M3 Business Engine BODs Installation and Configuration Guide

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M3 Business Engine BODs Installation Overview

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What is an M3 BE BOD?

M3 Business Engine Business Object Document (M3 BE BOD) is a solution that is designed to achieve a standardized interoperability between systems used within a company's infrastructure. M3 BE BODs are based on an Infor standardized subset of the architecture set by Open Application Group Integration Specification (OAGIS). A BOD contains a pre-defined business message structure as well as an information to tell the receiver what information that is included. The BOD structure also allows for a standardized two-way communication between sender and receiver to be able to communicate status and error conditions. Thanks to the use of this global architecture, Infor achieves a common understanding of both usage and content of the created BODs. Systems that has adopted the standard can easily be integrated to each other without the need for the, otherwise normally needed, modifications and projects to create the technical integration.

Infor systems, that has adopted this standard, uses Infor ION as the common mechanism to transport BODs throughout the company infrastructure. This means that any system connected to ION can listen to BODs sent by any other system, and in this way can be synchronized easily with the item information, for instance, controlled by another system, that is the System Of Record (SOR). Thanks to the use of the standardized transportation, none of the systems that consumes or creates BODs need to be aware of the other participants of the infrastructure. This none-awareness eliminates a large hurdle in achieving an integration that otherwise requires a large project to solve and thus further simplifies the work to integrate systems.

About This Guide

This guide provides information on installing and configuring M3 BE Business Object Documents (M3 BE BODs), including configuration guidelines for incoming and outgoing partner agreements.

Knowledge Prerequisites

Installing and configuring M3 BE BODs should be performed by consultants who have previous experience in the following products (listed in the order of priority):

- installing and configuring messages in M3 Enterprise Collaborator (MEC)
- using MEC Mapping Manager and the Partner Administarion Tool.
- installing and configuring applications in the Lawson Grid
- installing and configuring the M3 Business Engine and M3 Foundation

System Requirements

The following software components must be installed before installing this product.

Component	Notes
M3 Business Engine	For detailed information, refer to *M3 Business Engine and M3 Foundation Installation Guide*.
M3 Foundation	For detailed information, refer to *M3 Business Engine and M3 Foundation Installation Guide*.
Lawson Grid	For detailed information, refer to *Lawson Grid Installation Guide*.
M3 Enterprise Collaborator	For detailed information, refer to *M3 Enterprise Collaborator Server and Client Tools Installation Guide*.

For the complete list of required software components, refer to the *M3 Business Engine BODs Release Notes*.

Process Overview

Task	Notes

1	Verify the pre-installation requirements	See instructions in "Installing M3 Business Engine BODs" on page 8 .
2	Download and Deploy M3 BE BODs	See instructions in "Installing M3 Business Engine BODs" on page 8.
3	Complete the post-installation steps	See instructions in "Post Installation" on page 12 .
4	Configure partner agreements	See instructions in "Generic Partner Agreement Configuration Settings" on page 22 .
5	Set up data translation, when applicable	See instructions in "Data Translations Settings for Business Messages" on page 35 .

Installing M3 Business Engine BODs

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Before you start Use the following verification checklist before start installing M3 BE BODs in the M3 Enterprise Collaborator (MEC) Mapping Manager.

- Verify that the required fixes for the latest version of M3 BE BODs are installed. For the complete list of fixes, refer to the *M3 Business Engine BODs Release Notes*.

  Information about how to install fixes can be found in the respective product installation guides, available on the product download pages.
- Verify your Partner Administration Tool and MEC Mapping Manager Installation. For further information, refer to the *M3 Enterprise Collaborator Server and Client Tools Installation Guide*.
- Verify that you have the latest version of the EventHub installed. For further information about the installation, refer to the *Lawson Grid Extensions Installation and Administration Guide*, available on the product download pages.
- Verify that MEC and EventHub is running on the same Grid.

Important: Installing M3 BE BODs are based on common mapping processes in the M3 Enterprise Collaborator Mapping Manager. It is recommended to review the following documents prior or during the installation process:

- *M3 Enterprise Collaborator Mapping Manager User Guide*
- *M3 Enterprise Collaborator Partner Admin Tool User Guide*

Downloading M3 BE BODs

The following components available on the download page will be required for your installation.

Download page	Product name	Contains
Business Object Documents (BODs) for M3 Business Engine	Mappings and rules for M3 BE BODs	M3BEBOD_[version nr].zip

Note: Save and unpack the installation file before proceeding with the installation.

Installing Rules Packages in EventHub

Proceed with the following steps to install Rules Packages in Event Analytics.

___**1** In the Lawson Grid, open the Grid Management pages, and navigate to your EventHub installation.

___**2** Open the Management Pages for EventHub and navigate to Event Analytics > Rules Package.

___**3** Browse to the folder where the downloaded Rules Packages are located.

Select the rules package (with extension name of .rulespack) to install.

___**4** Click Install selected file. You can follow the installation stages at the Install result dialog.

___**5** After installation is complete, the installation results are shown.

___**6** To install further rules packages, navigate to Main Page and repeat the installation process above.

___**7** To verify the installation, navigate back to Event Analytics page. The installed rules packages are displayed as different sessions, in status started.

Important: The rules are activated by default. You need to stop the rules until they are ready to be used.

Importing M3 BE BODs into M3 Enterprise Collaborator Mapper Tool

Proceed with the following steps to add the compressed BOD mapping file (called *.zap) into a M3 Enterprise Collaborator (MEC) Mapping Project.

