E-Mail Notification Guide

Identity Manager 4.0.2

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Novell

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About This Guide

This guide explains how to configure your Identity Manager system to send e-mail notifications to administrators and users when certain events occur. The guide is organized as follows:

- Chapter 1, “Overview,” on page 7
- Chapter 2, “Designating an E-Mail Server,” on page 9
- Chapter 3, “Editing Predefined Templates,” on page 13
- Chapter 4, “Creating Templates,” on page 19
- Chapter 5, “Importing Templates Into Designer,” on page 23
- Chapter 6, “Using Templates,” on page 25
- Appendix A, “Tokens and Replacement Tags,” on page 27

Audience

This guide is intended for Identity Manager administrators.

Documentation Updates

For the most recent version of this document, see the Identity Manager Documentation Web site (http://www.netiq.com/documentation/idm402/index.html).

Additional Documentation

For documentation on other Identity Manager drivers, see the Identity Manager Drivers Web site (http://www.netiq.com/documentation/idm402drivers/index.html).

1 Overview

Novell Identity Manager includes the ability to send e-mail notifications to designated recipients whenever certain actions occur. The following sections provide the conceptual information needed to understand and complete the tasks associated with using e-mail notifications.

- Section 1.1, "System E-Mail Notifications," on page 7
- Section 1.2, "Custom E-Mail Notifications," on page 7
- Section 1.3, "Default Notification Collection," on page 8

1.1 System E-Mail Notifications

Identity Manager includes functionality, such as password management, jobs, and workflow provisioning, that can utilize e-mail messages to notify administrators or users of actions or results that have taken place. For example, e-mail messages can be sent to:

- Notify a user who has reset his or her password that the action failed.
- Provide a password to a user who has used the Forgotten Password feature to request the password.
- Notify you, or another administrator, of the results of an Identity Manager job that has just run.
- Inform a manager, or another approver, that a provisioning request awaits his or her approval.

In order to customize these e-mail messages to provide information specific to the action that has taken place, Identity Manager uses a set of predefined e-mail notification templates. For example, there is an e-mail template for when a user forgets his or her password, and another template for when a manager needs to approve a user's request for access to a resource.

In most cases, the system functionality (password management, jobs, and so forth) must be configured to use e-mail notifications, and the text in the e-mail templates must be modified to fit your environment and need. Instructions are provided in Chapter 3, "Editing Predefined Templates," on page 13.

1.2 Custom E-Mail Notifications

Identity Manager enables you to send e-mail notifications through actions you define in policies. For example, if you use the Active Directory driver to create Microsoft Exchange mailboxes for users in Active Directory, you can include an action in the Active Directory driver policy that sends an e-mail to the user when his or her mailbox has been created.

Policies include two e-mail notification actions: *Send Email* and *Send Email from Template*. The *Send Email* action includes the e-mail information in the action while the *Send Email from Template* action references a custom e-mail notification template that you create. For information about creating templates, see Chapter 4, "Creating Templates," on page 19,

1.3 Default Notification Collection

The Default Notification Collection is an Identity Vault object that contains a set of e-mail notification templates and an SMTP server that is used when sending e-mails generated from the templates.

The predefined e-mail notification templates are included in the Default Notification Collection. Any custom templates that you create are also added to the collection. You must define the SMTP server that you want associated with the collection. For more information, see Chapter 2, "Designating an E-Mail Server," on page 9.

