

NAV Integration - Product Definition

This product definition describes the content of the NAV integration package and the supported functionality. This product definition was last updated December 21st, 2017.

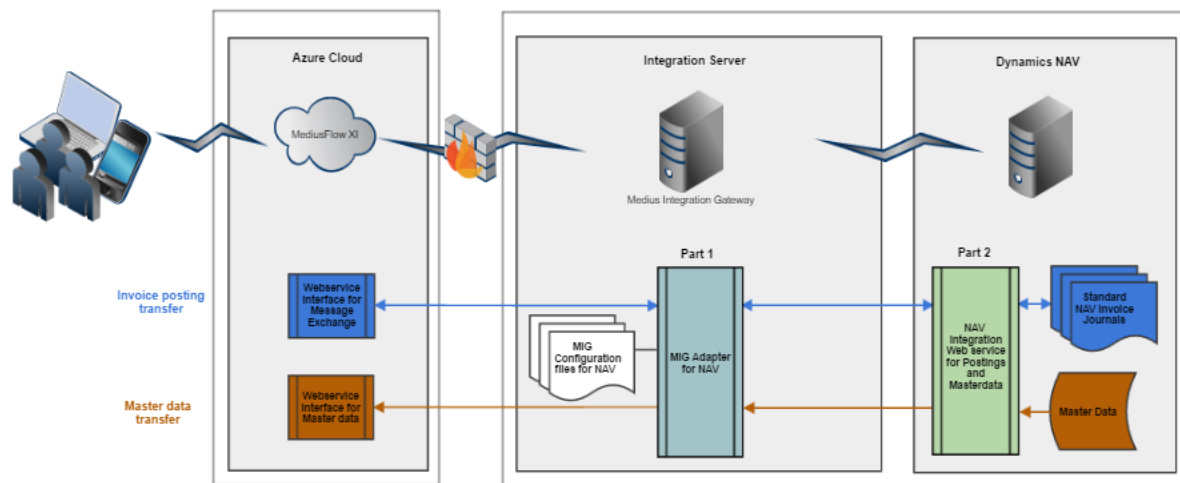
1 Integration Overview

The Microsoft Dynamics NAV (NAV) integration consists of two parts. One part is an adapter for Medius Integration Gateway (MIG), the Medius integration engine. The other part is a set of custom created objects to call standard functions in NAV. This part is imported in NAV (**as Extensions for NAV 2016 and NAV 2017**).

No standard objects in NAV are modified when the integration objects are imported

The solution makes it possible to transfer master data (such as vendors, accounts etc.) from NAV to MediusFlow. It also makes it possible to transfer invoice data from MediusFlow to NAV where the invoice data is handled automatically inside NAV. Once the posting is done NAV 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

- MIG adapter for NAV is a DLL written in C# .NET to direct the information to the correct web service functions using SOAP
- Used to communicate between MediusFlow and NAV

Part 2

- Code written in C/AL
- Consists of NAV custom objects (**delivered as Extensions for NAV 2016 and NAV 2017**)

1.1.1 Master Data

- MIG fetches master data from NAV by using the MIG Adapter for NAV to call the NAV Integration Web service
- MIG is used to transform the master data to the MediusFlow API
- To be able to handle delta data (only fetch master data that has been modified) the integration uses the Change Log function in NAV to get correct timestamps on modified data

1.1.2 Posting Documents

- Posting invoice information fetched from MediusFlow
- NAV integration web service call using the NAV Adapter
- NAV Integration web service function calls posting procedure using the standard objects in NAV
 - No standard objects in NAV are modified, standard functions are called in the same way as a manual posting would do.

1.2 NAV web service

If the NAV version does not have support for web service, we strongly recommend the customer to install it because an alternative and not as good solution would be to use Medius created integration tables for message exchange in the NAV database.

This requires extra cost because it is not supported in standard integration package.

