



Integrator's Manual





vantiva	a 💥		I)	mec	liatur	ıe		SETUP v. 4.1.23
TVs 1	ñ				CF	IANNE	ls 🤇	Clear
GROUP TVs						All Char lide Standard	DIRECTV External nnels Sports N I Def Duplicates	ATSC lews Favorites
TV4 FOX	TV5	TV6		l	≥ Syfy≊	243 XPLOR 244 SyfyHD	Coin Collecting with Mike Mezack The Last Witch Hunter	Coin Collecting with Mike Mezack
TV8	TV9		TV11	I	(b) (c) tru=	245 TNTHD 245.1 TNTWHD 246	Supernatural Charmed World's Dumbest	Supernatural Charmed World's Dumbest
TV12	TV13	TV14	TV15	I	tos M	247 TBSHD 247.1 TBSWHD	Friends Young Sheldon	Friends Young Sheldon
tbs	ESPINE HD	FOX	ANBC HD		FX HD	248 FXHD 249 COMHD	Cast Away South Park	South Park

"Just Drag and Drop"



COMMERCIAL USE This product is designed to go into areas that are not accessible to the public at large and are not for home use.

Vantiva COM3000 Products provide Head-End systems for distribution solutions for the AT&T / DIRECTV Commercial and Lodging and Institutions (L&I) markets

Note to System Installer – This reminder is provided to call the systems installer's attention to Section 820-93 of the National Electric Code which provide guidelines for proper grounding and, in particular, specify that the Coaxial cable shield shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



TABLE OF CONTENTS

1.	Mediatune Overview	6
2	Introduction	
3	Installing Mediatune on COM51	
3.1	COM51 Licensing	8
3.2	License Installation	8
3.3	MMS Mode License	
3.4	Mediatune Software Installation	
3.5	Remove Password Requirement from COM51	
3.6	Access the Mediatune Webserver	
4	Configuring Mediatune	
4.1	Mediatune Editor	13
4.2	Tuner Filter	14
4.3	TV Configuration	
4.4	Mediatune Settings	19
4.5	TV Setup Mediatune Interface	20
4.6	Add /Edit TV settings	22
4.7	Channel Edit	24
5	ATSC Off-air Tuner	
6	External Content	<u>27</u> 28
6.1	Edit External Source Descriptions	
7	TV Setup for Mediatune	
8	Using Mediatune	<u>30</u> 32
8.1	Logging into Specific Group Access	<u>3739</u>
9	Mediatune using LG Pro:Centric Televisions	<u>38</u> 40
Softv	ware Requirements	
LG So	oftware Requirements	
9.1	TV Programming	
10	External Tuners	<u>42</u> 4 5
11	General Tip, Tricks and Best Practices	<u>42</u> 4 5
12	QAM Log Check	<u>43</u> 4 6
13	Transport Stream Router (Troute) [Advanced Debugging]	<u>43</u> 46



Revision Record								
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1. MEDIATUNE OVERVIEW

Mediatune command and control software controls the COM51 card in a COM3000 system.

- The software routes programming from one or more tuners on the COM51 to televisions located in a Bar or Restaurant.
- The system intuitively routes programming from one tuner to all televisions requesting that programming. This creates a matrix type system that best utilizes the Tuner : TV ratio.
- TVs can be grouped into zones to further simplify operation.
- Mediatune will work with RF QAM based distribution systems and IPTV systems.
- LG Pro:Centric TVs and STB will offer advanced functionality in IP distribution environments.

Example:

- TVs 1, 5, 9, 11 and 36 are all requesting ESPN.
- One COM51 tuner will provide ESPN programming to all 5 TVs leaving other tuners free to provide programming to other televisions.

It is important to understand the number of TVs at an installation drives the QAM count not the number of tuners needed.

• Normally each QAM can supply signal to two TVs (TV count / 2 = QAM count)

Each COM51 card can route HD video to up to 40-50 TVs at which point a second card is required. If 4K programming is desired, then each COM51 can route 4K video a maximum of 25 TVs, so additional COM51s would be required to accommodate the number of simultaneous 4K streams needed.

One QAM4 fully licensed for 48 QAMs can provide HD signal to 96 televisions. Note: 4K channels will require one QAM per TV, thus for 4K support in QAM mode, the ratio is 1:1 for TVs to QAM carriers. For this reason 4K distribution on QAM is not recommended.

Two COM51 cards will provide up to 46 tuners to be "shared" on up to 96 televisions.

Mediatune is designed to work with the CHROME browser on the PC and the Safari browser on the iPad. While you may be able to get other browsers to work, you will have the best experiences using the devices recommended.



2 INTRODUCTION

This document will guide you through a typical installation process for Mediatune 4.1.

Mediatune can be used with COM3000 system to direct content from any source tuner to any output QAM channel and allow for a simple tuning interface for both IP and RF installations.

The system is based on a web server within the COM51 card. Any browser-based device can interact and become a control point, allowing for maximum flexibility for the users. You can have several PCs, iPads, and other tablet devices which all will synchronize with the interface running on the COM3000.

Note: Control devices need to support drag and drop function either via a touch pad or mouse.

Note: Throughout this document, the default IP address for Card 1 in Chassis 1 is referenced. If you are using a different card in a different chassis or have changed the IP configuration, the 192.168.3.18 default address will be different.

It is assumed that technicians installing Mediatune are well versed in all aspects of COM3000, DIRECTV MFH2, and industry standard RF and/or IP distribution technology.



3 INSTALLING MEDIATUNE ON COM51

3.1 COM51 LICENSING

Mediatune can only be installed on COM51 cards which have been enabled with the "MT" feature. Features are added to the COM51 cards by uploading a license file obtained from your Authorized Vantiva Distributor.

- Mediatune license is needed only for the "master" COM51 card in the system that is running the Mediatune software. Additional COM51 cards will run as "slave" cards controlled by the Mediatune software and do not require the Mediatune license.
- Mediatune MMS license includes authorization for 10 end points (TVs). Additional endpoint licenses must be purchased through your Vantiva Distributor

3.2 LICENSE INSTALLATION

In most cases the system will be delivered from the Distributor with all license and Software preinstalled. However, it is important to know how to install the Mediatune license and software.

From the COM51 Pairing Info tab, select CHOOSE FILE and browse your PC for the license file (.dat) you received from your distributor.

Once selected, press UPLOAD to transfer this file to the COM51 card's internal TFTP server. You will see that the Software Upgrade settings for the card have changed, and the file will be listed under 'Filename:'. Make sure to check the Upgrade box for the intended card, select 4=License, and press SUBMIT.

