



# Cisco Systems

## Product User Experience Standards

### Rich Client Application Standards, v3.0

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## Use Cases

Use a wizard:

- When a task is complex - showing the task in a single, large dialog box would overwhelm the user.
- When a task contains contingent steps - that is, completing one step informs the choices that are available on subsequent steps.
- For rarely performed tasks - at rarely performed tasks, even an expert may be a novice.
- For novice users - however, do not force experts to work through a wizard if a tabbed dialog box could be used. Consider using tabbed dialog boxes with context sensitive help.

The two most common use cases for wizards are installing software and creating complex objects. These activities are described in the following sections:

### Installing Software

Installation wizards collect data from a user and then install software accordingly. A typical installation wizard might set values in the operating system of a user's computer, move data from a CD-ROM to a hard disk, and configure the software being installed.

#### Whether to Install

Installation wizards should provide the following information to help users decide whether to proceed with an installation:

- The version of the software
- Pre-installation requirements
- Descriptions of the software being installed
- Amount of disk space needed

#### Attributes

Installation wizards should have the following attributes:

- They provide all the information that users need to install the software.
- They enable users to perform installation tasks completely without exiting the wizard.

#### Tasks

In addition to describing prerequisites, dependencies, and results, installation wizards may enable users to perform the following tasks:

- Choose between a standard installation and a custom installation
- Install one or more modules of the software that can work independently of the other software
- Choose the directory into which the software will be installed
- Reinstall the software without losing data or application preferences

#### Steps and Context

The installation wizard may provide a new exposure to Cisco products. It also may be an activity that is rarely undertaken. Therefore, provide:

- A start page that include the Cisco Logo and a graphic (optional) to communicate the Cisco brand.
- [Instructional text](#) since the user may not know how to complete the activity
- A summary page that enables the user to check values before submitting the job

## Creating Complex Objects

Often a wizard is used to create a complex object that is new to the system, such as a network object, a configuration job or a report.

### Steps and Context

When creating complex objects, the user already has the application open. These tasks may be repeated frequently, so it is important to create a task that can be completed quickly. Therefore:

- A Welcome Page may be included. However do not use a Welcome Page if users will use these wizards frequently. In this case, the extra clicks may annoy users.
- Instructional text may be provided, but the user should have a more streamlined experience than during an install task.
- A Summary Page may be used if the job is complex or will take a long time to execute. If the job is not complex, users will not want the extra clicks.

## Creating vs. Editing

Creating is the process of creating something new to the system. In this mode, the wizard's steps are presented in a linear sequence.

Editing is the process of modifying an existing record in the system.

- If the edit requires that the steps be completed in a sequential manner, you can reuse the creation wizard. The editing wizard should be opened to the first step. Existing values should be pre-populated in the control fields.
- If the edits can be completed in any order, then the record should be opened in a tabbed dialog box. The existing values should be pre-populated in the control fields.

## Layout

Wizard standards:

- Wizards are displayed in a 600 by 400 pixel window
- Each step of a wizard is the exact same size
- A wizard screen consists of three areas:
  - Left Pane
  - Wizard Content Area
  - The Navigation Area

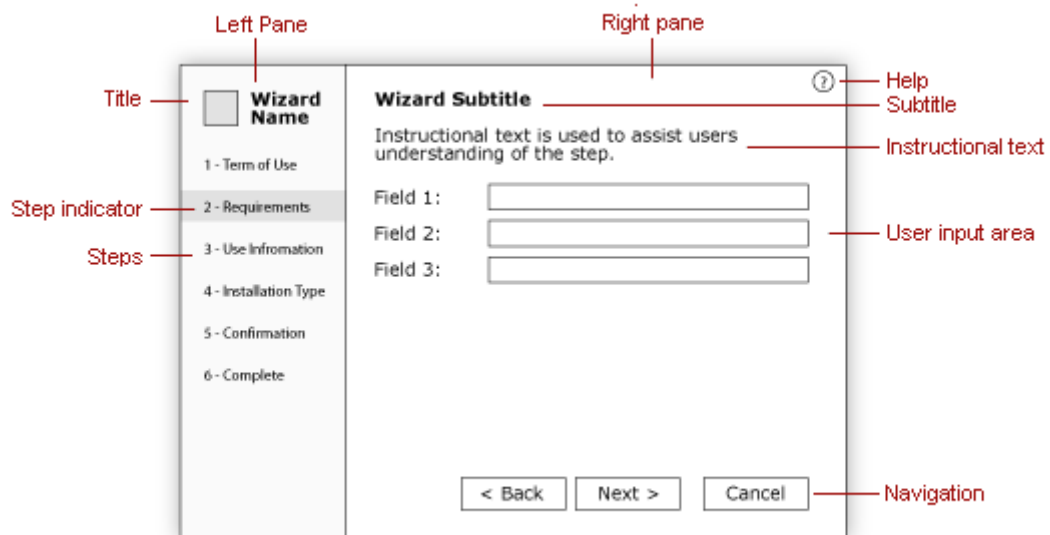
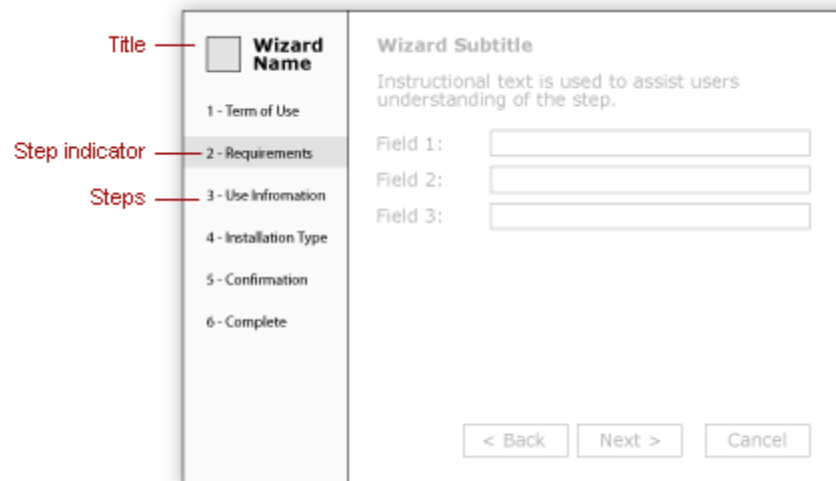


Figure 1. Basic Wizard Layout

### The Left Pane

Left pane elements:

- Company logo (optional, and when used, only on the start page)
- Wizard name
- Identifying graphic (optional)
- Step indicator



**Figure 2. Wizard Left Pane**

### Step Indicator

The step indicator displays the name of each step. As a user progresses through the wizard, the steps are presented as follows:

- Completed page in bold text
- Current page in bold text and background highlight
- Future pages in dimmed text

*Note:* Upon entering the wizard, the first step is selected as the current step and the subsequent steps are dimmed.

### Wizard Content Area

The right pane is the primary content area of a wizard. In some cases it contains form fields; in others it may be a read-only page. Designing the right pane involves following the layout specifications to create the step subtitle, instructions, and input controls.

Content Area Elements include:

- Step Title
- Controls / Content



**Figure 3. Wizard Content Area**

### Step Titles

Step titles have the following characteristics:

- Identify the page and its purpose
- Are positioned at the top of the content pane
- Can be more descriptive than the step indicator
- Use headline capitalization and left justification

### Content

Content might include instructional text, form controls (e.g., a text field), a button to start an action, and/or a display of information. If appropriate, provide a default value for each form field. The default value should be the value that is the best (i.e., safest) choice for a novice user. If all choices are equally safe, the default should be the most typical choice.

### Navigation Area

The navigation area of each wizard page displays a row of buttons for navigating the wizard's pages.

#### Button Definitions

- **Back:** Displays the previous page. The Back button is present but unavailable on a wizard's first page and whenever a user cannot return to the previous page.
- **Next:** Displays the next page.
- **Finish:** Dismisses the wizard.
- **Cancel:** Discards all user input and dismisses the wizard without further processing. (The keyboard shortcut for the Cancel button is the Escape key.) On a progress page, the Cancel button is unavailable and dimmed.

### Navigation Area Standards

- The Navigation Area may contain the following standard buttons: Back, Next, Close, Finish, and Cancel. No single page contains all of these buttons.
- Navigation buttons are displayed in a consistent order.
- Unavailable navigation buttons, if displayed, are dimmed. The Back button is always visible and disabled on the first step.
- Every step has a default navigation button, which users can identify by its heavy border. Make the Next button the default navigation button whenever it is available.
- The Next button is disabled until a user has entered all required data for the step.
- On the last page of a wizard, the Next button is replaced by a Finish button. If the user has completed all required steps, provide the option to opt out early. In this case, there can be a Next Button preceding the Finish Button.

