SAP HANA Cloud Integration

AUTOMOTIVE PACKAGE
Aimtec Automotive Package *for SAP HANA Cloud Platform, integration service*

Version: 1.1
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- **Automotive Package** for HCI provided by AIMTEC is based on many years of experience in the area of EDI and Integration in the automotive industry. The subject is ensuring a standard process in automotive, namely a conversion of call-offs in the VDA 4984 – Global DELFOR format into IDoc, the target format of SAP. Otherwise it is an ASN conversion (advanced ship notice) in IDoc into the VDA 4987 – Global DESADV format.

- Message mapping covers majority of typical needs of automotive companies. It can be customized for particular cases as well.

- Automotive Package also includes enabling of OFTP/OFTP2 protocol for HCI through managed services of ClouEDI platform. (ClouEDI.com)

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1   Introduction

This document provides an overview of the artifacts delivered as part of **Automotive Package** using HCI and configuration of it in a customer landscape.

The document discusses some of the common configuration steps first, which are needed across all the scenarios and then give a detailed description of this product.

It also contains information about OFTP connectivity which AIMTEC provides as a managed service as part of ClouEDI, EDI as a service solution (clouedi.com).

2 Integration flows and mapping

- This Integration package contains two integration flows, each for relevant part of business process. There is no special configuration needed. Both integration flows are quite simple and easy to use. There is only one part which is needed to configure – Sender and Receiver Communication Adapter. Both integration flows can be used either with OFTP Connector or with your own configuration of the communication.

- As the mapping in HCI is based only on XML processing, <u>AUTOMOTIVE PACKAGE</u> also contains EDI flat to XML and vice versa transformation. Therefore, incoming EDIFACT DELFOR D04A message is translated to XML and then transformed to XML DELINS.DELFOR02 IDoc through XSLT transformation. In case of outgoing process, SHPMNT:SHPMNT06 IDoc is mapped to the relevant XML format and then transformed to the EDIFACT DESADV D07A format.

2.1 Global DELFOR – VDA 4984

- The Delivery Schedule message is used to give information on future product requirements (forecast) and for placing firm orders (call-off) which relate to previous forecasts.

