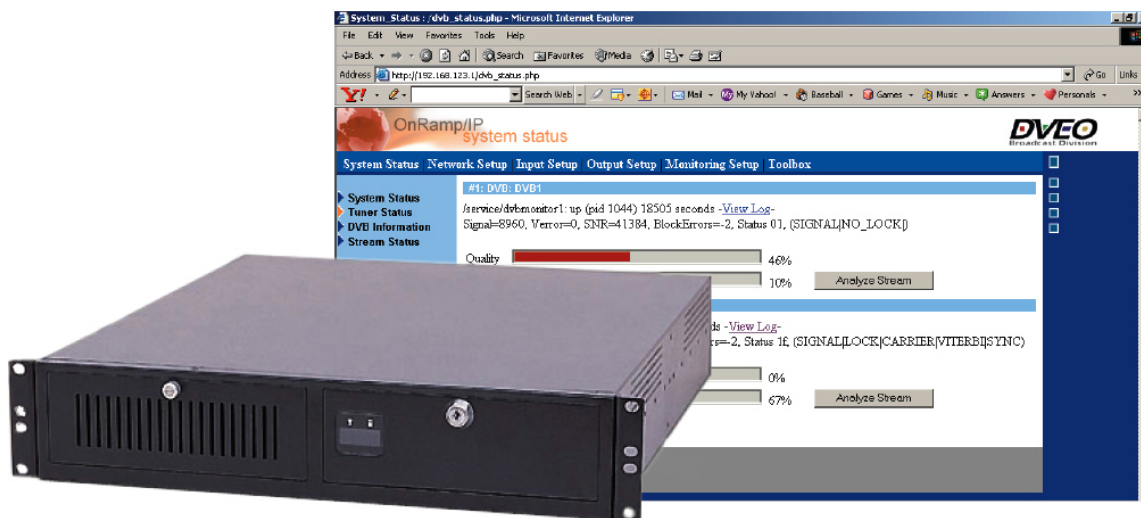




OnRamp™ Manual



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1. Hardware

The Onramp/IP comes in two form factors:

1U Model:

- Weight: 15lbs
- Server Dimensions: 12" x 17" x 1.75"
- Shipping Dimensions: 15.5" x 21.5" x 4"
- CPU: Intel Core 2 Quad 2.66Mhz
- Memory: 2 GB RAM
- Hard Drive: 2 GB Compact Flash
- License Information/Security: USB Key
- PCI Slots: 1
- Optional PCI Cards: DVBS, DVBS2/S, DVB-T, ATSC/US-DVBC, EU-DVBC, ASI, ATSC Modulator, QAM A/B/C Modulator, DVBS/S2 Modulator, DVBT Modulator
- Connections: A/C, 2 USB, 2 Ethernet, 1 PS2 Keyboard, 1 PS2 Mouse, 1 RS232, 1 Audio, 1 VGA

2U Model:

- Weight: 30lbs
- Dimensions: 19.5" x 17" x 3.5"
- Shipping Dimensions: 22.5" x 27" x 8.25"
- CPU: Intel Core 2 Quad 2.66Mhz
- Memory: 2 GB RAM
- Hard Drive: 2 GB Compact Flash
- License Information/Security: USB Key
- PCI Slots: 4
- Optional PCI Cards: DVBS, DVBS2/S, DVB-T, ATSC/US-DVBC, EU-DVBC, ASI, ATSC Modulator, QAM A/B/C Modulator, DVBS/S2 Modulator, DVBT Modulator
- Connections: A/C, 2 USB, 2 Ethernet, 1 PS2 Keyboard, 1 PS2 Mouse, 1 VGA

What 's in the Box:

- OnRamp Server (2U or 1U)
- Rails for rack mounting
- Power Cord
- Bag with screws and rack mount support
- Bag with Compact Flash, USB Key and Case Key

2. Unpacking

- Remove the OnRamp from the box.
- Connect the OnRamp to the network and to the A/C power.
- Connect a monitor and keyboard (optional).
- Take the Compact Flash Drive and the USB Key out of the Bag and connect them to the unit.
- The compact flash goes in the front of the unit and the USB Key goes in the back.
- You can now power up the unit.

3. Accessing the Unit

3.1. Accessing the unit using the Console Menu

- Connect a monitor and Keyboard to the Unit.
- At the end of the boot process a numbered menu will appear.
- You can view and/or edit the IP address of the unit using the first menu option
- To exit the edit mode use “ctrl X” and then hit Y to save.
- Refer to the Console Configuration section for detail explanation of the menus.

3.2. Accessing the unit using the Web Interface

- The default IP for the OnRamp is **192.168.123.1**, you can use this IP address to enter the web interface. You can also use the default IP on the second interface (**172.16.1.1**)
- The default security credentials are **admin** for username and **admin** for password.
- Refer to the Web Interface Configuration for detailed explanation of the menus.

3.3. Accessing the unit using the SSH Menu

- The default IP for the OnRamp is **192.168.123.1**, you can use this IP address to enter the SSH interface. You can also use the default IP on the second interface (**172.16.1.1**)
- The default security credentials are **admin** for username and **admin** for password.
- You can use any SSH client such as putty to access the unit.
- You will have access to the same menu interface seen in the console

4. Theory of Operation

The OnRamp/IP is a device which takes a variety of input sources and outputs them over an IP Network, ASI Output or RF Output.

4.1. Inputs

The supported input options are:

- Network Streams
- ASI TS streams
- Satellite digital signals: DVB-S, DVB-S2
- Over the Air Digital signals: ATSC, DVB-T
- Cable Digital Signals: DVB-C, Annex A,B and C

Any input signal can have a number of TS streams embedded in them. For each of these input signals, the OnRamp will demodulate and/or demultiplex the streams based on either the PAT table identification or the raw Program ID information.

4.2. Outputs

The supported input options are:

- Network Streams
- ASI TS streams
- Satellite digital signals: DVB-S, DVB-S2
- Over the Air Digital signals: ATSC, DVB-T
- Cable Digital Signals: DVB-C, Annex A,B and C

An output stream can be defined for each of the demultiplexed input streams, meaning that for a single input signal there can be many output streams. When a new output stream is created, the OnRamp will build and include a new PAT table with all the appropriate information regarding the Video and Audio programs embedded in them.

4.2.1. Protocols

The IP output streams can be output using any of the following protocols:

- UDP
- RTP
- HTTP
- RTSP
- Muxed ASI
- Muxed to Modulator

4.2.2. Operation Modes

The OnRamp supports three modes of operation: Push, Pull (VOD) and Bypass. The mode selection is an indirect consequence of the options select in the output interface. We will go over the different modes and how they are selected next.

a) Push:

For the case of UDP, RTP, ASI and Modulator, the output is considered “push” as it will send the data to a specific IP address and port. This destination can be either a multicast or unicast IP address. There will be only one copy of each of these streams pointed to the preprogrammed destination IP address. When selecting the ASI or Modulator output, the system will also work in push mode. ASI, Modulator and IP outputs can all be combined as multiple outputs of a specific input.

b) Pull (VOD):

For the case of HTTP or RTSP the output is considered “pull” as the system will wait for a request from a user and dispatch the output stream only when a user connects. The pull model is considered VOD (Video on Demand) since you can have any number of users connected to the same IP address and port on the OnRamp and each of them will receive a copy of the output stream.

c) Bypass mode:

The OnRamp also supports a special bypass mode where the input signal is not demultiplexed. In this mode, the entire stream including the original PAT table and all of the PIDs are forwarded to a predetermined destination transparently. The destination can be an IP address, ASI TS stream, or Modulator output. This option is enabled by selecting “Stream All” from the “Demux Mode” dropdown.

4.3. Transcoding

Before embedding the video and audio programs into the output stream, the OnRamp has the option of transcoding them into one of the following formats:

- Video
 - H264
 - MPEG2
- Audio
 - AAC (MPEG4)
 - MPEG2
 - AC3 (Dolby Digital)

In order to be able to transcode to these two formats, you will need to purchase a separate transcoding license. Other transcoding formats can be implemented; you can send an email requesting a special quote for it.

5. Console Interface

You can use the console interface to perform the initial network configuration on the equipment or to perform certain troubleshooting tasks that are not adequate for a web interface.

```
192.168.123.1 - PuTTY
login as: admin
admin@192.168.123.1's password:

Amux Shell Menu:

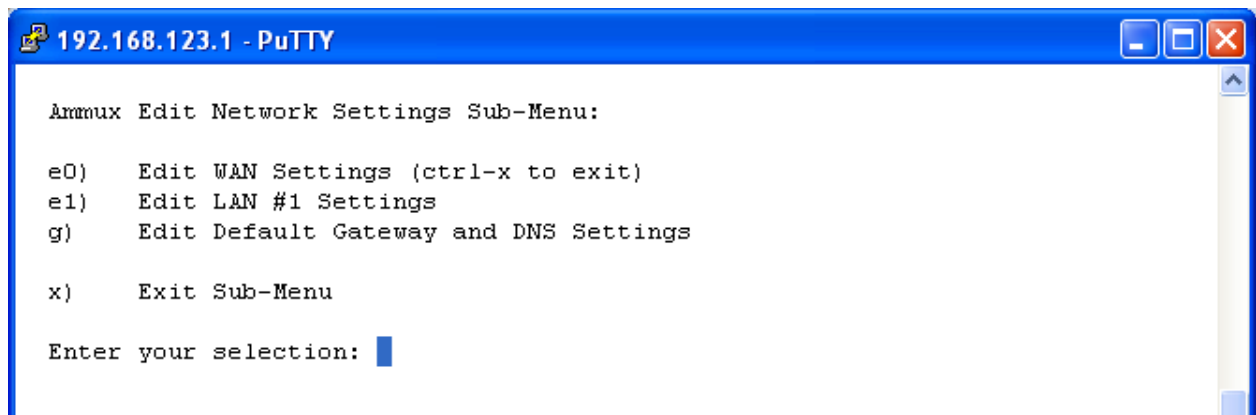
1)    Edit Network Settings
2)    Sniff Traffic
3)    Network Tools
4)    Monitor Tuner Signal

w)    Reset Web Password
s)    Start Remote Support
ss)   Show Remote Support Status
f)    Reset to Factory Defaults
u)    Update Firmware
r)    Reboot
x)    Exit

Enter your selection: █
```

