



M3 Enterprise Collaborator Administration Guide

Version 11.4.2.0

Published May 6, 2014

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Publication Information

Release: 11.4.2.0

Publication date: May 6, 2014

Document Number: MECAG_11.4.2.0_W_01

Version Log

The version log describes the changes between versions of this document.

Part Number	Release Date	Description
MECAG-11420W-01	201312	Updated for version 11.4.2.0 Added Setting up Custom Files procedure. Added Error handling, Agreement Retry/Redetect messages link, Enabling/Disabling scheduler, Error Aggregation Task on the scheduler for Error handling, and maintenance by Partner, Agreement, and messages status.
MECAG-11410W-01	201308	Updated for version 11.4.1.0 Added the following: New properties for MapGenServer Data bridge in Setting Runtime Controls New M3API/MI properties Configuring MEC Properties Added new properties Setting TaskPage , Setting ViewMessageLogsPage , Setting ProxyTimeout and Date Format Mapper lifecycle MEC Management Overview Updated the following: Accessing HTML-based MEC Management Page , Accessing MEC Local Management Pages , Accessing MEC Monitor Page , Accessing MEC Configuration Page Removed ODBC and JDBC sections.
MECAG-11400W-01	201305	For version 11.4.0.0
MECAG-10400W-01	201305	For version 10.4.0.0
MECAG-10300W-01	201208	Updated for version 10.3.0.0 Updated the following: Scheduling Schedules Overview API Configuring MEC Properties API Mapper New MEC Application properties Setting Database Properties

Part Number	Release Date	Description
		MEC Management security MEC Management Overview
		Order page MEC Management Overview
		Data translator MEC Management Overview
MECAG-9200W-01	201201	Updated for version 9.2.0.0 Added new topics: Restarting MEC Application Starting MapGen Nodes Adding Schedules Accessing MEC Local Management Pages Schedules Overview Updated the following topics: Using Message Search Configuring MEC Properties
MECAG-9140W-01	201105	Updated references to MEC Utilities Client tool. Updated for version 9.1.4.0 Updated version references, procedures, and terminologies. Updated the following topics: MEC Application Overview MEC Management Overview Configuring MEC Properties Configuring Logs Configuring Utilities Setting Runtime Controls Setting Database Properties
MECAG-9131W-01	201005	Added a note for MEC ecUtil Configuring Utilities Updated for version 9.1.3.1 Deleted MapGen.Directory and MapGen.IP from Updated Accessing Grid MEC Management Page Updated Processing Failed Message Added Log Configuration in Added Message Status Flexibility in Using Message Search

Part Number	Release Date	Description
		Added
		Changed MEC Monitor references to MEC Management.
		Added MapGen Utilities
MECAG-9130W-01	201002	Added an important note on selecting immediate shutdown in Accessing Grid MEC Management Page
		Updated the MEC Application Overview
MECAG-9130W-01	200911	First version of MEC Management Admin Guide

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This document provides a general information on the administration and management of M3 Enterprise Collaborator (MEC) as an application in Grid. Following are the topics included in this chapter:

- ["Admin Guide Overview" on page 8](#)
- [" MEC Application Overview" on page 9](#)

Admin Guide Overview

This document provides a general information on how to monitor, manage, and configure M3 Enterprise Collaborator (MEC) grid application along with the MEC client tools administration and monitoring.

Users of this Guide

This document is intended for these audience:

- System Administrators
- Application Engineers
- Business Consultants
- Application Administrators

Prerequisites Knowledge

To be able to perform administration and configuration tasks, you must be experienced and knowledgeable in the following areas:

- Grid administration concepts
- LifeCycle Manager client concepts
- XML and XML schema concepts
- Communication protocols
- Programming concepts such as input and output parameters, loops, and execution flow control

- Java Programming for the custom extensions. For example, channel development, file naming, and detections

MEC Application Overview

MEC is a lightweight message broker application and M3 integration platform running on Grid. It enables communication and integration of M3 with internal and external resources through messages or documents exchange.

MEC application is uploaded to Grid through a LifeCycle Manager (LCM) Client installed on a server. Users log in MEC application through LDAP settings. LDAP means Light-Weight Directory Access Protocol. It determines how an object in an Active directory should be named.

MEC administration user interface runs on Grid UI framework providing management and monitoring of partner agreements processed in MEC. The MEC application pages in grid have links to functionally grouped administrative tasks.

Here are the MEC application components:

MEC_Central Node

Also called CentralFileAccess (CFA), MEC_Central node is a runtime component that runs as a grid node and provides file access service to all of the MEC_Process and MEC_MapGen nodes.

The Central File folder is a local folder in the domain accessible to the Grid Agent of the MEC_Central node. This Grid Agent must have Full Control access to the Central File folder, for example: `\\local\shared folder`. This node runs detections, agreements, and process dispatchers. You must create this folder before installing MEC application in grid.

The Host machine containing the Central File folder must have a running LCM Service, and the users must have read/write access to the Central File folder location. The LCM Service extracts the default files upon installation.

CFA delegates tasks to Process nodes. When there are no process nodes running, MEC_Central node also act as a standalone node.

MEC_Process Node

MEC_Process node is an additional runtime component used to run the process flow of agreements received in MEC from MEC_Central node and peer process nodes. MEC_Process node is dependent on MEC_Central node to run.

In earlier MEC versions, MEC_Process node is called MECServer node.

MEC_MapGen Node

This server runs on grid nodes and generates mappings for runtime.

In earlier MEC versions, MEC_MapGen node is called MapGen node.

For more information on generating and publishing a mapping, see *M3 Enterprise Collaborator ION Mapper User Guide*.

MEC_UI Node

This is the graphical interface of MEC application, taking the place of the previous Web Administration Tool. In web MEC UI, you can delete old data log from MEC database, configure log settings, view message logs, view archived message files, and perform other MEC management tasks.

MEC Database

MEC Database stores mapping data, partner agreements, and runtime log data. MEC Database is required to run the grid nodes (MEC_Central, MEC_MapGen, MEC_Process, and MEC_UI).

MEC Database can be installed separately from the other components and in a location accessible to all MEC grid nodes, or on any other accessible server within the grid network.

Need More Details? Check out the following concepts:

- For more information on Grid, see *Infor ION Grid Installation Guide* and *Infor ION Grid Administration Guide*.
- For more information on MEC installation, see *M3 Enterprise Collaborator Server and Client Tools Installation Guide*.

Following are the topics included in this chapter:

- ["MEC Server Admin Overview" on page 11](#)
- ["Administrator Tasks and Responsibilities" on page 11](#)
- ["MEC Administration Prerequisites" on page 12](#)

MEC Server Admin Overview

MEC Server is the engine used at runtime when processing messages. MEC Server is monitored and managed in grid through the Application Management Page. For more information, see ["Accessing Grid MEC Management Page"](#) on page 18.

The MEC Server tasks consist of:

- Manage MEC Server
- Manage system properties
- Back up archived documents and clear up log
- Diagnose failed messages
- Monitor system performance
- Maintenance of MEC resources

If a message fails, you can use the MEC Management Pages to investigate the problem, review received files, and examine logs and routing configurations.

Administrator Tasks and Responsibilities

As MEC Server administrator, you must maintain MEC Server system stability and accessibility to users. It is your duty to assist users in their daily tasks and perform system troubleshooting, when needed. Here are the two main administrator tasks:

- MEC Server monitoring

- MEC Application administration and configuration

MEC Administration Prerequisites

Before starting MEC Management in grid, complete the following prerequisites:

- LifeCycle Client must be installed on client machine.
- User must have LCMAAdmin rights, or its equivalent, to be able to view and manage MEC installation.

Need More Details? Check out the following concepts:

- For LCM installation and requirements, see *LifeCycle Manager Installation Guide*
- For MEC installation and requirements, see *M3 Enterprise Collaborator Server and Client Tools Installation Guide*

Following are the topics included in this chapter:

- ["MEC Management Overview" on page 13](#)
- ["Restarting MEC Application" on page 17](#)
- ["Accessing Grid MEC Management Page" on page 18](#)
- ["Accessing MEC Local Management Pages" on page 19](#)
- ["MEC Management Tasks" on page 20](#)

MEC Management Overview

MEC Management in grid allows you to centrally control and monitor all MEC instances in several machines, or nodes. In MEC Management page there are links to available MEC management tasks.

Important:

- Set MEC application Role Mappings in grid to be able to view MEC Management page.

For more information, see the MEC Security topic in *M3 Enterprise Collaborator Server and Client Tools Installation Guide* and *Grid Administration Guide*.