  - <u>AIMTEC_AutomotivePackage_VDA4984_to_DELFOR02.iflw</u>
    - converts UN/EDIFACT DELFOR D04A to XML IDoc DELINS.DELFOR02
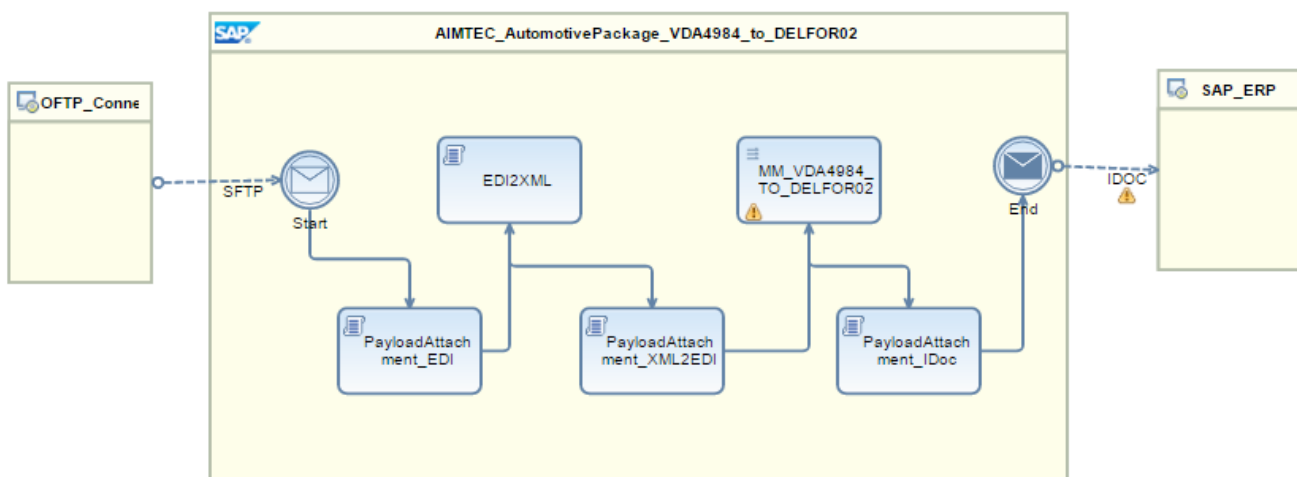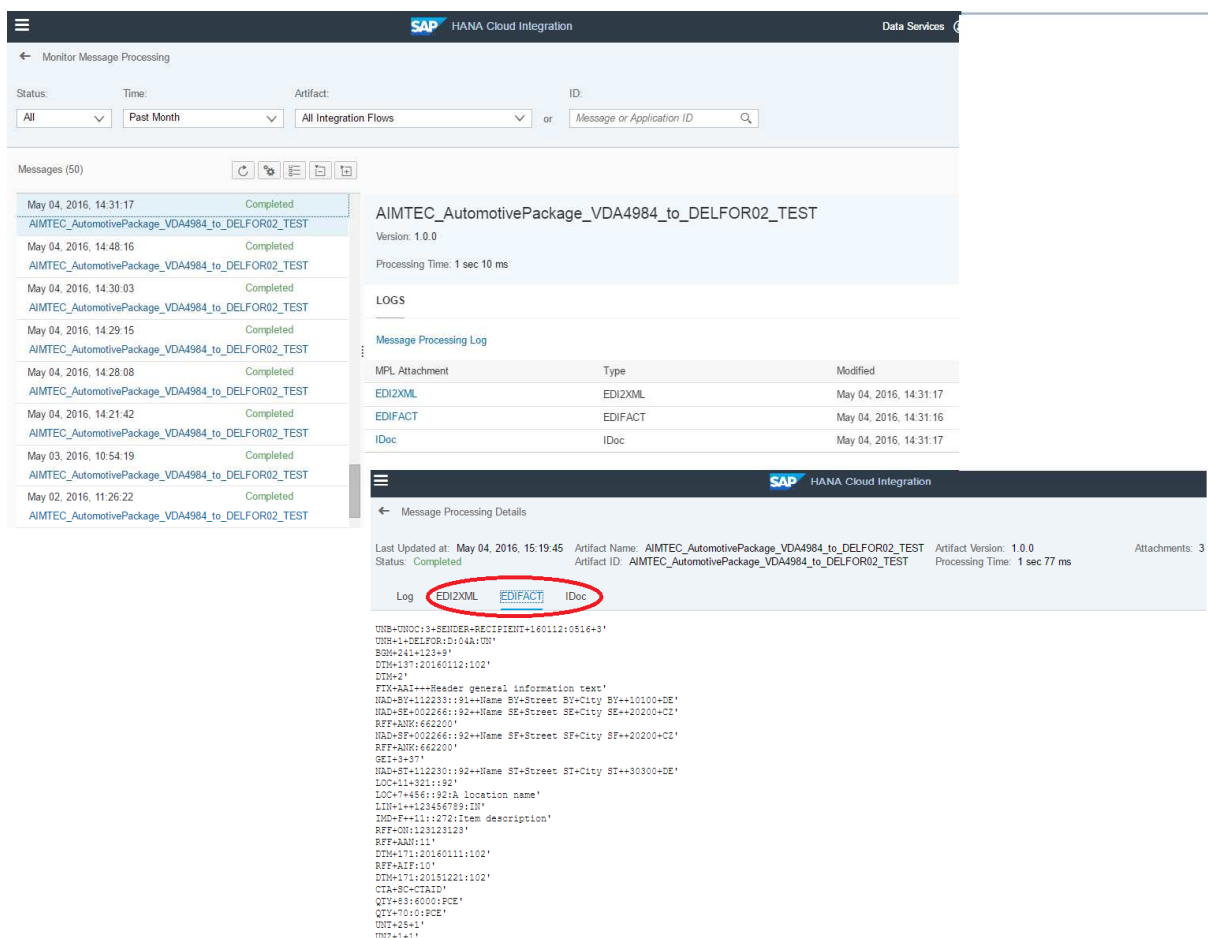
2.2   Global DESADV – VDA 4987

- The DESADV message has the function of sending dispatch and transport data before the goods reach the destination plant.