5.1. Edit Network Settings >> Edit ethx Settings

Use this option to edit the settings for the network cards. You can select DHCP by changing the dhcp value from 0 to 1. When you are done with the edits, click Ctrl+X to exit. You must reboot the OnRamp for this change s to take effect. Use the reboot option from this menu.



```
192.168.123.1 - PuTTY

Amnux Edit Network Settings Sub-Menu:

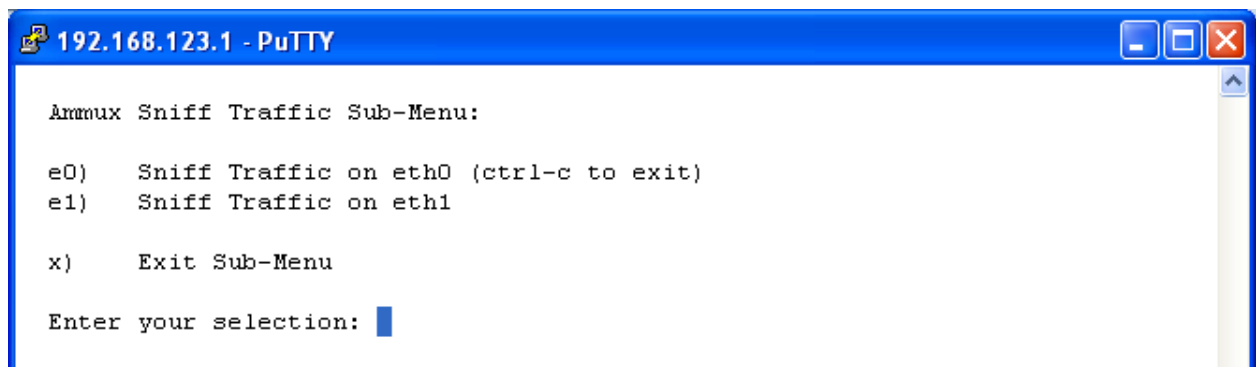
e0)  Edit WAN Settings (ctrl-x to exit)
e1)  Edit LAN #1 Settings
g)   Edit Default Gateway and DNS Settings

x)   Exit Sub-Menu

Enter your selection: █
```

5.2. Sniff Traffic >> Sniff Traffic on ethx

This menu option will start an instance of tcpdump pointing to the ethernet device ethx. You will see all the packets coming in and out of that interface in raw mode. To get out of sniffing mode hit Ctrl+X.



```
192.168.123.1 - PuTTY

Amnux Sniff Traffic Sub-Menu:

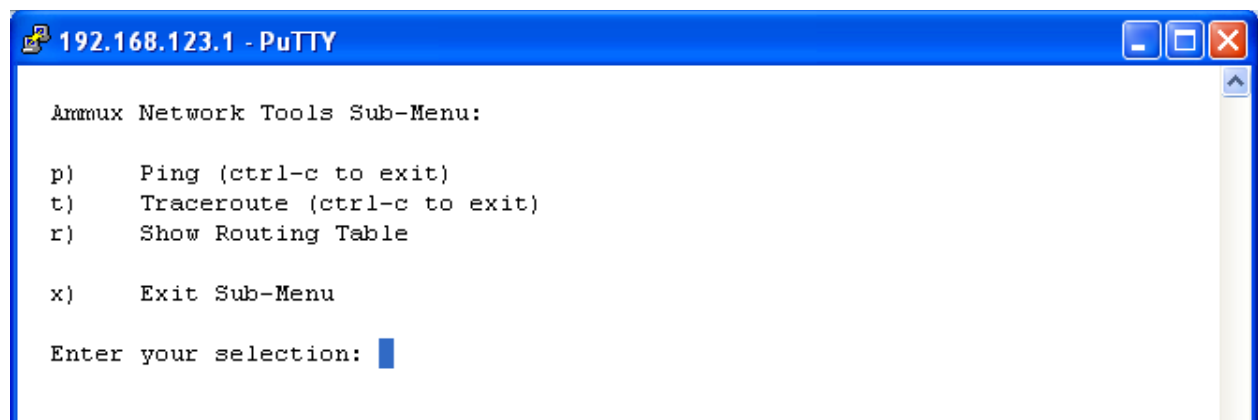
e0)  Sniff Traffic on eth0 (ctrl-c to exit)
e1)  Sniff Traffic on eth1

x)   Exit Sub-Menu

Enter your selection: █
```

5.3. Network Tools

Inside this menu option will find several network tools that will help you troubleshoot connectivity issues: Ping, Traceroute, Show Routing Table.



```
192.168.123.1 - PuTTY

Amnux Network Tools Sub-Menu:

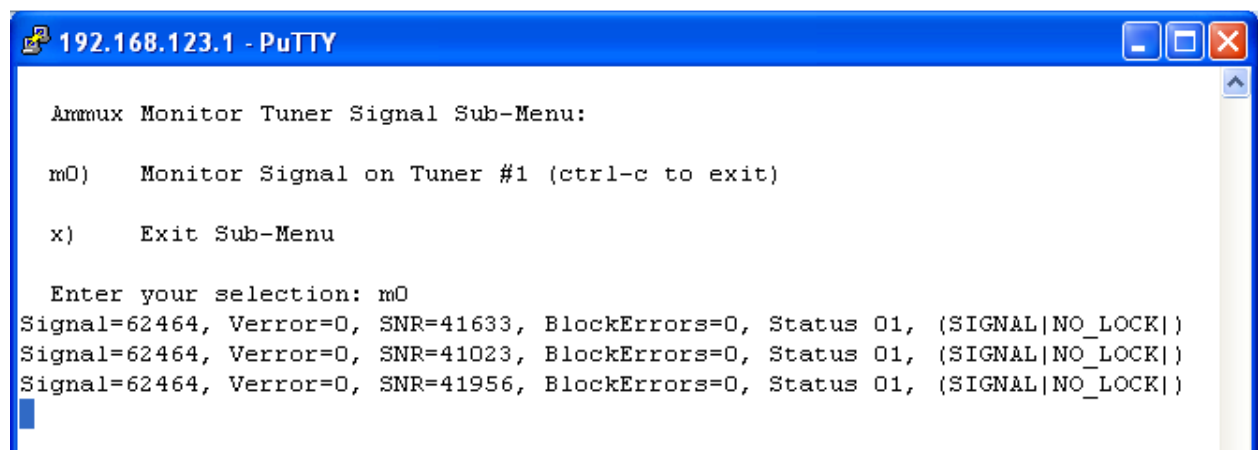
p)    Ping (ctrl-c to exit)
t)    Traceroute (ctrl-c to exit)
r)    Show Routing Table

x)    Exit Sub-Menu

Enter your selection: █
```

5.4. Monitor Tuner Signal >> Monitor Signal on Tuner #x

This option will show the RF signal/quality level and lock status of your dvb cards with a refresh rate of 1 second. To get out of monitor mode hit Ctrl+C.



```
192.168.123.1 - PuTTY

Amnux Monitor Tuner Signal Sub-Menu:

m0)   Monitor Signal on Tuner #1 (ctrl-c to exit)

x)    Exit Sub-Menu

Enter your selection: m0
Signal=62464, Verror=0, SNR=41633, BlockErrors=0, Status 01, (SIGNAL|NO_LOCK|)
Signal=62464, Verror=0, SNR=41023, BlockErrors=0, Status 01, (SIGNAL|NO_LOCK|)
Signal=62464, Verror=0, SNR=41956, BlockErrors=0, Status 01, (SIGNAL|NO_LOCK|)
█
```

5.5. Reset Web Password

If you need to reset the web password because it was misplaced, you can use this menu option.

5.6. Start Remote Support

This option will start a VPN tunnel session to our headquarter giving us access to the unit for troubleshooting purposes. For this option to work, the LAN has to be fully configured, i.e. DHCP enabled for example.

5.7. Show Remote Support Status

This option will show the status of the support tunnel. It will tell you It is connected or disconnected and it will show you the assigned tunnel IP address.

5.8. Reset to Factory Defaults

This option will return all settings in the OnRamp to their factory shipped defaults. Once you apply this, you will have to go back and access the unit using its default IP address.

5.9. Update Firmware

This option will perform a firmware upgrade on the OnRamp. We do not recommend upgrading the firmware unless you have been advised by our tech support.

5.10. Reboot

This option will do a soft-boot of the OnRamp. It takes about 30 seconds for the machine to do a full reboot.

5.11. Exit

This will exit the console menu.

