

# How-To Guide: Email Notification in SAP Asset Information Workbench (AIW)

## Applies to

SAP Asset Information Workbench (AIW) 1909 by Prometheus Group.

## Summary

How-To guide to integrate Email Notification with Workflow work item in AIW.

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## 1. Introduction

This document describes how to integrate email notification with work items. This document also describes the process to customize default email templates.

## 2. AIW Email Functionality

The email functionality is designed to support any Change Request type and Workflow Step types defined in MDGIMG configuration. The emails sent out are not actual work item(s) but notifications for a designated processor of the work item and any additional recipients to be notified at a BRF+ workflow step.

The email functionality allows to execute and approve work items from the external mailbox. The work items are delivered to an external mailbox and user can execute and approve the work items by clicking on the hyperlink.

A default email appears in the default email sending the client of your computer. It is possible to adapt all content except the link before sending the email.

Emails or notifications are sent to the actual recipients of the work item and additional recipient(s) in AIW.

Prometheus Group provides eight predefined email templates, which can be adapted by the user. Refer to Table 1: Default Email Templates for more details.

## 3. Disclaimer

The email functionality is designed to work only for AIW BRF+ controlled workflow(s). This will not replace extended notifications defined in SAP.

## 4. Email Configuration

This section gives a detailed description of the configuration that drives the email functionality.

### 4.1. User Maintenance

This feature allows maintaining the email address of the user.




Go to SAP User Maintenance t-code SU01 and maintain the email address of the user to be notified.

### 4.2. Transparent Table

Table "/UGI7/EMAIL\_CONF" stores the configuration details of the recipient of the notification, the workflow step, and the corresponding email template.

The structure of the table is displayed in the following image:

|                   |  |                          |
|-------------------|--|--------------------------|
| Transparent Table | /UGI7/EMAIL_CONF                       | Active                   |
| Short Description | EAM WB Email Notification Config Table |                          |
| Attributes        | Delivery and Maintenance               | Fields                   |
| Input Help/Check  |  | Currency/Quantity Fields |

|   |                                     |   |                              |   |        |               |                          |       |  |
|---|-------------------------------------|---|------------------------------|---|--------|---------------|--------------------------|-------|--|
|  |                                     |  |                              |  Srch Help |        | Built-In Type |                          | 1 / 8 |  |
| Field   | Key                                 | Ini...  | Data element                 | Data Type   | Length | Deci...       | Short Description        |       |  |
| <u>MANDT</u>  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>   | <u>MANDT</u>                 | CLNT  | 3      | 0             | Client                   |       |  |
| <u>USMD_CREQ_TYPE</u>   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>   | <u>USMD_CREQUEST_TYPE</u>    | CHAR  | 8      | 0             | Type of Change Request   |       |  |
| <u>USMD_CR_STYPE</u>  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>   | <u>USMD_CREQUEST_AS_TYPE</u> | CHAR  | 1      | 0             | Change Request Step Type |       |  |
| <u>USER_ROLE</u>  | <input type="checkbox"/>            | <input type="checkbox"/>  | <u>/UGI7/RECEIVER_ROLE</u>   | INT1  | 3      | 0             | Receiver Role            |       |  |
| <u>USER_TYPE</u>  | <input type="checkbox"/>            | <input type="checkbox"/>  | <u>USMD_AGENT_TYPE</u>       | CHAR  | 2      | 0             | Agent Type               |       |  |
| <u>USER_VALUE</u>   | <input type="checkbox"/>            | <input type="checkbox"/>  | <u>USMD_AGENT_VALUE</u>      | CHAR  | 100    | 0             | Agent Value              |       |  |
| <u>USMD_EMAIL_SUBJECT</u>   | <input type="checkbox"/>            | <input type="checkbox"/>  | <u>/UGI7/EMAIL_SUB_OBJ</u>   | CHAR  | 60     | 0             | Email Subject            |       |  |
| <u>USMD_EMAIL_BODY</u>  | <input type="checkbox"/>            | <input type="checkbox"/>  | <u>/UGI7/EMAIL_BODY_OBJ</u>  | CHAR  | 60     | 0             | Email Body               |       |  |

### 4.3. Maintenance View

This view is provided to the user to maintain, create or change the email configuration.

Maintenance view “/UGI7/V\_EM\_CONF” is created to add new/change configuration of the emails in the table “/UGI7/EMAIL\_CONF”. This view can be accessed using the t-code SM30.

Refer to the table as explained in [Section 5.2 on Maintain Email Configuration](#).