  - AIMTEC_AutomotivePackage_SHPMNT06_to_VDA4987.iflw
    - converts XML IDoc SHPMNT.SHPMNT06 to UN/EDIFACT DESADV D07A
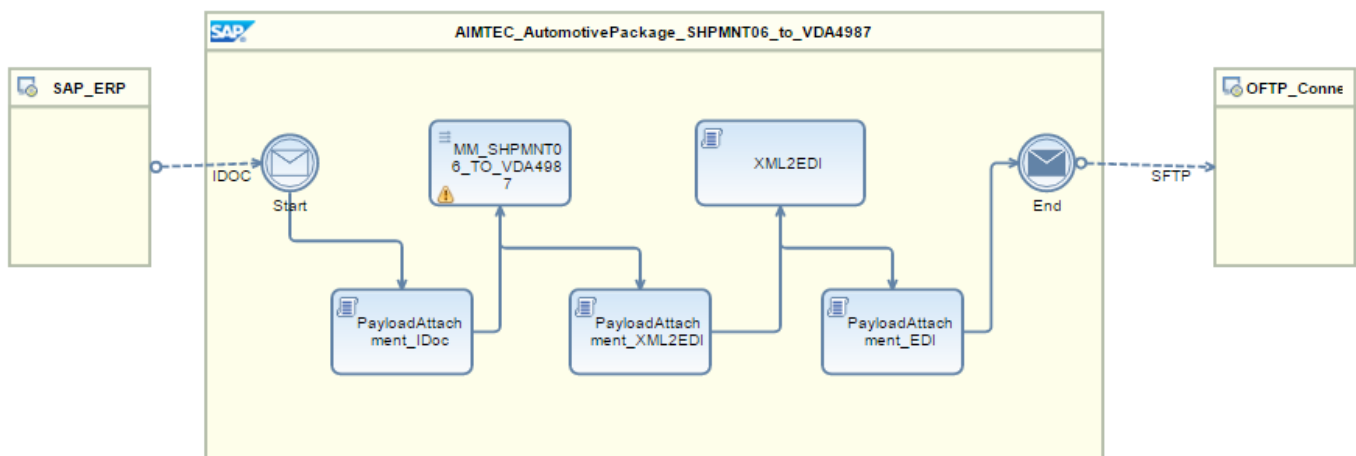
2.3 Extended monitoring options

▪ Automotive Package also brings you extended monitoring options. As there are two message transformers in both iFlows, thanks to this solution, you can have full control what happens with the processed message. Payload is saved as an attachment before and after each step of the conversions. These attachments are accessible as bookmarks in the detail of the transaction.

3 OFTP connector

- OFTP for HCI brings Odette File Transfer Protocol versions 1 and 2 connectivity to Hana Cloud Integration. Using OFTP for HCI, HCI tenant can act both as a call receiver and a call originator. Connectivity over internet and X.25/ISDN is supported.

3.1 Rationale

- Hana Cloud Integration does not support neither OFTP 2 nor OFTP 1 protocols as of spring 2016. Although it will probably support OFTP 2 in the future, the chance of OFTP 1 over ISDN provision is probably very low.

- AIMTEC provides OFTP connectivity as a managed service as part of ClouEDI, EDI as a service solution (clouedi.com). By interconnecting HCI with ClouEDI, OFTP connectivity can be made available to HCI users.

3.2 Technical Architecture

- The solution consists of two parts – HCI iFlow and ClouEDI configuration.

- Data exchange between HCI and ClouEDI is made through SFTP.

- HCI iFlow in HCI Catalogue serves basically only as an example of connection setup between HCI and ClouEDI. iFlow in itself does not contain any message processing. Connection to ClouEDI SFTP server is preconfigured in iFlows in HCI Catalogue.