❑ Creating a New MEC Mapping Project

- Start Eclipse and navigate to File > New > Other.
- Choose MEC Mapping – MEC Mapping Project… Click Next.

- On New Mapping Project window, type the project name M3BE[version nr]_BOD_[version nr] and click Finish.
- Verify that the newly created project is listed in the Package Explorer tab on the left pane.

  Note: You can create several MEC Mapping Projects and later select the project where you want to place your Mappings.

❑ Importing Mappings

- In Eclipse, navigate to File > Import.
- Select MEC Mapping > Archive File. Click Next.
- On Import Mapping window, click Browse to select the folder location of the target project, and to navigate to the compressed BOD mapping file (called *.zap), respectively. Click Finish.

A Successful archive file import is shown in the Package Explorer tree view. Repeat the steps above until all Mappings are imported into the M3 Enterprise Collaborator Mapping Manager.

Deploying M3 BE BODs in M3 Enterprise Collaborator (MEC)

To use a mapping, save it first to the M3 Enterprise Collaborator database associated with the MEC Server, and then deploy it to the MEC Server.

Before you start

- Verify the following connectivity settings for MEC Mapping:
  - MEC Database Connectivity Settings
  - MEC Server Connectivity Settings

  For detailed instructions, refer to the *M3 Enterprise Collaborator Manager User Guide*.
- Ensure that you have defined the location of a Map Generator associated with the MEC Server. For further instructions on MapGen Server Configuration settings, refer to the *M3 Enterprise Collaborator Administration Guide*.

___**1** In Eclipse, navigate to Package Explorer.

___**2** Navigate to a mapping by selecting a project and expanding the tree view.

Open the mapping by double-clicking the .map file from the expanded tree view.

The mapping is displayed in the Mapping Editor in a compressed state. The schemas are shown in hierarchical tree view.

___**3** To Save the mapping, right-click on the Mapping Editor view > Mapping Database > Save.

Select the MEC database where to save the mapping. Click Finish

___**4** To Publish the mapping, right-click on the Mapping Editor view > Server > Publish.

___**5** Select the server location where to publish the mappings. Click Next.

___**6** Select the MEC database server where to publish the mappings. Click Finish.

___**7** At the Publish Mapping Progress dialog, the publishing results are displayed. Click OK.

For further information and instructions, refer to the *M3 Enterprise Collaborator Mapping Manager User Guide*.

Post Installation

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After installing and deploying M3Business Engine BODs, you need to set up and configure the partner agreements in the M3 Enterprise Collaborator Partner Admin Tool.

Target and Target Groups Overview

A target is a unique path to a single XML element, a single XML attribute, or a single position-based field in a flat file that is used for message detection. The XML element and XML attribute is defined by its absolute XPath.

A target group is a group of XML or flat targets used for message detection. There are two different target groups, the XML targets and Flat File targets. When detecting a message envelope you have one target group that corresponds to the envelope.

The XML targets included in the target group defines all elements and/or attributes in the XML envelope that are used for detection. You can use any element in the XML document for detection, however, you do not need to use an envelope.

In flat file targets you can detect on several position-based fields in one or more records. These position-based fields are defined by the flat targets included in the target group. These records are delimited by record separators such as CRLF.

Creating XML Targets for M3 BE Outbound Messages

To add new XML targets in Partner Admin Tool, follow these steps:

Note: XML targets and target groups are generic for all M3 BE outbound messages. For detailed information about XML targets and target groups for inbound messages, see "Partner Agreement Settings when M3 BE is SOR" on page 22 and "Partner Agreement Settings when M3 BE is not SOR" on page 29.

___**1** In Partner Admin Tool, click Manage > Detections.

___**2** Navigate to Targets tab > XML tab > New.

___**3** On Create new target window, enter a unique Name, Description, and Path information.

Create the following XML targets (recommended target names and path information):

Important: Default Namespace URI fields should be left blank for all targets.

The Path for the XML element should start with a slash ("/").

- ***hub:1_publisher***

Name	hub:1_publisher
Description	Event Hub event publisher
Path	/EventData/Publisher
Default Namespace URI	

- ***hub:2_documentname***

Name	hub:2_documentname
Description	Event Hub event document name
Path	/EventData/DocumentName
Default Namespace URI	

- ***hub:4_elementname01***

Note: hub:3_ is saved for future use. Default Namespace URI should be left blank.

Name	hub:4_elementname01
Description	Event Hub event document element name #01
Path	/EventData/Document/ElementData/Name[1]

Default Namespace URI	

- ***hub:5_elementvalue01***

Name	hub:5_elementvalue01
Description	Event Hub event document element value #01
Path	/EventData/Document/ElementData/Value[1]
Default Namespace URI	

___**4** Click OK to save your new XML target. The new XML target is now listed in the XML tab contents.

Creating XML Target Groups

Use this procedure to create and arrange XML target groups.

___**1** In Partner Admin Tool, click File > Manage > Detections.

___**2** Navigate to Target Groups tab > XML tab > Create group.

___**3** Create the following Target Groups:

AnalyticsHubValue01

AnalyticsHubValue02

___**4** Click Create to store the new XML target groups in the MEC database.

___**5** Go to Target Groups > XML tab and select a Target Group from the Available Target Groups panel.

For target group **AnalyticsHubValue01**, add the following required targets from the Unused Targets pane to the Targets for Selected group pane.

- hub:1_publisher
- hub:2_documentname
- hub:4_elementname01
- hub:5_elementvalue01

For target group **AnalyticsHubValue02**, add the following required targets from the Unused Targets pane to the Targets for Selected group pane.