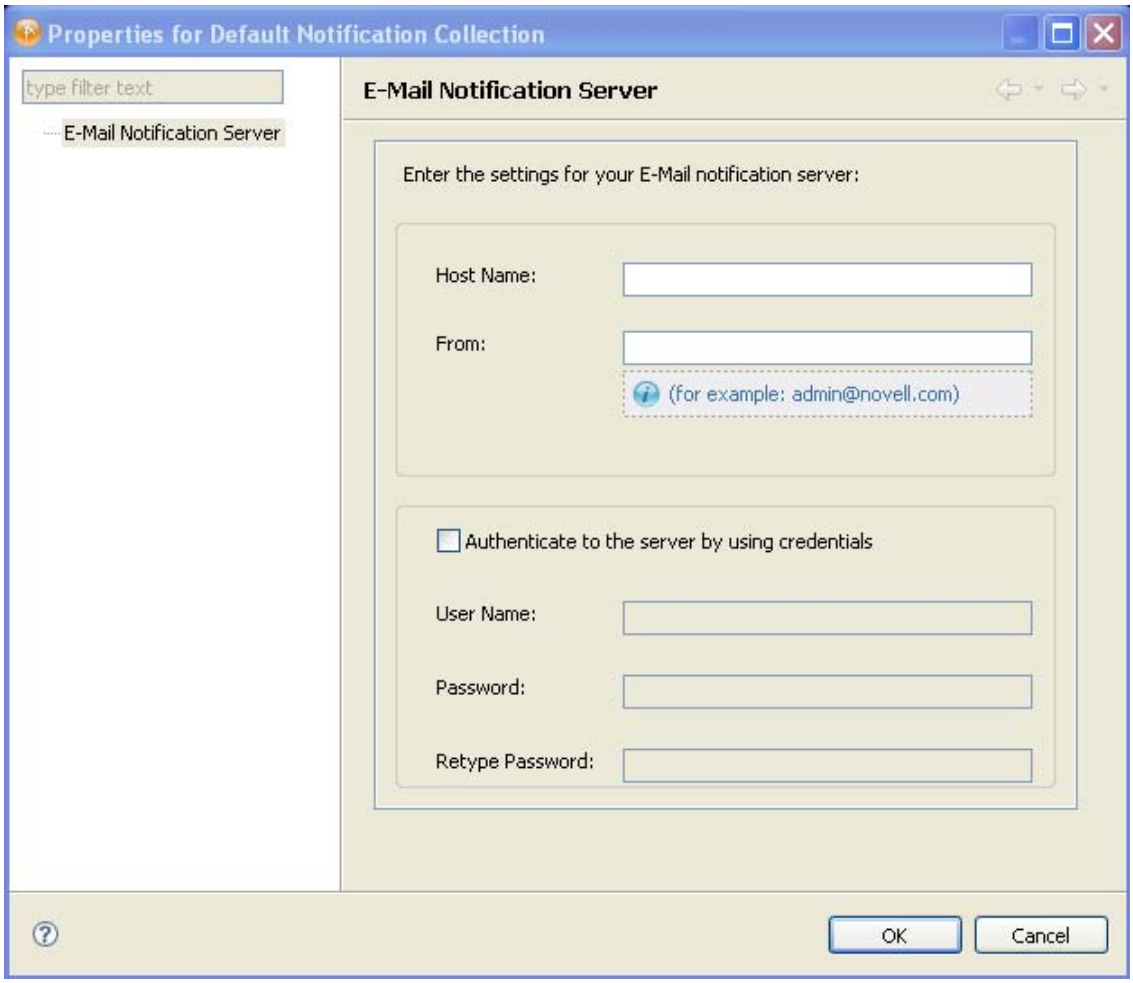
2 Designating an E-Mail Server

Before you can use any of the e-mail notification templates included in the Default Notification Collection, you must associate an SMTP server with the collection. Whenever an e-mail is generated from one of the collection's templates, the SMTP server is used to send the e-mail.

- Section 2.1, "Designating an E-Mail Server in Designer," on page 9
- Section 2.2, "Designating an E-Mail Server in iManager," on page 11

2.1 Designating an E-Mail Server in Designer

1. Open your project.
2. In the Outline view, locate the *Default Notification Collection* under the Identity Vault.
3. Right-click the collection, then select *Properties* to display the E-Mail Notification Server page.



4 Fill in the following fields to define the SMTP e-mail server.

Host Name: The hostname of your SMTP e-mail server. This can also be an IP address.

From: When a user opens the e-mail, the text that you enter in the *From* edit box is displayed in the *From* field of the user's e-mail heading. Depending on your mail server settings, the text in this field might need to match a valid sender in the system (for example, helpdesk@company.com) instead of descriptive text such as The Password Administrator. Such a match allows the mail server to do reverse lookups or authentication.

Authenticate to the server by using credentials: Use this option for a secured SMTP server.

If your server requires authentication before sending e-mail, specify the username and password here.