1.3 Integration Package Content

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

- Custom adapter to connect to NAV
- Configuration files for the NAV integration

The Integration package includes the following for NAV:

- Custom objects (**in total 5 objects**) that needs to be imported and compiled in NAV
 - 1 Table
 - 2 Codeunits
 - 1 Form/Page (depending on Classic or RTC client)
 - 1 Menu suite (could be one extra if using both Classic and RTC client in NAV)
- In order for us to put these objects in NAV, the following **object numbers must be available, listed and valid in the customer's NAV license:**

Object	Object Number
Table	52001
Codeunit	52001
Codeunit	52001
Page / Form	52001
Menu Suite	1061

- Some of the NAV objects are needed to read the master data in the form of vendors, payment terms, accounts, dimensions and currencies etc
- Some of the NAV objects are designed to retrieve messages from MediusFlow for invoice registration and posting in NAV
- There is also a setup form for the integration configuration

For **NAV 2016 and NAV 2017** the integration code is **imported as Extensions by customer or the NAV vendor/partner**.

1.4 Version dependencies

NAV Version	Integration Package Version	MediusFlow XI Version	Comment
NAV 2009 R2 Build 34302 and later NAV 2013 R2 Build 36310 and later NAV 2015 Build 42603 and later NAV 2016 CU13 (Build 47256) and later (on-premise and cloud) NAV 2017 CU3 (Build 15140) and later (on-premise and cloud)	R8 HF1	Cloud/W16 and later	NAV 2009 requires the Windows service for NAV Web Service to be active and configured

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 modules that are included in NAV 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 Goods receipt of Purchase order created in MediusFlow Procurement module. Posted as expense in NAV.
Contract	YES		Contract based invoice is posted as expense in NAV.

3 Master Data

The following MediusFlow entities are imported in the master data transfer process:

Master Data Entity	Basic Setup	Custom Setup	Description	Known Limitations
Company	NO	NO	New companies added in NAV needs to be manually added in MediusFlow and set up for integration	
Currency Codes & Rates	YES		Currency Codes and current Currency Rates are transferred for handling invoices with different currencies as well as authorization limits	<p>The criteria for transferring Currency Codes & Rates to MediusFlow:</p> <ul style="list-style-type: none"> No specific, all Currency Codes and Exchanged Rates are transferred
G/L Accounts	YES		Integration requires configuration of dimensions in MediusFlow Setup form/page in NAV before master data transfer is run to transfer G/L accounts	<p>The criteria for transferring G/L Accounts to MediusFlow:</p> <ul style="list-style-type: none"> All G/L accounts with Account Type "Posting" are transferred VAT accounts defined in "Purchase VAT Account" OR "Reverse Chrg. VAT Acc." in valid configurations in the VAT Posting Setup are transferred <p>The account is set to inactive in MediusFlow when the account is blocked in NAV and/or VAT Prod. Posting Group is missing</p>
Dimensions	YES		<p>Integration requires configuration of dimensions in MediusFlow Setup form/page in NAV before master data transfer is run to transfer dimensions.</p> <p>Includes a maximum of 8 dimensions excluding the G/L account, Project (Job) and Project Task (Job Task).</p>	<p>The criteria for transferring Dimension values to MediusFlow:</p> <ul style="list-style-type: none"> No specific, all Dimension values are transferred <p>If the Project (Job) module in NAV is used, only 8 dimensions is included as the Project and Project Task allocate 2 dimensions in MediusFlow</p>

