This document supports the version of each product listed and supports all subsequent versions until the document is replaced by a new edition. To check for more recent editions of this document, see http://www.vmware.com/support/pubs.
You can find the most up-to-date technical documentation on the VMware Web site at:

http://www.vmware.com/support/

The VMware Web site also provides the latest product updates.

If you have comments about this documentation, submit your feedback to:

docfeedback@vmware.com
Contents

Capacity Planner Installation Guide  5

1  Preinstallation Requirements  7
   Identifying System Connections  7
   Data Collection Methods  7
   Data Manager System Requirements  8
   Target System Platforms  10
   Security, Network, and Firewall Requirements  11
   Preinstallation Checklist  13

2  Installing the Collector  17
   Download the Installation Package  17
   Install a New Collector  18
   Upgrade an Existing Collector  19
   Start the Data Manager  19
   Verify Administrator Account  20
   Automatic Collector Updates  21

3  Uninstalling the Data Manager and Collector  23
   Uninstall a Collector Service  23
   Remove the Data Manager and Data Files  23

Index  25
Capacity Planner Installation Guide

The Capacity Planner Installation Guide provides the installation prerequisites, installation, upgrade, and uninstallation instructions for VMware® Capacity Planner.

Intended Audience

This information is intended for technical VMware personnel, such as consultants, the Professional Services Organization, Training, Technical Support, and VMware partners who are responsible for installing and using Capacity Planner in assessment engagements.

VMware Capacity Planner Documentation

The complete documentation set for VMware Capacity Planner consists of the following documents:

- **Getting Started with Capacity Planner 3.0.** Introduces you to Capacity Planner and provides some initial steps to get you started.
- **Capacity Planner 3.0 Installation Guide.** Explains preinstallation preparation and planning, installation requirements, installing, initial setup and configuration, and uninstalling.
- **Capacity Planner 3.0 Troubleshooting Guide.** Describes common issues that might occur, such as problems with connectivity, discovery, or data collection, and tips for fixing the problem.
- **Capacity Planner 3.0 Reference Guide.** Provides detailed information about inventory objects, performance counters, Linux and UNIX utilities, and Linux and UNIX data collection scripts.
- **Capacity Planner 3.0 Release Notes.** Contains descriptions of known issues and workarounds.
- Capacity Planner online help. Conceptual and procedural information to help you complete a task.
Preinstallation Requirements

Before you install the Data Manager on a host system, assessment team, Collector, target system, and network preinstallation requirements must be met.

The consultant conducting the assessment must be certified for implementing Capacity Planner and have Windows, Linux, UNIX, and networking expertise.

This chapter includes the following topics:

- “Identifying System Connections,” on page 7
- “Data Collection Methods,” on page 7
- “Data Manager System Requirements,” on page 8
- “Target System Platforms,” on page 10
- “Security, Network, and Firewall Requirements,” on page 11
- “Preinstallation Checklist,” on page 13

Identifying System Connections

To discover, inventory, and collect data from target systems, the Collector must have sufficient privileges to access the target systems.

The assessment team must include at least one person who can identify and correct connection issues for the Collector. This person must identify which accounts are used to connect to the target systems. Each account must have the correct permissions for accessing data by one of the data collection methods.

Data Collection Methods

You must use an approved data collection method to perform an assessment.

IMPORTANT Use Remote Registry instead of WMI on Microsoft Windows Vista and Server 2008 systems when collecting current resolution and current color depth. Hardware that is not compatible with Windows Display Driver Model (WDDM) returns inaccurate property values for instances of the Win32_VideoController class.

For Microsoft Window Server 2008 systems, when inventory is collected using Remote Registry, the Collector is not able to collect the display name and description of services in the appropriate form.

For example, for W32Time service:

Display name: \%SystemRoot\%system32\w32time.dll,-200 - instead of Windows Time.
Description: @%SystemRoot%\system32\w32time.dll,-201 - instead of 2) A_RUNNING Maintains date and time synchronization on all clients and servers in the network. If this service is stopped, date and time synchronization will be unavailable. If this service is disabled, any services that explicitly depend on it will fail.