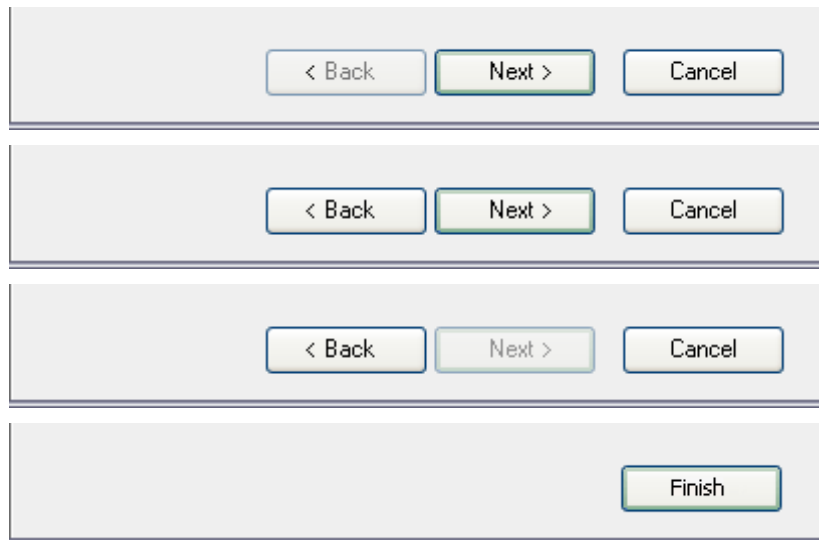


Figure 4. Navigation Button Examples

### Instructional Text

Use of instructional text is typically more appropriate for installation wizards (or similar wizards) than for dialogs. This is because:

- even expert users may be novices at some rarely performed tasks.
- instructional text is less intrusive in an installation wizard than in a dialog box. This is because users allow more time for these tasks and complete them less often.



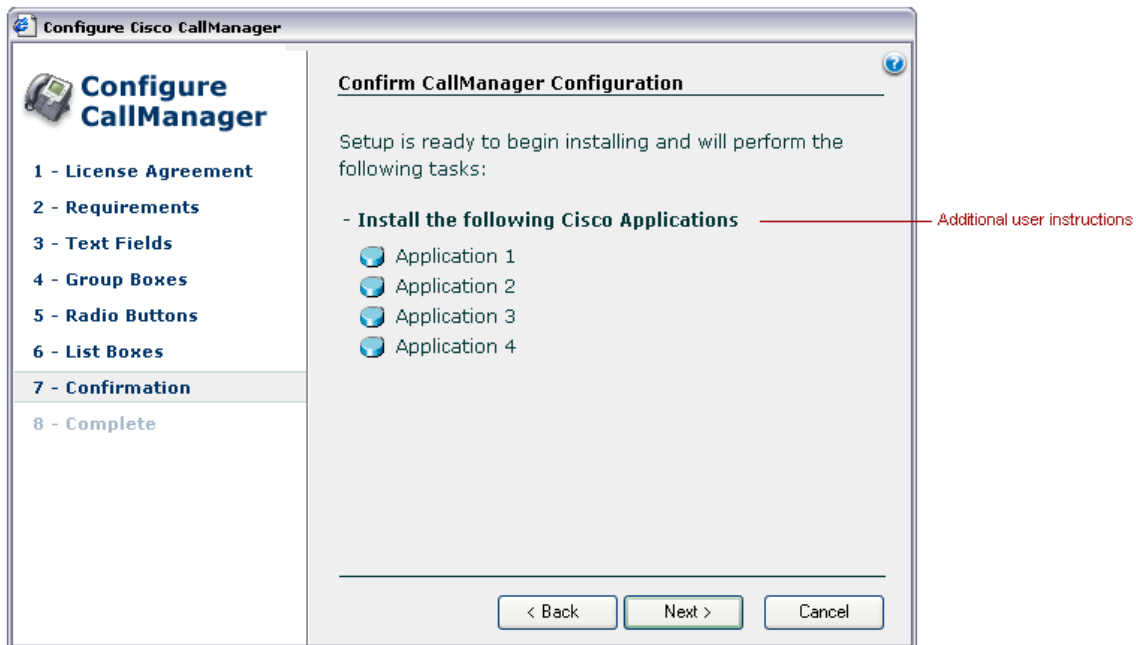


Figure 5. Instructional Text Example

## Instructional Text Guidelines

Wizard pages optionally display instructions that help users understand the purpose of the page. Instructional Text Writing Guidelines:

- Place the instructions of a wizard page directly below the subtitle in the page's right pane (sample: "Enter your password.")
- Use a conversational rather than an instructional style of language. Examples:
  - "In the boxes below, type your 25-character Product Key. You will find this number on the sticker on the back of the CD case or on your Certificate of Authenticity."
  - "There may be additional components or security updates available online. Check the box below to visit the product site in your browser after Setup is finished."
- For screens with one user input field, use the instructions as the label of input fields on pages having only one user-input field.
- When defining additional instructions, use boldface type for text that you want to emphasize.
- When describing how to perform an action in a wizard, state the outcome before stating the means to achieve it. Sample: "To stop the print job, click the Stop button."
- If a wizard's additional instructions describe command buttons, use wording like: "To perform this action, click [button-title]." For example, the instructions might be "To display more names, click More." Do not enclose the button name in quotation marks.
- Inform users of how to format the needed input
- Do not use terms used solely for politeness (for example, "please" and "thank you")

- If the completion of a page initiates an action that cannot be undone, provide an explicit message in the instructions
- Inform the user of what will happen as a result of completing a wizard or a wizard step.

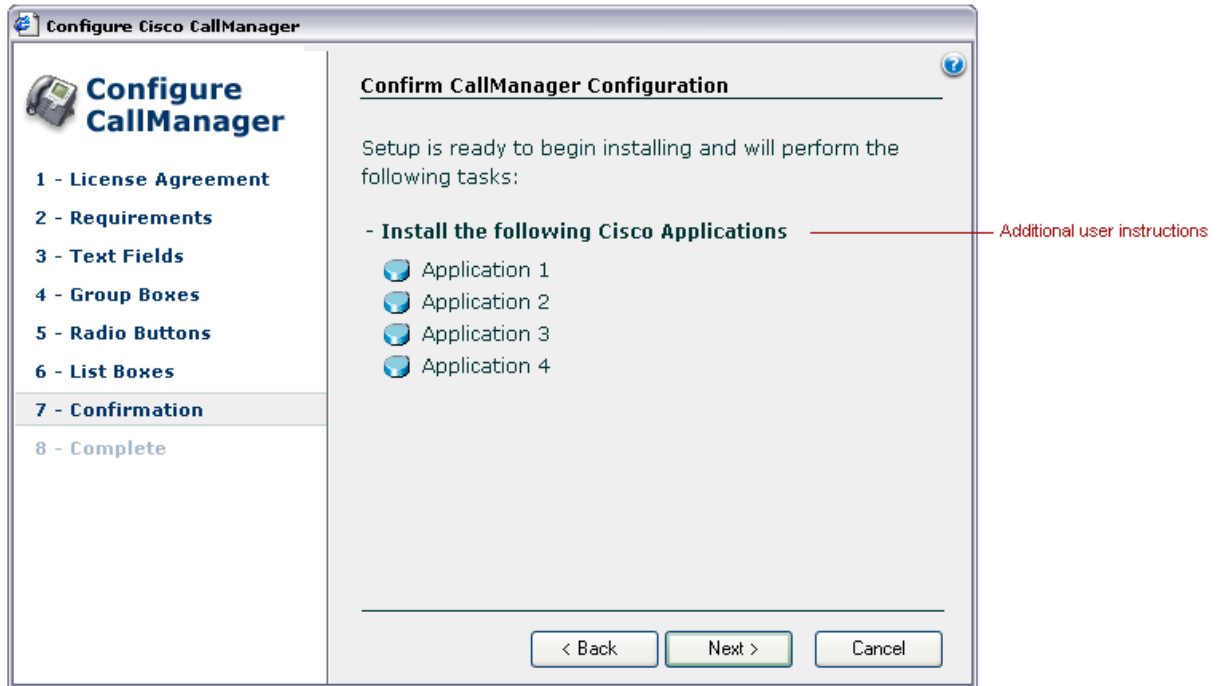


Figure 5. Instructional Text Example

## Behavior

### Launching

Wizards may be launched from toolbar buttons or from buttons within the content area. They can also be launched from the Navigation Pane, provided that the link in the Navigation Pane indicates that that it will launch a pop-up window.

- Wizards should pop up, centered over the content area.
- The maximize button should be disabled unless there is benefit in increasing the size of the window.
- When re-opening a minimized wizard, display it at the position it occupied when it was minimized.

## Branching

In some wizards, the sequence of possible steps may branch based on user input. In the wizard left pane, a step that contains a branch has an ellipsis after its step name (since the subsequent steps cannot be identified until a branch is determined). After a branching selection is made, all steps should be reflected in the step list.

When a wizard has branches:

- The initial display of wizard steps shows the list of steps up to the step with the branch. This step is followed by an ellipsis.
- As additional steps can be determined, they should be added to the step indicator.