You can access MEC Management in grid or through web UI. For more information, see ["Accessing HTML-based MEC Management Page" on page 33](#), and ["Accessing Grid MEC Management Page" on page 18](#)

Server

This is the default opening page of MEC Management. It has links to the following tasks:

- **Overview** - shows a complete information of every host's status, usage, and message count. Messages are grouped according to status; failed, in-process, and finished. You control the server activity through pause, reload, or resume actions.
- **Error Reports** - MEC Management repeatedly communicates with MEC servers. When a server fails to respond, MEC Management sends a report through an error mail. For error reporting, you

set the conditions using specific field values, for example, File name or UUID. You can also select to include a complete database in the report. Log, state, and manifest details are excluded from the report.

Important: Your security software may block the default SMTP port. If this happens add an exception to allow connection to this port.

- **Tasks** - Displays a list of long-running tasks and its corresponding progress. For example, the Maintenance and Archive tasks.
- **Mappings** - Dynamic reload of mappings does not require a MEC application restart. Mappings must be on an Active state to make it ready for use. You can Activate mappings from this page.
 - When a new mapping is published, it is on an Inactive state. You must explicitly activate the mapping to change it to Active state.
 - When changes are introduced on a published mapping and then it is republished, the state is now Republished. You must explicitly reactivate this mapping to change it to Active state.

Important: If you get this error message "*Unable to find source code for mapping id '<id>'*", it means that the mapping used by the XML Transform process in the agreement is published, but is not activated. Activate the mapping and re-run the message

For more information on Mapping status, see the *M3 Enterprise Collaborator ION Mapper User Guide*.

Communication

View and manage incoming and outgoing communication channels, corresponding protocols, and pools. Here are the available links in this page:

- **Channel Control** - Each channel displays an icon indicating the channel state. You can change a channel state from this page.
- **Import Message** - browse to a file location and import a file to use on MEC.
- **Pools** - Pools and Queues displays the system status. Use this information to look for performance-related issues.

Event

Use the links here to view and search for MEC logs:

- **Log** - Provides an overview of the latest events registered by the server. This is intended as a quick monitoring view.

Select a **Log level** from the drop down list to filter Logs.

Select **Show log** from the server startup box to view the messages created at the time when the server was started

- **Log Search** - Use this for detailed server event log search. Different search criteria and the field visibility composing a log event can be used.
- **Log Configuration** - For run-time control of log levels and default visibility of log searches. If a problem occurs in a live system, you will need a more detailed subsystem logs where the problem occurred. This tool is not commonly used. But with proper settings, it can help solve an issue since the amount of information logged can be extremely detailed, if required.

You can access the server event log that contains detailed information about the server operation.

Messages

View message related activities and manage filtered messages through this page. Here are the available links:

- **Status** - displays the latest messages with options.
- **Advance Search** - more detailed message search by UUID, state, and advanced search details.
- **Retry/Redetect** - view and manage failed messages. In Redetect, the current message is re-detected and no further processing can be done. Redetect process step is equivalent to sending a message from MEC, back into MEC.

All messages (Detect, Send, Validate, XML transform) in failed state can be filtered except for Receive Failed and Message Rejected states.

The Redetect All, Retry All, and Verify All actions apply only to messages in current view.

- **Ordered** - displays a list of corresponding ordered messages through Split Redetect process.
- **Agreement Retry/Redetect Messages** - view and manage failed messages grouped by Partner and (Business or Technical) messages. Business messages are suppressed by the PA to summarize error messages. Technical messages are not defined in PA, but provides more details about the error.
- **Variation ID** - (VID) uses numeric value, this is used as the basis of process order.
- **Suppressed Errors Reports** - shows the Suppressed Error document or the summarized Business messages. It shows the number of errors, per Error type and per Agreement, encountered when running the scheduled Error Aggregation task.

If a message encounters an error, it is sent back to the server for reprocessing. Reprocessed message keeps its unique identifier and no tracking information is lost. For example, reprocessing corrects the message problem when the server has been configured incorrectly for any of the following reasons:

- Routing
- Processing, and
- Classpaths for generated transformation.

Message reprocess requires for incoming message to be stored persistently. In some cases, you do not have to reprocess a message. For example, when a message has been partially processed and it caused an external system, such as M3, to update and commit data that has not been rolled back, you should manually verify the message.

Archive

View archive file system and database tasks with the available links to the following archive monitoring tasks:

- **Stored Files** - displays the archived files on Central File Folder with the corresponding size and date when it was last modified.
- **Search Archive** - defines a query and builds index for archived files.
- **Configure Index** - configures indexes to generate. For a more advanced search, define the Name and XPath, and then add to the index to generate.
- **Backup/Cleaning** - cleans or backs up archive files. You can choose to remove entries from database for backup documents, remove files from archive after a back up, or to force back up a document in failed state.

Back up is done relative to the Partner, Agreement, and current time. Documents before your set date (dd/mm/yy hh:mm:ss) will be archived as a ZIP file on an archive folder in the server.

- **Backup/Restore** - restores archived backup files.

Maintenance

Perform manual maintenance tasks on logs, persisted files, and error reports. For scheduled maintenance, see the link to Schedules page.

Schedules

View and manage the scheduled task types from this link. Scheduled jobs can be saved, deleted, and enabled or disabled. In order to run a scheduled task, you must first select to enable it.

For tasks with the same execution time, the "Priority" field value determines the order of execution. For example, tasks scheduled to run every hour; the tasks marked Priority 1 will be executed first. For tasks scheduled to run every <x>-minute, the minute interval is reset every hour and does not spill over to the next hour.

For more information, see "[Schedules Overview](#)" on page 26.

Utilities

Perform reloading tasks, property checks, and translation data utilities.

DataTranslator

String data going to (outbound), or received from (inbound) a partner can be translated or converted from one form to another. It is called MEC data translation. It applies only to string data and not to the numeric values carried by the string data. For example, the received string data "KG" can be translated to "kg", their corresponding numeric values do not change.

MEC data translator uses a class called **MECDataTranslator** that is defined in design time and, executed and monitored in runtime. To be able to use **MECDataTranslator**, you should be knowledgeable in the following topics:

- Java - to be able to define data translations in ION Mapper.
- Grid and grid application - to control and monitor MECDDataTranslator.

MECDDataTranslator

MECDDataTranslator is a new class added to MEC Utilities. Define the Data Translation details in the Partner Admin tool and it will be handled by the class **MECTranslationsUpdate** when generating or publishing mappings.

DataTranslator Remote Control

Used to reload the translation information. Here is a list of DataTranslator remote control options:

- **Reload next time** - DataTranslator will reload the next time constructor is called, and will return immediately.
- **Reload now** - DataTranslator will reload now, and will return immediately.
- **Check properties** - If the following DataTranslator parameters are used, these will be printed: user environment, reloading schedule, and translation data expiration. It also indicates the current time, the time it was last reloaded, and when it will reload next.
- **Dump translation data** - Returns a link where to save the csv log file of all the translation data currently loaded in memory.

For more information on Data Translator, see *M3 Enterprise Collaborator Partner Admin Tool User Guide*. and *M3 Enterprise Collaborator ION Mapper User Guide*.

For more information on MEC Utilities, check out the MEC Utilities Client document tool delivered in a separate zip file with MEC tools product.

About

Shows the application version number and copyright information.

Restarting MEC Application

MEC is started when Grid is started. When MEC is started, grid fulfils the initial conditions provided in the binding settings. The binding settings are the number of initial, minimum, and maximum nodes in MEC. The first node to start copies the state of the properties and is used grid-wide. Changes made to properties in grid will be applied after all MEC nodes are restarted.

All MEC server nodes will have the same application properties state even when changed. For property changes to take effect, you should restart (stop and start) MEC application before starting a new one.

Use this procedure to restart MEC application in grid when setting or configuring MEC application properties.

Before you start

- Log on to LifeCycle Manager as administrator.
- Start Grid and MEC Application.

Important:

- Invoke Start only if you Stopped the application.
- When MEC application is started, do not select to immediately shutdown the nodes.
- Depending on the complexity of the MEC configurations you will perform, you must always properly stop MEC application. In some configurations you do not need to stop the application.

- 1 On LCM Applications tab, right-click on the grid node where MEC application is installed.
- 2 Right-click on *MEC Application <version>* > Grid <version> > Application **Stop Application**.
- 3 Right-click on *MEC Application <version>* > Grid <version> > Application **Start Application**.

An icon beside the application indicate its operation state.

- A green arrow icon means start.
- A red square icon means stop.

For more information on bindings, see *Grid Installation Guide*.

Accessing Grid MEC Management Page

Use these procedures to access the grid-based MEC Management page. You can also access a web-based UI for MEC Management.

For more information, see "[Accessing HTML-based MEC Management Page](#)" on page 33.

Important: MEC application Role Mappings must be set in grid before you can view the MEC Management page.

