

R1Soft Enterprise Edition Trial Guide

To obtain the Enterprise Edition trial software using R1Soft Customer Portal, perform the following steps:

1. The software for Windows CDP Server 4.2.0 can be obtained via direct download from the R1Soft website at <https://dist.r1soft.com/download/>.
2. Log in to the R1Soft Customer Portal by entering your User Name and Password in the form on the right side of the screen. Registration is required for all downloads.

R1Soft Customer Portal



Note

Existing customers use their R1Soft Customer Portal Login. The forum and tech support help desk have different logins.

New customers can request a free trial download at

<http://www.r1soft.com/nc/company/download-cdp-enterprise-edition-trial/>.

3. Click on the "Download CDP Products" link.

CDP 4.0 Downloads

Archived Product Downloads: [CDP 2.0](#) [CDP 3.0](#)

4. Locate the "CDP Enterprise Edition" product group.

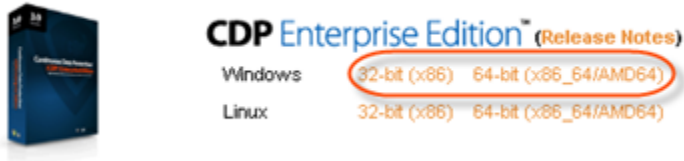


CDP Enterprise Edition™ (Release Notes)

Windows	32-bit (x86)	64-bit (x86_64/AMD64)
Linux	32-bit (x86)	64-bit (x86_64/AMD64)

5. To download, click on the "32-bit (x86)" link for 32-bit binary Hardware/OS. Click on the "64-bit (x86_64/AMD64)" link for 64-bit binary Hardware/OS.

Windows:



Linux:



6. One of the following products should be downloaded:

For 32-bit Windows system:

- File name - R1Soft-EnterpriseEdition-win32.zip
- File size - 297 MB

For 64-bit Windows system:

- File name - R1Soft-EnterpriseEdition-win64.zip
- File size - 316 MB

For 32-bit Linux system:

- File name - R1Soft-EnterpriseEdition-linux32.zip
- File size - 376 MB

For 64-bit Linux system:

- File name - R1Soft-EnterpriseEdition-linux64.zip
- File size - 365 MB

Extracting Files

Extract all files from the archive. The installation package includes both the CDP Server installer for the selected platform and the Agent installers for all possible platforms. Specifically, the installation package includes the following files and folders:

- Enterprise-README.txt - Readme file with brief information on installation details.
- win32 - Folder with installation file for R1Soft CDP Enterprise Agent for 32-bit Windows systems. See more in [Installing Agent on Windows](#).
- win64 - Folder with installation file for R1Soft CDP Enterprise Agent for 64-bit Windows systems. See more in [Installing Agent on Windows](#).
- rpm-linux32 - Folder with rpm installation files for R1Soft CDP Enterprise Agent for 32-bit Linux operating systems. See more in [Installing Agent on Linux](#).
- rpm-linux64 - Folder with rpm installation files for R1Soft CDP Enterprise Agent for 64-bit Linux operating systems. See more in [Installing Agent on Linux](#).
- deb-linux32 - Folder with deb installation files for R1Soft CDP Enterprise Agent for 32-bit Linux operating systems. See more in [Installing Agent on Linux](#).
- deb-linux64 - Folder with deb installation files for R1Soft CDP Enterprise Agent for 64-bit Linux operating systems. See more in [Installing Agent on Linux](#).

Name	Size
win64	53 662 192
win32	30 857 872
rpm-linux64	21 148 468
rpm-linux32	19 243 604
deb-linux64	21 177 820
deb-linux32	19 275 674
R1Soft-CDP-Enterprise-Edition-win32-4.2.0.exe	143 986 888
Enterprise-README.txt	2 687

Installing Enterprise Edition

There are two (2) methods of installing CDP Enterprise Server and Agent:

- Automated
- Manual

For detailed instructions, refer to the following pages:

- [Installing Enterprise Edition on Windows Manually](#)
 - [Installing Agent on Windows](#)
 - [Installing Enterprise Edition Using CLI on Windows](#)
 - [Automated Installing and Upgrading CDP on Windows](#)
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There are two methods of installing CDP Enterprise Server:

- Automatic – Adding the R1Soft packages repository to Aptitude or yum configuration when installing CDP Enterprise Server using `apt-get` or `yum`
- Manual – Downloading the R1Soft binary packages and installing them using `dpkg` or `rpm`

All four package managers – `apt-get`, `yum`, `dpkg`, and `rpm` – are Linux console applications. They can be started in a remote SSH session, in a GUI terminal window (Konsole in KDE, Gnome Terminal in Gnome, etc.), or on the Linux text console.



Note

PuTTY is the recommended SSH client. PuTTY allows you to paste text from the Windows clipboard by pressing the right mouse button. You can download PuTTY here:

<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>

After the installation is complete, a reboot is not required.

Establish an SSH connection to the Linux server or log in on the Linux text console. You should either log in as root or obtain root permissions after logging in via the `su` or `sudo` command.

For detailed instructions for your Linux distribution, refer to the following pages:

- [Installing Enterprise Edition on CentOS, RHE, and Fedora](#)
- [Installing Enterprise Edition on Debian and Ubuntu](#)

1. Install the Server Using YUM | 2. Install the Server Manually (Using rpm) | 3. Configure and

Start the CDP Server Web-based User Interface | Next Steps

1. Install the Server Using YUM

1.1 Configure YUM Repository

YUM is the easiest way to keep programs up-to-date on RedHat-compatible distributions. YUM downloads and installs the latest version of a program. You should configure the YUM repository to manage installations of and [upgrades](#) to CDP Server Enterprise Edition.

First, create a YUM `.repo` file with the R1Soft repository information. Save the file in the `yum.repos.d` directory, which is typically located in `/etc/`.

1. Open the new file with a text editor such as vi or nano:

```
# cd /etc/yum.repos.d
# vi r1soft.repo
```

or

```
# nano -w /etc/yum.repos.d/r1soft.repo
```

```
[root@centos-server ~]# nano -w /etc/yum.repos.d/r1soft.repo
```

2. Insert the following text into the file and save the file:

```
[r1soft]
name=R1Soft Repository Server
baseurl=http://repo.r1soft.com/yum/stable/$basearch/
enabled=1
gpgcheck=0
```



Tip

`$basearch` is a Yum variable, i.e., the base architecture (32-bit, 64-bit, etc.).

```

GNU nano 2.0.9 File: /etc/yum.repos.d/r1soft.repo
[r1soft]
name=R1Soft Repository Server
baseurl=http://repo.r1soft.com/yum/stable/$basearch/
enabled=1
gpgcheck=0

```

`^G` Get Help `^O` WriteOut `^R` Read File `^V` Prev Page `^K` Cut Text `^C` Cur Pos
`^X` Exit `^J` Justify `^W` Where Is `^U` Next Page `^U` UnCut Text `^I` To Spell

3. To verify what is written to the file, use the following command:

```
# cat /etc/yum.repos.d/r1soft.repo
```

```

[root@centos-server ~]# cat /etc/yum.repos.d/r1soft.repo
[r1soft]
name=R1Soft Repository Server
baseurl=http://repo.r1soft.com/yum/stable/$basearch/
enabled=1
gpgcheck=0

```

1.2 Install the Package

1. With the installed YUM repository, you can use the following command to install the CDP Enterprise Server:

```
#yum install r1soft-cdp-enterprise-server
```

```
[root@centos-server cdp]# yum install r1soft-cdp-enterprise-server
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: centos.itt-consulting.com
 * extras: centos.itt-consulting.com
 * updates: centos.itt-consulting.com
Setting up Install Process
Resolving Dependencies
--> Running transaction check
--> Package r1soft-cdp-enterprise-server.i386 0:4.2.0-17723 will be installed
--> Processing Dependency: r1soft-cdp-server >= 4.2.0 for package: r1soft-cdp-en
terprise-server-4.2.0-17723.i386
--> Processing Dependency: r1soft-setup >= 4.2.0 for package: r1soft-cdp-enterpr
ise-server-4.2.0-17723.i386
--> Running transaction check
--> Package r1soft-cdp-server.i386 0:4.2.0-17723 will be installed
--> Package r1soft-setup.i386 0:4.2.0-17723 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                                Arch      Version      Repository    Size
=====
Installing:
r1soft-cdp-enterprise-server           i386      4.2.0-17723  r1soft        8.7 k
Installing for dependencies:
r1soft-cdp-server                       i386      4.2.0-17723  r1soft       108 M
r1soft-setup                             i386      4.2.0-17723  r1soft        688 k

Transaction Summary
=====
Install      3 Package(s)

Total download size: 109 M
Installed size: 183 M
Is this ok [y/N]: █
```

2. Then, enter "y" to install all the dependencies of the package.

```

Is this ok [y/N]: y
Downloading Packages:
Setting up and reading Presto delta metadata
Processing delta metadata
Package(s) data still to download: 109 M
(1/3): r1soft-cdp-enterprise-server-4.2.0.i386.rpm | 8.7 kB 00:00
(2/3): r1soft-cdp-server-4.2.0.i386.rpm | 108 MB 10:24
(3/3): r1soft-setup-4.2.0.i386.rpm | 688 kB 00:04
-----
Total 177 kB/s | 109 MB 10:30
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
Installing : r1soft-setup-4.2.0-17723.i386 1/3
Installing : r1soft-cdp-server-4.2.0-17723.i386 2/3
Error: server.conf missing. Did you specify which CDP product to install?
Please contact R1Soft Support (support@r1soft.com)
Installing : r1soft-cdp-enterprise-server-4.2.0-17723.i386 3/3
Warning: Recommended memory for installation is 2048MB

Installed:
r1soft-cdp-enterprise-server.i386 0:4.2.0-17723

Dependency Installed:
r1soft-cdp-server.i386 0:4.2.0-17723 r1soft-setup.i386 0:4.2.0-17723

Complete!

```

3. Once complete, you can use the help command to list all available options:

```
#r1soft-setup --help
```

```

root@debian-server:~# r1soft-setup --help
r1soft-setup (R1Soft Backup Setup/Custom kernel installer) 4.2.0 build 17723
Build Date: 2012/08/08 16:52:35
Copyright (c) 2011 by Idera, Inc. All rights reserved
Builds hcp kernel modules

```

4. Now, proceed to the [Step 3](#).

2. Install the Server Manually (Using rpm)

2.1 Download CDP Enterprise Edition

See [Obtaining Linux CDP Enterprise Edition](#).

2.2 Make Sure You Can Unzip the Download

Most Linux distributions come with the unzip utility pre-installed. To determine if you have the unzip utility, run:

```
# which unzip
```

This should return an output similar to the following:

```
# which unzip  
/usr/bin/unzip
```

```
[root@centos-server ~]# which unzip  
/usr/bin/unzip
```

If it returns the following output, you need to install the unzip utility first:

```
unzip: Command not found.
```

To install unzip on RHE, CentOS, and Fedora:

```
# yum install unzip
```

```
[root@centos-server ~]# yum install unzip
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: centos.itt-consulting.com
 * extras: centos.itt-consulting.com
 * updates: centos.itt-consulting.com
base                                     | 3.7 kB      00:00
extras                                  | 3.5 kB      00:00
extras/primary_db                       | 6.3 kB      00:00
updates                                  | 3.5 kB      00:00
updates/primary_db                      | 1.1 MB      00:00
Setting up Install Process
Resolving Dependencies
--> Running transaction check
---> Package unzip.x86_64 0:6.0-1.el6 set to be updated
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                Arch             Version          Repository        Size
=====
Installing:
unzip                  x86_64           6.0-1.el6        base              149 k

Transaction Summary
=====
Install      1 Package(s)
Upgrade     0 Package(s)

Total download size: 149 k
Installed size: 313 k
Is this ok [y/N]: y
Downloading Packages:
unzip-6.0-1.el6.x86_64.rpm                | 149 kB      00:00
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing      : unzip-6.0-1.el6.x86_64                1/1

Installed:
unzip.x86_64 0:6.0-1.el6

Complete!
```

2.3 Extract the ZIP File

We recommend creating a temporary directory to which you can extract the contents of the ZIP file.

