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ASTi

Diskless Telestra

Configuration Procedure

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ASTi ASTi Diskless Telestra Configuration Procedure

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ASTi

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1. Introduction

Continuing to meet current and future demands of the communications and audio simulation market, ASTi introduces the Telestra Diskless Server/Client based architecture into the suite of ASTi products.

The following procedure allows the user to configure a diskless based Telestra system. The diskless system will ultimately boot from a CD-ROM image or over the network using DHCP. Both methods are currently implemented and ready for use. Prior to going into the procedures in detail, it is useful to understand the general functionality of the server/client architecture and system.

2. Telestra: Diskless Server/Client based Architecture

As shown below there are two main components: The Server and the Client.

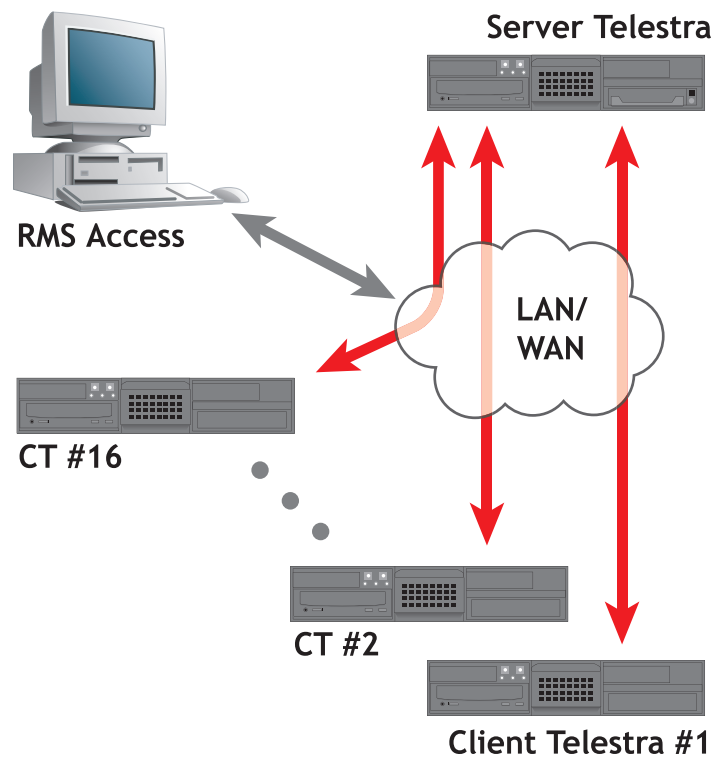


Diagram 1: Client/Server Architecture

2.1. The Server

The server is the standard 2U rackmount Telestra chassis, and contains all of the standard Telestra software functionality, such as RMS, MBV, etc. Additionally, this Telestra Server platform will have the ability to support unlimited diskless (network bootable) Telestra clients. Each client platform can have its own unique audio communications model that meets the site's specific requirements. As with all Telestra platforms, the administrator can remotely manage any Telestra system (HDD or network boot) via a standard web browser.

2.2. The Diskless Client

The client is also a standard 2U Telestra chassis, but WITHOUT a hard disk drive, as the name suggests. The client will instead either boot from a Generic Client Boot CD-ROM, or download the required software and model over the network into local memory, and execute that model. For the end user, there is not a discernible difference between a disk-based and diskless system. The same great ASTi audio quality and reliability exist within this platform and architecture.

2.2.1. How it works - Client Network Bootup

The server contains two main components with regard to diskless operation. The first is a list of all of the valid diskless clients. Only clients that are on this list will be able to load software remotely over the network from the server. Secondly, the server has a unique model for each client. This model will contain the specific audio requirements, hardware mappings, radios, intercoms, playsounds, etc. to be loaded and executed on the client platform.

When powered up, the client will issue a *bootp* request onto the network. Via its DHCP daemon, the server Telestra receives this request and sends back a *bootp* reply to the client. The reply contains the IP address of the client platform and other network settings. The client Telestra will then download the software components necessary to run the model. This download is performed in two = stages:

1. Kernel and RAMDISK information are downloaded via trivial FTP. The RAMDISK is loaded into memory and the client starts its boot process.
2. Model, components and options file are downloaded via secure copy (SSH + public/private key encryption) during the client's boot process. Once these files are downloaded, they are automatically installed on the client platform. The client boot continues with its startup processes before finishing the secure software installation.