- hub:1_publisher
- hub:2_documentname

- hub:4_elementname01
- hub:5_elementvalue01
- hub:6_elementname02
- hub:7_elementvalue02

Click Save.

___**6** On Partner Admin Tool menu, click File > Manage > Detection.

___**7** Click on Detection Order tab.

___**8** With the help of the directional buttons, move the target groups in the following order from the **Unused** panel to the **Used** panel.

- **AnalyticsHubValue02**
- **AnalyticsHubValue01**

Setting MECEventHubSubcriber Channel Objects

The MECEventHubSubscriber channel is used to receive events (messages) that are published by other application through the Event Hub application. To be able to use MECEventHubSubscriber you need to add subscriptions. Subscriptions are predicates indicating that a subscriber is to receive a particular event.

For more information, see the *EventHub* topic in *Lawson Grid Administration Guide.*

Important: MEC and EventHub must be running on the same Grid.

___**1** To set up new receive channels, navigate to Manage > Communication > Receive tab > New in Partner Admin Tool.

___**2** Set the following properties for each M3 BE BOD receive channel below.

- **MECEventHubSubscriber Channel settings: Subscriber channels**

  Note: The name of the receive channel is used later in partner agreement set up. Add a unique, descriptive name to the receive channel.

Name	**MEC-M3_In_[BE Env Name]_Ordered**	**MEC-M3_In_[BE Env Name]_NonOrdered**
Protocols	EventHub Subscriber	EventHub Subscriber

Name	MEC-M3_In_[BE Env Name]_Ordered	MEC-M3_In_[BE Env Name]_NonOrdered
DetectionOverride Indicates if a channel is fixed to a particular detection group.	Default value: 0	Default value: 0
Ordered Activates message ordering.	Default value: 1	Default value: 0
PersistFlag Activates persistance.	Default value: 1	Default value: 1
Priority Sets the Prioritization of messages received into this channel (1-3)	3	3
RunOnHost Set to which host to run the channel.	Default value: any	Default value: any
SetVariationId Set a variation id on all incoming messages	Default value: 1	Default value: 0
StopTimeOut Number of milliseconds MEC waits during a stop before terminating the channel	Default value: 0 (disables this feature)	Default value: 0 (disables this feature)

- **MECEventHubSubscriber Channel settings: IONDbIn channels**

  Note: The name of the receive channel is used later in partner agreement set up. Add a unique, descriptive name to the receive channel.

Name	ION_In_[BE Env Name]_Ordered	ION_In_[BE Env Name]_NonOrdered
Protocols	IONDbIn	IONDbIn

Name	ION_In_[BE Env Name]_ Ordered	ION_In_[BE Env Name]_ NonOrdered
BatchSize The maximum number of messages to process at each run Default value: 50	10	Default value: 50
BODTypes A comma separated list of Bod types to handle in this instance	All inbound BODs with variation ID *Sync.BillOfMaterials*	All inbound NonSync BODs *Acknowledge.BillOfMaterials*, *Show.BillOfMaterials*, *Process.ItemMaster*, *Process.CustomerPartyMaster*, *Process.BillToPartyMaster*, *Process.PayFromPartyMaster*, *Process.SalesOrder*, *Process.ShipToPartyMaster*
ConnectionUri	The JDBC connection uri *Example:* **jdbc:sqlserver://host:port; databaseName=DB_name**	The JDBC connection uri *Example:* **jdbc:sqlserver://host:port; databaseName=DB_name**
DelayTime Default value: 10000	5000	5000
DriverClass	The JDBC driver class *Example:* **com.microsoft.sqlserver.jdbc.SQLServerDriver**	The JDBC driver class *Example:* **com.microsoft.sqlserver.jdbc.SQLServerDriver**
Ordered Indicates if a channel processes messages in an ordered way (0 or 1)	1	0

Name	ION_In_[BE Env Name]_ Ordered	ION_In_[BE Env Name]_ NonOrdered
Password for ION in/out DB	Database password	Database password
Username for ION in/out DB	Database user	Database user

___**3** When created, click OK on the dialog and mark the Enabled checkbox to make the channels available for further edit.

Managing EventHub Subscribtions

Use this procedure to set up EventHub Subscribtions and to define the order M3 Enterprise Collaborator should handle the incoming BODs.

___**1** In Partner Admin Tool, navigate to Manage > EventHub Subscriptions > New and set up the following EventHub Subscriptions for M3 BE BODs.

Important: The name of a subscription must match the name in the rule.

Example: In case

```
Event $OOHEAD_Create = new Event("SyncSalesOrder", EventOperation.CREATE)
```

the name of the subscription should be EventAnalytics:SyncSalesOrder.

Name	M3 [Noun Mapping].Show
Description	M3 Show[Noun Mapping]
Subscription	EventAnalytics:Show[Noun Mapping]

Name	M3 [Noun Mapping].Sync
Description	M3 Sync[Noun Mapping]
Subscription	EventAnalytics:Sync[Noun Mapping]

Name	M3 [Noun Mapping].Acknowledge

Description	M3 Acknowledge[Noun Mapping]
Subscription	EventAnalytics:Acknowledge[Noun Mapping]

Name	M3 [Noun Mapping].Process
Description	M3 Process[Noun Mapping]
Subscription	EventAnalytics:Process[Noun Mapping]

Note: For complete list of M3 BE BODs with Noun mapping names, see "List of Available Noun Mappings" on page 39 as a reference.

Agreement names and EventHub subscription names for outbound BODs are also available in the installation package as separate .txt.