1. Use the `mkdir` command to create a temporary directory (in our case, `cdp`).

```
# mkdir cdp
```

2. Use the `mv` command to move the archive to that directory. Note that Linux file names are case-sensitive. Make sure you type the name correctly (in our case, "

r1soft-enterpriseedition-linux64-4.2.0.zip").

```
# mv r1soft-enterpriseedition-linux64-4.2.0.zip cdp
```

3. Use the `cd` command to go to that directory.

```
# cd cdp
```

4. Use the `unzip` command to extract the files.

```
# unzip r1soft-enterpriseedition-linux32.zip
```

```
[root@centos-server cdp]# unzip cdp-enterprise-edition-linux32.zip
Archive:  cdp-enterprise-edition-linux32.zip
  inflating: Enterprise-README.txt
   creating: deb-linux32/
  inflating: deb-linux32/r1soft-cdp-async-agent-2-6-i386-4.2.0.deb
  inflating: deb-linux32/r1soft-cdp-agent-i386-4.2.0.deb
  inflating: deb-linux32/r1soft-cdp-enterprise-agent-i386-4.2.0.deb
  inflating: deb-linux32/r1soft-setup-i386-4.2.0.deb
   creating: deb-linux64/
  inflating: deb-linux64/r1soft-cdp-enterprise-agent-amd64-4.2.0.deb
  inflating: deb-linux64/r1soft-cdp-async-agent-2-6-amd64-4.2.0.deb
  inflating: deb-linux64/r1soft-setup-amd64-4.2.0.deb
  inflating: deb-linux64/r1soft-cdp-agent-amd64-4.2.0.deb
   creating: enterprise-deb/
  inflating: enterprise-deb/r1soft-cdp-enterprise-server-i386-4.2.0.deb
  inflating: enterprise-deb/r1soft-cdp-server-i386-4.2.0.deb
  inflating: enterprise-deb/r1soft-setup-i386-4.2.0.deb
   creating: enterprise-rpm/
  inflating: enterprise-rpm/r1soft-cdp-enterprise-server-4.2.0.i386.rpm
  inflating: enterprise-rpm/r1soft-setup-4.2.0.i386.rpm
  inflating: enterprise-rpm/r1soft-cdp-server-4.2.0.i386.rpm
   creating: rpm-linux32/
  inflating: rpm-linux32/r1soft-cdp-enterprise-agent-4.2.0.i386.rpm
  inflating: rpm-linux32/r1soft-cdp-agent-4.2.0.i386.rpm
  inflating: rpm-linux32/r1soft-cdp-async-agent-2-6-4.2.0.i386.rpm
  inflating: rpm-linux32/r1soft-setup-4.2.0.i386.rpm
   creating: rpm-linux64/
  inflating: rpm-linux64/r1soft-cdp-agent-4.2.0.x86_64.rpm
  inflating: rpm-linux64/r1soft-cdp-enterprise-agent-4.2.0.x86_64.rpm
  inflating: rpm-linux64/r1soft-cdp-async-agent-2-6-4.2.0.x86_64.rpm
  inflating: rpm-linux64/r1soft-setup-4.2.0.x86_64.rpm
   creating: win32/
  inflating: win32/R1Soft-CDP-Enterprise-Agent-win32-4.2.0.exe
   creating: win64/
  inflating: win64/R1Soft-CDP-Enterprise-Agent-win64-4.2.0.exe
```

2.4 Install the Packages

**Notice**

You must be a Linux root user to install CDP Enterprise Edition.

The archive you have extracted contains two folders: one with `.deb` packages (in our case, "`deb-linux32`") and one with `.rpm` packages ("`rpm-linux32`"). If you are installing on RedHat and CentOS, select the `.rpm` package.

Each folder contains a set of CDP components:

- `r1soft-cdp-enterprise-edition`
- `r1soft-setup`
- `r1soft-cdp-agent`
- `r1soft-cdp-server`

You will need to install all of them in one step. Use the `cd` command to go to the folder with the packages (in our case, `deb-linux32`) and run the following command:

RPM 32-bit (x86) / RPM 64-bit (x86_64)

```
rpm -i *.rpm
```

```
[root@centos-server cdp-enterprise-temp-install]# rpm -i *.rpm
You will need to assign a username and password to the R1Soft CDP Server.
You can do this with '/usr/bin/r1soft-setup' utility.
Use '/usr/bin/r1soft-setup --help' for more information.
```

**Note**

The installed files are located in the `/usr/sbin/r1soft` directory. The server startup script is `/etc/init.d/cdp-server`.

**Note**

You do not need to install the kernel module on the Server.

3. Configure and Start the CDP Server Web-based User Interface

1. You must define a username and password for the CDP Server Web Interface before you can begin using CDP Enterprise Edition.

```
# r1soft-setup --user DESIRED_USERNAME --pass DESIRED_PASSWORD
```

After running this command, you will see an output similar to the following:

```
# r1soft-setup --user admin --pass r1soft
Server username and password set
The R1Soft CDP Server must be restarted for these changes to take effect
Use '/etc/init.d/cdp-server restart' to restart.
```

```
[root@centos-server ~]# r1soft-setup --user admin --pass r1soft
Server username and password set
The R1Soft CDP Server must be restarted for these changes to take effect
Use '/etc/init.d/cdp-server restart' to restart.
```

2. Configure Ports if necessary.

By default, the embedded web server in CDP Enterprise Edition required for the Web-based Interface will listen on TCP ports 80 (HTTP) and 443 (HTTPS). These ports are frequently used by your Linux server (e.g., by Apache). If you are already using ports 80 and 443, you will need to define different ports. Ports 8080 (HTTP) and 8443 (HTTPS) are recommended alternatives to standard 80 and 443. However, you can choose any other valid and unused TCP port.

```
# r1soft-setup --http-port 8080 --https-port 8443
```

```
[root@centos-server ~]# r1soft-setup --http-port 8080 --https-port 8443
Attempting to set HTTPS port for Enterprise Console
Server HTTPS Port set
The R1Soft CDP Server must be restarted for these changes to take effect
Use '/etc/init.d/cdp-server restart' to restart.
Attempting to set HTTP port for Enterprise Console
Server HTTP Port set
The R1Soft CDP Server must be restarted for these changes to take effect
Use '/etc/init.d/cdp-server restart' to restart.
```



Note

You may need to change the firewall rules, depending on where you are connecting to the Web Interface from.

See also: [Configuring Enterprise Edition on Linux](#).

3. Start the Web Interface (CDP Server):

```
# /etc/init.d/cdp-server restart
```

```
[root@centos-server ~]# /etc/init.d/cdp-server restart
..
/etc/init.d/cdp-server : cdpserver stopped
/etc/init.d/cdp-server : _cdpserver started
```

You should now be able to connect to the CDP Enterprise Edition Web Interface using Firefox or Internet Explorer. See [Accessing Enterprise Edition Web Interface](#).

Next Steps

- [Configuring Enterprise Edition on Linux](#)
- [Installing Agent on Windows](#)
- [Installing Agent on Linux](#)
- [Accessing Enterprise Edition Web Interface](#)
- [Activating CDP Enterprise Edition](#)
- [Adding the Server Key to Linux Agent](#)
- [Adding the Server Key to Windows Agent](#)
- [Configuring Heap Memory](#)

[1. Install the Server Using APT-GET](#) | [2. Install the Server Manually \(Using DPKG\)](#) | [3. Configure and Start the CDP Server Web-based User Interface](#) | [Next Steps](#)

1. Install the Server Using APT-GET

1.1 Configure APT Repository

The Advanced Packaging Tool, or APT, is used to handle the retrieval, configuration, and installation of software packages and the removal of software on Debian GNU/Linux distributions. Configure an APT repository to manage installations of and [upgrades](#) to CDP Enterprise Edition.

First, modify your `/etc/apt/sources.list` to include the R1Soft repository, and then download the R1Soft `apt gpg key`.

```
# echo deb http://repo.r1soft.com/apt stable main >> /etc/apt/sources.list
# wget http://repo.r1soft.com/r1soft.asc
# apt-key add r1soft.asc
```

When the repository is configured, run `apt-get update` to download the information about the packages in the new repository:

```
# apt-get update
```

```

root@debian-server:~# echo deb http://repo.r1soft.com/apt stable main >> /etc/apt/sources.list
root@debian-server:~# wget http://repo.r1soft.com/r1soft.asc
--2011-04-19 07:16:41-- http://repo.r1soft.com/r1soft.asc
Resolving repo.r1soft.com... 198.64.248.201
Connecting to repo.r1soft.com[198.64.248.201]:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2819 (2.8K) [text/plain]
Saving to: `r1soft.asc'

100%[=====>] 2,819      --.-K/s  in 0s

2011-04-19 07:16:41 (55.5 MB/s) - `r1soft.asc' saved [2819/2819]

root@debian-server:~# apt-key add r1soft.asc
OK

root@debian-server:~# apt-get update
Get:1 http://security.debian.org squeeze/updates Release.gpg [836 B]
Get:2 http://repo.r1soft.com stable Release.gpg [189 B]
Ign http://security.debian.org/ squeeze/updates/main Translation-en
Ign http://security.debian.org/ squeeze/updates/main Translation-en_US
Get:3 http://cdn.debian.net squeeze Release.gpg [1,672 B]
Ign http://cdn.debian.net/debian/ squeeze/main Translation-en
Ign http://cdn.debian.net/debian/ squeeze/main Translation-en_US
Get:4 http://cdn.debian.net squeeze-updates Release.gpg [836 B]
Ign http://cdn.debian.net/debian/ squeeze-updates/main Translation-en
Ign http://cdn.debian.net/debian/ squeeze-updates/main Translation-en_US
Get:5 http://cdn.debian.net squeeze Release [107 kB]
Get:6 http://security.debian.org squeeze/updates Release [86.9 kB]
Get:7 http://cdn.debian.net squeeze-updates Release [113 kB]
Ign http://repo.r1soft.com/apt/ stable/main Translation-en
Get:8 http://cdn.debian.net squeeze/main Sources [5,767 kB]
Ign http://repo.r1soft.com/apt/ stable/main Translation-en_US
Get:9 http://security.debian.org squeeze/updates/main Sources [78.8 kB]
Get:10 http://repo.r1soft.com stable Release [2,047 B]
Get:11 http://security.debian.org squeeze/updates/main amd64 Packages [247 kB]
Get:12 http://repo.r1soft.com stable/main amd64 Packages [1,388 B]
Get:13 http://cdn.debian.net squeeze/main amd64 Packages [8,603 kB]
Get:14 http://cdn.debian.net squeeze-updates/main Sources/DiffIndex [2,023 B]
Get:15 http://cdn.debian.net squeeze-updates/main amd64 Packages/DiffIndex [2,023 B]
Get:16 http://cdn.debian.net squeeze-updates/main Sources [4,305 B]
Get:17 http://cdn.debian.net squeeze-updates/main amd64 Packages [14.9 kB]
Fetched 15.0 MB in 4s (3,275 kB/s)
Reading package lists... Done
root@debian-server:~# █

```

1.2 Install the Package

1. Once the APT repository is configured, you can use the following command to install the CDP Server:

```
#apt-get install r1soft-cdp-enterprise-server
```

```

root@debian-server:~# apt-get install r1soft-cdp-enterprise-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  r1soft-cdp-server r1soft-setup
The following NEW packages will be installed:
  r1soft-cdp-enterprise-server r1soft-cdp-server r1soft-setup
0 upgraded, 3 newly installed, 0 to remove and 0 not upgraded.
Need to get 0 B/109 MB of archives.
After this operation, 0 B of additional disk space will be used.
Do you want to continue [Y/n]?
Selecting previously deselected package r1soft-setup.
(Reading database ... 35320 files and directories currently installed.)
Unpacking r1soft-setup (from ../r1soft-setup_4.2.0_amd64.deb) ...

```

2. Once the installation is complete, you can use the help command to list all available options:

```
#r1soft-setup --help
```

```
root@debian-server:~# r1soft-setup --help
r1soft-setup (R1Soft Backup Setup/Custom kernel installer) 4.2.0 build 17723
Build Date: 2012/08/08 16:52:35
Copyright (c) 2011 by Idera, Inc. All rights reserved
Builds hcp kernel modules
```

2. Install the Server Manually (Using DPKG)

2.1 Download CDP Enterprise Edition

See [Obtaining Linux CDP Enterprise Edition](#).