6. Web Interface

The Web interface has 10 sections, some of which will only show up if you have purchased that option:

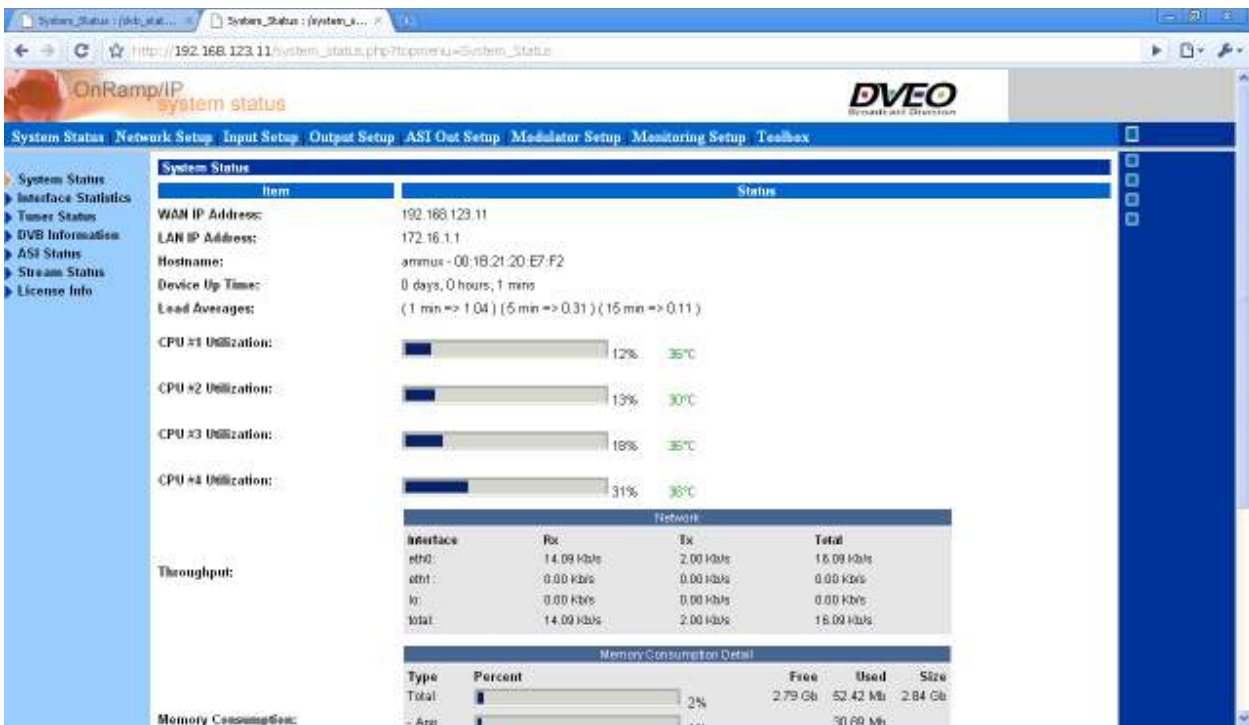
- System Status: Information about the hardware and running environment.
- Network Setup: Configuration of the network interfaces and multicast routes
- Input Setup: Configuration of the Input interfaces.
- Output Setup: Configuration of the Output IP streams.
- Data Out Setup: Configuration of the DVB De-Encapsulation parameter
- ASI Out Setup: Configuration of the ASI Output parameters.
- Modulator Setup: Configuration of the Modulator RF parameters.
- VOD Setup: Configuration of VOD server components.
- Monitoring Setup: Configuration of remote monitoring related services.
- Toolbox: Miscellaneous utilities.

An explanation of the submenu items for each of the sections follows:

6.1. System Status

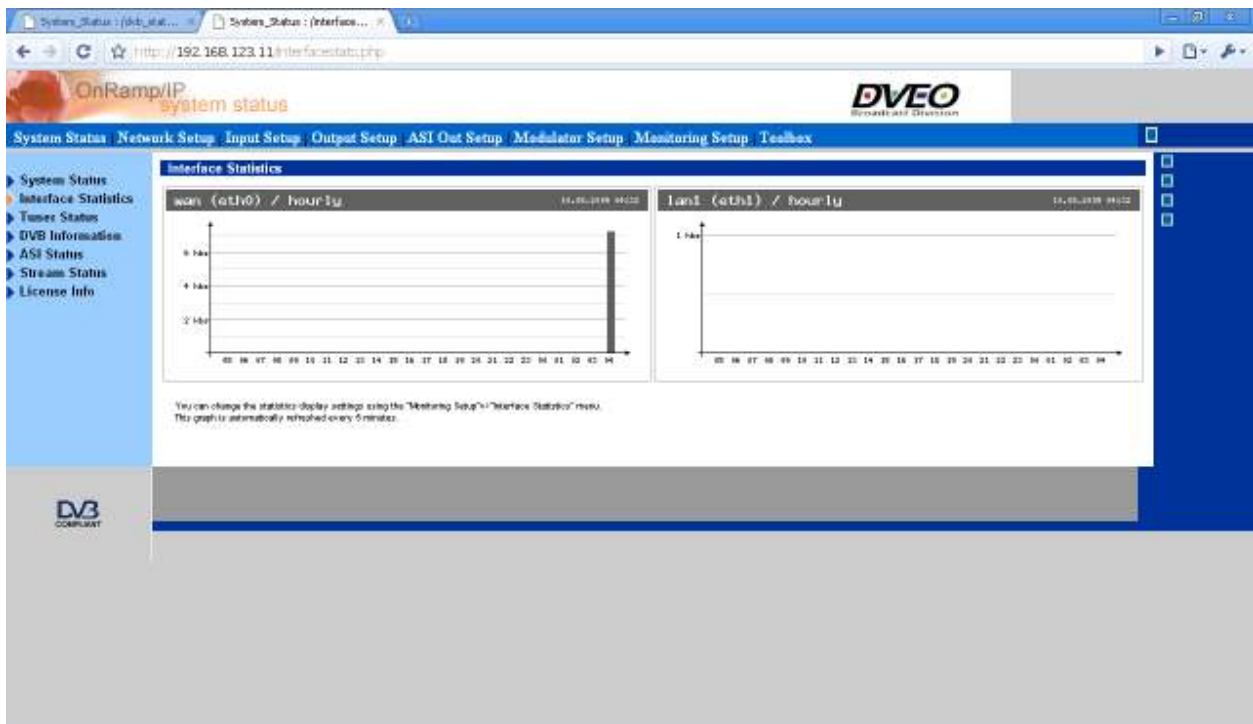
6.1.1. System Status

- *WAN IP Address*
- *LAN IP Address*
- *Hostname*
- *Device Up Time*
- *Load Averages*
- *CPU #x Utilization*
- *Throughput*
- *Memory Consumption*
- *Mounted Storage*



6.1.2. Interface Statistics

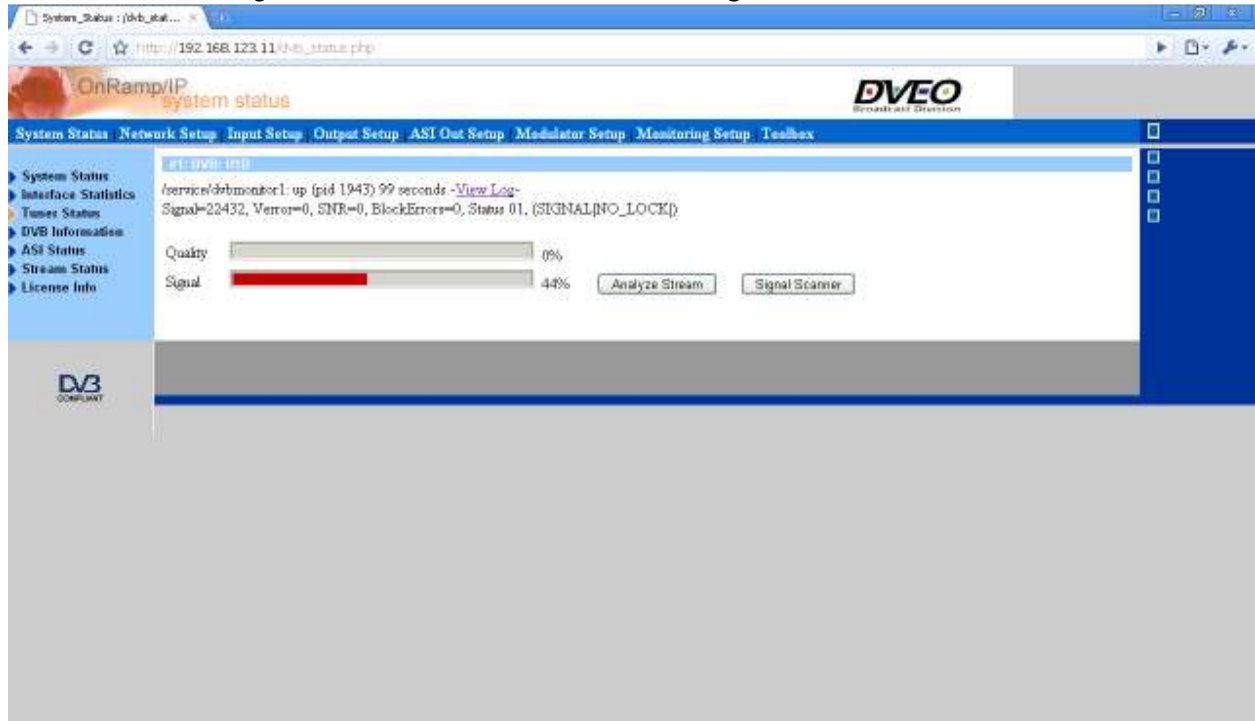
- You will see a historical graph of the throughput of the different interfaces. This view can be configured in the Monitoring Setup >> Interface Statistics menu.