For detailed instructions about EventHub subscription channel set up, refer to the *M3 Enterprise Collaborator Partner Admin Tool User Guide*.

___**2** After creating each subscription, assign the subscriptions to the MECEventHubSubcriber channel by editing the Subscription. Double-click on the EventHub subscriptions to assign them to the correct receive channel.

Important: Each subscription should be associated with only one subscriber channel. See recommended settings below.

EventHub subscription	Channel Assignment
M3 [Noun Mapping].Sync	MEC-M3_In_[BE environment name]_ Ordered
M3 [Noun Mapping].Show M3 [Noun Mapping].Acknowledge M3 [Noun Mapping].Process	MEC-M3_In_[BE environment name]_ NonOrdered

Note: For [BE environment name], use the name of the corresponding M3 BE environment.

For complete list of M3 BE BODs with Noun mapping names, see "List of Available Noun Mappings" on page 39 as a reference. Agreement names are also available in the installation package, in the M3BEBODs_[ver]_Agreement_names.txt file.

Creating Partner Agreement Folder Structure

A Partner Agreement contains the agreement information between you and your partners. This agreement information is needed by M3 Enterprise Collaborator (MEC) to send and receive business messages between you and your partners.

Use this procedure to create and manage partner agreements for M3 BE BODs in Partner Admin tool.

___**1** To create a new group, open Partner Admin Tool > Agreement View tab.

___**2** Right-click the Agreement area or the node within which you want to create a new group.

___**3** Click Insert Group and name the newly created folder according to the recommendations below.

Tip: It is recommended to set up the following folder names and structure:

- M3BE
  - InitialLoad - for partner agreements used for initial load agreements.
  - ION - for partner agreements where the System of Records is M3 BE
  - Application - for partner agreements where the System of Records is the application (and not M3 BE)

___**4** Add group control properties:

Control Properties Name	Value	Applicable for
ionToLogicalId	Change Value to the lid for the receiving application. Value is according to ION Connection Point lid://infor.[application name].[environment name] **Important:** This value is case sensitive and must exactly match the Logical ID value in ION Connect.	InitialLoadAgreements Application
ionFromLogicalid	lid://infor.m3be.[BE environment name]	InitialLoadAgreements ION

___**5** To create a new agreement, right-click a node and click Insert Agreement. The newly created agreement appears on the right panel.

Insert the following partner agreements for the ION and other, application specific folder:

Folder	Partner agreements
InitialLoadAgreements	M3BE_Out_Show[Noun Mapping]
ION	M3BE_Out_Sync[Noun Mapping] M3BE_In_Process[Noun Mapping] M3BE_Out_Acknowledge[Noun Mapping]
Application (for BODs where M3 BE is not SOR)	M3BE_In_Sync[Noun Mapping] M3BE_Out_Process[Noun Mapping] M3BE_In_Acknowledge[Noun Mapping]

For complete list of M3 BE BODs with Noun mapping names, see "List of Available Noun Mappings" on page 39 as a reference. Agreement names are also available in the installation package, in the M3BEBODs_[ver]_Agreement_names.txt file.

Generic Partner Agreement Configuration Settings

4

Partner Agreement Settings when M3 BE is SOR

Use the settings below as a reference to configure partner agreements in MEC Partner Admin tool where M3 BE is the System of Record. Depending on integration scenarios and the purposes to use M3 BE BODs, ýou need to setup only those partner agreements that you are planning to use.

Before you start

___**1** In Partner Admin Tool, go to Manage > Detections > Targets tab > XML tab > New > Create new target and specify the following targets (valid for all inbound BODs):

	General	Examples
Name	ION:[Verb][Noun]TenantId	ION:ProcessCustomerPartyMasterTenantId
Description	ION BOD [Verb][Noun] TenantID	ION BOD ProcessCustomerPartyMaster TenantID
Path	/[Verb][Noun]/DataArea/[Verb]/ TenantID	/ProcessCustomerPartyMaster/DataArea/ Process/TenantID
Default Namespace URI	http://schema.infor.com/ InforOAGIS/2	http://schema.infor.com/InforOAGIS/2

For nouns with data on different Divisions set the AccountingEntity target as well.

	General	Examples
Name	ION:[Verb][Noun] AccountingEntity	ION:ProcessCustomerPartyMasterAccountingEntity
Description	ION BOD [Verb][Noun] AccountingEntity	ION BOD ProcessCustomerPartyMaster AccountingEntity
Path	/[Verb][Noun]/DataArea/ Process/ AccountingEntity	/ProcessCustomerPartyMaster/DataArea/Process/ AccountingEntityID
Default Namespace URI	http://schema.infor.com/ InforOAGIS/2	http://schema.infor.com/InforOAGIS/2

Note: AccountingEntity can be targeted on the ID tag as well.

___**2** Go to Target Groups tab and create the *ION[Verb][Noun]* Target Group. Add the previoulsy created targets to this group.

___**3** Add Target Group *ION[Verb][Noun]* to the list of available detections under Detection Order tab.

Use the settings below as a reference to configure partner agreements in MEC Partner Admin tool where M3 BE is the System of Record.

For complete list of M3 BE BODs with Noun mapping names, see "List of Available Noun Mappings" on page 39 as a reference. Agreement names are also available in the installation package, in the M3BEBODs_[ver]_Agreement_names.txt file.

