

## Administration Guide

# Novell® Teaming

2.1

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# About This Guide

The *Novell Teaming 2.1 Administration Guide* provides administration information for Novell® Teaming. The guide contains the following sections:

- ♦ Part I, “Site Setup,” on page 13
- ♦ Part II, “Site Maintenance,” on page 89
- ♦ Part III, “Interoperability,” on page 143
- ♦ Part IV, “Site Security,” on page 159

## Audience

This guide is intended for Novell Teaming administrators.

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## Documentation Updates

For the most recent version of the *Novell Teaming 2.1 Administration Guide* and other documentation, visit the [Novell Teaming 2.1 Documentation Web site \(http://www.novell.com/documentation/teaming2\)](http://www.novell.com/documentation/teaming2).

## Additional Documentation

You can find more information in the Novell Teaming documentation, which is accessible from links within Novell Teaming:

- ♦ Novell Teaming Help system
- ♦ *Novell Teaming Quick Start*
- ♦ *Novell Teaming User Guide*
- ♦ *Novell Teaming Advanced User Guide*
- ♦ *Novell Teaming Installation Guide*
- ♦ *Novell Teaming Developer Guide*

To access the Novell Teaming Help system, log in to the Teaming site, click the *Help* icon (question mark), then click a yellow Help spot for context-sensitive help.

To access the Novell Teaming guides from within Teaming, click the *Help* icon (question mark), then click *Teaming Manuals*.

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# Site Setup

- ◆ Chapter 1, “Logging In as the Teaming Site Administrator,” on page 15
- ◆ Chapter 2, “Planning and Controlling User Access to Workspaces and Folders,” on page 17
- ◆ Chapter 3, “Setting Up Initial Workspaces,” on page 27
- ◆ Chapter 4, “Setting Up Site-Wide Customizations,” on page 45
- ◆ Chapter 5, “Setting Up User Access to the Teaming Site,” on page 47
- ◆ Chapter 6, “Configuring E-Mail Integration,” on page 55
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- ◆ Chapter 9, “Adding Software Extensions to Your Teaming Site,” on page 63
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- ◆ Chapter 12, “Setting Up Zones (Virtual Teaming Sites),” on page 75
- ◆ Chapter 13, “Customizing Your Teaming Site by Editing Teaming Configuration Files,” on page 79
- ◆ Chapter 14, “Managing a Multiple-Language Teaming Site,” on page 85



# Logging In as the Teaming Site Administrator

# 1

When you first install Novell® Teaming, the Teaming administrator username is `admin` and the password is `admin`. When you first log in to the Teaming site as the administrator, you should change the administrator password from the default password to a secure password of your own choosing. If you followed the instructions in “[Accessing Your Basic Teaming Site as the Site Administrator](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*, you have already completed this very important task.

If you have not already reset the Teaming administrator password:

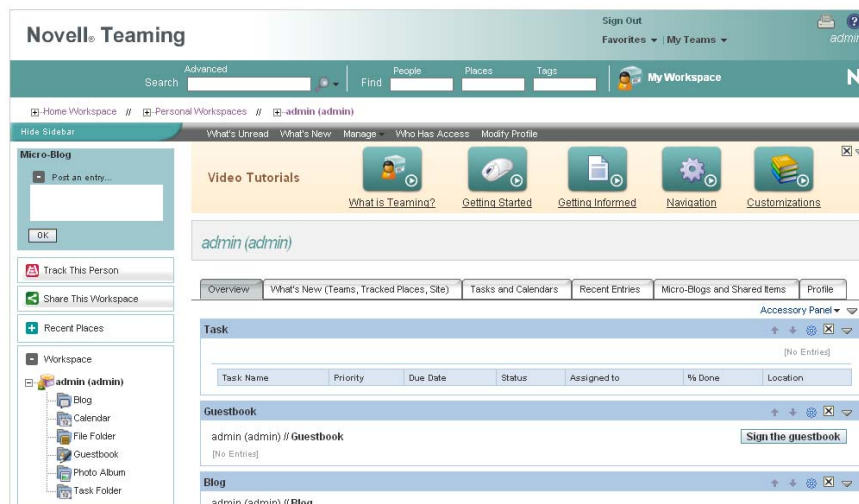
- 1 In your Web browser, specify one of the following URLs, depending on whether or not you are using a secure SSL connection:

```
http://teaming_hostname  
https://teaming_hostname
```

where `teaming_hostname` is the hostname or fully qualified domain name of the Teaming server that you have set up in DNS. If you configured the HTTP ports correctly during installation, you do not need to include the port number in the Teaming URL.



- 2 Log in using `admin` as the login name and `admin` as the password.  
The Teaming administrator’s personal workspace displays.



- 3** Change the default administrator password to a secure password:
  - 3a** On the Workspace toolbar, click *Modify Profile*.
  - 3b** Specify your own password for the Teaming administrator in the *New Password* and *Confirm New Password* fields.
  - 3c** (Optional) Provide useful information in the additional fields of the Teaming administrator's profile.
  - 3d** Click *OK* to return to the administrator's workspace.



# Planning and Controlling User Access to Workspaces and Folders

# 2

As the Novell® Teaming site administrator, you are responsible for setting up and controlling user access across the entire Teaming site. Even though workspace and folder owners are responsible for controlling user access in their individual workspaces and folders, you as the Teaming administrator have the ability to create new roles, modify existing roles, and change default access control settings for all types of workspaces.

- ♦ [Section 2.1, “Understanding Access Control,” on page 17](#)
- ♦ [Section 2.2, “Understanding the Implications of Access Control,” on page 17](#)
- ♦ [Section 2.3, “Controlling User Access in Workspaces,” on page 18](#)
- ♦ [Section 2.4, “Controlling User Access throughout the Teaming Site,” on page 21](#)
- ♦ [Section 2.5, “Managing Roles to Refine Access Control,” on page 23](#)

## 2.1 Understanding Access Control

Before you begin configuring access control settings for your Teaming site, it is important that you understand how access control works in Novell Teaming.

For background information about Teaming access control, see “[Understanding Access Control](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

## 2.2 Understanding the Implications of Access Control

In simplest terms, access control settings determine what users can see and do in each workspace or folder. However, because your Novell Teaming site is a hierarchy of workspaces and folders and because access control settings can be inherited (or not), access control settings affect a variety of Teaming features:

- ♦ [Section 2.2.1, “Inheritance,” on page 18](#)
- ♦ [Section 2.2.2, “Navigation,” on page 18](#)

## 2.2.1 Inheritance

When you create a new workspace, it defaults to the inheritance setting of its parent workspace.

- ♦ If you create a new workspace under an existing workspace that is inheriting its access control settings from its parent, the new workspace continues the inheritance chain. If you change any access control settings above the new workspace at a later time, the access control settings for the new workspace also change. Global workspaces inherit access control settings from the parent workspace by default.
- ♦ If you create a new workspace under an existing workspace that has locally defined access control settings, the new workspace retains those locally defined settings.

If you move a workspace that is inheriting its access control settings from its original parent workspace, it inherits the access control settings of the new parent workspace into which it is moved. If the new parent workspace has different settings than the original parent workspace, the access control settings for the moved workspace change accordingly.

## 2.2.2 Navigation

Sub-workspaces and sub-folders should not permit access to users or groups that do not have access to the higher-level workspaces, for the following reasons:

- ♦ Users cannot see the workspace, even though they have appropriate rights.  
  
Users browsing in the Workspace tree (or in a Workspace Tree accessory) for the sub-workspace or sub-folder that they have been granted access to are not able to see the workspace, because Teaming does not permit them to see the parent workspace that they do not have access to. Users can still access the workspace using the Find or Search feature.
- ♦ Users can see the name of a higher-level workspace, even though they do not have appropriate rights.  
  
Users who use the Find or Search feature to locate the sub-workspace or sub-folder that they have been granted access to, then view the sub-workspace or sub-folder, are then able to see the name of the parent workspace, which they otherwise would not be able to see. However, they can see only the workspace name, not the contents of the workspace.

## 2.3 Controlling User Access in Workspaces

The access control settings on each Novell Teaming workspace determine who can see the workspace and how different types of users can participate in each workspace.

- ♦ [Section 2.3.1, “Controlling User Access to Personal Workspaces,” on page 18](#)
- ♦ [Section 2.3.2, “Controlling User Access to Team Workspaces,” on page 19](#)
- ♦ [Section 2.3.3, “Controlling User Access to Global Workspaces,” on page 20](#)

### 2.3.1 Controlling User Access to Personal Workspaces

- ♦ [“Default Access Controls” on page 19](#)
- ♦ [“Restricting Access to Personal Workspaces throughout the Teaming Site” on page 19](#)

## Default Access Controls

By default, personal workspaces are created with the following access:

User or Group	Access Role	Role Description
Workspace Owner (user)	Administrator	Can create, modify, or delete workspaces or folders; moderate participation (modify or delete the entries of others); design entries and workflows; and can perform Participant tasks.
All Users group	Participant	Can create and modify entries, plus perform the Visitor tasks.
	Visitor	Has read-only and comment-only access.

## Restricting Access to Personal Workspaces throughout the Teaming Site

You might want to set up your Teaming site so entries in users' personal workspaces remain hidden and confidential.

- 1 Navigate to the Personal Workspaces page by clicking *Personal Workspaces* in the Workspace tree.
- 2 Click *Manage > Access Control*.
- 3 In the *All users* column of the access control table, ensure that no check boxes are selected.
- 4 Click *Save Changes*.

Teaming users can adjust the access control for their personal workspaces, as described in “[Controlling User Access](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

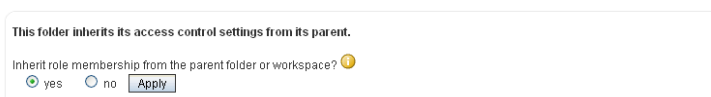
## 2.3.2 Controlling User Access to Team Workspaces

By default, new team workspaces created under the main Team Workspace are visible only to members of the team workspace. Following are some of the default access control options:

User or Group	Access Role	Role Description
Workspace Owner (team creator)	Administrator	Can create, modify, or delete workspaces or folders; moderate participation (modify or delete the entries of others); design entries and workflows; and can perform Participant tasks.
All Users group	Participant	Can create and modify entries, plus perform the Visitor tasks.
	Visitor	Has read-only and comment-only access.

After you create a new team workspace, you can configure different access control settings for it.

- 1 Select the new team workspace, then click *Manage > Access Control*.
- 2 Select *No* in the Inheritance box.



This folder inherits its access control settings from its parent.

Inherit role membership from the parent folder or workspace? ⓘ

yes  no

- 3 Click *Apply* to activate the Access Control table:

✓ designates the access control setting of the parent workspace

Add User Names from Clipboard			Add a Role ▾			
			Participant	Team Member	Workspace and Folder Administrator	Workspace Creator
	Owner of Workspace or Folder		<input type="checkbox"/>	<input type="checkbox"/>	✓ <input checked="" type="checkbox"/>	<input type="checkbox"/>
	Team Members		<input type="checkbox"/>	✓ <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Add a Group ▾	Group Title	Group Name	Participant	Team Member	Workspace and Folder Administrator	Workspace Creator
	All Users	allUsers	✓ <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ <input checked="" type="checkbox"/>
Add a User ▾	User Title	User Id	Participant	Team Member	Workspace and Folder Administrator	Workspace Creator
Add an Application Group ▾	Application Group Title	Application Group Name	Participant	Team Member	Workspace and Folder Administrator	Workspace Creator
Add an Application ▾	Application Title	Application Name	Participant	Team Member	Workspace and Folder Administrator	Workspace Creator

- Adjust the access control settings for the new team workspace as needed, as described in “Controlling User Access” in the *Novell Teaming 2.1 Advanced User Guide*.

### 2.3.3 Controlling User Access to Global Workspaces

By default, the Global Workspace immediately under the Home Workspace inherits the access control settings of the Home Workspace, which are:

User or Group	Access Role	Role Description
Workspace Owner (admin)	Administrator	Can create, modify, or delete workspaces or folders; moderate participation (modify or delete the entries of others); design entries and workflows; and can perform Participant tasks.
All Users group	Participant	Can create and modify entries, plus perform the Visitor tasks.
	Visitor	Has read-only and comment-only access.
All Applications group	Visitor	Has read-only and comment-only access. For information about application groups, see “Managing Remote Applications” in the <i>Novell Teaming 2.1 Advanced User Guide</i> .

When you create a new global workspace under the main Global Workspace, the new global workspace by default inherits the access control settings of the main Global Workspace, as listed above. After you create a new global workspace, you can configure different access control settings for it.

- Select the new global workspace, then click *Manage > Access Control*.
- Select *No* in the Inheritance box.

This folder inherits its access control settings from its parent.

Inherit role membership from the parent folder or workspace? ⓘ

yes  no

- Click *Apply* to activate the Access Control table:

✓ designates the access control setting of the parent workspace

Add User Names from Clipboard

		Add a Role ▾					
		Participant	Team Member	Visitor	Workspace and Folder Administrator		
	Owner of Workspace or Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
	Team Members	<input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Add a Group ▾		Group Title	Group Name	Participant	Team Member	Visitor	Workspace and Folder Administrator
	All Users	allUsers	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>	
Add a User ▾		User Title	User Id	Participant	Team Member	Visitor	Workspace and Folder Administrator
Add an Application Group ▾		Application Group Title	Application Group Name	Participant	Team Member	Visitor	Workspace and Folder Administrator
	All Applications	allApplications	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>	
Add an Application ▾		Application Title	Application Name	Participant	Team Member	Visitor	Workspace and Folder Administrator

- Adjust the access control settings for the new global workspace as needed, as described in “Controlling User Access” in the *Novell Teaming 2.1 Advanced User Guide*.

## 2.4 Controlling User Access throughout the Teaming Site

By assigning users to access control roles for the Teaming site, you can give users additional rights, or restrict current rights.

- [Section 2.4.1, “Understanding Default Roles,”](#) on page 21
- [Section 2.4.2, “Assigning a User to a Role,”](#) on page 22

### 2.4.1 Understanding Default Roles

By default, you can assign users to various roles in the Teaming site.

**Table 2-1** Default Access Control Roles

Role	Description
Participant	Can create entries and modify those entries, plus perform tasks associated with the Visitor role.
Allow Adding Guest Access	Can make Teaming workspaces and folders available to Guest users in Teaming.  By default, Guest users can access only the Guest user personal workspace, as well as any workspace or folder that the Teaming administrator has granted them rights to access.  For more information, see <a href="#">Section 5.3.3, “Enabling Individual Users to Grant Guest Access throughout the Teaming Site,”</a> on page 53.
Can Only See Members Of Groups I Am In	Removes a user’s ability to view other Teaming users who are not members of a group that he or she belongs to.
Guest Participant	Can read entries, create entries, and add comments.

Role	Description
Override “Can Only See Members Of Groups I Am In”	<p>Overrides the <i>Can Only See Members Of Groups I Am In</i> role. This can simplify the administration of the <i>Can Only See Members Of Groups I Am In</i> role.</p> <p>For example, you might assign the <i>Can Only See Members Of Groups I Am In</i> role to a group, but at the same time you want to allow certain members of the group to retain their ability to see users that belong to groups outside of their own. In this circumstance, you can assign the <i>Override “Can Only See Members Of Groups I Am In”</i> role to the members who you want to retain their ability to see users outside of their own groups.</p>
Team Member	Has all the rights of a Participant. In addition, can add folders, modify any entry, and has some additional administrator privileges.
Token Requester	<p>Can make Web service calls on behalf of another Teaming user.</p> <p>This functionality can enable administrators to perform proxy functions for individual Teaming users without logging in as the Teaming user. This means that the Web services application does not cache individual users’ credentials in order to perform operations.</p> <p>This role should not be assigned to a Teaming user, but rather to a system-level (agent) account that you want to be responsible for executing Web service operations on behalf of one or more regular Teaming users.</p> <p>For more information about the Web services operations that support the Token Requester role, see “<a href="#">admin_getApplicationScopedToken</a>” and “<a href="#">admin_destroyApplicationScopedToken</a>” in the <i>Novell Teaming 2.1 Developer Guide</i>.</p>
Visitor	Has read-only and comment-only access.
Workspace and Folder Administrator	Can create, modify, or delete workspaces or folders; moderate participation (modify or delete the entries of others); design entries and workflows; and can perform tasks associated with the Participant role.
Workspace Creator	Can create sub-workspaces. In Team Workspace Root workspaces, this role allows users to create their own team workspaces.
Zone Administration	Has all rights associated with access control.

## 2.4.2 Assigning a User to a Role

To assign a user to a particular role for every place on the Novell Teaming site:

- 1 In the Folder or Workspace toolbar, click *Manage > Site Administration*, then click *Access Control for Zone Administration Functions*.

**Configure Access Control**

Configure Access Control ? Close

Administrative Functions

**Add User Names from Clipboard**

**Add a Role**

Add a Group	Group Title	Group Name	Allow Adding Guest Access	Participant	Zone Administration
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Add a User**

User Title	User Id	Allow Adding Guest Access	Participant	Zone Administration
	admin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Add an Application Group**

Application Group Title	Application Group Name	Allow Adding Guest Access	Participant	Zone Administration
	All Applications	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Add an Application**

Application Title	Application Name	Allow Adding Guest Access	Participant	Zone Administration
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Save Changes

\* Assigning roles to an application or application group at the zone level actually specifies the maximum set of rights that the application is allowed to use. This allows the site administrator to prevent applications from ever having more rights than are needed to perform its task. If no roles are assigned, then the application has no rights.  
[Note: admin (admin) has been designated as the default site administrator with privileges to perform any task on any workspace or folder.]

Close

A basic Teaming site consists of a single zone. Novell Teaming allows you to set up multiple zones in a single Teaming site. This feature is not available in Kablunk Teaming. For more information about creating multiple zones, see [Chapter 12, “Setting Up Zones \(Virtual Teaming Sites\),” on page 75](#).

- 2 Add the user to whom you want to grant the site-wide role to the Access Control table.

For information on how to add users to the Access Control table, see [“Adding Users to the Access Control Table”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

- 3 Add the role that you want to grant to the Access Control table.

For information on how to add roles to the Access Control table, see [“Adding Roles to the Access Control Table”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

- 4 Click *Save Changes*, then click *Close*.

## 2.5 Managing Roles to Refine Access Control

Novell Teaming uses role-based access control. By default, there are six roles, and each role contains specific rights. If you want a particular user to have certain rights, then you can assign that user to the appropriate role. For a list of all the default access roles that are included in Teaming, see [“Default Roles”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

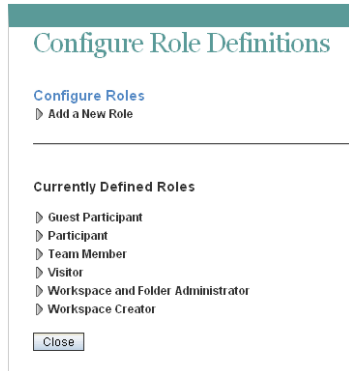
If you find that the existing roles do not meet the needs of your organization, you can modify them or create new ones. This can be particularly useful if you want to delegate the administration of sub-workspaces and sub-folders, and if you do not want to grant all of the privileges that come with the Workspace and Folder Administration role.

Teaming also enables you to delete roles that are no longer useful to your organization.

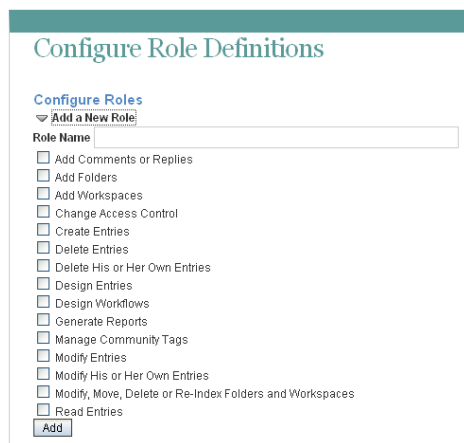
- ♦ [Section 2.5.1, “Defining a New Role,” on page 24](#)
- ♦ [Section 2.5.2, “Modifying Existing Roles,” on page 24](#)
- ♦ [Section 2.5.3, “Deleting Existing Roles,” on page 25](#)

## 2.5.1 Defining a New Role

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration*, then click *Configure Role Definitions*.



- 3 Click *Add a New Role*.



- 4 In the *Role Name* field, specify a name for the new role, then select all of the rights that you want members of this role to be able to perform.
- 5 Click *Add*, then click *Close*.

The role is added to the list of existing roles, and you can now add this role to the Access Control table.

## 2.5.2 Modifying Existing Roles

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 In the Workspace toolbar, click *Manage > Site Administration*, then click *Configure Role Definitions*.
- 3 In the *Currently Defined Roles* section, select the role that you want to modify.



- 4 Select the rights that you want members of this role to be able to perform, and deselect the rights that you don't want them to be able to perform.
- 5 Click *Apply*, then click *Close*.

### 2.5.3 Deleting Existing Roles

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 In the Workspace toolbar, click *Manage > Site Administration*, then click *Configure Role Definitions*.
- 3 In the *Currently Defined Roles* section, select the role that you want to delete.
- 4 Click *Delete*, then click *Close*.



# Setting Up Initial Workspaces

# 3

Proper organization of workspaces is critical to building an effective Novell® Teaming site.

- ♦ [Section 3.1, “Understanding Workspaces,” on page 27](#)
- ♦ [Section 3.2, “Setting Up Users’ Personal Workspaces,” on page 28](#)
- ♦ [Section 3.3, “Organizing Team Workspaces,” on page 35](#)
- ♦ [Section 3.4, “Creating Global Workspaces,” on page 36](#)
- ♦ [Section 3.5, “Using Workspace and Folder Templates,” on page 37](#)
- ♦ [Section 3.6, “Importing Workspaces,” on page 43](#)

See also [Chapter 16, “Managing Workspaces,” on page 109](#).

## 3.1 Understanding Workspaces

Your Novell Teaming site consists of seven types of workspaces:

- ♦ **Personal workspaces:** When you add users to your Teaming site, as described in [“Adding Users to Your Teaming Site”](#) in [“Basic Installation”](#) in the *Novell Teaming 2.1 Installation Guide*, a personal workspace is established for each user. Users can customize their personal workspaces, as described in [“Setting Up Your Personal Workspace”](#) in [“Getting Started”](#) in the *Novell Teaming 2.1 User Guide*.
- ♦ **Team workspaces:** Teaming users, along with you as the Teaming administrator, can create team workspaces for groups of people who work together regularly, as described in [“Setting Up Your Personal Workspace”](#) in [“Getting Started”](#) in the *Novell Teaming 2.1 User Guide*. You, as the Teaming administrator, need to decide how you want to organize team workspaces before you let users start creating them.
- ♦ **Team Workspace Root workspaces:** Team Workspace Root workspaces are the optimal type of workspace if you want to create a library of team workspaces as sub-workspaces.  
For more information on Team Workspace Root workspaces, see [“Creating and Managing a Team Workspace Root Workspace”](#) in the *Novell Teaming 2.1 Advanced User Guide*.
- ♦ **Project Management Workspaces:** Project Management workspaces include special accessories that help leaders track the progress of task completion for potentially large projects. Project Management workspaces focus on project completion.  
For more information on Project Management workspaces, see [“Creating and Managing a Project Management Workspace”](#) in the *Novell Teaming 2.1 Advanced User Guide*.
- ♦ **Discussions workspaces:** The Discussions workspace can be the home page for a set of discussion forums. You can also use the Discussions workspace to house other types of folders. Discussions workspaces can be particularly useful for site administrators who are responsible for creating the overall structure of the Teaming site.  
For more information on how you can use Discussions workspaces, see [“Creating and Managing a Discussions Workspace”](#) in the *Novell Teaming 2.1 Advanced User Guide*.
- ♦ **Basic workspaces:** Like other types of Teaming workspaces, basic workspaces in Novell Teaming can be used to organize information inside of existing workspaces, creating different levels of hierarchy within a workspace.

For more information on basic workspaces, see “[Creating and Managing a Basic Workspace](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

- ♦ **Global workspaces:** Global workspaces contain information that is of interest to all Teaming users. You, as the Teaming administrator, decide what type of information needs to be globally available on your Teaming site.

For more information on Global workspaces, see [Section 3.4, “Creating Global Workspaces,”](#) on page 36.

## 3.2 Setting Up Users’ Personal Workspaces

- ♦ [Section 3.2.1, “Understanding Personal Workspaces,”](#) on page 28
- ♦ [Section 3.2.2, “Customizing the Default Personal Workspace View,”](#) on page 30
- ♦ [Section 3.2.3, “Enabling Users to Create Landing Pages on Personal Workspaces,”](#) on page 31
- ♦ [Section 3.2.4, “Customizing the Default View of the Profile Tab,”](#) on page 32
- ♦ [Section 3.2.5, “Adding LDAP Elements to the Profile Tab,”](#) on page 35

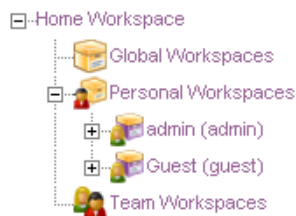
See also [Section 2.3.1, “Controlling User Access to Personal Workspaces,”](#) on page 18.

### 3.2.1 Understanding Personal Workspaces

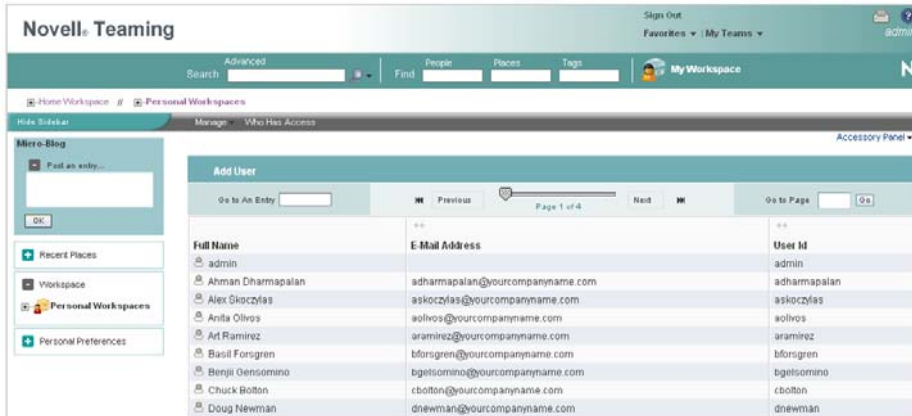
When you create your Novell Teaming site, a workspace named Personal Workspaces is automatically created.



Initially, when you expand it, Personal Workspaces includes only two personal workspaces, even after you have created Teaming users, as described in “[Adding Users to Your Teaming Site](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.



Users’ workspaces appear in the Workspace tree after the users log in for the first time. You can also see which users have been added to the Teaming site by clicking *Personal Workspaces*.



You can manually add Teaming users from this user list, as described in [Section 15.2, “Listing Teaming Users,”](#) on page 92.

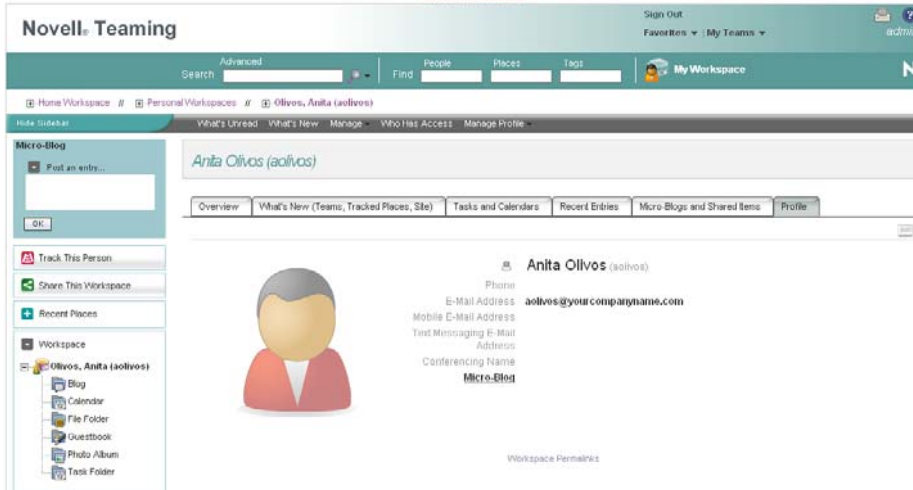
You can also create new Teaming users by using the method described in “[Creating a User](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

As the Teaming administrator, you can access any user’s personal workspace by clicking it in the user list.

Before the user has logged in, the user’s personal workspace includes only very basic information.



After the user has logged in, more information displays in the personal workspace; it is ready for the user to personalize.



For information on how users can customize and populate their personal workspaces, see “[Setting Up Your Personal Workspace](#)” in the *Novell Teaming 2.1 User Guide*.

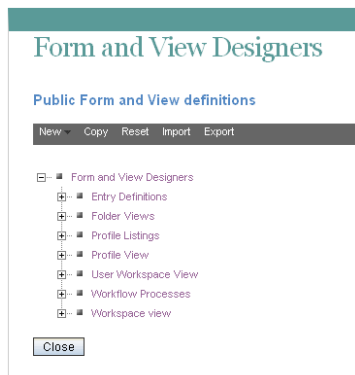
### 3.2.2 Customizing the Default Personal Workspace View

As a Novell Teaming administrator, you have the ability to customize the default view for all personal workspaces in your Teaming site.

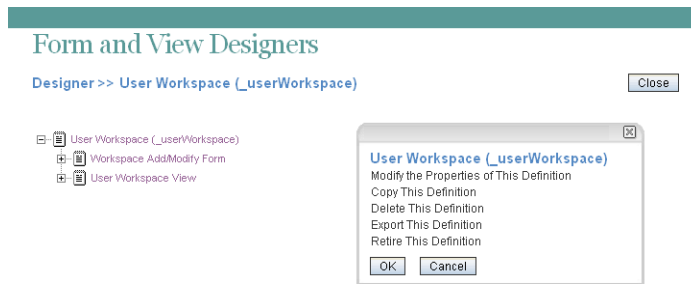
- ◆ “[Customizing the Default View for Existing and Future Personal Workspaces](#)” on page 30
- ◆ “[Customizing the Default View for Future Personal Workspaces](#)” on page 31

#### Customizing the Default View for Existing and Future Personal Workspaces

- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Form and View Designers*.



- 2 Expand *User Workspace View*, then click *User Workspace*.



- 3 Add the form and view elements that you want your existing and future personal workspaces to contain by default.

For information on the kinds of elements that you can add and how to add them, see “[Designing a Custom Folder Entry Form](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

### Customizing the Default View for Future Personal Workspaces

The procedure in this section affects only future personal workspaces (workspaces that have not yet been created). For information on how to change the default view for existing workspaces as well as future workspaces, see “[Customizing the Default View for Existing and Future Personal Workspaces](#)” on page 30.

- 1 Log in as the Teaming administrator.
- 2 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Manage Workspace and Folder Templates*.
- 3 Click *User workspace*.
- 4 Modify the settings.

For information on the types of modifications that you can make to the User Workspace template, see [Section 17.1, “Modifying Workspace and Folder Templates,”](#) on page 115.

### 3.2.3 Enabling Users to Create Landing Pages on Personal Workspaces

By default, Teaming users cannot create a landing page on their personal workspaces. However, as a Teaming administrator, you can enable landing page creation on personal workspaces.

- 1 Log in as the Teaming administrator.
- 2 Click *Manage > Site Administration*.
- 3 Click *Form and View Designers*.

The Form and View Designers page is displayed.

- 4 Click *New > User Workspace View*.
- 5 Specify the following information:

**Caption:** Specify a name for the new user workspace landing page view.

This is the name that appears in the Teaming interface that users see when they use this view. (For example, *User Landing Page*.)

