E-Mail Campaign Manager 2.1 for Sitecore CMS 6.6

Administrator's and Developer's Guide

A Quick Start Guide and Configuration Reference for Administrators and Developers

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Chapter 1

Introduction

This document is designed for Sitecore administrators and developers. It contains information about how to set up, configure and tune the module.

For end user instructions, read the ECM Marketer's Guide.

The document contains the following chapters:

- **Chapter 1 — Introduction**
  The introduction to this guide.

- **Chapter 2 — Quick Start Guide**
  The steps required for the quick setup of the E-Mail Campaign Manager. The quick setup is the minimal amount of configuration that would let you use the module.

- **Chapter 3 — Configuration Manual**
  Practical advice on actions that you must perform to make the module ready for use by end users.

- **Chapter 4 — Performance Tuning**
  Some important techniques that let you optimize the module performance significantly.

- **Chapter 5 — ECM Configuration Reference**
  Module's configuration settings. This chapter also contains information that will help you to extend or modify the module.

- **Chapter 6 — Implementation Details**
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- **Chapter 7 — Advanced User Guide**
  The actions that you must perform to configure the module to send messages when a specific event occurs.

- **Chapter 8 — Tips and Tricks**
  Additional information on ECM requests and IIS user credentials.

Chapter 2

Quick Start Guide

This chapter describes how to quickly set up the E-Mail Campaign Manager. The quick setup is the minimal amount of configuration that would let you use the module.

This chapter contains the following sections:

- Setting up the Module

- Adding a Subscription Form to a Page

- Assigning Security Roles to ECM Users

2.1 Setting up the Module

After you install ECM, you must perform a Smart publish of the website. After that, you must configure the default settings and the Message Transfer Agent.

2.1.1 Configuring Default Settings

When you installed the module package, configure default settings:
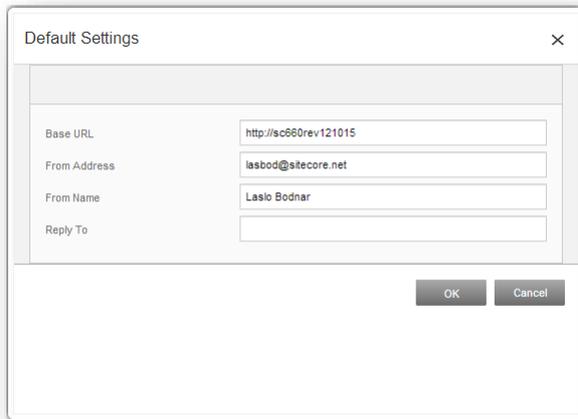
The default settings include the following ones:

- Base URL

  This is a required setting. Enter the website address of the ECM server in it. This URL is used in all the links in the email message.

- From address

  This is a required setting. Enter the sender email address in it.

- From name

  This is an optional setting. Enter the sender name in it.

- Reply to

  This is an optional setting. Enter the email address where the replies will be sent to.

To edit the default settings later, in the ECM application, in the **Most Recently Dispatched Messages**, click **Default Settings**.
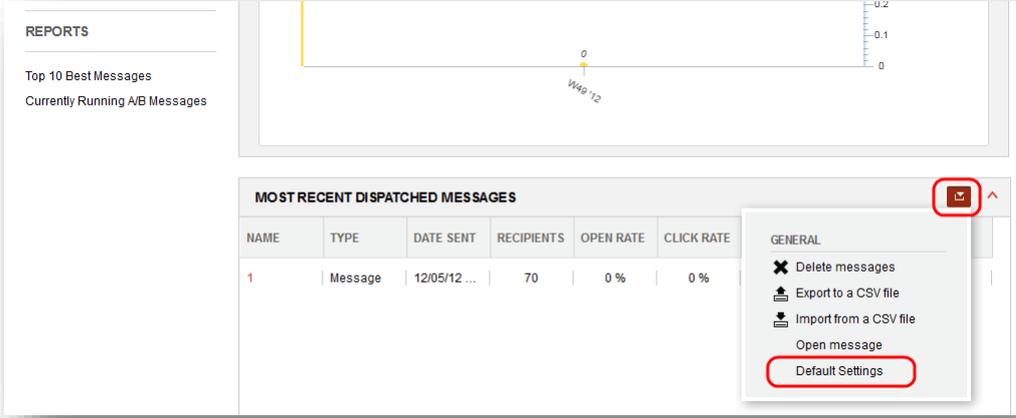
2.1.2   Configuring Message Transfer Agent

You can use either SAC's Message Transfer Agent (MTA) or custom MTA.

Using Sitecore App Center's Email Delivery Service as an MTA

The ECM module uses the external MTA by default. MTA is software that transfers email messages from one computer to another using a client–server application architecture.

The module obtains all the necessary SMTP settings from the *Sitecore App Center*. For more information about configuring SAC, see the *Configuring Sitecore Application Center* section.

You can test the MTA connection. For more information about how to test the connection, see the *Verifying a Connection between ECM and MTA* section.

Using a Custom MTA

If you have purchased the right to use a custom MTA, you should set the *UseLocalMTA* setting to true in the `Sitecore.EmailCampaign.Config` file:

`<setting name="UseLocalMTA" value="true" />`

Then you should configure all the required SMTP settings in the `Sitecore.EmailCampaign.Config` file in the `<sitecore>/<settings>` section.

2.2 Adding a Subscription Form to a Page

The ECM module contains the *Subscription Form* control that you can add to your pages. By default, the control is stored at `/sitecore/layout/Sublayouts/Email Campaign/Subscription Form`.
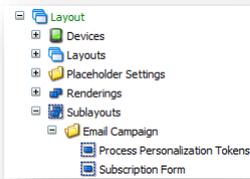
2.2.1 Subscription Form Control Properties

The *Subscription Form* control has the following module-specific properties:
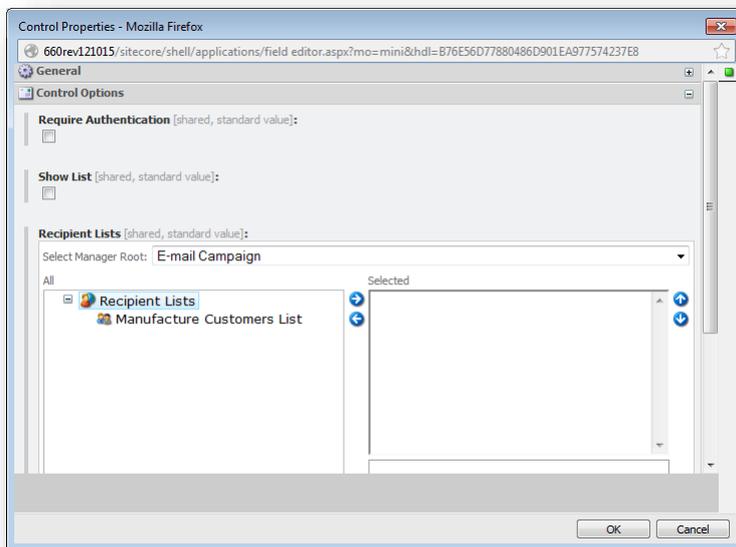
Require Authentication

When this check box is selected, only users who have logged in to the website can see the form control. Unauthenticated users see the message *Please login to change subscription settings*.

If you want to edit this text, open the following item:

/sitecore/system/Modules/Email Campaign Manager/Common Text/Please Login

Show List

When this check box is selected, recipient lists specified in the **Recipient Lists** field are displayed on the website.
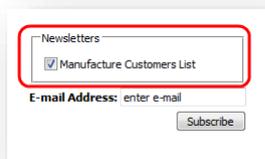
When a user clicks **Subscribe** on the website, they are added to the mailing lists they selected and removed from the lists they didn't select. For instance, if the user does not select any mailing lists and clicks **Subscribe**, they are unsubscribed from all of them.

When the **Show List** check box is not selected, recipient lists are not displayed on the website. When a user clicks **Subscribe** on the form, the user is subscribed to all the recipient lists specified in the **Recipient List** field of the control.

Recipient List

Use this field to specify the recipient lists for the current subscription form control.

The location of the manager roots (one or many) on your site is defined in the `/sitecore/system/Modules/Email Campaign Manager/System/Root List` item. The module updates this item automatically.

2.3   Assigning Security Roles to ECM Users

To let the marketers use the ECM application, you must assign one of the following roles to them:

- ECM Users
- ECM Advanced Users

Those roles provide enough rights to the users to work with the ECM.

If in your CMS solution the roles in roles feature is disabled, you must assign two more Sitecore roles to let the users edit the message body:

- sitecore\Sitecore Client users
- sitecore\Sitecore Client Authoring

For more information about ECM roles, see the section *ECM Security Roles.*

Chapter 3

Configuration Manual

This chapter describes the actions that administrator must perform to make the module ready for use by end users.

This chapter contains the following sections:

- Configuring Sitecore Application Center

- Collecting Delivery Status Notifications

- Configuring Dedicated Servers

- Configuring the Module on Scaled Environment

- Verifying a Connection between ECM and MTA

- Installing Design Importer with ECM 2.1

- Enabling Multi-Language Message Dispatch

3.1 Configuring Sitecore Application Center

To be able to send Email Campaign messages, you must configure SAC. For the detailed instructions about how to configure SAC, see the Getting Started with Sitecore App Center document on the SDN.

3.2 Collecting Delivery Status Notifications

Errors can occur at multiple places during e-mail delivery. A sender may receive a bounce message from the sender's mail server or from a recipient's mail server. When a server accepts a message for delivery, it is also accepting the responsibility to deliver a DSN (Delivery Status Notification) in the event the delivery fails.

Depending on whether you use the Sitecore MTA or not, the module uses one of the two methods to collect the DSN messages.

Using the Sitecore MTA

If you use the Sitecore MTA, then the SAC collects the DSN messages and then passes them to the module.

There is a scheduled task called **Check Bounced Messages** at the following location:

```
/sitecore/system/Tasks/Schedules/Email Campaign/Check Bounced Messages
```
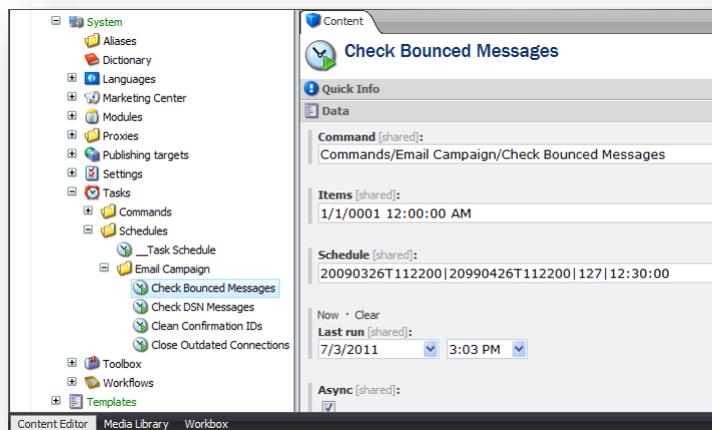

This scheduled task defines when and how the SAC checks the bounced messages and passes them to the ECM.

In the **Schedule** field, you can define when the task runs.

In this example, the **Schedule** field contains the following value:

```
20150126T235900|20151226T235900|127|12:00:00
```

This task will be executed from 26.01.2015 23:59:00 to 26.12.2015 23:59:00, every day (as specified by the number 127) and every 12 hours (as specified by 12:00:00).

In the **Schedule** field, you can place 4 parameters divided by pipe separators:

- From date

- To date

- Days of the week. Use the `DaysOfWeek` enumeration. For Monday and Friday, you should write 34 (2+32).

```
public enum DaysOfWeek
{
  None = 0,
  Sunday = 1,
  Monday = 2,
  Tuesday = 4,
  Wednesday = 8,
  Thursday = 16,
  Friday = 32,
```

```
        Saturday = 64,
    }
```

- Interval, for example: 01:00:00 – every 1 hour.

The **Items** field contains the time when the SAC collected the DSN messages last.

When this task runs, it collects the DSN messages starting from the time in the **Items** field and ending with the time defined by the expression "Current Time – 24 hours".

For example, if you run the task for the first time on July 5, it collects information from the beginning of the history to July 4. The **Items** field contains *July 4* value. If you run this task next day, on July 6 it collects information from July 4 to July 5. The **Items** field contains *July 5* value.