___**1 Basic**

Name	Name of the noun mapping, see "List of Available Noun Mappings" on page 39.
Description	Description for the agreement (Optional)
Creator	Creator of the agreement (Optional)
Email	General information (Optional)

___2 Detection

Choose Target Group *AnalyticsHubValue01* and specify the following values:

Target Name	Target XPath	Target Value
hub:1_publisher	/EventData/Publisher	EventAnalytics
hub:2_documentname	/EventData/DocumentName	[Verb][Noun Mapping]
hub:4_elementname01	/EventData/Document/ElementData/Name[1]	CONO
hub:5_elementvalue01	/EventData/Document/ElementData/Value[1]	[M3 BE Company number]

For M3BE_In_Process[Noun], set up the following detection:

Choose Target Group *ION Process[Noun]* and specify the following values:

Target Name	ION:Process[Noun Mapping]TenantID
Target XPath	/Process[Noun Mapping]/DataArea/Process/TenantID
Target Value	M3 BE Company number

Important: If you leave an empty target value, the agreement will not be detected.

___3 Applicable Processes

The table below lists the available processes for Partner Agreement Settings when M3 BE is SOR.

To modify a process, right-click the selected process area.

Process Name	Notes
Check Order	To enable MEC to handle several messages parallel, Check Order can be added. If not specified, all messages will be handled in a sequence. • To specify Check Order, click Add and insert the following value for the first Primary Key Xpath: **`/EventData/Document/ElementData[1]/Value`** • To differentiate each agreement (BOD), add as many Primary Key Xpath to the Partner agreement as the number of key fields in the corresponding master table in M3 BE: **`/EventData/Document/ElementData[2]/Value`** **`/EventData/Document/ElementData[3]/Value`** **`/EventData/Document/ElementData[4]/Value`** For the number of Primary Key XPaths, see "List of Available Noun Mappings" on page 39
Archive	Archives a message in the MEC Archive folder (recommended).
XML transform	**API Reference:** set to API reference for M3 BE environment **Schema Location:** enter the schema location for the mapping (see next table) **Note:** For incoming process mappings, use the matching acknowledge schema. **Important:** Mark the Delete empty elements during transformation checkbox **Mapping:** enter the file name for the mapping (see next table)
Apply Envelope	**Envelope template:** XML Declaration **Envelope encoding:** UTF-8
Archive	Archives a message in the MEC Archive folder (recommended).
Validate	This process will validate the outgoing XML-file with the schema in the XML transform step (optional).
Send	Choose the ION_Out channel (with IONDbOut protocol) for M3 BE environment.

Use the processes in the specified order (see below) to confgure the listed BOD types.

Tip: Schema location and Mapping names are also available in the installation package, in M3BEBODs_[ver]_Schema_locations.txt and in M3BEBODs_[ver]_Mappings.txt, respectively.

Agreement Name	Content	Applicable processes in order
M3BE_Out_ Sync[Noun]	Schema Location: http://schema.infor.com/[ver]/InforOAGIS/BODs/Developer/Sync[Noun].xsd Mapping name: M3BE14_[M3 BE Suite name]_Out_ION_ Sync[Noun]_[ver nr separated by underscore]	1. Check Order 2. Archive 3. XML transform 4. Apply Envelope 5. Archive 6. Validate 7. Send
M3BE_Out_ Show[Noun]	Schema Location: http://schema.infor.com/[ver]/InforOAGIS/BODs/Developer/Show[Noun].xsd Mapping name: M3BE14_[M3 BE Suite name]_Out_ION_ Show[Noun]_[ver nr separated by underscore]	1. XML transform 2. Apply Envelope 3. Send
M3BE_In_ Process[Noun]	Schema Location: http://schema.infor.com/[ver]/InforOAGIS/BODs/Developer/Acknowledge[Noun].xsd Mapping name: M3BE14_[M3 BE Suite name]_Out_ION_ Process[Noun]_[ver nr separated by underscore]	1. Archive 2. XML transform 3. Apply Envelope 4. Archive 5. Validate 6. Send **Note:** For M3BE_In_ ProcessItemMaster, use only the following processes: 1. Archive 2. XML transform

Agreement Name	Content	Applicable processes in order
M3BE_Out_ Acknowledge[Noun] **Important:** Valid only for nouns using batch entry in M3 BE.	Schema Location: http://schema.infor.com/[ver]/InforOAGIS/BODs/Developer/Acknowledge[Noun].xsd Mapping name: M3BE14_[M3 BE Suite name]_Out_ION_ Acknowledge[Noun]_[ver nr separated by underscore]	1. Archive 2. XML transform 3. Apply Envelope 4. Archive 5. Validate 6. Send

___**4** **Error Handling**

Important: Error Handling is only applicable for incoming partner agreements.

Order	Process Name	Notes
1	Crt ConfirmBOD	
2	Send	Choose the ION_Out channel (with IONDbOut protocol) for M3 BE environment.
3	XML transform	**API Reference:** set to API reference for M3 BE environment **Schema Location:** not specified **Mapping:** M3BE14_[M3 BE Suite name]_Error_Out_ Acknowledge[Noun]_[ver nr separated by underscore]
4	Apply Envelope	**Envelope template:** XML Declaration **Envelope encoding:** UTF-8
5	Send	Choose the ION_Out channel (with IONDbOut protocol) for M3 BE environment.

___**5** When the partner agreement setup is completed, reload the agreement information for the MEC Server in Grid > MEC Management Pages > Reload.

❑ M3 BE Settings for ProcessItemMaster

In order to receive and process M3BE_In_ProcessItemMaster, partner settings must be configured in MMS865 for M3 BE.

Important: These steps are only valid for M3BE_In_ProcessItemMaster.