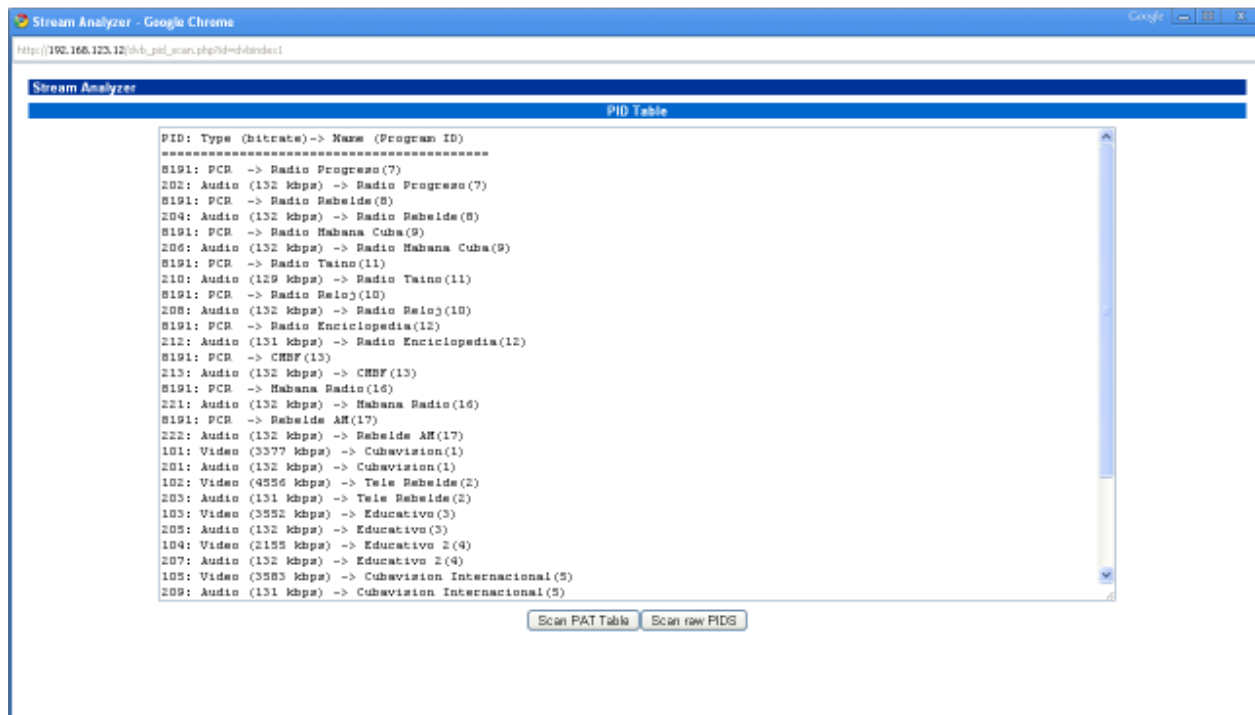
6.1.3. Tuner Status

- Header:** This will indicate lock status, i.e. NO_LOCK or LOCK.
- Quality Indicator:** This measure the signal to noise ratio (SNR).

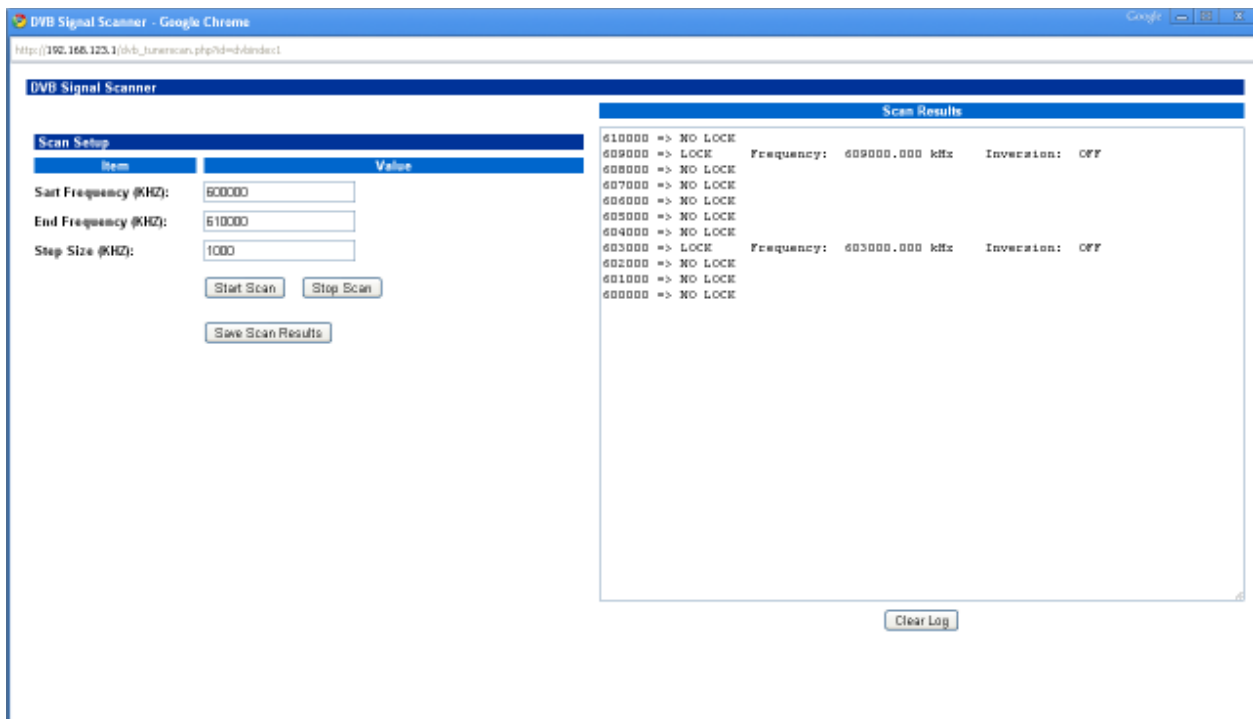
- **Signal Indicator:** This measures the raw signal level.



- **Analyze stream:** This will take to a screen in which you can analyze all the PIDs in the stream. The corresponding service must be stopped for the analysis to work.

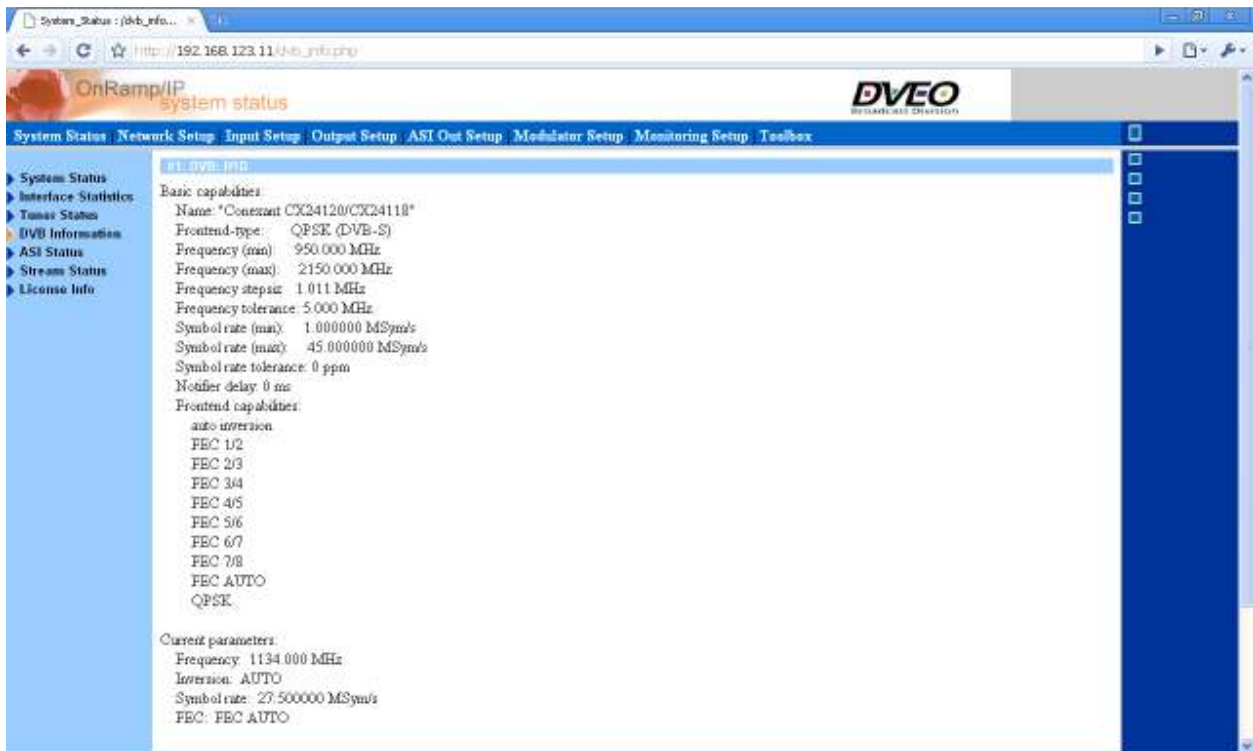


- **Signal Scanner:** This will take to a screen in which you can scan the frequency spectrum to try to find where the RF signals are.



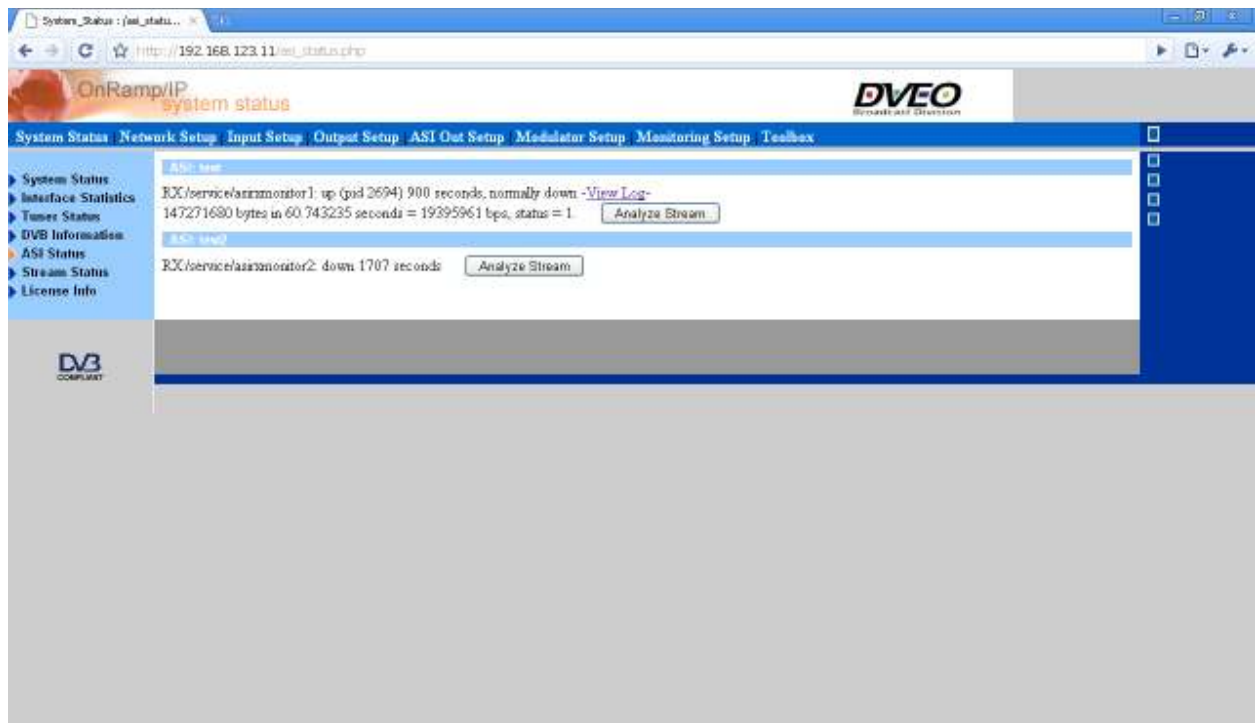
6.1.4.DVB Information

- *Information Sections:* Here you will find the capabilities of the different DVB devices as well as the current running parameters, i.e. frequency, symbol rate and FEC.