Using a Custom MTA

If you use a custom MTA, the module uses the settings in a **Manager Root** to collect the DSN messages.

The E-Mail Campaign Manager collects the DSN messages for analysis. To collect the DSN messages, the module connects to the mailbox specified in the **Return Address** field in the **Delivery Status Notifications** section of the **Manager Root**.

The following setting defines how frequently the module checks the Return Address e-mail for DSN messages:

/sitecore/system/Tasks/Schedules/Email Campaign/Check DSN Messages

The module collects DSN messages once a day by default.

You can configure the **Delivery Status Notifications** on a **Manager Root**.

To configure the module to gather DSN messages:

1. On the **Manager Root**, on the **Content** tab, in the **Delivery Status Notifications** section, check the **Collect Notifications** checkbox and enter the POP3 server settings.
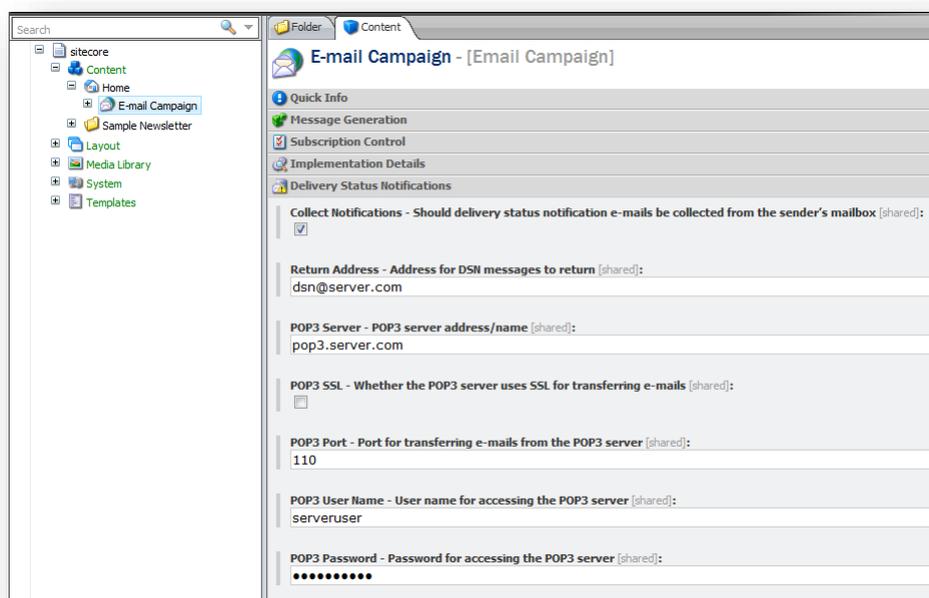
For more information about the fields in the **Delivery Status Notifications** section, see *Delivery Status Notifications*.

Now the module can connect to the sender's mailbox and gather the DSN messages.

3.3 Configuring Dedicated Servers

The E-mail Campaign Manager can use dedicated servers to speed up the message generation and sending process.

Every dedicated server contains a copy of the Sitecore CMS installation from the master server. This lets the dedicated server generate messages the same way as the master server. All servers share the same databases. The database server must support remote access to databases.

To configure the dedicated server:

1. Copy the Sitecore CMS installation to the dedicated server. You should copy the whole file system, but not the databases.

2. On the dedicated server, set the folder permissions required for Sitecore to run.

3. On the dedicated server, in the `ConnectionStrings.config` file, make sure the connections point to the same databases as the master server uses.

4. On the dedicated server, in the `Web.config` file, edit the absolute paths so that they point to correct locations. For example, the `dataFolder` setting.

5. On the dedicated server, remove the `<scheduling>` section from the `Sitecore.EmailCampaign.config` file.

6. On the dedicated server, start Sitecore and make sure that it works.

7. On the master server, in the `Sitecore.EmailCampaign.config` file, in the `<DedicatedServers>` section, enter the address of the dedicated server. For example:

```
<DedicatedServers>
    <address value="http://ecmdedicatedserver.net" />
</DedicatedServers>
```

Note
If you enter the IP address of the dedicated server in the address setting (for instance: `<address value="http://10.38.41.24" />`), then on the dedicated server Sitecore must run on the Default Web Site.

You have now configured the dedicated server.

You can configure several dedicated servers in this manner.

When you start the dispatch process on the master server, the same process starts on the dedicated servers. Each server accesses the list of subscribers in the Analytics database, takes one of the remaining subscribers, generates the message for them, and passes the message to the MTA configured for this server. The process continues as long as there are subscribers left in the list.

Tip
Use the *Sleep* setting to balance the load between the master server and dedicated servers. For more information about the *Sleep* setting, see ECM Tuning Guide on the SDN.

3.4 Configuring the Module on Scaled Environment

This section describes how to configure the module to work on a scaled environment - one Content Management (CM) server, and one or more Content Delivery (CD) server(s).

3.4.1 Multi-server Environment

You can scale the ECM module by configuring a multi-server environment.

To configure a multi-server environment:

1. Install the SPEAK and ECM packages on a CM server. For more information about installing the module, see Installation Guide on the SDN.

2. Deploy the module on all CD servers.

3. Make sure that the *Base URL* setting leads to a CD server.

4. Automate the Analytics Deployment on CD servers. For more information, see section 6.2.1 *DeployAnalytics.*

Important
Don't forget to publish message before sending (for online version availability).

3.4.2 Deploying the Module on a Content Delivery Server

When the module is installed on a CM server, deploy it on all CD servers.

To deploy the module on content delivery server(s):

1. Publish the *Master* database to every content delivery server.

   For more information about publishing the *Master* database, see the Scaling Guide document, section 3.1 *Configuring a Remote Publishing Target*.

2. Deploy the module files on CD servers.

   If CD servers don't have a client interface, copy the following files and folders from the CM server to every CD server:

   ```
   \App_Config\Include\Sitecore.EmailCampaign.config
   \bin\Sitecore.EmailCampaign.dll
   \layouts\ EmailCampaign\*
   \sitecore\ConfirmSubscription.aspx
   \sitecore\RedirectUrlPage.aspx
   \sitecore\Unsubscribe.aspx
   \sitecore\UnsubscribeFromAll.aspx
   \sitecore modules\shell\ EmailCampaign\*
   \sitecore modules\web\ EmailCampaign\*
   \xsl\ EmailCampaign\*
   ```

   If CD servers have the client interface, install the SPEAK and ECM packages on CD servers using the Installation Wizard.

3. Add the following connection string to the `connectionstrings.config` file on every CD server:

   ```
   <add name="EmailCampaignClientService"
   connectionString="url=http://<master_server>/sitecore%20modules/web/emailca
   mpaign/ecmclientservice.asmx;timeout=60000" />
   ```

   `<master_server>` stands for your master server address, for instance, www.site.net or 10.38.41.30.

Ensure that the master server can handle the inbound connection from CD servers. This may require configuring the firewall inbound rule with open port #80 or #443 for HTTP or HTTPS protocol respectively.

4. In the `\App_Config\Include\Sitecore.EmailCampaign.config` file, remove the following lines:

```
<initialize>
        <processor
type="Sitecore.EmailCampaign.Presentation.UI.Pipelines.Loader.InitializePresenterBinde
r, Sitecore.EmailCampaign.Presentation.UI" />
        <processor
type="Sitecore.EmailCampaign.Presentation.UI.Pipelines.Loader.ConfigurePresenterBinder
Container, Sitecore.EmailCampaign.Presentation.UI" />
</initialize>
```

and:

```
<scheduling>
    <agent type="Sitecore.Tasks.DatabaseAgent" method="Run" interval="00:00:59"
hint="ECM">
        <param desc="database">master</param>
        <param desc="schedule root">/sitecore/system/modules/e-mail campaign
manager/tasks</param>
        <LogActivity>true</LogActivity>
    </agent>
</scheduling>
```

3.5 Verifying a Connection between ECM and MTA

If you use MTA provided by SAC or have configured your local (custom) MTA server, you can test the connection.

To test the connection:

1. Start the **E-mail Campaign Manager**.

2. Select the **E-mail Campaign** root item.

3. On the **E-mail** tab, in the **Server** group, click **Test Connection**.
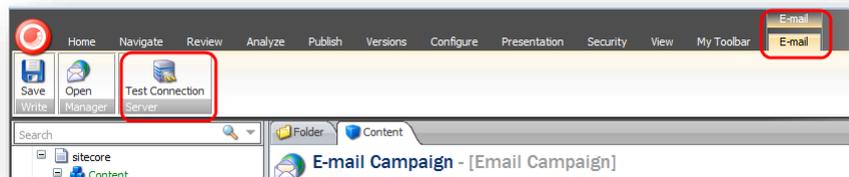
The module starts the **Test Email Connection** dialog box. Click **Show Details** to see the detailed information.
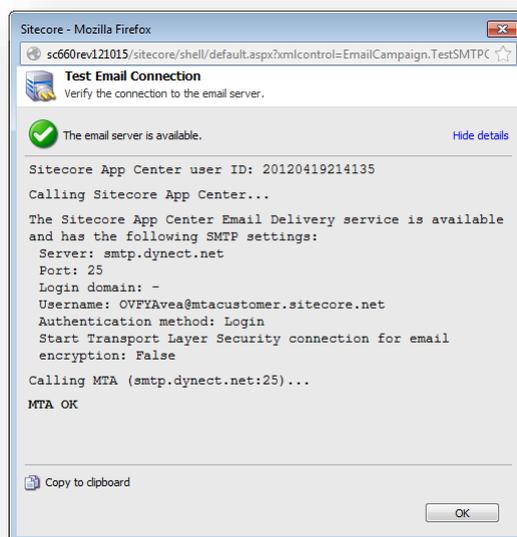
Let's take a look at the information that the dialog box contains.

- **Sitecore App Center user ID**

This line indicates your ID in the SAC service.

- **Calling Sitecore App Center…**

```
Calling Sitecore App Center...
The Sitecore App Center Email Delivery service is available
and has the following SMTP settings:
 Server: smtp.dynect.net
 Port: 25
 Login domain: -
 Username: OVFYAvea@mtacustomer.sitecore.net
 Authentication method: Login
 Start Transport Layer Security connection for email
 encryption: False
```

To obtain your MTA settings, the tool contacts SAC and lists the settings it obtains if the call is successful. If the call is not successful, the tool displays an error message and some hints that may help you to troubleshoot the problem:

```
Calling Sitecore App Center...
 Your Sitecore App Center credentials are incorrect, or
 you do not have a valid license. Correct your
 credentials in Sitecore App Center or contact Sitecore
 Customer Service.
 Solution: Check the alerts and configuration settings in
 the Email Delivery Service in Sitecore App Center.
```

- **Calling MTA…**

```
Calling MTA (smtp.dynect.net:25)...
MTA OK
```

If the tool obtains the SMTP settings successfully, it uses them to call the MTA. If the call is successful, you see the **MTA OK** message.

If the call is not successful, the tool displays an error message and some hints that may help you to troubleshoot the problem. If you click the *Connection failed* link, the tool displays more details about the problem that it encountered.

3.6 Installing Design Importer with ECM 2.1

If you installed the Design Importer module after installing ECM 2.1 and if you plan to use the Design Importer with ECM, then you must install the Design Importer Update package that you find on the ECM 2.1 Downloads page.

3.7 Enabling Multi-Language Message Dispatch

Starting from version 2.1, the ECM lets you deliver messages to recipients in their preferred language.

This functionality is disabled by default. To enable it, edit the following setting in the `Sitecore.EmailCampaign.config` file:

```
<setting name="LanguageFieldName" value="" />
```

This setting specifies the property name of a user profile, which the ECM uses as a recipient's preferred language. For instance, the following setting will work with a default recipient profile:

```
<setting name="LanguageFieldName" value="ContentLanguage" />
```

Chapter 4

Performance Tuning

The speed with which emails are sent and delivered depends on a complex set of factors and dependencies. For more information about how to optimize the performance of the ECM, see the ECM Tuning Guide on the SDN.

This chapter contains the following sections:

- Using the Performance Measurement Tool

- Using the Emulation Mode to Test Performance

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4.1 Using the Performance Measurement Tool

The **ECM Performance Measurement Tool** is designed to give the customer or consultant a view into the performance of an E-mail campaign based on current configuration settings.