Chassis	Slot	CardIP	RID	CAM_ID	Serial_Number	Authorized	Paired	SW_Version	Up_Time	Upgrade	
	1	192.168.3.18	023375254069	003375369539	2097369846	1	1	ST04.01.19	ed:eh		Select card
	2	192.168.3.19	023379672258	003375366832	2097370165	1	1	ST04.01.19	ed:eh	•	
	3	192.168.3.20	023379815634	003375364548	2097370130	1	1	ST04.01.19	0d:0h		
·	4	192.168.3.21	023379817119	003375364522	2097370128	1	1	ST04.01.19	ed:eh		
	5	192.168.3.22	023376326429	003375364274	2097370129	1	1	ST04.01.19	ed:eh		
	6	192.168.3.23	023374938688	003371461975	2097362414	1	1	ST04.01.19	0d:0h		



Browser Upload

```
TFTP server at 192.168.3.18 current files:

512 LABHEDIATUNE.dat

Upload a file to the TFTP server at 192.168.3.18

Choose File No file chosen Upload
```



You will see the message below on screen.

Doing Software Upgrade IP_Address=(192.168.3.18) Usage=4 Filename=(LABMEDIATUNE.dat) 1-1: http://192.168.3.18:8080

Once the license file has been transferred, you can confirm the feature from the *SysInfo* page.

Click on Discover to update the information, then navigate to *SysInfo.* Listed under the Features column, you will see "MT".

DIRECTV COM3000



Commands: Overview, Discover, PairingInfo, TuneAll, Help

Display, SysInfo, HealthInfo, EPG, Troute, Mt, Syslog, Lock, ATSC, NTSC, 401, Android, QAM

Chassis	Slot	CardIP	EPG	MAC_Address	Tuners	s Features		
1	2	192.168.4.21		60:3d:26:9f:3b:2a	8/23	МТ К	MT=Mediatune	rGuide Monitored



3.3 MMS MODE LICENSE

To work in IP mode and control IP endpoints such as an LG Pro:Centric TV, Mediatune needs MMS licenses in addition to the MT license provided above. By default, the MT license has 10 MMS licenses so that 10 unique IP endpoints can be used when installed. If more MMS licenses are needed, please contact your distributor to purchase. To determine how many MMS licenses are active, you can use the Misc Get/Set feature in Advanced Edit.

Type 'mms' in the Name field, then hit submit

Misc Get/Set

Name:	mms	_
Value:		
Submit	L	

DIRECTV COM3000

Commands: Overview, Discover, PairingInfo, TuneAll, Help Display, SysInfo, HealthInfo, EPG, Troute, Mt, SysIof

name = mms value = 10

3.4 MEDIATUNE SOFTWARE INSTALLATION

Mediatune Software consists of a .tar software file which is transferred to the licensed COM51 card within a COM3000 system. Transferring the Mediatune file is like the software upgrade process and utilizes the TFTP mechanism.

From the Pairing Info page on the COM3000 interface, select CHOOSE FILE and browse to the MT.TAR file on your PC.

Press UPLOAD to transfer this file to the COM51's internal TFTP server.

Check the upgrade check box on the card to receive this file.

Select Usage: 1 = MT from the drop-down list

Mode: 0 = TFPT

Press SUBMIT



DIRECTV COM3000



Commands: Overview, Discover, PairingInfo, TuneAll, Help

Display, SysInfo, HealthInfo, EPG, Troute, Mt, Syslog, Lock, ATSC, NTSC, 401, Android, QAM

Chassis	Slot	CardIP	RID	CAM_ID	Serial_Number	Authorized	Paired	SW_Version	Up_Time	Upgrade	
	1	<u>192.168.3.18</u>	023374938688	003371461975	2097362414	1	1	ST04.02.33	1d:1h		Select
1	2	192.168.4.21	023379672258	003375366832	2097370165	1	1	ST04.02.33	1d:1h		

- 141.1	• K	1=MT
2.168.4.21		
_4.1.37.tar		T mt.tar file
TFTP V		
	2.168.4.21 _4.1.37.tar = TFTP V	2.168.4.21 _4.1.37.tar = TFTP

MT.tar is a big file with lots of zipped images. Please allow 30 seconds for a COM51 or 3-5 minutes for a COM46 after you have made this transfer before moving to the next step.

3.5 **REMOVE PASSWORD REQUIREMENT FROM COM51**

Each COM51 must have the password set to an empty string to disable password protection. Otherwise Mediatune running on an external device such as a tablet will not have the needed permissions to talk to the COM51 cards.

NOTE: If you overlook this step Mediatune will function normally for the 8-hour duration of the default password session, then become inaccessible.

Enter the default password (com3k) into the COM51 card, then navigate to the Lock tab. Leave the Password field blank. Click submit.

D	ID	F	CT	V	C	13	000
$\mathbf{\nu}$	11	1.1		•		VIJ	000



Commands: Overview, Discover, PairingInfo, TuneAll, Help Display, SysInfo, HealthInfo, EPG, Troute, Mt, Syslog, Lock, ATSC, NTSC, 401, Android, QAM

Lock

Create	а	password.
--------	---	-----------

Password:	
Submit	

This will lock write access to this COM51 Card. Start the password with "Read" to always permit readonly access.



3.6 ACCESS THE MEDIATUNE WEBSERVER

Use the Chrome browser on the PC to browse to the following IP address.

192.168.3.18/mt/mediatune.html

This assumes 192.168.3.18 is the IP address of the card running Mediatune.

You will see the Mediatune interface with blank TV information as shown below:





4 CONFIGURING MEDIATUNE

Configuration of the Mediatune software is done using SETUP menu from the Mediatune interface and the Mediatune XML web server interface.

4.1 **MEDIATUNE EDITOR**

Mediatune editor allows editing the XML scripts that control the functions of the Mediatune interface.

Many features can be set up using the Mediatune setup menu user interface which will be covered in a later section of this manual.

You can access the editor at the following IP address, assuming 192.168.3.18 is the IP address of the COM51 card running Mediatune.

http://192.168.3.18/mt/MTeditor.html

MediaTune XML Editor

Select a file to edit.

atsochannels.xml

Load Save





4.2 **TUNER FILTER**

Tuner filters must be set up in the Mediatune editor.

The filter list is an XML script that lists all tuners available to Mediatune. Filters are necessary to prevent Mediatune from attempting to use unlicensed tuner on the COM51. They also facilitate the use of a shared COM400 chassis with COM51 cards not controlled by Mediatune.

Example:

A hotel could have 4 COM51 cards streaming free to guest channels to guestrooms and 2 COM51 cards providing Mediatune to a sports bar in the lobby from one COM400 chassis.