For more information, see the MEC Security topic in *M3 Enterprise Collaborator Server and Client Tools Installation Guide* and *Grid Administration Guide*.

Before you start

- Log on to LifeCycle Manager as administrator.
- Start Grid and MEC application.

- 1 On LCM Applications tab, select and expand the view of the grid node where MEC application is installed.
- 2 Right-click on *MEC <Application><version>* > Grid <version> > **Manage Application**.

The MEC Management page is displayed.

By default, the page opens to the **Server** link.

- 3 Click the links to available Server controls on this page.
- 4 When finished, close the tab and exit the grid.

Accessing MEC Local Management Pages

Use this procedure to perform local management in MEC.

Before you start Complete the following tasks:

- Log on to LifeCycle Manager as administrator.
- Start Grid and MEC application.

- 1 On LCM Applications tab, select and expand the view of the grid node where MEC application is installed. .

- 2 Right-click on *MEC Application <version>* > Grid <version> > Grid > Grid Management Pages.

The *MEC Grid <version>* page is displayed in the right pane. By default, the page opens to the **Server** link.

- 3 Click the link to a MEC Node.

For example: **CentralFileAccess**

The Node *<selected node name>* page is displayed in the right pane.

- 4 Click the link to a Module.

For example: **MecRcvServer**

The Module *<selected module name>* page is displayed in the right pane.

- 5 Click the link to **Local Management Pages**.

A new page opens with links to the following Local Management tasks:

- **Properties** - Displays the node application properties and values, or "Node Properties".
- **Classpath** - Displays the node Classpath.
- **JVM Properties** - Displays the node JVM Properties.
- **Custom Files** - Opens a page for custom jars of a specific Node. If modified, you must restart the node for changes to take effect.
- **Mapping** - Opens a page listing the node Mappings.
- **About** - Displays the product name, version, and copyright details.

MEC Management Tasks

Following are the topics included in this chapter:

- ["Setting Up Custom Files" on page 20](#)
- ["Using Message Search" on page 20](#)
- ["Configuring Column Name and Data" on page 22](#)
- ["Processing Failed Message" on page 23](#)
- ["Processing Failed Messages by Agreement" on page 24](#)
- ["Viewing Message Details" on page 25](#)
- ["Importing Message" on page 25](#)
- ["Schedules Overview" on page 26](#)
- ["Adding Schedules" on page 29](#)

Setting Up Custom Files

Use this procedure to set up Custom Files when using class files.

Important: `SuperNoob.class` must be inside the `com.super.noobs.mec` package before setting up Custom Files.

MapGen is incorporated in Partner Admin Tool so you must extract Custom Files in PA Root Directory especially when importing mapping agreements containing custom files.

- 1 Create directories following the name of the java package.
For example: `com/super/noobs/mec`
- 2 Upload the `superNoob.class` in MEC folder.
- 3 Restart the Node.
- 4 Access MEC Management > Custom Files.

Using Message Search

Use the procedures here to perform basic or advanced message search.

- 1 Access MEC Management page and click the link to **Message**.

Status is the default opening page for **Messages** link.

2 Perform any of the following message search methods:

Search Task	Steps
By UUID	<ol style="list-style-type: none">1 On the Identifier field, type the message UUID.2 Click Show. The message matching your specified UUID is displayed.
By message	<ol style="list-style-type: none">1 Select a message from the table list.2 Click the link to show. The manifest details, host, central file system, and comment specific to your chosen message is displayed. From this page you can also do the following:<ul style="list-style-type: none">• Click Log icon - to view the message content (log, content file, error report, and manifest information), or• Click Save icon - to download the information in the message detail window.
By status filter	<ol style="list-style-type: none">1 On Status field, select any of the following status:<ul style="list-style-type: none">• All states - displays all messages.• All finished states - displays finished and verified only messages.• All failed states - displays all failed messages.2 Click Filter. The table is updated with a list matching your selected criterion.

Search Task	Steps
By Advanced criterion	<ol style="list-style-type: none">1 On Status field, click Advanced Search.2 Select the message status: All states, All finished states, All failed states.3 Select the finished message status: Finished failed or Verified.4 Specify the advanced search parameters.5 Click Submit. The table is updated with a list matching your advanced search criterion and parameter specifications. From this page you can also do the following:6 Select a message from the table.7 Select any of the following and click OK at the prompts:<ul style="list-style-type: none">• Click Retry - to send the message for a retry.• Click Redetect- to send the message for redetection.

Configuring Column Name and Data

Use this procedure to change the title of the column and data to be displayed in a column.

Important: After completing the property edits, start a new node or restart a running MEC Server node for changes to take effect.

- 1 Access the MEC Configure Application page.
- 2 Click the link to **Edit Properties**.
- 3 Listed under Application Defined Properties group, scroll down to the **Other** sub-group and edit the following properties:
 - a To change the title of the Partner and Agreement columns:

Property:

`ServerAdministratorView.Message.Status.Partner.Title`

Value: `samplePartner`

Property:

`ServerAdministratorView.Message.Status.Agreement.Title`

Value: `sampleAgreement`

- b** To override the default data used for Manifest Item used for getting the value:

`cmn:agreement` or `cmn:partner`,

The Manifest value contains the data displayed under the Partner and Agreement columns.

Property:

`ServerAdministratorView.Message.Status.Partner.Manifest.ItemName`

Value: `map:altPartner`

Property:

`ServerAdministratorView.Message.Status.Agreement.Manifest.ItemName`

Value: `map:altAgreement`

- c** To determine the presence of data:

Property:

`ServerAdministratorView.Message.Status.Partner.Manifest.DefaultItem`

Value: 1 or 0

Where:

- 1 = If data is not found in the manifest item you override
- 0 = If blank, the default manifest information is shown

Processing Failed Message

- 1** Access MEC Management page.
- 2** Click the link to **Message**.
- 3** Click the link to **Retry/Redetect**.

- 4 On State field, select the failed message status classification: All failed states or XML transform failed.

These selection displays all failed messages except for the ones in Received failed and Messages Rejected status.

- 5 Click Filter.
- 6 Perform any of the following:

Task	Steps
Process all messages in current view.	<ol style="list-style-type: none">a Click any of the following tasks:<ul style="list-style-type: none">• Redetect All - failed messages are reprocessed from the start.• Retry All - failed messages are reprocessed from point of stoppage forward.• Verify All – messages are tagged as finished without any further action.b At the prompts, click OK.
Process selected message in the table list.	<ol style="list-style-type: none">a Click any of the following tasks:<ul style="list-style-type: none">• Retry - failed messages are reprocessed from point of stoppage forward.• Redetect - failed messages are reprocessed from the start.b At the prompts, click OK.

Note: Successfully retried and redetected messages are removed from the table list while messages with new status are updated to show new current state.

Processing Failed Messages by Agreement

- 1 Access MEC Management page.
- 2 Click the link to **Message**.
- 3 Click the link to **Agreement Retry/Redetect Message**.
- 4 On the Partner Drill down tree, select the Partner and then select the Business or Technical failed message. The total of number of failed messages is displayed.

- 5 Process all messages under the selected Partner and the (Business or Technical) messages. Click any of the following:
 - **Retry** - to reprocess failed messages from point of stoppage forward.
 - **Redetect** - to reprocess failed messages from the start.
- 6 At the prompts, click OK.

Viewing Message Details

Message Details provide more information about transaction from logs, archived files, to error reports.

- 1 Access MEC Management page.
- 2 Click the link to **Message**.

Status is the default opening page for **Messages** link.
- 3 Perform a search by message.

For more information, see "[Using Message Search](#)" on page 20.
- 4 To open the message details page from the table:
 - Select a message to view and click **show** link.

The details for your selected message is displayed.
- 5 To view the logs, click any of the following icons:
 - **Log** icon - to view the message content (log, content file, error report, and manifest information), or
 - **Save** icon - to download the information in the message detail window.

Tip: If you are navigating through the table, use the scroll bar to scroll downward and pick up data from the server.

Importing Message

This procedure allows you to add an external file by importing instead of sending through an incoming channel.

A typical scenario is during initial configuration and installation when a test message is submitted to the server to make sure that it is correctly configured. Another typical scenario is when a bad message

is received, manually corrected, and then submitted again for processing a new message. The messages submitted must not be too big as it will be buffered in memory during transmission.

Note: Importing Message allows sending of only one message at a time. To send multiple messages, use a channel.

- 1 Access MEC Management page.
- 2 Click the link to **Communication**.
Channel Control is the default opening page for **Communication** link.
- 3 Click the link to **Import Message**.
- 4 On Import file field, click Browse to navigate to the folder location of the file to add.
- 5 Click upload to send your selected file containing a message.

