



SCO OpenServer® 6 Definitive 2018

GETTING STARTED GUIDE

About this Guide

SCO OpenServer® 6 Definitive 2018 is a new release of the OpenServer 6 operating system from XinuOS, which includes OpenServer 6, its maintenance packs, all OpenServer 6.0.0V features as well as additional functionality and maintenance.

SCO OpenServer 6 Definitive 2018, denoted as Definitive 2 Maintenance 1 (**D2M1**), is a successor release to OpenServer 6 as well as a successor release to OpenServer 6.0.0V. This *Getting Started Guide* accompanies the

[SCO OpenServer 6 Definitive 2018 RELEASE NOTES \(December 2017\)](#)

which are also available for free download at the XinuOS web site portal.

This guide is intended for administrators responsible for servers and storage systems.

Revisions

Revision	Date	Description
00	12/2015	Initial document release – OpenServer6D2M0.
01	12/2017	Update document release – OpenServer6D2M1.

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Typographical Conventions

This document follows these conventions:

Convention	Usage	Examples
Note:	Important additional information or further explanation of a topic.	Note: <i>A weekly backup is recommended.</i>
Warning!	The task or operation might have serious consequences if conducted incorrectly or without appropriate safeguards.	Warning! <i>Do not change configuration parameters.</i>
Bold	A command or system input that you type, or text or a button you select on a screen.	Click HELP for details on disaster recovery.
<i>Italic</i>	Italic font indicates any of the following: <ul style="list-style-type: none"> <i>A term with a specific meaning</i> in the context of this document. <i>Emphasis</i> on specific information. <i>Reference</i> to another document. <i>Variables</i> in a syntax statement for which values are substituted. 	Detailed information on <i>disaster recovery</i> methods is available in the <i>Administrator Guide</i> . tar [zxvf] file .tgz
Courier	System output, file names or path names. Bold Courier for commands typed by user.	> Recovery in progress tar cvf tarfile *.cc
Angle <> Brackets	A required entry or parameter	installer-<version#>.run
Square [] Brackets	An optional entry or parameter.	tar [zxvf] file .tgz
Curly {} Brackets	A list of choices separated by a vertical bar from which one must be selected.	Click { OK Cancel }.

About SCO OpenServer 6 Definitive 2018

Currently developed, managed and maintained by Xinuos, Inc., the Xinuos and SCO OpenServer™ product line is a family of runtime software, development kits, and optional licenses, products, and services that enable you to tailor a system to meet your computing needs. This chapter provides an overview of this release of SCO OpenServer 6 Definitive 2018.

For more information on the SCO OpenServer 6 product family, go to <http://xinuos.com>.

SCO OpenServer 6 Definitive 2018

SCO OpenServer 6 Definitive 2018 is an advanced operating environment optimized for departmental database and application servers typically used by small business customers, and for departmental servers in medium size organizations to run back office applications and reliably share business critical information with a wide range of client devices.

SCO OpenServer 6 Definitive 2018 is licensed for 32 CPUs, 500 users, and 64GB of memory.

SCO OpenServer 6 Definitive 2018 media

SCO OpenServer 6 Definitive 2018 is released on a single DVD media. All optional services and updates are also on the DVD. The DVD can be used to:

- ▶ install a new SCO OpenServer 6 Definitive 2018 system on a physical system or in a virtual machine.
- ▶ upgrade an existing installation of OpenServer 6 to SCO OpenServer 6 Definitive 2018.

SCO OpenServer 6 Definitive 2018 Documentation

All SCO systems include comprehensive online documentation, available through the DocView documentation server. To access the online documentation:

- ▶ Double-click on the **Help** icon on the desktop.
- ▶ Point any browser at **<http://hostname:8457>**, where *hostname* is the network node name of the system, or **<http://localhost:8457>** if you are logged directly into the system running DocView.

Use the **`/usr/bin/docview`** command to determine if the server is running, and to start it if necessary.

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The SCO OpenServer 6 Definitive 2018 documentation set is organized in collections (or categories) of online topics and manual pages that are linked from this guide.

You can perform keyword searches of the entire SCO OpenServer 6 Definitive 2018 documentation set using the DocView **Search** function. Note, however, that a search index **must first be generated** before the Search function will work.