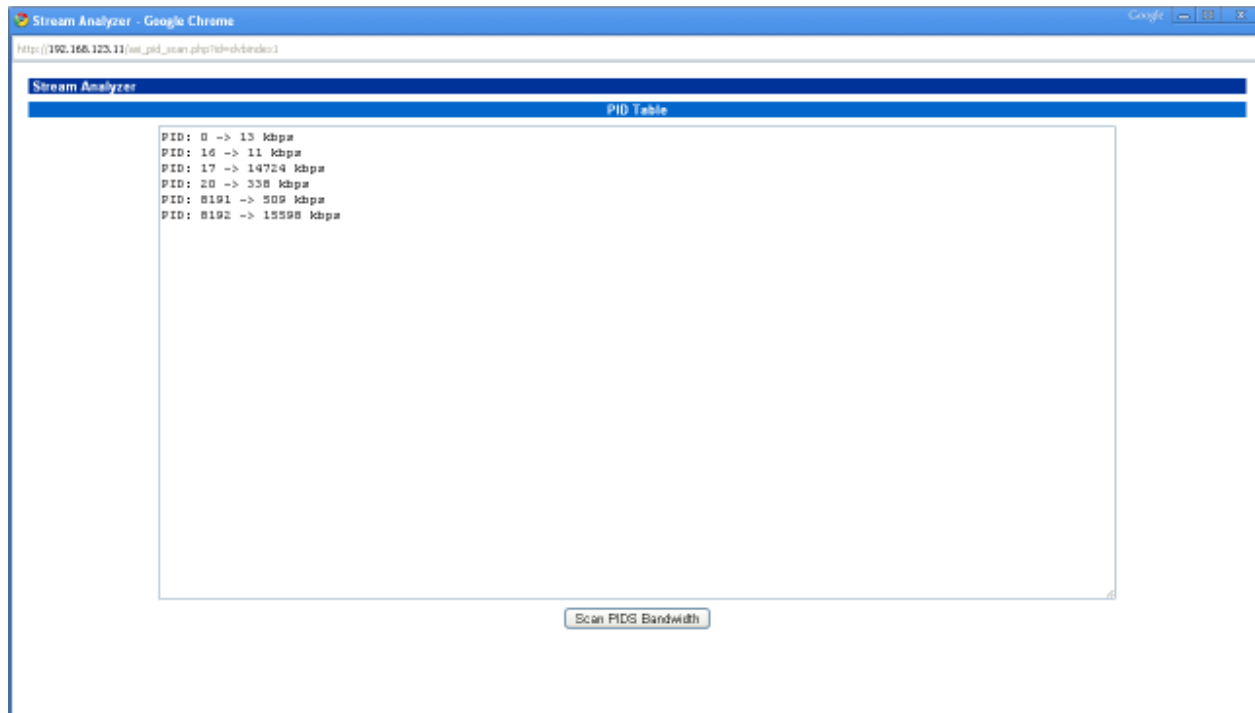


6.1.5.ASI Status

- *Information Sections:* In each of these sections, you will find the status of the ASI input streams. It will indicate the bitrate and status of the sync.

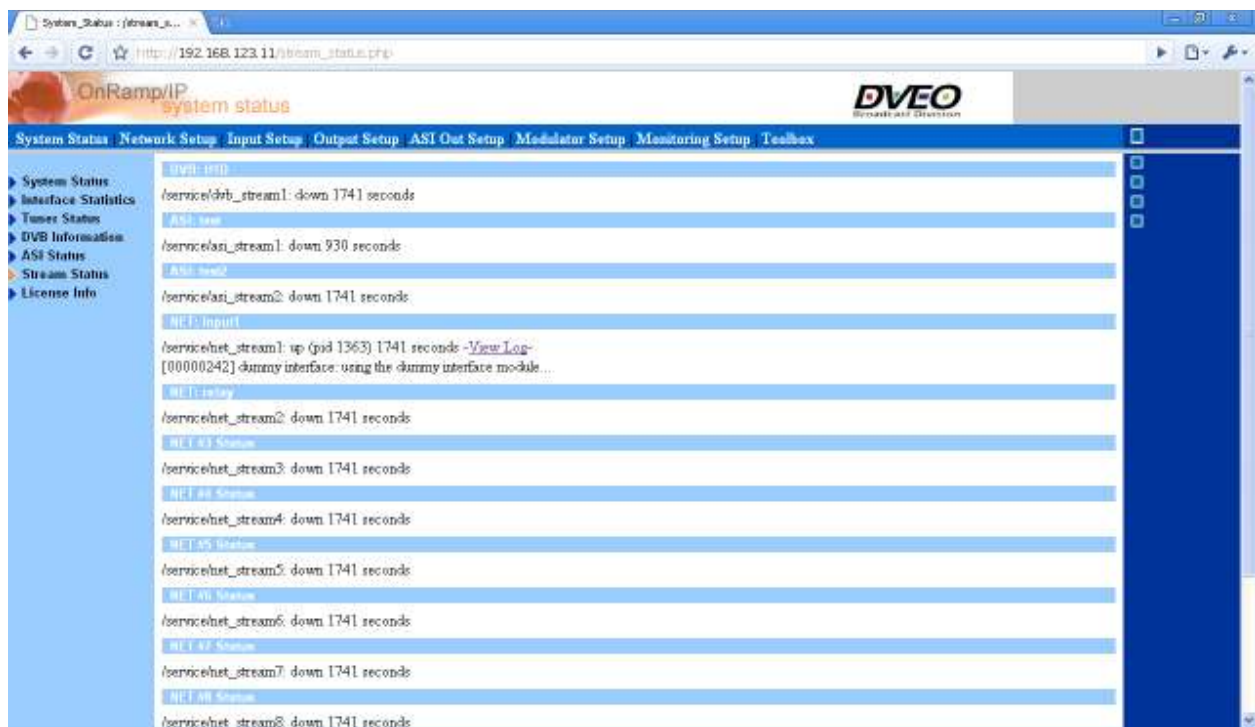


- *Analyze stream:* This will take to a screen in which you can analyze all the PIDs in the stream. The corresponding service must be stopped for the analysis to work.



6.1.6.Stream Status

- *Information Sections:* in each of these sections you will find the status of all of the defined streams. The information includes whether the service is up or down and the last two lines of the debug info. It also has a link to a more detail history of the service.



6.1.7. License Info

- *License Information:* here you will the licenses that are currently installed in the system. You can refresh them from the USB key by clicking on “Refresh from USB Key”.



6.2. Network Setup

6.2.1. WAN Setup

- *Use DHCP*
- *Hostname*
- *Domain*
- *WAN IP Address*
- *WAN Net Mask*
- *WAN Gateway*
- *Primary DNS Server*
- *Secondary DNS Server*

Item	Value
Use DHCP:	☐
Hostname:	armus
Domain:	local
WAN IP Address:	192 . 168 . 123 . 11
WAN Net Mask:	255 . 255 . 255 . 0
WAN Gateway:	192 . 168 . 123 . 254
Primary DNS Server:	
Secondary DNS Server:	

Update

6.2.2.Lan #1 Setup

- *LAN Name*
- *LAN IP Address*
- *LAN Net Mask*

Network_Setup : (lan_sethu...)

http://192.168.123.11/lan_setup.php?lanindex=1

OnRamp/IP network setup

DVEO

System Status Network Setup Input Setup Output Setup Data Out Setup ASI Out Setup Modulator Setup VOD Setup Monitoring Setup Toolbox

WAN Setup
LAN #1 Setup
Multicast Routing

lan1 Setup

Item	Value
LAN Name:	lan1
LAN IP Address:	172 . 16 . 1 . 1
LAN Net Mask:	255 . 255 . 255 . 0

Update

DV3 COMPUSET

6.2.3.Multicast Routing

- *Add route:* This allows for the addition of static routes for multicast traffic between the different interfaces.
- *Remove route:* Use this option to delete existing routes.

Network_Setup : (multicast...)

http://192.168.123.11/multicast_routing.php

OnRamp/IP network setup

DVEO

System Status Network Setup Input Setup Output Setup Data Out Setup ASI Out Setup Modulator Setup VOD Setup Monitoring Setup Toolbox

WAN Setup
LAN #1 Setup
Multicast Routing

Multicast Routing Setup

Input Interface	Source IP	Multicast IP	Output Interface	TTL	Action
local (127.0.0.1)			local (127.0.0.1)		Add Route

DV3 COMPUSET

6.3. Input Setup

6.3.1.Net #x Setup

- *Enabled:* This option enables this input.
- *NET Name:* This defines a friendly name for this input stream
- *Input Protocol:* Selects the protocol of the input stream (udp, rtp, http, rtsp).
- *Multicast Interface:* Determines which interface is going to output all multicast for this input.
- *Local IP:* Local IP to listen to (udp or rtp).
- *Local Port:* Local Port to listen to (udp or rtp).
- *Remote IP:* Remote IP for stream retrieval (http, rtsp).
- *Remote Port:* Remote Port for stream retrieval (http, rtsp).
- *HTTP Name:* path name for http/rtsp retrieval (http, rtsp).
- *Output TTL:* Determines the TTL of the output multicast streams.

