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.

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About This Book

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

**Intended Audience**

This book is intended for technical VMware personnel (consultants, PSO, training, tech support, and so on) and VMware partners who are responsible for installing and using the Capacity Planner in assessment engagements.

**Document Feedback**

VMware welcomes your suggestions for improving our documentation. If you have comments, send your feedback to docfeedback@vmware.com.

**VMware Capacity Planner Documentation**

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

- *Getting Started with Capacity Planner 2.7*. Introduces the product.
- *Capacity Planner 2.7 Installation Guide*. Explains preinstallation preparation and planning, installation requirements, installing, initial setup and configuration, and uninstalling.
- *Capacity Planner 2.7 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 2.7 Release Notes*. Late-breaking news and description of known issues and workarounds.
- Capacity Planner online help. Conceptual and procedural information to help you complete a task.

To access the current version of this book and other books, go to http://www.vmware.com/support/pubs/capacity_planner.
# Technical Support and Education Resources

The following technical support resources are available to you.

| **Online and Telephone Support** | To use online support to submit technical support requests, view your product and contract information, and register your products, go to [http://www.vmware.com/support](http://www.vmware.com/support). Customers with appropriate support contracts should use telephone support for the fastest response on priority 1 issues. Go to [http://www.vmware.com/support/phone_support.html](http://www.vmware.com/support/phone_support.html). |
| **Support Offerings** | To find out how VMware support offerings can help meet your business needs, go to [http://www.vmware.com/support/services](http://www.vmware.com/support/services). |
| **VMware Professional Services** | VMware Education Services courses offer extensive hands-on labs, case study examples, and course materials designed to be used as on-the-job reference tools. Courses are available onsite, in the classroom, and live online. For onsite pilot programs and implementation best practices, VMware Consulting Services provides offerings to help you assess, plan, build, and manage your virtual environment. To access information about education classes, certification programs, and consulting services, go to [http://www.vmware.com/services](http://www.vmware.com/services). |
Preinstallation Requirements

Before you install the Data Manager on a host system, preinstallation requirements must be met.

The consultant conducting the assessment must have completed the Capacity Planner course.

This chapter includes the following topics:

- “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

System Connections

To discover, inventory, and collect data from target systems, the collector must be able to access the target systems with sufficient privileges to allow it to collect the data that is used for the assessment.

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 and make sure that each account has the correct permissions for accessing data by one of the data collection methods.

Data Collection Methods

Before beginning an assessment, verify the required data collection methods.

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

**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></td>
</tr>
<tr>
<td>File and print sharing (IPC$)</td>
<td></td>
</tr>
</tbody>
</table>
Table 1-1. Data Collection Methods (Continued)

<table>
<thead>
<tr>
<th>Windows</th>
<th>Linux and UNIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Monitor (Perfmon)</td>
<td></td>
</tr>
<tr>
<td>Protocol validation using nbtstat</td>
<td></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. Methods used to collect data are:

- Remote execution of shell scripts run from the collector machine
- Local execution of shell scripts that are installed and executed on the target machine

Data Manager System Requirements

This section describes system requirements for installing Capacity Planner on the Data Manager host.

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

**IMPORTANT** You must upgrade your older versions to continue to receive support.

Collector Host System

The Data Manager must be hosted on a Windows machine within the company’s network that can access target systems for observation and assessment.

Install the collector on a host machine that is within the same domain as the Active Directory server to discover target machines by using information stored in your Active Directory server. Every environment is different, but, typically, a single collector uses agentless discovery to detect and monitor about 250 Windows systems and about 100 to 125 Linux systems, whether the collector is on a physical or virtual system. Only one collector can be placed on a host. To collect from more systems, you can create a second performance task. When collecting data from Linux systems, consider using a 2-CPU system.

Collector Host System Requirements

Each collector host system must meet certain requirements.

**Requirements**

The Collector can be installed on the following operating systems:

- Microsoft Windows 2000 (Server or Professional) SP3

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

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

- If installed on a Windows 2003 system, the Win32_Product class must be installed.
- Windows Management Instrumentation (WMI) or Remote Registry must be installed.
- Connection to the Internet with network bandwidth of 20,000 bytes/sec during collection.

