

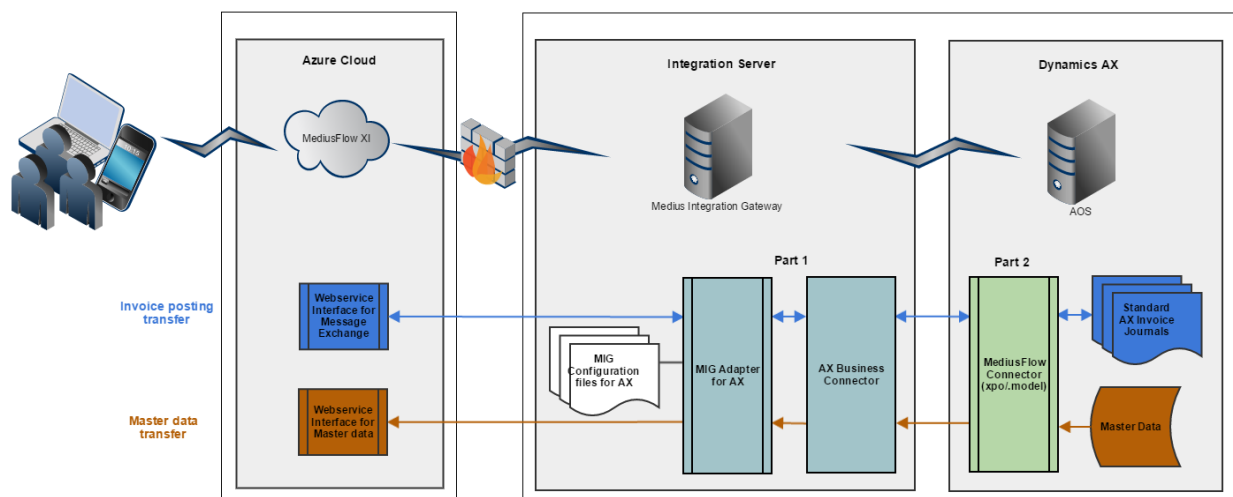
AX Integration - Product definition

This product definition describes the content of the AX integration package and the supported functionality. This product definition was last updated February 15th, 2018.

1 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 xpo package (AX2009) or ax.model file (AX2012) that is imported into AX with custom objects. The solution makes it possible to transfer master data (such as suppliers, accounts etc.) from AX to MediusFlow. It also makes it possible to transfer invoice data from MediusFlow to AX where the invoice data is handled automatically inside AX. Once the posting is done AX will also return a voucher or error message 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
 - Extends the .NET Business Connector to communicate with AX
- **Part 2**
 - Provided as an xpo (AX2009) or .model (AX2012 R 2/3) file
 - Code written in x++
 - Consists of AX objects
 - Custom views containing master data, which *Part 1* uses to fetch master data
 - Custom classes which *Part 1* uses to automatically handle invoices

1.1 Version dependencies

AX Version	Integration Version	XI Version	Comment
AX2009 (5.0.x.x), AX2012 R2 (6.2.x.x), AX2012 R3 (6.3.x.x)	8.5 or later	Public Cloud	

1.2 Integration Package Content

The Integration package includes the following for Medius Integration Gateway:

- Custom adapter that extends the AX Business Connector to connect to an AX AOS
- Configuration files for the AX integration

The Integration package includes the following for AX2009:

- XPO file
- label files

The Integration package includes the following for AX2012 R2/R3:

- ax.model file

2 MediusFlow modules & functions

The functionality of the integration is based on Medius' experience and the suggested best practice of configurations between MediusFlow and the ERP system but does not cover all configuration settings supported by the standard ERP system.

Below you find a summary of the MediusFlow applications that are included in AX 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 application	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		Included in package 6.0 and later, earlier as extension

3 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 AX 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 in AX2009	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 in AX2012 R2/R3	YES		Includes Fixed default values set on the G/L Account and Account structures stated as <i>All values Allowed</i> and <i>Allow blanks</i> .	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.

Master Data Entity	Basic Setup	Custom Setup	Description	Limitations
				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	

4 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 AX 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 AX 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 AX.
2-way matching	YES		Uses 2-way matching policy for AX2012 R2/3 and Direct Delivery as Delivery Type for AX2009 to determine a 2-way matching PO line.
Adjustment requests with block and release payments	NO	NO	Functionality to send a payment block on original invoice is not included
Contract based invoice (Contract module)	YES		Invoice is posted as Expense invoice in AX.
Procurement invoice (Procurement module)	NO	YES	Invoice is posted as Expense invoice in AX.
Actual payment date update sent to MediusFlow	NO	YES	
Add link to Invoice document in AX	YES		Uses AX standard document management framework to attach a URL link to the Invoice Journal and Vendor transaction.

4.1 Regional compliance

The integration package is used by customers in several countries worldwide. Any country specific legal requirements, including but not limited to VAT compliance requirements, have to be analysed and identified by the parties in the project. Any additional services needed to ensure compliance with requirements not supported by the standard integration package may be provided by Medius on a time and material basis and will require a Change Order signed by the Parties.