___**1** Set a valid Item type with Template item and Item numbering rule according to the following:

- CRS040 – Item type

  The item type should be set with status 10 in CRS040/E
- MMS001/MMS002/MMS003 – Template item
- MWS050 and MWS051 – Item Numbering rule

___**2** In **MMS865/B**, use the following settings:

Whs	Leave blank
Msg	Set to I
Partner	Set to the ION componentID of the system that sends the ProcessItemMaster. Currently, only PLM is valid.
Msg type	Set to BOD

___**3** In **MMS865/E**, use the following settings:

Partner manager	Set to the M3 user that is managing the partner settings for this record
Default Item type	Set to the item type that will control which data is the default per item and how the item numbering is done.

❑ M3 BE Settings for CustomerStructure

In order to receive and process the following partner agreements, you must create a specific template customer in M3 BE.

- M3BE_In_ProcessCustomerPartyMaster
- M3BE_In_ShipToPartyMaster
- M3BE_In_BillToPartyMaster
- M3BE_In_PayFromPartyMaster

___**1** In **CRS610** create the new customer IONCUST with following settings:

Customer Type = 0

___**2** Fill in all mandatory fields and make sure that status is set to 20.

Important: Do not add an Invoice recipient or Payer.

Partner Agreement Settings when M3 BE is not SOR

Use the settings below as a reference to configure partner agreements in MEC Partner Admin tool where M3 BE is not the System of Record. Depending on integration scenarios and the purposes to use M3 BE BODs, ýou need to setup only those partner agreements that you are planning to use.

Before you start

___**1** In Partner Admin Tool, go to Manage > Detections > Targets tab > XML tab > New > Create new target and specify the following targets (valid for all inbound BODs):

	General	**Examples**
Name	ION:[Verb][Noun]TenantId	ION:SyncBillOfMaterialsTenantId
Description	ION BOD [Verb][Noun] TenantID	ION BOD SyncBillOfMaterials TenantID
Path	/[Verb][Noun]/DataArea/[Verb]/ TenantID	/SyncBillOfMaterials/DataArea/Sync/ TenantID
Default Namespace URI	http://schema.infor.com/ InforOAGIS/2	http://schema.infor.com/InforOAGIS/ 2

For nouns with data on different Divisions set the AccountingEntity target as well.

	General	**Examples**
Name	ION:[Verb][Noun] AccountingEntity	ION:SyncBillOfMaterialsAccountingEntityId
Description	ION BOD [Verb][Noun] AccountingEntity	ION BOD SyncBillOfMaterials accountninEntity
Path	/[Verb][Noun]/DataArea/ Process/ AccountingEntity	/SyncBillOfMaterials/DataArea/ BillOfMaterials/BillOfMaterialsHeader/ DocumentID/ID[@accountingEntity]
Default Namespace URI	http://schema.infor.com/ InforOAGIS/2	http://schema.infor.com/InforOAGIS/2

Note: AccountingEntity can be targeted on the ID tag as well.

___**2** Go to Target Groups tab and create the *ION[Verb][Noun]* Target Group. Add the previoulsy created targets to this group.

___**3** Add Target Group *ION[Verb][Noun]* to the list of available detections under Detection Order tab.

Use the settings below as a reference to configure partner agreements in MEC Partner Admin tool where M3 BE is *not* the System of Record.

For complete list of M3 BE BODs with Noun mapping names, see "List of Available Noun Mappings" on page 39 as a reference. Agreement names are also available in the installation package, in the M3BEBODs_[ver]_Agreement_names.txt file.

___1 Basic

Name	Name of the mapping, see "List of Available Noun Mappings" on page 39.
Description	Description for the agreement (Optional)
Creator	Creator of the agreement (Optional)
Email	General information (Optional)

___2 Detection

Choose Target Group *ION[Verb][Noun]* and specify the following values:

Target Name	Target XPath	Target Value
ION:Sync[Noun]AccountingEntityId	/[Verb][Noun]/DataArea/[Noun]/[Noun]Header/DocumentID/ID[@accountingEntity]	[M3 BE Division]
ION:Sync[Noun]TenantId	/[Verb][Noun]/DataArea/Sync/TenantID	[M3 BE Company number]

For M3BE_Out_Process[Noun], set up the following detection:

Choose Target Group *AnalyticsHubValue01* and specify the following values:

Target Name	Target XPath	Target Value
hub:1_publisher	/EventData/Publisher	EventAnalytics
hub:2_documentname	/EventData/DocumentName	Process[Noun]_update
hub:4_elementname01	/EventData/Document/ElementData/Name[1]	CONO
hub:5_elementvalue01	/EventData/Document/ElementData/Value[1]	M3 BE Company number

Important: If you leave an empty target value, the agreement will not be detected.

___3 Applicable Processes

The table below lists the available processes for Partner Agreement Settings when M3 BE is not SOR.

To modify a process, right-click the selected process area.