After the downloads and installations have completed, the model will then automatically start on the client machine, providing audio and communications as defined therein.

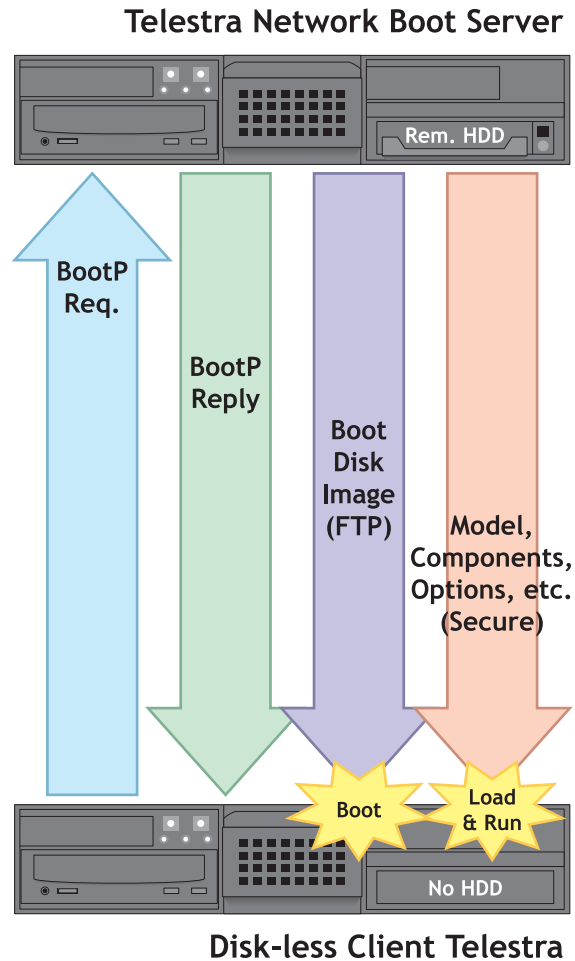


Diagram 2: Client Network Bootup

When the machine is powered off, all of the software packages (kernel, RAMDISK, models, etc.) are erased from memory.

2.2.2. How It Works - Client Local Bootup via CD-ROM

The client can be loaded with the required software locally via a Generic Client Boot CD-ROM. The CD-ROM is specific to the client machine, and must initially be created by the user.

2.3. Advantages of Server/Client Architecture

This Telestra server/client architecture offers several advantages over the traditional disk-based system:

- Security of a diskless-based system
- Central model(s) management
- Central client startup management
- Time-saving solution (site visits, HDD swapping, etc.)
- Easier transition between security levels

2.3.1. Other Diskless Options

For deep embedded systems, a bootable CD-ROM containing the operating system, runtime environment, models, components and all configuration files can be inserted into the Telestra system. Each Telestra system will operate as a self-contained–yet diskless-platform–requiring no central network server.

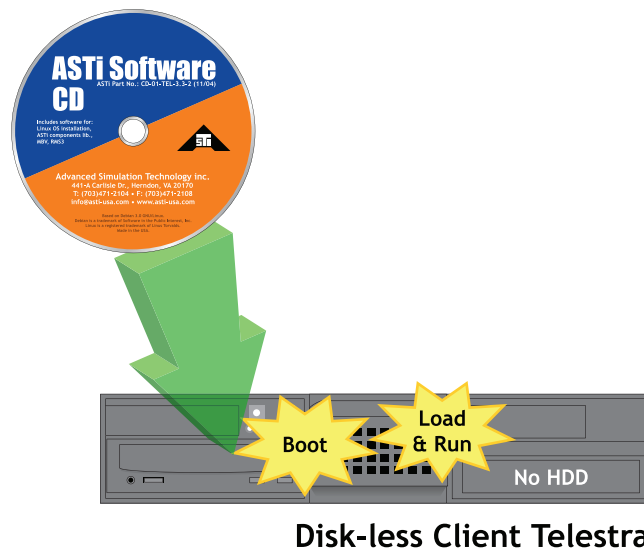


Diagram 3: Diskless Client Telestra

To facilitate central model and configuration management and speed Telestra startup times, a hybrid configuration may also be employed. A bootable CD-ROM containing the operating system and runtime environment can be loaded into the Telestra system. At startup, the system will boot directly from the CD-ROM, skipping the kernel/RAMDISK FTP download step described above. After booting, the Telestra will query the central network server and download its model and configuration information.

