NetIQ® Identity Manager

User's Guide to the Identity Applications

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Legal Notice

Contents

About this Book and the Library

This guide describes how end-users and some administrators can use the NetIQ Identity Manager identity applications, particularly the Dashboard and User Application.

Intended Audience

This book provides information for individuals responsible for understanding administration concepts and implementing a secure, distributed administration model.

Other Information in the Library

The library provides the following information resources:

Identity Manager Setup Guide

Provides overview of Identity Manager and its components. This book also provides detailed planning and installation information for Identity Manager.

Designer Administration Guide

Provides information about designing, testing, documenting, and deploying Identity Manager solutions in a highly productive environment.

Identity Applications: Design Guide

Describes how to use the Designer to create identity application components, including how to work with the Provisioning view, the directory abstraction layer editor, the provisioning request definition editor, the provisioning team editor, and the role catalog.

Identity Reporting Module Guide

Describes Identity Reporting for Identity Manager and how you can use the features it offers, including the reporting user interface and custom report definitions, as well as providing installation instructions.

Analyzer Administration Guide

Describes how to administer Analyzer for Identity Manager.

Identity Manager Common Driver Administration Guide

Provides information about administration tasks that are common to all Identity Manager drivers.

Identity Manager Driver Guides

Provides implementation information about Identity Manager drivers.

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Welcome to Identity Manager

NetIQ Identity Manager is a system software product that your organization uses to securely manage the access needs of its user community. If you’re a member of that user community, you benefit from Identity Manager in a number of ways. For example, Identity Manager enables your organization to:

- Give users access to the information (such as group org charts, department white pages, or employee lookup), as well as roles and resources (such as equipment or accounts on internal systems) that they need, right from day one
- Synchronize multiple passwords into a single login for all your systems
- Modify or revoke access rights instantly when necessary (such as when someone transfers to a different group or leaves the organization)
- Support compliance with government regulations

Read this part first to learn about the Identity Manager identity applications and how to begin using them. This guide is designed to assist the following types of online activity in your organization:

- Manage your online identity associated with organizational resources
- View or modify your access to organizational roles and resources
- Approve requests for access to resources and roles
- Manage the permisions associated with software applications and other resources that your organization provides to members of your organization

1 Getting Started

This section tells you how to begin using the identity applications. Topics include:

1.1 Understanding Roles and Resources

In the identity applications, a **permission** represents the access provided to a user or group of users for a role or resource. A **role** defines a set of permissions related to one or more target systems or applications. For example, a user administrator role might be authorized to reset a user's password, while a system administrator role might have the ability to assign a user to a specific server. A **resource** is any digital entity such as a user account, computer, or database that a business user needs to be able to access.

1.2 Understanding the Identity Applications

The Identity Manager identity applications are an interconnected set of browser-based Web applications. They enable your organization to manage the user accounts and permissions associated with the wide variety of roles and resources available to users. You can configure the identity applications to provide self-service support for your users, such as requesting roles or changing their passwords. You can also set up workflows to improve the efficiency in managing and assigning roles and resources.

The following components comprise the identity applications:

1.2.1 Identity Manager Dashboard

Identity Manager Dashboard serves as the primary entry portal to the identity applications. From here, as a **user** you can perform the following activities:

- Manage your profile settings and password
- Review and complete your tasks, such as approving user requests for access
- Request permissions for roles, resources, or processes

- Review the status and history of your requests for permissions
- Find other users in your organization

As a user with an appropriate **administrator** role, you can perform the following tasks:

- Create and modify user profiles
- Create and modify teams that represent sets of users and groups that can perform provisioning requests and approval tasks associated with the teams

1.2.2 Catalog Administrator

Catalog Administrator serves as the primary method for managing roles and resources associated with the various connected systems in organizations managed by Identity Manager. Although the catalog is not a unique database or a set of files, it encompasses all information about roles, resources, and the relationship between them.

Role Administration

If you have the *Role Administrator* entitlement, you can perform the following tasks:

- Create, remove, and modify roles.
- Establish the process for the approving and revoking the role.
- Create roles and role relationships within the roles hierarchy.
- Create, remove, and modify separation of duty (SoD) constraints to manage potential conflicts among roles.
- Browse the list of roles created.
- Find out which role is associated with which container.

Resources Administration

If you have the *Resource Administrator* entitlement, you can perform the following tasks:

- Create new resources, either from an entitlement or without an entitlement.
- Remove and modify resources.
- Establish the process for the approving and revoking resource.
- Associate resources to roles or a role that is part of other role, group, or a container in your organization.
- Browse the list of resources.
- Find out which resource is associated with which container.

Catalog Administrator provides a more up-to-date method for managing roles and resources than the User Application's role and resource functionality. However, it does not support assigning permissions or ownership for the roles and resources.

1.2.3 User Application

Originally, the User Application was part of the Roles Based Provisioning Module (RBPM). Some of the RBPM functions have been moved to the Dashboard and Catalog Administrator. The User Application continues to provide the following functions that do not yet exist in the other two components:

- Create groups of users, usually associated with their position in your organization, such as the Finance Department.

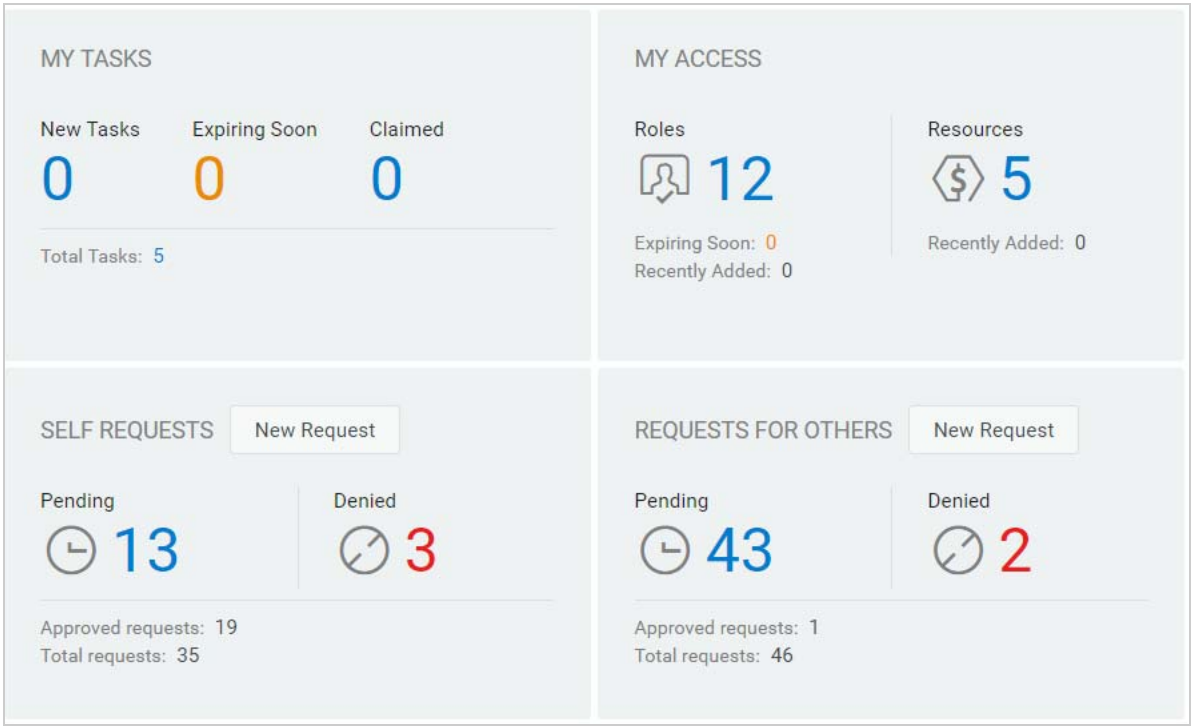
- Map role and resources assignments to resources within your organization, such as user accounts, computers, and databases.
- Assign ownership to and configure the methods for approving roles and resources.
- Configure password management settings so users can reset their own passwords.
- Ensure that your organization has a method for verifying that personnel are fully aware of organizational policies and are taking steps to comply with these policies.
- Ensure that access to corporate resources complies with organizational policies and that provisioning occurs within the context of the corporate security policy. You can grant users access to identity data within the guidelines of corporate security policies.
- Create workflows to reduce the administrative burden of entering, updating, and deleting user information across all systems in the enterprise. These workflows provide a Web-based interface for users to manipulate distributed identity data that triggers workflows as necessary.
- Support complex workflows and manage manual and automated provisioning of identities, services, resources, and assets.

  You can establish a manual provisioning process by creating workflows that route provisioning requests to one or more authorities. For automated provisioning, you can configure the User Application to start workflows automatically in response to events occurring in the Identity Vault. The Dashboard can trigger a workflow when users request permission.

1.3 Exploring the Dashboard

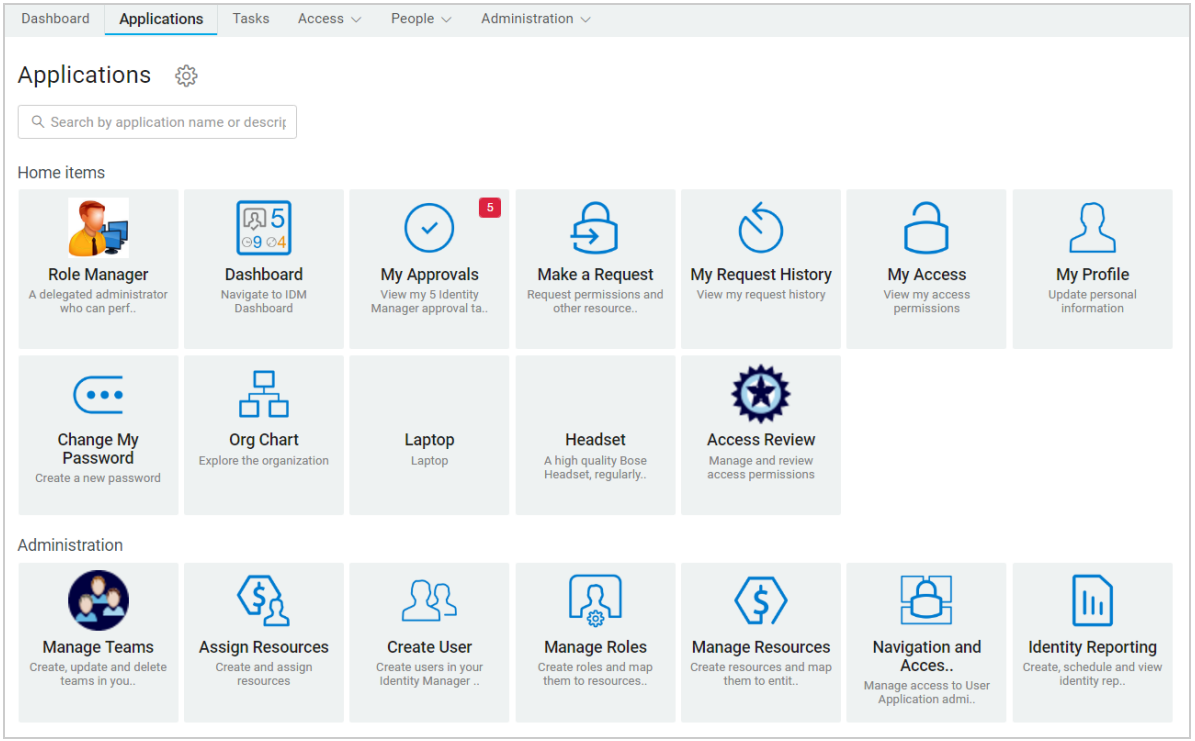
After you log in, the Dashboard displays information about your tasks, permissions, and requests (Figure 1-1.

Figure 1-1 *Example of your personal Dashboard*



The second significant view in the Dashboard is the **Applications** page (Figure 1-2), which provides default links to several areas to streamline the basic tasks that end users and administrators need to perform in Identity Manager.

Figure 1-2 *Example of the Applications page in the Dashboard*



Your identity administrator customizes the **Applications** page to include tiles that link to commonly requested resources or applications that users regularly access.

Some of the tiles on this page might appear only for users with an administrative role in the identity applications. For example, a person who can create or modify roles should see a tile similar to **Create User** and **Manage Roles**.

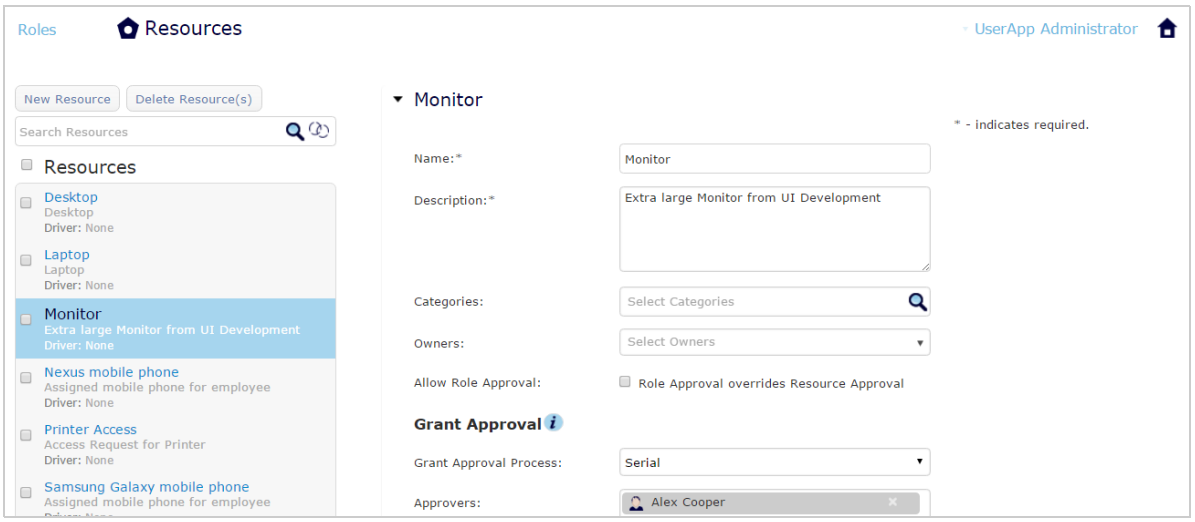
For more information about using the Dashboard, see Chapter III, “Managing Users and Groups,” on page 65 and the Help in the Dashboard.

1.4 Exploring Catalog Administrator

Depending on the functionality of Catalog Administrator that you want to access, click the appropriate link in the Dashboard **Applications** page. For example, you might want to change the approval process of a resource.

Figure 1-3 provides an example of an existing resource that can be managed in Catalog Administrator. For more information about managing roles and resources, see Part V, “Managing Roles and Resources,” on page 149 and *NetIQ Identity Manager - Administrator’s Guide to the Identity Applications*.

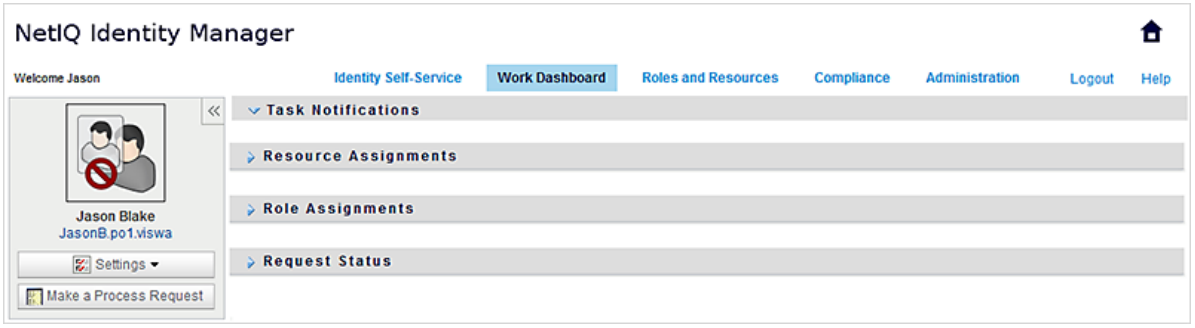
Figure 1-3 *Example of the Resources Page in Catalog Administrator*



1.5 Exploring the User Application

Depending on what functionality of User Application you want to access, click the appropriate link in the Dashboard **Applications** page. Figure 1-4 shows the default interface of the User Application.

Figure 1-4 *User Application Default Page*



The User Application provides the following main tabs:

- *Identity Self-Service* (which is open by default)

  To learn about this tab and how to work with it, see Part II, “Managing Your Permissions and Identity Profile,” on page 35.

- *Work Dashboard*

  To learn about this tab and how to work with it, see Part IV, “Using the Work Dashboard Tab,” on page 73.

- *Role and Resources*

  To learn about this tab and how to work with it, see Part V, “Managing Roles and Resources,” on page 149.

- *Compliance*

  To learn about this tab and how to work with it, see Part VI, “Using the Compliance Tab,” on page 197.

NOTE: What you see might vary depending on what security permissions you've been given.

To return to the Dashboard from anywhere within the User Application, click the **Home** icon in the top right corner of the page.

1.5.1 Getting Help

While working in the User Application, you can display online help to get documentation about the tab that you're currently using.

1. Go to the tab that you want to learn about (such as **Roles and Resources** or **Compliance**).
2. Click the **Help** link (in the top right corner of the page).

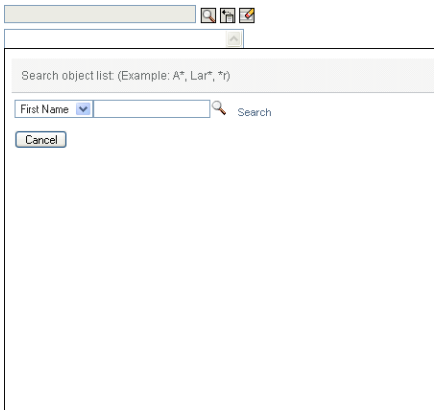
   The help page for the current tab displays. The help page includes a link to more detailed information included in the documentation on the NetIQ Web site.

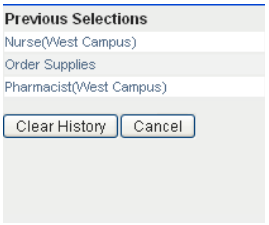
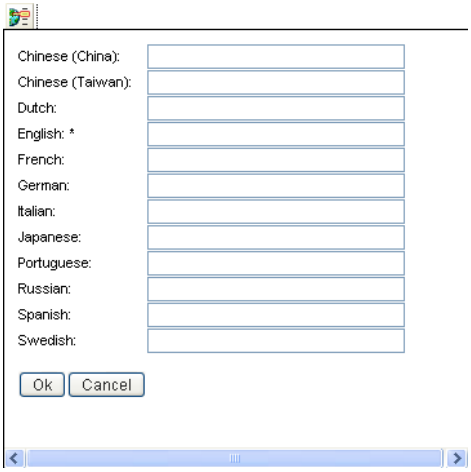
1.5.2 Common User Actions

The User Application provides a consistent user interface with common user interactions for accessing and displaying data. This section describes several of the common user interface elements and includes instructions for:

- "Using the Object Selector Button for Searching" on page 23
- "Filtering Data" on page 24
- "Using the Lookahead Feature" on page 25

Table 1-1 *Common Buttons*

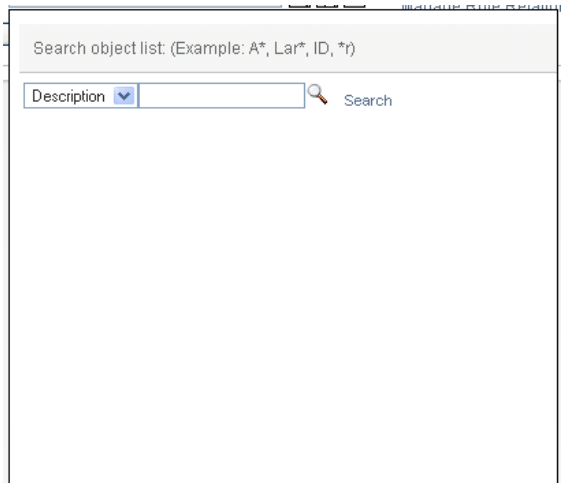
Button	Description
	**Object Selector** Provides access to a Search dialog box or popin. You can enter search criteria for different types of objects based on your location within the User Application. For example, in the Identity Self-Service tab, you can search for users and groups while in the Roles tab, you can search for users, groups, and roles.  See "Using the Object Selector Button for Searching" on page 23.

Button	Description
	**Show History** Provides links to previously accessed data. You can select the link to display the data for the previous selection. Clicking Show History might be faster than performing a search if you know that you have recently worked with an item. 
	**Reset** Clears the current selection.
	**Localize** Displays a dialog box that lets you enter the text usually for a field name or description in any of the locales currently supported by the User Application. 
	**Add** Adds a new item or object. You are prompted for additional information specific to the type of object you are adding.
	**Delete** Deletes the currently selected item.
	**Up or Down Arrow** Moves the currently selected object up or down on the list
	
	**Legend** Provides a description for symbols shown in the user interface.

Using the Object Selector Button for Searching

To use the Object Selector button:

1 Click  . The Search dialog displays:



2 Specify your search criteria as follows:

2a Use the drop-down list to choose a field on which to search. The drop-down list fields depend on where you launched the search. In this example, you can specify **Name** or **Description**.

2b In the text box next to the drop-down list, type all or part of the search criteria (such as name or description). The search finds every occurrence of the type of object you are searching for that begins with the text you type. You can optionally use the asterisk (*) as a wildcard in your text to represent zero or more of any character. For instance, all of the following examples find the role Nurse:

nurse

n

n*

3 Click **Search**.

The search results display. You can sort the search results in ascending or descending order by clicking the column headings.

If the result list includes the one you want, go to Step 4. Otherwise, go back to Step 2b.

4 Select the item you want from the list. The lookup page closes and populates the page with the data associated with your selection.

Filtering Data

The **Work Dashboard** and **Roles and Resources** tab of the User Application provides filters so that you can display only the data that you are interested in viewing. You can additionally limit the amount of data displayed on a single page by using the Maximum rows per page setting. Some examples of filters include:

- Filtering by role or resource assignment and source (available in the Role Assignments and Resource Assignments actions)
- Filtering by role or resource name, user, and status (available in the Request Status action)
- Filtering by role level and category (available in the Role Catalog action)

To use filtering:

1 Specify a value in a text field (such as the **Role Name** or **Description** field) in the **Filter** dialog, as follows:

1a To limit the items to those that start with a particular string of characters, type all or part of the character string. You can optionally use the asterisk (*) as a wildcard in your text to represent zero or more of any character. The filtering applied is based on the first character in the display name.

For instance, all of the following examples find the role assignment called Nurse:

nurse

n

n*

NOTE: A filter on Role Name does not limit the number of objects returned from the Identity Vault. It simply restricts the objects displayed on the page based on the filter criteria. Other filters (such as Status) do restrict the number of objects returned from the Identity Vault.

1b To further filter the items displayed, you can specify additional filter criteria. The User Application allows you to select the criteria in different ways depending on the data. You might select a checkbox or select one or more items from a list box (using your platforms multi-select keystrokes). The criteria is ANDed so that only the items that meet all of the criteria are displayed.

1c To apply the filter criteria you've specified to the display, click **Filter**.

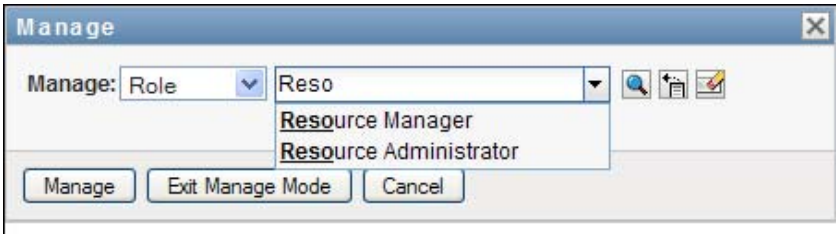
1d To clear the currently specified filter criteria, click **Clear**.

2 To set the maximum number of items matching the filter by criteria that are displayed on each page, select a number in the **Rows** dropdown list.

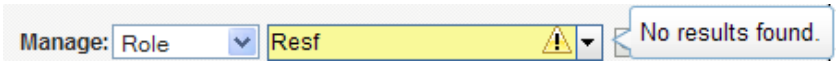
Using the Lookahead Feature

Many of the AJAX controls within the User Application support smart look-ahead (or type ahead) processing. This support reduces the number of keystrokes required to locate items of interest. To take advantage of this feature, simply type four or more characters in the control and select one of the matching items from the automatically generated dropdown list.

Here's an example that shows how you might use the lookahead feature to search for all roles that begin with the letters `Reso`:



If you type a string for which there is no match, you will see an error message, as shown below:



This feature is supported by all user lookup, group lookup, or role lookup controls within the User Application where a single value is expected.

1.6 Typical Ways to Use the Identity Applications

Here are some examples of how people typically use the identity applications within an organization.

1.6.1 Working with Identity Self-Service

- Ella (an end user) recovers her forgotten password through the identity self-service features when logging in.

  By default, Identity Manager uses Self Service Password Reset (SSPR) to allow users to modify their passwords. However, the identity applications can use other methods for managing forgotten passwords. For more information, see Configuring Forgotten Password Management in the *NetIQ Identity Manager Setup Guide*.
- Erik (an end user) performs a search for all employees who speak German at his location.
- Eduardo (an end user) browses the organization chart, finds Ella, and clicks the e-mail icon to send a message to her.

1.6.2 Working with Roles and Resources

- Maxine (a Role Manager) creates the Nurse and Doctor business roles and the Administer Drugs and Write Prescriptions IT roles. Maxine creates several resources that are needed for these roles, and associates the resources with the roles.
- Maxine (a Role Manager) defines a relationship between the Nurse and Administer Drugs roles, specifying that the Nurse role contains the Administer Drugs role. Max also defines a relationship between the Write Prescriptions and Doctor roles, specifying that the Doctor role contains the Write Prescriptions role.
- Chester (a Security Officer) defines a separation of duties constraint that specifies that a potential conflict exists between the Doctor and Nurse roles. This means that ordinarily the same user should be not assigned to both roles at the same time. In some circumstances, an individual who requests a role assignment may want to override this constraint. To define a separation of duties exception, the individual who requests the assignment must provide a justification.
- Ernest (an end user) browses a list of roles available to him, and requests assignment to the Nurse role.
- Amelia (an approver) receives notification of an approval request via e-mail (which contains an URL). She clicks the link, is presented with an approval form, and approves it.
- Arnold (a Role Manager) requests that Ernest be assigned to the Doctor role. He is notified that a potential conflict exists between the Doctor role and Nurse role, to which Ernest has already been assigned. He provides a justification for making an exception to the separation of duties constraint.
- Edward (a separation of duties approver) receives notification of a separation of duties conflict via e-mail. He approves Arnold’s request to override the separation of duties constraint.

- Amelia (an approver) receives notification of an approval request for the Doctor role via e-mail. She approves the Arnold's request to assign Ernest to the Doctor role.
- Bill (a Role Auditor) looks at the SoD Violations and Exceptions Report and sees that Ernest has been assigned to both the Doctor and Nurse roles. In addition, he sees that Ernest has been assigned the resources associated with these roles.

1.6.3 Working with Process Requests

- Ernie (an end user) browses a list of resources available to him, and requests access to the Siebel* system.
- Amy (an approver) receives notification of an approval request via e-mail (which contains an URL). She clicks the link, is presented with an approval form, and approves it.
- Ernie checks on the status of his previous request for Siebel access (which has now gone to a second person for approval). He sees that it is still in progress.
- Amy is going on vacation, so she indicates that she is temporarily unavailable. No new approval tasks are assigned to her while she is unavailable.
- Amy opens her approval task list, sees that there are too many for her to respond to in a timely manner, and reassigns several to co-workers.
- Pat (an administrative assistant, acting as a proxy user for Amy) opens Amy's task list and performs an approval task for her.
- Max (a manager) views the task lists of people in his department. He knows that Amy is on vacation, so he reassigns tasks to others in his department.
- Max initiates a request for a database account for someone in his department who reports directly to him.
- Max assigns Dan to be an authorized delegate for Amy.
- Dan (now a delegated approver) receives Amy's tasks when she is unavailable.
- Max engages an unpaid intern, who should not be entered into the HR system. The system administrator creates the user record for this intern and requests that he be given access to Notes, Active Directory*, and Oracle*.

1.6.4 Working with Compliance

- Maxine (a Role Manager) creates the Nurse and Doctor business roles and the Administer Drugs and Write Prescriptions IT roles.
- Maxine (a Role Manager) defines a relationship between the Nurse and Administer Drugs roles, specifying that the Nurse role contains the Administer Drugs role. Max also defines a relationship between the Write Prescriptions and Doctor roles, specifying that the Doctor role contains the Write Prescriptions role.
- Chester (a Security Officer) defines a separation of duties constraint that specifies that a potential conflict exists between the Doctor and Nurse roles. This means that ordinarily the same user should be not assigned to both roles at the same time. In some circumstances, an individual who requests a role assignment may want to override this constraint. To define a separation of duties exception, the individual who requests the assignment must provide a justification.
- Arnold (a Role Manager) requests that Ernest be assigned to the Doctor role. He is notified that a potential conflict exists between the Doctor role and Nurse role, to which Ernest has already been assigned. He provides a justification for making an exception to the separation of duties constraint.

- Philip (a Compliance Module Administrator) initiates a role assignment attestation process for the Nurse role.
- Fiona (an attester) receives notification of the attestation task via e-mail (which contains an URL). She clicks the link and is presented with an attestation form. She provides an affirmative answer to the attestation question, thereby giving her consent that the information is correct.
- Philip (a Compliance Module Administrator) initiates a new request for a user profile attestation process for users in the Human Resources group.
- Each user in the Human Resources group receives notification of the attestation task via e-mail (which contains an URL). Each user clicks the link and is presented with an attestation form. The form gives the user an opportunity to review the values for various user profile attributes. After reviewing the information, each user answers the attestation question.

2 Accessing the Identity Applications

You access the identity applications, such as the Dashboard, in a Web browser. Identity Manager supports the most popular browser versions. See your system administrator for a list of supported browsers or for help installing one. Your organization should provide you with the URL and credentials required to access the applications.

2.1 Considerations for Accessing the Identity Applications

Before accessing the Dashboard or any of the other identity applications, review the following considerations:

- You must enable cookies and enable JavaScript* in your Web browser.
- When using Internet Explorer, you should set at least **Medium** privacy level. You should also select the **Every time I visit the webpage** option under **Tools > Internet Options > General, Browsing History > Settings > Check for newer versions of stored pages**. If you do not have this option selected, some of the buttons may not be displayed properly.
- If you have previously accessed the Identity Manager User Application, you may be able to use the same user name and password to access the Dashboard.
- You cannot access the identity applciations using an account that includes any of the following characters in the name:

  ```
  \ /, * ? . $ # +
  ```

- If you cannot log in, you can click **Forgot password?**. For more information, see Section 2.4.1, “If You Forget Your Password,” on page 32.
- If you see a different first page when accessing the Identity Manager user interface, it’s typically because the application has been customized for your organization. As you work, you might find that other features of the identity applications have also been customized.

  If this is the case, you should check with your system administrator to learn how your customized identity applications differ from the default configuration described in this guide.

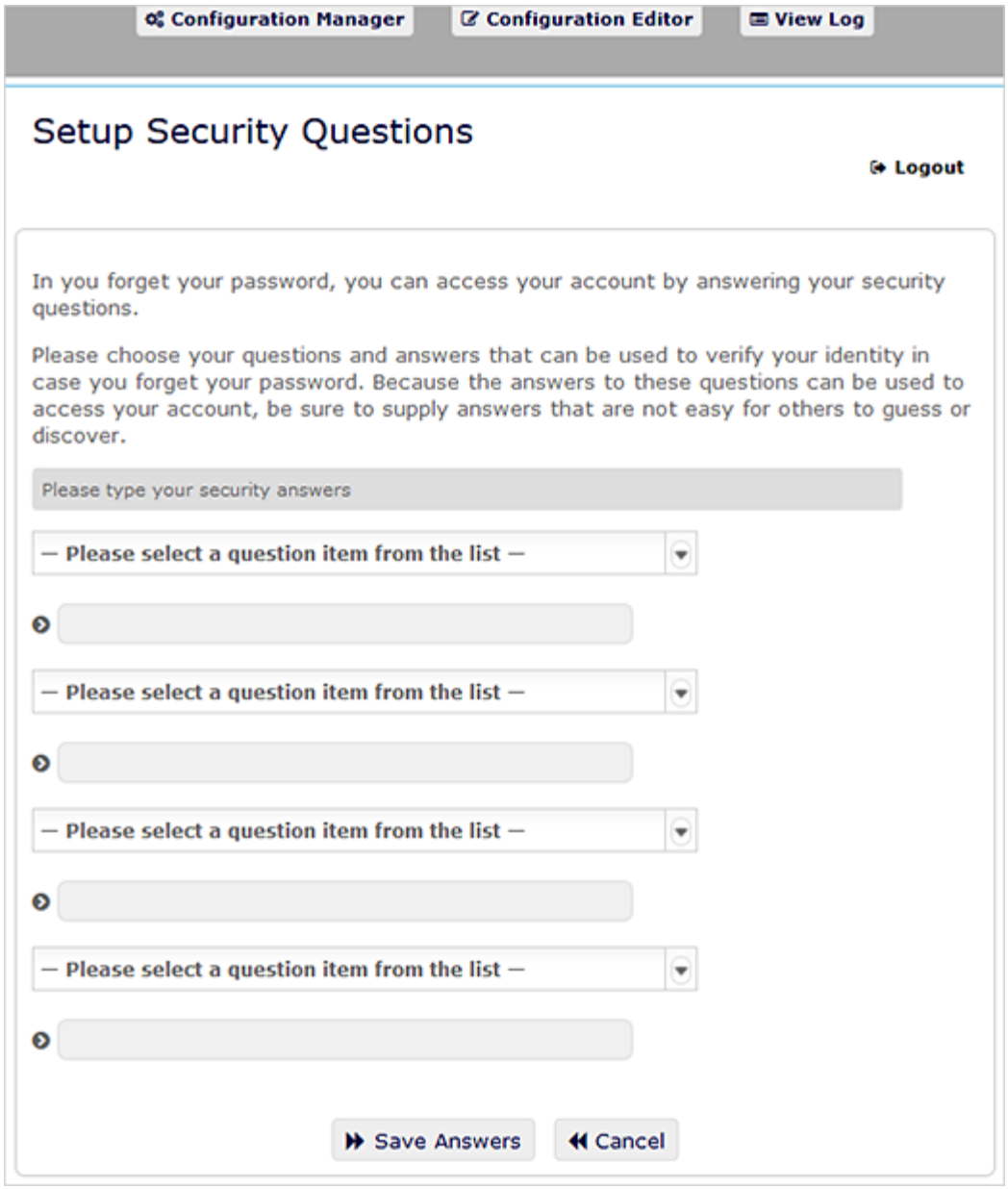
2.2 Logging in the First Time

You must be an authorized user to log in to the identity applications, such as the Dashboard. If you need help getting a username and password to supply for the login, see your system administrator.

The first time that you log in to the identity applications, Identity Manager requires you to establish security parameters for your account to help with resetting your password in future. If you forget your password and try to reset it next time you log in, Identity Manager prompts these configured questions and asks you to specify the correct answer. When the answer matches with the response that you save in this page, you can reset the password.

To set up the security questions during your first log in:

1. Enter your username and password, then click **Login**.
2. The login page automatically redirects you to the **Challenge-Response** page.
3. Specify the questions and answers for the Security Questions.



4 Click **Save Answers,** and you are redirected to the Dashboard.

2.3 Responding to a Preferred Locale Check

If you receive a prompt to select your own preferred locale when you log in, your administrator configured the identity applications to perform a language check on users' browsers. This might be necessary to ensure that the content tha tyou see appears in a supported language.

When prompted to add a locale, open the **Available Locales** list, select a locale, and click **Add**. For more information, see Section 6.2.4, "Choosing a Preferred Language," on page 46.

2.4 Troubleshooting Login Issues

This section provides solutions solutions to the following types of common login problems:

- Section 2.4.1, “If You Forget Your Password,” on page 32
- Section 2.4.2, “If You Have Trouble Logging In,” on page 32
- Section 2.4.3, “If You're Prompted for Additional Information,” on page 32

2.4.1 If You Forget Your Password

If you can’t remember the password, you might be able to use the **Forgot Password?** link for assistance. When you are prompted to log in, this link appears on the page by default. You can take advantage of it if your system administrator has set up an appropriate password policy for you.

1. When you’re prompted to log in, click the **Forgot Password?** link.
2. Type your username and click **Submit**.

   If Identity Manager responds that it can’t find a password policy for you, see your system administrator for assistance.
3. Answer the challenge questions that display. Identity Manager prompts you to answer the configured questions. When the answer matches with the response that you had saved earlier, you can reset the password. Click **Submit**. For example:

   Answer the challenge questions to get assistance with your password. Depending on how the system administrator has set up your password policy, you could:

   - Receive an e-mail containing your password about it
   - Be prompted to reset your password

2.4.2 If You Have Trouble Logging In

If you are unable to log in, make sure that you’re using the right username and typing the password correctly (spelling, uppercase or lowercase letters, etc.). If you still have trouble, consult your system administrator. It is helpful if you can provide details about the problem you are having (such as error messages).

2.4.3 If You're Prompted for Additional Information

You might be prompted for other kinds of information as soon as you log in. It all depends on how the system administrator has set up your password policy (if any). For example:

- If this is your first login, you are prompted to define your challenge questions and responses
- If your password has expired, you are prompted to reset it

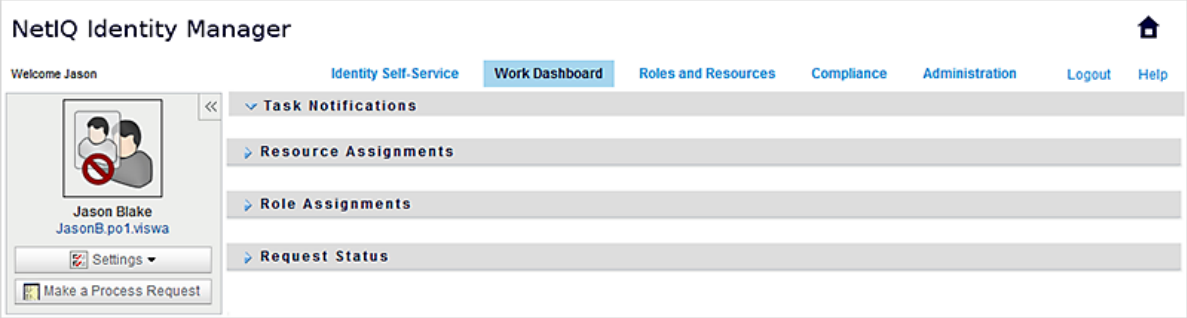
2.5 Bypassing the Dashboard

If you have a role that allows you to manage roles and resources or run reports, you can log in to Catalog Administrator, Identity Reporting, and the User Application without first launching the Dashboard. Enter the address (URL) for the specific identity application, such as the User Application, supplied by your system administrator.

For example: `http://myappserver:8180/IDMProv`.

This takes you to the default interface of the User Applciation. Alternatively, the links to these identity applications should be in the **Applications** page of the Dashboard.

Figure 2-1 *User Application Default Page*



2.6 Logging Out

When you are finished working in the Dashboard and other identity applications, you should log out. In the Dashboard, click your username in the upper right corner, then select **Sign out**.

II Managing Your Permissions and Identity Profile

NetIQ Identity Manager Dashboard (the Dashboard) helps you request access to the resources and roles that you need to complete your daily tasks. You can also act on any tasks assigned to you in the Identity Manager environment, such as approving requests for access. Owners of resources and roles can manage the process.

When you request a permission, Identity Manager initiates a process to efficiently review your request so you can have the role or resource that you need. Your manager receives a notification either in email or in the Dashboard to review your request. In some cases, your request might also be approved by other individuals in your organization.

Some users can also make requests on behalf of others or act as a proxy for another user.

3 Managing Your Permission Requests

This section provides guidance for the following activities:

You can also review the Help for these activities in the Dashboard.

3.1 Viewing Your Permissions

To view the roles and resources to which you have access, in the Dashboard select:

Access > Permissions

You can then select a specific permission for further details on that role or resource. The permission might also list any reasons provided for the permission assignment. To find a particular permission in a large list, you can search by the name or description. You can also filter the list.

For more information, see the Dashboard Help.

3.2 Requesting Permissions

To request roles and resources, in the Dashboard select:

Access > Requests

Before requesting permissions, review the following considerations:

- You might be able to request access on behalf of another user. For example, if you are team manager, you usually can act on behalf of team members. The process is the same, except you must specify that the request is for **Others** instead of **Self**.
- Do not use punctuation when specifying a permission that you want to request. If the name of the permission you want to request includes punctuation, omit the punctuation when searching.
- Different permissions require different information, depending on how the administrator has configured the permission form. If the permission requires detailed information, the Dashboard redirects you to a separate window when you select the permission.
- You can request multiple permissions at the same time.

  However, if the permission form for one of the requests requires special types of information, you might not be able to include that permission in a multi-permission request. To request multiple permissions at once, the request forms for the various requests cannot require detailed information.

For more information, see the Dashboard Help.

3.3 Viewing Requests that You Have Made

To view the status of a request in progress and completed requests, in the Dashboard select:

Access > Requests History

After you make a request, you cannot select a request in **Request History** until Identity Manager finishes processing. If you access the Dashboard using a slow connection, you might need to wait for the Dashboard to allow you to click the request name in the list.

- Section 3.3.1, “Tracking a Request,” on page 38
- Section 3.3.2, “Canceling a Request,” on page 38

For more information, see the Dashboard Help.

3.3.1 Tracking a Request

For each request, you can view not only your actions but also the workflow involved in approving or denying your request. Each step in the process has a timestamp.

To track a pending request, select the request, then change the upper-right menu to **User and System**. The Dashboard shows the current state of the request in the approval process.

3.3.2 Canceling a Request

You can cancel a *pending* request from the History list. Select the request in the list, then select **Cancel this request** on the subsequent window.

3.4 Removing a Permissions

If you no longer need access to a role or resource, you can remove the permission. Select the permission in **Access > Permissions**, then specify a reason for revoking the permission.

When removing a permisison, the following considerations apply:

- If you add, remove, or modify a permission using the Dashboard, your permissions list might not immediately reflect the change. Press **F5** to refresh the list.
- You cannot remove permissions granted because of membership in a particular group in your Identity Manager environment. To remove access to a role or resource assigned because of membership in a group, your account must be removed from that group.

For more information, see the Dashboard Help.

4 Approving and Denying Requests

If you are responsible for approving or denying requested permissions in Identity Manager, you can use the Dashboard to manage your tasks as you might have previously done in the User Application. You can approve or deny requests one at a time, or you can approve or deny multiple simple requests that do not require detailed information in bulk.

To review pending requests, in the Dashboard select:

Tasks

Alternatively, you might receive an email notification with a link that allows you to approve or reject a request in a response email.

Before acting on user requests, review the following considerations:

- You can multi-select tasks for a batch approval / denial.
- For a more complex request that requires detailed information, the Dashboard does not display a checkbox. You must approve or deny those requests by selecting each request and completing the forms.
- When you select a more complex request to approve or deny, the Dashboard might need to open the request form in a separate browser tab.
- In general, you must provide a comment explaining why you want to approve or deny the selected tasks.

For more information, see the Dashboard Help.

5 Acting on Behalf of Someone Else

In some organizations, you might be allowed to complete tasks as a proxy, or delegate, for someone else. For example, a personal assistant might perform proxy actions for the boss. Also, while a coworker is on maternity leave, you might temporarily be assigned to act on her behalf.

For more information, see the Dashboard Help.

5.1 Viewing Your Proxy Assignments

To view your proxy assignments, in the Dashboard select

Access > Proxy Assignments

5.2 Acting as a Proxy

An administrator might assign you to serve as a proxy for another user. When this occurs, the application adds a proxy option to your account menu in the upper right corner.

***Your ID* > Proxy As**

For example, Sarah Smith manages Customer Relations. The identity applications includes a Customer Relations team with Sarah Smith as the Team Manager. She can act on behalf of Maria Belafonte who is a member of her team. In the Dashboard, she selects **ssmith > Proxy As**, then specifies **mbelafonte**.

5.3 Managing Proxy Assignments

As an administrator or a team manager, you can create, modify, and delete an assignment. For a team manager to manage proxy assignments for a team, you must configure the team appropriately. The team manager can create assignments for team members only.