Master Data Entity	Basic Setup	Custom Setup	Description	Known Limitations
Dimension Validations in NAV	YES		<p>Support for G/L account's "Default Dimensions" settings:</p> <ul style="list-style-type: none"> "Code Mandatory" (Required restriction in MediusFlow) "Same Code" (Fixed restriction in MediusFlow) "No Code" (Forbidden restriction in MediusFlow) Empty, Purposed value (Default restriction in MediusFlow) <p>Support for "Limited" and "Blocked" restrictions configured in "Dimension Combinations" matrix in NAV.</p>	<p>The criteria for transferring Dimension Validations to MediusFlow:</p> <ul style="list-style-type: none"> All G/L account's "Default Dimensions" settings listed below are transferred: <ul style="list-style-type: none"> "Code Mandatory" "Same Code" "No Code" Empty/blank, Purposed value <p>"Blocked" restrictions configured in Dimension Combinations matrix in NAV is not transferred. They must be manually configured as a forbidden type restriction in MediusFlow.</p> <p>Dimension validations for Maintenance codes are not transferred to MediusFlow.</p>
Projects (Jobs)	YES		<p>Projects are transferred. As default "Status" controls if Project is transferred as active or not. If "Status" is "Completed" means inactive.</p> <p>Integration has the possibility to configure to use "Blocked" instead to transfer Project as active or not.</p>	<p>The criteria for transferring Projects (Jobs) to MediusFlow:</p> <ul style="list-style-type: none"> No specific, all Projects (Jobs) are transferred <p>Projects are pre-defined in integration to be transferred to Dimension 10</p>
Project Tasks (Job Tasks)	YES		<p>Project Tasks are transferred as values on the format "Job Task No."@"Job No." means example "1240@NYSTRAND"</p>	<p>The criteria for transferring Project (Job) Tasks to MediusFlow:</p> <ul style="list-style-type: none"> "Job No." must not be empty/blank "Job Task Type" must be "Posting" <p>Project Tasks are pre-defined to be transferred to Dimension 11</p>

Master Data Entity	Basic Setup	Custom Setup	Description	Known Limitations
Fixed Assets	YES		<p>Fixed Assets are transferred.</p> <p>As default "Inactive" controls if Fixed Asset is transferred as active or not.</p> <p>Integration has the possibility to use "Blocked" instead to transfer Fixed Asset as active or not.</p> <p>Fixed Assets are available in the first coding segment (Dimension 1) with a prefix "FA" as default in MediusFlow.</p> <p>If Maintenance codes are used on Fixed Assets, they are transferred as dimension values in Dimension 12 in MediusFlow.</p>	<p>The criteria for transferring Fixed Assets to MediusFlow:</p> <ul style="list-style-type: none"> • A prefix is required, defined on MediusFlow Setup page • Must have a Fixed Assets Depreciation Book <p>Must have a valid account in "Acquisition Cost Account" in Fixed Assets Posting Group</p>
Item Charges	YES		<p>Item Charges are transferred. They will be available in the first coding segment (Dimension 1) with a prefix "IC" as default in MediusFlow.</p>	<p>The criteria for transferring Item Charges to MediusFlow:</p> <ul style="list-style-type: none"> • A prefix is required, shall be defined on MediusFlow Setup page

Master Data Entity	Basic Setup	Custom Setup	Description	Known Limitations
VAT Business Posting Group (VAT BPG)	YES		VAT Business Posting Group with references to Tax codes are transferred	<p>The criteria for transferring VAT BPG to MediusFlow:</p> <ul style="list-style-type: none"> No specific, all VAT Business Posting Groups are transferred <p>Empty/blank VAT BPG values are not transferred</p>
VAT Product Posting Group (VAT PPG)	YES		VAT Prod. Posting Group with references to Tax codes are transferred	<p>The criteria for transferring VAT PPG to MediusFlow:</p> <ul style="list-style-type: none"> Only valid posting groups in VAT Posting Setup are transferred, which means: <ul style="list-style-type: none"> VAT PPG are required to have either "Purchase VAT Account" not empty/blank OR "VAT %" is 0 in VAT Posting Setup <p>For "VAT Calculation Type" equal to "Reverse Charge VAT" and "VAT %" is not 0 in VAT Posting Setup it will be transferred as two VAT PPGs; one with positive VAT % and one with negative VAT % to MediusFlow</p> <p>Empty/blank VAT PPG values are not transferred</p>
Payment Terms	YES		Payment terms are transferred to be able to calculate due date on invoice in MediusFlow if not imported on document	<p>The criteria for transferring Payment Terms to MediusFlow:</p> <p>No specific, all Payment Terms are transferred</p>