Process Name	Notes
Check Order	**Default Namespace:** http://schema.infor.com/InforOAGIS/2 **Default Namespace Prefix:** dns To enable MEC to handle several messages parallel, Check Order can be added. If not specified, all messages will be handled in a sequence. • To specify Check Order, click Add and insert the following value for the first Primary Key Xpath: **Xpath: `/dns:Sync[Noun]/dns:DataArea/dns:Sync/dns:TenantID`** **No Attribute Existing:** Leave blank **Xpath: `/dns:Sync[Noun]/dns:DataArea/dns:[Noun]/dns:[Noun]Header/dns:DocumentID/dns:ID`** **No Attribute Existing:** schemeName **Xpath: `/dns:Sync[Noun]/dns:DataArea/dns:[Noun]/dns:[Noun]Header/dns:DocumentID/dns:ID[@location]`** **No Attribute Existing:** schemeName **Xpath: `/dns:Sync[Noun]/dns:DataArea/dns:[Noun]/dns:[Noun]Header/dns:DocumentID/dns:ID[@accountingEntity]`** **No Attribute Existing:** schemeName **VID Xpath: `/dns:Sync[Noun]/dns:DataArea/dns:[Noun]/dns:[Noun]Header/dns:DocumentID/dns:ID[@variationID]`** **VID No Attribute Existing:** schemeName • To differentiate each agreement (BOD), add as many Primary Key Xpath to the Partner agreement as the number of key fields in the corresponding master table in M3 BE: **`/EventData/Document/ElementData[2]/Value`** **`/EventData/Document/ElementData[3]/Value`** **`/EventData/Document/ElementData[4]/Value`**
Archive	Archives a message in the MEC Archive folder (recommended).
XML transform	**API Reference:** set to API reference for M3 BE environment **Schema Location:** not specified **Mapping:** enter the file name for the mapping (see table below)

Process Name	Notes
Apply Envelope	**Envelope template:** XML Declaration **Envelope encoding:** UTF-8
Archive	Archives a message in the MEC Archive folder (recommended).
Send	Choose the ION_Out channel (with IONDbOut protocol) for M3 BE environment.

Use these processes in the specified order (see below) to confgure processes for the listed BOD types.

Tip: Schema location and Mapping names are also available in the installation package, in M3BEBODs_[ver]_Schema_locations.txt and in M3BEBODs_[ver]_Mappings.txt, respectively.

Name	Content	Applicable processes in order
M3BE_In_Sync[Noun]	Schema Location http://schema.infor.com/[ver]/InforOAGIS/BODs/Developer/Sync[Noun].xsd Mapping name M3BE14_[M3 BE Suite name]_In_ION_Sync[Noun]_[ver nr separated by underscore]	1. Check Order 2. Archive 3. XML transform
M3BE_Out_Process[Noun]	Schema Location http://schema.infor.com/[ver]/InforOAGIS/BODs/Developer/Process[Noun].xsd Mapping name M3BE14_[M3 BE Suite name]_Out_ION_Process[Noun]_[ver nr separated by underscore]	1. Archive 2. XML transform 3. Apply Envelope 4. Archive 5. Send

Name	Content	Applicable processes in order
M3BE_In_ Acknowledge[Noun]	Schema Location http://schema.infor.com/[ver]/ InforOAGIS/BODs/Developer/ Acknowledge[Noun].xsd Mapping name M3BE14_[M3 BE Suite name]_In_ ION_Acknowledge[Noun]_[ver nr separated by underscore]	1. Archive 2. XML transform

___**4 Error Handling**

Important: Error Handling is only applicable for incoming partner agreements.

Order	Process Name	Notes
1	Crt ConfirmBOD	
2	Send	Choose the ION_Out channel (with IONDbOut protocol) for M3 BE environment.

___**5** When the partner agreement setup is completed, reload the agreement information for the MEC Server in Grid > MEC Management Pages > Reload.

Data Translations Settings for Business Messages

5

M3 Business Message Data Translations is a function that translates soft coded M3 BE data to standards that can be understood by external systems, such as ION.

Note: Data translation is not needed when the M3 BE data is entered according to internationally acknowledged standards (ISO, X-12 EDI, etc.).

You can set M3 Business Message Data Translations in CRS881 and CRS882 in M3 BE.

- CRS881 stores the header data for information that should be translated. This is generated via MBMTRNUpdate in MEC Utilities client, available from your MEC installation.
- CRS882 stores the actual translation data. The date must be manually entered into M3 BE.

Entering or Editing Translation Data

Follow these steps below to set up data translation in CRS882 in M3 BE.

For data that is valid for the entire M3 BE company, data must be entered in company / *blank division. If data is different per division, enter data for specific company / division.

Important: The translation data information must be entered for the correct company/division.

___**1** Run the MEC client tool MBMTrnUpdate.cmd for the valid API reference to populate CRS881 with correct header data.

___**2** Open CRS881 and filter on **Msg standard** ION to show all possible records generated from the delivered BODs.

Message	I/O	Parent element	Data element
Generic	I	Generic	UOMCode
Generic	I	Generic	CountryCode

Message	I/O	Parent element	Data element
Generic	O	Generic	CountryCode
Generic	O	Generic	Currency
Generic	O	Generic	UOMCode
Generic	O	Generic	languageCode
BillofMaterials	I	BillOfMaterialsHeader/status	Code
BillofMaterials	I	BillOfMaterialsLine/quantity	unitcode
BillofMaterials	O	BillOfMaterialsHeader/status	Code
BillofMaterials	O	BillOfMaterialsLine/quantity	unitcode
BillofMaterials	O	BillOfMaterialsLine/status	Code

___**3** Select and right-click a business message and choose Related Options > Translate CTRL+11.

CRS882 opens.

___**4** In CRS882/B1, enter the M3 BE data and Message Data

___**5** Click "Create" or select Options > Create

- For **Translation of Language Codes**, add one record for each of the languages you want to translate in CRS882-panel for Company / *blank division.
  - The M3 BE data field should contain the M3 language code.
  - The Message data field should contain the corresponding language code according to ISO 639-1 standard.
- For **Translation of Unit Of Measures**, add one record for each of Unit of Measures you want to translate in CRS882-panel for Company / *blank division.
  - The M3 BE data field should contain the M3 BE Unit of Measure.
  - The Message data field should contain the corresponding Unit Of Measure Code according to X-12 EDI standard.