### Table 1-1. Data Collection Methods

<table>
<thead>
<tr>
<th>Windows</th>
<th>Linux and UNIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows Management Instrumentation (WMI)</td>
<td>Secure Shell (SSH)</td>
</tr>
<tr>
<td>Remote Registry</td>
<td>Standard Linux and UNIX utilities</td>
</tr>
<tr>
<td>RPC Monitor</td>
<td>Protocol validation using nbtstat</td>
</tr>
</tbody>
</table>

Linux and UNIX data collection is done through shell scripts using standard Linux and UNIX utilities to collect data from the target machines. The following methods are used to collect data:

- Running shell scripts remotely from the Collector machine
- Running shell scripts locally that are installed and run on the target machine

### Data Manager System Requirements

To avoid installation problems, your system must meet the requirements for installing Capacity Planner on the Data Manager host.

For the Capacity Planner 3.0 release, versions 3.0, 2.8, 2.7, and 2.6 of VMware Capacity Planner Collector are supported. All earlier versions of Collector are deprecated.

**IMPORTANT** You must upgrade earlier versions to continue to receive support.

### Collector Host System

The Collector can be installed on the following operating systems:

- Microsoft Windows 7
- Microsoft Windows 2000 (Server or Professional) SP3
- Microsoft Windows XP Professional
- Microsoft Windows Vista
- Microsoft Windows Server 2003 SP1
- Microsoft Windows Server 2008

**Note** The Collector can be installed on a 64-bit system and collect data, but it runs in 32-bit mode.

The system that the Collector is installed on must meet the following requirements:

- If the Collector is installed on a Windows Server 2003 system, the Win32_Product class must be installed.
- Windows Management Instrumentation (WMI) or Remote Registry must be installed.
- The Internet connection must have network bandwidth of 20,000 bytes/sec during collection.

**Requirements Table**

<table>
<thead>
<tr>
<th>Category</th>
<th>Minimum Requirement</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host system</td>
<td>Physical or virtual machine</td>
<td>One Collector can monitor up to 500 systems, although 250 is usual.</td>
</tr>
<tr>
<td>Operating system</td>
<td>Windows 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows 2000 (Server or Professional)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows XP Professional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows Server 2003</td>
<td></td>
</tr>
<tr>
<td>CPU</td>
<td>Minimum 1.5GHz CPU</td>
<td></td>
</tr>
<tr>
<td>Memory</td>
<td>Minimum 1GB RAM</td>
<td></td>
</tr>
<tr>
<td>Local disk</td>
<td>2GB of free disk space</td>
<td></td>
</tr>
<tr>
<td>Network connectivity</td>
<td>Connection to the Internet</td>
<td>Connection enables access to the Capacity Planner Dashboard from the Collector's system.</td>
</tr>
<tr>
<td>Browser</td>
<td>Microsoft Internet Explorer 5.5 or higher</td>
<td></td>
</tr>
</tbody>
</table>

**Determining the Number of Collectors to Install**

The average performance of a Collector and the speed of a typical network allows approximately one Collector per every 500 target systems that you expect to discover.

You might have to install more Collectors to achieve optimal results. Use as few Collectors as possible to collect hourly performance data on every system within the project scope. The realistic performance statistic depends on network throughput, server response, and the presence of firewalls and routers in the collection environment.

Wide area networks (WAN) slow down collection.

**Create a Windows User Account for Collector Service**

You must have an administrator-level account to install the Data Manager and Collector and to run the Collector service. The account used for installation can be the same or different from the account used to run the service to collect inventory or performance data.

You specify the user name, domain, and password for the Windows user account during the installation process.
Prerequisites
Permission to start a service on the Collector host.