CPU Cores:	4	Number of Threads:	50
Automation State Bulk Fetch: 1000		Max Generating Threads:	10
CPU Usage:	91% on this server	Max SMTP Connections:	100
		Send Emulation Time:	[0...2] ms

Message: Newsletter Message
Start time: 2012-02-02 17:57:20
Duration: 00:00:32.9347490

Fetch AutomationStates		Fetch Recipient		Generate Single Email (avg)		Send Email	
Total	0 ms			Total:	225 ms	Failed send attempts:	0
Lock:	0 ms	Wait:	N/A	Wait:	0 ms	Wait:	0 ms
Process: 0 ms		Process: 3 ms		Process:	225 ms	Process:	21 ms
					Load User: 3 ms		
					GetPage: 180 ms		
					Collect files:3 ms		
					Generate MIME:34 ms		

Fetching Speed:145112 state/s   Fetching:43 recipient/s   Generating:43 email content/s   Sending: 43 email/s
Required Bandwidth:1004 KB/s

Sending: 45 emails/s on this server
Total mails   1441 on this server
sent:

For information about how to access and use this tool, see the ECM Tuning Guide document on the SDN.

Note
A user must belong to the *ECM Users* or *ECM Advanced Users* role in order to use the tool.

4.2 Using the Emulation Mode to Test Performance

The ECM module provides means of testing campaign throughput by emulating a MTA. MTA emulation allows you to mimic the round trip time required to send an E-mail from the Sitecore CMS to a MTA.

Emulation can be configured in two modes

1. Emulation for a Single Message.

    You can select this mode for a specific message in the **Options** section, on the **Content** tab.
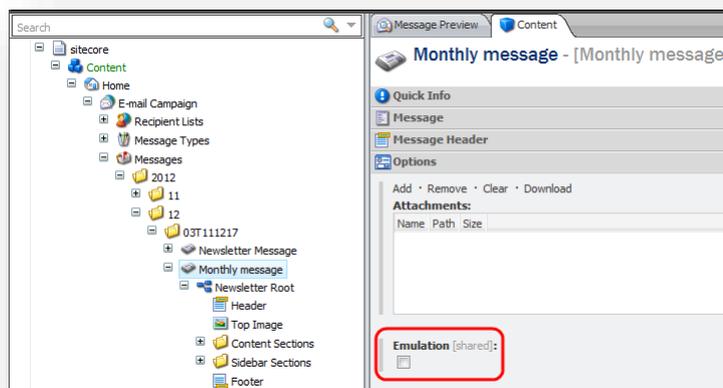
    You can also select the emulation mode for a single message using the **Dispatch Options** dialog in the ECM user interface:
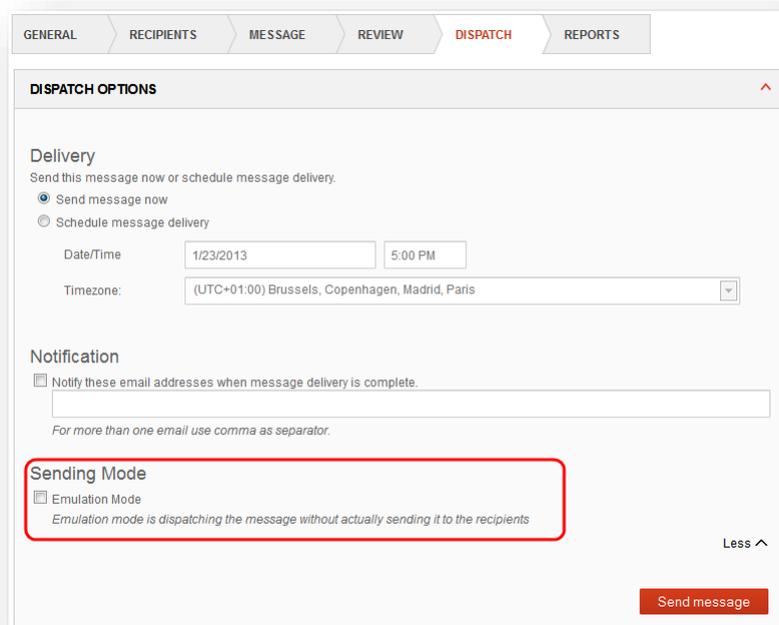
2. Emulation for the Server level Dispatch.

    You can configure this mode with the `MtaEmulation.Active` setting in the `Sitecore.EmailCampaign.config` file.

For more information about configuring and using the emulation mode, see <u>ECM Tuning Guide</u> on the SDN.

Chapter 5

ECM Configuration Reference

This chapter describes the module's configuration settings. You can configure the module using the configuration file and tune it at different levels: global level, message root level, message type level or at specific message level. This chapter also contains information that will help you to extend or modify the module.

This chapter contains the following sections:

- Sitecore.EmailCampaign.config

- Global Settings

- Manager Root Settings

- Message Type Configuration

- Message Configuration

- ECM Actions

- Using ECM in Multi-Site Environments

- Personalization and the Online Message Version

- Emails that Bounce and the Undelivered Max Setting

- The Message Engagement Plan

- ECM Security Roles

- Designing Message Layouts and Renderings

- Issues with Sitecore CMS Web.config Settings

5.1 Sitecore.EmailCampaign.config

This section describes the main `Sitecore.EmailCampaign.config` settings, located in the `<sitecore>/<settings>` section.

Setting name	Sample value	Description
UseLocalMTA	false	Set to "true" if you want use the custom SMTP settings from the `Sitecore.EmailCampaign.config` file. You should purchase the right of using the "UseLocalMTA" setting first.
Debug	false	Specifies whether verbose logging in Sitecore log files is enabled. Use to troubleshoot ECM problems.
NumberThreads	4	The number of threads that you can use for sending messages. For information about tuning the performance using this setting, see ECM Tuning Guide on the SDN.
MaxGenerationThreads	8	Specifies how many sending threads can generate messages at the same time. By default, the MaxGenerationThreads setting has a default value of Environment.ProcessorCount * 2. For more information about this setting, see ECM Tuning Guide, Chapter 4, *Tuning Procedures.*
RecipientsRequestSize	500	This is the number of recipients that are queued from the analytics database in a single request. For more information about this setting, see ECM Tuning Guide, Chapter 4, *Tuning Procedures.*
Sleep	50	The amount of time to wait between sending messages (ms).
MaxConnectionUnavailable	9000	The period of time (in seconds) the module tries to restore an MTA connection before a dispatch is paused.
MaxSendingAttempts	5	The number of attempts to send a message (in case of need). These attempts are done when there is a connection with the MTA, but the sending process fails on the sending server side.
CheckReceiverRights	false	If the value of this setting is false, the module does not check whether the current subscriber has access to the item being rendered during the message generation. For best performance, make sure that this setting is false.
RolesInRoles	false	This setting defines whether the module accounts users that belong to roles that are nested in roles. This is related to the **Opt-in/Opt-out Role** fields.

Setting name	Sample value	Description
ConfirmationPeriod	10	The period (in days) after which Sitecore deletes a user who used a subscription control to subscribe to a mailing list, but did not confirm the subscription.
EmailValidation	Any valid RegExp	The regular expression that is used for e-mail validation. For more information, see section *5.1.1*, *The EmailValidation setting*.
MaxMessageFolderSize	50	The maximum number of messages (or message related campaigns, tests, etc.) that ECM creates in a single folder. If there are more messages than this number, the ECM creates another folder.
PhoneFieldName	phone	The field name in a Sitecore user profile. The value of this field is used as a contact phone number. This property was added to the `Sitecore.EmailCampaign.config` file because a corresponding field does not exist in the default user profile in Sitecore CMS. You should change the value of this setting if you already have the phone number field in your custom user profile.
ShellSiteName	shell	The name of the Shell website as it is specified in your `Web.config` file.
IIS.User	serviceuser	The user name to log in with if anonymous access is disabled.
IIS.Password	12345	The password to log in with if anonymous access is disabled.
MtaEmulation.Active	false	Set to true to enable MTA emulation mode. For more information about this setting, see ECM Tuning Guide, Section 4.4, *MTA Emulation.*
MtaEmulation.MinSendTime	200	This is the minimum amount of time, in milliseconds, to emulate the sending of a single E-mail. Use this in conjunction with `MtaEmulation.MaxSendTime` to mimic the behavior of Sitecore CMS to MTA round trip time.
MtaEmulation.MaxSendTime	400	This is the maximum amount of time, in milliseconds, to emulate the sending of a single E-mail.
MtaEmulation.FailProbability	0.01	This setting allows you to introduce the probability of connection failure into your emulation. For more information about this setting, see ECM Tuning Guide, Section 4.4, *MTA Emulation.*
Proxy.Enabled	false	If this setting is set to true, the ECM will request the SMTP server via a proxy server.
Proxy.Type	HTTP	This setting contains the type of the proxy server. Valid values are: "HTTP", "SOCKS4", "SOCKS5".

Setting name	Sample value	Description
`Proxy.HostName`	site.com	This setting contains the proxy server IP address or DNS name.
`Proxy.Port`	80	This setting contains the proxy server port.
`Proxy.AuthMethod`	LOGIN	This setting contains the HTTP authentication method of the proxy server. Valid values are: "LOGIN", "NTLM"
`Proxy.Username`	username	This setting contains the user name for logging into the proxy server.
`Proxy.Password`	Pass123	This setting contains the password for logging into the proxy server. The value is ignored for SOCKS4 proxy type.
`QueryStringKey.Campaign`	ec_camp	This setting specifies the name of the query string parameter, which identifies an e-mail campaign.
`QueryStringKey.AutomationState`	ec_as	These settings are used internally by the module when building query strings for generating messages.
`QueryStringKey.EcmId`	ec_id	
`QueryStringKey.Recipient`	ec_recipient	
`QueryStringKey.Subscription`	ec_subscr	
`SMTP.Server`	localhost	SMTP server address or IP.
`SMTP.Port`	25	Port number of the SMTP server.
`SMTP.LoginDomain`		Domain for logging into SMTP server.
`SMTP.UserName`	admin	User name for logging into SMTP server.
`SMTP.Password`	12345	Password for accessing the SMTP server.
`SMTP.AuthMethod`	LOGIN	SMTP Authentication method ("NONE", "LOGIN", "PLAIN", "CRAM-MD5", "NTLM")
`SMTP.StartTLS`	false	Start TLS option. When set to true, this makes the mailman to issue a STARTTLS command and switch over to a secure SSL/TLS connection prior to authenticating and sending e-mail.
`SMTP.MaxConnections`	100	The maximum number of concurrent SMTP connections allowed to open. For more information about this setting, see ECM Tuning Guide, Chapter 4, *Tuning Procedures.*
`SMTP.ConnectionExpiration`	180	The period of time (in seconds) the module keeps an SMTP connection open (since the last usage).
`StandardMessages.SubscriptionConfirmation`	<relative path to the item>	When a visitor subscribes to a mailing list, they receive this message from Sitecore. This message contains the subscription confirmation link.
`StandardMessages.SubscriptionNotification`	<relative path to the item>	When a user clicks on the confirmation link in the subscription confirmation message, the ECM sends this message to them.

Setting name	Sample value	Description
StandardMessages. UnsubscribeNotification	\<relative path to the item\>	When a subscriber opts out from a mailing list, they receive this message from ECM.
StandardMessages.UnsubscribeFromAllNotification	\<relative path to the item\>	When a subscriber opts out from all mailing lists, they receive this message from ECM.
StandardMessages. DispatchCompleted	\<relative path to the item\>	When the dispatch process is finished, Sitecore sends this message to the e-mail address specified in the **Dispatch Process Notifications** section.
StandardMessages.TrickleNotification	\<relative path to the item\>	This setting specifies the path to the activation status message of a triggered message.
UrlValidation	Any valid RegExp	The regular expression that is used for URL validation. This validation is applied in places where users enter URLs.

5.1.1   The EmailValidation setting

When a user submits an email address, E-mail Campaign Manager uses the *EmailValidation* setting to verify that the string is in valid email format.

The *EmailValidation* setting takes a regular expression for email validation as a value.

The default regex is not RFC compliant and does not cater for all cases. To address specific regional use cases or business needs, you should use a custom regular expression.

For more information about the RFC standards, see the RFC specifications at the IETF website.

