Doc. No. 78-2755-02

Addendum to CiscoWorks Installation and Reference on SunOS, Solaris, and HP-UX

This addendum is intended for users of CiscoWorks 3.0 on SunOS who want to move to CiscoWorks 3.0 on Solaris and also want to migrate their existing SunOS CiscoWorks 3.0 to their new Solaris installation.

This addendum only explains the steps necessary to migrate your existing SunOS CiscoWorks 3.0 data to Solaris. Refer to the appropriate Solaris or CiscoWorks installation guides for instructions on installing Solaris or CiscoWorks.

The shell script on the CiscoWorks 3.0 CD can perform most of the steps described in this addendum. Each step of the migration procedure is explained below, and it is indicated if the shell-script can do the step for you.

There are four stages in migrating from SunOS CiscoWorks 3.0 to Solaris CiscoWorks 3.0:

1. On the SunOS machine on which you currently run CiscoWorks 3.0, create a new directory and dump all the necessary data into files in this new directory, as explained in the section “Saving your SunOS CiscoWorks 3.0 data (Migration Stage 1).”
2. Move this entire directory to the Solaris machine on which you are going to install CiscoWorks 3.0. If this is the same machine on which you are currently running SunOS, you should have your system administrator backup this directory before installing Solaris and then restore it after Solaris has been installed.
3. Install CiscoWorks 3.0 on your Solaris machine, as described in the *CiscoWorks Installation and Reference* publication. If you have added any user Sybase accounts (either with isql or a CiscoWorks application) to your SunOS CiscoWorks 3.0 installation, you must recreate them on your Solaris CiscoWorks 3.0 installation. Follow the same procedure you used originally to create the accounts on SunOS Sybase. However, you must recreate them in the Solaris Sybase database before restoring the data saved from SunOS CiscoWorks.
4. On the Solaris machine, move to the directory that contains all the data dumped from the SunOS installation, and load it into Solaris CiscoWorks 3.0, as explained in the section “Restoring your Saved Data on the Solaris Machine (Migration Stage 4).”

Most of the CiscoWorks data is stored in Sybase tables, but there are also a few standard UNIX files you may wish to retain. The procedures below provide the details of stages 1 and 4 by describing how to save and restore all the CiscoWorks-created Sybase tables as well as relevant standard UNIX files.

Stages 2 and 3 are not discussed further in this addendum. If you added any user-created tables to your SunOS Sybase database (for polling data) and wish to retain that data on Solaris, follow the same steps for each user-created Sybase table as described below for the standard CiscoWorks-created Sybase tables.

Note Each command that you must enter is preceeded by a "#" sign.

Saving your SunOS CiscoWorks 3.0 data (Migration Stage 1)

To save your SunOS CiscoWorks 3.0 data, perform the following steps:

Step 1 Log into your SunOS machine as root (you must be root to save the non-Sybase data) and start a C-shell (/bin/csh) if you are not already running one. Make sure the environmental variable NMSROOT is set correctly, and that $NMSROOT/bin is at the front of your PATH environmental variable. (Refer to the *CiscoWorks Installation and Reference publication*.)

If you want to use the commands below exactly as shown, you need to set the environmental variable *sa_password* to the password of your Sybase sa account:

 # setenv sa_password *YOUR_PASSWORD*

Otherwise, use your Sybase sa password wherever *$sa_password* appears below.

Step 2 Make a directory for the data files you are about to create, and change to that directory.

```
# mkdir /tmp/bcp_data
# cd /tmp/bcp_data
```

This directory needs to be in a partition large enough to hold your exported database. If there is enough room to do a Sybase "dump" command to that partition, you should be fine.

To run the commands exactly as shown below, you need to set the environmental variable *saved* to the directory you just created:

```
# setenv saved /tmp/bcp_data
```

Step 3 If you want to use the shell-script provided on the CiscoWorks 3.0 CD, proceed to Step 4. Otherwise, individually extract each Cisco-created database table into an external file using the **bcp** command, as shown below:

bcp *table_name* **out** *table_name*.**dat -c -t "\t" -Usa -P$sa_password**

table_name is the name of the table to be dumped.