6 Managing Your Profile

The identity applications give you a convenient way to display and work with your identity information. They also enable your organization to be more responsive by giving you access to the information about other users that you need whenever you need it. For example, you might want to:

- Manage your own user account directly
- Look up other users and groups in the organization on demand
- Visualize how those users and groups are related
- List applications with which you are associated

Your system administrator is responsible for setting up the contents of the identity applications for you and the others in your organization. What you can see and do is typically determined by your job requirements and your level of authority.

6.1 Updating Your Profile in the Dashboard

To view and update your identity profile, in the Dashboard select:

***[your ID]* > My Profile**

Your profile includes settings such as your name, email address, and phone number. Your organization determines which settings you can modify. For example, you might be able to change your phone number but not your last name.

The page also lists the roles and resources assigned to you.

6.2 Managing Your Profile in the User Application

The User Application provides addition abilities for managing your identity profile:

- Send your details (in the form of a link) to someone by e-mail
- Specify a locale (language) for the instance of the User Application that you use.

This section tells you how to use the **My Profile** page on the **Identity Self-Service** tab of the Identity Manager User Application.

NOTE: This section describes the default features of the My Profile page. You might encounter some differences because of your job role, your level of authority, and customizations made for your organization; consult your system administrator for details.

6.2.1 Editing Your Information

My Profile provides an editing page that you can switch to when you want to make changes.

Some values might not be editable. Uneditable values appear on the editing page as read-only text or as links. If you have questions about what you're authorized to edit, consult your system administrator.

To edit your information:

1. Click the **Edit Your Information** link at the top of the My Profile page.
2. When the editing page displays, make your changes as needed.
3. When you're done editing, click **Save Changes**, then click *Return*.

Hiding Information

Hiding a piece of your information hides it from everyone using the Identity Manager User Application, except you and the system administrator.

1. Click the **Edit Your Information** link at the top of the My Profile page.
2. On the editing page, find an item that you want to hide.
3. Click **Hide** next to that item.

Hide might be disabled for some items. The system administrator can enable this feature for specific items.

Editing an Image

Editing your information might involve adding, replacing, or displaying an image:

1. On the editing page, click **Display** to display an image.
2. Click the plus sign icon 

to add an image.

   If an image already exists, you can click the pencil icon 

to replace or remove it.
3. Click that button to display the File Upload page.

   If this item already has an image, that image displays here.
4. To add an image or to replace the current one:
   - **4a** Click **Browse** and select an appropriate image file (such as a GIF or JPG).
   - **4b** Click **Save Changes** to upload the selected image file to the server.
5. Click **Close Window** to return to the editing page.

6.2.2 E-Mailing Your Information

The My Profile page enables e-mailing details as links:

1. Click the **Send Identity Info** link toward the top of the My Profile page.

   A new message is created in your default e-mail client. The following parts of the message are already filled in for you:

This part of the message	Contains
Subject	The text: `Identity Information for` *`your-user-id`*

This part of the message	Contains
Body	A greeting, message, link, and your name. The link (URL) is to the Profile page that displays detailed information about you. This link prompts the recipient to log in to the Identity Manager User Application before it displays any information. The recipient must have appropriate authority to view or edit the data.

2 Specify the recipients of the message (and any additional content that you want).

3 Send the message.

6.2.3 Linking to Other Users or Groups

The Detail page of your profile can include links to other users or groups. You can display the details (Profile page) for any other user or group that is listed as a link in your details.

To display detailed information about another user or group:

1 While viewing or editing information on the My Profile page, look for links that refer to the names of users or groups. Move your mouse cursor over text to reveal the underline that indicates a link.

2 Click a link to display the details for that user or group (in a separate window).

3 When you're done with that detail window, you can close it.

Here's a scenario that shows how someone might link to other user and group details. Timothy Swan (Vice President of Marketing) logs in to the Identity Manager User Application and goes to the My Profile page and clicks **Edit Your Information**.

He notices user names (Terry Mellon) and group names (Executive Management, Marketing, Improve Customer Service task force) that appear as links. He clicks **Marketing** and sees a new window that displays detailed information about the Marketing group.

If he has permission, he can click **Edit Group** and use the **Edit Group** page to add or remove members from the group, change the group description, or even delete the group.

The names of the Marketing group's members are also links. He clicks **Allison Blake** and sees detailed information about user Allison Blake (one of his employees).

He can click **Edit: User**, and, if the system administrator has given him the ability to do so, edit this user's details (except the Department and Region attributes) or delete this user.

Allison's e-mail address is a link. When he clicks it, his e-mail client creates a new message to her.

He can now type the message contents and send it.

6.2.4 Choosing a Preferred Language

You can select the locale (language) that you prefer to use in the Identity Manager User Application. You can set the preferred locale at any time in **My Profile**.

1. Click **Identity Self-Service > Information Management > My Profile > Edit Preferred Locale**. The **Edit Preferred Locale** page opens.
2. Add a locale by opening the **Available Locales** drop-down list, selecting a locale, and clicking **Add**.
3. Change the order of preference by selecting a locale from the **Locales in order of preference list** and choosing **Move Up, Move Down,** or **Remove**.
4. Click **Save Changes**.

The Identity Manager User Application pages are displayed in one or more preferred languages (locales) according to these rules:

1. The User Application uses locales defined in the User Application, according to the order in the preferred-locale list.
2. If no preferred locale is defined for the User Application, the User Application uses the preferred browser languages in the order listed.
3. If no preferred locale is defined for the User Application or the browser, the User Application default is used.

Defining a Preferred Language in the Browser

In Firefox*, add languages through **Tools > General > Languages > Languages**. Place your preferred language at the top of the list. In Internet Explorer, set language through **View > Encoding**.

7 Viewing Other Users in Your Organization

The Dashboard and User Application each provide and organization chart that shows the hierarchy of users in your organization.

NOTE: This section describes the default features of the Organization Chart page. You might encounter some differences because of your job role, your level of authority, and customizations made for your organization; consult your system administrator for details.

7.1 Understanding the Organization Chart

The Organization Chart page displays relationships. It can display relationships among managers, employees, and user groups in your business, and it can display other types of relationships that your administrator defines. The display is in the form of an organizational chart. In the chart, each person, group, or other entity is represented in a format that resembles a business card. The business card that is the starting point or orientation point of the organization chart is the *root* card.

The organization chart is interactive. You can:

- Select and display a type of relationship.
- Set your preferred default type of relationship, such as manager-employee, user group, or another that your administrator supplies.
- Set the default placement of a relationship chart to the left or right of the root card.
- Add up to two levels above the root card to the chart display.
- Make another user the root of the chart.
- Close (contract) or open (expand) a chart below a card.
- Look up a user to display in the chart.
- Display details (Profile page) for a selected user.
- Send user details (in the form of a link) to someone by e-mail.
- Send new e-mail to a selected user or to a manager’s team.

The following figures provide examples of the organization chart from the Dashboard and the User Application.

Figure 7-1 *Example of the organization chart in the Dashboard*

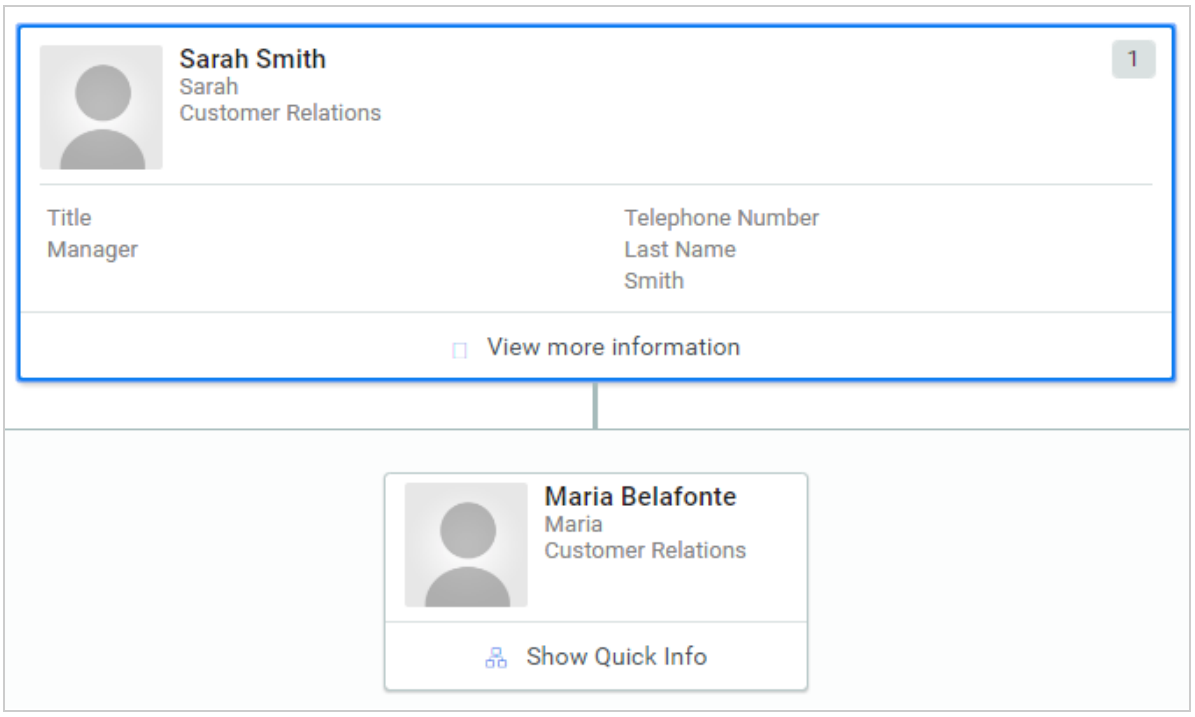
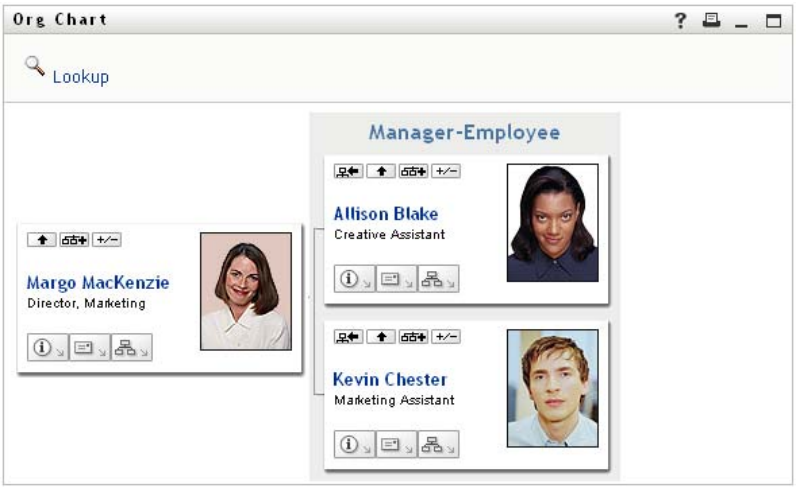


Figure 7-2 *Example of the organization chart in the User Application*



7.2 Navigating the Chart in the Dashboard

The Dashboard provides a simplified method for finding the relationships among users in your organization through the organization chart. In the Dashboard select:

People > Users

Select any user, then select the org chart icon beside the user's name. The Dashboard shows any users who report to that individual as well as who that user reports to.

7.3 Navigating the Chart in the User Application

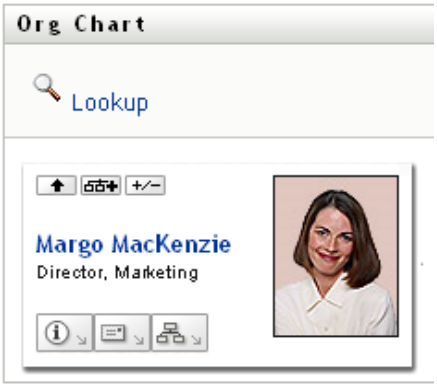
This section describes how to move around a relationship chart by:

7.3.1 Navigating to the Next Higher Level

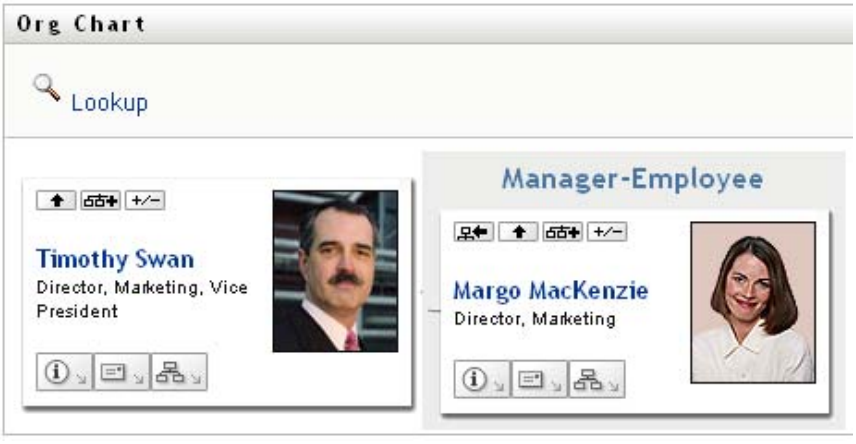
To navigate and expand to the next higher level in the relationship tree:

1 Click **Go Up a Level** in the current top-level card.

For example, suppose that Margo clicks **Go Up a Level** in this view:



Her view expands to include the level above her:



Go Up a Level is available only if the user in the card is assigned a manager. If this function is not available to you, check with your administrator.

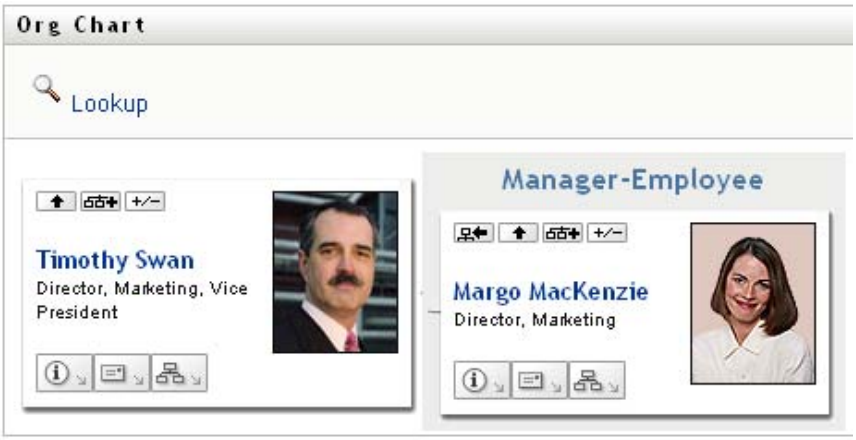
You can go up a level twice for a card.

7.3.2 Resetting the Root of the Relationship

To reset the root of your view of the relationship chart:

1. Find the card of the user whom you want to the new root.
2. Click **Make This Entity the New Root** , or click the user's name (the name is a link) on that card. The chosen card becomes the root of the organization chart.

   For example, suppose Margo Mackenzie clicks Make This Entity the New Root in her own card in this view:



Her card becomes the new root and is now at the top of her organization chart:

7.3.3 Switching the Default Relationship

1 Click **Switch to An Org Chart** to change your default relationship.

2 Select the type of relationship to display. Your administrator can use relationships supplied by NetIQ (see Table 7-1) and can also define customized relationships.

Table 7-1 *Types of Organization Chart Relationships Supplied by NetIQ*

Type of Organizational Chart	Description
Manager - employee	Shows the reporting structure of managers and subordinates.
User group	Shows users and the groups in which they participate.

Margo Mackenzie changes her default relationship display to User Groups:

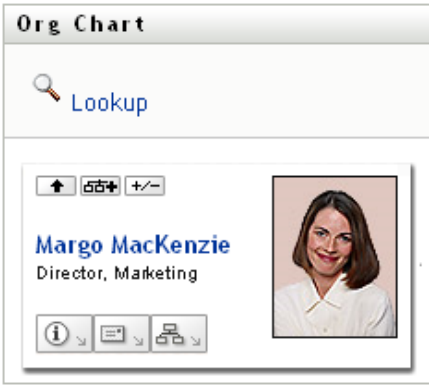
7.3.4 Expanding or Collapsing the Default Chart

The default relationship chart is Manager-Employee, unless you or your administrator sets it to another type. To expand or collapse the default chart:

1 Find a card for which you want to expand or collapse the default relationship display.

2 Click the **Expand/Collapse current relationship** toggle button.

The chart expands or collapses to display or hide the subsidiary cards that are related to your chosen card. For example, the following two views show the Expand view and then the Collapse view.



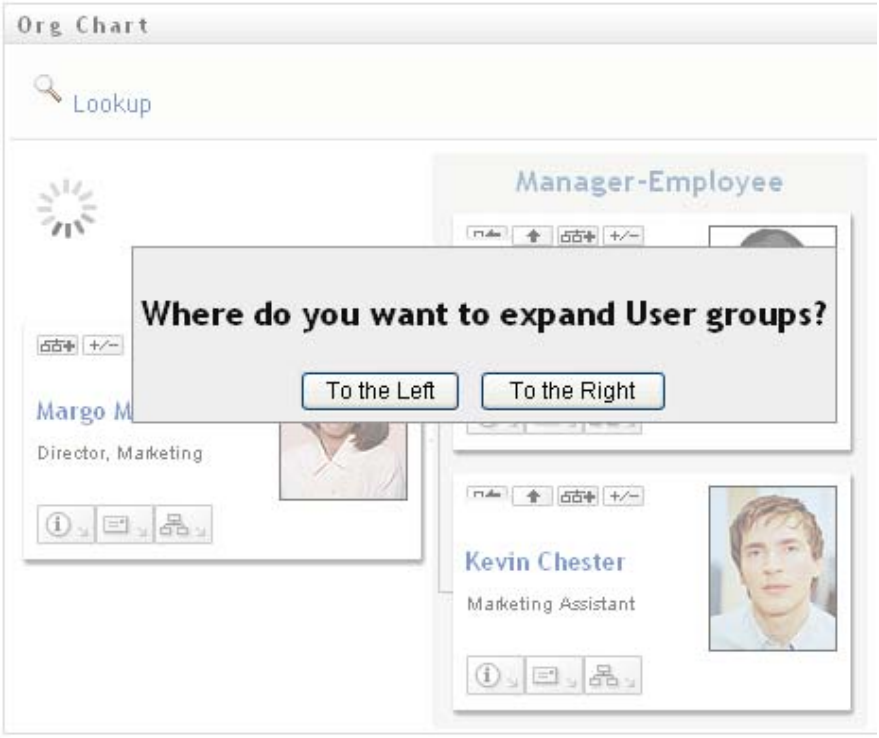
7.3.5 Choosing a Relationship to Expand or Collapse

1. Identify a card whose relationships you want to view.
2. Click **Choose relationship to Expand/Collapse** in that card. A drop-down list opens.
3. Select a relationship and action from the drop-down list:

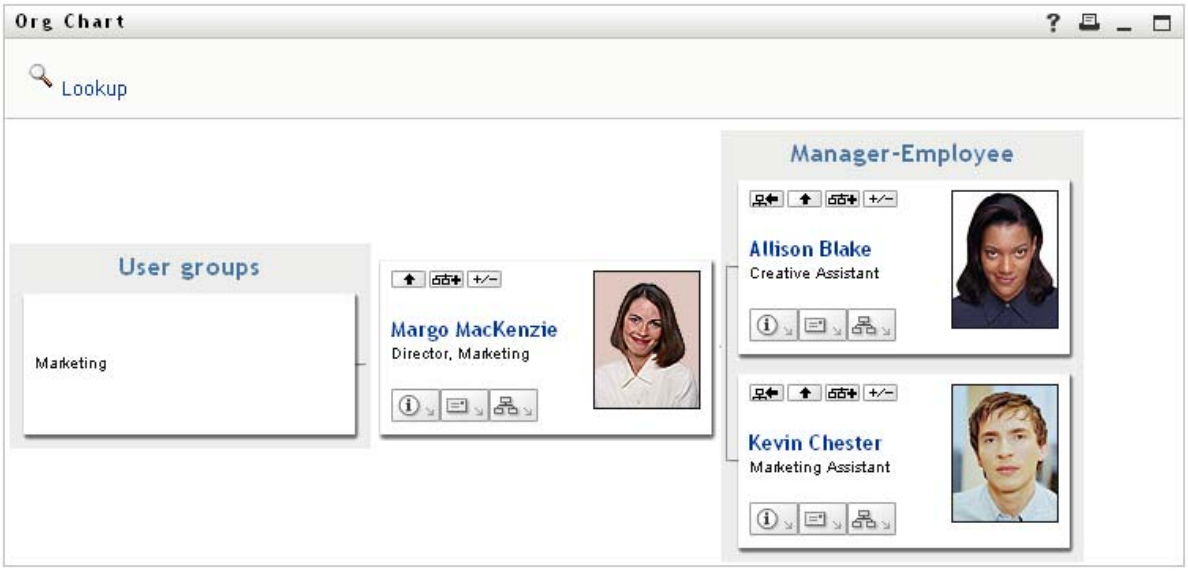
Action	Description
Expand Manager-Employee	Select this option to open a Manager-Employee chart. Available if the chart is closed.
Expand User Groups	Select this option to open User groups. Available if User groups is closed.
Collapse Manager-Employee	Select this option to collapse the Manager-Employee chart for a card. Available if the chart is open.
Collapse User Groups	Select this option to collapse User Groups for a card. Available if the chart is open.

Additional relationships are available in the list if your administrator defines them.

In the following example, Margo MacKenzie clicks **Choose relationship to Expand/Collapse** and selects **Expand User groups**:



She then clicks **To the Left** and sees the following:

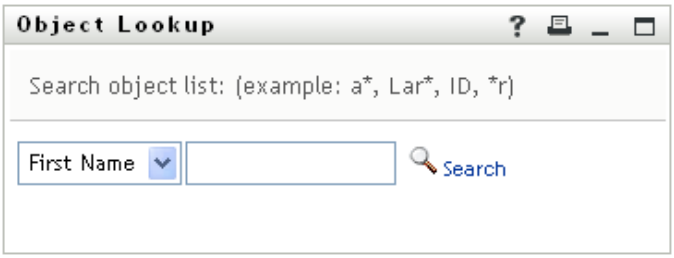


7.3.6 Looking Up a User in Organization Chart

You can look up a user in Organization Chart. This search is a quick way to find a user who is not in your current view or relationship chart. The looked-up user becomes the new root in your view.

1 Click the **Lookup** link at the top left corner of the chart.

The Lookup page displays:



2 Specify search criteria for the user you want:

2a Use the drop-down list to select whether the search is by **First Name** or **Last Name**.

2b In the text box next to the drop-down, type all or part of the name to search for.

The search finds every name that begins with the text you type. It is not case sensitive. You can optionally use the asterisk (*) as a wildcard in your text to represent zero or more of any character.

For instance, all of the following examples find the first name Chip:

```
Chip
chip
c
c*
*p
*h*
```

Entity names with a dash are not supported The search feature in the Organization Chart does not work if the entity type being displayed has a dash (-) in the name. The product does not support entities with dashes in their names.

3 Click **Search**.

The Lookup page displays your search results.

If you see a list of users that includes the one you want, continue to the next step. Otherwise, go back to Step 2.

You can sort the search results in ascending or descending order by clicking the column headings.

4 Select the user you want from the list.

The Lookup page closes and makes that user the new root in your view of the chart.

7.4 Displaying Detailed Information about Users

You can display details, which is the Profile page, for a selected user in the organization chart. In the **Dashboard**, select **View more information** or **Show Quick Info** for the user. In the **User Application**, complete the following steps:

1 Find the card of the user whose details you want to display.

2 Click **Identity Actions**  on that card:

A drop-down list displays.

3 Click **Show Info** from the drop-down list. Additional options are listed if your administrator defines them.

The Profile page displays, showing detailed information about your chosen user.

This page is similar to your own My Profile page on the **Identity Self-Service** tab. However, as you view details about another user, you might not be authorized to see some of the data or perform some of the actions on the page. Consult your system administrator for assistance.

4 When you're done with the Profile page, you can close its window.

7.5 Sending Email to Users from the Dashboard

You can quickly send a user an email from the Dashboard. In either the user's profile or when viewing the user in the organization chart, select the user's email address. Your system should open an email in your default email program addressed to that individual.

7.6 Sending Email to Users from the User Application

This section describes:

- Section 7.6.1, "Sending New Email to a User in the Chart," on page 56
- Section 7.6.2, "Emailing Information about a User in a Chart," on page 56
- Section 7.6.3, "Sending E-Mail to a Manager's Team," on page 56

7.6.1 Sending New Email to a User in the Chart

1. Find the card of a user to whom you want to send e-mail.
2. Click the e-mail icon  on the card.

   A pop-up menu displays.
3. Select **New Email**.

   A new message is created in your default e-mail client. The message is blank except for the **To** list, which specifies your chosen user as a recipient.
4. Fill in the message contents.
5. Send the message.

7.6.2 Emailing Information about a User in a Chart

1. Find the card of a user whose details you want to e-mail to someone.
2. Click the e-mail icon  on the card:

   A pop-up menu displays.
3. Select **Email Info**.

   A new message is created in your default e-mail client. The following parts of the message are already filled in for you:

This part of the message	Contains
Subject	The text: `Identity Information for` *`user-name`*
Body	Greeting, message, link, and sender's name. The link (URL) is to the Profile page that displays detailed information about your chosen user. This link prompts the recipient to log in to the Identity Manager User Application before it displays any information. The recipient must have appropriate authority to view or edit the data.

4. Specify the recipients of the message (and any additional content that you want).
5. Send the message.

7.6.3 Sending E-Mail to a Manager's Team

1. Find the card of a user who manages a team to whom you want to send e-mail.
2. Click the e-mail icon  on the card:

   A pop-up menu displays.
3. Select **Email to team**.

   A new message is created in your default e-mail client. The message is blank except for the *To* list, which specifies each immediate subordinate of your chosen user (manager) as a recipient.

4 Fill in the message contents.

5 Send the message.

8 Managing Your Password

Identity Manager includes Self Service Password Reset (SSPR) to help you manage the process for changing passwords and resetting forgotten passwords. During password reset, SSPR uses a challenge-response authentication method to authenticate the you.

NOTE: This section describes the default features of the managing your password. You might encounter some differences because of your job role, your level of authority, and customizations made for your organization; consult your system administrator for details.

8.1 Using Self-Service Password Management in Identity Manager

SSPR automatically integrates with the single sign-on process for the identity applications and Identity Reporting. It is the default password management program for Identity Manager. When a user requests a password reset, SSPR requires the user to answer the challenge-response question. If the answers are correct, SSPR responds in one of the following ways:

- Allow users to create a new password
- Create a new password and send it to the user
- Create a new password, send it to the user, and mark the old password as expired.

You configure this response in the SSPR Configuration Editor. After upgrading to a new version of Identity Manager, you can configure SSPR to use the NMAS method that Identity Manager traditionally used for password management. However, SSPR does not recognize your existing password policies for managing forgotten passwords. To continue using your policies, see “Understanding the Legacy Password Management Provider” in the *NetIQ Identity Manager Setup Guide*. You also can configure SSPR to use its proprietary protocol instead of NMAS. If you make this change, you cannot return to using NMAS without resetting your password policies.

You can use SSPR to do any of the functions listed in Table 8-2:

Table 8-1 *Password Management Functions*

This Password Management page	Enables you to
Password Challenge Response	Set or change either of the following: ◆ Your valid responses to administrator-defined challenge questions ◆ User-defined challenge questions and responses
Change Password	Change (reset) your password, according to the rules established by your system administrator

This Password Management page	Enables you to
Password Policy Status	Review your password policy requirements.

8.1.1 Understanding Password Challenge Response

Challenge questions are used to verify your identity during login when you have forgotten your password. If the system administrator has set up a password policy that enables this feature for you, you can use the Password Challenge Response page to:

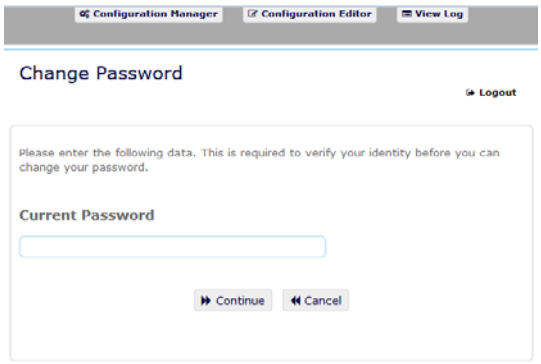
- Specify responses that are valid for you when answering administrator-defined questions
- Specify your own questions and the valid responses for them (if your password policy enables this)

In Identity Manager 4.5, during the login process, the login page automatically redirects you to the Challenge-Response page. You set up the responses for challenge questions on this page. For more information, see Section 2.4.1, “If You Forget Your Password,” on page 32. When you login again and try to reset the forgotten password, SSPR prompts the configured questions and asks you to specify the correct answer. When the answer matches with the response that you had saved earlier, SSPR allows you to reset the password.

8.1.2 Changing Your Password

You can change your password (providing that the system administrator has enabled you to do so).

1. In the Dashboard, click **Applications > Change My Password**.
2. Type your current password. The Change Password page displays.



3. Type your new password in the **New Password** text box.
4. Type your new password again in the **Confirm Password** text box.
5. Click **Change Password**.

   If your new password violates any of the password rules defined in the password policy by your administrator, you will see an error message on the Change Password page.

   This page typically provides information about how to specify a password that meets the policy’s requirements as defined by your administrator. Review the password rules, and try again.
6. Click **Continue**. The status of your request is displayed. On success, it takes you back to the OSP login page.

8.1.3 Password Policy Status

NOTE: This feature is only available for administrator users.

You are assigned a password policy by your administrator. The policy determines the security measures associated with your password. You cannot check your password policy requirements unless the User Application administrator has provided you with rights to do so. The User Application administrator can check the status of password policy on the Identity Manager Home page. This link does not exist by default. You need to customize the Home page to include it. For customizing the default Identity Manager Home items, see "Configuring Identity Manager Home" in the *NetIQ Identity Manager Home and Provisioning Dashboard User Guide*.

On the landing page, click **Password Status and Policy** link. The **Password Policy Status and Policy** page displays. To change your Identity Manager password, go to Identity Manager Home and select Change My Password. The Identity Manager Home link redirects you to the Change Password area of SSPR.

8.2 Using the Legacy Password Management

This section tells you how to use the Password Management pages on the **Identity Self-Service** tab of the Identity Manager User Application. Topics include:

NOTE: This section describes the default features of the Password Management pages. You might encounter some differences because of your job role, your level of authority, and customizations made for your organization; consult your system administrator for details.

For more general information about accessing and working with the **Identity Self-Service** tab, see Chapter 6, "Managing Your Profile," on page 43.

You can use the Password Management pages to do any of the functions listed in Table 8-2:

Table 8-2 *Password Management Functions*

This Password Management page	Enables you to
Password Challenge Response	Set or change either of the following: ◆ Your valid responses to administrator-defined challenge questions ◆ User-defined challenge questions and responses
Password Hint Change	Set or change your password hint
Change Password	Change (reset) your password, according to the rules established by your system administrator

This Password Management page	Enables you to
Password Policy Status	Review your password policy requirements.
Password Sync Status	Display the status of synchronization of application passwords with the Identity Vault **NOTE:** Accessing applications prior to completion of synchronization causes application access issues.

8.2.1 Password Challenge Response

Challenge questions are used to verify your identity during login when you have forgotten your password. If the system administrator has set up a password policy that enables this feature for you, you can use the Password Challenge Response page to:

- Specify responses that are valid for you when answering administrator-defined questions
- Specify your own questions and the valid responses for them (if your password policy enables this)

To use the Password Challenge Response page:

1. On the **Identity Self-Service** tab, click **Password Challenge Response** in the menu (under **Password Management**).

   The Password Challenge Response page displays.
2. Type an appropriate response in each **Response** text box (they are all required), or use your previously stored response. When **Use Stored Response** is selected, the challenge answers, including the labels, are not shown. In addition, user-defined challenge questions are disabled.

   Make sure you specify responses that you can remember later.
3. Specify or change any user-defined questions that are required. You may not use the same question more than once.
4. Click **Submit**.

   After you save the challenge responses, the User Application displays a message indicating that the challenge responses were saved successfully and displays the challenge response screen again with "Use Stored Response?" selected.

8.2.2 Password Hint Change

A password hint is used during login to help you remember your password when you have forgotten it. Use the Password Hint Change page to set or change your password hint.

1. On the **Identity Self-Service** tab, click **Password Hint Change** in the menu (under **Password Management**).

   The Password Hint Definition page displays.
2. Type the new text for your hint.

   Your password cannot appear within the hint text.
3. Click **Submit**.

   The status of your request displays.

8.2.3 Change Password

You can use this page whenever you need to change your password (providing that the system administrator has enabled you to do so).

1. On the **Identity Self-Service** tab, click **Change Password** in the menu (under **Password Management**).

   The Change Password page displays. If the system administrator has set up a password policy for you, the Change Password page typically provides information about how to specify a password that meets the policy's requirements. For example:

   If no password policy applies, you'll see the basic Change Password page, which simply provides fields for changing your password.

   From version 4.0.2, the User Application supports the following password syntax types:

   - Microsoft complexity policy

     This password syntax type is used for backward compatibility with Active Directory 2003.

   - Microsoft Server 2008 Password Policy

     This is a new password syntax type that has been added to eDirectory 8.8.7 to support Active Directory 2008.

     The following settings are supported with Microsoft Server 2008 Password Policy:

     - Use Microsoft Server 2008 Password Policy
     - Maximum number of complexity policy violations in password (0-5)

   - Novell syntax

     The following new settings are supported with the Novell syntax:

     - Minimum number of non-alphabetic characters (1-512)
     - Maximum number of non-alphabetic characters (1-512)

   For all three types password syntax types, the User Application supports the following features:

   - Number of characters different from current password and passwords from history (0-6)
   - Number of passwords in history to be considered for character exclusion (0-10)

   If your administrator has enabled the Microsoft Server 2008 Policy syntax, fill the following fields in the Change Password page:

2. Type your current password in the **Old password** text box.
3. Type your new password in the **New password** text box.
4. Type your new password again in the **Retype password** text box.
5. Click **Submit**.

   If your new password violates any of the password rules defined by your administrator, you will see an error message on the Change Password page. If you are using Microsoft Server 2008 Policy, and your password is in violation, the user interface will show this message at the top of the page:

   ```
   Password AD2008 complexity policy violation.
   ```

   If your new password is in violation, review the password rules defined by your administrator, and try again.

6. You might be prompted to supply a password hint, if your administrator configured your security policy to do so. If so, see Section 8.2.2, "Password Hint Change," on page 62.
7. The status of your request is displayed.

8.2.4 Password Policy Status

You are assigned a password policy by your administrator. The policy determines the security measures associated with your password. You can check your password policy requirements as follows:

1 On the **Identity Self-Service** tab, click **Password Policy Status** in the menu (under **Password Management**).

The **Password Policy Status** page displays.

Items labeled invalid are items that you cannot change.

8.2.5 Password Sync Status

Use the Password Sync Status page to determine if your password has been synchronized across applications. Access another application only after your password has synchronized. Accessing applications prior to completion of synchronization causes application access issues.

1 On the **Identity Self-Service** tab, click **Password Sync Status** in the menu (under **Password Management**).

The **Password Sync Status** page displays. Full-color icons indicate applications for which the password is synchronized. Dimmed icons indicate applications that are not yet synchronized.

NOTE: Only the administrator can see the **Select User** box.

III Managing Users and Groups

If you have the appropriate role in the identity applications, you can create and manage users and groups. You can create users in the Dashboard and User Application. You create and manage groups in the User Application.

9 Creating Users or Groups

This section tells you how to create users and groups in the Dashboard and User Application. Topics include:

9.1 Understanding Users and Groups

System administrators can create users and groups. The system administrator can give others (typically, selected people in administration or management positions) access to this functionality.

You might encounter some differences from functions documented in this section because of your job role, your level of authority, and customizations made for your organization. Consult your system administrator for details.

To check which users or groups already exist, use the Directory Search page. See Appendix B, “Using the Directory Search in the User Application,” on page 229.

9.2 Creating a User

When you create a user, the identity applications show only the attributes that have been configured as searchable and readable in the Directory Abstraction Layer (DAL). For more information, see Attribute Properties in the *NetIQ Identity Manager - Administrator’s Guide to Designing the Identity Applications*. User attributes that are added in the DAL as `isSearchable` and `isReadable` to **true** are shown in Create User Form in the Dashboard. Any other attributes that are added with `isSearchable` and `isReadable` to **false** cannot be added or shown in create user form page.

9.2.1 Creating a User in the Dashboard

To create a user, in the Dashboard select:

People > Users > +

The identity administrator defines the values that you can specify for the user. Also, when creating a user, you can see the user **Container** but you cannot modify its value. This limitation ensures that all users are stored in the same container.

For more information, see the Dashboard Help.

9.2.2 Creating a User in the User Application

1 On the **Identity Self-Service tab**, click **Create User or Group** in the menu (under **Directory Management**, if displayed).

The **Select an object to create** panel displays.

2 Use the **Object type** drop-down list to select **User**, then click **Continue**.

The **User - Set Attributes** panel displays.

3 Specify values for the following required attributes:

Attribute	What to Specify
User ID	The username for this new user.
Container	An organizational unit in the Identity Vault under which you want the new user stored (such as an OU named users). For example: `ou=users,ou=MyUnit,o=MyOrg` To learn about using the buttons provided to specify a container, see Section 9.4, “Using the Editing Buttons in the User Application,” on page 69. You won’t be prompted for Container if the system administrator has established a default create container for this type of object.
First Name	First name of the user.
Last Name	Last name of the user.

4 Specify optional details about this new user, such as Title, Department, Region, E-mail, Manager, or Telephone Number.

To learn about using the buttons provided to specify values for certain attributes, see Section 9.2, “Creating a User,” on page 67.

5 Click **Continue**.

The **Create Password** panel displays.

If a password policy is in effect for the target container, this panel provides information about how to specify a password that meets the policy’s requirements. The password is also validated against that policy.

6 Type a password for the new user in the **Password** and **Confirm Password** text boxes, then click **Continue**.

This sets the new user’s initial password. When that user first logs in, the Identity Manager User Application prompts the user to change this password.

The user and password are created, then the **Review** panel displays to summarize the result.

The **Review** panel provides optional links that you might find handy:

- Click the new user’s name to display the Profile page of detailed information for this user. From the Profile page, you can edit the user’s details to make changes or delete the user.
- Click **Create Another** to return to the initial panel of the Create User or Group page

9.3 Creating a Group

If you have an administrative role in the identity applications, you can create a group.

1 Log in to the User Application.

2 On the **Identity Self-Service** tab, click **Create User or Group** in the menu (under **Directory Management**, if displayed).

The **Select an object to create** panel displays.

3 Use the **Object type** drop-down list to select **Group**, then click **Continue**.

The **Set attributes for this Group** panel displays.

4 Specify values for the following required attributes:

Attribute	What to Specify
Group ID	The group name for this new group.
Container	An organizational unit in the identity vault under which you want the new group stored (such as an OU named groups). For example: `ou=groups,ou=MyUnit,o=MyOrg` To learn about using the buttons provided to specify a container, see Section 9.2, “Creating a User,” on page 67. **NOTE:** You won’t be prompted for **Container** if the system administrator has established a default create container for this type of object.
Description	A description of this new group.

5 Click **Continue**.

The group is created, then the **Review** panel displays to summarize the result.

The **Review** panel provides optional links that you might find handy:

- Click the new group’s name to display the Profile page of detailed information for this group From the Profile page, you can edit the group’s details to make changes or delete the group.
- Click **Create Another** to return to the initial panel of the Create User or Group page

9.4 Using the Editing Buttons in the User Application

Table 9-1 lists the editing buttons you can use to specify values for attributes.

Table 9-1 *Editing Buttons for Specifying Users and Groups*

Button	What It Does
	Looks up a value to use in an entry
	Displays a **History** list of values used in an entry
	Resets the value of a selected entry
	Adds a new entry. You can add more than one entry.
	Indicates that more than one entry exists.
	Deletes a selected entry and its value

IMPORTANT: It is possible to use the Edit User page of the **Identity Self-Service** tab to break the hierarchical reporting structure. For example, you can add a direct report to a manager even if the direct report has another manager assigned, or you can have a manager report to a person in his or her own organization.

9.4.1 Looking Up a Container

1 Click **Lookup** to the right of an entry for which you want to look up a container:

The Lookup page displays a tree of containers.

You can expand or collapse the nodes in this tree (by clicking the + or - buttons) to look for the container you want.

2 If necessary, specify search criteria for the container you want.

In the text box, type all or part of the container name to search for. The search finds every container name that begins with the text you type. It is not case sensitive. You can optionally use the asterisk (*) as a wildcard in your text to represent zero or more of any character.

For instance, all of the following examples find the container named users:

```
Users
users
u
u*
*s
*r*
```

3 Click **Search**.

The Lookup page displays your search results.

4 Select the container you want from the tree.

The Lookup page closes and inserts the name of that container into the appropriate entry.

9.4.2 Looking Up a User

1 Click **Lookup** to the right of an entry (for which you want to look up a user):

The Lookup page displays.

2 Specify search criteria for the user you want:

2a Use the drop-down list to select a search by **First Name** or **Last Name**.

2b In the text box next to the drop-down list, type all or part of the name to search for.

The search finds every name that begins with the text you type. It is not case sensitive. You can optionally use the asterisk (*) as a wildcard in your text to represent zero or more of any character.

For instance, all of the following examples find the first name Chip:

```
Chip
chip
c
c*
*p
*h*
```

A manager lookup searches only for users who are managers.

3 Click **Search**.

The Lookup page displays your search results.

If you see a list of users that includes the one you want, go to Step 4. Otherwise, go back to Step 2.

You can sort the search results in ascending or descending order by clicking the column headings.

4 Select the user you want from the list.

The Lookup page closes and inserts the name of that user into the appropriate entry.

9.4.3 Using the History List

1 Click **History** to the right of an entry (whose previous values you want to see):

The **History** list displays, with values in alphabetical order.

2 Do one of the following:

If you want to	Do this
Pick from the **History** list	Select a value that you want from the list. The **History** list closes and inserts that value into the appropriate entry.
Clear the **History** list	Click **Clear History**. The **History** list closes and deletes its values for this entry. Clearing the **History** list does not change the current value of the entry.

IV Using the Work Dashboard Tab

These sections tell you how to use the **Work Dashboard** tab of the Identity Manager User Application.

NOTE: Much of this functionality has been superseded by the introduction of the Dashboard with Identity Manager 4.6. For more information, see Part II, “Managing Your Permissions and Identity Profile,” on page 35 and Part III, “Managing Users and Groups,” on page 65.

10 Introducing the Work Dashboard Tab

This section provides an overview of the **Work Dashboard** tab. Topics include:

10.1 About the Work Dashboard Tab

The **Work Dashboard** tab provides a convenient way to manage tasks, resources, and roles. In addition, it allows you to review the status of requests, and change settings within the User Application. The **Work Dashboard** tab presents only the most relevant features of the application, allowing you to focus on your work.

When a request requires permission from one or more individuals in an organization, the request starts a workflow. The workflow coordinates the approvals needed to fulfill the request. Some requests require approval from a single individual; others require approval from several individuals. In some instances, a request can be fulfilled without any approvals.

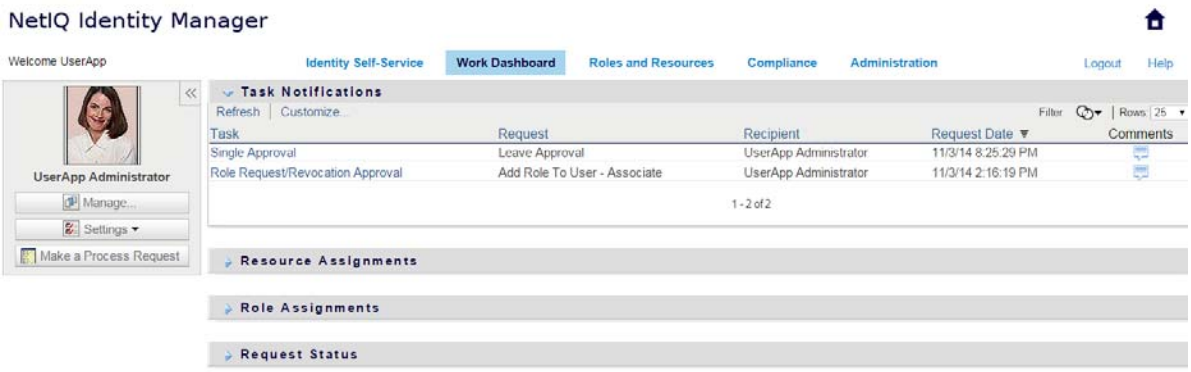
When a request is initiated, the User Application tracks the initiator and the recipient. The initiator is the person who made the request. The recipient is the person for whom the request was made.