The *EmailValidation* setting is located in the `<sitecore>/<settings>` section of the ECM configuration file:

`\App_Config\Include\Sitecore.EmailCampaign.config`

You can replace the default value with your custom regex:

```
<setting name="EmailValidation" value="^[a-zA-Z0-9 -]+(?:\.[a-zA-Z0-9 -]+)*@(?:[a-zA-Z0-
9](?:[a-zA-Z0-9-]*[a-zA-Z0-9])?\.)+[a-zA-Z0-9](?:[a-zA-Z0-9-]*[a-zA-Z0-9])?$" />
```

The recommended way to modify the setting is to comment out the default value or to override the configuration file to keep a record of the initial value.

5.2 Global Settings

This section describes the global module settings that are common to all the manager roots in a solution.

The item that contains the global module settings is located at /sitecore/system/Modules/Email Campaign Manager.
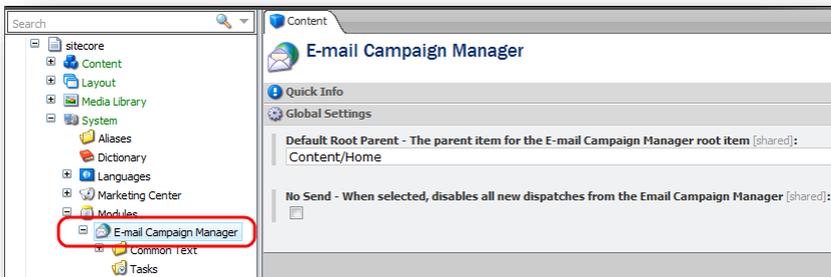
You can also access this item by selecting **Sitecore, All Applications, Email Campaign, Settings** on the Sitecore Desktop.

This item contains the following settings:

Setting name	Sample value	Description
Default Root Parent	<path to item>	This field defines the parent item, under which the manager root should be located.
No Send	false	When selected, the actual access to the SMTP server is suppressed and you receive the "Sending Disabled" message when you try to dispatch messages.

5.2.1 Common Text

This item contains the various labels and messages that are used throughout the module.
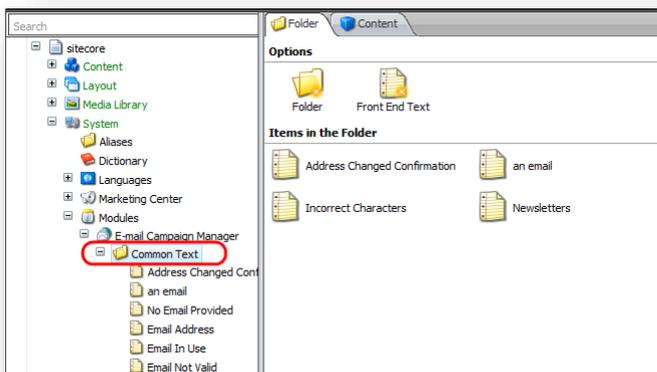
5.2.2 Tasks

This item contains the scheduled dispatches. If you decide to dispatch messages at a specific time, Sitecore creates the appropriate task under this item.

5.2.3　System

This item contains the system items that are used by the module.

App Center

This item stores settings for Sitecore Application Center in the ECM application.

Root List

This item contains the list of manager roots in the **Manager Roots** field. The module uses this list, among other things, to display the available subscription lists in a subscription form. This item is updated automatically.
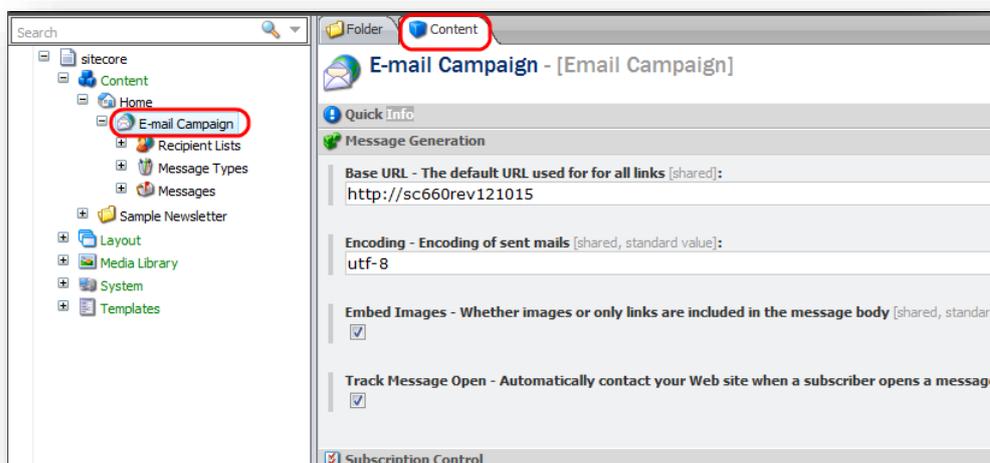
Security Key

This item contains the private system key used during the message generation. The module generates this key automatically during the installation.

5.3 Manager Root Settings

This section describes the manager root settings. To see these settings, select the manager root item and then select the **Content** tab on the right.

The manager root item contains the following sections:

- Message Generation
- Subscription Control
- Implementation Details
- Delivery Status Notification
- Default Message Header

5.3.1 Message Generation

This section contains the following settings:

Setting name	Sample value	Description
Base URL	http://localhost/	The website address used for links in messages and for images, if they are hosted on the website.
Encoding	utf-8	The encoding used for the outgoing messages.
Embed Images	true	Whether images are embedded in the message or links to images are inserted.
Track Message Open	true	When selected, the module embeds a one-pixel image in the message to track whether a subscriber opens the message.

5.3.2 Subscription Control

In this section, you specify the pages that a site visitor is redirected to when they subscribe to a mailing list and when they change their subscription preferences.

This section contains the following settings:

Setting name	Sample value	Description
Already Unsubscribed	<path to item>	When a visitor who is already unsubscribed clicks on the unsubscribe link, the module displays this page.
E-mail Sent Confirmation Page	<path to item>	When a visitor submits the subscription form, Sitecore sends a confirmation e-mail and redirects the visitor to this page. By default, this field is empty which means that the visitor stays on the same page after submitting the form.
Final Confirmation Page	<path to item>	This is the page the visitor is redirected to after changing their mailing list subscriptions (for instance, cancelling a subscription to a specific mailing list). By default, this field is empty which means that the visitor stays on the same page.

5.3.3 Implementation Details

In this section, you specify the security domain for the manager root, the opt-out role common to all target audiences under this root, and the default subscriber profile.

This section contains the following settings:

Setting name	Sample value	Description
Common Domain	Emailcampaign	The domain common to all the recipient lists under this root.
Common Opt-out Role	Emailcampaign\ Common Opt Out	This is the opt-out role that is common to all the recipient lists under this root. Users who are members of this role will not receive messages from any of the recipient lists under this root.
Default Subscriber Profile	Profiles/Subscri ber	The user profile that is used for all the subscribers of this manager root.
Undelivered Max	10	The maximum number of temporary delivery failures per subscriber. For example, recipient server response timeout is a temporary failure. For more information about this setting, see section *5.9, Emails that Bounce and the Undelivered Max Setting*

5.3.4 Delivery Status Notifications

If the module uses a custom MTA to send messages, it uses this section to configure how the DSN messages are collected. If the module uses the Sitecore MTA, then it uses SAC to collect the DSN messages and this section is ignored.

This section contains the following settings:

Setting name	Sample value	Description
Collect Notification	cleared	Whether or not to collect delivery status notifications from the e-mail box used by the module for sending messages. If this check box is cleared, the rest of the section is ignored. If this check box is selected, but other fields of this section are empty, these fields will be inherited from the manager root. If this check box is cleared, the module behaves as though all the messages are delivered successfully.
Return Address	dsn@site.net	The e-mail address for collecting the DSN messages. The MTA service sends DSN messages to this address. The module gets DSN messages from this address for analysis using POP3 protocol.
POP3 Server	pop.server.com	The POP3 server address/name.
POP3 SSL	Default	Whether or not the POP3 server uses SSL for transferring messages.
POP3 Port	110	The port for transferring messages from the POP3 server.
POP3 User Name	serveruser	The POP3 server user name.
POP3 Password	12345	The POP3 server user password.

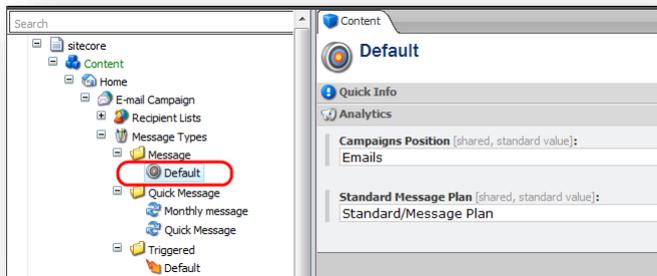## 5.3.5 Default Message Header

In this section, you can specify the **From Name**, **From Address** and **Reply To** settings that are used by all the messages.

5.4 Message Type Configuration

You can configure messages on a message type level, setting up their default parameters.

5.4.1 Message

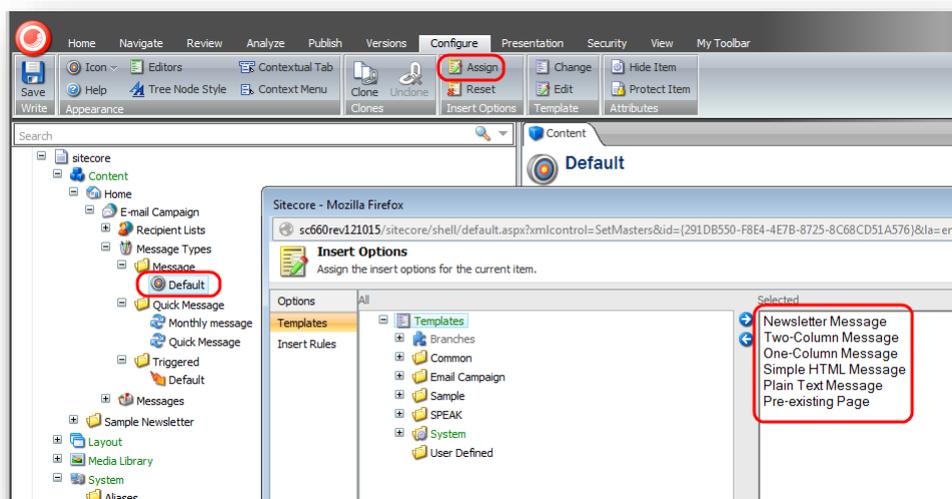The item that contains the message type settings is located at *sitecore*.

This item contains the following settings:

Setting name	Sample value	Description
Campaign Position	Emails	This field defines the default campaign category that stores campaigns related to this message type. Marketers can change this value in the ECM UI.
Standard Message Plan	Standard/Emails	This field defines the default engagement plan for the message type. Marketers cannot choose another engagement plan in the ECM UI, they can only edit it.

Configuring Insert Options for the Message Type

To change the range of message templates that marketers can choose under the Message type:

1. Select `/sitecore/system/Modules/Email Campaign Manager/Message Types/Message/Default` item.

2. On the ribbon, in the **Configure** tab, click **Assign**.

3. In the **Insert Options** dialog box, change the range of message templates.

5.4.2 Subscription Message

The items that contain the subscription message type settings are located at
`/sitecore/system/Modules/Email Campaign Manager/Message Types/Subscription Message`.

You can configure several templates for subscription messages so they contain specific recipient list and message header.
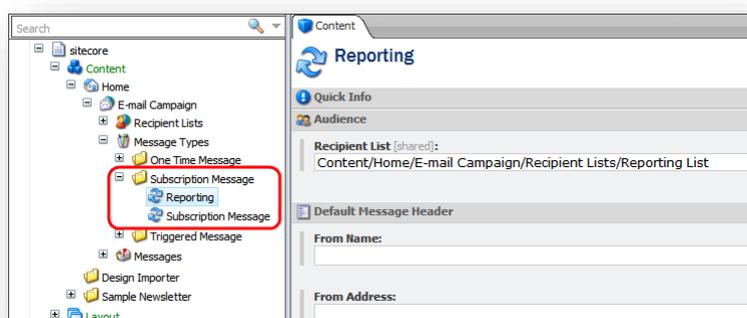
This item contains the following settings:

| Setting name	Sample value	Description
Recipient List	\<path to item\>	Default recipient list for the message
From Name	Paolo	Default sender's name
From Address	Paologi@paologiacom.com	Default sender's address
Reply To	support@paologiacom.com	Default email address for replies
Campaign Position	Emails	This field defines the default campaign category that stores campaigns related to this message type. Marketers can change this value in the ECM UI.
Standard Message Plan	Standard/Emails	This field defines the default engagement plan for the message type. Marketers cannot change this value in the ECM UI.