Procedure
◆ Set up a Windows user account for the Collector service.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set up the account and define the</td>
<td>The Collector service starts when the installation is complete.</td>
</tr>
<tr>
<td>necessary permission before starting the</td>
<td></td>
</tr>
<tr>
<td>installation.</td>
<td></td>
</tr>
<tr>
<td>Set up the account, but not the privileges.</td>
<td>When you specify the account during installation, the installer checks for</td>
</tr>
<tr>
<td></td>
<td>these privileges and notifies you that they are not set up. You can take one</td>
</tr>
<tr>
<td></td>
<td>of the following actions:</td>
</tr>
<tr>
<td></td>
<td>▪ Cancel the installation, grant the permissions to the user, and restart</td>
</tr>
<tr>
<td></td>
<td>the installation. When the installation is finished, the service starts up.</td>
</tr>
<tr>
<td></td>
<td>▪ Proceed with the installation and let it complete. The service does not</td>
</tr>
<tr>
<td></td>
<td>start up at that time. Grant the permissions to the user and manually start</td>
</tr>
<tr>
<td></td>
<td>the service before proceeding to set up the Collector.</td>
</tr>
</tbody>
</table>

Target System Platforms
The Collector supports the platforms for all discovery, inventory, and performance data collection operations.

Supported Platforms
Platforms might be added or deleted at any time. Check the release notes for changes to the list of supported platforms.

Table 1-3. Supported Target System Platforms

<table>
<thead>
<tr>
<th>Microsoft Windows</th>
<th>Linux and UNIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 2000 Server / Advanced Server / Datacenter</td>
<td>Sun Solaris 7 (SPARC)</td>
</tr>
<tr>
<td>Windows 2000 Server (64-bit Itanium)</td>
<td>Sun Solaris 8 (SPARC)</td>
</tr>
<tr>
<td>Windows 2000 Professional Workstation</td>
<td>Sun Solaris 9 (SPARC)</td>
</tr>
<tr>
<td>Windows XP Professional</td>
<td>Sun Solaris 9 (x86)</td>
</tr>
<tr>
<td>Windows XP Professional (64-bit x86 / EM64T / AMD64)</td>
<td>Sun Solaris 10 (SPARC)</td>
</tr>
<tr>
<td>Windows Server 2003</td>
<td>Sun Solaris 10 (x86)</td>
</tr>
<tr>
<td>Windows Server 2003 (64-bit Itanium)</td>
<td>HP-UX 10.xx (PA-RISC)</td>
</tr>
<tr>
<td>Windows Server 2003 (64-bit x86 / EM64T / AMD64)</td>
<td>HP-UX 11 (PA-RISC)</td>
</tr>
<tr>
<td>Windows Vista Enterprise</td>
<td>HP-UX 11.11 (PA-RISC)</td>
</tr>
<tr>
<td>Windows Vista Business</td>
<td>HP-UX 11.22 (PA-RISC)</td>
</tr>
<tr>
<td>Windows Vista Ultimate</td>
<td>HP-UX 11.23 (Itanium)</td>
</tr>
<tr>
<td>Windows 7</td>
<td>SUSE Linux Enterprise 11</td>
</tr>
<tr>
<td>Windows Server 2008</td>
<td>SUSE Linux Enterprise Server 9</td>
</tr>
<tr>
<td>Windows Server 2008 R2</td>
<td>SUSE Linux 10</td>
</tr>
<tr>
<td></td>
<td>SUSE Linux 9</td>
</tr>
<tr>
<td></td>
<td>SUSE Linux 8</td>
</tr>
<tr>
<td></td>
<td>RedHat Linux 9</td>
</tr>
<tr>
<td></td>
<td>RedHat Linux 8</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Microsoft Windows</th>
<th>Linux and UNIX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Red Hat Enterprise Linux 6</td>
</tr>
<tr>
<td></td>
<td>Red Hat Enterprise Linux (ES/AS/WS) 5</td>
</tr>
<tr>
<td></td>
<td>Red Hat Enterprise Linux (ES/AS/WS) 4</td>
</tr>
<tr>
<td></td>
<td>Red Hat Enterprise Linux (ES/AS/WS) 3</td>
</tr>
<tr>
<td></td>
<td>AIX 5.1</td>
</tr>
<tr>
<td></td>
<td>AIX 5.2</td>
</tr>
<tr>
<td></td>
<td>AIX 5.3</td>
</tr>
</tbody>
</table>

### Considerations for Linux and UNIX Collection

Capacity Planner can detect and collect data from Linux and UNIX target systems.