2.2 Make Sure You Can Unzip the Download

Most Linux distributions come with the unzip utility pre-installed. To determine if you have the unzip utility, run:

```
# which unzip
```

This should return an output similar to the following:

```
# which unzip
/usr/bin/unzip
```

```
root@debian-server:~# which unzip
/usr/bin/unzip
```

If it returns the following, you need to install the unzip utility first:

```
unzip: Command not found.
```

To install unzip on Debian or Ubuntu:

```
# apt-get install unzip
```

```

root@debian-server:~# apt-get install unzip
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
  zip
The following NEW packages will be installed:
  unzip
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 0 B/190 kB of archives.
After this operation, 418 kB of additional disk space will be used.
Selecting previously deselected package unzip.
(Reading database ... 25429 files and directories currently installed.)
Unpacking unzip (from ../archives/unzip_6.0-4_and64.deb) ...
Processing triggers for man-db ...
Setting up unzip (6.0-4) ...

```

2.3 Extract the ZIP File

We recommend creating a temporary directory to which you can extract the contents of the ZIP file.

1. Use the `mkdir` command to create a temporary directory (in our case, `cdp`).

```
# mkdir cdp
```

2. Use the `mv` command to move the archive to that directory. Note that Linux file names are case-sensitive. Make sure you type the name correctly (in our case, "`r1soft-enterpriseedition-linux64-4.2.0.zip`").

```
# mv r1soft-enterpriseedition-linux64-4.2.0.zip cdp
```

3. Use the `cd` command to go to that directory.

```
# cd cdp
```

4. Use the `unzip` command to extract the files.

```
# unzip r1soft-enterpriseedition-linux64-4.2.0.zip
```

2.4 Install the Packages Using `dpkg`



Notice

You must be a Linux root user to install CDP Enterprise Edition.

The archive you have extracted contains two folders: one with `.deb` packages (in our case, "deb-linux32") and one with `.rpm` packages ("rpm-linux32"). If you are installing on Debian or Ubuntu, choose the `.deb` package.

Each folder contains a set of CDP components:

- `r1soft-cdp-enterprise-edition`
- `r1soft-setup`
- `r1soft-cdp-agent`
- `r1soft-cdp-async-agent-2-6`
- `r1soft-cdp-server`

You will need to install all of them in one step. Use the `cd` command to go to the folder with the packages (in our case, "deb-linux32") and run the following command:

DEB 32-bit (x86) / DEB 64-bit (x86_64)

```
dpkg -i *.deb
```

```
root@debian-server:~/cdp-enterprise-temp-install# dpkg -i *.deb
Selecting previously deselected package r1soft-cdp-enterprise-server.
(Reading database ... 25447 files and directories currently installed.)
Unpacking r1soft-cdp-enterprise-server (from r1soft-cdp-enterprise-server-amd64-3.18.1.deb) ...
Selecting previously deselected package r1soft-cdp-server.
Unpacking r1soft-cdp-server (from r1soft-cdp-server-amd64-3.18.1.deb) ...
Selecting previously deselected package r1soft-setup.
Unpacking r1soft-setup (from r1soft-setup-amd64-3.18.1.deb) ...
Setting up r1soft-setup (3.18.1) ...
Setting up r1soft-cdp-server (3.18.1) ...
You will need to assign a username and password to the R1Soft CDP Server.
You can do this with '/usr/bin/r1soft-setup' utility.
Use '/usr/bin/r1soft-setup --help' for more information.
Setting up r1soft-cdp-enterprise-server (3.18.1) ...
root@debian-server:~/cdp-enterprise-temp-install# █
```



Note

The installed files are located in the `/usr/sbin/r1soft` directory. The server startup script is `/etc/init.d/cdp-server`.



Note

You do not need to install the kernel module on the Server.

3. Configure and Start the CDP Server Web-based User Interface

1. You must define a username and password for the CDP Server Web Interface before you can begin using CDP Enterprise Edition.

```
# r1soft-setup --user DESIRE9D_USERNAME --pass DESIRED_PASSWORD
```

Example of how to set "admin" username and "r1soft" password:

```
# r1soft-setup --user admin --pass r1soft
```

```
root@debian-server:~# r1soft-setup --user admin --pass r1soft
Server username and password set
The R1Soft Enterprise Console must be restarted for these changes to take effect
Use '/etc/init.d/cdp-console restart' to restart.
```

After running this command, you will see an output similar to the following:

```
Server username and password set
The R1Soft CDP Server must be restarted for these changes to take effect
Use '/etc/init.d/cdp-server restart' to restart.
```

```
root@debian-server:~# r1soft-setup --user admin --pass r1soft
Server username and password set
The R1Soft Enterprise Console must be restarted for these changes to take effect
Use '/etc/init.d/cdp-console restart' to restart.
```

2. Configure ports, if necessary.

By default, the embedded web server in CDP Enterprise Edition required for the Web-based Interface will listen on TCP ports 80 (HTTP) and 443 (HTTPS). These ports are frequently used by your Linux server (e.g., by Apache). If you are already using ports 80 and 443, you will need to define different ports. Ports 8080 (HTTP) and 8443 (HTTPS) are recommended alternatives to standard 80 and 443. However, you can choose any other valid and unused TCP port.

```
# r1soft-setup --http-port 8080 --https-port 8443
```

```
root@debian-server:~# r1soft-setup --http-port 8080 --https-port 8443
Attempting to set HTTPS port for CDP Server
Server HTTPS Port set
The R1Soft Enterprise Console must be restarted for these changes to take effect
Use '/etc/init.d/cdp-console restart' to restart.
Attempting to set HTTP port for CDP Server
Server HTTP Port set
The R1Soft Enterprise Console must be restarted for these changes to take effect
Use '/etc/init.d/cdp-console restart' to restart.
```

3. Start the Web Interface (CDP Server):

```
/etc/init.d/cdp-server restart
```

```
root@debian-server:~# /etc/init.d/cdp-server restart
...
/etc/init.d/cdp-server : cdpservice stopped
/etc/init.d/cdp-server : cdpservice started
```



Note

You may need to change the firewall rules, depending on where you are connecting to the Web Interface from.

You should now be able to connect to the CDP Enterprise Edition Web Interface using Firefox or Internet Explorer.

Next Steps

- [Configuring Enterprise Edition on Linux](#)
- [Installing Agent on Windows](#)
- [Installing Agent on Linux](#)
- [Accessing Enterprise Edition Web Interface](#)
- [Activating CDP Enterprise Edition](#)
- [Adding the Server Key to Linux Agent](#)
- [Adding the Server Key to Windows Agent](#)
- [Configuring Heap Memory](#)

You can use the "Enterprise Edition" or "Enterprise Agent" installer to install CDP Agent 4.2 Enterprise Edition. The Agent installer is a typical Windows installer application. Once you have [obtained](#) the CDP Enterprise Agent installation file, follow the instructions given below to install CDP Agent 4.2 Enterprise Edition.



Note

New in version 4.2. Windows installers will support English, Japanese, and Spanish. End-users cannot add installation support for additional languages. The language chosen during the installation will NOT become the CDP Server's default user language.

1. Log on to the Windows server as a member of the local Administrators group.



Notice

The user account must have "Log On as Service" permission to start the CDP Agent service automatically.

2. Extract the files from the archive. Navigate to the directory where you saved the "Enterprise Edition" or "Enterprise Agent" installation file. The Agent installer will have the following attributes:

For a 32-bit system:

- File name - R1Soft-EnterpriseAgent-win32.zip
- File size - 30.1 MB

For a 64-bit system:

- File name - R1Soft-EnterpriseAgent-win64.zip
- File size - 52.0 MB



Note

The "Enterprise Edition" installer package is capable of installing both Server and Agent software. The "Enterprise Agent" installer package contains only the Agent software and is a much smaller package.

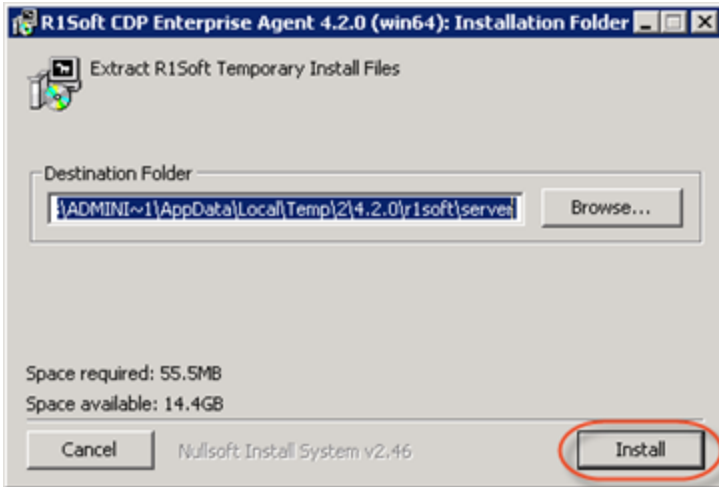


Note

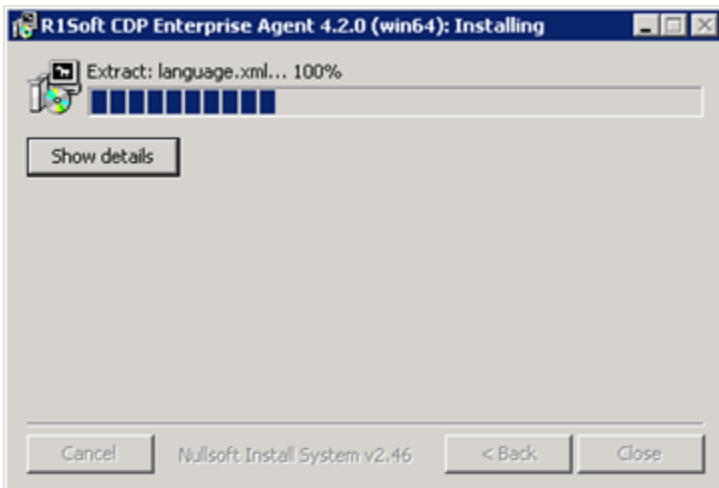
R1Soft products follow this format for version numbers: MAJOR.MINOR.MAINTENANCE. Pre-release downloads ALWAYS have a version number that has an ODD MINOR number, e.g., 3.7.0. Stable downloads ALWAYS have a version number with an EVEN MINOR number, e.g., 3.8.1.

3. Execute the installer by clicking "Run."

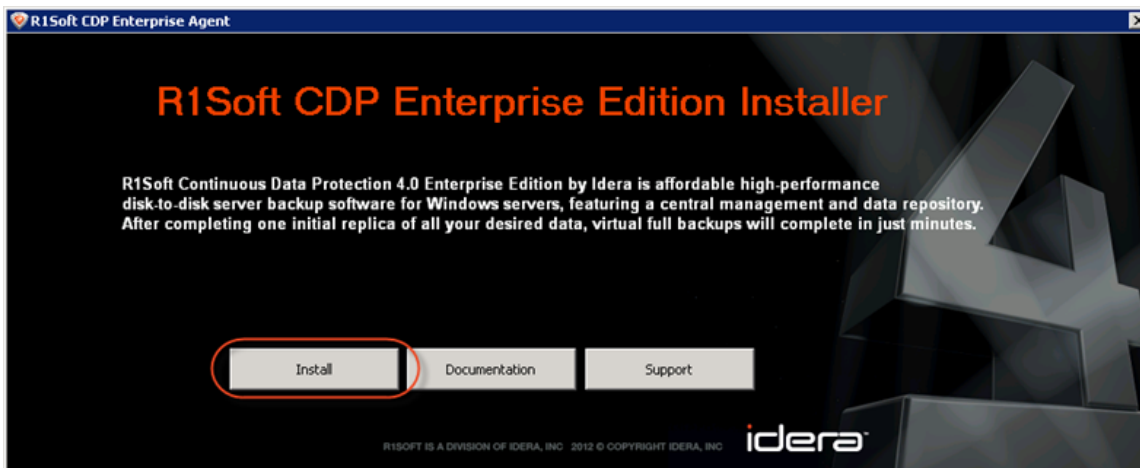
4. Verify the installation destination and click on the "Install" button.