In the line below, we can see that the filter sets the following:

- Chassis number
- Slot number
- Tuner index

The text below sets chassis one, slot1 and tuner 1 to be accessed by Mediatune

<filterList> <filter><chassis>1</chassis><slot>1</slot><index>1</index></filter> </filterList>

By default, a COM51 is only licensed for 8 tuners. A license file can increase the licensed tuner count to 23. Don't include more tuners in the Tuner Filter list XML file than are enabled on a COM51.

The filter list below will set 16 tuners on a COM51 for use with Mediatune.

<filterList>

```
<filter><chassis>1</chassis><slot>1</slot><index>1</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>2</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>3</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>4</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>5</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>6</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>7</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>8</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>9</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>10</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>11</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>12</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>13</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>14</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>15</index></filter>
<filter><chassis>1</chassis><slot>1</slot><index>16</index></filter>
```

</filterList>

This filter list enables a COM51 card with 23 tuners

<filterList>

<filter><chassis>1</chassis><slot>1</slot><index>1</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>2</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>3</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>4</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>5</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>6</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>7</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>8</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>9</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>10</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>11</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>12</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>13</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>14</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>15</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>16</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>17</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>18</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>19</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>20</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>21</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>22</index></filter> <filter><chassis>1</chassis><slot>1</slot><index>23</index></filter> </filterList>

It is recommended best practice to edit the filter list in notepad. Then copy and paste the file into the editor as shown below. Remember to include the closing statement **</filterList>** at the end of each file

To apply the filter list, use the drop-down box in the Mediatune XML editor to select tunerFilter.xml

Selecting **Load** will cause the existing file to appear on the screen.

To load an edited file copy and paste the data into the field and select **Save**.





MediaTune XML Editor



To verify an existing filter, select Load and the current filter will be displayed.





4.3 **TV CONFIGURATION**

Configuration of TVs can be set up in both the Mediatune setup menu and the XML editor. In the section below we will discuss editing the tvs.xml file in the Mediatune editor.

Mediatune comes configured for a basic 24 TV system.

If you look at the TV.XML section of the Mediatune editor, you will see the following page:

MediaTune XML Editor

Select a file to edit.

tvs.xml 🗸

Load Save

<tvlist></tvlist>					
<tv> <tvid>1</tvid></tv>	<tvdesc>TV1</tvdesc>	<ip>192.168.6.2</ip>	<port>17</port>	<pre><group>MainBar</group></pre>	<hot></hot>
				CALL IN TRANSPORTS DO 1.5	
<tv> <tvid>2</tvid></tv>	<tvdesc>TV2</tvdesc>	<ip>192.168.6.2</ip>	<port>18</port>	<pre><group>MainBar</group></pre>	<hot></hot>
<tv> <tvid>3</tvid></tv>	<tvdesc>TV3</tvdesc>	<ip>192.168.6.2</ip>	<port>33</port>	<pre><group>MainBar</group></pre>	<hot></hot>
<tv> <tvid>4</tvid></tv>	<tvdesc>TV4</tvdesc>	<ip>192.168.6.2</ip>	<port>34</port>	<pre><group>MainBar</group></pre>	<hot></hot>
<tv> <tvid>5</tvid></tv>	<tvdesc>TV5</tvdesc>	<ip>192.168.6.2</ip>	<port>49</port>	<pre><group>MainBar</group></pre>	<hot></hot>
<tv> <tvid>6</tvid></tv>	<tvdesc>TV6</tvdesc>	<ip>192.168.6.2</ip>	<port>50</port>	<pre><group>MainBar</group></pre>	<hot></hot>
<tv> <tvid>7</tvid></tv>	<tvdesc>TV7</tvdesc>	<ip>192.168.6.2</ip>	<port>65</port>	<pre><group>MainBar</group></pre>	<hot></hot>
<tv> <tvid>8</tvid></tv>	<tvdesc>TV8</tvdesc>	<ip>192.168.6.2</ip>	<port>66</port>	<group>Grill</group> <ł	hot>
<tv> <tvid>9</tvid></tv>	<tvdesc>TV9</tvdesc>	<ip>192.168.6.2</ip>	<port>81</port>	<group>Grill</group> <	hot>
<tv> <tvid>10<td><pre>> <tvdesc>TV10</tvdesc></pre></td><td><pre>c> <ip>192.168.6.2</ip></pre></td><td>p> <port>82<td>t> <group>Grill</group></td><td><hot></hot></td></port></td></tvid></tv>	<pre>> <tvdesc>TV10</tvdesc></pre>	<pre>c> <ip>192.168.6.2</ip></pre>	p> <port>82<td>t> <group>Grill</group></td><td><hot></hot></td></port>	t> <group>Grill</group>	<hot></hot>
<tv> <tvid>11<td><pre>> <tvdesc>TV11</tvdesc></pre></td><td><pre>c> <ip>192.168.6.2</ip></pre></td><td>p> <port>97<td>t> <group>Grill</group></td><td><hot></hot></td></port></td></tvid></tv>	<pre>> <tvdesc>TV11</tvdesc></pre>	<pre>c> <ip>192.168.6.2</ip></pre>	p> <port>97<td>t> <group>Grill</group></td><td><hot></hot></td></port>	t> <group>Grill</group>	<hot></hot>
<tv> <tvid>12<td><pre>> <tvdesc>TV12</tvdesc></pre></td><td>c> <ip>192.168.6.2<td>p> <port>98<td>t> <group>Grill</group></td><td><hot></hot></td></port></td></ip></td></tvid></tv>	<pre>> <tvdesc>TV12</tvdesc></pre>	c> <ip>192.168.6.2<td>p> <port>98<td>t> <group>Grill</group></td><td><hot></hot></td></port></td></ip>	p> <port>98<td>t> <group>Grill</group></td><td><hot></hot></td></port>	t> <group>Grill</group>	<hot></hot>

Each XML line represents a TV as shown below:

<tv> <tvid>1</tvid> <tvdesc>TV1</tvdesc> <ip>192.168.6.2</ip> <port>17</port> <group>MainBar</group> <hot></hot> </tv>

Editable fields

TV names and IP destinations can be edited from the XML page. Do not use symbols such as &, #, @, <, >, in TV names as these are recognized as XML script. Do not use spaces in TV names. Use underscore if spaces are needed as shown below

Each TV can be assigned to a group in the Mediatune interface.