**Requirements Table**

**CAUTION** If you are installing the Collector on Windows 2003 Server and are collecting from Windows 2000 systems, you must use Windows Server 2003 R2 SP2 only.
### Category | Minimum Requirement | Comments
--- | --- | ---
Host system | Physical or virtual machine | One collector can monitor up to 500 systems, although 250 is usual.
Operating system | Windows 2000 (Server or Professional)  
Windows XP Professional  
Windows Server 2003 |  
- English Windows version required  
- If installed on Windows XP SP2, the Windows firewall must be turned off.
CPU | Minimum 1.5GHz CPU |  
Memory | Minimum 1GB RAM |  
Local disk | 2GB of free disk space |  
Network connectivity | Connection to the Internet | Connection enables access to the Capacity Planner Dashboard from the Collector's system.
Browser | Microsoft Internet Explorer 5.5 or higher |  

### 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 additional collectors to achieve optimal results, but use as few collectors as possible. The goal is 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 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 this account during the installation process.

#### Prerequisites

You must have permission to start a service on the collector host.

#### Procedure

- Set up a Windows user account for the collector service in one of the following ways.
  - Set up the account and define the necessary permission before starting the installation. The collector service starts up automatically when the installation is complete.
  - Set up the account, but not the privileges. When you specify the account during installation, the installer checks for these privileges and notifies you. You can do one of the following:
    - Cancel the installation, grant the permissions to the user, and restart the installation from the beginning. When the installation is finished, the service starts up.
    - Proceed with the installation and let it complete. The service does not start up at that time. Grant the permissions to the user and manually start the service before proceeding with setting up the collector.
Target System Platforms

The collector supports the platforms for all operations (discovery, inventory, and performance data collection).

Supported Platforms

Platforms might be added or deleted at any time. Check the Release Notes for changes to the list of supported platforms. Supported target system platforms are listed in Table 1-2.

Table 1-2. Supported Target System Platforms

<table>
<thead>
<tr>
<th>Microsoft Windows</th>
<th>Linux and UNIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows NT 4.0 Server</td>
<td>Sun Solaris 7 (SPARC)</td>
</tr>
<tr>
<td>Windows NT 4.0 Professional Workstation</td>
<td>Sun Solaris 8 (SPARC)</td>
</tr>
<tr>
<td>Windows 2000 Server / Advanced Server / Datacenter</td>
<td>Sun Solaris 9 (SPARC)</td>
</tr>
<tr>
<td>Windows 2000 Server (64-bit Itanium)</td>
<td>Sun Solaris 9 (x86)</td>
</tr>
<tr>
<td>Windows 2000 Professional Workstation</td>
<td>Sun Solaris 10 (SPARC)</td>
</tr>
<tr>
<td>Windows XP Professional</td>
<td>Sun Solaris 10 (x86)</td>
</tr>
<tr>
<td>Windows XP Professional (64-bit x86 / EM64T / AMD64)</td>
<td>HP-UX 10.xx (PA-RISC)</td>
</tr>
<tr>
<td>Windows 2003 Server</td>
<td>HP-UX 11 (PA-RISC)</td>
</tr>
<tr>
<td>Windows 2003 Server (64-bit Itanium)</td>
<td>HP-UX 11.11 (PA-RISC)</td>
</tr>
<tr>
<td>Windows 2003 Server (64-bit x86 / EM64T / AMD64)</td>
<td>HP-UX 11.22 (PA-RISC)</td>
</tr>
<tr>
<td>HP-UX 11.23 (Itanium)</td>
<td></td>
</tr>
<tr>
<td>SUSE Linux Enterprise Server 9</td>
<td></td>
</tr>
<tr>
<td>SUSE Linux 10</td>
<td></td>
</tr>
<tr>
<td>SUSE Linux 9</td>
<td></td>
</tr>
<tr>
<td>SUSE Linux 8</td>
<td></td>
</tr>
<tr>
<td>RedHat Linux 9</td>
<td></td>
</tr>
<tr>
<td>RedHat Linux 8</td>
<td></td>
</tr>
<tr>
<td>RedHat Enterprise Linux (ES/AS/WS) 4</td>
<td></td>
</tr>
<tr>
<td>RedHat Enterprise Linux (ES/AS/WS) 3</td>
<td></td>
</tr>
<tr>
<td>AIX 5.1</td>
<td></td>
</tr>
<tr>
<td>AIX 5.2</td>
<td></td>
</tr>
<tr>
<td>AIX 5.3</td>
<td></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 these 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

Because 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 is too high or the network is too restrictive, security-related issues can occur.

Security Requirements

The collector must be able to connect to all the target systems to be monitored using specific protocols and ports.

The collector uses these ports to pass the credentials to the target system and to collect the actual 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:

- 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 automatically to any other domain that the domain trusts.