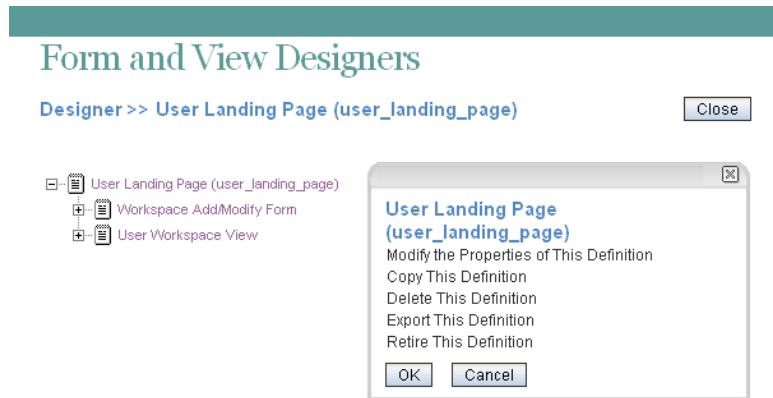
**Name:** Specify the internal name for the new user workspace landing page view.

The name that you enter in this field is not visible to users who use this view. (For example, `user_landing_page`.)

**Family:** Ensure *User* is selected in the drop-down list.

**6** Click *OK*.

The Designer page is displayed.



**7** Click *Workspace Add/Modify Form*.

**8** Click *Add* in the *Workspace Add/Modify Form* window.

**9** Click *Landing Page Layout* in the *Layout Options* section.

**10** Specify the appropriate information, then click *OK*.

**11** Click *User Workspace View*.

**12** Click *Add* in the *User Workspace View* window.

**13** Click *Landing Page Layout* in the *Standard Form Elements* section.

**14** Specify the appropriate information, then click *OK*.

Teaming users can now enable this landing page on their personal workspaces, as described in “[Creating a Landing Page for a Personal Workspace](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

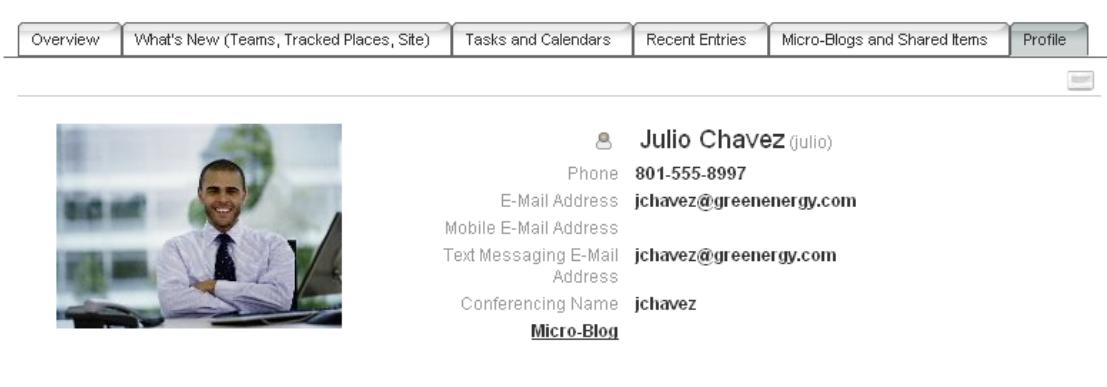
For information on how to add other elements and layout options to this user workspace landing page view, see “[Creating Custom Folder Views](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

### 3.2.4 Customizing the Default View of the Profile Tab

You can customize the default user profile view. This is the view that appears in the *Profile* tab of a user’s personal workspace. This view determines the information that is displayed in all user profiles.

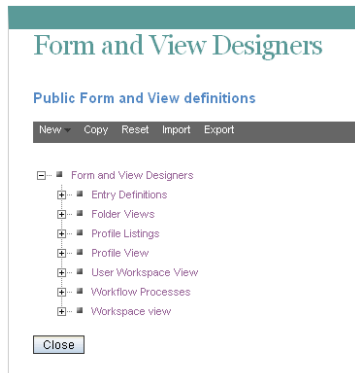


**Figure 3-1** User Profile Tab



To modify information that is displayed in the *Profile* tab:

- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Form and View Designers*.

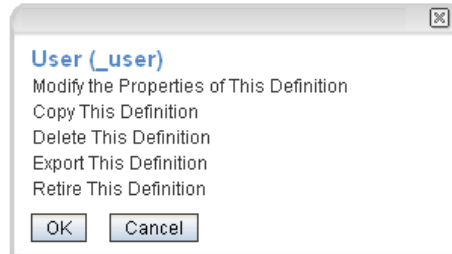


- 2 Expand *Profile View*, then click *User*.  
The User Designer page is displayed.

## Form and View Designers

Designer >> User (\_user)

Close



**3** Depending on how extensively you want to customize the information in the *Profile* tab, continue with either of the following sections:

- ♦ “Adding Elements to the Profile Tab” on page 34
- ♦ “Adding, Deleting, and Modifying Elements in the Profile Tab” on page 34

### Adding Elements to the Profile Tab

If you are mostly satisfied with the layout and elements that are included in the *Profile* tab, and simply want to add additional elements to the current view, then you can add elements to the profile view in the same way that you add elements to any other view.

For information on how to add form and view elements, see “[Designing the Workspace View](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

If you want to change the order of the elements, delete elements, or change the layout of the profile view, follow the instructions in “[Adding, Deleting, and Modifying Elements in the Profile Tab](#)” on page 34.

### Adding, Deleting, and Modifying Elements in the Profile Tab

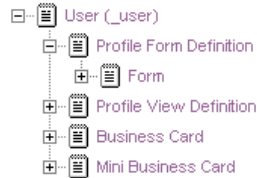
You can add, delete, or modify elements. Elements that you add must appear after the default elements.

- 1** Expand *Profile Form Definition*, then click *Form*.
- 2** In the *Form* window on the right side of the page, click *Modify*.

# Form and View Designers

Designer >> User (\_user)

Close



3 In the *Type* section, select *Profile Form with Nothing Included*, then click *OK*.

4 Modify the elements and layout options of the profile view to suit your needs.

For information on how to add form and view elements, see “[Designing the Workspace View](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

## 3.2.5 Adding LDAP Elements to the Profile Tab

If there is information in your LDAP source that does not have a corresponding element in Teaming, and you want that information to be displayed in the Teaming *Profile* tab, you can create an element in the profile view as described in [Section 3.2.4, “Customizing the Default View of the Profile Tab,” on page 32](#). After you have created the element, you can synchronize it with the corresponding information from LDAP, as described in [Section 15.1.2, “Synchronizing Additional LDAP Attributes,” on page 91](#).

## 3.3 Organizing Team Workspaces

- [Section 3.3.1, “Understanding Team Workspaces,” on page 35](#)
- [Section 3.3.2, “Creating a Team Workspace Root Workspace,” on page 36](#)
- [Section 3.3.3, “Creating a Team Workspace,” on page 36](#)

See also [Chapter 16, “Managing Workspaces,” on page 109](#).

### 3.3.1 Understanding Team Workspaces

When you create your Novell Teaming site, a workspace named Team Workspaces is automatically created.



You as the Teaming administrator are responsible to determine how team workspaces should be organized. Without guidance, Teaming users will inevitably create chaos under the Team Workspaces directory.

You might want to organize team workspaces to parallel your business organization. If appropriate, you might have a level for geographical areas. You would typically want a level for departmental areas, and perhaps even for projects within departments. In addition, you must decide which teaming users need what kind of access to which teams. Creating groups, as described in [Section 5.2, “Creating Groups of Users,” on page 48](#), facilitates creating teams because you do not need to individually add users to teams.

In the Team Workspaces directory that is automatically created when you install Teaming, you can create other Team Workspace Root workspaces. A Team Workspace Root workspace is designed to contain multiple team workspaces, so use this type of workspace if you want to create additional team workspaces as sub-workspaces to this workspace.

### 3.3.2 Creating a Team Workspace Root Workspace

After you have planned the hierarchical organization of the team workspaces for your Novell Teaming site, you can start to implement it by creating Team Workspace Root workspaces, as described in “[Creating and Managing a Team Workspace Root Workspace](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

### 3.3.3 Creating a Team Workspace

In the Team Workspaces directory, or in the Team Workspace Root workspaces that you have created:

- 1 Create each team workspace, as described in “[Creating a Team Workspace](#)” in “[Getting Started](#)” in the *Novell Teaming 2.1 User Guide*.
- 2 Set the access controls on the team workspace, as described in [Section 2.3.2, “Controlling User Access to Team Workspaces,” on page 19](#).

## 3.4 Creating Global Workspaces

A global workspace is intended to present very high-level information that would be of interest to all Novell Teaming users. It might include a Frequently Asked Questions (FAQ) workspace to help new Teaming users find their way around in the organization of team workspaces that you have set up. It might provide a place to post company-wide news. All global workspaces must be created under *Home Workspace > Global Workspaces* on the Teaming site.

You might want to use geography to organize your company’s global information, and then use departmental categories (*Engineering, Human Resources, Marketing*) to further organize the information. Or, depending on your organization, you might want to reverse the order (function followed by geography), or use some other organizational scheme.

We strongly recommend that you limit the creation of global workspaces. First, organic team creation is the more effective use model for this product. Second, we have worked with a significant number of customers who duplicated complex organizational charts in the structure of global workspaces, and users found them to be confusing and unusable. Instead, populate the global area with a minimal amount of information, and let users guide you in developing a useful structure and content in this area.

## 3.5 Using Workspace and Folder Templates

Templates in Novell Teaming are a powerful way to create consistent custom folders and workspaces. If you are not satisfied with the way default workspaces and folders behave, you can either modify the current templates, or create new templates.

- ♦ [Section 3.5.1, “Understanding Templates,” on page 37](#)
- ♦ [Section 3.5.2, “Understanding Default Workspace and Folder Templates,” on page 38](#)
- ♦ [Section 3.5.3, “Creating Workspace and Folder Templates,” on page 40](#)

### 3.5.1 Understanding Templates

Workspace and Folder Templates are a powerful and efficient way to manage your Novell Teaming site. They enable you to customize the default features, default layout, and default access control settings of the workspaces and folders throughout your Teaming site.

For example, the Team Workspaces template is used when any team workspace is created. By default, the access control settings for the Team Workspaces template specify that only team members are able to view the team workspace. However, if you want to run a more relaxed Teaming site and allow all Teaming users to view any team workspace, you can simply modify the access control settings for the Team Workspaces template.

For information about the specific access control roles that you can assign to various users in Teaming, see [“Understanding Access Control”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

- ♦ [“Creating Templates or Modifying Existing Templates” on page 37](#)
- ♦ [“Templates vs. Form and View Designers” on page 38](#)

#### Creating Templates or Modifying Existing Templates

You can modify existing templates, like the Team Workspaces template, or you can create your own custom templates. When you create a new template, all teaming users have access to that template when they create new workspaces or folders. When you modify existing templates, users who create new workspaces and folders see only the modified template.

For more information on the default templates that are included in Novell Teaming, see [Section 3.5.2, “Understanding Default Workspace and Folder Templates,” on page 38](#).

## Templates vs. Form and View Designers

Novell Teaming provides two methods of customizing the default features and default layout of workspaces and folders in your Teaming site.

- ♦ **Templates:** If users have not yet started using your Teaming site, use templates to create and modify custom folder and workspace views. Typically, templates are easier to work with than the Form and View Designers tool; however, changes that you make to templates affect only those workspaces and folders that are created after the template was modified.
- ♦ **Form and View Designers Tool:** If users have already started using your Teaming site, you might want to use the Form and View Designers tool to create and modify folder and workspace views. When you modify folder and workspace views by using the Form and View Designers tool, all modifications are displayed in existing workspaces and folders.

For information on using the Form and View Designers tool to create new workspace and folder views, see [“Creating Custom Workspace Views”](#) and [“Creating Custom Folder Views”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

## 3.5.2 Understanding Default Workspace and Folder Templates

By default, Novell Teaming provides basic default templates for various types of workspaces and folders. If the default workspace and folder templates are not sufficient for your needs, you can either modify these templates, as described in [Section 17.1, “Modifying Workspace and Folder Templates,” on page 115](#), or create new templates, as described in [Section 3.5.3, “Creating Workspace and Folder Templates,” on page 40](#).

The following sections outline the default workspace and folder templates that are provided in Teaming:

- ♦ [“Default Workspace Templates” on page 38](#)
- ♦ [“Default Folder Templates” on page 39](#)

### Default Workspace Templates

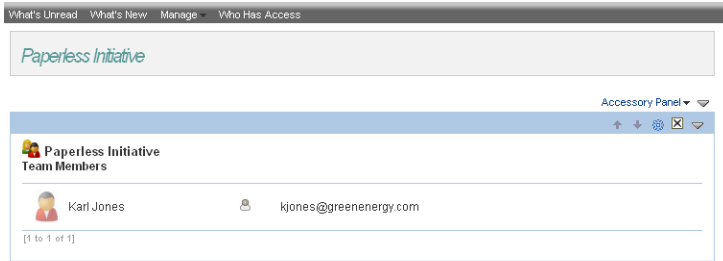
- ♦ Discussions Workspace
- ♦ Project Management Workspace
- ♦ Team Workspace
- ♦ Workspace (Basic)
- ♦ Landing Page
- ♦ User Workspace

Following are some examples of default workspace templates:

- ♦ [“Team Workspace” on page 39](#)
- ♦ [“User Workspace” on page 39](#)

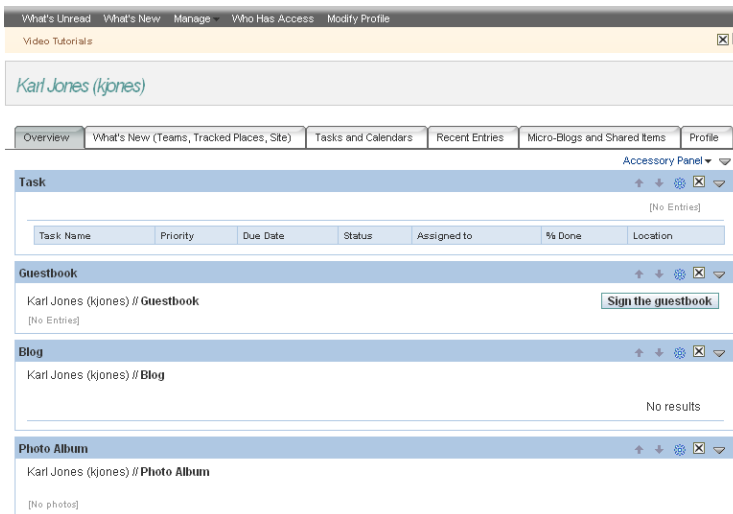
## Team Workspace

**Figure 3-2** Team Workspace Template Example



## User Workspace

**Figure 3-3** User Workspace Template Example



## Default Folder Templates

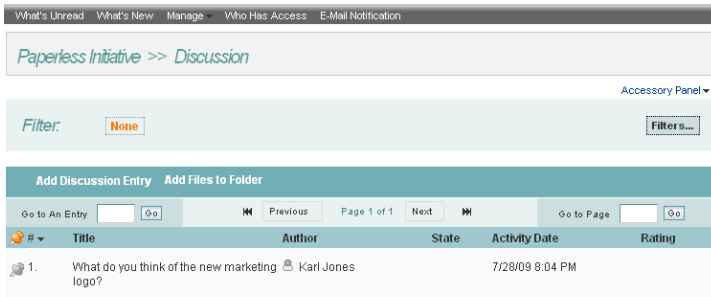
- ◆ Discussion
- ◆ Blog
- ◆ Calendar
- ◆ Guestbook
- ◆ File Folder
- ◆ Milestone Folder
- ◆ Micro-Blog
- ◆ Mirrored File Folder
- ◆ Photo Album
- ◆ Survey Folder
- ◆ Task Folder
- ◆ Wiki

Following are some examples of default folder templates:

- ◆ “Discussion Folder” on page 40
- ◆ “Calendar Folder” on page 40

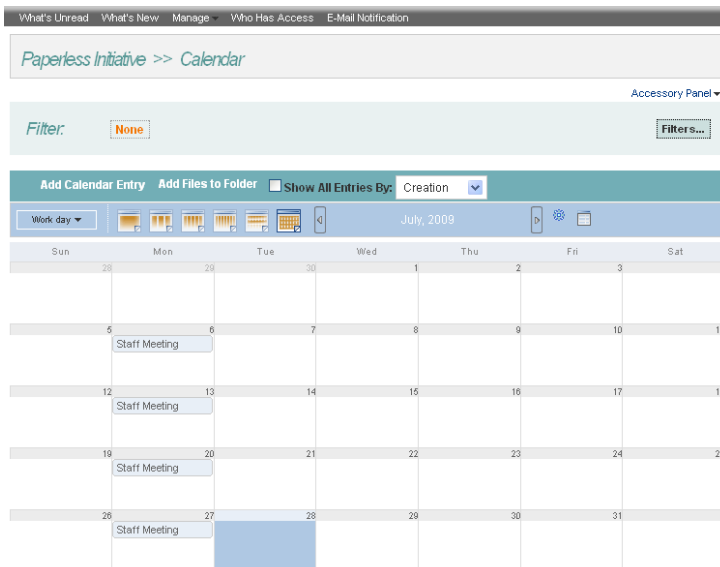
## Discussion Folder

**Figure 3-4** Discussion Folder Template Example



## Calendar Folder

**Figure 3-5** Calendar Folder Template Example



### 3.5.3 Creating Workspace and Folder Templates

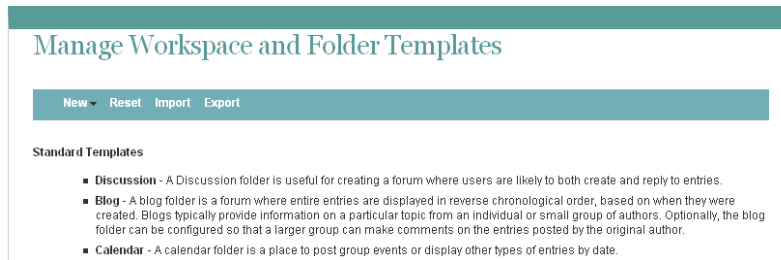
Novell enables you to create templates based on existing workspaces and folders; or, you can create new templates. You can also modify existing templates.

- ◆ “Creating Templates Based on Existing Workspaces and Folders” on page 41
- ◆ “Creating New Templates” on page 42
- ◆ “Modifying Existing Templates” on page 42

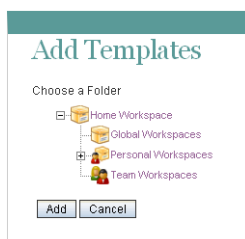


## Creating Templates Based on Existing Workspaces and Folders

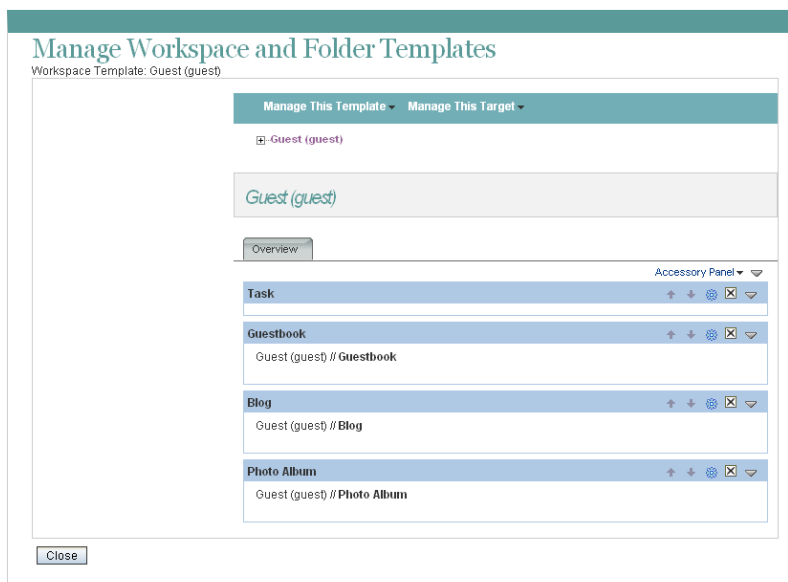
- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Manage Workspace and Folder Templates*.



- 2 Click *New > Create a New Template from an Existing Workspace or Folder*.



- 3 Use the Workspace tree to navigate to and select the folder or workspace whose template you want to modify.
- 4 Click *Add*.



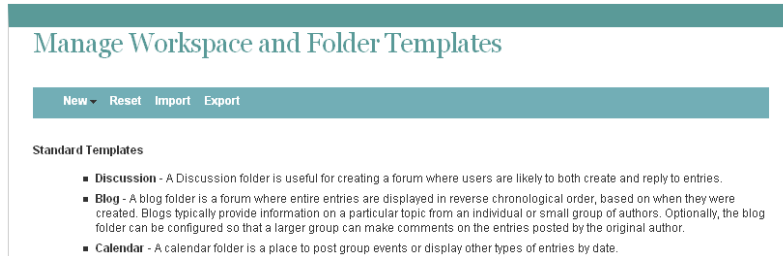
- 5 Modify the template as desired.

For information on how to modify a template after you have created it, see [Section 17.1, “Modifying Workspace and Folder Templates,”](#) on page 115.

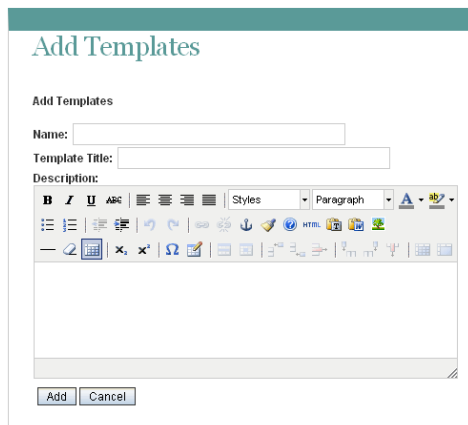
## Creating New Templates

Teaming enables you to design completely new custom workspace or folder templates.

- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Manage Workspace and Folder Templates*.



- 2 Click *New > Folder* or *Workspace*, depending on which type of template you want to create.



- 3 Fill in the following fields:

**Name:** Internal name of the template

For example, `custom_template`.

**Template Title:** Visible name of the template.

For example, `Custom Template`.

**Description:** Description of the template.

- 4 Click *Add > OK*.

The template is created.

- 5 Set up the template as desired.

For information on how to set up a template after you have created it, see [Section 17.1, “Modifying Workspace and Folder Templates,”](#) on page 115.

## Modifying Existing Templates

Teaming enables you to modify default templates or custom templates that you have created.

For information on how to modify existing templates, see [Section 17.1, “Modifying Workspace and Folder Templates,”](#) on page 115.

## 3.6 Importing Workspaces

Teaming data can be transferred from one Teaming site to another by exporting it and then importing it. If you have data to import into your Teaming site, see [Section 16.1, “Exporting/Importing Workspaces, Folders, and Entries,”](#) on page 109.



# Setting Up Site-Wide Customizations

# 4

- ♦ [Section 4.1, “Creating High-Level Landing Pages,”](#) on page 45
- ♦ [Section 4.2, “Creating a Site-Wide Brand,”](#) on page 45
- ♦ [Section 4.3, “Specifying a Default Home Page for All Users,”](#) on page 45

## 4.1 Creating High-Level Landing Pages

Landing pages are a good way to put a custom face on your Teaming site while at the same time providing easier access to your site’s most important information.

You might want to create landing pages at high-level workspaces, such as the Home Workspace workspace.

For information on how to create a landing page, see [“Creating and Managing Landing Pages”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

## 4.2 Creating a Site-Wide Brand

You create a brand for your Novell® Teaming site in the same way that you create a brand for any workspace or folder in Teaming, except that you need to create the brand at the highest-level workspace.

- 1 Sign in to the Teaming site as the Teaming administrator.
- 2 Click the highest-level workspace, which by default is *Home Workspace*, in the Workspace tree.
- 3 Continue with [“Branding a Folder or Workspace”](#) in the *Novell Teaming 2.1 Advanced User Guide* for more information on how to create your brand.

## 4.3 Specifying a Default Home Page for All Users

By default, all users who log in to the Teaming site are first taken to their personal workspace. However, you can change this default behavior to have all users taken to the same home page. This might be a corporate landing page that provides links to important places on the Teaming site.

- 1 Create a landing page on the workspace that you want to set as the new default home page for all users.

For example, you might navigate to the *Global Workspaces* directory and create a landing page on this workspace.

For information on how to create a landing page, see [“Creating and Managing Landing Pages”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

- 2 Configure a simple URL for the home page.
  - 2a Click *Manage > Configure* in the Workspace toolbar.
  - 2b In the *Define URL* section, in the drop-down list, select one of the available options.

For example, select *leave blank*.

- 2c** In the provided field, specify *home*.
- 2d** Click *Add > Close*.
- 3** Set the access control for the workspace to allow all users to be visitors to the workspace, if it is not set already.
  - 3a** Click *Manage > Access Control* in the Workspace toolbar.
  - 3b** In the *Inherit role membership* section, select *no*, then click *Apply*.
  - 3c** In the *All Users* row, ensure that the box is selected in the *Visitor* column.
  - 3d** Click *Save Changes > Close*.
- 4** On the Teaming server, change to the following directory:

Linux:        /opt/novell/teaming/apache-tomcat-version/  
  webapps/teaming/WEB-INF/

Windows:    c:\Program Files\Novell\Teaming\apache-tomcat-version\  
  webapps\teaming\WEB-INF\

- 5** Open the `web.xml` file in a text editor.
- 6** Locate the following section in the file:

```
<context-param>  
<param-name>landingPagePath</param-name>  
<param-value>/ssf/a/</param-value>  
</context-param>
```

- 7** Replace `ssf/a` with `home`.  
This line should now look as follows:  

```
<param-value>home</param-value>
```
- 8** Save and close the `web.xml` file, then stop and restart Teaming.

If you want users to be automatically taken to this page before they log in, and if you want people who do not have a user account to access the page, see [Section 5.3.2, “Setting Up Guest Access for the Teaming Site,” on page 50](#).

# Setting Up User Access to the Teaming Site

Adding existing users to your new Novell® Teaming site was part of the installation process, as described in “[Adding Teaming Users from Your LDAP Directory](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

However, as time passes, you need to add new users. Depending on the needs of your Teaming site, you might want to allow people to access the site even if they do not have Teaming user accounts in the Teaming system.

- ♦ [Section 5.1, “Adding New Users to Your Teaming Site,” on page 47](#)
- ♦ [Section 5.2, “Creating Groups of Users,” on page 48](#)
- ♦ [Section 5.3, “Allowing Guest Access to Your Teaming Site,” on page 49](#)
- ♦ [Section 5.4, “Allowing Web Crawler Access to Your Teaming Site,” on page 54](#)
- ♦ [Section 5.5, “Allowing Mobile Device Access to Your Teaming Site,” on page 54](#)

## 5.1 Adding New Users to Your Teaming Site

Novell Teaming pulls user information from your LDAP directory service on the schedule that you set under *Manage > Site Administration > Configure LDAP*. The LDAP synchronization schedule was initially set up during installation, as described in “[User Synchronization Options](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*. Therefore, to add new users to your Teaming site, you add the users to your LDAP directory, in a context from which Teaming synchronizes information.

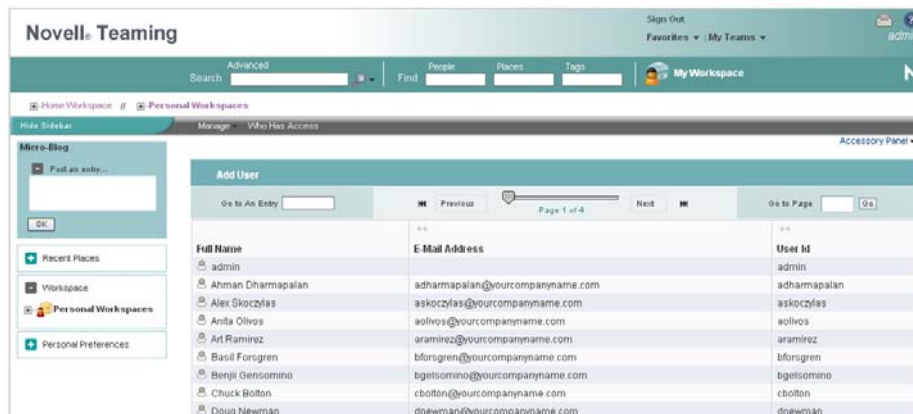
---

**NOTE:** If you change user information on the Teaming site, the changes are not transferred back to your directory service.

---

To list all the users on your Teaming site, click *Personal Workspaces* in the Workspace tree.

**Figure 5-1** *Personal Workspaces*



Navigation controls enable you to scroll through a long list. If you want to add a user who is not in your LDAP directory, click *Add User*, then provide the user's information. A user who is added in this way is a local Teaming user and is not added to your LDAP directory.

## 5.2 Creating Groups of Users

You might have chosen to synchronize groups of users from your LDAP directory to your Novell Teaming site, as described in “[User Synchronization Options](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

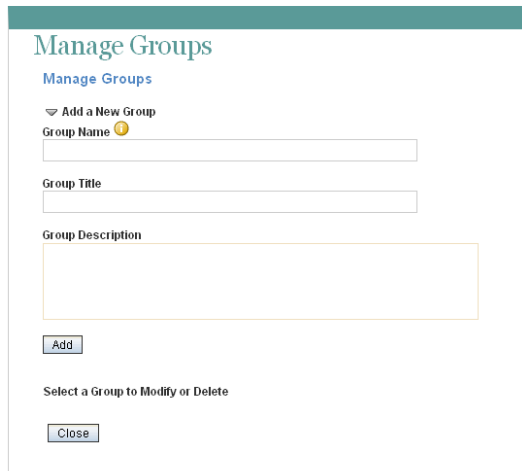
You can use existing groups or create additional groups within Teaming to facilitate access control on your Teaming site. For background information on access control, see “[Controlling User Access](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

In addition to creating groups for purposes of access control, you might want to create groups for any of the following reasons:

- ♦ To facilitate team creation, as described in “[Creating a Team Workspace](#)” in “[Getting Started](#)” in the *Novell Teaming 2.1 User Guide*.
- ♦ To facilitate managing data quotas, as described in [Section 15.5, “Managing User Disk Space Usage with User Data Quotas,”](#) on page 96.

Users are responsible for access control in their personal workspaces and any team workspaces that they create. You as the Teaming site administrator are responsible for access control in public locations such as global workspaces. By creating groups of users who have attributes in common, you and other Teaming users can set access controls and create teams without listing users individually. Groups can be nested within groups, so create small groups first, then build larger groups from your smaller groups.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Click *Manage > Site Administration*.
- 3 Click *Manage Groups*, then click *Add a New Group*.



The screenshot shows a web interface titled "Manage Groups". Underneath, there is a section "Add a New Group" with three input fields: "Group Name" (with a yellow warning icon), "Group Title", and "Group Description" (a larger text area). Below these fields is an "Add" button. At the bottom of the form, there is a label "Select a Group to Modify or Delete" and a "Close" button.

- 4 Fill in the fields:

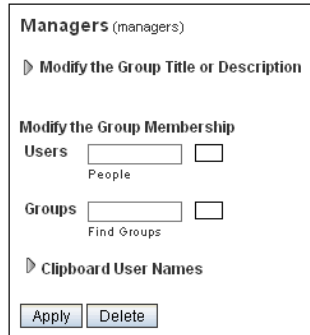


**Group Name:** Specify the unique name under which the group is stored in the Teaming database. The first character must be an alphabetic character (a-z, A-Z). For the rest of the name, you can use alphanumeric characters (a-z, A-Z, 0-9), hyphens (-), and underscores (\_).

**Group Title:** Specify the group name that displays to users on the Teaming site. This string can include any characters that you can type.

**Group Description:** Describe what the members of this group have in common.

- 5 Click *Add* to create the group.
- 6 Click the new group in order to add users to it.



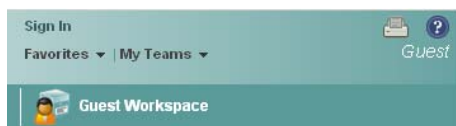
- 7 In the *Users* field, start typing the first or last name of a user. A drop-down list displays possible matches.
- 8 Click a user to add the user to the group.
- 9 Repeat [Step 7](#) and [Step 8](#) for each user who you want to add to the group.