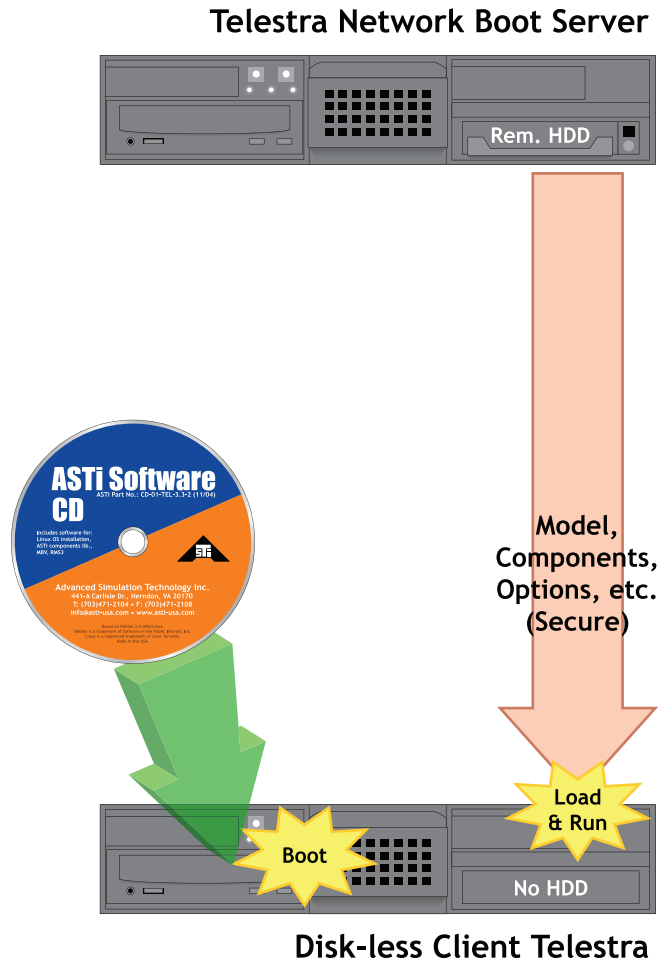


Diagram 4: Diskless Client Telestra

2.4. Diskless Boot of a Telestra Client

Example Configuration-The Big Picture

The following procedure requires a server Telestra and client Telestra(s). The options file provided must contain the MAC addresses of the server and all of the clients. A typical setup is shown below and involves the following hardware components:

- Machine with RMS access to the server and client Telestra (referred to as “PC” in this guide)
- Telestra Client(s)
- Telestra Server

A typical setup is shown as follows:

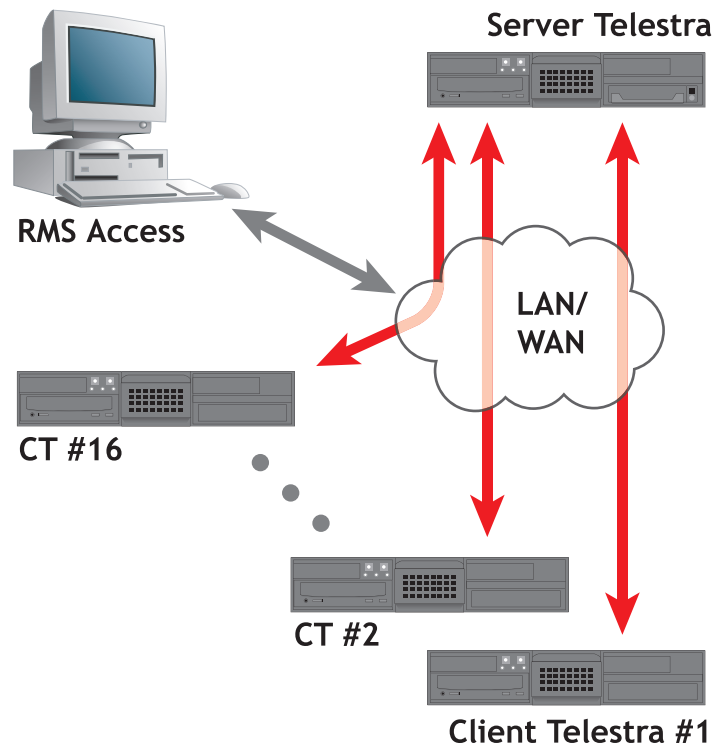


Diagram 5: Client /Server Architecture

In the procedural steps that follow, this document will refer to the above diagram when talking about the Server and Client.

