Installing Advanced Edition on Debian and Ubuntu

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1. Download CDP Advanced Edition

See Obtaining Linux CDP Advanced Edition.

2. Configure APT Repository

You should configure an APT repository on Debian and Ubuntu to manage upgrades of CDP Advanced Edition (See Upgrading Advanced Edition for Linux), to install the unzip utility, etc.

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



Option 1 - Install Advanced Edition Using APT-GET

Once the APT repository is configured, you can use the following command to install the CDP Advanced Edition :

#apt-get install r1soft-cdp-adnavced-server

4. Option 2 - Install Advanced Edition Manually (using dkpg)

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:



root@debian-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



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).

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, " cdp-advanced-edition-linux64.zip").

mv cdp-advanced-edition-linux64.zip cdp

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

cd cdp

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4. Use the unzip command to extract the files.

unzip cdp-advanced-edition-linux64.zip

4.3 Install the Packages

Notice You must be a Linux root user to install CDP Advanced 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:

- rlsoft-cdp-advanced-edition
- rlsoft-setup
- rlsoft-cdp-agent
- rlsoft-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

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

You will need to define a username and password for the CDP Server Web Interface before you can begin using CDP Advanced 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.

By default, the embedded web server in CDP Advanced 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

Start the Web Interface (CDP Server):

/etc/init.d/cdp-server restart

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 Advanced Edition Web Interface using Firefox or Internet Explorer.

6. 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.

6.1 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.rlsoft.com.

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

# r1soft-setuptest-connection		
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6.2 Install Kernel Sources

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

	# apt-get install kernel-devel
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6.3 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.

6.4 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):



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

6.5 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 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/rlsoft
- Restart the Agent (/etc/init.d/cdp-agent restart).

Next Steps

- Accessing Advanced Edition Web Interface
- Logging in to CDP Server
- Activating CDP Advanced Edition