After you have created one or more small groups, you can use the *Groups* field to create larger groups from smaller groups. Also, if there's a place in your Teaming site that displays users that you want to create a group for, you can collect the users on the Teaming clipboard, as described in [“Using the Teaming Clipboard”](#) in [“Connecting With Your Co-Workers”](#) in the *Novell Teaming 2.1 User Guide*, then use *Clipboard User Names* to add the users on the Teaming clipboard to the group that you are creating.

- 10 When you are finished adding users to the group, click *Apply > Close*.

## 5.3 Allowing Guest Access to Your Teaming Site

When a person arrives at the Novell Teaming site URL, the person is considered to be a Guest user on the site, as indicated by the username displayed in the upper right corner of the page:



This page is also the main Teaming login page. Users with Teaming usernames can log in to their personal workspaces, and from there they can access any other locations where they have been granted access.

- ♦ [Section 5.3.1, “Understanding the Guest User,” on page 50](#)
- ♦ [Section 5.3.2, “Setting Up Guest Access for the Teaming Site,” on page 50](#)

- ♦ [Section 5.3.3, “Enabling Individual Users to Grant Guest Access throughout the Teaming Site,” on page 53](#)
- ♦ [Section 5.3.4, “Monitoring Guest User Access,” on page 53](#)

### 5.3.1 Understanding the Guest User

You as the administrator can choose whether you want people who do not have Novell Teaming usernames to be able to access information on the Teaming site as the Guest user.

For example, a government organization such as a city might give Teaming user accounts only to key city knowledge workers. However, it is critical that other city workers and regular citizens also access the site to see a listing of upcoming events, read city news, report complaints, and so forth. As a Teaming administrator, you can use the Guest User workspace as a place to present information to non-registered Teaming users.

When people visit your Teaming site as the Guest user, they can have some or all of the following experiences, depending on the access controls that you set for the Guest user:

- ♦ Any user who knows the Teaming site URL can access the Guest workspace.
- ♦ The Relevance Dashboard in the Guest workspace displays only the information that the Guest user has been specifically granted access to see.
- ♦ A Guest user can find out what is accessible on the Teaming site by clicking in the *Find Places* field and pressing the down arrow on the keyboard.
- ♦ If a Guest user uses the Search feature, the only information returned is information that the Guest user has been granted access to see.
- ♦ When a Guest user adds a folder entry, the entry form requests the user’s name and e-mail address. This information is displayed like a signature when the folder entry is viewed. Providing the name and e-mail address is optional.
- ♦ If you grant Participant rights to the Guest user, people who access the Teaming site as the Guest user can modify and delete entries and comments posted by other people who have accessed the Teaming site as the Guest user.

If you are using Guest user for non-registered Teaming users, the Guest user functionality must be purchased as an additional license for your Novell Teaming site. For more information about Teaming licenses, see [“Updating Your Teaming License”](#) in the *Novell Teaming 2.1 Installation Guide*.

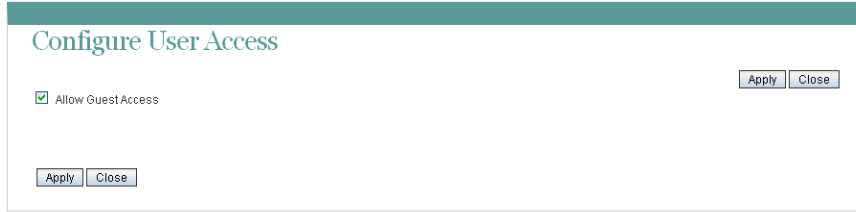
---

**NOTE:** Guest access is not possible if you are using Novell Access Manager to provide single sign-on functionality. For more information about Novell Access Manager, see [“Configuring Single Sign-On with Novell Access Manager”](#) in [“Advanced Installation and Reconfiguration”](#) in the *Novell Teaming 2.1 Installation Guide*.

---

### 5.3.2 Setting Up Guest Access for the Teaming Site

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Click *Manage > Site Administration > Configure Guest Access*.



3 Make sure that *Allow Guest Access* is selected, then click *Close*.

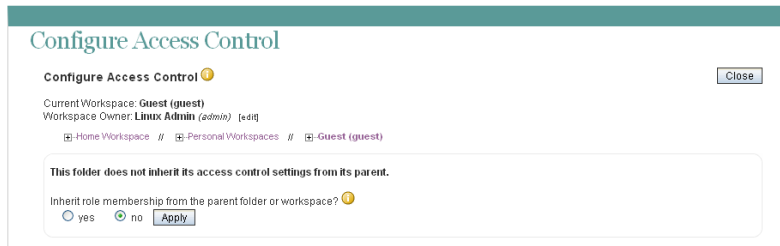
Even though this option is selected by default, the Guest workspace is initially inaccessible because the default user access control settings do not allow access.

4 Click *Close* again to close the Site Administration page.

5 Click *Personal Workspaces* to expand the list, then enter *Guest* in the *Go to an Entry* field to display the Guest user's personal workspace.

6 Set the user access control settings on the Guest user's workspace:

6a Click *Manage > Access Control*.



6b Change the user access control settings as needed:

**Workspace Owner:** By default, the Teaming site administrator owns the Guest user's workspace. Click *Edit* to specify a new owner, select whether this change applies to folders under the Guest user's workspace, then click *OK*.

**Role Membership Inheritance** By default, role membership is not inherited. Keep this setting.

7 Add the roles that you want the Guest user to be able to perform in the Guest workspace:

7a Click *Add User*, start typing *Guest*, then select the Guest user to add Guest to the User section of the Access Control table.

✓ designates the access control setting of the parent workspace

Add User Names from Clipboard			Add a Role ▾			
			Participant	Team Member	Visitor	Workspace and Folder Administrator
	Owner of Workspace or Folder		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Team Members		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Add a Group ▾	Group Title	Group Name	Participant	Team Member	Visitor	Workspace and Folder Administrator
	All Users	allUsers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Add a User ▾	User Title	User Name	Participant	Team Member	Visitor	Workspace and Folder Administrator
	Guest	guest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Add an Application Group ▾	Application Group Title	Application Group Name	Participant	Team Member	Visitor	Workspace and Folder Administrator
Add an Application ▾	Application Title	Application Name	Participant	Team Member	Visitor	Workspace and Folder Administrator

Save Changes

- 7b** Select one or more roles that you want the Guest user to be able to perform on the Guest User workspace, for example:

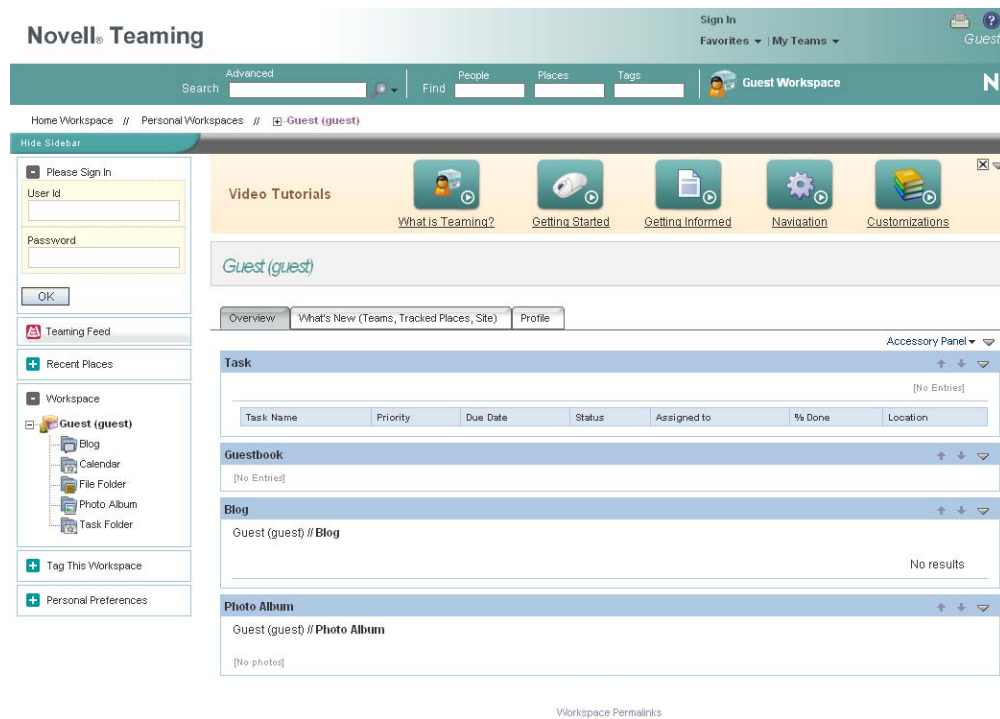
**Visitor:** The Guest user can read entries and add comments or replies in folders in the Guest user workspace.

**Participant:** In addition to Visitor activities, the Guest user can also create new entries, and modify or delete his or her own entries.

For more information about the additional access control options, see “[Controlling User Access](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

- 7c** Click *Save Changes*, then click *Close*.

Now, when people access the Teaming site who do not have usernames, they see the Guest User workspace.



- 8** Set up the Guest user’s personal workspace with whatever information you want to present to people who visit your Teaming site without logging in.

For general suggestions on creating useful workspaces, see “[Managing and Using Workspaces](#)” in the *Novell Teaming 2.1 User Guide*.

- 9** (Conditional) If you want the Guest user to be able to access content elsewhere on the Teaming site, add the Guest user to the Configure Access Control page for those workspaces or folders.

You can also enable specific Teaming users in addition to the Teaming administrator to grant Guest access to locations in your Teaming site, as described in [Section 5.3.3, “Enabling Individual Users to Grant Guest Access throughout the Teaming Site,”](#) on page 53.

- 10** Notify people who might be interested in accessing your Teaming site about your Teaming site URL.

- 11** (Conditional) If you want information on your Teaming site to be searchable on the Internet, see [Section 5.4, “Allowing Web Crawler Access to Your Teaming Site,”](#) on page 54.

### 5.3.3 Enabling Individual Users to Grant Guest Access throughout the Teaming Site

If you want users in addition to the Teaming administrator to be able to grant Guest access to locations in your Teaming site:

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Click *Manage > Site Administration*, then click *Access Control for Zone Administration Functions*.

**Configure Access Control** Close

Configure Access Control ⓘ

Administrative Functions

Add User Names from Clipboard Add a Role ▾

Add a Group ▾	Group Title	Group Name	Allow Adding Guest Access	Participant	Zone Administration
Add a User ▾	User Title	User Id	Allow Adding Guest Access	Participant	Zone Administration
	admin	admin	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

Add an Application Group ▾

Add an Application Group ▾	Application Group Title	Application Group Name	Allow Adding Guest Access	Participant	Zone Administration
	All Applications	allApplications		<input checked="" type="checkbox"/>	

Add an Application ▾

Add an Application ▾	Application Title	Application Name	Allow Adding Guest Access	Participant	Zone Administration
----------------------	-------------------	------------------	---------------------------	-------------	---------------------

Save Changes

\* Assigning roles to an application or application group at the zone level actually specifies the maximum set of rights that the application is allowed to use. This allows the site administrator to prevent applications from ever having more rights than are needed to perform its task. If no roles are assigned, then the application has no rights.

[Note: admin (admin) has been designated as the default site administrator with privileges to perform any task on any workspace or folder.]

Close

A basic Teaming site consists of a single zone. Novell Teaming allows you to set up multiple zones in a single Teaming site. This feature is not available in Kablink Teaming. For more information about zones, see [Chapter 12, “Setting Up Zones \(Virtual Teaming Sites\),” on page 75](#).

- 3 Click *Add a User*, start typing the user’s name, then select the user from the drop-down list to add the user to the Access Control table.
- 4 Select *Allow Adding Guest Access* for the user.
- 5 Repeat [Step 3](#) and [Step 4](#) for each user who you want to be able to grant Guest access to locations on your Teaming site.
- 6 Click *Save Changes*, then click *Close*.
- 7 Notify the users who are allowed to grant Guest access.

### 5.3.4 Monitoring Guest User Access

As the Novell Teaming site administrator, you can create a report of all locations on the Teaming site that the Guest user can access. For instructions, see [Section 21.1.3, “User Access Report,” on page 132](#).

## 5.4 Allowing Web Crawler Access to Your Teaming Site

If you allow Guest access to your Novell Teaming site, as described in [Section 5.3, “Allowing Guest Access to Your Teaming Site,” on page 49](#), you can provide Internet search engines (such as Google\*) with the Teaming permalinks for workspaces and folders that you would like to make publicly available on the Internet. A Teaming permalink is the complete URL that someone outside of your Teaming site and outside of your organization, such as a [Web crawler \(http://en.wikipedia.org/wiki/Web\\_crawler\)](http://en.wikipedia.org/wiki/Web_crawler), could use to access a specific location on your Teaming site.

- 1 To determine the permalink of a workspace, click *Workspace Permalinks* at the bottom of a workspace page.  
or  
To determine the permalink of a folder, click *Folder Permalinks* at the bottom of a folder page.

## 5.5 Allowing Mobile Device Access to Your Teaming Site

By default, your Novell Teaming site allows mobile device access at one of the following URLs, depending on whether or not you are using a secure SSL connection:

```
http://teaming_hostname/mobile  
https://teaming_hostname/mobile
```

where *teaming\_hostname* is the hostname or fully qualified domain name of the Teaming server that you have set up in DNS.

For a list of supported mobile devices, see “[Supported Mobile Devices](#)” in “[Using Teaming on Your Mobile Phone](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

For instructions on using the mobile device interface to the Teaming site, see “[Using Teaming on Your Mobile Phone](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

As the Teaming administrator, you can prevent mobile device access to your Teaming site if necessary.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Click *Manage > Site Administration > Configure Mobile Access*.
- 3 Deselect *Enable Mobile Access*.
- 4 Click *Apply*, then click *Close*.

# Configuring E-Mail Integration

# 6

Initial e-mail configuration is performed when you install Novell® Teaming. Additional aspects of e-mail handling are configured on the Teaming site.

- ♦ [Section 6.1, “Enabling/Disabling Outbound E-Mailing of Folder Digests,”](#) on page 55
- ♦ [Section 6.2, “Disabling/Enabling Inbound E-Mail Postings,”](#) on page 56

## 6.1 Enabling/Disabling Outbound E-Mailing of Folder Digests

During installation, you configured Novell Teaming to communicate with your e-mail system, as described in [“Gathering Outbound E-Mail Information”](#) in [“Basic Installation”](#) in the *Novell Teaming 2.1 Installation Guide*. As a result, Teaming users can send e-mail messages to other Teaming users and to anyone whose e-mail address they know. They can also send e-mail notifications when they create workspaces, add folder entries, and so on.

In addition to this basic e-mail functionality, you can configure your Teaming site so that users can receive folder digests of site activity that are created and sent to the users who have subscribed to the folders.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Click *Manage > Site Administration*, then click *Configure E-Mail*.



- 3 Select *Enable Outgoing E-Mail*.  
By default, folder digests are compiled and sent daily at fifteen minutes after midnight.
- 4 Adjust the schedule as needed to meet the needs of the majority of your Teaming users.  
Users can turn the digests on and off for individual folders, but they cannot change the e-mail schedule that you establish.
- 5 Click *Apply* to save the settings, then click *Close*.

For information about the options that users have for receiving e-mail notifications, see [“Subscribing to a Folder or Entry”](#) in [“Getting Informed”](#) in the *Novell Teaming 2.1 User Guide*.

## 6.2 Disabling/Enabling Inbound E-Mail Postings

During installation, you configured Novell Teaming to include an internal SMTP mail host for receiving e-mail postings to folders, as described in “[Enabling Inbound E-Mail](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*. Your selection during installation carries over into the configuration of your Teaming site. Therefore, you can disable incoming e-mail if necessary, and then enable it again on the Teaming site. Relaying is permanently disabled on the internal SMTP mail host.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Click *Manage > Site Administration > Configure E-Mail*.



- 3 Select or deselect *Enable Incoming E-Mail Using the Embedded E-Mail Server and Simple URLs*.
- 4 Click *Apply > Close* to save the setting.

For information about how to configure folders to receive e-mail postings, see “[Enabling Folders to Receive Entries through E-Mail](#)” in “[Managing Folders](#)” in the *Novell Teaming 2.1 Advanced User Guide*. Failed e-mail postings are listed in the Tomcat log file. For background information about the Tomcat log file, see [Section 21.2.2, “Tomcat Log File,”](#) on page 139.



# Configuring Real-Time Communication Tools

# 7

From the Teaming site, Teaming users can communicate with each other in various ways.

- ♦ [Section 7.1, “Integrating Conferencing with Teaming,” on page 57](#)
- ♦ [Section 7.2, “Integrating Skype with Teaming,” on page 57](#)

## 7.1 Integrating Conferencing with Teaming

Novell® Teaming enables you to integrate with Novell Conferencing, so that Teaming users can easily set up instant conferencing meetings with other Teaming users, as described in [Using Novell Conferencing with Novell Teaming](#) in “[Connecting With Your Co-Workers](#)” in the *Novell Teaming 2.1 User Guide*.

For setup instructions, see “[Configuring Presence](#)” in “[Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide*.

## 7.2 Integrating Skype with Teaming

Novell Teaming enables you to integrate with Skype\*, so that Teaming users can use Skype to contact other Teaming users directly from the Teaming interface.

Before users are able to make Skype phone calls from inside Teaming, you need to configure Teaming to support Skype. You do this by modifying the user profile form to include a *Skype Name* field.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 In the Folder or Workspace toolbar, click *Manage > Site Administration*.
- 3 On the Site Administration page, click *Form and View Designers*.  
The Form and View Designers page is displayed.
- 4 Expand *Profile View*, then click *User*.
- 5 On the Form and View Designers User page, expand *Profile Form Definition*, then click *Form*.
- 6 In the Form window on the right side of the page, click *Add*.
- 7 In the Form window, in the *Standard Form Elements* section, click *Skype Name*.
- 8 Click *OK*.

Users are now able to specify a Skype name in their personal profiles.

For more information on how you can use Skype to contact other Teaming users from inside Teaming, see “[Using Skype From within Teaming](#)” in “[Connecting With Your Co-Workers](#)” in the *Novell Teaming 2.1 User Guide*.



# Enabling Custom JSPs to Be Used on Your Teaming Site

# 8

Novell® Teaming supports the use of custom JavaServer Pages\* (JSP\*) files. As a Teaming administrator, you can work with Teaming developers to write custom JSP files that enhance the appearance and functionality of your Teaming site.

Before you can enable a JSP file to be used in your Teaming site, the file must first be created. For information on how to create a custom JSP file, see “[Creating JavaServer Pages \(JSPs\)](#)” in the *Novell Teaming 2.1 Developer Guide*.

- ♦ [Section 8.1, “Enabling JSP Files to Be Used on Your Teaming Site,”](#) on page 59
- ♦ [Section 8.2, “Using Sample Custom JSPs to Modify the Behavior of a Landing Page,”](#) on page 59

## 8.1 Enabling JSP Files to Be Used on Your Teaming Site

After a JSP file has been created, you need to make it available to users in your Teaming site.

- 1 On the Teaming server, locate the JSP file that you want to make available to users.
- 2 Place the JSP file in the `/WEB-INF/jsp/custom_jsps` directory.

Users need to reference this file by name in order to use it, so make sure that the name of the file is intuitive and easy to remember.

---

**TIP:** You might want to create separate folders for each custom JSP file inside the `custom_jsps` directory. This can make managing your custom JSP files more simple. However, users who leverage these sample JSP files from the Teaming site will need to enter the relative path to the file. For example: `new_folder/custom_jsp_landing_page_entry.jsp`.

---

## 8.2 Using Sample Custom JSPs to Modify the Behavior of a Landing Page

Teaming 2.1 and later includes sample custom JSP files that enable you to modify the behavior of Teaming landing pages. Before you implement the sample JSP files that are described in this section, you might want to further customize them to suit your specific needs.

For information on how users can add these custom JSP files to their individual landing pages after they have been enabled for use, see “[Adding Content to Your Landing Page](#)” in “[Creating and Managing Landing Pages](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

- ♦ [Section 8.2.1, “Listing Folder Entry Titles in a Bulleted List,”](#) on page 60
- ♦ [Section 8.2.2, “Displaying Entry Replies on a Landing Page,”](#) on page 60
- ♦ [Section 8.2.3, “Enabling Users to Take a Survey Directly from a Landing Page,”](#) on page 61

## 8.2.1 Listing Folder Entry Titles in a Bulleted List

To activate the sample JSP file that enables Teaming users to list entries in a bulleted list for any given folder:

- 1 In the Teaming source files, navigate to the `\WEB-INF\jsp\custom_jsp\samples` directory.
- 2 Select and copy the `custom_jsp_landing_page_folder_list.jsp` file, then paste it into the `\WEB-INF\jsp\custom_jsp` directory.

---

**TIP:** You might want to create separate folders for each custom JSP file inside the `custom_jsps` directory. This can make managing your custom JSP files more simple. However, users who leverage these sample JSP files from the Teaming site will need to enter the relative path to the file. For example: `new_folder/custom_jsp_landing_page_entry.jsp`.

---

## 8.2.2 Displaying Entry Replies on a Landing Page

You can display replies for a single entry, or for all entries that are contained in a folder.

- ♦ [“Displaying Entry Replies for a Single Entry” on page 60](#)
- ♦ [“Displaying Entry Replies for All Entries in a Folder” on page 60](#)

### Displaying Entry Replies for a Single Entry

To activate the sample JSP file that allows Teaming users to display entry replies on a landing page when referencing a folder entry:

- 1 In the Teaming source files, navigate to the `\WEB-INF\jsp\custom_jsp\samples` directory.
- 2 Select and copy the `custom_jsp_landing_page_entry.jsp` file, then paste it into the `\WEB-INF\jsp\custom_jsp` directory.

---

**TIP:** You might want to create separate folders for each custom JSP file inside the `custom_jsps` directory. This can make managing your custom JSP files more simple. However, users who leverage these sample JSP files from the Teaming site will need to enter the relative path to the file. For example: `new_folder/custom_jsp_landing_page_entry.jsp`.

---

### Displaying Entry Replies for All Entries in a Folder

To activate the sample JSP file that allows Teaming users to display entry replies on a landing page when referencing a folder:

- 1 In the Teaming source files, navigate to the `\WEB-INF\jsp\custom_jsp\samples` directory.
- 2 Select and copy the `custom_jsp_landing_page_folder.jsp` file, then paste it into the `\WEB-INF\jsp\custom_jsp` directory.

---

**TIP:** You might want to create separate folders for each custom JSP file inside the `custom_jsps` directory. This can make managing your custom JSP files more simple. However, users who leverage these sample JSP files from the Teaming site will need to enter the relative path to the file. For example: `new_folder/custom_jsp_landing_page_entry.jsp`.

---

### **8.2.3 Enabling Users to Take a Survey Directly from a Landing Page**

To activate the sample JSP file that enables Teaming users to participate in a survey directly from a landing page:

- 1** In the Teaming source files, navigate to the `\WEB-INF\jsp\custom_jsp\samples` directory.
- 2** Select and copy the `custom_jsp_landing_page_survey_entry.jsp` file, then paste it into the `\WEB-INF\jsp\custom_jsp` directory.



# Adding Software Extensions to Your Teaming Site

You can customize your Novell® Teaming site through the use of software extensions. Teaming administrators or Teaming developers can create custom extensions (add-ons) that enhance the power and usefulness of the Teaming software. For example, you might have an extension that enables Flash\* video support in Teaming.

This section discusses how to add software extensions that have already been created.

- ♦ [Section 9.1, “Creating a Software Extension,” on page 63](#)
- ♦ [Section 9.2, “Deploying the Extension in Your Teaming Site,” on page 63](#)
- ♦ [Section 9.3, “Viewing Your Teaming Extensions,” on page 64](#)
- ♦ [Section 9.4, “Removing an Extension from Your Teaming Site,” on page 64](#)

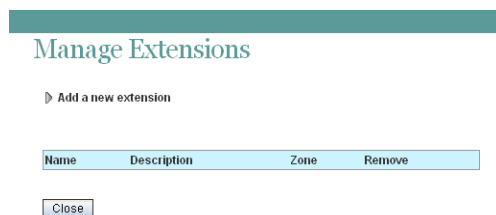
If you want Teaming to communicate with a third-party application and display related information inside of Teaming, you can set up a remote application, as described in [Chapter 10, “Using Remote Applications on Your Teaming Site,” on page 65](#).

## 9.1 Creating a Software Extension

For information on how to create a custom software extension for Novell Teaming, see “[Creating and Packaging Extensions for Deployment](#)” in the *Novell Teaming 2.1 Developer Guide*.

## 9.2 Deploying the Extension in Your Teaming Site

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 In the Folder or Workspace toolbar, click *Manage > Site Administration*.
- 3 On the Site Administration page, click *Manage Extensions*.



- 4 Click *Add a new extension*.
- 5 In the *Choose a File* field, click *Browse*, then browse to the extension that you want to deploy. The extension is a zip file that can contain definition xml files, custom JSP files, Java\* classes, html files, css files, javascript, and other third-party files.
- 6 Click *Add*.  
The extension is now installed and is displayed in a table on the Manage Extensions page.

You might need to configure an extension after it has been installed. For information on how to configure extensions, see the installation instructions on the Web site where you obtained the extension.

Installation instructions are specific for each extension, and should be written by the extension creator.

## 9.3 Viewing Your Teaming Extensions

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 In the Folder or Workspace toolbar, click *Manage > Site Administration*.
- 3 On the Site Administration page, click *Manage Extensions*.

The Manage Extensions page is displayed.

The table lists all extensions that are currently available in the Teaming site.

## 9.4 Removing an Extension from Your Teaming Site

An extension cannot be removed from the Novell Teaming site if the extension is being referenced by a binder or entry. If an extension is being referenced somewhere in the Teaming site, you must first manually delete the files and definitions that are referencing the extension before you can remove the extension itself. When an extension is removed, it does not remove any actual data from the Teaming site.

To remove an extension from your Teaming site:

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 In the Folder or Workspace toolbar, click *Manage > Site Administration*.
- 3 On the Site Administration page, click *Manage Extensions*.  
The Manage Extensions page is displayed.
- 4 In the table, click the (x) in the *Remove* column for the extension that you want to delete.
- 5 Click *OK*.

The extension is removed from the Teaming site and can no longer be used.



# Using Remote Applications on Your Teaming Site

# 10

A remote application is a program that runs on a remote server and delivers data for use on your Novell® Teaming site (for example, data from a remote database). For example, you could set up a remote application for Twitter\* that displays all of your Twitter entries in Teaming.

Unlike creating an extension for Teaming, creating a remote application does not modify the Teaming software in any way.

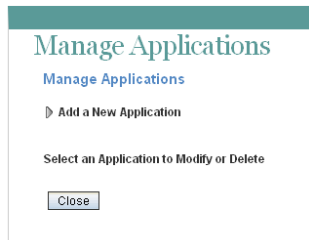
- ♦ [Section 10.1, “Adding a Remote Application to Your Teaming Site,” on page 65](#)
- ♦ [Section 10.2, “Creating an Application Group,” on page 67](#)
- ♦ [Section 10.3, “Implementing Remote Applications on Your Teaming Site,” on page 68](#)

If you want to make modifications to the Teaming software itself, you can add a software extension, as described in [Chapter 9, “Adding Software Extensions to Your Teaming Site,” on page 63](#).

## 10.1 Adding a Remote Application to Your Teaming Site

After you or a developer have created a remote application, you need to make it available on your Novell Teaming site.

- 1 As the Teaming site administrator, click *Manage > Site Administration*, then click *Manage Applications*.



- 2 Click *Add a New Application*.

### 3 Fill in the following fields:

**Title:** Specify a unique title for the remote application. Teaming site users who add the remote application to a form or view can select the title from the list of available remote applications.

**Name:** Specify a unique name for the remote application. The name is for internal use in the Teaming database. The first character must be an alphabetic character (a-z, A-Z). For the rest of the name, you can use alphanumeric characters (a-z, A-Z, 0-9), hyphens (-), and underscores (\_).

**Description:** Provide a description of what the remote application does.

**Trusted:** Select *Trusted* if the application is extremely trustworthy (for example, you write, maintain, and run the application on the same server that runs Teaming). If you select *Trusted*, Teaming applies access control according to the viewing user’s access control settings. For complete information about access control, see “[Managing Remote Applications](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

**Post URL:** Specify the URL of the remote application. Teaming posts requests for information, along with the requesting user and a security token for use by Teaming Web services, to this URL, then waits to receive the requested HTML snippets for posting on the Teaming site.

**Post Timeout:** Specify the number of seconds that Teaming should wait for a response from the remote application before it assumes that the remote application is not available. The default is 60 (1 minute). If Teaming does not receive a response from the remote application, it displays the page requested by the user without any input from the remote application.

**Maximum Idle Time:** Specify the number of seconds that Teaming maintains idle connections through Teaming Web service with a remote application. The default is 3600 (1 hour). After the maximum idle time as elapses, Teaming closes idle connections.

**Same Address Policy:** Select this option if interactions with the Teaming site are initiated by the remote application, and if the remote application must communicate with Teaming through the same Teaming Web services machine by using the same security token for the entire communication.

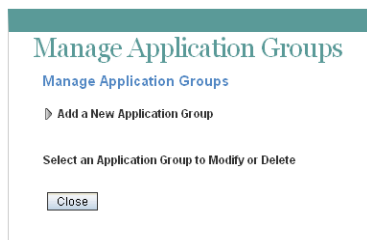
- 4 Click *Add* to add the remote application to the list of remote applications that are available on your Teaming site, then click *Close*.

Users now see the new remote application in the list of tools within the designers and the tool used to create accessories.

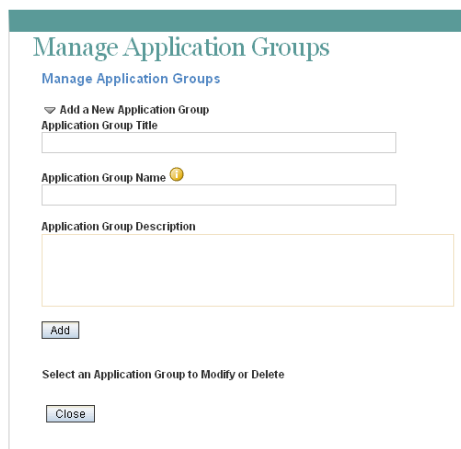
## 10.2 Creating an Application Group

If you create a number of remote applications for your Novell Teaming site, you can create application groups for remote applications so they can all be assigned the same roles in the Access Control table. For example, you might have a group of remote applications that are allowed to perform administrative tasks and another group of remote applications that are granted only read access.

- 1 As the Teaming site administration, click *Manage > Site Administration*, then click *Manage Application Groups*.



- 2 Click *Add a New Application Group*.

A screenshot of the 'Add a New Application Group' form. The page title is 'Manage Application Groups' in a teal font. Below the title, there is a link 'Manage Application Groups' in blue. A teal arrow points to the link 'Add a New Application Group'. The form has three input fields: 'Application Group Title', 'Application Group Name' (with a yellow warning icon), and 'Application Group Description'. Below the fields is an 'Add' button. Below the 'Add' button, there is a section titled 'Select an Application Group to Modify or Delete' with a 'Close' button.

- 3 Fill in the following fields:

**Application Group Title:** Specify a unique title for the remote application group. Teaming site users who need to set access controls for a remote application can select the title from the list of available remote application groups.

**Application Group Name:** Specify a unique name for the remote application group. The name is for internal use in the Teaming database. The first character must be an alphabetic character (a-z, A-Z). For the rest of the name, you can use alphanumeric characters (a-z, A-Z, 0-9), hyphens (-), and underscores (\_).

**Application Group Description:** Provide a description of the types of remote applications that the application group includes.

- 4 Click *Add* to add the application group to the list of application groups that are available on your Teaming site, then select the new application group to add remote applications to it.

Administrative Applications (adminapps)

▸ Modify the Application Group Title or Description

Modify the Application Group Membership

Applications    
Find Applications

Application Groups    
Find Groups

Apply Delete

- 5 Fill in the following fields:

**Applications:** Start typing the title of a remote application, then select the remote application. Repeat for each application that you want to add to the application group.