  Note: Data translation settings must be performed for both incoming and outgoing messages.
- For **Translation of Country Codes**, add one record for each country code you want to translate in CRS882-panel for Company / *blank division.
  - The M3 BE data field should contain the M3 BE Unit of Measure.
  - The Message data field should contain the corresponding Country Code according to ISO 3166-1 standard.

Note: Data translation settings must be performed for both incoming and outgoing messages.

- For **Translation of Currency**, add one record for each Currency you want to translate in CRS882-panel for Company / *blank division.
  - The M3 BE data field should contain the M3 BE Currency.
  - The Message data field should contain the corresponding Currency code according to ISO 4217 standard.

___**6** In CRS882/E, enter the Name and Description. Press Next.

Repeat these steps for each M3 BE BOD where data translation is applicable.

M3 BE Data Translation Settings for SyncBillOfMaterials

Use these settings below to set up data translation for SyncBillOfMaterials in CRS882.

Msg standard: ION

Business msg: BillOfMaterials

Parent element: BillOfMaterialsHeader/Status/

Data element: Code

M3 BE data	Message data	Name for messages sent to M3	Name for messages sent from M3
10	Pending	Preliminary	*na*
10	Inactive	Preliminary	Preliminary
20	Active	Released	Released
20	Open	Released	*na*
90	Deleted	Blocked	Blocked

Data Export via M3 Business Engine BODs: Initial Load Scenario

6

Data Export via M3 BE BODs: Initial Load Scenario

To populate another system connected to ION, use the non-event driven scenario for initial load for M3BE_Out_Show[Noun Mapping].

___**1** In M3 BE, BE programs create a request event on the master table for the specific noun (see "List of Available Noun Mappings" on page 39 as a reference). After that, the normal architecture for BODs are used.

___**2** To initiate a initial load for a noun, use MI-program – EVS002MI in MI-Test or via M3-API-WS http://<serveraddress>:port/m3api-rest/execute/EVS002MI/Initiate?FILE=<file>

Important: Initial Load for large tables (with more than 10.000 records) takes long time. It is recommended to run only one table a time. Ensure to have enough disk space in the MEC DB to expand during initial load

___**3** To start an export of data, use the MI transaction **`Initiate`** with the following parameters:

`FILE`	Mandatory It is the master table for a specific BOD, see "List of Available Noun Mappings" on page 39 as a reference.
`NOAL`	Number of actions To be used for testing purposes and to limit the number of requests for the FILE.

M3 Business Engine BOD Nouns

A

List of Available Noun Mappings

List of Available Noun Mappings where M3 BE is System of Records (SOR)

Name	Noun Mapping	Number of Primary Key XPaths	File (Table) for M3BE_Out_Show[Noun Mapping]
M3BE_Out_Sync[Noun Mapping] M3BE_Out_Show[Noun Mapping]	AccountingBookDefinition	4	CMNDIV
	AccountingChart	2	CSYTAB
	AccountingEntity	2	CMNDIV
	AccountingJournal	4	CSYTAB
	AssetMaster	4	FFASMA
	BillToPartyMaster	2	OCUSMA
	CarrierParty	2	CIDMAS
	ChartOfAccounts	4	FCHACC
	CodeDefinitionDeliveryTerms	5	CSYTAB
	CodeDefinitionDimension	5	FCHACC
	CodeDefinitionGeneralCode	5	CSYTAB
	CodeDefinitionPaymentTerms	5	CSYTAB
	Currency	5	CSYTAB
	CurrencyExchangeRateMaster	5	CCURRA
	CustomerPartyMaster	2	OCUSMA
	CustomerReturn	4	OCHEAD
	FinancialCalendar	5	CSYPER

Name	Noun Mapping	Number of Primary Key XPaths	File (Table) for M3BE_Out_Show[Noun Mapping]
	InventoryAdjustment	6	MITTRA
	InventoryCount	3	MITTKV
	InventoryHold	6	MITTRA
	InvoiceCustomerOrder	5	OINVOH
	ItemMaster	2	MITMAS
	Location	2	MITWHL
	PayFromPartyMaster	2	OCUSMA
	PayableTransaction	9	FPLEDG
	Person	3	CMNUSR
	PurchaseOrder	2	MPHEAD
	Quote	5	OOQUOH
	ReceivableTransaction	9	FSLEDG
	ReceiveDelivery	5	MPLIND
	RemitToPartyMaster	2	CIDMAS
	SalesOrder	2	OOHEAD
	Shipment	2	DCONSI
	ShipmentDelivery	3	MHDISH
	ShipFromPartyMaster	2	CIDMAS
	ShipToPartyMaster	2	OCUSMA
	SourceSystemGLMovement	2	FBAKEY
	SourceSystemJournalEntry	5	FGLEDG
	SupplierPartyMaster	2	CIDMAS

Name	Noun Mapping	Number of Primary Key XPaths	File (Table) for M3BE_Out_Show[Noun Mapping]
M3BE_In_Process[Noun Mapping] M3BE_Out_Acknowledge[Noun Mapping]	BillToPartyMaster CustomerPartyMaster ItemMaster PayFromPartyMaster SalesOrder ShipToPartyMaster	not applicable	not applicable

List of Available Noun Mappings where M3 BE is not System of Records

Name	Noun Mapping
M3BE_Out_Process[Noun Mapping] M3BE_In_Acknowledge[Noun Mapping] M3BE_In_Sync[Noun Mapping]	BillOfMaterials