Complete product documentation is available on the SCO OpenServer 6 Definitive 2018 Documentation web page, at <http://www.sco.com/support/docs/openserver>. Additional help, including a searchable knowledge database, can be found on the SCO Support web page, at <http://www.sco.com/support>. Many useful publications by independent authors are available from technical bookstores.

SCO OpenServer 6 Definitive 2018 Hardware Support

SCO OpenServer 6 Definitive 2018 includes drivers for a broad range of hardware. The most current information about SCO OpenServer 6 hardware support is updated daily and is available on the XinuOS-maintained Certified and Compatible Hardware (CHWP) web page:

<http://www.sco.com/chwp>

Check this page to see if the hardware that you are using is supported on SCO OpenServer 6 Definitive 2018. If you need to download an updated or new driver, this site will tell you how to do so.

For hardware limitations and workarounds, see the Support Library, at:

<http://www.sco.com/support>

The online documentation also lists new hardware support at the time of product release, in SCO OpenServer 6 Definitive 2018 new features and notes.

Licensing and Registering SCO OpenServer 6 Definitive 2018

Information regarding licensing and registering SCO OpenServer 6 Definitive 2018 products from XinuOS, Inc. can be found in the latest Release Notes for SCO OpenServer 6 Definitive 2018 on the xinuOS.com website.

Upgrading from Previous Releases

Upgrades to SCO OpenServer6 Definitive 2018 are only supported from OpenServer 6.0.0 MP4, OpenServer 6.0.0V or OpenServer6D2M0. Run **patchck** and apply all current updates

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PRIOR to upgrading. All other SCO system installations require a fresh install of SCO OpenServer 6 Definitive 2018.

A complete system backup must be performed prior to performing the upgrade so that the system can be completely recovered if a problem is encountered during the upgrade process.

To upgrade from a prior OpenServer 6.0.0 MP4 or later release to SCO OpenServer 6 Definitive 2018:

1. Obtain an SCO OpenServer 6 Definitive 2018 Enterprise System license. Do not proceed until you have this license.
2. Mount the SCO OpenServer 6 Definitive 2018 DVD or ISO image. For example, if your `/mount_point` is `/mnt` then run this command:

```
mount -o ro `marray -a OpenServer6D2M1-DVD.iso` /mnt
```

3. Run the **upgrade.sh** shell script: `/mount_point/upgrade.sh`

Press Enter if the following benign error message pauses the installation:

```
Error: license generation failed (-31)
```

The message appears because the licensing system is being prepared so that you can enter your new SCO OpenServer 6 Definitive 2018 Enterprise System license below.

4. If installing from a physical DVD, **umount** the DVD and remove the DVD from the DVD drive.
5. Reboot into single user mode and use **scoadmin** to install your SCO OpenServer 6 Definitive 2018 Enterprise System license.
6. A new Xinuoscurl package is provided on the ISO in the extra directory. See the README there if you want to install this package and its prerequisites.

Installing the SCO OpenServer 6 Definitive 2018 System

Before you begin the installation:

- ▶ read [the before installing web page](#) online.
- ▶ complete the online [installation checklist web page](#) .

If you encounter problems during the installation, see Troubleshooting the installation on page 15.

Responding to installation prompts

Use these keys when responding to prompts for information during the first section of the installation (before software loading begins):

To:	Press:
Get help	<F1>
Abort the installation	<F2>
Display other choices	<Space>
Return to the previous screen	<Esc>
Exit help screen	<Esc>
Move through selections	<Tab>
Move down one line	<↓>
Move up one line	<↑>
Scroll up one screen	<PgUp>
Scroll down one screen	<PgDn>
Select or deselect multiple items in a list	<Space>
Accept an item	<Enter>
Accept the current configuration	<Enter>

You cannot use the <Space> bar to enter a space in any of the installation fields, including the “Root Password” fields.

If you make an error while entering information, use the <Bksp> key or <Ctrl>**H** to erase a character.

Pre-installation Procedures

Before installing SCO OpenServer 6 Definitive 2018:

- ▶ **Complete the online [Installation checklists web page](#).**

This is very important. If you do not gather this information first, you might have to stop the installation and start again from the beginning.

WARNING: *Verify that your system clock is set correctly before beginning the installation of SCO OpenServer 6 Definitive 2018.*

- ▶ **Back up all of the data on your system.**

Having up-to-date backups of all your system data -- from all partitions on all attached hard disks -- before beginning any installation is very important. Some installation options overwrite **all** of the data on the hard disk, including data in non-active partitions.