5 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.

5.1 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.

5.2 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	<p>Integration server needs to have access to MediusFlow XI SOAP services.</p> <p>Binding: WSHttp2007RelayBinding Connectivity mode: HTTPS, outbound Port: 9085</p> <p>Verify access on https://cloud.mediustflow.com:9085/mediustflowIBSQA/IntegrationMessageService</p>

Access	Comment
	<ul style="list-style-type: none"> 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

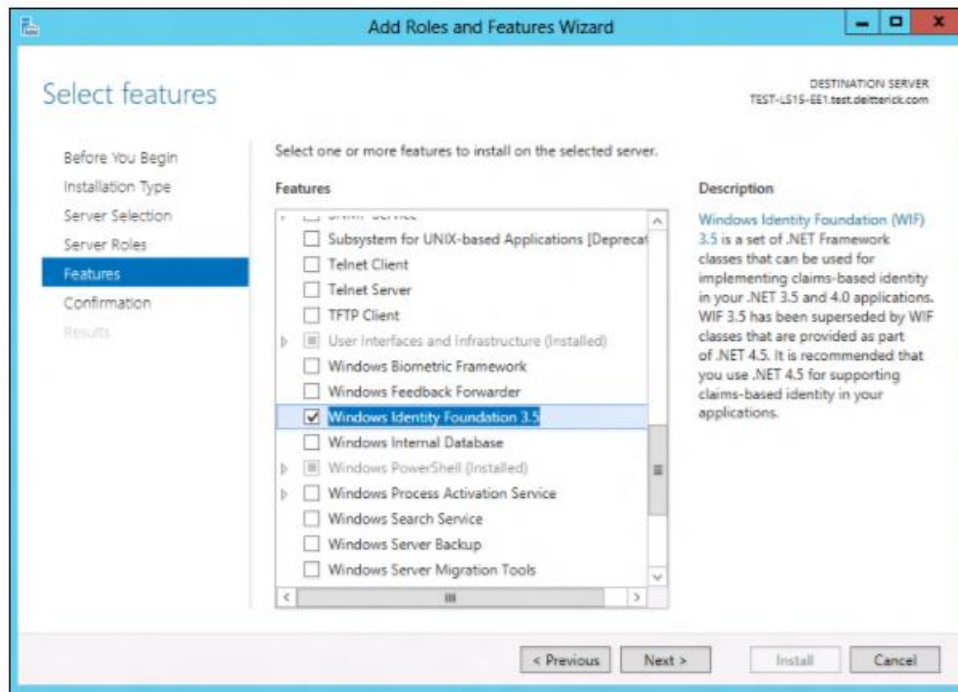
5.3 Windows Feature Enabled

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"



5.4 Installed software

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	http://www.google.com/chrome/browser/desktop/index.html

Software	Comment	Download
	supported browser is OK.	
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/

6 AX Integration Requirements

In addition to the Technical Requirements for MediusFlow, these are AX 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.

6.1 AX2009 (5.x) Component Requirements

On the Integration server hosting the Medius Integration Gateway, the following AX-components should be installed:

Component	Comment
AX2009 Business Connector	Must be the same version as the AOS
AX2009 Client	
AX2009 Debugger	
<p>A folder (or a shortcut to a folder) containing configuration files to:</p> <p>AX - Development environment (Layer where customizations is supposed to be made - Best Practice is CUS)</p> <p>AX - Test environment (Layer where customizations is supposed to be made - Best Practice is CUS)</p> <p>AX - Prod/Live environment (USR-Layer)</p>	

6.2 AX2012 R2/3 (6.2, 6.3) Component Requirements

Component	Comment
AX2012 R2/R3 Business Connector	Must be the same version as the AOS
AX2012 R2/R3 Client	
AX2012 R2/R3 Debugger	
<p>A folder (or a shortcut to a folder) containing configuration files to:</p> <p>AX - Development environment (Layer where customizations is supposed to be made - Best Practice is CUS)</p> <p>AX - Test environment (Layer where customizations is supposed to be made - Best Practice is CUS)</p> <p>AX - Prod/Live environment (USR-Layer)</p> <p>AX Management Utils (AxUtil)</p>	

6.3 Integration Consultant User Access

Access	Comment
<p>Member of an AD-Group that is</p> <ul style="list-style-type: none"> • Local administrator on the MIG-server • Member of the local group “Microsoft Dynamics AX Debugging Users” on the MIG-server 	
<p>In Ax:</p> <ul style="list-style-type: none"> • System administrator rights in AX – Development • System administrator rights in AX – Test • System administrator rights in AX – Prod/Live 	<p>Possible to give the Integration Consultant time limited or no access in all AX environments depending on company policy. In that case the Integration consultant will need to gain temporary access during setup, verification, and troubleshooting of the integration. This can be done by a shared screen session or such but will generally lead to longer lead times in the project and during support.</p>