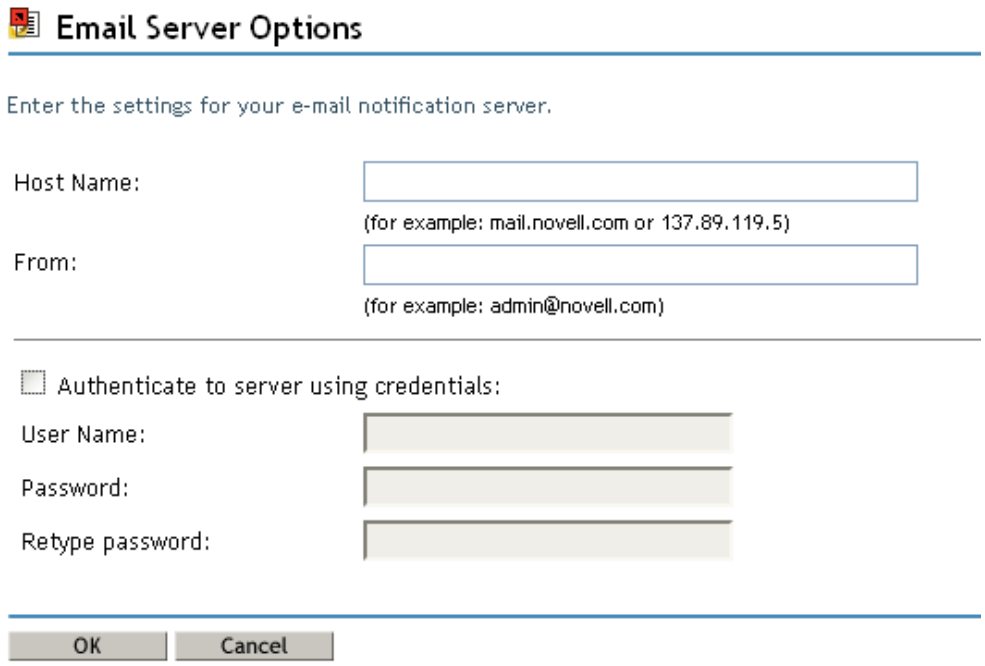
Although the authentication information is specified here, you might also need to specify it separately for the application that is sending the notification e-mails.

For example, Forgotten Password e-mail notifications can be sent by using the authentication information you specify here. However, notification e-mails for Identity Manager Password Synchronization require the authentication information to be provided in the driver policy that is used to send notification e-mails.

5 Click *OK*.

2.2 Designating an E-Mail Server in iManager

1. In iManager, click to display the Identity Manager Administration page.
2. In the Features list, click *Email Server Options*.



3. Fill in the following fields to define the SMTP e-mail server.

   Host Name: The hostname of your SMTP e-mail server. This can also be an IP address.

   From: When a user opens the e-mail, the text that you enter in the *From* edit box is displayed in the *From* field of the user's e-mail heading. Depending on your mail server settings, the text in this field might need to match a valid sender in the system (for example, helpdesk@company.com) instead of descriptive text such as The Password Administrator. Such a match allows the mail server to do reverse lookups or authentication.

   Authenticate to the server using credentials: Use this option for a secured SMTP server.

   If your server requires authentication before sending e-mail, specify the username and password here.

   Although the authentication information is specified here, you might also need to specify it separately for the application that is sending the notification e-mails.

   For example, Forgotten Password e-mail notifications can be sent by using the authentication information you specify here. However, notification e-mails for Identity Manager Password Synchronization require the authentication information to be provided in the driver policy that is used to send notification e-mails.
4. Click *OK*.

3 Editing Predefined Templates

Identity Manager includes predefined templates that are used with the password management, jobs, and workflow provisioning functionality. In most cases, you need to change the templates to reflect your environment. For example, several of the templates include example contact information that you should correct for your organization.

The following sections provide information about editing the predefined templates:

- Section 3.1, “List of Predefined Templates,” on page 13
- Section 3.2, “Editing a Template in Designer,” on page 15
- Section 3.3, “Editing a Template in iManager,” on page 16

3.1 List of Predefined Templates

The predefined templates are listed according to the Identity Manager functionality with which they are used:

- Section 3.1.1, “Forgotten Password,” on page 13
- Section 3.1.2, “Password Synchronization,” on page 13
- Section 3.1.3, “Workflow Provisioning,” on page 14
- Section 3.1.4, “Jobs,” on page 14

3.1.1 Forgotten Password

The following templates are used with the Forgotten Password functionality in the User Application. For more information, see “Password Management Configuration” in the *User Application: Administration Guide*.

Table 3-1 *Forgotten Password Templates*

Template Name	Description
Forgot Hint	Provide a hint to a user who has forgotten a password.
Forgot Password	Provide a password to a user who has forgotten a password.

3.1.2 Password Synchronization

The following templates are used with the Password Synchronization functionality available for the Identity Manager drivers. For more information, see “Configuring Password Flow” in the *Identity Manager 4.0.2 Password Management Guide*.

Table 3-2 Password Synchronization Templates

Template Name	Description
Password Reset Fail	Notification that a reset password does not meet password policy requirements, so the reset password was not accepted.
Password Set Fail	Notification that a password cannot be set in a connected system.
Password Sync Fail	Notification that a password failed to synchronize.