Configuring Insert Options for the Subscription Message Type

You can change message template that marketers can use under the Subscription Message group.

For example, you want to implement two different groups of subscription messages with different default settings. Moreover, each group should contain specific message templates.

To implement this task, perform the following actions:

1. Create items under `/sitecore/Content/Home/E-mail Campaign/Message Types/Subscription Message`:
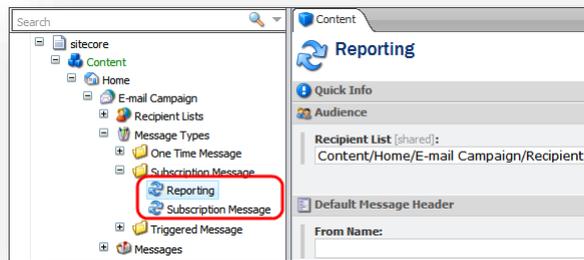
2. Configure insert options for both items:
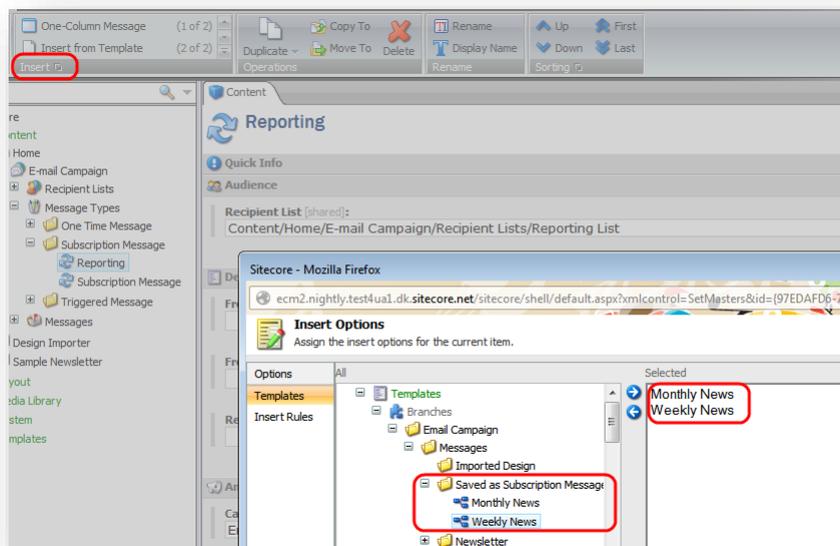
Now when you configured two groups of subscription messages, marketers can use them in the ECM UI. They see groups as folders:

When marketers select a group, they see insert options as message templates:

5.4.3 Triggered Message

The item that contains the triggered message type settings is located at
`/sitecore/system/Modules/Email Campaign Manager/Message Types/Triggered/Default.`

This item contains the following settings:

Setting name	Sample value	Description
Campaign Position	Emails	This field defines the default campaign category that stores campaigns related to this message type. Marketers can change this value in the ECM UI.
Standard Message Plan	Standard/Emails	This field defines the default engagement plan for the message type. Marketers cannot choose another engagement plan in the ECM UI, they can only edit it.

Configuring Insert Options for the Triggered Message Type

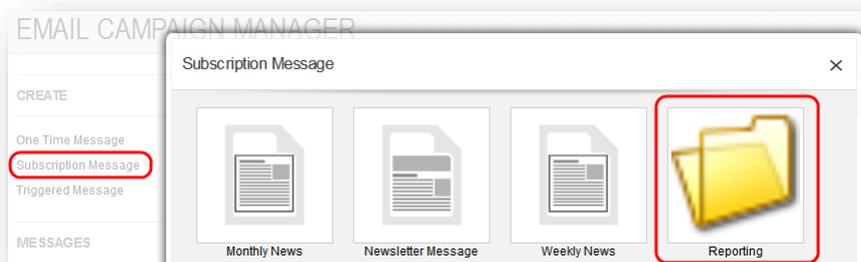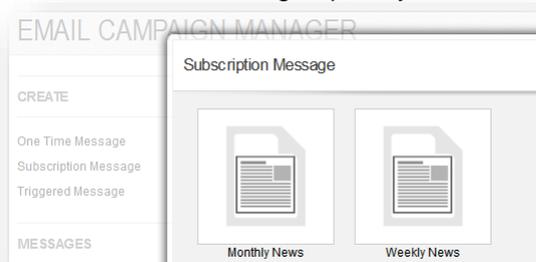To change the range of message templates that marketers can choose under the Triggered Message type:

1. Select `/sitecore/system/Modules/Email Campaign Manager/Message Types/Triggered/Default` item.

---

2. On the ribbon, in the **Configure** tab, click **Assign**.
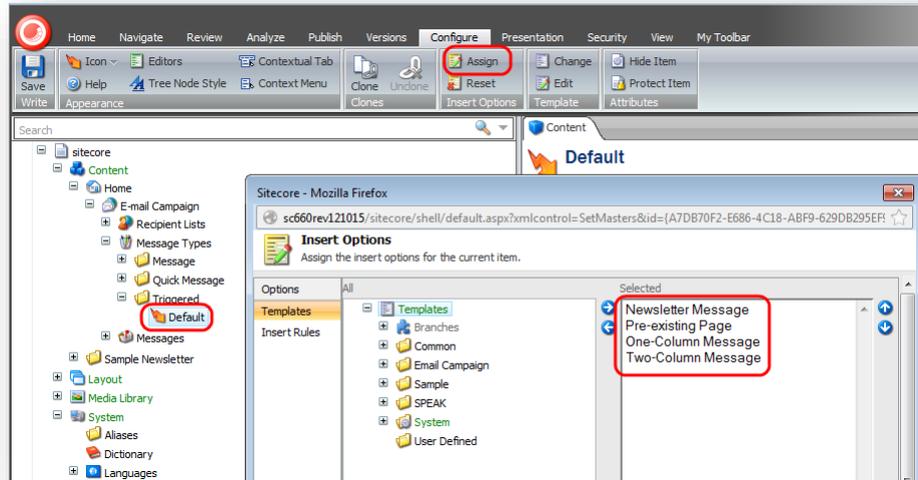
3. In the **Insert Options** dialog box, change the range of message templates.

5.5 Message Configuration

You can configure settings on a specific message.

To configure a message, in the **Content Editor**, under the `Sitecore/Content/Home/E-mail Campaign/Messages` folder, select a message in the appropriate subfolder.

5.6   ECM Actions

This section describes the engagement automation actions and rule engine actions that the ECM installs.

5.6.1   Engagement Automation Actions
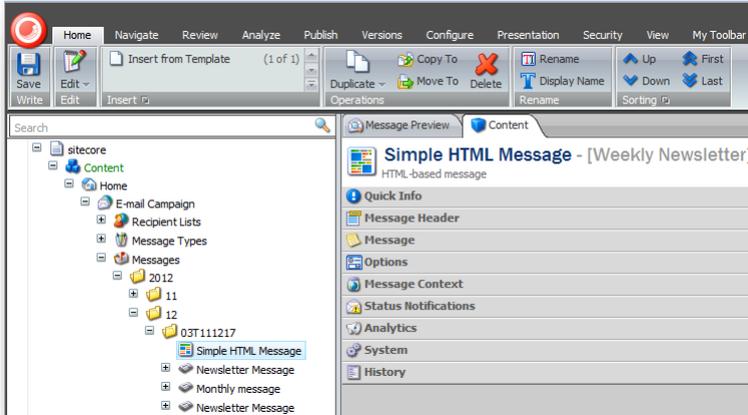
The **ECM** module provides two engagement automation actions in the default installation: **Send Email Campaign Message** and **Edit Email Audience**. The Marketing Automation Monitor performs these actions on the visitors who meet the conditions that you specify in the plan. The items of both actions are stored in the following folder:

```
sitecore/system/settings/analytics/engagement automation/predefined
items/actions.
```

You can configure both actions directly in the engagement plan. For more information about configuring automation actions, see the *How to Use ECM Actions* section in the ECM Marketers Guide.

5.6.2   Send E-mail Rule Engine Action

The ECM module installs the Send Email rule engine action at the following path:

```
/system/Settings/Rules/Common/Actions/Send Email
```

You can use this action to send a triggered message to the current context user when a specific event occurs.

Make sure that the triggered message that you use with this action is activated. Otherwise, the ECM will not send it.

Note
If the current context user has an empty Email field in their user profile, the action will not work.

5.7 Using ECM in Multi-Site Environments

Organizations that use the E-mail Campaign Manager in multi-site environments must define business logic to differentiate between sites when:

- A Sitecore user accesses the E-mail Campaign Manager.

- They use the E-mail Campaign Manager.

A manager root contains all the settings that control the end user experience when they work with the module.

5.7.1 How to Differentiate Manager Roots between Sites

In this example, we assume that an organization has the following business logic:

- There are several sites defined in a Sitecore solution and each site has its own manager root.

- A user who logs into the Sitecore Desktop has access only to one manager root.

By default, the module searches for the manager root under the item defined in the **Default Root Parent** setting:
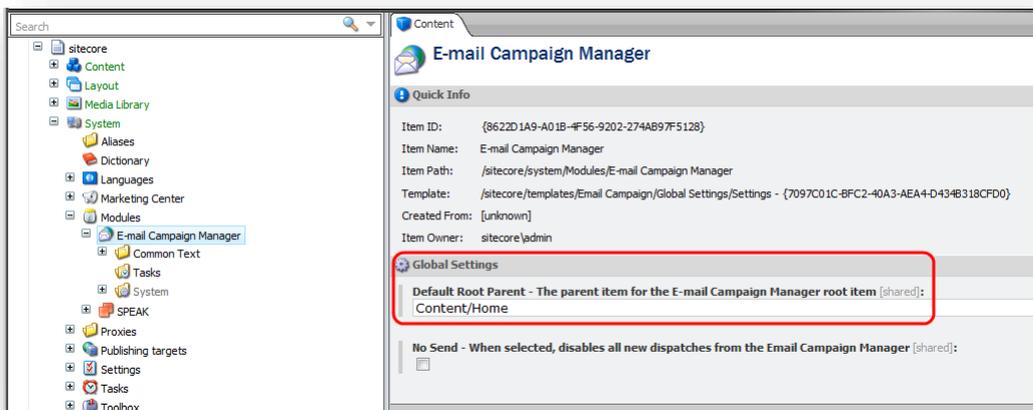
In a multi-site solution, the manager roots that relate to different sites may be located in different places in the content tree. The ECM can display several manager roots for one user and the user can switch between roots using the root switcher:
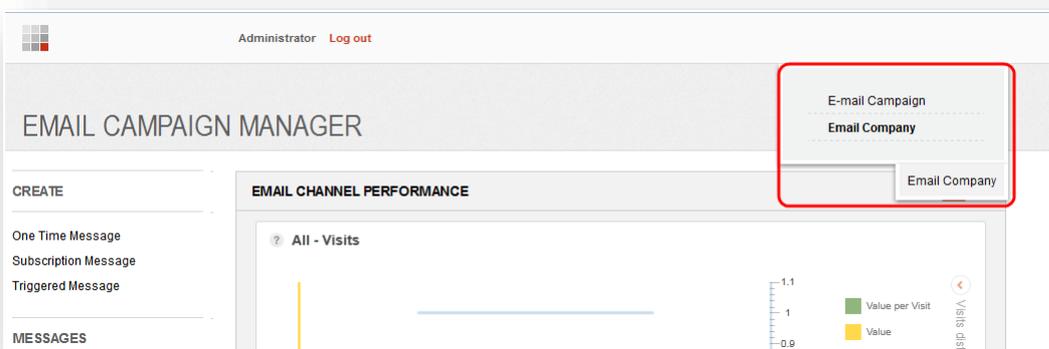
You can use standard Sitecore security applications to grant users permissions to specific manager roots.

