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Contents

Compaq TaskSmart C-Series Servers Feature Procedures

Abstract: The Compaq TaskSmart C-Series server supports many features to manage and use the server. This guide provides additional information beyond the documentation provided with the server for understanding and configuring a few of the key features. The features covered in this paper are related to Quick Restore Release 2.1. These key features include:

- Configuration Management Utilities

- Software Versions

- System Date and Time

- Shutdown and Restart Server

- LDAP Authentication

- Enabling Clustering

- Hierarchical Caching

- Pinning Cache Objects

- Cache Content Preload

- Adding Multiple DNS Servers

- Changing IP or Gateway Address Information

- Security Features

- Enabling WebSense Filtering Plugin

- Log File Maintenance

- Backup and Restore Configuration

Notice

Introduction

The Compaq *TaskSmart*™ C-Series server provides you with the best in caching functionality and simplifies the challenges of a caching solution. Integration of the comprehensive management features of the TaskSmart C-Series server ensures rapid and successful deployment in your network. This guide will address additional feature documentation which is beyond that provided with the server.

Four other documents complement this one:

- *Compaq TaskSmart C-Series Streaming Servers Deployment Guide*

- *Compaq TaskSmart C-Series Server Deployment Guide*

- *Compaq TaskSmart C-Series Servers Performance Guide*

- *Enabling LDAP Authentication on Compaq TaskSmart C-Series Server*

These four documents cover streaming, deployment, performance, and LDAP. The *Compaq TaskSmart C-Series Servers Features Procedures Guide* is a reference to the methods that can be used to configure and manage the Compaq TaskSmart C4000 models.

The features within this guide are presented for a knowledge level of audience that is familiar with server administrative procedures. When a step describes accessing the Linux shell and logging in as <user>, the <user> can be a Linux user that was setup with the TaskSmart C-Series System Administration Utility. This type of user may require extra steps to allow proper rights to copy/access certain files. The Linux Root user can be used as <user>. Care must be taken because the Linux Root user has full rights to the operating system and could easily perform an action that cannot be reversed. The steps provided in this document assume Linux <user> is used.

Accessing the Linux shell can be done via a Telnet session, the Remote Insight Lights-Out Edition interface, or by attaching a monitor and keyboard to the server. Ensure that the session is ended by logging off the system, either by typing quit or exit, at the appropriate screen. The steps provided in this document assume a Telnet session is used.

TaskSmart C-Series Configuration Management Utilities

The following sections will cover the various TaskSmart C-Series server utility functions.

Compaq RapidLaunch TaskSmart Configuration Utility

The Compaq RapidLaunch TaskSmart Configuration Utility (TCU) is used for remote access and initial configuration of all Compaq TaskSmart appliances. The TCU is run from a client workstation. The TCU detects all Compaq appliance server IP addresses that are located on a specific network. If a DHCP server is not available on the network, the TCU acts as a mini-DHCP server to assign temporary addresses to newly installed devices.

If the Compaq appliance was detected and it supports browser-based configuration, you can select the Compaq appliance server from the list of appliances in the TCU. You can now launch the browser-based configuration utility (Compaq TaskSmart C-Series System Administration Utility). The TCU also allows the user to create an off-line configuration diskette to apply network configurations to TaskSmart appliances and includes a unit ID illumination icon to easily identify physical units. The TCU also can detect Compaq Remote Insight Lights-Out Edition boards that are installed in Compaq appliance servers by enabling the proper check box on the TCU graphical user interface (GUI).

Compaq TaskSmart C-Series System Administration Utility

The Compaq System Administration Utility is a browser-based utility for management of TaskSmart appliances on Linux platforms.

The System Administration Utility is useful for management of common Linux activities. It can be used to add users and change passwords; set the system date, time, and time zones; enable diskette boot for ROM upgrades; gracefully shut down the server; and implement value-added utilities including ping, trace route, and system load monitor. The Compaq Web-based Management Utility (Compaq Insight Management) can also be accessed from this utility.

To begin the configuration for a specific TaskSmart appliance server:

1. Click the IP address of the server or system name located in the **Device Detection** list in the RapidLaunch TCU. If the IP address or host name of the appliance server is known, the System Administration Utility can also be accessed directly by entering the following URL address in the browser of the client workstation:

    https://*xxx.xxx.xxx.xxx*:3201.