A message send status is shown in the message information box (file name and UUID).

Schedules Overview

MEC allows you to view and manage scheduled tasks offline. Depending on the complexity of task that you need to perform choose the appropriate scheduling type and method to use.

While basic scheduling is used in a very defined manner, advanced scheduling method uses cron expressions format. This format is a string of 6 to 7 fields separated by a white space. The fields in this string may contain alphanumeric and special characters. To help you build cron expressions you will need a tool called CronMaker. This tool uses an open source scheduler called Quartz. Quartz cron expressions are generated by specifying the start time, end time, and frequency of the schedule.

Need More Details? Check out the following concepts:

- For more information, see:
- Tutorial on cron expressions format, <http://www.quartz-scheduler.org/documentation/quartz-1.x/tutorials/crontrigger>
- Generating cron expressions, <http://www.cronmaker.com/>

Schedule types

There are several schedule task types in MEC. There is a type for channels, windows services, error aggregation, and maintenance. For tasks with the same execution time, the "Priority" field value determines the order of execution. For example:

For tasks scheduled to run every hour, the tasks marked Priority 1 will be executed first.

For tasks scheduled to run every <x>-minute, the minute interval is reset every hour and does not spill over to the next hour.

Channel

- Channel Pause Resume - use this to schedule when to pause and resume incoming channels.
- Channel Pause - use this to schedule when to pause incoming channels.
- Channel Start/Resume - use this to schedule when to start and resume incoming channels.

Channel states are MEC controlled. In earlier MEC versions when you restart MEC all the channels are restarted along with MEC. Now, the channel schedules survive MEC restart. This means that when you invoke restart the channels that are scheduled to pause remain on pause.

To supersede the scheduled channel pause, manually invoke a channel pause or resume.

Service Stop Start

Use this to schedule when to stop and start the Windows service.

In earlier MEC versions, MEC does not maintain the service state and it does not support offline or online scheduling. This means, when MEC Windows Service is stopped or started the schedules do not change. Now, when you restart MECServer Service, all services that are scheduled to be "ONLINE" will be started, and all services that are scheduled to be "OFFLINE" will be stopped, disregarding the current Windows Service state.

To supersede the scheduled Service stop/start, manually invoke a start/stop for that service.

By default, the Purge Error Suppressed Document check box is marked. This will remove all the Error Suppress Report based on the "days old" field.

Error Aggregation

Use this to schedule the aggregation (summarized) of all the Business error messages based on the Agreement's Error Suppressed definition. This task includes creating the Suppressed Error Report (document) and sending of email, if the optional email recipient field is configured. Otherwise, the recipient will be the same as the email recipient defined in PA tool.

Maintenance

Use this to schedule when to run maintenance tasks. For more information, see "[MEC Management Overview](#)" on page 13.

Note: If both Maintenance and Aggregation tasks have the same execution time, scheduler will prioritize the Aggregation task and run the Maintenance later.

Sample scenarios

Scenario	Setting / Behavior
Offline schedule is every Saturday 1PM and runs for 1 minute. This scheduling is set in PA.	<ul style="list-style-type: none"> • Default DiskIn - set to Pause/Resume. • Service ABC - set to Stop/Start.

Scenario	Setting / Behavior
Case 1 (normal scenario): MEC is running.	<ul style="list-style-type: none">Default DiskIn - will Pause at 1PM and Resume at 1:01PM.Service ABC - will Stop at 1PM and Resume at 1:01PM.
Case 2: MEC is shutdown at 12noon and manually started at 2PM.	<ul style="list-style-type: none">Default DiskIn - is started (default behavior).Service ABC - MEC will start this service because based on schedule service should be started.
Case 3: MEC is shutdown 10 seconds after 1PM and manually started at 2PM.	<ul style="list-style-type: none">Default DiskIn - is Paused just before the shutdown because of the schedule. On startup, Default DiskIn will be started (default behavior).Service ABC - will be stopped just before shutdown because of the schedule. On startup, MEC will start Service ABC.
Case 4: MEC is shutdown at 12noon and started 30 seconds after 1PM.	<ul style="list-style-type: none">On startup Default DiskIn - will not start because based on schedule it is still offline. Default DiskIn will start at 1:01PM on schedule.On startup Service ABC - will be stopped because based on schedule it is still offline. Service ABC will start at 1:01PM on schedule.
Case 5: Default Disk is (Manually) Paused and Service ABC is (Manually) stopped at 12noon.	<ul style="list-style-type: none">Default DiskIn - is set to Resume at 1:01PM.Service ABC - is set to Start at 1:01PM. <p>Important: MEC does not keep track of manual pause/stop.</p>

Schedule methods

There are two ways to schedule tasks in MEC, the simple and advanced methods. Depending on what you need to accomplish, you can use any one of these method.

- Simple** - This method is designed for simple schedules. Use this in a very defined manner. See the following example:

Job requirement:

- execute a job at a given day in a week (day)
- repeat it a number of times in a week
- wait for <xx> seconds between executions

Action: Select the appropriate options in the following fields:

- Every month, on day
 - Every week, on day
 - Every day
 - Start time (hh:mm)
 - Duration (seconds)
- **Advanced (Quartz Expression)** - This method lets you manage much more complicated scheduling for your job. It has a start time property and an optional end time. Use this method to schedule and execute jobs in a very flexible manner. See the following example:

Job requirement:

Execute a job at exactly 12 noon every day, except on a Sunday,

Action: Type the following in the **Advanced** field:

12:00 p.m. every day, Monday through Saturday.

Adding Schedules

- 1 Access the MEC Management page.
- 2 Click the link to **Schedules**.
- 3 Click Add Schedule.
- 4 On Add Basic Information window, consider the following fields:

Name	Type a name for this schedule.
Description	Type a brief description for this schedule.
Priority	Set the priority order of this task. Type a value between 1-10, one as the highest or overrides lower priority.
Schedules	Set the frequency schedule to run: Minutes, Hourly, Daily, Weekly, Monthly, Advanced. For "Advanced" scheduling, use CRON expression.

Every	Sets the interval in minutes within an hour. Type a value between 1-59.
--------------	---

Note: Minute interval is reset every hour and does not spill over to the next hour.

5 Click Add.

The basic information and the schedule of next runs for your new task is displayed.

You can click the link to **Edit Basic Information** to modify the schedule on display.

The enabled check box is automatically selected when a new schedule is created.

Need More Details? Check out the following concepts:

- For a tutorial on CRON expressions format, see <http://www.quartz-scheduler.org/documentation/quartz-1.x/tutorials/crontrigger>
- To generate CRON expressions, see <http://www.cronmaker.com/>

Following are the topics included in this chapter:

- ["MEC Monitor Page Overview" on page 31](#)
- ["Accessing MEC Monitor Page" on page 32](#)
- ["Accessing HTML-based MEC Management Page" on page 33](#)
- ["MapGen Utilities" on page 35](#)

MEC Monitor Page Overview

MEC Administrators use this page to monitor the status and activities of MEC nodes and instances in grid.

The following lists the links available to MEC monitor tasks:

Status

This link displays the MEC application status and links to the following:

- MEC System running on grid,
- MEC application, and
- Application session provider, if used.

Logging

MEC application logs are categorized for ease of monitoring and updates.

You can use the links here to do the following:

- Log Levels - view and configure individual logs.
- Log files - list a log file of all hosts in this grid. You can use the filter for faster search task.
- Log Archiver - view log archiver status and settings.

To view Merged Log Entries, click the link to View/Filter/Download. If the view output is too large, Merged Log Entries display will be truncated.

Note: MEC and Grid logs are now separated to avoid duplicates and unnecessary logs on display.

Advanced

MEC Advanced monitoring allows you to perform the following tasks:

- Configuration - view grid configuration.
- System Alert - view information about events that may require administrative attention.
- Sessions - get detailed information about logged in sessions.
- Client Connections - overview of all clients connected to the grid.
- Connection Dispatchers - overview of all connection dispatchers configured for this grid.
- Proxies - overview of all proxies registered in grid.
- Web Components - overview of all web components registered in grid.
- Network Diagnostics - measure network latency and throughput.
- Grid Status Report - generate and download a status report about grid.
- About - information page about this application (grid node, version, and copyright information).

Topology

This page displays the host's logs status and topology. Click the links from this page to access the following:

- MEC application
- Management Pages
- Application session provider, if used.