3.1.3 Workflow Provisioning

The following templates are used with the Workflow Provisioning functionality in the User Application. For more information, see "Managing Provisioning Workflows" in the *User Application: Administration Guide*.

Table 3-3 Workflow Provisioning Templates

Template Name	Description
Attestation Completed Notification	Notification that the workflow process for an attestation request is completed.
Attestation Notification	Notification that new compliance activity is submitted that requires attention.
Availability	Notification that an availability setting has been created or modified.
Delegate	Notification that a delegate assignment has been created or modified
Provisioning Approval Completed Notification	Notification that a workflow is completed. Indicates the overall workflow and provisioning decision.
Provisioning Notification	Notification to user or manager for approval. Indicates that action is required from the user or manager.
Provisioning Notification Activity	Notification to a user or manager about the activity of the provisioning notification.
Provisioning Reminder	Notification to a user that an activity timeout is about to occur. Reminds the user or manager to act.
Proxy	Notification that a proxy assignment has been created or modified.
Role Request Approval Completed Notification	Notification that the approval process is completed.
Role Request Notification	Notification that a new role request requires approval.

3.1.4 Jobs

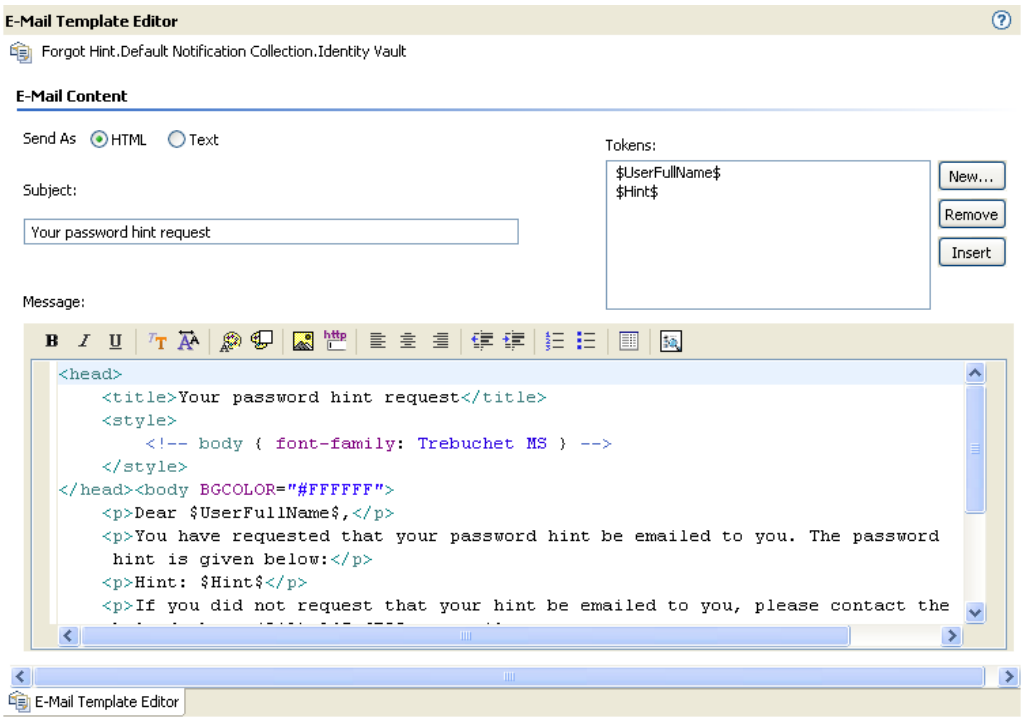
The following template is used with the Jobs functionality available for the Metadirectory engine. For more information, see "Adding a Predefined Job" in the *Designer 4.0.2 for Identity Manager 4.0.2 Administration Guide*.

Table 3-4 Jobs Template

Template Name	Description
Default Job Notification	Report results of the job as configured in the template. Contains the name of a job and any status information from the job.

3.2 Editing a Template in Designer

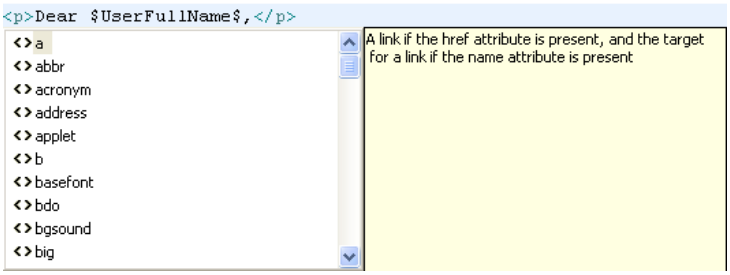
1. Open your project.
2. In the Outline view, locate and expand the *Default Notification Collection* to display the default templates.
3. (Conditional) If no templates are displayed under the *Default Notification Collection*, right-click *Default Notification Collection*, then click *Add Default Templates*.
4. Double-click the template you want to edit.