The following procedure assumes that the Server Telestra is currently up and running, and is access able through RMS. If this is not the case, please refer to the Telestra User's Guide to get the system up and running.

2.5. Things Needed Before Getting Started:

- Options file
 - Must exist on the Server Telestra, and contain all of the MAC addresses of the clients which it will manage. Contact ASTi for Options Files.
- ASTi Telestra Software Install CD - Used to create software image for bootable clients and contains the following 2 main components for diskless procedure:
 - Client Bootable Image
 - Components Binary

Note: The Options file and ASTi Telestra Software Install CD are needed for the Telestra Cold Start procedure prior to starting the Diskless procedure.

- PC with RMS access.
- A model, the client Telestra will have a model associated with it. This procedure assumes that the model is already created and available for use. The user will be required to map the model to the specific client Iris devices; however, the model itself is assumed to be complete and functioning.

3. Configuring the Server

3.1. For the First Time

This step must be completed before continuing with the Diskless Procedure.

The following procedure describes how a user will upload the necessary diskless client files to the Telestra server. These files will be used to either boot a client over the network, or create a Generic Client Boot CD.

There are three core files that must be loaded onto the server hard drive in order to manage diskless clients. They are:

- System Image
- Components Binary
- Options File

To upgrade one or more of the three core files, follow the required procedure below.

1. The Telestra server must be installed with an options file in order to function.
 - 1a. Verify that the options file contains all of the MAC addresses of every client it will serve.
 - 1b. Verify the correct options file is installed on the server. The options file is provided to you at the time of purchase. If unsure about the options file, please contact ASTi. For details on installing the options file, please refer to the Telestra Users Guide. (DOC-01-TELS-UG-3)
2. Once the options file is installed, the next step is to copy the client CD files from the PC to the Telestra server via RMS as follows:
 - a. Insert the **ASTi Telestra Software Install CD** provided into the CD drive of the Telestra.
 - b. From the PC, use RMS to access the Diskless Server Telestra.
 - c. Select **Remote Clients -> Edit Image Settings**
 - d. Select the checkbox for “Update directly from ASTi Diskless CD” and click **Update**. The System Image and Component files will then be installed onto the server.

An alternate to step 2 above is to insert the CD directly into the Diskless Server Telestra CD drive, and follow the procedure below.

- a. Insert the **ASTi Telestra Software Install CD** provided into the CD drive of the PC.
- b. From the PC, use a web browser to access the Diskless Server Telestra via RMS.
- c. Select **Remote Clients -> Edit Image Settings**
- d. Upload the system image and components binary from the CD provided. This involves copying 2 files from the ASTi Telestra Software Install CD to the server.
 - i. Select the Upload type to be “**System Image**” and then browse for the system image (.tar) on the CD provided. Click **Update** to upload the file to the Server.
 - ii. Select the Upload type to be “**Components**” and then browse for the components binary (.deb file) on the CD provided. Click **Update** to upload the file to the Server.

3.2. Upgrading the Server

Follow the steps in the previous section, **3.1 For the First Time**, to upgrade the server. The only difference is when upgrading you are overwriting the old files.

4. Creating a Generic Client Boot CD

The following procedure describes how a user will create a Generic Client Boot CD for a Telestra client machine. The user can create two types of bootable CDs using RMS on the Server Telestra: A Generic Client Boot CD that can be used to boot any client (any client managed by the server to be more specific) and Site Specific Client Boot CD used to boot an individual client. The differences between a Site Specific Client Boot CD and Generic Client Boot CD are shown below:

	Generic Client Boot CD	Site Specific Client Boot CD
System Image	Yes	Yes
Components Binary	Yes	Yes
Options File	Yes	Yes
Model	No	Yes
Config Files	No	Yes

Note: The Generic Client Boot CD is required during the diskless CD boot procedure (Section V). While not required for a client DHCP boot it is **HIGHLY** recommended to create one. It will be useful if the client is unable to boot over the network due to network issues. In such a case, this allows the ability to get the client up to a basic state, and have access to the client through RMS.