Data collection is achieved on target systems by running standard system utilities through an SSH connection. Every Linux and UNIX target system must have the SSH server daemon running and configured properly for a successful connection.

For UNIX, the default shell is Bourne.

### Security, Network, and Firewall Requirements

Capacity Planner is a remote management system. It is affected by the ability of the Collector to connect to systems and gather information.

If the security level is too high or the network is too restrictive, security-related problems can occur.

### Security Requirements

The Collector must be able to use specific protocols and ports to connect to all of the target systems to be monitored.

The Collector uses these ports to pass the credentials to the target system and to collect the data. The required ports are general-purpose communication ports that are used for file and print sharing and authentication.

On Windows systems, the following ports must be open for a TCP connection: 135, 137 through 139, and 445. On Linux and UNIX systems, port 22 is required for Secure Shell (SSH).

### Trusted Domains

The Collector host does not have to be in a trusted domain.

The fully qualified account that the Collector uses for connection to the target systems must be one of the following accounts:

- Account of the target system
- Account of the target system domain
- Account of a trusted domain of the target system

**NOTE**  Trust relationships are transitive in Windows 2000 and later. The trust relationship extended to one domain is extended to any other domain that the domain trusts.

The following example illustrates the transitive trust relationship:

- User A belongs to Domain A and can connect to any system in Domain A.
Computer C belongs to Domain C.

- Domain B trusts Domain A, allowing Domain A users to connect to Domain B systems.
- Domain C trusts Domain B, allowing Domain B users to connect to Domain C systems.
- Domain C trusts Domain A and allows Domain A users to connect to Domain C systems.
- Computer C (a system in Domain C) allows connection from User A (a Domain A user).

Transitive trust relationships did not exist for Windows NT 4.0 or Windows systems that preceded Windows 2000. Windows NT 4.0 accounts must be in the same domain as the Collector or in a directly trusted domain.

**Account Privileges**

An account with local administrative rights to the target system is required to collect information.

On Windows systems, the Collector gathers inventory and performance data through WMI, the registry, and Perfmon. The quickest way to collect information is through a domain administrator account or any account with administrator rights to all or most of the target systems. If no appropriate domain account exists, you can specify an account for each system after the Collector discovers it.

For Linux or UNIX systems, data is collected using several SSH scripts:

- `aog_setup.sh`
- `aog_inv.sh`
- `aog_inv_cron.sh`
- `aog_perf.sh`
- `aog_perf_cron.sh`
- `aog_config_perf.sh`

If you are not using the Data Manager to collect the data from the target Linux and UNIX machines, root access or an account with sudo privileges is required to run the shell scripts from the command line. Root access is required to use tools such as `showmount` and `dmidecode`.

**Stored Account Information**

When the Collector is installed on a host system, it creates a Microsoft Jet database to store the data that it uses and collects. When connection accounts are defined for the Collector to use for accessing its target systems, the account information is stored in this database.

Schedules and configuration settings are also stored in the database. The passwords are encrypted using a 256-bit AES reversible encryption method that uses a private key.
Network Authentication

Network authentication requires that file and print services and remote procedure calls (RPCs) are enabled on target Windows systems. If the Collector uses a domain account, you must be able to contact a domain controller to authenticate the account.

Firewall Considerations

Firewalls protect the resources of private networks from unauthorized users from other networks. Firewalls can also prevent access by legitimate administrative users.

With the Collector, you can specify an account that allows one of the following connections to a target system or trusted domain.

- A direct connection between a target system or a group of target systems and the Collector or a trusted domain
- A local account in the domain containing the target system
- A local account on the target system

A firewall can affect a trust relationship. For example, a firewall might be open for the Collector to connect to a target system with a domain account, but the firewall might inhibit connection from that system to a trusted domain to validate the provided account.

When a firewall is present within a network, install the Collector and Data Manager on an additional system that resides within the firewall.

Bandwidth Use

You must consider how data collection on the network affects the rated network bandwidth.