**Application Groups:** Start typing the title of an existing application group that you want to nest in the new application group, then select the application group. Repeat for each application group that you want to nest in the application group.

- 6 Click *Apply* to save the application group, then click *Close*.

## 10.3 Implementing Remote Applications on Your Teaming Site

After you as the Novell Teaming administrator have added remote applications to the Teaming site, users can implement them in custom forms and views, in workspaces, and as accessories. For instructions, see “[Managing Remote Applications](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

# Setting Up Mirrored Folders

# 11

A mirrored folder is a library folder within Novell Teaming that is synchronized with a folder located on a system drive outside of Teaming. When you perform basic actions (adding subfolders and files, modifying files, deleting folders and files) by using the Teaming interface or by accessing the file on the drive, the change is reflected in the other interface. The advantage to using mirrored files is that you can apply Teaming tools to files on a drive, including tools such as text search, workflow, and discussion (in the form of comments applied to the entry in the library folder).

Initial setup of mirrored folder resource drivers is done during Novell® Teaming installation, as described in “[Configuring Mirrored Folder Resource Drivers](#)” in “[Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide*.

The Teaming Installation program enables you to set up as many as three mirrored folder resource drivers. If you need more than three, you must manually edit the `installer.xml` file, then update your Teaming installation. After you set up the mirrored folder resource drivers by using the Installation program, you must perform additional mirrored folder configuration on the Teaming site.

- ♦ [Section 11.1, “Manually Setting Up More Than Three Mirrored Folder Resource Drivers,”](#) on page 69
- ♦ [Section 11.2, “Creating a Mirrored File Folder for a Mirrored Folder Resource Driver,”](#) on page 72

## 11.1 Manually Setting Up More Than Three Mirrored Folder Resource Drivers

- ♦ [Section 11.1.1, “Editing the installer.xml File,”](#) on page 69
- ♦ [Section 11.1.2, “Updating Your Teaming Site Configuration,”](#) on page 71

### 11.1.1 Editing the installer.xml File

The Novell Teaming Installation program enables you to set up three mirrored folder resource drivers. However, there is no limit to the total number of mirrored folder resource drivers that you can set up after installation. A useful strategy is to set up resource drivers for root directories, then set up Mirrored File folders for root directories and subdirectories as needed, as described in [Section 11.2, “Creating a Mirrored File Folder for a Mirrored Folder Resource Driver,”](#) on page 72.

When you run the Teaming Installation program, it creates the `installer.xml` file in the directory where you run it. The `installer.xml` file stores the information you provided during installation. You can also edit it manually, then update your Teaming installation.

- 1 Make a backup copy of your existing `installer.xml` file.
- 2 Open the `installer.xml` file in a text editor.
- 3 Search for `mirrored`.
- 4 Scroll down until you reach the three existing mirrored folder resource drivers.

- 5 Copy the mirrored folder resource driver that is most like the one you want to create, then paste it between the `<MirroredFolder>` and `</MirroredFolder>` tags.

The Teaming Installation program displays only the first three mirrored folder resource drivers, so you might want to place new resource drivers at the top of the list in order to double-check the information when you run the Teaming Installation program to implement your changes.

- 6 Set the parameters as needed for the file system location that you want to mirror in your Teaming site:

Tag	Setting
<code>enabled=</code>	<code>true</code>
<code>type=</code>	<code>file</code> or <code>webdav</code>
<code>id=</code>	The unique internal name for the mirrored folder resource driver. Use only alphanumeric characters. Do not include spaces, extended characters, or double-byte characters.
<code>title=</code>	The name of the mirrored folder resource driver that displays on the Teaming site. The title can include any characters.
<code>rootPath=</code>	For the <code>file</code> mirrored folder type, the absolute path to the directory from the point of view of the Teaming server.  For the <code>webdav</code> mirrored folder type, the path to the directory after the WebDAV server hostname, and optionally, the port number, as specified by the <code>hostUrl=</code> parameter. The path should start with a slash (/), because it is appended to the setting of the <code>hostUrl=</code> parameter. For example, if the full WebDAV server location is:  <code>http://webdavserver/archive/docs</code>  the <code>rootPath=</code> setting would be:  <code>/archive/docs</code>
<code>readonly=</code>	<code>true</code> or <code>false</code>
<code>zoneId=</code>	For a multi-zone Teaming site, this is the ID of the zone where you want the mirrored folder resource driver to be available. For information about Teaming zones, see <a href="#">Chapter 12, "Setting Up Zones (Virtual Teaming Sites)," on page 75</a> . For a single-zone Teaming site, leave this parameter empty.
<code>AllowedUsers idList=</code>	A list of Teaming user IDs that can access the mirrored folder resource driver and create mirrored folders. Use a semicolon (;) between user IDs.
<code>AllowedGroups idList=</code>	A list of Teaming groups that can access the mirrored folder resource driver and create mirrored folders. Use a semicolon (;) between group IDs.

- 7 (Conditional) If you are setting up a `webdav` mirrored folder, set the following additional parameters:

Tag	Setting
hostUrl=	<p>The hostname, and optionally, the port number for the WebDAV server. For example:</p> <pre>http://webdav_hostname[:port] https://webdav_hostname[:port]</pre> <p>Do not include the directory path to the data. Use the <code>rootPath=</code> parameter to specify the path to the directory on the WebDAV server. For example, if the full WebDAV server location is:</p> <pre>http://webdav_hostname/archive/docs</pre> <p>the <code>hostUrl=</code> setting would be:</p> <pre>http://webdav_hostname</pre>
user=	<p>The username that Teaming can use to connect to the WebDAV server. The WebDAV server must support <a href="http://en.wikipedia.org/wiki/Basic_access_authentication">HTTP Basic authentication</a> (<a href="http://en.wikipedia.org/wiki/Basic_access_authentication">http://en.wikipedia.org/wiki/Basic_access_authentication</a>).</p>
password=	<p>The password for the username specified by the <code>user=</code> parameter.</p>

- 8 Repeat [Step 5](#) and [Step 6](#) for each mirrored folder resource driver that you want to create.
- 9 Save the `installer.xml` file, then exit the text editor.

## 11.1.2 Updating Your Teaming Site Configuration

After you edit the `installer.xml` file, you must run the Novell Teaming Installation program to update the configuration of your Teaming site. If you need assistance with any of the following steps, refer to the appropriate platform-specific instructions in “[Setting Up a Basic Teaming Site](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

- 1 Stop Teaming.
- 2 Start the Teaming Installation program.
 

The Teaming Installation program reads the updated `installer.xml` file. If your edits inadvertently changed the syntax of the file, the Installation program cannot start. If this happens, correct the problem in the `installer.xml` file, or return to your backup copy and try your edits again.
- 3 Accept the License Agreement, then click *Next*.
- 4 Select *Reconfigure Settings*, then click *Next*.
- 5 Select *Advanced*, then click *Next*.
- 6 Click *Next* until you reach the Mirrored Folder Resource Driver Configuration page.
 

The Teaming Installation program displays the first three mirrored folder resource drivers listed in the `installer.xml` file.
- 7 (Conditional) If you placed the new resource drivers at the top of the list, review the information that you added, and make corrections if necessary.
- 8 Click *Next*.

9 Click *Install* to implement the new mirrored folder resources.

10 Start Teaming.

## 11.2 Creating a Mirrored File Folder for a Mirrored Folder Resource Driver

After you have set up one or more mirrored folder resource drivers in the Novell Teaming Installation program, you need to create a Mirrored File folder for each resource driver in order to make the data accessible to users on your Teaming site.

1 Navigate to the workspace where you want to create a mirrored folder.

2 Create a new File folder:

2a Click *Manage > Add New Folder*.

**Add New Folder**

Title  
Folder Title

**Folder**

- Discussion A Discussion folder is useful for creating a forum where users are likely to both create and reply to entries.
- Blog A blog folder is a forum where entire entries are displayed in reverse chronological order, based on when they were created. Blogs typically provide information on a particular topic from an individual or small group of authors. Optionally, the blog folder can be configured so that a larger group can make comments on the entries posted by the original author.
- Calendar A calendar folder is a place to post group events or display other types of entries by date.
- Guestbook A guestbook folder is a simple place that individuals can "sign," indicating that they have visited a user's Personal Workspace. Visitors may also leave comments about the entries created in that personal workspace. Comments are displayed in reverse chronological order. A picture of the individual signing the guestbook is displayed with the comment. The guestbook is useful for expanding users' social networks.
- File Folder A file folder is a place to put files. Comments or entire discussions can be posted about individual files. Additionally, the files can be automatically locked, edited-in-place, then unlocked, creating a new version of the file. A file folder can emulate a WebDAV server. This allows a user to add and delete files via any WebDAV client, such as the MS Windows File Manager.
- Milestone Folder A milestone folder is used to roll up or summarize activity in one or more Task folders.
- Micro-Blog A micro-blog folder is a special folder that gets created automatically for each user. It is intended to contain short text entries only. Each user can add micro-blog entries directly from the tools area on every page. While you can create multiple micro-blog folders, only the one that is created automatically will be accessed as the user's real micro-blog.
- Mirrored File Folder A mirrored file folder is a special type of file folder where it uses a server file system directory as its file storage area instead of the normal Teaming repository. Typically the directory is a file share accessed via normal file sharing mechanisms. Teaming attempts to keep its knowledge about the folder contents in synch with whatever is in the directory. The mirrored folder feature can mirror any WebDAV or local file path.

2b Specify a name for the folder that reflects the type of data that is available in the mirrored location.

2c Select *Mirrored File Folder*, then click *OK*.

3 Configure the new Mirrored File folder to access the resource driver:

3a Select the new folder, then click *Manage > Modify This Folder*.

3b Scroll down to the mirrored folder options at the bottom of the page.

Resource Driver Document Archive (Read Only)

Resource Root Path /mnt/archive/documents

Resource Path Relative to the Root Path (If you're modifying old value, it is highly recommended to synchronize this folder immediately)

OK Cancel

3c Set the mirrored folder options as needed:

**Resource Driver:** Select the name of the mirrored folder resource driver, as specified in the *Title* field on the Mirrored Folder Resource Driver Configuration page in the Teaming Installation program or using the `title=` tag in the `installer.xml` file.

**Resource Root Path:** Displays the pathname you specified in the Teaming Installation program or the `installer.xml` file.



**Resource Path Relative to the Root Path:** (Optional) Add a subdirectory path to restrict the scope of the files available in the Mirrored File folder.

---

**IMPORTANT:** After you configure a Mirrored File folder with a resource driver, you cannot edit any of the mirrored folder settings except for the subdirectory path. If you need to change other settings, you can delete the Mirrored File folder and create a new one with different settings.

---

- 3d Click *OK* to save the mirrored folder settings.
- 4 Display the Mirrored File folder, then click *Manage > Manually Synchronize* to create the initial metadata for the mirrored folder.
- 5 Set up a synchronization schedule to keep the metadata current:
  - 5a Click *Manage > Schedule Synchronization*.

Schedule Mirrored Folder Synchronization

Enable Scheduled Synchronization ⓘ

Every Day

Weekly (on the days selected below)

Sun  Mon  Tue  Wed  Thu  Fri  Sat

At Time 12 : 15 GMT

Repeat Every 0.25 Hours

Apply Close

- 6 Select *Enable Scheduled Synchronization*.
- 7 Set schedule options as needed.

You can choose to have mirrored folder synchronization performed every day, or you can select specific days of the week when you want it performed (for example, on Monday, Wednesday, and Friday). You can choose to have it performed once a day at a specified time (for example, at 2:00 a.m.), or you can set a time interval, so that it is performed multiple times each day (for example, every four hours). The smallest time interval you can set is .25 hours (every 15 minutes).
- 8 Click *Apply > Close* to save the synchronization schedule options for the mirrored folder.
- 9 Click the new Mirrored File folder to display the directories and files in the mirrored location.

---

**WARNING:** If you set up multiple Mirrored File folders that point to the same files, and if Teaming users have been granted write access to those files, multiple Teaming users can gain write access to the same mirrored file at the same time. File locking is associated with each Mirrored File folder entry, not with the physical source files. Make sure that all Teaming users have access to mirrored files through the same Mirrored File folder.

---

- 10 Set appropriate access controls on the Mirrored File folder, as described in [Chapter 2, “Planning and Controlling User Access to Workspaces and Folders,”](#) on page 17.



# Setting Up Zones (Virtual Teaming Sites)

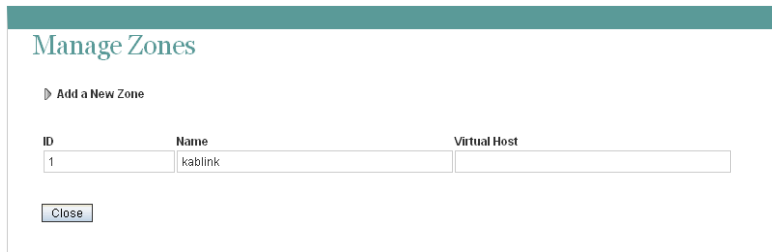
# 12

You can set up multiple virtual Novell® Teaming sites within a single physical Teaming site by setting up Teaming zones. Each Teaming zone is completely independent. Each zone has its own unique URL, and data files for each zone are stored in a separate subdirectory of the Teaming file repository, so that no searching across zones is possible.

- [Section 12.1, “Creating a New Teaming Zone,” on page 75](#)
- [Section 12.2, “Configuring DNS to Support the New Zone,” on page 76](#)
- [Section 12.3, “Accessing the New Zone,” on page 77](#)
- [Section 12.4, “Setting Up Access Control for the New Zone,” on page 77](#)

## 12.1 Creating a New Teaming Zone

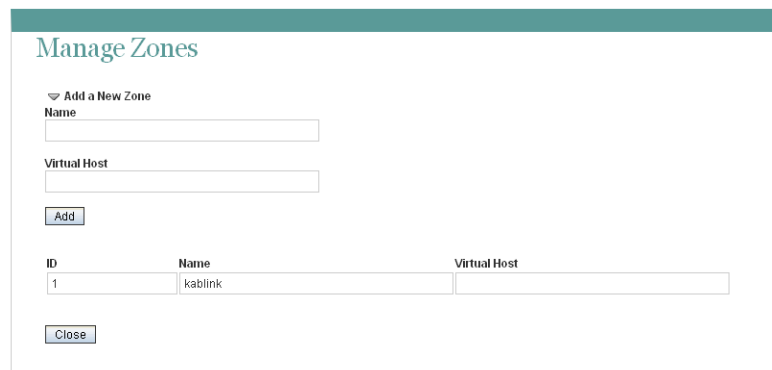
- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Click *Manage > Site Administration > Manage Zones*.



The screenshot shows the 'Manage Zones' interface. At the top, there is a header 'Manage Zones' and a link 'Add a New Zone'. Below this is a table with three columns: 'ID', 'Name', and 'Virtual Host'. The first row contains the value '1' in the ID column, 'kablink' in the Name column, and an empty field in the Virtual Host column. A 'Close' button is located at the bottom left of the table area.

The default zone name is *kablink*. It represents your initial Teaming site, from which all other zones can be managed.

- 3 Click *Add a New Zone*, then fill in the fields.



The screenshot shows the 'Manage Zones' interface with the 'Add a New Zone' form expanded. The form has two input fields: 'Name' and 'Virtual Host'. Below the form is a table with three columns: 'ID', 'Name', and 'Virtual Host'. The first row contains the value '1' in the ID column, 'kablink' in the Name column, and an empty field in the Virtual Host column. A 'Close' button is located at the bottom left of the table area.

**Name:** Specify a unique name to describe the zone. The name can include alphanumeric characters, periods, and underscores. Do not include spaces, extended characters, or double-byte characters.

**Virtual Host:** Specify the hostname for the zone. You can use any hostname that does not conflict with an existing hostname.

- 4 Click *Add*, then click *Close* to create the zone.

## 12.2 Configuring DNS to Support the New Zone

The new zone URL has the following format:

```
http://virtual_hostname[:port]
```

where *virtual\_hostname* is the hostname or fully qualified domain name of the Teaming zone that you have set up in DNS.

All zones use the same port number as the physical Teaming site. If you have the Teaming site configured to listen on your browser default port, you do not need to include the port number in the zone URL. How you configure your Teaming site to listen on the browser default port varies by platform.

Linux: See “[Setting Up Port Forwarding](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

Windows: Specify the desired port numbers when you run the Teaming Installation program, as described in “[HTTP/HTTPS Ports](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

- 1 To perform an initial test of the Teaming zone, add the zone URL to the `hosts` file on your local workstation where you run your browser. The location of the `hosts` file and the format of the line to add vary by platform:

Linux	/etc/hosts		
	<i>ip_address</i>	<i>teaming_zone_url</i>	<i>hostname</i>
	172.16.5.18	www.myteamingsite.com	teaming1
Windows	C:\Windows\system32\drivers\etc\hosts		
	<i>ip_address</i>	<i>teaming_zone_url</i>	
	172.16.5.18	www.myteamingsite.com	

- 2 Specify the zone URL in your Web browser.

```
http://www.myteamingsite.com
```

- 3 Log in to the new zone using the default administrator username (`admin`) and password (`admin`).

From this, you can see that each zone has its own site administrator that has administrative rights only within that particular zone.

- 4 Immediately change the site administrator password to a secure password of your own choosing, as described in “[Accessing Your Basic Teaming Site as the Site Administrator](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

- 5 After you can access the new zone successfully by changing the `hosts` file on your local workstation, have your network administrator make comparable changes to DNS so that the zone URL is recognized across your company or across the Internet as needed.

## 12.3 Accessing the New Zone

As with your original Novell Teaming site, the Teaming administrator username is `admin`, and the password is `admin`. For the security of the new zone, you should immediately change the zone's administrator password.

- 1 In your Web browser, specify one of the following URLs, depending on whether or not you are using a secure SSL connection:

```
http://zone_hostname  
https://zone_hostname
```

where `zone_hostname` is the zone hostname or fully qualified domain name that you have set up in DNS.

- 2 Log in using `admin` as the login name and `admin` as the password.
- 3 Change the default zone administrator password to a secure password:
  - 3a On the Workspace toolbar, click *Modify Profile*.
  - 3b Specify a new password for the zone administrator in the *New Password* and *Confirm New Password* fields.
  - 3c (Optional) Provide useful information in the additional fields of the zone administrator's profile.
  - 3d Click *OK* to return to the zone administrator's workspace.

---

**IMPORTANT:** The zone can only be administered by accessing the zone URL and by logging in through the zone administrator password. The zone cannot be administered from the main Teaming site, even when you are logged in as the main Teaming administrator.

---

## 12.4 Setting Up Access Control for the New Zone

After you log in to the zone as the zone administrator, you can set access controls for the zone.

- 1 Click *Manage > Site Administration*, then click *Access Control for Zone Administration Functions*.

## Configure Access Control

Configure Access Control ⓘ Close

Administrative Functions

**Add User Names from Clipboard**

Add a Role ▾					
Add a Group ▾	Group Title	Group Name	Allow Adding Guest Access	Participant	Zone Administration
Add a User ▾	User Title	User Id	Allow Adding Guest Access	Participant	Zone Administration
	admin	admin	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Add an Application Group ▾	Application Group Title	Application Group Name	Allow Adding Guest Access	Participant	Zone Administration
	All Applications	allApplications		<input checked="" type="checkbox"/>	
Add an Application ▾	Application Title	Application Name	Allow Adding Guest Access	Participant	Zone Administration

Save Changes

\* Assigning roles to an application or application group at the zone level actually specifies the maximum set of rights that the application is allowed to use. This allows the site administrator to prevent applications from ever having more rights than are needed to perform its task. If no roles are assigned, then the application has no rights.  
[Note: admin (admin) has been designated as the default site administrator with privileges to perform any task on any workspace or folder.]

Close

- 2** (Conditional) If you want to have more than one zone administrator:
  - 2a** Click *Add a User*, start typing the user's name, then select the user from the drop-down list.
  - 2b** Select the check box in the Zone Administration column.
  - 2c** Click *Save Changes*.
- 3** (Optional) Add roles, as described in [Section 2.5, "Managing Roles to Refine Access Control,"](#) on page 23.
- 4** (Optional) Set other access controls for the zone, as described in "Controlling User Access" in the *Novell Teaming 2.1 Advanced User Guide*.

# Customizing Your Teaming Site by Editing Teaming Configuration Files

# 13

Most customization of your Novell® Teaming site can be done while viewing the Teaming site in your browser. A few useful customizations must be done by editing configuration files.

- ♦ [Section 13.1, “Increasing the File Upload Size Limit,” on page 79](#)
- ♦ [Section 13.2, “Changing Global File Associations for Edit in Place Applications,” on page 80](#)
- ♦ [Section 13.3, “Customizing Icons on Your Teaming Site,” on page 80](#)
- ♦ [Section 13.4, “Enabling Users to Add JavaScript and Other Restricted Content by Modifying Cross-Site Scripting Settings,” on page 82](#)

## 13.1 Increasing the File Upload Size Limit

The default size limit for uploading files into your Teaming site is 2 GB. You can change this limit by editing the `applicationContext.xml` file.

- 1 Change to the following directory:

```
Linux:      /opt/novell/teaming/apache-tomcat-version/  
           webapps/ssf/WEB-INF/context  
  
Windows:   c:\Program Files\Novell\Teaming\apache-tomcat-version\  
           webapps\ssf\WEB-INF\context
```

- 2 Open the `applicationContext.xml` file in a text editor.
- 3 Search for `FileUpload`.  
This brings you to a comment line followed by a JavaBean definition.
- 4 Copy the comment line and the complete JavaBean definition to the clipboard of your text editor.
- 5 Open the `applicationContext-ext.properties` file, which is located in the same directory as the `applicationContext.xml` file.
- 6 Scroll to the end of the `applicationContext-ext.xml` file, then paste the block of lines you copied.
- 7 Edit the `maxUploadSize` value as needed for your Teaming site.  
You must specify the size in bytes.
- 8 Save and close the `applicationContext-ext.xml` file.
- 9 Close the `applicationContext.xml` file without saving it.
- 10 Stop and restart Teaming to put the new upload size limit into effect for your Teaming site.

## 13.2 Changing Global File Associations for Edit in Place Applications

When calling applications with the Edit in Place feature, Novell Teaming uses standard file associations. If your organization uses different file associations, you can reconfigure Teaming to use the preferred file associations.

- 1 Change to the following directory:

```
Linux:      /opt/novell/teaming/apache-tomcat-version/  
           webapps/ssf/WEB-INF/classes/config
```

```
Windows:   c:\Program Files\Novell\Teaming\apache-tomcat-version\  
           webapps\ssf\WEB-INF\classes\config
```

- 2 Open the `ssf.properties` file in a text editor.
- 3 Search for `Edit in place` to move to the block of lines that control the Edit in Place feature.
- 4 Review the subsequent comment lines to become more familiar with how the Edit in Place feature works.
- 5 Scroll down to locate the line for the file association that you want to change.
- 6 Copy that line to the clipboard of your text editor.
- 7 Make a backup copy of the `ssf-ext.properties` file, which is located in the same directory as the `ssf.properties` file.
- 8 Open the `ssf-ext.properties` file.
- 9 Scroll to the end of the `ssf-ext.properties` file, then paste the line you copied.
- 10 Edit the file association as needed.
- 11 (Optional) Copy additional lines from the `ssf.properties` file to the `ssf-ext.properties` file as needed.
- 12 Save and close the `ssf-ext.properties` file.
- 13 Close the `ssf.properties` file without saving it.
- 14 Stop and restart Teaming to put the modified file associations into affect for your Teaming site.

## 13.3 Customizing Icons on Your Teaming Site

- ♦ [Section 13.3.1, “Replacing Existing Icons,” on page 80](#)
- ♦ [Section 13.3.2, “Adding New Icons,” on page 81](#)

### 13.3.1 Replacing Existing Icons

You can customize your Teaming site by replacing standard icons with icons of your own choosing.

- 1 Change to the following directory:

```
Linux:      /opt/novell/teaming/apache-tomcat-version/  
           webapps/ssf/WEB-INF/classes/config
```



**Windows:** c:\Program Files\Novell\Teaming\apache-tomcat-version\  
webapps\ssf\WEB-INF\classes\config

**2** Open the `ssf.properties` file in a text editor.

**3** Search for `icons` in order to move to the section that defines the Teaming icons.

Four types of icons are listed:

```
icons.workspace=  
icons.folder=  
icons.profileList=  
icons.entry=
```

These icons are stored in the following directory:

**Linux:** /opt/novell/teaming/apache-tomcat-version/  
webapps/ssf/images/icons

**Windows:** c:\Program Files\Novell\Teaming\apache-tomcat-version\  
webapps\ssf\images\icons

**4** Replace standard image files with your own image files with the same filenames.

This replaces the standard Teaming icons with your own customized icons. The next time you access the Teaming site, your customized icons display instead of the standard Teaming icons.

## 13.3.2 Adding New Icons

You can add icons to your Teaming site for use in areas of the Teaming site that you are customizing on a significant scale.

**1** Change to the following directory:

**Linux:** /opt/novell/teaming/apache-tomcat-version/  
webapps/ssf/WEB-INF/classes/config

**Windows:** c:\Program Files\Novell\Teaming\apache-tomcat-version\  
webapps\ssf\WEB-INF\classes\config

**2** Open the `ssf.properties` file in a text editor.

**3** Search for `icons` in order to move to the section that defines the Teaming icons.

Four types of Teaming icons are listed:

```
icons.workspace=  
icons.folder=  
icons.profileList=  
icons.entry=
```

These Teaming icons are stored in the following directory:

**Linux:** /opt/novell/teaming/apache-tomcat-version/  
webapps/ssf/images/icons

**Windows:** c:\Program Files\Novell\Teaming\apache-tomcat-version\  
webapps\ssf\images\icons

- 4 Make a backup copy of the `ssf-ext.properties` file, located in the same directory with the `ssf.properties` file.
- 5 Open the `ssf-ext.properties` file in a text editor.
- 6 Copy the `Icons` section from the `ssf.properties` file to the bottom of the `ssf-ext.properties` file.
- 7 List additional image files for each icon type as needed.
- 8 Add the new image files to the appropriate subdirectory under the `icons` directory where the existing Teaming icons are stored.
- 9 Save and close the `ssf-ext.properties` file.
- 10 Close the `ssf.properties` file without saving it.
- 11 Stop and restart Teaming to make the new icons available on your Teaming site.

## 13.4 Enabling Users to Add JavaScript and Other Restricted Content by Modifying Cross-Site Scripting Settings

Cross-site scripting (XSS) is a client-side computer attack that is aimed at Web applications. Because XSS attacks can pose a major security threat, Novell Teaming contains a built-in security filter that protects against XSS vulnerabilities.

The following sections describe the types of content that the security filter blocks from the Teaming site, where exactly it blocks it from entering, and how you can enable specific users to bypass the security filter.

- ♦ [Section 13.4.1, “Understanding What Content Is Not Permitted,” on page 82](#)
- ♦ [Section 13.4.2, “Understanding Where the Content Is Not Permitted,” on page 82](#)
- ♦ [Section 13.4.3, “Enabling Users to Bypass the XSS Security Filter,” on page 83](#)

### 13.4.1 Understanding What Content Is Not Permitted

By default, the XSS security filter in Teaming is very strict, and does not allow users to add certain types of content. Following are examples of content that is not permitted:

- ♦ HTML that contains JavaScript
- ♦ Forms
- ♦ Frames
- ♦ Objects
- ♦ Applets

### 13.4.2 Understanding Where the Content Is Not Permitted

The type of content discussed in [Section 13.4.1, “Understanding What Content Is Not Permitted,” on page 82](#) is filtered by Teaming in the following areas:

- ♦ Text and HTML fields in entries and folders
- ♦ Uploaded HTML files





# Managing a Multiple-Language Teaming Site

# 14

- ♦ [Section 14.1, “Accommodating Multiple Languages,” on page 85](#)
- ♦ [Section 14.2, “Adding a New Language,” on page 86](#)

## 14.1 Accommodating Multiple Languages

- ♦ [Section 14.1.1, “Understanding the Teaming Site Default Language,” on page 85](#)
- ♦ [Section 14.1.2, “Setting Up a Multilingual Workspace Name,” on page 85](#)
- ♦ [Section 14.1.3, “Changing the Default Language on the Login Page,” on page 85](#)

### 14.1.1 Understanding the Teaming Site Default Language

There can be only one default language for the entire Novell® Teaming site. You select the default language when you install Teaming, as described in “[Accommodating Multiple Languages](#)” in the *Novell Teaming 2.1 Installation Guide*.

When you create Teaming users, you can select a locale for each user, which determines the language of each personal workspace. However, when users who speak various languages work together on a Teaming site, they can often see interface text that is not in their preferred language. Examples include:

- ♦ Standardized text such as *Home Workspace*, *Global Workspaces*, *Personal Workspaces*, and *Team Workspaces* at the top of the Teaming Home page
- ♦ Standardized group names, such as All Users
- ♦ Login page

Although you cannot change standardized group names, such as All Users, you can rename the standardized workspaces to include multiple languages. Although the Teaming login page can be displayed in only one language, you can change the page’s default language. You must be logged in as the Teaming administrator in order to perform these tasks.

### 14.1.2 Setting Up a Multilingual Workspace Name

- 1 Browse to the workspace.
- 2 Click *Manage > Modify This Workspace*.
- 3 In the *Title* field, add text in another language, then click *OK*.

### 14.1.3 Changing the Default Language on the Login Page

The language of the Novell Teaming login page is decided by the Guest user account. Because of this, you can display in the login page only one language for your entire Teaming site.

To change the language of the Guest user account, and therefore change the language that is displayed on the Teaming login page:

- 1 Navigate to the Guest workspace.
- 2 In the Workspace toolbar, click *Manage Profile > Modify*.  
The User page is launched.
- 3 In the *Locale* drop-down list, select the language that you want to be displayed on your login page.  
Users who log in as Guest view the Teaming site in the language that you select.
- 4 Click *OK*.

## 14.2 Adding a New Language

- ♦ [Section 14.2.1, “Current Language Availability,” on page 86](#)
- ♦ [Section 14.2.2, “Text to Translate,” on page 87](#)
- ♦ [Section 14.2.3, “New Language Implementation,” on page 88](#)

### 14.2.1 Current Language Availability

Novell Teaming is currently translated into 15 languages. Each language is identified by a language code in the Teaming software. Directory names and filenames include the language codes to identify the languages of directories and files.

- ♦ Chinese-Simplified (zh\_TW)
- ♦ Chinese Traditional (zh\_CN)
- ♦ Danish (da)
- ♦ Dutch (nl)
- ♦ English (en)
- ♦ French (fr)
- ♦ German (de)
- ♦ Hungarian (hu\_HU)
- ♦ Italian (it)
- ♦ Japanese (ja)
- ♦ Polish (pl)
- ♦ Portuguese (pt\_BR)
- ♦ Russian (ru\_RU)
- ♦ Spanish (es)
- ♦ Swedish (sv)

Kablank Teaming is an open source project where additional languages can be contributed by interested members of the open source community.

## 14.2.2 Text to Translate

- ♦ “Software Interface Text and Pop-Up Text” on page 87
- ♦ “Help Topics” on page 87

### Software Interface Text and Pop-Up Text

The files that contain the text strings in the Novell Teaming interface (`messages_language_code.properties`) and in mouse-over pop-ups (`help-messages_language_code.properties`) are located in the following directory:

Linux: `/opt/novell/teaming/apache-tomcat-version/  
webapps/ssf/WEB-INF/messages`

Windows: `c:\Program Files\Novell\Teaming\apache-tomcat-version\  
webapps\ssf\WEB-INF\messages`

- 1 Identify the file in the language that you want to translate from.
- 2 Identify the language code for the language that you want to translate into.  
Lists of standard [language codes](http://en.wikipedia.org/wiki/Language_code) ([http://en.wikipedia.org/wiki/Language\\_code](http://en.wikipedia.org/wiki/Language_code)) are available on the Internet.
- 3 Create a copy of the file that you want to translate, and name it with the appropriate language code.
- 4 Edit the file to translate in a text editor.  
Useful information for translators is provided at the top of each file (in English).
- 5 Locate the following line:  
`Teaming.Lang=`
- 6 Replace the existing language code with the language code for the language that you want to translate into.  
The lines in the file have the following format:  
`tag=string`
- 7 In each line, replace the text after the equal sign (=) with your translation for the string.
- 8 Save your translated file along with the other translated files.
- 9 Configure Teaming to recognize the new language, as described in [Section 14.2.3, “New Language Implementation,”](#) on page 88.