4.1. Steps to Creating a Generic Client Boot CD

This boot CD will contain the system image and components uploaded in Section III along with the options file. This CD will allow the user to boot up any client that is listed in the options file. No model or network settings will be present on the CD. To create the Generic Client Boot CD in RMS:

1. Select **Remote Clients**
2. To the right of the client image setting, there is an option to Make Generic CD Image. Select **Make Generic Boot CD**.
3. Press “continue” to make the CD image and save it to disk. An ISO image is created.
4. Download the ISO image to a PC by clicking “save to disk.”
5. Burn the ISO image using any CD burning software tool. **The ISO cannot simply be copied to a blank CD.** A new bootable CD image must be created from the ISO file. Consult the CD burning software instructions for the proper procedure. Use the CD created to boot the client Telestra. If the following message is seen during client boot then the ISO image was not created correctly: “Reboot and Select proper Boot Device or Insert Boot Media in Selected Boot Device.”
6. Label the CD with “**Generic Client Boot CD**,” plus any other relevant information.

5. Telestra Client Configuration

There are two ways to boot a client machine via DHCP or CD-ROM; more details can be found in Section II. Follow procedure A or B as required, depending on your diskless boot of the Telestra Client.

5.1. Diskless CD-ROM Boot of a Telestra Client

The following procedure describes how to create a Site Specific Client Boot CD for a Telestra client machine. The procedure involves the following steps:

- Generic Client Boot CD is used to boot client Telestra initially (CD is created in Section IV)
- PC, Server, Client and Network are connected as shown in Diagram 1
- Model is uploaded to client and mapped to hardware
- Client specific configuration settings are set via RMS
- Client Model and config files are copied from client to server
- Remote client is created on server machine
- Client ISO image is created on server machine
- ISO image is used to make Site Specific Client Boot CD

5.1.1. Procedure Steps

1. Using the Generic Client Boot CD created in section IV, insert the disk into the client Telestra and press the reset button. Note: In order for the client to boot from CD-ROM, the BIOS must be set accordingly. If the system fails to boot from the CD-ROM, verify the BIOS settings using the Telestra Cold Start Procedure section “Diskless Client Operation Only”.
 - a. Allow Client to bootup from CD-ROM
 - b. Through Telestra Configuration Utility enter the IP address, subnet mask and gateway (if applicable) of the client machine. Write down the MAC address and IP address of the client:

MAC Address of Client: _____

IP address of Client: _____

Note: If there is a DHCP Server accessible to Telestra’s eth0 interface, then the client will get its IP address automatically. If this is acceptable, there is no need to set a permanent IP address for the client Telestra.

2. The key for this procedure is to have access to both the client and server Telestras via RMS (i.e., from the PC). In the following steps, use one PC to access both the client and server. Some network configurations may not allow access to both machines from the same PC. In this case, two separate PCs can be used to manage the client and server machines individually, but certain files will have to be transferred between those PCs. These steps are not included in this procedure, but it should be obvious when they are required.
 - a. Proceed with the following steps only when model development is complete, and the model is fully functional. For specific instructions on model transfers, backups and loading in RMS, refer to the “Model Management” section in Chapter 6 of the Telestra User Guide (DOC-01-TELS-UG-3).
3. With the model complete and residing on the server machine, remotely login into the diskless server Telestra’s RMS system from the PC.
 - a. Select **Models -> Management**
 - b. Find the desired model and select **Backup**.
 - c. When asked which sections to back up, click the **Check All** button, and then select **Start Backup**.

Config. Sections

Please select the desired type(s) of system configuration info to back up.

- Model
- HardwareMapping
- Components
- Debug
- Profiles
- ICD
- Soundfiles

- d. Once complete, click the filename of the backup archive to download the TGZ file. The model TGZ file is now saved on the PC. Next, copy the model file to the client machine.

4. From the PC use the RMS to access the client Telestra.
 - a. Select **Models -> Management**
 - b. In the upload form in the “Model Upload & Installation” section, select “**Embedded Ops**” as the **user to receive model**, and **browse** for the model file (TGZ) on the PC’s file system. This is the model file that was downloaded from the server in step 3.

Model Upload & Installation

User to receive model: Model ".tgz" file: no file selected

After clicking "Browse..." or "Choose File", you will be asked to locate the model TGZ file on your *local computer* (where your web browser is running) for transfer to the proper location on the Telestra system.

- c. Select **Upload Model File** to upload model to client.
- d. Select all model sections to restore, and click **Go To Step 2**.

Step 1: Define Restoration Properties

Please select the desired model sections to restore. You cannot restore information that is not contained in the archive file.