5.8 Personalization and the Online Message Version

In an e-mail campaign, you may want to have an online version of your newsletter and let people view it in a browser or send links to it to their friends.

For instance, take a look at the following sample newsletter. It contains tokens and the link that lets subscribers view the online version:

When a subscriber receives the message and clicks this link, they are redirected to the online copy of the newsletter.

The online copy:

- Is personalized.

- Does not contain the "Please click here to see…" header and the "Unsubscribe Instructions" footer.

- Is created automatically when the message is created.

The online copy looks like this:

The ECM recognizes an online copy automatically and does not render appropriate controls.

5.8.1 Process Personalization Tokens Sublayout

The *Process Personalization Tokens* sublayout substitutes tokens with appropriate values from subscriber profiles.

When attached to a message definition item, this sublayout overrides the `OnLoad` method and substitutes the tokens. For instance, this is how the **Device Editor** dialog box looks when you attach the sublayout:
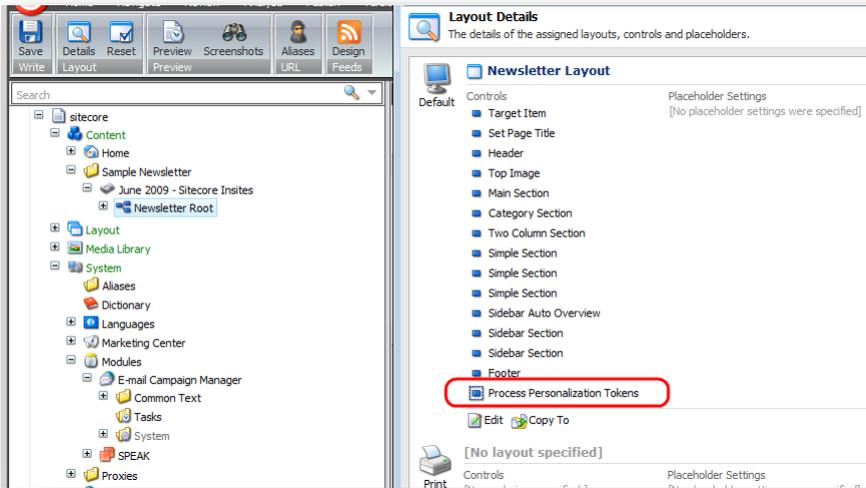
The sublayout uses the `ec_as` parameter to get the subscriber profile values for tokens. You can change `ec_as` value in the *QueryStringKey.AutomationState* parameter, in the `Sitecore.EmailCampaign.config` file.

The *Process Personalization Tokens* sublayout is attached to the following message templates by default:

- Newsletter Message.

- Two-Column Message.

- One-Column Message.

5.9　Emails that Bounce and the Undelivered Max Setting

This section describes how the ECM deals with emails that bounce.

A *bounce* email is a message that is returned to the sender because it cannot be delivered for some reason. There are two kinds of bounce email: soft bounce and hard bounce.

A *soft bounce* is a temporary failure and there is a chance that the recipient will receive the message eventually. A soft bounce means that the email address is recognized by the recipient's mail server but the message is returned to the sender because the recipient's email box is full, the mail server is temporarily unavailable, or the recipient no longer has an e-mail account at that address.

A *hard bounce* is a permanent failure. A hard bounce means that the email is permanently bounced back to the sender because the address is invalid.

A subscriber's profile contains the **UndeliveredCount** property, which is incremented by one when a soft bounce is registered for this subscriber.

A manager root item contains the **Undelivered Max** setting, which defines the maximum number of soft bounces per subscriber, or the maximum value of the UndeliveredCount property.

When the UndeliveredCount value equals the Undelivered Max value, the module does not send messages to this subscriber. If a hard bounce is registered for a subscriber, their UndeliveredCount property is set equal to the Undelivered Max.

When a subscriber clicks a link in a message that was sent to them using the ECM, their UndeliveredCount property is set to null.

Note

The Email Delivery service offered by the Sitecore App Center moves an e-mail to the suppression list when the number of soft bounces for this e-mail reaches a predefined limit. Therefore, if the ECM is used with the Sitecore MTA, the Undelivered Max setting must be configured according to this value.

For more details, see the Email Delivery for Sitecore ECM document.

5.10   The Message Engagement Plan

The ECM installs the Engagement Plan called **Message Plan,** which is stored at the following location: `/sitecore/system/Marketing Center/Engagement Plans/Email Campaign/Standard/Message Plan`.

When a user creates a new message, Sitecore creates a copy of the standard engagement plan (referred to as the "message plan") in a location that is defined in the **Campaigns Position** field of a message type:
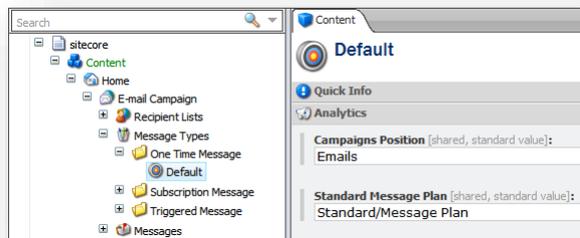
The ECM uses this engagement plan to reflect the state of visitors during the dispatch process. Business users may extend the message plan to define automated behavior for the message.

When a message is dispatched, the engagement plan must be deployed to the Analytics database before the first message is queued for sending.

You can specify a default engagement plan for every target audience using the settings of the target audience item.

The following image shows the Marketing Automation Monitor with the ECM Message Plan:
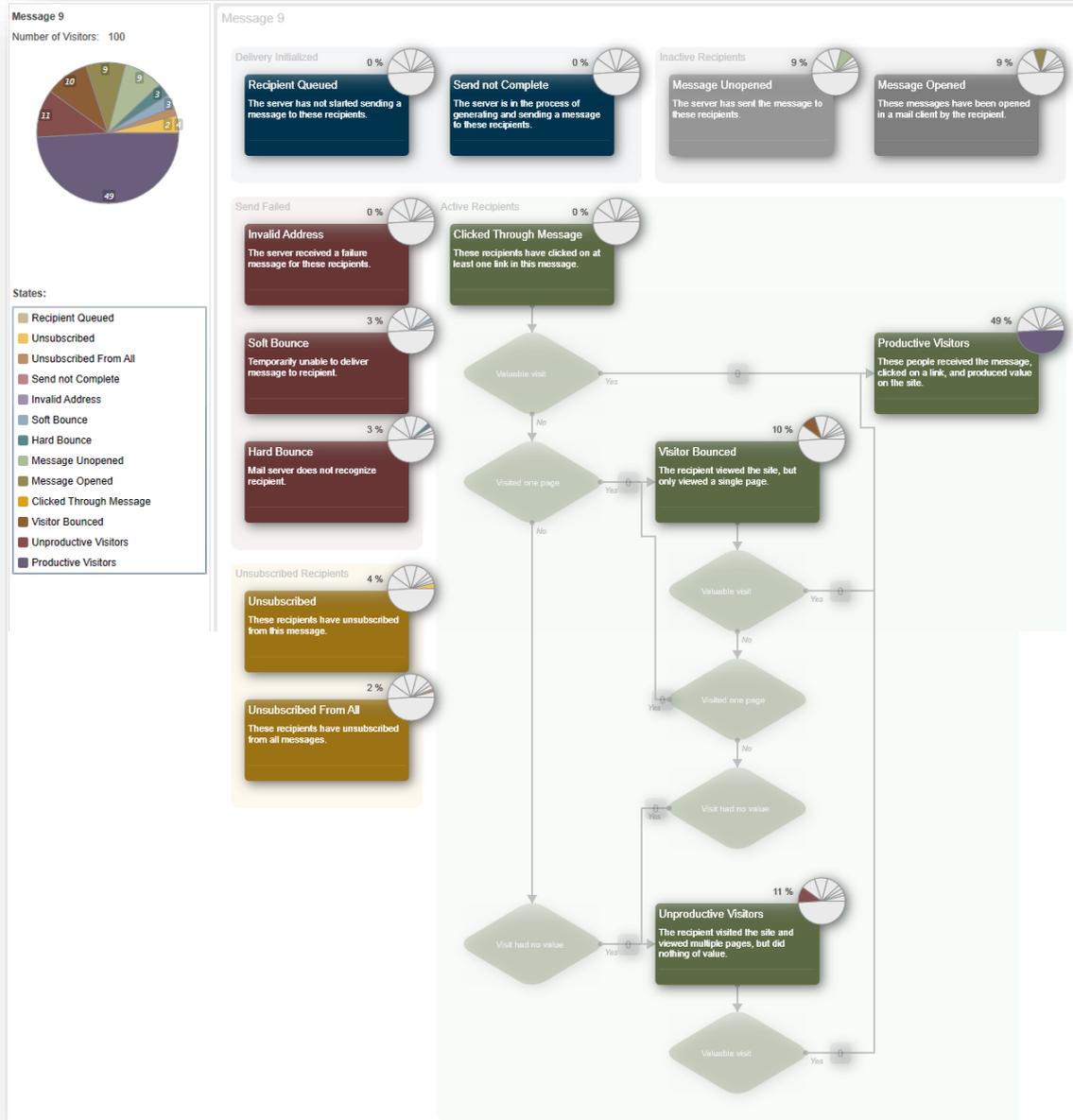
For information about the groups, states and conditions in the message plan, see the manual ECM Marketer's Guide, Section 7.3, *Marketing Automation Monitor*.

5.11   ECM Security Roles

The ECM installs two security roles:

- ECM Users.
- ECM Advanced Users.

Both roles provide access rights to the ECM application.

ECM Users

This role limits user's access to some features of the ECM application:

Access Granted	Access Rejected
All the functionality of the ECM application is accessible except for the features that are listed in the **Access Rejected** column.	Change default settings
	Delete messages
	Edit the engagement plan
	Open behavior monitor
	Change recipient lists for the periodical messages
	Expand the **More** tab in the **General** tab

ECM Advanced Users

This role provides the user with the access rights to all the functionality of the ECM application.

Access Granted	Access Rejected
All the functionality of the ECM application is accessible.	-

Sitecore Roles Required by ECM Users to Edit a Message Body

The ECM Users or ECM Advanced Users role is enough for the ECM user to be able to work with messages. However, if a CMS solution, where the ECM is installed on, disables the roles in roles feature in the `Web.config` file (the *rolesInRolesManager* parameter) then you must assign two more Sitecore roles in addition to either ECM Users or ECM Advanced Users role:

- sitecore\Sitecore Client users
- sitecore\Sitecore Client Authoring

Make sure you added the mentioned above roles to the ECM Users and ECM Advanced Users roles if roles in roles is disabled on your CMS solution.

5.12   Designing Message Layouts and Renderings

In order to be processed properly, all renderings used in a message layout should have the following value in the **Parameters Template** field of a rendering:

/sitecore/templates/Modules/Email Campaign/ID Source Based Parameters

For instance:
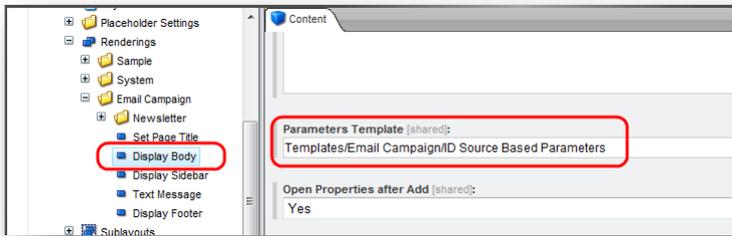
5.13　Issues with Sitecore CMS Web.config Settings

If the following setting exists in the `Web.config` file on an installation where ECM 2.0 is installed, the Create One Time message command will not work displaying the "Page not found" error (383429):

```
<encodeNameReplacements>
<replace mode="on" find=" " replaceWith="-" />
</encodeNameReplacements>
```

This issue is caused by a limitation in ECM 2.0.

Workaround:

- In the `Web.config` file, remove the following setting:

  ```
  <replace mode="on" find=" " replaceWith="-" />
  ```

Chapter 6

Implementation Details

This chapter describes how the dispatch process works and what the administrator must do to make this process reliable and smooth.

This chapter contains the following sections:

- Dispatch General Overview

- Dispatch Process

6.1 Dispatch General Overview

This section describes the general principles of the dispatch process. For instance, what services and applications are involved in the process and how to configure the Firewall.