3.2.1 Incoming call

- Incoming OFTP call is first processed by ClouEDI. Received message is then put to HCI tenant's user directory on SFTP server. ClouEDI sends back the EERP to call originator.
- OFTP message sender name is included as part of file name and is also contained in the message itself (in case of EDI messages).
- HCI iFlow polls ClouEDI SFTP server for incoming message, new messages are deleted or renamed on SFTP server and further processed in iFlow.
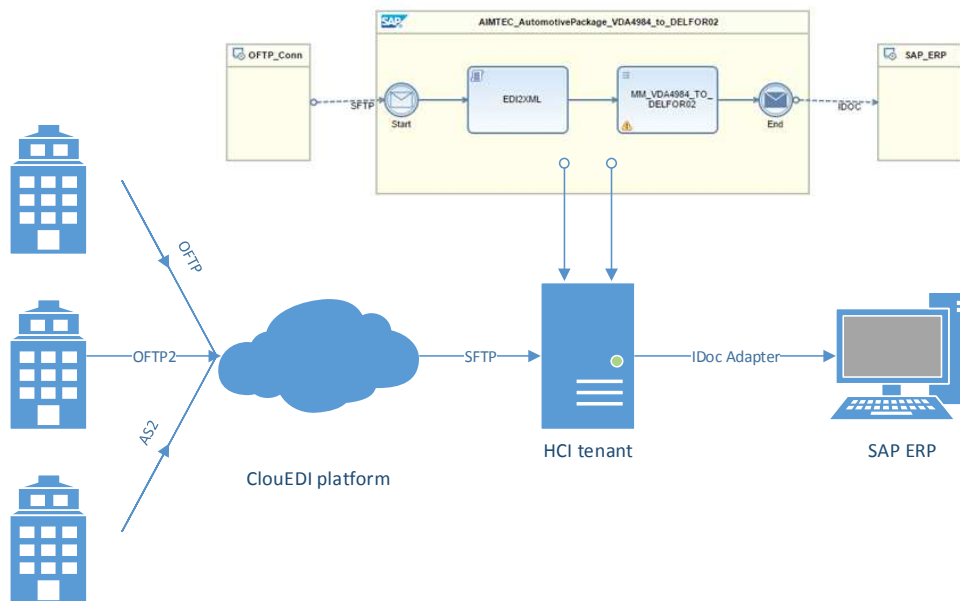
3.2.2   Outgoing call

- Outgoing message is uploaded to HCI tenant's user directory on SFTP server. ClouEDI picks up the message and sends it out over OFTP. Messages picked up are renamed or deleted by ClouEDI.
- ClouEDI can recognize correct OFTP recipient by file name or by message contents (in case of EDI messages).
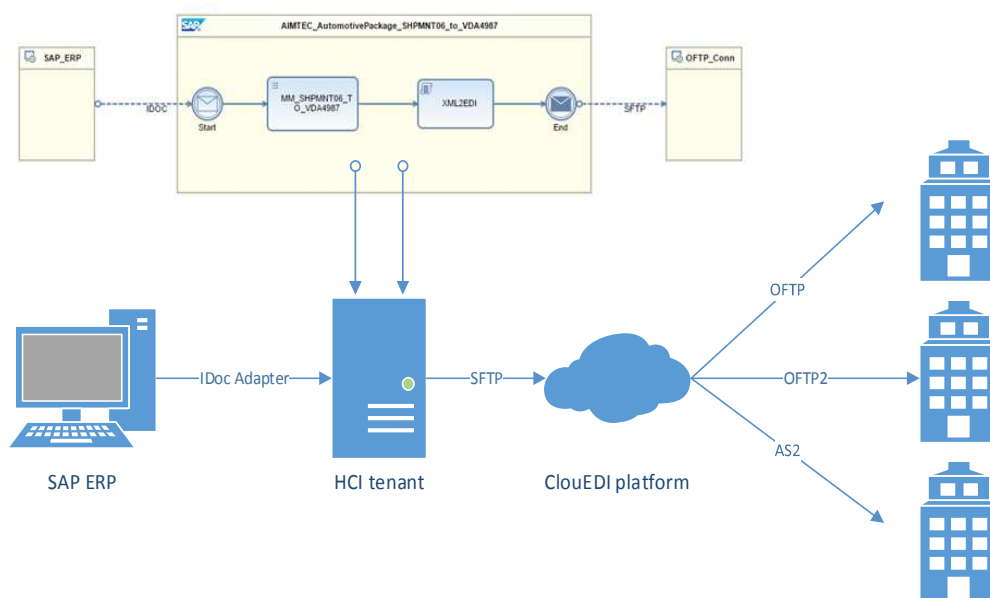
3.3 Business model