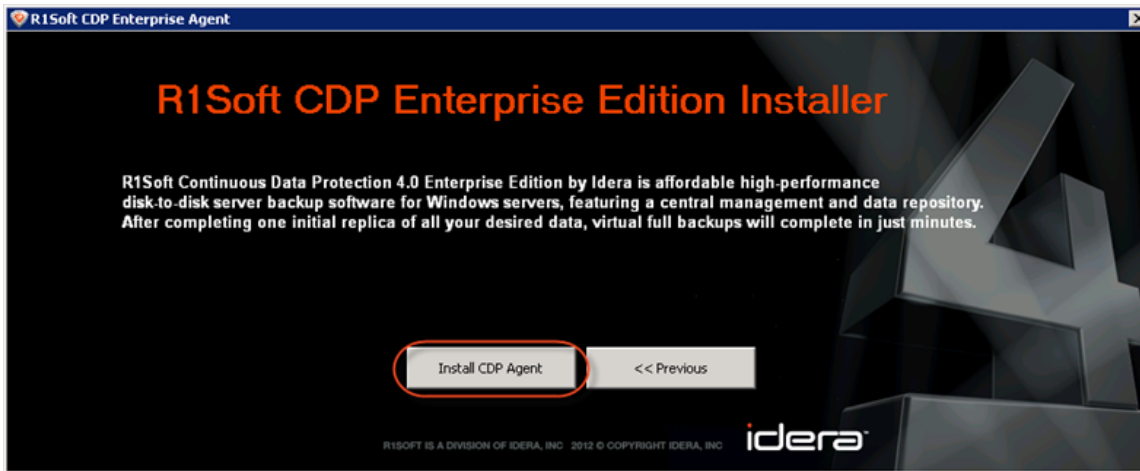
5. Wait while the files are extracted.



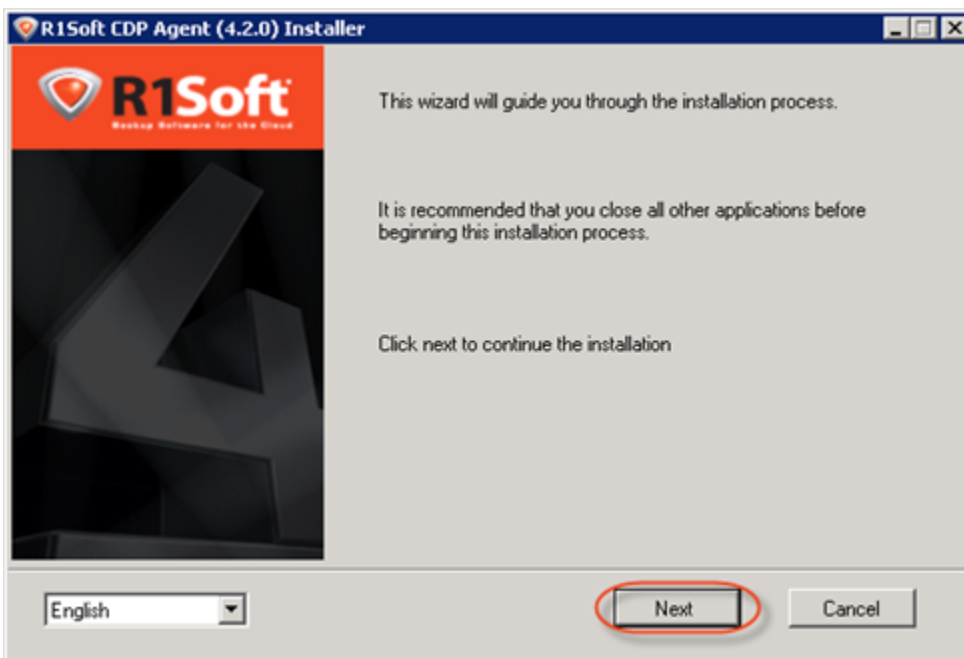
6. Click "Install" in the opened window.



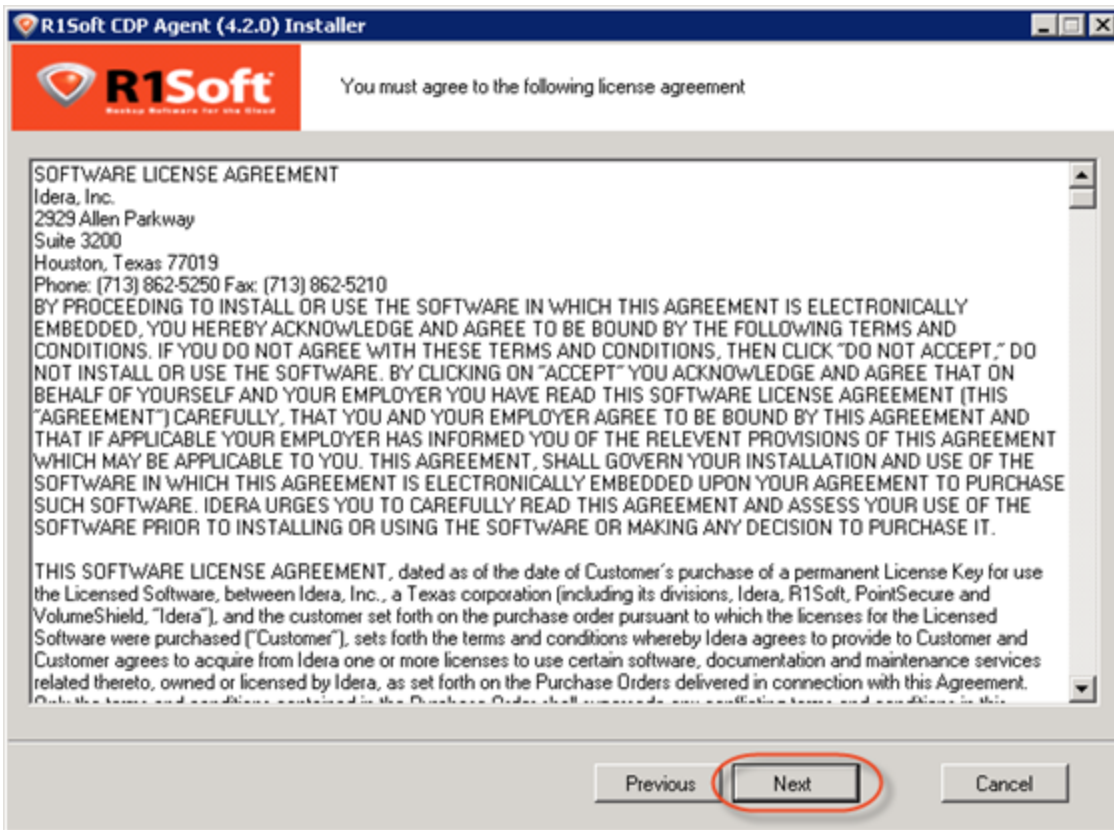
7. Click "Install CDP Agent."



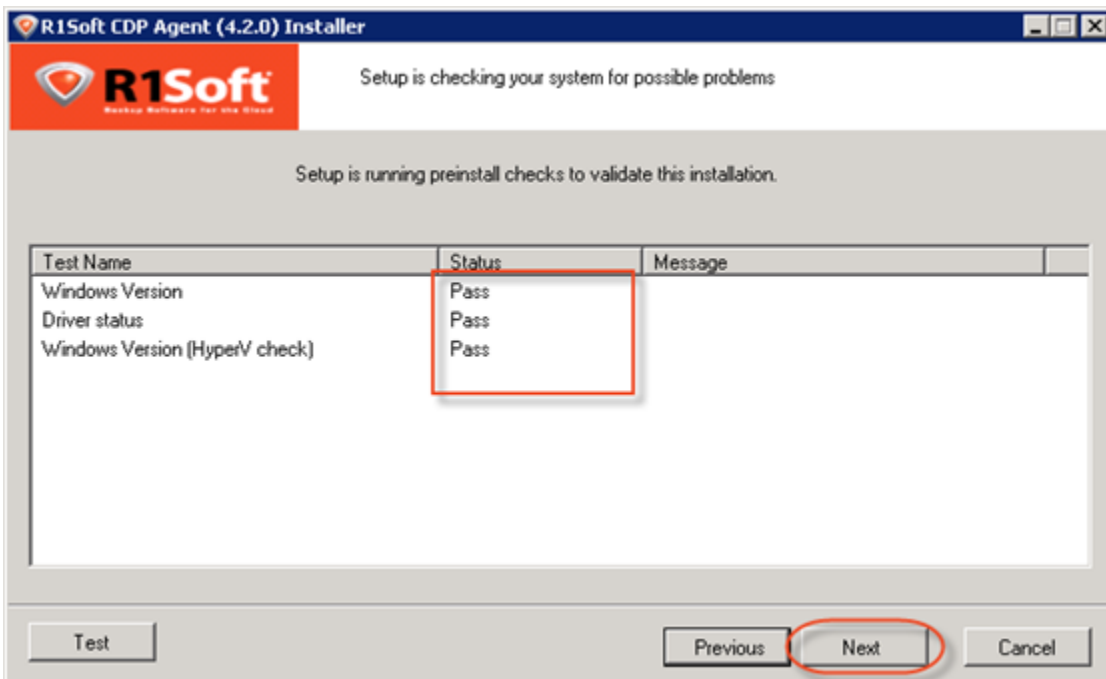
8. The R1Soft CDP Agent Enterprise Edition Installer will open. Make sure all other applications are closed and click "Next."



9. You must agree to the following license agreement. Read it to the end and click "Next" to accept.



10. The installer will check your system for possible problems. It is strongly recommended that all tests have a "Pass" status. You can repeat the tests by clicking the "Test" button. Click "Next" to go to the next screen.



**Note**

You can find the full list of requirements here:

<http://www.r1soft.com/windows-cdp/cdp-enterprise-edition/requirements/>.

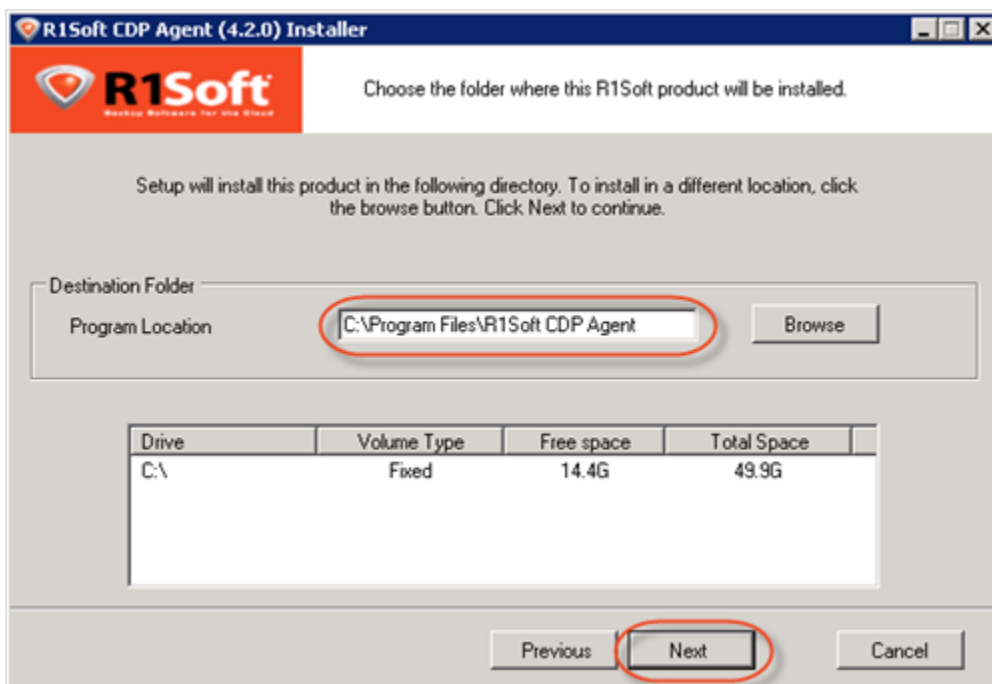
**Note**

If one or several requirements are not met, then an explanation will be displayed in the "Message" column. For such configurations, further installation is not recommended.