To save typing the entire bcp command, you can create an alias as shown in the following example:

```
# alias bcp 'bcp \!^ out \!^.dat -c -t "\t" -Usa -P$sa_password'
```

Then use this aliased **bcp** command on each table as follows:

```
# bcp polldb.nmsuper.polls
# bcp polldb.nmsuper.polls_config
# bcp polldb.nmsuper.tables out
# bcp polldb.nmsuper.columns
# bcp polldb.nmsuper.summaryinfo
# bcp polldb.nmsuper.grouptemplate
# bcp polldb.nmsuper.polls
# bcp polldb.nmsuper.attr
# bcp polldb.nmsuper.action
```

```
# bcp polldb.nmsuper.start_stop
# bcp polldb.nmsuper.pollers
# bcp polldb.nmsuper.msglog
# bcp polldb.nmsuper.filterlog
# bcp polldb.nmsuper.applog
# bcp polldb.nmsuper.ciscolog
# bcp polldb.nmsuper.sample
# bcp polldb.nmsuper.sample_error
# bcp polldb.nmsuper.sample_load
# bcp polldb.nmsuper.sample_traffic
# bcp polldb.nmsuper.sample_mix
# bcp nms.cisco_connect.cisco_connect_users
# bcp nms.SAnms.applications
# bcp nms.SAnms.app_bits
# bcp nms.nmsuper.auto_install
# bcp nms.nmsuper.sw_inventory
# bcp nms.SAnms.logins
# bcp nms.SAnms.groups
# bcp nms.SAnms.users
# bcp nms.SAnms.group_users
# bcp nms.SAnms.group_domains
# bcp nms.nmsuper.gcmds_domains
# bcp nms.nmsuper.gcmds
# bcp nms.nmsuper.domains_devices
# bcp nms.nmsuper.domains
# bcp nms.nmsuper.summaryinfo
# bcp nms.nmsuper.DevConfigs
# bcp nms.nmsuper.DevConfHist
# bcp nms.nmsuper.DevConfFileLoc
# bcp nms.nmsuper.interfaces
# bcp nms.nmsuper.devices
# bcp nms.nmsuper.crons
# bcp nms.nmsuper.if_addresses
# bcp nms.nmsuper.locations
# bcp nms.nmsuper.admins
# bcp nms.nmsuper.vendors
# bcp nms.nmsuper.people
# bcp nms.nmsuper.phones
# bcp nms.nmsuper.contacts
# bcp nms.nmsuper.admin_contacts
# bcp nms.nmsuper.vendor_contacts
# bcp nms.nmsuper.line_contacts
# bcp nms.nmsuper.lines
# bcp nms.nmsuper.networks
# bcp nms.nmsuper.net_numbers
# bcp nms.nmsuper.device_types
# bcp nms.nmsuper.interface_types
# bcp nms.nmsuper.protocol_types
# bcp nms.nmsuper.line_types
# bcp nms.SAnms.permissions
# bcp nms.nmsuper.net_types
# bcp nms.nmsuper.procinfo
# bcp nms.nmsuper.SysFiles
# bcp nms.dbo.SystemEvents
# bcp nms.dbo.DumpDevices
# bcp nms.nmsuper.pccmdset
# bcp nms.nmsuper.pcdevset
```

If you created any user-defined poll group tables and wish to save the data in them, repeat the **bcp** command for each table:

bcp polldb.nmsuper.*CREATED_TABLENAME*

Proceed to Step 5.

Step 4 If you *do* want to use the supplied shell-script to save your Sybase tables instead of typing all the commands shown in Step 3, mount your CiscoWorks 3.0 CD and copy the file */CISCOWORKS/Migrate/copy_tables* into your current working directory (which should be the *$saved* directory you are using to hold the saved data). Refer to the *CiscoWorks Installation and Reference* publication for instructions on mounting and copying from the CD-ROM.

As supplied, the **copy_tables** script works only if you have not created any user-defined poll group tables. If you created any such tables, edit the script before running it.

If you created user-defined poll groups, but you *do not* want to save the data in them, edit the **copy_tables** script to remove the following line from the list of tables:

```
polldb.nmsuper.polls
```

The list of tables looks like this:

```
TABLES="polldb.nmsuper.polls_config
polldb.nmsuper.tables
polldb.nmsuper.columns
polldb.nmsuper.summaryinfo
polldb.nmsuper.grouptemplate
polldb.nmsuper.polls
...
```

If you have created user defined poll groups, and you *do* want to save the data in them, edit the **copy_tables** script to add a line naming each of your user-defined poll groups to the end of the list of tables, as shown below:

```
TABLES="polldb.nmsuper.polls_config
polldb.nmsuper.tables
polldb.nmsuper.columns
polldb.nmsuper.summaryinfo
polldb.nmsuper.grouptemplate
polldb.nmsuper.polls
...
polldb.nmsuper.my_first_poll_group
polldb.nmsuper.my_second_poll_group
```

Make sure the **copy_tables** script is executable, and then run the following commands:

```
# chmod +x copy_tables
# ./copy_tables out $sa_password $cwd
```

