the following details:

- Name (will be referenced in the integration flow)
 - Description
 - Type: User Credentials
 - User: as defined in the SAP S/4HANA system (described in 1.2 Create a Business User)
 - Password: as defined in the SAP S/4HANA system (described in 1.2 Create a Business User)
5. Choose **Deploy**.

2.3. Configure the Integration Flow

1. Log in to SAP Cloud Integration Web UI.
2. Choose **Design** in the navigation pane on the left and select **Integrations**.
3. Choose the previously copied package.
4. Navigate to the **Artifacts** tab.
5. In the **Actions** column, choose **Configure**.

The **Configure "Report Incidents to SAP S4HANA"** dialog opens. The **Sender** tab is displayed by default.

6. Configure the **Sender** options as follows:

Property	Value
Sender	Sender
Adapter Type	HTTPS
Address	/EndPoint, for example <i>/ReportIncident</i>
User Role	ESBMessaging.send

7. Configure receiver **S4HANA** as follows:

Property	Value
Receiver	S4HANA
Adapter Type	HCIOData
Address	Read Only: {{S4HURL}}/sap/opu/odata/sap/API_EHS_REPORT_INCIDENT_SRV/
S4HURL	URL to the SAP S/4HANA system or the virtual host as defined in the Cloud Connector: <i>http://VirtualHost:port</i>
Proxy Type	On-Premise/Internet, depending on the SAP S/4HANA system used
Authentication	Basic
Credential Name	The name created in the Security Material in the previous step
CSRF Protected	Checked/Unchecked depending on the SAP S/4HANA system setup

8. Configure receiver **S4HANA_Fetch-Token** as follows:

Property	Value
Receiver	S4HANA_Fetch-Token

Adapter Type	HTTP
Address	Read Only: {{S4HURL}}/sap/opu/odata/sap/API_EHS_REPORT_INCIDENT_SRV/
S4HURL	URL to the SAP S/4HANA system or the virtual host as defined in the Cloud Connector: <i>http://VirtualHost:port</i>
Proxy Type	On-Premise/Internet, depending on the SAP S/4HANA system used
Authentication	Basic
Credential Name	The name created in step 2.2. Deploy the SAP S/4HANA Business User in the Security Material

9. Configure receiver **S4HANA_Incident_Persons** as follows:

Property	Value
Receiver	S4HANA_Incident_Persons
Adapter Type	HTTP
Address	Read Only: {{S4HURL}}/sap/opu/odata/sap/API_EHS_REPORT_INCIDENT_SRV/A_Incident(guid'\${property.guid}')/to_Persons
S4HURL	URL to the SAP S/4HANA system or the virtual host as defined in the Cloud Connector: <i>http://VirtualHost:port</i>
Proxy Type	On-Premise/Internet, depending on the SAP S/4HANA system used
Authentication	Basic
Credential Name	The name created in step 2.2. Deploy the SAP S/4HANA Business User in the Security Material

10. Configure receiver **S4HANA_Incident_Attachments** as follows:

Property	Value
Receiver	S4HANA_Incident_Attachments
Adapter Type	HTTP
Address	Read Only: {{S4HURL}}/sap/opu/odata/sap/API_EHS_REPORT_INCIDENT_SRV/A_Incident(guid'\${property.guid}')/to_Attachments
S4HURL	URL to the SAP S/4HANA system or the virtual host as defined in the Cloud Connector: <i>http://VirtualHost:port</i>
Proxy Type	On-Premise/Internet, depending on the SAP S/4HANA system used
Authentication	Basic
Credential Name	The name created in step 2.2. Deploy the SAP S/4HANA Business User in the Security Material

11. Choose **Save**.

12. The **Messages** screen is displayed. Warnings in this integration flow can be ignored by choosing **Close**.

13. Choose **Deploy**. The **Confirmation** screen is displayed.

14. On the **Confirmation** screen, choose **Yes**.
15. After validation, the **Deployment** screen is displayed.
16. Choose **OK**.

2.4. Deploy the Integration Flow

If not already deployed after the previous step, perform the following actions:

1. Log in to SAP Cloud Integration Web UI.
2. Choose **Design** in the navigation pane on the left and select **Integrations**.
3. Choose the previously copied package.
4. Navigate to the **Artifacts** tab.
5. Choose the icon in the **Actions** column and select **Deploy**.

3. Example Payload

The integration flow works with the following incoming JSON payload:

```
{
  "Incident": {
    "IncidentCategory": "",
    "IncidentTitle": "",
    "IncidentUTCDateTime": "",
    "IncidentDescriptionOfEvents": "",
    "EHSLocationUUID": "",
    "IncidentLocationDescription": "",
    "IncidentLongitudeMeasure": "",
    "IncidentLatitudeMeasure": "",
    "to_Persons": [
      {
        "PersonFullName": "",
        "PersonInvolvedRole": ""
      }
    ],
    "to_Attachments": [
      {
        "MimeType": "",
        "FileName": "",
        "ContentEncoding": "",
        "FileContent": ""
      }
    ]
  }
}
```

Property	Required/ Optional	Description	Type
IncidentCategory	Required	The category code of an incident, for example 001 (Incident), 002 (Near Miss), and 003 (Safety Observation).	String maxLength: 3
IncidentTitle	Required	The descriptive or general heading of an incident, near miss, or safety observation.	String maxLength: 255
IncidentUTCDateTime	Required	The date and time of an incident in UTC format. The default value is the current date and time.	String YYYY-MM-DDTHH:MM:SS
IncidentDescriptionOfEvents	Optional	A description of the events that led to the incident, near miss or safety observation	String maxLength: 999999
EHSLocationUUID	Optional	The global identification of an incident location.	String (UUID) Example:01234567-89ab-cdef-0123-456789abcdef
IncidentLocationDescription	Optional	An additional free-text description of an incident location.	String maxLength: 80
IncidentLongitudeMeasure	Optional	The geographical longitude of the location where an incident occurred.	maximum: - 999.999999999999 maximum: 999.999999999999
IncidentLatitudeMeasure	Optional	The geographical latitude of the location where an incident occurred.	maximum: - 999.999999999999 maximum: 999.999999999999
PersonFullName	Required if <i>to_Persons</i> is available	The full name of a person involved in an incident, near miss, or safety observation.	String maxLength: 80
PersonInvolvedRole	Required if <i>to_Persons</i> is available	A role of a person involved in an incident, near miss, or safety observation.	String maxLength: 21
MimeType	Required if <i>to_Attachments</i> is available	The media type of a file attached to an incident.	String maxLength: 128
FileName	Required if <i>to_Attachments</i> is available	The name of a file attached to an incident.	String maxLength: 255
ContentEncoding	Required if <i>to_Attachments</i> is available	The encoding of the file attached to an incident. Currently only base64 is supported	String <i>Constant: base64</i>
FileContent	Required if <i>to_Attachments</i> is available	The content of the file attached to an incident.	String <i>The file converted to base64</i>

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