    Where *xxx.xx.xxx.xxx* represents the IP address or host name of the TaskSmart C-Series server. The host name is of the form proxy.mydomain.com, for instance a host name can be:

    TaskSmartM70.cca.cpqcorp.net

    IMPORTANT: If your browser uses a proxy to access the Internet, place the IP address of the TaskSmart appliance in the proxy exception list of your browser, otherwise the browser will be unable to access the configuration utilities.

2. On the **Welcome** page, click the **System Administrator** link under the pictures of the TaskSmart appliance server.

3. When prompted to log on, enter the user name and password. The factory default user name and password are both **administrator.**

4. To complete the configuration of a new or QuickRestored system, click **Rapid Startup** and follow the on-line instructions.

IMPORTANT: Make sure to use static IP and valid DNS addresses. Also, be sure to verify that the information is correct before applying the settings.

IMPORTANT: Previous configurations on the TaskSmart appliance server will automatically be overwritten with the new configuration settings once **Apply** is pressed.

To change the default user name and password for the System Administration Utility:

1. Access the utility and click **Linux Configuration.**

2. Click **Administration.**

The **Administrator Login** dialog box is for the Administration Utility. The **Root Password** dialog box is for setting the Linux root password.

Traffic Server Configuration Utility

The Traffic Server Configuration Utility (TSCU) is an Inktomi-developed utility that is used for configuring and monitoring the Traffic Server application. There is two ways to access the TSCU. The first way is to click the **Traffic Server Configuration** menu item in the Compaq System Administration Utility. The second way is to enter the IP address or the host name followed by administration port 8081 as the URL in the browser:

http://*xxx.xxx.xxx.xxx*:8081.

The *xxx.xxx.xxx.xxx* represents the IP address or host name of the TaskSmart C-Series server.

The default logon user name and password for this utility are both **administrator.**

IMPORTANT: The TSCU and the Compaq TaskSmart C-Series System Administration Utility are two separate applications. Although both utilities have the same default user names and passwords, they are separate entities and the user names and passwords are not linked. Therefore, changing the user name and password for one utility will not automatically change those for the other.

To change the default user name and password for the TSCU:

1. Access the utility, and then click the **Configure** tab.

2. Click the **Security** icon in the left panel.

RealSystem Administrator Utility

For systems that support streaming media, such as the C4000 Models 50 and 70, streaming media protocol data is available in the Traffic Server Configuration Utility under Monitor tab and Protocols button. These systems also include RealServer and the RealServer plugin from Inktomi. The RealSystem Administrator Utility can be accessed via:

http://xxx.xxx.xxx.xxx:8090/admin/index.html

The default user and password for accessing the RealSystem Administrator are both set to **administrator**. To change the RealSystem Administrator password, access the administrator utility using the address above, then select **Configure**, **Security**, **Realms**, and then **Edit a User in Realm**.

URL Address Reference

The following URLs are associated with each TaskSmart C-Series Server utility:

Compaq TaskSmart C-Series System Administration Utility	https://*xxx.xxx.xxx.xxx*:3201
Traffic Server Configuration Utility	http://*xxx.xxx.xxx.xxx*:8081
Compaq Web-based Management (Compaq Insight Manager)	http://*xxx.xxx.xxx.xxx*:2301
RealProxy Administrator[1] (available on streaming media servers only)	http://xxx.xxx.xxx.xxx:8090/admin/index.html

Note: *xxx.xxx.xxx.xxx* represents the IP address or host name of the TaskSmart C-Series server.

Software Versions

The overall software version (Quick Restore release) for the TaskSmart C-Series server is found in the TaskSmart C-Series System Administration Utility in the **Welcome** window. It can also be found by clicking **Management** and then clicking **Current Software Information.** The Quick Restore release will have a format of X.Y.Z, where X.Y represents the major software revision and Z represents the engineering build number that was approved for production. The number X.Y will match the Quick Restore CD-ROM artwork release number. The System Administration Utility release number can also be found in both locations.

System Date and Time

Using the TaskSmart C-Series System Administration Utility, the system date and time can be changed by clicking **Linux Configuration** and then clicking **Administration.** A Time Server can be used to update the date and time by entering the appropriate information in the **Date and Time** box.

Shutdown and Restart TaskSmart C-Series Server

To properly shut down or restart the TaskSmart C-Series server in the TaskSmart C-Series System Administration Utility:

1. Click **Management** and then click **Shutdown Server.**

2. Select either **Restart the Server** or **Halt the Server for Power-off.**

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[1] The default login and password for the Real Proxy Administrator are both administrator.