### 4.4. Technical Details


This section of the document provides a detailed explanation about the technical developments made for the email functionality in AIW.

#### 4.4.1. Standard Task - TS80000006

This task is used to execute the method of the class to send email notification during the Change Request workflow approval process.

For example, the task “TS80000006” is designed to execute the method “NOTIFY\_APPROVERS” of the class “/UGI7/USMD\_WF\_SSW” to send email notification during the Change Request workflow approval process.

The task exports the following parameters from the workflow container to class method.

|   |                  |
|---|------------------|
|  |                  |
| Binding Task '/ugi7/notify' -> Method   |                  |
| Task '/ugi7/notify'   | Method           |
| &IV_CR_NO&  | &IV_CR_NO&       |
| &USER_AGENT&  | &USER_AGENT&     |
| &IV_WF_STEP&  | &IV_WF_STEP&     |
| &IV_SEND_NOW&   | &IV_SEND_NOW&    |
| &IV_ACTIVE&   | &IV_ACTIVE&      |
| &IV_CR_CREATOR&   | &IV_CR_CREATOR&  |
| &IV_LAST_USER&  | &IV_LAST_USER&   |
| &IV_SEQUENCE_CR&  | &IV_SEQUENCE_CR& |
| &IV_CR_TYPE&  | &IV_CR_TYPE&     |

### 4.4.2. Standard Text(s)

Standard text objects are created for email subject and body for different workflow step types.

These text objects are assigned in table “/UGI7/EMAIL\_CONF” to be processed by the send email task of the workflow.

| Text Object                  | Description  |
|------------------------------|--|
| /UGI7/EAM_SWN_BODY_FINISH    | Email content used in workflow step-type “Approve”                         |
| /UGI7/EAM_SWN_BODY_PROCESS   | Email content used in workflow step-type “Process”                         |
| /UGI7/EAM_SWN_BODY_PROCE_REJ | Email content used in workflow step-type “Revise”                          |
| /UGI7/EAM_SWN_BODY_SEQCR     | Email content used in sequence launch of MOCR                              |
| /UGI7/EAM_SWN_SUBJECT_FINISH | The subject of the email notification used in workflow step-type “Approve” |
| /UGI7/EAM_SWN_SUBJECT_PROCES | The subject of the email notification used in workflow step-type “Process” |
| /UGI7/EAM_SWN_SUBJECT_REVISE | The subject of the email notification used in workflow step-type “Revise”  |
| /UGI7/EAM_SWN_SUBJECT_SEQCR  | The subject of the email notification used in sequence launch of MOCR      |

Table 1: Default Email Templates

### 4.4.3. Class-Methods to Notify Approvers

Class Name: /UGI7/USMD\_WF\_SSW

Method Name: NOTIFY\_APPROVERS

This method sends an email notification to the recipients maintained in table “/UGI7/EMAIL\_CONF” in HTML format.

The following lists the logic of the notification process:

- Determine the email configuration maintained for the Change Request type and workflow step type from table “/UGI7/EMAIL\_CONF”.
- For each recipient maintained in the table, (apart from user type “US”) determine the SAP user id.
- For the recipients determined in the above step, call the method “SEND\_MAIL”.
- Method Name: SEND\_MAIL
- Determine email id of the SAP user by calling the method “GET\_EMAIL\_ID” (from user profile)
- Method “GET\_VARIABLES\_NOTIFICATIONS” return the contents related to Change Request and Workflow step to be embedded in the email notification.
- Method “GET\_TEXT\_FROM\_REPOSITORY” reads the text objects associated with the current workflow step type and replaces the text symbols (place holders) with the CR content determined in above step (b).
- Once the email subject and body are built, the program sends an email by calling the method “SEND” of class “CL\_BCS”.

## 4.5. Dependencies

The following lists the objects that exist for the email functionality to work without issues.

- The text objects maintained in table “/UGI7/EMAIL\_CONF” should be valid (i.e. created).
- Email address should be maintained in the user profile of the SAP user.
- SMTP nodes should be configured in the t-code “SCOT”.

## 5. Customize Email Template

Email templates are designed to create custom templates. The templates are specific to different functions. This section describes the procedure to successfully change the standard email template.