Accessing MEC Monitor Page

Before you start Complete the following tasks:

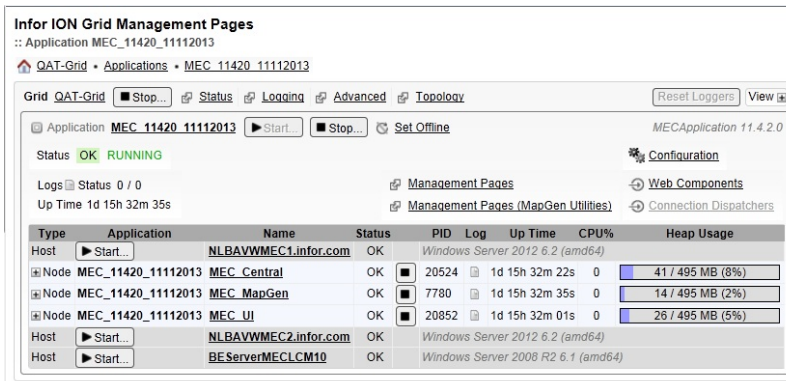
- Log on to LifeCycle Manager as administrator.
- Grid and MEC Application must be started.

1 On LifeCycle Manager, go to Applications tab.

2 Select and expand the view of the grid node where MEC application is installed.

3 Right-click on *MEC application name* > Grid <version> > Application > **Monitor Application**.

The Application *MEC application name* page is displayed in the right pane.



On this page you can view all MEC nodes information and application status. Links to **Management Pages**, **Management Pages (MapGen utilities)**, and your registered session provider, if any, are available through this page.

4 When finished, close the tab and exit the grid.

Accessing HTML-based MEC Management Page

Use these procedures to access a web-based UI for MEC Management. You can also access a grid-based MEC Management Page.

For more information, see "[Accessing Grid MEC Management Page](#)" on page 18.

Important: Set the MEC application Role Mappings in grid to be able to view this page.

Before you start

- Log on to LifeCycle Manager as administrator.
- Start Grid and MEC application.

For more information, see the Security topic in *M3 Enterprise Collaborator Server and Client Tools Installation Guide* and the Role Mapping topic in *Grid Administration Guide*.

❑ Get the MEC URL

- 1 On LifeCycle Manager, go to Applications tab.
- 2 Right-click on the grid node where MEC application is installed.
- 3 Select Grid <version> > Grid > **Configuration Manager**.

The Configuration Manager page is displayed.

___4 Click the link to **Advanced Configuration**.

The Advanced Configuration page is displayed.

___5 Click the link to **Defined Ports**.

___6 Copy the following values:

- Server host address for the Admin router - copy the address, for example, **172.30.79.236**.
- Server host router for the http or https port type - copy the port number, for example, **62005**

Note: Do not copy the WebStart port number.

☐ **Access MEC web UI**

___1 Open a supported browser.

___2 Navigate to the MEC URL following this syntax:

http(s)://ServerHost:port. For example, **https://172.30.79.236:62005**

Figure 1. MEC opening Web monitor page

Grid Information					
Grid Name	TST-Grid_Dev_MEC1				
Version	11.1.11.0 20				
Web Start	http://10.21.45.4:47467/				
Status	Grid Status	Host Status	Node Status	Port Status	

Context Roots					
Application Type	Application Name	Module	Accessible	Type	Link
SYSTEM	SYSTEM	WebAccess	<input checked="" type="checkbox"/>	Rest Service	https://10.21.45.4:47469/grid/
				Web Application	https://10.21.45.4:47469/grid/mobile/
				Web Application	https://10.21.45.4:47469/grid/ui/
MECApplcation	MEC_11420_MEC1	MecMapGen	<input type="checkbox"/>	Rest Service	https://10.21.45.4:47469/mapGen/
		MecRcvServer	<input checked="" type="checkbox"/>	Rest Service	https://10.21.45.4:47469/mecexecute/
MECApplcation	MEC_Dev_11410_MEC1	MecMapGen	<input type="checkbox"/>	Rest Service	https://10.21.45.4:47469/mecmapgen/

___3 Click the link to **Web Application** to open the Grid Admin UI page.

Figure 2. Grid Web Admin page

Infor ION Grid Management Pages
 :: TST-Grid_Dev_MEC1
 TST-Grid_Dev_MEC1

Grid TST-Grid_Dev_MEC1

Type	Application	Name	Status	PID	Log	Up Time	CPU%	Heap Usage
Host	<input type="button" value="Start..."/>	NLBAVWMEC1.infor.com	OK	Windows Server 2012 6.2 (amd64)				
Agent	SYSTEM	Agent	OK	28372		6d 13h 01m 25s	0	40 / 248 MB (15%)
Registry	SYSTEM	Registry	OK	21384		6d 13h 01m 09s	0	10 / 248 MB (3%)
Router	SYSTEM	Administrative Router	OK	17028		6d 13h 00m 54s	0	16 / 248 MB (6%)
Router	SYSTEM	Default Router	OK	18252		6d 13h 00m 37s	0	39 / 248 MB (15%)
Host	<input type="button" value="Start..."/>	NLBAVWMEC2.infor.com	OK	Windows Server 2012 6.2 (amd64)				
Agent	SYSTEM	Agent	OK	11904		6d 13h 01m 32s	0	28 / 248 MB (11%)
Router	SYSTEM	Default Router	OK	11032		6d 13h 01m 01s	0	13 / 248 MB (4%)
Node	MEC_11420_MEC1	CentralFileAccessNodeType	OK	9764		6d 12h 55m 45s	0	20 / 495 MB (3%)
Node	MEC_11420_MEC1	MECServerNodeType	OK	7284		6d 12h 55m 34s	0	20 / 495 MB (3%)
Node	MEC_11420_MEC1	MECUINodeType	OK	8564		6d 12h 55m 25s	0	28 / 495 MB (5%)

Application MEC_11420_MEC1 Application MEC_Dev_11410_MEC1 **OFFLINE**

- 4 Click the link to **Management Pages** to open the MEC web monitor page.

Figure 3. MEC Web monitor page

Infor ION Grid Management Pages LCMAAdmin
 :: MEC Management

[Server](#) • [Communication](#) • [Event](#) • [Message](#) • [Archive](#) • [Maintenance](#) • [Schedules](#) • [Utilities](#) • [About](#)
[Overview](#) • [Error Report](#) • [Tasks](#) • [Mappings](#)

Overview

Server Control

Message Counts
 Failed: 3 In-Process: 0 Finished: 6

System State

Alias	Status	DB	BE	FS	Map	Up Time	CPU %	Heap Usage
Host NLBAVWMEC1.infor.com								
MEC_Central 10.21.45.4:51086-19552	OK					45s	2	73 / 495 MB (14%)
MEC_Dev_11410_MEC1/GridFileAccess ▶								
MEC_Dev_11410_MEC1/MecFileUtilities ▶								
MEC_Dev_11410_MEC1/MecRcvServer ▶								
MEC_UI 10.21.45.4:51205-2184	OK					28s	2	40 / 495 MB (8%)
MEC_Dev_11410_MEC1/MecUIServer ▶								
Host NLBAVWMEC2.infor.com								
CentralFileAccessNodeType 10.21.46.28:64152-9764	OK					6d 13h 22m 11s	1	33 / 495 MB (6%)
MEC_11420_MEC1/MecFileUtilities ▶								
MEC_11420_MEC1/MecRcvServer ▶								
MEC_11420_MEC1/GridFileAccess ▶								
MECServerNodeType 10.21.46.28:64211-7284	OK					6d 13h 22m 01s	1	23 / 495 MB (4%)
MEC_11420_MEC1/MecServer ▶								
MECUINodeType 10.21.46.28:64272-8564	OK					6d 13h 21m 51s	1	28 / 495 MB (5%)
MEC_11420_MEC1/MecUIServer ▶								

From this page, you can perform MEC application monitoring.

MapGen Utilities

- "Starting MapGen Nodes" on page 36

- ["Generating All Mappings" on page 36](#)

Starting MapGen Nodes

MapGen is used for design time only. By default this node is already started. You do not need to start MapGen during runtime or after you have completed the development, testing, and setting up of agreements and integrations.

- 1 Access **MEC Monitor Application** page.
- 2 In the Nodes table, click Start in Type column.

The Start Node dialog is displayed.

- 3 Click the link to MapGen to start this node.

A confirmation message is displayed. And if successful, MapGen node displays **OK** under the Status column.

When MapGen node is started, the Application<*MEC Application name*> tab will show the link to **Management Pages (MapGen Utilities)**.

Generating All Mappings

- 1 Access **MEC Monitor Application** page.
- 2 Click the link to **Management Pages (MapGen Utilities)** link.

Important: Ensure that the MapGen node is started for this link to appear on page.

- 3 On the MapGen Utilities page, click the link to **Generate All**.
- 4 On Generate All page, click **Generate All Mappings**.

A message appears indicating that the command was executed.

Note: Restart (stop then start) MEC Application for changes to take effect.

For generation results, see Grid logs. Log level should be set to INFO.