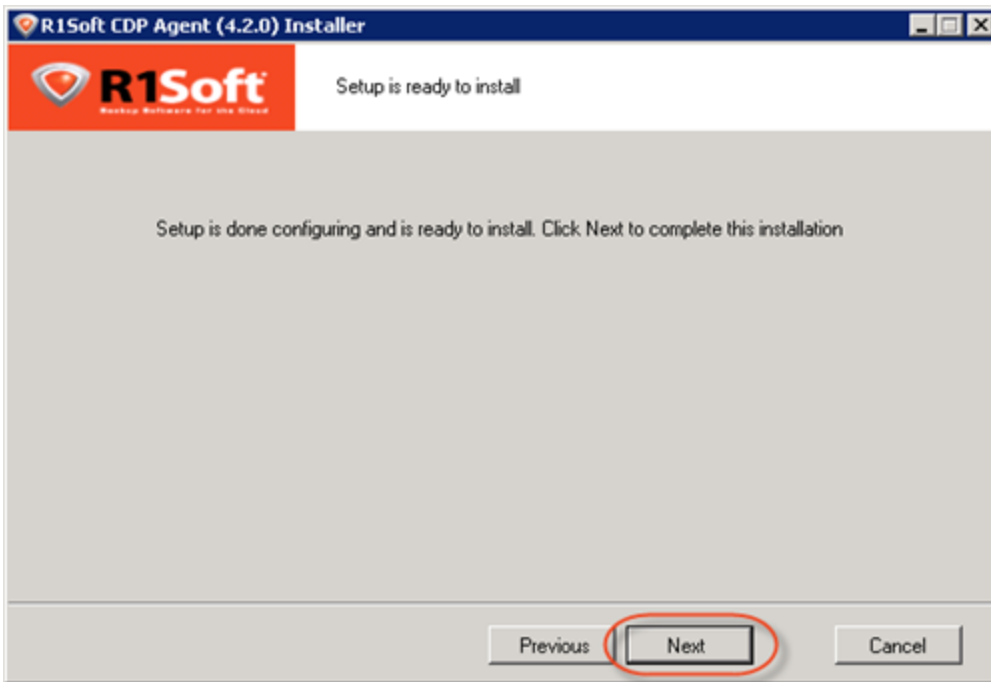
Possible values for the "Status" column are "Pass," "Not Recommended," and "Fail."

If possible, correct the configuration and click "Test" again.

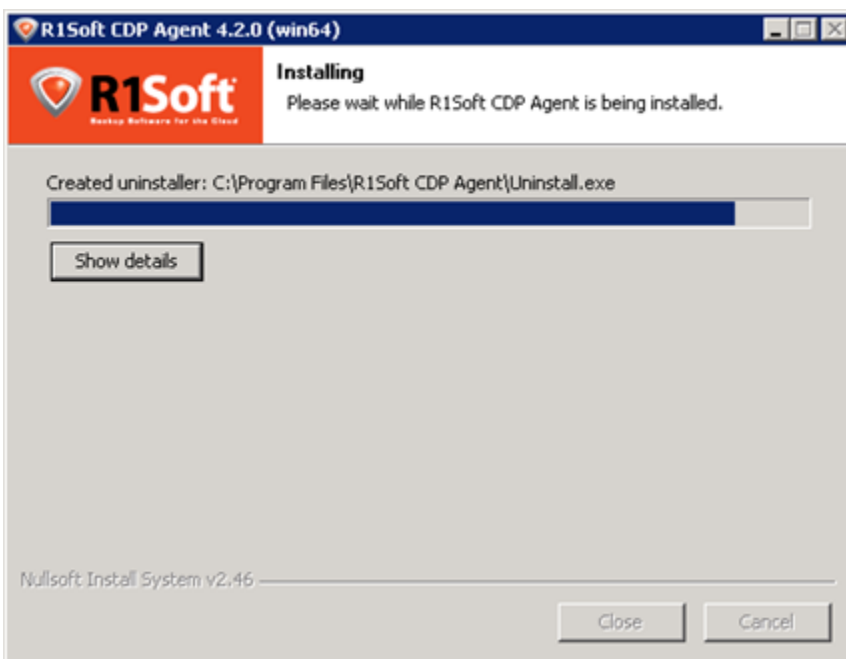
11. On the next screen, choose the installation directory for the Agent. It is safe to leave the default location untouched. However, you can install the Agent to another directory if, for example, you do not have enough free space on disk C. Click "Next" to continue.



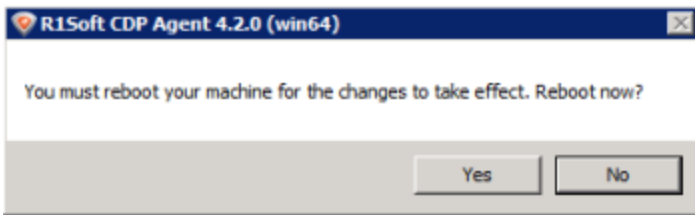
12. The configuration is complete. Click "Next" to start the installation process.



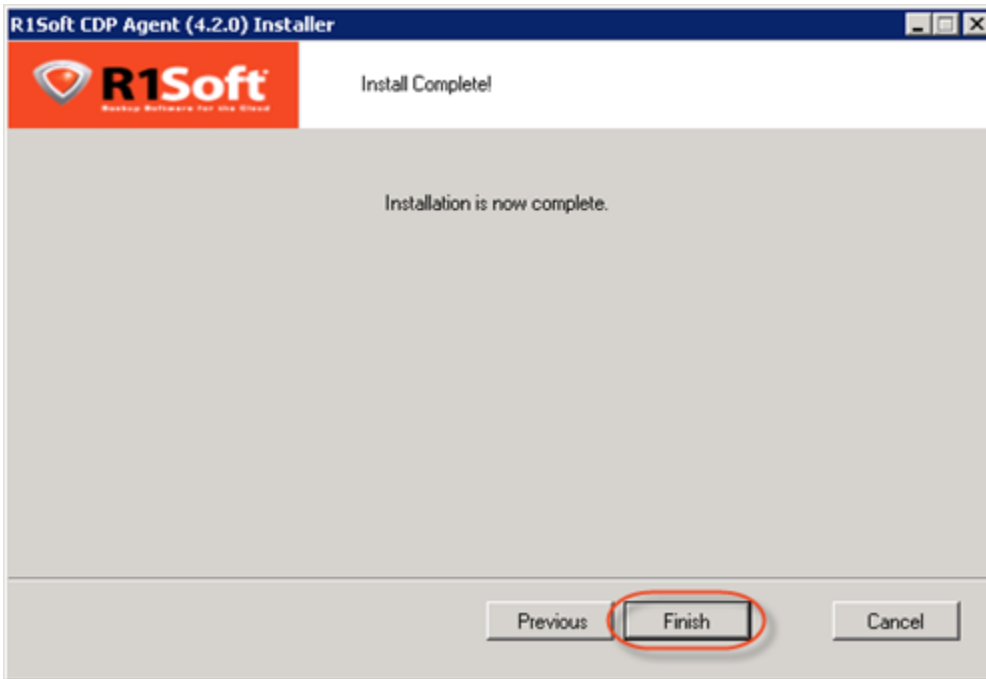
13. The installation process will start.



14. Once the process has been completed the following message will appear. Click the "Yes" button to reboot your machine for the changes to take effect. To postpone the reboot process and perform some additional activities click the "No" button.



15. To complete the installation, click "Finish" in the displayed window.



Proceed to the next steps:

- [Installing Enterprise Edition on Windows Manually](#)
- [Installing Enterprise Edition on Linux](#)
- [Adding the Server Key to Windows Agent](#)

There are two (2) methods of installing CDP Enterprise Server and Agent:

- Automatic -- Adding the R1Soft packages repository to Aptitude or yum configuration when installing Agent using `apt-get` or `yum`
- Manual -- Downloading the R1Soft binary packages and installing them using `dpkg` or `rpm`

All four package managers – `apt-get`, `yum`, `dpkg`, and `rpm` – are Linux console applications. They can be started in a remote SSH session, in a GUI terminal window (Konsole in KDE, Gnome Terminal in Gnome, etc.), or on the Linux text console.

**Note**

PuTTY is the recommended SSH client. PuTTY allows you to paste the text from the Windows clipboard by pressing the right mouse button. You can download PuTTY here:

<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>

After the installation is complete, a reboot is not required.

Establish an SSH connection to the Linux server or log in on the Linux text console. You should either log in as "root" or obtain root permissions after logging in via the `su` or `sudo` command.

For detailed instructions for your Linux distribution, refer to the following pages:

- [Installing Agent on CentOS, RHE and Fedora](#)
- [Installing Agent on Debian and Ubuntu](#)

1. [Installing Agent Using YUM](#) | 2. [Install Agent Manually \(Using RPM\)](#) | 3. [Install CDP Linux Device Driver](#)

1. Installing Agent Using YUM

1.1 Configure YUM Repository

YUM is the easiest way to keep programs up-to-date on RedHat-compatible distributions. It downloads and installs the latest version of a program. You should configure the YUM repository to manage install and [upgrades](#) of CDP Agent.

First, create a YUM `.repo` file with the R1Soft repository information. Save the file in the `yum.repos.d` directory which is typically located in `/etc/`.

1. Open the new file with a text editor such as `vi` or `nano`:

```
# cd /etc/yum.repos.d
# vi r1soft.repo
```

or

```
# nano -w /etc/yum.repos.d/r1soft.repo
```

```
[root@centos-server ~]# nano -w /etc/yum.repos.d/r1soft.repo
```

2. Insert the following text into the file and save the file:

```
[r1soft]
name=R1Soft Repository Server
baseurl=http://repo.r1soft.com/yum/stable/$basearch/
enabled=1
gpgcheck=0
```

The screenshot shows the GNU nano 2.0.9 text editor with the file /etc/yum.repos.d/r1soft.repo open. The content of the file is displayed in a red-bordered box:

```
[r1soft]
name=R1Soft Repository Server
baseurl=http://repo.r1soft.com/yum/stable/$basearch/
enabled=1
gpgcheck=0
```

Below the editor window, a status bar shows various keyboard shortcuts for navigation and editing, such as 'G Get Help', 'O WriteOut', 'R Read File', 'V Prev Page', 'K Cut Text', 'C Cur Pos', 'X Exit', 'J Justify', 'W Where Is', 'U Next Page', 'U UnCut Text', and 'I To Spell'.

3. To verify what is written to the file, use the following command:

```
# cat /etc/yum/yum.repos.d/r1soft.repo
```

The screenshot shows a terminal window with the command `cat /etc/yum.repos.d/r1soft.repo` highlighted in a red-bordered box. The output of the command is displayed below:

```
[root@centos-server ~]# cat /etc/yum.repos.d/r1soft.repo
[r1soft]
name=R1Soft Repository Server
baseurl=http://repo.r1soft.com/yum/stable/$basearch/
enabled=1
gpgcheck=0
```

1.2 Install the Package

Once you have configured the YUM repository, you can use the following command to install CDP Agent:

```
# yum install r1soft-cdp-enterprise-agent
```

```
[root@centos-server cdp]# yum install r1soft-cdp-enterprise-agent
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: centos.itt-consulting.com
 * extras: centos.itt-consulting.com
 * updates: centos.itt-consulting.com
Setting up Install Process
Resolving Dependencies
--> Running transaction check
---> Package r1soft-cdp-enterprise-agent.i386 0:4.2.0-17723 will be installed
--> Processing Dependency: r1soft-cdp-agent >= 4.2.0 for package: r1soft-cdp-enterprise-agent-4.2.0-17723.i386
--> Processing Dependency: r1soft-setup >= 4.2.0 for package: r1soft-cdp-enterprise-agent-4.2.0-17723.i386
--> Running transaction check
---> Package r1soft-cdp-agent.i386 0:4.2.0-17723 will be installed
--> Processing Dependency: r1soft-cdp-async-agent-2-6 >= 4.2.0 for package: r1soft-cdp-agent-4.2.0-17723.i386
---> Package r1soft-setup.i386 0:4.2.0-17723 will be installed
--> Running transaction check
---> Package r1soft-cdp-async-agent-2-6.i386 0:4.2.0-17723 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                               Arch      Version      Repository    Size
=====
Installing:
r1soft-cdp-enterprise-agent           i386      4.2.0-17723  r1soft        2.5 k
Installing for dependencies:
r1soft-cdp-agent                       i386      4.2.0-17723  r1soft        4.6 M
r1soft-cdp-async-agent-2-6            i386      4.2.0-17723  r1soft        13 M
r1soft-setup                           i386      4.2.0-17723  r1soft        688 k

Transaction Summary
=====
Install      4 Package(s)

Total download size: 19 M
Installed size: 52 M
Is this ok [y/N]: y
```