In general, peaks of 20,000 bytes per second can be expected for each Collector when it requests inventory data or when it collects performance data. The performance data peak estimate presumes the collection of 500 performance counters per collection from four target systems.

Preinstallation Checklist

The preinstallation checklist is designed to be used when you prepare for the initiation of an assessment.

- Assessment Team on page 14
  The assessment team should have a certain level of expertise before using Capacity Planner.

- Collector Systems Information on page 14
  Before you can install the Collector, you must compile information about the systems that you are collecting information from.

- Target Systems Information on page 14
  Before you can install the Collector, you must collect information about the target systems and have certain items enabled.

- Network Requirements on page 15
  Before you can install the Collector, gather the network requirements.
Assessment Team

The assessment team should have a certain level of expertise before using Capacity Planner.

The requirements for the assessment team are:

- Be familiar with VMware Capacity Planner concepts and requirements for setting up a Collector.
- Be certified for implementing Capacity Planner.
- Purchase appropriate services for the assessment and obtain instructions for how to download the installation file.
- Have Windows, Linux, or UNIX expertise in these areas.
  - System connections
  - Data connection methods
  - Troubleshooting
- Possess network expertise for potential firewall and router problems.

Collector Systems Information

Before you can install the Collector, you must compile information about the systems that you are collecting information from.

Collect this information about the systems.

- Obtain access to the installation download file.
- Calculate the number of systems to use for hosting the Collector by dividing the number of expected target system by 500.
- Determine the location or Collector host.
- Determine the date of availability of host systems for installation of the Collector.
- Determine whether each host system meets minimum system requirements.
- On each Collector, obtain an administrator-level account to set up for the Collector.
  
  An administrator account is also required to install the Collector and Data Manager.

Target Systems Information

Before you can install the Collector, you must collect information about the target systems and have certain items enabled.

Have the following information available before you install the Collector.

- Number of target systems to be identified by discovery or imported in a list
  - Servers
  - Workstations
  - Windows systems
  - Linux systems
  - UNIX systems
- Number of target systems to be inventoried
  - Servers
Workstations
- Number of target systems for full analysis. The analysis includes discovery, inventory, and performance data collection.

Servers

Workstations

DMZ
- Number of target servers in the DMZ. You might have to install a Collector in the DMZ.
- Have administrator privileges for each target system
- Have all target systems listed on the Collector

On each target Windows system, verify that the following items are enabled:
- Windows Management Instrumentation (WMI)
- Remote Registry
- Performance Monitor (Perfmon)
- File and print services

On each target UNIX or Linux system, verify that port 22 is open and the `sshd` daemon is running and available.

Network Requirements

Before you can install the Collector, gather the network requirements.

Have the following information available:
- User ID, password, and port numbers for the proxy server, if required
- Sufficient network bandwidth to collect performance data from all target systems within a one-hour period
  Bandwidth is determined by the number of systems targeted for full analysis and the number of performance counters designated for the collection.
Installing the Collector

After you download the Collector, you install it using the installer program.

To create a clean installation on a system that has a previous version of the Collector and existing data that you no longer want to keep, uninstall the Collector before running the installer. If you have a version of the Collector installed and you want to retain the existing data, the installer retains any existing data that you defined and collected. Before you begin the installation process, you must know the user ID and password for the administrative account that is specified as the Collector service account.

**Note** If the installer program detects that an older version of Capacity Planner is installed, it offers to uninstall it. This method of uninstalling the application does not remove the old data. Because the Collector attempts to update the old database, remove the old installation before you begin the new installation.

This chapter includes the following topics:

- “Download the Installation Package,” on page 17
- “Install a New Collector,” on page 18
- “Upgrade an Existing Collector,” on page 19
- “Start the Data Manager,” on page 19
- “Verify Administrator Account,” on page 20
- “Automatic Collector Updates,” on page 21

**Download the Installation Package**

You can download the installation package for the Data Manager from the Capacity Planner Dashboard after you purchase assessment services.

**Prerequisites**

Obtain the user name and ID from your VMware representative.