- Model
- HardwareMapping
- Components
- Debug
- Profiles
- ICD
- Soundfiles

Which user on the system should have ownership of the restored files?

Target User mbvuser

- e. Enter the new model name, and **Click Go To Step 3**.
- f. Click the **Start Restoration Now** button to initiate the installation.
- g. Next, go to **Models ->Management**
- h. Now select the model that was just uploaded and:
 - i. Select **Make Default**
 - ii. Select **Load Model** (this may take a few minutes)
 - iii. Select **Return to previous page** after model is loaded
 - iv. Select **Start Model**
 - v. Model should now be running

5. Now map the client machine's Iris devices to the appropriate objects in the model. For hardware mapping details, please see the Telestra User Guide. Once the Iris hardware is properly mapped to the model, proceed to step 6.
6. Configure all necessary settings on the client machine through RMS. The required settings will vary from client to client based on the configuration requirements of the model and network. Typical configuration settings will include some combination of the following:
 - IP address settings
 - Radio Environment Settings (if applicable)
 - Other(s) (As required)

For the details on how to configure the above parameters please consult the Telestra User Guide.

Now that the client is configured correctly, and the Iris devices are mapped, test the model as required to verify everything is setup as expected. ***At this stage, testing the model is critical; it will help eliminate problems early, precluding the necessity to burn Client Specific Boot CDs more than once.***

7. To capture all of the client-specific settings such as the configuration files and the model with the correct hardware mapping:
 - a. From the PC, use the RMS to access the client Telestra
 - b. Select **Telestra -> Actions**.
 - c. Click **Backup**, then select all the configuration sections for backup, *except “Diskless Clients”*. This section is not needed, as it refers to the list of clients that the server Telestra will handle.

System Config. Backup

Config. Sections

Please select the desired type(s) of system configuration info to back up.

Check All

Clear All

- TelestraConfig
- RadioEnvironmentConfig
- XServerSetup
- Passwords
- Options
- SatComConfig
- PropagationConfig
- DisklessClients

Start Backup

- d. Select **Start Backup** to begin the backup process.
- e. Download the TGZ file created in the backup by clicking its filename. This will save the backup to the PC's local file system.
- f. Repeat steps 3a-3d on the *client* Telestra to backup and download the fully configured model (including Iris hardware mapping information).

Now the model and configuration files from the diskless client Telestra are successfully backed up on the PC.

8. The model and configuration files from the client machine must now be transferred to the server Telestra for creation of the ISO image that will be burned to CD.
 - a. Access the server Telestra from the PC via RMS
 - b. Select **Remote Clients**
 - c. Select **Edit/Add Clients**
 - i. Enter the Client Name
 - ii. Select the MAC Address of the desired client from the pulldown menu. Note that this was recorded in step 1.
 - iii. Browse the PC file system to find the model TGZ file from the client Telestra. This is the model file that was backed up to the PC in step 7.
 - iv. Browse the PC file system to find the system configuration TGZ file from the client Telestra. This is the model file that was backed up to the PC in step 7.

Add New Clients				
Name	MAC Addr (eth0 Only)	Model (.tgz)	Config (.tgz)	
<input type="text"/>	<input type="text"/>	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected	
<input type="text"/>	<input type="text"/>	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected	
<input type="text"/>	<input type="text"/>	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected	
<input type="text"/>	<input type="text"/>	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected	
<input type="text"/>	<input type="text"/>	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected	

- v. Select Apply.
- vi. The client created now appears in the client list on the Remote Client Management screen as shown below. If the Server has connectivity to the client, and the client is up and running, the client will now appear as online. If these two conditions are not met, the client will appear as offline. ***This will not prevent the creation of a Site Specific Client Boot CD.***

Online Clients				
Name	MAC Addr	Running Model	Config	
Client_2	00:11:11:0a:34:84	red_mic_md1_revf	telestraConfigclient2.tgz	» Reboot All » Shutdown All
				» Reboot » Shutdown » Make CD Image

Offline Clients				
Name	MAC Addr	Model (.tgz)	Config	
Client_1	00:11:11:1e:5b:6f	client1.tgz	telestraConfigclient1.tgz	» Make CD Image

9. To create a Site Specific Client Boot CD:
 - a. Access the Server Telestra from the PC using RMS.
 - b. Select **Remote Clients**. For the client created in step 8, click the **Make CD Image** link.
 - c. Select **Continue** to create the ISO image for the client displayed.
 - d. When complete, click the **Save to disk** link to save the ISO image to the PC.
10. Burn the ISO image using any CD burning software tool. *Note: Do not copy the ISO file onto a blank CD, a bootable CD image must be created from the ISO file.* Consult the CD burning instructions for the software's correct procedure.