In the example below we have edited the tvs.xml to reflect the following:

• TV1 is named BAR1, it plays on QAM port 17 and is attached to the group BAR:



<tv> <tvid>1</tvid> <tvdesc>BAR1</tvdesc> <ip>192.168.6.2</ip> <port>17</port><group>BAR</group> </tv>

• TV30 is named REST30, it plays on QAM port 242 and is attached to the group REST:

<tv> <tvid>30</tvid> <tvdesc>REST30</tvdesc> <ip>192.168.6.2</ip> <port>242</port> <group>REST</group> </tv>

• TV44 is named Patio44, it plays on QAM port 354 and is attached to the group Patio:

<tv> <tvid>44</tvid> <tvdesc>Patio44</tvdesc> <ip>192.168.6.2</ip> <port>354</port> <group>Patio</group> </tv>



4.4 **MEDIATUNE SETTINGS**

The Mediatune software has a settings section that can facilitate some setup parameters using a graphical use interface that may be more accessible to installers who are not comfortable with editing the XML script.

In the top right side of the Mediatune interface you will see the SETUP link.



Clicking on the link will bring you to a login screen. The default password is 1234.

Password	
1234	

Once you have successfully entered the password you will access the SETUP menu shown below.



4.5 **TV SETUP MEDIATUNE INTERFACE**

From the setup menu select EDIT TVs.

By default, Mediatune is preconfigured for 24 TVs, a partial example of which is shown below:

TV ID	TV Description	ІР	Port	Group			
1	TV1	192.168.6.2	17	red		Û	
2	TV2	192.168.6.2	18	red		Î	
3	TV3	192.168.6.2	33	red		Î	
4	TV4	192.168.6.2	34	red		Û	
5	TV5	192.168.6.2	49	red		Î	
6	TV6	192.168.6.2	50	red		Î	
7	TV7	192.168.6.2	65	red		Î	
8	TV8	192.168.6.2	66	red		Û	
-					\sim	3	-

QAM MODE

The TV configuration defines the TV name, where to send selected content, and assigns the TV location to a group.

In the example above the first TV is called "TV1". The destination IP and UDP Port are 192.168.6.2 port 17 which is the destination IP of the first QAM20 modulator in the chassis, and the UDP port routes the video to the first QAM carrier.

If the QAM20 was set to output channel 23 on the first QAM carrier then TV 1 will receive programming on channel 23-1.

TV2 = QAM 1 port 18 or channel 23-2

The UDP port number is the QAM carrier index * 16 + the program number.



MMS MODE (IP)

In MMS mode, the destination becomes the IP address of the TV, rather than the IP address of the QAM.

As an example, if the first TV is called "TV1", the destination IP would be IP address of the TV (192.168.2.101). Since you set up the TVs separately (Section 9), you can program Mediatune first, or come back to the TV setup once you've set IP addresses for all the TVs. The UDP Port field in the setup MUST be a negative number. It is suggested that you use the negative of the last octet of the IP address for the UDP Port number in this field.

dit TV 'Bar-1' Information	
nter the TV Information	
TV Description	
TV1	
IP	
192.168.2.101	
Port	
-101	
Group	
111 C 1 C	



4.6 **ADD /EDIT TV SETTINGS**

To add or change TV settings, select the 🖉 Icon.

TV Description		
TV1]	
[P		
192.168.6.2		
Port		
17)	
Group	- 20	
red		

From this field you can change:

- The TV description
- QAM IP address
- Port Number
- Group

Once changes are made select Save



To add a TV to the list, scroll to the bottom of the TV list and select **Add New TV**. Enter the information as you would in the edit TV field and select Save

		close
		=1
Add TV 48		
Enter the TV Information		•
TV Description		
IP		
Port		
Group		
		-
Save	Cancel	

Delete TV

To delete a TV from the list, select the trashcan icon





4.7 CHANNEL EDIT

Mediatune configures the channel list from the APG guide data obtained by the COM51 card. The guide data displays all available channels in the continental United States. Consequently, the channel listings in the Mediatune guide display many channels not available or not desirable to the customer.

DIRECTV	GETIT	Secrets	Nat King Oole T Dean Martin	
DIRECTV	81 PRIME	LifeLock Update	BBQ Indoors!	(
DIRECTV	82 HOME	Power Air Fryer Oven	Power Air Fryer Oven	
DIRECTV	83 WOW	Looking for a Medicare Plan? Tune in now!	MyPillow Topper	
DIRECTV	84 IDEA	Best Reverse Mortgage!	Car Repair Secret!	
DIRECTV	85 SAVE	Paid Programming	Paid Programming	
DIRECTV	86 VALU	Thicker Hair - Guaranteed!	Car Repair Secret!	
DIRECTV	87 DEALS	Programming Will Return at 12:00am ET		
DIRECTV	88 BEST	Nat King Cole + Dean Martin	5 Makeup Tips 4 Older Women!	
DIRECTV	89 MALL	U-Box Shipping Container	Gold 1893 Rare Coin	
		termine the second s		

To make the guide more user friendly, channels can be eliminated or designated as News, Sports, Favorites in the Mediatune guide.

To edit guide settings, access the Mediatune setup menu and navigate to Edit Channels.

Channe	els: ed	Channe		News	Sport	Eavorite	Use the checkboxes to determine channels to eliminate
2		1	WINS				from the lineup, or designate as a special category, News, Sports, Favorites.
51	DIRECTV	2	WDTN			•	
2	A NBC HD	2	WDTN-HD	•		•	
2	DIRECTV	3.1	ALERTS-HD	•	-	•	
	DIRECTV	3.1	ALERTS-HD	•	-	-	
⊠ Iump to	Major	3.1	ALERTS-HD	■ 1 of 2	1 6 N	ext	
Channe	l Range		Hide S	how			



Jump to Major	Go	Previo	ous 13 of 216	Next
Channel Range 63	201	Hide	Show	

Use the Jump to Major field to access a specific channel. Channel Range can hide or show a large range of channels from the guide as shown below:

When you have completed your selections exit the setup menu and click on the Vantiva logo to refresh the screen.

©HD	4 WTTV-HD	CBS Evening News With Jeff Glor	The Big Bang Theory
b HD	6 WRTV-HD	ABC World News Tonight With David Muir	WRTV News: The News at 7:00
ອມ	8 WISH-HD	News 8 at 6PM	Inside Edition
ANBC HD	13 WTHR-HD	NBC Nightly News With Lester Holt	Wheel of Fortune
DIRECTV	20 WFYI-HD	PBS NewsHour	Nightly Business Report
FOXHD	59 WXIN-HD	FOX59 News at Six	FOX59 News at Seven
	202 CNNHD	The Situation Room With Wolf Blitzer	Erin Burnett OutFront
HIN	204 HLNHD	Forensic Files	Forensic Files
HITTHO	206 ESPNHD	SportsCenter	Vanderbilt @ Tennessee

The channel guide will now reflect your edits and make it much easier for your customer to navigate channels.