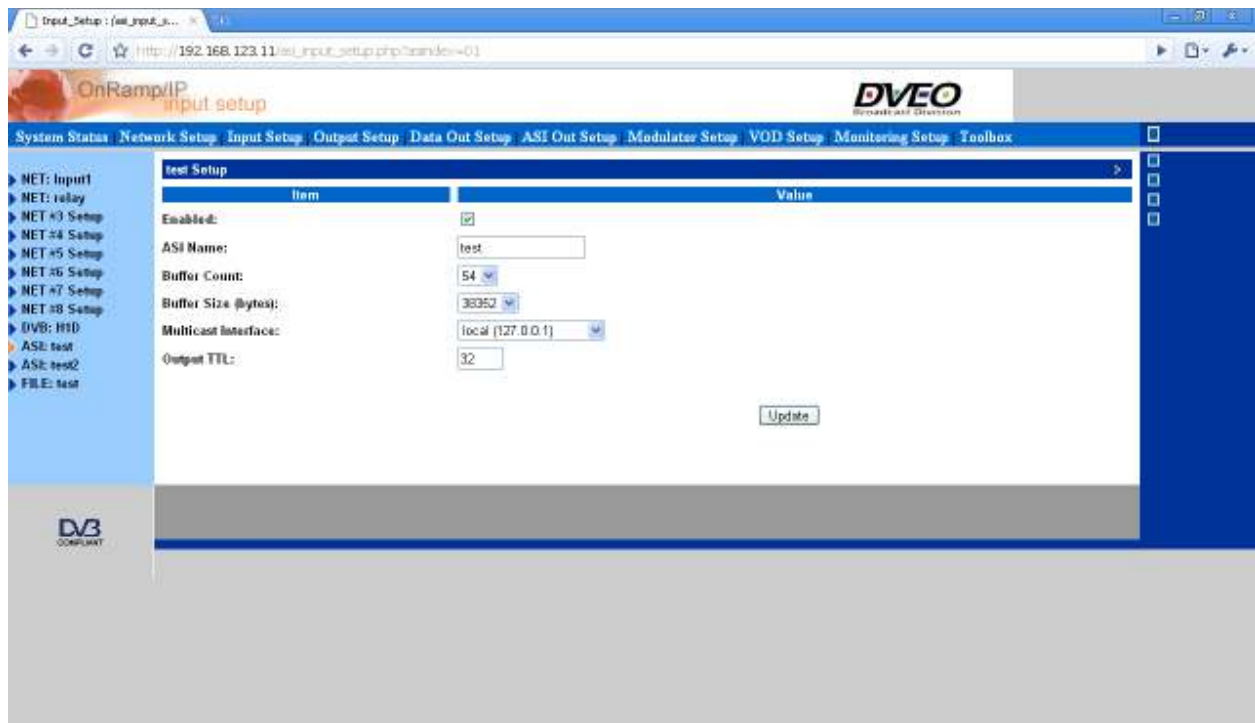
The screenshot shows a web browser window with the URL http://192.168.123.11/net_input_setup.php?retmode=1&stopmenu=Input_Setup. The page title is "OnRamp/IP input setup" and the logo "DVEO" is visible. The navigation bar includes links for System Status, Network Setup, Input Setup, Output Setup, Data Out Setup, ASI Out Setup, Modulator Setup, VOD Setup, Monitoring Setup, and Toolbox. The left sidebar lists various setup options: NET: Input1, NET: relay, NET #3 Setup, NET #4 Setup, NET #5 Setup, NET #6 Setup, NET #7 Setup, NET #8 Setup, DVB: H1D, ASI: test, ASI: test2, and FILE: test. The main content area is titled "Input1 Setup" and contains a table with two columns: "Item" and "Value".

Item	Value
Enabled:	☒
NET Name:	Input1
Input Protocol:	udp
Multicast Interface:	local (127.0.0.1)
Local IP:	wan (192.168.123.11)
Local Port:	1234
Remote IP:	= + =
Remote Port:	
Output TTL:	32

An "Update" button is located at the bottom right of the form.

6.3.2.ASI #x Setup

- *Enabled:* This option enables this input.
- *ASI Name:* This defines a friendly name for this input stream.
- *Buffer Count:* Number of DMA buffers.
- *Buffer Size:* Size of DMA buffers.
- *Multicast Interface:* Determines which interface is going to output all multicast for this input.
- *Output TTL:* Determines the TTL of the output multicast streams.



6.3.3.DVB #x Setup

- *Enabled:* This option enables this input.
- *DVB Name:* This defines a friendly name for this input stream
- *Modulation:* This defines the modulation type (QPSK,8VSB,8PSK,QAM, etc).
- *LNB Type:* Select the type of LNB you are using.
- *LOF 1:* Local Oscillator Frequency 1.
- *LOF 2:* Local Oscillator Frequency 2.
- *LOF SW:* Local Oscillator Switch Frequency.
- *LNB Polarity:* Selects LNB polarity, vertical or horizontal.
- *Transponder Frequency:* Satellite Tuner Frequency.
- *Tuner Frequency:* True tuner frequency.
- *Symbol Rate:* Signal Symbol Rate.
- *22 Khz:* This controls whether the 22 Khz carrier should be on or off.
- *FEC:* Forward Error Correction (auto is recommended).
- *Inversion:* Singal Inversion (auto is recommended).
- *DiSeqC:* Antenna switching device.
- *Multicast Interface:* Determines which interface is going to output all multicast for this input
- *Output TTL:* Determines the TTL of the output multicast streams

The screenshot shows the 'H1D Setup' page in the OnRamp/IP web interface. The left sidebar lists various setup options, with 'H1D' selected under the 'DVB: H1D' category. The main area contains a table with two columns: 'Item' and 'Value'.

Item	Value
Enabled:	☐
DVB Name:	H1D
LNB Type:	North America Ku-band
LOF 1 (MHz):	10750
LOF 2 (MHz):	10750
LOF SW (MHz):	10750
LNB Polarity:	Horizontal / Left (18V)
Transponder Frequency (MHz):	11684
Tuner Frequency (MHz):	1134
Symbol Rate (KSymbol/s):	27500
22 Khz:	☐
FEC:	Auto
Inversion:	Auto
DiSEqC:	None
Multicast Interface:	local (127.0.0.1)
Output TTL:	32

An 'Update' button is located at the bottom right of the configuration area.

6.3.4. File #x Setup

- *Enabled:* This option enables this input.
- *File Description:* Descriptive name for the file.
- *Filename/Playlist:* Name of the file. Path relative to the FTP upload folder.
- *Multicast Interface:* Determines which interface is going to output all multicast for this input.
- *Output TTL:* Determines the TTL of the output multicast streams.

The screenshot shows the 'File Setup' page in the OnRamp/IP web interface. The left sidebar lists various setup options, with 'File' selected under the 'FILE: test' category. The main area contains a table with two columns: 'Item' and 'Value'.

Item	Value
Enabled:	☐
File Description:	test
Filename/Playlist:	HD-underwater.mpg
Multicast Interface:	local (127.0.0.1)
Output TTL:	32
Loop Playback:	☒

An 'Update' button is located at the bottom right of the configuration area.

6.4. Output Setup

6.4.1. Stream Setup Header

- *Input:* This dropdown has a list of all the available inputs for the OnRamp.
- *Load Stream List:* After selecting an input from the Input dropdown, you should click on this button to load the list of all the defined outputs.
- *Add New Stream:* Use this button to add a new output to the selected input.

6.4.2. Stream Setup Left Nav-bar

The left Nav-bar holds a list of all the defined output for the selected input. You can edit each output by clicking on the link defined in this list.

6.4.3. Stream Setup

This screen controls the parameters of the output streams. You can edit existing streams by clicking on the link on the left side of the screen.

- *Enabled:* This option enables this output. You can have multiple outputs per input and have some enabled and some disabled.
- *Stream Name:* This is the friendly name for this output.
- *Output Format:* This option selects the output format.
- *Demux Mode:* This option selects the preferred method for stream selection.
 - *Use PATs Program ID:* Use this option when you know the value of the program ID. The OnRamp will mux all the Elementary audio and video PIDs that are inside this program IDs as defined by the PAT table.
 - *Use Elementary PIDs:* Use this option when you know the values of the elementary PIDs that you want to mux. You can use any PID regardless of what Program ID it belongs too. This method is preferred when you want to only grab one video and one audio from a multi-video/audio program input stream.
 - *Stream All:* This option enables the special bypass mode describe earlier in this document.
- *Input Program(s):* Comma separated list of programs IDs or elementary IDs. Selecting 8192 in this box will effectively pull in every program and elementary stream.
- *HTTP Bind IP:* IP address to bind http/rtsp server to.
- *HTTP Bind Port:* Port to bind the http/rtsp server to. You cannot use the same port for the same IP address on more than one output. You cannot use the same port as the built-in configuration server either.
- *HTTP Name:* URL path name for this stream.
- *Destination IP:* UDP or RTP destination IP for push streams.
- *Destination Port:* UDP or RTP destination IP for push streams.
- *Valid Input Video Codecs:* Informational message.
- *Valid Output Video Codecs:* Informational message.
- *Output PID Control:* Use this option to control the output muxing elementary PIDs.
 - Output Program ID
 - Elementary Output Muxed PIDs
 - Elementary Output PMT ID
 - Elementary Output Video PID
 - Elementary Output Audio PID
 - Elementary Output SPU ID
 - Suppress PAT/PMT Table
 - TS – Shaping (ms)

- TS – Use Key Frames
- TS – PCR (ms)
- TS – DTS Delay (ms)
- *Video Transcoding Format:* Use this option to enable transcoding for the video programs(s).
 - *Video Bitrate*
 - *Video Format*
 - *Video Size*
 - *Video Canvas Aspect Size*
 - *Video Cropping*
 - *Video Framerate*
 - *Advanced Video Transcoding Options:* These are the advanced options that are passed directly to the underlying transcoding library (x264 or ffmpeg).
- *Deinterlace*
- *Audio Transcoding Format:* Use this option to enable transcoding for the audio programs(s)
 - *Audio Bitrate*
 - *Audio Rate*
 - *Audio Channels*
- *Delete this stream:* Use this button to delete the current selected stream.