Your workflow designer and system administrator are responsible for setting up the contents of the **Work Dashboard** tab for you and the others in your organization. The flow of control for a workflow, as well as the appearance of forms, can vary depending on how the designer and administrator configured the application. In addition, what you can see and do is typically determined by your job requirements and your level of authority.

10.2 Accessing the Work Dashboard Tab

By default, after you have logged in to the Identity Manager user interface, the **Work Dashboard** tab opens:

Figure 10-1 *Work Dashboard*



If you go to another tab in the Identity Manager user interface but then want to return, you just need to click the **Work Dashboard** tab to open it again.

10.3 Exploring the Tab's Features

This section describes the default features of the **Work Dashboard** tab. (Your tab might look different because of customizations made for your organization; consult your system administrator or workflow designer.)

The right side of the **Work Dashboard** tab displays several sections that give you access to typical Work Dashboard actions. The sections are described below:

Table 10-1 *Sections of the Work Dashboard*

Section	Description
Task Notifications	Lets you check the workflow queue for tasks that have been assigned to you or to a user whose tasks you are permitted to manage.
Resource Assignments	Allows you to see what resource assignments you have, and also make requests for additional resource assignments.
Role Assignments	Allows you to see what roles you have, and also make requests for additional role assignments.
Request Status	Allows you to see the status of the requests you've made. It lets you see the current state of each request. In addition, it gives you the option to retract a request that is still in process if you have changed your mind and do not need to have the request fulfilled. The **Request Status** display includes provisioning requests, role requests, and resource requests in a single consolidated list.

The Work Dashboard also includes a User Profile section in the upper-left corner of the screen. This section of the page lets you manage work for other users, groups, containers, and roles. In addition, it lets you manage your settings and team settings, and also make process requests (also known as provisioning requests).

The actions available within the User Profile section are described below:

Table 10-2 Actions Available From the User Profile Section

Action	Description
Manage	Allows the current user to select a particular user, group, container, role, or team and use the Work Dashboard interface to manage work for the selected entity type. After the user selects an entity, the data and access permissions on the Work Dashboard pertain to the selected entity, rather than to the user currently logged on. However, when the user is in Manage mode, the **Settings** and **Make a Process Request** menus still apply to the logged-in-user, not the selected entity in the **Manage** control.
Settings	Give you the ability to act as a proxy for another user. In addition, they allow you to view your proxy and delegate assignments. If you are a team manager or Provisioning Application Administrator, you might also be permitted to define proxy and delegate assignments, as well as team availability settings.
Make a Process Request	Allows you to initiate a process request (also known as a provisioning request). By default, this action is not included in the User Profile section of the Work Dashboard. The **Make a Process Request** menu does not allow you to make attestation, resource, or role requests. The interface for submitting these requests depends on the type of request you want to make, as described below: ◆ To make an attestation request, you need to use the **Attestation Requests** actions on the **Compliance** tab. ◆ To make a resource request, you need to use the **Resource Assignments** section of the **Work Dashboard** tab, or the **Resource Catalog** on the **Roles and Resources** tab. ◆ To make a role request, you need to use the **Role Assignments** section of the **Work Dashboard** tab, or the **Role Catalog** on the **Roles and Resources** tab.

10.4 Work Dashboard Actions You Can Perform

The Work Dashboard sections support the following actions:

Table 10-3 Common Work Dasbhoard Actions

Action	Description
Assign	Assigns a role or resource. Only available with the **Role Assignments** and **Resource Assignments** actions.
Remove	Removes a role or resource assignment. Only available with the **Role Assignments** and **Resource Assignments** actions.
Refresh	Refreshes the display.
Customize	Allows you to specify which columns appear in the display, and what order they appear in.

Action	Description
Filter	Allows you to filter the data based on selection criteria.
Rows	Gives you the ability to control how many rows appear on each page of the display.

You can also sort the data in the list by clicking the headings in the display.

Saving User Preferences When you use the Customize, Filter, and Rows actions to customize the display within any of the sections of the Work Dashboard, or change the sort order of the data displayed, your customizations are saved in the Identity Vault along with your other user preferences. To allow the user preferences to be saved, the administrator must ensure that the permissions on the srvprvUserPrefs and srvprvQueryList attributes are set so that the user is able to write to these attributes.

10.5 Understanding the Icons on the Work Dashboard

When you use the Work Dashboard, you see icons in many places that convey important information.

The table below provides detailed descriptions of the icons used on the Work Dashboard:

Table 10-4 *Work Dashboard Icons*

Icon	Description
Claimed	Indicates whether a particular workflow task has been claimed by a user. Appears in the Task Notifications section of the Work Dashboard.
Running: Processing	Indicates that a particular request is still in process. Appears in the Request Status section of the Work Dashboard.
Completed: Approved	Indicates that a particular request has completed its processing and has been approved. Appears in the Request Status section of the Work Dashboard.
Completed: Denied	Indicates that a particular request has completed its processing and has been denied. Appears in the Request Status section of the Work Dashboard.
Terminated: Retracted	Indicates that a particular request was retracted by a user (either the user who submitted the request, a Team Manager, or an Domain Administrator or Domain Manager). Appears in the Request Status section of the Work Dashboard.
Terminated: Error	Indicates that a particular request was terminated because of an error. Appears in the Request Status section of the Work Dashboard.
Edit	Lets you edit a proxy or delegate assignment. To edit the assignment, select it and click the Edit icon. Appears on the My Proxy Assignments, My Delegate Assignments, Team Proxy Assignments, Team Delegate Assignments, Edit Availability, and Team Availability pages.

Icon	Description
Delete	Lets you delete a proxy or delegate assignment. To delete the assignment, select it and click the **Delete** icon. Appears on the **My Proxy Assignments**, **My Delegate Assignments**, **Team Proxy Assignments**, **Team Delegate Assignments**, **Edit Availability**, and **Team Availability** pages.
Multiple Recipients Allowed	Indicates that this resource provides support for multiple recipients. When a resource supports multiple recipients, the **Make Team Process Requests** action lets you select multiple users as recipients. Appears on the **Make Team Process Requests** page.
Assigned to Delegate	Indicates that a particular workflow task has been delegated by another user. This task appears in the current user's queue because the original assignee has declared himself or herself unavailable. Because the current user is the original assignee's delegate, this user sees the task. Appears in the **Task Notifications** section of the Work Dashboard.
Assigned to User	Indicates that a particular workflow task was assigned to a user. Appears in the **Task Notifications** section of the Work Dashboard.
Assigned to Group	Indicates that a particular workflow task was assigned to a group. Appears in the **Task Notifications** section of the Work Dashboard.
Assigned to Role	Indicates that a particular workflow task was assigned to a role. Appears in the **Task Notifications** section of the Work Dashboard.
Assigned to Multiple Approvers	Indicates that a particular workflow task was assigned to more than one user. This icon applies in the following situations: ◆ The task has been assigned to a group of addressees, but only one addressee can claim and approve the task. When this approval is given, task execution is considered finished. ◆ The task has been assigned to multiple addressees, and all of them must claim and approve the task before the activity can be considered complete. ◆ The task has been assigned to multiple addressees, and a quorum of users must claim and approve the task before the activity can be considered complete. The definition of a quorum is configured by the administrator. To define the quorum, the administrator specifies an approval condition that specifies the precise number of approvals or the percentage of approvals needed. Appears in the **Task Notifications** section of the Work Dashboard.
Available for ALL Requests	Indicates that a particular user is available for all kinds of process requests. This setting applies to delegation. Appears on the **Edit Availability** and **Team Availability** pages.

Icon	Description
NOT Available for Specified Requests	Indicates that a particular user is not available for certain kinds of process requests during a particular period. This setting applies to delegation. During the time period when a particular user is unavailable for these requests, the user delegated to act on these requests can work on them. Appears on the **Edit Availability** and **Team Availability** pages.
NOT Available for ANY Requests	Indicates that a particular user is not available for any process requests currently in the system. This setting applies to delegation. During the time period when a particular user is unavailable for a request, the user delegated to act on that request can work on it. Appears on the **Edit Availability** and **Team Availability** pages.

10.6 Security Permissions for the Work Dashboard

This section describes the permissions needed by each user to perform various actions on the Work Dashboard. Topics include:

10.6.1 User Self-Service

The authenticated user can perform self-service actions for tasks on the Work Dashboard without any security permissions, as outlined in the table below.

Table 10-5 *Task Notifications for User Self-Service*

To perform this action...	Authenticated user must be...	And the user must have these permissions...
View task in list	Addressee for task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group. **NOTE:** In self-service mode, the Domain Administrator or Domain Manager can also view tasks for which he/she is a recipient.	None.
View and work with task detail	Addressee for task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	None.

To perform this action...	Authenticated user must be...	And the user must have these permissions...
View workflow comments	Addressee for task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	None.

The authenticated user requires entry browse rights to assign or remove role and resource assignments, as outlined in the table below.

Table 10-6 *Role and Resource Assignments for User Self-Service*

To perform this action...	Authenticated user must be...	And the user must have these permissions...
View role or resource in list	Recipient. The list of assignments includes assignments for groups and containers to which the user belongs.	None.
Assign or remove assignment for role or resource	Recipient. Grant and Revoke operations apply to the authenticated user only	Trustee (Entry Browse)

The authenticated user requires entry browse rights for some request status actions, as outlined in the table below.

Table 10-7 *Request Status for User Self-Service*

To perform this action...	Authenticated user must be...	And the user must have these permissions...
View process requests in list	Initiator or recipient	None.
View and work with process request detail	Initiator or recipient (if the **Restrict View** option is set to false in Designer). If the **Restrict View** option is set to true, the display is restricted to tasks initiated by the user, even if the user has browse rights.	Trustee (Entry Browse)
Retract process requests	Initiator and recipient The request must be in a retractable state, which means that it has not been approved, denied, canceled or provisioned.	Trustee (Entry Browse)

To perform this action...	Authenticated user must be...	And the user must have these permissions...
View workflow comments for process requests	Initiator or recipient (if the **Restrict View** option is set to false in Designer). If the **Restrict View** option is set to true, the display is restricted to tasks initiated by the user, even if the user has browse rights.	Trustee (Entry Browse)
View role or resource requests in list	Initiator or recipient	None.
View and work with role or resource request detail	Initiator or recipient	Trustee (Entry Browse)
Retract role or resource requests	Initiator and recipient. The request must be in a retractable state, which means that it has not been approved, denied, canceled or provisioned.	Trustee (Entry Browse)
View workflow comments for role or resource requests	Initiator or recipient	Role/Resource Trustee (Entry Browse)

10.6.2 Domain Administrator in Manage Mode

In manage mode, the Domain Administrator can perform actions for tasks on the Work Dashboard without any security permissions, as outlined in the table below.

Table 10-8 *Task Notifications for Domain Administrator in Manage Mode*

To perform this action...	Managed User, Group, Container, or Role must be...	And the Domain Administrator must have these permissions...
View task in list	Addressee or recipient for task. **NOTE:** A role cannot be the recipient for a task. It can only be the addressee for a task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	None.
View and work with task detail	Addressee or recipient for task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	None.

To perform this action...	Managed User, Group, Container, or Role must be...	And the Domain Administrator must have these permissions...
View workflow comments	Addressee or recipient for task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	None.

In manage mode, the Domain Administrator can perform all actions for role and resource assignments on the Work Dashboard without any security permissions, as outlined in the table below.

Table 10-9 *Role and Resource Assignments for Domain Administrators in Manage Mode*

To perform this action...	Managed User, Group, or Container must be...	And the Domain Administrator must have these permissions...
View role or resource in list	Recipient. The list of assignments includes assignments for groups and containers to which the user belongs.	None.
Assign or remove assignment for role or resource	Recipient. The list of assignments includes assignments for groups and containers to which the user belongs.	None. On the Work Dashboard, the Domain Administrator can edit, assign, or remove all role assignments, except system role assignments that are not in the domain he is authorized to administer. This means that the Role Domain Administrator can remove Role Administrator and Role Manager assignments, but not Resource Administrator or Resource Manager assignments. Domain Administrator can view and edit any resource.

In manage mode, the Domain Administrator can perform self-service actions for request status on the Work Dashboard without any security permissions, as outlined in the table below.

Table 10-10 *Request Status for Domain Administrators in Manage Mode*

To perform this action....	Managed User, Group, or Container must be...	And the Domain Administrator must have these permissions....
View process requests in list	Initiator or recipient	None.
View and work with process request detail	Initiator or recipient	None.
Retract process requests	Initiator or recipient	None.

To perform this action....	Managed User, Group, or Container must be...	And the Domain Administrator must have these permissions....
View workflow comments for process requests	Initiator or recipient	None.
View role or resource requests in list	Initiator or recipient	None.
View and work with role or resource request detail	Initiator or recipient.	None.
	The Domain Administrator cannot see requests for system roles.	Domain Administrator can view all role requests, except for system role requests.
		Domain Administrator can view and edit any resource.
Retract role or resource requests	Initiator or recipient.	None.
	The request must be in retractable state.	Domain Administrator can retract all role requests, except for system role requests.
	The Domain Administrator cannot retract requests for system roles.	Domain Administrator can view and edit any resource.
View workflow comments for role or resource requests	Initiator or recipient.	None.
	The Domain Administrator cannot view workflow comments for system roles.	Domain Administrator can view and edit all roles except system roles.
		Domain Administrator can view and edit any resource.

10.6.3 Domain Manager in Manage Mode

In manage mode, the Domain Manager can view tasks without any security permissions, but must have permission to view task details and workflow comments, as outlined in the table below.

Table 10-11 *Task Notifications for Domain Managers in Managed Mode*

To perform this action...	Managed User, Group, Container, or Role must be...	And the Domain Manager must have these permissions...
View task in list	Addressee or recipient for task.	None.
	NOTE: A role cannot be the recipient for a task. It can only be the addressee for a task.	
	Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	
View task detail	Addressee or recipient for task.	Manage Addressee Task
	Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	

To perform this action...	Managed User, Group, Container, or Role must be...	And the Domain Manager must have these permissions...
View workflow comments	Addressee or recipient for task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	Manage Addressee Task

In manage mode, the Domain Manager can view role and resource assignments without any security permissions, but must have permission to assign roles and resources or to remove existing assignments, as outlined in the table below.

Table 10-12 *Role and Resource Assignments for Domain Managers in Manage Mode*

To perform this action...	Managed User, Group, or Container must be...	And the Domain Manager must have these permissions...
View role or resource in list	Recipient. The list of assignments includes assignments for groups and containers to which the user belongs.	None.
Assign or remove assignment for role or resource	Recipient. The list of assignments includes assignments for groups and containers to which the user belongs.	One or more of the following trustee permissions for a role: ◆ Assign Role To User ◆ Revoke Role From User ◆ Assign Role To Group And Container ◆ Revoke Role From Group And Container One or more of the following trustee permissions for a resource: ◆ Assign Resource ◆ Revoke Resource

In manage mode, the Domain Manager can view process, role, and resource requests without any security permissions, but must have permission to view request details and workflow comments, as well as to retract requests, as outlined in the table below.

Table 10-13 *Request Status for Domain Managers in Manage Mode*

To perform this action...	Managed User, Group, or Container must be...	And the Domain Manager must have these permissions...
View process requests in list	Initiator or recipient	None.
View and work with process request detail	Initiator or recipient	View Running PRD

To perform this action...	Managed User, Group, or Container must be...	And the Domain Manager must have these permissions...
Retract process requests	Initiator or recipient	Retract PRD
View workflow comments for process requests	Initiator or recipient	View Running PRD
View role or resource requests in list	Initiator or recipient	None.
View and work with role or resource request detail	Initiator or recipient	View Role or View Resource The View Role permission controls whether you can see details for role requests in the Request Status section of the Work Dashboard. The View Resource permissions controls whether you can see details for resource requests.
Retract role or resource requests	Initiator or recipient. The request must be in a retractable state	One or more of the following trustee permissions for a role: ◆ Assign Role To User ◆ Assign Role To Group And Container ◆ Update Role ◆ Revoke Role From User ◆ Revoke Role From Group And Container The following trustee permission for a resource: ◆ Revoke Resource
View workflow comments for role or resource requests	Initiator or recipient	View Role or View Resource

10.6.4 Team Manager in Manage Mode

In manage mode, the Team Manager can view tasks without any security permissions, but must have permission to view task details and workflow comments, as outlined in the table below.

Table 10-14 *Task Notifications for Team Managers in Manage Mode*

To perform this action...	Managed User must be...	And the Team Manager must have these permissions...
View task in list	A member of the team and also the addressee for the task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	None.

To perform this action...	Managed User must be...	And the Team Manager must have these permissions...
View task detail	A member of the team and also the addressee for the task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	Manage Addressee Task
View workflow comments	A member of the team and also the addressee for the task. Alternatively the task may be delegated to this user by the addressee, or be claimed by this user for a group.	Manage Addressee Task

In manage mode, the Team Manager can view role and resource assignments without any security permissions, but must have permission to assign roles and resources or to remove existing assignments, as outlined in the table below.

Table 10-15 *Role and Resource Assignments for Team Managers in Manage Mode*

To perform this action...	Managed user must be...	And the Team Manager must have these permissions...
View role or resource in list	A member of the selected team. The user must also be the recipient. The list of role assignments includes assignments for groups and containers to which the user belongs. The list of resource assignments includes assignments for the managed user only.	None.
Assign or remove assignment for role or resource	A member of the selected team. The user must also be the recipient. The list of assignments includes assignments for groups and containers to which the user belongs.	One or more of the following trustee permissions for a role: ◆ Assign Role To User ◆ Revoke Role From User ◆ Assign Role To Group And Container ◆ Revoke Role From Group And Container One or more of the following trustee permissions for a resource: ◆ Assign Resource ◆ Revoke Resource

In manage mode, the Team Manager can view process, role, and resource requests without any security permissions, but must have permission to view request details and workflow comments, as well as to retract requests, as outlined in the table below.

Table 10-16 *Request Status for Team Managers in Manage Mode*

To perform this action...	Managed user must be...	And the Team Manager must have these permissions...
View process requests in list	Initiator or recipient	None.
View and work with process request detail	Initiator or recipient	View Running PRD
Retract process requests	Initiator or recipient	Retract PRD
View workflow comments for process requests	Initiator or recipient	View Running PRD
View role or resource requests in list	Initiator or recipient	None.
View and work with role or resource request detail	Initiator or recipient	View Role or View Resource The View Role permission controls whether you can see details for role requests in the Request Status section of the Work Dashboard. The View Resource permissions controls whether you can see details for resource requests.
Retract role or resource requests	Initiator or recipient. The request must be in a retractable state.	One or more of the following trustee permissions for a role: ◆ Assign Role To User ◆ Assign Role To User and Group ◆ Update Role ◆ Revoke Role From User ◆ Revoke Role From Group And Container The following trustee permission for a resource: ◆ Revoke Resource
View workflow comments for role or resource requests	Initiator or recipient	View Role or View Resource

11 Managing Your Work

This section describes the actions supported by the Work Dashboard page. Topics include:

11.1 Working with Tasks

The **Task Notifications** action lets you check the workflow queue for tasks that have been assigned to you or to a user, group, container, or role whose tasks you are permitted to manage. When a task is in your queue, you need to perform one of the following actions:

- Claim the task so you begin working on it
- Reassign the task to another user, group, or role

NOTE: To reassign a task, you must be a Provisioning Administrator or Provisioning Manager (or Team Manager) who has the **Manage Addressee Task** permission. If you do not have this permission, the **Reassign** button is not available.

The business user who does not have any administrative privileges can only see tasks for which he is the addressee. The business user does not see tasks for which he is the recipient. The list of tasks shown to the business user includes unclaimed tasks.

Alternatively the task may be delegated to the business user by the addressee, or be claimed by this user for a group.

NOTE: The business user does not need to have directory browse rights to the provisioning request definition that started the workflow in order to see a task for which he is the addressee.

The Provisioning Administrator and Provisioning Manager have the ability to manage tasks for other users, as described below:

- When nothing is selected in the **Manage** control, the task list shows the current user’s tasks. These tasks include those for which he is either recipient or addressee, as well as tasks for which the recipient or addressee is a group, container, or role to which the current user belongs. The Provisioning Administrator or Provisioning Manager can do anything with his own tasks, since no rights are required to work with one’s own tasks.
- When a user is selected in the **Manage** control, the list shows tasks that have the selected user as addressee, as well as those for which the user is the recipient. The Provisioning Administrator or Provisioning Manager can filter the task list to show only those tasks for which the managed user is addressee. Alternatively, the user can filter the list to show only those tasks for which the managed user is the recipient.

- When a group is selected, the list shows tasks that have the selected group as addressee, as well as those for which the group is recipient. The Provisioning Administrator, Provisioning Manager, or Team Manager can filter the task list to show only those tasks for which the managed group is addressee. Alternatively, the user can filter the list to show only those tasks for which the managed group is the recipient.
- When a role is selected, the list shows tasks that have the selected role as addressee. A role cannot be specified as the recipient for a task.
- When a container is chosen, the list shows tasks that have the selected container as recipient. A container cannot be specified as the addressee for a task.

A Team Manager for the Provisioning domain has the ability to manage tasks for team members. Before selecting a team member, the Team Manager must select a team.

The **Task Notifications** action allows you to work on tasks associated with resource requests, role requests, process requests, and attestation requests. In some cases, the user interface may differ depending on which type of task you select to work on. For attestation requests, the **Task Notifications** action shows only those tasks for which the current user is designated as an attester.

When you claim a task associated with a resource, role, or process request, you have the ability to take an action that forwards the workitem to the next activity within the workflow. The actions you can perform are described below:

Table 11-1 *Forward Actions*

Forward Action	Description
Approve	Allows you to give your approval to the task. When you approve the task, the workitem is forwarded to the next activity in the workflow.
Deny	Allows you to explicitly deny your approval to the task. When you deny the task, the workitem is forwarded to the next activity in the workflow and the request is denied. Typically, the workflow process terminates when a request is denied.
Refuse	Allows you to explicitly refuse the task. When you refuse the task, the workitem is forwarded to the next activity for the refused action in the workflow. The Refuse action applies to individual tasks. The user interface does not permit to you to perform this action on a set of tasks.

When you claim a task associated with an attestation request, you need to review the information displayed in the attestation form. In addition, you need to answer the required attestation question, which indicates whether you attest to the correctness of the data, and, in some cases, respond to one or more survey questions. For user profile attestation processes, the form includes your user attribute data, which you need to verify for accuracy. For role assignment, user assignment, and SoD attestation processes, the form includes a report that shows the role assignment, user assignment, or SoD data you need to verify.

11.1.1 Viewing the Task List

To see the tasks that have been assigned to you:

1. Click **Task Notifications** in the group of actions on the Work Dashboard.

   The list of tasks in your queue is displayed.

For resource and role requests, the **Recipient** column in the task list specifies the user(s) or group(s) that will receive the resource or role in the event that the required approvals are given. For attestation requests, the **Recipient** column specifies the name of the attester.

The **Type** column in the task list includes an icon that indicates whether the task is currently assigned to a user, group, delegate, or to multiple approvers. The type **Assigned to Multiple Approvers** applies in the following situations:

- The task has been assigned to a group of addressees, but only one addressee can claim and approve the task. After this approval is given, task execution is considered complete.
- The task has been assigned to multiple addressees, and all of them must claim and approve the task before the activity can be considered complete.
- The task has been assigned to multiple addressees, and a quorum of users must claim and approve the task before the activity can be considered complete. The definition of a quorum is configured by the administrator. To define the quorum, the administrator specifies an approval condition that specifies the precise number of approvals or the percentage of approvals needed.

The workflow system performs *short circuit evaluation* to optimize quorums. Whenever a quorum approval condition reaches the point where a quorum is not possible, the activity is denied and the task is removed from the queues of all addressees.

The **Priority** column shows a flag for the high priority tasks. You can sort the list of tasks by priority by clicking the **Priority** column.

Workflow tasks associated with attestation requests show a task name of **Attestation Approval**.

11.1.2 Viewing the Summary for a Task

To see the summary information for a task, hover over the task name in the task list.

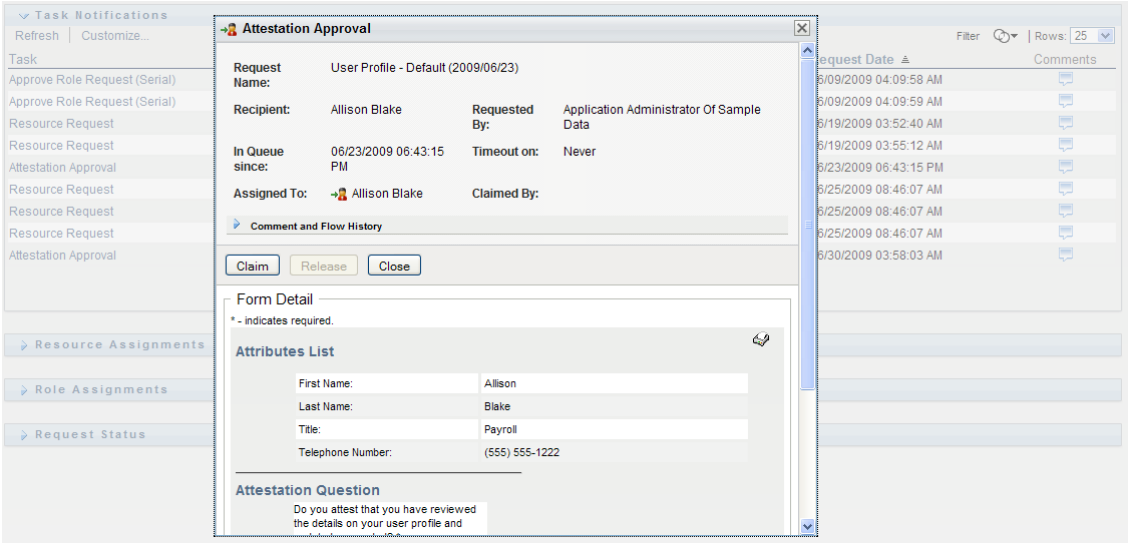
11.1.3 Selecting a Task

To select a task in the queue list:

1. Click the name of the task in the queue.

   The Task Detail form is displayed, either in a message window, or inline with the list of tasks. This behavior is controlled by a setting in the **Customize** dialog. The image below shows the Task Detail form inline:

   The image below shows the Task Detail form in a message window:



When a task is assigned to multiple approvers, the Task Detail form displays the **Multiple Approvers** icon next to the **Assigned To** field, and displays text below the icon to indicate that multiple approvals are necessary.

2 To display more information about a task assigned to multiple approvers, click the text under the **Multiple Approvers** icon.

A pop-up window displays to indicate how many approvals are required, who the current addressees are, and what the approval status currently is.

The requirements for the task depend on how the task was configured by your administrator:

- If the approval type is *group*, the task has been assigned to several users within a group, but only one is expected to claim and approve the task.
- If the approval type is *role*, the task has been assigned to several users within a role, but only one is expected to claim and approve the task.
- If the approval type is *multiple approvers*, the task has been assigned to several addressees, and all of the addressees must claim and approve the task.
- If the approval type is *quorum*, the task has been assigned to several addressees, and a quorum of addressees is sufficient to approve the task. The definition of a quorum is configured by the administrator. To define the quorum, the administrator specifies an approval condition that specifies the precise number of approvals or the percentage of approvals needed.

The workflow system performs *short circuit evaluation* to optimize quorums. Whenever a quorum approval condition reaches the point where a quorum is not possible, the activity is denied and the task is removed from the queues of all addressees.

3 To claim a task, follow the instructions under Section 11.1.4, “Claiming a Task,” on page 93.

4 To view the comment history for the task, click **View Comment History**.

A pop-up window lets you see user and system comments. The order in which comments appear is determined by the time stamp associated with each comment. Comments entered first are displayed first. For parallel approval flows, the order of activities being processed concurrently can be unpredictable.

4a Click **Comment and Flow History**.

4b To display user comments, click **User Comments**.

User comments include the following kinds of information:

- The date and time when each comment was added.
- The name of the activity to which each comment applies. The list of activities displayed includes user and provisioning activities that have been processed or are currently being processed.
- The name of the user who made the comment. If the comment is generated by the workflow system, the name of the application (for example, `IDMProv`) is the user name. Comments generated by the workflow system are localized automatically.
- The comment text, which includes the name of the user who is the current assignee for each activity.

The workflow designer can disable the generation of user comments for a workflow. For more information, see the *NetIQ Identity Manager - Administrator's Guide to Designing the Identity Applications*.

4c To display system comments, click **Show System Comments**.

System comments include the following kinds of information:

- The date and time when each comment was added.
- The name of the activity to which each comment applies. When you display system comments, all activities in the workflow are listed. The list of activities includes those that have been processed or are currently being processed.
- The name of the user who made the comment. If the comment is generated by the workflow system, the name of the application (for example, `IDMProv`) is the user name. Comments generated by the workflow system are localized automatically.
- The comment text, which indicates what action was taken for the activity.

System comments are intended primarily for debugging purposes. Most business users do not need to look at the system comments for a workflow.

4d To scroll through a long list of comments, click the arrows at the bottom of the screen. For example, to scroll to the next page, click the **Next** arrow.

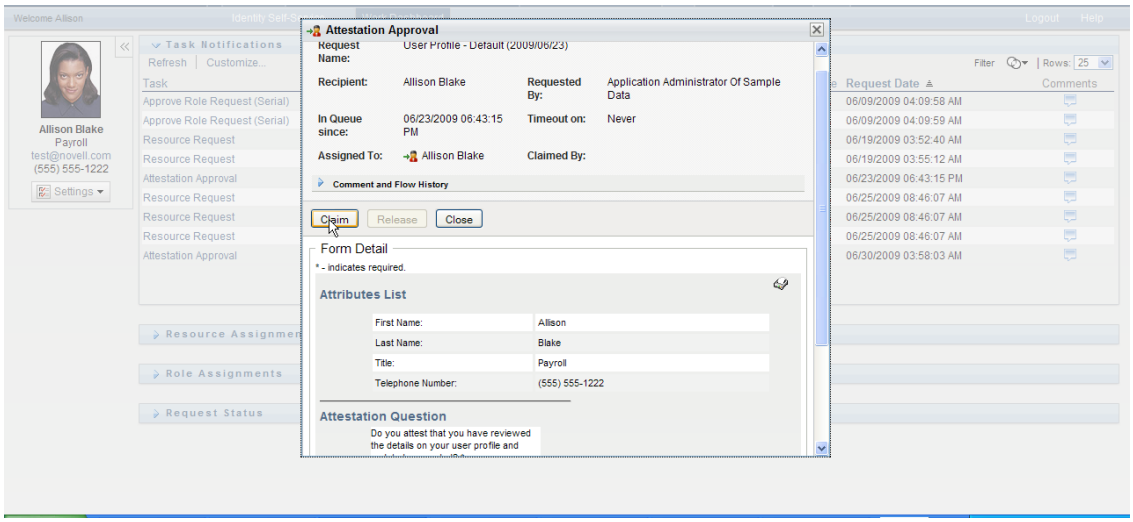
4e Click **Close** to close the window.

5 To return to the task list, click **Back**.

11.1.4 Claiming a Task

To claim a task to work on:

1 Click **Claim**.



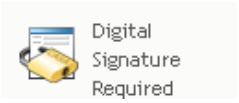
For resource, role, and process requests, the **Form Detail** section of the page is updated to include the **Deny** and **Approve** buttons, as well as any other action buttons included by the flow definition, and the appropriate fields become editable.

For attestation requests, the **Form Detail** section of the page is updated to include the attestation form. The appearance of the form varies, depending on the attestation type. For user profile attestation processes, the form shows the user profile data you need to review.

For role assignment, user assignment, and SoD attestation processes, the form includes a report that shows the data you need to review.

For all attestation types, the form shows controls that allow you to answer the required attestation question, as well as any additional survey questions included in the attestation process.

If your administrator has configured your system for digital signatures, and the task requires a digital signature, the **Digital Signature Required** icon appears in the upper right corner of the page.



In addition, on Internet Explorer, a message appears indicating that you need to press the Spacebar or the Enter key to activate the digital signature applet.

2 If you're working on a task that requires a digital signature, perform these steps:

2a If you're using a smart card, insert the smart card into the smart card reader.

2b On Internet Explorer, press the Spacebar or the Enter key to activate the applet.

At this point, your browser might display a security warning message.

2c Click **Run** to proceed.

2d Fill in the fields in the approval form. The fields on the form vary depending on which resource you requested.

2e Click the checkbox next to the digital signature confirmation message to indicate that you are ready to sign.

The digital signature confirmation message varies depending on how the provisioning resource was configured by the administrator.

The applet then displays a pop-up window that allows you to select a certificate. The pop-up window lists certificates imported to the browser as well as certificates imported to the smart card (if one is currently connected).

2f Select the certificate you want to use and click **Select**.

2g If you select a certificate that has been imported into your browser, type the password for the certificate in the **Password** field on the request form.

2h If you select a certificate that has been imported to your smart card, type the PIN for your smart card and click **OK**.

You do not need to type the password for the certificate if you're using a smart card, because the certificate password has already been transmitted to the card.

If your administrator has enabled the ability to preview the user agreement, the **Preview** button is enabled.

2i Click **Preview** to see the user agreement.

If the digital signature type is set to Form, a PDF document is displayed.

If the digital signature type is set to data, an XML document is displayed.

3 To deny a resource or role request, click **Deny**.

4 To approve a resource or role request, click **Approve**.

The User Application displays a message indicating whether the action was successful.

NOTE: If you accessed the task through the task list on the Work Dashboard, the task completion window provides a close button (**X**) in the upper right corner. However, the close button on the task completion window is not available if you accessed and completed the task via an e-mail link, or through deep linking.

11.1.5 Reassigning a Task

To reassign a task:

1 Click **Reassign** in the Task Detail window.

NOTE: To reassign a task, you must be a Provisioning Administrator or Provisioning Manager (or Team Manager) who has the **Manage Addressee Task** permission. If you do not have this permission, the **Reassign** button is not available.

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2 Click the **Object Selector** icon  next to your chosen entry box.

3 In the **New Assigned To** drop-down list, select the user to whom you want to reassign the task.

4 (Optional) Type a comment in the **Comments** field to explain the reason for the reassignment.

5 Click **Submit**.

The User Application displays a message indicating whether the action was successful.

11.1.6 Releasing a Task

You release a task so that it can be assigned to or claimed by another team member. Click **Release** in the Task Detail window.

11.1.7 Filtering the Task List

You can apply a filter to the task list to limit the number of rows returned. By filtering the task list, you can find what you're looking for more easily, and also improve performance.

To define a filter for the task list:

1. Click the **Define Filter** button.

   The Filter dialog displays, showing several fields you can use to specify how you want to filter the data.

2. To narrow the search to tasks for which the current entity profile (either the currently logged-on user or a user, group, container, or role selected in the **Manage** control) is the addressee, select **Assigned to** in the **Tasks By** field.

   NOTE: The **Tasks By** field is not available to end users, since end users can only see tasks for which they are the addressees. The **Tasks By** field is only visible to Domain Administrators, Domain Managers, and Team Managers.

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3. To narrow the search to tasks for which the current entity profile is the recipient, select **Recipient** in the **Tasks By** field.
4. To include all tasks for which the current entity profile is either the addressee or the recipient, be sure that nothing is selected in the **Tasks By** field.
5. To narrow the search to tasks that timeout by a particular point in time, select the timeout unit (**Weeks**, **Days**, or **Hours**) and enter a value in the **Timeout** field.
6. Click **Filter** to perform a new query for tasks, using the selection criteria you've specified in the Filter dialog.

   When you define a filter for the task list, your filter definition is saved in the Identity Vault along with your other user preferences.

   NOTE: The preferences saved always apply to the user currently logged on to the User Application, regardless of whether a different user has been selected in the **Manage** control.

To see what filter points have been defined previously:

1. Look at the boxes to the left of the **Define Filter** icon.

   When no filters are defined, the **Define Filter** icon shows two empty rings.

   When one or more filter points have been defined, each filter point appears in a separate box, as shown below:

To remove a filter point previously specified in the Filter dialog:

1. Click the **Clear this filter** icon (which looks like an **X**) next to the filter point you want to remove.

To remove all previously defined filters and update the search results to include all tasks.

1. Click the **Define Filters** button to open the Filter dialog.
2. Click the **Clear Filters** button.

   The Filter dialog closes and the task list is updated to include all tasks.

11.1.8 Customizing the Task Columns

The Task Notifications section of the Work Dashboard page allows you to select and deselect columns, and also reorder columns within the task list display. This behavior is controlled by a setting within the Customize Task Notifications Display dialog.

When you modify the column list or reorder the columns, your customizations are saved in the Identity Vault along with your other user preferences.

To customize the display of columns in the task list:

1. Click the **Customize Task Notifications Display** button in the **Task Notifications** section of the Work Dashboard page.

   The User Application displays the list of columns currently selected for the display, and a list of additional columns that are available for selection.
2. To include an additional column in the display, select the column in the **Available Columns** list box, and drag it to the **Selected Columns** list box.

   To select multiple columns in the list, hold down the Ctrl key and select the columns. To select a range of columns that appear together in the list, hold down the Shift key and select the columns.

   You can reorder the columns in the display by moving them up or down in the **Selected Columns** list box.
3. To remove a column from the display, select the column in the **Selected Columns** list box, and drag it to the **Available Columns** list box.

   The **Task** and **Priority** columns are mandatory columns and cannot be removed from the task list display.
4. To save your changes, click **Save**.

11.1.9 Controlling Whether the Task List is Expanded by Default

The Work Dashboard page allows you to specify whether you want the task list to be expanded by default in the Task Notifications section of the page. This behavior is controlled by a setting within the Customize Task Notifications Display dialog.

When you modify this setting, your preference is saved in the Identity Vault along with your other user preferences.

To specify whether you want the task list to be expanded by default:

1. Click the **Customize Task Notifications Display** button in the **Task Notifications** section of the Work Dashboard page.

   The User Application displays the Customize Task Notifications Display dialog, which allows you to customize the task list display. The set of controls shown may vary depending on which settings the administrator has designated as available for user override.
2. To expand the task list display by default, select the **Expand Task Notifications by Default** checkbox. To hide the task list display by default, deselect the **Expand Task Notifications by Default** checkbox.

   The **Expand Task Notifications by Default** checkbox controls the initial appearance of the Task Notifications section of the Work Dashboard. Note that you can expand or collapse the task list within the Task Notifications section of the page, regardless of whether you select or deselect this checkbox.
3. To save your changes, click **Save Changes**.

11.1.10 Controlling the Display of Task Details

The Work Dashboard page allows you to specify how you want to display the details for a task you click on in the Task Notifications section of the page. You can display the task details within the list or in a separate modal dialog. This behavior is controlled by a setting within the Customize Task Notifications Display dialog.

When you modify this setting, your preference is saved in the Identity Vault along with your other user preferences.

To control the display of task details:

1. Click the **Customize Task Notifications Display** button in the **Task Notifications** section of the Work Dashboard page.

   The User Application displays the Customize Task Notifications Display dialog, which allows you to customize the task list display. The set of controls shown may vary depending on which settings the administrator has designated as available for user override.
2. To display the details within the task list display, select **In line with list** in the **Open Task details** dropdown. To display the details in a separate modal dialog, select **In message window**.
3. To save your changes, click **Save Changes**.

11.1.11 Setting the Claim Action for Open Tasks

The Work Dashboard page allows you to control what action is required to claim a task. You can specify that a task must be claimed explicitly, or you can specify that the action of opening a task automatically claims the task for your use. This behavior is controlled by a setting within the Customize Task Notifications Display dialog.

When you modify this setting, your preference is saved in the Identity Vault along with your other user preferences.

To specify what action is required to claim a task:

1. Click the **Customize Task Notifications Display** button in the **Task Notifications** section of the Work Dashboard page.

   The User Application displays the Customize Task Notifications Display dialog, which allows you to customize the claim action. The set of controls shown may vary depending on which settings the administrator has designated as available for user override.
2. To specify that the action of opening a task automatically claims the task for your use, select the **Automatically claim a task when viewing its details** checkbox. To specify that a task must be claimed explicitly, deselect this checkbox.
3. To save your changes, click **Save Changes**.

11.1.12 Sorting the Task List

To sort the task list:

1. Click the header for the column you want to sort on.

   The pyramid-shaped sort indicator shows you which column is the new primary sort column. When the sort is ascending, the sort indicator is shown in its normal, upright position.

When the sort is descending, the sort indicator is upside down.

The initial sort column is set by the RBPM Configuration Administrator. If you sort the list on any column other than the Request column, the Request column is used as the secondary sort column.

If you override the initial sort column, your sort column is added to the list of required columns in the **Customize Task Notifications Display** dialog. Required columns are indicated with an asterisk (*).

When you modify the sort order for the task list, your preference is saved in the Identity Vault along with your other user preferences.

11.1.13 Refreshing the Task List

To refresh the task list, click the **Refresh** button.

11.1.14 Controlling the Number of Items Displayed on a Page

To specify the number of items you want displayed on each page:

1. Select a number in the **Rows** dropdown list.

When you modify the **Rows** setting, your preference is saved in the Identity Vault along with your other user preferences.

11.1.15 Viewing the Comments for a Task

To display the comment text for a task, click the Comments icon in the task list.

NOTE: To see the comments for a task, you must include the Comments column in the list of selected columns. For details on adding columns to the task list, see Section 11.1.8, “Customizing the Task Columns,” on page 97.

11.2 Working with Resources

The **Resource Assignments** action allows you to see what resource assignments you have, and also make requests for additional resource assignments.

The Resource Administrator and Resource Manager have the ability to view resource assignments for other users, as described below:

- When nothing is selected in the **Manage** control, the resource assignment list shows the current user’s resource assignments. These resource assignments include those for which he is either recipient or addressee, as well as resources for which the recipient or addressee is a group, container, or role to which the current user belongs. The user can do anything with his own resource assignments, since no rights are required to work with one’s own resources.
- When a user is selected in the **Manage** control, the list shows resources assignments that have the selected user as recipient.
- When a group is selected, the list shows resource assignments assigned indirectly to the selected group through role assignments.

- When a role is selected, the **Resource Assignments** section displays a message indicating that resources that are granted through role assignments are not shown. To see the resource assignments for a role, you need to look at the **Roles** tab.
- When a container is chosen, the list shows resource assignments assigned indirectly to the selected container through role assignments.

A Team Manager for the Resource domain has the ability to manage resources for team members. Before selecting a team member, the Team Manager must select a team.

When a Team Manager is in manage mode, the **Resource Assignments** list includes only resource assignments associated with the domain specified for the selected team configuration.

Proxy Mode The **Resource Assignments** action is not available in proxy mode.

11.2.1 Viewing Your Resource Assignments

To see the resource assignments for yourself, or for a user, group, or container selected in the **Manage** control:

1. Click **Resource Assignments** in the group of actions on the Work Dashboard.

   The list of resources is displayed. If you are not in managed mode, the resource assignments shown are those for which you are the recipient. If you are in managed mode, the resource assignments shown are those for which the selected user, group, or container is the recipient. For groups and containers, the resources listed are those resources assigned indirectly to the selected group or container through role assignments. The list of resource assignments for a group or container does not contain resources assigned directly to a user within the selected group or container.

   NOTE: Resources can only be assigned directly to a user. However, a role that contains a resource can be assigned to a group or container, in which case the resource will be assigned indirectly to all users within the group or container. The **Resource Assignments** list on the dashboard shows direct assignments for users, as well as indirect assignments for groups and containers.

Filtering the Resource Assignment List

1. Click the Display Filter button in the upper right corner of the **Resource Assignments** display.
2. Specify a filter string for the initial request description, resource name, description, or parameters associated with the resource assignment.
3. Click **Filter** to apply your selection criteria.
4. To remove the current filter, click **Clear**.

Setting the Maximum Number of Rows on a Page

1. Click on the **Rows** dropdown list and select the number of rows you want to be displayed on each page.

Scrolling within the Resource Assignment List

To scroll to another page in the resource assignment list, click on the Next, Previous, First or Last button at the bottom of the list.

Sorting the Resource Assignment List

To sort the resource assignment list, click the header for the column you want to sort on.

The pyramid-shaped sort indicator shows you which column is the new primary sort column. When the sort is ascending, the sort indicator is shown in its normal, upright position.

When the sort is descending, the sort indicator is upside down.

The initial sort column is determined by the RBPM Configuration Administrator.

If you override the initial sort column, your sort column is added to the list of required columns. Required columns are indicated with an asterisk (*).

When you modify the sort order for the resource assignment list, your preference is saved in the Identity Vault along with your other user preferences.