- Besides usual HCI tenant, customer needs to close the contract with AIMTEC to cover ClouEDI part of processing.

3.4 Contact Details

- If you are interested in using OFTP/OFTP2 connector via ClouEDI platform as a service, don't hesitate to contact us on hci.sales@aimtec.cz

4   Adapter Configuration

4.1   Configuring SFTP Adapter

Section 2.2.6.2.5 of Developer's Guide gives you common information about SFTP Adapter.

In the same guide refer to section 4.3.2 „Configuring SFTP Adapter" to set specific SFTP configuration

4.2   Configuring IDoc (IDoc SOAP) Adapter

Section 2.3.6.2.1 of Developer's Guide gives you complete information about IDoc Adapter configuration.

5 Automotive Package Technical Information

- Integration Package consists of two iFlows
  - AIMTEC_AutomotivePackage_VDA4984_to_DELFOR02.iflw
    - converts UN/EDIFACT DELFOR D04A to XML IDoc DELINS.DELFOR02

  - AIMTEC_AutomotivePackage_SHPMNT06_to_VDA4987.iflw
    - converts XML IDoc SHPMNT.SHPMNT06 to UN/EDIFACT DESADV D07A

- AIMTEC_AutomotivePackage_VDA4984_to_DELFOR02 contains following objects
  - EDI2XML.gsh
    - Transform EDI flat format to XML
    - Script which refers to Groovy Library EDI2XML_EDIFACT_DELFOR04A.jar

  - MM_VDA4984_TO_DELFOR02.xsl
    - XSLT mapping

- AIMTEC_AutomotivePackage_SHPMNT06_to_VDA4987 contains following objects
  - MM_SHPMNT06_TO_VDA4987.xsl
    - XSLT mapping

  - XML2EDI.gsh
    - Transforms XML to EDI flat format
    - Script which refers to Groovy Library XML2EDI_EDIFACT_DESADV07A.jar

- Both integration flows contain following scripts, which save the payload during the processing as an attachment
  - PayloadAttachment_EDI.gsh
  - PayloadAttachment_IDoc.gsh
  - PayloadAttachment_XML2EDI.gsh

- Source and target format:
  - UN/EDIFACT DELFOR D04A
    - http://www.unece.org/trade/untdid/d04a/trmd/delfor_c.htm
  - UN/EDIFACT DESADV D07A
    - http://www.unece.org/trade/untdid/d07a/trmd/desadv_c.htm

  - XML representation of EDIFACT messages
    - XML schema definition (XSD) can be found as attachment in Integration Package
    - DELFOR04A.xsd
      DESADV07A.xsd

6   Summary

Thank you for choosing Automotive Package provided by AIMTEC for covering your business scenario.

If you are interested in Automotive Package for specific customer, don't hesitate to contact us via email on hci.sales@aimtec.cz. We have already prepared mapping templates for the biggest car manufacturers like VW, SKODA, AUDI, SEAT, BMW, VOLVO…

We are also able to provide you B2B scenario based on your requirements or just separate components like mapping, EDI2XML scripts or connectivity via standard EDI channels like OFTP/OFTP2 and AS2.

Full support for UN/EDIFACT, ANSI X12, VDA, ODETTE and IDoc means that all of these EDI formats can be seamlessly integrated with your system via HCI.

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