# MediusFlow XI - D365 for Finance & Operations - Integration Product Definition

Integration Overview

This solution consists of two parts. One part is an adapter for Medius Integration Gateway (MIG), the Medius integration engine. The other part is a deployable package containing the integration model file. The package is deployed through LCS (Lifecycle Services) The solution makes it possible to transfer master data (such as suppliers, accounts etc.) from D365 to MediusFlow. It also makes it possible to transfer invoice data from MediusFlow to D365 where the invoice data is handled automatically inside D365. Once the posting is done D365 will also return a voucher to MediusFlow.

Below is a picture of the whole system with the two parts of the solution marked as part 1 and part 2.
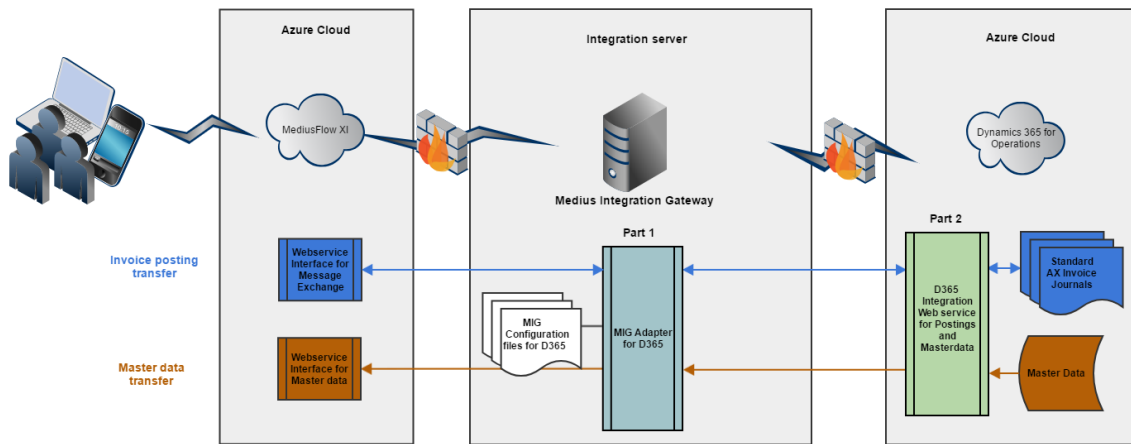
- **Part 1**
  - Code written in C# .NET
  - Communicate with webservices in D365

- **Part 2**
  - Provided as a deployable package for easy deployment through LCS
  - Code written in x++
  - No overlayering of D365 standard code
  - Consists of D365 objects
  - Datasets containing master data, which *Part 1* uses to fetch master data
  - Classes which *Part 1* uses to automatically handle invoices

Version Dependencies

D365 Version	Integration Version	MediusFlow XI Version	Comment
D365 - Application version 1611 & July 2017 - Platform update 3 or later	1.0.0.3	Public Cloud	

Integration Package Content

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

- Custom adapter that connects to webservices in D365
- Configuration files for the D365 integration

The Integration package includes the following for D365:

- Deployable package (model file)

MediusFlow Modules & Functions

Below you find a summary of the MediusFlow modules that are included in D365 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		Preliminary, cancel and final posting
Match	YES		Preliminary, cancel and final posting
Procurement	NO	YES	Match invoice against MediusFlow PO is posted as expense.
Contract	YES		Posted as expense

Master Data

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

Master Data Entity	Basic Setup	Custom Setup	Description	Limitations
Company	NO	NO	New companies added in D365 needs to be manually added in MediusFlow and set up for integration	
Currency codes & rates	YES		Currency codes and current Currency Rates are transferred	
G/L Accounts	YES		All G/L accounts are transferred. Will be set to inactive if status is "Blocked" or "Do not allow manual entry" is set.	
Dimensions	YES		Includes a maximum of 10 dimensions excluding the G/L account.	If the Project module is used, only 8 dimensions is included as the Project category and Line property allocates 2 dimensions in MediusFlow.
Dimension validations	YES		Includes the following dimension validations: Optional,To be filled in and Fixed	No functionality for the following dimension validations: Table, List, or Default