**Procedure**

1. Log in to the VMware Capacity Planner dashboard site with the user name and ID.
2. Click **Portal**.
3. On the Resources page under Product Downloads, click the link for the current Collector build.
   - If multiple Collector builds are listed, the highest number is the latest version.
4. Download the file.
Install a New Collector

The Collector gathers information from your target machines and uploads it to the Information Warehouse, so that it is accessible from the Dashboard.

If the Collector service account does not meet these requirements, the service cannot start.

The Collector service account is different from the Global Connection Account that the Collector uses to query target machines for their system information.

The setup wizard authenticates the Collector service account information. If the specified user cannot be authenticated, a warning appears.

When the Collector system uses different locales, more specifically, different decimal separators, the Collector system gathers values that are too high for the CPU MHz on Unix and Linux systems. In addition, the Collector does not support non-US operating systems. For example, Capacity Planner does not support the Collector on a German version of Windows XP, even if it is set to a US locale.

Prerequisites

Verify that sufficient disk space is available for the Capacity Planner installation folder.

Verify your Windows system has the latest updates.

Verify that the Collector service account has the following properties:

- The user is assigned to the local Administrators group.
- The specific user, or a group it belongs to, such as the Administrators group, has permission to log in to Windows as a service.

Procedure

1. (Optional) Uninstall the existing version for a clean installation.
2. Double-click the installer file you downloaded.
3. Click Run.
4. Accept the defaults by clicking Next.
5. Click Yes to accept the terms of the license agreement.
6. Select a destination folder.

<table>
<thead>
<tr>
<th>Option</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accept the default destination folder</td>
<td>Click Next.</td>
</tr>
<tr>
<td>Select an alternative destination folder</td>
<td>Click Change, select an alternative destination folder, and click Next.</td>
</tr>
</tbody>
</table>

7. Type the user name, password, and domain to use as the service account for this Collector and click OK.
8. Click Install.
9. (Optional) If the installation program encounters Windows error 1931, click OK, continue the installation, and see the Windows online help for more information.
10. Click Finish.

As the installer finishes, it registers and starts the Collector service.
Upgrade an Existing Collector

During installation when a previous installation of Capacity Planner is detected, it is upgraded.

**Prerequisites**

If a previous version of the Collector is installed, the installer detects this situation and offers one of the following options:

- If the previous installation is the same version as the current installation, the installer uninstalls the Collector. You must run the installer again to install the new Collector.
- If the previous installation is an earlier version of Capacity Planner, the installer upgrades the Collector.

The automatic upgrade retains all of the settings from the previous installation and allows you to continue your assessment with the newly installed software. If you retain the database from the previous installation, the Data Manager does not start the setup wizard for this new Collector. You must manually run the wizard after installing the new Collector.

**Procedure**

1. Double-click the Capacity Planner installation file that you downloaded.
2. Click **Run**.
3. Click **Yes**.
   
   When the wizard completes the configuration of the Windows Installer, the wizard indicates that it is resuming the installation.
4. Click **Next**.
   
   The wizard installs Capacity Planner. You might have to restart your system if changes were made to the Windows Registry.
5. Click **Finish**.
   
   When you restart your computer, the Collector service starts.

**What to do next**

Verify the state of the Collector service.

---

Start the Data Manager

The Data Manager is the user interface to the Collector.

Use the Data Manager to configure Collectors, check their status, start and stop them, and manage them during an assessment.

**Prerequisites**

Verify that the Collector is installed.

**Procedure**

1. To start the Data Manager, double-click the **Data Manager** icon.
2. Select the type of assessment, either Servers or Workstation, that the Data Manager uses when it starts for the first time.

The Data Manager appears.
What to do next
Verify the update.

Verify Administrator Account

The Collector service does not start if the user name or password is invalid.

Procedure
1. In the Windows Control Panel, select Administrative Tools.
2. In the Administrative Tools window, double-click Services.
3. In the Services window, scroll down the Name column to find VMware Capacity Planner Service.
   The Startup Type column shows that the service is Automatic, which means that it starts whenever Windows is started. The Status column shows that the service is Started.
4. Right-click the name of the service.
5. To confirm that the service user is properly defined for the Collector, click Log On.