5. In the *Send As* field, select whether to send the e-mail in HTML format or in text format.
6. In the *Subject* field, type the text that you want users to see in the e-mail's Subject line.

   You can use tokens in the Subject field. To do so, click where you want to insert the token, select the token from the *Tokens* list, then click *Insert*. For information about adding new tokens, see Appendix A, "Tokens and Replacement Tags," on page 27.
7. In the *Message* box, type the message you want.
   - To format text, use the toolbar.

- To insert HTML tags, place your cursor in the Message box at the location where you want to insert a tag, then press Ctrl+Spacebar or type < to display a list of HTML tags to choose from.



- To insert a token, place your cursor in the Message box at the location where you want to insert the token, select the token in the Tokens list, then click *Insert*. For information about adding new tokens, see Appendix A, "Tokens and Replacement Tags," on page 27.
- To preview the message, click the *Preview* icon .

8 To attach an image to an e-mail, ensure that you place the image files in the correct directory depending on your platform:

- **UNIX/Linux:** Place the images in the `/opt/novell/eDirectory/lib/dirxml/rules/manualtask/mt_files` directory.
- **Windows:** Place the images in the *<eDirectory installation folder>*`\NDS\mt_files` directory.

8a In your e-mail template, use the following syntax to attach images:

```
<p> <img ALT="your image" SRC="cid:orchid.gif" height="29
width="80/> </p>
```

where orchid is the name of the image.

Because the file name is case sensitive, the name of the file (image) must exactly match with the file name in the directory.

8b Restart the system after placing the image files in the correct directory for your platform.

For example, if an e-mail has already been sent, you need to restart ndsd/eDirectory for it to use the new image.

- **UNIX/Linux:** Restart ndsd.
- **Windows:** Restart eDirectory.

9 Right-click the template and click *Save As*.

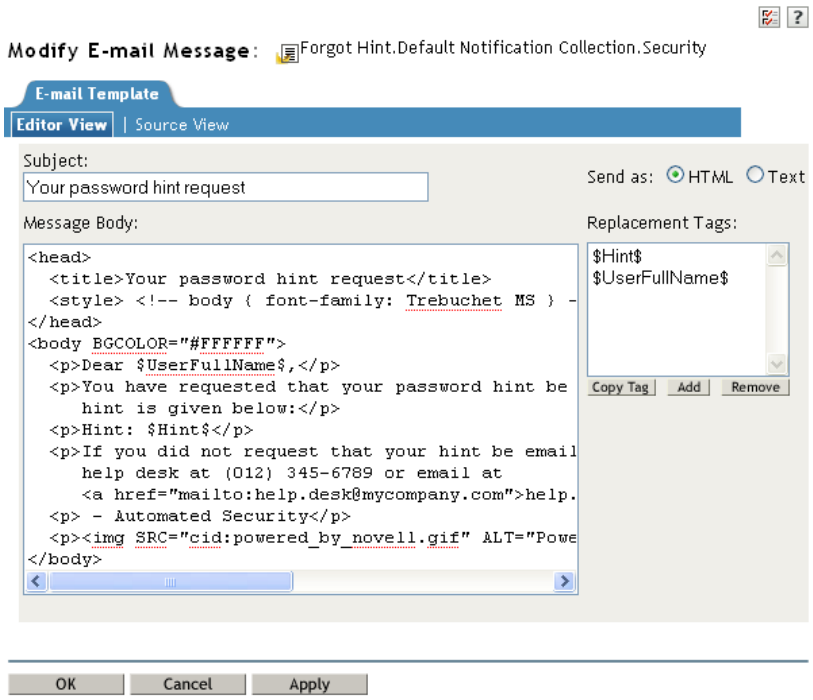
10 To deploy the template into your live system, right-click the template, click *Live* > *Deploy*.

3.3 Editing a Template in iManager

1 In iManager, click to display the Identity Manager Administration page.

2 In the *Features* list, click *Email Templates* to display the list of e-mail templates included in the Default Notification Collection.

