# SAP Integration - Product definition

This product definition describes the content of the SAP integration package and the supported functionality. This product definition was last updated November 25th, 2016.

## 1 Overview

The MediusFlow integration to SAP consists of both an adapter to Medius Integration Gateway (MIG), the Medius integration engine, as well as some custom objects in SAP for master data retrieval. The solution makes it possible to transfer master data (such as suppliers, accounts etc.) from SAP to MediusFlow and it also makes it possible to transfer invoice data from MediusFlow to SAP and to handle the invoice data automatically inside SAP and also return a document numbers/error messages to MediusFlow. Below you find an overview of how the integration works.

Below is a picture of the whole system with the two parts of the solution marked as part 1 and part 2.
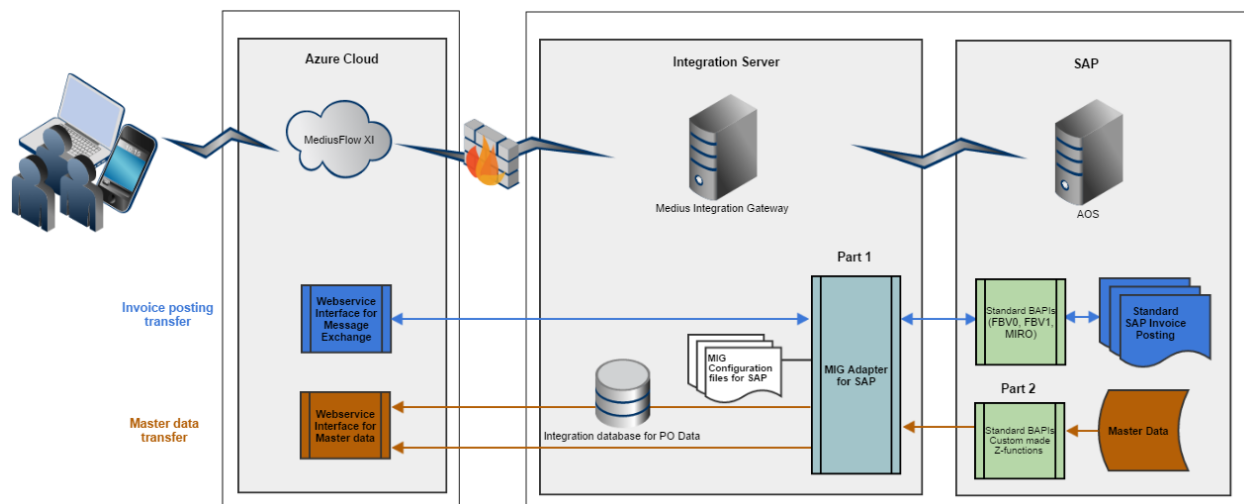


**Part 1**

- Code written in C# .NET

**Part 2**

- Provided as a package of txt files and matching structures
- Code written in ABAP
- Consists of SAP Functional modules

## 1.1 Version dependencies

| SAP Version | Integration package version | MediusFlow XI version | Comment |
|---|---|---|---|
| **SAP ECC6.0** | 1.8 | Cloud / W16 and later | |
| **SAP 4.7** | 1.8 | Cloud / W16 and later | |

## 1.2 Integration Package Content

***The Integration package includes the following for Medius Integration Gateway (MIG):***

- Custom adapter that communicates with SAP
- Configuration files for the SAP integration

***The Integration package includes the following for SAP:***

- SAP custom functional modules
- Excel spread sheet with the corresponding structures exported by the functional modules

# 2 MediusFlow Modules & Functions

Below you find a summary of the MediusFlow modules that are included in SAP integration standard package.

Information in column ***"Basic Setup"*** means that the feature/functionality is included in the basic deployment and is based on Best Practices.

Information in column "***Custom Setup***" means further information about the customer's processes and system(s) setup is required in order to implement and thus requires additional consultant configuration work.

| MediusFlow module | Basic Setup | Custom Setup | Comment |
|---|---|---|---|
| **Invoice** | YES | | Parking + final posting or final posting only |
| **Match** | YES | | Final posting only |
| **Procurement** | NO | YES | Match invoice against MediusFlow PO is posted as FI document. Only final posting, no parking |
| **Contract** | NO | YES | |

## 3 Master Data

Below you find a summary of the different master data entities.

| Master data entity | Basic Setup | Custom Setup | Description | Comment |
|---|---|---|---|---|
| **Company** | NO | NO | New company codes in SAP needs to be manually added in MediusFlow and set up for integration | |
| **Currency rates** | YES | | | Currency rates maintained using base currency supported as extension |
| **GL Accounts** | YES | | | Only 1 language per company code can be transferred |
| **Fixed assets** | YES | | Fixed Assets are available in the the first coding segment with a prefix "A" | |
| **Cost center** | YES | | | |
| **Internal orders** | YES | | 1 internal order type in standard | |
| **Profit center** | NO | YES | | |
| **WBS element** | NO | YES | | |
| **Trading partner** | NO | YES | | |
| **Functional area** | NO | YES | | |
| **Tax codes** | YES | | | |
| **Account restrictions** | NO | NO | No support for transfering Field Status Groups per G/L account. Similar rule settings can be achieved by MediusFlow Authorizatin groups. | |
| **PaymentTerms** | YES | | | Complex payment terms are not supported, only number of days |
| **Vendors** | YES | | | 1 purchasing organisation per company code in standard |
| **Supplier items** | YES | | Item table for cross reference in connection between PO lines and invoice lines | |
| **Purchase order with goods receipt** | YES | | Purchase order goods reciepts flagged for "goods receipt based invoice verification" (EKPO-WEBRE) | Purchase order goods reciepts not flagged for "goods receipt based invoice verification" (EKPO-WEBRE) supported as extension |

| | | | |
|---|---|---|---|
| | | | All lines with goods reciept indicator (EKPO-WEPOS) set Lines with "Free of charge" indicator are not transferred |
| **Purchase order without goods receipt** | NO | YES | Service/Non goods receipt order matching All lines without goods reciept indicator( EKPO-WEPOS) set |
| **Purchase order account assignment** | NO | | |