Use the icons across the top of the channel guide to display channels designated as Sports, News, and Favorites:

	All Char	nels Sports	News	Favorites		All Cha	innels	Sports
2 H	lide Standard	Def Duplicates		Show All Chann	⊠ ⊢	ide Standaı	d Def Duplic	ates
	206 ESPNHD	SportsCenter	Vand	erbilt @ Tennessee	CH III	202 CNNHD	The Situa Wolf Blitz	ation Room With
-	207 ESNHD	NBA: The Jump	High	Noon	-	204 HLNHD	Forensic	Files
	208 ESPNUHD	College Basketball	Wake	Forest @ Notre Dar		207 ESNHD	NBA: The	e Jump
	209 ESPN2HD	Pardon the Interruption	Purdu	ue @ Indiana		353 BTVHD	Bloombe	rg Daybreak: As
0.******	212 NFLHD	Top 10	NFL	Total Access		355 CNBCHD	Mad Mor	iey
SH0	213	MLB Tonight	Inten	lonal Talk		356	The Beat	With Ari Melhe

	All Cha	nnels	Sports	News	Favorite	- 1
a +	lide Standar	d Def Dup	licates		Show All	2
D	202 The Situation Room With CNNHD Wolf Blitzer		h Erin E	Burnett OutFrc	÷	
	204 HLNHD	Forens	ic Files	Foren	isic Files	2
	207 ESNHD	NBA: The Jump		High	Noon	
	353 BTVHD	Bloomb	erg Daybreak: A	sia		j
	355 CNBCHD	Mad Money		Shark	: Tank	
юc		The Be	at With Ari Melh	Hard	all With Chris	

ľ						
	All Channels		Sports	s News		Favorites
H	lide Standard	d Def Dup	licates			Show All Chan
•	4 WTTV-HD	CBS Ev Glor	rening News W	ith Jeff	The Bi	g Bang Theory
	6 WRTV HD	ABC W With Da	orld News Toni avid Muir	ght	WRTV 7:00	News: The News
ļ	8 WISH-HD	News 8	at 6PM		Inside	Edition
•	13 WTHR HD	NBC Ni Lester	ghtly News Wit Holt	h	Wheel	of Fortune
Î	20		and the second second			



CHANNELS Clear	The guide page offers options to Hide Standard Def Duplicates and Show All Channels.
DIRECTV External ATSC	
All Channels Sports News Favorites	
Hide Standard Def Duplicates Show All Channels	
CHANNELS (racing Clear	The Search function will query guide data for keywords and display programming
DIRECTV External ATSC	
All Channels Sports News Favorites	
Hide Standard Def Duplicates	
MAVTVHD Lucas Oil Midwest Short Lucas Oil Off Road Racing Series	
Penn State NASCAR Race Hub Nebraska @ Penn State	

ATSC OFF-AIR TUNER 5

An additional external source you can bring into the Mediatune system is from off air antenna utilizing an ATSC to IP device.

An ATSC tuner allows the property to view and manage content which potentially is not available from DIRECTV or can serve as a backup source in the event of rain-fade or service interruptions.

ATSC channels should be configured as external sources as described in section 6.

There are multiple resources available for assistance with antenna selection and available channels. Links to two examples are below: https://www.fcc.gov/media/engineering/dtvmaps https://antennaweb.org/



6 EXTERNAL CONTENT

One of the most versatile features of Mediatune is the ability to accept an external input and route it through to any of the TVs, just as the interface handles the DIRECTV channels.

External sources are any device that can stream an MPEG2 transport stream (.TS) file to a specific IP and UDP port number.

The COM51 card running Mediatune has set port numbers tied to the input of these sources shown below: The IP address input is to be the IP address of the COM51 card running Mediatune Incoming streams will be accepted on one of two port schemes, 9XX or 30XX as shown below.

By default, there are 4 external source identifiers pre-configured in the interface,

EXT 1 <COM51 card IP>Port 999 - 192.168.3.18:999 (or :3000) EXT 2 <COM51 card IP>Port 998 - 192.168.3.18:998 (or :3001) EXT 3 <COM51 card IP>Port 997 - 192.168.3.18:997 (or :3002) EXT 2 <COM51 card IP>Port 996 - 192.168.3.18:996 (or :3003)

6.1 EDIT EXTERNAL SOURCE DESCRIPTIONS

You can edit the names of these in the SETUP screens.

ternal Source Description ediaplayer 1	External Source Major		_
ternal Source Description ediaplayer 1	1		_
ediaplayer 1	External Source Descrip	otion	10
	Mediaplayer 1		

Source Major Source Description ID Mediaplayer 1 1 1 2 2 Encoder 2 3 3 External Source 3 4 4 Source 4 5 5 Source 5 Add Source

External Sources:

Or in the XML Editor





extsourceDesc.xml *

Load Save

(extsourceList>	
<externalsource></externalsource>	
<extsourceid>undefined</extsourceid>	
<pre><extsourcedesc>IP Source</extsourcedesc></pre>	
<pre><extsourcemajor>1</extsourcemajor></pre>	
<enabled>true</enabled>	
<externalsource></externalsource>	
<extsourceid>undefined</extsourceid>	
<extsourcedesc>Transcoder1</extsourcedesc>	
<extsourcemajor>2</extsourcemajor>	
<enabled>true</enabled>	
<externalsource></externalsource>	
<extsourceid>undefined</extsourceid>	
<extsourcedesc>Transcoder2</extsourcedesc>	
<extsourcemajor>3</extsourcemajor>	
<enabled>true</enabled>	
<externalsource></externalsource>	
<extsourceid>undefined</extsourceid>	
<extsourcedesc>Signage1</extsourcedesc>	
<extsourcemajor>4</extsourcemajor>	
<enabled>true</enabled>	

CHANNEL	_s (Clear
		mal A	ATSC	
All Cha	nnels Sports	Hot	Favorites	
Hide Standard	Def Duplicates		Show All	Channels
1 Ext 1	Mediaplayer 1			
2 Ext 2	Encoder 2			
³ Ext 3	External Source 3			
4 Ext 4	Source 4			
5 Ext 5	Source 5			



7 **TV SETUP FOR MEDIATUNE**

Mediatune outputs encrypted content requiring TVs capable of decrypting Pro:Idiom signals, or the use of a Pro:Idiom enabled set-back box will be required. There are multiple Pro:Idiom enabled set-back boxes available. For this manual a Vantiva DCI401MCS will be used.