In a wizard used to create a complex object, there may be a step where the user adds/incorporates lower level "building block" objects, and where creating this lower level object requires a wizard. Branching from the wizard to create this lower level object would create design complexity. Therefore, launching a wizard from a wizard is not permissible; the user should Cancel the wizard and create the lower level object separately. Note that if the lower level object can be created within a single pop-up dialog box, it is permissible to create his object by popping up a dialog box from the original wizard.

## Back and Next

Users can navigate through completed screens via the Back and Next buttons. This navigation does not effect user input data. If the user navigates Back and changes a value, the wizard must determine if this change effects subsequent wizard steps.

- If the change does not effect subsequent wizard steps, the user can make the change and then move forward using the Next button.
- If the change effects subsequent wizard steps (e.g., different field would be presented or a previously input value become invalid), then the inputs on the subsequent wizard steps should be cleared. The user would enter/re-enter valid data into the fields.

## Verification

A well-designed wizard does not start operations that it cannot finish. Before enabling a user to move to the next step, a wizard should verify the user's input and alert the user to any invalid values.

Verification Guidelines:

- If a dependency does not involve user input, perform the verification when the wizard opens.
- Verify user input as soon as possible, and no later than when the user clicks the Next button.

Figures 1 and 2 show the case where a user clicked Next and the system detected an invalid value. When this happens, a message box identifies the error. When the message box is dismissed, the wizard refreshes the screen and highlights the invalid entry.

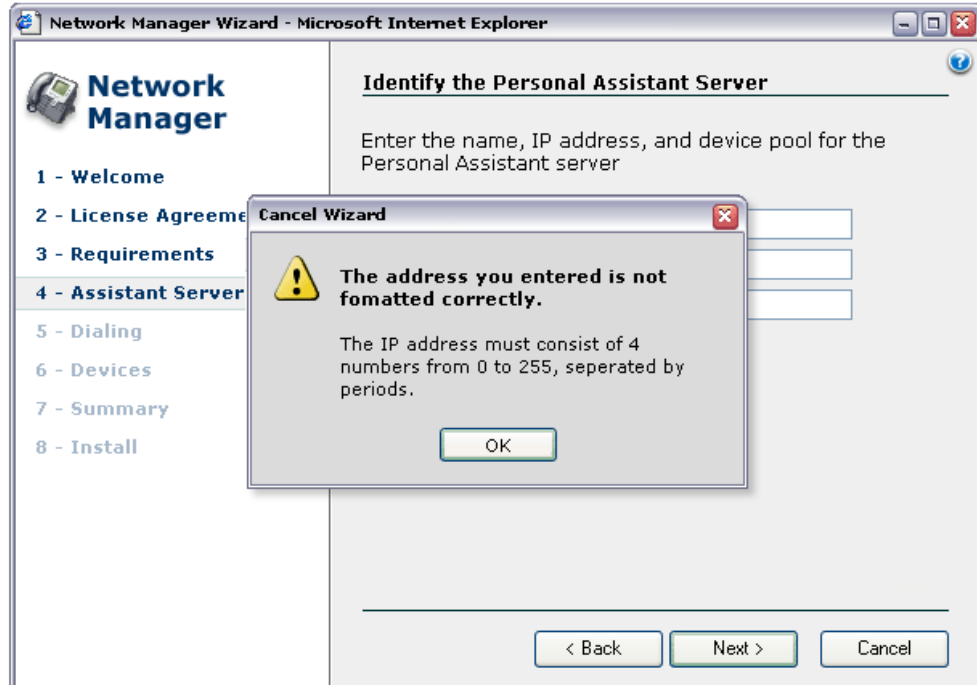


Figure 1. Wizard with Message Box Identifying An Error

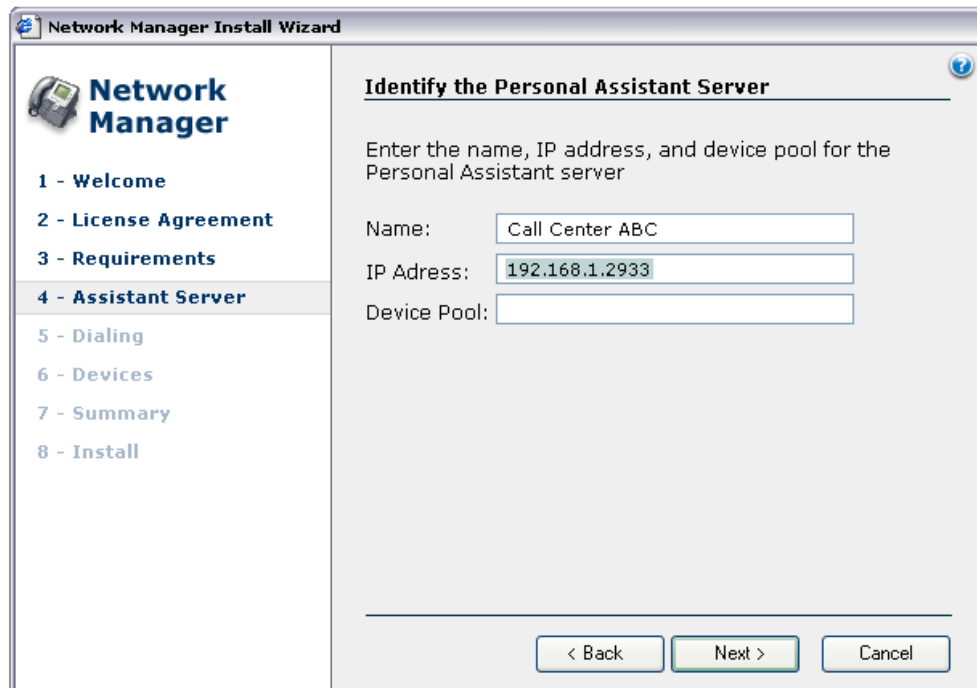
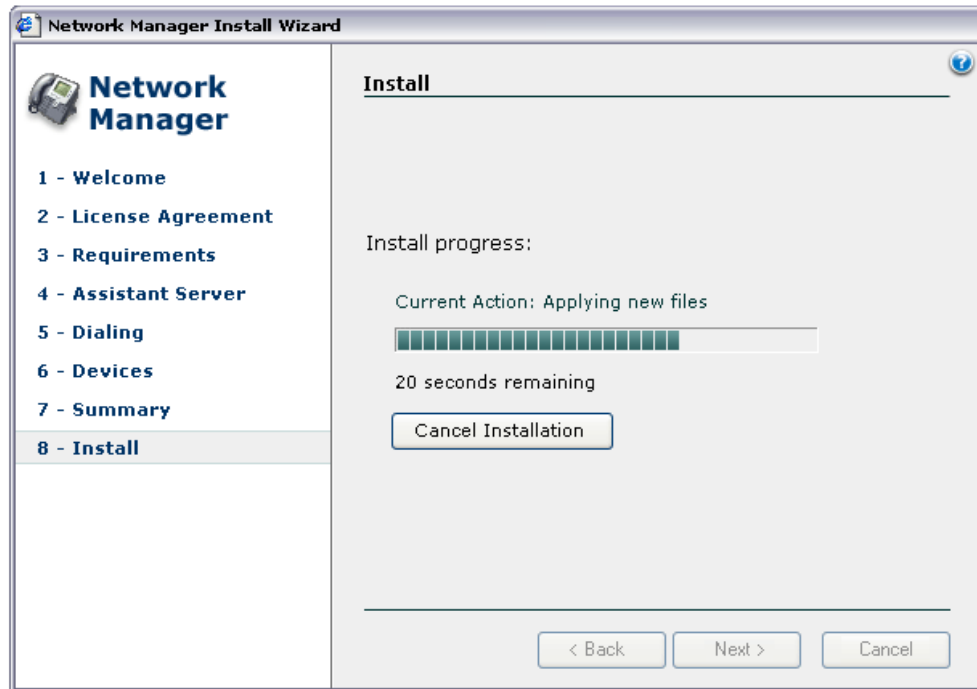


Figure 2. Wizard with Error Highlighted

## Feedback



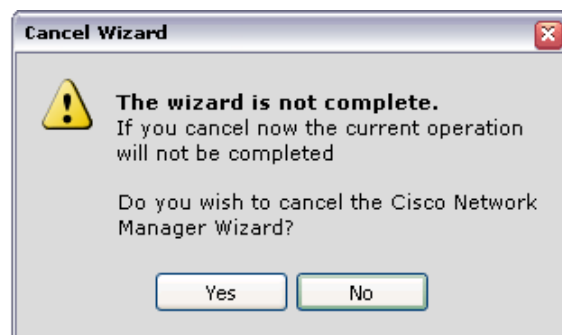
**Figure 3. Progress Bar**

Keep the user informed of system state.