Dimension validation and Account structures	**YES**		Includes Fixed default values set on the G/L Account and Account structures stated as *All values Allowed* and *Allow blanks.*	Currently no support for Advanced rules associated with Account structures. Not Fixed (default) values will not be transferred to MediusFlow. No functionality for Specifying which values are allowed, but it can be achieved in most cases by setting up equivalent Authorizations groups in MediusFlow.
Fixed Assets	**YES**		Fixed Assets are available in the the first coding segment with a prefix "A."	Transaction type for Acquisition adjustments are set in MediusFlow Parameters, only one type can be selected for all Fixed asset transaction.
Projects	**YES**		Projects are available in the the first coding segment with a prefix "P.".	Dimensions set on the Project will be visible but not editable. All project categories that are transferred will be available to select. Default Line property is not transferred
Project Category	**YES**		Expense type categories are transferred.	
Line Property	**YES**		All Line properties are transferred.	
Accrual Schemes	**YES**		The user selects a start date and Accrual identification when coding the invoice.	
Tax Groups	**YES**		Tax groups with references to Tax codes are transferred	
Item Tax Groups	**YES**		Item tax groups with references to Tax codes are transferred	
Tax Codes	**YES**		Tax Codes are only available in user interface when a G/L Account flagged as a VAT account is selected.	
Payment Term	**YES**		Transfers all payment terms to be able to calculate due date on invoice.	Currently only include the Payment method "Net".
Supplier	**YES**		All Suppliers are transferred to MediusFlow	Requires default Tax group/Item tax group and payment terms to transfer.

Suppliers Item numbers	YES		Item table for cross reference in connection between PO lines and invoice lines. Transferring suppliers item number when primary vendor is set.	
Purchase orders	YES		Integration will transfer Purchase orders and purchase order lines for POs that are approved or confirmed as long as the lines are not canceled or invoiced.	
Goods receipts	YES		Integration will transfer Goods receipt lines that are not fully invoiced.	
Misc Charge Codes	YES		Available to use in MediusFlow in G/L account field	

Message Exchange

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

Posting Scenarios	Basic Setup	Custom Setup	Description
Preliminary and final postings sent from MediusFlow	YES		Postings done via Initial registration and Invoice approval Journals Tax will be lifted at time specified by the configuration in Accounts Payable Parameters.
Cancellation of registered invoices	YES		Cancellation done via Invoice approval Journal
Only Final Postings sent from MediusFlow	YES		Posting done via Invoice Journal
Accrual posting	YES		Possible to split costs over several periods using D365 Accrual schemes. The Split over periods is not visualized in MediusFlow,
Period management	YES		Possible to move to next open period including considering Module statuses. This is defined in D365 and will not be reflected in the Posting date stored in MediusFlow.
3-way matching	YES		Integration requires a goods receipt to match to when posting the PO invoice in D365
2-way matching	YES		Uses 2-way matching policy
Contract based invoice (Contract module)	YES		Invoice is posted as Expense invoice in D365
Procurement invoice (Procurement module)	NO	YES	Invoice is posted as Expense invoice in D365

Actual payment date update sent to MediusFlow	NO	YES	
Add link to Invoice document in AX	NO	YES	Uses AX standard document management framework to attach a URL link to the Invoice Journal and Vendor transaction.

D365 Integration Requirements

Component	Comment
Azure Portal	Setup connection between Medius Integration Gateway and D365 within the App Registration in Azure portal to receieve the Authorization Code from the OAUTH2.0 Authorization Endpoint.
Azure AD	Integration user added and consent added for the user and the Integration App in D365
D365	Integration user added as worker

General Integration Requirements

ⓘ These are general requirements to be able to setup MIG based integrations with Mediusflow.

Customer is responsible to set up the integration server to fulfil these requirements.