The dispatch process differs depending on which type of MTA you use – Sitecore's MTA through the Sitecore App Center or a custom MTA.

6.1.1 Using the Sitecore MTA

This section describes the general principles of the dispatch process in case you use the Sitecore MTA.

The following diagram contains details about the steps in the dispatch process and the required configuration:
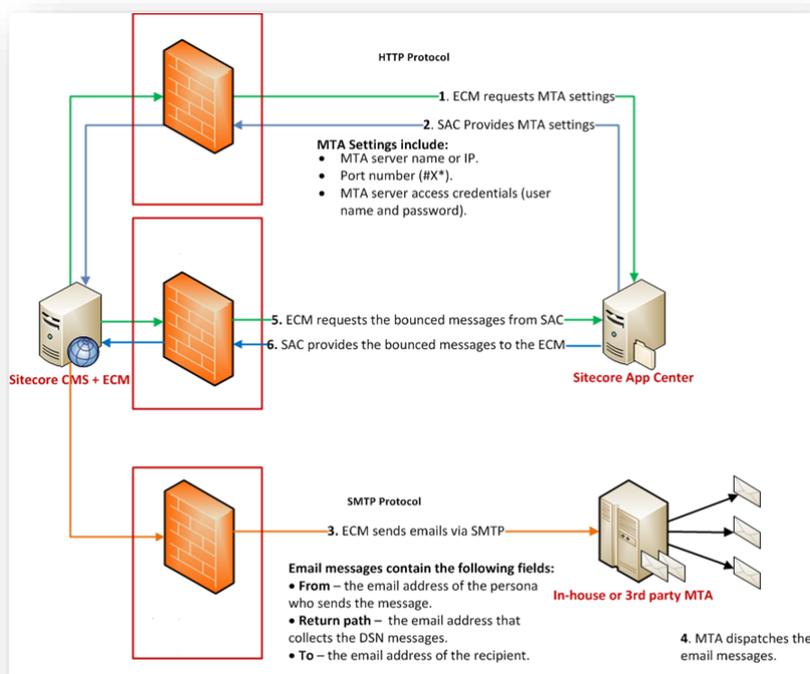
Note
Sitecore MTA requires that you open ports 25, 80, and 443.

A typical environment contains the following components:

- The **ECM** module installed on a Sitecore CMS behind a firewall.

- The **Sitecore App Center (SAC)**.

  When the ECM starts dispatching the messages, it checks with the Sitecore App Center that you have purchased the Email Delivery service to send this batch of messages and gets the SMTP server settings to use when sending the messages. The ECM caches these settings and uses them for all further dispatches to increase performance. The module requests the updated settings from SAC only in case when it encounters a problem with sending a message.

- The in-house or third party MTA.

The following list describes the events that take place during the dispatch process and the settings related to the steps.

Step 1. The ECM module connects to the SAC and requests the MTA settings.

Related setting: the connection string in the `ConnectionStrings.config` file.

For this connection, in the firewall, you must create the outbound rule with open port #80. The HTTP protocol is used.

The SAC charges your account to send this batch of messages and sends the MTA server settings.

Step 2. The SAC provides the MTA settings.

The MTA settings include:

- MTA server name or IP.

- Port number (#X).
  The ECM module uses this port to contact the MTA.

- MTA server access credentials (user name and password).

Step 3. The ECM module sends e-mail messages to the MTA.

The ECM module sends e-mail messages to the MTA using the settings obtained on the previous step.

For this connection, in the firewall, you must create the outbound rule with open port #X. The SMTP protocol is used.

Email messages contain the following data:

- **From** – the email address of the person who sends the message.

- **To** – the email address of the recipient.

- **Message body**.

Step 4. The MTA sends the e-mail messages to the recipients.

Step 5. The ECM requests the information about the bounced messages from SAC.

The ECM requests the information about the bounced messages from SAC using a scheduled task. For more information about this scheduled task, see section *Using the Sitecore MTA*.

For this connection, in the firewall, you must create the outbound rule with open port #443. The HTTPS protocol is used.

### Step 6. The SAC provides the information about the bounced messages to the ECM.

The SAC provides the information about the bounced messages to the ECM.

For this connection, the firewall must allow the inbound traffic coming as a response to the request generated in step 5.

6.1.2 Using a Custom MTA

This section describes the general principles of the dispatch process in case you use a custom MTA.

The following diagram contains details about the steps in the dispatch process and the required configuration:
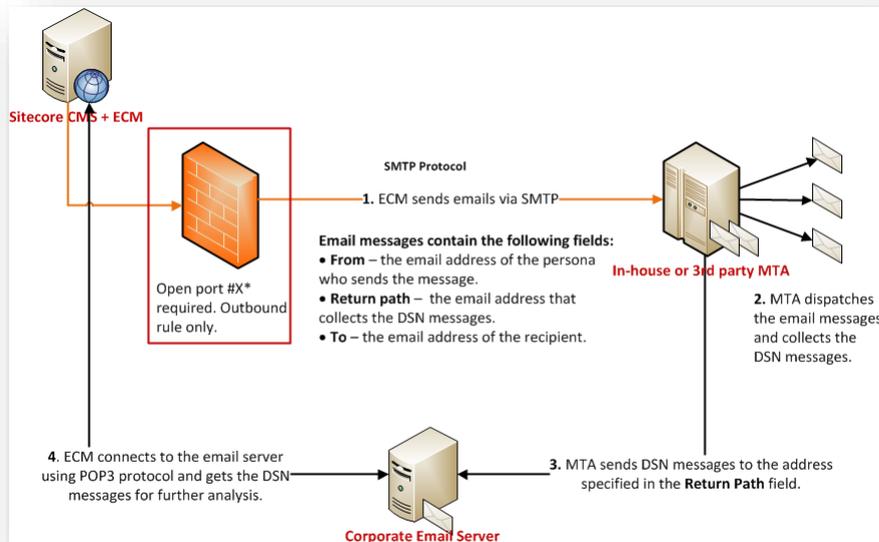
A typical environment contains the following components:

- The ECM module installed on a Sitecore CMS behind a firewall.
- The in-house SMTP server.

The following list describes the events that take place during the dispatch process and the settings related to the steps.

Step 1. The ECM module sends e-mail messages to the MTA server.

The ECM module sends e-mail messages to the MTA server using the settings in the `Sitecore.EmailCampaign.config` file.

For this connection, in firewall, you must create the outbound rule with open port #X. The SMTP protocol is used.

Step 2. The MTA sends the e-mail messages to the recipients.

Step 3. The MTA server sends the DSN messages to the corporate email address.

The SMTP server sends the DSN messages to the address specified in the Return Address field. Usually this address is hosted on a corporate e-mail server.

Step 4. The ECM module connects to the e-mail server and gets the DSN messages for further analysis.

The POP3 protocol is used for this connection. For more information about collecting the DSN messages, see section *Collecting Delivery Status Notifications*.

6.2 Dispatch Process

The dispatch process starts when one of the following events occurs. There may be other conditions that can start the dispatch process, but these are the most common ones.

- A user launches the message dispatching using the **Dispatch** tab.

- The scheduled dispatch time arrives.

- A user clicks **Resume** on the **Dispatch** tab.

- A user clicks **Send Now** on the **Dispatch** tab when the message is scheduled to be sent later.

- The *Send Email Campaign Message* action is triggered.

When the dispatch process is triggered, the following actions take place.

If you use the Sitecore MTA, the module checks with the Sitecore App Center that you have purchased the Email Delivery service to send this batch of messages and gets the SMTP server settings to use when sending the messages.

If the *UseLocalMTA* setting is set to true, the module checks whether your license permits you to use your own MTA.

After the module has checked with the Sitecore App Center, the `DispatchNewsletter` pipeline starts. The following section describes the processors of this pipeline.

6.2.1 DispatchNewsletter Pipeline

The `DispatchNewsletter` pipeline is defined in the `Sitecore.EmailCampaign.config` file. This section describes the processors in this pipeline and contains a conceptual description of how the message generation process works.

In this section, we assume that a Newsletter type message is being dispatched, since this message requires the utilization of most of the module's features.

CheckPreconditions

This processor checks whether all the conditions that are required to start sending the message are met.

MoveToProcessing

This processor changes the state of the message from *Draft* to *Sending*.

DeployAnalytics

This processor changes the workflow state of the analytics definitions that are related to the message (engagement plan, campaign, subject MV test) to **Deployed** and saves the definitions in the Analytics database.

Automating the Analytics Deployment on CD Servers

If the value of the `Analytics.DefaultDefinitionDatabase` setting is different from `master` (for example, on CD instances it may be set to `web`), make sure that the analytics definition items (campaign, engagement plan) are published immediately after the dispatch is started (to be precise – after the `DeployAnalytics` processor is executed). This will ensure that the analytics data tracking is accurate.

We suggest the following way to automate this:

1. Add an **Auto Publish** action (`/sitecore/system/Workflows/Sample Workflow/Approved/Auto Publish`) to the **Deployed** state of the Analytics workflow (`/sitecore/system/Workflows/Analytics Workflow/Deployed`).

2. In `Web.config`, in the `/configuration/sitecore/databases/` setting, add the definition of the workflow provider to the default definition database (on CD servers this is often the *Web* database):

```
<database id="web" singleInstance="true" type="Sitecore.Data.Database,
Sitecore.Kernel">
...
<workflowProvider hint="defer" type="Sitecore.Workflows.Simple.WorkflowProvider,
Sitecore.Kernel">
<param desc="database">$(id)</param>
<param desc="history store" ref="workflowHistoryStores/main" param1="$(id)"/>
</workflowProvider>
...
```

QueueMessage

In this processor, the master server creates automation state records for subscribers (one automation state per subscriber) in the Analytics database.

Note
If this processor stops unexpectedly (for example, if the server reboots), every automation state is created again.

LaunchDedicatedServers

The master server launches the *DispatchNewsletter* pipeline on the dedicated servers. The web service on the dedicated server ensures that the pipeline skips this step, the *MoveToProcessing* processor, and other appropriate steps that should be skipped.

The master server and the dedicated servers share the same Analytics database.

SendMessage

In this processor, the master server and the dedicated servers generate and send messages.

In this processor, the following actions are performed:

The processor gets a contact from the list in the Analytics database.

Each server accesses the list of subscribers and takes one of the remaining subscribers to generate the message for. The process continues as long as there are subscribers left in the list.

For every subscriber, the processor:

- Assigns the appropriate automation state to the message.

- Assigns the Sitecore user that corresponds to this subscriber to the message.

- Raises the *subscriber:assigned* event.

- Requests the page that corresponds to the message.

  o Sets the user as the context user for the requested page. Security restrictions are applied.

- Adds the "message opened" image.

- The processor starts the `SendEmail` pipeline and in that pipeline:

  o The page gets personalized.

  o The message is sent to the MTA defined in the `Sitecore.EmailCampaign.config` file.

The process continues as long as there are subscribers left in the list.

MoveToSent

This processor changes the state of the message from *Sending* to *Sent*.

NotifyDispatchFinished

This processor sends the notification when the dispatch process is finished.

FinalizeDispatch

This processor cleans up the internal variables of the round-robin MV test process and closes the remaining connections to the SMTP server.

6.2.2   SendEmail Pipeline

The `SendEmail` pipeline is defined in the `Sitecore.EmailCampaign.config` file. The `SendMessage` processor starts this pipeline for every email message to be sent. This section describes the processors of this pipeline.

FillEmail

This processor implements the personalization in the message.

SendEmail

This processor sends the e-mail message to the MTA defined in the `Sitecore.EmailCampaign.config` file.

Chapter 7

Advanced User Guide

This chapter contains information about the actions that administrator must perform to configure the module to send messages when a specific event occurs.

This chapter contains the following section:

- Send a Message When a Specific Event Occurs

- The ECM Double Opt-In Process

## 7.1 Send a Message When a Specific Event Occurs

You use the *Send E-mail* rule engine action to send a message when a specific event occurs.

For instance, this section describes how to implement the following behavior:

- You delete an item.

- Sitecore checks whether this item is based on a specific template or not.

- If it is, Sitecore sends a message to you.