### Help Topics

The language directories for the files that contain help topics are located in the following directory:

Linux: `/opt/novell/teaming/apache-tomcat-version/webapps/ssf/help_doc`

Windows: `c:\Program Files\Novell\Teaming\apache-tomcat-version\  
webapps\ssf\help_doc`

- 1 Create a new directory for the language you want to translate into, named for its language code.

- 2 Copy the contents of an existing language directory that you want to translate from, then paste it into the new directory.

Each language directory contains a set of `.html` files and two subdirectories (`css` and `images`). You need to translate all the `.html` files. You do not need to translate anything in the two subdirectories.

- 3 Open each `.html` file in a text editor.

- 4 Specify your language code in the following lines:

```
<html xml:lang="language_code" lang="language_code">
<meta http-equiv="Content-Language" content="language_code" />
```

- 5 Carefully translate the text between the HTML tags, being careful to leave the HTML tags undisturbed.
- 6 Save each `.html` file, then display it in a Web browser to ensure that the HTML tags are still working correctly.
- 7 If you have not already done so, configure Teaming to recognize the new language, as described in [New Language Implementation](#).

### 14.2.3 New Language Implementation

- 1 Change to the following directory:

```
Linux:    /opt/novell/teaming/apache-tomcat-version/
          webapps/ssf/WEB-INF/classes/config
```

```
Windows: c:\Program Files\Novell\Teaming\apache-tomcat-version\
          webapps\ssf\WEB-INF\classes\config
```

- 2 Open the `ssf.properties` file in a text editor.

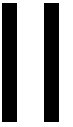
- 3 Locate the following line:

```
i18n.locale.support=en,da,de,es,fr,hu_HU,it,ja,nl,pl,pt_BR,ru_RU,sv,
                                     zh_CN,zh_TW
```

- 4 Copy that line to the clipboard of your text editor.
- 5 Make a backup copy of the `ssf-ext.properties` file, located in the same directory with the `ssf.properties` file.
- 6 Open the `ssf-ext.properties` file.
- 7 Scroll to the end of the `ssf-ext.properties` file, then paste the line you copied.
- 8 Type a comma (,) at the end of the line, followed by your language code.
- 9 Save and close the `ssf-ext.properties` file.
- 10 Close the `ssf.properties` file without saving it.
- 11 Stop and restart Teaming.



# Site Maintenance



- ♦ [Chapter 15, “Managing Users,” on page 91](#)
- ♦ [Chapter 16, “Managing Workspaces,” on page 109](#)
- ♦ [Chapter 17, “Managing Workspace and Folder Templates,” on page 115](#)
- ♦ [Chapter 18, “Creating and Managing Workflows,” on page 121](#)
- ♦ [Chapter 19, “Managing the Lucene Index,” on page 123](#)
- ♦ [Chapter 20, “Backing Up Teaming Data,” on page 127](#)
- ♦ [Chapter 21, “Monitoring the Teaming Site,” on page 129](#)
- ♦ [Chapter 22, “Reconfiguring the Teaming Site,” on page 141](#)



As time passes on your Novell® Teaming site, users come and go, resulting in the need for periodic maintenance activities.

- ◆ [Section 15.1, “Synchronizing Users and Groups from an LDAP Directory,” on page 91](#)
- ◆ [Section 15.2, “Listing Teaming Users,” on page 92](#)
- ◆ [Section 15.3, “Renaming a Teaming User,” on page 93](#)
- ◆ [Section 15.4, “Deleting a Teaming User,” on page 95](#)
- ◆ [Section 15.5, “Managing User Disk Space Usage with User Data Quotas,” on page 96](#)
- ◆ [Section 15.6, “Preventing Users from Creating User Accounts,” on page 107](#)

## 15.1 Synchronizing Users and Groups from an LDAP Directory

- ◆ [Section 15.1.1, “Adjusting LDAP Synchronization of Users and Groups,” on page 91](#)
- ◆ [Section 15.1.2, “Synchronizing Additional LDAP Attributes,” on page 91](#)

### 15.1.1 Adjusting LDAP Synchronization of Users and Groups

When you initially set up your Novell Teaming site, your main consideration for LDAP synchronization is to add users and groups from your LDAP directory into your Teaming site. As time passes, deletion of obsolete users and groups from your Teaming site becomes a larger concern. Periodically review the LDAP synchronization options described in “[LDAP Synchronization Options](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide* to ensure that obsolete users and groups are being managed properly.

### 15.1.2 Synchronizing Additional LDAP Attributes

By default, Teaming synchronizes the following attributes from the LDAP directory:

- ◆ First name
- ◆ Last name
- ◆ Phone number
- ◆ E-mail address
- ◆ Description

This information displays on each user’s *Profile* tab. You can synchronize additional LDAP attributes by modifying the *Profile* tab view and then reconfiguring LDAP synchronization to include the additional attributes.

- 1 Follow the instructions in [Section 3.2.4, “Customizing the Default View of the Profile Tab,” on page 32](#) to create fields on the *Profile* tab for displaying the LDAP attributes that you want to add.
- 2 On the Workspace toolbar, click *Manage > Site Administration*, then click *Configure LDAP*.

The *Users* box lists the LDAP attributes that are currently being synchronized.



The items in the list have the following format:

`teaming_field_name=ldap_attribute_name`

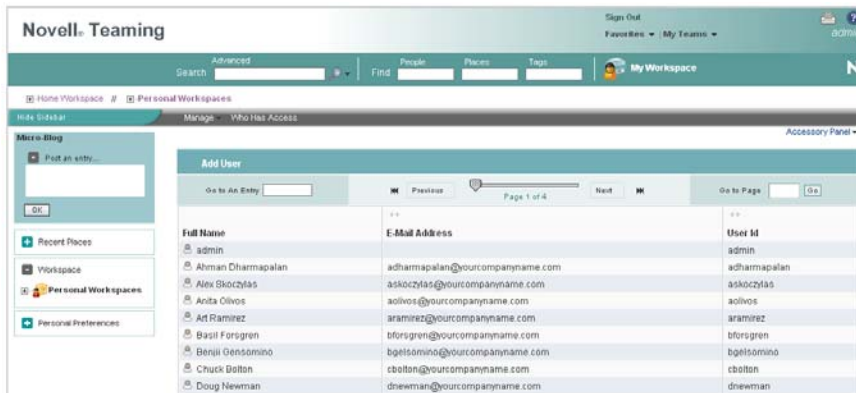
- 3 Add a new line to the list, specifying the Teaming field name to the left of the equal sign (=) and the LDAP attribute name to the right of the equal sign.
- 4 Repeat [Step 3](#) for each LDAP attribute that you want to add to the *Profile* tab.
- 5 Select *Run Immediately*, then click *Apply*.

The status box shows the LDAP attribute information being added to Teaming users.

## 15.2 Listing Teaming Users

On the Teaming site, you can view a comprehensive list of all the Novell Teaming users.

- 1 In the Workspace tree, expand *Home Workspace*, then click *Personal Workspaces*.  
All of the users are displayed in the main viewing window.



You can use this page in the following ways:

- ♦ [Section 15.2.1, “Navigating through the User List,”](#) on page 92
- ♦ [Section 15.2.2, “Navigating to a User’s Individual Workspace,”](#) on page 93
- ♦ [Section 15.2.3, “Adding Local Users,”](#) on page 93
- ♦ [Section 15.2.4, “Modifying the Title, Description, and Branding,”](#) on page 93

### 15.2.1 Navigating through the User List

You can navigate through the user list by using the tools in the Entry Listing toolbar.

For information on the navigation tools provided in this toolbar, see “[Listing Folder Entries and Pages](#)” in the *Novell Teaming 2.1 User Guide*.

## 15.2.2 Navigating to a User’s Individual Workspace

You can use the user list to navigate to a user’s individual workspace.

- 1 In the user list, in the *Full Name* column, click the name of the user whose workspace you want to navigate to.

---

**NOTE:** If you have deleted a user workspace but have not yet purged the workspace, the user workspace is still displayed in the user list, but you are unable to navigate to the workspace.

If you want the user workspace to be removed from the user list, you must purge the workspace, as described in “[Making Disk Space Available by Purging Deleted Items](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

If you want to restore the workspace, see “[Restoring Deleted Items](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

---

## 15.2.3 Adding Local Users

A local user is a Novell Teaming user, and is not added to your LDAP directory. You can use this page to add new users to your Teaming site.

If you want to add users through your LDAP directory service, see [Section 5.1, “Adding New Users to Your Teaming Site,”](#) on page 47.

- 1 Click *Add User*.  
The User page is displayed.
- 2 Provide the user’s information in the User page, then click *OK*.

## 15.2.4 Modifying the Title, Description, and Branding

By default, the workspace that contains all of the personal workspaces is named *Personal Workspaces*, the brand for this workspace is inherited from the parent workspace, and there is no workspace description. However, Novell Teaming enables you to modify the name, brand, and description of the workspace.

- 1 In the Workspace toolbar, click *Manage > Modify This Workspace*.  
Use this page to change the title, description, and brand of the workspace.

## 15.3 Renaming a Teaming User

Teaming users are identified by name (first, middle, last) and by user ID. User names are used to identify personal workspaces. User IDs are used for logging in. You can change users’ names, but not their user IDs. How you change users’ name depends on how you created the user.

- ♦ [Section 15.3.1, “Renaming a Teaming User from LDAP,”](#) on page 94
- ♦ [Section 15.3.2, “Renaming a Local Teaming User,”](#) on page 94

## 15.3.1 Renaming a Teaming User from LDAP

If you are synchronizing user information from an LDAP directory, as described in “[Adding Teaming Users from Your LDAP Directory](#)”, in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*, you change a user’s first, middle, or last name by updating it in the LDAP directory. The updated information then synchronizes to the Teaming site on the schedule you have established for LDAP synchronization. If you change a user’s first, middle, or last name by updating that information on the Teaming site, the change is not synchronized back to the LDAP directory, so the two sources of user information get out of sync.

---

**NOTE:** After you have set up a user in Teaming, you must not change the user’s user ID in the LDAP directory. If you do, the association between the original LDAP user ID and new LDAP user ID is lost from the perspective of the Novell Teaming site. A new Teaming account and workspace is created for the new user ID when LDAP synchronization takes place. Although it is possible to move folders from the user’s old workspace to the new workspace, any entries created with the old user ID cannot be associated with the new user ID, so this approach is not recommended.

---

## 15.3.2 Renaming a Local Teaming User

If you manually create Teaming users on the Teaming site, rather than synchronizing user information from an LDAP directory, you can change users’ names (first, middle, last) on the Teaming site.

When a user logs in to the Novell Teaming site for the first time, the user’s personal workspace is created. Before a user logs in, he or she does not have a personal workspace. Teaming enables site administrators to manually rename both types of users.

- ♦ “[Renaming Users Who Have Logged In to Teaming](#)” on page 94
- ♦ “[Renaming Users Who Have Not Logged In to Teaming](#)” on page 94

---

**NOTE:** Teaming does not allow you to change a user ID after the user account has been created.

---

### Renaming Users Who Have Logged In to Teaming

To rename a user who has previously logged in to the Novell Teaming site and therefore has a personal workspace:

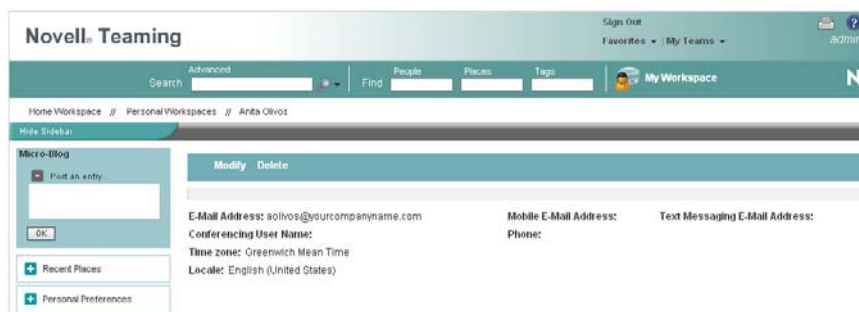
- 1 Navigate to the user’s personal workspace.
- 2 In the Workspace toolbar, click *Manage Profile > Modify*.  
The User page is displayed.
- 3 Modify the *First Name*, *Middle Name*, and *Last Name* fields as desired.
- 4 Click *OK*.

### Renaming Users Who Have Not Logged In to Teaming

To rename a user who has not previously logged in to the Novell Teaming site and therefore does not have a personal workspace:

- 1 In the *Find* section, in the *People* field, type and select the name of the user that you want to rename.

The user's profile page is displayed.



2 Click *Modify*.

The User page is displayed.

3 Modify the *First Name*, *Middle Name*, and *Last Name* fields as desired.

4 Click *OK*.

## 15.4 Deleting a Teaming User

When users no longer need access to your Novell Teaming site, you should delete their Teaming user accounts. How you delete the user depends on how you originally created the user.

When you delete a user, the entries and information that the deleted user contributed are preserved.

- ♦ [Section 15.4.1, “Manually Deleting a User,” on page 95](#)
- ♦ [Section 15.4.2, “Deleting a User through LDAP,” on page 96](#)

### 15.4.1 Manually Deleting a User

When a user logs in to the Novell Teaming site for the first time, the user's personal workspace is created. Before a user logs in, the user does not have a personal workspace. Teaming enables site administrators to manually delete both types of users.

- ♦ [“Deleting Users Who Have Logged In to Teaming” on page 95](#)
- ♦ [“Deleting Users Who Have Not Logged In to Teaming” on page 96](#)

#### Deleting Users Who Have Logged In to Teaming

To delete a user who has previously logged in to the Novell Teaming site and therefore has a personal workspace:

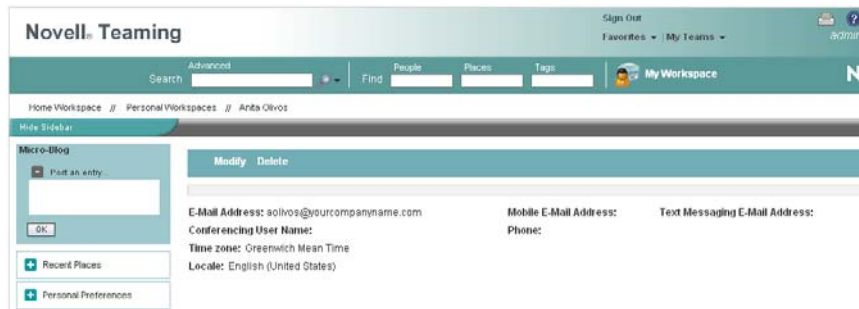
- 1 Navigate to the user's personal workspace.
- 2 In the Workspace toolbar, click *Manage Profile > Delete*.
- 3 (Optional) You can select to also delete the user workspace, and all of its folders, sub-folders, and entries, including the source content of any mirrored folders.
- 4 Click *OK*.

## Deleting Users Who Have Not Logged In to Teaming

To delete a user who has not previously logged in to the Novell Teaming site and therefore does not have a personal workspace:

- 1 In the *Find* section, in the *People* field, type and select the name of the user that you want to delete.

The user's profile page is displayed.



- 2 Click *Delete* > *OK*.

## 15.4.2 Deleting a User through LDAP

If you add Novell Teaming users by synchronizing with an LDAP directory, as described in “[Adding Teaming Users from Your LDAP Directory](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*, Teaming users are automatically deleted when you delete the corresponding User object in the LDAP directory. You can configure LDAP synchronization to automatically delete Teaming users’ workspaces and content as well. For more information, see “[LDAP Synchronization Options](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

## 15.5 Managing User Disk Space Usage with User Data Quotas

As time passes, your Novell Teaming site occupies more and more disk space as users create workspaces and folders, post folder entries, attach files, create new versions of files, and so on. As the Teaming administrator, you can impose limits on the amount of data that users are permitted to upload into the Teaming site. Each user’s data quota establishes how much disk space the user’s attached files and file versions can occupy in the Teaming site. Workspaces, folders, and entries that do not contain files or attachments do not count toward a user’s data quota.

By default, users are not limited in the disk space that their attached files and file versions occupy in the Teaming site. As the Teaming administrator, you can decide when limiting users’ disk space usage becomes appropriate.

- ♦ [Section 15.5.1, “Planning User Data Quotas,”](#) on page 97
- ♦ [Section 15.5.2, “Setting Data Quotas,”](#) on page 99
- ♦ [Section 15.5.3, “Modifying Data Quotas,”](#) on page 102
- ♦ [Section 15.5.4, “Removing Data Quotas,”](#) on page 104
- ♦ [Section 15.5.5, “Monitoring User Data Quotas,”](#) on page 105



- ♦ [Section 15.5.6, “Configuring Data Quotas to Be Less Strict,” on page 105](#)
- ♦ [Section 15.5.7, “Managing Your Personal Data Quota,” on page 106](#)
- ♦ [Section 15.5.8, “Purging Deleted Files,” on page 106](#)

## 15.5.1 Planning User Data Quotas

- ♦ [“Understanding Default Data Quota Behavior” on page 97](#)
- ♦ [“Understanding Data Quota Priority” on page 98](#)
- ♦ [“Understanding Data Quota Exclusions” on page 98](#)
- ♦ [“Selecting the Default User Data Quota for All Users” on page 98](#)
- ♦ [“Selecting an Appropriate High-Water Mark” on page 99](#)
- ♦ [“Determining Data Quotas for Specific Users” on page 99](#)
- ♦ [“Determining Data Quotas for Specific Groups” on page 99](#)

### Understanding Default Data Quota Behavior

The following sections describe the default behavior for how user data quotas work after they have been enabled. For information on how to enable data quotas for your Teaming site, see [Section 15.5.2, “Setting Data Quotas,” on page 99](#).

- ♦ [“Exceeding the Data Quota” on page 97](#)
- ♦ [“Exceeding the High-Water Mark” on page 97](#)

#### Exceeding the Data Quota

By default, Teaming users are strictly held to the data quota that you set. If a user who is approaching his or her data quota tries to upload a file to the Teaming site and that file exceeds the user’s data quota, Teaming rejects the upload attempt and the entry is lost.

As a Teaming administrator, you might want to allow users to post a final entry to the Teaming site that exceeds their data quota. This approach is less strict and does not guarantee that users won’t exceed their data quotas; however, it is more forgiving because it allows users to post one final upload to the Teaming site and does not erase the entry and attached file that they are trying to upload.

For information on how to configure your Teaming data quotas to be less strict by allowing users one final upload to the Teaming site, and thus exceed their data quota, see [Section 15.5.6, “Configuring Data Quotas to Be Less Strict,” on page 105](#).

#### Exceeding the High-Water Mark

When users exceed their data quota high-water mark, they are notified that they are approaching their data quota. Teaming informs them how many kilobytes of disk space they still have available.

For more information on selecting an appropriate high-water mark, see [“Selecting an Appropriate High-Water Mark” on page 99](#).

## Understanding Data Quota Priority

Because users can have multiple data quotas assigned to them, either individually, through group membership, or through the site-wide default, Teaming prioritizes the existing data quotas and uses only one for each individual Teaming user. If users have multiple data quotas that pertain to them, the priority level is as follows:

1. **User Quota:** A quota that is set for an individual user overrides the site-wide default quota and any other quotas that are associated with any groups where the user is a member.
2. **Group Quota:** A quota that is set for an individual group overrides the site-wide default quota. This pertains to all users who are a member of that group.

When a user is a member of multiple groups that have a data quota associated with them, the user is given the highest data quota. For example, if a Teaming user is a member of Group A, Group B, and Group C, and the data quotas for each of these groups is 10, 20, and 30, respectively, the Teaming user's data quota is 30.

3. **Site-Wide Default:** The site-wide default quota is used for all Teaming users who have not been assigned individual quotas, and who are not associated with any groups where a quota has been set.

## Understanding Data Quota Exclusions

### Mirrored Folders

Files stored in mirrored folders do not count against a user's data quota because they are not uploaded into the Teaming site.

## Selecting the Default User Data Quota for All Users

When you enable the data quota feature, the initial default data quota is 100 MB. This means that each Teaming user can upload 100 MB of files and attachments to the Teaming site. There is one default data quota for each Teaming zone. When a user adds enough files and attachments to exceed the data quota, the user can no longer attach files or create versions until existing files have been deleted and purged to free up storage space. Users can add a file that exceeds their data quota if they have not already exceeded their data quota. Users cannot add additional files until they are again below their quota. This prevents users from creating an entry and then having the entry rejected. For information about the user experience of nearing or exceeding a data quota, see [“Adding Files and Attachments to the Teaming Site When You Are Over Your Quota”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

For information about purging deleted files to make storage space available, see [Section 15.5.8, “Purging Deleted Files,”](#) on page 106.

When you select the default data quota for your Teaming site, consider the size of your Teaming site, the number of Teaming users, the amount of available disk space, and so on. You can override the default data quota on a per-user and per-group basis, as described in [Section 15.5.2, “Setting Data Quotas,”](#) on page 99.

For information about which data quota is used when users have multiple data quotas that pertain to them, see [“Understanding Data Quota Priority”](#) on page 98.

## Selecting an Appropriate High-Water Mark

The high-water mark is the percentage of the data quota at which users are notified that they are approaching their data quotas. The default high-water mark is 90% of a user's data quota.

## Determining Data Quotas for Specific Users

If there is a user in your Teaming site who needs either a higher or lower data quota than the site-wide default, you can assign that user an individual user data quota.

When you set data quotas for specific users, remember that individual user data quotas override the default user data quota, as well quotas that are assigned to any groups where the user is a member, as described in [“Understanding Data Quota Priority” on page 98](#).

## Determining Data Quotas for Specific Groups

When you set data quotas for specific groups, remember that group data quotas override the default site-wide data quota, but do not override individual user quotas, as described in [“Understanding Data Quota Priority” on page 98](#).

## 15.5.2 Setting Data Quotas

You can set data quotas for the entire Teaming site, for individual groups, and for individual users.

- ◆ [“Setting a Default Data Quota” on page 99](#)
- ◆ [“Setting Data Quotas for Individual Groups” on page 100](#)
- ◆ [“Setting Data Quotas for Individual Users” on page 101](#)

### Setting a Default Data Quota

When you set a default data quota, the quota applies to all Teaming users who have not been assigned individual quotas, and who are not associated with any groups where a quota has been set.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration > Manage Data Quotas*.

### Manage Data Quotas

**Enable Data Quotas**

Default Data Quota Size:  MB

Default High-Water Mark:  %

Group Quota Settings			
Delete	Group Name	Group Title	Quota
<input type="checkbox"/>	marketing	Marketing	300
<input type="checkbox"/>	paperless initiative	Paperless Initiative	150

User Quota Settings				
Delete	Full Name	User Id	Quota	Data Quota Used
<input type="checkbox"/>	Chuck Bolton	cbolton	70	0
<input type="checkbox"/>	Julio Chavez	jchavez	1	3.56

- 3 Select *Enable Data Quotas*.
- 4 Set the *Default Data Quota Size* and *Default High-Water Mark* options as determined in [Section 15.5.1, “Planning User Data Quotas,”](#) on page 97.
- 5 Click *OK*, then click *Apply > Close* to save the user data quota settings.

### Setting Data Quotas for Individual Groups

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration > Manage Data Quotas*.

### Manage Data Quotas

**Enable Data Quotas**

Default Data Quota Size:  MB

Default High-Water Mark:  %

Group Quota Settings			
Delete	Group Name	Group Title	Quota
<input type="checkbox"/>	marketing	Marketing	300
<input type="checkbox"/>	paperless initiative	Paperless Initiative	150

User Quota Settings				
Delete	Full Name	User Id	Quota	Data Quota Used
<input type="checkbox"/>	Chuck Bolton	cbolton	70	0
<input type="checkbox"/>	Julio Chavez	jchavez	1	3.56

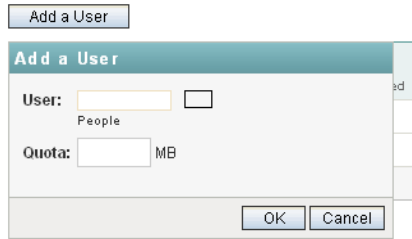
- 3 Select *Enable Data Quotas*.
- 4 Click *Add a Group*.

- 5 In the *Group* field, start typing the name of the group for which you want to set a quota, then click the group name when it appears in the drop-down list.
- 6 (Optional) Repeat [Step 5](#) to add additional groups for which you want to assign the same data quota.
- 7 In the *Quota* field, specify the disk space limit for the group.
- 8 Click *OK*, then click *Apply > Close* to save the user data quota settings.

### Setting Data Quotas for Individual Users

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration > Manage Data Quotas*.

- 3 Select *Enable Data Quotas*.
- 4 Click *Add a User*.



- 5 In the *User* field, start typing the name of the user for which you want to set a quota, then click the user's name when it appears in the drop-down list.
- 6 (Optional) Repeat [Step 5](#) to add additional users for which you want to assign the same data quota.
- 7 In the *Quota* field, specify the disk space limit for the user.
- 8 Click *OK* to save the user data quota settings.

### 15.5.3 Modifying Data Quotas

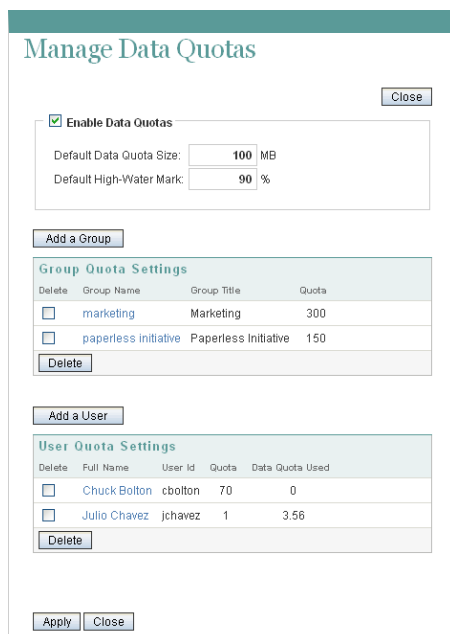
Teaming enables you to modify data quotas that you have previously set. You can modify data quotas for your entire Teaming site, or modify data quotas for individual groups and users.

- ♦ [“Modifying Data Quotas for the Entire Teaming Site” on page 102](#)
- ♦ [“Modifying Data Quotas for Individual Groups and Users” on page 103](#)

#### Modifying Data Quotas for the Entire Teaming Site

Teaming enables you to easily modify the site-wide default data quota.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration > Manage Data Quotas*.



- 3 In the *Default Data Quota Size* field, delete the existing quota and specify the new quota.  
You can also modify the default high-water mark in the *Default High-Water Mark* field. For more information about the high-water mark, see [“Selecting an Appropriate High-Water Mark” on page 99](#).
- 4 Click *Apply > Close* to save the user data quota settings.

## Modifying Data Quotas for Individual Groups and Users

Teaming enables you to easily modify individual group and user data quota settings that you have previously set.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration > Manage Data Quotas*.

- 3 In the *Group Quota Settings* table or *User Quota Settings* table, click the group name or user name that represents the group or user whose quota you want to modify.

- 4 In the *Quota* field, delete the existing quota and specify a new quota.
- 5 Click *OK*, then click *Apply > Close* to save the user data quota settings.

## 15.5.4 Removing Data Quotas

Teaming enables you to disable data quotas that you have previously set. You can disable data quotas for your entire Teaming site, or remove data quotas from individual groups and users.

- ♦ “Disabling Data Quotas for the Entire Teaming Site” on page 104
- ♦ “Removing Data Quotas from Individual Groups and Users” on page 104

### Disabling Data Quotas for the Entire Teaming Site

If you decide that you no longer need to impose limits on the amount of data that users are permitted to upload into the Teaming site, you can disable the data quota feature. Disabling the data quota feature enables all Teaming users to upload as much data to the Teaming site as they want.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration > Manage Data Quotas*.  
The Manage Data Quotas page is displayed.
- 3 Deselect *Enable Data Quotas*, then click *Apply*.

The screenshot shows the 'Manage Data Quotas' interface. At the top, there is a 'Close' button. Below it, a section titled 'Enable Data Quotas' has an unchecked checkbox. Underneath, there are two input fields: 'Default Data Quota Size' set to '100 MB' and 'Default High-Water Mark' set to '90 %'. Below this is an 'Add a Group' button. The 'Group Quota Settings' table has columns for 'Delete', 'Group Name', 'Group Title', and 'Quota'. It lists two groups: 'marketing' with a quota of 300, and 'paperless initiative' with a quota of 150. Below the table is a 'Delete' button. There is also an 'Add a User' button. The 'User Quota Settings' table has columns for 'Delete', 'Full Name', 'User Id', 'Quota', and 'Data Quota Used'. It lists two users: 'Chuck Bolton' with a quota of 70 and 'Data Quota Used' of 0, and 'Julio Chavez' with a quota of 1 and 'Data Quota Used' of 3.56. Below the table is a 'Delete' button. At the bottom of the interface, there is a red error message: 'Data quotas are not enabled.' and two buttons: 'Apply' and 'Close'.

Data quotas are no longer enabled for your Teaming site.

### Removing Data Quotas from Individual Groups and Users

You can remove data quotas that you have previously set for individual groups and users. Users are held to the site-wide data quota default setting if they do not have an individual quota defined for them and they are not members of any groups where a group quota has been assigned.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration > Manage Data Quotas*.



**Manage Data Quotas** Close

**Enable Data Quotas**

Default Data Quota Size:  MB

Default High-Water Mark:  %

Group Quota Settings			
Delete	Group Name	Group Title	Quota
<input type="checkbox"/>	marketing	Marketing	300
<input type="checkbox"/>	paperless initiative	Paperless Initiative	150

User Quota Settings				
Delete	Full Name	User Id	Quota	Data Quota Used
<input type="checkbox"/>	Chuck Bolton	cbolton	70	0
<input type="checkbox"/>	Julio Chavez	jchavez	1	3.56

- 3 In the *Group Quota Settings* table or *User Quota Settings* table, select the check box next to the group or user whose quota you want to remove.
- 4 Click *Delete*, then click *Apply* > *Close* to save the user data quota settings.

## 15.5.5 Monitoring User Data Quotas

You can monitor which users in the Teaming site have exceeded or are close to exceeding their data quotas by generating the following reports:

- ♦ [Section 21.1.5, “Data Quota Exceeded Report,” on page 135](#)
- ♦ [Section 21.1.6, “Data Quota Highwater Exceeded Report,” on page 136](#)

## 15.5.6 Configuring Data Quotas to Be Less Strict

As a Teaming administrator, you can decide how strictly you want to enforce data quota adherence. You can maintain the default behavior, or you can be less strict by allowing users to post a final entry that exceeds their data quota.

For more information about the default behavior for a data quota, see [“Understanding Default Data Quota Behavior” on page 97](#).

To configure Teaming to allow users to post a final entry that exceeds their data quota:

- 1 Change to the following directory:

**Linux:** `/opt/novell/teaming/apache-tomcat-version/  
webapps/ssf/WEB-INF/classes/config`

**Windows:** `c:\Program Files\Novell\Teaming\apache-tomcat-version\  
webapps\ssf\WEB-INF\classes\config`

- 2 Make a backup copy of the `ssf-ext.properties` file.
- 3 Open the `ssf-ext.properties` file in a text editor.
- 4 Add the following line to the `ssf-ext.properties` file:  
`data.quota.strict.conformance=false`
- 5 Save and close the `ssf-ext.properties` file.
- 6 Stop and restart Teaming.

## 15.5.7 Managing Your Personal Data Quota

---

**NOTE:** As a Teaming administrator, you are also held to a data quota. If you want to assign yourself a larger quota than the site-wide default, you can add an individual quota for yourself, as described in [“Setting Data Quotas for Individual Users” on page 101](#).