Mediatune is designed such that a TV is set to a specific QAM channel and does not change. Once set to the correct channel, there is no reason to change the channel on the TV or the DCI401MCS.

Each TV or set-top box should be assigned a unique RF channel and if possible be locked on that channel to prevent channel changes. Most commercial televisions allow setting a "start channel", if so, each TV should be set to start on its assigned operational channel.

It is recommended best practice to keep documentation of TV locations, designated RF channel and DCI401 Unit Identifier number (if used) and any other relevant information.

It can also be useful to label the TVs with their assigned TV number

Example:

TV Location	TV Number / Name	RF Channel	DCI401 ID
BAR Left	Bar Left - 1	23-1	0413843855
BAR Center	Bar Center -2	23-2	0413843548
Above table 12	Table12 - 3	24-1	0413845684

Section 12 details programing for LG STB boxes and is informational only. Vantiva recommends you contact the vendor of any set back box for guidance before proceeding.

Set back boxes generally connect to the TV via HDMI.

Be sure all TVs are HDCP compliant.



8 USING MEDIATUNE

Mediatune was designed to be a simple drag and drop user interface. Click on the desired channel to watch. Drag and drop it on the TV you would like to watch it on. Mediatune will do the rest to assign a tuner, tune the content, and route the content to the desired output. Note: Control devices must support drag and drop feature or use an appropriate pointing device (mouse).

Controls are via 7 icons on the Mediatune interface. In this section we will cover setup and use of each control icon.





Changing Display Size



Clicking on the Mediatune logo in the center of the display will revert the screen to a larger format as shown below:

TVS	ñ											
GROUP	TV1	TV2	TV3	TV4	TV5	TV6	TV7	тия	TV9	TV10	TV11	TV12
ту13	TV14	TV15	TV16	TV17	TV18	TV19	TV20	TV21	TV22	TV23	TV24	TV25
ESPAH		Carlin HD	astra HD	азел но	HIN HO	ESPA HD	ESPR HD	Corners	diama HD	-	ESPA HD	asen Ho
TV26	TV27	TV28	TV29	TV30	TV31	TV32	TV33	TV34	TV35	TV36	TV37	TV38
Esra		сарано	CESTIN HD	AB AN AD		ALC: NO		esen HD	CESPIN HD	сыраны		
TV39	TV40	TV41	TV42	TV43	TV44	TV45	TV46	TV47	TV48			

This format does not work on most tablets and should be reserved for PC use with a larger monitor. Clicking on the Vantiva logo on the left side of the screen reverts the display back to the default 4 row interface.



<u>TVS Icon</u>

Clicking on the TVS button will scroll through all TV Zones setup. If you assigned different zones in the TV.xml file, they would appear as shown in the examples below:

Note the GROUP icon in the TV field.







vantiv	va 💥			mec	liatur	າຍ			s	ETUP
					r					4.1.20
TVs	A			t	CH	IANNEI	LS			Clear
	TV1	TV2	TV3		C		DIRECTV	External	ATSC	
GROUP	obc HD.		OHO			All Chan	nels Spo	orts Ne	ws Favorites	
					H N	lide Standard	Def Duplicates		Show All Cl	hannels
TV4	TV5	TV6	TV7			243 XPLOR	Coin Collecting Mezack	with Mike	Coin Collecting with M Mezack	Vike
FOX	ESFRHD		сатлено		Syfy∞	244 SyfyHD	The Last Witch	Hunter	I Am Number Four	
					1	245 TNTHD	Supernatural		Supernatural	
TV8	TV9	TV10	TV11		1	245.1 TNTWHD	Charmed		Charmed	
NETWORK		4 GOLF	SOLF		tru _{n•0}	246 truTVHD	World's Dumbe	est	World's Dumbest	
					tbs	247 TBSHD	Friends		Friends	
TV12	TV13	TV14	TV15			247.1 TBSWHD	Young Sheldon	1	Young Sheldon	
tbs	esenand	FOX			FXHD	248 FXHD	Cast Away			
Lans.					<u>©</u>	249 COMHD	South Park		South Park	







Version 1-1





The Home channel function stores TV channel settings and will automatically tune all TVs to a preset channel.

To configure home screens:

- Tune all TVs to a desired channel
- Enter SETUP and click "Save Home Setup". Multiple Home configurations can be set up and labeled as shown below:

Home Configurations:

Name	
Weeknights	Edit 'Home4'
SundaySports	
SaturdaySpts	Enter the Home configuration name
Add Home	Name Weekdays

- Once configured Mediatune will revert to this known desired channel configuration when a home screen is selected.
- When the home button is clicked the system will offer home screen options. Select which home screen is desired and click Tune to Home.





Sunday	/Sports	
Saturd Weekd	aySpts ays	

Group Tuning

Group Tuning will tune all TVs or TVs in a specific zone to one channel. If you'd like all the TVs or zones to play the same channel, drag the desired channel to the Group button. If the group button is displaying TVS then all TVs will tune to the selected channel.

vantiva	a 💥			mec	liatur	ne		SETUP v. 4.1.23
	1							
TVs	ñì 🛛			1	CH	IANNE	ls 🦲	Clear
	TV1	TV2	TV3		C		DIRECTV External	ATSC
GROUP	abc		OHO			All Char	nnels Sports N	lews Favorites
					H	lide Standard	Def Duplicates	Show All Channels
TV4	TV5	TV6	тv7			243 XPLOR	Coin Collecting with Mike Mezack	Coin Collecting with Mike Mezack
FOX	ESPRIHD				Syfy∞	244 SyfyHD	The Last Witch Hunter	I Am Number Four
					1	245 TNTHD	Supernatural	Supernatural
TV8	TV9	TV10	TV11		1	245.1 TNTWHD	Charmed	Charmed
	T	SOLF	SOLF .		tru∾⊷	246 truTVHD	World's Dumbest	World's Dumbest
					tbs	247 TBSHD	Friends	Friends
TV12	TV13	TV14	TV15			247.1 TBSWHD	Young Sheldon	Young Sheldon
tbs	ESPINEHD	FOX			FXHD	248 FXHD	Cast Away	
					<u>©</u>	249 COMHD	South Park	South Park





CHANNELS MainBar Î ñ ATSC External TV2 TV3 TV4 GROUP Sports Hot Favorites HD HD HD MainBar Hide Standard Def Duplicates Show All Channels 206 ESPNHD This Just In NBA Today TV5 TV6 TV7 TV40 207 ESNHD First Take HD HD HD HD 208 ESPNUHD Arkansas @ Alabama Georgia @ Alabama SportsCenter This Just In IFL Now Cardinals @ Cowboys

Dragging a channel to a group icon will tune all the TVs in that group



Clear Tuner will close tuning for a selected TV, Group, or all TVs. Drag a TV, Group or TVs icon to the trashcan and the associated tuners will close. You will be prompted to confirm. If Mediatune exhibits any odd functionality this is a good first step in troubleshooting.