What to do next
Verify that an administrator-level account with the privilege to log in as a service is defined as This account and that the service is not running as a local system account.

User Credentials

You must enter valid user credentials for authentication.

The Collector runs as an automatic Windows service that starts whenever its host system is started. At the end of the installation process, the installer registers and starts the service.

With the account information that you provide in the setup wizard, the installer attempts to authenticate the user. If authentication fails, a message box appears.

Enter valid user credentials. If authentication succeeds, the installer checks whether the account has permission to log in to Windows as a service on either the user or group level. If the account does not have permission, the installer automatically assigns permission to the account in the local system policy of the host system and proceeds with the installation.

The installer cannot register or start the service if any domain policy blocks it. If this occurs, specify another service account.

After the Collector service starts, control of the actual data collection is guided by configurations that you set for the data collection jobs.

Table 2-1 summarizes the variations of user credentials that can be specified and the resulting installer action.

<table>
<thead>
<tr>
<th>Type of Account</th>
<th>Local Administrator?</th>
<th>User Name</th>
<th>Password</th>
<th>Domain Name</th>
<th>Installer Action (Authentication)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain</td>
<td>Yes</td>
<td>Valid</td>
<td>Valid</td>
<td>Valid</td>
<td>Passes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Blank</td>
<td></td>
<td>Assumes account is a local account and authenticates as such.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Invalid</td>
<td>Valid</td>
<td>Fails</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Invalid</td>
<td>Fails</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>No</td>
<td>Valid</td>
<td>Valid</td>
<td>Passes, but service does not start.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Invalid</td>
<td>Fails</td>
<td></td>
</tr>
</tbody>
</table>
Table 2-1. User Credentials and Installer Action (Continued)

<table>
<thead>
<tr>
<th>Type of Account</th>
<th>Local Administrator?</th>
<th>User Name</th>
<th>Password</th>
<th>Domain Name</th>
<th>Installer Action (Authentication)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Invalid</td>
<td>Valid</td>
<td>Valid</td>
<td>Fails</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Valid</td>
<td>Invalid</td>
<td>Fails</td>
</tr>
<tr>
<td>Local</td>
<td>Yes</td>
<td>Valid</td>
<td>Valid</td>
<td>Blank</td>
<td>Passes (assumed to be a local account)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Valid</td>
<td>machine name</td>
<td>Passes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Valid</td>
<td>Non-blank (assumed to be a domain name)</td>
<td>Attempts to authenticate as a domain account</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>Valid</td>
<td>blank or machine name</td>
<td>Authenticates as a local account, but service does not start.</td>
</tr>
</tbody>
</table>

If the machine you install the Collector on is not in a domain (that is, it is in a workgroup), you can leave the domain name field blank and the installer automatically adds the system name.

Automatic Collector Updates

Several components of the Collector can be automatically updated.

To use this feature, the Collector must be able to connect to the Dashboard Web site.

The following components can be automatically updated:

- Collector binaries
- Third-party binaries
- UNIX scripts
- Other utility scripts
- Updater component
- Product manifest file that contains information about all the components in the Collector, including name, location, and checksum information
- Any new package that contains new components

When an automatic update occurs, the Data Manager shuts down and the Collector Service restarts.

Verify Update

After an update you must verify that the checksums of the newly downloaded components match those in the Dashboard manifest.

During an automatic update, the manifest from the Capacity Planner Dashboard is downloaded to the Collector as part of a data synchronization task. The Dashboard manifest is compared to the Collector manifest. If the checksums of the manifest files match, the Collector is current and no update is necessary. If they do not match, the changed components are downloaded from the Dashboard and installed in the Collector. If errors are found, they are logged in the Collector log file, the update is canceled, and the update failure is reported to the Dashboard.

Procedure

1. Select Admin > Options.
2. Select the Jobs tab.
3. Double-click the Scheduled - Data Synchronize job.
4 Select the Tasks tab.
5 Double-click Data Synchronization.
6 Select Download and install product updates.