Master Data Entity	Basic Setup	Custom Setup	Description	Known Limitations
Vendors (Suppliers)	YES		Vendors are transferred and set to inactive in MediusFlow for all "Blocked" values except "None" (empty value).	<p>If Vendor Bank Account is configured to be used in the integration to fetch the supplier identifiers, all Bank Accounts are transferred as supplier identifiers to MediusFlow if more then one exists in NAV.</p> <p>Note: For customers using the Swedish Localization in the NAV integration, the Bank Giro numbers together with all the Bank Account Numbers will be transferred as supplier identifiers to MediusFlow.</p>
Vendor Item Numbers	YES		<p>The vendor item numbers for non-blocked items are transferred to an item table.</p> <p>This table is used as a cross reference table in connection between purchase order lines and invoice lines in MediusFlow.</p>	<p>The criteria for transferring Items and Vendor Items to MediusFlow:</p> <ul style="list-style-type: none"> • "Gen. Prod. Posting Group" is not empty/blank • "VAT Prod. Posting Group" is not empty/blank • "Vendor Item No" in Item table is not empty/blank • "Vendor No" in Item table is not empty/blank • Vendor needs to be active • Initial load excludes inactive (Blocked) items • Additional requirement for Vendor Items: <ul style="list-style-type: none"> • "Vendor Item No" in Item Vendor table is not empty/blank • Vendor in Item Vendor table needs to be active

Master Data Entity	Basic Setup	Custom Setup	Description	Known Limitations
Purchase Orders	YES		<p>Released Purchase Orders and Purchase Order Lines are transferred.</p> <p>Integration has the possibility to be configured to support factoring scenarios. This will transfer the Purchase Orders with the "Pay-To Vendor" instead of "Buy-from Vendor" as the supplier data to MediusFlow. Means the same supplier as on the invoice to be matched in MediusFlow.</p>	<p>The criteria for transferring a Purchase Order head and line to MediusFlow:</p> <ul style="list-style-type: none"> • "Document Type" must be "Order" on header • Status not "Open" • Purchase Order Line must have: <ul style="list-style-type: none"> ○ A General Posting Setup with a valid combination of "Gen. Bus. Posting Group" and "Gen. Prod. Posting Group" with: <ul style="list-style-type: none"> ▪ A "Purch. Account" must be set AND Purchase Order line must have Type = "Item" OR Purchase Order line Type not empty/blank • In initial load we do not transfer fully invoiced Purchase Orders in version NAV 2013, NAV 2015, NAV 2016 and NAV 2017, means criteria: <ul style="list-style-type: none"> ○ Purchase Order Line "Quantity Received" is not 0 OR Deviation between Purchase Order Line Quantity and Purchase Order Line "Quantity Invoiced" is not 0

Master Data Entity	Basic Setup	Custom Setup	Description	Known Limitations
Goods Receipts	YES		<p>Integration transfers Goods Receipt Lines for matching those to order based invoices in MediusFlow</p> <p>Goods Receipt Lines with Free of Charge items are transferred with unit price 0 and can be used to connect to invoices in MediusFlow</p> <p>Rejected Posted Purchase Receipt Lines (NAV command called Undo Receipt) are summarized with the delivered quantity on the Purchase Receipt Line. This means that if a Purchase Receipt Line is fully undone in NAV, it will get 0 in delivered quantity in MediusFlow to be matched correctly to invoice(s).</p>	<p>The criteria for transferring a Goods Receipt Line to MediusFlow:</p> <ul style="list-style-type: none"> • Same criteria as for Purchase Order head and line and additional criteria: <p>Receipt Order Line with Quantity > 0</p>