11.2.2 Requesting a Resource Assignment

To make a resource assignment request:

1. Click the **Assign** button at the top of the Resource Assignments section of the page.

   NOTE: You need to have the **Resources Assign** navigation permission to see the Assign button.

   The Work Dashboard displays the **Assign Resource** dialog, which allows you to specify which resource you want to request.
2. Type text that describes the assignment in the **Initial Request Description** field.
3. Click the Object Selector to search for a resource to assign.
4. In the Object Selector, enter a search string and click Search.
5. Select the resource you want.

   The Add Resource dialog now shows the selected resource, as well as any other fields defined in the resource request form.
6. If the resource requires an entitlement parameter value, you need to use the Object Selector to select the value you want to use for this resource assignment.

   Select the parameter you want to use, and click **Add**.
7. If there are additional custom fields on the form, fill these out as well.
8. Click **Submit** to make your resource request.

11.2.3 Refreshing the Resource Assignment List

To refresh the resource assignment list, click **Refresh**.

11.2.4 Removing a Resource Assignment

To remove a resource assignment, select a previously defined resource assignment, and click **Remove.**

NOTE: You need to have the **Resources Remove** navigation permission to see the **Remove** button.

11.2.5 Customizing the Resource Assignment List Display

The **Resource Assignments** section of the dashboard allows you to select and deselect columns, and also reorder columns within the task list display. The column selection and order are controlled by settings within the Customize Resource Assignment Display dialog. When you modify the column list or reorder the columns, your customizations are saved in the Identity Vault along with your other user preferences.

To customize the display of columns:

1. Click **Customize** in the Resource Assignments section of the dashboard.

   The User Application displays the list of columns currently selected for the display, and a list of additional columns that are available for selection.
2. To include an additional column in the display, select the column in the **Available Columns** list box, and drag it to the **Selected Columns** list box.

   To select multiple columns in the list, hold down the Ctrl key and select the columns. To select a range of columns that appear together in the list, hold down the Shift key and select the columns.

   You can reorder the columns in the display by moving them up or down in the **Selected Columns** list box.
3. To remove a column from the display, select the column in the **Selected Columns** list box, and drag it to the **Available Columns** list box.

   The **Resource Name** column is a mandatory column and cannot be removed from the task list display.
4. To save your changes, click **Save Changes**.

11.2.6 Printing the List of Resource Assignments

The **Resource Assignments** section of the dashboard allows you to print the list of resource assignments displayed on the page. What you see on the screen is essentially the same as what you see when you print a resource assignments list, except that the printout includes only the text on the screen. Any images shown in the **Assigned To** column or the **Status** column will not appear on the printout.

To print resource assignments, you need to have the **Resource Assignments Print** navigation permission within the **Work Dashboard** navigation area.

To print the list of resource assignments:

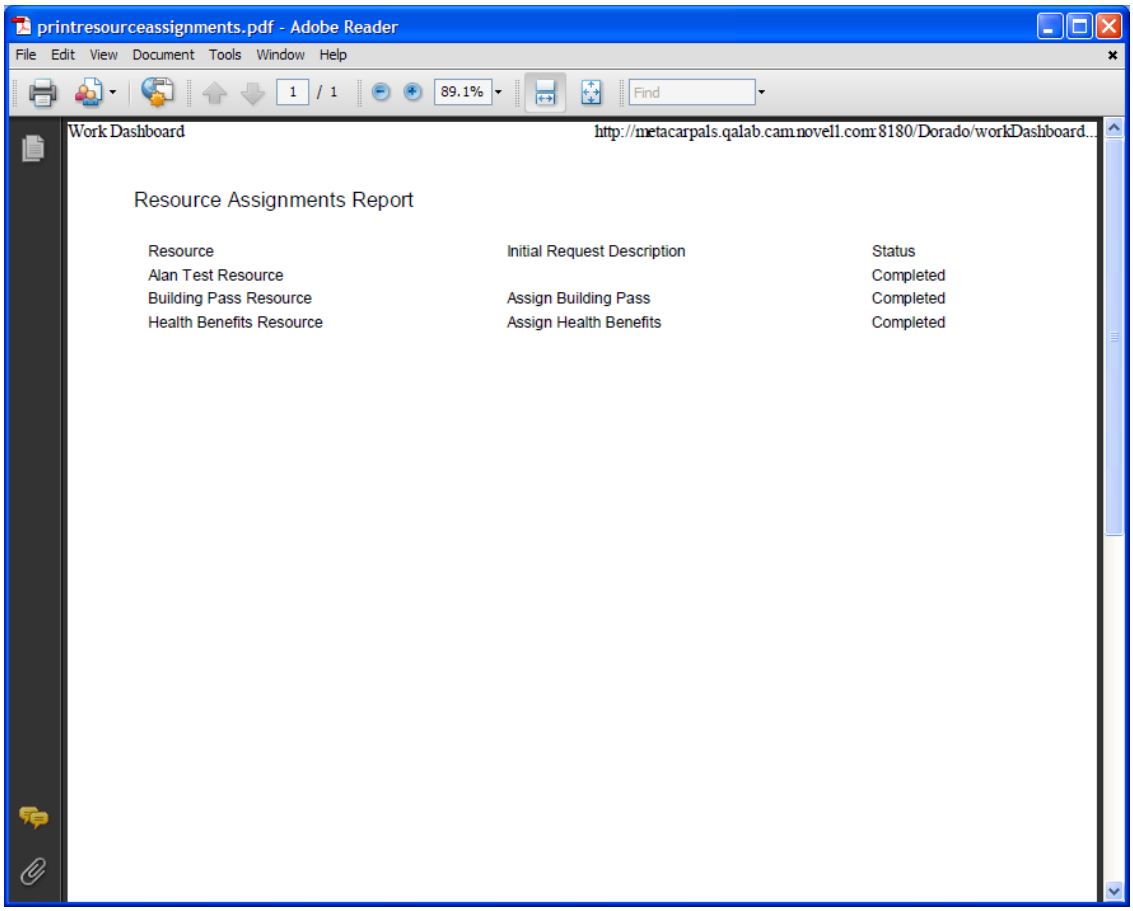
1. Click **Print View** in the **Resource Assignments** section of the dashboard.

   The User Application displays a printable version of the resource assignment list in a separate window:
2. Select the text in the text box at the top of the print view.

   Type a title or add notes to the text box.
3. Click **Print**.

   You can print directly to a printer, or print to a PDF file.

   Here is a sample PDF showing what the printout looks like:



All rows shown on the screen will be printed, unless the number of rows displayed reaches the limit defined in the **Maximum number of results returned from a query** setting, which is specified by a Configuration Administrator on the **Administration** tab. If you reach this limit, you should see a confirmation dialog that allows you to specify whether you want to continue. Click **OK** if you want to include all of the rows shown on the screen in the printout. This message is displayed only once for each user session.

11.3 Working with Roles

The **Role Assignments** action allows you to see what role assignments you have, and also make requests for additional role assignments.

The Role Administrator and Role Manager have the ability to view role assignments for other users, as described below:

- When nothing is selected in the **Manage** control, the role assignment list shows the current user's assignments. These role assignments include those for which he is either recipient or addressee, as well as roles for which the recipient or addressee is a group, container, or role to which the current user belongs. The user can do anything with his own role assignments, since no rights are required to work with one's own roles.
- When a user is selected in the **Manage** control, the list shows direct and indirect role assignments that have the selected user as recipient. Before selecting a user, the Team Manager must select a team.

- When a group is selected, the list shows roles assigned directly to the selected group. The list of role assignments does not contain roles assigned to a user within the selected group or container. In addition, it does not include roles that are related to those roles assigned directly to the group.
- When a role is selected, the **Role Assignments** section displays a message indicating that role assignments are not shown. To see the role relationships for a particular role, you need to look at the **Roles** tab.
- When a container is chosen, the list shows roles assigned directly to the selected container. The list of role assignments does not contain roles assigned to a user within the selected container. In addition, it does not include roles that are related to those roles assigned directly to the container.

A Team Manager for the Role domain has the ability to manage role assignments for team members. Before selecting a team member, the Team Manager must select a team.

Role relationships are not shown in the Role Assignments section. To see the role relationships for a particular role, you need to look at the Role Relationships tab, which is available from the Roles Catalog action on the Roles tab.

Proxy Mode The **Role Assignments** action is not available in proxy mode.

11.3.1 Viewing Your Role Assignments

To see the role assignments for yourself, or for a user, group, or container selected in the **Manage** control:

1 Click **Role Assignments** in the group of actions on the Work Dashboard.

The list of roles is displayed. If you are not in managed mode, the role assignments shown are those for which you are the recipient.

If you are in manage mode, the role assignments shown are those for which the selected user, group, or container is the recipient.

A role can be assigned to a group or container, in which case the role will be assigned indirectly to all users within the group or container. The **Role Assignments** list on the dashboard shows direct assignments for users, as well as indirect assignments for groups and containers. In addition, if a user is assigned directly to a parent role, the list includes this assignment, as well as assignments to any child roles related to this parent role. For example, if a level 30 role (parent) has a role relationship added to a level 20 role (child), and a user is directly assigned to the parent role, the **Role Assignments** display shows both assignments (parent and child). If you look at the child role in the **Role Catalog**, you will see the relationship between the roles on the **Role Relationships** tab, but not on the **Role Assignments** tab.

Filtering the Role Assignment List

1 Click the Define Filter button in the upper right corner of the **Role Assignments** display.

2 Specify a filter string for the initial request description or for the role name, or narrow the search by selecting a type of assignment (**User**, **Group**, **Container**, or **Role**) and a set of identities that are of the selected assignment type. Alternatively, you can narrow the search by selecting a source type for the role assignment (**User Assigned to Role**, **Group Assigned to Role**, **Container Assigned to Role**, or **Role Associated with Role**).

NOTE: When selecting **Group** as the type of assignment to use for filtering, the filter title will display a CN, while the results display another related field.

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3 Click **Filter** to apply your selection criteria.

4 To remove the current filter, click **Clear**.

Setting the Maximum Number of Rows on a Page

Click on the **Rows** dropdown list and select the number of rows you want to be displayed on each page.

Scrolling within the Role Assignment List

To scroll to another page in the role assignment list, click on the **Next**, **Previous**, **First** or **Last** button at the bottom of the list.

Sorting the Role Assignment List

To sort the role assignment list:

1 Click the header for the column you want to sort on.

The pyramid-shaped sort indicator shows you which column is the new primary sort column. When the sort is ascending, the sort indicator is shown in its normal, upright position.

When the sort is descending, the sort indicator is upside down.

The initial sort column is determined by the RBPM Configuration Administrator.

If you override the initial sort column, your sort column is added to the list of required columns. Required columns are indicated with an asterisk (*).

When you modify the sort order for the role assignment list, your preference is saved in the Identity Vault along with your other user preferences.

11.3.2 Requesting a Role

To make a role assignment request:

1 Click the **Assign** button at the top of the **Role Assignments** section of the page.

NOTE: You need to have the **Roles Assign** navigation permission to see the **Assign** button.

The Work Dashboard displays the **Assign Role** dialog, which allows you to specify which role you want to request.

2 Fill in the fields on the **Add Role Assignment** dialog:

2a Provide text describing the reason for the request in the **Initial Request Description** field.

2b In the Object Selector, enter a search string and click Search.

Select the role you want to assign.

Click the Object Selector to search for a role to assign.

2c Specify the start date for the role assignment in the **Effective Date** field.

2d Specify the expiration date for the role assignment in the **Expiration Date** field.

3 Click **Assign** to submit your request.

11.3.3 Refreshing the Role Assignment List

To refresh the role assignment list, click **Refresh**.

11.3.4 Removing a Role Assignment

To remove a role assignment, select a previously defined role assignment, and click **Remove.**

NOTE: You need to have the **Roles Remove** navigation permission to see the **Remove** button.

11.3.5 Customizing the Role Assignment List Display

The **Role Assignments** section of the dashboard allows you to select and deselect columns, and also reorder columns within the task list display. The column selection and order are controlled by settings within the Customize Role Assignment Display dialog. When you modify the column list or reorder the columns, your customizations are saved in the Identity Vault along with your other user preferences.

To customize the display of columns:

1. Click **Customize** in the Role Assignments section of the dashboard.

   The User Application displays the list of columns currently selected for the display, and a list of additional columns that are available for selection.
2. To include an additional column in the display, select the column in the **Available Columns** list box, and drag it to the **Selected Columns** list box.

   To select multiple columns in the list, hold down the Ctrl key and select the columns. To select a range of columns that appear together in the list, hold down the Shift key and select the columns.

   You can reorder the columns in the display by moving them up or down in the **Selected Columns** list box.
3. To remove a column from the display, select the column in the **Selected Columns** list box, and drag it to the **Available Columns** list box.

   The **Role** column is a mandatory column and cannot be removed from the task list display.
4. To save your changes, click **Save Changes**.

11.3.6 Printing the List of Role Assignments

The **Role Assignments** section of the dashboard allows you to print the list of role assignments displayed on the page. What you see on the screen is essentially the same as what you see when you print a role assignments list, except that the printout includes only the text on the screen. Any images shown in the **Assigned To** column or the **Status** column will not appear on the printout.

To print role assignments, you need to have the **Role Assignments Print** navigation permission within the **Work Dashboard** navigation area.

To print the list of role assignments:

1. Click **Print View** in the **Role Assignments** section of the dashboard.

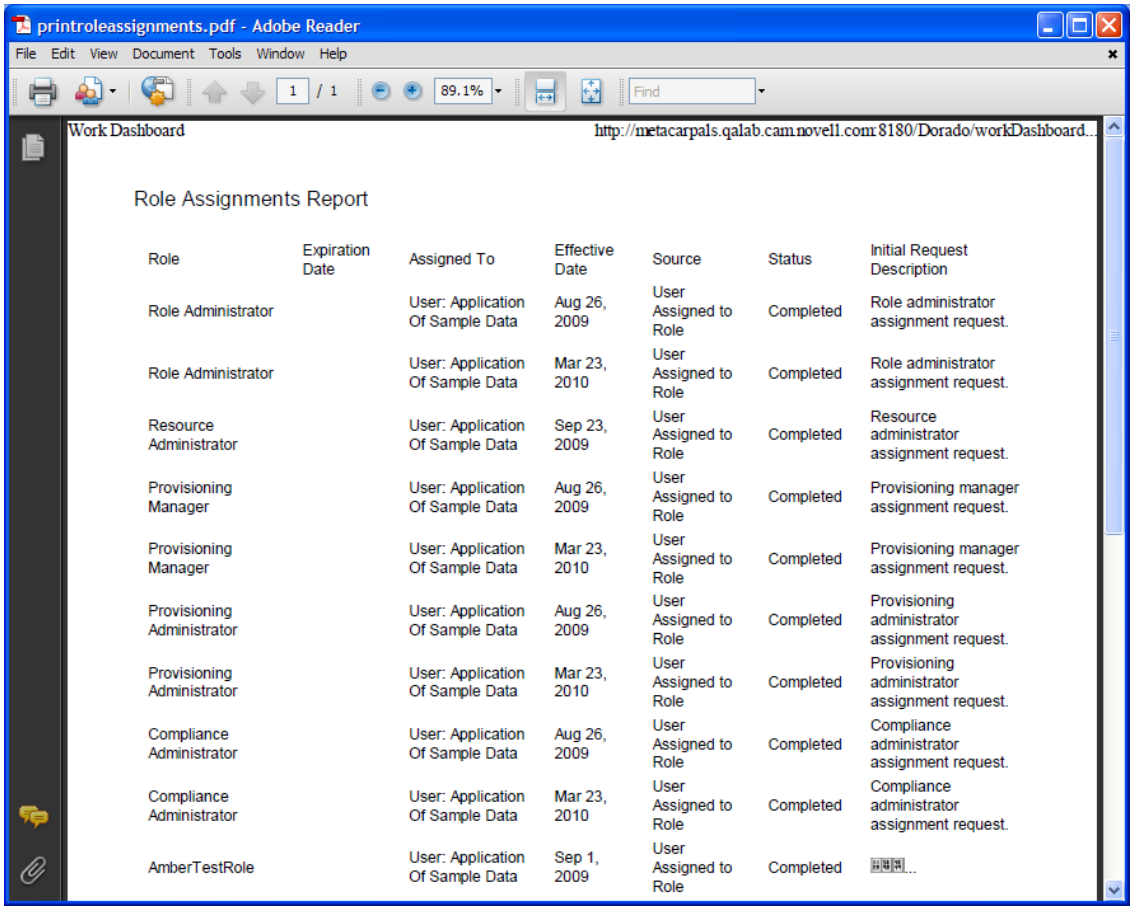
   The User Application displays a printable version of the role assignment list in a separate window:
2. Select the text in the text box at the top of the print view.

   Type a title or add notes to the text box:

3 Click **Print**.

You can print directly to a printer, or print to a PDF file.

Here is a sample PDF showing what the printout looks like:



All rows shown on the screen will be printed, unless the number of rows displayed reaches the limit defined in the **Maximum number of results returned from a query** setting, which is specified by a Configuration Administrator on the **Administration** tab. If you reach this limit, you should see a confirmation dialog that allows you to specify whether you want to continue. Click **OK** if you want to include all of the rows shown on the screen in the printout. This message is displayed only once for each user session.

11.4 Viewing Your Request Status

The **Request Status** action allows you to see the status of the requests you've made. It lets you see the current state of each request. In addition, it gives you the option to retract a request that is still in process if you have changed your mind and do not need to have the request fulfilled.

The **Request Status** action includes process (provisioning) requests, role requests, and resource requests in a single consolidated list. The list provides a **Type** column that allows you to see the type for each request. The requests appear in a single list, but the list can be sorted or filtered by request type. You can retract requests that are still in a retractable state from the **Request Status** list.

The Domain Administrator and Domain Manager have the ability to view requests for other users, as described below:

- When nothing is selected in the **Manage** control, the request list shows the current user's requests. These requests include those for which he is either recipient or addressee, as well as requests for which the recipient or addressee is a group, container, or role to which the current user belongs.
- When a user is selected in the **Manage** control, the list shows requests that have the selected user as recipient.
- When a group is selected, the list shows requests that have the selected group as recipient.
- When a role is selected, the list shows requests that have the selected role as recipient.
- When a container is chosen, the list shows requests that have the selected container as recipient.

When a Domain Administrator or Domain Manager is in manage mode, the **Request Status** list includes only requests associated with the domain specified for the administrator or manager assignment.

A Team Manager has the ability view requests for team members. Before selecting a team member, the Team Manager must select a team.

When a Team Manager is in manage mode, the **Request Status** list includes only requests associated with the domain specified for the selected team configuration.

Proxy Mode The **Request Status** action is not available in proxy mode.

11.4.1 Viewing the Request List

To see the requests you have made:

1 Click **Request Status** in the group of actions on the Work Dashboard.

The list of requests is displayed. If you are not in managed mode, the requests shown are those for which you are the recipient or the requester. If you are in managed mode, the requests shown are those for which the selected user, group, or container is the recipient or the requester.

The list includes active requests, as well as requests that have already been approved or denied. The administrator can control how long workflow results are retained for. By default, the Workflow system retains workflow results for 120 days.

NOTE: If you assign a resource to a user that has multiple values from an entitlement, on the **Request Status** tab only one entry will be listed. The first value selected will be the one displayed. On the **Assignments** tab, multiple entries will be listed, and the user will be appear as many times as there were values selected.

To see the type of the request, you need to include the **Type** column in the list of columns for the display. When the **Type** column is included, the User Application shows an icon indicating whether the request was a process (provisioning) request, role request, or resource request.

The columns in the Request Status list are described below:

- The **Item Requested** column provides the name of the role, resource, or process specified for the request.
- The **Requester** column identifies the user who made the request.
- The **Recipient** column identifies the user, group, or container that will receive the item requested, if the request is approved. In the case of role relationships, the **Recipient** column shows the name of the role related to the role named in the **Item Requested** column.

- The **Status** column shows a detailed status for the request as well as an icon that indicates the status summary. The status summary shows the general status of the request and can be selected from the Filter menu to narrow the results when searching for requests with a particular status:

Status summary icon	Detailed Status	Description
	New Request	Indicates that this is a new request that is currently being processed. A request with this status can be retracted.
	SoD Approval Start - Pending	Indicates that the Role Service driver is attempting to restart a separation of duties approval process for the request following an SoD Approval Start - Suspended condition. A request with this status can be retracted.
	SoD Approval Start - Suspended	Indicates that the Role Service driver is unable to start a separation of duties approval process and the process has been suspended temporarily. When the Role Service driver tries to start a workflow and cannot (for example, when the User Application is down or unreachable), the request transitions to a pending retry state to wait for up to a minute before transitioning to a retry state (SoD Approval Start - Pending state) that triggers the driver to try and start the workflow again. These states prevent requests that don't depend on workflows from being backed up behind requests that are blocked by a workflow that can't be started. If a request shows this status for an extended period of time, make sure the User Application is running. If it is running, check the connection parameters given to the Role Service driver to be sure they are correct. A request with this status can be retracted.
	Approval Start - Pending	Indicates that the Role Service driver is attempting to restart an approval process for the request following an Approval Start - Suspended condition. A request with this status can be retracted.

Status summary icon	Detailed Status	Description
	Approval Start - Suspended	Indicates that an approval process has been initiated for the request, but the process has been suspended temporarily. When the Role Service driver tries to start a workflow and cannot (for example, when the User Application is down or unreachable), the request transitions to a pending retry state to wait for up to a minute before transitioning to a retry state (Approval Start - Pending state) that triggers the driver to try and start the workflow again. These states prevent requests that don't depend on workflows from being backed up behind requests that are blocked by a workflow that can't be started. If a request shows this status for an extended period of time, make sure the User Application is running. If it is running, check the connection parameters given to the Role Service driver to be sure they are correct. A request with this status can be retracted.
	SoD Exception - Approval Pending	Indicates that a separation of duties approval process has been started and is waiting for one or more approvals. A request with this status can be retracted.
	Approval Pending	Indicates that an approval process has been started for the request and is waiting for one or more approvals. A request with this status can be retracted.
	SoD Exception - Approved	Indicates that a separation of duties exception has been approved for this request. A request with this status can be retracted.
	Approved	Indicates that the request has been approved. A request with this status can be retracted.

Status summary icon	Detailed Status	Description
	Provisioning	Indicates that the request has been approved (if approvals were required), and the activation time for the assignment has been reached. The Role Service driver is in the process of granting the assignment. You are not permitted to retract a request with this status.
	Pending Activation	Indicates that the request has been approved, but the activation time for the assignment has not yet been reached. The Pending Activation does not have a roll-up category, or summary status icon. This means that you cannot filter the list of requests by the Pending Activation status. A request with this status can be retracted.
	SoD Exception - Denied	Indicates that a separation of duties exception has been denied for this request. You are not permitted to retract a request with this status.
	Denied	Indicates that the request has been denied. You are not permitted to retract a request with this status.
	Provisioned	Indicates the request has been approved (if approvals were required), and the assignment has been granted. You are not permitted to retract a request with this status.
	Cleanup	Indicates that the request has been processed and the Role Service driver is in the process removing the internal objects created for the request. You are not permitted to retract a request with this status.
	Canceling	Indicates that the Role Service driver is canceling the request because of a user action. You are not permitted to retract a request with this status.

Status summary icon	Detailed Status	Description
	Canceled	Indicates that the request has been canceled by a user action. You are not permitted to retract a request with this status.
	Provisioning Error	Indicates that an error occurred during the course of provisioning (granting) or deprovisioning (revoking) the assignment. The precise error message for a provisioning error is written to the trace or audit log, if either is active. If a provisioning error occurs, check your trace or audit log to see if the error message indicates a serious problem that must be fixed. You are not permitted to retract a request with this status.

NOTE: If the system clock on the server where the Role Service driver resides is not synchronized with the system clock on the server where the User Application is running, the request status might appear to be different on the Request Status and Role Assignments lists. For example, if you request a role assignment that does not require approval, you might see the status as Provisioned in the Request Status section, but the status on the Role Assignments section shows Pending Activation. If you wait for a minute or so, you might then see the status on the Role Assignments section change to Provisioned. To ensure that the status is shown correctly throughout the User Application, check your system clocks to be sure they are synchronized appropriately.

- The **Request Date** column shows the date when the request was made.

11.4.2 Viewing the Summary for a Request

To see the summary information for a request, hover over the request name in the **Item Requested** column.

11.4.3 Filtering the Request List

You can apply a filter to the request list to limit the number of rows returned. By filtering the request list, you can find what you're looking for more easily, and also improve performance.

To define a filter for the request list:

1. Click the **Define Filter** button.

   The Filter dialog displays, showing several fields you can use to specify how you want to filter the data.
2. To narrow the search to requests that have a request name that matches a particular string, type the first characters of the string in the **Item Requested** field.
3. To narrow the search to requests of a particular type, select the type in the **Type** dropdown.

4 To narrow the search to requests that have a particular status, select the status in the **Status** dropdown.

   The status categories available for selection vary depending on which type you've selected in the **Type** dropdown.

5 To narrow the search to requests that have a particular confirmation number, type the ID in the **Confirmation Number** field.

   The confirmation number is an internal identifier that correlates a set of role assignments that were requested at the same time. Here are some situations in which a set of role assignments will share a confirmation number:

   - A single request assigns multiple roles to a single user.
   - A single request assigns a single role to multiple users. This might occur when a requester assigns a role to a group or container.

   When a set of role assignments share a confirmation number, a user can retract each assignment individually. In addition, each role assignment can be approved or denied separately.

6 Click **Filter** to perform a new query for requests, using the selection criteria you've specified in the Filter dialog.

   When you define a filter for the request list, your filter definition is saved in the Identity Vault along with your other user preferences.

   NOTE: The preferences saved always apply to the user currently logged on to the User Application, regardless of whether a different user has been selected in the **Manage** control.

To see what filter points have been defined previously:

1 Look at the boxes to the left of the Define Filter icon.

   When no filters are defined, the Define Filter icon shows two empty rings, as shown below.

   When one or more filter points have been defined, each filter point appears in a separate box.

To remove a filter point previously specified in the Filter dialog, click the **Clear this filter** icon (which looks like an **X**) next to the filter point you want to remove.

To remove all previously defined filters and update the search results to include all requests.

1 Click the **Define Filters** button to open the Filter dialog.

2 Click the **Reset** button.

   The Filter dialog closes and the request list is updated to include all requests.

11.4.4 Customizing the Request Status Columns

The Request Status section of the Work Dashboard page allows you to select and deselect columns, and also reorder columns within the request list display. Any customizations you make to the display are saved for future use.

To customize the display of columns in the request status list:

1 Click the **Customize** button in the **Request Status** section of the Work Dashboard page.

   The User Application displays the list of columns currently selected for the display, and a list of additional columns that are available for selection.

2 To include an additional column in the display, select the column in the **Available Columns** list box, and drag it to the **Selected Columns** list box.

To select multiple columns in the list, hold down the Ctrl key and select the columns. To select a range of columns that appear together in the list, hold down the Shift key and select the columns.

You can reorder the columns in the display by moving them up or down in the **Selected Columns** list box.

3 To remove a column from the display, select the column in the **Selected Columns** list box, and drag it to the **Available Columns** list box.

The **Item Requested** and **Request Date** columns are mandatory columns and cannot be removed from the request list display.

4 To save your changes, click **OK**.

11.4.5 Controlling the Number of Items Displayed on a Page

To specify the number of items you want displayed on each page, select a number in the **Rows** dropdown list.

When you modify the **Rows** setting, your preference is saved in the Identity Vault along with your other user preferences.

11.4.6 Controlling the Display of Request Status Details

The Work Dashboard page allows you to specify how you want to display the details for a request you click on in the Request Status section of the page. You can display the task details within the list or in a separate modal dialog. This behavior is controlled by a setting within the Customize Request Status Display dialog.

When you modify this setting, your preference is saved in the Identity Vault along with your other user preferences.

To control the display of task details:

1 Click the **Customize** button in the **Request Status** section of the Work Dashboard page.

The User Application displays the **Customize Request Status Display** dialog, which allows you to customize the request list display. The set of controls shown may vary depending on which settings the administrator has designated as available for user override.

2 To display the details within the task list display, select **In line with list** in the **Open Request Status details** dropdown. To display the details in a separate modal dialog, select **In message window**.

3 To save your changes, click **Save Changes**.

11.4.7 Sorting the Request List

To sort the request list:

1 Click the header for the column you want to sort on.

The pyramid-shaped sort indicator shows you which column is the new primary sort column. When the sort is ascending, the sort indicator is shown in its normal, upright position. When the sort is descending, the sort indicator is upside down.

You can sort the list on multiple columns by clicking the header for each sort column. The default sort is descending order by Request Date, which causes the most recent requests to display first. If you sort the list on any column other than the Request Date column, the Request Date column is used as the secondary sort column.

When you modify the sort order for the request list, your preference is saved in the Identity Vault along with your other user preferences.

11.4.8 Refreshing the Request List

To refresh the request list:

1 Click the **Refresh** button.

The request list is updated to reflect the current state of the request list for the current user. The **Refresh** button does not remove any filters you have applied to the request list. When you refresh the request list, any filters you have defined are used to update the list, and the filters remain in effect until you reset them.

11.4.9 Viewing the Comments for a Request

1 To display the comment text for a request, click the Comments icon in the request list.

NOTE: To see the comments for a request, you must include the Comments column in the list of selected columns. For details on adding columns to the task list, see Section 11.4.4, “Customizing the Request Status Columns,” on page 113.

11.4.10 Viewing the Details for a Request

To view the details for a request, click the request name in the **Item Requested** column.

The User Application displays the details for the request.

11.4.11 Retracting a Request

The Request Status section of the Work Dashboard page gives you the option to retract a request that is still in process if you have changed your mind and do not need to have the request fulfilled.

An end user can retract any request that for which this user is the initiator, as long as the request is still in a retractable state. A Domain Administrator can retract any request within the domain for which the administrator has authority. A Domain Manager must have the proper security permission to retract requests. Specifically, you must have permission to revoke assignments, which implicitly gives you the ability to retract a request as well.

To retract a request, click **Retract** on the Request Detail window.

The **Retract** button is enabled only when the process associated with the request is still running.

12 Managing Work for Users, Groups, Containers, Roles, and Teams

This section explains how to use the Manage control to manage work for other users, and for groups, containers, roles, and teams. Topics include:

12.1 Selecting a User, Group, Container, Role, or Team

When a Domain Administrator or Domain Manager logs in to the User Application, the Work Dashboard shows the **Manage** control, which is a global lookup control. The **Manage** control allows the current user to select a particular user, group, container, role, or team member and use the Work Dashboard interface to manage work for the selected entity type. After the user selects an entity, the data and access permissions on the Work Dashboard pertain to the selected entity, rather than to the user currently logged on. However, when the user is in Manage mode, the **Settings** and **Make a Process Request** menus still apply to the logged-in-user, not the selected entity in the **Manage** control.

To select a user, group, container, role, or team member:

1 Click **Manage** in the upper-left corner of the Work Dashboard.

The Work Dashboard displays the Manage pop-up window.

2 In the **Manage** control, select the entity type.

3 Use the object selector to select a particular user, group, container, role, or team.

When you select a user, group, container, role, or team, the Work Dashboard puts you in manage mode and updates the User Profile section on the left side of the screen. The User Profile updates its display, as follows:

- When a user is chosen, it shows the photo, name, title, email, and phone number of the selected user.

When you select a user, the User Profile section and the Task Notifications, Resource Assignments, Role Assignments, and Request Status sections of the page show this icon:

This icon indicates that the data and access permissions for these sections of the Work Dashboard pertain to the selected user, rather than to the user currently logged on.

- When a group, container, or role is chosen, it shows the DN, display name, and description (if available) of the group, container or role.

  When you select a container, the User Profile section and the Task Notifications, Resource Assignments, Role Assignments, and Request Status sections of the page show this icon:

  When you select a group, the User Profile section and the Task Notifications, Resource Assignments, Role Assignments, and Request Status sections of the page show this icon:

  When you select a role, the User Profile section and the Task Notifications, Resource Assignments, Role Assignments, and Request Status sections of the page show this icon:

  These icons indicate that the data and access permissions for these sections of the Work Dashboard pertain to the selected entity, rather than to the user currently logged on.

- When a team is selected, it shows the team dropdown to allow you to select a team. In addition, it shows a dropdown that lets you pick a team member.

  When you select a team member, the User Profile section and the Task Notifications, Resource Assignments, Role Assignments, and Request Status sections of the page show this icon:

12.2 Changing to a Different Managed Entity

To change to a different managed entity, click the **Manage User, Group, Role or Container** button in the User Profile section.

12.3 Minimizing the Screen Space Used by The User Profile Section

To minimize the screen space used by the User Profile section, click the **Wide Layout** button in the User Profile section .

The User Profile section hides the details about the currently selected entity to give you more space to work with the Task Notifications, Resource Assignments, Role Assignments, and Request Status sections of the page.

To return the User Profile section to its normal display size so that the entity details are visible, click the **Default Layout** button.

12.4 Exiting Manage Mode

To exit manage mode and reset the Work Dashboard to show data and access permissions for the current logged in user, use either of the following methods:

- Click the **X** on the User Profile section:
- In the Manage dialog, click the **Exit Manage Mode** button.

Proxy Mode The **Manage** control is not available in proxy mode, even if a user is proxying for a user that is a Domain Administrator or Domain Manager. When a user is in proxy mode, the navigation access permissions for menu items on the Work Dashboard show the proxied user's permissions, not the permissions for the logged in user.

13 Controlling Your Settings

This section provides information about how to use the **Settings** menu on the Work Dashboard. Topics include:

13.1 About the Settings Menu

The **Settings** actions give you the ability to act as a proxy for another user. In addition, they allow you to view your proxy and delegate assignments. If you are a Provisioning Administrator, or a Provisioning Manager or Team Manager for the Provisioning Domain, you might also be permitted to define proxy and delegate assignments, as well as team availability settings.

13.1.1 About Proxies and Delegates

A *delegate* is a user authorized to perform work for another user. A delegate assignment applies to a particular type of request.

A *proxy* is a user authorized to perform any and all work (and also define provisioning settings) for one or more users, groups, or containers. Unlike delegate assignments, proxy assignments are independent of process requests, and therefore apply to all work and settings actions.

Proxy and Delegate Assignments Have Time Periods: Both proxy and delegate assignments are associated with time periods. The time period for a proxy or delegate assignment can be as short or as long as you need it to be. The time period can also have no expiration date.

Proxy and Delegate Actions Are Logged: If logging is enabled, any actions taken by a proxy or delegate are logged along with actions taken by other users. When an action is taken by a proxy or delegate, the log message clearly indicates that the action was performed by a proxy or delegate for another user. In addition, each time a new proxy or delegate assignment is defined, this event is logged as well.

Delegate Assignments When a Role Is the Approver: The User Application does not perform delegate processing when a workflow approver is a role. Any user in a role can perform approvals assigned to the role so delegation is not necessary.

Proxy Assignments When a Role Is the Approver: When you make proxy assignments, the User Application does not perform any checks on the roles already held by the user. It is possible that the user might already be assigned to all of the same roles as the person for whom they are acting as proxy. It is also possible that there are conflicts with the roles of the person for whom they will act as proxy.

13.1.2 Sample Usage Scenarios

This section describes two business scenarios where proxies and delegates might be used:

- “Proxy Usage Scenario” on page 122
- “Delegate Usage Scenario” on page 122

Proxy Usage Scenario

Suppose you are a manager who is responsible for approving (or denying) a large number of workflow tasks on a daily basis. In addition, you are also responsible for editing provisioning settings for a large number of users in your organization. In this situation, you might want to assign a proxy so that some of your work can be off-loaded to a trusted member of your team.

Delegate Usage Scenario

Suppose you are a manager who is responsible for approving or denying requests for ten different types of provisioned resources. All ten request types need regular attention, but you would rather have another individual in your organization attend to six of them. In this case, you could define a delegate for these six process request types. If necessary, you could restrict this delegate relationship to a period of hours, days, or weeks. Alternatively, you could specify no expiration for the delegate relationship, thereby establishing this relationship as a more permanent arrangement.

13.1.3 User Access to the Settings Menu

The **Settings** menu on the Work Dashboard displays the following options to all users who log in to the User Application:

Table 13-1 *Settings Menu Options Available to All Authenticated Users*

Settings Menu Option	Description
Edit Proxy Mode	Lets you act as a proxy for another user. For details, see Section 13.2, “Acting as a Proxy,” on page 124.
Edit Availability	Lets you view or edit the requests you are available to act on, and which requests your assigned delegates can act on. To edit availability, you must have the Configure Availability permission. For details, see Section 13.3, “Specifying Your Availability,” on page 125.
My Proxy Assignments	Lets you view or edit your proxy assignments. To edit proxy assignments, you must have the Configure Proxy permission. For details, see Section 13.4, “Viewing and Editing Your Proxy Assignments,” on page 128.

Settings Menu Option	Description
My Delegate Assignments	Lets you view or edit your delegate assignments. To edit delegate assignments, you must have the Configure Delegate permission. For details, see Section 13.5, “Viewing and Editing Your Delegate Assignments,” on page 129.

When a Provisioning Administrator, Provisioning Manager, or Team Manager logs in to the User Application, the **Settings** menu shows the following additional menu options:

Table 13-2 *Settings Menu Options Available to Administrators and Team Managers*

Settings Menu Option	Description
Team Settings>Team Availability	Lets you specify which requests your team members are available to act on, and which requests the team member’s delegates can act on. The Configure Availability permission must be enabled in the team configuration. When this permission is disabled, this action is not allowed. For details, see Section 13.8, “Specifying Your Team’s Availability,” on page 138.
Team Settings>Team Proxy Assignments	Lets you specify proxy assignments for members of your team. The Configure Proxy permission must be enabled in the team configuration. When this capability is disabled, this action is not allowed. For details, see Section 13.6, “Viewing and Editing Your Team Proxy Assignments,” on page 131.
Team Settings>Team Delegate Assignments	Lets you specify delegate assignments for members of your team. The Configure Delegate permission must be enabled in the team configuration. If the team rights allow managers to make a team member a delegate for other team member's provisioning requests, this action is allowed for these requests. When this permission is disabled in the team configuration, this action is not allowed. For details, see Section 13.7, “Viewing and Editing Your Team Delegate Assignments,” on page 134.
Team Settings>Make Team Process Requests	Lets you make a process request for a member of your team. The Initiate PRD permission must be enabled in the team configuration. When this permission is disabled in the team configuration, this action is not allowed. For details, see Section 13.9, “Making a Team Process Request,” on page 140.

The behavior of the Team Settings menu options varies depending on whether the current user is an administrator or team manager, and on which permissions have been granted, as described below:

Table 13-3 User Access to the Team Settings Menu Options

User	Capabilities
Provisioning Administrator (or Security Domain Administrator)	Can select a user without having to select a team. Has all permissions associated with the Provisioning Domain, and can therefore see the Team Proxy Assignments, Team Delegate Assignments, and Team Availability menu options. Can access the **New** button on the Team Proxy Assignments, Team Delegate Assignments, and Team Availability pages.
Provisioning Manager	Can select a user without having to select a team. Needs to be given security rights to see the Team Proxy Assignments, Team Delegate Assignments, and Team Availability menu options. Can access the **New** button on the Team Proxy Assignments, Team Delegate Assignments, and Team Availability pages, if the proper security rights have been given. In the Team Delegate Assignments user interface, the Provisioning Manager is only able to select provisioning requests that they have rights to assign. When the Provisioning Manager submits a delegate assignment request, only assignments they are allowed to make are successfully completed.
Team Manager	Must select a team before choosing a user. Needs to be given security rights to see the Team Proxy Assignments, Team Delegate Assignments, and Team Availability menu options. Can access the **New** button on the Team Proxy Assignments, Team Delegate Assignments, and Team Availability pages, if the proper security rights have been given.

13.2 Acting as a Proxy

The **Enter Proxy Mode** action allows you to act as a proxy for another user.

1. Click **Enter Proxy Mode** in the **Settings** group of actions in the User Profile section of the Work Dashboard.
2. Select the user for whom you want to act as proxy and click **Continue**.

   If you are designated as a proxy for a group or container, you must select the group or container before you can select the user. The User Application provides a dropdown list to allow you to select the group or container.

The User Application refreshes the display and returns you to the **My Tasks** action, the default action when you log on. The task lists shows tasks assigned to the user for whom you are acting as proxy. A message appears above the **My Work** group (as well as in the title bar) indicating that you are now acting as a proxy for another user.

At this point, you can perform any action that the user for whom you are acting as proxy could perform. The list of actions available changes depending on your authority and the authority of the user for whom you are acting as proxy.

13.3 Specifying Your Availability

The **Edit Availability** action allows you to specify which process requests with a delegate assignment you are unavailable to work on during a particular time period. During the time period when you are unavailable for a particular request, the user delegated to act on that request can work on it.

If you prefer not to specify your availability for each process request definition individually, you can use the **Edit Availability** action to establish global settings pertaining to delegation.

TIP: Before using the **Edit Availability** action, you need to have at least one delegate assignment to work on. You need to have a Provisioning Administrator (or a Provisioning Manager or Team Manager) create delegate assignments for you.

13.3.1 Setting Your Availability Status

1. Click **Edit Availability** in the **Settings** group of actions.

   The User Application displays the Edit Availability page. If you do not have any existing availability settings, the display list is empty.

   If no delegates have been assigned for you, the User Application displays a message indicating that you cannot change your status on the Edit Availability page.

   If you have one or more availability settings, the display list shows these settings.

2. To see details about a particular process associated with an availability assignment, click the name of the process.

   The page then displays a pop-up window that provides information about the delegate assignment.

   This information is particularly helpful in situations where the same process name appears more than once in the availability settings list.

3 Specify your status by selecting one of the following options in the **Change Status** drop-down list:

Status	Description
Available for ALL Requests	This is the default status. It indicates that you are globally available. When this status is in effect, requests assigned to you are not delegated, even if you have assigned delegates. The **Available for ALL Requests** status overrides other settings. If you change the status to one of the other settings, and then change it back to **Available for ALL Requests**, any **Selectively Available** settings previously defined are removed.
NOT Available for ANY Requests	Specifies that you are globally unavailable for any request definitions currently in the system. Choosing the **Not Available for ANY Requests** status indicates that you are unavailable for each existing delegate assignment and changes the current status to **Not Available for Specified Requests**. Assignments are effective immediately until the delegate assignment expires. This setting does not affect availability for new assignments created after this point.
NOT Available for Specified Requests	Specifies that you are not available for certain process request definitions. During the time period when you are unavailable for a particular request, the user delegated to act on that request can work on it. The **NOT Available for Specified Requests** option takes you to the Edit Availability page. It is the same action as clicking the **New** button.

13.3.2 Creating or Editing an Availability Setting

1 To create a new availability setting, click **New** (or select **NOT Available for Specified Requests** in the **Change Status** drop-down list).

2 To edit an existing setting, click **Edit** next to the setting you want to modify.

The User Application displays a set of controls that allow you to specify the time period for which you are unavailable and select the requests to which this setting applies.

The list of process requests displayed includes only those that have a delegate assignment.

3 Specify the time period during which you will be unavailable:

3a Specify when the time period begins by typing the start date and time in the **Unavailable From** box, or by clicking the calendar button and selecting the date and time.

3b Specify when the time period ends by clicking one of the following:

Button	Description
Duration	Lets you specify the time period in weeks, days, or hours.
End date	Lets you specify the end date and time. You can type the date and time, or click the calendar button and select the date and time from the calendar.
No Expiration	Indicates that this unavailability setting does not expire.

The end date you specify must be within the time period allowed by the delegate assignment. For example, if the delegate assignment expires on October 31, 2009, you cannot specify an expiration date of November 15, 2009 for the availability setting. If you specify an expiration date of November 15, 2009, it is automatically adjusted when it is submitted to expire on October 31, 2009.

4 Specify whether you want to send e-mail notifications to other users by filling in these fields:

Field	Description
Notify other users of these changes	Indicates whether you want to send an e-mail message to notify one or more users of this availability assignment.
Addressee	Specifies which users should receive e-mail notifications: **Selective:** Allows you to send e-mail notifications to any users you select.

5 Select one or more process requests in the **Types of Requests** list, and click **Add**.

On this page, you select the types of requests not to accept during the time you are unavailable. This has the effect of delegating these requests to other users.

Each process request you add is included in the **Declined for the Specified Period** list.

6 To indicate that this availability setting applies to all request types, click **All Request Types** instead of selecting the request types individually.

The **All Request Types** check box is only available when the type of request for the delegate assignment is set to **All**.