- ▶ **Verify that the desired UNIX partition is active.**

The installation copies the SCO OpenServer 6 system to the active partition. If your hard disk contains more than one UNIX partition, make sure that the partition you want to install with SCO OpenServer 6 Definitive 2018 is active.

WARNING: *With one exception, the choices that you make during the SCO OpenServer 6 Definitive 2018 installation interview (including disk configuration settings like creating partitions and setting up filesystems) are not implemented until Step 9, when you are prompted to accept your installation choices. At any time before that point, you can cancel the installation without any changes to your disk.*

If, however, you select to reset disk geometry while customizing partitions and filesystems, all data on the disk, including data in non-UNIX partitions, is immediately removed and the system is rebooted. Use this option with extreme caution.

Installation Procedures

1. **Insert the installation DVD** into your system's bootable DVD drive and turn on the hardware.

At the [boot] prompt, press <Enter> to begin the installation.

Follow the instructions on each screen and complete the information fields. Brief instructions for completing the fields are provided at the bottom of each screen.

2. Hardware Detection and Licensing

- a. Review the Restricted Rights Legend then select **Continue**.
- b. At the Welcome screen, select Continue.
- c. Read the End User License Agreement then select Accept to continue.
- d. Extract Host Bus Adapter (HBA) drivers for your system.
 - If your installation hard disk is either IDE or is one of the SCSI devices supported by the HBAs automatically available from the DVD boot image, select **No** at the “Load more HBA drivers” prompt.
 - If the HBA driver that you need is not one of those available for automatic detection, you need to extract the driver from the SCO OpenServer 6 Release 6 DVD so it can be loaded onto the system for the installation. Select **Yes** at the “Load more HBA drivers” prompt.
 - If you have media with updated or third-party HBA drivers that are appropriate for your hardware configuration, insert the disk and select **Yes** at the “Load more HBA drivers” prompt.

See [Supported Host Bus Adapters \(HBA\) web page](#) for a table that lists the HBAs that you can use on SCO OpenServer 6 Definitive 2018 and the drivers that are automatically available when the installation begins.

- e. Load the required HBA drivers.

By default, the system auto-detects hardware using all of the extracted drivers and then removes any unnecessary drivers from the system. If you prefer, you can manually remove drivers before proceeding.

NOTE: *If you have a hardware configuration problem that is preventing the installation from succeeding, you can reconfigure the affected hardware from this screen. Press <F8> to run the **Device Configuration Utility (DCU)**, then select **Interactively configure drivers**. See *Installing and Configuring Hardware* on page 21 before using the DCU. When you are finished configuring your hardware, exit the DCU. You are returned to this point in the installation process.*

- f. Select to install from DVD.

For information on installing from a TCP network server, see the online page: [Installing SCO OpenServer 6 products over the network](#).

- g. Specify a keyboard type.

- h. Enter your SCO OpenServer 6 Definitive 2018 Enterprise System license number, code, and data.

WARNING: *If the system clock was incorrect when you installed SCO OpenServer 6 Definitive 2018, you will need to correct the system date and time and reinstall SCO OpenServer 6 Definitive 2018.*

NOTE: *If you are upgrading from a previous release of XinuOS OpenServer, see Installing the SCO OpenServer 6 Definitive 2018 System on page 4 for important information on the licenses you need to enter and the order in which they must be entered.*

To enter an Evaluation License, press <F8>. The license fields are automatically populated for you.

3. System Level Information

On this screen:

- enter the system name and your domain name.
- select the desired security profile.
- select your time zone.
- specify your default language setup. Choose **C** unless you have another preference.

4. Disk Setup and Software Selection

Select the method for setting up your hard disk and select any optional software that you want installed.

- a. Select a hard disk setup option. Options include:
- **Use whole disk** for UNIX – configures the entire disk, configuring a single partition that contains SCO OpenServer 6 Definitive 2018 with a default division layout. Any pre-existing data on other partitions is removed.
 - **Customize partitions & filesystems** – allows you to preserve existing partitions or edit the partition table. Specify UNIX or other partitions, and optionally specify division names, sizes, and mount points within the active UNIX partition.
 - **Re-load partition data** – restores the configuration on the hard disk to what it was when you started the installation.