Following are the topics included in this chapter:

- ["MEC Configuration Overview" on page 37](#)
- ["Accessing MEC Configuration Page" on page 40](#)
- ["MEC Configuration Tasks" on page 41](#)

MEC Configuration Overview

Applications in grid each has a configuration page. Available links through MEC application configuration page allows you to perform basic and advanced application property modifications. Here is a list of available links in MEC Configuration page:

General Information

This table displays an overview of MEC application running on grid.

Application Deployment Status

This table displays a list of hosts assigned to MEC nodes. A properly running host displays an OK status across its name. A host is a server machine participating in a grid. A host can be a physical or virtual machine, and can be a member of more than one grid. You can add several instances of hosts that may span multiple server machines. To remove a host from the list, click the red x-mark across the host.

In the table list, click on a MEC host link to open a new page to the MEC host folder contents. The values listed are used every time you work on MEC, unless modified by one of the other contexts with higher priority.

Bindings

A binding defines where and how to run nodes of a specific type. It can be seen as an association between a node type and a set of hosts.

To start a specific node type on a particular host you need a binding to associate the node type with the host. Properties that the node need, or the applications running in the node, may be defined for every binding.

MEC application is started using one binding for each node type. The minimum, initial, and maximum values are set to 1 (one). It is possible to override a property value based on the binding used to launch MEC application. Any MEC application instance started with this binding will use this value. To resolve a property, the system will first look for a property override for that binding on its host. A context with higher priority will override the binding with lower priority value.

For more information on nodes and bindings, see *Grid Administration Guide*.

Context Root Mappings

Here are the available REST service that will be used by mapper "Server Connectivity".

Context Root	Module	Type
MecRcvServer	MecRcvServer	Rest Service
MecMapGen	MecMapGen	Rest Service

For more information, see *M3 Enterprise Collaborator ION Mapper User Guide*.

Node Types

A node is a Java virtual machine (JVM) that is registered as part of a grid where grid applications, like MEC, are running. A grid has several nodes running different applications. Each node is running on one of the hosts that are part of the grid. MEC grid nodes run on MEC host. There is a corresponding node type for every MEC node. Below is a list of MEC nodes and equivalent node types:

MEC Node	Node Type
MEC_Process	MECServerNodeType
MEC_MapGen	MapGenNodeType
MEC_Central	CentralFileAccessNodeType
MEC_UI	MECUINodeType

Edit Properties

The link to Edit Properties opens the page to Application Properties:<MEC application name><version>(MECApplication).

Here are the available links in this page:

- Application Defined Properties - settings specific to MEC application

- Grid Defined Properties - settings specific to grid
- Add ad hoc Property - click this to create new ad hoc property

Expand the view of Application Defined Properties to list all the MEC application properties. These properties are functionally grouped together and each has a corresponding unit, type, property name, and a brief description that you can modify.

The list is further grouped to the following MEC property modification tasks:

- Properties - ErrorMail, MapGen Server, API Mapper, MapGen Server Data Bridge
- Logs - log4j
- Utilities - Ad Hoc Properties
- Runtime controls - Runtime, Message ID Controller, Message Persistence, Temporary Data Storage, Message Archive, Error Message Archive, API and MI program
- Database properties - Delete Interval, MEC Server Data Source
- Document and media settings

Edit Role Mappings

MEC application role mapping ensures that the appropriate user have access to MEC grid pages that they need to perform their jobs. As MEC administrator you will map the roles of MEC grid application users to the information and resources that they need.

For more information on how to set MEC Security, see *M3 Enterprise Collaborator Server and Client Installation Guide*.

For more information on grid security, see *Grid Administration Guide*.

Advanced Group

Select and expand the view of this group to open to the following viewable MEC application settings:

- Application Modules
- Application Defined Roles
- Application Defined Default Property Values

For more details on how to configure these settings, see the MEC Configuration Tasks section in this guide.

Other links available in this page

- Deploy New version
- Manage Application
- Export Settings

Accessing MEC Configuration Page

Use this procedure to access the MEC Configuration page in grid.

Important: Your security software may block the default SMTP port. When this happens, add an exception to allow connection to this port.

Before you start Complete the following tasks:

- Log on to LifeCycle Manager as administrator.
- Grid and MEC Application must be started.

- 1 On LifeCycle Manager, go to Applications tab.
- 2 Select and expand the view of the grid node where MEC Application is installed.
- 3 Right-click on *MEC Application <version>* > Grid <version> > Application > **Configure Application**.

The Application:*MEC application name <version>* (MEC Application) page is displayed in the right pane.

This page contains links to basic and advanced application configurations. "[Configuring MEC Properties](#)" on page 42

Figure 4. MEC Configuration Page

Infor ION Grid Management Pages LCMAAdmin
 :: Application: MEC_11420_11112013 (MECApplcation 11.4.2.0)

Refresh Navigation Configuration Manager • Applications • Application MEC_11420_11112013

[Edit Properties](#) [Edit Role Mappings](#) [Add Binding](#) [Upgrade](#)
[Manage Application](#) [Export Settings](#)

General Information

Name: MEC_11420_11112013
 Type: MECApplication
 Version: 11.4.2.0
 Exports:
 Imports:
 Application Definition: [application.xml](#)
 Deployment Profile: <none>

Application Deployment Status

BEServerMECLCM10

NLBAVWMEC1.infor.com

NLBAVWMEC2.infor.com

Bindings

Name	NodeType	Startable	Min	Initial	Max	Hosts
MEC_Process	MECServerNodeType	<input checked="" type="checkbox"/>	0	0	3	BEServerMECLCM10 NLBAVWMEC1.infor.com
MEC_MapGen	MapGenNodeType	<input checked="" type="checkbox"/>	1	1	1	NLBAVWMEC2.infor.com
MEC_Central	CentralFileAccessNodeType	<input checked="" type="checkbox"/>	1	1	1	NLBAVWMEC1.infor.com
MEC_UI	MECUINodeType	<input checked="" type="checkbox"/>	1	1	1	NLBAVWMEC1.infor.com

Context Root Mappings

Context Root	Module	Type	Web Application	Compression	Path	Routing
:// mecexecute	MecRcvServer	Rest Service				
:// mecmapgen	MecMapGen	Rest Service				

Node Types

Node Type	Modules	Startable	Properties	Scale-Out	Bindings
MECServerNodeType	MecServer	<input checked="" type="checkbox"/>	0	Yes	1
MapGenNodeType	MecMapGen	<input checked="" type="checkbox"/>	0	No	1
CentralFileAccessNodeType	MecRcvServer GridFileAccess MecFileUtilities	<input checked="" type="checkbox"/>	0	No	1
MECUINodeType	MecUIServer	<input checked="" type="checkbox"/>	0	No	1

Advanced

- When finished, close the tab and exit grid.

MEC Configuration Tasks

Following are the topics included in this chapter:

- ["Configuring MEC Properties" on page 42](#)
- ["API Clean Up and Validation" on page 44](#)
- ["Configuring Logs" on page 45](#)
- ["Configuring Utilities" on page 45](#)

- ["Setting Runtime Controls" on page 47](#)
- ["Setting Database Properties" on page 53](#)
- ["Setting TaskPage" on page 55](#)
- ["Setting ViewMessageLogsPage" on page 56](#)
- ["Setting ProxyTimeout and Date Format" on page 56](#)

Configuring MEC Properties

Configure the following properties for the required basic settings to run MEC Server.

☐ **Error Mail**

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **ErrorMail** group and expand the view.
- ___4 Set up the emergency mails when an error occurs. Consider the following property definitions:

Important: Your security software may block the default SMTP port. When this happens, add an exception to allow connection to this port.

Property	Description
ErrorMail.Enabled	An integer type with a value of either 1 or 2. Data: 1 or 0 For on (1) and off (0) state.
ErrorMail.Host	Type the mail server used for emergency mails. Data: *COMPUTER-NAME*
ErrorMail.To	Type the e-mail address to where the emergency mails will be sent. Data: *MEC-Adm*
ErrorMail.From	Type the name of the mail sender. Data: *MEC-Server*

Property	Description
<code>ErrorMail.Subject</code>	Type the subject of the mail. Data: Attention! MEC exception occurred
<code>ErrorMail.Attachment.MaxSize</code>	Type an integer value for the maximum size (bytes) of an eventual attachment. Data: 100000
<code>ErrorMail.Type</code>	Type the mail format. Data: text/html
<code>ErrorMail.Limit.TimeFrameSeconds</code>	Data: Integer
<code>ErrorMail.Limit.Count</code>	Data: Integer
<code>ErrorMail.Agreement.TimeFrameSeconds</code>	The duration in seconds to wait for grouped error messages before sending and Poll. Data: 10
<code>ErrorMail.Agreement.MaxAttachmentSize</code>	Max Attachment Size in bytes that can be sent in a single mail. Data: 1000

❑ MapGen Server

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Scroll down to **MapGengroup** and expand the view.
- ___3 Consider the following basic configuration:

Property	Description
<code>MapGen.Port</code>	Type the port number. The Mapping Generator server listens to this port. Data: 8908 Data: 8909

Property	Description
<code>MapGen.Timeout</code>	Type the length of time in milliseconds. Mapping Generator server uses this time value to wait for a response from the API-repository before disconnecting and reporting an error. Data: 10000
<code>MapGen.Ignore.InputSchema.Namespace</code>	This will ignore namespace and will automatically add a suffix <code>"_NO_NS"</code> to the mapping class. Data: 1 or 0

☐ API Mapper

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Scroll down to **APIMapper** group and expand the view.
- ___3 Define the API properties.