- Provide instructional text to alert the user if there is an action that the user cannot interrupt.
- If a wizard performs an operation that might last longer than five seconds, show progress feedback in the right pane of the wizard.
- Disable buttons when their actions are not available.

## Canceling a Wizard

If a user clicks to cancel the wizard, a warning message box is displayed to confirm cancellation. The message box allows the user choose to exit or return to the wizard. If the user elects to exit the wizard, return the system to the state it was in when the wizard was launched.



**Figure 4. Cancel Message Box**

## Keyboard Navigation

Keyboard navigation should follow standard left to right, top to bottom tabbing order.

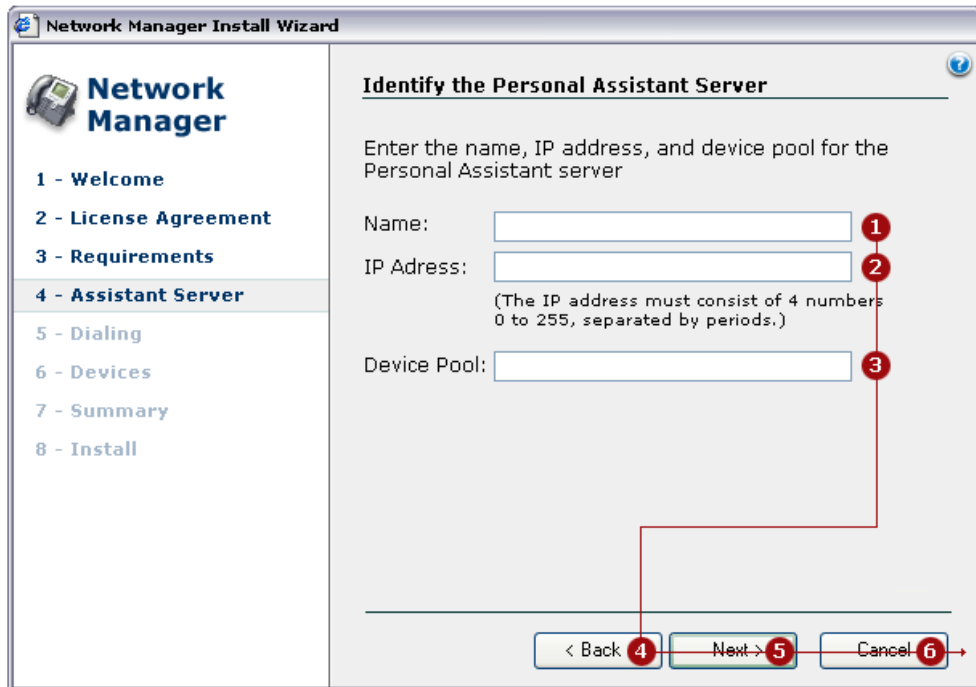


Figure 5. Keyboard Navigation

## Screen Types

Table 1 lists the screen types and whether each should be used in [install software wizards](#) and [create complex object wizards](#) (which are used after the application is installed).

Screen Type Usage

Screen Type	Install Wizard	Complex Object Wizard
Welcome	Yes	Yes - However do not use if users will use these wizards frequently.
Terms of Use	Yes	No
System Requirements	Yes	No
User Input	Yes	Yes
Summary	Yes	Yes - If the object is very complex (optional) *

Install (or other system completion of the wizard task)	Yes	Yes - If system processing will require an extended time.
Report (a report that is not part of the wizard, but is created elsewhere)	Yes	No

*\* Do not overuse these screens if they do not add value to the task, as users will not want to click through them when completing frequent tasks.*

**Table 1. Screen Type Usage**

## Welcome Screen

A Welcome Screen introduces the wizard and its steps. It helps users determine whether a wizard meets their needs. It also informs users of things they should know before beginning the wizard.

A Welcome Screen includes:

- A Welcome Title (sentence style capitalization)
- Wizard Description
- Information that the user will have to enter. That is, users will lose work if they have to close a modal wizard to gather information. Examples of such information are:
  - Software that must be installed before starting the wizard
  - A license number that must be entered before the wizard can complete its task
  - Disk space requirements
  - Invalid or unsupported hardware
  - Unsupported OS version
- Optional graphic
- Navigational controls (Back, Next, and Cancel). The Back button should be disabled.

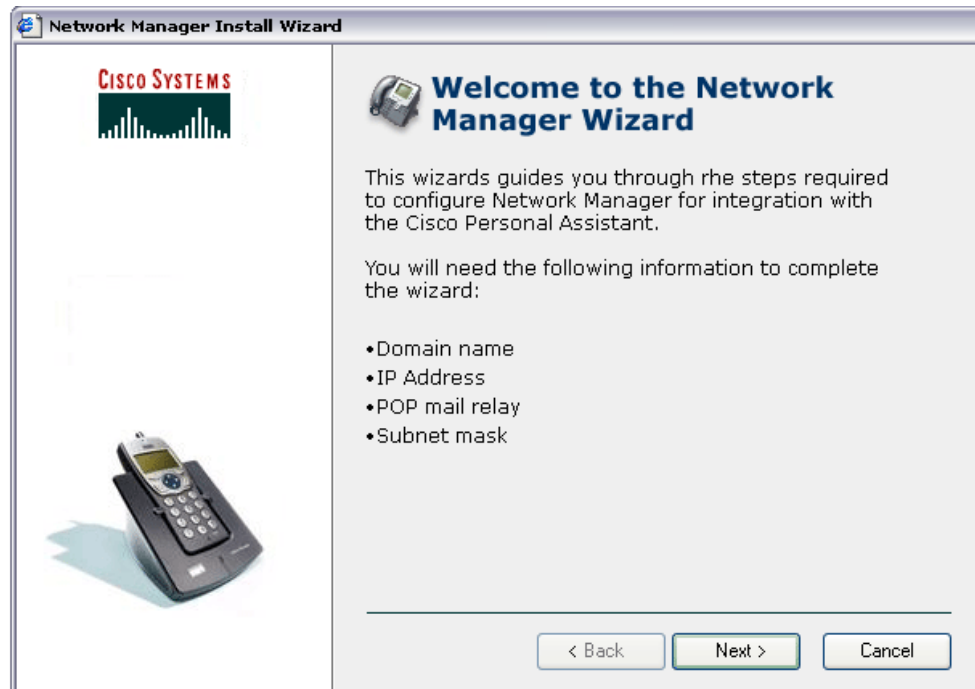
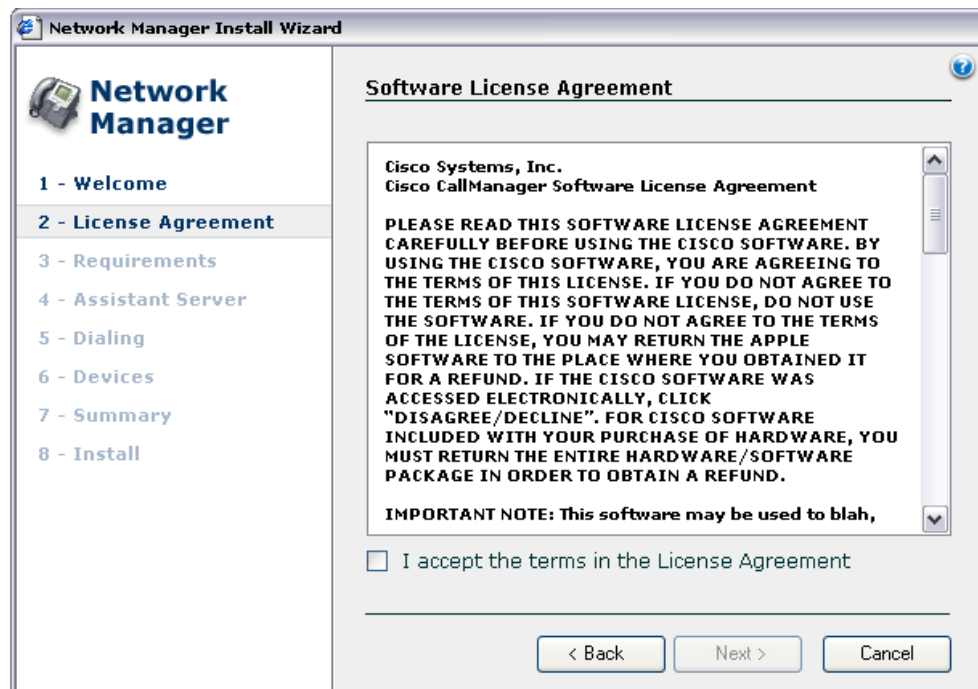


Figure 1. Welcome Screen

## Terms of Use Screen

A Terms of Use Screen provides the Cisco Software License Agreement for software installations. Use a scrolling, read-only text area for long Terms of Use Licenses. The Next button should be disabled until the user accepts the terms and conditions.