Then, enter "y" to install all the dependencies of the package.

```

Is this ok [y/N]: y
Downloading Packages:
Setting up and reading Presto delta metadata
Processing delta metadata
Package(s) data still to download: 19 M
(1/4): r1soft-cdp-agent-4.2.0.i386.rpm | 4.6 MB 00:23
(2/4): r1soft-cdp-async-agent-2-6-4.2.0.i386.rpm | 13 MB 01:13
(3/4): r1soft-cdp-enterprise-agent-4.2.0.i386.rpm | 2.5 kB 00:00
(4/4): r1soft-setup-4.2.0.i386.rpm | 688 kB 00:05
-----
Total 185 kB/s | 19 MB 01:43
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
Installing : r1soft-setup-4.2.0-17723.i386 1/4
Installing : r1soft-cdp-async-agent-2-6-4.2.0-17723.i386 2/4
Installing : r1soft-cdp-agent-4.2.0-17723.i386 3/4
/etc/init.d/cdp-agent stop: cdp (no pid file) not running
Attempting to get a kernel module from 'krnlbld.r1soft.com'

No binary module was found for your kernel. The kernel headers will be required
to build a module. See '/usr/bin/r1soft-setup --help' for more information
/etc/init.d/cdp-agent start: cdp started
Installing : r1soft-cdp-enterprise-agent-4.2.0-17723.i386 4/4

Installed:
r1soft-cdp-enterprise-agent.i386 0:4.2.0-17723

Dependency Installed:
r1soft-cdp-agent.i386 0:4.2.0-17723
r1soft-cdp-async-agent-2-6.i386 0:4.2.0-17723
r1soft-setup.i386 0:4.2.0-17723

Complete!

```

2. Install Agent Manually (Using RPM)

2.1 Download CDP Agent

See [Obtaining Linux CDP Enterprise Agent](#).

2.2 Make Sure You Can Unzip the Download

Most Linux distributions come with the unzip utility pre-installed. To determine if you have the unzip utility, run:

```
# which unzip
```

This should return an output similar to the following:

```
# which unzip
/usr/bin/unzip
```

```
[root@centos-server ~]# which unzip
/usr/bin/unzip
```

If it returns the following output, you need to install the unzip utility first:

```
unzip: Command not found.
```

To install unzip on RHE, CentOS, and Fedora:

```
# yum install unzip
```

```
[root@centos-server ~]# yum install unzip
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: centos.itt-consulting.com
 * extras: centos.itt-consulting.com
 * updates: centos.itt-consulting.com
base | 3.7 kB | 00:00
extras | 3.5 kB | 00:00
extras/primary_db | 6.3 kB | 00:00
updates | 3.5 kB | 00:00
updates/primary_db | 1.1 MB | 00:00
Setting up Install Process
Resolving Dependencies
--> Running transaction check
---> Package unzip.x86_64 0:6.0-1.el6 set to be updated
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package Arch Version Repository Size
=====
Installing:
unzip x86_64 6.0-1.el6 base 149 k

Transaction Summary
=====
Install 1 Package(s)
Upgrade 0 Package(s)

Total download size: 149 k
Installed size: 313 k
Is this ok [y/N]: y
Downloading Packages:
unzip-6.0-1.el6.x86_64.rpm | 149 kB | 00:00
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
Installing : unzip-6.0-1.el6.x86_64 1/1

Installed:
unzip.x86_64 0:6.0-1.el6

Complete!
```

2.3 Extract the ZIP File

We recommend creating a temporary directory to which you can extract the contents of the ZIP file.

1. Use the `mkdir` command to create a temporary directory (in our case, `cdp-agent`).

```
# mkdir cdp-agent
```

2. Use the `mv` command to move the archive to that directory. Note that Linux file names are case sensitive. Make sure you type the name correctly (in our case, "`r1soft-enterprise-agent-linux64-4.2.0.zip`").

```
# mv r1soft-enterprise-agent-linux64-4.2.0.zip cdp-agent
```

3. Use the `cd` command to go to that directory.

```
# cd cdp-agent
```

4. Use the `unzip` command to extract the files.

```
# unzip r1soft-enterprise-agent-linux64-4.2.0.zip
```

```
[root@centos-server cdp]# unzip cdp-enterprise-agent-linux32.zip
Archive:  cdp-enterprise-agent-linux32.zip
  inflating: Enterprise-README.txt
   creating: deb-linux32/
  inflating: deb-linux32/r1soft-cdp-async-agent-2-6-i386-4.2.0.deb
  inflating: deb-linux32/r1soft-cdp-agent-i386-4.2.0.deb
  inflating: deb-linux32/r1soft-cdp-enterprise-agent-i386-4.2.0.deb
  inflating: deb-linux32/r1soft-setup-i386-4.2.0.deb
   creating: rpm-linux32/
  inflating: rpm-linux32/r1soft-cdp-enterprise-agent-4.2.0.i386.rpm
  inflating: rpm-linux32/r1soft-cdp-agent-4.2.0.i386.rpm
  inflating: rpm-linux32/r1soft-cdp-async-agent-2-6-4.2.0.i386.rpm
  inflating: rpm-linux32/r1soft-setup-4.2.0.i386.rpm
```

2.4 Install the Package



Notice

You must be a Linux root user to install CDP Agent.

The archive you have extracted contains two folders: one with `.deb` packages (in our case, "`deb-linux64`") and one with `.rpm` packages ("`rpm-linux64`"). On RedHat and CentOS, select the

.rpm package.

Each folder contains a set of CDP components:

- r1soft-setup
- r1soft-cdp-enterprise-agent
- r1soft-cdp-agent
- r1soft-cdp-async-agent-2-6

You will need to install all of them in one step. Use the `cd` command to go to the folder with the packages (in our case, `rpm-linux64`) and run the following command:

RPM 32-bit (x86) / RPM 64-bit (x86_64)

```
rpm -i *.rpm
```

```
[root@centos-server rpm-linux64]# rpm -i *.rpm
/etc/init.d/cdp-agent stop: cdp (no pid file) not running
Attempting to get a kernel module from 'krnlbld.r1soft.com'

No binary module was found for your kernel. The kernel headers will be required
to build a module. See '/usr/bin/r1soft-setup --help' for more information
/etc/init.d/cdp-agent start: cdp started
```

3. Install CDP Linux Device Driver

CDP Device Driver is a proprietary, loadable Linux kernel module distributed by R1Soft. It is loadable at run-time without restarting Linux, and you do not need to recompile your Linux kernel to use it. R1Soft does not provide prebuilt modules for the popular kernels anymore, so you will have to compile the module from source.



Notice

You need to have loadable modules enabled as a feature in your kernel, and this is standard on all popular Linux distributions.

3.1 Compiling CDP Kernel Module Against Kernel Headers or Kernel Source Tree

Using a pre-built binary module package is not possible anymore. You will have to compile this module against kernel headers or a kernel source tree. We are not always able to compile kernel modules from kernel-devel packages supplied by most major Linux distributions. In some cases, packages are missing header files (broken), or the packages have been stripped of information

that any device driver would need to compile a kernel module. In these cases, we can build using your installed kernel-devel package on your Linux server, as r1soft-setup will obtain the missing information it needs to compile a module from your running kernel.

In order for kernel module compilation to work, you should have Internet connectivity directly from the Linux server you are installing CDP on, to TCP port HTTPS (443), on the host `krnlbld.r1soft.com`.

You can test connectivity with the following command (this may take a minute):

```
# r1soft-setup --test-connection
```

3.2 Install Kernel Sources

If you are using an unmodified kernel provided by CentOS installer, install the kernel-devel package:

```
# yum install kernel-devel
```

```
[root@centos-server ~]# yum install kernel-devel
Loaded plugins: fastestmirror
Determining fastest mirrors
 * base: mirror.karneval.cz
 * extras: mirror.karneval.cz
 * updates: mirror.karneval.cz
base | 3.7 kB | 00:00
extras | 3.5 kB | 00:00
r1soft | 951 B | 00:00
updates | 3.5 kB | 00:00
updates/primary_db | 2.2 MB | 00:12
Setting up Install Process
Resolving Dependencies
--> Running transaction check
--> Package kernel-devel.x86_64 0:2.6.32-220.7.1.el6 set to be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                Arch          Version           Repository        Size
=====
Installing:
kernel-devel            x86_64        2.6.32-220.7.1.el6 updates           7.3 M

Transaction Summary
-----
Install      1 Package(s)
Upgrade     0 Package(s)

Total download size: 7.3 M
Installed size: 23 M
Is this ok [y/N]: █
```

3.3 Verify that the Source Matches Your Running Kernel

Sometimes, the kernel-devel package is newer than the installed and running kernel. If the kernel-devel is too old and not found, please follow the instructions on how to setup access to older yum packages as documented [here](#).

4.4 Build the CDP Kernel Module Online (direct Internet connection to R1Soft build server)

To attempt to build the kernel module, run the following command (this may take several minutes):

```
# r1soft-setup --get-module
```

```
[root@centos-server ~]# r1soft-setup --get-module
Checking for binary module
Waiting
No binary module found
Gathering kernel information
Gathering kernel information complete.
Creating kernel headers package
Checking '/lib/modules/2.6.32-220.4.1.el6.x86_64/source/' for kernel headers
Found headers in '/lib/modules/2.6.32-220.4.1.el6.x86_64/source/'
Compressing...
uploading kernel package
Starting module build... 99% 5799KB 485.5KB/s 00:00 ETA
Complete.
Saving kernel module to '/lib/modules/r1soft/hcpdriver-cki-2.6.32-220.4.1.el6.x86_64.ko'
Kernel module is now installed.
Use '/etc/init.d/cdp-agent restart' to load the new driver
```

If module has been compiled and installed successfully, you will see an output similar to the following:

```
Saving kernel module to '/lib/modules/r1soft/hcpdriver-cki-2.6.32-220.4.1.el6.x86_64.ko'
Kernel module is now installed.
Use '/etc/init.d/cdp-agent restart' to load the new driver
```

3.5 Build the CDP Kernel Module Offline (without direct Internet connection to R1Soft build server)

If there is no direct Internet connection between your CDP server and R1Soft build server, it is still possible to compile the kernel module. In this case, this will be tree-step process. First, you will have to create tarball file with the kernel headers. When you should copy this tarball file from the server to some other computer which has Internet connection to R1Soft build server. From this computer you should upload the tarball to the R1Soft build server and wait for the compilation to finish. When it is finished, you should download binary module and copy it back to the CDP server. Start with executing the following command:

```
# r1soft-setup --no-binary --kernel-dir /usr/src/kernels/YOUR_KERNEL_TREE
--tarball-only /tmp/kernel-headers-for-r1soft.tar.gz
```

After running this command, you will see:

```
# r1soft-setup --no-binary --kernel-dir /usr/src/kernels/2.6.32-220.4.1.el6.x86_64
--tarball-only /tmp/kernel-headers-for-r1soft.tar.gz
Gathering kernel information
Gathering kernel information complete.
Creating kernel headers package
Checking '/usr/src/kernels/2.6.32-220.4.1.el6.x86_64' for kernel headers
Found headers in '/usr/src/kernels/2.6.32-220.4.1.el6.x86_64'
Compressing...
Header package created '/tmp/kernel-headers-for-r1soft.tar.gz'
visit https://krnlbld.r1soft.com/ to do an offline module build
After it is complete, you will need to copy the module to /lib/modules/r1soft
```

```
[root@centos-server ~]# r1soft-setup --no-binary --kernel-dir /usr/src/kernels/2.6.32-220.4.1.el6.x86_64 --tarball-only
/tmp/kernel-headers-for-r1soft.tar.gz
Gathering kernel information
Gathering kernel information complete.
Creating kernel headers package
Checking '/usr/src/kernels/2.6.32-220.4.1.el6.x86_64' for kernel headers
Found headers in '/usr/src/kernels/2.6.32-220.4.1.el6.x86_64'
Compressing...
Header package created '/tmp/kernel-headers-for-r1soft.tar.gz'
visit https://krnlbld.r1soft.com/ to do an offline module build
After it is complete, you will need to copy the module to /lib/modules/r1soft
```

Last Step

- Copy the generated `tar.gz` file and paste it to a computer with Internet access.
- Go to <https://krnlbld.r1soft.com/> and upload the `.tar.gz` file to build a kernel module.
- After the build, you will download a kernel module.
- Copy this module and paste it to your Linux Server and the folder `/lib/modules/r1soft`.
- Restart the Server (`/etc/init.d/cdp-agent restart`).