3 Click the e-mail template you want to edit.



4 In the *Send As* field, select whether to send the e-mail in HTML format or in text format.

5 In the *Subject* field, type the text that you want users to see in the e-mail's Subject line.

You can use replacement tags (tokens) in the *Subject* field. To insert a replacement tag, select the tag in the *Replacement Tags* list, click *Copy Tag*, place the cursor where you want to insert the tag, then press Ctrl+V. You can also simply type the tag in the message text. For information about adding new tokens, see Appendix A, "Tokens and Replacement Tags," on page 27.

6 In the *Message* box, type the message you want.

You can use replacement tags (tokens) in the Message box. To insert a replacement tag, select the tag in the *Replacement Tags* list, click *Copy Tag*, place the cursor where you want to insert the tag, then press Ctrl+V. You can also simply type the tag in the message text. For information about adding new tokens, see Appendix A, "Tokens and Replacement Tags," on page 27.

7 To attach an image to an e-mail, follow Step 8 on page 16 in Section 3.2, "Editing a Template in Designer," on page 15.

8 Click *OK* to save the template.

4 Creating Templates

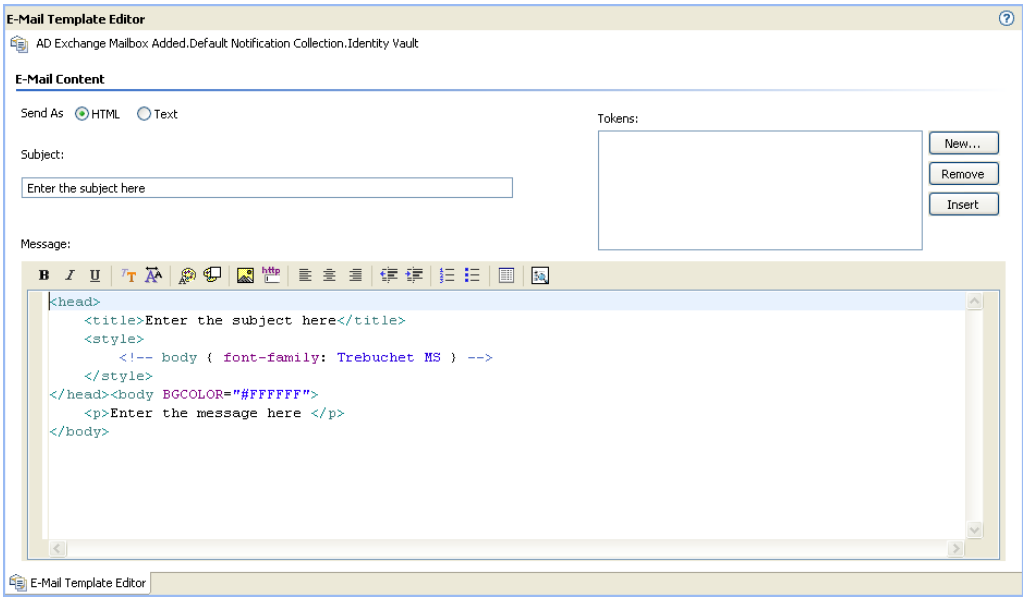
You can create e-mail notification templates to support custom functionality that you implement in Identity Manager. For example, if you use the Active Directory driver to create Microsoft Exchange mailboxes in Active Directory, you can include an action in the Active Directory driver policy that sends an e-mail to the user when his or her mailbox has been created. To support this e-mail, you can create a template that includes the text required to inform the user about the new mailbox

The following sections provide information about creating new templates:

- Section 4.1, “Creating a Template in Designer,” on page 19
- Section 4.2, “Creating a Template in iManager,” on page 20

4.1 Creating a Template in Designer

1. Open your project.
2. In the Outline view, right-click *Default Notification Collection* > click *New Template* to display the Add Notification Template dialog box.
3. In the *Name* field, type a name for the template.
4. Make sure the *Open the editor after creating a template* option is selected, the click *OK* to create the template and display the template editor.



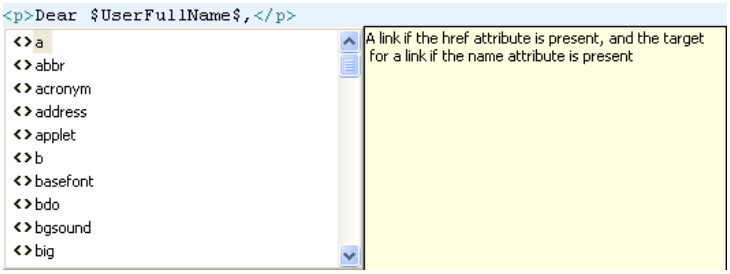
5. In the *Send As* field, select whether to send the e-mail in HTML format or in text format.
6. In the *Subject* field, type the text that you want users to see in the e-mail’s Subject line.