## Figure 2. Terms of Use / License Agreement Screen

### Automated System/Software Requirements Screens

There may be a step where the system confirms that prerequisite requirements are met. Examples of such requirements are:

- Software that must be installed before starting the wizard
- Disk space requirements
- Invalid or unsupported hardware
- Unsupported OS versions

Users should not be able to navigate to the next screen if the requirements are not met. In some cases, a progress bar will be needed to indicate that a system requirements analysis is taking place and may take a few minutes.

The following figures show the Requirements Screen when:

- the system is checking requirements (Figure 3)
- requirements are not met (Figure 4)
- requirements are met (Figure 5)

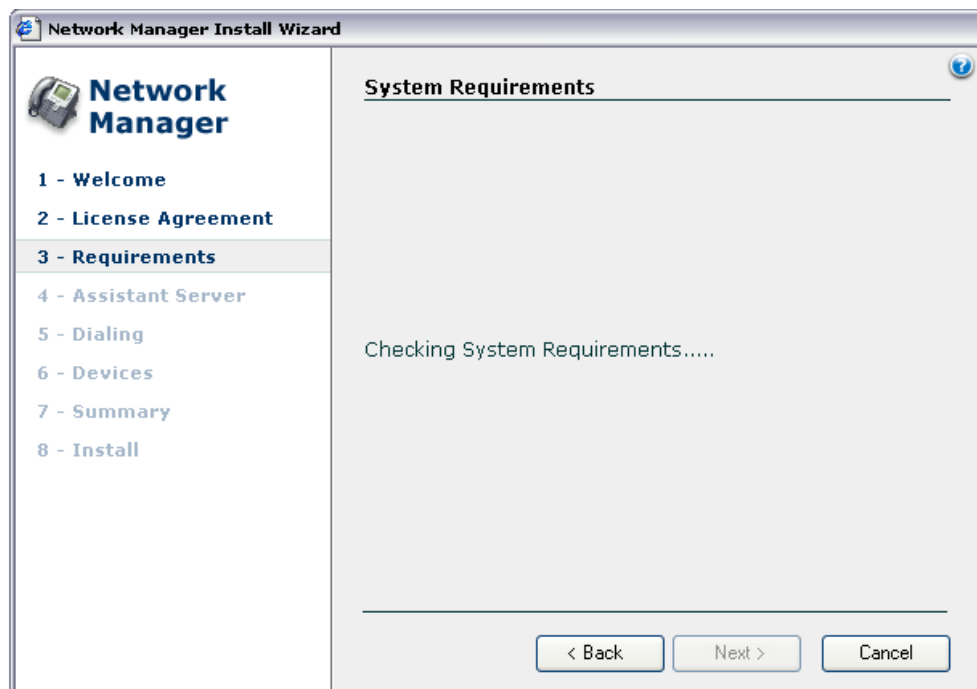


Figure 3. System Requirement Screen: Phase = Checking Requirements

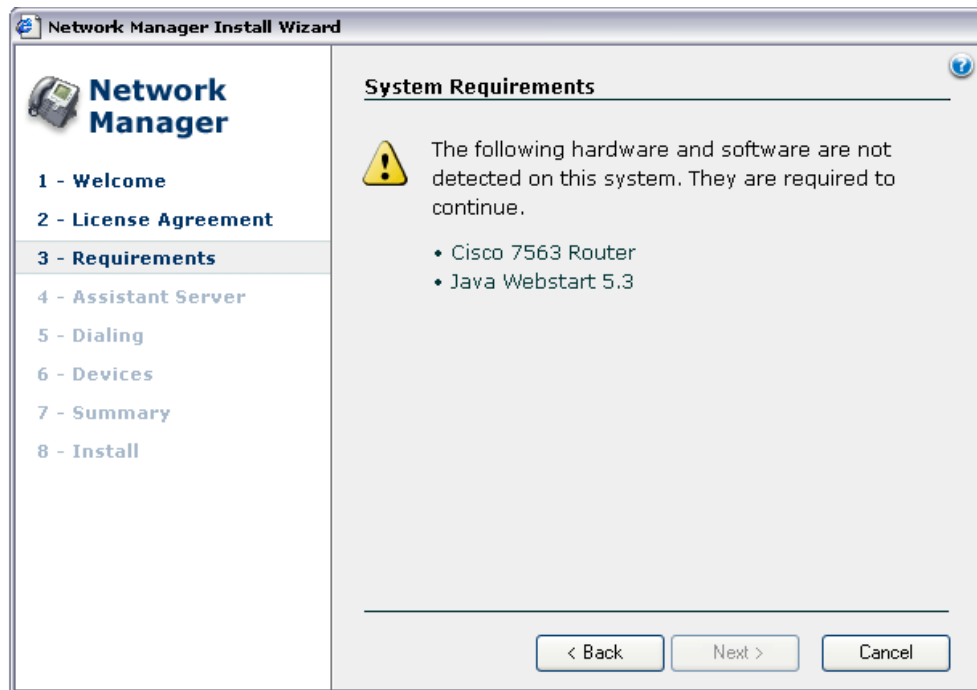


Figure 4. System Requirement Screen: Phase = Complete, Condition = Requirements Not Met

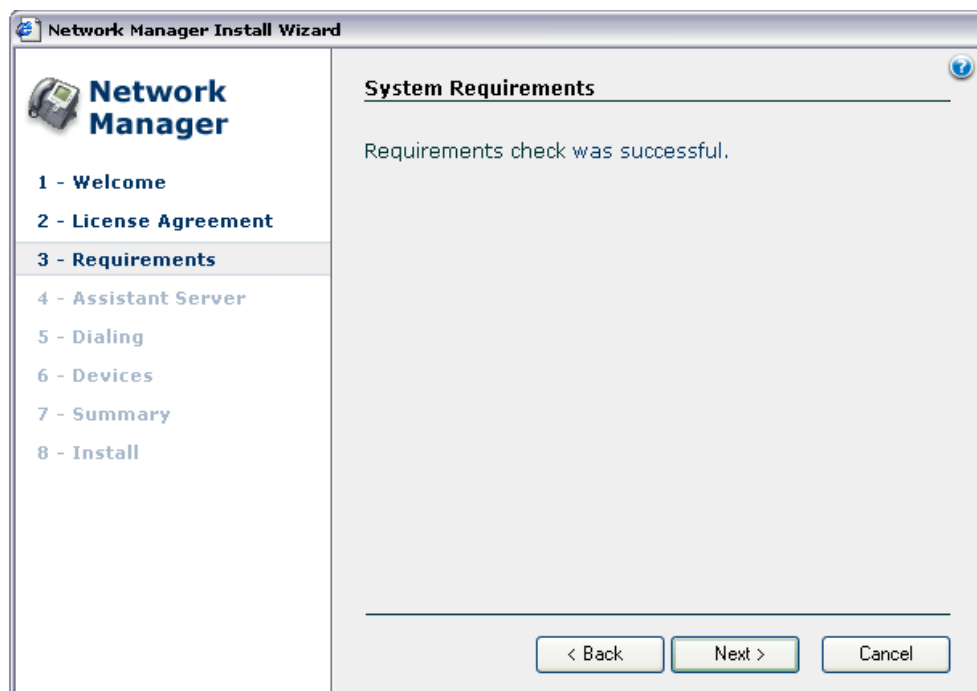


Figure 5. System Requirement Screens: Phase = Complete, Condition = Requirements Met

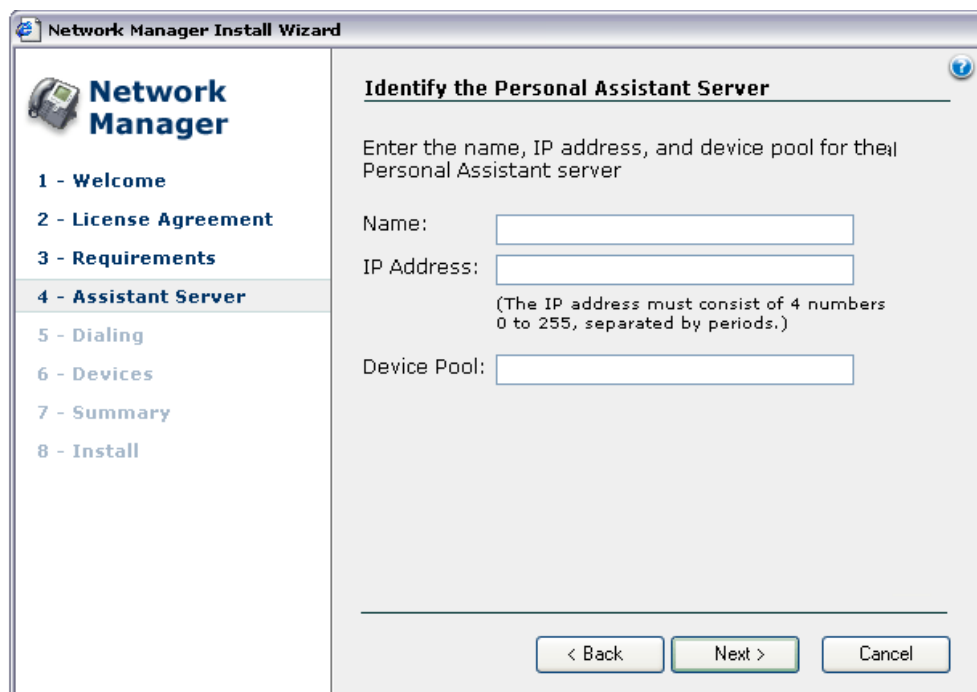
## User Input Screens

User Input Screens include:

- Step subtitle
- Instructional text (optional)
- Controls for user input (provide default values when available)
- Navigational controls

User Input Screen standards:

- The steps of a wizard always flow in a consecutive order (either back or forward).
- The user should never be required to leave the wizard to complete a task.