1. Download CDP Agent | 2. Configure APT Repository | 3. Option 1 - Install Agent Using APT | Option 2 - Install Agent Using DPKG | 5. Install CDP Linux Device Driver | Last Step

1. Download CDP Agent

See [Obtaining Linux CDP Enterprise Agent](#).

2. Configure APT Repository

You should also configure an APT repository on Debian and Ubuntu to manage upgrades of CDP Standard Edition (See [Upgrading Enterprise Agent for Linux](#)), to install the `unzip` utility, etc.

First, modify your `/etc/apt/sources.list` to include the R1Soft repository, and then download the R1Soft `apt gpg` key.

```
# echo deb http://repo.r1soft.com/apt stable main >> /etc/apt/sources.list
# wget http://repo.r1soft.com/r1soft.asc
# apt-key add r1soft.asc
# apt-get update
```

```

root@debian-server:~# echo deb http://repo.r1soft.com/apt stable main >> /etc/apt/sources.list
root@debian-server:~# wget http://repo.r1soft.com/r1soft.asc
--2012-02-05 14:07:43-- http://repo.r1soft.com/r1soft.asc
Resolving repo.r1soft.com... 198.64.248.201
Connecting to repo.r1soft.com[198.64.248.201]:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2819 (2.8K) [text/plain]
Saving to: `r1soft.asc'

100%[----->] 2,819      15.4K/s  in 0.2s

2012-02-05 14:07:45 (15.4 KB/s) - `r1soft.asc' saved [2819/2819]

root@debian-server:~# apt-key add r1soft.asc
OK

root@debian-server:~# apt-get update
Get:1 http://security.debian.org squeeze/updates Release.gpg [836 B]
Get:2 http://repo.r1soft.com stable Release.gpg [189 B]
Ign http://security.debian.org/ squeeze/updates/main Translation-en
Ign http://security.debian.org/ squeeze/updates/main Translation-en_US
Get:3 http://cdn.debian.net squeeze Release.gpg [1,672 B]
Ign http://cdn.debian.net/debian/ squeeze/main Translation-en
Ign http://cdn.debian.net/debian/ squeeze/main Translation-en_US
Get:4 http://cdn.debian.net squeeze-updates Release.gpg [836 B]
Ign http://cdn.debian.net/debian/ squeeze-updates/main Translation-en
Ign http://cdn.debian.net/debian/ squeeze-updates/main Translation-en_US
Get:5 http://cdn.debian.net squeeze Release [107 kB]
Get:6 http://security.debian.org squeeze/updates Release [86.9 kB]
Get:7 http://cdn.debian.net squeeze-updates Release [113 kB]
Ign http://repo.r1soft.com/apt/ stable/main Translation-en
Get:8 http://cdn.debian.net squeeze/main Sources [5,767 kB]
Ign http://repo.r1soft.com/apt/ stable/main Translation-en_US
Get:9 http://security.debian.org squeeze/updates/main Sources [78.8 kB]
Get:10 http://repo.r1soft.com stable Release [2,047 B]
Get:11 http://security.debian.org squeeze/updates/main amd64 Packages [247 kB]
Get:12 http://repo.r1soft.com stable/main amd64 Packages [1,388 B]
Get:13 http://cdn.debian.net squeeze/main amd64 Packages [8,603 kB]
Get:14 http://cdn.debian.net squeeze-updates/main Sources/DiffIndex [2,023 B]
Get:15 http://cdn.debian.net squeeze-updates/main amd64 Packages/DiffIndex [2,023 B]
Get:16 http://cdn.debian.net squeeze-updates/main Sources [4,305 B]
Get:17 http://cdn.debian.net squeeze-updates/main amd64 Packages [14.9 kB]
Fetched 15.0 MB in 4s (3,275 kB/s)
Reading package lists... Done
root@debian-server:~#

```

3. Option 1 - Install Agent Using APT



Notice

You must be a Linux root user to install CDP Agent.

Once you have configured the APT repository, you can execute the following command to install CDP Agent:

```
apt-get install r1soft-cdp-enterprise-agent
```

```

root@debian-server:~# apt-get install r1soft-cdp-enterprise-agent
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  r1soft-cdp-agent r1soft-cdp-async-agent-2-6
Suggested packages:
  r1soft-kernel-modules
The following NEW packages will be installed:
  r1soft-cdp-agent r1soft-cdp-async-agent-2-6 r1soft-cdp-enterprise-agent
0 upgraded, 3 newly installed, 0 to remove and 0 not upgraded.
Need to get 12.4 kB/20.5 MB of archives.
After this operation, 0 B of additional disk space will be used.
Do you want to continue [Y/n]?
Get:1 http://repo.r1soft.com/apt/ stable/main r1soft-cdp-enterprise-agent amd64
4.2.0 [12.4 kB]

```

Option 2 - Install Agent Using DPKG

4.1 Make Sure You Can Unzip the Download

Most Linux distributions come with the unzip utility pre-installed. To determine if you have the unzip utility, run:

```
# which unzip
```

This should return an output similar to the following:

```
# which unzip  
/usr/bin/unzip
```

```
[root@centos-server ~]# which unzip  
/usr/bin/unzip
```

If it returns the following output, you need to install the unzip utility first:

```
unzip: Command not found.
```

To install unzip on Debian or Ubuntu:

```
# apt-get install unzip
```

```
root@debian-server:~# apt-get install unzip  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
Suggested packages:  
  zip  
The following NEW packages will be installed:  
  unzip  
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.  
Need to get 0 B/190 kB of archives.  
After this operation, 418 kB of additional disk space will be used.  
Selecting previously deselected package unzip.  
(Reading database ... 25429 files and directories currently installed.)  
Unpacking unzip (from ../archives/unzip_6.0-4_and64.deb) ...  
Processing triggers for man-db ...  
Setting up unzip (6.0-4) ...
```

4.2 Extract the ZIP File

We recommend creating a temporary directory to which you can extract the contents of the ZIP file.

1. Use the `mkdir` command to create a temporary directory (in our case, `cdp-agent`).

```
# mkdir cdp-agent
```

2. Use the `mv` command to move the archive to that directory. Note that Linux file names are case sensitive. Make sure you type the name correctly (in our case, "`r1soft-enterprise-agent-linux64-4.2.0.zip`").

```
# mv r1soft-enterprise-agent-linux64-4.2.0.zip cdp-agent
```

3. Use the `cd` command to go to that directory.

```
# cd cdp-agent
```

4. Use the `unzip` command to extract the files.

```
# unzip r1soft-enterprise-agent-linux64-4.2.0.zip
```

4.3 Install the Packages



Notice

You must be a Linux root user to install CDP Agent.

The archive you have extracted contains two folders: one with `.deb` packages (in our case, "`deb-linux64`") and one with `.rpm` packages ("`rpm-linux64`"). If you are installing on Debian or Ubuntu, choose the `.deb` package.

Each folder contains a set of CDP components:

- `r1soft-setup`
- `r1soft-cdp-enterprise-agent`
- `r1soft-cdp-agent`
- `r1soft-cdp-async-agent-2-6`

You will need to install all of them in one step. Use the `cd` command to go to the folder with the packages (in our case, "`deb-linux64`") and run the following command:

DEB 32-bit (x86) / DEB 64-bit (x86_64)

```
dpkg -i *.deb
```

```
root@debian-server:~/deb-linux64# dpkg -i *.deb
Selecting previously deselected package r1soft-cdp-agent.
(Reading database ... 25447 files and directories currently installed.)
Unpacking r1soft-cdp-agent (from r1soft-cdp-agent-amd64-3.18.1.deb) ...
Selecting previously deselected package r1soft-cdp-async-agent-2-6.
Unpacking r1soft-cdp-async-agent-2-6 (from r1soft-cdp-async-agent-2-6-amd64-3.18.1.deb) ...
Selecting previously deselected package r1soft-cdp-enterprise-agent.
Unpacking r1soft-cdp-enterprise-agent (from r1soft-cdp-enterprise-agent-amd64-3.18.1.deb) ...
Selecting previously deselected package r1soft-setup.
Unpacking r1soft-setup (from r1soft-setup-amd64-3.18.1.deb) ...
Setting up r1soft-setup (3.18.1) ...
Setting up r1soft-cdp-agent (3.18.1) ...
Attempting to get a kernel module from 'krnlbld.r1soft.com'

No binary module was found for your kernel. The kernel headers will be required
to build a module. See '/usr/bin/r1soft-setup --help' for more information
/etc/init.d/cdp-agent start: cdp started
Processing triggers for man-db ...
Setting up r1soft-cdp-async-agent-2-6 (3.18.1) ...
Setting up r1soft-cdp-enterprise-agent (3.18.1) ...
root@debian-server:~/deb-linux64#
```

5. Install CDP Linux Device Driver

CDP Device Driver is a proprietary, loadable Linux kernel module distributed by R1Soft. It is loadable at run-time without restarting Linux, and you do not need to recompile your Linux kernel to use it. R1Soft does not provide prebuilt modules for the popular kernels anymore, so you will have to compile the module from source.



Notice

You need to have loadable modules enabled as a feature in your kernel. This is an advanced feature on all popular Linux distributions.

45.1 Compiling CDP Kernel Module Against Kernel Headers or Kernel Source Tree

Using a pre-built binary module package is not possible anymore. You will have to compile this module against kernel headers for the current running kernel. In order to do so, we can build using your installed linux-headers package on your Linux server (see section 4.2 on installation of header packages). In order for kernel module compilation to work, you should have Internet connectivity directly from the Linux server you are installing CDP on, to TCP port HTTPS (443), on the host krnlbld.r1soft.com.

In order for kernel module compilation to work, you should have Internet connectivity directly from the Linux server you are installing CDP on, to TCP port HTTPS (443), on the host krnlbld.r1soft.com.

You can test connectivity with the following command (this may take a minute):

```
# r1soft-setup --test-connection
```

```
root@debian-server:~# r1soft-setup --test-connection
Checking connection to server
Waiting / Connected successfully to 'krnlbld.r1soft.com'
```

5.2 Install Kernel Sources

If you are using an unmodified kernel provided by Ubuntu installer, install the kernel-devel package:

```
# apt-get install linux-headers-`uname -r`
```

```
root@debian-server:~# apt-get install linux-headers-`uname -r`
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  linux-headers-2.6.32-5-amd64
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 532 kB of archives.
After this operation, 1,757 kB of additional disk space will be used.
Get:1 http://linux.org.by/debian/ squeeze/main linux-headers-2.6.32-5-amd64 amd64 2.6.32-45 [532 kB]
Fetched 532 kB in 0s (811 kB/s)
Selecting previously deselected package linux-headers-2.6.32-5-amd64.
(Reading database ... 30425 files and directories currently installed.)
Unpacking linux-headers-2.6.32-5-amd64 (from ../linux-headers-2.6.32-5-amd64_2.6.32-45_amd64.deb) ...
Setting up linux-headers-2.6.32-5-amd64 (2.6.32-45) ...
```

5.3 Verify that the Source Matches Your Running Kernel (Does not apply to Debian or Ubuntu)

Sometimes, the kernel-devel package is newer than the installed and running kernel. If the kernel-devel is too old and not found, please follow the instructions on how to setup access to older yum packages as documented [here](#).

