<CHAPTER> **2**

Planning the Cisco Pulse Deployment

Before deploying Cisco Pulse, we strongly recommend reading these topics so that you understand the tasks that are involved and who should perform the tasks:

Understanding the Administrator Roles

Cisco Pulse is a multi-faceted product and to successfully deploy it, we recommend the participation of administrators with these distinct skill sets:

- Network administrator—An administrator who is familiar with the IP network that supports your organization and the flows of traffic within the network. This person may help determine how many Pulse Collect Appliances to deploy in addition to determining where to place them and the Pulse Connect Appliance in the network. This person must physically set up the appliances, connect them to the appropriate network devices, and if the devices are Cisco switches, configure them with recommended features that support Cisco Pulse. And finally, this person must configure an IP address for each appliance and other basic attributes that ensure the proper deployment of the appliance in the network.

- System administrator—An administrator who initially sets up and configures, maintains, and monitors Cisco Pulse. This person integrates pertinent LDAP directory attributes into Cisco Pulse. This person also creates and maintains a list of users who will access the application and use the Pulse Locator. This person also supports the users if they have a problem accessing or using the application. If this administrator decides to integrate the functionality of a feature such as Cisco Unified Presence, they will work with the appropriate administrator to gain proper access to it.

- Business administrator—While the network and system administrators have more technical backgrounds, this administrator manages Cisco Pulse from a business perspective. This administrator creates and maintains the Pulse and Restricted Vocabularies. The Pulse Vocabulary contains terms that are integral to the organization, and to create such a vocabulary, this person must understand the products, services, and values that drive the organization. This person may also gather data about system usage, for example, rates of adoption, frequency of usage, most and least frequently searched upon terms, and so on. Using this data, the administrator can add or remove terms from the Pulse Vocabulary or take appropriate action based on usage patterns.

Your organization must decide if these roles can be handled by one person, or if the network and system administrator roles should be handled by two people. Regardless of the number of people who will handle these roles or their titles, this documentation assumes these distinct roles and calls them out with regard to certain deployment tasks.

Cisco Pulse Deployment Overview

The deployment of Cisco Pulse consists of these high-level tasks, which must be performed in this sequence:

1. Install and perform a basic setup of each Pulse Appliance:

   a. Mount the appliance in a rack.

   b. Connect the appliance to the appropriate network devices.

   c. If the network devices are Cisco switches, traffic-capturing features such as Switched Port Analyzer (SPAN), or Remote Switched Port Analyzer (RSPAN) with VLAN Access Control Lists (VACLs) are available. We recommend using RSPAN with VACLs because they support packet filtering via access lists, which optimize the amount of traffic a switch forwards to a Pulse Collect Appliance.

   d. Power on the appliance.

   e. Perform a basic setup, including specifying network information, of the appliance using a Setup wizard.

2. Install the application software on each Pulse Appliance via an SSH or console port session.

3. Generate a certificate for the web server that hosts Cisco Pulse. This web server resides on the Pulse Connect Appliance.

4. Install the Cisco Pulse software license.

5. Initially configure Cisco Pulse using the Administration setup wizard.

6. Create the Pulse and Restricted Vocabularies.

7. Upload the Pulse and Restricted Vocabularies into the system.

Note   Creating the Pulse and Restricted Vocabularies is a task that can actually be performed in parallel to tasks 1 through 5.

At the completion of task 6, Cisco Pulse begins to analyze content shared across the network for terms in the Pulse Vocabulary.

Depending on the organization of your company, up to three administrators, a network administrator, a system administrator, and one or more business administrators, can potentially handle the deployment of Cisco Pulse. For more information on the roles and backgrounds of these administrators, see the "Understanding the Administrator Roles" section on page 2-1.

Assuming that three administrator will participate in the deployment, Figure 2-1 provides a high-level workflow of the major tasks, who handles each task, and any information that one administrator needs to hand off to another.

Figure 2-1   Workflow of Major Deployment Tasks
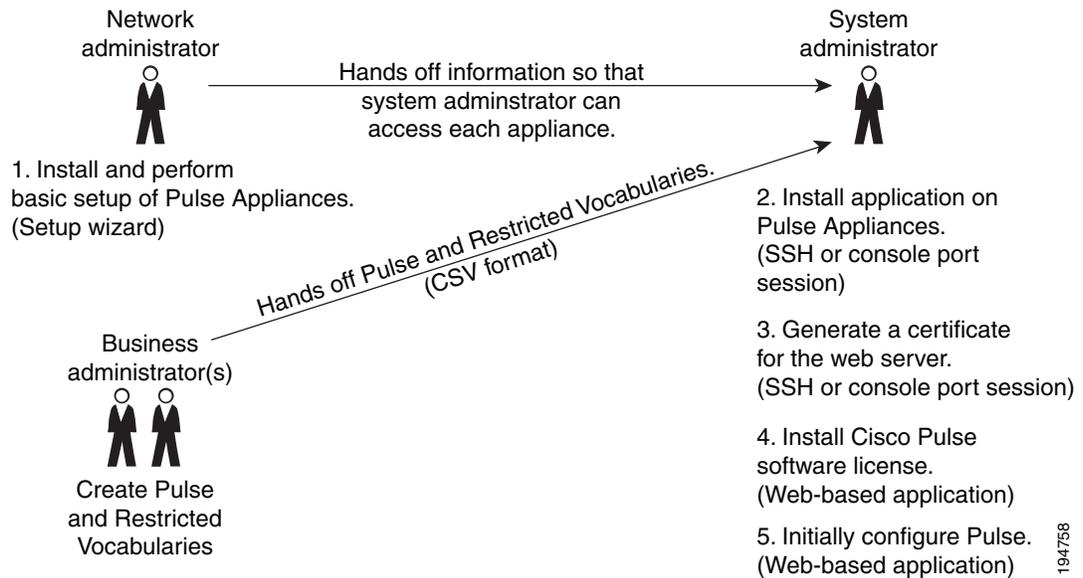
Planning the Initial Configuration of Cisco Pulse