The screenshot shows a window titled "Network Manager Install Wizard". On the left, there is a vertical list of steps: 1 - Welcome, 2 - License Agreement, 3 - Requirements, 4 - Assistant Server (highlighted), 5 - Dialing, 6 - Devices, 7 - Summary, and 8 - Install. The main area on the right is titled "Identify the Personal Assistant Server" and contains the following text: "Enter the name, IP address, and device pool for the Personal Assistant server". Below this text are three input fields: "Name:" with a text box, "IP Address:" with a text box, and "Device Pool:" with a text box. A note below the IP Address field states: "(The IP address must consist of 4 numbers 0 to 255, separated by periods.)". At the bottom of the dialog are three buttons: "< Back", "Next >", and "Cancel".

Figure 6. Text Fields in Right Pane

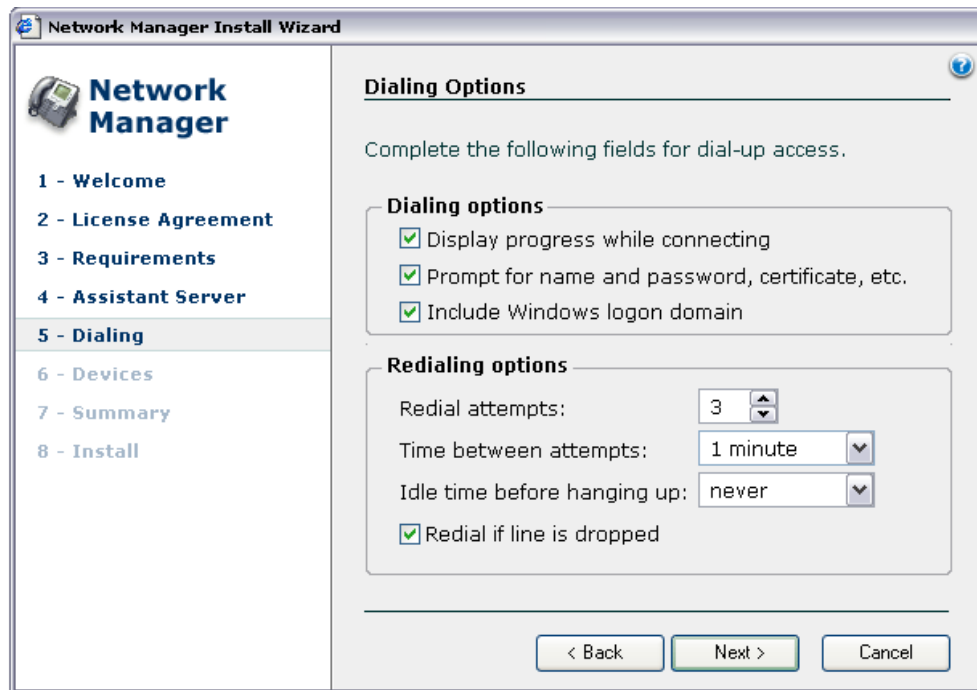


Figure 7. Group Box in Right Pane

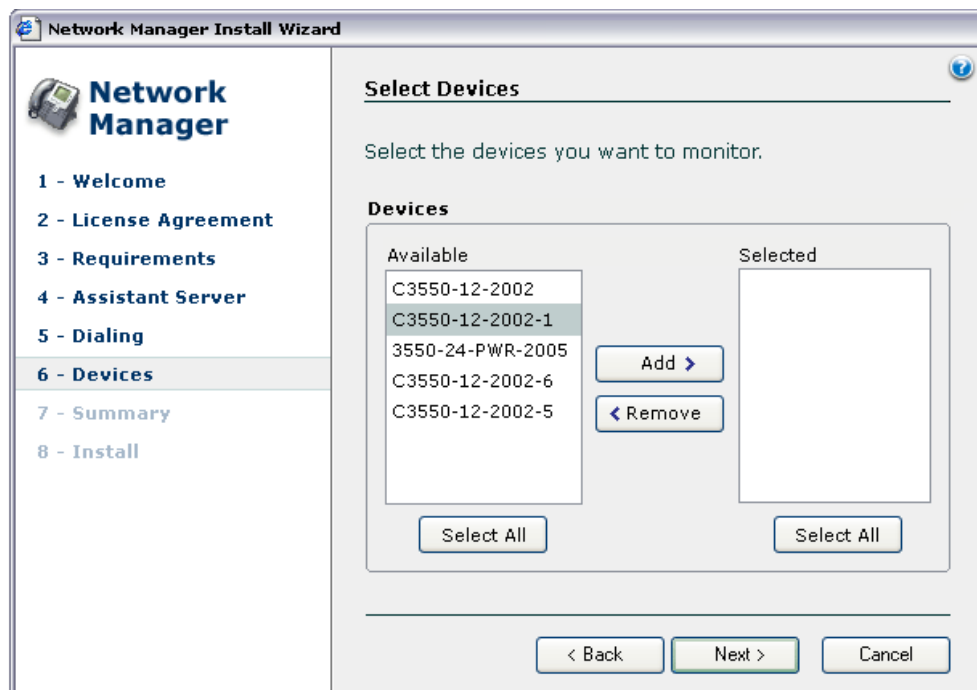


Figure 8. List Box in Right Pane

## Confirmation Screen

A Confirmation Screen shows all the data that the wizard has collected and provides information about the actions the wizard is about to take. A Confirmation Screen may contain:

- A concise list of data that a user has entered in previous screens
- The set of actions that the wizard will perform upon navigating to the next screen
- The title or instructional text indicating that once the user progresses past the confirmation screen, the indicated actions are irreversible
- How the wizard will modify the system
- Where the wizard will place items, such as where something will be installed
- The amount of disk space the installation will take and how much will be left.
- An estimate of how long the wizard's configuration or process will take.

Confirmation Screen Formatting:

- Use a simple formatting device such as a scrolling, read only, text area to display confirmation data.
- Do not use a table component for confirmation summary data.

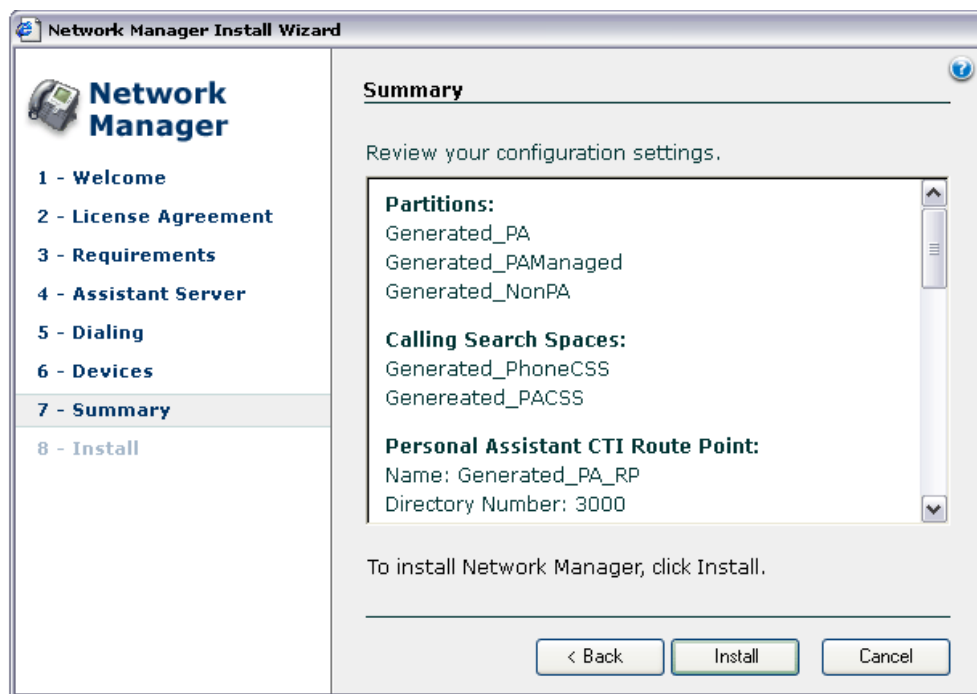


Figure 9. Confirmation Screen

## Progress Feedback

In some wizard steps, it may take a while for the system to complete the task. As appropriate, a progress indicator can be integrated within an existing wizard step (preferred) or a pop-up dialog box can provide a progress indicator. Alternatively, a step

can be devoted to communicating system progress (as shown in Figure 10). In this case, the step can be given a name such as "Install Progress".