- Select alternate root **disk** – allows you to select a different hard disk to use as the *root* disk for the installation.

If you select the Use whole disk for UNIX option, skip ahead to **Step e**.

If you choose the Customize partitions & filesystems option, continue with the next step, **Step b**.

- b. *If you selected to customize partitions and filesystems*, you must now define the desired partitions for the primary hard disk. The partition type options are described in [Partitions and filesystems checklists](#).

For each partition that you define, you need to set its **Status** (active or blank) and the percentage of the disk that you want allocated for the partition.

NOTE: *If you miscalculate when defining partition sizes, the installation notifies you when you attempt to leave this screen. You must correct any allocation errors before proceeding.*

- c. *If you selected to customize partitions and filesystems*, choose whether or not to customize filesystems and divisions (slices) on your primary hard disk.
- To use the default filesystem sizes and types, accept the choices and continue.
 - You can customize filesystems and divisions (slices). See “Partitions and filesystems checklists” for a description of available filesystem types.

In the “Type” column, press <Space> on a default selection to see the list of other possible filesystem choices. Specify the size of filesystems in the “Size” column.

- d. *If you selected to customize partitions and filesystems*, choose the following disk configuration options:

- Select **Yes** to install the XinuOS boot loader.

If you opt to install a third-party boot loader, SCO OpenServer 6 Definitive 2018 may not be recognized or be able to boot.

- Select to reset disk geometry if your driver incorrectly interprets your disk geometry.

WARNING: *Resetting the disk geometry removes all data on a disk, including data in non-UNIX partitions. This option is not enabled by default and should be used with caution.*

If you select this option, the system immediately reboots and you can begin the installation again, using the new disk geometry.

After you complete the partition customization screens, confirm the hard disk configuration by selecting **Accept above choices**.

- e. **Select any optional software** that you want to install. There are several categories of software, including:

Operating System Services	The base operating system services and utilities.
Connectivity Services	Network drivers, TCP/IP, NFS, Internet Services, XinuOS PPP from Morning Star, Mozilla, OpenSSH, Samba, and Kerberos.
Graphics Services	The X server, X clients, and the Panorama (xdt3) and KDE Desktops.
Database Services	PostgreSQL and MySQL.
Value-added Services	Gimp-Print, Foomatic, Extended shells, PDFviewer, CD/DVD-RW recording tools, and Vim.
Documentation	English manual pages and online documentation (in HTML format).

Installing all of the software provided in these categories requires approximately 2.8GB of disk space. If the *root* filesystem that you configured in previous steps is not large enough to accommodate all of the selected software, the installation prompts you to either make the *root* filesystem larger or deselect software components.

You can customize what is installed in each of these categories, including removing software that you do not need. Select a desired service and press <Space>. All of the components associated with that service are displayed – an asterisk (*) indicates the software will be installed. To deselect a component, highlight it and press <Space>. If you change your mind, press <Space> again to reselect the component. Press <Enter> to complete customizing software selection for the service.

Final Configuration Steps

► Network card

The installation can try to autodetect a network adapter, you can manually select the adapter, or defer networking configuration until after the installation is complete.

▶ Network address

If you selected a network adapter in the previous step, select one of the following to configure the TCP/IP Network address:

- To use a Dynamic Host Configuration Protocol (DHCP) server to set the TCP/IP configuration on the system after the first reboot, choose **Yes** in the **Use DHCP?** field. Select the appropriate TCP framing type in the field at the bottom of the screen.
- To define the TCP/IP configuration for your system now, enter the desired IP address, Netmask, Broadcast address, Gateway address, and Primary and Alternate nameserver addresses.

▶ Video and Graphics

You can opt to have the installation autodetect and configure your video adapter or select to manually configure the adapter after the installation is finished. You can also choose whether or not [scolgin\(XC\)](#) is turned on.

▶ Mouse

The installation attempts to autodetect a mouse and displays the Mouse Configuration screen, where you can test that the mouse is working correctly.

If the mouse isn't detected correctly, or the mouse test is unsuccessful, you can modify the following:

- The “Mouse Type” options are **Serial**, **USB**, **PS/2-compatible**, and **No Mouse**.
- For a serial mouse, select the correct serial port.
- Select the appropriate number of buttons.