7 To remove a request from the list, click **Remove**.

8 Click **Submit** to commit your changes.

13.3.3 Deleting an Availability Setting

To delete an existing availability setting:

1 Click **Remove** next to the setting:

13.4 Viewing and Editing Your Proxy Assignments

The **My Proxy Assignments** action allows you to view your proxy assignments. If you are a Provisioning Administrator, Provisioning Manager, or Team Manager, you can also use this action to edit proxy assignments.

Only Provisioning Administrators, Provisioning Managers, and Team Managers can assign proxies, as described below:

- The Provisioning Administrator and the Provisioning Manager have the ability to define proxy assignments for any user in the organization.
- A Team Manager might have the ability to define proxy settings for users on his team, depending on how the team was defined. The proxies must also be within the team. To define a proxy, a Team Manager must use the **Team Proxy Assignments** action.

If a Team Manager needs to select a proxy who is not within the team, the manager must request that the Provisioning Administrator or Provisioning Manager define the proxy relationship.

13.4.1 Displaying Your Proxy Settings

1. Click **My Proxy Assignments** in the **Settings** group of actions.

   The User Application displays your current settings. The proxy assignments displayed are those that specify you as proxy for someone else, as well as those that specify someone else as proxy for you.

   If you are not a Provisioning Administrator, Provisioning Manager, or Team Manager, you see a read-only view of your proxy assignments.

   If you have administrative privileges, you are provided with buttons that let you create and edit proxy assignments.
2. To refresh the list, click **Refresh**.

13.4.2 Creating or Editing Proxy Assignments

1. To create a new proxy assignment, click **New**.
2. To edit an existing proxy assignment, click **Edit** next to the assignment:

   If you are the Provisioning Application Administrator, the User Application presents the following interface to allow you to define proxy assignments:
3. If you are a Provisioning Administrator, select one or more users, groups, and containers for which you want to define a proxy.

   Use the **Object Selector** or the **Show History** tool to select a user, group, or container.
4. If you are a team manager, select one or more users for whom you want to define a proxy.
5. Specify a user to be the proxy in the **Proxy Assigned** field.
6. Specify when the time period ends by clicking one of the following:

Button	Description
No Expiration	Indicates that this proxy assignment does not expire.
Specify Expiration	Lets you specify the end date and time. You can type the date and time, or click the calendar button and select the date and time from the calendar.

7 Click **Submit** to commit your changes.

13.4.3 Deleting Proxy Assignments

To delete an existing proxy assignment:

1 Click **Remove** next to the assignment:

NOTE: The User Application does not log you out of proxy mode right after you change permissions for a proxy assignment. This allows you to change a value if you have made a mistake. Therefore, if you delete a proxy assignment while in proxy mode, you are still able to edit the proxy assignment and also work on the proxy user's tasks even after removing the proxy assignment.

13.5 Viewing and Editing Your Delegate Assignments

The **My Delegate Assignments** action allows you to view your delegate assignments. If you are a Provisioning Administrator, Provisioning Manager, or Team Manager, you can also use this action to edit delegate assignments.

Only Provisioning Administrators, Provisioning Managers, and Team Managers can assign delegates, as described below:

- The Provisioning Administrator and Provisioning Manager have the ability to define delegate assignments for any user in the organization.
- A Team Manager might have the ability to define delegate settings for users on his team, depending on how the team rights have been defined. The delegates must also be within the team. To define a delegate, a Team Manager must use the **Team Delegate Assignments** action.

If a team manager needs to define a delegate relationship for users who are not within his or her scope of authority, he or she must request that the Provisioning Administrator define the delegate relationship.

TIP: Before using the **Edit Availability** action, you need to have at least one delegate assignment to work on.

13.5.1 Displaying Your Delegate Settings

1 Click **My Delegate Assignments** in the **Settings** group of actions.

The User Application displays your current settings.

If you are not a Provisioning Administrator, Provisioning Manager, or Team Manager, you see a read-only view of your delegate assignments.

If you have administrative privileges, you are provided with buttons that let you create and edit delegate assignments.

2 To refresh the list, click **Refresh**.

13.5.2 Creating or Editing Delegate Assignments

1 To edit an existing delegate assignment, click **Edit** next to the assignment:

Or, to create a new delegate assignment, click **New**.

If you are the Provisioning Application Administrator, the User Application presents the following interface to allow you to define delegate assignments.

2 Select one or more users, groups, and containers for which you want to define a delegate.

Use the **Object Selector** or the **Show History** tool to select a user, group, or container.

3 Click **Assign Delegate**. Specify the user who is the delegate in the **Delegate Assigned** field. Alternatively, click **Assign by Relationship**, then select a relationship in the **Delegate Relationship** field.

4 Specify when the time period ends by clicking one of the following:

Button	Description
No Expiration	Indicates that this delegate assignment does not expire.
Specify Expiration	Lets you specify the end date and time. You can type the date and time, or click the calendar button and select the date and time from the calendar.

5 Select the category of process requests in the **Type of Request** field. Select **All** to include requests from all available categories.

6 Select one or more requests that you want to delegate in the **Available Requests in Selected Category** list, then click **Add**.

Each process request you add is included in the **Selected Requests** list.

If you add multiple requests, each request is treated as an individual object that can be edited separately.

7 To remove a request from the list, click **Remove**.

8 Click **Submit** to commit your changes.

The User Application displays a confirmation message indicating whether the delegate assignment was successfully submitted.

13.5.3 Deleting a Delegate Assignment

To delete an existing delegate assignment:

1 Click **Remove** next to the assignment:

13.6 Viewing and Editing Your Team Proxy Assignments

The **Team Proxy Assignments** action lets you manage the proxy assignment for any of your team members. The rules for defining proxies are:

- If you are the Team Manager, you might be allowed to define proxies for the members of your team. To define proxies, the Team Manager must have the Configure Proxy permission in the team definition.
- The Provisioning Administrator has the ability to set proxies for any user, group, or container in the organization.
- The Provisioning Manager may have the ability to set proxies for any user, group, or container in the organization. To define proxies, the Provisioning Manager must have the Configure Proxy permission.

To assign a proxy for a team member:

1 Click **Team Proxy Assignments** in the **Settings>Team Settings** group of actions.

2 Click **Select a team** to select a team for which you have been designated as a Team Manager.

If you are a Provisioning Administrator or Provisioning Manager, you do not see the **Select a team** box.

The list of teams includes teams for which team managers are permitted to set proxies, as well as teams for which the ability to set proxies has been disabled. If a particular team definition does not permit Team Managers to set proxies, the manager can still view proxy settings defined for the team members by the administrator or by a manager of another team to which these users belong. However, the Team Manager cannot edit these settings, view details for these settings, or create new proxy assignments.

3 Click **Continue**.

4 In the **Team Member** selection box, type at least four characters of the user's first name to select the user.

Alternatively, use the **Object Selector** icon  beside the **Team Member** selection box to select a team member. In this case, click the icon to open the Object Lookup window. Specify search criteria for the team member, click **Search,** and select the team member.

5 Click **Continue**.

The proxy assignments for the selected team member, if any, are displayed. You can sort the proxy assignments by clicking the **Proxy Assigned** field.

6 Click **New**.

The **New** button is only enabled for those teams for which team managers are permitted to set proxies for team members.

7 Fill in the fields as follows:

Field	Description
User	Select the team member for whom you want to assign a proxy. You can select multiple users.
Proxy Assigned	Select the team member who is to act as proxy.
Notify other users of these changes	Indicates whether you want to send an e-mail message to notify one or more users of this proxy assignment.
Addressee	Specifies which users should receive e-mail notifications: **All:** Specifies that the user assigned as proxy, as well as the team member(s) for whom the proxy has been assigned, receives e-mail notifications. **Assign From:** Specifies that only the team member(s) for whom the proxy has been assigned receives an e-mail notification. **Assign To:** Specifies that only the team member who is to act as proxy receives an e-mail notification. **Selective:** Allows you to send e-mail notifications to any users you select, including users who are not on the team.
Expiration	**No Expiration:** Select No Expiration if you want the proxy assignment to remain in effect until it is removed or modified. **Specify Expiration:** Select Specify Expiration to define an End Date. Click the Calendar and select a date and time when the proxy assignment expires.

8 Click Submit to save your selections.

If the assignment is successful, you'll see a message like this:

```
Submission was successful
Changes will be reflected upon the assigned's next login.
```

9 Click Back to Team Proxy Assignments to create a new or edit an existing proxy assignment.

To change existing proxy assignments:

1 Click Team Proxy Assignments in the Settings>Team Settings group of actions.

2 Click Select a team to select a team for which you have been designated as a Team Manager.

If you are a Provisioning Administrator or Provisioning Manager, you do not see the Select a team box.

The list of teams includes teams for which team managers are permitted to set proxies, as well as teams for which the ability to set proxies has been disabled. If a particular team definition does not permit Team Managers to set proxies, the manager can still view proxy settings defined for the team members by the administrator or by a manager of another team to which these users belong. However, the Team Manager cannot edit these settings, view details for these settings, or create new proxy assignments.

3 Click Continue.

4 In the Team Member selection box, type at least four characters of the user's first name to select the user.

Alternatively, use the **Object Selector** icon beside the **Team Member** selection box to select a team member. In this case, click the icon to open the Object Lookup window. Specify search criteria for the team member, click **Search,** and select the team member.

5 Click **Continue**.

The proxy assignments for the selected team member, if any, are displayed.

6 To change a proxy assignment, click the edit button next to the assignment you want to modify.

If the team definition does not permit team managers to set proxies, the edit button is disabled.

7 Fill in the fields as follows:

Field	Description
User	Select the team member for whom you want to assign a proxy. You can select multiple users.
Proxy Assigned	Select the team member who is to act as proxy.
Notify other users of these changes	Indicates whether you want to send an e-mail message to notify one or more users of this proxy assignment.
Addressee	Specifies which users should receive e-mail notifications: **All:** Specifies that the user assigned as proxy, as well as the team member for whom the proxy has been assigned, receives e-mail notifications. **Assign From:** Specifies that only the team member(s) for whom the proxy has been assigned receives an e-mail notification. **Assign To:** Specifies that only the team member who is to act as proxy receives an e-mail notification. **Selective:** Allows you to send e-mail notifications to any users you select, including users who are not on the team.
Expiration	**No Expiration:** Select **No Expiration** if you want the proxy assignment to remain in effect until it is removed or modified. **Specify Expiration:** Select **Specify Expiration** to define an **End Date**. Click the Calendar and select a date and time when the proxy assignment expires.

8 Click **Submit** to save your selections.

If the change was successful, you'll see a message like this:

```
Submission was successful
Changes will be reflected upon the assigned's next login.
```

To delete proxy assignments:

1 Click **Team Proxy Assignments** in the **Settings>Team Settings** group of actions.

2 To remove a proxy setting, click **Delete**.

You are prompted to confirm the delete. When the deletion is complete, you'll see a confirmation like this:

```
Submission was successful.Changes will be reflected upon the assigned's next
login.
```

NOTE: As an alternative, you can also delete a proxy assignment during the edit proxy assignment process.

13.7 Viewing and Editing Your Team Delegate Assignments

The **Team Delegate Assignments** action allows you to manage the delegate assignments for team members. The rules for defining delegates are as follows:

- You are allowed to define delegates for the members of a team for which you have been designated as team manager, as long as the team definition gives you this permission. To configure team delegate assignments, the Team Manager must have the Configure Delegate permission.
- The Provisioning Administrator has the ability to define delegate assignments for any user, group, or container in the organization.
- The Provisioning Manager may have the ability to set delegates for any user, group, or container in the organization. To define delegates, the Provisioning Manager must have the Configure Delegate permission.

To define a delegate assignment:

1. Click **Team Delegate Assignments** in the **Settings>Team Settings** group of actions.
2. Click **Select a team** to select a team for which you have been designated as a team manager.

   If you are a Provisioning Administrator or Provisioning Manager, you do not see the **Select a team** box.

   The list of teams includes teams for which team managers are permitted to define delegates (specified in the team request rights), as well as teams for which the ability to set delegates has been disabled. If the team request rights do not permit team managers to define delegates, the manager can still view delegate settings defined for the team members by the administrator or by a manager of another team to which these users belong. However, the team manager cannot edit or delete these settings, view details for these settings, or create new delegate assignments.

   If you are a Provisioning Application Administrator, you do not see the **Select a team** box.
3. Click **Continue**.
4. In the **Team Member** selection box, type at least four characters of the user's first name to select the user.

   Alternatively, use the **Object Selector** icon  beside the **Team Member** selection box to select a team member. In this case, click the icon to open the Object Lookup window. Specify search criteria for the team member, click **Search,** and select the team member.
5. Select a team member from the list, and click **Continue**.

   Any existing assignments for the team member are displayed.
6. Click **New.**

   The **New** button is only enabled for those teams for which team managers are permitted to define delegates for team members.

7 Fill in the fields as follows:

Field	Description
User	Select one or more users whose work you want to delegate.
Assignment Type	Assign the user who can perform the delegated work by selecting one of the following: ◆ **Assign Delegate:** Select a user from the list. ◆ **Assign by Relationship:** Select the delegate relationship from the drop-down list.
Notify other users of these changes	Indicates whether you want to send an e-mail message to notify one or more users of this delegate assignment.
Addressee	Specifies which users should receive e-mail notifications: **All:** Specifies that the user assigned as delegate, as well as the team member for whom the delegate has been assigned, receives e-mail notifications. **Assign From:** Specifies that only the team member(s) for whom the delegate has been assigned receives an e-mail notification. **Assign To:** Specifies that only the team member who is to act as delegate receives an e-mail notification. **Selective:** Allows you to send e-mail notifications to any users you select, including users who are not on the team.
Expiration	**No Expiration:** Select **No Expiration** if you want the delegation to remain in effect until it is removed or modified. This, in effect, makes the delegation permanent. **Specify Expiration:** Select **Specify Expiration** to define an **End Date**. Click the Calendar and select a date and time when the delegate assignment expires.
Type of Request	Select a category from the list. This populates the list of **Available Requests** in **Selected Category**.
Available Requests in Selected Category	Select one or more process requests from this list and click **Add**.
Selected Requests	This list shows the process request types that have been delegated. To remove a request type, select it from the list and click **Remove.**

8 Click **Submit** to save your assignments.

If the save is successful, you'll see a message like this:

```
Submission was successful
Please note that any previous availability settings for users referenced in
processed delegatee assignment will not be updated automatically. Please check
and refresh any existing availability settings for the corresponding users in
order to activate these changes.
```

To modify delegate assignments:

1 Click **Team Delegate Assignments** in the **Team Settings** group of actions.

2 Click **Select a team** to select a team for which you have been designated as a team manager.

   The list of teams includes teams for which team managers are permitted to define delegates (specified in the team request rights), as well as teams for which the ability to set delegates has been disabled. If the team request rights do not permit team managers to define delegates, the manager can still view delegate settings defined for the team members by the administrator or by a manager of another team to which these users belong. However, the team manager cannot edit or delete these settings, view details for these settings, or create new delegate assignments.

   If you are a Provisioning Application Administrator, you do not see the **Select a team** box.

3 Click **Continue**.

4 In the **Team Member** selection box, type at least four characters of the user's first name to select the user.

   Alternatively, use the **Object Selector** icon  beside the **Team Member** selection box to select a team member. In this case, click the icon to open the Object Lookup window. Specify search criteria for the team member, click **Search,** and select the team member.

   The delegate assignments for the selected team member, if any, are displayed.

5 Select a team member from the list, and click **Continue**.

   Any existing assignments for the team member are displayed.

6 To edit a delegate assignment, click the edit button in the same row as the assignment you want to modify.

   If the team request rights do not permit team managers to define delegates, the edit button is disabled.

7 Fill in the fields as follows:

Field	Description
User	Select one or more users whose work you want to delegate.
Assignment Type	Assign the user who can perform the delegated work by selecting one of the following: ◆ **Assign Delegate:** Select a user from the list. ◆ **Assign by Relationship:** Select the delegate relationship from the drop-down list.
Notify other users of these changes	Indicates whether you want to send an e-mail message to notify one or more users of this delegate assignment.
Addressee	Specifies which users should receive e-mail notifications: **All:** Specifies that the user assigned as delegate, as well as the team member for whom the delegate has been assigned, receives e-mail notifications. **Assign From:** Specifies that only the team member for whom the delegate has been assigned receives an e-mail notification. **Assign To:** Specifies that only the team member who is to act as delegate receives an e-mail notification. **Selective:** Allows you to send e-mail notifications to any users you select, including users who are not on the team.
Expiration	**No Expiration:** Select **No Expiration** if you want the delegation to remain in effect until it is removed or modified. This, in effect, makes the delegation permanent. **Specify Expiration:** Select **Specify Expiration** to define an **End Date**. Click the Calendar and select a date and time when the delegate assignment expires.
Type of Request	Select a category from the list. This populates the list of **Available Requests** in **Selected Category**. To specify that this delegate assignment applies to all categories, set the type of request for the delegate assignment to **All**. **NOTE:** The All option is available only if the Provisioning Administrator has enabled the Allow All Requests option for your application.
Available Requests in Selected Category	Select one or more process requests from this list and click **Add**. The list of provisioning requests includes only those requests that are within the domain of the team. If the team request rights do not permit team managers to define delegates, the provisioning requests associated with the team are not included in the list.
Selected Requests	This list shows the process request types that have been delegated. To remove a request type, select it from the list and click **Remove.**

8 Click **Submit** to save your selections.

To delete a delegate assignment:

1. Click **Team Delegate Assignments** in the **Settings>Team Settings** group of actions to view assignments delegated to this team member and also assignments delegated away from this team member.
2. To remove a delegate assignment, click the delete button in the row of the assignment you want to delete.

   You are prompted to confirm the deletion. When the deletion is complete, you'll see a confirmation message.

13.8 Specifying Your Team's Availability

The **Team Availability** action allows you to specify the process requests your team members are not available to work on. During the time period when you or your team members are not available, any process requests of that type are forwarded to the delegate's queue.

You can specify availability for each process request individually or globally. You can only specify the availability for users who have delegates already assigned.

1. Click **Team Availability** in the **Settings>Team Settings** group of actions.
2. Click **Select a team** to select a team for which you have been designated as a team manager.

   If you are a Provisioning Administrator or Provisioning Manager, you do not see the **Select a team** box.

   The list of teams includes teams for which team managers are permitted to define availability (specified in the team definition), as well as teams for which the ability to define availability has been disabled. If the team definition does not permit team managers to define availability, the manager can still view availability settings defined for the team members by the administrator or by a manager of another team to which these users belong. However, the team manager cannot edit or delete these settings, view details for these settings, or create new availability assignments.
3. Click **Continue**.
4. In the **Team Member** selection box, type at least four characters of the user's first name to select the user.

   Alternatively, use the **Object Selector** icon  beside the **Team Member** selection box to select a team member. In this case, click the icon to open the Object Lookup window. Specify search criteria for the team member, click **Search,** and select the team member.

   The availability settings for the selected team member, if any, are displayed.
5. To see details about a particular resource associated with an availability assignment, click the name of the resource.

   The page then displays a pop-up window that provides information about the delegate assignment.

   This information is particularly helpful in situations where the same resource name appears more than once in the availability settings list.
6. Click **New.**

   The **New** button is enabled only for those teams for which team managers are permitted to define availability settings for team members.

7 Specify the status by selecting one of the options in the **Change Status** drop-down list:

Status	Description
Available for ALL Requests	This is the default status. It indicates that the team member is globally available. When this status is in effect, requests assigned to the team member are not delegated, even if there are delegates assigned. **NOTE:** If you change the status and then change it back to **Available for ALL Requests**, any **Selectively Available** settings previously defined are removed.
NOT Available for ANY Requests	Specifies that the team member is not available for any process requests currently in the system. (This is also known as globally unavailable.) Choosing this status indicates that the team member is unavailable for each existing delegate assignment and changes the current status to **Not Available for Specified Requests**. Assignments are effective immediately and last until the delegate assignment expires. **NOTE:** This setting does not affect availability for new assignments created after this point.
NOT Available for Specified Requests	When you select this option, you are prompted to specify the team member's availability. (This is the same as clicking the **New** button.) You'll be prompted to specify: ◆ The types of requests the team member is not available for. ◆ The time period when the team member is unavailable. During the time period when the team member is unavailable for a particular request, the user delegated to act on that request can work on it.

8 Specify the time period when the team member is unavailable:

8a Specify when the time period begins by typing the start date and time in the **Unavailable From** box, or by clicking the calendar and selecting the date and time.

8b Specify when the time period ends by clicking one of the following:

Button	Description
No Expiration	Indicates that this unavailability setting does not expire.
Specify Duration	Lets you specify the time period in weeks, days, or hours.
Specify End Date	Lets you specify the end date and time. You can type the date and time, or click the calendar and select the date and time from the calendar.

9 Specify whether you want to send e-mail notifications to other users by filling in these fields:

Field	Description
Notify other users of these changes	Indicates whether you want to send an e-mail message to notify one or more users of this availability assignment.
Addressee	Specifies which users should receive e-mail notifications: **Selective:** Allows you to send e-mail notifications to any users you select, including users who are not on the team.

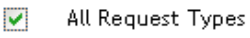
10 Select one or more requests in the **Types of Requests** list box, then click **Add**.

On this page, you select the types of requests that the team member does not accept during the unavailable period. This has the effect of delegating these requests to other users.

Each request you add is included in the **Declined for the Specified Period** list box.

If you add multiple requests for this time period, each request is treated as an individual object that can be edited separately.

11 To indicate that this availability setting applies to all request types, click **All Request Types** instead of selecting the request types individually.



The **All Request Types** check box is only available when the type of request for the delegate assignment is set to **All**.

12 To remove a request from the list, click **Remove**.

13 Click *Submit* to save your changes.

13.9 Making a Team Process Request

The **Make Team Process Request** action enables you to make process requests for team members.

1 Click **Make Team Process Request** in the **Settings>Team Settings** group of actions.

The Make Team Process Requests page is displayed.

2 Click **Select a team** to select a team for which you have been designated as a Team Manager. Then click **Continue**.

The application displays a page that lets you pick a category.

3 Select the category of the request in the **Type of Request** drop-down list. Select **All** to include requests from all available categories.

4 Click **Continue**.

The Make Team Process Requests page displays a list of processes that you can request. The list includes only those processes for which Team Managers are permitted to initiate requests.

5 Click a resource name to select it.

6 Click a **Recipient** name to select it. The team member you select is the recipient for the request.

Depending on how the team was defined, you might see an **Object Selector** icon beside the **Recipient** selection box, instead of a list of team members. In this case, click the icon to open the Object Lookup window. Specify search criteria for the team member, click **Search,** and select the team member.

The **History** icon will also appear, if you are a Provisioning Manager or a Provisioning Administrator. Otherwise, this icon is not available.

If the *flow strategy* for the workflow has been defined to support multiple recipients, the application lets you pick a group, container, or team as the recipient. Depending on how the workflow is configured, the User Application might spawn a separate workflow for each recipient (so that the request can be approved or denied independently for each recipient), or initiate a single flow that includes multiple provisioning steps, one for each recipient. In the latter case, the approval or denial of the request applies to all recipients.

7 Click **Continue**.

8 The Make Team Process Request page displays the request form. Fill in the fields on the request form. In the following example, the only required field is **Reason for request**.

The fields on the form vary according to the process you requested.

If your administrator has configured your system for digital signatures, and the process you've requested requires a digital signature, the **Digital Signature Required** icon appears in the upper right corner of the page.

In addition, on Internet Explorer, a message appears indicating that you need to press the Spacebar or the Enter key to activate the digital signature applet:

9 If you're making a request that requires a digital signature, perform these steps:

9a If you're using a smart card, insert the smart card into the smart card reader.

9b On Internet Explorer, press the Spacebar or the Enter key to activate the applet.

At this point, your browser might display a security warning message.

9c Click **Run** to proceed.

9d Fill in the fields in the initial request form. The fields on the form vary depending on which resource you requested.

9e Click the check box next to the digital signature confirmation message to indicate that you are ready to sign.

The digital signature confirmation message varies depending on how the provisioning resource was configured by the administrator.

The applet then displays a pop-up window that allows you to select a certificate. The pop-up window lists certificates imported to the browser as well as certificates imported to the smart card (if one is currently connected).

9f Select the certificate you want to use and click **Select**.

9g If you select a certificate that has been imported into your browser, you need to type the password for the certificate in the **Password** field on the request form.

9h If you select a certificate that has been imported to your smart card, type the PIN for your smart card and click **OK**.

You do not need to type the password for the certificate if you're using a smart card, because the certificate password has already been transmitted to the card.

If your administrator has enabled the ability to preview the user agreement, the **Preview** button is enabled.

9i Click **Preview** to see the user agreement.

If the digital signature type is set to Form, a PDF document is displayed. If the digital signature type is set to data, an XML document is displayed.

10 Click **Submit**.

A workflow starts for the user.

The Make Team Process Request page displays a status message indicating whether the request was submitted successfully.

If your request requires permission from one or more individuals in an organization, the request starts one or more workflows to obtain those approvals.

14 Making a Process Request

This section provides information about making process requests. Topics include:

14.1 About Process Requests

The **Make a Process Request** menu allows you to initiate a process request (also known as a provisioning request). The **Make a Process Request** menu does not allow you to make attestation, resource, or role requests. The interface for submitting these requests depends on the type of request you want to make, as described below:

- To make an attestation request, you need to use the **Attestation Requests** actions on the **Compliance** tab.
- To make a resource request, you need to use the **Resource Assignments** section of the **Work Dashboard** tab, or the **Resource Catalog** on the **Roles and Resources** tab.
- To make a role request, you need to use the **Role Assignments** section of the **Work Dashboard** tab, or the **Role Catalog** on the **Roles and Resources** tab.

The list of process requests shown on the **Make a Process Request** menu depends on which user is currently logged in to the User Application:

- If you are a Provisioning Administrator (Domain Administrator for the Provisioning Domain), you are able to select any process request.
- If you are a Provisioning Manager (Domain Manager for the Provisioning Domain), you see only those requests for which you have been given appropriate permissions.
- If you are a Team Manager, you see only those requests for which you have been given appropriate permissions.

Before selecting a process request, you need to select a category. The list of categories includes all categories.

NOTE: By default, the list includes the Attestations and Roles categories. These categories do not give you the ability to initiate standard, out-of-the-box attestation or role assignment requests. Instead, these categories are included to allow your administrator to define custom process requests that perform special attestation or role-based functions.

When you initiate the request, the User Application displays the initial request form. This form lets you specify all of the information needed for the request.

When a process request is submitted, the request starts a workflow. The workflow coordinates the approvals needed to fulfill the request. Some process requests require approval from a single individual; others require approval from several individuals. In some instances, a request can be fulfilled without any approvals.

14.2 Making a Process Request

To make a process request:

1. Click **Make a Process Request** in the User Profile section of the Work Dashboard.

   The Make a Process Request page is displayed.

2. Select the category of the request in the **Process Request Category** drop-down list. Select **All** to include requests from all available categories.

3. Click **Continue**.

   The Make a Process Request page displays a list of process requests available to the current user.

   The User Application enforces security constraints to ensure that you see only those request types to which you have access rights.

4. Select the desired process by clicking the process name.

   The Make a Process Request page displays the initial request form.

   If your administrator has configured your system for digital signatures, and the process you've requested requires a digital signature, the **Digital Signature Required** icon appears in the upper right corner of the page. In addition, on Internet Explorer, a message appears indicating that you need to press the Spacebar or the Enter key to activate the digital signature applet.

5. If you're making a request that requires a digital signature, perform these steps:

   5a If you're using a smart card, insert the smart card into the smart card reader.

   5b On Internet Explorer, press the Spacebar or the Enter key to activate the applet.

   At this point, your browser might display a security warning message.

   5c Click **Run** to proceed.

   5d Fill in the fields in the initial request form. The fields on the form vary depending on which resource you requested.

   5e Click the check box next to the digital signature confirmation message to indicate that you are ready to sign.

   The digital signature confirmation message varies depending on how the provisioning resource was configured by the administrator.

   The applet then displays a pop-up window that allows you to select a certificate. The pop-up window lists certificates imported to the browser as well as certificates imported to the smart card (if one is currently connected).

   5f Select the certificate you want to use and click **Select**.

   5g If you select a certificate that has been imported into your browser, you need to type the password for the certificate in the **Password** field on the request form.

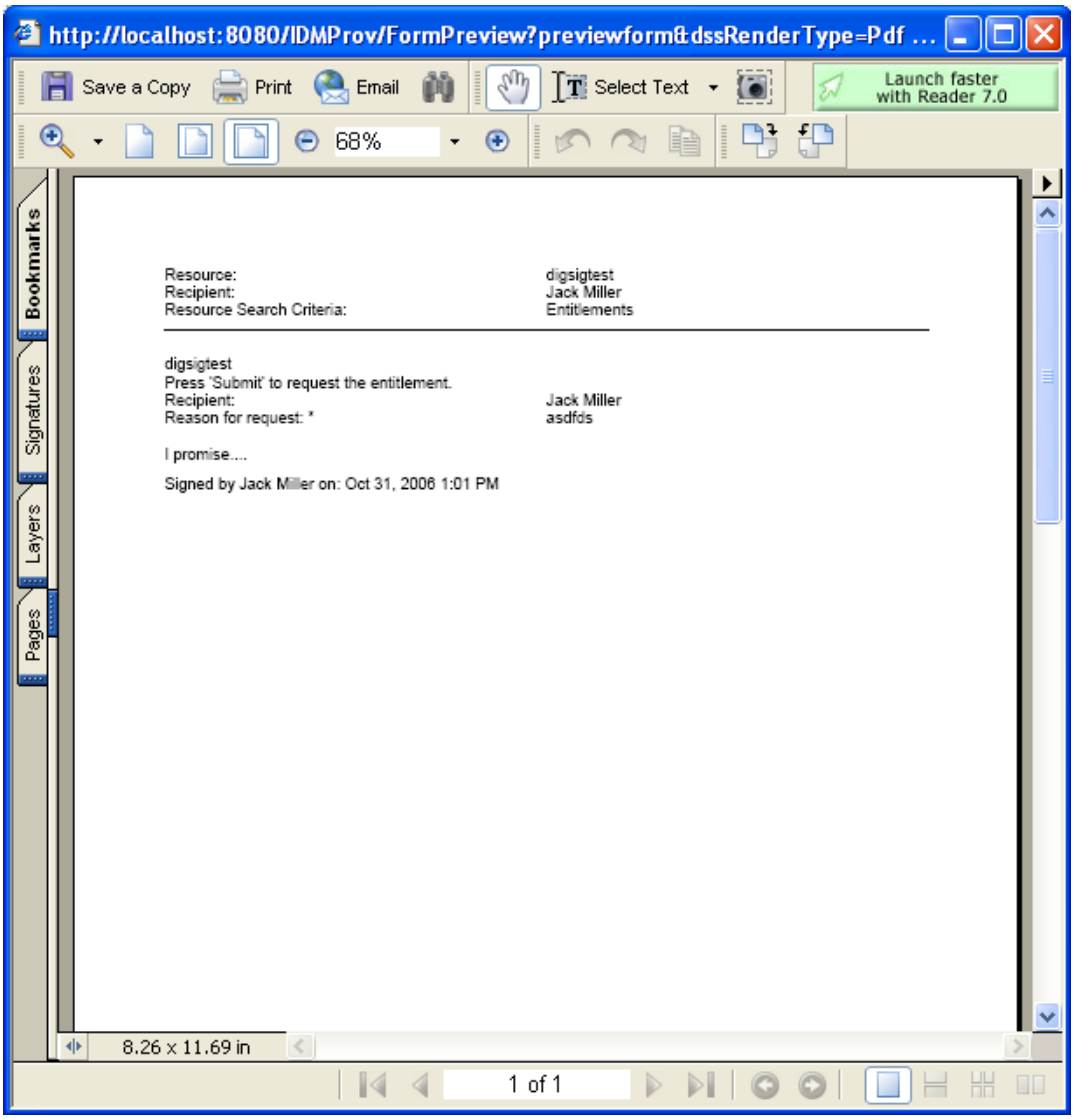
   5h If you select a certificate that has been imported to your smart card, type the PIN for your smart card and click **OK**.

   You do not need to type the password for the certificate if you're using a smart card, because the certificate password has already been transmitted to the card.

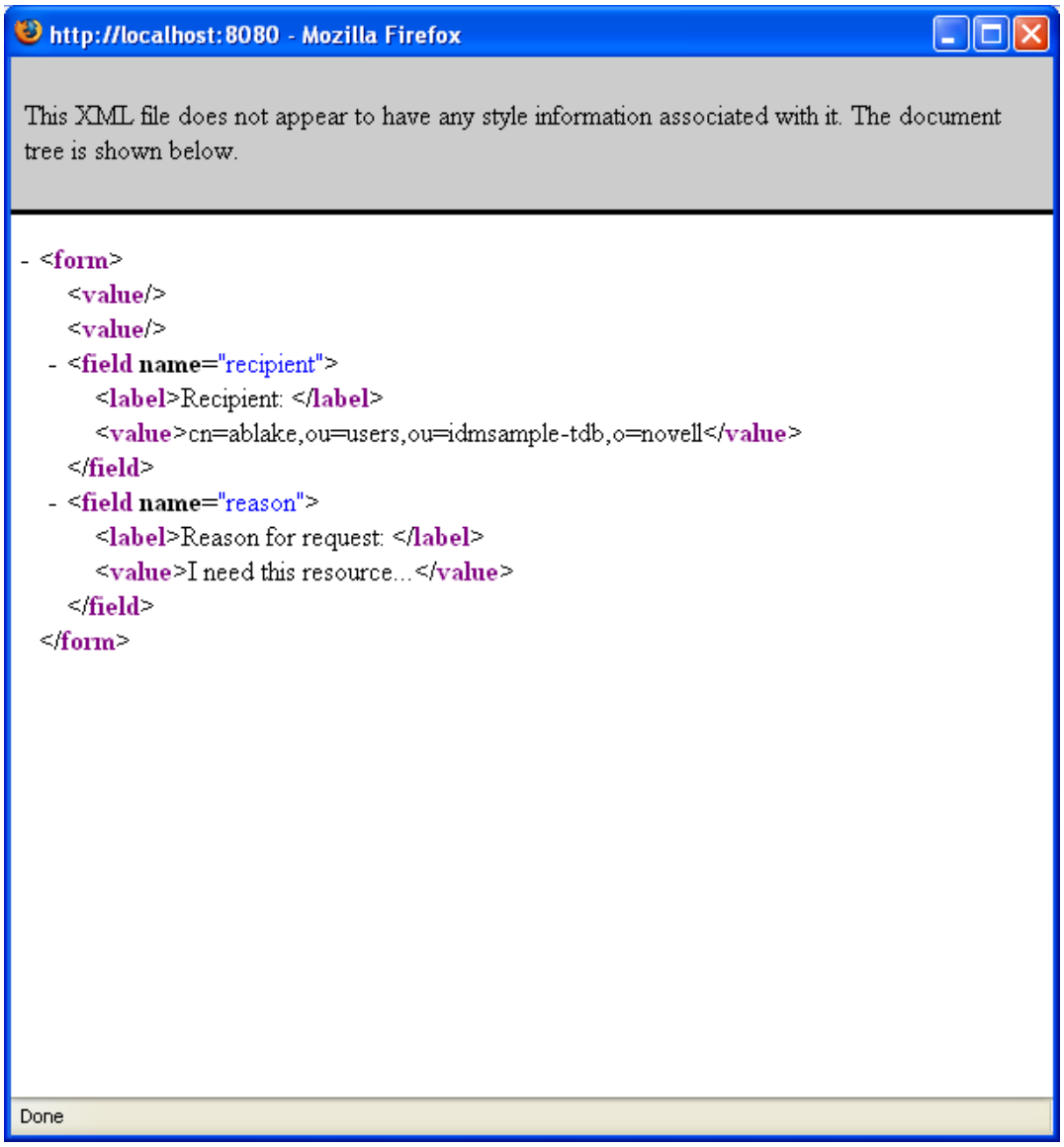
   If your administrator has enabled the ability to preview the user agreement, the **Preview** button is enabled.

   5i Click **Preview** to see the user agreement.

   If the digital signature type is set to Form, a PDF document is displayed.


http://localhost:8080/IDMProv/FormPreview?previewform&dssRenderType=Pdf ...
Save a Copy
Print
Email
Select Text
Launch faster with Reader 7.0
68%
Bookmarks
Signatures
Layers
Pages
Resource: digsigtest
Recipient: Jack Miller
Resource Search Criteria: Entitlements
digsigtest
Press 'Submit' to request the entitlement.
Recipient: Jack Miller
Reason for request: * asdfds
I promise....
Signed by Jack Miller on: Oct 31, 2006 1:01 PM
8.26 x 11.69 in
1 of 1

If the digital signature type is set to data, an XML document is displayed.



6 If the request you're making does not require a digital signature, simply fill in the fields on the initial request form. The fields on the form vary depending on which resource you requested.

7 Click **Submit**.

The Make a Process Request page displays a status message indicating whether the request was submitted successfully.

14.3 Deep Linking to a Request

The User Application provides the ability to deep link to a specific process request (also known as a provisioning request) for the current user. This feature gives a manager the ability to send a specific process request URL to an employee, so this employee can request the process quickly without having to go through the User Application interface.

When you deep link to a process request, the request form is displayed in the body of the page, along with the header for the User Application:

Once a request is made, it appears in the list of requests that the requester sees in the Work Dashboard under **Request Status**. In addition, the approver sees the task in the Work Dashboard under **Task Notifications**.

The URL used for deep linking to a process request takes this form:

`http://<server:port>/IDMProv/makeRequestDetail.do?requestId=<PRD ID>&requestType=<requesttype>`

The <*PRD ID*> must specify a DN for a provisioning request definition or a unique ID for a role or resource. The <*request type*> must be PROV.

Here's an example that shows what the URL one might use to deep link to a provisioning request definition:

```
http://testserver:8080/IDMProv/
makeRequestDetail.do?requestId=cn=EmailChange,cn=RequestDefs,cn=AppConfig,cn=Picas
soDriver,cn=TestDrivers,o=novell&requestType=PROV
```

V Managing Roles and Resources

These sections tell you how to use the **Roles and Resources** tab of the Identity Manager User Application.

15 Introducing Roles and Resources

This chapter provides an overview of the **Roles and Resources** tab. Topics include:

15.1 About Roles and Resources

The purpose of the **Roles and Resources** tab is to give you a convenient way to perform roles-based provisioning actions. These actions allow you to manage role definitions and role assignments within your organization, as well as resource definitions and resource assignments. Role assignments can be mapped to resources within a company, such as user accounts, computers, and databases. Alternatively, resources may be assigned directly to users. For example, you might use the **Roles and Resources** tab to:

- Make role and resource requests for yourself or other users within your organization
- Create roles and role relationships within the roles hierarchy
- Create separation of duties (SoD) constraints to manage potential conflicts between role assignments
- Look at reports that provide details about the current state of the Role Catalog and the roles currently assigned to users, groups, and containers

When a role or resource assignment request requires permission from one or more individuals in an organization, the request starts a workflow. The workflow coordinates the approvals needed to fulfill the request. Some assignment requests require approval from a single individual; others require approval from several individuals. In some instances, a request can be fulfilled without any approvals.

NOTE: Role approvals are triggered for explicit role-to-user assignments only.

When a role assignment request results in a potential separation of duties conflict, the initiator has the option to override the separation of duties constraint, and provide a justification for making an exception to the constraint. In some cases, a separation of duties conflict can cause a workflow to start. The workflow coordinates the approvals needed to allow the separation of duties exception to take effect.

Your workflow designer and system administrator are responsible for setting up the contents of the **Roles and Resources** tab for you and the others in your organization. The flow of control for a workflow, as well as the appearance of forms, can vary depending on how the approval definition for the workflow was defined in the Designer for Identity Manager. In addition, what you can see and do is typically determined by your job requirements and your level of authority.

15.1.1 About Roles

This section provides an overview of terms and concepts used in the **Roles and Resources** tab:

Roles and Role Assignments

A *role* defines a set of permissions related to one or more target systems or applications. The **Roles and Resources** tab allows users to request *role assignments*, which are associations between a role and a user, group, or container. The **Roles and Resources** tab also allows you to define *role relationships*, which establish associations between roles in the roles hierarchy.

You can assign roles directly to a user, in which case these *direct assignments* give a user explicit access to the permissions associated with the role. You can also define *indirect assignments*, which allow users to acquire roles through membership in a group, container, or related role in the role hierarchy.

NOTE: Role approvals are triggered for explicit role to user assignments only.

When you request a role assignment, you have the option to define a *role assignment effective date*, which specifies the date and time when the assignment takes effect. If you leave this blank, it means the assignment is immediate.

You can also define a *role assignment expiration date*, which specifies the date and time when the assignment will automatically be removed.

When a user requests a role assignment, the Role and Resource Subsystem manages the life cycle of the role request. To see which actions have been taken on the request by users or by the subsystem itself, you can check the status of the request on the **Request Status** tab in the **Role Catalog**.

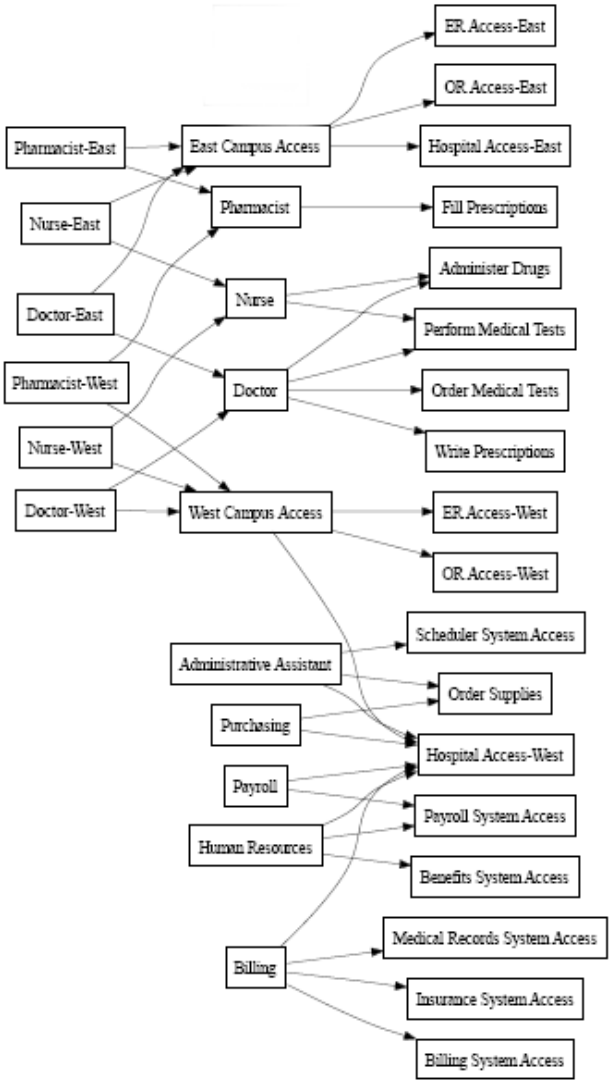
Roles Catalog and Role Hierarchy

Before users can begin assigning roles, these roles must be defined in the **Role Catalog**. The **Role Catalog** is the storage repository for all role definitions and supporting data needed by the Role and Resource Subsystem. To set up the **Role Catalog**, a Role Module Administrator (or Role Manager) defines the roles and the roles hierarchy.

The *roles hierarchy* establishes relationships between roles in the catalog. By defining role relationships, you can simplify the task of granting permissions through role assignments. For example, instead of assigning 50 separate medical roles each time a doctor joins your organization, you can define a Doctor role and specify a role relationship between the Doctor role and each of the medical roles. By assigning users to the Doctor role, you can give these users the permissions defined for each of the related medical roles.

The roles hierarchy supports three levels. Roles defined at the highest level (called Business Roles) define operations that have business meaning within the organization. Mid-level roles (called IT Roles) supports technology functions. Roles defined at the lowest level of the hierarchy (called Permission Roles) define lower-level privileges. The following example shows a sample role hierarchy with three levels for a medical organization. The highest level of the hierarchy is on the left and the lowest level is on the right:

Figure 15-1 *Sample Roles Hierarchy*



A higher-level role automatically includes privileges from the lower-level roles that it contains. For example, a Business Role automatically includes privileges from the IT Roles that it contains. Similarly, an IT Role automatically includes privileges from the Permission Roles that it contains.

Role relationships are not permitted between peer roles within the hierarchy. In addition, lower-level roles cannot contain higher-level roles.

When you define a role, you can optionally designate one or more owners for that role. A *role owner* is a user who is designated as the owner of the role definition. When you generate reports against the Role Catalog, you can filter these reports based on the role owner. The role owner does not automatically have the authorization to administer changes to a role definition. In some cases, the owner must ask a role administrator to perform any administration actions on the role.