3. By clicking **Yes, shutdown the server**, the server will shut down the applications and operating system. You will hear a melodic string of notes as the server shuts down. The server will then either restart or shut down.

   If you have selected **Halt the Server for power-off,** the server is ready to be shut off with the power button after the melodic string of notes. If the server is located in an environment where the notes are inaudible, the server will be ready to be powered-off after two minutes.

4. To shut down only the Traffic Server application, refer to the *Compaq TaskSmart C-Series Administration Guide* (Powered by Inktomi Traffic Server).

LDAP Authentication

Information on LDAP Authentication can be found in the Compaq document, *Enabling LDAP Authentication on Compaq TaskSmart C-Series Server* white paper.

Enabling Clustering

This section discusses the two clustering options that are supported on Traffic Server. However, the focus is on Full Clustering with Virtual IP failover.

Clustering on Traffic Server

Two clustering options are supported on Traffic Server. The two options are Management-Only Clustering and Full Clustering.

Management-Only Clustering nodes share configurations, so that when one node is modified, the configuration is replicated throughout the cluster.

Full Clustering not only allows the sharing of configurations, but also distributes its cache across the nodes in a virtual store. Virtual IP failover is used in conjunction with Full Clustering. Full Clustering allows other traffic servers to pick up request loads when one node in the cluster is down.

IMPORTANT: Full Clustering is supported with HTTP. Full Clustering is not supported with streaming media protocols.

For further description of Management-Only and Full Clustering, see the *Compaq TaskSmart C-Series Administration Guide* (Powered by Inktomi Traffic Server) and the *Compaq TaskSmart C-Series User Guide* (Powered by Inktomi Traffic Server Media-IXT).

Requirements for Clustering

Before any configuration is started, the following requirements must be met:

- At least two TaskSmart C-Series servers must be set up and ready to cluster. For simplification purposes, two forward proxies are used for this example.

IMPORTANT: Only similar proxies can be clustered.

- Choose a name for the cluster; for example, *proxycluster*.

- Choose the Ethernet interface (port) you want to cluster; for example, Eth0.

- Choose at least two virtual IP addresses for the cluster.

- Software requirements include Compaq Quick Restore Release 2.0 or higher containing Traffic Server 4.0.15 or higher installed and functioning as a proxy. IE 4.0 or higher browser is also required.

Edit records.config

The file, records.config, is found in the /home/inktomi/*x.x.x*/config directory, where *x.x.x* represents the version of the Traffic Server.

The following strings must be modified in records.config for the first step of clustering setup:

- proxy.config.cluster.type INT 1 (Set this option to either **1-full clustering, 2-management clustering,** or **3-no clustering,** which is the default setting.)

- proxy.config.proxy_name STRING proxycluster (Set this string as the name of your proxy. Set to the name of Traffic Server by default.)

- proxy.config.cluster.ethernet_interface STRING Eth0 (Set this to the Ethernet port that you want to cluster; Eth0 is a default port.)

Save records.config and exit your editor. Run ./traffic_line −x from the /home/inktomi/*x.x.x*/bin directory, where *x.x.x* represents the version of the Traffic Server, to apply configuration changes. Run ./traffic_line −M to restart the traffic manager process in the cluster.

At this point, if you chose option **2** for proxy.config.cluster.type, which is Management-Only Clustering setup, you are finished. To finish installing Full Clustering with virtual IP failover, continue to the next section.

IMPORTANT: Modify each records.config file with the preceding settings on every node of the cluster.

Setting up Virtual IP Failover

The next step to enable Full Clustering with virtual IP failover is to go into the Traffic Server Configuration Utility (TSCU) and configure Virtual IP Addressing. Open your browser and type the following URL:

http://*xxx.xxx.xxx.xxx*:8081

Where *xxx.xxx.xxx.xxx* represents the IP address of the TaskSmart C-Series server.

If you are unable to access the URL, make sure that the IP address of the server is included in the browser exception list. Factory default user name and password are both **administrator.**

To enable Virtual IP Addressing:

1. Click the **Configure** tab, and then click **Server.**

2. Scroll down to **Virtual IP Addressing.**

3. Turn on Virtual IP Addressing by selecting **On.**

4. When the info box is displayed, click **OK.**

5. Click **Make These Changes.**

IMPORTANT: Enable Virtual IP Addressing on every node of the cluster by completing the preceding steps physically on every node.