## 4 Message Exchange

Below you find a summary of the different invoice posting scenarios.

| Posting scenarios | Basic Setup | Custom Setup | Description |
|---|---|---|---|
| **Expense invoice (FI) parking and final posting** | YES | | Document types KR used for debit invoices and KG for credit notes |
| **Cancellation of parked invoices that are invalidated in MediusFlow** | YES | | Only applies for FI documents |
| **Expense invoice (FI) final posting only** | YES | | |
| **Assignment field for supplier and GL line (FI & MM)** | NO | YES | |
| **Accrual postings** | NO | NO | Limited by lack of standard support in SAP |
| **PO invoice with match against GR** | YES | | Supports both GR/IV and non GR/IV flagged orders. No parking supported |
| **PO invoice with match against PO line** | NO | YES | Only of non GR/IV flagged orders. No parking supported. |
| **Invoice match with return orders (negative receipt lines)** | NO | YES | |
| **Actual payment date update sent to MediusFlow** | NO | YES | |
| **Add link to Invoice document in SAP (Archive link)** | NO | YES | Not supported with non-calendar based fiscal year in SAP |

## 5 SAP Integration Requirements

In addition to the Technical Requirements for MediusFlow, these are M3 Integration specific requirements to be able to deploy, configure, and troubleshoot integrations to MediusFlow.

An **integration server**, set up by customer to host the Medius Integration Gateway (MIG) application, **is required**.

The technical requirements for this server is described in the General Integration Requirements for MediusFlow.

### 5.1 Communication to SAP

MediusFlow/SAP integration mainly using RFC calls in SAP. The RFC server will be listening on Port range: 30007-39907. All inbound request to SAP system will be through this range and the default value is 30007. As SAP does not specify any specific port and this is assigned automatically it is difficult to specify any particular port.

### 5.2 SQL server

- SQL server 2008 R2 or higher. It can be a SQL server express installed on the batch/integration server
- SQL server should have collation SQL_Latin1_General_CP1_CI_AI

### 5.3 SAP GUI

SAP GUI needs to be installed on the integration server so that Medius consultants can ensure proper communication between integration engine and SAP as well as to verify master data and tests of invoice postings.

SAP user that will be used by the integration to perform work in SAP. The access required can be seen in the section "Access within SAP" below.

### 5.4 Access within SAP

#### 5.4.1 Batch user

The MediusFlow SAP integration runs processes and access data in SAP, through BAPI:s and custom functions. This is done through an integration application on the integration server. The user for the integration application will use a SAP batch user that is specific to MediusFlow integrations and has date and decimal format specifically set according to the SAP questionnaire. Also all warning messages in FI bookings (FBV1, FBV0) must be suppressed for this user. Due to the specific needs for this user, it's important that Medius batch user is not shared with other processes.

The following is needed to be setup for the integration user within SAP.

- Transactions(TCODE) We need to be able to perform the following transactions in SAP including additional settings to make them work appropriately:
- FBV0 - Final posting a parked FI document
- FBV1 - Parking an FI document
- FBV4 - Edit parked documents
- SE91 - See error codes in SAP
- SPRO - Archive link
- BAPI:
- Postings:

- RFC_CALL_TRANSACTION_USING - Calling the screen sequences for Parking and final posting FI documents
- BAPI_INCOMING_INVOICE_CREATE - Final match a MM document
- BAPI_BARCODE_SENDLIST - For archive link if it's used, it's not available for all installations
- ARCHIV_BARCODE_GLOBAL - For archive link if it's used, it's not available for all installations
- Master data:
- BAPI_GL_ACC_GETLIST - GL account export
- BAPI_COSTCENTER_GETLIST - Cost center export
- BAPI_PROFITCENTER_GETLIST - Profit center export(Usually not used)
- BAPI_FIXEDASSET_GETLIST - Fixed assets export
- BAPI_INTERNALORDER_GETLIST - Internal order export
- BAPI_PROJECTDEF_GETLIST - Project/WBS export
- BAPI_EXCHRATE_GETCURRENTRATES - Currency rate export
- Custom functions:
- Z_MEDIUS_VENDOR - Exporting suppliers
- Z_MEDIUS_GR - Exporting purchase order information
- Z_MEDIUS_VAT_CODES - Exporting VAT codes
- Table access:
- TCURR
- COAS
- TO52
- T100

### 5.4.2  Consultant user

Dialogue user to be used by Medius consultants to login in SAP and verify invoice postings during test phase.

- Additional transactions in SAP
- SHDB/OSHDB - To perform recording
- SE37 - For troubleshooting
- SE16 - Table browser
- OAC5 - Check barcode settings for given types
- OAC0 - Archive link content repository settings
- OAM1 - Monitor linked documents
- FB03 - Display document
- SU03 - User authorization
- ME23N - Display PO
- ME33L - View scheduling agreement PO
- XK03 - Display vendor master data
- MIRO - Post MM invoices
- MIR4 - Display MM invoices
- FBL1N - List parked documents
- Additional table access:
- TOA01
- BDS_BAR_EX