Property	Description
<code>APIMapper.mi.name</code>	Type the MI name
<code>APIMapper.mi.host</code>	Type the MI host name or IP
<code>APIMapper.mi.port</code>	Type the MI port
<code>APIMapper.mi.user</code>	Type the MI user
<code>APIMapper.mi.password</code>	Type the user password to access the MI

API Clean Up and Validation

Proper API clean up and close

MEC allow various methods of handling API/MI programs and getting only the first data on an MI returning multiple records. As a result, unsent data remain on TCP buffers of the BE and system resources are consumed. Now, when closing API, a warning in **releaseAPICaller** is displayed. Then, MEC will read the remaining data in the BE to clean it up and to save on system resources.

API checks and validation

Every MI connection in a pool that MEC will reuse is checked or verified first using the `GetServerTime` command. This verification method consumes time and resources. Now, MEC and BE performances can be improved by skipping check or validation based on a given time frame.

To define the time frame, open `ec.properties` and add a numeric value in the property `MvxAPI.Pool.Connection.CheckAPI.Time`. The default value 0 (zero) means to always perform check or validate.

For example, set the property value to 10, for MEC to check or validate APIs not used within 10 seconds.

`MvxAPI.Pool.Connection.CheckAPI.Time=10`

Configuring Logs

☐ Configure log4j

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **log4j** group and expand the view.
- ___4 Configure the following default to the new value:

Property	Value
<code>log4j.rootCategory</code>	Default: <code>INFO,ConsoleAppender,MecJDBCAppender</code> New value: <code>INFO,ConsoleAppender,MecJDBCAppender,MecGridAppender</code>

Configuring Utilities

Use this procedure if you are using `ec.utilities` in your mapping.

Note: MEC Utilities is now delivered in two parts:

- MEC Utilities Server that runs on Grid - delivered with the MEC Server(MEC Application in Grid) installation.
- MEC Utilities Client that runs stand alone on the client - delivered in a separate zip file with the MEC tools product.

Important: For the following changes to take effect, restart (stop and start) MEC application before starting a new one.

☐ **Add an ad hoc property**

- ___1 Access MEC Configuration page and click the link to **Edit Properties**.
- ___2 Scroll down and click **Add ad hoc Property**.
The Create Property window is displayed.
- ___3 On the Name field, type a property name.
For example, **StringReplacer.Repository**
- ___4 Select a type to use.
For example, String value or List of string values.
- ___5 Select any of the following:
 - Environment Variable - to expose this property as you would an environment variable.
 - JVM System Property - to expose this property as you would a JVM system property.
- ___6 Click OK.
A new page opens "Property:<StringReplacer.Repository>."
- ___7 Click the link to **<empty>** right underneath the title **Any Host**.
The Edit Property window is displayed.
- ___8 On the Value field, type a value.
For example: *repository\StringReplacer*
- ___9 Click Save.
- ___10 Click the Save icon to update the new ad hoc property.
- ___11 At the Save Configuration Changes prompt, verify the changes and click Save.
Your new ad hoc property is now added.

☐ **Configure StringReplacer utility**

- ___1 Create an ad hoc property "**StringReplacer.Repository**"

- ___2 Set the file/folder values relative to the MEC Central File folder.
- ___3 Copy your `StringReplacer.Repository` files or folder to the MEC Central File folder.

Setting Runtime Controls

☐ Set the Runtime

Use this procedure to configure the MEC properties that controls the load of processed messages.

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **Runtime** group and expand the view.
- ___4 Set up the Runtime controls, consider the following property definitions:

Property	Description
<code>System.Encoding</code>	The default system encoding. Data: UTF-8
<code>Runtime.DetectionWorker.MaxWorkers</code>	Maximum number of detection threads allowed in the system. Data: 10
<code>Runtime.AgreementWorker.MaxWorkers</code>	Maximum number of agreement threads allowed in the system. Data: 10
<code>Runtime.ProcessWorker.MaxWorkers</code>	Maximum number of process threads allowed in the system. Data: 10
<code>Runtime.ErrorWorker.MaxWorkers</code>	Maximum number of error threads allowed in the system. Data: 10
<code>Runtime.ErrorSetupWorker.MaxWorkers</code>	Maximum number of error setup threads allowed in the system. Data: 10

Property	Description
<code>Runtime.TransferToPeerWorker.MaxWorkers</code>	Maximum number of transfer to peer threads allowed in the system. Data: 10
<code>Runtime.TransferToCFSWorker.MaxWorkers</code>	Maximum number of transfer to Central File Folder threads allowed in the system. Data: 10

☐ Set the Message ID Controller

Use this procedure to set the properties that control the conditions and method of processed message IDs stored in memory to make sure that the same message is not processed more than once.

Consider the following conditions:

- If the ID equals the hash sum of the message.

That is, if two documents are equal to each other and if the bytes are the same in the files, these IDs are stored in the database.

- If the ID is already stored, the document will be rejected.

That is, when the ID controller is active, the hash sum will be calculated for an incoming file and matched to the IDs stored in the database, and if the ID is already stored, the document will be rejected.

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **DocIDController** group and expand the view.
- ___4 Set the DocIDController, consider the following property definitions:

Property	Description
<code>DocIDControllerEnabled</code>	Toggles the Message ID controller function. If this property is set to 0 (disabled), the other properties of the Message ID controller will be ignored. Valid values are: 0 = disable, 1 = enable Default data: 0

Property	Description
<code>DocIDControllerDocExpirationDays</code>	When the MEC server starts up, all IDs older than the set property will be deleted. Default data: 30
<code>DocIDControllerPersistence.Path</code>	Specifies the path where the documents rejected by <code>DocIDController</code> are stored. Default data: <code>./Archive/rejected</code>

☐ Set the Temporary Data Storage

Use this procedure to set the temporary storage used by MEC internally as an intermediate storage while compiling data. This storage is cleared every time MEC is started.

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **Folders** group and expand the view.
- ___4 Set the Temporary Data Storage, consider the following property definitions:

Property	Description
<code>MEC.TempFolder</code>	Specifies the path where the temporary data is stored. Data: <code>archive/temp</code>

☐ Set the Message Persistence

Use this procedure to set the properties that control the message persistence used by MEC. If an error or communication problem occurs, the message persistence is used to store messages temporarily to avoid data loss. The message is removed from the persistence storage only when it is successfully delivered to the receiver.

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **Folders** group and expand the view.
- ___4 Set the Message Persistence, consider the following property definitions:

Property	Description
<code>DocPersistor.Path</code>	Specifies the path where temporary copies of messages are saved. Data: <code>archive/persistence</code>

☐ Set the Message Archive

Use this procedure to set the properties that control the message archive used to store messages permanently.

Note: If the process step ARCHIVE has been selected in the Partner Agreement, a message is stored into the archive.

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **Archived** group and expand the view.
- ___4 Set the message archive, consider the following property definitions:

Property	Description
<code>DocArchiver.Path</code>	Specifies the directory where messages are stored. Data: <code>archive/doc</code>
<code>Archive.Backup</code>	Specifies the directory where the back up files are stored. Data: <code>archive/backup</code>
<code>Archive.LoadIndexOnStart</code>	Toggles archive index loading during start up. Default for LOadIndexONStart is 1 (enable) Default for GenerateIndexOnStart is 0 (disable)
<code>Archive.GenerateIndexOnStart</code>	Toggles archive index generation during start up. For huge archives, processing may take longer time to complete. 0 = not generate, 1 = generate Default data: 1

Property	Description
Archive.Targets	Filename of the archive index targets file holder. Data: DefaultTargets.xml
Archive.Index	Archive index filename. Data: DefaultIndex.xml

For more information on message archiving, see the *M3 Enterprise Collaborator Partner Administration User Guide*.

☐ Set the Error Message Archive

Use this procedure to set the properties that control the error message archive used to store error messages.