You can use tokens in the Subject field. To do so, click where you want to insert the token, select the token from the *Tokens* list, then click *Insert*. For information about adding new tokens, see Appendix A, "Tokens and Replacement Tags," on page 27.

7 In the *Message* box, type the message you want.

- To format text, use the toolbar.

- To insert HTML tags, place your cursor in the Message box at the location where you want to insert a tag, then press Ctrl+Spacebar or type < to display a list of HTML tags to choose from.



- To insert a token, place your cursor in the Message box at the location where you want to insert the token, select the token in the Tokens list, then click *Insert*. For information about adding new tokens, see Appendix A, "Tokens and Replacement Tags," on page 27.
- To preview the message, click the *Preview* icon .

8 Click *OK* to save the template.

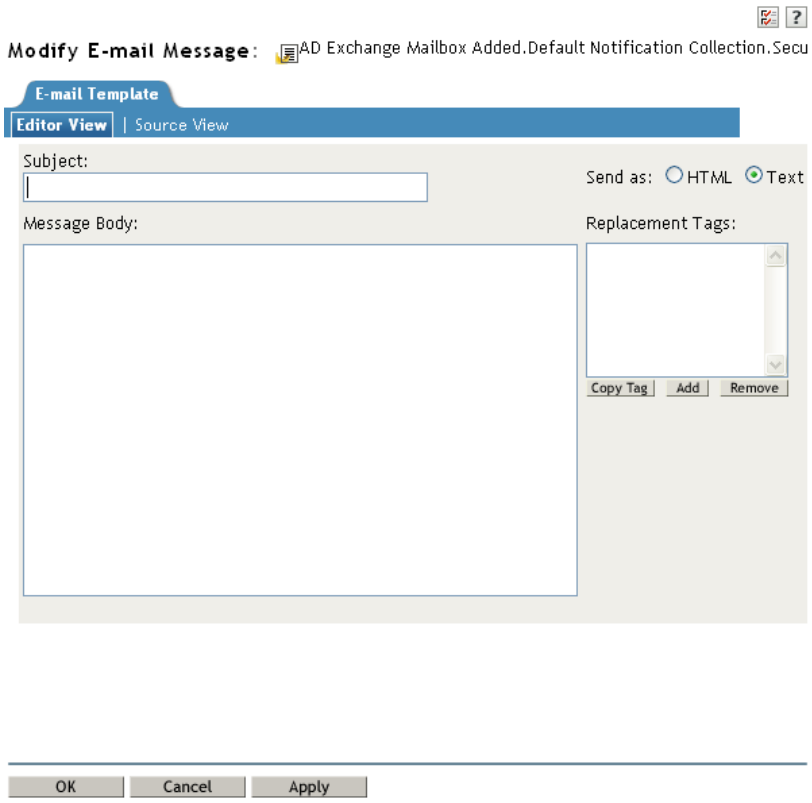
9 To deploy the template into your live system, right-click the template, click *Live* > *Deploy*.

4.2 Creating a Template in iManager

1 In iManager, click to display the Identity Manager Administration page.

2 In the *Features* list, click *Email Templates* to display the list of e-mail templates included in the Default Notification Collection.

3 Click *New*, type a name for the template, then click *OK* to create the template and display the Modify E-mail Message page.



4 In the *Send As* field, select whether to send the e-mail in HTML format or in text format.

5 In the *Subject* field, type the text that you want users to see in the e-mail's Subject line.

You can use replacement tags (tokens) in the Subject field. To insert a replacement tag, select the tag in the *Replacement Tags* list, click *Copy Tag*, place the cursor where you want to insert the tag, then press Ctrl+V. You can also simply type the tag in the message text. For information about adding new tokens, see Appendix A, "Tokens and Replacement Tags," on page 27.

6 In the *Message* box, type the message you want.

Use HTML markup with the text you enter. You can look at one of the existing templates for an example of the markup.

You can use replacement tags (tokens) in the Message box. To insert a replacement tag, select the tag in the *Replacement Tags* list, click *Copy Tag*, place the cursor where you want to insert the tag, then press Ctrl+V. You can also simply type the tag in the message text. For information about adding new tokens, see Appendix A, "Tokens and Replacement Tags," on page 27.