Before initially configuring Cisco Pulse using the Administration setup wizard, the system administrator might need to do planning to expedite the process. These tasks explain what you need to do before starting the Administration setup wizard.

Planning Overview

Note   This topic is intended for the system administrator who initially configures Cisco Pulse using the Administration setup wizard.

The initial configuration of Cisco Pulse is multi-faceted and falls into these categories:

- Installing the Cisco Pulse software license.
- Configuring the Pulse Appliances:
  - Pulse Connect Appliance
  - Pulse Collect Appliances
  - Configure when regularly scheduled configuration updates are propagated from the Pulse Connect Appliance to all Pulse Collect Appliances.

- Leveraging from existing network infrastructures:
    - Lightweight Directory Access Protocol (LDAP) directory
    - Exchange email servers
    - HTTP servers
    - Simple Mail Transfer Protocol (SMTP) email server
    - Cisco Unified Communications Manager
    - Remote system log server
    - Cisco Unified Presence
    - Cisco WebEx meeting functionality
- Creating a list of users who can use Cisco Pulse
- Creating filters that narrow the content that Pulse Collect Appliances analyze:
    - Accepted Web Domains—URLs that point to content that Cisco Pulse is allowed to analyze.
    - Restricted Web Domains—URLs that point to content that Cisco Pulse is not allowed to analyze.
    - Accepted Email Domains—Email domains with content that Cisco Pulse is allowed to analyze.

Note   This topic does not discuss the creation of the Pulse and Restricted Vocabularies. For information on creating these vocabularies, see the Chapter 7, "Creating and Maintaining Vocabularies."

- Configuring Cisco Pulse to send vocabulary notification emails to users in a mailing list when additions, changes, or deletions are made to the Pulse and Restricted Vocabularies.
- Setting up these properties:
    - URL to photos for use in public profiles
    - Optional privacy policy content that appears when users log into Cisco Pulse for the first time

Before using the Administration setup wizard to guide you through the initial configuration of each of these areas, you might need to do some planning, perform some tasks, make decisions, and gather information needed during the configuration.

Related Topics

- Summary of Planning Tasks, page 2-4

Summary of Planning Tasks

Table 2-1 provides a high-level summary of the initial configuration planning that you should take into account.

Note   The information presented in Table 2-1 is intended as a high-level summary and might not include all details of your initial configuration pre-work.

Table 2-1   High-Level Summary of Initial Configuration Pre-work

Configuration Task	Status	Things to Do Before Performing Initial Configuration
Install the Cisco Pulse software license.	Mandatory.	Register Cisco Pulse using a web tool on Cisco.com, and upload a license file to the system, which activates the software features that you purchased.
Configure Pulse Appliances		
Configure Pulse Connect Appliance	Mandatory.	–
Configure each Pulse Collect Appliance.	Optional.	• If you do not have it already, get the IP address or host name from the network administrator. • Work with the appropriate administrator in your organization to get the IP address of the Exchange servers and port number of the Simple Mail Transfer Protocol (SMTP) server that each Pulse Collect Appliance should monitor. • Work with the appropriate administrator in your organization to identify the HTTP ports that each Pulse Collect Appliance should monitor.
Update the default settings that determine when regularly scheduled configuration updates are performed.	Optional. Configure if you want to change the default settings.	• Determine the default settings of the attributes. For more information, see the Configuration Updates, page 6-72. • Decide if you want to update the default settings, and if you do, what the settings should be.
Leverage from existing network infrastructures		
Configure Cisco Pulse so that it can access and leverage user information from your LDAP server.	Mandatory.	We strongly recommend meeting with the administrator of your corporate LDAP directory to determine the correct settings for the LDAP server attributes that you must configure. For more information on these attributes, see the Configuration portion of Table 3-2 on page 3-9.