Now boot the client Telestra using the CD created. If the following message is seen during client boot then the ISO image was not created correctly:

“Reboot and Select proper Boot Device or Insert Boot Media in Selected Boot Device”

11. Label the CD with “**Site Specific Client Boot CD,**” plus any other relevant information, such as the site location, etc.

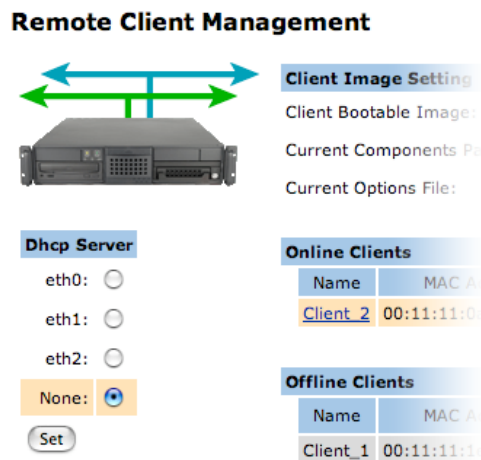
5.2. Diskless DHCP Boot of a Telestra Client

The following procedure describes how to boot a client machine over the network using DHCP. The procedure involves the following steps:

- Telestra DHCP Server is enabled
- Client is added to the servers list of clients
- Power up the Client Telestra
- Client boots up over the network and is running
- Copy model and configuration files from client to server (if necessary)

For the following procedure to work, Section III of this document must have been completed. It is also highly recommended that the procedure outlined in Section IV be performed. Although not necessary, it may prove useful to have a Generic Client Boot CD at a remote site, especially if the server/client network is down.

1. Enable DHCP on the Server Telestra
 - a. On the “Remote Client Management” RMS page, set **DHCP Server** to **ethN**, where N is the interface on which the DHCP server will listen for requests.
 - b. Select **Set** to save the DHCP Configuration Settings.



2. Add the client to the list of clients supported by the server.
 - a. Select **Telestra -> Remote Clients**
 - b. Select **Edit/Add Clients**:
 - i. Enter the **Client Name**
 - ii. Select the **MAC Address** of the client from the pulldown menu.
 - iii. Select the **model .tgz** file from the PC's file system. This model should have already been tested and verified as working. The first time the model is loaded onto the client Telestra, the hardware settings must be mapped to the client's Iris devices; afterward, the new model (with properly mapped hardware) must be uploaded to the server again. This is seen later in the procedure, and it can be performed if necessary.
 - iv. Select **backup .tgz** file from the PC's file system. This configuration file should have been backed up to the PC system the first time the client system was booted, configured and backed up. If booting the client for the first time, leave this field blank.

Add New Clients			
Name	MAC Addr (eth0 Only)	Model (.tgz)	Config (.tgz)
<input type="text"/>	<input type="text"/> ▾	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected
<input type="text"/>	<input type="text"/> ▾	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected
<input type="text"/>	<input type="text"/> ▾	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected
<input type="text"/>	<input type="text"/> ▾	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected
<input type="text"/>	<input type="text"/> ▾	<input type="button" value="Choose File"/> no file selected	<input type="button" value="Choose File"/> no file selected

- v. Select **Apply**
 - vi. The client just created now appears in the clients list on the Remote Client Management screen. The client should now appear on the list as OFFLINE as it is currently powered down.
3. Power up the client Telestra, and let it boot over the network. There must be network connectivity between the server and client Telestra for this to work properly. The status of the download can be monitored from the server Telestra RMS:
 - a. Connect a keyboard and monitor to the Client Telestra.
 - b. Power on the Client Telestra.
 - c. Verify BIOS settings against the Telestra Cold Start Procedure.
 - d. The client Telestra will now issue a *bootp* request on **eth0**. Note the client can only issue a *bootp* request on Ethernet 0, even though the server Telestra is configured to listen to any of its ethernet ports.