▶ Email System

Sendmail is the default. You may choose **MMDf** if you have no need for internet mail.

▶ Root Password

Assign the *root* (superuser or administration) password or press <F5> to defer.

If you defer setting a password now, you are prompted for one when you first log in to the system.

▶ Write data permanently to the hard disk and finalize Installation.

You are prompted to **Accept above choices** to continue. Doing so deletes any data in the active partition and, depending on other special disk options you chose, possibly other partitions as well.

If you need to make changes to any of the screens before proceeding, select **Go Back**.

Previous SCO OpenServer 6.0.0 ISL supported the creation of a response file on a floppy diskette to save the IS interview answers (by using the <F3> key). This is no longer supported.

The installation can now proceed unattended: The software load begins after any disk setup is completed.

Software load is the longest stage of the installation. You can track the progress of the installation by viewing the progress indicator. After the software is loaded, the kernel is rebuilt. This takes several minutes.

▶ Reboot

After the kernel is successfully rebuilt, remove the installation DVD from the drive on your system and press any key to reboot.

The system automatically boots into multi-user mode.

Troubleshooting the installation

This chapter describes troubleshooting procedures for some of the problems that might occur during or immediately following installation of your SCO OpenServer 6 Definitive 2018 and additional SCO OpenServer 6 products.

Sometimes errors occur during the installation procedure that cause problems as you install the software or when you boot immediately after installation. The problem is usually not with the software or the procedure itself. Occasionally, there is a hardware problem, but typically such problems are minor, such as an improperly connected cable.

If you cannot solve your problem and you must contact your support provider for help, be sure to record your system information as described below at Before Calling for Help on page 19.

During the installation procedure, do not assume that you know what is about to happen, even if you have installed the system before. There may have been changes to the installation process, so you should read the installation documentation closely.

Solving problems during installation

This section covers solutions for some common problems that might occur while installing the software.

► [Installation DVD fails to boot from bootable DVD drive](#)

If you have a system that supports bootable DVD but the SCO OpenServer 6 Definitive 2018 DVD fails to boot, it is possible that your system BIOS is out-of-date. Check with your hardware vendor to see if there are any BIOS updates available.

► [Installation fails with IDE DVD drive configured as slave device](#)

If you attempt to install SCO OpenServer 6 Definitive 2018 from an IDE DVD drive that is configured as the slave device on the IDE controller, the installation may fail if there is no master IDE device configured.

To solve this problem, temporarily reconfigure the DVD drive to be the master device. After the installation is complete, you can return to your previous configuration.

► [Installation fails with /cd-rom/.extra.d/usr/bin/swap error](#)

If the installation halts with the following error message:

```
/cd-rom/.extra.d/usr/bin/swap -a /dev/dsk/c0b0t1d0s1 failed.
```

The installation has been aborted. To recover from this error, you must restart the installation.

the problem may be caused by interference from an IDE device that is connected to the system. Disconnect any IDE devices that are not needed during installation and then restart the installation.

You can reconnect these IDE devices after the system is successfully installed.

▶ **USB devices can interfere with installation**

Other than a USB keyboard, USB mouse, and, if desired, a USB DVD drive for running the installation, we recommend that you remove other USB devices (especially USB storage devices) before starting the installation to minimize the chance of problems.

▶ **USB keyboard does not function properly**

If you are using a USB keyboard and it seems the keyboard is either stuck or not functioning properly, press the <Alt> and <Enter> keys to get it to function properly again. This is especially true for certain keyboards when switching between virtual terminal screens.

▶ **Installation unresponsive when system attached to KVM switch**

- If your system console, mouse, and keyboard are connected to a KVM or multiscreen switch, the system may become unresponsive when the system attempts to detect your mouse (just after the installation DVD is loaded). If this occurs, reboot the system, restart the installation, and press any key when the SCO OpenServer 6 logo appears. When the [boot] prompt is displayed, enter:

```
[boot] IVAR_MOUSE=manual  
[boot] boot
```

This bypasses mouse autodetection and allows you to manually configure your mouse during installation.

- Signal detection is more robust with some KVM switches than others. With some units, it is possible for the connection between input devices (mouse and/or keyboard) and the system to be interrupted, even if momentarily, when switching from one system to another. If this happens with a PS/2 or serial mouse, the mouse connection will not recover. If you switch away in the middle of an installation and this problem occurs, you will need to restart the installation.