Vantiva Logo

Clicking on the Vantiva logo will refresh the page and revert the display back to the 4-column display. This should always be done after a software update.



TV Controls

The TV controls Icon will display a menu of controls for use with LG Pro:Centric TVs and set back boxes connected to an ethernet distribution network.

Clicking on the TV control icon toggles displaying the TV name on the display screen.





TV controls can be accessed by dragging a TV, Group of TVs icon to the TVs control icon.

Control All TVs (TVs icon) TV Controls Commands are for all TVs Off TV Name On Off Power Off Off On On On Set Closed Captioning Portal Off Always ON Set Time Reboot

Control by Group (Main Bar)

TV Controls

TV Name	On	Off
Power	On	Off
Closed Captioning	On	Off
Portal	On	Off
Always ON	On	Off
Set Time	Set	
Reboot	On	

TV Controls

TV controls will operate all TVs, Groups, or individual TVs

TV Name	On Off	Turning this function on will display the Mediatune TV name on screen.
Power	On Off	Sends power on / off commands to LG TV / Set top box.
Closed Captioning	On Off	Reserved for future use
Portal	On Off	Displays LG Pro:Centric Portal on display
Always ON	On Off	Sets TV function for required daily reboot. Normally operation should be set to off. TVs will reboot after power off. If TV is not shut off the unit will failsafe reboot after 26 hours If set to "ON" TV will not respond to on/off commands and will reboot every 24 hours at 2:00AM based on network time.
Reboot	On	Sends reboot command to individual TV or set back box, group, or all TVs.



8.1 LOGGING INTO SPECIFIC GROUP ACCESS

Access to Mediatune can be restricted to only specific TV groups.

A user can be limited to seeing only specific TV groups by using a specific URL for that group, add "?group=(groupname)" to the Mediatune URL and only the TVs in that group will display. The user will not be able to access other groups of TVs.

Example:

http://192.168.3.18/mt/mediatune.html?group=patio

This URL will only allow access to Patio TVs, the user cannot access BAR or REST TV groups

Patio	₼ ⊗	ð	1
Patio44	Patio45	Patio46	Patio47
ESFO HD	CH NTCH	ESPA HD	ESPNHD
Patio48			
ESFN HD			

This feature is extremely valuable in large properties such as casinos where you would like to prevent someone in the bar from accidentally changing a TV in the Sports Book or Poker area.

The URLs are not password protected unless the tuning device has a protection on it. This is a convenience feature, not a hardened security feature.



9 MEDIATUNE USING LG PRO:CENTRIC TELEVISIONS

Vantiva has partnered with LG Electronics to bring the next evolution of Mediatune to the market.

The Mediatune MMS (Multi-Cast Matrix Switch) uses IP Multicast technology to stream DIRECTV channels to a TV.

Unlike the RF QAM version of Mediatune the MMS version does not use QAM. Instead, it assigns a multicast IP address to each tuner. Mediatune then controls the TV via the LG Pro:Centric Technology and changes the TV channel to tune to the stream requested.

This is a more efficient method of signal distribution, especially considering the new DIRECTV 4K programming that will require much more bandwidth on the RF network. With the advent of 4K, RF systems will require a dedicated QAM carrier per TV, effectively doubling the QAM cost when delivering 4K.

9.1 COM 51 SOFTWARE REQUIREMENTS

COM51 Software Version 04.02.05 or newer Mediatune version 3.0.20 or newer

9.2 LG SOFTWARE REQUIREMENTS

It is critical to the success of the installation that the LG TV or STB is running the most recent software. Below are instructions on upgrading the software for LG Pro:Centric televisions and STBs. Consult your distributor or LG for further assistance

Updating LG software Required Tools LG service remote LG remote control receiver (STBs only)





9.3 LG SOFTWARE UPDATE PROCEDURE

- 1. Download LG software
 - a. You will need an FTP program such as filezilla
 - b. Determine the full model number of the LG TV from the In-start or PTC installer menu
 - c. Go to ftp://apd.float-zone.com:52121

Username: lgmpsw Password: jij04j94jf

Find the model of your LG TV or STB6500.
 In the FTP file you will see folders for STB and TV
 For an LG STB open the STB directory



For a TV open the TV subdirectory and click on webOS. If you do not know what webOS version your TV is click on the webOS versions listed and expand the CPU folder. TV models will be listed.



- e. Click on the TV model number folder and the available CPU software folders will be listed. There will be 3 CPU files listed for each model, use the file with **prodkey_usb** in the file name.
- f. Transfer the file with _prodkey_usb_in the name
- g. Double click on the CPU software and the files will be loaded in the FTP filename field below.
- h. Open the PTC directory in the FTP program and click on the TV model number. Click on the appropriate folder and the PTC software will be displayed in the filename field

Filename	
I	
starfish-atsc-secured-m16p	photel-15.30.gayasan4hotel.m16pp-28-03.42.70_prodkey_ezi_V3_SECURED.zip
starfish-atsc-secured-m16p	ophotel-15.30.gayasan4hotel.m16pp-28-03.42.70_prodkey_nsu_V3_SECURED.epk
starfish-atsc-secured-m16p	photel-15.30.gayasan4hotel.m16pp-28-03.42.70_prodkey_usb_V3_SECURED.epk

Create a directory on a clean USB thumbdrive named LG_DTV Load the CPU and PTC software on the drive in the directory you created.

Load CPU software Load PTC software



9.4 LG PRO:CENTRIC TV PROGRAMMING

Turn on LG IP TV.

Press the MENU button.

If icons appear on the right, select "..."

If icons appear on the left, high light "General".

Press the 1 button 15-30 times until the Host Diagnostics screen appears.