Output_Setup : /output_se...
http://192.168.123.11/output_setup.php?topmenu=Output_Setup#

OnRamp/IP
output setup
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test2 Streams

Output Setup

Input:
ASI: test2
Load Stream List
Add New Stream

Stream Setup

Item	Value
Enabled:	☐
Stream Name:	
Output Format:	UDP with Transport Stream (TS) envelope
Demux Mode:	Use PATs Program IDs
Input Program(s):	
Multicast Interface:	local (127.0.0.1)
Destination IP:	
Destination Port:	
Valid Input Video Codecs:	MPEG-1, MPEG-2, MPEG-4, H264V
Valid Input Audio Codecs:	MPEG-1, MPEG-2, MPEG-3, AC3, MPEG4A(H264A), Vorbis (only for Ogg)
Output PID Control:	Manual Configuration
Output Program ID:	1
Elementary Output Muxed PIDs:	
Elementary Output PMT PID:	66
Elementary Output Video PID:	68
Elementary Output Audio PID:	69
Elementary Output SPU PID:	70
Suppress PAT/PMT Table:	☐
TS - Shaping (ms):	What's this?
TS - Use Key Frames:	☐ What's this?
TS - PCR (ms):	What's this?
TS - DTS Delay (ms):	What's this?
Video Transcoding Format:	H264 Video
Video Bitrate (Kbps):	
Video Output Format:	Custom Format
Video Size (Width x Height):	x set video width set video height Scale
Video Canvas Aspect Ratio:	Auto
Video Cropping:	☐ Enabled => Left Right Top Bottom
Video Framerate:	Auto
Advanced Video Transcoding Options:	cabac=0,level=3.1
Deinterlace:	☒
Audio Transcoding Format:	AAC Audio
Audio Bitrate (Kbps):	
Audio Rate (Hz):	
Audio Channels:	Auto

Update
Delete this Stream

6.5. Data Out Setup

OnRamp/IP data out setup

System Status Network Setup Input Setup Output Setup Data Out Setup ASI Out Setup Modulator Setup VOD Setup Monitoring Setup Toolbox

Data Setup: #10

Item	Value
Enabled:	☐
Data Elementary PID:	
DVB MAC Address:	What's this?
Unicast Gateway IP:	. . .

Update

DVB CONCEPT

6.6. ASI Out Setup

OnRamp/IP asi out setup

System Status Network Setup Input Setup Output Setup Data Out Setup ASI Out Setup Modulator Setup VOD Setup Monitoring Setup Toolbox

ASI Setup

ASI #2 Setup

Item	Value
Enabled:	☒
Buffer Count:	3
Buffer Size (bytes):	19175
Output Stream Bitrate (bps):	19390560 Sample: 1932858
Null Packet Insertion:	None
Packet Mode:	188 bytes
Clock Source:	Onboard Oscillator
Time Stamp:	Disabled
Bypass Mode:	Normal
Blackburst Mode:	NTSC

Update

DVB CONCEPT

6.7. Modulator Setup

6.7.1. Modulator Setup

Item	Value
Modulator Type:	QAM A/C
Enabled:	☐
Modulator Name:	test
Input Source:	ASI
Constellation:	16 QAM
Frequency (Hz):	5700000
Symbol Rate (Symb/sec):	5058941
Max Playrate (Bps):	18541272
RF Frequency (Hz):	3600000
Attenuation (dB):	18
Noise Mode:	none
Calculate Statistics:	☒
Enable Jitter Reduction:	☒

6.7.2. Firmware Setup

Item	Value
Modulator #1:	Key # 1DA257FF1C90AA4FD2BBASD281C9AB56 Type QAM A/C

Current Firmware Files:

- nb45d.rbf, nb45h.rbf, nb45k.rbf, nb45c.rbf, nb45b.rbf, nb45l.rbf, nb45j.rbf, nb45i.rbf, nb45g.rbf, nb45e.rbf, nb45f.rbf, nb45a.rbf

6.8. VOD Setup

6.8.1. VOD Setup

VOD_Setup : /vod_setup.p... x

http://192.168.123.11/vod_setup.php?roommenu=VOD_Setup

OnRamp/IP vod setup DVEO

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VOD Setup

Item	Value
Enable OnDemand RTSP:	☐
RTSP Port	554
OnDemand VOD Folder Name	
Enable RTSP User Security	☐
RTSP Username	
RTSP Password	

Update

DVB COMPUSET

6.8.2. FTP Server Setup

VOD_Setup : /vod_setup.p... x

http://192.168.123.11/vod_setup.php

OnRamp/IP vod setup DVEO

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VOD Setup

FTP Server Setup

Item	Value
Enable FTP Server:	☒
FTP Username	admin
FTP Password	*****
FTP Bind IP:	wan (192.168.123.11)
FTP Port:	21

Update

DVB COMPUSET

6.8.3. Storage Setup

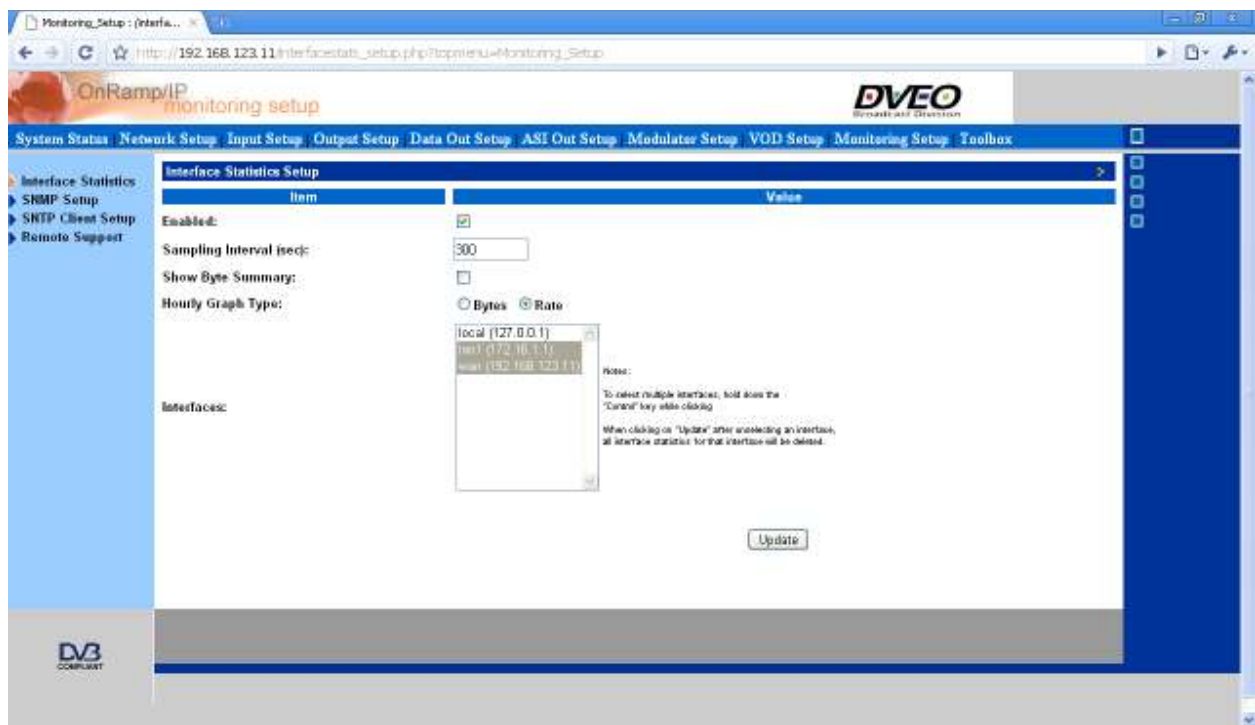
Item	Value
Primary	
Primary Storage	Disk /dev/sdb: 1000.2 GB, 1000204886016 bytes
Primary Storage Mount Point	/
Format Primary Storage on Next Reboot	☐
Secondary	
Secondary Storage	None
Secondary Storage Mount Point	
Format Secondary Storage on Next Reboot	☐
Remote Windows Share	
Enable Remote Share	☐
Remote Share UNC	Example: /192.168.123.11/Video
Remote Share Mount Point	
Remote Share Domain	
Remote Share Username	
Remote Share Password	