Table 2-1   High-Level Summary of Initial Configuration Pre-work (continued)

Configuration Task	Status	Things to Do Before Performing Initial Configuration
Verify default mappings between the attribute names used in your LDAP directory and the attribute names needed for public profiles.	Mandatory.	• We strongly recommend meeting with the administrator of your corporate LDAP directory to map the Cisco Pulse attributes and the LDAP directory attributes. Ask the LDAP administrator to bring a record of the LDAP directory attributes to this meeting. For more information on the Cisco Pulse attributes, see the Verify Default Mapping portion of Table 6-1 on page 6-8. • Decide which attributes you want to function as a filter, with which an expertise seeker can narrow Pulse Locator search results.
Specify an IP address or host name for your Cisco Unified Communications Manager server.	Optional. Configure if: • Your corporate phone system is managed by Cisco Unified Communications Manager and Cisco Web Dialer is enabled. You want to implement the Click-to-Call feature in the Pulse Locator search results.	• Contact the appropriate administrator in your organization to determine if your corporate phone system is managed by Cisco Unified Communications Manager and that Cisco Web Dialer is enabled. • Decide if you want to implement Click-to-Call in the Pulse Locator search results. The Click-to-Call feature enables a user to quickly collaborate with an expertise provider by clicking a phone icon in the search results page. • If you decide to implement this feature, get the IP address or host name for the publisher server/primary server from the appropriate administrator in your organization.
Specify an IP address or host name for your remote system log server.	Optional. Configure if: • A remote system log server is implemented in your network. • You want Cisco Pulse log messages sent to this server.	If a remote system log server is implemented in your network, and you want this server to receive application log messages, get the IP address or host name of the server from the appropriate administrator in your organization.

Table 2-1   High-Level Summary of Initial Configuration Pre-work (continued)

Configuration Task	Status	Things to Do Before Performing Initial Configuration
Integrate the Cisco Unified Presence functionality so that the availability of expertise providers who are supported by Presence clients, for example, Cisco Unified Personal Communicator, appears in the Pulse Locator search results.	Optional. Configure if: • Cisco Unified Presence is implemented in your network. • You want to integrate the Cisco Unified Presence functionality into the Cisco Pulse.	Gather this Cisco Unified Presence information from the appropriate administrator in your organization: • IP address or host name. • Port over which the Cisco Pulse can access the server. • Application username and password. This user account information enables the Cisco Pulse to retrieve a session identifier from Cisco Unified Presence. This user should be unique to a Pulse Connect Appliance and have the Third Party API permission. • End username, which can be the username of any licensed Cisco Unified Presence user. The end user is a watcher that monitors the status of all users.
Integrate the Cisco WebEx meeting functionality into the Pulse Locator search results.	Optional. Configure if: • Your organization implements the Cisco WebEx meeting functionality. • You want to implement the Click-to-WebEx feature.	From the appropriate administrator in your organization, get the Cisco WebEx site URL, which is provided by Cisco WebEx. A sample site URL is https://mycompany.webex.com/ mc0800l/meetingcenter/mywebex/ start1clickmeeting.do?siteurl=mycompany.
Create a list of users who can use Cisco Pulse. This list is based on the list of users in your corporate email system.	Mandatory.	Get a list of email users in your corporate LDAP directory from the appropriate administrator in your organization.
Creating content filters		
Specify URLs that point to content that Cisco Pulse is allowed and is not allowed to analyze.	Strongly recommended.	• Familiarize yourself with URL patterns accepted by Cisco Pulse as well as guidelines for setting up the two filters. For more information, see the "Guidelines for Specifying URLs" section on page 5-28. • Assemble accepted and restricted web domains to include in each filter.
Specify the email domains with content that Cisco Pulse is allowed to analyze.	Strongly recommended.	Decide which top-level email domains to include in the filter.

Table 2-1   ***High-Level Summary of Initial Configuration Pre-work (continued)***

Configuration Task	Status	Things to Do Before Performing Initial Configuration

Configure Cisco Pulse to send vocabulary notification emails to users in a mailing list when additions, changes, or deletions are made to the Pulse and and Restricted Vocabularies.	Recommended.	• Create a mailing list that includes all users who agree to the terms of the privacy policy, if one exists for your organization.
		• Gather this information about the mail server that sends the notification emails from the appropriate administrator in your organization:
		  – Domain in which the server resides
		  – IP address or host name

Set up properties		
Specify a URL that points to a database of photos used in public profiles.	Optional.	Check to make sure that the photo database meets these conditions: • The photos are accessible using HTTP. • Each photo must be in JPG format. • Each photo filename is in the *username*.jpg format. If these conditions are met, acquire the URL that points to a database of photos from the appropriate administrator in your organization.
Define contents of the optional privacy policy that appears when a user logs into the Cisco Pulse for the first time.	Optional.	Work with the appropriate group or individual in your organization to perform these tasks: • Decide whether or not to implement a privacy policy. Organizations that are concerned about user reaction to the potential tagging of email and web content shared across the network should consider implementing a privacy policy. • Create the privacy policy content.

Related Topics