When you define a role, you can optionally associate the role with one or more role categories. A *role category* allows you to categorize roles for the purpose of organizing the roles system. After a role has been associated with a category, you can use this category as a filter when browsing the Role Catalog.

If a role assignment request requires approval, the role definition specifies details about the workflow process used to coordinate approvals, as well as the list of approvers. The approvers are those individuals who can approve or deny a role assignment request.

Separation of Duties

A key feature of the Role and Resource Subsystem is the ability to define *separation of duties (SoD) constraints*. A separation of duties (SoD) constraint is a rule that defines two roles that are considered to be in conflict. The Role Administrator/Role Manager creates the separation of duties constraints for an organization. By defining SoD constraints, they can prevent users from being assigned to conflicting roles, or maintain an audit trail to keep track of situations where violations have been allowed. In a separation of duties constraint, the conflicting roles must be at the same level in the roles hierarchy.

Some separation of duties constraints can be overridden without approval, whereas others require approval. Conflicts that are permitted without approval are referred to as *separation of duties violations*. Conflicts that have been approved are referred to as *separation of duties approved exceptions*. The Role and Resource Subsystem does not require approvals for SoD violations that result from indirect assignments, such as membership in a group or container, or role relationships.

If a separation of duties conflict requires approval, the constraint definition specifies details about the workflow process used to coordinate approvals, as well as the list of approvers. The approvers are those individuals that can approve or deny an SoD exception. A default list is defined as part of the Role and Resource Subsystem configuration. However, this list can be overridden in the definition of an SoD constraint.

Roles Reporting and Auditing

The Role and Resource Subsystem provides a rich reporting facility to help auditors analyze the Role Catalog, as well as the current state of role assignments and SoD constraints, violations, and exceptions. The roles reporting facility allows Roles Auditors and Roles Module Administrators to display the following types of reports in PDF format:

- Role List Report
- Role Assignment Report
- SoD Constraint Report
- SoD Violation and Exception Report
- User Roles Report
- User Entitlements Report

In addition to providing information through the reporting facility, the Role and Resource Subsystem can be configured to log events to Novell or OpenXDAS auditing clients.

Roles Security

The Role and Resource Subsystem uses a set of system roles to secure access to functions within the **Roles and Resources** tab. Each menu action in the **Roles and Resources** tab is mapped to one or more of the system roles. If a user is not a member of one of the roles associated with an action, the corresponding menu item is not displayed on the **Roles and Resources** tab.

The *system roles* are administrative roles automatically defined by the system at install time for the purpose of delegated administration. These include the following:

- Roles Administrator
- Roles Manager

The system roles are described in detail below:

Table 15-1 *System Roles*

Role	Description
Roles Administrator	A system role that allows members to create, remove, or modify all roles, and grant or revoke any role assignment to any user, group, or container. This role also allows members to run any report for any user. A person in this role can perform the following functions in the User Application with unlimited scope: ◆ Create, remove, and modify roles. ◆ Modify role relationships for roles. ◆ Request assignment of users, groups or containers to roles. ◆ Create, remove, and modify SoD constraints. ◆ Browse the Role Catalog. ◆ Configure the Role and Resource Subsystem. ◆ View the status of all requests. ◆ Retract role assignment requests. ◆ Run any and all reports.
Roles Manager	A system role that allows members to modify roles and role relationships, and grant or revoke role assignments for users. A person in this role is able to perform the following functions in the User Application and is limited in scope by directory browse rights to the role objects: ◆ Create new roles and modify existing roles to which the user has browse rights. ◆ Modify role relationships for roles to which the user has browse rights. ◆ Request assignment of users, groups, or containers to roles to which the user has browse rights. ◆ Browse the Role Catalog (limited in scope by browse rights). ◆ Browse role assignment requests for users, groups, and containers (limited in scope by directory browse rights to role, user, group, and container objects). ◆ Retract role assignment requests for users, groups, and containers (limited in scope by directory browse rights to role, user, group, and container objects).

Authenticated user

In addition to supporting the system roles, the Role and Resource Subsystem also allows access by authenticated users. An authenticated user is a user logged in to the User Application who does not have any special privileges through membership in a system role. A typical authenticated user can perform any of the following functions:

- View all roles that have been assigned to the user.
- Request assignment (for himself or herself only) to roles to which he or she has browse rights.
- View request status for those requests for which he or she is either a requester or recipient.
- Retract role assignment requests for those requests for which he or she is both requester and recipient.

Role and Resource Service Driver

The Role and Resource Subsystem uses the Role and Resource Service driver to manage back-end processing of roles. For example, it manages all role assignments, starts workflows for role assignment requests and SoD conflicts that require approvals, and maintains indirect role assignments according to group and container membership, as well as membership in related roles. The driver also grants and revokes entitlements for users based on their role memberships, and performs cleanup procedures for requests that have been completed.

What happens when entitlements change for a resource If you change the entitlement for an existing resource, the driver does not grant the new entitlement for users who are currently assigned the resource. To grant the new entitlement, you need to remove and reassign the resource to the users who need the entitlement.

For details on the Role and Resource Service driver, see the *NetIQ Identity Manager - Administrator's Guide to the Identity Applications*.

15.1.2 About Resources

This section provides an overview of resource management terms and concepts used in the User Application.

About Resource-Based Provisioning

The purpose of the resource functionality within the User Application is to give you a convenient way to perform resource-based provisioning actions. These actions allow you to manage resource definitions and resource assignments within your organization. Resource assignments can be mapped to users or to roles within a company. For example, you might use resources to:

- Make resource requests for yourself or other users within your organization
- Create resources and map them to entitlements

When a resource assignment request requires permission from one or more individuals in an organization, the request starts a workflow. The workflow coordinates the approvals needed to fulfill the request. Some resource assignment requests require approval from a single individual; others require approval from several individuals. In some instances, a request can be fulfilled without any approvals.

The following business rules govern the behavior of resources within the User Application:

- Resources can only be assigned to a user. This does not preclude a resource being granted to users in a container or group based on implicit role assignment. However, the resource assignment will only be associated with a user.
- Resources can be assigned in any of the following ways:
  - Directly by a user through UI mechanisms
  - Through a provisioning request
  - Through a role request assignment
  - Through a Rest or SOAP interface
- The same resource can be granted to a user multiple times (if this capability has been enabled in the resource definition).
- A resource definition can have no more than one entitlement bound to it.
- A resource definition can have one or more same-entitlement references bound to it. This capability provides support for entitlements where the entitlement parameters represent provisionable accounts or permissions on the connected system.
- Entitlement and decision support parameters can be specified at design time (static) or at request time (dynamic).

Your workflow designer and system administrator are responsible for setting up the User Application for you and the others in your organization. The flow of control for a resource-based workflow, as well as the appearance of forms, can vary depending on how the approval definition for the workflow was defined in the Designer for Identity Manager. In addition, what you can see and do is typically determined by your job requirements and your level of authority.

Resources

A **resource** is any digital entity such as a user account, computer, or database that a business user needs to be able to access. The User Application provides a convenient way for end users to request the resources they need. In addition, it provides tools that administrators can use to define resources.

Each resource is mapped to an entitlement. A resource definition can have no more than one entitlement bound to it. A resource definition can be bound to the same entitlement more than once, with different entitlement parameters for each resource.

Resource Requests

Resources can be assigned to users only. They cannot be assigned to groups or containers. However, if a role is assigned to a group or container, the users in the group or container may automatically be granted access to the resources associated with the role.

Resource requests may require approvals. The approval process for a resource may handled by a provisioning request definition, or by an external system by setting the status code on the resource request.

If a resource grant request is initiated by a role assignment then it is possible that the resource will not be granted, even though the role is provisioned. The most likely reason for this would be that the necessary approvals were not provided.

A resource request can grant a resource to a user or revoke a resource from a user.

Role and Resource Service Driver

The User Application uses the Role and Resource Service Driver to manage back-end processing of resources. For example, it manages all resource requests, starts workflows for resource requests, and initiates the provisioning process for resource requests.

15.2 Accessing the Roles and Resources Tab

To access the **Roles and Resources** tab:

1 Click **Roles and Resources** in the User Application.

By default, the **Roles and Resources** tab displays the **Role Catalog** page.

If you go to another tab in the user interface but then want to return, you just need to click the **Roles and Resources** tab to open it again.

15.3 Exploring the Tab's Features

This section describes the default features of the **Roles and Resources** tab. (Your tab might look different because of customizations made for your organization; consult your system administrator or workflow designer.)

The left side of the **Roles and Resources** tab displays a menu of actions you can perform. The actions are listed by category (**Roles and Resources**, **Reports**, and **Configuration**):

Some of the menus on the **Roles and Resources** tab may not be available if you have not given navigation access.

When you click an action, it displays a corresponding page on the right. The page typically contains a window that shows the details for that action. For example, it might display a list or a form where you can enter data or make a selection.

15.4 Roles and Resources Actions You Can Perform

Here's a summary of the actions that are available to you by default on the **Roles and Resources** tab:

Table 15-2 Roles and Resources Actions

Category	Action	Description
Roles and Resources	Role Catalog	Allows you to create, modify, and delete roles. Also lets you define role relationships, associate resources with roles, and assign roles to users, groups, and containers. For details, see Chapter 16, “Managing Roles in the User Application,” on page 163.
	Resource Catalog	Allows you to create, modify, and delete resources. Also lets you assign resources to users. For details, see Chapter 17, “Managing Resources in the User Application,” on page 173.
	SoD Catalog	Allows you to define Separation of Duties (SoD) constraints. An SoD constraint represents a rule that makes two roles mutually exclusive. If a user is in one role, they cannot be in the second role, unless there is an exception allowed for that constraint. You can define whether exceptions to the constraint are always allowed or are only allowed through an approval flow. For details, see “Managing Separation of Duties in the User Application” on page 183.
Role Reporting	Role Reports	Enables you to create and view reports that describe the current state of roles and role assignments. For details, see Section 19.2, “Role Reports,” on page 187.
	SoD Reports	Enables you to create and view reports that describe the current state of Separation of Duties constraints, violations, and approved exceptions. For details, see Section 19.3, “SoD Reports,” on page 189.
	User Reports	Enables you to create and view reports that describe the current state of role memberships and entitlements for users. For details, see Section 19.4, “User Reports,” on page 190.
Configuration	Configure Roles and Resources Settings	Allows you to specify administrative settings for the Role and Resource Subsystem. For details, see “Configuring the Role and Resource Settings” on page 193.

15.5 Understanding the Icons Used on the Roles and Resources Tab

When you use the **Roles and Resources** tab, you see icons in many places that convey important information.

The table below provides detailed descriptions of the icons used on the **Roles and Resources** tab:

Table 15-3 *Icons Used on the Roles and Resources Tab*

Icon	Description
Running: Processing	Indicates that a role request is still in process. Appears on the Request Status page.
Pending Approval	Indicates that a role request is awaiting approval, either for a separation of duties exception or for the role assignment itself. Appears on the Request Status page.
Approved	Indicates that a role request has been approved. If a separation of duties exception was detected, this status can also be used to indicate that the exception was approved. Appears on the Request Status page.
Completed: Provisioned	Indicates that a role request has been approved and the role has been assigned to the recipient (user, group, or container). Appears on the Request Status page.
Denied	Indicates that a role request has been denied. If a separation of duties exception was detected, this status may also be used to indicate that the exception was denied. Appears on the Request Status page.
Terminated	Indicates that a role request terminated before completion, either because the user cancelled the request or because an error occurred during the course of processing. Appears on the Request Status pages.
Role	Indicates that an object is a role. Appears on the Request Status page.
Higher Level Relationship	Indicates that a role has a higher-level relationship to the currently selected role, which means that it contains the currently selected role. Appears on the Role Relationships page.
Lower Level Relationship	Indicates that a role has a lower-level relationship to the currently selected role, which means that is contained by the currently selected role. Appears on the Role Relationships page.
User	Indicates that an object is a user. Appears on the Role Assignments page.
Group	Indicates that an object is a group. Appears on the Role Assignments page.
Container	Indicates that an object is a container. Appears on the Role Assignments page.

Icon	Description
Direct Assignment	Indicates that a role was assigned directly to the currently selected user, group, or container. Appears on the Roles Assignments page.
Pending Activation	Indicates that a role request has completed its processing and has been approved, but has an activation date that is in the future. Appears on the Request Status page.

16 Managing Roles in the User Application

This section describes the role management capabilities of the User Application. Topics include:

16.1 Browsing the Role Catalog

The **Role Catalog** action on the **Roles and Resources** tab of the Identity Manager user interface allows you to view roles that have been previously defined in the catalog. It also lets you create new roles and modify, delete, and assign existing roles.

16.1.1 Viewing Roles

Click **Role Catalog** in the list of **Roles and Resources** actions.

The User Application displays a list of roles currently defined in the catalog.

Filtering the Role List

1. Click the **Display Filter** button in the upper right corner of the **Role Catalog** display.
2. Specify a filter string for the role name or description, or select one or more role levels or categories in the **Filter** dialog.
3. Click **Filter** to apply your selection criteria.
4. To remove the current filter, click **Reset**.

Setting the Maximum Number of Roles on a Page

Click on the **Rows** dropdown list and select the number of rows you want to be displayed on each page.

Scrolling within the Role List

To scroll to another page in the role list, click on the Next, Previous, First or Last button at the bottom of the list.

Sorting the Role List

To sort the role list, click the header for the column you want to sort on.

The pyramid-shaped sort indicator shows you which column is the new sort column. When the sort is ascending, the sort indicator is shown in its normal, upright position.

When the sort is descending, the sort indicator is upside down.

The initial sort column is determined by the administrator.

If you override the initial sort column, your sort column is added to the list of required columns. Required columns are indicated with an asterisk (*).

When you modify the sort order for the task list, your preference is saved in the Identity Vault along with your other user preferences.

16.1.2 Creating New Roles

1 Click the **New** button at the top of the **Role Catalog** display.

The User Application displays the New Role dialog:

2 Provide details for the role definition, as described in Table 16-1.

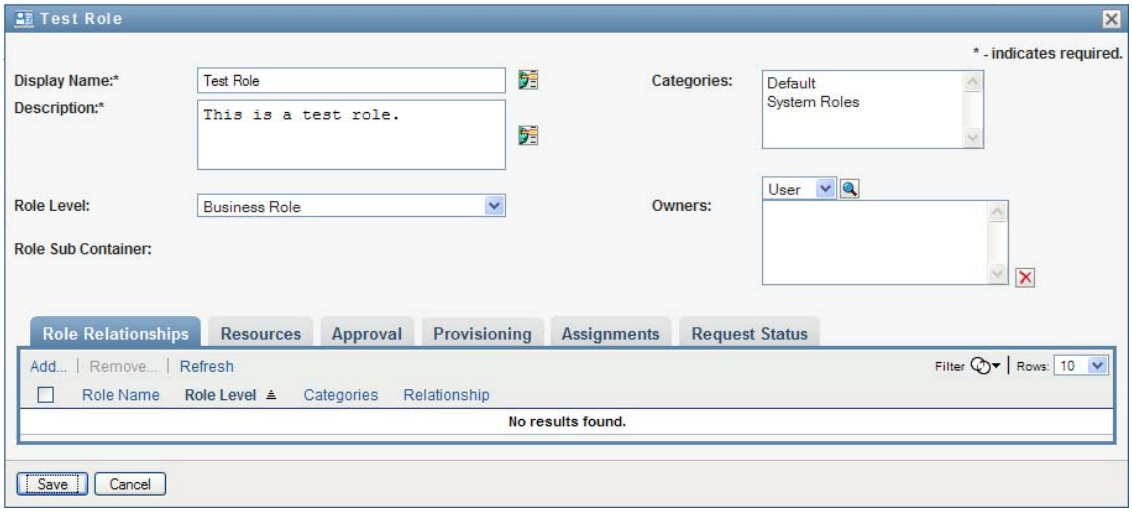
Table 16-1 *Role Details*

Field	Description
Display Name	The text used when the role name displays in the User Application. You cannot include the following characters in **Display Name** when you create a role: `< > , ; \ " +  # = / | & *` You can translate **Display Name** to any of the User Application's supported languages. For more information, see Table 1-1, "Common Buttons," on page 22.
Description	The text used when the role description displays in the User Application. You cannot include the following characters in **Description** when you create a role: `< > , ; \ " +  # = / | & *` Like **Display Name**, you can translate Description to any of the User Application's supported languages. For more information, see Table 1-1, "Common Buttons," on page 22.
Role Level	(Read-only when modifying a role.) Choose a role level from the drop-down list. Role levels are defined using the Designer for Identity Manager Role Configuration editor.
Role Sub Container	(Read-only when modifying a role.) The location for the role objects in the driver. Role containers reside under role levels. The User Application shows only the role containers that reside under the role level that you choose. You can create a role either directly in a role level, or in a container within the role level. Specifying the role container is optional.
Categories	Allow you to categorize roles for role organization. Categories are used for filtering lists of roles. Categories are multi-select.

Field	Description
Owners	Users who are designated as the owners of the role definition. When you generate reports against the Role Catalog, you can filter the report based on the role owner. The role owner does not automatically have the authorization to administer changes to a role definition.

3 Click **Save** to save the role definition.

The User Application displays several additional tabs at the bottom of the window to allow to complete the role definition.



Defining the Role Relationships

The **Role Relationships** tab allows you to define how roles are related in a higher and lower role containment hierarchy. This hierarchy enables you to group permissions or resources contained by lower-level roles into a higher-level role that makes assignment of permissions easier. The allowed relationships are:

- Top-level roles (business roles) can contain lower-level roles. They cannot be contained by other roles. If you select a top-level role, the Role Relationships page allows you to add a lower-level (child) role relationship only.
- Mid-level roles (IT roles) can contain lower-level roles, and they can be contained by higher-level roles. The Role Relationship page allows you to add either lower-level (child) role or higher-level (parent) role.
- Bottom-level roles (permission roles) can be contained by higher-level roles, but they cannot contain other bottom-level roles. The Role Relationship page allows you to add only a higher-level role.

To define a role relationship:

1 Click the **Role Relationships** tab.

2 Click **Add**.

The **Add Role Relationship** dialog is displayed.

3 Provide text describing the relationship in the **Initial Request Description** field.

4 Specify the type of relationship you want to define by selecting the type in the **Role Relationship** dropdown.

If the new role is an IT role, the **Role Relationship** dropdown lets you define a **Child** or **Parent** relationship. If the new role is a business role, the **Role Relationship** dropdown displays read-only text indicating that this is a **Child** relationship, since only lower-level roles can be related to a business role. If the new role is a permission role, the **Role Relationship** dropdown displays read-only text indicating that this is a **Parent** relationship, since only higher-level roles can be related to a permission role.

The list of roles available for selection is filtered according to the type you selected.

5 Use the Object Selector to the right of the **Selected Roles** field to select the role(s) you want to associate with the new role.

6 Click **Add**.

Associating Resources with the Role

To associate a resource with a role:

1 Click the **Resources** tab.

2 Click **Add**.

The User Application displays the **Add Resource Association** dialog.

3 Use the Object Selector to select the resource you want and provide text that explains the reason for the association.

The wizard displays a page that provides information about the selected resource, such as the name of the resource categories, owner, entitlement, and entitlement values.

For entitlements that take static parameter values, which provide additional attributes or detailed information for the entitlement, the wizard displays the static values next to the **Entitlement Value** label. For entitlements that take dynamic parameters, the wizard displays the resource request form, which includes fields for the dynamic parameters, as well as any decision support fields defined for the form.

4 In the **Association Description** field, type text that explains why the resource is associated with the role.

5 Click **Add** to associate the resource with the role.

The **Resource Associations** list shows the resource you added to the role definition.

What happens to existing role assignments When you add a new resource association to a role that already has identities assigned to it, the system initiates a new request to grant the resource to each of the identities.

To delete a resource association for a role:

1 Select the resource association in the **Resource Associations** list.

2 Click **Remove**.

What happens to existing role assignments When you remove a resource association from a role that already has identities assigned to it, the system initiates a new request to revoke the resource from each of the identities.

Defining the Approval Process for a Role

To define the approval process for a role:

1 Click the **Approval** tab.

2 Provide details for the approval process, as described below:

Table 16-2 *Approval Details*

Field	Description
Approval Required	Select this checkbox if the role requires approval when requested, and you want the approval process to execute the standard role assignment approval definition. Deselect this checkbox if the role does not require approval when requested. **NOTE:** Role approvals are triggered for explicit role-to-user assignments only.
Custom Approval	Select this radio button if you want to use a custom approval definition (provisioning request definition). Use the **Object Selector** to select the approval definition.
Standard Approval	Select this radio button if this role uses the standard role assignment approval definition specified in the Role and Resource Subsystem configuration. The name of the approval definition displays as read-only in the **Role Assignment Approval Definition** below. You must select the type of approval (**Serial** or **Quorum**) and the valid approvers.
Approval Type	Select **Serial** if you want the role to be approved by all of the users in the **Approvers** list. The approvers are processed sequentially in the order they appear in the list. Select **Quorum** if you want the role to be approved by a percentage of the users in the **Approvers** list. The approval is complete when the percentage of users specified is reached. For example, if you want one of four users in the list to approve the condition, you would specify Quorum and a percentage of 25. Alternatively, you can specify 100% if all four approvers must approve in parallel. The value must be an integer between 1 and 100. **TIP:** The Serial and Quorum fields have hover text that explains their behavior.
Approvers	Select **User** if the role approval task should be assigned to one or more users. Select **Group** if the role approval task should be assigned to a group. Select **Container** if the role approval task should be assigned to a container. Select **Role** if the role approval task should be assigned to a role. To locate a specific user, group, container, or role, use the **Object Selector**.To change the order of the approvers in the list, or to remove an approver, see Section 1.5.2, “Common User Actions,” on page 22.

Field	Description
Revoke Approval Required (Same as Grant Configuration)	Select this checkbox if the role requires approval when revoked. The approval process used for role revocation requests, as well as the list of approvers, is the same as for role grant requests. If you have indicated that you want the approval process to execute the standard role assignment approval definition, this process will be used. Alternatively, you can specify a custom approval process for both role grant requests and role revocation requests. Within a custom provisioning request definition, you can identify whether the action is a grant or revoke and customize the approval process accordingly. Deselect this checkbox if the role does not require approval when revoked.

Making Role Assignments

For details on making role assignments, see Section 16.1.5, “Assigning Roles,” on page 170.

Checking the Status of Requests

The **Request Status** action allows you to see the status of your role assignment requests, including requests you've made directly as well as role assignment requests for groups or containers to which you belong. It lets you see the current state of each request. In addition, it gives you the option to retract a request that has not been completed or terminated if you have changed your mind and do not need to have the request fulfilled.

The **Request Status** action shows all role assignment requests, including those that are running, pending approval, approved, completed, denied, or terminated.

To view the status of role assignment requests:

1. Click the **Request Status** tab.

   The **Request Action** shows whether the action was a grant or revoke. If an approval was required, and the approval process has not completed, the status shows **Pending Approval**.
2. To see the detailed status information for a request, click the status.

   The Assignment Details window is displayed.

   For details on what the status values mean, see Section 11.4, “Viewing Your Request Status,” on page 107.
3. To retract a request, select the request and click **Retract**.

   You need to have permission to retract a request.

   If the request has been completed or terminated, you will see an error message if you try to retract the request.

16.1.3 Editing an Existing Role

1. Select a previously defined role and click **Edit**.
2. Make your changes to the role settings and click **Save**.

Entitlements associated with existing roles Roles defined in earlier releases of the Roles Based Provisioning Module may have associated entitlements. If a role has an entitlement associated with it, the user interface displays the **Entitlements** tab, which allows you to see the entitlement mapping, and optionally remove it. Entitlement mappings for roles will continue to work in this release, but NetIQ now recommends that you associate entitlements with resources, rather than with roles.

16.1.4 Deleting Roles

1 Select a previously defined role and click **Delete**.

When you instruct the User Application to delete a role, it first sets the role status to **Pending Delete**. The Role and Resource Service driver then notes the change of status and performs these steps:

- Removes the resource assignments for the role
- Deletes the role itself

The Role and Resource Service driver optimizes this process. However, the process may take some time, depending on the number of users assigned to the role, because the Role and Resource driver must ensure that it does not remove a resource from a user if they have this resource by other means. If the role remains in the **Pending Delete** state for an inordinate amount of time, double check your driver to ensure that it is current and running.

When a role has the status of **Pending Delete**, you are unable to edit, delete, or assign the role.

What happens to existing role assignments If you delete a role that has an associated resource as well as one or more identities assigned to it, the system removes the resource assignment from each identity that has the associated resource.

NOTE: If you delete a role that has a resource assigned to it (or remove a user from the role), the system removes resource assignments for users in that role, even if those resources were first assigned directly. The reason for this is that the system assumes that the last authoritative source for a resource assignment is the controller of that resource, as illustrated by the following scenario:

1. A resource is created and mapped to an entitlement.
2. A user is assigned to the resource created above.
3. A role is created that is bound to the resource created in the first step above.
4. The same user is then assigned to the role created above.
5. The user is removed from the role.

In this situation, the user gets removed from the resource even though they had the resource assigned directly. Initially, the resource assignment is considered the authoritative source. However, when the user is assigned to a role that is associated with the same resource, the role becomes the authoritative source.

Deleting Roles in SoD Constraints When a conflicting role of an SoD constraint is deleted, the SoD constraint will appear with the word **Invalid** in brackets after the name, such as **Doctor Pharmacists SoD [Invalid]**, in the SoD Catalog list.

WARNING: A Role Manager who has been given the Delete Role permission for the system roles (or the container that contains these roles) can delete system roles. The system roles should not be deleted. If any of the system roles is deleted, the User Application will malfunction.

16.1.5 Assigning Roles

You can assign a role in either of two ways:

- From the **Role Catalog**
- From the **Edit Role** dialog

Both of these methods are described below.

Assigning a Role From the Catalog

1. Select a previously defined role in the **Role Catalog** and click **Assign**.

   The User Application displays the **Assign Role** dialog box.

2. Fill in the fields on the **Add Role Assignment** dialog:

   2a Provide text describing the reason for the request in the **Initial Request Description** field.

   2b In the Type of Assignment field, select **User**, **Group**, or **Container** to indicate what type of identities the role will be assigned to.

   2c In the Object Selector, enter a search string and click Search.

   Select the users, groups, or containers you want to assign.

   Assigning a role to multiple identities You can select one or more users (or groups or containers) for the role assignment. If you select multiple identities, all of the selected identities receive the same role assignment values.

   2d Specify the start date for the role assignment in the **Effective Date** field.

   You can type in a date using the format `mm/dd/yyyy hh:mm:ss a` (where a specifies AM or PM). Alternatively, you can click the Calendar icon and select the date from the Calendar pop-up window.

   2e Specify the expiration date for the role assignment in the **Expiration Date** field.

   NOTE: The expiration date only applies to user assignments. For groups and containers, the **Expiration Date** field is not available.

   To specify an expiration, click **Specify Expiration**. You can type in a date using the format `mm/dd/yyyy hh:mm:ss a` (where **a** specifies AM or PM). Alternatively, you can click the Calendar icon and select the date from the Calendar pop-up window.

   By default, the expiration date is set to **No Expiration**, which indicates that this role assignment will remain in effect indefinitely.

3. Click **Submit**.

Assigning a Role From the Edit Role Dialog

1. In the **Role Catalog**, select a role and click **Edit** to open the **Edit Role** dialog.
2. Click the **Assignments** tab.

   The **Assignments** tab displays a list of assignments that have been granted for the selected role.

3. To add a new assignment, click **Assign**.

   The User Application displays the **Assign Role** dialog box.

   For details on working with the role assignment request form, see “Assigning a Role From the Catalog” on page 170.

Resolving Separation of Duties Conflicts

If a separation of duties conflict will occur if a role is assigned to one or more users, the user interface displays the Separation of Duties Conflicts box at the bottom of the page. In this case, you need to provide a business justification for the role assignment. For more information about Separation of Duties constraints, see “Browsing the SoD Catalog” on page 183.

NOTE: You do not need to provide a justification in cases where the new role assignment conflicts with an existing assignment that the user acquired indirectly, either through a role relationship, or by membership in a group or container.

If a user is added to a role indirectly, and a potential separation of duties conflict is detected, the User Application allows the new assignment to be added and records the violation for reporting and audit purposes. If necessary, role administrators can correct the violation by redefining roles.

16.1.6 Refreshing the Role List

To refresh the roles list, click **Refresh**.

NOTE: If you create a role assignment, and then remove it, you see a message indicating that the assignment has been removed, but the assignment may still be listed. If you refresh the page, you should see that the assignment has been removed.

16.1.7 Customizing the Role List Display

The **Role Catalog** allows you to select and deselect columns, and also reorder columns within the task list display. This behavior is controlled by a setting within the **Customize Role Catalog Display** dialog. When you modify the column list or reorder the columns, your customizations are saved in the Identity Vault along with your other user preferences.

To customize the display of columns:

1. Click **Customize** in the **Role Catalog**:

   The User Application displays the list of columns currently selected for the display, and a list of additional columns that are available for selection.

2. To include an additional column in the display, select the column in the **Available Columns** list box, and drag it to the **Selected Columns** list box.

   To select multiple columns in the list, hold down the Ctrl key and select the columns. To select a range of columns that appear together in the list, hold down the Shift key and select the columns.

   You can reorder the columns in the display by moving them up or down in the **Selected Columns** list box.

3. To remove a column from the display, select the column in the **Selected Columns** list box, and drag it to the **Available Columns** list box.

   The **Role Name** column is a mandatory column and cannot be removed from the role list display.

4. To save your changes, click **Save**.

17 Managing Resources in the User Application

This section describes the resource management capabilities of the User Application. Topics include:

17.1 Browsing the Resource Catalog

The **Resource Catalog** action on the **Roles and Resources** tab of the Identity Manager user interface allows you to view resources that have been previously defined in the catalog. It also lets you create new resources and modify, delete, and assign existing resources.

17.1.1 Viewing Resources

To view resources, click **Resource Catalog** in the list of **Roles and Resources** actions.

The User Application displays a list of resources currently defined in the catalog.

Filtering the Resource List

1. Click the **Display Filter** button in the upper right corner of the **Resource Catalog** display.
2. In the **Filter** dialog, specify a filter string for the resource name or description, or select one or more categories for which you want to see resources. Click **Filter**.
3. To remove the current filter, click **Clear**.

Setting the Maximum Number of Resources on a Page

Click on the **Rows** dropdown list and select the number of rows you want to be displayed on each page.

Scrolling within the Resource List

To scroll to another page in the resource list, click on the Next, Previous, First or Last button at the bottom of the list.

Sorting the Resource List

To sort the resource list:

1 Click the header for the column you want to sort on.

The pyramid-shaped sort indicator shows you which column is the new sort column. When the sort is ascending, the sort indicator is shown in its normal, upright position.

When the sort is descending, the sort indicator is upside down.

The initial sort column is determined by the administrator.

If you override the initial sort column, your sort column is added to the list of required columns. Required columns are indicated with an asterisk (*).

When you modify the sort order for the task list, your preference is saved in the Identity Vault along with your other user preferences.

17.1.2 Creating New Resources

1 Click the **New** button at the top of the **Resource Catalog** display.

The User Application displays the New Resource dialog.

2 Provide details for the resource definition as described below:

Field	Description
Display Name	The text used when the resource name displays in the User Application. You cannot include the following characters in **Display Name** when you create a resource: `< > , ; \ " +  # = / | & *` You can translate **Display Name** to any of the User Application's supported languages. For more information, see Table 1-1, "Common Buttons," on page 22.
Description	The text used when the role description displays in the User Application. You cannot include the following characters in **Description** when you create a resource: `< > , ; \ " +  # = / | & *` Like **Display Name**, you can translate Description to any of the User Application's supported languages. For more information, see Table 1-1, "Common Buttons," on page 22.
Categories	Allow you to categorize resources for resource organization. Categories are used for filtering lists of resources. Categories are multi-select.
Owners	Users who are designated as the owners of the resource definition. The resource owner does not automatically have the authorization to administer changes to a resource definition.

3 Click **Save** to save the role definition.

The User Application displays several additional tabs at the bottom of the window to allow you to complete the resource definition.

Defining the Entitlement for a Resource Assignment

1 Click the **Entitlement** tab.

2 Click **Browse Entitlements** to select the entitlement.

The User Application displays a tree-view list of available entitlements.

The list shows all drivers and entitlements found in the User Application driver set.

NOTE: If you have not configured the resource correctly, when you access the **Browse Entitlements** page to select an Entitlement, you will see a message indicating that you have not configured your entitlements for resource mapping.

For information about configuring your drivers and entitlements for resource mapping, see "Enabling Drivers for Resource Mappings," in the *NetIQ Identity Manager - Administrator's Guide to the Identity Applications*.

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3 Select the entitlement you want to use and click **OK**.

The **Entitlement** tab shows information about any values that might be required for the entitlement:

4 Specify the details of the entitlement binding. The details vary depending on the type of entitlement you are associating with the resource:

Type of Entitlement	Description
Valueless entitlement	The entitlement accepts no parameter values. For example, a resource might be bound to an entitlement called Health Benefits that simply makes the recipient eligible for health care benefits. This type of entitlement has a fixed behavior and thereby requires no further information from the requester. When you bind to a valueless entitlement, no further configuration is required.
Free-form valued entitlement	The entitlement that requires a parameter value specified as a free-form string at request time. For example, a resource might be bound to an entitlement called Clothing that allows the requester to specify a value that represents their favorite color. You can assign a value at design time when you're defining the resource, or allow the user to assign a value at request time. For more information, see "Binding to a Free-Form Valued Entitlement" on page 176.
Single-valued entitlement	The entitlement that requires a single parameter value. For example, a resource might be bound to an entitlement called Parking Permission that allows the requester to select a parking location. The allowable values are provided by an entitlement list, which can include a static list of values defined by an administrator or a dynamic list of values generated from an LDAP query. You can assign a value at design time when you're defining the resource, or allow the user to assign a value at request time. For more information, see "Binding to a Single-Valued Entitlement" on page 176.

Type of Entitlement	Description
Multi-valued entitlement	The entitlement that accepts one or more parameter values. For example, a resource might be bound to an entitlement called Building Pass that allows the requester to select one or more buildings. The allowable values are provided by an entitlement list, which can include a static list of values defined by an administrator or a dynamic list of values generated from an LDAP query. You can assign a value at design time when you're defining the resource, or allow the user to assign a value at request time. For more information, see "Binding to a Multi-Valued Entitlement" on page 176.

Binding to a Free-Form Valued Entitlement

1 To assign a static value at design time, select **Assign entitlement value(s) now**.

Type a free-form value for the resource.

2 To assign a dynamic value at request time, select **Allow user to assign entitlement value(s) at resource request time**.

2a Specify a label that the user will see when requesting the resource.

2b To localize the label, click the **Add language display value** button and specify the foreign language text for the label.

Binding to a Single-Valued Entitlement

1 To assign a static value at design time, select **Assign entitlement value(s) now**.

Select a single value from the default entitlement list.

2 To assign a dynamic value at request time, select **Allow user to assign entitlement value(s) at resource request time**.

2a Specify a label that the user will see when requesting the resource.

2b To localize the label, click the **Add language display value** button and specify the foreign language text for the label.

2c In the **Display values from Entitlement List** dropdown, select the list you want to use to display the allowable values.

For an administrator-defined or query entitlement, the allowable values are provided by a list defined in the entitlement. The values are first loaded into code map database tables to allow you to provide user-friendly labels and localized strings. Once loaded, these tables can be used as a source for creating additional entitlement lists.

By default, the User Application creates an entitlement list that includes all rows in the list. You can create more entitlement lists if you want to show selected rows only.

Binding to a Multi-Valued Entitlement

1 To assign a static value at design time, select **Assign an entitlement value at this time**.

Use the Object Selector to pick the entitlement values.

2 Select one or more values from the default entitlement list.

3 To assign a dynamic value at request time, select **Allow user to assign entitlement value(s) at resource request time**.

   3a Specify a label that the user will see when requesting the resource:

   3b To localize the label, click the **Add language display value** button and specify the foreign language text for the label:

   3c In the **Display values from Entitlement List** dropdown, select the list you want to use to display the allowable values.

   3d Specify whether the user can select multiple values by selecting the **Allow user to request multiple assignments by selecting more than one value** checkbox.

   Since the entitlement definition allows multiple assignments, you can specify whether you want the resource to also allow multiple assignments.

Defining the Request Form

The request form for a resource displays one type of field:

- Decision support fields, which allow the requester to provide additional information that may help the approver make a decision about whether to approve or deny the request.

The **Request Form** tab shows this field and provides a user interface for creating and editing decision support fields.

In addition to the fields shown on the **Request Form** tab, the request form always includes the following required fields:

- **User**
- **Reason**

All of the fields on the request form are shown on the approval form as read-only values.

To define the request form:

1 Click the **Request Form** tab.

   The **Request Form** tab shows a list of fields that correspond to entitlement parameters for which values will be specified at request time. The properties for entitlement parameter fields are configured on the Action tab. You cannot change the behavior of fields that map to entitlement parameters.

2 To add a decision support data field:

   2a Click the plus sign (+) to add a new field.

   2b The **Request Form** tab adds a new field (with the default label **Field Label 1**) to the list of fields, and displays the Properties panel to allow you to define the characteristics of the field.

   2c To assign the decision support value right away, click **Now**.

   Provide a display label for the field, as well as the data type and value. The following data types are supported:

Data type	Description
Boolean	A logical data type having one of two possible values: true or false.
Integer	A sequence of natural numbers.
List	A set of predetermined values from which a value is selected.
String	A sequence of values representing text.

To hide the value on the request form, click **Hide**. A field that is hidden on the request form is still visible on the approval form.

2d To allow the user to assign the value at request time, click **At resource request time**.

Provide a display label for the field, and specify whether the value must be of a particular data type or come from a list.

Defining the Approval Flow Settings

To define the approval process:

1. Click the **Approval** tab.
2. Specify whether the approval process for the resource can be overridden by the approval process for a role by selecting or deselecting the **Allow role approval process to override resource approval process** checkbox.

   If the **Allow role approval process to override resource approval process** checkbox is selected, the role approval process will always override the resource approval process whenever the resource is associated with a role. Once the associated role has been approved, the resource is automatically provisioned, without any need for approval.
3. Define the approval process for a grant operation, as follows:
   - **3a** Open the **Grant Approval** section of the **Approval** tab.
   - **3b** Specify the approval details, as described below:

Field	Description
Required	Select this box if the resource requires approval when requested. Deselect this box if the resource does not require approval when requested.
Custom Approval	When you select **Custom Approval**, you need to select a custom Resource Assignment Approval Definition. This is the name of the provisioning request definition executed when the resource is requested.
Standard Approval	When you select **Standard Approval**, the resource uses the standard resource assignment approval definition specified in the Resource Subsystem configuration settings.

Field	Description
Approval Type	Select **Serial** if you want the role to be approved by all of the users in the **Approvers** list. The approvers are processed sequentially in the order they appear in the list. Select **Quorum** if you want the role to be approved by a percentage of the users in the **Approvers** list. The approval is complete when the percentage of users specified is reached. For example, if you want one of four users in the list to approve the condition, you would specify Quorum and a percentage of 25. Alternatively, you can specify 100% if all four approvers must approve in parallel. The value must be an integer between 1 and 100. **TIP:** The Info button displays text that explains the approval types.
Approvers	Select **User** if the role approval task should be assigned to one or more users. Select **Group** if the role approval task should be assigned to a group. Select **Role** if the role approval task should be assigned to a role. To locate a specific user, group, or role, use the **Object Selector** or **History** buttons.To change the order of the approvers in the list, or to remove an approver, see Section 1.5.2, “Common User Actions,” on page 22.

4 Define the approval details for a revoke operation, as follows:

4a Open the **Revoke Approval** section of the Approval tab.

4b Specify the approval details, as described below:

Field	Description
Required	Select this box if the resource requires approval when requested. Deselect this box if the resource does not require approval when requested.
Same as Grant Configuration	Select this box to copy the settings you used for the grant operation to the settings for the revoke operation.

For all other approval details, see the field descriptions for the grant operation, which are presented in Step 3b on page 178.

Provisioning a Resource

The Provisioning action allows you to define additional work that should be done through a workflow after a resource has been granted or revoked.

The **Provisioning Request Definition** drop-down list displays the provisioning request definitions that have ben defined for the resource. The provisioning request definition is created with **Resource Provisioning** Process Type.

This workflow performs any additional work defined for it after the resource has been granted or revoked.

Assigning a Resource

For details, see “Assigning a Resource From the Edit Resource Dialog” on page 181.

Checking the Status of Requests

The **Request Status** action allows you to see the status of your resource assignment requests, including requests you’ve made directly as well as resources assigned through roles. It lets you see the current state of each request. In addition, it gives you the option to retract a request that has not been completed or terminated if you have changed your mind and do not need to have the request fulfilled.

The **Request Status** action shows all resource assignment requests, including those that are running, pending approval, approved, completed, denied, or terminated.

1. Click the **Request Status** tab.

   For each field on the request form, the Request Status display shows a separate column in the list. For example, the Parking Garage column is added to the request list to show entitlement values specified for the resource assignment.
2. To see the detailed status information for a request, click the status.

   The Assignment Details window is displayed.

   For details on what the status values mean, see Section 11.4, “Viewing Your Request Status,” on page 107.
3. To retract a request, select the request and click **Retract**.

   If the request has been completed or terminated, you will see an error message if you try to retract the request.

17.1.3 Editing an Existing Resource

1. Select a previously defined resource and click **Edit**.
2. Make your changes to the resource settings and click **Save**.

17.1.4 Deleting Resources

1. Select a previously defined resource and click **Delete**.

   What happens to existing resource assignments When you a delete a resource that already has one or more identities assigned to it, the system removes the resource from those identities. If the resource has been associated with a role, the system also removes all role associations that pertain to the deleted resource.

17.1.5 Assigning Resources

You can assign a resource in either of two ways:

- From the **Resource Catalog**
- From the **Edit Resource** dialog

Both of these methods are described below.

Assigning a Resource From the Catalog

1. Select a previously defined resource in the **Resource Catalog** and click **Assign**.

   The User Application displays the resource request form.

   The **Initial Request Description** and **User** fields are required fields that are present in all resource request forms. You can use the Object Selector to select the users for the resource assignment.

   Assigning a resource to multiple users You can select one or more users for the resource assignment. If you select multiple users, all of the users receive the same resource assignment parameter values.

   The request form may include additional fields to accept values for dynamic parameter values or decision-support values.

   In the example shown above, the **Building permission** field is used to accept an entitlement parameter value, whereas the **Company Name** and **Require parking?** fields are decision-support fields. These fields are not part of the entitlement definition. Instead, these have been added to the resource definition.
2. Fill in the fields on the request form.
3. Click **Submit**.

Assigning a Resource From the Edit Resource Dialog

1. In the **Resource Catalog**, select a resource and click **Edit** to open the **Edit Resource** dialog.
2. Click the **Assignments** tab.

   The **Assignments** tab displays a list of assignments that have been granted for the selected resource.
3. To add a new assignment, click **Assign**.

   The User Application displays the resource request form.

   For details on working with the request form, see “Assigning a Resource From the Catalog” on page 181.

17.1.6 Refreshing the Resource List

To refresh the list of resources, click **Refresh**.

NOTE: If you create a resource assignment, and then remove it, you see a message indicating that the assignment has been removed, but the assignment may still be listed. If you refresh the page, you should see that the assignment has been removed.

17.1.7 Customizing the Resource List Display

The **Resource Catalog** allows you to select and deselect columns, and also reorder columns within the task list display. The column selection and order are controlled by settings within the **Customize Resource Catalog Display** dialog. When you modify the column list or reorder the columns, your customizations are saved in the Identity Vault along with your other user preferences.

To customize the display of columns:

1. Click **Customize** in the **Resource Catalog**.

The User Application displays the list of columns currently selected for the display, and a list of additional columns that are available for selection.

2 To include an additional column in the display, select the column in the **Available Columns** list box, and drag it to the **Selected Columns** list box.

   To select multiple columns in the list, hold down the Ctrl key and select the columns. To select a range of columns that appear together in the list, hold down the Shift key and select the columns.

   You can reorder the columns in the display by moving them up or down in the **Selected Columns** list box.

3 To remove a column from the display, select the column in the **Selected Columns** list box, and drag it to the **Available Columns** list box.

   The **Resource Name** column is a mandatory column and cannot be removed from the task list display.

4 To save your changes, click **Save**.

18 Managing Separation of Duties in the User Application

This section describes the separation of duties (SoD) management capabilities of the User Application. Topics include:

18.1 Browsing the SoD Catalog

The **SoD Catalog** action on the **Roles and Resources** tab of the Identity Manager user interface allows you to:

- Define a Separation of Duties (SoD) constraint (or rule).
- Define how to process requests for exceptions to the constraint.