To add Virtual IPs:

6. Click the **Configure** tab, and then click **Server.**

7. Scroll down to **Virtual IP Addressing.**

8. Click **Edit virtual IP address.**

9. Click **Add Entry.**

10. Type the first virtual IP address in the **IP Address** field.

11. In the **Device** field, type the Ethernet clustering port. (Ex: Eth0.)

12. The **Subinterface** field has to be a unique ID between 10 and 255 (this is just an ID and has no connection to any configuration).

13. Click **Add.**

14. To add another virtual IP address, repeat steps 1 through 8.

15. After adding all IP addresses, click **Make These Changes.**

16. Click **Configure Server Basics.**

17. Under **Virtual IP Addressing,** click **Make These Changes.**

The Virtual IPs will be replicated throughout all configurations in the cluster. This replication can be verified by opening another TSCU window and looking at Virtual IP Addressing under the **Configure** tab, and clicking **Server.** There are now two server IP addresses displayed under the **Monitor** tab. These steps enable you to successfully create a cluster with Virtual IP failover.

Hierarchical Caching

If your network has a proxy server that traffic must pass through to get to the Internet, you must set up this proxy server as a parent to the TaskSmart C-Series server. Refer to the *Compaq TaskSmart C-Series Administration Guide* (powered by Inktomi Traffic Server) to set up a proxy server as a parent cache through the Traffic Server Configuration Utility.

Enabling Parent Caching or ICP Caching is a "must only forward" condition. The TaskSmart C-Series server makes cache miss requests only to the parent cache. Exceptions, where the TaskSmart C-Series server makes certain requests directly to the origin server, must be made with parent proxy rules in the parent.config configuration file as described in the *Compaq TaskSmart C-Series Administration Guide* (Powered by Inktomi Traffic Server).

Pinning Cache Objects

Cache objects can be kept in the cache, "pin-in-cache," for a specified amount of time by setting up rules in the cache.config. Refer to the *Compaq TaskSmart C-Series Administration Guide* (Powered by Inktomi Traffic Server) and the *Compaq TaskSmart C-Series User Guide* (Powered by Inktomi Traffic Server Media-IXT) for specific cache.config commands.

Cache Content Preload

The TaskSmart C-Series server provides the ability to schedule the preload of objects into its cache. The term "download" has also been used to refer to this feature. This feature is accessed using the Traffic Server Configuration Utility under the **Configure** tab and **Content** button. Refer to the *Compaq TaskSmart C-Series Administration Guide* (Powered by Inktomi Traffic Server) or use the online help with the Traffic Server Configuration Utility for more information.

Adding Multiple DNS Servers

Using the **Rapid Startup** menu in the TaskSmart C-Series System Administration Utility, you can enter one DNS value. This value will overwrite any existing values.

To add additional DNS servers:

1. Click **Linux Configuration**, and then click **Network.**
2. Click **Domain Name Resolution**.

Changing IP or Gateway Address Information

To change an IP address or Gateway address for an Ethernet port in the TaskSmart C-Series System Administration Utility:

1. Click **Linux Configuration**, and then click **Network.**
2. Click **Reconfigure.**
3. In the **Reconfigure** menu item, make any changes to the IP address or Gateway address. Any changes made will overwrite existing changes on the system and Traffic Server will be restarted with the new configuration.

Security Features

The TaskSmart C-Series server provides security in two areas: Linux system administration and Traffic Server application administration. The TaskSmart C-Series System Administration Utility is used to set up Linux system security. Cache-control and administration security for the Traffic Server application can be set up by the Traffic Server Configuration utility or command-line interface.

TaskSmart C-Series System Administration Utility

The TaskSmart C-Series System Administration Utility can be used to set up various security levels for the Linux system. Linux user logons and passwords, as well as the Linux root password, can be set by using the Administration Utility. For more information, refer to the TaskSmart C-Series Configuration Management Utilities section of this document.

Individual system users can be added for Linux system management. A user can be configured during system initialization through the **Rapid Startup** menu or by clicking **Linux Configuration,** and then clicking **Users** in the TaskSmart C-Series System Administration Utility.

A secure browser session is used to access the TaskSmart C-Series System Administration Utility for Linux system administration. This secure browser session can be enabled or disabled for each network interface. The root logon can be disabled and the SSH key can be regenerated as well. To modify these settings, click **Linux Configuration,** and then click **SSH** in the TaskSmart C-Series System Administration Utility.