The following example illustrates the transitive trust relationship:

1. User A belongs to Domain A and can connect to any system in Domain A.
2. Computer C belongs to Domain C.
3. Domain B trusts Domain A, allowing Domain A users to connect to Domain B systems.
4. Domain C trusts Domain B, allowing Domain B users to connect to Domain C systems.
5. Domain C trusts Domain A and allows Domain A users to connect to Domain C systems.
6. 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 any Windows system that preceded Windows 2000. Therefore, 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, a root or account that is granted sudo privileges is required to execute 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 connection to a target system or trusted domain. If you cannot establish a connection directly between a target system or a group of target systems and the collector or a trusted domain, the collector uses either a local account in the domain containing the target system or 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 Utilization**

You must consider the effect of data collection on the network with regard to 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

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

Assessment Team

The assessment team should have this knowledge.

These are the requirements for the assessment team.

- 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 on downloading the installation file.
- Have Windows expertise in these areas.
  - System connections
  - Data connection methods
  - Troubleshooting
- Have Linux or UNIX expertise in:
  - System connections
  - Data connection methods
  - Troubleshooting
- Possess network expertise for potential firewall and router issues.

Collector Systems Information

Before you can install the collector, you must have the following information about the systems you are collecting information from.

Collect this information about the systems.

- Get 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 have information about the target systems. Calculate the following information before installing 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 (discovery, inventory, and performance data collection)
  - Servers
  - Workstations

DMZ

- Know the number of target servers in DMZ. You might have to install a collector in the DMZ.
- You must be an administrator for each target system
- All target systems must be visible on the collector

On each target Windows system, make sure that the following are enabled:

- Windows Management Instrumentation (WMI)
- Remote Registry
- Performance Monitor (Perfmon)
- File and print services

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

Network Requirements

Before you can install the collector, gather the following network requirements.

Be sure you 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 have downloaded 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.

Even if the installer program detects that an older version of Capacity Planner is installed and offers you the option of uninstalling 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.

The collector installation process includes the following tasks:

1. (Optional) Uninstall the old version for a clean installation.
2. Download Capacity Planner.
3. Run the installer program.

This chapter includes the following topics:

- “Download the Installation Package,” on page 15
- “Install a New Collector,” on page 16
- “Upgrade an Existing Collector,” on page 17
- “Start the Data Manager,” on page 17
- “User Credentials,” on page 18
- “Verify Administrator Account,” on page 18
- “Automatic Collector Updates,” on page 19

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

Get the user name and ID from your VMware representative.
Procedure
1. Log in to the Web 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.

Prerequisites

Have sufficient available disk space for the Capacity Planner installation folder.

Make sure your Windows system has the latest updates.

The collector service account must have 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.

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

The collector service account is not the same as 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.

Procedure
1. Double-click the file that you downloaded.
2. Click Run.
3. Accept the defaults by clicking Next.
4. Click Yes to accept the terms of the license agreement.
5. Click Next to accept the default destination folder or click Change, designate an alternative destination folder, and click Next.
6. Enter the user name, password, and domain to use as the service account for this collector and click OK.
7. Click Install.

   **Note**: If the installation program encounters Windows error 1931, click OK, continue the installation, and see the Windows online help for more information.

8. 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 automatically.

**Prerequisites**

If you are installing the collector on a system on which a previous version of the collector is installed, the installer detects this 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 older version of Capacity Planner, the installer upgrades the collector.

Confirming 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 automatically start the setup wizard for this new collector, and you must manually run the wizard after installing the new collector.

**Procedure**

1. Double-click the 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**.
   - If you restart your computer, the collector service starts automatically.

**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**

The Collector must be installed.

**Procedure**

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

The Data Manager appears.
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 2-1. User Credentials and 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></td>
<td>Fails</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Invalid</td>
<td></td>
<td>Fails</td>
</tr>
<tr>
<td>Domain</td>
<td>No</td>
<td>Valid</td>
<td>Valid</td>
<td></td>
<td>Passes, but service does not start.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Invalid</td>
<td></td>
<td>Fails</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Invalid</td>
<td>Valid</td>
<td></td>
<td>Fails</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Invalid</td>
<td></td>
<td>Fails</td>
</tr>
<tr>
<td>Local</td>
<td>Yes</td>
<td>Valid</td>
<td>Blank</td>
<td></td>
<td>Passes (assumed to be a local account)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>machine name</td>
<td></td>
<td>Passes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>Non-blank (assumed to be a domain name)</td>
<td></td>
<td>Attempts to authenticate as a domain account</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td>blank or machine name</td>
<td></td>
<td>Authenticated 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.

Verify Administrator Account

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

1. In the Windows Control Panel, choose **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**.
6. 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.

**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. Choose **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 Choose **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 21
- “Remove the Data Manager and Data Files,” on page 21

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 those files.
2. (Optional) Remove the empty installation folder and all empty subfolders.
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