If your system is attached to a KVM or multiscreen switch and you experience problems with system unresponsiveness after switching screens, we recommend that you stay on the SCO OpenServer 6 screen for the duration of the installation.

▶ Number of mouse buttons incorrectly detected

If you are using a serial or PS/2 mouse, the mouse autodetection utility always configures the mouse for three buttons. If your serial or PS/2 mouse has fewer buttons, reset the mouse button count on the installation's Mouse Configuration screen. Or, after the installation is complete, manually reconfigure the mouse using **mkdev mouse**.

This issue does not apply to USB mice.

▶ Solving problems after installation

This section describes some common problems that you could encounter when you boot the system immediately after installing the software.

- Cannot configure mouse while X server is running

If you want to configure a mouse after the installation is complete, note that you cannot do so while the X server is running.

Before attempting to run **mkdev mouse**, be sure that you run **scolgin stop** to turn off the X server. After you have made the mouse configuration modifications that you desire, turn the X server back on by running **scolgin start**.

- System not licensed or unregistered software

If you get the error System not licensed when logging in, or see messages about unregistered SCO OpenServer 6 software:

1. Switch to tty01 by pressing <Ctrl><Alt><F1>.
2. Log in as *root*.
3. Use the command **scoadmin license manager** (or **scoadmin license**) to run the **License Manager**, as described in the web page [Starting the License Manager](#). Confirm that you have a valid license for each installed product by looking for the word Yes in the *Licensed* column.
4. To stop the periodic messages about unregistered software, register your products as described in the web page [Registering products](#). Confirm that a product is registered by looking for the word Yes in the *Registered* column.

5. Check that your system date accurately reflects today's date by running the [date\(C\)](#) command with no arguments. If the date displayed is not today's date, reset the date with the **asktime** command, and reboot the system.

WARNING: *If the system clock was incorrect when you installed SCO OpenServer 6 Definitive 2018, you will need to correct the system date and time and reinstall SCO OpenServer 6 Definitive 2018.*

Solving undocumented installation problems

Even if your problem is not described in this chapter, this section can help you to isolate, identify, and solve the problem.

First, you must determine whether you have a software or hardware problem. In general, hardware problems are intermittent, while software problems are consistent.

► Hardware and operating systems

The fact that a given piece of hardware works under operating systems such as Microsoft Windows or Linux is no guarantee that it works with XinuOS OpenServer.

If you are experiencing problems, check the [XinuOS Certified and Compatible Hardware \(CHWP\) web page](#) to make sure that you are using compatible hardware.

► Identifying the problem

If the system hangs mysteriously, either at boot time, during installation, or shortly thereafter, use these steps to isolate and identify the problem:

1. Confirm that your hardware is listed as supported on the [XinuOS Certified and Compatible Hardware \(CHWP\) web page](#). If it is not, we recommend that you use supported hardware.
2. If possible, check a suspected component on another machine with the same configuration (for example, using SCO OpenServer 6 Release 6.0.0).
3. If any third-party drivers are installed, such as those supplied with multiport cards, remove both the driver and the hardware that it controls, relink the kernel, and see if the problem persists.
4. Make certain that your devices are recognized at boot time. Watch the boot display, use [cat\(C\)](#) or [vi\(C\)](#) to look at the `/usr/adm/messages` and `/usr/adm/syslog` files, or use the [hw\(ADM\)](#) utility.
5. Check for hardware conflicts between components, including DMA, interrupt vectors, and memory addresses. Check for documented incompatibilities or limitations in the [XinuOS Certified and Compatible Hardware \(CHWP\) web page](#).

6. If your machine has features such as shadow RAM or memory caching, disable them.

Before Calling for Help

If your problem is not discussed in this chapter, the rest of the SCO OpenServer 6 Definitive 2018 documentation set and you cannot isolate the problem, check the Xinuos Knowledge Center to see if you can find an answer to your problem. The Knowledge Center is available at: <http://www.sco.com/ta>.

If you are still unable to find help for your problem, call your support provider. Before calling, however, make a copy of the following trouble report forms and your [installation checklist web page](#). Then, write down the critical information about your system, including a description of your problem and system configuration, so that the support personnel can analyze your problem quickly.