An SoD constraint represents a rule that makes two roles, of the same level, mutually exclusive. If a user is in one role, they cannot be in the second role, unless there is an exception allowed for that constraint. You can define whether exceptions to the constraint are always allowed or are only allowed through an approval flow.

18.1.1 Viewing Separation of Duties Constraints

1. Click **SoD Catalog** in the list of **Roles and Resources** actions.

   The User Application displays a list of separation of duties constraints currently defined in the catalog.

Filtering the Separation of Duties List

1. Click the **Display Filter** button in the upper right corner of the **Separation of Duties Constraints** display.
2. Specify a filter string for the constraint name or description in the **Filter** dialog.
3. Click **Filter** to apply your selection criteria.
4. To remove the current filter, click **Reset**.

Setting the Maximum Number of Rows on a Page

1 Click on the Rows dropdown list and select the number of rows you want to be displayed on each page.

Scrolling within the Separation of Duties List

1 To scroll to another page in the constraint list, click on the Next, Previous, First or Last button at the bottom of the list.

Sorting the Separation of Duties List

To sort the constraint list:

1 Click the header for the column you want to sort on.

The pyramid-shaped sort indicator shows you which column is the new sort column. When the sort is ascending, the sort indicator is shown in its normal, upright position.

When the sort is descending, the sort indicator is upside down.

The initial sort column is determined by the administrator.

If you override the initial sort column, your sort column is added to the list of required columns. Required columns are indicated with an asterisk (*).

When you modify the sort order for the constraint list, your preference is saved in the Identity Vault along with your other user preferences.

18.1.2 Creating New Separation of Duties Constraints

1 Click the **New** button at the top of the **Separation of Duties Constraints** display.

The User Application displays the **New Separate of Duties Constraint** dialog.

2 Provide a name for the constraint in the **SoD Constraint Name** field, and type a description in the **SoD Constraint Description** field.

3 Select each of the conflicting roles in the two conflicting roles fields. The order of the roles selected is not important.

4 Define the approval details, as described under “Defining the Approval Flow Settings” on page 184.

Defining the Approval Flow Settings

1 Open the **Approval** section of the page.

2 Specify the approval details, as described below:

Field	Description
Required	Select this box if the SoD constraint requires approval for exceptions. Deselect this box if the SoD constraint does not require approval for exceptions.

Field	Description
Use Default Approvers	Select **Yes** if you want to use the default list of approvers defined in the SoD approval definition. If you select **Yes**, the page displays the list of approvers specified in the approval definition. You cannot edit this list. Select **No** if you want to specify a different list as part of the SoD constraint definition. If you select **No**, you need to use the **Approvers** control to specify the users who will be responsible for approving SoD exceptions.
Default Approvers	Displays a read-only list of the approvers specified on the **Configure Roles and Resources Settings** page.
Approvers	Allows you to specify a list of approvers as part of the constraint definition. Select **User** if the approval task should be assigned to one or more users. Select **Group** if the approval task should be assigned to a group. Select Container if the approval task should be assigned to one or more containers. Select **Role** if the approval task should be assigned to a role. To locate a specific user, group, or role, use the **Object Selector** button.To change the order of the approvers in the list, or to remove an approver, see Section 1.5.2, “Common User Actions,” on page 22.

18.1.3 Editing an Existing Separation of Duties Constraint

1. Select a previously defined SoD and click **Edit**.
2. Make your changes to the SoD settings and click **Save**.

18.1.4 Deleting Separation of Duties Constraints

1. Select a previously defined SoD and click **Delete**.

18.1.5 Refreshing the Separation of Duties Constraint List

1. Click **Refresh**.

19 Creating and Viewing Reports

This section describes the reports you can create and view from the **Roles and Resources** tab. Each report is a read-only PDF display of data about the current state of the Role Catalog at the time the report is generated. A single report does not reflect changes in data over a period of time. To track roles information for compliance, please use your audit logs.

IMPORTANT: The reports you can create and view from the **Roles and Resources** tab have been deprecated and will not be supported in a future release. NetIQ now recommends that you use the Identity Reporting Module to generate reports.

Topics in this section include:

19.1 About the Role Reporting Actions

The **Roles and Resources** tab enables you to create and view reports that describe the current state of roles. These reports can help you to monitor, add, modify, and delete roles or separations of duties.

You must be a Role Administrator or Role Auditor to create and view the role reports. The User Application Administrator has Role Administrator rights by default.

19.2 Role Reports

Two role reports are available:

- Role List Report
- Role Assignment Report

19.2.1 The Role List Report

The Role List Report shows:

- All roles, grouped by role level
- The business name of each role
- The container and description for each role
- Optionally, Quorum percentages, contained roles, containing roles, groups and containers the role is indirectly assigned to, and entitlements that are bound to each role

To create and view the Role List Report:

1. Open the User Application and choose **Reports > Role Reports.**
2. Choose **Role List Report** in the **Select a Report** drop-down menu and click **Select**. The Role Reports page prompts you to select the parameters to include in the report.
3. Select **Show all administrative details for each role** to see the following information if applicable and available:
   - Quorum percentage
   - Contained roles
   - Containing roles
   - Groups that this role is indirectly assigned to
   - Containers that this role is indirectly assigned to
   - Entitlements that are bound to the role
4. Choose whether to show all roles or roles owned by a selected owner. When you choose **Select Role Owners**, the owner selection box activates. Use this icon to make your selection.

   Open the object selection dialog.

   To select a user, choose First or Last name and type one or more characters of the name to retrieve a selection list. Choose from the selection list.

   To select a group of users, choose from the Description list of groups, or type characters in the Description box to select a shorter list of groups. Choose from the selection list.

   To select a container of users, click a container in the directory tree.

5. Choose whether to show roles at all security levels, or select one or more levels to show. To select a level, click it in the selection pull-down box. To select more than one level, hold down the Shift key or Ctrl key as you click.
6. Choose whether to show roles in all categories, or select one or more categories to show. To select a category, click it in the selection pull-down box. To select more than one category, hold down the Shift key or Ctrl key as you click.
7. Click **Run Report** to create and view a PDF report.
8. To save the report, choose **File > Save A Copy** in the Adobe Reader window. Specify a directory to save the file in and specify a filename for the report.

19.2.2 The Role Assignment Report

The Role Assignment Report shows:

- Roles grouped by role level
- Each role's business name, container, category, and description
- Users assigned to the role and names of people who approved the assignments

To create and view the Role Assignment Report:

1. Open the User Application and choose **Reports > Role Reports.**
2. Choose **Role Assignment Report** in the **Select a Report** drop-down menu and click **Select**. The Role Reports page prompts you to select the parameters to include in the report.

3 Choose to show all role assignments or to show assignments for selected roles. If you choose **Select Roles**, the selection box activates and presents the selection icons described in Step 4 on page 188.

4 Choose to show roles owned by all role owners or by a selected role owner. If you choose **Select a Role Owner**, the selection box activates and presents the selection icons described in Step 4 on page 188.

5 Choose to show roles for all role levels or to select one or more role levels. To select a level, click it in the selection pull-down box. To select more than one level, hold down the Shift key or Ctrl key as you click each level.

6 Choose to show roles for all role categories or to select one or more role categories. To select a category, click it in the selection pull-down box. To select more than one category, hold down the Shift key or Ctrl key as you click each category.

7 Click **Only show roles that have assignments** to filter the report to include only roles that have been assigned.

8 If you are choosing to show assignments for all roles rather than just one role, under **Sort Order and Grouping** choose to group roles by either name or category.

9 Click **Run Report** to create and view a PDF report.

10 To save the report, choose **File > Save A Copy** in the Adobe Reader window. Specify a directory to save the file in and specify a filename for the report.

19.3 SoD Reports

Two reports describe the current state of separation of duties:

- SoD Constraint Report
- SoD Violations and Exceptions Report

19.3.1 SoD Constraint Report

The SoD Constraint Report shows:

- Currently defined separation of duties constraints by name
- The description of the separation of duties
- The list of the conflicting roles
- The list of people with permission to approve an exception to a violation of separation of duties

To create and view the SoD Constraint Report:

1 Open the User Application and choose **Reports > SoD Reports.**

2 Choose **SoD Constraint Report** in the **Select a Report** drop-down menu and click **Select**. The Role Reports page prompts you to select the parameters to include in the report.

3 Choose to list all SoD Constraints, or select one SoD Constraint. If you choose **Select an SoD Constraint**, the selection box activates. See the description of selection box icons at Step 4 on page 188.

4 Choose to list all roles or select a role. If you choose **Select a Role**, the selection box activates. See the description of selection box icons at Step 4 on page 188.

5 Click **Run Report** to create and view a PDF report.

6 To save the report, choose **File > Save A Copy** in the Adobe Reader window. Specify a directory to save the file in and specify a filename for the report.

19.3.2 SoD Violations and Exceptions Report

The SoD Violations and Exceptions Report shows:

- The name of each separation of duties constraint, its description, and the conflicting roles
- The users in violation of the constraint, including both approved exceptions and unapproved violations. Users can be in violation by being members of a group or container that grants them a conflicting role.
- Approved exceptions. These are violations that have been approved as exceptions to the separation of duties.
- The names of those who approved or denied the exceptions and the date and time of the approval or denial.

To create and view the SoD Violations and Exceptions Report:

1 Open the User Application and choose **Reports > SoD Reports.**

2 Choose **SoD Violations and Exceptions Report** in the **Select a Report** drop-down menu and click **Select**. The Role Reports page prompts you to select the parameters to include in the report.

3 Choose **All SoD Constraints** to show any violations and exceptions outstanding across all SoD constraints. Or, choose **Select an SoD Constraint** to focus the report on violations of a single SoD constraint.

4 Click **Run Report** to create and view a PDF report similar to the sample shown below.

5 To save the report, choose **File > Save A Copy** in the Adobe Reader window. Specify a directory to save the file in and specify a filename for the report.

19.4 User Reports

Two user reports are available:

- User Roles Report
- User Entitlement Report

19.4.1 User Roles Report

The User Roles Report shows:

- Selected users, groups of users, or containers of users
- The Roles in which each user holds membership
- The date at which membership in the role became or becomes effective
- The expiration date of the role membership
- Optionally, the source of the membership in the role

To create and view a User Roles Report:

1. Open the User Application and choose **Reports > User Reports.**
2. Choose **User Roles Report** in the **Select a Report** drop-down menu and click **Select**.
3. In the **User** pane, choose either a user, group, or container for whom or which you want to view roles. See the description of selection box functions at Step 4 on page 188.
4. In the **Report Details** pane, choose one or more types of detail to report:

Detail	Meaning
Only show directly assigned roles.	The User Roles Report shows any roles that are directly assigned to the selected user, if any. The report does not show roles inherited from membership in a group or container.
Include approval information for directly assigned roles.	The User Roles Report shows who approved each directly assigned role for each user.
Only show users with role(s) assigned.	The User Roles Report shows selected users who have assigned roles. The report does not show users who do not have directly or indirectly assigned roles.

5. In the **Sort Order and Grouping** pane, choose to sort users by first name or last name.
6. In the **Sort Order and Grouping** pane, choose to sort each user's roles by level or name.
7. Click **Run Report** to create and view a report.
8. To save the report, choose **File > Save A Copy** in the Adobe Reader window. Specify a directory to save the file in and specify a filename for the report.

19.4.2 User Entitlements Report

The User Entitlements Report shows:

- All entitlements by their distinguished names
- Users that hold each entitlement
- The date at which the user's entitlement becomes effective
- The date at which the user's entitlement expires
- The role the user holds that grants the entitlement

To create and view a User Entitlements Report:

1. Open the User Application and choose **Reports > User Reports.**
2. Choose **User Entitlements Report** in the **Select a Report** drop-down menu and click **Select**.
3. In the **User Selection** pane, select the kind of user: an individual user, group, or container. Descriptions of the selection icons are at Step 4 on page 188.
4. In the **Sort Order and Grouping** pane, choose one of the following:
   - **List entitlement details for each user**
   - **List user details for each entitlement**
5. Choose **Run Report** to see a PDF report.
6. To save the report, choose **File > Save A Copy** in the Adobe Reader window. Specify a directory to save the file in and specify a filename for the report.

20 Configuring the Role and Resource Settings

This section describes the user interface for configuring role and resource settings. It includes the following topics:

20.1 About the Configure Roles and Resources Settings Action

The **Configure Roles and Resources Settings** action allows you to define the basic configuration of the role and resource system. The page has the following sections:

- Role Settings
- Resource Settings
- Entitlement Query Settings
- Separation of Duties (SoD) Settings
- Report Settings

To modify the **Configure Roles and Resources Settings** in edit mode, you must have *both* of the following assignments:

- Role Administrator (or Role Manager with the **Configure Roles Settings** permission)
- Resource Administrator (or Resource Manager with the **Configure Resources Settings** permission)

To view settings on the **Configure Roles and Resources Settings** page in read-only mode, you only need to have *one* of the permissions listed above.

When you are in edit mode, only some of the settings on the **Configure Roles and Resources Settings** page are editable. Some of the settings show read-only values that are set at installation time and cannot be modified.

20.2 Configuring the Roles Settings

To configure the roles settings:

1. Click **Configure Roles and Resources Settings** in the **Configuration** group of actions.
2. Scroll to the **Roles Settings** section of the page.

   The following settings are read-only settings that are fixed at installation time:

   - Roles Container
   - Role Request Container
   - Default Role Approval Definition
3. Specify (in seconds) a **Role Assignment Grace Period**.

   This value specifies the amount of time, in seconds, before a role assignment is removed from the **Role Catalog** (0 by default). A grace period of zero means that when someone is removed from a role assignment, the removal happens immediately and the subsequent revocation of entitlements is initiated immediately. You might use the grace period to delay the removal of an account that would subsequently be re-added (for example if a person was being moved between containers). An entitlement can disable an account (this is the default) rather than removing it.

   NOTE: The **Role Assignment Grace Period** is a legacy setting that affects only Role to Entitlement assignments; it does not affect Role to Resource to Entitlement mappings. It has no impact on roles created or assigned with the new resource model provided in this release.

   ---
4. Define the display name for the role levels. Each level has a separate display name that can be translated into several languages. To provide foreign-language strings, click **Add language display value**.
5. Click **Save** to make your settings permanent.

20.3 Configuring the Resources Settings

To view the resource settings:

1. Click **Configure Roles and Resources Settings** in the **Configuration** group of actions.
2. Scroll to the **Resources Settings** section of the page.

   These settings control the behavior of the resource management components of the User Application. All of the resource settings are read-only.

20.4 Configuring the Entitlement Query Settings

To configure the entitlement query settings:

1. Click **Configure Roles and Resources Settings** in the **Configuration** group of actions.
2. Scroll to the **Entitlement Query Settings** section of the page.

   These settings control the behavior of entitlement queries performed by the User Application. You can define a timeout interval and a refresh rate for entitlement queries. In addition, you can see whether the entitlement values have been refreshed, and begin a manual refresh, if necessary.

20.5 Configuring the Separation of Duties Settings

To configure the separation of duties (SoD) settings:

1. Click **Configure Roles and Resources Settings** in the **Configuration** group of actions.
2. Scroll to the **Separation of Duties (SoD) Settings** section of the page.

   The SoD Container setting is a read-only setting that is fixed at installation time.

   - SoD Container
   - Default SoD Approval Definition
3. In the **SoD Approval Definition** field, choose the provisioning request definition that you will use to handle SoD approvals.
4. Choose a **Default SoD Approval Type** of **Serial** or **Quorum**.

Field	Description
Serial	Select Serial if you want the role to be approved by all of the users in the **Approvers** list. The approvers are processed sequentially in the order they appear in the list.
Quorum	Select **Quorum** if you want the role to be approved by a percentage of the users in the **Approvers** list. The approval is complete when the percentage of users specified is reached. For example, if you want one of four users in the list to approve the condition, you would specify Quorum and a percentage of 25. Alternatively, you can specify 100% if all four approvers must approve in parallel. The value must be an integer between 1 and 100.

5. Modify the **Default SoD Approvers.**

Field	Description
Default SoD Approvers	Select **User** if the role approval task should be assigned to one or more users. Select **Group** if the role approval task should be assigned to a group. Only one member of the group needs to approve. Select **Role** if the role approval task should be assigned to a role. Like groups, only one member of the role needs to approve. To locate a specific user, group, or role, use the Object Selector or History buttons. To change the order of the approvers in the list or to remove an approver, see Section 1.5.2, “Common User Actions,” on page 22

6. Click **Save** to make your settings permanent.

20.6 Configuring the Report Settings

The **Report Container** value is a read-only setting that is fixed at installation time.

VI Using the Compliance Tab

These sections tell you how to use the **Compliance** tab of the Identity Manager User Application:

21 Introducing the Compliance Tab

This section provides an overview of the Compliance tab. Topics include:

For more general information about accessing and working with the Identity Manager user interface, see Chapter 1, “Getting Started,” on page 17.

21.1 About the Compliance Tab

The **Compliance** tab provides a convenient way to perform compliance-based actions.

The **Compliance** tab allows you to initiate attestation processes and check the status of these processes. You can use the **Compliance** tab to:

- Initiate an attestation process to allow users to confirm that their user profiles contain accurate information
- Initiate an attestation process to verify the violations and approved exceptions for a set of separation of duties (SoD) constraints
- Initiate an attestation process to verify the assignments for a set of roles
- Initiate an attestation process to verify the assignments for a set of users
- View the status of your attestation requests to analyze the results for each process

Compliance and Proxy mode

Proxy mode works only on the **Work Dashboard** tab and is not supported on the **Compliance** tab. If you enter proxy mode on the **Work Dashboard** tab, and then switch to the **Compliance** tab, proxy mode is turned off for both tabs.

21.1.1 About Compliance and Attestation

Compliance is the process of ensuring that an organization conforms to relevant business laws and regulations. One of the key elements of compliance is attestation. *Attestation* gives an organization a method for verifying that personnel are fully aware of organizational policies and are taking steps to comply with these policies. By requesting that employees or administrators regularly attest to the accuracy of data, management ensures that personnel information such as user profiles, role assignments, and approved separation of duties (SoD) exceptions are up-to-date and in compliance.

Attestation Requests and Processes

To allow individuals within an organization to verify the accuracy of corporate data, a user makes an *attestation request*. This request in turn initiates one or more workflow processes. The *workflow processes* give the *attesters* an opportunity to attest to the correctness of the data. A separate workflow process is initiated for each attester. An attester is assigned a workflow task in the **Task Notifications** list on the **Work Dashboard** tab. To complete the workflow process, the attester opens the task, reviews the data, and attests that it is correct or incorrect.

The Roles Based Provisioning Module supports four types of attestation:

- User profile
- SoD violations
- Role assignment
- User assignment

In the case of a user profile attestation process, each user must be the attester for his/her own profile; no other individual can be the attester. In the case of SoD violation, role assignment, and user assignment attestation, the attester may be any user, group, or role. The initiator for the attestation request specifies whether every member or only a single member must attest for a group or role. In the case of a user attestation process, every member must attest for a selected group or role.

To simplify the process of making attestation requests, the Roles Based Provisioning Module installs a set of default request definitions, one for each attestation type:

- User Profile - Default
- SoD Violation - Default
- Role Assignment - Default
- User Assignment - Default

You can use these request definitions as the basis for making your own requests. Once you've provided the details for a new request, you can save these details for future use.

Attestation Forms

Each workflow has an *attestation form* associated with it. The attester must review the form and fill it in to affirm the correctness of the data. The form is usually defined by the Compliance Administrator.

Each attestation form contains a required *attestation question* along with a set of optional *survey questions*. The attestation question is a yes or no question attesting to or denying the overall data. Survey questions can be set up to gather additional data or ask qualifying questions.

The user profile attestation form also include a set of *user attributes* with values that the attester must review. The attestation form for an SoD violation, role assignment, or user assignment process includes an *attestation report*.

Attestation Reports

The attestation report for an SoD violation, role assignment, or a user assignment process provides detailed information that the attester is expected to review. The report is generated at the time the attestation process is initiated to ensure that all users are reviewing the same information. The report may be generated in several languages, depending on the report languages settings specified for the attestation process.

Attestation Request Status

Once an attestation request has been initiated, it can be easily tracked throughout its lifecycle. The User Application provides a convenient way to look at the status of the request as a whole, as well as the detailed status for each individual workflow process associated with the request. The high-level status for a request gives the user a way to see whether the request is running, completed, initializing, or in error. The detailed status provides information about the number of workflow processes, and the status for each workflow. In addition, it shows the *attestation results*, which indicate how many answers to the attestation question were affirmative and how many were negative. The attestation results also show which attesters have not taken any action on their assigned workflow tasks.

Compliance Security

The Compliance tab recognizes a single administrator role called the Compliance Administrator. A Compliance Administrator is designated at installation time. After installation, additional users can be assigned to the Compliance Administrator role. To make additional assignments, you need to use the **RBPM Provisioning and Security > Administrator Assignments** page in the User Application.

The Compliance Administrator role is described in detail below:

Table 21-1 *System Role for Compliance Functions*

Role	Description
Compliance Administrator	An administrator who has the full range of capabilities within the Compliance domain. The Compliance Administrator can perform all possible actions for all objects within the Compliance domain. These actions include the ability to: ◆ Request user profile attestation processes. ◆ Request SoD violation attestation processes. ◆ Request role assignment attestation processes. ◆ Request user assignment attestation processes. ◆ View the status for all attestation requests that have been submitted. **NOTE:** Any user can be defined as an attester for an attestation process. An attester does not need to belong to either the Compliance Administrator role.

The **Compliance** tab does not allow access by authenticated users that do not have membership in the Compliance Administrator role listed above.

21.2 Accessing the Tab

To access the **Compliance** tab:

1. Click **Compliance** in the User Application.

   By default, the **Compliance** tab displays the Request User Profile Attestation Process page.

   If you go to another tab in the user interface but then want to return, you just need to click the **Compliance** tab to open it again.

21.3 Exploring the Tab's Features

This section describes the default features of the **Compliance** tab. (Your tab might look different because of customizations made for your organization; consult your system administrator.)

The left side of the **Compliance** tab displays a menu of actions you can perform. The actions are listed within the **Attestation Requests** category.

The **Attestation Requests** actions are only displayed if you are a Compliance Administrator.

When you click an action, it displays a corresponding page on the right. The page typically contains a window that shows the details for that action. For example, it might display a list or a form where you can enter data or make a selection.

Most pages you work with on the **Compliance** tab include a button in the upper right corner that lets you display the **Compliance** legend.

For details on the **Compliance** legend, see Section 21.5, "Understanding the Attestation Requests Legend," on page 203.

21.4 Compliance Actions You Can Perform

Here's a summary of the actions that are available to you by default on the **Compliance** tab:

Table 21-2 *Compliance Actions*

Category	Action	Description
Attestation Requests	Request User Profile Attestation Process	Submits a request for an attestation process to verify user profile information. For details, see Section 22.2, "Requesting User Profile Attestation Processes," on page 209.
	Request SoD Violation Attestation Process	Submits a request for an attestation process to verify the violations and exceptions for a set of SoD constraints. For details, see Section 22.3, "Requesting SoD Violation Attestation Processes," on page 210.
	Request Role Assignment Attestation Process	Submits a request for an attestation process to verify assignments for selected roles. For details, see Section 22.4, "Requesting Role Assignment Attestation Processes," on page 211.
	Request User Assignment Attestation Process	Submits a request for an attestation process to verify assignments for selected users. For details, see Section 22.5, "Requesting User Assignment Attestation Process," on page 213.
	View Attestation Request Status	Allows you to see the status of your attestation requests. In addition, it gives you the option to see the detailed status for each workflow started for a request and optionally retract a workflow. For details, see Section 22.6, "Checking the Status of Your Attestation Requests," on page 214.

21.5 Understanding the Attestation Requests Legend

Most pages you work with on the **Compliance** tab include a button in the upper right corner that lets you display the **Compliance** legend. The legend provides a brief description of the icons used throughout the **Compliance** tab. Table 21-3 provides detailed descriptions of the icons in the legend.

Table 21-3 *Legend Icons*

Icon	Description
Initializing	Indicates that an attestation request has started. Appears on the View Attestation Request Status page. Note that you are not able to view the details of an initializing request on the View Attestation Request Status page.
Running	Indicates that an attestation request is still in process. Appears on the View Attestation Request Status page.
Completed	Indicates that an attestation request has completed processing. Appears on the View Attestation Request Status page.
Error	Indicates that an error occurred during the course of processing. Appears on the View Attestation Request Status page.
Terminated	Indicates that a workflow for an attestation request terminated before completion, because the user retracted the workflow or because an error occurred during the course of processing. Appears on the View Attestation Request Status page.
Yes	Indicates that an attester verified that the information for an attestation process is correct. Appears on the View Attestation Request Status page.
No	Indicates that an attester has invalidated the information for an attestation process. Appears on the View Attestation Request Status page.
User	Indicates that the attester is a user. Appears in the Attester's column on the View Attestation Request Status page.
Group	Indicates that the attester is a group. Appears in the Attester's column on the View Attestation Request Status page.
Role	Indicates that the attester is a role. Appears in the Attester's column on the View Attestation Request Status page.

21.6 Common Compliance Actions

The Compliance tab provides a consistent user interface with common tools for accessing and displaying data. This section describes several of the common user interface elements and includes instructions for:

21.6.1 Specifying the Label and Description for a Request

You need to define a display label and description for all attestation request types. The **Compliance** tab provides a consistent interface for doing this.

To define the display label and request description:

1. In the left-navigation menu on the **Compliance** tab, select the action you want to perform under **Attestation Requests**.
2. Type a label in the **Display Label** field.

   The Display Label appears in the My Tasks list, the list of saved requests, and other display lists as the name of the attestation process.

   To provide localized text for the label, click the **Add Language** button. Then, type the localized text to the right of the target language, and click **OK**.
3. Type a description in the **Request Description** field.

   When you review the request status on the View Attestation Request Status page, the Request Description appears in the details for the request.

   To provide localized text for the description, click the **Add Language** button. Then, type the localized text to the right of the target language, and click **OK**.

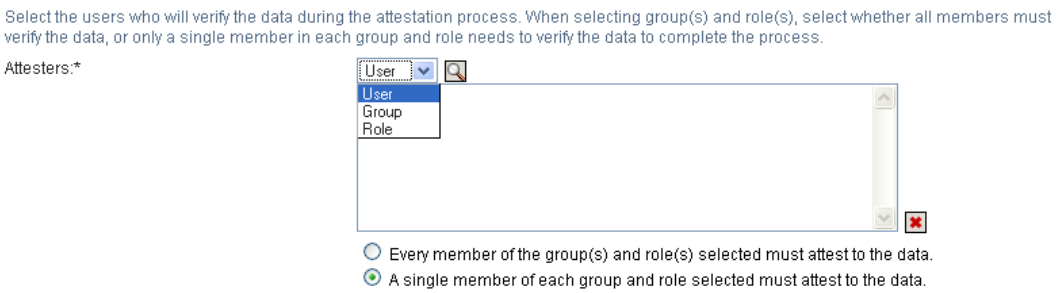
21.6.2 Defining the Attesters

The **Request SoD Violation Attestation Process**, **Request Role Assignment Attestation Process**, and **Request User Assignment Attestation Process** actions provide a consistent interface for defining attesters.

To define the attesters for an SoD, role assignment, or user assignment attestation process:

1. In the left-navigation menu on the **Compliance** tab, select the action you want to perform under **Attestation Requests**.
2. In the **Attesters** field, specify which users, groups, and roles will be attesters for the attestation process:

   2a To add one or more users to the list, select **User** in the drop-down list.



Use the **Object Selector** to select the users. In the **Object Selector**, you can include multiple users by clicking the checkbox for each item, and clicking **Select**.

For details on using the **Object Selector**, see Section 1.5.2, “Common User Actions,” on page 22.

2b To add one or more groups to the list, select **Group** in the drop-down list.

Use the **Object Selector** to select the groups. In the **Object Selector**, you can include multiple users by clicking the checkbox for each item, and clicking **Select**.

2c To add one or more roles to the list, select **Role** in the drop-down list.

Use the **Object Selector** to select the roles. In the **Object Selector**, you can include multiple roles by clicking the checkbox for each item, and clicking **Select**.

2d To delete an item, select it and click the **Delete** button. You can select multiple items before clicking the **Delete** button.

2e For group(s) and role(s) attesters, specify whether all members must attest to the data or only a single member in each group and role by selecting one of the following buttons:

- **Every member of the group(s) and role(s) selected must attest to the data.**
- **A single member of each group and role selected must attest to the data.**

In the case of a user profile attestation process, every member of a selected group or role must attest.

21.6.3 Specifying the Deadline

Each attestation process has a deadline associated with it. The deadline indicates how long you want the process to continue running.

The deadline is required to launch an attestation process, but is not required for a saved request.

To specify the deadline for an attestation process:

1. In the left-navigation menu on the **Compliance** tab, select the action you want to perform under **Attestation Requests**.
2. In the **Deadline** field, indicate how long you want the attestation process to continue running. If you want to specify the duration for the process in weeks, days, or hours, type a number in the **Duration** field, and select **Weeks**, **Days**, or **Hours** as the unit of measure. If you would prefer to define an expiration date, select **Specify End Date** and use the Calendar control to select the date and time. If the process will run indefinitely, select **No Expiration**.

   The value specified in the Deadline field is not stored with the details for a saved request.

21.6.4 Defining the Attestation Form

You need to define an attestation form for all attestation types. The **Compliance** tab provides a consistent interface for doing this.

To define the form for an attestation process:

1. In the left-navigation menu on the **Compliance** tab, select the action you want to perform under **Attestation Requests**.
2. Define the details of the attestation form, as follows:
   - **2a** Click the **Edit** button.
   - **2b** Type the attestation question in the **Attestation Question** field.

     The attestation question is a required question for any attestation process. This question gives the attester an opportunity to attest to or invalidate the data. The question must have a simple yes or no answer. You must define an attestation question when initiating an attestation process, and each attester must answer this question to complete their response.

     To provide localized text for the attestation question, click the **Add Language** button. Then, type the localized text to the right of the target language, and click **OK**.
   - **2c** For a user profile attestation process, you need to indicate which user attributes you want to verify. In the **User Attributes** field, select each attribute you want to include.

     The list of attributes to choose from includes all attributes marked as viewable in the directory abstraction layer, except for those that are binary or calculated.
   - **2d** In the **Survey Questions** field, you can optionally include one or more questions that an attester can answer during the execution of an attestation process. An attestation process is not required to include survey questions. However, if they are included, they may optionally be answered by the attester.

     Follow these steps to define and organize the list of survey questions:

     - **2d1** Click the **Add Item** button to add a survey question.

       Type the localized text for the question to the right of the target language, and click **OK**.
     - **2d2** To move a question up in the list, select the question and click the **Move Up** button.
     - **2d3** To move a question down in the list, select the question and click the **Move Down** button.
     - **2d4** To delete a question, select it and click the **Delete** button.
     - **2d5** To edit the localized text for an existing question, select the question and click the **Add Language** button. Then, type the localized text to the right of the target language, and click **OK**.
   - **2e** When you have finished making changes to the form, click the **View** button.

You can switch back and forth between the read only and editable views by clicking the **View** or **Edit** button.

21.6.5 Submitting an Attestation Request

After you have defined the details for an attestation request, you need to submit the request to initiate the process. When you submit a request, the User Application displays a confirmation number for your request. This number is also known as a correlation ID, since it correlates a set of workflows associated with a single request.

The following fields are required to launch a request:

Table 21-4 *Fields Required to Launch a Request*

Attestation Type	Required Fields
User Profile	Display Label, Request Description, Users, Deadline, Attestation Question
SoD Violation	Display Label, Request Description, SoD Constraints, Attesters, Deadline, Report Locale, Attestation Question
Role Assignment	Display Label, Request Description, Verify Assignments For, Attesters, Deadline, Report Locale, Attestation Question
User Assignment	Display Label, Request Description, Verify Roles Assigned To, Attesters, Deadline, Report Locale, Attestation Question

To submit an attestation request:

1. In the left-navigation menu on the **Compliance** tab, select the action you want to perform under **Attestation Requests**.
2. Click **Submit** to initiate the attestation process.

   The *confirmation number* for your request is displayed at the top of the page. Record this number so you can easily track the progress of your request on the View Attestation Request Status page. If you do not record this number, you can always track the request by using the Display Label.

21.6.6 Saving Request Details

When you're defining the details for an attestation request, you have the option to save these details for later use. For example, you might want to save the parameter and form values you specify so you can use them again in a future request.

When you click **Use a Saved Request**, the name you specify for the saved request appears in the list of saved requests, along with the display label.

The following fields are required for a saved request:

Table 21-5 *Fields Required for a Saved Request*

Attestation Type	Required Fields
User Profile	Display Label, Request Description, Attestation Question
SoD Violation	Display Label, Request Description, SoD Constraints, Report Locale, Attestation Question

Attestation Type	Required Fields
Role Assignment	Display Label, Request Description, Roles, Report Locale, Attestation Question
User Assignment	Display Label, Request Description, Report Locale, Attestation Question

To save request details:

1. In the left-navigation menu on the **Compliance** tab, select the action you want to perform under **Attestation Requests**.
2. Click **Save Request Details**.

   Type the name you would like to use to identify the saved process request and click **OK**.

   The following characters are not allowed in the name for a saved request: < > , ; \ " + # = / | & *

   Spaces at the beginning or the end of the name are automatically stripped out.

   If the process request already exists, the User Application prompts you to overwrite the existing definition.

21.6.7 Using a Saved Request

When you're making an attestation request, you have the option to use details from a previously saved request as the basis for the new request. The saved requests that are available for selection vary depending on the type of attestation process you are requesting. For example, if you are making a user profile attestation request (as shown below), you will see only those saved requests that apply to user profile attestation processes.

To use a saved request:

1. In the left-navigation menu on the **Compliance** tab, select the action you want to perform under **Attestation Requests**.
2. Click **Use a Saved Request**.

   The User Application displays a pop-in window to allow you to select the saved request.

   2a To select a request, click the display label or the request name. The request name is the common name (CN) for the saved request definition.

   2b To remove a saved request, click the checkbox to the left of the display label, and click **Remove**. You can remove multiple saved requests with a single click.

   You cannot remove any of the default request definitions that are installed with the product. Therefore, the default request definitions do not show a checkbox.

   When you click the **Remove** button, the User Application displays a confirmation window before removing the saved request.

22 Making Attestation Requests

This section provides instructions for making attestation requests. Topics include:

22.1 About the Attestation Requests Actions

The **Compliance** tab in the Identity Manager User Application includes a group of actions called **Attestation Requests**. The **Attestation Requests** actions give you the ability to make attestation process requests and check the status of requests you’ve made.

22.2 Requesting User Profile Attestation Processes

The **Request User Profile Attestation Process** action lets you initiate an attestation process to verify one or more user profiles. It also gives you the option to save the details associated with an attestation request (such as parameter and form values) as a pre-filled form for later requests.

To initiate a user profile attestation process:

1. Click **Request User Profile Attestation Process** in the list of **Attestation Requests** actions.

   The User Application displays a page that lets you specify details about the attestation process.
2. If you want to use the details from a previously saved request as the basis for this request, click **Use a Saved Request**. For more information, see Section 21.6.7, “Using a Saved Request,” on page 208.
3. Specify the display label and description for the request. For more information, see Section 21.6.1, “Specifying the Label and Description for a Request,” on page 204.
4. In the **Users** box, select the users whose profiles will be verified:

   4a To include one or more users explicitly, select **User** in the drop-down list.

   Use the **Object Selector** to select the users. In the **Object Selector**, you can include multiple users by clicking the checkbox for each item, and clicking **Select**.

   For details on using the **Object Selector**, see Section 1.5.2, “Common User Actions,” on page 22.

   4b To include the users in one or more groups, select **Group** in the drop-down list.

   Use the **Object Selector** to select the groups. In the **Object Selector**, you can include multiple groups by clicking the checkbox for each item, and clicking **Select**.

   4c To include the users in one or more roles, click **Role** in the drop-down list.

Use the **Object Selector** to select the roles. In the **Object Selector**, you can include multiple roles by clicking the checkbox for each item, and clicking **Select**.

4d To include the users in a container, click **Container** in the drop-down list.

Use the **Object Selector** to drill down to the desired container, then click on the container to select it.

If you want the user assignment report to include all users in the selected sub-containers, you need to check the **Include all users of sub-containers** checkbox at the bottom of the list of selected items. The **Include all users of sub-containers** checkbox is displayed only when **Container** is selected in the drop-down list. However, you can change the **Include all users of sub-containers** setting without having to remove and add any of your previously selected containers.

You must select at least one user, group, role, or container to launch an attestation process. However, you are not required to select a user, group, role, or container to save a request.

5 In the **Attesters** field, note that the text is read-only. In a user profile attestation process, the attesters are the users selected in the **Users** field, along with all of the members of any groups, roles, and containers you added in the **Users** field. This is because each user must be the attester for his/her own profile; no other user can be the attester.

6 Specify the deadline for the attestation process. For more information, see Section 21.6.3, “Specifying the Deadline,” on page 205.

7 Define the details of the attestation form. For more information, see Section 21.6.4, “Defining the Attestation Form,” on page 206.

8 Submit the request. For more information, see Section 21.6.5, “Submitting an Attestation Request,” on page 207.

9 Optionally click **Save Request Details** to save the details associated with an attestation process request (such as parameter and form values) for later use. For more information, see Section 21.6.6, “Saving Request Details,” on page 207.

22.3 Requesting SoD Violation Attestation Processes

The **Request SoD Violation Attestation Process** action lets you initiate an attestation process to verify the violations and exceptions for one or more SoD constraints. It also gives you the option to save the details associated with an attestation request (such as parameter and form values) as a pre-filled form for later requests.

When you initiate an SoD attestation process, the User Application generates a set of localized reports for the attesters to review.

The attesters do not need to have rights for the selected constraints to review the reports. If an attester selected for an SoD attestation process does not have rights to view an SoD constraint, the User Application still allows the attester to view the report showing the violations and exceptions for the constraint.

To initiate an SoD violation attestation process:

1 Click **Request SoD Violation Attestation Process** in the list of **Attestation Requests** actions.

The User Application displays a page that lets you specify details about the attestation process.

2 If you want to use the details from a previously saved request as the basis for this request, click **Use a Saved Request**. For more information, see Section 21.6.7, “Using a Saved Request,” on page 208.

3 Specify the display label and description for the request. For more information, see Section 21.6.1, “Specifying the Label and Description for a Request,” on page 204.

4 Select the SoD constraints whose violations and exceptions will be verified, as follows:

4a To include all existing constraints, select the **All SoD Constraints** button.

4b To choose the constraints individually, select the **Select SoD Constraints** button.

Use the **Object Selector** to select each constraint. In the **Object Selector**, you can include multiple constraints by clicking the checkbox for each item, and clicking **Select**.

For details on using the **Object Selector** and **Show History** tools, see Section 1.5.2, “Common User Actions,” on page 22.

You must select at least one SoD constraint to launch an attestation process. However, you are not required to select an SoD constraint to save a request.

5 In the **Attesters** field, specify which users, groups, and roles will be attesters for the attestation process. For details, see Section 21.6.2, “Defining the Attesters,” on page 204.

You must select at least one user, group, or role as an attester to launch an attestation process. However, you are not required to select an attester to save a request.

6 Specify the deadline for the attestation process. For more information, see Section 21.6.3, “Specifying the Deadline,” on page 205.

7 In the **Report Languages** field, click the **Add Language** button to specify which language locales you would like to use for the reports generated for the attestation process. Select the default locale in the **Default Locale** dropdown list. Then, pick the languages you want to include and click **OK**.

When you initiate an SoD attestation process, the User Application generates a set of localized reports for the attesters to review. These reports provide the same data in one or more languages. They are generated at the time the request is submitted to ensure all of the attesters are reviewing the same set of data. You can specify the set of report languages that will be generated and stored for the attestation process. When an attester selects an attestation task for review, the system displays the localized report that matches the attester's preferred locale (or browser locale, if the user does not have a preferred locale). If no report exists for that locale, the User Application displays the report that uses the default locale.

8 Define the details of the attestation form. For more information, see Section 21.6.4, “Defining the Attestation Form,” on page 206.

9 Submit the request. For more information, see Section 21.6.5, “Submitting an Attestation Request,” on page 207.

10 Optionally click **Save Request Details** to save the details associated with an attestation process request (such as parameter and form values) for later use. For more information, see Section 21.6.6, “Saving Request Details,” on page 207.

22.4 Requesting Role Assignment Attestation Processes

The **Request Role Assignment Attestation Process** action lets you initiate an attestation process to verify the accuracy of assignments for selected roles. It also gives you the option to save the details associated with an attestation request (such as parameter and form values) as a pre-filled form for later requests.

When you initiate a role assignment attestation process, the User Application generates a set of localized reports for the attesters to review.

The attesters do not need to have rights for the selected roles to review the reports. If an attester selected for a role assignment attestation process does not have rights to view a particular role, the User Application still allows the attester to view the report showing the role assignments.

The report generated for a role assignment attestation process shows the users assigned to the selected roles. Only roles that have assignments are included in the report.

To initiate a role assignment attestation process:

1 Click **Request Role Assignment Attestation Process** in the list of **Attestation Requests** actions.

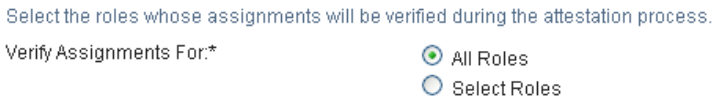
The User Application displays a page that lets you specify details about the attestation process.

2 If you want to use the details from a previously saved request as the basis for this request, click **Use a Saved Request**. For more information, see Section 21.6.7, “Using a Saved Request,” on page 208.

3 Specify the display label and description for the request. For more information, see Section 21.6.1, “Specifying the Label and Description for a Request,” on page 204.

4 In the **Verify Assignments For** box, select the roles whose assignments will be verified, as follows:

4a To include all existing roles, select the **All Roles** button.



4b To choose the roles individually, select the **Select Roles** button.

Use the **Object Selector** or the **Show History** tool to select each role. In the **Object Selector**, you can include multiple roles by clicking the checkbox for each item, and clicking **Select**.

For details on using the **Object Selector** and **Show History** tools, see Section 1.5.2, “Common User Actions,” on page 22.

You must select at least one role to launch an attestation process. However, you are not required to select a role to save a request.

5 In the **Attesters** field, specify which users, groups, and roles will be attesters for the attestation process. For details, see Section 21.6.2, “Defining the Attesters,” on page 204.

You must select at least one user, group, or role as an attester to launch an attestation process. However, you are not required to select an attester to save a request.

6 Specify the deadline for the attestation process. For more information, see Section 21.6.3, “Specifying the Deadline,” on page 205.

7 In the **Report Languages** field, click the **Add Language** button to specify which languages you would like to use for the reports generated for the attestation process. Select the default locale in the **Default Locale** dropdown list. Then, pick the languages you want to include and click **OK**.

When you initiate a role assignment attestation process, the User Application generates a set of localized reports for the attesters to review. These reports provide the same data in one or more languages. They are generated at the time the request is submitted to ensure all of the attesters are reviewing the same set of data. You can specify the set of report languages that will be generated and stored for the attestation process. When an attester selects an attestation task for review, the system displays the localized report that matches the attester's preferred locale (or browser locale, if the user does not have a preferred locale). If no report exists for that locale, the User Application displays the report that uses the default locale.

8 Define the details of the attestation form. For more information, see Section 21.6.4, “Defining the Attestation Form,” on page 206.

9 Submit the request. For more information, see Section 21.6.5, “Submitting an Attestation Request,” on page 207.

10 Optionally click **Save Request Details** to save the details associated with an attestation process request (such as parameter and form values) for later use. For more information, see Section 21.6.6, “Saving Request Details,” on page 207.

22.5 Requesting User Assignment Attestation Process

The **Request User Assignment Attestation Process** action lets you initiate an attestation process to verify the accuracy of role assignments for selected users. It also gives you the option to save the details associated with an attestation request (such as parameter and form values) as a pre-filled form for later requests.

When you initiate a user assignment attestation process, the User Application generates a set of localized reports for the attesters to review.

The attesters do not need to have rights for the roles associated with the selected users to review the reports. If an attester selected for a user assignment attestation process does not have rights to view a particular role, the User Application still allows the attester to view the report showing the user assignments.

The report shows the role assignments for the selected users. If you choose a container, group, or role, the report shows the role assignments for users within the selected container, group, or role.