To create the rule that implements this:

1. Navigate to the `/sitecore/system/Settings/Rules/Item Deleted/Rules` folder.

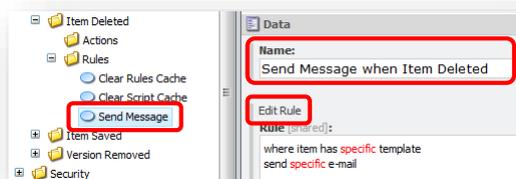2. In the **Folder** tab, click **Rule**.
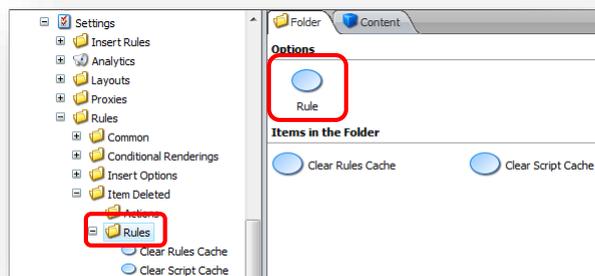
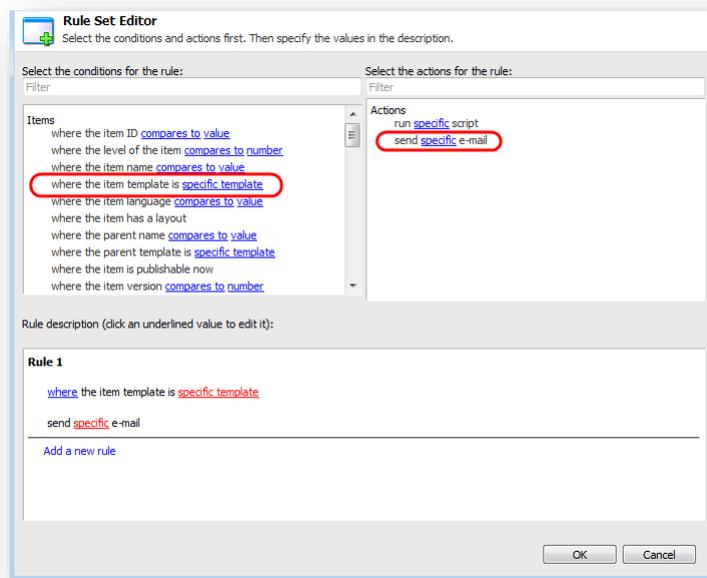3. In the prompt dialog box, enter the name of the new rule and click **OK**.
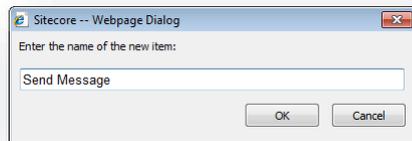
Sitecore creates the new rule.

4. Select the new rule. Enter the name of the rule and click **Edit Rule** in the **Rule** field.

5. Select the *where the item template is specific template* condition and the *send specific e-mail* action.

6. In the **Rule description** field, in the phrase *where item has specific template,* click the word *specific* and Sitecore opens the **Select Item** dialog box.
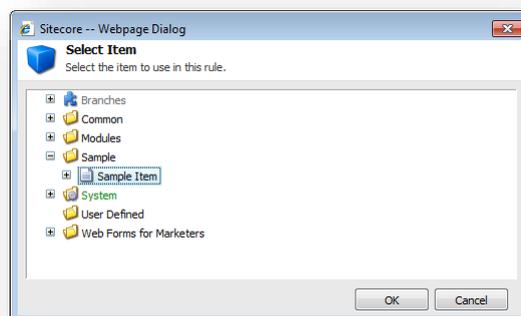
Select the template you would like to use as the rule condition and click **OK**.

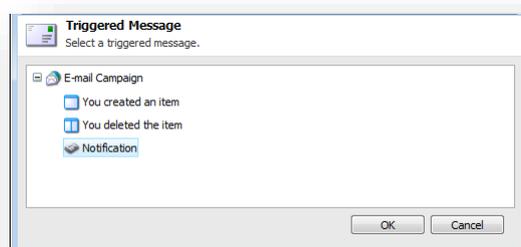7. In the **Rule description** field, in the phrase *send specific e-mail,* click the word *specific* and Sitecore opens the **Triggered Message** dialog box.

Select the message that you want to send. Click **OK**.

8. Now your **Rule description** field should look like this:
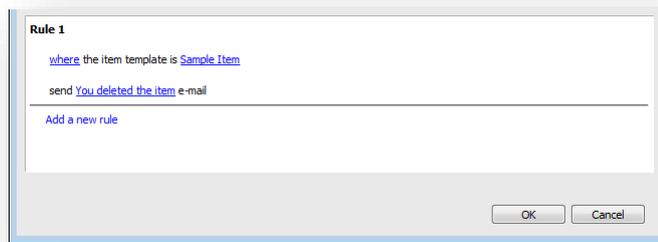
9. Click **OK**.

10. Save the rule.

You have now configured the rule. When you delete an item based on the specified template, Sitecore sends you the message.

Important
ECM only sends active triggered messages.

7.2 The ECM Double Opt-In Process

The E-mail Campaign Manager provides a series of controls and messages that help you to set up and customize a double opt-in subscription process.

The ECM double opt-in process consists of the following steps:

1. Signing up via the self-service subscription control. ECM provides a default subscription form control.

   For more information about the subscription form control, see the section *Adding a Subscription Form to a Page*.

2. Adding a subscriber to the database. After submitting the subscription form, a new subscriber is assigned a unique ID and is added to the database as a user with the Subscriber role.

3. Redirecting to a confirmation page (optional).

4. Sending a confirmation message with a subscription confirmation link.

5. Sending a subscription notification message to a user who confirmed the subscription. A user who subscribed to a mailing list, but did not confirm the subscription within the confirmation period, is deleted from the database.

By default, subscribers stay on the same page after changing the mailing list subscriptions. However, you can create custom confirmation pages and provide the module with the paths to start redirecting subscribers. You can also customize messages that the module sends to subscribers during the subscription process.

You cannot disable the subscription confirmation or otherwise switch to single opt-in.

7.2.1 Customizable Settings of the Double Opt-In Process

The ECM double opt-in process provides the following customizable settings:

Setting name	Setting location	Description
E-mail Sent Confirmation Page	Manager root item > Subscription control	Lets you redirect subscribers to a confirmation page. You specify the relative path to your custom page item. By default, this field is empty.
StandardMessages. SubscriptionConfirmation	Sitecore.EmailCampaign.config	Lets you use a custom confirmation message. You replace the default value with the relative path to your custom message item. The default value is: `Service Messages/Self-Service Subscription/Subscription Confirmation`
Final Confirmation Page	Manager root item > Subscription control	Lets you redirect subscribers to a final confirmation page. You specify the relative path to your custom page item. By default, this field is empty.
StandardMessages. SubscriptionNotification	Sitecore.EmailCampaign.config	Lets you use a custom subscription notification message. You replace the default value with the relative path to your custom message item. The default value is: `Service Messages/Self-Service Subscription/Subscription Notification`

Setting name	Setting location	Description
ConfirmationPeriod	Sitecore.EmailCampaign.config	Lets you set a custom confirmation period in days. You specify how many days the subscription confirmation link expires. The default value is `10` (days).

For more information about the Subscription control section of the manager root item, see the section *Manager Root Settings*.

For more information about the Sitecore.EmailCampaign.config settings, see the section *Sitecore.EmailCampaign.config*.

Chapter 8

Tips and Tricks

This chapter contains information about IIS user credentials and how to detect requests from ECM.

This chapter contains the following sections:

- Detecting Requests from ECM

- IIS Access

- How to Use $name$ token

- Code Samples

8.1 Detecting Requests from ECM

You can let the layout on your page know whether the ECM is requesting the message body or if this is a normal page request.

To do that, you should use the following Boolean method in your layout:

`Sitecore.Modules.EmailCampaign.Util.IsMessageBodyRequest()`

If the method returns `true`, the ECM is requesting the message body, otherwise it is a normal page request.

8.2 IIS Access

If your website requires authentication on IIS level, you can specify the appropriate IIS user credentials in the following settings in the `Sitecore.EmailCampaign.config` file.

Setting name	Sample value	Description
IIS.User	serviceuser	The user name to log in with if anonymous access is disabled.
IIS.Password	12345	The password to log in with if anonymous access is disabled.

If anonymous access in IIS is enabled, you can leave these settings blank.

8.3 How to Use $name$ token

You can replace a token with appropriate values from subscriber profiles. The `$name$` token is replaced with the value from the `Profile.Name` property.

However, by default, this field is available only in the API.

You can set it in the ECM Import Users Wizard.

Alternatively, you can perform the changes using the API:

```
Sitecore.Security.Accounts.User user =
Sitecore.Security.Accounts.User.FromName("Emailcampaign\\SubscriberNumberOne", true);
     user.Profile.Name = "First Name";
     user.Profile.Save();
```

Alternatively, you can add the `Name` field to a user's profile, for example:
`core:/sitecore/system/Settings/Security/Profiles/Subscriber`

In this case, you can edit the Name using the User Manager in the Profile section.

8.4 Code Samples

This section contains several code samples, which help to understand how to create a simple custom email, subscribe/unsubscribe for a newsletter, and send an ECM message to a single e-mail.

8.4.1 Creating a Simple Custom Email

```
{
  using Sitecore.Modules.EmailCampaign.Messages;
  /// <summary>
  /// Code sample of creating simple custom email
  /// </summary>
  public class CreateMessageExample
  {
    /// <summary>
    /// Create message
    /// </summary>
    /// <param name="messageName">name of the message</param>
    /// <param name="templateId">id of the Message template you want to use</param>
    /// <param name="typeId">id of the Message Type item (example: /[manager root]/Message
Types/Adhoc/Default)</param>
    public void CreateMessage(string messageName, string templateId, string typeId)
    {
      MessageItemSource.Create(messageName, templateId, typeId);
    }
  }
}
```

8.4.2 Subscribing for a Newsletter

```
{
  using Sitecore.Modules.EmailCampaign;
  /// <summary>
  /// Code sample of subscribe/unsubscribe for newsletter in the ECM API document
  /// </summary>
  public class SubscribeExample
  {
    /// <summary>
    /// Subscribe user to specific Recipient List
    /// </summary>
    /// <param name="username">
    /// user name
    /// </param>
    /// <param name="recepientListId">
    /// id of the Recepient List
    /// </param>
    /// <param name="confirmSubscription">
    /// whether you need to send confirmation
    /// </param>
    public static void SubscribeToRecipientList(string username, string recepientListId, bool
confirmSubscription)
    {
      var targetAudiencesInfo = new[]
      {
        new TargetAudienceInfo
        {
          ID = recepientListId,
          CustomData = "1"
        }
      };
      ClientApi.UpdateSubscriptions(username, targetAudiencesInfo, confirmSubscription);
    }
    /// <summary>
    /// Unsubscribe user from specific Recipient List
    /// </summary>
    /// <param name="username">
    /// user name
    /// </param>
    /// <param name="recepientListId">
    /// id of the Recepient List
    /// </param>
```

```
    /// <param name="confirmSubscription">
    /// whether you need to send confirmation
    /// </param>
    public static void UnSubscribeFromRecipientList(string username, string recepientListId,
bool confirmSubscription)
    {
      var targetAudiencesInfo = new[]
      {
        new TargetAudienceInfo
        {
          ID = recepientListId,
          CustomData = "0"
        }
      };
      ClientApi.UpdateSubscriptions(username, targetAudiencesInfo, confirmSubscription);
    }
  }
}
```

8.4.3   Sending an ECM Message to a Single E-mail

```
using Sitecore.Modules.EmailCampaign;
using Sitecore.Modules.EmailCampaign.Messages;
/// <summary>
/// Sample for sending ECM message to single e-mail
/// </summary>
public class SendExample
{
  /// <summary>
  /// Send message to a single recipient
  /// </summary>
  /// <param name="messageItemId">ID of the message's item you want to send</param>
  /// <param name="userName">full name of the Sitecore User who will be message's
recipient</param>
  public void Send(ID messageItemId, string userName)
  {
        MessageItem message = Sitecore.Modules.EmailCampaign.Factory.GetMessage(<message item
id>);
    Contact contactFromName = Contact.FromName(userName);
    new AsyncSendingManager(message).SendStandardMessage(contactFromName);
  }
}
```

Note

This code sample is applicable only to Standard or Triggered messages. This API can't be used for a common campaign message with an assigned recipient list like the One Time message.