Master Data Entity	Basic Setup	Custom Setup	Description	Known Limitations
Purchase Return Orders	YES		<p>Released Purchase Return Orders and Purchase Return Orders Lines are transferred.</p> <p>Integration has the possibility to be configured to support factoring scenarios. This will transfer the Purchase Orders with the "Pay-To Vendor" instead of "Buy-from Vendor" as the supplier in MediusFlow. Means the same supplier as on the invoice to be matched in MediusFlow.</p>	<p>The criteria for transferring a Purchase Return Order head and line to MediusFlow:</p> <ul style="list-style-type: none"> • "Document Type" must be "Return Order" on header • Status not "Open" • Return Order Line must have: <ul style="list-style-type: none"> ○ A General Posting Setup with a valid combination of "Gen. Bus. Posting Group" and "Gen. Prod. Posting Group" with: <ul style="list-style-type: none"> ▪ A "Purch. Account" must be set AND Return Order line must have Type = "Item" OR Return Order Line Type not empty/blank • In initial load we do not transfer fully invoiced Purchase Orders in version NAV 2013, NAV 2015, NAV 2016 and NAV 2017, means criteria: <ul style="list-style-type: none"> • Purchase Order Line "Return Qty. Shipped" is not 0 OR Deviation between Return Order Line Quantity and Return Order Line "Quantity Invoiced" is not 0

Master Data Entity	Basic Setup	Custom Setup	Description	Known Limitations
Return Shipments	YES		<p>Integration transfers Return Shipment Lines for matching those to negative order based invoices in MediusFlow</p> <p>Rejected Posted Return Shipment Lines (NAV command called Undo Return Shipment) are summarized with the shipped quantity on the Posted Return Shipment Line. This means that if a Posted Return Shipment Line is fully undone in NAV, it will get 0 in shipped quantity in MediusFlow to be matched correctly to invoice(s).</p>	<p>The criteria for transferring Return Shipment Lines to MediusFlow:</p> <ul style="list-style-type: none"> • Same criteria as for Return Order head and line and additional criteria: • Return Shipment Line with Quantity > 0
Accrual Accounting / Deferral Templates	YES		<p>The Accrual templates can be used in MediusFlow to apply on coding lines on invoice and then applied as accrual postings when the invoice is posted in NAV.</p> <p>It is possible to set the Start Date for the accrual accountings done in MediusFlow and the integration will apply it on the invoice posted in NAV</p>	<p>The criteria for transferring Deferral Templates to MediusFlow:</p> <ul style="list-style-type: none"> • No specific, all Deferral Templates are transferred <p>For NAV 2009, NAV 2013, NAV 2015, Accrual Templates must be manually created in MediusFlow.</p>

4 Message Exchange

Posting Scenarios	Basic Setup	Custom Setup	Description
Preliminary and final posting of invoices sent from MediusFlow	YES		<p>Preliminary posting / Inward registration and final posting of invoices</p> <p>Note: Available for NAV SE versions only or as customization. Support for SweBase AddOn.</p>
Only final posting of invoices sent from MediusFlow	YES		<p>Only final posting (no preliminary / inward registration)</p> <p>Note: Available for both NAV SE and W1 versions</p>
Invalidation (cancellation) of preliminary posted invoices	YES		<p>Cancellation of preliminary posted invoice</p> <p>Note: Available for NAV SE versions only or as customization</p>
Final posting of invoices with accrual accounting	YES		<p>Accrual accounting to allocate cost on different periods/months</p> <p>In NAV 2016 and NAV 2017 the accrual functionality is changed to the standard deferrals functionality in NAV</p> <p>The start date set on an accrual accounting in MediusFlow will be the starting date of the deferral schedule in NAV.</p> <p>Note: For NAV 2009, NAV 2013, NAV 2015, accrual accounting is available for NAV SE versions only or as customization</p>
3-way matching of order based invoices sent from MediusFlow	YES		<p>Support for handling deviations in MediusFlow according to deviation setting "Split proportional".</p> <ul style="list-style-type: none"> • Invoice is matched against several goods receipts on line detail level. One unit price deviation exists. Approved deviation is distributed based on connected amount over the connected goods receipts. • Support for Price List if used in NAV in invoice posting process • Fetching goods receipt lines with Free of Charge items is supported in integration posting process • If Item Charges is coded on an invoice the integration will split the cost on all purchase order lines. Further functionality of Item Charges is not supported. • Integration supports matching on orders using item tracking in NAV