The TaskSmart C-Series server supports SNMP. The System Administration Utility allows the user to modify the read-only and read-write community strings by clicking **Linux Configuration,** then clicking **Network,** and then clicking **SNMP Setup.** These strings are used by the TaskSmart Configuration Utility (Rapid Launch) to access the UID light on the server.

Traffic Server Application

The following is a list of security features for the Traffic Server application:

- Client access to the TaskSmart C-Series server proxy cache

- Host access to the TaskSmart C-Series server

- Administration access to Traffic Server Configuration Utility

- SOCKS firewall integration

- DNS server selection

- LDAP-based proxy authentication

- SSL termination for secure reverse proxy connections

Refer to the *Compaq TaskSmart C-Series Administration Guide* (Powered by Inktomi Traffic Server) to configure each security feature. Refer to the *Enabling LDAP Authentication on Compaq TaskSmart C-Series Server White Paper* if additional setup information is needed for LDAP authentication.

SSL security is provided for remote access to the Traffic Server Configuration Utility. An SSL certificate is provided on the TaskSmart C-Series server and does not need to be obtained from Inktomi.

Note: An SSL certificate can be obtained from a recognized certificate authority as well.

To enable SSL for GUI administration:

1. Access the Traffic Server Configuration Utility. Refer to the subsection, "Traffic Server Configuration Utility," of this document for access instructions.

2. Click the **Configure** tab, and then click the **Security** icon. You can turn SSL on/off in this window.

IMPORTANT: After SSL is turned on, HTTPS must be used to access the Traffic Server Configuration Utility URL. The link to Traffic Server from the TaskSmart C-Series System Administration Utility uses HTTP.

Security measures for Media-IXT are set for each media type by using the command line or by modifying config files. Refer to the *Compaq TaskSmart C-Series Administration Guide* (Powered by Inktomi Traffic Server) and the *Compaq TaskSmart C-Series User Guide* (Powered by Inktomi Traffic Server Media-IXT) for additional information.

Enabling WebSense Filtering Plugin

To enable the WebSense filtering plugin, follow these instructions:

1. From the Traffic Server Configuration Utility, click on the Configure tab, then click the Plugins icon.

2. Click the On radio button to enable the WebSense Plugin, then click the 'Make This Change' button.

3. Restart the Compaq TaskSmart C-Series server after change is applied using the Compaq Administration Utility (see previous section).

4. Return to the Configure Plugins page on the Traffic Server Configuration Utility. Click on the WebSense link to proceed with configuration of the WebSense plugin.

5. Specify the hostname and port number of the WebSense server. Information on configuring the WebSense server can be found by following the link provided at the bottom of the page.

Log File Maintenance

The TaskSmart C-Series server creates various sets of log files: a set from the Linux Operating System, one from Compaq Administration Utility and a set from the Inktomi Traffic Server and Media-IXT application which includes Real Networks logs. You will want to periodically check these log files and export or delete them from the server.

Linux System Log Files

Linux System log files are enabled as part of the installation process. To make changes to the log rotation or to use a syslogd server, use the TaskSmart C-Series System Administration Utility. Click the menu option, **Linux Configuration,** and then click **Logs.**

To export the Linux syslog file, /var/log/messages, from the server:

1. Access the Linux shell by starting a Telnet session.

2. Log on as a Linux user (denoted as <user> in remaining instructions).

3. Type su, and then enter the password for the Linux root user when prompted.

4. Change directory to /var/log (cd /var/log).

5. Copy file(s) to /home/<user> (cp messages /home/<user>).

6. Change directory to /home/<user> (cd /home/<user>).

7. Change owner from root to <user> (chown <user>:<user> messages).

8. Exit Telnet session.

9. Start an FTP session.

10. Log on as <user>.

11. Change directory to /home/<user>.

12. Export the messages log file. (get messages) This action copies the messages file to the current location on the client.

13. Exit FTP session.

Compaq Administration Utility Log Files

The Compaq Administration Utility stores its error and access log files at /var/cpqcfg/httpd/log. These log files can be exported using the above described method.

Traffic Server and Media-IXT Log Files

The Traffic Server application supports multiple log file formats. Refer to the *Compaq TaskSmart C-Series Administration Guide* (Powered by Inktomi Traffic Server) for descriptions and instructions on selecting log files, as well as their locations. These log files can be exported using the preceding method.