Step 5 After saving all your Sybase tables, you can also save certain information contained in standard UNIX files. To save your CiscoConnect history, enter the following commands:

```
# cd $NMSROOT/lib/httpd/conf
# tar cvf $saved/cc-conf.tar *Profile.conf
# cd $NMSROOT/lib/httpd
# tar cvf $saved/cc-query.tar etc/*.dat htdocs/Cisco*/CaseQueryReply.shtml
```

To save your TACACS information, enter the following commands:

```
# cd /etc
# tar cvf $saved/tacacs.tar tac*
```

To migrate your crontab entries, enter the following command:

```
# crontab -l $saved/cronfile
```

Restoring your Saved Data on the Solaris Machine (Migration Stage 4)

To restore your saved data on the Solaris machine, perform the following steps:

Step 1 Log into your Solaris machine as root (you must be root to restore the non-Sybase data) and start a C-shell (/bin/csh) if you are not already running one. Make sure the environmental variable **$NMSROOT** is set correctly (default is */opt/CSCOcw*). Source the *$NMSROOT/etc/install.cshrc* as shown below:

```
# source $NMSROOT/etc/install.cshrc
```

Note If *install.cshrc* has been moved to another directory, find it and issue the appropriately modified source statement.

If you want to use the commands below exactly as shown, you need to set the environmental variable *sa_password* to the password of your Sybase sa account:

```
# setenv sa_password YOUR_PASSWORD
```

Otherwise, just use your Sybase sa password wherever *$sa_password* appears below.

Step 2 To run the commands exactly as shown below, you need to set the environmental variable *saved* to the directory containing your data files saved from your SunOS CiscoWorks adn then change to this directory:

```
# setenv saved /tmp/bcp_data
# cd $saved
```

Step 3 Log in to **isql** as sa, set the bulkcopy option, and checkpoint your database:

```
# isql -Usa -P$sa_password
# sp_dboption nms, "select into/bulkcopy", true
# go
# use nms
# go
# checkpoint
# go
# quit
```

Step 4 If you are using the **copy_tables** script (that is, you performed Step 4 on SunOS), proceed to Step 5. Otherwise, log into **isql** as sa, truncate the following standard CiscoWorks tables, and exit **isql**.

Note It is advisable to enter a **go** command after every truncate; otherwise, if you mistype a *table-name* you will have to retype the entire list.

```
# isql -Usa -P$sa_password
# truncate table polldb.nmsuper.polls_config
# truncate table polldb.nmsuper.tables
# truncate table polldb.nmsuper.columns
# truncate table polldb.nmsuper.summaryinfo
# truncate table polldb.nmsuper.grouptemplate
# truncate table polldb.nmsuper.attr
# truncate table polldb.nmsuper.action
# truncate table polldb.nmsuper.start_stop
```

```
# truncate table polldb.nmsuper.pollers
# truncate table polldb.nmsuper.msglog
# truncate table polldb.nmsuper.filterlog
# truncate table polldb.nmsuper.applog
# truncate table polldb.nmsuper.ciscolog
# truncate table polldb.nmsuper.sample
# truncate table polldb.nmsuper.sample_error
# truncate table polldb.nmsuper.sample_load
# truncate table polldb.nmsuper.sample_traffic
# truncate table polldb.nmsuper.sample_mix
# truncate table nms.cisco_connect.cisco_connect_users
# truncate table nms.SAnms.applications
# truncate table nms.SAnms.app_bits
# truncate table nms.nmsuper.auto_install
# truncate table nms.nmsuper.sw_inventory
# truncate table nms.SAnms.logins
# truncate table nms.SAnms.groups
# truncate table nms.SAnms.users
# truncate table nms.SAnms.group_users
# truncate table nms.SAnms.group_domains
# truncate table nms.nmsuper.gcmds_domains
# truncate table nms.nmsuper.gcmds
# truncate table nms.nmsuper.domains_devices
# truncate table nms.nmsuper.domains
# truncate table nms.nmsuper.summaryinfo
# truncate table nms.nmsuper.DevConfigs
# truncate table nms.nmsuper.DevConfHist
# truncate table nms.nmsuper.DevConfFileLoc
# truncate table nms.nmsuper.interfaces
# truncate table nms.nmsuper.devices
# truncate table nms.nmsuper.crons
# truncate table nms.nmsuper.if_addresses
# truncate table nms.nmsuper.locations
# truncate table nms.nmsuper.admins
# truncate table nms.nmsuper.vendors
# truncate table nms.nmsuper.people
# truncate table nms.nmsuper.phones
# truncate table nms.nmsuper.contacts
# truncate table nms.nmsuper.admin_contacts
# truncate table nms.nmsuper.vendor_contacts
# truncate table nms.nmsuper.line_contacts
# truncate table nms.nmsuper.lines
# truncate table nms.nmsuper.networks
# truncate table nms.nmsuper.net_numbers
# truncate table nms.nmsuper.device_types
# truncate table nms.nmsuper.interface_types
# truncate table nms.nmsuper.protocol_types
# truncate table nms.nmsuper.line_types
# truncate table nms.SAnms.permissions
# truncate table nms.nmsuper.net_types
# truncate table nms.nmsuper.procinfo
# truncate table nms.nmsuper.SysFiles
# truncate table nms.dbo.SystemEvents
# truncate table nms.dbo.DumpDevices
# truncate table nms.nmsuper.pccmdset
# truncate table nms.nmsuper.pcdevset
# go
# quit
```