Posting Scenarios	Basic Setup	Custom Setup	Description
Invoice match with purchase return orders	YES		Matching invoices to the return order documents in NAV
Actual payment date response	NO		The actual payment date, when the total amount on invoice is paid, is fetched from the posted invoice in NAV and sent to MediusFlow. The integration fetches the payment date information from the last Posting Date of payments for the invoice. It has to be a date in "Closed at Date" in NAV to indicate that the invoice is fully paid
Adjustment requests with block and release payments	NO		Note: 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 NAV
Procurement invoice (Procurement module)	YES		Invoice is posted as Expense invoice in NAV
Replace invoice line description with accounting comment	YES		Use comment in NAV on coding line from MediusFlow
Add link to Invoice document in MediusFlow in NAV	YES		Link to document in MediusFlow, user must authenticate

5 Regional Compliance

The integration package is used by customers in about 20 different countries worldwide. Any country specific legal requirements, including but not limited to VAT compliance requirements, must be analyzed 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.

6 NAV Integration Requirements

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

1. **An integration server is required**
 - The server needs to be set up by customer to host the Medius Integration Gateway (MIG) application used in the integration
 - The technical requirements for this server is described in the General Integration Requirements for MediusFlow.
2. **A user account used by the integration service**
 - This user account needs to be configured with the following permissions:
 - Access to the NAV Web Service
 - Permissions to post Invoices in NAV
 - Permissions to read data from the NAV database (necessary for both master data transfer and invoice posting process)
3. **Web Service activation and configured**
 - **NAV 2009** requires the Windows service for NAV Web Service to be active and configured
4. **Change Log activation, maintenance and configuration**
 - For **NAV 2013, NAV 2015, NAV 2016 and NAV 2017** it is a requirement that the Change Log function in NAV is activated.
 - **Note:** It is the customer or NAV vendor/partner who is responsible for activating the Change Log in NAV.
 - It is recommended that the customer or NAV vendor/partner sets up a scheduled maintenance clean up job on the Change Log to only keep log records from the latest 30 days.
 - The Change Log is used by the integration for the following master data tables:
 - Currency Exchange Rate
 - Default Dimension
 - Deferral Template
 - Dimension Value
 - Dimension Value Combination
 - Item Charge
 - Item Vendor
 - Job Task
 - Maintenance
 - Payment Terms
 - Purchase Header
 - Purch. Rcpt. Line
 - Return Shipment Line
 - VAT Business Posting Group
 - VAT Posting Setup

6.1 Medius Integration Consultant User Access to Client

The MediusFlow Integration Consultant should have the following permissions:

<p>A user account that:</p> <ul style="list-style-type: none">• Has access to the NAV application to be able to configure the MediusFlow integration setup card in NAV client
<p>For NAV versions NAV 2009, NAV 2013, NAV 2015 the following access is required.</p> <p>Note: The access below could be useful in troubleshooting purposes for NAV 2016 and NAV 2017 but it is not required.</p>
<p>In NAV Development Client:</p> <ul style="list-style-type: none">• User must have the role SUPER in NAV to compile and adjust integration objects in the NAV client• User must have necessary client permissions to NAV tables and functions used for registration and posting of invoices as well as validating master data <p>For NAV Database:</p> <ul style="list-style-type: none">• CREATE/ALTER TABLE permission is required to create/modify integration objects for MediusFlow integration