---

All Teaming users need to manage their personal data quotas. When you have a limited allocation of disk space, you need to be aware of the amount of disk space that you have available, know how to make more disk space available as you approach your quota, and know what counts against your quota and what doesn't.

For information on how to accomplish these and other important tasks as you manage your data quota, see [“Managing Your Data Quota”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

## 15.5.8 Purging Deleted Files

When users delete files or file versions, the disk space occupied by the deleted files and versions counts against users' data quotas until users purge their files and versions, as described in [“Making Disk Space Available by Purging Deleted Items”](#) in the *Novell Teaming 2.1 Advanced User Guide*.

As a Teaming administrator, you can purge files and versions anywhere on the Teaming site in order to recover disk space.

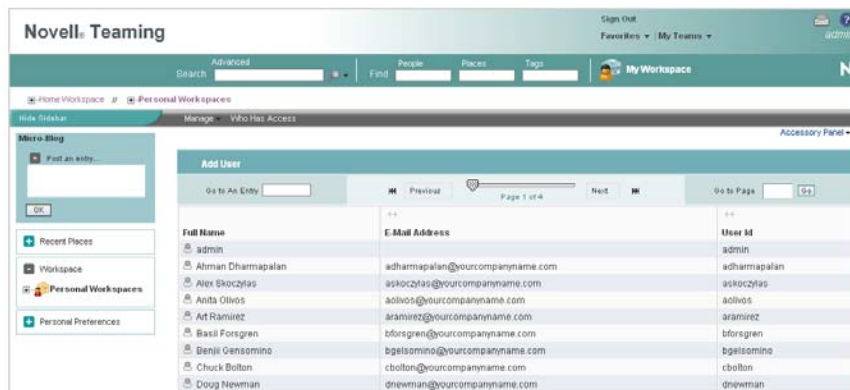
- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Click *Home Workspace*.  
All global workspaces, team workspaces, and personal workspaces are located under the Home Workspace.
- 3 Click *Trash* to display a list of all deleted files and versions.  
By default, the list is ordered alphabetically by title.
- 4 (Optional) Click a column heading to sort the list by when items were deleted, who deleted the items, or where the items were deleted on the Teaming site.
- 5 Select items to purge, then click *Purge*.  
After items have been purged, they cannot be recovered except from the archive store, as described in [Section 20.4, “Manually Restoring Individual Files,” on page 128](#).

## 15.6 Preventing Users from Creating User Accounts

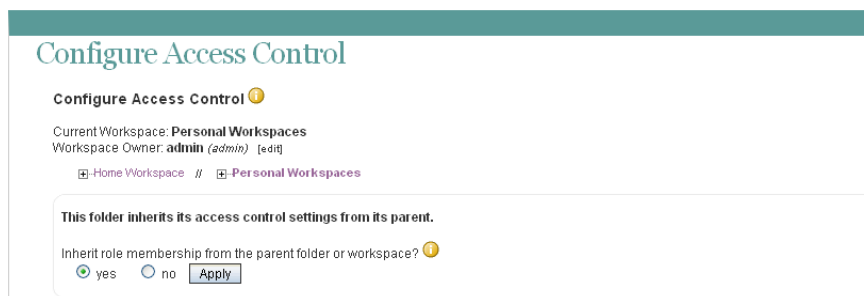
In some contexts, you do not want Teaming users to be able to set up Teaming user accounts. You want Teaming account creation to be reserved for the Teaming administrator.

By default, Novell Teaming 2.0 enabled all users to create additional user accounts. If you updated your Teaming site from 2.0 to 2.1, this functionality continues, and you might want to prevent users from creating user accounts. Starting with Teaming 2.1, users are, by default, not allowed to create user accounts, so this section does not apply to new Teaming 2.1 sites.

- 1 In the Workspace tree, click *Personal Workspaces* to list your existing Teaming users.



- 2 On the Workspace toolbar, click *Manage > Access Control*.



- 3 Select *no*, then click *Apply* so that the workspace no longer inherits its access control settings from the parent workspace.

This activates the access control table.

✓ designates the access control setting of the parent workspace

**Add User Names from Clipboard**

		Add a Role ▾					
		Participant	Team Member	Visitor	Workspace and Folder Administrator		
	Owner of Workspace or Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Team Members	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Add a Group ▾		Group Title	Group Name	Participant	Team Member	Visitor	Workspace and Folder Administrator
	All Users	allUsers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Add a User ▾		User Title	User Id	Participant	Team Member	Visitor	Workspace and Folder Administrator
Add an Application Group ▾		Application Group Title	Application Group Name	Participant	Team Member	Visitor	Workspace and Folder Administrator
	All Applications	allApplications	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Add an Application ▾		Application Title	Application Name	Participant	Team Member	Visitor	Workspace and Folder Administrator

[Note: admin (admin) has been designated as the default site administrator with privileges to perform any task on any workspace or folder.]

- 4 For the All Users group, deselect the check box in the *Participant* column.  
This removes the *Add User* option from the list of Teaming users under *Personal Workspaces* for regular Teaming users. It is still available for the Teaming administrator.
- 5 Ensure that the check box in the *Visitor* column is selected.  
This enables users to view all Teaming users in this folder.
- 6 Click *Save Changes*, then click *Close*.

As a Novell® Teaming administrator, you can perform management functions on all Teaming workspaces. For information on how to perform general workspace management functions, such as creating a workspace, deleting a workspace, moving a workspace, and so forth, see [“General Workspace Management”](#) in the *Novell Teaming 2.1 User Guide*.

You can perform additional workspace management tasks as the Teaming administrator:

- ♦ [Section 16.1, “Exporting/Importing Workspaces, Folders, and Entries,” on page 109](#)
- ♦ [Section 16.2, “Managing Workspace Disk Space Usage,” on page 113](#)

## 16.1 Exporting/Importing Workspaces, Folders, and Entries

You can transfer data from one Teaming site to another by exporting it from the source Teaming site and importing it into the destination Teaming site. When you export data, it remains in the source Teaming site and a copy of the exported data is imported into the destination Teaming site.

- ♦ [Section 16.1.1, “Understanding the Export and Import Process,” on page 109](#)
- ♦ [Section 16.1.2, “Exporting Workspaces,” on page 111](#)
- ♦ [Section 16.1.3, “Importing Workspaces,” on page 111](#)
- ♦ [Section 16.1.4, “Exporting Folders,” on page 112](#)
- ♦ [Section 16.1.5, “Importing Folders,” on page 112](#)
- ♦ [Section 16.1.6, “Exporting Folder Entries,” on page 113](#)
- ♦ [Section 16.1.7, “Importing Folder Entries,” on page 113](#)

If you want to simply move or copy data within a single Teaming site, see [“Copying a Workspace”](#) and [“Moving a Workspace”](#), [“Copying a Folder”](#) and [“Moving a Folder”](#), or [“Copying a Folder Entry”](#) and [“Moving a Folder Entry”](#) in the *Novell Teaming 2.1 User Guide*.

### 16.1.1 Understanding the Export and Import Process

The export process creates a `.zip` file named `export.zip` that you can save to any convenient location on disk. The `.zip` file contains all the workspaces, folders, folder entries, and attachments that you elected to export.

When you export and import a workspace, folder, or folder entry, not all types of data are preserved.

- ♦ [“Data That Is Preserved” on page 109](#)
- ♦ [“Data That Is Not Preserved” on page 110](#)

#### Data That Is Preserved

- ♦ Hierarchical structure of the workspace
- ♦ All folders in the workspace (unless specifically excluded)

- ◆ All content in exported folders
- ◆ Landing pages for workspaces or folders  
For more information on landing pages, see “[Creating and Managing Landing Pages](#)” in the *Novell Teaming 2.1 Advanced User Guide*.
- ◆ Entry definitions associated with any folder content  
Entry definitions are custom entry forms that have been created in your folder or workspace. For more information on entry definitions, see “[Designing Custom Folder Entry Forms](#)” in the *Novell Teaming 2.1 Advanced User Guide*.
- ◆ Workflows associated with any workspace content

---

**NOTE:** If your workflow contains an On Entry condition that starts a parallel workflow thread, as described in “[Adding On-Entry or On-Exit Events](#)” in the *Novell Teaming 2.1 Advanced User Guide*, the parallel workflow is automatically restarted when the workflow is imported.

---

For more information on workflows, see “[Creating and Managing Workflows](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

- ◆ Custom forms associated with any workspace content  
For more information on custom forms, see “[Designing Custom Folder Entry Forms](#)” in the *Novell Teaming 2.1 Advanced User Guide*.
- ◆ Wiki links  
For more information on wiki links, see “[Linking within a Folder Entry](#)” in the *Novell Teaming 2.1 User Guide*.

### Data That Is Not Preserved

The following types of data are not included in the export and import processes:

- ◆ Access control information  
When you import a workspace or folder, that workspace or folder assumes the access control settings of the higher-level workspace or folder where it is being imported. For more information on access control, see [Chapter 2, “Planning and Controlling User Access to Workspaces and Folders,”](#) on page 17.
- ◆ Accessories  
For more information on accessories, see “[Managing Accessories](#)” in the *Novell Teaming 2.1 User Guide*.
- ◆ Custom JSP files  
Custom JSP files must be exported as part of an extension. (For more information on extensions, see [Chapter 9, “Adding Software Extensions to Your Teaming Site,”](#) on page 63.) However, if you have a workspace that leverages custom JSP files, the workspace still retains the settings that point to the custom JSP files. Therefore, if you export a workspace or folder that is referencing custom JSP files, and the Teaming site where you import the workspace has the same custom JSP files, the imported workspace or folder points to the correct custom JSP files.
- ◆ Permalinks
- ◆ Activity data, such as who visited the place, edit history, and workflow history

For more information about activity data, see “[Generating Activity Reports for a Workspace](#)”, “[Generating an Activity Report on a Folder](#)”, and “[Generating Reports about a Folder Entry](#)” in the *Novell Teaming 2.1 User Guide*.

- ◆ Entry ratings

For more information on entry ratings, see “[Rating a Folder Entry](#)” in the *Novell Teaming 2.1 User Guide*.

- ◆ Entry definitions that are not associated with folder content

Entry definitions are custom entry forms that have been created in your folder or workspace. For more information on entry definitions, see “[Designing Custom Folder Entry Forms](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

- ◆ Workflows that are not associated with workspace content

For more information on workflows, see “[Creating and Managing Workflows](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

- ◆ E-mail notification settings

- ◆ Default folder columns

- ◆ Global filters

## 16.1.2 Exporting Workspaces

- 1 Log in to the Teaming site as the Teaming administrator.

- 2 Navigate to the workspace that you want to export.

- 3 Click *Manage > Export/Import*.

The Export / Import page is displayed.

Export / Import

Export This Folder or Workspace  Import into This Folder or Workspace

**Select the Items to be Exported:**  
Selecting an item will export that item and all of its child folders and workspaces unless this is turned off below.  
Making no selections will result in exporting everything.

Only export child folders or workspaces that are specifically checked.

Gensomino, Benji (bgelsomino)

OK Close

- 4 Select *Export This Folder or Workspace*.

- 5 To export all contents of the folder or workspace, click *OK*.

or

To export only individual workspaces, folders, and folder entries, select *Only export child folders or workspaces that are specifically checked*, then expand the workspace tree and select the folders, workspaces, and entries that you want to export. Then click *OK*.

## 16.1.3 Importing Workspaces

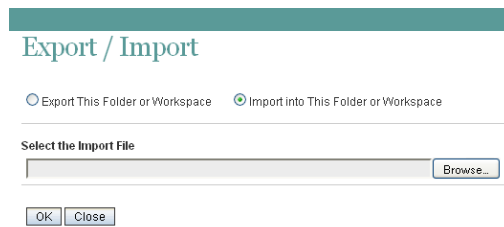
- 1 Log in to the Teaming site as the Teaming administrator.

- 2 Navigate to the workspace where you want the imported workspace to reside.

3 Click *Manage > Export/Import*.

The Export / Import page is displayed.

4 Select *Import into This Folder or Workspace*.



5 Browse to and select the workspace that you want to import, then click *OK*.

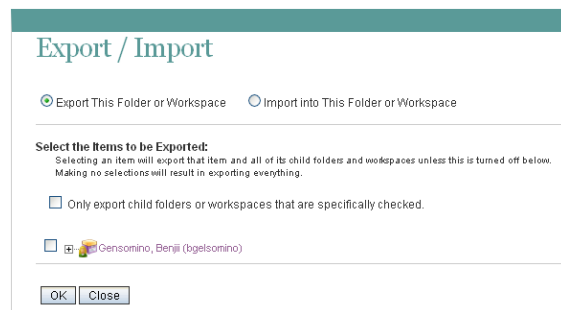
## 16.1.4 Exporting Folders

1 Log in to the Teaming site as the Teaming administrator.

2 Navigate to the folder that you want to export.

3 Click *Manage > Export/Import*.

The Export / Import page is displayed.



4 Select *Export This Folder or Workspace*.

5 To export all contents of the folder or workspace, click *OK*.

or

To export only individual workspaces, folders, and folder entries, select *Only export child folders or workspaces that are specifically checked*, then expand the workspace tree and select the folders, workspaces, and entries that you want to export. Then click *OK*.

## 16.1.5 Importing Folders

1 Log in to the Teaming site as the Teaming administrator.

2 Navigate to the folder where you want the imported folder to reside.

3 Click *Manage > Export/Import*.

The Export / Import page is displayed.

4 Select *Import into This Folder or Workspace*.



- 5 Browse to and select the folder that you want to import, then click *OK*.

### 16.1.6 Exporting Folder Entries

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Navigate to and select the folder entry that you want to export.
- 3 In the entry footer, click *Export this entry*.

You can now download the entry to your computer's file system.

### 16.1.7 Importing Folder Entries

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Navigate to the folder where you want the imported folder entry to reside.
- 3 Click *Manage > Export/Import*.

The Export / Import page is displayed.

- 4 Select *Import into This Folder or Workspace*.

- 5 Browse to and select the folder entry that you want to import, then click *OK*.

## 16.2 Managing Workspace Disk Space Usage

Disk space usage is currently managed on a per user / per entry basis, rather on a workspace basis. See [Section 15.5, "Managing User Disk Space Usage with User Data Quotas,"](#) on page 96.



# Managing Workspace and Folder Templates

# 17

Workspace and Folder templates are a powerful and efficient way to manage your Novell® Teaming site. They enable you to customize the default features, default layout, and default access control settings of the workspaces and folders throughout your Teaming site.

For example, the Team Workspaces template is used when any team workspace is created. By default, the access control settings for the Team Workspaces template specify that only team members are able to view the team workspace. However, if you want to run a more relaxed Teaming site and allow all Teaming users to view any team workspace, you can simply modify the access control settings on the Team Workspaces template.

For more information about templates, see [Section 3.5.1, “Understanding Templates,” on page 37](#).

- ◆ [Section 17.1, “Modifying Workspace and Folder Templates,” on page 115](#)
- ◆ [Section 17.2, “Importing Templates,” on page 118](#)
- ◆ [Section 17.3, “Exporting Templates,” on page 118](#)
- ◆ [Section 17.4, “Reverting All Templates to the Factory Default,” on page 120](#)

## 17.1 Modifying Workspace and Folder Templates

Novell Teaming enables you to modify default templates as well as custom templates that you have already created.

For information on how to create custom templates, see [Section 3.5.3, “Creating Workspace and Folder Templates,” on page 40](#).

- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Manage Workspace and Folder Templates*.
- 2 Click the workspace or folder template that you want to modify.  
From this page you can do any of the following:
  - ◆ [Section 17.1.1, “Deleting the Template,” on page 116](#)
  - ◆ [Section 17.1.2, “Exporting the Template,” on page 116](#)
  - ◆ [Section 17.1.3, “Renaming the Template,” on page 116](#)
  - ◆ [Section 17.1.4, “Adding an Existing Workspace Template,” on page 116](#)
  - ◆ [Section 17.1.5, “Adding an Existing Folder Template,” on page 117](#)
  - ◆ [Section 17.1.6, “Adding Access Controls to the Template,” on page 117](#)
  - ◆ [Section 17.1.7, “Changing the Default View for the Template,” on page 117](#)
  - ◆ [Section 17.1.8, “Changing the Title, Description, Brand, and Icon for the Template,” on page 117](#)
  - ◆ [Section 17.1.9, “Modifying the Accessory Panel for the Template,” on page 117](#)

### 17.1.1 Deleting the Template

Deleting a template deletes the template and all sub-templates.

- 1 In the Workspace and Folder Templates toolbar, click *Manage This Template*.
- 2 Click *Delete This Template > OK*.

### 17.1.2 Exporting the Template

- 1 In the Workspace and Folder Templates toolbar, click *Manage This Template*.
- 2 Click *Export This Template*.
- 3 Click *OK*.

For information on how to export multiple templates simultaneously, see [Section 17.3.2, “Exporting Multiple Templates,”](#) on page 119.

### 17.1.3 Renaming the Template

You can change the information that is displayed on the Add New Workspace page (or Add New Folder page), when users select which type of workspace they want to add.

- 1 In the Workspace and Folder Templates toolbar, click *Manage This Template*.
- 2 Click *Modify This Template*.
- 3 Specify the following information:
  - Name:** This is the internal database name.
  - Template Title:** This name appears in the Add New Workspace page (or Add New Folder page), when users select which type of workspace they want to add.
  - Description:** This description appears in the Add New Workspace page (or Add New Folder page), when users select which type of workspace they want to add.
- 4 Click *Modify*.

### 17.1.4 Adding an Existing Workspace Template

You can add a workspace template to the template that you are currently modifying. The workspace template that you add becomes a sub-workspace to the main workspace. All template sub-workspaces and sub-folders that you add are preserved when the template is used in your Teaming site.

- 1 In the Workspace and Folder Templates toolbar, click *Manage This Template*.
- 2 Click *Add Workspace Template*.
- 3 In the Currently Defined Templates section, select the workspace template that you want to add.
- 4 Click *Add*.

A cloned copy of the workspace template is added as a sub-folder to the main workspace.

## 17.1.5 Adding an Existing Folder Template

You can add a folder template to the template that you are currently modifying. The folder template that you add becomes a sub-folder to the main workspace or folder. All template sub-workspaces and sub-folders that you add are preserved when the template is used in your Teaming site.

You can add a folder template to the template that you are currently modifying.

- 1 In the Workspace and Folder Templates toolbar, click *Manage This Template*.
- 2 Click *Add Folder Template*.
- 3 In the Currently Defined Templates section, select the folder template that you want to add.
- 4 Click *Add*.

A cloned copy of the folder template is added as a sub-folder to the main folder or workspace.

## 17.1.6 Adding Access Controls to the Template

- 1 In the Workspace and Folder Templates toolbar, click *Manage This Target*.
- 2 Click *Access Control*.

The Configure Access Control page is displayed.

For information on how to use this page, see [Chapter 2, “Planning and Controlling User Access to Workspaces and Folders,”](#) on page 17.

- 3 After you have made your access control modifications, click *Close*.

## 17.1.7 Changing the Default View for the Template

- 1 In the Workspace and Folder Templates toolbar, click *Manage This Target*.
- 2 Click *Configure*.

The Configure Default Settings page is displayed.

- 3 In the *Default View* section, select the default view that you want the template to have.
- 4 Click *Apply > Close*.

## 17.1.8 Changing the Title, Description, Brand, and Icon for the Template

You can change the attributes of the template that are displayed in the workspace after the workspace is created.

- 1 In the Workspace and Folder Templates toolbar, click *Manage This Target*.
- 2 Click *Modify*.
- 3 Change the title, description, brand, and icon as desired, then click *OK*.

## 17.1.9 Modifying the Accessory Panel for the Template

Novell Teaming enables you to modify the Accessory Panel in a template.

If the Accessory Panel already contains accessories, you can modify them; or, you can create new accessories. For information on how to modify and create accessories, see “[Managing Accessories](#)” in the *Novell Teaming 2.1 User Guide*.

## 17.2 Importing Templates

You can import a template after you have exported it. For information on how to export a template, see [Section 17.3, “Exporting Templates,”](#) on page 118.

- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Manage Workspace and Folder Templates*.



- 2 Click *Import*.

The *Import Templates* page is displayed.

- 3 Browse for and select the templates that you want to import, then click *OK*.

The template is displayed in the Manage Workspace and Folder Templates page.

## 17.3 Exporting Templates

You might want to export templates for the following reasons:

- ♦ To import the template into another system.
- ♦ To back up the template.

This can be useful if you want to make edits to a template, and want to restore the original if your edits don't go according to plan.

Novell Teaming enables you to export individual templates, or export multiple templates simultaneously.

- ♦ [Section 17.3.1, “Exporting a Single Template,”](#) on page 118
- ♦ [Section 17.3.2, “Exporting Multiple Templates,”](#) on page 119

### 17.3.1 Exporting a Single Template

- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Manage Workspace and Folder Templates*.
- 2 Click the workspace or folder template that you want to modify.

- 3 In the Workspace and Folder Templates toolbar, click *Manage This Template*.
- 4 Click *Export This Template*.
- 5 Click *OK*.

## 17.3.2 Exporting Multiple Templates

- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Manage Workspace and Folder Templates*.



- 2 Click *Export*.

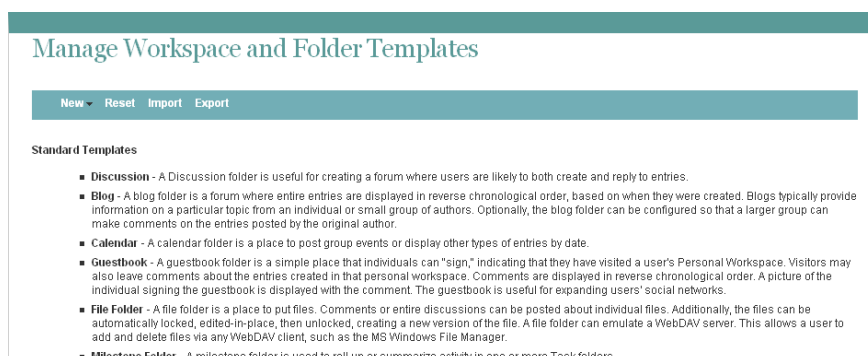


- 3 In the *Select the Templates to be Exported* section, select the template or templates that you want to export, then click *OK*.

## 17.4 Reverting All Templates to the Factory Default

When you revert all templates to the factory default, you lose any modifications that you have made to existing templates, as well as any custom templates that you might have created.

- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Manage Workspace and Folder Templates*.



- 2 Click *Reset*, then click *OK*.



# Creating and Managing Workflows

# 18

Workflows can improve efficiency in your organization by automating common business processes.

As a Novell® Teaming administrator, you have the ability to create workflows and make them available to all Teaming users. You can also import existing workflows and then tailor them to your specific organization.

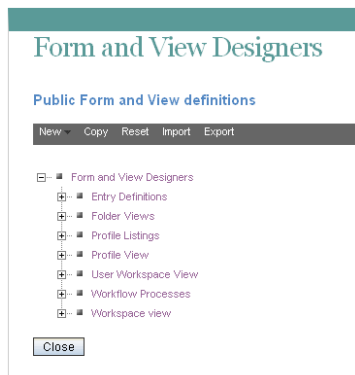
Examples of workflows include: approving documents, ordering supplies, hiring new employees, requesting paid time off, and getting expense reimbursements.

- ♦ [Section 18.1, “Creating Global Workflows,” on page 121](#)
- ♦ [Section 18.2, “Downloading Existing Custom Forms and Workflows,” on page 121](#)

## 18.1 Creating Global Workflows

You can create workflows that are accessible to all Novell Teaming users.

- 1 In the Workspace or Folder toolbar, click *Manage > Site Administration*, then click *Form and View Designers*.



- 2 Follow the steps for creating and managing a workflow, as described in “[Creating and Managing Workflows](#)” in the *Novell Teaming 2.1 Advanced User Guide*.

Remember that when you create workflows at the Site Administration level, the workflows that you create can be leveraged by all users in your Teaming site.

## 18.2 Downloading Existing Custom Forms and Workflows

The Novell Teaming Library provides a collection of existing Teaming folder entry forms and workflows that have been designed to solve specific business problems. You can easily download the custom forms and workflows, then import them into your Teaming environment. You can further customize these forms and workflows to suit your individual business needs.

- 1 Visit the [Novell Teaming Library \(http://www.novell.com/communities/cool-solutions/teaminglibrary\)](http://www.novell.com/communities/cool-solutions/teaminglibrary).

- 2** Select the custom form or workflow that you want to use in your Teaming environment.
- 3** In the *Attachment* section, click the `zip` file to download it.
- 4** Import the file into your Teaming environment and deploy it for use.

For information on how to do this, follow the [Teaming 2 Deployment Instructions \(http://www.novell.com/communities/node/8359/deployment-instructions-teaming-2\)](http://www.novell.com/communities/node/8359/deployment-instructions-teaming-2).

For background information about the Lucene\* index, see “[Understanding Indexing in Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide*.

- ♦ [Section 19.1, “Starting and Stopping the Lucene Index Server,”](#) on page 123
- ♦ [Section 19.2, “Changing Your Lucene Configuration,”](#) on page 123
- ♦ [Section 19.3, “Rebuilding the Lucene Index,”](#) on page 124
- ♦ [Section 19.4, “Performing Maintenance on a High Availability Lucene Index,”](#) on page 124

## 19.1 Starting and Stopping the Lucene Index Server

- ♦ [Section 19.1.1, “On Linux,”](#) on page 123
- ♦ [Section 19.1.2, “On Windows,”](#) on page 123

### 19.1.1 On Linux

Use the following commands to start and stop the Lucene Index Server manually:

```
/etc/init.d/indexserver start  
/etc/init.d/indexserver stop
```

### 19.1.2 On Windows

Use the following command at a DOS command prompt to start the Lucene Index Server manually:

```
c:\Program Files\Novell\Teaming\luceneserver\indexserver\bin\  
indexserver-startup.bat
```

To stop the Lucene Index Server, close the command prompt window where you started the Lucene Index Server.

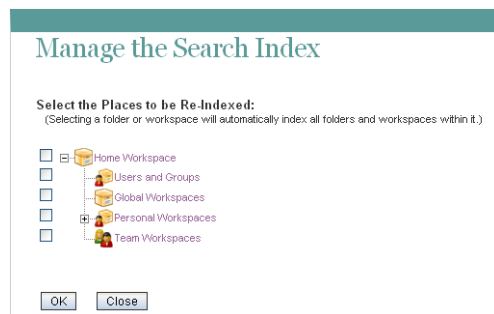
## 19.2 Changing Your Lucene Configuration

The default Lucene Index Server configuration is appropriate for a medium-sized Novell® Teaming site. If you have a larger Teaming site, you can change its Lucene Index Server configuration by rerunning the Teaming Installation program, selecting *Reconfigure Settings*, then selecting *Advanced*. For instructions, see “[Changing Your Lucene Index Server Configuration](#)” in “[Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide*.

## 19.3 Rebuilding the Lucene Index

The Lucene index provides access to all data in your Novell Teaming site. If it becomes damaged or out of date for some reason, you can rebuild it. Users might first notice a problem with the Lucene index if they cannot find information that they know should be available on the Teaming site. If you are running multiple Lucene Index servers, follow the instructions in [Section 19.4, “Performing Maintenance on a High Availability Lucene Index,”](#) on page 124.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration*, then click *Manage the Search Index*.



- 3 To reindex the entire Teaming site, select *Home Workspace*.  
Depending on the size of your Teaming site, this can be a very time-consuming process.  
or  
Select one or more parts of your Teaming site to reindex.
- 4 Click *OK* to start the indexing.  
Users can still access the Teaming site during the indexing process, but search results might not be accurate until the index has been completely rebuilt.  
A message notifies you when indexing is complete.

## 19.4 Performing Maintenance on a High Availability Lucene Index

If you have a high availability Lucene configuration, you can take one Lucene node out of service for maintenance while other Lucene nodes continue to operate. Then you can synchronize the out-of-date Lucene node with the current indexing data.

- 1 Log in to the Teaming site as the Teaming administrator.
- 2 Take the Lucene node that needs maintenance out of service:
  - 2a Click *Manage > Site Administration*.
  - 2b Expand *Manage the Search Index*, then click *Nodes*.

Lucene on Linux (LuceneLinux)

Host: 137.65.67.221  
RMI port: 1199

User Mode Access

Read and Write  
 Write Only  
 No Access

Enable Deferred Update Log

No Deferred Update Log Record Exists

---

Lucene on Windows (LuceneWindows)

Host: 137.65.67.222  
RMI port: 1199

User Mode Access

Read and Write  
 Write Only  
 No Access

Enable Deferred Update Log

No Deferred Update Log Record Exists

Apply Close

- 2c** Locate the node that needs maintenance in the list.
- 2d** Make sure that *Enable Deferred Update Log* is selected.
- 2e** In the *User Mode Access* box, change *Read and Write* to *Write Only*.
- 2f** Click *Apply*, then click *Close*.

The new setting is put into effect immediately, so that the Lucene node is no longer accessible to Teaming users.

- 3** Perform the needed maintenance on the Lucene server, then start the Lucene Index Server again.
- 4** Return the out-of-date Lucene node to full service:
  - 4a** Click *Manage > Site Administration*.
  - 4b** Expand *Manage the Search Index*, then click *Nodes*.

Lucene on Linux (LuceneLinux)

Host: 172.16.5.18  
RMI port: 1199

User Mode Access

Read and Write  
 Write Only  
 No Access

Enable Deferred Update Log

No Deferred Update Log Record Exists

---

Lucene on Windows (LuceneWindows)

Host: 172.16.5.19  
RMI port: 1199

User Mode Access

Read and Write  
 Write Only  
 No Access

Enable Deferred Update Log

Deferred Update Log Records Exist

Apply Deferred Update Log Records to the Index  
 Discard Deferred Update Log Records  
 Do Nothing

Apply Close

The out-of-date Lucene node is flagged with *Deferred Update Log Records Exist*.

The *User Mode Access* option shows *Read and Write* because this is the last selected setting. If you are checking the Tomcat `catalina.out` file, as described in “[Observing Lucene Node Activity](#)” in “[Multi-Server Configurations and Clustering](#)” in the *Novell Teaming 2.1 Installation Guide*, Teaming is not actually accessing the out-of-date Lucene node because it is out of sync with the Teaming site.

- 4c** Select *Apply Deferred Update Log Records to the Index*, then click *Apply*.

The Deferred Update Log options disappear if the update is successful.

**4d** Click *Close*.

The Lucene node that was out of service has now been updated with current indexing data.

# Backing Up Teaming Data

# 20

Reliable backups are critical to the stability of your Novell® Teaming site.

- ♦ [Section 20.1, “Locating Teaming Data to Back Up,”](#) on page 127
- ♦ [Section 20.2, “Scheduling and Performing Backups,”](#) on page 128
- ♦ [Section 20.3, “Restoring Teaming Data from Backup,”](#) on page 128
- ♦ [Section 20.4, “Manually Restoring Individual Files,”](#) on page 128

## 20.1 Locating Teaming Data to Back Up

In order to keep adequate backups of your Novell Teaming data, you must back up three types of data.

- ♦ [Section 20.1.1, “Teaming File Repository,”](#) on page 127
- ♦ [Section 20.1.2, “Teaming Database,”](#) on page 127
- ♦ [Section 20.1.3, “Lucene Index,”](#) on page 128

### 20.1.1 Teaming File Repository

---

Platform	Default Location
Linux:	<code>/var/opt/novell/teaming</code>
Windows:	<code>c:\Novell\Teaming</code>

---

For more information, see [“Distributing Different Data Types to Different Locations”](#) in [“Advanced Installation and Reconfiguration”](#) in the *Novell Teaming 2.1 Installation Guide*.

### 20.1.2 Teaming Database

---

Database Server	Default Linux Location	Default Windows Location
MySQL*	<code>/var/lib/mysql</code>	<code>c:\Documents and Settings\All Users\Application Data\MySQL\MySQL Server <i>version</i>\Data</code>
Microsoft SQL*	N/A	<code>c:\Program Files\Microsoft SQL Server\MSSQL\Data</code>
Oracle*	N/A	N/A

---

For more information, see [“Creating the Teaming Database on a Remote Server”](#) and [“Running Multiple Database Servers”](#) in [“Multi-Server Configurations and Clustering”](#) in the *Novell Teaming 2.1 Installation Guide*.