Integration Server

The ERP integration needs to send and fetch data to/from the ERP system. To do this there is a need to setup a Medius Integration Client in the local network (on premise at customer) that performs the data exchange between MediusFlow Cloud and the ERP system. The Medius Integration Client is a Windows application that can be installed on any server fulfilling the following requirements:
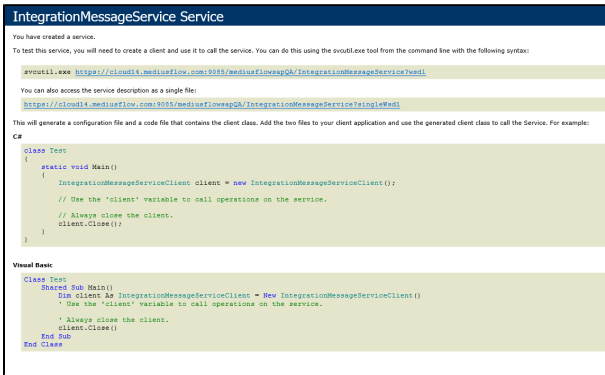
⚠ Integration server can be shared with other applications but the requirements below are for the Medius Integration Client only and does not take requirements for such application into consideration.

Component	Requirement
OS	Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows Server 2016
CPU	2 GHz
RAM	4 GB
Disk	2 GB

⚠ It would be beneficial if all servers are installed with English (US) language to facilitate for Medius consultants and, at a later stage, support personnel from Medius Service Center.

Access

Access	Comment
VPN	VPN credentials to integration server

Server account	Administration rights on integration server
ERP access	ERP credentials and access to ERP server/services from integration server
MediusFlow XI	Integration server needs to have access to MediusFlow XI SOAP services. Cloud environment - Port 9085 for outbound traffic - For general security-related topics (e.g. IP addressed used by mediusflow.com) please refer to MediusFlow XI Cloud - Security On premise - Network communication between the Integration Server and the Mediusflow server - Default port: 19308 (could be different in your project) Verify access on https://cloud.mediusflow.com:9085/mediusflowIBSQA/IntegrationMessageService - You should get this picture in the web browser,
FTP	Medius Consultants to transport deployment files to the Integration server Port 21 need to be opened for outbound traffic

For Cloud environment: In addition, these ports need to be open in the customer firewall for the Medius Integration Client:

Binding	Connectivity mode	Port
WSHttp2007RelayBinding	HTTPS, outbound	9085

Windows Feature Enabled
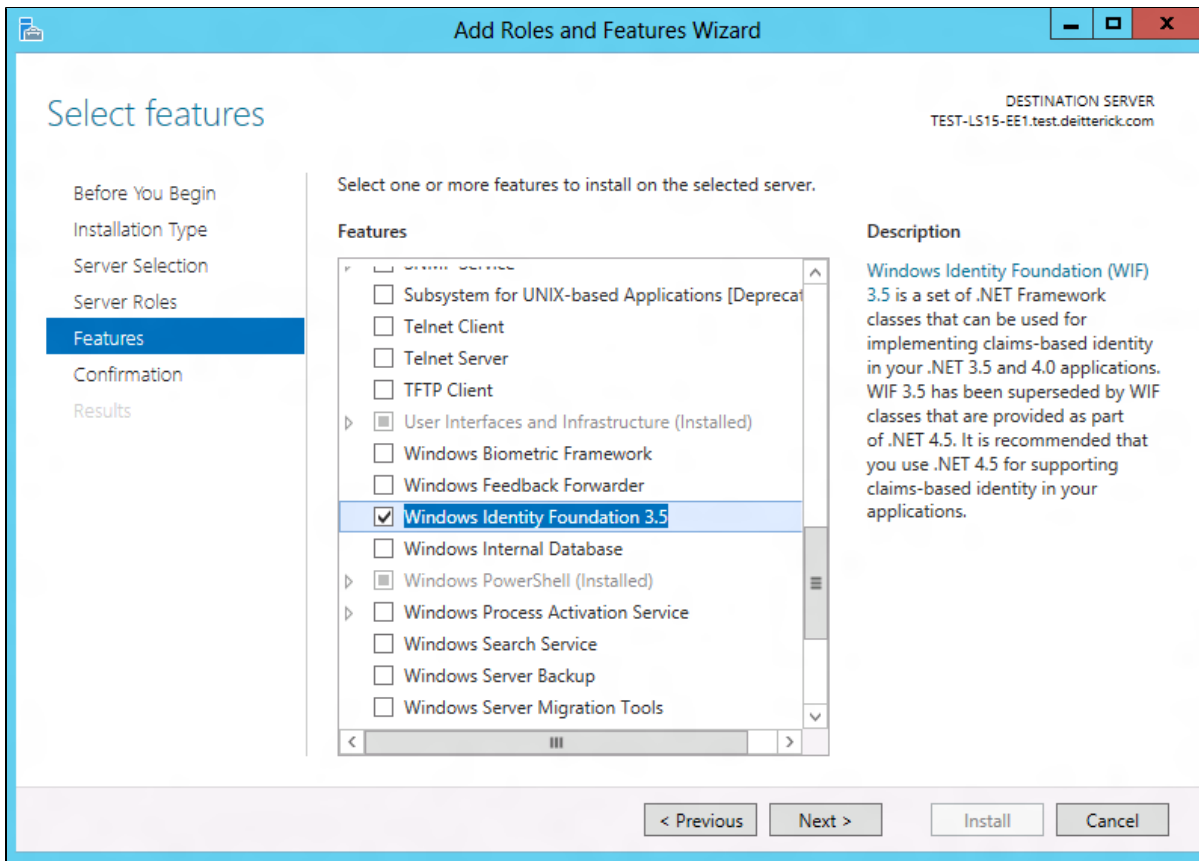
The Medius Integration Client is installed as a windows service application.

To be able to install the Medius Integration Client the server needs to have Windows Identity Foundation enabled.

ⓘ For Windows Server 2008R2, install from this link: http://www.microsoft.com/en-us/download/confirmation.aspx?id=17331

ⓘ For Windows Server 2012 and 2016, install from "Add Roles and Features Wizard"

Add Roles and Features Wizard

Select features

Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results

Select one or more features to install on the selected server.

Features

- [ ] Subsystem for UNIX-based Applications [Deprecat
- [ ] Telnet Client
- [ ] Telnet Server
- [ ] TFTP Client
- ▷ [ ] User Interfaces and Infrastructure (Installed)
- [ ] Windows Biometric Framework
- [ ] Windows Feedback Forwarder
- [x] **Windows Identity Foundation 3.5**
- [ ] Windows Internal Database
- ▷ [ ] Windows PowerShell (Installed)
- ▷ [ ] Windows Process Activation Service
- [ ] Windows Search Service
- [ ] Windows Server Backup
- [ ] Windows Server Migration Tools

Description

Windows Identity Foundation (WIF) 3.5 is a set of .NET Framework classes that can be used for implementing claims-based identity in your .NET 3.5 and 4.0 applications. WIF 3.5 has been superseded by WIF classes that are provided as part of .NET 4.5. It is recommended that you use .NET 4.5 for supporting claims-based identity in your applications.

< Previous   Next >   Install   Cancel

Software Installed

Software	Comment	Download
.NET Framework 4.5	To be able to run integration engine the Medius Integration Client	http://www.microsoft.com/en-us/download/details.aspx?id=30653
Powershell version 4.0 or later	Used during deployment of integration packages	http://social.technet.microsoft.com/wiki/contents/articles/21016.how-to-install-windows-powershell-4-0.aspx
Chrome	Preferred web browser for MediusFlow. This is our recommendation, any other supported browser is OK.	http://www.google.com/chrome/browser/desktop/index.html
SharpDevelop	Consultant tool for XML configuration	http://www.icsharpcode.net/OpenSource/SD/Download/
Winmerge	Consultant tool for diff configuration files during upgrades etc	http://winmerge.org/downloads/
Astrogrep	Consultant tool for efficient file content search	http://sourceforge.net/projects/astrogrep/