▶ A description of the problem

Write down a complete description of your problem, including the precise series of commands or steps that you took that led to the problem. Include the exact text of any error messages displayed.

▶ System configuration

Knowing the hardware and software configuration of your system is vital to a correct diagnosis of your problem. If this information is readily available when you speak to your support provider, the diagnostic process is much easier and less time-consuming. Make sure that you list *all* the hardware components, including brand names and model numbers, when you fill out the hardware configuration trouble report worksheet. On the software configuration worksheet, check the SCO OpenServer 6 product that is installed, the installed components (if a subset of the SCO OpenServer 6 system is installed), any additional SCO OpenServer 6 products, and list all applications and non-SCO OpenServer 6 device drivers that you installed.

After the installation

After completing the SCO OpenServer 6 Definitive 2018 installation, it is recommended that you read and follow these instructions:

- ▶ make a copy of the installed kernel
- ▶ create emergency recovery media see http://localhost:8457/en/SM_trouble/installgN.emerg_intro
- ▶ [register your SCO OpenServer 6 Definitive 2018 software](#)
- ▶ keep a copy of the completed [Installation checklists](#) with the [system log](#) to help system administration, troubleshooting, and future upgrades go more smoothly

Copying the installed kernel

After the SCO OpenServer 6 Definitive 2018 installation is finished, it is recommended to make a copy of the installed kernel. Do this after the system reboots for the first time, by running the following commands:

```
# cd /stand  
# cp unix unix.good
```

This kernel can be used in the event that successive kernel relinks produce kernels that do not boot.

Verifying DHCP and Address Allocation Servers

If you selected to use DHCP during the installation, you can now check the DHCP and Address Allocation Servers on your network to see if an IP address was allocated to your machine as expected. After your system is completely installed, check the system startup messages in `/var/adm/syslog` for an indication that the system successfully obtained an IP address from the DHCP server.

See the [Configuring a Dynamic Host Configuration Protocol \(DHCP\) server](#) web page for more information.

Installing and Configuring Hardware

Hardware compatibility issues

Except where noted, the hardware described in the SCO OpenServer 6 Definitive 2018 documentation has been tested. However, because the manufacturers of compatible machines or add-on peripherals may change configuration, functionality, or firmware at any time, no guarantee is implied.

To determine whether hardware components are compatible with your machine, you must know the processor (for example, Pentium III, Pentium 4, AMD) and the bus architecture (PCI, PCI Express, and so forth) that it uses. You should also be aware of the type of disk controller in your system.

If you have added any adapters, make sure that all switches or software-controlled settings are set as recommended in the manufacturer's hardware manual for that board. Some hardware requires specific switches or software-controlled settings to work with XinuOS OpenServer. If your hardware does not work with SCO OpenServer 6 Definitive 2018 with the settings as shipped, contact the hardware manufacturer for the proper settings.

Configuring installation hardware

SCO OpenServer 6 Definitive 2018 automatically determines the correct hardware settings for PCI hardware devices needed to install the system. If the devices in your system have hardware conflicts such as duplicate interrupt vectors, you need to run the **Device Configuration Utility** (DCU) by pressing <F8> from the “Load the required HBA drivers” installation screen.

You can also run the DCU after installing your system, to add additional hardware devices not needed by the installation. As *root*, enter `mkdev dcu` at a shell prompt.

See [Using the Device Configuration Utility \(DCU\) web page](#) and the [dcu\(ADM\)](#) manual page for more information.

SCO OpenServer 6 Definitive 2018 provides several other hardware configuration managers to configure network, modem, print, audio, and video devices after you install the system. See After the installation on page 20.

Navigating the DCU is comparable to navigating the installation windows, with similar cursor movement, text entry, and help keys active.

NOTE: *During an installation, you can only make changes with the DCU once. If you apply changes and exit the DCU, and then realize that you need to make more changes, you must re-start the installation.*

Viewing hardware device configuration

To view the currently detected hardware on your system, select **Hardware Device Configuration** from the DCU main menu. The Hardware Device Configuration window appears. This window displays hardware parameters for each device configured on your system. If a value is not needed, a dash appears in its place.

The fields shown are:

Configuration Status

- Indicates whether or not the hardware controller will (**Y**) or will not (**N**) be configured into the kernel.