Now individually load each standard Cisco-created database table from its dumped file using the **bcp** command (note its "in" on Solaris, "out" on SunOS):

bcp *table_name* **in** *table_name*.**dat -c -t "\t" -Usa -P$sa_password**

table_name is the name of the table to be loaded.

To save typing the entire **bcp** command, you can create an alias as shown below (again note its "in" on Solaris, "out" on SunOS):

```
# alias bcp 'bcp \!^ in \!^.dat -c -t "\t" -Usa -P$sa_password'
```

Then use this aliased **bcp** command on each table as shown below:

```
# bcp polldb.nmsuper.polls_config
# bcp polldb.nmsuper.tables
# bcp polldb.nmsuper.columns
# bcp polldb.nmsuper.summaryinfo
# bcp polldb.nmsuper.grouptemplate
# bcp polldb.nmsuper.attr
# bcp polldb.nmsuper.action
# bcp polldb.nmsuper.start_stop
# bcp polldb.nmsuper.pollers
# bcp polldb.nmsuper.msglog
# bcp polldb.nmsuper.filterlog
# bcp polldb.nmsuper.applog
# bcp polldb.nmsuper.ciscolog
# bcp polldb.nmsuper.sample
# bcp polldb.nmsuper.sample_error
# bcp polldb.nmsuper.sample_load
# bcp polldb.nmsuper.sample_traffic
# bcp polldb.nmsuper.sample_mix
# bcp nms.cisco_connect.cisco_connect_users
# bcp nms.SAnms.applications
# bcp nms.SAnms.app_bits
# bcp nms.nmsuper.auto_install
# bcp nms.nmsuper.sw_inventory
# bcp nms.SAnms.logins
# bcp nms.SAnms.groups
# bcp nms.SAnms.users
# bcp nms.SAnms.group_users
# bcp nms.SAnms.group_domains
# bcp nms.nmsuper.gcmds_domains
# bcp nms.nmsuper.gcmds
# bcp nms.nmsuper.domains_devices
# bcp nms.nmsuper.domains
# bcp nms.nmsuper.summaryinfo
# bcp nms.nmsuper.DevConfigs
# bcp nms.nmsuper.DevConfHist
# bcp nms.nmsuper.DevConfFileLoc
# bcp nms.nmsuper.interfaces
# bcp nms.nmsuper.devices
# bcp nms.nmsuper.crons
# bcp nms.nmsuper.if_addresses
# bcp nms.nmsuper.locations
# bcp nms.nmsuper.admins
# bcp nms.nmsuper.vendors
# bcp nms.nmsuper.people
# bcp nms.nmsuper.phones
# bcp nms.nmsuper.contacts
# bcp nms.nmsuper.admin_contacts
# bcp nms.nmsuper.vendor_contacts
# bcp nms.nmsuper.line_contacts
# bcp nms.nmsuper.lines
# bcp nms.nmsuper.networks
# bcp nms.nmsuper.net_numbers
# bcp nms.nmsuper.device_types
# bcp nms.nmsuper.interface_types
# bcp nms.nmsuper.protocol_types
# bcp nms.nmsuper.line_types
```

```
# bcp nms.SAnms.permissions
# bcp nms.nmsuper.net_types
# bcp nms.nmsuper.procinfo
# bcp nms.nmsuper.SysFiles
# bcp nms.dbo.SystemEvents
# bcp nms.dbo.DumpDevices
# bcp nms.nmsuper.pccmdset
# bcp nms.nmsuper.pcdevset
```

If you chose to save any user-defined poll group tables on SunOS, you must load them into the polldb database. To do so, truncate the polldb.nmsuper.polls table by entering the following commands:

```
# isql -Usa -P$sa_password
# truncate table polldb.nmsuper.polls
# go
# quit
```

Then load the polldb.nmsuper.polls table by entering the following command:

```
# bcp polldb.nmsuper.polls
```

Next, load each of the user-created tables you dumped on SunOS by entering a **bcp** command:

```
bcp polldb.nmsuper.CREATED_TABLENAME
```

Proceed to Step 7.