Refer to the *Compaq TaskSmart C-Series User Guide* (as powered by Inktomi Traffic Server Media-IXT) for the individual logging capability of the supported streaming media formats: Windows Media Technologies, RealMedia, and Apple QuickTime. RealMedia has log files in /home/inktomi/rni/logs, as well.

Backup and Restore Configuration

The TaskSmart C-Series server provides capability to backup and restore Linux configuration data used with System Administration Utility and Traffic Server application data. This capability is provided via the TaskSmart C-Series System Administration Utility.

Backup Server Configuration

To backup the server configuration data:

1. Start the TaskSmart C-Series System Administration Utility

2. Click **Backup/Restore**, and then click **Backup Linux Configuration**.

3. Enable all check boxes for a full backup. Traffic Server and Linux user data is backed-up if the **Application & User Data** checkbox is enabled.

4. Click **Next>>**.

5. Verify **Items to Backup** and choose **Start Backup**.

During this backup process, you are requested for a location to store the file on the client. The file size can vary from 5KB to 50MB (or even more if much Linux user data is stored in /home/<user>). The file created is a compressed file that can be viewed or unpacked with Microsoft WinZip.

IMPORTANT: The backup file is saved to the client hard drive and not the TaskSmart C-Series server.

Restore Server Configuration

To restore the server configuration data:

1. Start the TaskSmart C-Series System Administration Utility.

2. Click **Backup/Restore**, and then click **Restore Linux Configuration**.

3. In the **Restore File:** Field, enter the full path and file name of the back up file or use the **Browse** button to find the file. The restore file should be a .tgz file that was previously exported from the server

4. Click **Begin Restore**. This procedure will take several minutes depending on the file size.

Backup the Traffic Server Application

The Traffic Server Configuration Utility allows a backup of the Traffic Server application data. Within the Traffic Server Configuration Utility, go to the **Configure** tab and **Snapshots** button. Enter a name of the snapshot and then press the **Take Snap Shot** button. The list of Traffic Server configuration files are saved to the TaskSmart C-series server hard drive under the directory /home/inktomi/x.x.xx/config/snapshots/<snapshot file name> where x.x.xx is the version of Traffic Server and <snapshot file name> is the directory name you entered at the Traffic Server Configuration Utility. Multiple Traffic Server snapshot files can be saved using different names. These snapshot directories will also be saved with the System Administration Utility backup as described above. Refer to the *Compaq TaskSmart C-Series Administration Guide* (Powered by Inktomi Traffic Server) for details on backup and restore procedure.

Exporting the Traffic Server Configuration

To export only the Traffic Server configuration files from the server use one of the following methods after a Traffic Server snap shot has been taken.

FTP Method

1. Access the Linux shell by starting a Telnet session.

2. Log on as a Linux user (denoted as <user> in remaining instructions).

3. Type su, and then enter the password for the Linux root user when prompted.

4. Change directory to /home/inktomi/x.x.xx/config (cd /home/inktomi/x.x.xx/config) where x.x.xx is the Traffic Server version number.

5. Copy snapshot directory and files to /home/<user> (cp –a <snapshot directory> /home/<user>).

6. Change directory to /home/<user>/<snapshot directory> (cd /home/<user>/<snapshot directory>).

7. Change owner of files from root to <user> (chown <user>:<user> *).

8. Exit Telnet session.

9. Start an FTP session.

10. Log on as <user>.

11. Change directory to /home/<user>/<snapshot directory>.

12. Export the files. (mget *) This action copies the snapshot files to the current location on the client.

13. Exit FTP session.

Diskette Method

1. Access the Linux shell by starting a Telnet session.

2. Log on as a Linux user (denoted as <user> in remaining instructions).

3. Type su, and then enter the password for the Linux root user when prompted.

4. Change directory to /home/inktomi/x.x.xx/config (cd /home/inktomi/x.x.xx/config) where x.x.xx is the Traffic Server version number.

5. Insert a formatted diskette into the floppy drive of the server.

6. Mount the diskette (mount /dev/fd0).

7. Copy snapshot directory and files to /mnt/floppy (cp –a <snapshot directory> /mnt/floppy).

8. Unmount the diskette (umount /dev/fd0). Once the diskette light is off, then remove the diskette from the server.

9. Exit Telnet.