7 Click *OK* to save the template.

5 Importing Templates Into Designer

In order to work on an e-mail notification template that is located in the Identity Vault but not in your Designer project, you must import the template into the Designer project. Likewise, to copy a template from one Designer project to another, you must save it from the first project and import it into the second project. The following sections explain how to accomplish each of these tasks:

- Section 5.1, "Importing a Template from the Identity Vault," on page 23
- Section 5.2, "Importing a Template from another Designer Project," on page 23

5.1 Importing a Template from the Identity Vault

The following situations can result in templates being located in your Identity Vault but not in your Designer project:

- iManager is used to modify a predefined template or create a new template.
- A template is created or modified in one Designer project and deployed to the Identity Vault. You now need it in another Designer project.

To import a template from the Identity Vault into a Designer project:

1. In Designer, open the project into which you want to import the template.
2. In the Outline view, right-click *Default Notification Collection*, then click *Live* > *Import* to display the *Import from Identity Vault* dialog box.
3. Click *Browse*, select the template to import, then click *OK* to add the template to the list of objects to import in the *Import from Identity Vault* dialog box.
4. Click *Continue* to display the Import Summary dialog box.
5. Click *Import*, then click *OK* when the import results are displayed.

5.2 Importing a Template from another Designer Project

If you create or edit a template in one Designer project, you can import it to another Designer project.

1. In Designer, open the source project. This is the project with the template you want to copy.
2. Save the template to a file:
   - **2a** In the Outline view, locate and expand the *Default Notification Collection*, right-click the template, the click *Save As* to display the *Save As* dialog box.
   - **2b** Select the folder where you want to save the template file, then click *Save*.

3 Import the template file into the target project:

3a Open the target project.

3b In the Outline view, right-click the *Default Notification Collection*, then click *Import Template from File*.

3c Select the template file, then click *Open* to add it to the project.

If a template with the same name already exists, you are prompted to overwrite it.

Another way to copy the template is to deploy it from the source project into the Identity Vault and then import it into the target project (as explained in Section 5.1, "Importing a Template from the Identity Vault," on page 23).

6 Using Templates

The predefined templates (see Section 3.1, "List of Predefined Templates," on page 13) are associated with existing Identity Manager functionality. Refer to the following guides for information about using these templates:

- **Forgotten Password/Hint Templates:** See "Password Management Configuration" in the *User Application: Administration Guide*.
- **Password Synchronization Templates:** See "Configuring Password Flow" in the *Identity Manager 4.0.2 Password Management Guide*.
- **Workflow Provisioning Templates:** See "Managing Provisioning Workflows" in the *User Application: Administration Guide*.
- **Jobs Template:** See "Adding a Predefined Job" in the *Identity Manager 4.0.2 Jobs Guide*.

For information about using templates with policies, see "Send Email from Template" in the *Policies in Designer 4.0.2* guide. For an example of how to implement templates in a policy, see "Configuring E-Mail Notification" in the *Identity Manager 4.0.2 Password Management Guide*.

A Tokens and Replacement Tags

Tokens, or replacement tags, are variables that can be used in the message body or subject line of e-mail notification templates.

Each predefined template includes default tokens. For example, the Forgot Password e-mail template (used to send a password to a user) includes the default token named $CurrentPassword$. When the e-mail is sent, the $CurrentPassword$ token is replaced with the user's current password.

For a token to work in an e-mail template, it must be defined in the application or the policy that initiates the e-mail notification. This enables the application or policy to provide the correct token information to the e-mail template.

Tokens Defined in Applications

The Workflow engine and Jobs engine provide the provisioning workflow and jobs functionality. To add tokens to the predefined e-mail templates used with these applications requires the tokens to be defined in the applications. This is true of any application that you create for use with Identity Manager.

Tokens Defined in Policies

More than likely, you'll add driver policies with rules that initiate e-mail notifications, rather than creating or modifying applications that initiate e-mails. For example, if you use the Active Directory driver to create Microsoft Exchange mailboxes in Active Directory, you might include an action in the Active Directory driver policy that sends an e-mail to the user when his or her mailbox has been created.

When you create policies that initiate e-mail notifications, the tokens used in the notification templates must be defined in the policy rules.

For example, the tokens used with the predefined password synchronization e-mail templates are defined in the password synchronization policies used by the drivers. To add tokens to the password synchronization templates requires that the new tokens be defined in the policies.

You can use the password synchronization policies as an example of how to define tokens that you want to use in an e-mail template. See "Configuring E-Mail Notification" in the *Identity Manager 4.0.2 Password Management Guide*.