Device Name

- Displays the name of the device. If a driver is assigned to an entry, the entry will be either the device name such as “COM Port”, or a **driver name** such as “*asyc*”, the driver for the COM port.
- If the device name is “UNKNOWN” on an EISA, MCA or PCI system, this is an entry from NVRAM (Non-Volatile Random Access Memory) indicating that the DCU cannot assign a driver name. For example, if you have installed a network adapter, but have not installed the corresponding software for the adapter, it will be listed as “UNKNOWN”.
- If the device name is “unused”, this indicates that an ISA driver is disabled, but the device parameters are retained.

IRQ

- Specifies the interrupt request vector (IRQ) value for the hardware controller.

IOStart, IOend

- Lists the start and end addresses, in hexadecimal notation, for the controller's I/O address range.

Memstart, MemEnd

- Lists the start and end addresses, in hexadecimal notation, for the hardware controller's memory address range.
- For an HBA controller, these are the start and end addresses of the BIOS for the controller.

DMA

- Lists the DMA channel for the controller.

To view additional information about any of the entries, use the arrow keys to highlight the desired controller and press <F6>. When you do, you see configuration information for the following advanced parameters:

Unit

- The unit number for a controller that supports multiple devices.

IPL

- The interrupt priority level, for those devices that have priority handling capability.

ITYPE

- The IRQ sharing type.

BindCPU

- The CPU to which the device binds.

Viewing and activating software device drivers

The following procedures allow you to view or activate the device drivers currently installed on your system.

- ▶ From the DCU main menu, select **Software Device Drivers**.
- ▶ Select a device driver category. If you are unsure which category the desired device driver is in, select **All Software Device Drivers**. The Software Device Drivers window for the selected class of device drivers is displayed. The window contains three fields:

Active/Inactive

- If an asterisk (*) appears in this field, the driver is available for use assuming the hardware it supports is installed and enabled. If the field is empty, the device driver is inactive and supports no devices.

Driver

- Lists the device driver name.

Names of Supported Devices

- Lists the hardware controllers the device driver supports (if available).

Many device drivers support multiple controllers. The Software Device Drivers window lists the controllers supported by each device driver. If a device driver is inactive, the system cannot access any of the controllers that the device driver supports.

1. To view a specific device driver, move the cursor to it and press <F6>. Information about the driver appears. For a description of the fields, see Viewing hardware device configuration on page 22.

Press <Enter> to return to the Software Device Drivers window.

2. To activate a device driver, move the cursor to the device driver's status field and press <Space>.

If you want to add a new controller, the device driver that supports this controller must be active.

3. If you are an experienced administrator who is installing the system, and if there are HBA device drivers that you are sure are not needed on your system, you can instruct the installation software not to install these device drivers. To do so, remove the asterisk next to each of these device drivers.
4. To apply the changes and return to the Software Device Drivers window, press <F10>, then press <Enter>.

Adding a new controller for a device driver

- ▶ From the DCU main menu, select **Software Device Drivers**.
- ▶ Select a device driver category. If you are unsure which category the desired device driver is in, select **All Software Device Drivers**. The Software Device Drivers window for the selected class of device drivers is displayed.
- ▶ Move the cursor to the desired device driver.

If the device driver is not active, activate it by pressing <Space>.

- ▶ Press <F5> to add a new driver.

The New Hardware Configuration window is displayed. Default values may also be displayed.

Enter the correct configuration parameters for the new controller. After you enter these values, you can:

- Press <F8> to cancel the new controller configuration.
- Press <F4> to verify that correct values are entered in each field before applying the changes.
- If an error is reported, re-enter the parameter until it succeeds. If the verification succeeds or the message

Driver does not support the verify function

appears, press <Enter> to continue.

- To apply the changes and return to the Software Device Drivers window, press <F10>, then press <Enter>.
- ▶ After you add the new controller, view the Hardware Device Configuration window to verify that the new hardware parameters do not conflict with the existing hardware controllers.

Returning to the installation

Configuration changes made in the DCU do not take effect until they are applied.

- ▶ To apply your configuration changes, return to the DCU main menu and select **Apply Changes & Exit DCU**.
- ▶ To end the DCU session without updating your configuration, select **Exit DCU and Cancel Changes** from the DCU main menu.

After selecting either of these options, you are returned to where you left off in the SCO OpenServer 6 Definitive 2018 installation.

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