5.4 Build the CDP Kernel Module Online (direct Internet connection to R1Soft build server)

To attempt to build the kernel module, run the following command (this may take several minutes):

```
# r1soft-setup --get-module
```

```

root@debian-server:~# /usr/bin/r1soft-setup --get-module
Checking for binary module
Waiting |
No binary module found
Gathering kernel information
Gathering kernel information complete.
Creating kernel headers package
Checking '/tmp/r1soft-cki.1346229167' for kernel headers
Found headers in '/tmp/r1soft-cki.1346229167'
Compressing...
uploading kernel package          99% 4216KB  37.2KB/s   00:00 ETA
Starting module build...
Complete.
Saving kernel module to '/lib/modules/r1soft/hcpdriver-cki-2.6.32-5-amd64.ko'
Kernel module is now installed.
Use '/etc/init.d/cdp-agent restart' to load the new driver

```

If module has been compiled and installed successfully, you will see an output similar to the following:

```

Saving kernel module to '/lib/modules/r1soft/hcpdriver-cki-2.6.32-220.4.1.el6.x86_64.ko'
Kernel module is now installed.
Use '/etc/init.d/cdp-agent restart' to load the new driver

```

```

root@debian-server:~# /usr/bin/r1soft-setup --get-module
Checking for binary module
Waiting |
No binary module found
Gathering kernel information
Gathering kernel information complete.
Creating kernel headers package
Checking '/tmp/r1soft-cki.1346229167' for kernel headers
Found headers in '/tmp/r1soft-cki.1346229167'
Compressing...
uploading kernel package          99% 4216KB  37.2KB/s   00:00 ETA
Starting module build...
Complete.
Saving kernel module to '/lib/modules/r1soft/hcpdriver-cki-2.6.32-5-amd64.ko'
Kernel module is now installed.
Use '/etc/init.d/cdp-agent restart' to load the new driver

```

4.5 Build the CDP Kernel Module Offline (without direct Internet connection to R1Soft build server)

If there is no direct Internet connection between your CDP server and R1Soft build server, it is still possible to compile the kernel module. In this case, this will be tree-step process. First, you will have to create tarball file with the kernel headers. When you should copy this tarball file from the server to some other computer which has Internet connection to R1Soft build server. From this computer you should upload the tarball to the R1Soft build server and wait for the compilation to finish. When it is finished, you should download binary module and copy it back to the CDP server. Start with executing the following command:

```

# r1soft-setup --no-binary --kernel-dir /usr/src/kernels/YOUR_KERNEL_TREE
--tarball-only /tmp/kernel-headers-for-r1soft.tar.gz

```

After running this command, you will see:

```
# r1soft-setup --no-binary --kernel-dir /usr/src/kernels/2.6.32-220.4.1.el6.x86_64
--tarball-only /tmp/kernel-headers-for-r1soft.tar.gz
Gathering kernel information
Gathering kernel information complete.
Creating kernel headers package
Checking '/usr/src/kernels/2.6.32-220.4.1.el6.x86_64' for kernel headers
Found headers in '/usr/src/kernels/2.6.32-220.4.1.el6.x86_64'
Compressing...
Header package created '/tmp/kernel-headers-for-r1soft.tar.gz'
visit https://krnlbld.r1soft.com/ to do an offline module build
After it is complete, you will need to copy the module to /lib/modules/r1soft
```

```
root@debian-server:~# r1soft-setup --no-binary --kernel-dir /usr/src/linux-headers-2.6.32-5-amd64/ --tarball-only /tmp/kernel-headers-for-r1soft.tar.gz
Gathering kernel information
Gathering kernel information complete.
Creating kernel headers package
Checking '/usr/src/linux-headers-2.6.32-5-amd64/' for kernel headers
Found headers in '/usr/src/linux-headers-2.6.32-5-amd64/'
Compressing...
Header package created '/tmp/kernel-headers-for-r1soft.tar.gz'
visit https://krnlbld.r1soft.com/ to do an offline module build
After it is complete, you will need to copy the module to /lib/modules/r1soft
```

Last Step

- Copy the generated `tar.gz` file and paste it to a computer with Internet access.
- Go to <https://krnlbld.r1soft.com/> and upload the `.tar.gz` file to build a kernel module.
- After the build, you will download a kernel module.
- Copy this module and paste it to your Linux Server and the folder `/lib/modules/r1soft`.
- Restart the Server (`/etc/init.d/cdp-agent restart`).

```
root@debian-server:~# /etc/init.d/cdp-agent restart
Waiting for cdp-agent to stop, this can take up to 60 seconds...
/etc/init.d/cdp-agent stop: cdp agent stopped
/etc/init.d/cdp-agent start: cdp started
```

With CDP properly installed, you can access the administration Interface by opening a Web browser and typing in the Host Name or IP address of the CDP Server.

[Accessing CDP from Local Machine](#) | [Accessing CDP from Internet/LAN](#) | [Using Secure Connection](#) | [Logging in to the CDP Server](#)

Accessing CDP from Local Machine

You can connect to the CDP Server Web Interface from the computer where it is installed. Type

the following address in a browser address bar:

`http://localhost`



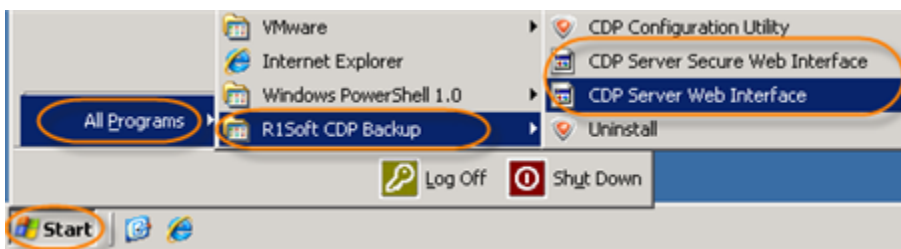
You can also access the CDP Server Web Interface from the Start Menu.

For example, Start > Programs/All Programs > R1Soft CDP Backup > CDP Server Secure Web Interface or CDP Server Web Interface.



Notice

The Start menu folder can be different if the User has chosen another name during the CDP installation.



Accessing CDP from Internet/LAN

To connect to the CDP Server Web Interface from any computer connected to Internet/LAN, follow the instructions below.

In the address bar of the browser, type the IP address (Host Name) of the CDP Server. Typically, it is same as the IP address of the computer. Example:

`http://178.120.122.126`



Tip

In Windows, you can find out the IP address of the computer by following these instructions. Click "Start," select "Run" (in some versions), type "cmd," type "ipconfig," and press <Enter>. IP address of your PC will be displayed among the other configuration parameters.

**Tip**

In Linux, type the "ifconfig" command to find out the IP address of the machine.

Using Secure Connection

You can use the following connection types to CDP Web Interface:

- CDP Server Web Interface - Uses HTTP protocol.
- CDP Server Secure Web Interface - Uses encrypted (SSL) HTTPS connections.

CDP Server Secure Web Interface uses encrypted (SSL) HTTPS connections. To access the CDP Server securely, add "https://" before the IP address (Host Name) of the CDP Server. See also: [\(Deprecated. Do Not Use\) Running CDP over SSL \(HTTPS\)](#).



CDP Server Web Interface uses HTTP protocol.

**Note**

By default, HTTP and SSL are enabled. You can configure these settings in [Configuration > Web Server Options](#). See [Configuring Web Server Options](#).

Logging in to the CDP Server

Once you have established a connection to the CDP Server, you will be prompted for a Username and Password.

Continuous Data Protection® 3.0 - Enterprise Edition Help

Login	
Username	<input type="text"/>
Password	<input type="password"/>
<input type="button" value="Login"/>	

[Copyright 2006-2010 R1Soft and BBS Technologies Inc.](#)

Type in "admin" as the Username and type in the Password you specified during installation. Click on "Login."

Continuous Data Protection® 3.0 - Enterprise Edition Help

Login

Username admin

Password ●●●●●●

Login

[Copyright 2006-2010 R1Soft and BBS Technologies Inc.](#)

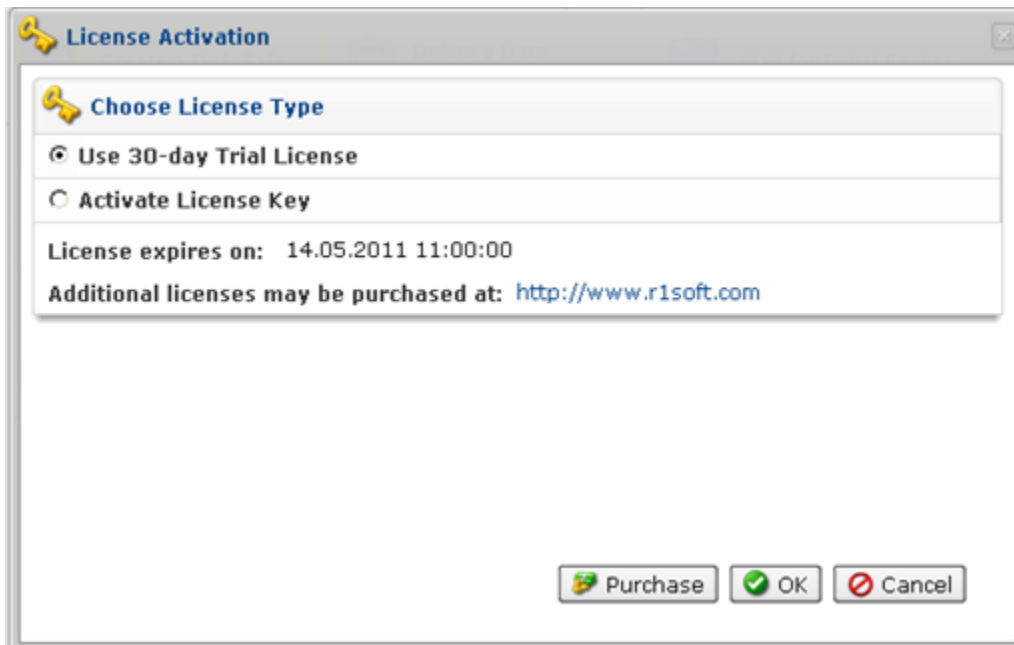
Proceed to the next step: [Activating CDP Enterprise Edition.](#)

Activating the Trial License

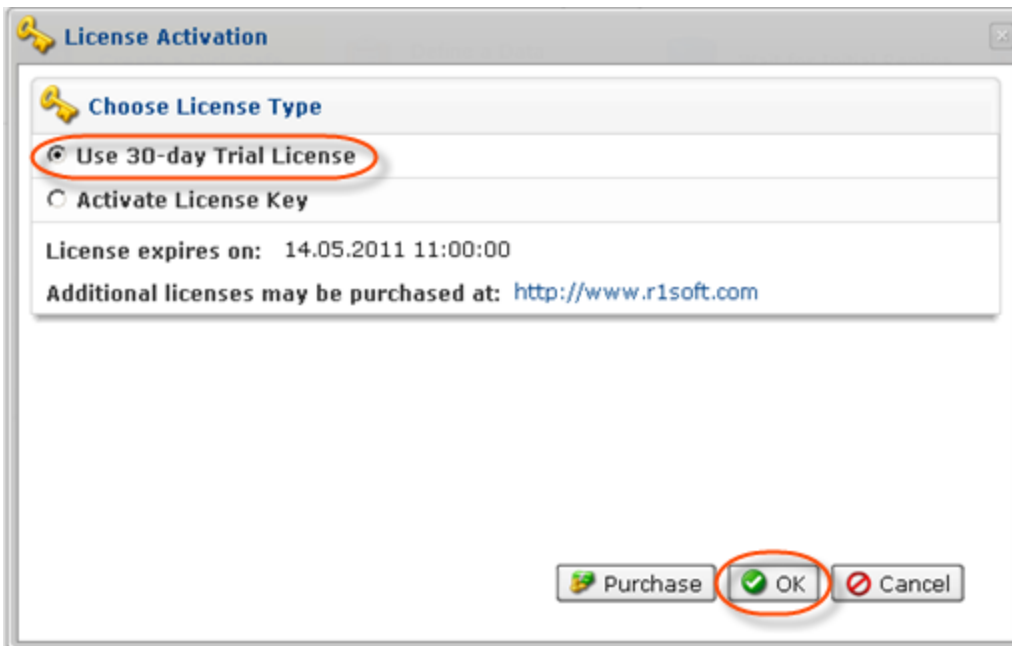
After the first login to the CDP Server via the Web Interface, you should activate the Trial License. Follow the instructions below.

1. After your first login, the "License Activation" dialog is displayed. It allows you to select one of the following options:

- Use 30-day Trial License
- Activate License Key



2. To activate the Trial License, choose the first option and press "OK."



Your Trial Enterprise Edition License expires in 30 days after activation.