To initiate a role assignment attestation process:

1 Click **Request User Assignment Attestation Process** in the list of **Attestation Requests** actions.

The User Application displays a page that lets you specify details about the attestation process.

2 If you want to use the details from a previously saved request as the basis for this request, click **Use a Saved Request**. For more information, see Section 21.6.7, “Using a Saved Request,” on page 208.

3 Specify the display label and description for the request. For more information, see Section 21.6.1, “Specifying the Label and Description for a Request,” on page 204.

4 In the **Verify Roles Assigned To** box, select the users whose assignments will be verified:

4a To include one or more users explicitly, select **User** in the drop-down list.

Use the **Object Selector** to select the users. In the **Object Selector**, you can include multiple users by clicking the checkbox for each item, and clicking **Select**.

For details on using the **Object Selector**, see Section 1.5.2, “Common User Actions,” on page 22.

4b To include the users in one or more groups, select **Group** in the drop-down list.

Use the **Object Selector** to select the groups. In the **Object Selector**, you can include multiple users by clicking the checkbox for each item, and clicking **Select**.

4c To include the users in one or more roles, click **Role** in the drop-down list.

Use the **Object Selector** to select the roles. In the **Object Selector**, you can include multiple roles by clicking the checkbox for each item, and clicking **Select**.

4d To include the users in a container, click **Container** in the drop-down list.

Use the **Object Selector** to drill down to the desired container, then click on the container to select it.

If you want the user assignment report to include all users in the selected sub-containers, you need to check the **Include all users of sub-containers** checkbox at the bottom of the list of selected items. The **Include all users of sub-containers** checkbox is displayed only when **Container** is selected in the drop-down list. However, you can change the **Include all users of sub-containers** setting without having to remove and add any of your previously selected containers.

You must select at least one user, group, role, or container to launch an attestation process. However, you are not required to select a user, group, role, or container to save a request.

5 In the **Attesters** field, specify which users, groups, and roles will be attesters for the attestation process. For details, see Section 21.6.2, “Defining the Attesters,” on page 204.

You must select at least one user, group, or role as an attester to launch an attestation process. However, you are not required to select an attester to save a request.

6 Specify the deadline for the attestation process. For more information, see Section 21.6.3, “Specifying the Deadline,” on page 205.

7 In the **Report Languages** field, click the **Add Language** button to specify which languages you would like to use for the reports generated for the attestation process. Select the default locale in the **Default Locale** dropdown list. Then, pick the languages you want to include and click **OK**.

When you initiate a user assignment attestation process, the User Application generates a set of localized reports for the attesters to review. These reports provide the same data in one or more languages. They are generated at the time the request is submitted to ensure all of the attesters are reviewing the same set of data. You can specify the set of report languages that will be generated and stored for the attestation process. When an attester selects an attestation task for review, the system displays the localized report that matches the attester's preferred locale (or browser locale, if the user does not have a preferred locale). If no report exists for that locale, the User Application displays the report that uses the default locale.

8 Define the details of the attestation form. For more information, see Section 21.6.4, “Defining the Attestation Form,” on page 206.

9 Submit the request. For more information, see Section 21.6.5, “Submitting an Attestation Request,” on page 207.

10 Optionally click **Save Request Details** to save the details associated with an attestation process request (such as parameter and form values) for later use. For more information, see Section 21.6.6, “Saving Request Details,” on page 207.

22.6 Checking the Status of Your Attestation Requests

The **View Attestation Request Status** action lets you see the status of your attestation requests. In addition, it gives you the option to see the detailed status for each workflow process started for a request and optionally retract one or more running processes.

The **View Attestation Request Status** action shows all attestation requests, including those that are initializing, running, completed, or in error.

The User Application does not place any restrictions on what the Compliance Administrator can see on the View Attestation Request Status page. This role permits access to status information about all attestation requests.

To look at your attestation requests:

1 Click **View Attestation Request Status** in the list of **Attestation Requests** actions.

The User Application displays the current status of all attestation requests.

The columns in the attestation request list are described below:

- The **Display Label** column provides the name of the attestation process specified for the request. You can see the detailed status information for the request by clicking on the process display name.
- The **Requested By** column identifies the user who made the request.
- The **Attestation Type** column indicates what the type of attestation process this is. The type determines what kinds of information the process is intended to certify, as follows:

Attestation Type	Description
User Profile	Indicates that this process is intended to ensure the accuracy of user profile information. To initiate this type of process, a Compliance Administrator needs to use the **Request User Profile Attestation Process** action.
SoD Violation	Indicates that this process is intended to ensure the accuracy of separation of duties violations and exceptions. To initiate this type of process, a Compliance Administrator needs to use the **Request SoD Violation Attestation Process** action.
Role Assignment	Indicates that this process is intended to ensure that users have the correct access to resources, information, or systems by verifying that each selected role has the correct user assignments. To initiate this type of process, the Compliance Administrator needs to use the **Request Role Assignment Attestation Process** action.
User Assignment	Indicates that this process is intended to ensure that users have the correct access to resources, information, or systems by verifying that each selected user has the correct role assignments. To initiate this type of process, the Compliance Administrator needs to use the **Request User Assignment Attestation Process** action.

- The **Status** column shows the status for the request as well as an icon that provides a visual indicator for the status. You can select the status from the **Status** dropdown and click **Filter** to narrow the results when searching for requests with a particular status:

Status	Description
Initializing	Indicates that this is a new request that has just been started.
Running	Indicates that the request is still in process.
Completed	Indicates that the all attesters have responded (or the individual processes have been retracted by a Compliance Administrator) and the request has finished processing.
Error	Indicates that an error occurred during the course of processing. The precise error message for the error is written to the trace or audit log, if either is active. If an error occurs, check your trace or audit log to see if the error message indicates a serious problem that must be fixed.

- The **Request Date** column shows the date when the request was made.
- The **Deadline** column shows the date by which all of the processes associated with this request must be completed. If the column is blank, the request has no deadline.

2 You can filter the list of requests, as follows:

2a To view only those requests that start with a particular string of characters, see “Common User Actions” on page 22 for information about what to type in the **Display Label** box.

2b To view only those requests that have a particular type, select the type in the **Attestation Type** dropdown.

2c To view those role requests that have a particular status, select the status in the **Status** drop-down list.

Status	Description
All	Includes all requests.
Initializing	Includes requests that have just started.
Running	Includes requests that have been started and are currently being processed.
Completed	Includes requests for which all attesters have responded (or the individual processes have been retracted by a Compliance Administrator) and processing has completed.
Error	Includes requests that have resulted in errors.

2d To apply the filter criteria you’ve specified to the display, click **Filter**.

2e To clear the currently specified filter criteria, click **Reset**.

3 To search by the confirmation number that was generated when the request was first submitted, type the number in the **Confirmation Number** field, and click **Search**.

The **Confirmation Number** field supports the maximum length possible for a confirmation number, which is 255 characters.

4 To set the maximum number of requests displayed on each page, select a number in the **Maximum rows per page** drop-down list.

5 To sort the list of requests, click on the column heading that contains the data you want to sort.

6 To see the details for a particular request, click on the name in the **Display Label** column and scroll down until you see the **Request Details** group box.

NOTE: If the status is Initializing, the **Display Label** is not clickable, because you are not able to view the details of an initializing request.

The **Attester** column in the **Request Details** group box shows an icon next to each attester that indicates whether the attester is a user, group, or role. In addition to showing information already displayed in the summary, the **Request Details** group box shows status information for all processes related to the request.

- The **Number of Related Processes** section gives the total number of processes, as well as the number of running, completed, and terminated processes.

- The **Attestation Results** section provides data on how the attesters responded:

Data	Description
'Yes' Responses	Provides the total number of attesters who gave an affirmative answer to the attestation question. **NOTE:** The default text for an affirmative answer is **Yes**. However, this text can be modified. If the text is modified, the field label changes accordingly.
'No' Responses	Provides the total number of attesters who gave a negative answer to the attestation question. **NOTE:** The default text for a negative answer is **No**. However, this text can be modified. If the text is modified, the field label changes accordingly.
No Action Taken	Provides the total number of attesters who have not yet responded to the attestation process. The No Action Taken total also includes each attester who never responded and the process completed because it timed out, or was retracted by a Compliance Administrator.

6a To view details for a particular attestation form, click **View Attestation Form Details**.

The form details for an attestation process show the kind of information the attesters are expected to review. The form details vary depending on whether the attestation type is User Profile, SoD Violations, or Role Assignment.

To hide the form details, click **Attestation Form Details** at the top of the form details group box.

For information on the form details that attesters must review when they claim a workflow task, see Section 11.1.4, "Claiming a Task," on page 93.

6b You can filter the list of processes, as follows:

6b1 To view only those processes that have a particular result, select the result in the **Attestation Result** dropdown.

Result	Description
All	Includes all processes.
Yes	Includes only those processes for which the attester responded affirmatively.
No	Includes only those processes for which the attester responded negatively.
Unknown	Includes only those processes for which no action was taken. The Unknown filter also includes each process for which an attester never responded and the process completed because it timed out, or was retracted by a Compliance Administrator.

6b2 To view those processes that have a particular status, select the status in the **Process Status** drop-down list.

Status	Description
All	Includes all processes.
Running	Includes processes that have been started and are currently being processed.
Terminated	Includes processes that have been retracted or terminated.
Completed	Includes processes for which the attester has responded or the process completed because it timed out.

6b3 To apply the filter criteria you've specified to the display, click **Filter**.

6b4 To clear the currently specified filter criteria, click **Reset**.

6c To set the maximum number of processes displayed on each page, select a number in the **Maximum rows per page** drop-down list.

6d To check the status for a particular attester, look at the **Process Status** column for the attester.

The **Process Status** field shows the status for the process, along with the status icon. The icon provides a convenient way to see the status at a glance. The table below describes the status codes:

Status	Description
Running	The process has been started and is currently being processed.
Terminated	The process has been retracted on the View Attestation Request Status page, or terminated within iManager.
Completed	All attesters have responded and processing has completed for each workflow process assigned to an attester. The Completed status includes processes for which the attester has responded, as well as processes that completed because they timed out.

6e To retract one or more processes, select the attesters and click **Retract Selected Processes**. If you want to retract all processes, click **All**. To clear your selection, click **None**.

The **Retract Selected Processes** checkbox is disabled if the process has been completed or terminated. The **Retract Selected Processes** button does not appear if the high-level request status is Completed or Error.

VII Appendixes

The following appendix provide additional reference information and advanced topics for the Identity Manager User Application.

A Using the Identity Manager Approvals App

In addition to the User Application user interface used by Identity Manager customers, you can now use a new iOS app that allows Identity Manager users to remotely approve or deny requests through the Roles Based Provisioning Module for Identity Manager.

Once you install and configure the Approvals app, you can see the same approval tasks in the app that you would normally see in the User Application interface. All changes are synchronized between the Approvals app and the User Application.

You can also work in offline mode when disconnected from the Identity Manager Roles Based Provisioning Module server, and the Approvals app will automatically synchronize any changes once connectivity is restored.

This appendix provides information about installing and using the new Approvals app. For information about how Identity Manager administrators can configure their environment to allow users to use the app, see "Configuring the Identity Manager Approvals App" in the *NetIQ Identity Manager - Administrator's Guide to the Identity Applications*.

For more detailed information about the Approvals app, see the following sections:

A.1 Product Requirements

The Approvals app requires an Apple iPhone or iPad with Apple iOS 5, iOS 6, or iOS 7 installed.

NOTE: If your administrator has not enabled use of the Approvals app, you may not be able to configure the app after installation. For information on how administrators can configure the Identity Manager environment to enable use of the Approvals app, see "Configuring the Identity Manager Approvals App" in the *NetIQ Identity Manager - Administrator's Guide to the Identity Applications*.

A.2 Installing the Approvals App

You can install the NetIQ Identity Manager Approvals app from the Approvals app page (http://appstore.com/NetIQIdentityManagerApprovals) on the Apple App Store onto your device.

After you install the Approvals app, you must then configure the app to be able to connect with your Roles Based Provisioning Module server.

NOTE: If your User Application password has expired, we recommend change your password before installing and configuring the Approvals app. If the password policy in your environment allows a limited number of grace logins when a password expires, the Approvals app may use all of those logins in an attempt to sync your Identity Manager tasks to your device.

A.3 Configuring the Approvals App

You can configure the NetIQ Identity Manager Approvals app in several ways, depending on the needs of your environment and the way in which your administrator has configured Identity Manager:

- Make a request in the User Application interface for access to the Approvals app, and then launch the app on your device from the email link provided by your Identity Manager administrator. The link includes all the required configuration information.
- Click a configuration link or scan a configuration QR code using your device, where link or QR code provides either all required configuration information or generalized configuration information for your company.
- Manually enter the configuration information for your environment in the app itself.

IMPORTANT: In order for users to be able to automatically configure the Approvals app using either a link or QR code, the administrator for the Identity Manager environment must first enable the link or QR code.

A.3.1 Requesting Mobile Access Through the User Application

If configured by your administrator, you can request access to the Approvals app using the User Application. Identity Manager then sends an email that contains a customized link you can open on your device to automatically configure the app with your information.

To request mobile access through the User Application:

1. In a Web browser, log in to the Identity Manager User Application using the HTTPS (`https://`) protocol.

   NOTE: To request access to the Approvals app, you must log in to the User Application using the HTTPS protocol.

2. Click **Make a Process Request**.
3. Click the Process Request Category drop-down menu and select **Accounts**.
4. Click **Continue**.
5. Click **Request Mobile Approval App**.

   NOTE: The process request category and name may vary, depending on how your administrator has configured the Approvals app request process.

6. Provide the required information in process request form and click **Submit**.
7. When you receive an email from your Identity Manager administrator, open the email on your device and click the link provided to connect your device to the Roles Based Provisioning Module server.

NOTE: If you have previously installed the app, the app may display a warning message that existing settings will be overwritten. Ensure that the host name displayed in the warning message is the same host you accessed when you requested access to the app. If in doubt, do not click the link and contact your administrator.

If the host name is correct, click **Accept** to overwrite your existing settings.

8 When the app starts up, enter your password and click the Test Connection icon  to verify your settings.

A.3.2 Using a Configuration Link or QR Code

Your Identity Manager administrator may provide a configuration link to configure your Approvals app. Open the link in a browser on your device to automatically configure the app.

However, this link can only provide some of the required settings. Typically, a link or code can only provide the Roles Based Provisioning Module server details necessary for the Approvals app to function. After you click the link, you must manually configure your `Username` and `Password` settings, as well as any other settings not automatically configured.

In some environments, you may not be able to access your email from your device. If you cannot receive email on your device, you can instead use your device to scan a personalized QR code provided by the Identity Manager administrator.

Display the provided QR code on your computer or on a printed page, if necessary, and scan the code using a QR code reader on your device. After the QR code automatically configures the Approvals app for your environment, manually configure your `Username` and `Password` settings.

A.3.3 Manually Configuring the Approvals App

If the administrator of your Identity Manager environment does not provide a link or QR code to use when configuring the Approvals app, you can also configure the required configuration settings manually.

WARNING: Because manually configuring the app on your device requires in-depth knowledge of Identity Manager components, we recommend only advanced users knowledgeable about the Roles Based Provisioning Module and User Application environment in your enterprise manually configure app settings. Other users should contact their Identity Manager administrator for information about configuring the app.

In the app, click the Settings icon  , specify the required settings, and then click the Test Connection icon  to verify your settings.

The Approvals app requires the following settings:

Login Setting Name	Login Setting Description
Username	Specifies the user name you use to access the Roles Based Provisioning Module server.
Password	Specifies the password you use to access the Roles Based Provisioning Module server.

Login Setting Name	Login Setting Description
Data Sync	Specifies if you want the app to actively sync data to the Roles Based Provisioning Module server.
Advanced > Server Details > Server	Specifies the fully qualified domain name or IP address of the Roles Based Provisioning Module server.
Advanced > Server Details > Secure Port	Specifies the HTTPS port the app uses to connect to the server.
Advanced > Server Details > Context	Specifies the context used when installing the User Application WAR file. The default value is `IDMProv`.
Advanced > Server Details > User Container	Specifies the full DN of the Identity Vault container that stores user information.
Advanced > Server Details > Timeout	Specifies the number of seconds the app waits when attempting to connect to the server before cancelling the connection. The default value is 5 seconds.
Advanced > Data Definition Settings > User Entity	Specifies the LDAP entity that represents a user in the Identity Vault. The default value is `user`.
Advanced > Data Definition Settings > Name Format	Specifies the DAL attribute representation the app uses to format a user's full name. The default value is `FirstName LastName`.
Advanced > Data Definition Settings > First Name Attr	Specifies the name of the DAL attribute that represents a user's first name. The default value is `FirstName`.
Advanced > Data Definition Settings > Last Name Attr	Specifies the name of the DAL attribute that represents a user's last name. The default value is `LastName`.
Advanced > Data Definition Settings > User Photo Attr	Specifies the name of the DAL attribute that contains a user's photo. The default value is `UserPhoto`. **NOTE:** If you do not have a picture configured in the Identity Manager or have configured your Identity Manager settings to not display a picture, the app displays a generic image instead.
Advanced > Data Definition Settings > Work Phone Attr	Specifies the name of the DAL attribute that represents a user's work phone number. The default value is `TelephoneNumber`.
Advanced > Data Definition Settings > Mobile Phone Attr	Specifies the name of the DAL attribute that represents a user's mobile phone number. The default value is `mobile`.
Advanced > Data Definition Settings > Email Attr	Specifies the name of the DAL attribute that represents a user's email address. The default value is `Email`.
Advanced > Data Definition Settings > Photo LDAP Attr	Specifies the name of the LDAP attribute that contains the photo of the user. The default value is `photo`.
Advanced > Data Definition Settings > Naming Attribute	Specifies the naming DAL attribute used in the Identity Vault to describe a name. The default value is `cn`.
Advanced > Data Definition Settings > Provisioning Admin	Specifies whether you are a Provisioning Administrator on the Roles Based Provisioning Module server.

Login Setting Name	Login Setting Description
Advanced > Accepted Certificates	Specifies any invalid or self-signed certificates from the Roles Based Provisioning Module server that you allow the Approvals app to accept. When the Approvals app detects a self-signed or invalid certificate, the app asks you to accept or reject the certificate. If you accept the certificate, the app adds a certificate to the Accepted Certificates list. You can remove a certificate from the Accepted Certificates list by clicking the name of the certificate and restarting the app. **NOTE:** If the Roles Based Provisioning Module server certificate is valid, the app does not add the certificate to the Accepted Certificates list. The app accepts valid certificates by default.
Advanced > Rejected Certificates	Specifies any invalid or self-signed certificates from the Roles Based Provisioning Module server that you do not want the Approvals app to accept. When the Approvals app detects a self-signed or invalid certificate, the app asks you to accept or reject the certificate. If you reject the certificate, the app adds a certificate to the Rejected Certificates list. If the server then presents a rejected certificate, the app cannot create a connection to the server. You can remove a certificate from the Rejected Certificates list by clicking the name of the certificate.

A.4 Overview of the Approvals App

This section provides an overview of the NetIQ Identity Manager Approvals app user interface. Topics include:

A.4.1 Tasks View

The default view of the Approvals app is the Tasks view. This view displays all of the tasks currently assigned to or claimed by you, with the title of the task and the name and picture of the task recipient. The view lists tasks by expiration date, displaying the tasks due soonest at the top and tasks with no expiration date below.

NOTE: If a user does not have a picture configured in the Identity Manager or has configured their Identity Manager settings to not display a picture, the app displays a generic image instead.

If you want to approve or deny a request, or if you want to view the details of a particular task, click the task or task recipient name. If you want to contact a task recipient, click the recipient's picture.

A.4.2 Details View

The Details view displays details for a particular task assigned to you. The fields displayed vary depending upon the request.

To approve or deny a task, provide any necessary information, and click either **Approve** or **Deny**.

A.4.3 Bulk Mode

If you need to approve or deny a large number of similar tasks, you can switch from the default single-task mode to bulk mode in the Tasks view.

NOTE: You cannot approve all tasks in bulk mode. For more complex tasks, like attestation tasks, you must approve each attestation task separately in single-task mode. When you click the Bulk Mode icon, the app displays only the tasks in your list that can be approved in bulk mode.

To approve or deny multiple tasks:

1. In the Tasks view, click the Bulk Mode icon  .
2. Select the tasks you want to approve or deny. You cannot approve some tasks and deny other tasks at the same time.
3. (Optional) If you want to approve or deny all tasks, click **All**.
4. (Optional) If you change your mind and do not want to approve or deny any tasks, click the single-task mode icon  .
5. Click **Approve** or **Deny**.
6. (Optional) Provide a comment regarding the bulk operation.
7. Click **Confirm**.

A.4.4 Completed Tasks View

To view your completed tasks, click the Completed Tasks icon  . The view displays the completed task, as well as the time the task was approved or denied. You can click a completed task to view the details of that particular task. For more complex requests, you can click **Form Values** to view specific information for the request.

If necessary, you can delete one or more of your completed tasks from the Completed Tasks view. To delete tasks, click the Bulk Mode icon  , select the tasks you want to delete, and click **Delete**.

NOTE: The Completed Tasks view only displays tasks completed on your device. You cannot view tasks completed in the User Application or on another device with the Approvals app installed.

A.4.5 Login Settings View

The Login Settings view allows you to view or modify your login settings.

WARNING: If your Identity Manager administrator provided a link or QR code to automatically configure your app settings, we recommend you do not modify those default settings unless your administrator instructs you to do so.

A.4.6 Advanced Settings View

The Advanced Settings view allows you to view or modify advanced settings that determine how you receive data from the Roles Based Provisioning Module server.

WARNING: If your Identity Manager administrator provided a link or QR code to automatically configure your app settings, we recommend you do not modify those default settings unless your administrator instructs you to do so.

If you accidentally change the Data Definition Settings in the Advanced Settings view, click **Restore Defaults** to restore the default settings provided by Identity Manager. **Restore Defaults** does not change your user name, password, or any of the Server Details settings.

A.5 Changing the Approvals App Display Language

The Approvals app includes localized text strings in multiple languages. To change the language the Approvals app uses, change the Language and Region Format settings on your iOS device. The Region Format settings configure how dates, times, and phone numbers are displayed on the device.

To modify language and region settings:

1. On your iOS device, click **Settings**.
2. Click **General**.
3. Click **International**.
4. (Optional) If you want to change the language your device uses, click **Language**, select the language you want to use, and then click **Done**.
5. (Optional) If you want to change the region format your device uses for dates and times, click **Region Format**, select the format you want to use and click **International**.
6. Go back to your device's home screen.

B Using the Directory Search in the User Application

This section tells you how to use the Directory Search page on the **Identity Self-Service** tab of the User Application. Topics include:

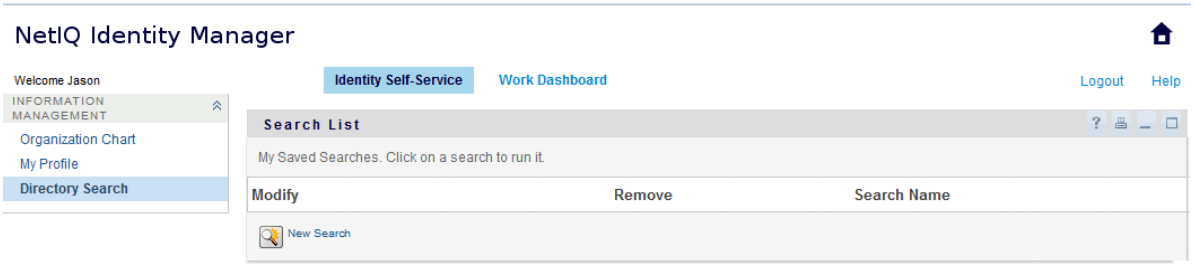
NOTE: This section describes the default features of the Directory Search page. You might encounter some differences because of your job role, your level of authority, and customizations made for your organization; consult your system administrator for details.

B.1 Understanding Directory Search

You can use the Directory Search page to search for users, groups, or teams by entering search criteria or by using previously saved search criteria.

For example, suppose Timothy Swan (Marketing Director) needs to search for information about someone in his organization. He goes to the Directory Search page and sees this by default:

Figure B-1 *Directory Search Page*



He doesn’t yet have any saved searches to select from, so he selects **New Search**.

There’s a user he wants to contact whose first name begins with the letter C, but he can’t remember the full name. He just needs to specify a basic search with this criterion.

The search results display, enabling Timothy to examine and work with his requested information. By default, **Identity** tab information is displayed.

Timothy clicks the **Organization** tab in the search results to get another view of the information. He recalls that the person he seeks works for Kip Keller, so that narrows it down to Cal Central.

In addition to the tabs for different views, the search results page provides links and buttons for performing actions on its information. You can:

- Sort the rows of information by clicking the column headings
- Display details (Profile page) for a user or group by clicking its row
- Send new e-mail to a user by clicking the e-mail icon in that user's row
- Save the search for future reuse
- Export the results to a text file
- Revise the search by changing its criteria

When generating search results, you might sometimes need more than a basic search to describe the information you want. You can use an advanced search to specify complex criteria.

If there's an advanced search that you might need to perform again, you can retain it as a saved search. Saved searches are even handy for basic searches that you run frequently. For instance, Timothy Swan has added a couple of saved searches that he often uses.

B.2 Performing Basic Searches

1. Go to the Directory Search page and click **New Search**. The Basic Search page displays by default:
2. In the **Search for** drop-down list, specify the type of information to find by selecting **Group** or **User**.
3. In the **Item Category** drop-down list, select an attribute to search on. For example:

   ```
   Last Name
   ```

   The list of available attributes is determined by what you're searching for (users or groups).
4. In the **Expression** drop-down list, select a comparison operation to perform against your chosen attribute. For example:

   ```
   equals
   ```

   For more information, see Section B.3.1, "Selecting an Expression," on page 233.
5. In the **Search Term** entry box, specify a value to compare against your chosen attribute. For example:

   ```
   Smith
   ```

   For more information, see Section B.3.2, "Specifying a Value for Your Comparison," on page 234.
6. Click **Search**.

   Your search results display.

   To learn about what to do next, see Section B.4, "Working with Search Results," on page 237.

B.3 Performing Advanced Searches

If you need to specify multiple criteria when searching for users or groups, you can use an advanced search. For example:

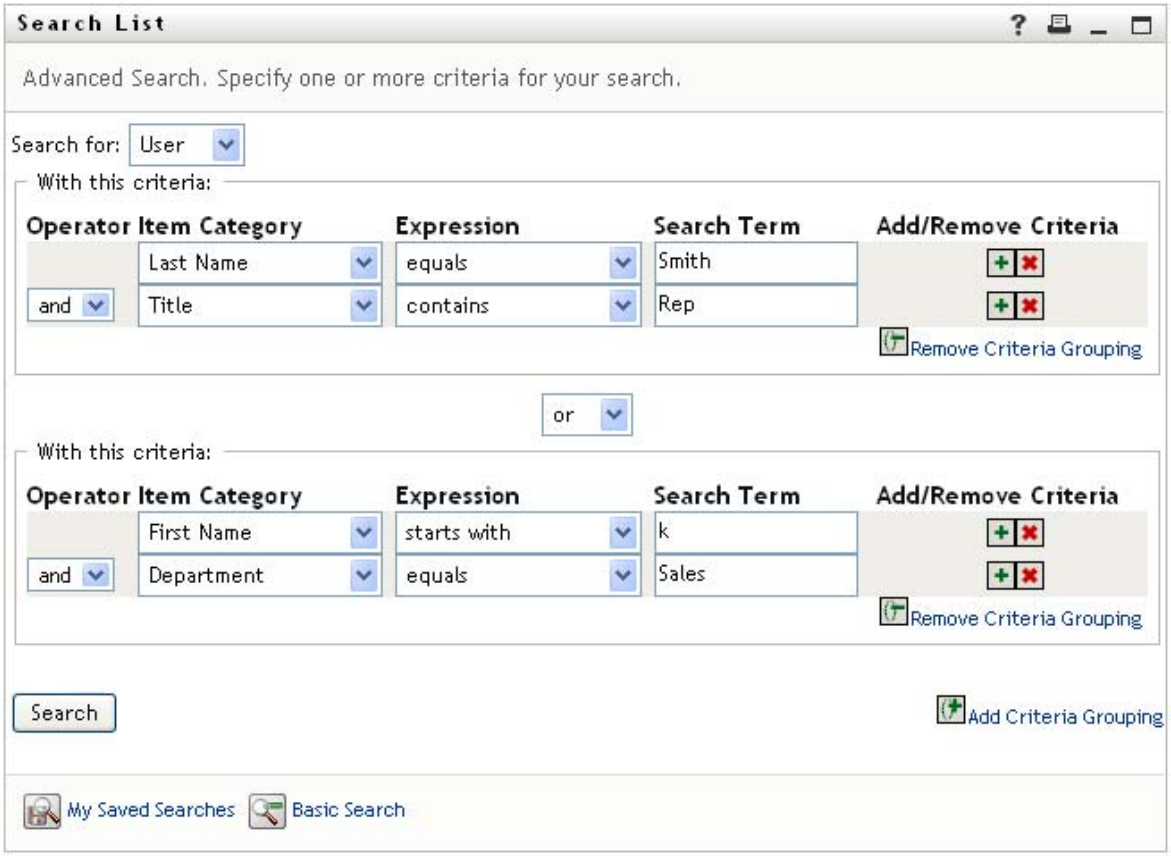
```
Last Name equals Smith AND Title contains Rep
```

If you specify multiple criteria groupings (to control the order in which criteria are evaluated), you'll use the same logical operations to connect them. For example, to perform an advanced search with the following criteria (two criteria groupings connected by an or):

```
(Last Name equals Smith AND Title contains Rep) OR (First Name starts with k AND
Department equals Sales)
```

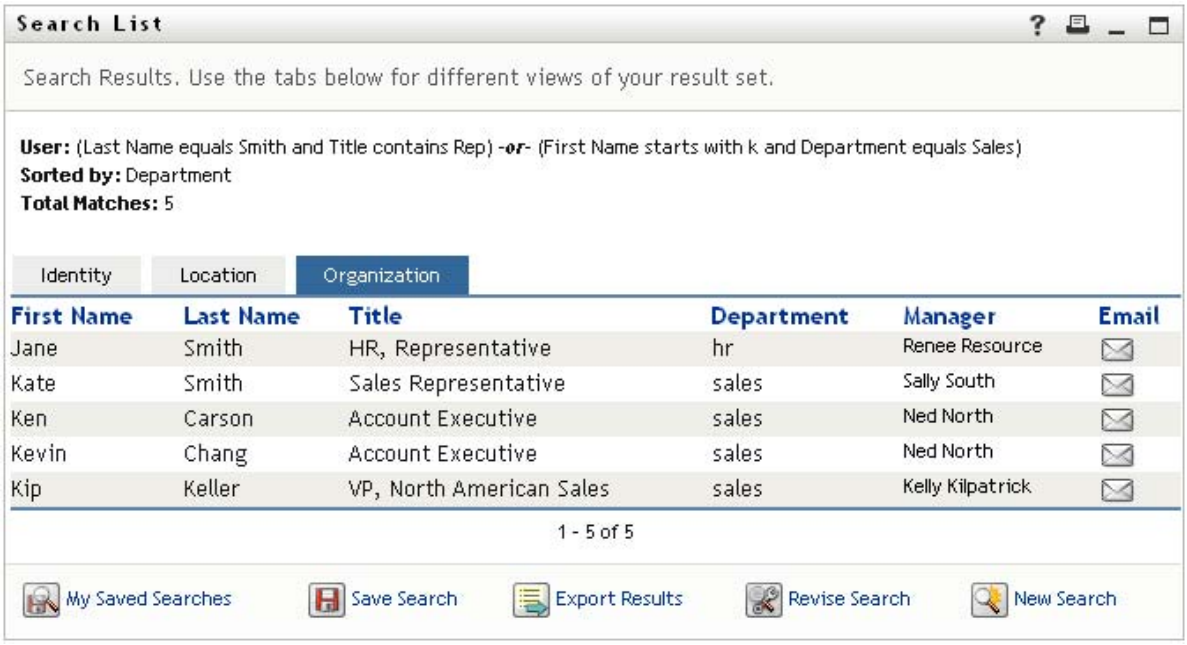
specify the following shown in Figure B-2 on page 231:

Figure B-2 *Specifying an Advanced Search on the Search List Page*



The result of this search is shown in Figure B-3 on page 232.

Figure B-3 *Result of Advanced Search*



To perform an advanced search:

1. Go to the Directory Search page and click **New Search**. The Basic Search page displays by default.
2. Click **Advanced Search**. The Advanced Search page displays.
3. In the **Search for** drop-down list, specify the type of information to find by selecting one of the following:
   - Group
   - User

   You can now fill in the **With this criteria** section.
4. Specify a criterion of a criteria grouping:

   4a Use the **Item Category** drop-down list to select an attribute to search on. For example:

   ```
   Last Name
   ```

   The list of available attributes is determined by what you're searching for (users or groups).

   4b Use the **Expression** drop-down list to select a comparison operation to perform against your chosen attribute. For example:

   ```
   equals
   ```

   For more information, see Section B.3.1, "Selecting an Expression," on page 233.

   4c Use the **Search Term** entry to specify a value to compare against your chosen attribute. For example:

   ```
   Smith
   ```

   For more information, see Section B.3.2, "Specifying a Value for Your Comparison," on page 234.

5 If you want to specify another criterion of a criteria grouping:

5a Click **Add Criteria** on the right side of the criteria grouping:

5b On the left side of the new criterion, use the **Criteria Logical Operator** drop-down list to connect this criterion with the preceding one; select either **and** or **or**. You can use only one of the two types of logical operator within any one criteria grouping.

5c Repeat this procedure, starting with Step 4.

To delete a criterion, click **Remove Criteria** to its right: 

6 If you want to specify another criteria grouping:

6a Click **Add Criteria Grouping**.

6b Above the new criteria grouping, use the **Criteria Grouping Logical Operator** drop-down list to connect this grouping with the preceding one; select either **and** or **or**.

6c Repeat this procedure, starting with Step 4.

To delete a criteria grouping, click **Remove Criteria Grouping** directly above it.

7 Click **Search**.

Your search results display.

To learn about what to do next, see Section B.4, “Working with Search Results,” on page 237.

B.3.1 Selecting an Expression

Click **Expression** to select a comparison criterion for your search. The list of comparison (relational) operations available to you in a criterion is determined by the type of attribute specified in that criterion:

Table B-1 *Comparison Operations for Searching*

If the attribute is a	You can select one of these comparison operations
String (text)	◆ starts with ◆ contains ◆ equals ◆ ends with ◆ is present ◆ does not start with ◆ does not contain ◆ does not equal ◆ does not end with ◆ is not present

If the attribute is a	You can select one of these comparison operations
String (text) with a predetermined list of choices User or group (or other object identified by DN) Boolean (true or false)	◆ equals ◆ is present ◆ does not equal ◆ is not present
User (item category: Manager, Group, or Direct Reports)	◆ equals ◆ is present ◆ does not equal ◆ is not present
Group (item category: Members)	◆ equals ◆ is present ◆ does not equal ◆ is not present
Time (in date-time or date-only format) Number (integer)	◆ equals ◆ greater than ◆ greater than or equal to ◆ less than ◆ less than or equal to ◆ is present ◆ does not equal ◆ not greater than ◆ not greater than or equal to ◆ not less than ◆ not less than or equal to ◆ is not present

B.3.2 Specifying a Value for Your Comparison

The type of attribute specified in a criterion also determines how you specify the value for a comparison in that criterion:

Table B-2 *Method of Entering Comparison Value*

If the attribute is a	You do this to specify the value
String (text)	Type your text in the text box that displays on the right.
String (text) with a predetermined list of choices	Select a choice from the drop-down list that displays on the right.
User or group (or other object identified by DN)	Use the **Lookup, History,** and **Reset** buttons that display on the right.

If the attribute is a	You do this to specify the value
Time (in date-time or date-only format)	Use the **Calendar** and **Reset** buttons that display on the right.
Number (integer)	Type your number in the text box that displays on the right.
Boolean (true or false)	Type `true` or `false` in the text box that displays on the right.

Don't specify a value when the comparison operation is one of the following:

- is present
- is not present

Case in Text

Text searches are not case sensitive. You'll get the same results no matter which case you use in your value. For example, these are all equivalent:

```
McDonald
```

```
mcdonald
```

```
MCDONALD
```

Wildcards in Text

You can optionally use the asterisk (*) as a wildcard in your text to represent zero or more of any character. For example:

```
Mc*
```

```
*Donald
```

```
*Don*
```

```
McD*d
```

Using the Lookup, History, and Reset Buttons

Some search criteria display Lookup, History, and Reset buttons. This section describes how to use these buttons:

Table B-3 *Lookup, History, and Reset Buttons in Search Criteria*

Button	What It Does
	Looks up a value to use for a comparison
	Displays a **History** list of values used for a comparison
	Resets the value for a comparison

To look up a user:

1 Click **Lookup** to the right of an entry (for which you want to look up the user):

The Lookup page displays.

2 Specify search criteria for the user you want:

2a Use the drop-down list to select a search by **First Name** or **Last Name**.

2b In the text box next to the drop-down list, type all or part of the name to search for.

The search finds every name that begins with the text you type. It is not case sensitive. You can optionally use the asterisk (*) as a wildcard in your text to represent zero or more of any character.

For instance, all of the following examples finds the first name Chip:

```
Chip
chip
c
c*
*p
*h*
```

3 Click **Search**.

The Lookup page displays your search results.

If you see a list of users that includes the one you want, go to Step 4. Otherwise, go back to Step 2.

You can sort the search results in ascending or descending order by clicking the column headings.

4 Select the user you want from the list.

The Lookup page closes and inserts the name of that user into the appropriate entry as the value to use for your comparison.

To look up a group as a search criterion for a user:

1 Add **Group** as a search criterion, then click **Lookup**  to the right of the **Search Term** field.

The Lookup page displays search results.

2 Specify search criteria for the group you want:

2a In the drop-down list, your only choice is to search by **Description**.

2b In the text box next to the drop-down list, type all or part of the description to search for.

The search finds every description that begins with the text you type. It is not case sensitive. You can optionally use the asterisk (*) as a wildcard in your text to represent zero or more of any character.

For instance, all of the following examples find the description Marketing:

```
Marketing
marketing
m
m*
*g
*k*
```

3 Click **Search**.

The Lookup page displays your search results.

If you see a list of groups that includes the one you want, go to Step 4. Otherwise, go back to Step 2.

You can sort the search results in ascending or descending order by clicking the column heading.

4 Select the group you want from the list.

The Lookup page closes and inserts the description of that group into the appropriate entry as the value to use for your comparison.

To use the **History** list:

1 Click **History** to the right of an entry (whose previous values you want to see):

The **History** list displays previous values for this criterion in alphabetical order.

2 Do one of the following:

If you want to	Do this
Pick from the **History** list	Select a value that you want from the list. The **History** list closes and inserts that value into the appropriate entry as the value to use for your comparison.
Clear the **History** list	Click **Clear History**. The **History** list closes and deletes its values for this entry. Clearing the **History** list does not change the current value of the entry in your comparison.

B.4 Working with Search Results

This section tells you how to work with the results that display after a successful search:

- Section B.4.1, “About Search Results,” on page 237
- Section B.4.2, “Using the Search List,” on page 238
- Section B.4.3, “Other Actions You Can Perform,” on page 239

B.4.1 About Search Results

The content of your search results depends on the type of search you perform:

- “For a User Search” on page 238
- “For a Group Search” on page 238

On any search results page, you can select

- View My Saved Searches
- Save Search
- Revise Search
- Export Results
- Start a New Search

For a User Search

In the results of a user search, the list of users provides tabs for three views of the information:

- *Identity* (contact information)
- *Location* (geographical information)
- *Organization* (organizational information)

For a Group Search

The results of a group search provide only the Organization view of the information.

B.4.2 Using the Search List

You can do the following with the list of rows that displays to represent your results:

- "To Switch to a Another View" on page 238
- "To Sort the Rows of Information" on page 238
- "To Display Details for a User or Group" on page 238
- "To Send E-Mail to a User in the Search List" on page 238

To Switch to a Another View

1 Click the tab for the view you want to display.

To Sort the Rows of Information

1 Click the heading of the column that you want to sort.

The initial sort is in ascending order.

2 You can toggle between ascending and descending order by clicking the column heading again (as often as you like).

To Display Details for a User or Group

1 Click the row for the user or group whose details you want to see (but don't click directly on an e-mail icon unless you want to send a message instead).

The Profile page displays, showing detailed information about your chosen user or group.

This page is just like the My Profile page on the **Identity Self-Service** tab. The only difference is that, when you are viewing details about another user or group (instead of yourself), you might not be authorized to see some of the data or perform some of the actions on the page. Consult your system administrator for assistance.

2 When you're done with the Profile page, you can close its window.

To Send E-Mail to a User in the Search List

1 Find the row of a user to whom you want to send e-mail.

2 Click **Send E-Mail**  in that user's row:

A new message is created in your default e-mail client. The message is blank except for the **To** list, which specifies your chosen user as a recipient.

3 Fill in the message contents.

4 Send the message.

B.4.3 Other Actions You Can Perform

While displaying search results, you can also:

- “Save a Search” on page 239
- “Export Search Results” on page 239
- “Revise Search Criteria” on page 240

Save a Search

To save the current set of search criteria for future reuse:

1 Click **Save Search** (at the bottom of the page).

2 When prompted, specify a name for this search.

If you’re viewing the results of an existing saved search, that search name displays as the default. This enables you to update a saved search with any criteria changes you’ve made.

Otherwise, if you type a search name that conflicts with the name of an existing saved search, a version number is automatically added to the end of the name when your new search is saved.

3 Click **OK** to save the search.

The Search List page displays a list of My Saved Searches.

To learn more about working with saved searches, see Section B.5, “Using Saved Searches,” on page 240.

Export Search Results

To export search results to a text file:

1 Click **Export Results** (at the bottom of the page).

The Export page displays.

By default, **View on screen** is selected, and **CSV** is chosen in the format drop-down list. Consequently, the Export page shows your current search results in CSV (Comma Separated Value) format.

2 If you want to see what those search results look like in Tab Delimited format instead, select **Tab Delimited** in the drop-down list, then click **Continue**.

3 When you’re ready to export your current search results to a text file, select **Export to disk**.

The Export page displays.

4 Use the **Format** drop-down list to select an export format for the search results.

Export Format	Default Name of Generated File
CSV	SearchListResult.*date*.*time*.csv For example: `SearchListResult.27-Sep-05.11.21.47.csv`
Tab Delimited	SearchListResult.*date*.*time*.txt For example: `SearchListResult.27-Sep-05.11.20.51.txt`
XML (available if you are exporting to disk)	SearchListResult.*date*.*time*.xml For example: `SearchListResult.27-Sep-05.11.22.51.xml`

5 Click **Export**.

6 When prompted, specify where to save the file of exported search results.

7 When you're finished exporting, click **Close Window**.

Revise Search Criteria

1 Click **Revise Search** (at the bottom of the page).

This returns you to your previous search page to edit your search criteria.

2 Make your revisions to the search criteria according to the instructions in these sections:

- Section B.2, "Performing Basic Searches," on page 230
- Section B.3, "Performing Advanced Searches," on page 230

B.5 Using Saved Searches

When you go to Directory Search, the My Saved Searches page displays by default. This section describes what you can do with saved searches:

- Section B.5.1, "To List Saved Searches," on page 241
- Section B.5.2, "To Run a Saved Search," on page 241
- Section B.5.3, "To Edit a Saved Search," on page 241
- Section B.5.4, "To Delete a Saved Search," on page 241

B.5.1 To List Saved Searches

1. Click the **My Saved Searches** button at the bottom of a Directory Search page. The My Saved Searches page displays.

B.5.2 To Run a Saved Search

1. In the **My Saved Searches** list, find a saved search that you want to perform.
2. Click the name of the saved search (or click the beginning of that row).

   Your search results display.

   To learn about what to do next, see Section B.4, “Working with Search Results,” on page 237.

B.5.3 To Edit a Saved Search

1. In the **My Saved Searches** list, find a saved search that you want to revise.
2. Click **Edit** in the row for that saved search.

   This takes you to the search page to edit the search criteria.
3. Make your revisions to the search criteria according to the instructions in these sections:
   - Section B.2, “Performing Basic Searches,” on page 230
   - Section B.3, “Performing Advanced Searches,” on page 230
4. To save your changes to the search, see Section B.4, “Working with Search Results,” on page 237.

B.5.4 To Delete a Saved Search

1. In the **My Saved Searches** list, find a saved search that you want to delete.
2. Click **Delete** in the row for that saved search.
3. When prompted, click **OK** to confirm the deletion.