Schedule Component Updates

If you enabled automatic updates, the Dashboard queries the Collector manifest on the data synchronization schedule that you established on the Jobs tab of the Options page.

For example, if data synchronization is scheduled for every hour of every day, every hour the Dashboard compares the manifest checksum it has on file for this company with the manifest checksum in the Collector. If they match, nothing happens. The verification is performed an hour later, continuously until a mismatch occurs, at which time an update takes place. To limit the burden on the dashboard, add a data synchronization job only for automatic updates that runs weekly.

Procedure

1 Select Admin > Options and select the Jobs tab.
2 Click Add.
3 Select Job Active and enter a name and description for the weekly automatic Collector data synchronization.
4 Select the Tasks tab and click Add.
5 Select Data Synchronization and click OK.
   The Add Job screen appears, showing the new task.
6 Select the Schedule tab.
7 Set the task to run weekly and select a day of the week for the update.
8 Click OK twice.
Uninstalling the Data Manager and Collector

After you complete the assessment, you must remove the Data Manager and the Collector. You should also remove the directory structure and the data files.

This chapter includes the following topics:

- “Uninstall a Collector Service,” on page 23
- “Remove the Data Manager and Data Files,” on page 23

Uninstall a Collector Service

You can uninstall the Collector service through the Data Manager.

Procedure

1. Start the Data Manager.
2. Select Admin > Collector > Uninstall.
3. Click Yes.

   The Collector performs the following operations:
   - Stops any processes that are running.
   - Stops the service (if it is running).
   - Deletes the service and the list of system services from the system.
   - Returns to the main Data Manager window.
4. To confirm that the Collector service is uninstalled, select Admin > Collector menu.
5. Close the Data Manager window.

Remove the Data Manager and Data Files

Before you leave the customer site, you must use the Windows change or remove programs function to remove the Data Manager.

The remaining installation folder contains the old database, one or more backup files, and one or more log files.

Procedure

1. Select all files in the installation folder and delete them.
2. (Optional) Remove the empty installation folder and all empty subfolders.
Index

A
account privileges 12
accounts for installation 20
Active Directory 8
assessment, preinstallation checklist 14
authentication, requirements 13

B
bandwidth utilization during collection 13
binaries 21
browser 8

C
checklist
  assessment team preinstallation 14
  Collector preinstallation 14
  network systems preinstallation 15
  preinstallation 13
  target systems preinstallation 14
checksum 21
collection, impact on system bandwidth 13
Collector
  account information 12
  host system requirements 8
  install 17
  preinstallation checklist 14
  service 20
Collector deprecation 8
Collector host 8
Collector service, account 18
component updates 22
connection accounts 12
CPU 8

D
data files 23
Data Manager, remove 23
data synchronization 21
directory structure 23
domain, policy for services 20

F
file and print sharing 7
firewalls, considerations about 13

G
Global Connection Account 18

H
host system
  account required 11
  determining number of 9
  requirements 8

I
impact of collection 13
installation, user credentials 20
installation package 17
installer 19
intended audience 5

L
Linux collection 11
Linux utilities 7

M
manifest checksum 22
memory 8
Microsoft Jet database 12

N
nbstat 7
network connections, requirements 13
network systems preinstallation checklist 15
number of host systems 9

P
Perfmon 7
platforms supported 10
preinstallation 7
preinstallation checklist 13
privileges, Collector accounts 12
product manifest 21

R
realistic performance statistic 9
Remote Registry 7, 8
requirements
  Collector host system 8
  host system account 11
network connection 13
security and network 11
RPC monitor 7

S
security requirements 11
service domain policy 20
Service Properties dialog 20
SSH 7
status, Collector service 20
supported platforms 10
system connections 7
system requirements 8
systems supported 10

T
target systems preinstallation checklist 14
target systems supported 10
trusted domains 11

U
uninstall Collector 23
uninstalling 23
UNIX 21
UNIX collection 11
UNIX utilities 7
updater 21
upgrade 19
user account 9
user credentials 20
utility scripts 21
utilization of bandwidth 13

V
verify update 21

W
WAN 9
Windows Registry 19
WMI 7, 8