If it is possible to back out of a running process, a Cancel button can be located inside of the content area and next to the progress indicator. In the case shown, the Progress Feedback screen initially displays a progress indicator. When the installation is complete, the content area message changes to communicate that the installation is complete. The Progress Feedback screen should have typical screen navigation buttons.

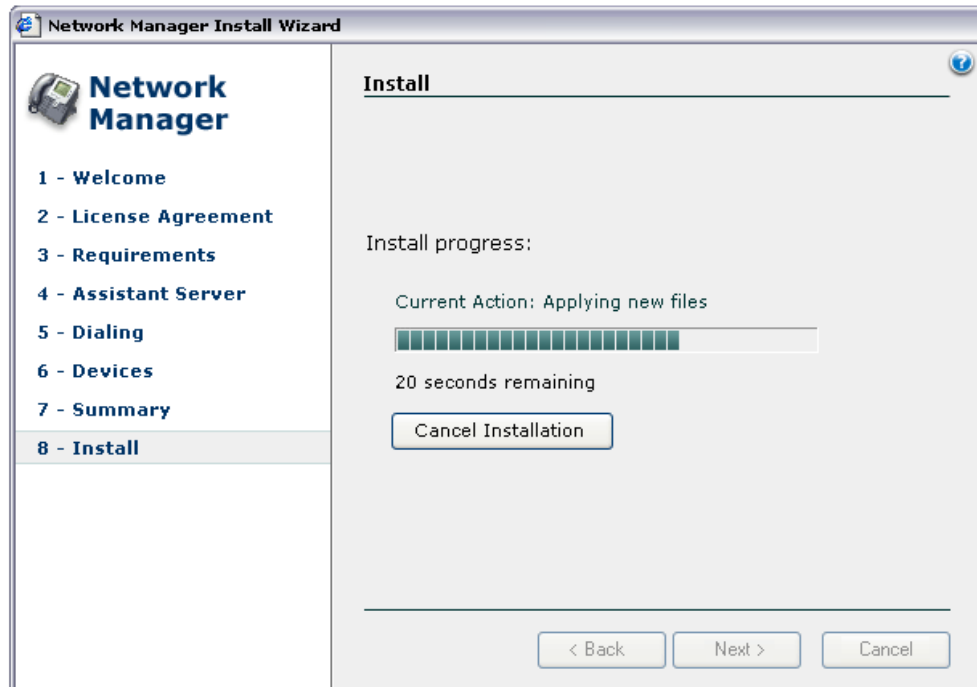


Figure 10. Progress Feedback

## Summary Screen

A Summary Screen (also known as a Confirmation Screen) shows all the data that the wizard has collected and provides information about the actions the wizard is about to take. This allows the user to see the configuration that will be installed. A potential use case is that a user would print the Summary Screen so that the configuration information could be presented for approval. A Confirmation Screen may contain:

- A concise list of data that a user has entered in previous screens
- The set of actions that the wizard will perform upon navigating to the next screen
- The title or instructional text indicating that once the user progresses past the confirmation screen, the indicated actions are irreversible (optional)
- How the wizard will modify the system
- Where the wizard will place items, such as where something will be installed
- The amount of disk space the installation will occupy and how much will remain on the disk
- An estimate of how long the wizard's process will take
- A Print button

## Summary Screen Formatting:

- Use a simple formatting device such as a scrolling, read-only, text area to display confirmation data.
- Do not use a table component for summary data.
- If the Summary Screen is the last screen before the Install (or Configuration, etc), the Next button should be labeled "Install".

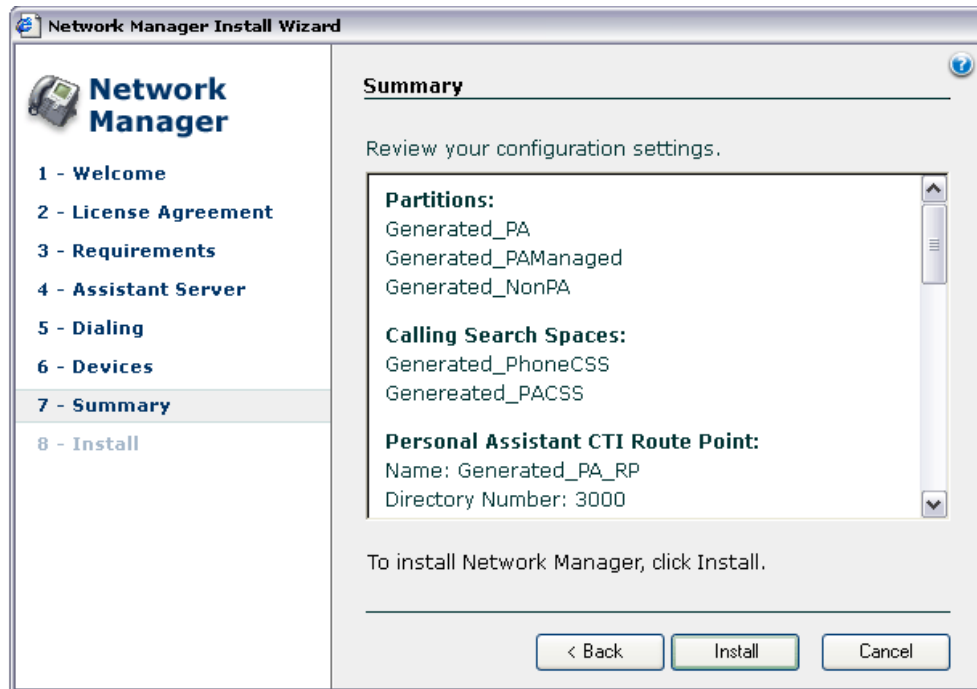


Figure 9. Summary Screen

## Install

The install screen content area updates to show the progress of the install task:

- At first, the Install screen shows a progress indicator (Figure 10). In this phase, the wizard is installing (or configuring, etc.) the application. Typically, it will take some time for the system to complete the task. A progress indicator is integrated within the step's content area (it should not be provided in a message box). The [progress indicator](#) shows the progress of the install. If it is possible to back out of the running process, a Cancel Install button can be located inside of the content area and next to the progress indicator.
- Install complete.
  - If the install fails, this is communicated to the user.
  - If the install succeeds (Figure 11), the content area message changes to communicate that the installation is complete. The Install Screen at the Install Complete Phase may include::
    - Indication that the task is complete
    - Summary information (optional)

- Option to view a summary report in a browser or create a summary file (optional)
- Easy access transition to related tasks, e.g., Open the Application (optional)
- A message to check for updates (optional)

At this time, the user typically sees a Finish button (if there are no more steps), but may see a Next button (if there are post install screens).