The following topics are discussed in this section:

- [Copy/Create of Email Template](#)
- [Maintain Email Configuration](#)
- [Modify Email Task Method](#)

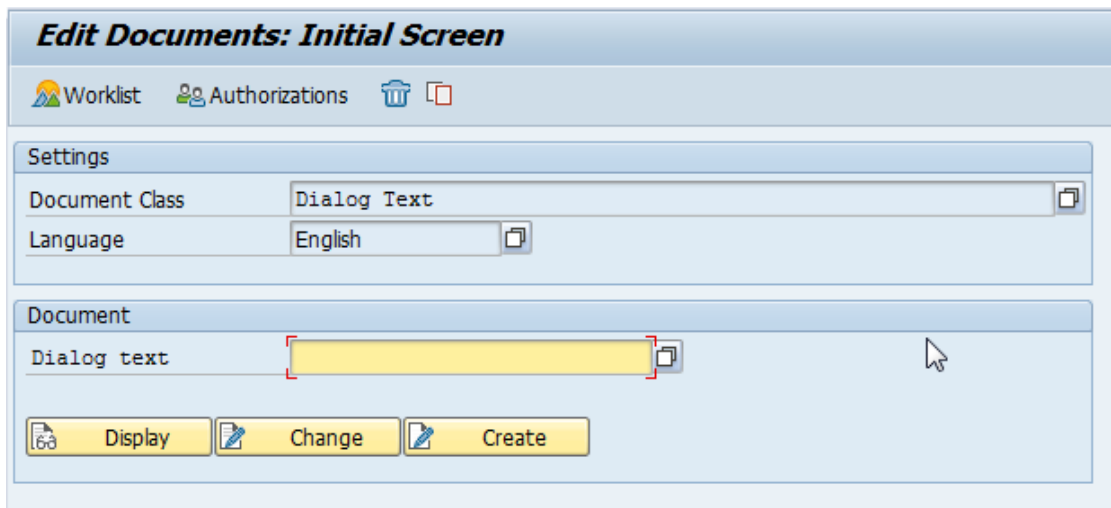
### 5.1. Copy/Create of Email Template

Use the following steps to copy/create an email template:

1. Navigate to the t-code SE61.
2. Set the Document class to “Dialog Text” and the desired language as “English”.

**i** Note

You can select the desired language.



**Edit Documents: Initial Screen**

Worklist Authorizations

**Settings**

Document Class: Dialog Text

Language: English

**Document**

Dialog text

Display Change Create

3. Select desired Email Template as in Table 1: Default Email Templates.
4. Change the content of the Text Object Save and Activate the Object.

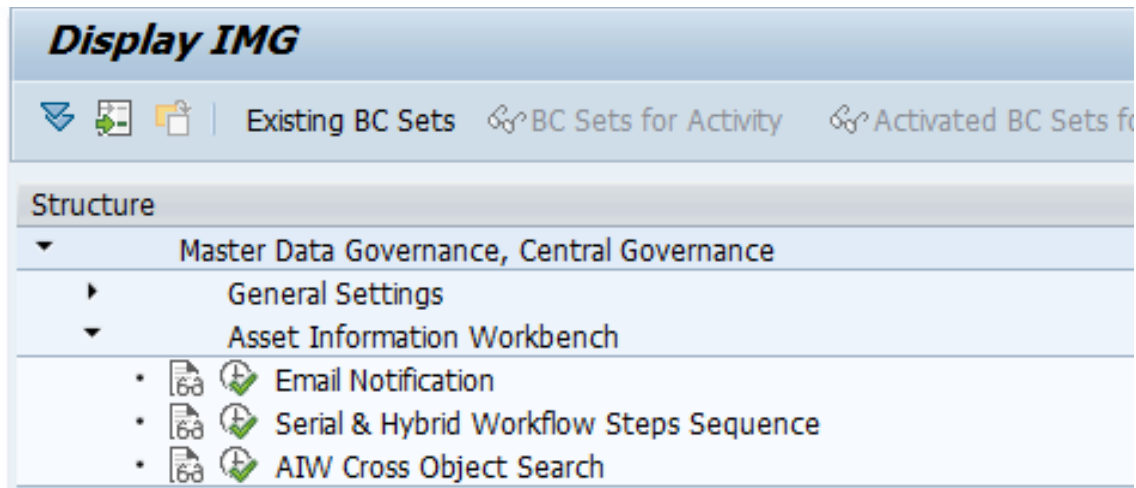
**i** Note

Alternatively, you can create new email templates in the customer namespace.