4. Now that the client Telestra has started up, the DHCP boot procedure may not be complete.
 - a. If the proper model (with hardware mapping) and configuration TGZ files were set up in step 2 above, nothing further needs to be done.
 - b. If, however, the model is not yet mapped to the client Telestra's hardware, and/or the client Telestra's system configuration backup has not been performed, follow steps 5 through 9. These steps should only have to be performed once.

Once the client is running with the correct model and configuration files (and those files have been properly added to the server Telestra), the client will seamlessly start-up into the correct mode each time it boots.

5. If not already done, map the necessary objects in the model to the Iris hardware connected to the client Telestra system. For hardware mapping details, please reference the Telestra User Guide (DOC-01-TEL-UG-3).

After configuring the model, back it up and save its TGZ file to the PC file system.

- a. In RMS, select **Models -> Management**
- b. Find the desired model and select **Backup**.
- c. When asked which sections to back up, click the **Check All** button, and then select **Start Backup**.

Config. Sections

Please select the desired type(s) of system configuration info to back up.

- Model
- HardwareMapping
- Components
- Debug
- Profiles
- ICD
- Soundfiles

- d. Once complete, click the filename of the backup archive to download the TGZ file. The model TGZ file is now saved on the PC. Next, copy the model file to the client machine.

6. Configure all the necessary system settings on the client machine through the client's RMS. The required settings will vary from client to client, based on the configuration requirements of the model and network. Typical configuration settings will include some combination of the following:

- IP address settings (This will not matter for eth0 as it will be configured via DHCP.)
- Radio Environment Settings, if applicable
- Other server-specific parameters, as required by the application

Again, please see the Telestra User Guide (DOC-01-TEL-UG-3) for information on where and how to configure the Telestra system.

7. Back up all of the client-specific configuration settings.

- In RMS, select **Telestra -> Actions**.
- Click **Backup**, then select all the configuration sections for backup, *except "Diskless Clients"*. This section is not needed, as it refers to the list of clients that the server Telestra will handle.

System Config. Backup

Config. Sections

Please select the desired type(s) of system configuration info to back up.

TelestraConfig

RadioEnvironmentConfig

XServerSetup

Passwords

Options

SatComConfig

PropagationConfig

DisklessClients

- Select **Start Backup** to begin the backup process.
- Download the TGZ file created in the backup by clicking its filename. This will save the backup to the PC's local file system.

8. Now, with both the model and system configuration backup files saved to the local PC, they must be uploaded to the server Telestra, and associated with the proper client system.
 - a. Access the server Telestra from the PC via RMS
 - b. Select **Remote Clients**
 - c. Select **Edit/Add Clients**
 - i. Find the **Client Name** and **MAC address** that was previously configured.
 - ii. In the “Model” and “Config” columns, click the button under the “New” headings to locate the corresponding TGZ files on the local PC.

Edit Current Clients					
Name	MAC Addr (eth0 Only)	Model (.tgz)		Config (.tgz)	
		Current	New	Current	New
Client_1	00:11:11:1e:5b:6f	client1.tgz	<input type="button" value="Choose File"/> no file selected	telestraConfigclient1.tgz	<input type="button" value="Choose File"/> no file selected

- iii. Click “Apply” to upload and link those files to the client Telestra system.
- iv. The updated client information now appears in the client list of the Remote Client Management screen in RMS.

Online Clients					
Name	MAC Addr	Running Model	Config		
Client_2	00:11:11:0a:34:84	red_mic_mdl_revf	telestraConfigclient2.tgz	> Reboot All	> Shutdown All
				> Reboot	> Shutdown > Make CD Image

Offline Clients				
Name	MAC Addr	Model (.tgz)	Config	
Client_1	00:11:11:1e:5b:6f	client1.tgz	telestraConfigclient1.tgz	> Make CD Image

The next time the client is booted, the newly associated configuration and model files will be downloaded.

6. Troubleshooting

Problem: When my client Telestra is booted via CD-ROM, I get the following Error Message:

“Reboot and Select proper Boot Device or Insert Boot Media in Selected Boot Device”

Solution: This message is displayed when the Telestra cannot boot from the CD that is inserted in the drive. Most likely, the ISO Image was not created correctly during the CD burning process. Refer to your CD software manufacturer on how to burn bootable ISO images.

Problem: My model fails to load on the client Telestra.

Solution: Verify that the options file installed on the server Telestra supports the Telestra client option, and that the client Telestra’s MAC address is in the list of supported client machines.