### 20.1.3 Lucene Index

---

Platform	Default Location
Linux:	<code>/var/opt/novell/teaming/lucene/zone_name</code>
Windows:	<code>c:\Program Files\Novell\Teaming\luceneserver</code>

---

For more information, see “[Moving the Lucene Index Server to a Remote Server](#)” and “[Running Multiple Lucene Index Servers](#)” in “[Multi-Server Configurations and Clustering](#)” in the *Novell Teaming 2.1 Installation Guide*.

## 20.2 Scheduling and Performing Backups

You do not need to bring your Novell Teaming site down in order to perform backups. You might want to back up the Teaming file repository and the Teaming database every night, perhaps doing a full backup once a week and incremental backups on other days. You can back up the Lucene index whenever it is convenient. You can always reindex the Teaming site in order to re-create the Lucene index, but being able to restore one from backup can save time in case of an outage.

## 20.3 Restoring Teaming Data from Backup

If you need to restore your Novell Teaming site from a backup, restoring the same backup version for both the file repository and the database creates a Teaming site that is consistent within itself but might be missing information that was added after the backups were created. If you lose the file repository but not the database, you can restore the backed-up file repository and keep the more current database, but some entries then have files that are missing from the file repository. If you lose the database but not the file repository, you can run a report to identify entries created since the last database backup, as described in [Section 21.1.4, “Content Modification Report,” on page 133](#). You can then notify the affected Teaming users that they need to re-create the entries that are not available in the backup.

## 20.4 Manually Restoring Individual Files

When a file or version is deleted from a Novell Teaming site, the file or version is transferred to the archive store subdirectory under the Teaming file repository directory.



You can monitor activity on your Novell® Teaming site by using Teaming reports and log files.

- ♦ [Section 21.1, “Generating Reports,” on page 129](#)
- ♦ [Section 21.2, “Using Log Files,” on page 138](#)
- ♦ [Section 21.3, “Checking the Teaming Site Software Version,” on page 140](#)

## 21.1 Generating Reports

Most Novell Teaming reports are created in CSV format, so that you can import them into a spreadsheet and easily manipulate the data to suit your needs. The default CSV filename is `report.csv`. If you create multiple reports without manually renaming them, the default filename is incremented (`report-n.csv`). The default location to save the report varies by platform:

Linux: `/tmp`

Windows: Your current Windows\* default directory

- ♦ [Section 21.1.1, “Login Report,” on page 129](#)
- ♦ [Section 21.1.2, “User Activity Report,” on page 131](#)
- ♦ [Section 21.1.3, “User Access Report,” on page 132](#)
- ♦ [Section 21.1.4, “Content Modification Report,” on page 133](#)
- ♦ [Section 21.1.5, “Data Quota Exceeded Report,” on page 135](#)
- ♦ [Section 21.1.6, “Data Quota Highwater Exceeded Report,” on page 136](#)
- ♦ [Section 21.1.7, “Disk Usage Report,” on page 137](#)
- ♦ [Section 21.1.8, “License Report,” on page 137](#)

### 21.1.1 Login Report

The Login report lists the Novell Teaming users who have logged in to the Teaming site during a specified period of time. In addition, it can include a dated list of every login by each user.

- 1 Log into the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration*.
- 3 Expand *Reports*, then click *Login Report*.

## Login Report

Generate a Report (Microsoft Excel CSV format) of login information for users.

Report on Activity Between April 26 2009 and May 26 2009

People

Summarize Login Entries  
Sort Report By: --none--

List All Login Entries  
Sort Report By: Login Date

- 4 Specify the date range for the Login report.
- 5 Leave the *People* field blank to list all user logins.  
or  
In the *People* field, start typing the first name of a Teaming user.
- 6 In the drop-down list of names that match what you have typed, select a user whose logins you want to be reported.
- 7 (Optional) Repeat [Step 5](#) and [Step 6](#) to include additional users in the report.
- 8 Select the type of User Activity report that you want to generate.  
**Summarize Login Entries:** Lists how many times the selected users have logged into the Teaming site. In the *Sort Report By* drop-down list, select *User*, *Last Login*, or *Number of Logins* to organize the data.  
**List All Login Entries:** Lists each individual user login and includes the following data about the action:
  - ◆ First name
  - ◆ Last name
  - ◆ Username
  - ◆ Date
  - ◆ TimeIn the *Sort Report By* drop-down list, select *Login Date* or *User* to organize the data most helpfully.
- 9 Click *OK* to generate the Login report.
- 10 Select a text editor to view the report in, then click *OK*.  
For a short report, you might obtain the information you need by viewing the CSV file.
- 11 (Optional) Save the CSV file with a meaningful name in a convenient location, then retrieve it into a spreadsheet program for further examination.

## 21.1.2 User Activity Report

The User Activity report lists how many times specified users have viewed, added, modified, or deleted content on the Novell Teaming site during a specified period of time. In addition, it can include the date and time of each action, along with the location of the action.

- 1 Log into the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration*.
- 3 Expand *Reports*, then click *Activity by User*.

The screenshot shows a dialog box titled "Activity By User". At the top, there is a date range selector: "Report on Activity Between" followed by a dropdown menu set to "April", a date field "22", a year field "2009", the word "and", another dropdown menu set to "May", a date field "22", and a year field "2009". Below this is a section labeled "Select the user names" with a text input field labeled "People" and a search icon. Underneath, there are two radio button options: "Activity Summary" (which is selected) and "Report Workspace or Folder Activity (view, add, modify, delete)". At the bottom of the dialog are "OK" and "Close" buttons.

- 4 Specify the date range for the User Activity report.
- 5 Leave the *People* field blank to list all user activity.  
or  
In the *People* field, start typing the first name of a Teaming user.
- 6 In the drop-down list of names that match what you have typed, select a user whose activity you want to be reported.
- 7 (Optional) Repeat [Step 5](#) and [Step 6](#) to include additional users.
- 8 Select the type of User Activity report that you want to generate.

**Activity Summary:** Lists how many times the selected users have performed the following actions in the Teaming site:

- ♦ View
- ♦ Add
- ♦ Edit
- ♦ Delete (purge)
- ♦ Pre-Delete (delete but not purge)
- ♦ Restore (restore a deleted item that has not been purged)

**Workspace or Folder Activity:** Lists each individual user action and includes the following data about the action:

- ♦ User
- ♦ Activity
- ♦ Date
- ♦ Time
- ♦ Folder

- ◆ Entry title
  - ◆ Entry type
- 9 Click *OK* to generate the User Activity report.
  - 10 Select a text editor to view the report in, then click *OK*.  
For a short report, you might obtain the information you need by viewing the CSV file.
  - 11 (Optional) Save the CSV file with a meaningful name in a convenient location, then retrieve it into a spreadsheet program for further examination.

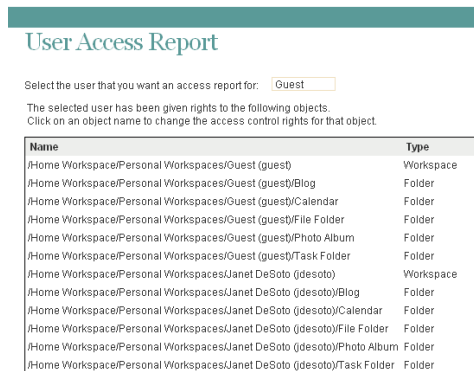
### 21.1.3 User Access Report

The User Access report lists the locations on the Novell Teaming site where a specified user has access rights. In addition, you can view, and if necessary, change or remove the access rights for any location. This report is especially useful on Teaming sites where Guest user access has been granted, as described in [Section 5.3, “Allowing Guest Access to Your Teaming Site,” on page 49](#).

- 1 Log into the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration*.
- 3 Expand *Reports*, then click *User Access Report*.

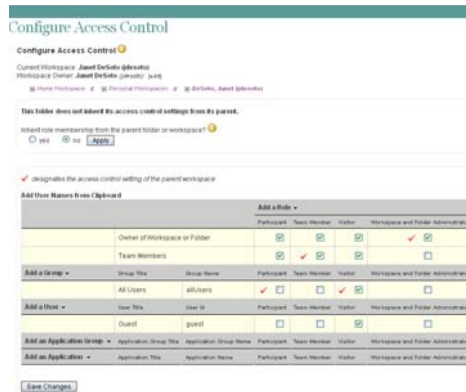


- 4 Start typing the first name of a Teaming user.
- 5 In the drop-down list of names that match what you have typed, select the user whose site access you want to be reported.



In this example, the Guest user has access to the Guest workspace and also to Janet DeSoto’s personal workspace. This could be appropriate if Janet DeSoto’s job is to maintain a publicly available workspace, but would not be appropriate if the Guest access has been granted in error.

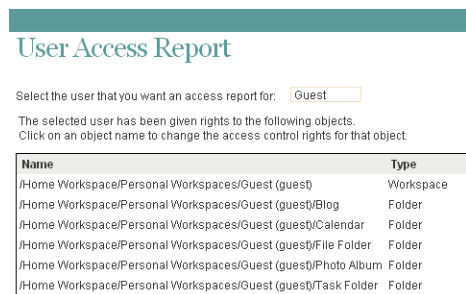
- 6 (Conditional) If you want to change the current access:
  - 6a Click the name of a location to display the Configure Access Control page for that location.



In this example, the Guest user has been granted Visitor access to Janet DeSoto's personal workspace.

- 6b** Select or deselect access rights as needed.
- 6c** Click *Save Changes*, then click *Close* to return to the User Access Report page
- 6d** Rerun the report to view the results of your changes.

For example, if you removed the Guest access rights from Janet DeSoto's personal workspace, her workspace is no longer listed in the User Access report for the Guest user.



- 7** (Conditional) If you want to save the user access information, you can block and copy it into a text editor.
- 8** Click *Close* when you are finished checking user access rights.

## 21.1.4 Content Modification Report

The Content Modification report lists changes to workspaces, folders, and folder entries, as well as users, groups, access rights, and workflows. By generating a Content Modification report, you can determine who has performed any of the following actions:

- ◆ Added, modified, moved, or deleted a workspace
- ◆ Added, modified, moved, or deleted a folder
- ◆ Added, modified, renamed, or deleted a file or one of its versions
- ◆ Added, modified, moved, or deleted an entry

For purposes of this report, users and groups are handled as if they are folder entries.

- ◆ Started or modified a workflow
- ◆ Modified or deleted access rights

The Content Modification report can also help you recover data that has been accidentally deleted.

- 1 Log into the Teaming site as the Teaming administrator.
- 2 Determine the exact name of the workspace, folder, file entry, and so on where you want to check for content modifications.
- 3 On the Workspace toolbar, click *Manage > Site Administration*.
- 4 Expand *Reports*, then click *Content Modification Log*.

The screenshot shows the 'Content Modification Log' interface. It has a teal header with the title. Below the title are two search panels. The left panel is titled 'Find a Folder or Workspace' and contains a text input field. The right panel is titled 'Find an Entry' and contains a text input field with the instruction 'Select a folder first'. Below these panels are three input fields: 'Binderid', 'Entityid', and 'EntityType'. The 'EntityType' field is a dropdown menu. Below these fields is a 'Filter by operation' dropdown menu set to '--show all changes--'. At the bottom are 'Apply' and 'Close' buttons.

- 5 Fill in the fields to specify where to check for content modifications and the type of modifications to check for:

**Find a Folder or Workspace:** Start typing the name of a folder or workspace. In the drop-down list of names that match what you have typed, select the folder or workspace where you want to check for content modifications. The internal ID of the folder or workspace is displayed for reference.

**Find an Entry:** (Optional) To restrict the content modification check to a specific entry in a folder, start typing text in the title of the entry. In the drop-down list of entry titles that match what you have typed, select the entry where you want to check for content modifications. The internal ID of the entry is displayed for reference.

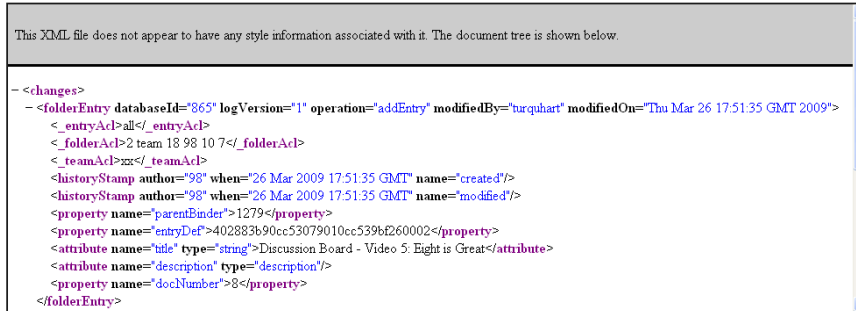
**Entity Type:** (Optional) To further restrict the content modification check, select one of the following:

- ◆ Workspace (not the contents of the workspace, but the workspace itself)
- ◆ Folder (not the contents of the folder, but the folder itself)
- ◆ Folder entry (the contents of the folder entry)
- ◆ Profiles (the contents of the Personal Workspaces folder where there is a personal workspace for each user)
- ◆ User (the contents of a user's personal profile, such as the user's name, e-mail address, and locale)
- ◆ Group (the contents of the group)

**Filter by Operation:** Further restrict the content modification check by selecting a specific action performed on the selected workspace, folder, or entry (add, modify, rename, delete, and so on).

- 6 Click *Apply* to generate the Content Modification report.

The results are displayed as an XML file.



This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
- <changes>
- <folderEntry databaseId="865" logVersion="1" operation="addEntry" modifiedBy="turquhart" modifiedOn="Thu Mar 26 17:51:35 GMT 2009">
  <_entryAcl>all</_entryAcl>
  <_folderAcl>2 team 18 98 10 7</_folderAcl>
  <_teamAcl>xxx</_teamAcl>
  <historyStamp author="98" when="26 Mar 2009 17:51:35 GMT" name="created"/>
  <historyStamp author="98" when="26 Mar 2009 17:51:35 GMT" name="modified"/>
  <property name="parentBinder">1279</property>
  <property name="entryDef">402883b90cc53079010cc539bf260002</property>
  <attribute name="title" type="string">Discussion Board - Video 5: Eight is Great</attribute>
  <attribute name="description" type="description"/>
  <property name="docNumber">8</property>
</folderEntry>
```

- 7 (Conditional) If the results are too extensive, restrict the scope of the content modification check until you locate the modification that you are seeking.

- 8 Click *Close* when you are finished checking for content modifications.

A specialized use of the Content Modification report is to restore accidentally deleted data. For example, you can use the following steps to recover an accidentally deleted folder entry:

- 1 Run the Content Modification report to list all entry deletions in the folder where the entry was accidentally deleted.
- 2 Record the entry ID of the deleted entry.
- 3 Run the Content Modification report on the entry ID, selecting *folder entry* in the *Entity Type* field.
- 4 Use the modification history of the entry to reconstruct the accidentally deleted entry.

### 21.1.5 Data Quota Exceeded Report

The Data Quota Exceeded report lists individual users who have exceeded the data quota. The report provides a spreadsheet with the following information for each user:

- ♦ **Data Quota Used (MB):** Displays the amount of disk space the user is currently using.
- ♦ **Data Quota:** Displays the user's individual quota if one has been set.  
For information on how to set a quota for individual users, see [Section 15.5.2, "Setting Data Quotas,"](#) on page 99.
- ♦ **Max Group Quota (MB):** Displays the largest data quota for any group that the user is a member of. Users are assigned the highest of all data quotas for any group for which they are a member.
- ♦ **Default Data Quota (MB):** Displays the site-wide default quota.  
For information on how to set a default data quota, see [Section 15.5.2, "Setting Data Quotas,"](#) on page 99.

To generate the Data Quota Exceeded report:

- 1 Log into the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration*.
- 3 Expand Reports, then click *Data Quota Exceeded Report*.



- 4 Click *OK* to generate the report.  
The report is launched in a spreadsheet.

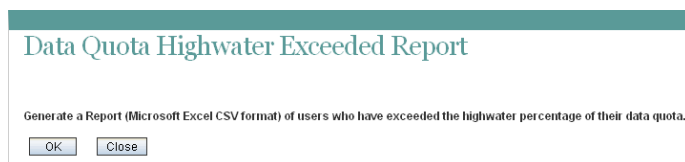
## 21.1.6 Data Quota Highwater Exceeded Report

The Data Quota Highwater Exceeded report lists individual users who have exceeded the data quota highwater mark. The report provides the following information for each user:

- ♦ **Data Quota Used (MB):** Displays the amount of disk space the user is currently using.
- ♦ **Data Quota:** Displays the user's individual quota if one has been set.  
For information on how to set a quota for individual users, see [Section 15.5.2, "Setting Data Quotas,"](#) on page 99.
- ♦ **Max Group Quota (MB):** Displays the largest data quota for any group that the user is a member of. Users are assigned the highest of all data quotas for any group for which they are a member.
- ♦ **Default Data Quota (MB):** Displays the site-wide default quota.  
For information on how to set a default data quota, see [Section 15.5.2, "Setting Data Quotas,"](#) on page 99.

To generate the Data Quota Highwater Exceeded report:

- 1 Log into the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration*.
- 3 Expand Reports, then click *Data Quota Highwater Exceeded Report*.



- 4 Click *OK* to generate the report.  
The report is launched in a spreadsheet.



## 21.1.7 Disk Usage Report

The Disk Usage report lists the amount of disk space for workspaces on the Novell Teaming site by user, by workspace, or by both. In addition, you can restrict the reporting to only those workspaces that exceed a specified number of megabytes.

- 1 Log into the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration*.



- 3 Expand Reports, then click *Disk Usage Report*.
- 4 Select the type of Disk Usage report that you want to generate.

**Total Usage by User:** Lists all Teaming users whose disk space usage is above the amount specified in the *Usage Greater Than* field.

**Total Usage by Workspace:** Lists all workspaces where disk space usage is above the amount specified in the *Usage Greater Than* field. Disk space usage for each folder in each workspace is listed separately. The data is organized by workspace and folder ID.

**Total Usage by Both User and Workspace:** Combines the user and workspace data into a single report.

**Usage Greater Than:** Specify the number of megabytes above which you want to list disk space usage. This eliminates smaller disk space usages from the report.

- 5 Click *OK* to generate the Disk Usage report.
- 6 Select a text editor to view the report in, then click *OK*.  
For a short report, you might obtain the information you need by viewing the CSV file.
- 7 (Optional) Save the CSV file with a meaningful name in a convenient location, then retrieve it into a spreadsheet program for further examination.
- 8 Click *Close* when you are finished checking disk space usage.

## 21.1.8 License Report

The License report lists the amount of disk space for workspaces on the Novell Teaming site by user, by workspace, or by both. In addition, you can restrict the reporting to only those workspaces that exceed a specified number of megabytes.

- 1 Log into the Teaming site as the Teaming administrator.
- 2 On the Workspace toolbar, click *Manage > Site Administration*.
- 3 Expand *Reports*, then click *License Report*.

## License Report

Generate a Report of License Information.

Report on Activity Between April 28 2009 and May 28 2009

#### 4 Specify the date range for the License report, then click *OK*.

The License report lists the following information:

- ◆ Teaming version
- ◆ License key type
- ◆ Date the license key was issued
- ◆ Date range when the license key is valid
- ◆ Maximum number of logged-in users during the date range (high-water mark)
- ◆ Current user count
- ◆ List of dates in the date range with the number of local users and number of users synchronized from LDAP.

The Teaming software does not limit the number of Teaming users that you can create, but sites where Teaming licenses have been purchased and the Teaming software installed are periodically audited against their purchased number of licenses.

The Teaming with Guest Access License is not displayed on this page. However, the Guest user feature described in [Section 5.3, “Allowing Guest Access to Your Teaming Site,” on page 49](#) must be purchased in addition to the Standard Teaming license if you are using Guest user for non-registered Teaming users. If you are using Guest user only for registered users, then you do not need to purchase a new license to use the Guest user feature. For more information, see “[Updating Your Teaming License](#)” in the *Novell Teaming 2.1 Installation Guide*.

#### 5 Click *Close* when you are finished reviewing the License report.

For instructions to install a new Teaming license, see “[Updating Your Teaming License](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

## 21.2 Using Log Files

- ◆ [Section 21.2.1, “Teaming Log File,” on page 138](#)
- ◆ [Section 21.2.2, “Tomcat Log File,” on page 139](#)

### 21.2.1 Teaming Log File

The Novell Teaming log file (`ssf.log`) is available from the Teaming site.

- 1 Log in as the Teaming site administrator.
- 2 Click *Manage > Site Administration*, then expand *Reports*.
- 3 Click *System Error Logs*.

You are prompted to open or save a file named `logfiles.zip`, which contains the current `ssf.log` file. This file contains any stack traces or warning messages because of unexpected events encountered by the Teaming program.

#### 4 Save the `ssf.log` file to a convenient location on the Teaming server.

This file is helpful when you need assistance resolving a problem with your Teaming site.

The Teaming log file is also available in the following directory of your Teaming installation:

Linux: `/opt/novell/teaming/apache-tomcat-version/webapps/ssf/WEB-INF/logs`

Windows: `c:\Program Files\Novell\Teaming\apache-tomcat-version\webapps\ssf\WEB-INF\logs`

This is helpful if Teaming does not start.

## 21.2.2 Tomcat Log File

In addition to the Novell Teaming error log file (`ssf.log`), the Tomcat error log file (`catalina.out` on Linux\* and `stdout_*.log` on Windows when Teaming runs as a service) is also useful. The Tomcat log file contains more information than the Teaming log file, because it includes problems encountered by Tomcat outside of the Teaming application itself. The location of the Tomcat log file varies by platform:

Linux: `/opt/novell/teaming/apache-tomcat-version/logs`

Windows: `c:\Program Files\Novell\Teaming\apache-tomcat-version\logs`

---

**NOTE:** When Teaming and Tomcat run as a Windows application, rather than as a Windows service, the information displayed in the command prompt window where you started Teaming is your only source of information. The data displayed in the command prompt window is not logged by Tomcat on Windows.

---

The Tomcat log file provides the following useful information:

- ◆ At the top, the Tomcat log file lists Tomcat startup messages.
- ◆ The System Properties section lists information about the supporting software packages that Tomcat relies on (for example, Java) and information about their current location and configuration.
- ◆ The System Environment section lists the currently set environment variables (for example, `HOSTNAME`, `PATH`, and `JAVA_HOME`).
- ◆ Exception and error data includes sufficient information for you to determine what user was trying to perform what action in what location on the Teaming site, to help you isolate and reproduce the problem.

---

**NOTE:** If your Teaming site was originally installed as a Teaming 2.0 site, the root of your site is referred to as `org.kablinc` in the Tomcat error log. If you updated from a Teaming 1.0 site or a Teaming 2.0 beta site, the root of your site is referred to as `com.liferay`.

---

This file is helpful when you need assistance resolving a problem with your Teaming site.

## Adjusting the Log Level for the Tomcat Log File

The log levels for various Tomcat functions are set in the `log4j.properties` file. Each type of information that is logged can have a log level of INFO, WARN, ERROR, FATAL, or DEBUG, depending on the type and quantity of information that you want logged. Some lines in the `log4j.properties` file are commented out with a pound sign (#), so that no information of that type is gathered. You can change the log level for each type of information and comment or uncomment lines to adjust the information gathered in the Tomcat log file to meet your troubleshooting needs.

- 1 Open the `log4j.properties` file in a text editor.

The location of the `log4j.properties` file varies by platform.

Linux: `/opt/novell/teaming/apache-tomcat-version/webapps/ssf/WEB-INF`

Windows: `c:\Program Files\Novell\Teaming\apache-tomcat-version\`  
`webapps\ssf\WEB-INF`

- 2 Change log level settings as needed for the type of information you want to gather.
- 3 Comment or uncomment lines, depending on the type of information you want to gather.
- 4 Save the `log4j.properties` file, then exit the text editor.
- 5 Stop Teaming, then start Teaming to put the new logging level into effect.

## 21.3 Checking the Teaming Site Software Version

To display the version number and software date of the Teaming software:

- 1 Log in to the Teaming site as the Teaming administrator
- 2 Click *Manage > Site Administration*.

The Teaming software version and date are displayed above the *Administration* menu.

# Reconfiguring the Teaming Site

# 22

Many aspects of your Teaming site can be changed when you are logged in to the Teaming site as the Teaming administrator. Some aspects of reconfiguring the Teaming site require you to rerun the Teaming Installation program, as described in “[Setting Configuration Options after Installation](#)” in “[Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide*.

The configuration settings that can be changed using a Basic Installation are:

- Location of TrueType Fonts for Stellant Converters

- Default Locale for Novell Teaming

- Network Information

  - Host

  - HTTP Port and Secure HTTP Port

  - Listen Port and Secure Listen Port

  - Shutdown Port and AJP Port

- Database Selection

  - Database Type

  - JDBC URL

  - Credentials

- Java JDK Location

  - Java Heap Size

- Outbound E-Mail Configuration

  - Protocol

  - Host, Port, and Time Zone

  - Username, Password, and Authentication

  - Allow Sending E-Mail to All Users

- Inbound E-Mail Configuration

  - Internal SMTP E-Mail Server

  - SMTP Bind Address

  - SMTP Port

  - Announce TLS

For information about these basic configuration options, see “[Planning a Basic Teaming Installation](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

An Advanced Installation includes the options available in a Basic Installation, as well as the following additional options:

- Web Services

  - Enable WSS Authentication

  - Enable Basic Authentication

  - Enable Token-Based Authentication

  - Enable Anonymous Access

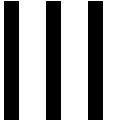
- Lucene Configuration

- RSS Configuration

- Max Elapsed Days
- Max Inactive Days
- Presence Configuration
- Reverse Proxy Configuration
  - Access Gateway Address
  - Logout URL
  - WebDAV Access Gateway Address
- Mirrored Folder Resource Driver Configuration
- Teaming Cluster Configuration

For information about these advanced configuration options, see “[Planning an Advanced Teaming Installation](#)” in “[Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide*.

# Interoperability



Novell® Teaming can be used in conjunction with various other software products. By incorporating these products into your Teaming system, you can add functionality, increase security, and maximize the value of Teaming.

- ♦ [Chapter 23, “Novell Access Manager,” on page 145](#)
- ♦ [Chapter 24, “WebDAV Servers,” on page 147](#)
- ♦ [Chapter 25, “Novell GroupWise,” on page 149](#)
- ♦ [Chapter 26, “Novell Conferencing,” on page 151](#)
- ♦ [Chapter 27, “Skype,” on page 153](#)
- ♦ [Chapter 28, “Twitter and Other Remote Applications,” on page 155](#)
- ♦ [Chapter 29, “YouTube,” on page 157](#)





# Novell Access Manager

# 23

Using Novell® Teaming in conjunction with Novell Access Manager adds enterprise-level security to your Teaming system.

For information on how to configure Novell Teaming to work with Novell Access Manager, see “[Configuring a Protected Resource for a Novell Teaming 2.0 Server](#)” in the *Novell Access Manager 3.1 SPI Access Gateway Guide*.



Novell® Teaming enables direct access from the Teaming site to files that are stored on WebDAV servers.

- ♦ [Section 24.1, “Accessing WebDav Files from within Teaming,” on page 147](#)
- ♦ [Section 24.2, “Attaching WebDAV Files to a Teaming Entry,” on page 147](#)
- ♦ [Section 24.3, “Viewing Teaming Folders in a WebDAV Interface,” on page 147](#)
- ♦ [Section 24.4, “Using WebDAV with Windows 7,” on page 147](#)

## 24.1 Accessing WebDav Files from within Teaming

For information on how to access your WebDAV files from within Teaming, see [“Accessing WebDAV Files from within Teaming”](#) in the *Novell Teaming 2.1 User Guide*.

## 24.2 Attaching WebDAV Files to a Teaming Entry

Teaming enables you to attach files that are contained on a WebDAV server to an entry in your Teaming site, as described in [“Accessing Attachments Through WebDAV \(Supported Environments Only\)”](#) in [“Attaching Files to a Folder Entry”](#) in the *Novell Teaming 2.1 User Guide*.

## 24.3 Viewing Teaming Folders in a WebDAV Interface

Teaming enables you to work with Teaming pages within a WebDAV interface. This is useful if you prefer working in a WebDAV environment.

For information on how to view Teaming folders in a WebDAV interface, see [“Accessing Files Through WebDAV”](#) in [“Accessing WebDAV Files from within Teaming”](#) in the *Novell Teaming 2.1 User Guide*.

## 24.4 Using WebDAV with Windows 7

Because of WebDAV limitations in Windows 7, when Teaming users are running Windows 7 as the client operating system while using Microsoft Office as their document editor, various issues can be introduced.

The following sections describe whether or not WebDAV functionality is available with your document editor and your HTTP/HTTPS preference.

- ♦ [Section 24.4.1, “Editing Files with Edit-in-Place with Windows 7,” on page 148](#)
- ♦ [Section 24.4.2, “Mapping Teaming Folders with Windows 7,” on page 148](#)

## 24.4.1 Editing Files with Edit-in-Place with Windows 7

On Windows 7, Teaming 2.1 and earlier supports the following document editors:

- ◆ Microsoft Office 2003 or earlier
- ◆ OpenOffice 3.1 or later

For more information, see “TID 7006717: Document Editing Failure with Windows 7 and Microsoft Office” in the [Novell Support Knowledgebase](http://www.novell.com/support) (<http://www.novell.com/support>).

For information about how to edit files in Teaming, see “[Editing Attached Files](#)” in the *Novell Teaming 2.1 User Guide*.

## 24.4.2 Mapping Teaming Folders with Windows 7

When mapping Teaming folders on Windows 7 you must use the Map Network Drive feature. (The Add Network Place feature is not supported.) You must have HTTPS (secure) access.

For information on how to discover the WebDAV URL for a Teaming folder, see “[Accessing WebDAV from a Folder](#)” in the *Novell Teaming 2.1 User Guide*.

# Novell GroupWise

# 25

When you use Novell® Teaming 2.0 or later together with GroupWise®, some configuration steps are required to integrate the applications, as described in “[Configuring GroupWise for Use with Novell Teaming](#)” in the *GroupWise 8 Interoperability Guide*:

- ◆ “[Using GroupWise as the Teaming E-Mail System](#)”
- ◆ “[Enabling GroupWise/Teaming Integration for GroupWise Windows Client Users](#)”
- ◆ “[Accessing Your Teaming Site from the GroupWise Client](#)”



# Novell Conferencing

# 26

When you use Novell® Teaming together with Novell Conferencing, Teaming users can easily set up instant conferencing meetings with other Teaming users, as described in [Using Novell Conferencing with Novell Teaming](#) in “[Connecting With Your Co-Workers](#)” in the *Novell Teaming 2.1 User Guide*.

For setup instructions, see “[Configuring Presence](#)” in “[Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide*.





# Skype

# 27

Novell® Teaming enables you to integrate with Skype®, so Teaming users can easily set up instant Skype meetings with other Teaming users, as described in “[Using Skype From within Teaming](#)” in the *Novell Teaming 2.1 User Guide*.

Before users can use Skype from within Teaming, Teaming administrators must enable this functionality. For instructions on how to set up Teaming to work with Skype, see [Section 7.2, “Integrating Skype with Teaming,”](#) on page 57.



# Twitter and Other Remote Applications

# 28

Novell® Teaming enables you to incorporate third-party products such as Twitter into Teaming, through the use of remote applications.

For information on how to incorporate existing remote applications into your Teaming site, see [Chapter 10, “Using Remote Applications on Your Teaming Site,” on page 65](#).



# YouTube

# 29

Novell® Teaming enables you to display YouTube\* videos directly from the Teaming site. This functionality is enabled by default and does not need to be activated by a Teaming administrator.

For more information about how to display YouTube videos in the Teaming site, see “[Displaying YouTube Videos in a Folder Entry](#)” in the *Novell Teaming 2.1 User Guide*.



# Site Security

# IV

- ♦ [Chapter 30, “Security Administration,” on page 161](#)
- ♦ [Chapter 31, “Security Policies,” on page 173](#)





SSL (Secure Socket Layer) and TLS (Transport Layer Security) can be used to secure the connections between your Novell® Teaming site and other network services.

- ♦ [Section 30.1, “Securing LDAP Synchronization,” on page 161](#)
- ♦ [Section 30.2, “Securing E-Mail Transfer,” on page 163](#)
- ♦ [Section 30.3, “Securing HTTP Browser Connections,” on page 163](#)

## 30.1 Securing LDAP Synchronization

If your LDAP directory service requires a secure LDAP connection (LDAPS), you must configure Teaming with a root certificate. The root certificate identifies the root certificate authority (CA) for your Teaming site, which enables you to generate a self-signed root certificate based on your eDirectory™ tree.

- ♦ [Section 30.1.1, “Understanding How Teaming Uses the Root Certificate for Your eDirectory Tree,” on page 161](#)
- ♦ [Section 30.1.2, “Generating a Root Certificate in ConsoleOne,” on page 161](#)
- ♦ [Section 30.1.3, “Importing the Root Certificate into the Java Keystore,” on page 162](#)

### 30.1.1 Understanding How Teaming Uses the Root Certificate for Your eDirectory Tree

You can generate a root certificate for your eDirectory tree using either ConsoleOne® or iManager, then you import the root certificate into the Java keystore file (`cacerts`) on the Teaming server to make it accessible to Teaming. The default location for the Java keystore file is:

Linux: `/usr/java/jdkversion/jre/lib/security`

Windows: `c:\Program Files\Java\jdkversion\jre\lib\security`

---

**NOTE:** For iManager instructions, see “TID 3176104: How to Enable SSL for Teaming LDAP Synchronization and Authentication” in the [Novell Support Knowledgebase \(http://www.novell.com/support\)](http://www.novell.com/support). If you are using Active Directory\* rather than eDirectory, consult your Active Directory documentation for a procedure comparable to the one provided in [Generating a Root Certificate in ConsoleOne](#).

---

### 30.1.2 Generating a Root Certificate in ConsoleOne

- 1 On Linux or Windows, start ConsoleOne and authenticate to your eDirectory tree.
- 2 Expand the Security container, right-click the `Tree_Name` CA object, then click *Properties*.
- 3 Click *Certificates > Self Signed Certificate*.
- 4 Click *Validate* to update the certificate status, then click *OK* to close the Certificate Validation dialog box.

- 5 Click *Export* to export your eDirectory root certificate into a file that can be imported into the Java keystore file.
  - 6 Click *Next* to accept the default of `No` for exporting a private key file along with the root certificate.
  - 7 Select the output format for the root certificate file.  
Either DER or Base64 format can be imported into the Java keystore file.
  - 8 In the *Filename* field, specify the location where you want to create the root certificate file and the filename to use, such as `SelfSignedRootCert.der`.
- 
- IMPORTANT:** You need to be able to access this file from the Teaming server. Specify an accessible location or copy it to the Teaming server after you create it.
- 
- 9 Click *Next* to display a summary of the options you have selected, then click *Finish* to generate the root certificate file.
  - 10 Click *Cancel* to close the Self Signed Certificate properties page of the *Tree\_Name* CA object.
  - 11 Exit ConsoleOne.
  - 12 (Conditional) If necessary, copy the root certificate file to a convenient location on the Teaming server.

### 30.1.3 Importing the Root Certificate into the Java Keystore

- 1 On the Teaming server, make sure that you have access to the root certificate file.
- 2 Make sure that you can access the `keytool` tool:

Linux: `/usr/java/jdkversion/bin/keytool`

Windows: `c:\Program Files\Java\jdkversion\bin\keytool.exe`

For convenient use, you might need to add its location to the `PATH` environment variable.

- 3 Use the following command to import the root certificate into the Java keystore:

```
keytool -import -alias ldap_server_dns_name
        -keystore path_to_java_keystore_file
        -file root_certificate_file
```

For example:

```
keytool -import -alias ldapserver.yourcompanyname.com
        -keystore /usr/java/jdkversion/jre/lib/security/cacerts
        -file /certs/SelfSignedRootCert.der
```

- 4 When prompted, specify a password for the root certificate, then confirm the password.

---

**IMPORTANT:** The default password used by Tomcat is `changeit`. If you want to specify a password other than this, then you must also specify this password in the `server.xml` Tomcat configuration file, as described in [“Changing Your Password for the Keystore File” on page 165](#).

Do not forget the password you specify.

---

- 5 Enter `yes` to accept the certificate import.

- 6 Use the following command to verify that the root certificate has been imported into the Java keystore:

```
keytool -list -keystore path_to_java_keystore_file
```

- 7 Enter the root certificate password to list the root certificate information.
- 8 Restart Teaming so that Tomcat rereads the updated Java keystore file.

You are now ready to configure your Teaming site for secure LDAP synchronization, as described in [“Adding Teaming Users from Your LDAP Directory”](#) in [“Basic Installation”](#) in the *Novell Teaming 2.1 Installation Guide*.

## 30.2 Securing E-Mail Transfer

When you install Novell Teaming, you can choose whether or not the Teaming internal mail host uses TLS (Transport Layer Security) when it communicates with other SMTP mail hosts. For more information, see [“Inbound E-Mail Security”](#) in [“Basic Installation”](#) in the *Novell Teaming 2.1 Installation Guide*.

If your Teaming site needs to send e-mail messages to an e-mail system that requires secure SMTP (SMTPS), the Teaming site must have the same type of root certificate that is required for secure LDAP (LDAPS). If you have not already set up secure LDAP for your Teaming site, you can follow the instructions in [Section 30.1, “Securing LDAP Synchronization,”](#) on page 161 to set up secure SMTP for communications with your e-mail system.

## 30.3 Securing HTTP Browser Connections

Using secure HTTP (HTTPS) improves the security of your Novell Teaming site. During installation, you can choose to configure your Teaming site for HTTP or HTTPS. After installation, you can force secure HTTP connections.

- ♦ [Section 30.3.1, “Preparing for Secure HTTP Connections,”](#) on page 163
- ♦ [Section 30.3.2, “Implementing Secure HTTP Connections,”](#) on page 168
- ♦ [Section 30.3.3, “Forcing Secure HTTP Connections,”](#) on page 169
- ♦ [Section 30.3.4, “Defaulting to Secure HTTP URLs in Teaming Links,”](#) on page 171

### 30.3.1 Preparing for Secure HTTP Connections

If you want users to access the Teaming site with a secure HTTP connection, you must configure Teaming with a root certificate and a server certificate. The root certificate identifies the root certificate authority (CA) for your Teaming site. The server certificate is customized for the specific server where Teaming is installed.

- ♦ [“Understanding How Teaming Handles Certificates”](#) on page 164
- ♦ [“Creating a New Keystore File”](#) on page 164
- ♦ [“Generating a Certificate Signing Request”](#) on page 166
- ♦ [“Submitting the Certificate Signing Request to a Certificate Authority \(CA\)”](#) on page 166
- ♦ [“Using the Certificate Signing Request to Generate a Self-Signed Certificate”](#) on page 166

- ♦ [“Importing the Certificate Files into the Teaming Keystore” on page 168](#)
- ♦ [“Replacing the Original Teaming Keystore File with Your Permanent Keystore File” on page 168](#)

## Understanding How Teaming Handles Certificates

Novell Teaming uses a keystore to store certificates. The default keystore file that is installed along with Teaming is:

```
Linux:      /opt/novell/teaming/apache-tomcat-version/conf/.keystore
Windows:   c:\Program Files\Novell\Teaming\
           apache-tomcat-version\conf\.keystore
```

The original certificate in the default keystore is sufficient for you to set up secure HTTP connections during initial installation, but it is self-signed and expired, so you cannot use it permanently. Soon after installation, you must obtain a permanent certificate. You can use a commercially signed certificate or a self-signed certificate. There are advantages and disadvantages to each approach.

- ♦ **Commercially Signed Certificate:** The advantage to using a certificate signed by a commercial certificate authority (CA) is that browsers automatically accept these certificates. The disadvantage is that an additional step is required, with some wait time while you obtain the commercially signed certificate.
- ♦ **Self-Signed Certificate:** The advantage to using a self-signed certificate is that it is quick and easy for you to do as the Teaming administrator. The disadvantage is that users receive a warning in the browser about the self-signed certificate the first time they access the Teaming site using secure HTTP. Users must manually accept the self-signed certificate, then the warning never occurs again.

After you obtain your permanent certificate, you can store it in the default Teaming keystore, or in a location of your own choosing. Teaming reads the location of its keystore from the following file:

```
Linux:      /opt/novell/teaming/apache-tomcat-version/conf/server.xml
Windows:   c:\Program Files\Novell\Teaming\
           apache-tomcat-version\conf\server.xml
```

If you do not want to use the default keystore location, you must update the `server.xml` file to match the location you choose for your keystore.

## Creating a New Keystore File

You cannot update the Teaming `.keystore` file that is provided during installation. Instead, you must create a new `.keystore` file, then import your signed certificate into it.

- 1 Create a new directory where you want to create the new `.keystore` file, such as a `certs` directory in a convenient location.
- 2 Change to the new `certs` directory.
- 3 Make sure that you can access the `keytool` tool:

Linux:        /usr/java/jdkversion/bin/keytool

Windows:    c:\Program Files\Java\jdkversion\bin\keytool.exe

For convenient use, you might need to add its location to the PATH environment variable.

- 4 Use the following command to create a new `.keystore` file:

```
keytool -genkey -alias tomcat -keyalg RSA -keystore .keystore
```

- 5 When prompted, specify a password for the new `.keystore` file, then confirm the password.

---

**IMPORTANT:** The default password used by Tomcat is `changeit`. If you want to specify a password other than this, then you must also specify this password in the `server.xml` Tomcat configuration file, as described in [“Changing Your Password for the Keystore File” on page 165](#).

Do not forget the password you specify.

---

- 6 When prompted for your first and last name, specify the fully qualified DNS name of the Teaming server, such as `teaming.yourcompanyname.com`.

You are then prompted for additional information about your organization:

- ♦ Organizational unit
- ♦ Organization
- ♦ City or locality
- ♦ State or province
- ♦ Two-letter country code

- 7 (Conditional) If you are planning to obtain a your certificate from a commercial certificate authority (CA), respond to the additional information prompts with accurate information appropriate to your organization.

or

(Conditional) If you are planning to generate a self-signed certificate, press `Enter` to skip through the prompts.

- 8 When prompted whether the information you provided is correct, enter `yes`.
- 9 Press `Enter` to use the same password that you specified in [Step 5](#) as the key password for Tomcat.
- 10 List the files in the `certs` directory to see that a new `.keystore` file has been created.

## Changing Your Password for the Keystore File

If you want to specify a password other than `changeit` for your `.keystore` file, as described in [Step 5](#) in [“Creating a New Keystore File” on page 164](#), then you must also specify this password in the `server.xml` Tomcat configuration file.

- 1 Change to the following directory:

Linux:        /opt/novell/teaming/apache-tomcat/conf

Windows:    c:\Program Files\Novell\Teaming\apache-tomcat\conf

- 2 Open the `server.xml` file in a text editor.
- 3 Locate the `keystorePass` attribute, then change the value of this attribute to your new password.
- 4 Save and close the `server.xml` file.

## Generating a Certificate Signing Request

- 1 Use the following command to create a Certificate Signing Request (CSR):

```
keytool -certreq -alias tomcat -keyalg RSA
        -file certreq.csr -keystore .keystore
```
- 2 Enter the keystore password to create the CSR.
- 3 List the files in the `certs` directory to see that a new `certreq.csr` file has been created along with the existing `.keystore` file.
- 4 Use the `certreq.csr` file to obtain a signed certificate.:
  - 4a To use a commercial certificate authority (CA), continue with [“Submitting the Certificate Signing Request to a Certificate Authority \(CA\)”](#) on page 166.
  - or
  - 4b To use a self-signed certificate, skip to [“Using the Certificate Signing Request to Generate a Self-Signed Certificate”](#) on page 166.

## Submitting the Certificate Signing Request to a Certificate Authority (CA)

You can find a commercial certificate authority (CA) on the Internet by searching for “certificate authority.” The process of obtaining a signed certificate varies from company to company. Each company provides instructions to assist you.

The certificate authority (CA) sends you a set of certificate files that you import into the Teaming keystore. You must import all of the files that you receive. Place the certificate files in a convenient location on the Teaming server, then skip to [“Importing the Certificate Files into the Teaming Keystore”](#) on page 168.

## Using the Certificate Signing Request to Generate a Self-Signed Certificate

If you do not want to wait to receive your signed certificate from a commercial certificate authority (CA), you can generate your own self-signed certificate using ConsoleOne® or iManager. You must generate both a self-signed eDirectory™ root certificate file and a server certificate file.

- ♦ [“Generating a Self-Signed Root Certificate File in ConsoleOne”](#) on page 167
- ♦ [“Generating a Self-Signed Server Certificate File in ConsoleOne”](#) on page 167

---

**NOTE:** For iManager instructions, see “TID 7001857: Adding SSL Certificates to Teaming for HTTPS” in the [Novell Support Knowledgebase \(http://www.novell.com/support\)](http://www.novell.com/support). If you are using Active Directory rather than eDirectory, consult your Active Directory documentation for a procedure comparable to the one provided in [Using the Certificate Signing Request to Generate a Self-Signed Certificate](#).

---

## Generating a Self-Signed Root Certificate File in ConsoleOne

A root certificate identifies the root certificate authority (CA) for your Teaming site. In this case, eDirectory is acting as the root certificate authority.

- 1 On Linux or Windows, start ConsoleOne and authenticate to your eDirectory tree.
- 2 Expand the Security container, right-click the *Tree\_Name* CA object, then click *Properties*.
- 3 Click *Certificates > Self Signed Certificate*.
- 4 Click *Validate* to update the certificate status, then click *OK* to close the Certificate Validation dialog box.
- 5 Click *Export* to export your eDirectory root certificate into a file that can be imported into the Teaming keystore file.
- 6 Click *Next* to accept the default of `No` for exporting a private key file along with the root certificate.
- 7 Select the output format for the root certificate file.  
Either DER or Base64 format can be imported into the Teaming keystore file.
- 8 In the *Filename* field, specify the location (the `certs` directory where you created the Certificate Signing Request) and the filename to use, such as `SelfSignedRootCert.der`.
- 9 Click *Next* to display a summary of the options you have selected, then click *Finish* to generate the root certificate file.
- 10 Click *Cancel* to close the Self Signed Certificate properties page of the *Tree\_Name* CA object.
- 11 Continue with [Generating a Self-Signed Server Certificate File in ConsoleOne](#)

## Generating a Self-Signed Server Certificate File in ConsoleOne

A server certificate is customized for the specific server where Teaming is installed.

- 1 Click *Tools > Issue Certificate*.
- 2 Browse to and select the `certreq.csr` file that you created in the `certs` directory, then click *Next*.  
This retrieves the contents of the CSR file into the CSR window.
- 3 Click *Next* to accept the default of using an organization certificate authority.
- 4 Select *SSL or TLS* as the type of server certificate that you need, then click *Next*.
- 5 Select the validity period you want for the server certificate, then click *Next*.
- 6 Review the information that you have provided, then click *Finish*.
- 7 Select the output format for the server certificate file.  
Either DER or Base64 format can be imported into the Teaming keystore file.
- 8 In the *Filename* field, specify the location (the `certs` directory where you created the Certificate Signing Request) and the filename to use, such as `SelfSignedServerCert.der`.
- 9 Click *Save* to create the public-key certificate file.
- 10 Exit ConsoleOne.

---

**NOTE:** For iManager instructions, see “TID 7001857: Adding SSL Certificates to Teaming for HTTPS” in the [Novell Support Knowledgebase \(http://www.novell.com/support\)](http://www.novell.com/support). If you are using Active Directory rather than eDirectory, consult your Active Directory documentation for a procedure comparable to the one provided in [Using the Certificate Signing Request to Generate a Self-Signed Certificate](#).

---

## Importing the Certificate Files into the Teaming Keystore

After you have obtained or generated a signed certificate, you must import the certificate files into the Teaming keystore. This section describes how to import the files associated with a self-signed certificate. The same procedure can be used to import certificate files received from a commercial certificate authority (CA).

**1** Change to the `certs` directory where you created the root certificate file and the server certificate file.

**2** Use the following command to import the root certificate file:

```
keytool -import -keyalg RSA -keystore .keystore
        -file SelfSignedRootCert.der
```

**3** Enter the keystore password to add the root certificate to the Teaming keystore.

**4** Use the following command to import the server certificate file:

```
keytool -import -alias tomcat -keyalg RSA -keystore .keystore
        -file SelfSignedServerCert.der
```

**5** Enter the keystore password to add the server certificate to the Teaming keystore.

The new `.keystore` file is now ready for permanent use in your Teaming system.

## Replacing the Original Teaming Keystore File with Your Permanent Keystore File

**1** Change to the following directory on the Teaming server:

```
Linux:    /opt/novell/teaming/apache-tomcat-version/conf
Windows:  c:\Program Files\Novell\Teaming\
          apache-tomcat-version\conf
```

**2** Rename the existing `.keystore` file to `keystorebackup`.

**3** Copy your new `.keystore` from the `certs` directory to the `conf` directory.

**4** Adjust the ownership and permissions of the new `.keystore` file to match those of the backed up keystore file.

**5** Restart Teaming so that Teaming rereads the updated keystore file.

## 30.3.2 Implementing Secure HTTP Connections

When you run the Novell Teaming Installation program, you can choose between non-secure and secure HTTP connections, as described in “[HTTP/HTTPS Ports](#)” in “[Basic Installation](#)” in the [Novell Teaming 2.1 Installation Guide](#).



### 30.3.3 Forcing Secure HTTP Connections

With additional configuration, you can force users from a non-secure HTTP connection to a secure HTTPS connection.

- ♦ [“Using Novell Access Manager to Force Secure HTTP Connections” on page 169](#)
- ♦ [“Configuring Tomcat to Force Secure HTTP Connections” on page 169](#)
- ♦ [“Adding the Apache Web Server to Force Secure HTTP Connections” on page 170](#)

#### Using Novell Access Manager to Force Secure HTTP Connections

With Novell Teaming, you can use Novell Access Manager to force secure HTTP connections. For more information, see [“Configuring Single Sign-On with Novell Access Manager”](#) in [“Advanced Installation and Reconfiguration”](#) in the *Novell Teaming 2.1 Installation Guide*.

#### Configuring Tomcat to Force Secure HTTP Connections

To reconfigure Tomcat, you must update two configuration files (both named `web.xml`) under two different directories (`ssf` and `ssfcs`). The `ssf` directory name refers to SiteScape® Forum, a legacy product name. The `ssf` directory contains the main Teaming Web application that you use when you interact with your browser. The `ssfcs` directory name refers to SiteScape File System. The `ssfcs` directory contains the Teaming WebDAV application that you use to access files on a remote WebDAV server from the Teaming site.

- 1** Log into the Teaming server with sufficient rights to edit the `web.xml` files (`root` on Linux, `Administrator` on Windows).
- 2** Modify the `web.xml` file under the `ssf` directory:
  - 2a** Change to the directory where the `web.xml` file is located.

```
Linux:      /opt/novell/teaming/apache-tomcat-version/
                                                    webapps/ssf/WEB-INF

Windows:   c:\Program Files\Novell\Teaming\apache-tomcat-version\
                                                    webapps\ssf\WEB-INF
```

- 2b** Make a backup copy of the `web.xml` file, then open the `web.xml` file in a text editor.
- 2c** Add the following security constraint at the bottom of the file, immediately above the `</web-app>` tag.

```
<security-constraint>
  <web-resource-collection>
    <web-resource-name>Entire Application</web-resource-name>
    <url-pattern>/*</url-pattern>
  </web-resource-collection>
  <user-data-constraint>
    <transport-guarantee>CONFIDENTIAL</transport-guarantee>
  </user-data-constraint>
</security-constraint>
```

- 2d** (Conditional) If users access the Teaming site with Internet Explorer\*, replace the following single line provided above:

```
<url-pattern>/*</url-pattern>
```

with the following set of lines:

```

<!-- Patterns from web.xml.tpl. -->
<url-pattern>/a/*</url-pattern>
<url-pattern>/ws/*</url-pattern>
<url-pattern>/rss/*</url-pattern>
<url-pattern>/atom/*</url-pattern>
<!-- Patterns from subdirectories of webapps/ssf. -->
<url-pattern>/applets/*</url-pattern>
<url-pattern>/css/*</url-pattern>
<url-pattern>/help/*</url-pattern>
<url-pattern>/help_doc/*</url-pattern>
<url-pattern>/i/*</url-pattern>
<url-pattern>/images/*</url-pattern>
<url-pattern>/js/*</url-pattern>

```

For Internet Explorer, this list of URL patterns forces secure HTTP connections for everything except the `/s/*` pattern (document files with extensions such as `.odt` and `.doc`) and the `/ical/*` pattern (calendar `.ics` files).

**2e** Save the modified `web.xml` file, then exit the text editor.

**3** Modify the `web.xml` file under the `ssfs` directory:

**3a** Change to the directory where the `web.xml` file is located.

```
Linux:    /opt/novell/teaming/apache-tomcat-version/
                                                webapps/ssfs/WEB-INF
```

```
Windows: c:\Program Files\Novell\Teaming\apache-tomcat-version\
                                                webapps\ssfs\WEB-INF
```

**3b** Make a backup copy of the `web.xml` file, then open the `web.xml` file in a text editor.

**3c** Add the following security constraint at the bottom of the file, immediately above the `</web-app>` tag.

```

<security-constraint>
  <web-resource-collection>
    <web-resource-name>Entire Application</web-resource-name>
    <url-pattern>/*</url-pattern>
  </web-resource-collection>
  <user-data-constraint>
    <transport-guarantee>CONFIDENTIAL</transport-guarantee>
  </user-data-constraint>
</security-constraint>

```

**3d** Save the modified `web.xml` file, then exit the text editor.

## Adding the Apache Web Server to Force Secure HTTP Connections

You can set up the Apache\* Web server to front your Novell Teaming site and use a [meta refresh](http://en.wikipedia.org/wiki/Meta_refresh) ([http://en.wikipedia.org/wiki/Meta\\_refresh](http://en.wikipedia.org/wiki/Meta_refresh)) to redirect users to a secure URL.

- 1** Install the Apache Web server on one server.
- 2** Configure Apache to listen on port 80.
- 3** Create an `index.html` file similar to the following example:



```
adapter.web.protocol=context-https
servlet.web.protocol=context-https
rss.web.protocol=context-https
ical.web.protocol=context-https
ssfs.web.protocol=context-https
simpleurl.web.protocol=context-https
```

- 7** Save the `ssf-ext.properties` file, then exit the text editor
- 8** Restart Teaming to put the change into effect.

- ♦ [Section 31.1, “Securing the Teaming Data,” on page 173](#)
- ♦ [Section 31.2, “Securing the Teaming Software,” on page 174](#)
- ♦ [Section 31.3, “Securing the Teaming Site,” on page 175](#)

## 31.1 Securing the Teaming Data

- ♦ [Section 31.1.1, “Limiting Physical Access to Teaming Servers,” on page 173](#)
- ♦ [Section 31.1.2, “Protecting the Teaming File Repository,” on page 173](#)
- ♦ [Section 31.1.3, “Protecting the Teaming Database,” on page 173](#)

### 31.1.1 Limiting Physical Access to Teaming Servers

Servers where Novell® Teaming data resides should be kept physically secure, so unauthorized persons cannot gain access to the server consoles.

### 31.1.2 Protecting the Teaming File Repository

The Novell Teaming file repository contains unencrypted data. See “[Distributing Different Data Types to Different Locations](#)” in “[Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide* for details about how Novell Teaming uses the local file system for data storage. These directories contain uploaded information in various formats (both native file formats and potentially a number of rendered formats (such as cached HTML versions of files, thumbnails, and RSS feeds) as well as archived data. These files are managed exclusively by the Teaming application software.

For data security, encrypted file systems should be used on servers where Teaming data resides. Only Teaming administrators should have direct access to Teaming data.

### 31.1.3 Protecting the Teaming Database

During installation, you select the encryption method that you want to use for the Novell Teaming database, as described in “[Database Encryption Algorithm](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*. Three levels of encryption strength are available. The encryption algorithm cannot be changed after you have started using the Teaming database, so be sure to select the level of encryption appropriate for your Teaming site during initial installation.

Depending on your local security guidelines, you might want to encrypt the database connections between the Novell Teaming software and the Teaming database. SSL-encrypted data between the Teaming application and the database server imposes a performance penalty because of the increased overhead of encrypting and decrypting the retrieved data.

Support for this is highly dependent on the database client drivers and JDBC\* connector support, and on how you are configuring your database client and server certificates. You should check with your database vendor on how to set up SSL connections on both the client and server sides of the

connection. You might need to modify the JDBC URL during installation, as described in “[Database Location](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*. For example, for MySQL, you might add `useSSL=true&requireSSL=true` to the `options` part of the JDBC URL.

## 31.2 Securing the Teaming Software

- ♦ [Section 31.2.1, “Protecting the Teaming Configuration Files,” on page 174](#)
- ♦ [Section 31.2.2, “Protecting the Teaming Properties File,” on page 174](#)
- ♦ [Section 31.2.3, “Protecting Log Files,” on page 174](#)
- ♦ [Section 31.2.4, “Protecting the Teaming Process on Linux,” on page 175](#)

### 31.2.1 Protecting the Teaming Configuration Files

The Novell Teaming configuration file (`installer.xml`) for the Teaming software should be protected from tampering. It contains username and password information for Teaming features that interact with other programs.

The initial `installer.xml` is created in the same directory where the Teaming Installation program is run. Backup copies are stored in:

Linux: `/opt/novell/teaming/teaming-config`

Windows: `c:\Program Files\Novell\Teaming\teaming-config`

### 31.2.2 Protecting the Teaming Properties File

The Novell Teaming properties file (`ssf.properties`) should be protected from tampering. Like the Teaming configuration file, it contains username and password information, as well as many other details about your Teaming site configuration. The Teaming properties file is located in the following directory:

Linux: `/opt/novell/teaming/apache-tomcat-version/  
webapps/ssf/WEB-INF/classes/config`

Windows: `c:\Program Files\Novell\Teaming\apache-tomcat-version\  
webapps\ssf\WEB-INF\classes\config`

### 31.2.3 Protecting Log Files

The log files for Teaming and Tomcat should be protected against access by unauthorized persons. Log files contain very detailed information about your Novell Teaming system and Teaming users.

The Teaming log file is available in the following directory of your Teaming installation:

Linux: `/opt/novell/teaming/apache-tomcat-version/webapps/ssf/WEB-INF/logs`

Windows: `c:\Program Files\Novell\Teaming\apache-tomcat-version\  
webapps\ssf\WEB-INF\logs`

The Tomcat log file is available in the following directory of your Teaming installation:

Linux: `/opt/novell/teaming/apache-tomcat-version/logs`

Windows: `c:\Program Files\Novell\Teaming\apache-tomcat-version\logs`

## 31.2.4 Protecting the Teaming Process on Linux

On Linux, Novell Teaming is installed to run as a user other than the Linux `root` user. See “[Linux User ID for Teaming](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

## 31.3 Securing the Teaming Site

- ◆ [Section 31.3.1, “Configuring a Proxy Server,” on page 175](#)
- ◆ [Section 31.3.2, “Setting the Teaming Administrator Password,” on page 175](#)
- ◆ [Section 31.3.3, “Setting Up SSL Connections,” on page 175](#)
- ◆ [Section 31.3.4, “Shortening the Teaming Session Timeout,” on page 176](#)
- ◆ [Section 31.3.5, “Using Role-Based Access Control,” on page 176](#)
- ◆ [Section 31.3.6, “Monitoring Inbound E-Mail,” on page 176](#)
- ◆ [Section 31.3.7, “Preventing Web Services Access,” on page 176](#)
- ◆ [Section 31.3.8, “Controlling RSS Feeds,” on page 176](#)
- ◆ [Section 31.3.9, “Securing Mirrored Folders,” on page 177](#)

### 31.3.1 Configuring a Proxy Server

Your Novell Teaming system should be located behind your firewall. If Teaming users want to access the Teaming site from outside your firewall, you should set up a proxy server outside your firewall to provide access. You can use Novell Access Manager to protect your Teaming site, as described in “[Configuring Single Sign-On with Novell Access Manager](#)” in “[Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide*.

### 31.3.2 Setting the Teaming Administrator Password

The Novell Teaming site is initially installed to allow administrator access by using the username `admin` and the password `admin`. The Teaming administrator password should be changed immediately after installation, as described in “[Accessing Your Basic Teaming Site as the Site Administrator](#)” in “[Basic Installation](#)” in the *Novell Teaming 2.1 Installation Guide*.

### 31.3.3 Setting Up SSL Connections

All communication with the Novell Teaming site should be configured to use SSL connections, as described in:

- ◆ [Section 30.2, “Securing E-Mail Transfer,” on page 163](#)
- ◆ [Section 30.1, “Securing LDAP Synchronization,” on page 161](#)
- ◆ [Section 30.3, “Securing HTTP Browser Connections,” on page 163](#)

### 31.3.4 Shortening the Teaming Session Timeout

By default, if a user's Novell Teaming session is idle for four hours (240 minutes), Teaming logs the idle user out. For increased security for your Teaming site, you can make the session timeout shorter, as described in [“Changing the Teaming Session Timeout”](#) in [“Advanced Installation and Reconfiguration”](#) in the *Novell Teaming 2.1 Installation Guide*.

### 31.3.5 Using Role-Based Access Control

Novell Teaming controls all access to folders and entries by using role-based access controls. Teaming is intended to be used primarily for the sharing of information, so many default access rights tend toward allowing at least universal read access. For information on setting access controls for your Teaming site, see:

- ♦ [Chapter 2, “Planning and Controlling User Access to Workspaces and Folders,”](#) on page 17 in this guide
- ♦ [“Controlling User Access”](#) in the *Novell Teaming 2.1 Advanced User Guide*

### 31.3.6 Monitoring Inbound E-Mail

You can configure Novell Teaming to receive e-mail and post the messages as entries in a folder, as described in [“Enabling Inbound E-Mail”](#) in [“Basic Installation”](#) in the *Novell Teaming 2.1 Installation Guide*. Because e-mail is inherently unsecure, there is no way to be sure that the senders are who they claim to be. Entries posted by e-mail include the e-mail address of the sender to alert Teaming users about the origin of the postings.

### 31.3.7 Preventing Web Services Access

The default Novell Teaming installation allows authenticated access via Web services, as described in [“Configuring Web Services”](#) in [“Advanced Installation and Reconfiguration”](#) in the *Novell Teaming 2.1 Installation Guide*. If you are not using Web services, you can disable them.

### 31.3.8 Controlling RSS Feeds

Because RSS readers are outside of the authentication Teaming system, the URL provided by Novell Teaming for an RSS feed embeds some authentication information about the user. This means that the RSS URL must be protected and not shared between users. For this reason, RSS is not recommended for use on highly sensitive data. If necessary, you can disable RSS feeds for your Teaming site, as described in [“Managing RSS Feeds”](#) in [“Advanced Installation and Reconfiguration”](#) in the *Novell Teaming 2.1 Installation Guide*.



### 31.3.9 Securing Mirrored Folders

Mirrored folders make files that are stored on a file system available to users on the Novell Teaming site. Two levels of security are provided for mirrored folder access:

- ◆ When you create mirrored folder resource drivers, as described in “[Configuring Mirrored Folder Resource Drivers](#)” in “[Advanced Installation and Reconfiguration](#)” in the *Novell Teaming 2.1 Installation Guide*, you can choose read-only access or read/write access. In addition, you can identify specific Teaming users and groups that are allowed access to the mirrored folder resource drivers.
- ◆ When you set up the mirrored folders on the Teaming site, as described in [Chapter 11, “Setting Up Mirrored Folders,”](#) on page 69 in this guide, you can set access controls on the Mirrored File folder.