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **DocErrorHandler** group and expand the view.
- ___4 Set the error message archive, consider the following property definitions:

Property	Description
DocErrorHandler.Enabled	Specifies whether to save or not to save the generated error reports onto a disk. 1=on, 0=off. Default data: 1
DocErrorHandler.Path	Specifies the path where the error reports are archived. Data: archive/ErrorReport
DocErrorHandler.Msg.Extention	The generated error message file extension. Data: html
DocErrorHandler.Msg.XSLT.File	The name of the xslt file for creating error message files. Data: Error_Msg_Html.xsl

❑ Set the API and MI-program settings

Use this procedure to set the API and MI-program properties. Perform this if the pooling of the connections is enabled.

For more information, see "[API Clean Up and Validation](#)" on page 44.

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **MvxAPIEnabled** group and expand the view.
- ___4 Set the API and MI-program, consider the following property definitions:

Property	Description
<code>MvxAPI.Pool.Enabled</code>	If enabled, MEC will pool the API connections. 1=on or 0=off Default data: 1
<code>MvxAPI.Pool.Cleaner.Sleep</code>	The interval in seconds when MEC checks for and removes expired connections. Data: 300
<code>MvxAPI.Pool.Connection.Expires</code>	The time in seconds after which an unused connection expires. Data: 300
<code>MvxAPI.Pool.Connection.Connect.Timeout</code>	The time in seconds after which an attempt to require a connection fails and the connection is closed. Data: 300
<code>MvxAPI.Pool.Connection.Read.Timeout</code>	The time in seconds after which a connection that waits on a reply is timed out. Timed out connection is considered dead and closed. Data: 60
<code>MvxAPI.Pool.Connection.CheckAPI.Time</code>	Skips API check if API was used within a specified number of seconds. Default data: 0 The default value 0 (zero) means to always perform check or validate.

Property	Description
<code>MvxAPI.Pool.Connection.Max</code>	Number of maximum connections in a pool, per node.
<code>MvxAPI.Pool.Connection.RetrySleepTime</code>	Number of milliseconds that the thread will sleep before checking free API connection in pool.
<code>MvxAPIMI-pgm.baseLib</code>	<p>This is set when the run-time server is accessing the M3 APIs.</p> <p>MEC is using the FPW to access the MI programs. The property specifies an explicit library where the FPW can find the MI programs.</p> <p>If commented, the FPW uses its own library list to locate the MI programs.</p> <p>Data: <code>MVXBMBD01</code></p>
<code>MvxAPI.Set.LstItems</code>	<p>0 < value < 99999. The value specifies the maximum number of records to be returned by any given API list call (<code>XXX001\LstItems</code>).</p> <p>If the value = 0, then no call will be made to</p> <p><code>XXX001\SetMaxLstRec</code>.</p> <p>Then the current API transaction's default value of 9999 will be used by M3.</p>

Setting Database Properties

☐ Set the Delete Interval

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **Other** group and expand the view.
- ___4 Set up the Delete Interval, consider the following property definitions:

The property `DeleteFromMecLogInterval` can be used to tune the relationship between the following:

- one big fast and transaction-log-consuming delete transaction
- several smaller more time consuming delete transactions that will require less transaction log space

The several delete operations results to a non-transactional operation.

Property	Description
<code>DeleteFromMecLogInterval</code>	<p>The property controls how big the chunks of data are to be deleted from MecLog at a time. The property value is given in <i>ms</i> with a default value of <i>24h</i>.</p> <p>If the user delete one weeks' worth of log from the GUI, then MEC will perform seven separate delete operations.</p> <p>Data: 86400000</p>

☐ Set the MEC Server data source

This is the database setting for MEC Application in addition to logging.

- ___1 In MEC Configuration page click the link to **Edit Properties**.
- ___2 Expand the view of **Application Defined Properties**.
- ___3 Scroll down to **Other** group and expand the view.
- ___4 Set up the MEC Server data source, consider the following property definitions:

Property	Description
<code>Database.ConnectionPool.Driver</code>	<p>The driver used to communicate with the database. This is purely JDBC driver.</p> <p>Data:</p> <p><code>com.microsoft.sqlserver.jdbc.SQLServerDriver</code></p>
<code>Database.ConnectionPool.URL</code>	<p>The connection parameters.</p> <p>Path: <code>DRIVER/COMPUTER:PORT</code></p> <p>Data:</p> <p><code>jdbc:microsoft:sqlserver://Computer.lawson.se:1433</code></p>

Property	Description
<code>Database.ConnectionPool.Auto</code>	Use only if the connection will be done by a trusted connection. Works only when using ODBC. Data: 0
<code>Database.ConnectionPool.User</code>	A case sensitive user name used to connect to the database. Data: <code>Usr</code>
<code>Database.ConnectionPool.Password</code>	The case sensitive password used to connect to the database.
<code>Database.ConnectionPool.Catalog</code>	The case sensitive database name. Data: <code>MEC_storage</code>
<code>Database.ConnectionPool.Schema</code>	The case sensitive schema name.
<code>Database.ConnectionPoolExt.RemoveInactivePools</code>	Use this to remove inactive pools if they have not been used for <code>RemoveInactivePoolsTimeout</code> . Data: <code>True</code>

Setting TaskPage

- 1 In MEC Configuration page click the link to **Edit Properties**.
- 2 Expand the view of **Application Defined Properties**.
- 3 Scroll down to **TaskPage**group and expand the view.
- 4 Set up the number of log records the TaskPage will monitor.

Property	Description
<code>TaskPage.queryWindowWidth</code>	Type an integer to set the number of log records the TaskPage will monitor for an "OK" or "FAIL" message. Data: integer

Setting ViewMessageLogsPage

- 1 In MEC Configuration page click the link to **Edit Properties**.
- 2 Expand the view of **Application Defined Properties**.
- 3 Scroll down to **ViewMessageLogsPage**group and expand the view.
- 4 Set up the following properties:

Property	Description
<code>ViewMessageLogPage.pageSize</code>	Type an integer (rows) to set the page size of MessageLogsPage. Data: integer
<code>ViewMessageLogsPage.timeout</code>	Type an integer (milliseconds) to set the duration of page inactivity after which the logs records cache will be cleared. Data: integer

Setting ProxyTimeout and Date Format

- 1 In MEC Configuration page click the link to **Edit Properties**.
- 2 Expand the view of **Application Defined Properties**.
- 3 Scroll down to **ProxyTimeout**group and expand the view.
- 4 Set up the following properties, use an integer data type:

Property	Description
<code>ArchiveMethodsProxy.timeout</code>	For proxy calls from archive page, indexQueryPage, searchArchivePage
<code>ProxyFactory.defaultTimeout</code>	The default timeout to be applied for all proxies obtained from ProxyFactory
<code>MessageMethods.Proxy.Timeout</code>	For proxy calls involving agreement redetect/retry/verify actions
<code>DataTranslatorProxy.timeout</code>	For proxy calls from DataTranslatorRemoteControl page

Property	Description
<code>LogMethodsProxy.timeout</code>	For proxy calls from downloadMessageLogsPage, logPage, LogQueryResultPage, viewMessageLogsPage
<code>MaintenaceMethodsProxy.timeout</code>	For proxy calls from message Detail page
<code>ChannelDelegatorProxy.timeout</code>	For proxy calls from comChannelPage, channelPauseResumeUIHelper
<code>ScheduleProxy.timeout</code>	For proxy calls from schedulelist page
<code>CentralSettingsProxy.timeout</code>	For proxy calls from advancedSearchPage
<code>ComTabProxy.timeout</code>	For proxy calls from APIPoolPage, poolPage, threadPoolPage
<code>BackuphandlerProxy.timeout</code>	For proxy calls from backUpRestorePage
<code>StatusHandlerProxy.timeout</code>	For proxy calls from defaultPage
<code>MapGenProxy.timeout</code>	For proxy calls from defaultPage
<code>ModuleControlProxy.timeout</code>	For proxy calls from defaultPage
<code>NodeInfoProxy.timeout</code>	For proxy calls from defaultPage
<code>DocAccessorProxy.timeout</code>	For proxy calls from downloadStreamProvider page, messageDetailPage, viewFilePage
<code>TempHandlerProxy.timeout</code>	For proxy calls from errorReportPage
<code>LoggersMgmBroadcastProxy.timeout</code>	For proxy calls from LogConfigurationPage
<code>ArchiveHandlerProxy.timeout</code>	For proxy calls from storeFilesPage

5 Scroll down to **DateFormat**group and expand the view.

6 Set up the following properties:

Property	Description
<code>DateUtility.dateFormat</code>	Pattern describing the date and time format shown in grid ui Data: string