

Chapter 22

Managing System Software on a C-series Controller

This chapter describes how to upgrade, install, and uninstall system software, create a snapshot of system software, and revert system software on a C-series Controller. Topics include:

- Overview of Software Management on a C-series Controller on page 161
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- Upgrading the System Software on a C-series Controller on page 163
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Overview of Software Management on a C-series Controller

On a C-series Controller you can upgrade all the system software or the software package for a component. You can also install and uninstall a software package for an SRC component. Table 11 lists the names of the packages for the components that run on the C-series Controller.

Table 11: Package Names for Components on a C-series Controller

Component	Package Name
Command-line interface (CLI)	UMCcli
C-Web interface	UMCwebadm
IP multimedia subsystem	UMCims
Java Web server	UMCtomcat
Juniper Networks database	UMCjdb
Juniper Policy Server (JPS)	UMCjps
License Server	UMClicsvr

Table 11: Package Names for Components on a C-series Controller (continued)

Component	Package Name
Network information Collector (NIC)	UMCnic
Policies, Services, and Subscribers CLI	UMCeditor
Redirect Server	UMCredir
Service activation engine (SAE)	UMCsae
SNMP agent	UMCagent
SRC-ACP	UMCacp

Before You Upgrade the Software on a C-series Controller

Before you upgrade system software on a C-series Controller:

- Create a snapshot of the software files currently on the C-series Controller.
See *Creating a Snapshot of Files on a C-series Controller* on page 162.
- Make sure that other C-series Controllers can carry system load during the upgrade. The system will not be operational during the upgrade.

Creating a Snapshot of Files on a C-series Controller

You can create a snapshot of the system software to serve as a backup. When you create a snapshot, the software backs up the operating system and the SRC software to a partition on the C-series Controller. You can restore the files in a snapshot to the system software if needed.

To create a snapshot of the system software:

1. Verify which version of the software is running on the system.

```
user@host> show system information
```

2. Enter the **request system snapshot** command. Use the verbose option to view information about the snapshot process.

```
user@host> request system snapshot verbose
Create system snapshot [yes,no] ? (no) yes

Filesystem label=
mke2fs 1.35 (28-Feb-2004)
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
262144 inodes, 524288 blocks
26214 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=536870912
16 block groups
32768 blocks per group, 32768 fragments per group
16384 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912
```

```

Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done

This filesystem will be automatically checked every 32 mounts or
180 days, whichever comes first. Use tune2fs -c or -i to override.
DUMP: Date of this level 0 dump: Thu Oct 19 09:43:44 2006
DUMP: Dumping /dev/mapper/vg0-root (/) to standard output
restore: cannot open /dev/tty: No such device or address
DUMP: Label: none
DUMP: Writing 64 Kilobyte records
DUMP: mapping (Pass I) [regular files]
DUMP: mapping (Pass II) [directories]
DUMP: estimated 1036678 blocks.
DUMP: Volume 1 started with block 1 at: Thu Oct 19 09:43:45 2006
DUMP: dumping (Pass III) [directories]
DUMP: dumping (Pass IV) [regular files]

DUMP: Volume 1 completed at: Thu Oct 19 09:48:13 2006
DUMP: Volume 1 1035200 blocks (1010.94MB)
DUMP: Volume 1 took 0:01:10
DUMP: Volume 1 transfer rate: 14788 kB/s
DUMP: 1035200 blocks (1010.94MB)
DUMP: finished in 70 seconds, throughput 14788 kBytes/sec
DUMP: Date of this level 0 dump: Thu Oct 19 09:47:02 2006
DUMP: Date this dump completed: Thu Oct 19 09:48:13 2006
DUMP: Average transfer rate: 14788 kB/s

```

Upgrading the System Software on a C-series Controller

You can upgrade all the system software or the software changes for an SRC component. If an image file (from which you upgrade) contains updates for all components or a number of components, you specify which component to upgrade if you do not want to upgrade all components.

For ease of use, you can manage upgrades for a number of C-series Controllers by copying a complete CD image file to be used for an upgrade to an FTP site in your network. You then upgrade each system by using the files on the FTP site. Alternatively, you can copy the complete CD image to a USB drive and install from there.

To upgrade C-series Controller software:

- Enter the `request system upgrade` command.

```
user@host> request system upgrade url url
```

For example:

```
user@host> request system upgrade url ftp://myserver/pub/UMC/7.0.0/B
Setting up Upgrade Process
Setting up repositories
Reading repository metadata in from local files
Resolving Dependencies
--> Populating transaction set with selected packages. Please wait.
---> Downloading header for python-ldap to pack into transaction set.
---> Package python-ldap.i386 0:2.0.6-1 set to be updated
--> Running transaction check
```

Dependencies Resolved

```
=====
Package           Arch    Version      Repository    Size
=====
Updating:
python-ldap              i386      2.0.6-1      umc-upgrade   150 k
```

Transaction Summary

```
=====
Install      0 Package(s)
Update       1 Package(s)
Remove       0 Package(s)
Total download size: 150 k
Downloading Packages:
Running Transaction Test
Finished Transaction Test
Transaction Test Succeeded
Running Transaction
```

```
Updating : python-ldap ##### [1/1]
```

```
Updated: python-ldap.i386 0:2.0.6-1
Complete!
```

The C-series Controller automatically reboots at the end of the upgrade.

Upgrading SRC Software for a Component

To upgrade a specified SRC component:

- Specify the package name for a component when you enter the `request system upgrade` command.

```
user@host> request system upgrade url url package package
```

For example:

```
user@host> request system upgrade url ftp://myserver/pub/UMC/7.0.0/B
package UMCnic
```

The C-series Controller automatically reboots at the end of the upgrade.

Installing SRC Software for a Component

To install the software for a component:

- Specify the package name for a component when you enter the `request system install` command.

```
user@host> request system install url url package package
```

For example:

```
user@host> request system install url ftp://myserver/pub/UMC/7.0.0/B
package UMCnic
```

Removing an Installed Component

To remove a component that is installed on a C-series Controller:

- Specify the package name for a component when you enter the `request system uninstall` command.

```
user @ host> request system uninstall package package
```

For example:

```
user @ host> request system uninstall package UMCnic
```

Restoring the Files in a Snapshot

To revert to the system software stored in snapshot files:

- Enter the `request system restore` command.

```
user@host> request system restore
WARNING: restoring a snapshot will cause the system to
reboot and replace the software with the data from the
system snapshot.
Rebooting to start restore
```

The C-series Controller reboots twice during a restoration.