## 5.2. Maintain Email Configuration

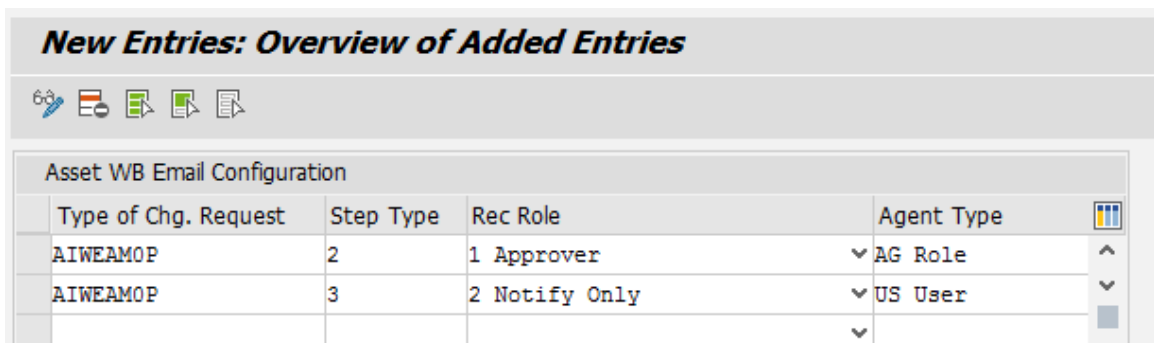
The following section provides a detailed explanation of the configuration that drives the email functionality.

1. Customizing activity using transaction path MDGIMG > Asset Information Workbench > Email Notification.



2. Maintain the following to create new/change the email configuration.

| Field                    | Description  |
|--------------------------|--|
| Type of Change Request   | MDG Change Request type that should be maintained.   |
| Change Request Step Type | Workflow step type. Values: Approve; Revise; Process   |
| Receiver Role            | Values: Approver / Notify Only.<br>Receiver Roles are of two categories: "Approver" or "Notify Only". The recipients of the email are maintained in the table based on their categories. <ul style="list-style-type: none"> <li>• Approver: An email is sent to the users of the category for further action based on step type.</li> <li>• Notify Only: An email notification is sent to users of the category based on step type.</li> </ul> |
| Agent Type               | Recipient Type. Example: "US" / "AG" / "S" / "C" / "O" / "SU"  |
| Agent Value              | Recipient Value. Example: User ID  |
| Email Subject            | Name of the template/text object maintained for the email subject  |
| Email Body               | Name of the template/text object maintained for the email body   |



| Type of Chg. Request | Step Type | Rec Role      | Agent Type |
|----------------------|-----------|---------------|------------|
| AIWEAMOP             | 2         | 1 Approver    | AG Role    |
| AIWEAMOP             | 3         | 2 Notify Only | US User    |



Excel attached as a reference of all the entries expected.

## 5.3. Modify Email Task Method

This step is required if the new CR related details should be included in the email content apart from the standard delivered content.

1. Go to t-code SE11 to enhance the structure /UGI7/EAM\_NOTIFICATION\_VALUES with new fields.

Structure: /UGI7/EAM\_NOTIFICATION\_VALUES Active

Short Description: Structure for EAM Notification Variables

Attributes Components Input Help/Check Currency/quantity fields

Predefined Type 1 / 12

| Component          | Typing Method | Component Type | Data Type | Length | Deci... | Short Description             |
|--------------------|---------------|----------------|-----------|--------|---------|-------------------------------|
| CR_NUMBER          | 1 Types       | USMD_CREQUEST  | NUMC      | 12     |         | 0 Change Request              |
| CR_DESCR           | 1 Types       | USMD_TXTMI     | CHAR      | 40     |         | 0 Description (medium text)   |
| CR_TEXT            | 1 Types       | USMD_TXTMI     | CHAR      | 40     |         | 0 Description (medium text)   |
| CR_NUMBER_LINK     | 1 Types       | CHAR1024       | CHAR      | 1024   |         | 0 Character 1024              |
| CR_REQUESTOR       | 1 Types       | CHAR200        | CHAR      | 200    |         | 0 Text field length 200       |
| CR_DATE            | 1 Types       | DATUM          | DATS      | 8      |         | 0 Date                        |
| CR_TIME            | 1 Types       | UZEIT          | TIMS      | 6      |         | 0 Time                        |
| CR_GMT             | 1 Types       | CHAR10         | CHAR      | 10     |         | 0 Character Field Length = 10 |
| CR_WFLOW_STAGE     | 1 Types       | USMD_TXTMI     | CHAR      | 40     |         | 0 Description (medium text)   |
| CR_LAST_PROCESS... | 1 Types       | UNAME          | CHAR      | 12     |         | 0 User Name                   |
| CR_DUE_DATE        | 1 Types       | DATUM          | DATS      | 8      |         | 0 Date                        |
| CR_GROUP_ID        | 1 Types       | /UGI7/GROUPID  | NUMC      | 12     |         | 0 Group ID                    |

2. Go to t-code SE24. Set "/UGI7/USMD\_WF\_SSW" in the object type and enter method "GET\_VARIABLES\_NOTIFICATIONS" in display mode.