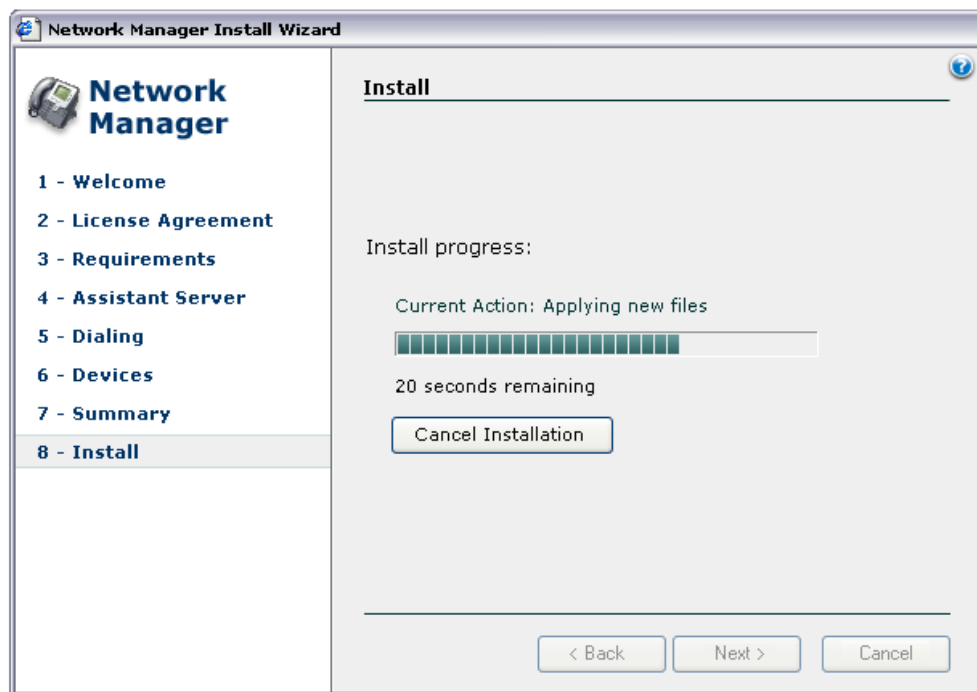
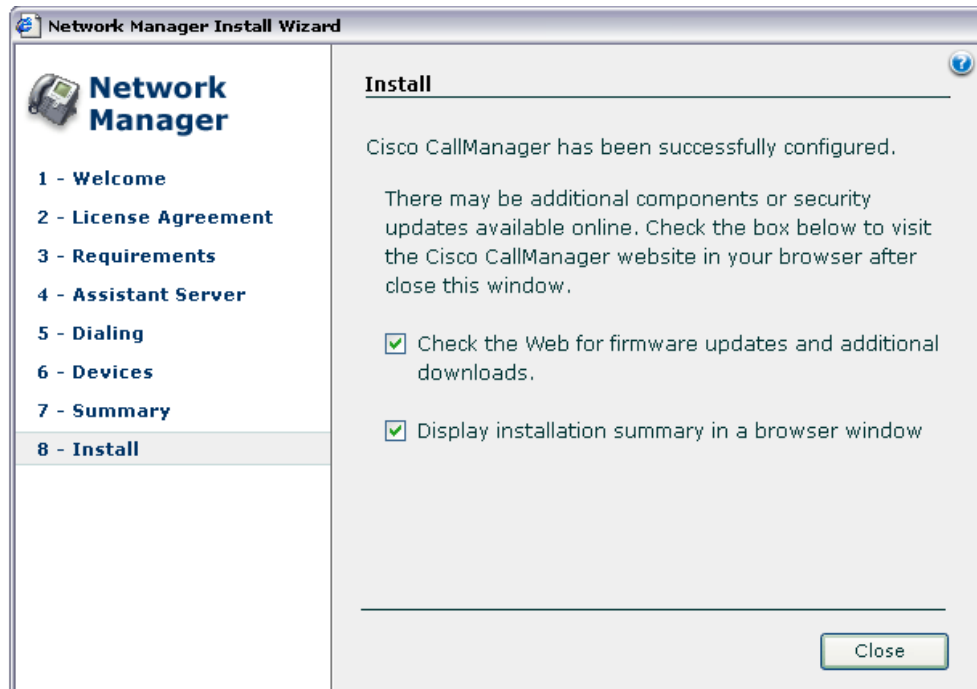


Figure 10. Install Screen: Phase = Installing (Progress Indicator)





**Figure 11. Install: Phase = Complete, Condition = Successful (Contains Follow Up Questions)**

## Summary Report

A Summary Report is a print friendly report generated by the wizard and displayed in a browser. A Summary Report is displayed when a user selects the Summary Screen option (check box) on the Summary Screen. If the check box is selected and the user clicks Finish, the Summary Screen is displayed in a browser window.

Provide a Summary Report option if a wizard has generated additional information that a user might want to examine after the task is completed.

# Wizard Specifications



Figure 1. Welcome Screen Dimensions

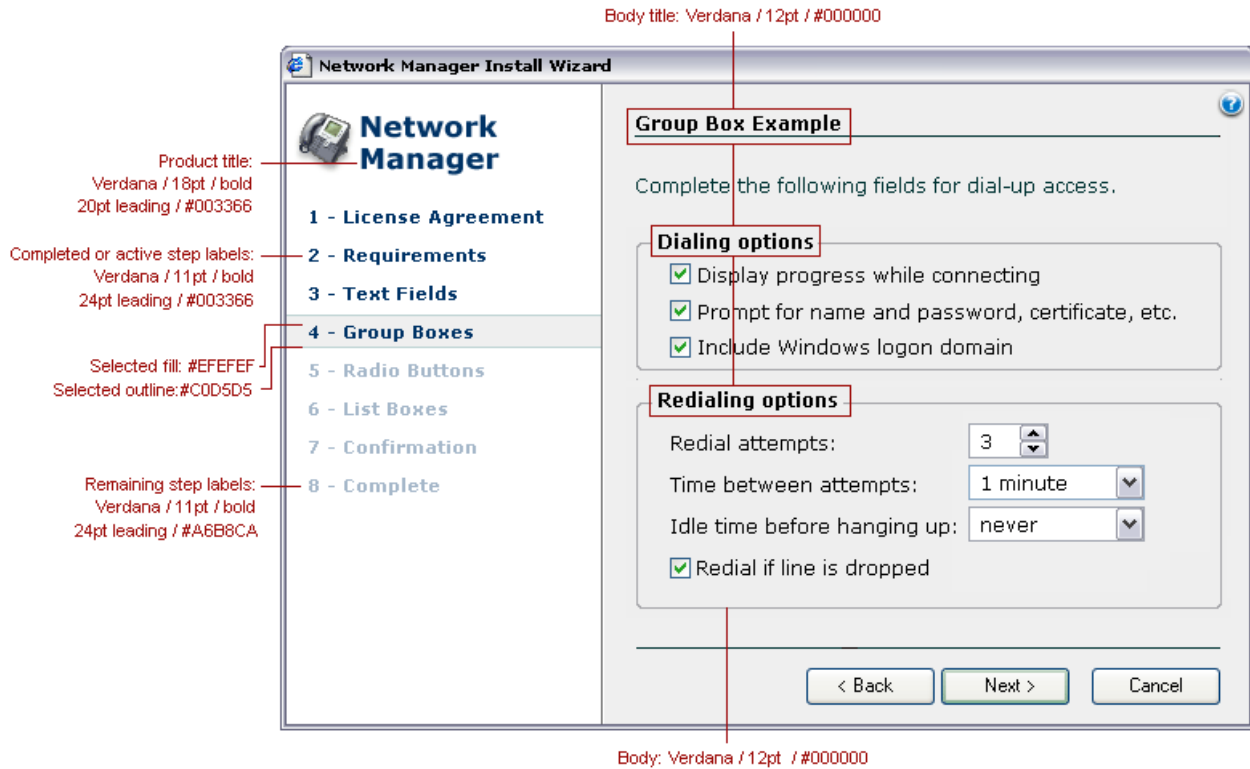


Figure 2. Internal Screen Dimensions

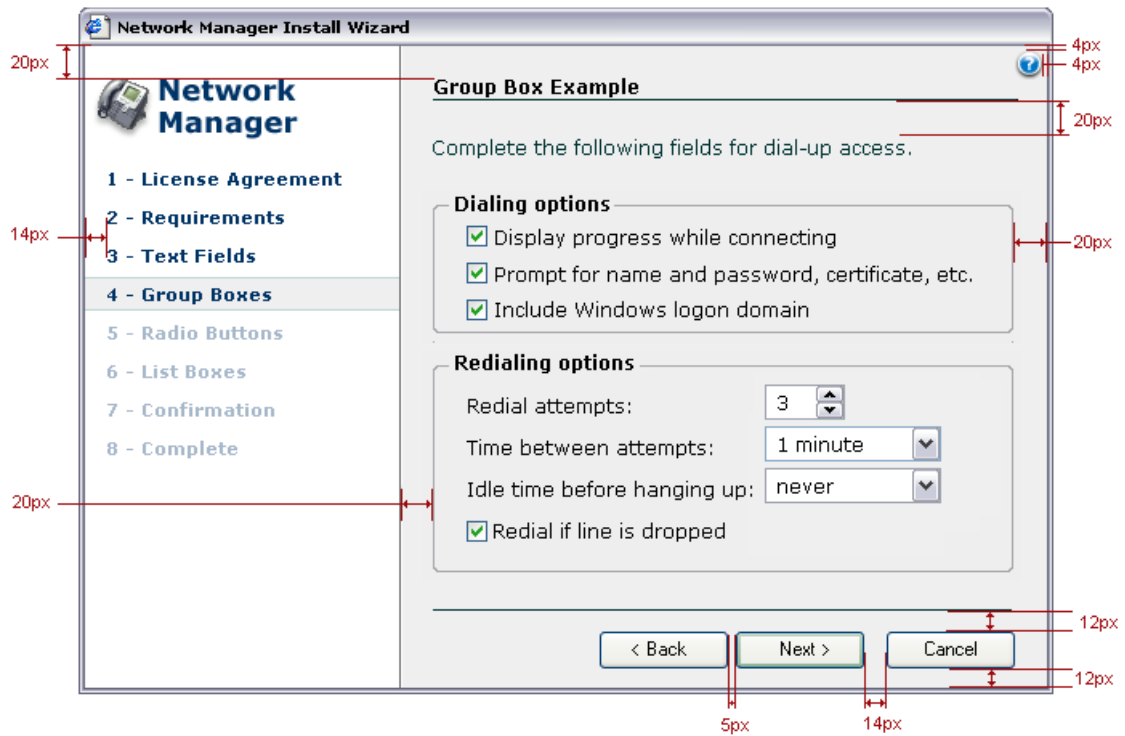


Figure 3. Font Specification