If unsuccessful repeat the process on the Safety Icon

	Host Diagnostics	
Host Information	Current Channel (Main)	
Hodel Name : 55/V7700-04 PTC Model Name : xc/V7201 WIT MAC : 04-4EA/2750.EE LAN MAC : 04-4EA/2750.EE	Chartoni Info : Not available Parental Control : Not available WI-VI Status	
TV Solid number: #038H5356236 ESN: LGCH29574+439534738 Memory	Version: DRIVER-66.6579/VER-68.8 Conductor: D Conduct US	
RLACH : SAREARDA HIS DAAN : SS72464 HIS NYM: S2 HIS Hout Release Version	Character Net	
Fernance Version: 03.05.70 PTC Version: V5.04.004 Providenc: S20.752 WebOS TV Version: 3.10-38 ideadlocks2-dooj	Neder III.N. Type:: N/A Bundwidth: N/A DVI/HDHI Status	
FAT Status (Main)	Information Carl Unping this Information now. Proceeding Information	
Current Prepublicy Not andiable Machalation Model Not andiable SAR Value Not andiable SAR Value Not andiable Sana (Level Not andiable	InCAP Type : BROWSERMAN HCAP Twenton : L20 BAT Tennine : 23 HCAP Henney : Hist Available Age behr : (H)_hong_html.epi_hontowr 20	

Press '0' to complete IN-STOP (reset to factory default) Select "YES" TV will reset and turn off

	Wi-Fi Status
- 11 × 6 1	Version : DRI VER-v11.43 FW VER-0.0.0
	Ccode_rev: 0
Memory	Ccode: US
	Channel ; N/A
lelease Version	Mcs: N/A
	Mimo: N/A
	Rate: N/A
	Rssi: N/A
	Noise: N/A
	Txpwr: N/A
	Bandwidth; N/A
locks2-dixie)	DVI/HDMI Statu
Status (Main)	Information : Can't display this information now.
INDODTANT Deser	informa
IMPORTANT! Resett	ing will delete all of your account settings



Enter Pro:Centric Settings



Turn TV on. Select NEXT Select Manual PRO:CENTRIC Set Pro:Centric Mode to "HTML" Set Media Type to "IP" Set Server Address to "IP Address" Set IP Address to COM51 IP address (192.168.3.18) Set IP port to "80" Select SEARCH

TV will search for Pro:Centric server on the COM51 card and report Server Found Select NEXT Select TURN OFF Turn TV on

It is recommended to set each TV with a fixed IP address. This address will need to be included in the TV.XML config file in Mediatune.

If a DHCP server is used the TVs and the COM system must be in the same subnet. Reserve IP address in the DHCP Mac address table.

If the TV's IP address and the IP address in the TV.XML file to not match the TV will cease to function with Mediatune

Set fixed IP on TV.

Enter LG Installer Menu

Hit "Menu" or "Settings" over and over until TV does not respond Press "9-8-7-6-Enter"

Navigate to option 119 Data Channel 253"

Press "2-5-3-Menu" or "2-5-3-Settings" to enter the Network settings menu

Select edit in the network menu and De-select the automatic IP settings.

Enter correct IP information

This setting will be saved after the exit.

Change the tvs.xml file to have the new IP address.

TVs IP address can be verified by pressing the PORTAL button. The TV's IP address will be displayed. In tvs.xml set the TV's IP address. Power cycle TV Press PORTAL Use Mediatune to change channels.





10 EXTERNAL TUNERS

There are several set back boxes available that will allow Pro:Idiom content to be displayed on a residential model TV. Each should be set up per the manufacturer's specifications and tested carefully in a lab environment before deployment.

11 GENERAL TIP, TRICKS AND BEST PRACTICES

- Mediatune is always accessed via the web page XXX.XXX.XXX/mt/mediatune.html where XXX.XXX.XXX.XXX is the IP address of the card containing the Mediatune files.
- If you are using a wireless network to connect an iPad or other tablet device, you must make sure you have a very good wireless signal in all areas where the wireless devices are used.
- It is good practice to always have a connected PC running Chrome wired directly into the network to insure a good connection to the interface.
- Like all COM systems, support requires a method to remotely access the system. Vantiva, Distributors, Dealers cannot support a site that is not remotely accessible.
- On the iPad, you can save the Mediatune web interface to the home screen by selecting "Add to Home Screen". This will provide an icon you can click on the home screen which takes you directly to Mediatune.
- If you are using an iPad, it is helpful to permanently mount the device with a connected power supply. If connected to a power supply, you can prevent the interface from timing out by setting the Auto-Lock to Never. You can turn on and off the device from the Sleep/Wake button on the top corner.

Let's Double Check

- > You must set the password to a blank string on a COM51 cards.
- Please use a PC and CHROME to configure Mediatune as some of the items do not display well on an iPad running Safari.
- Remember, 2 streams only per QAM carrier!
- > There is no reason to change the channel on the TV or on the DCI401MCS. Throw the remotes AWAY!

Mediatune was designed to work with the CHROME browser on the PC and the Safari browser on the iPad. While you may be able to get other browsers to work, you will have the best experiences using the devices which Vantiva actively supports.





12 **QAM LOG CHECK**

If the system is incorrectly configured it is possible that multiple video sources may be sent to the same QAM UDP port. This can cause system wide video issues. To determine if the QAM is in a good state, access the QAM tab from a COM51 web page. The QAM's IP address is 192.168.6.1+chassisId so the first QAM is normally at 192.168.6.2.

Click on the qamLog button to see the QAM's syslog. Notice that every time you click the qamLog button that the letters "CCC" are added to the end of the log.

To verify that the QAM is stable, click the qamLog button three times with a few seconds between presses. Verify that the QAM syslog contains a long sequence of "CCCCCCCCC".

If the QAM syslog contains "P## P## P##" or "T## T## T##" there is probably a system configuration problem. The first number refers to the QAM index (zero based). The second number refers to the program index (zero based). Therefore, the message "P21" means that the third QAM carrier, second program might be receiving packets from two different channels at the same time. Frequent overflow messages also indicate a problem.

In order to understand which channels are conflicting, remove channels until the QAM syslog is clean. Start adding back channels until the problem occurs again.

13 TRANSPORT STREAM ROUTER (TROUTE) [ADVANCED DEBUGGING]

Mediatune works by sending UDP packets from the tuners to the Troute application. The Troute application then duplicates the UDP packets to each of the TVs. The status of Troute can be determined by accessing the URL http://192.168.3.18:8082/troute?aaa. Right click on the resulting screen and select "View page source":

<dupList> <dup><in>1000</in> <ip>192.168.6.2</ip> <port>17</port></dup> <dup><in>1000</in> <ip>192.168.6.2</ip> <port>18</port></dup> <dup><in>1001</in> <ip>192.168.6.2</ip> <port>33</port></dup> </port></dup> </dupList>

This example indicates that every UDP packet received on UDP port 1000 is forwarded to 192.168.6.2:17 and 192.168.6.2:18. To add or remove stream duplication:

http://X.X.X.X:8082/troute?portIn=<portIn>&ipOut=<IPin>&portOut=<portOut>&stop=<stop> For example, to stop the first duplication:

http://X.X.X.X:8082/troute?portIn=1000&ipOut=192.168.6.2&portOut=17&stop=1 To stop all duplications on a card set stop to 2.