**Class Builder: Display Class /UGI7/USMD\_WF\_SSW**

Class/Interface: /UGI7/USMD\_WF\_SSW Implemented / Active

Properties Interfaces Friends Attributes Methods Events Types Aliases

Parameters Exceptions Sourcecode

| Method                             | Visibility | M... | Description                              |
|------------------------------------|------------|------|--|
| NOTIFY_APPROVERS                   | Public     |      | Notify approver(s)                       |
| GET_NEW_CR_INDEX                   | Private    |      | Get new change request index(for te      |
| GET_INACTIVE_FROM_CREQUEST         | Private    |      | Enhance change request with inactive     |
| SEND_MAIL                          | Private    |      | Send email                               |
| GET_EMAIL_ID                       | Private    |      | Returns email id                         |
| GET_TEXT_FROM_REPOSITORY           | Private    |      | Returns email body                       |
| <b>GET_VARIABLES_NOTIFICATIONS</b> | Private    |      | Returns all variables needed in notifica |
| GET_CR_INFO                        | Private    |      | Returns CR information                   |
| GET_URL_FOR_EMAIL_NOTIFICATION     | Private    |      | Returns URL for approval step            |
| GET_CR_CRT_DATE_TZONE_RECEIVER     | Private    |      | ReturnCR creation from timestamp int     |

3. Create implicit enhancement within the class method to fetch the new CR content and update the export parameter.

Class/Interface: /UGI7/USMD\_WF\_SSW Implemented / Active

Properties Interfaces Friends Attributes Methods Events Types Aliases

Parameters of Method GET\_VARIABLES\_NOTIFICATIONS

Methods Exceptions Sourcecode Properties

| Parameter             | Type      | P...                                | O...                     | Typing Method | Associated Type               | Default Value |
|-----------------------|-----------|-------------------------------------|--------------------------|---------------|-------------------------------|---------------|
| IV_CR_NO              | Importing | <input type="checkbox"/>            | <input type="checkbox"/> | Type          | USMD_CREQUEST                 |               |
| IV_WF_STEP            | Importing | <input type="checkbox"/>            | <input type="checkbox"/> | Type          | USMD_SSW_CREQUEST_STEP        |               |
| IV_RECIPIENT_ID       | Importing | <input type="checkbox"/>            | <input type="checkbox"/> | Type          | XUBNAME                       |               |
| <b>ES_NOTI_VALUES</b> | Returning | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Type          | /UGI7/EAM_NOTIFICATION_VALUES |               |

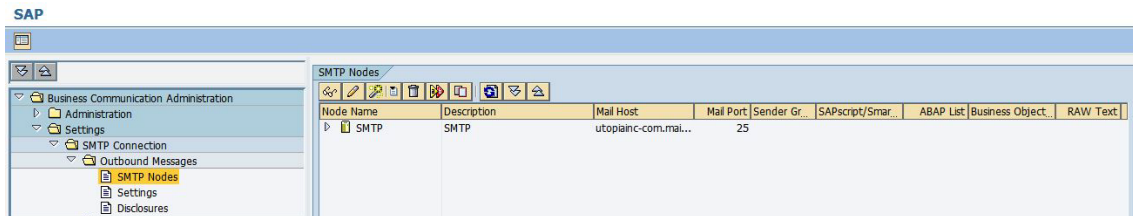


## 6. Troubleshooting

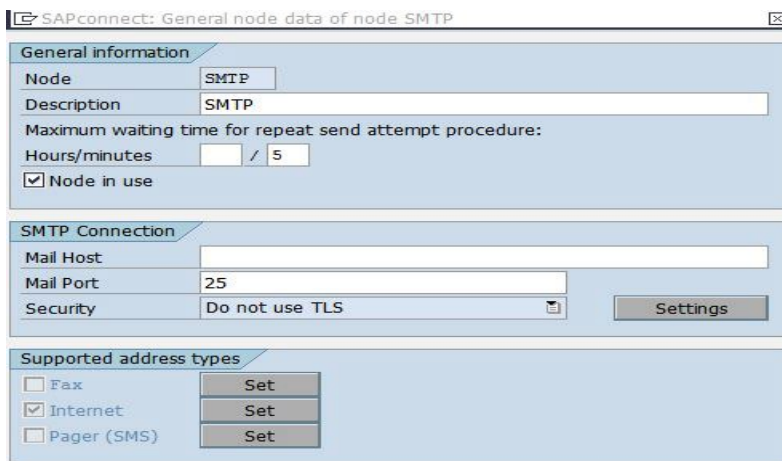
In case you do not receive any email notification for the custom domain, maintain the domain in the SCOT.