Step 5 If you chose to use the **copy_tables** script on SunOS, it should now be in your *$saved* directory. Make sure it is still executable, and then run it using the following commands:

```
# chmod +x copy_tables
# ./copy_tables in $sa_password $cwd
```

Step 6 Log in to **isql** as sa and unset the bulkcopy option:

```
# isql -Usa -P$sa_password
# sp_dboption nms, "select into/bulkcopy", false
# go
# quit
```

Step 7 Restore the non-Sybase files you chose to save from SunOS. If you saved your CiscoConnect history, enter the following commands:

```
# cd $NMSROOT/lib/httpd/conf
# tar xvf $saved/cc-conf.tar
# cd $NMSROOT/lib/httpd
# tar xvf $saved/cc-query.tar
```

If you saved your TACACS information, enter the following commands:

```
# cd /etc
# tar xvf $saved/tacacs.tar
```

If saved your crontab entries, enter the following command:

```
# crontab $saved/cronfile
```

Step 8 For safety's safe, backup your new database immediately, now that you have finshed the migration.

Note If you get errors that look like "You cannot run the non-logged version of bulkcopy in this database," when using either **bcp** or **copy_tables** to load your database on Solaris, it generally means the database was not checkpointed (see Step 3). If you were using the **bcp** command, repeat Step 3, truncate the table as in Step 4, and then redo the **bcp** command. It is essential to truncate the table before redoing the **bcp** command or you may end up with duplicate rows in the table which will cause problems. If you were using **copy_tables**, repeat Step 3 and reissue the **copy_tables** command. You do not need to truncate the table.

Table 1 lists the tables moved by the **copy_tables** command.

Table 1 Tables Moved by the Copy_Tables Command

Database	Table Owner	Table Name
polldb	nmsuper	polls_config
polldb	nmsuper	tables
polldb	nmsuper	column
polldb	nmsuper	summaryinfo
polldb	nmsuper	grouptemplate
polldb	nmsuper	polls
polldb	nmsuper	attr
polldb	nmsuper	action
polldb	nmsuper	start_stop
polldb	nmsuper	pollers
polldb	nmsuper	msglog
polldb	nmsuper	filterlog
polldb	nmsuper	applog
polldb	nmsuper	ciscolog
polldb	nmsuper	sample
polldb	nmsuper	sample_error
polldb	nmsuper	sample_load
polldb	nmsuper	sample_traffic
polldb	nmsuper	sample_mix
nms	cisco_connect	cisco_connect_users
nms	SAnms	applications
nms	SAnms	app_bits
nms	nmsuper	auto_install
nms	nmsuper	sw_inventory
nms	SAnms	logins
nms	SAnms	groups
nms	SAnms	users
nms	SAnms	group_users

Database	Table Owner	Table Name
nms	SAnms	group_domains
nms	nmsuper	gcmds_domains
nms	nmsuper	gcmds
nms	nmsuper	domains_devices
nms	nmsuper	domains
nms	nmsuper	summaryinfo
nms	nmsuper	DevConfigs
nms	nmsuper	DevConfHist
nms	nmsuper	DevConFileLoc
nms	nmsuper	interfaces
nms	nmsuper	devices
nms	nmsuper	crons
nms	nmsuper	if_addresses
nms	nmsuper	locations
nms	nmsuper	admins
nms	nmsuper	vendors
nms	nmsuper	people
nms	nmsuper	phones
nms	nmsuper	contacts
nms	nmsuper	admin_contacts
nms	nmsuper	vendor_contacts
nms	nmsuper	line_contacts
nms	nmsuper	lines
nms	nmsuper	networks
nms	nmsuper	net_numbers
nms	nmsuper	device_types
nms	nmsuper	interface_types
nms	nmsuper	protocol_types
nms	nmsuper	line_types
nms	SAnms	permissions
nms	nmsuper	net_types
nms	nmsuper	procinfo
nms	nmsuper	SysFiles
nms	dbo	SystemEvents
nms	dbo	DumpDevices
nms	nmsuper	pccmdset
nms	nmsuper	pcdevset

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This document is to be used in conjunction with the *CiscoWorks Installation and Reference Guide* publication.