Use the following steps to maintain the email notification to be processed.

1. Go to t-code SCOT and click on SMTP node.

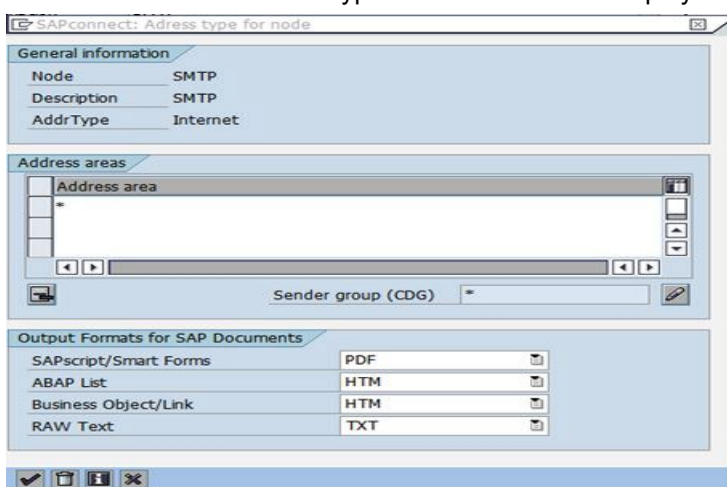


SAP connect: General node data of node SMTP screen is displayed.




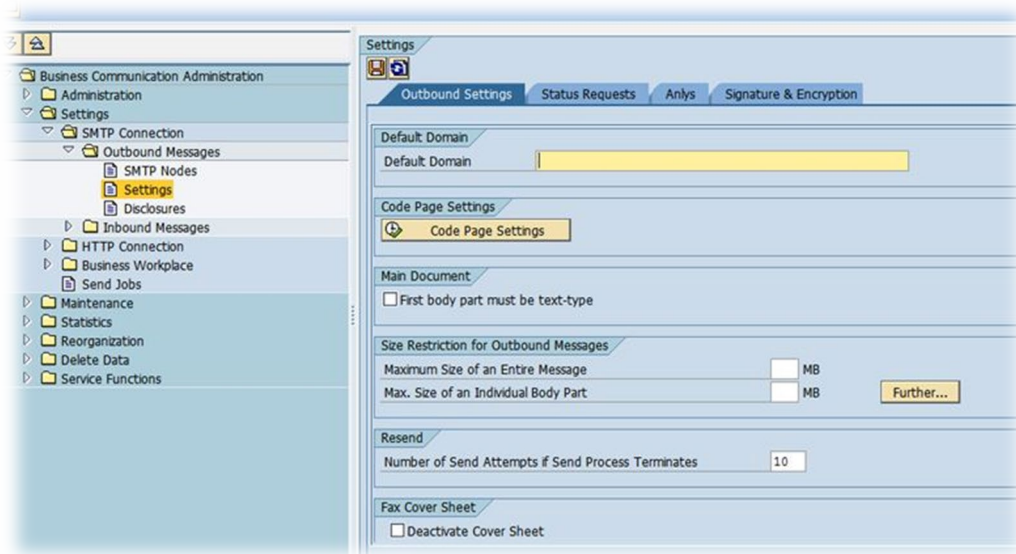
2. In the General information block, enable Node in use field.
3. In the SMTP connection block, maintain Mail Host and Mail Port as 25.
4. In the Supported address types block, select Internet.
5. Click Set.

The SAP connect: Address type for node screen is displayed.



6. In the Address areas block, maintain "\*". This indicates that the email notification to external and internal users are configured.

7. Click Continue .
8. Select SMTP Connection > Outbound Messages > SMTP Nodes > Settings and maintain the Default Domain in the Outbound Settings tab.



9. Go to t-code SOST.  
A list of pending requests is displayed on the screen. You can either manually process or automate the process.