Update

6.9. Monitoring Setup

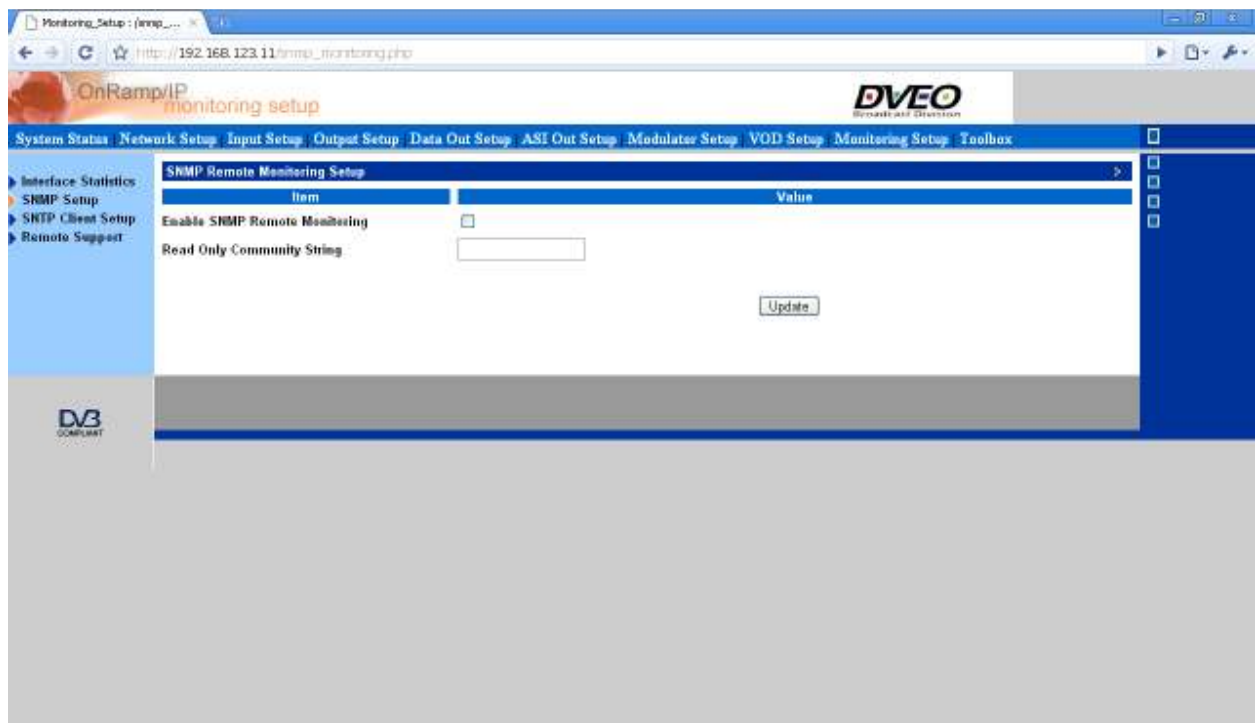
6.9.1. Interface Statistics

- *Enable Interface Statistics:* This enables the Interface Statistics data collection.
- *Sampling Interval:* This determines how often the interface data is acquired.
- *Show Byte Summary:* This enables or disables the Summary graphs.
- *Hourly Graph Type:* This toggle the line graph between total bytes and kbps rate
- *Interfaces:* This lets you select which interfaces will be monitored/graphed.



6.9.2.SNMP Setup

- *Enable SNMP Remote Monitoring:* This enables the SNMP service. You can use any tool to do an SNMP walk to find out the IDs of the relevant data such as Network bandwidth for MRTG graphs.
- *Read Only Community String:* This defines the password for SNMP reads.



6.9.3.Syslog Setup

- *Enable Syslogd*: This enables the Syslogd Service.
- *Syslogd Mode*: This configures the reporting mode, local or remote.
- *Syslogd ID*: This lets you add a special ID for remote reporting of multiple boxes to a central syslogd recorder.
- *Syslogd Hosts*: This is the host that is going to receive the syslogd messages.

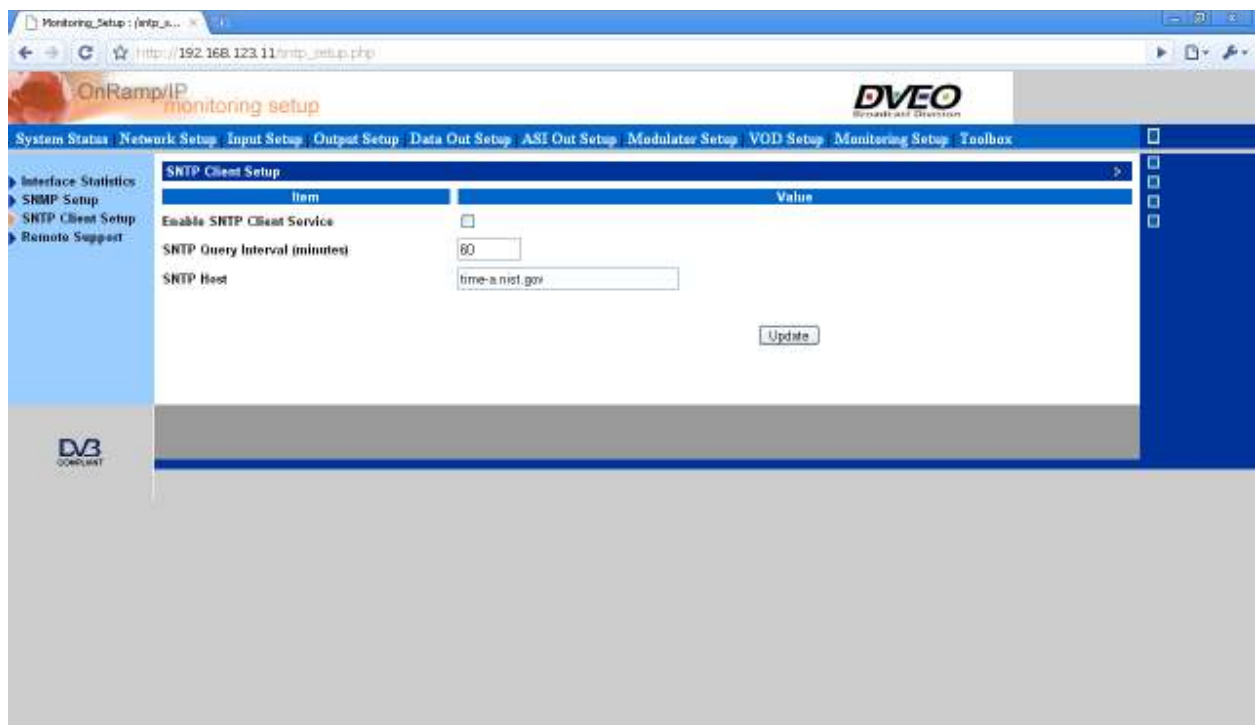
The screenshot shows a web browser window with the address bar displaying `http://192.168.123.11/syslogd_monitoring.php`. The page title is "OnRamp/IP monitoring setup" and the DVEO logo is in the top right. A navigation bar at the top contains links: System Status, Network Setup, Input Setup, Output Setup, Data Out Setup, ASI Out Setup, Modulator Setup, VOD Setup, Monitoring Setup, and Toolbox. The "Monitoring Setup" link is highlighted. On the left, a sidebar menu lists: Interface Statistics, SNMP Setup, Syslogd Setup, SNTP Client Setup, and Remote Support. The "Syslogd Setup" page is displayed with a table with two columns: "Item" and "Value".

Item	Value
Enable Syslogd	☒
Syslogd Mode:	Local Only
Syslogd ID:	
Syslogd Host:	= , =

An "Update" button is located at the bottom right of the form area. The DVB logo is visible in the bottom left corner of the page.

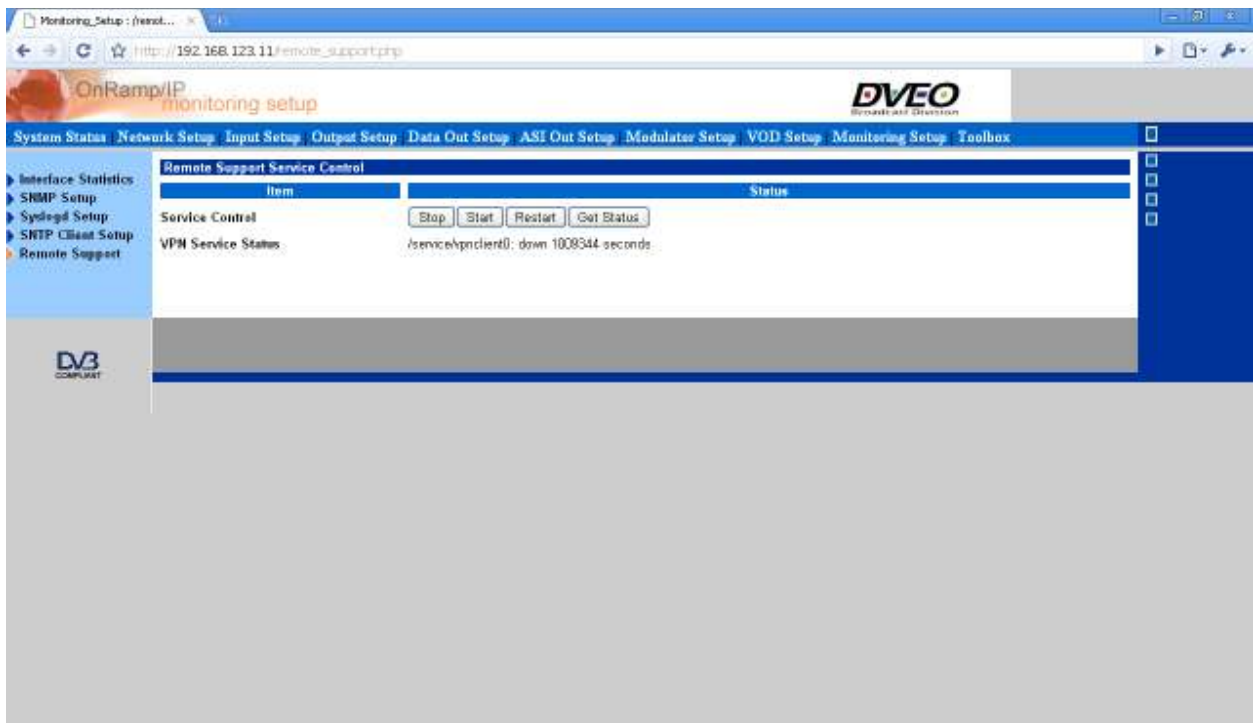
6.9.4. SNTP Client Setup

- *Enable SNTP Client Service*: This enables the Simple Network Time Protocol client. This accurate time keeping is particularly useful for capturing events from syslogd.
- *SNTP Query Interval*: This is the time synchronization interval.
- *SNTP Host*: This is the host that will be used to retrieve the time.



6.9.5.Remote Support

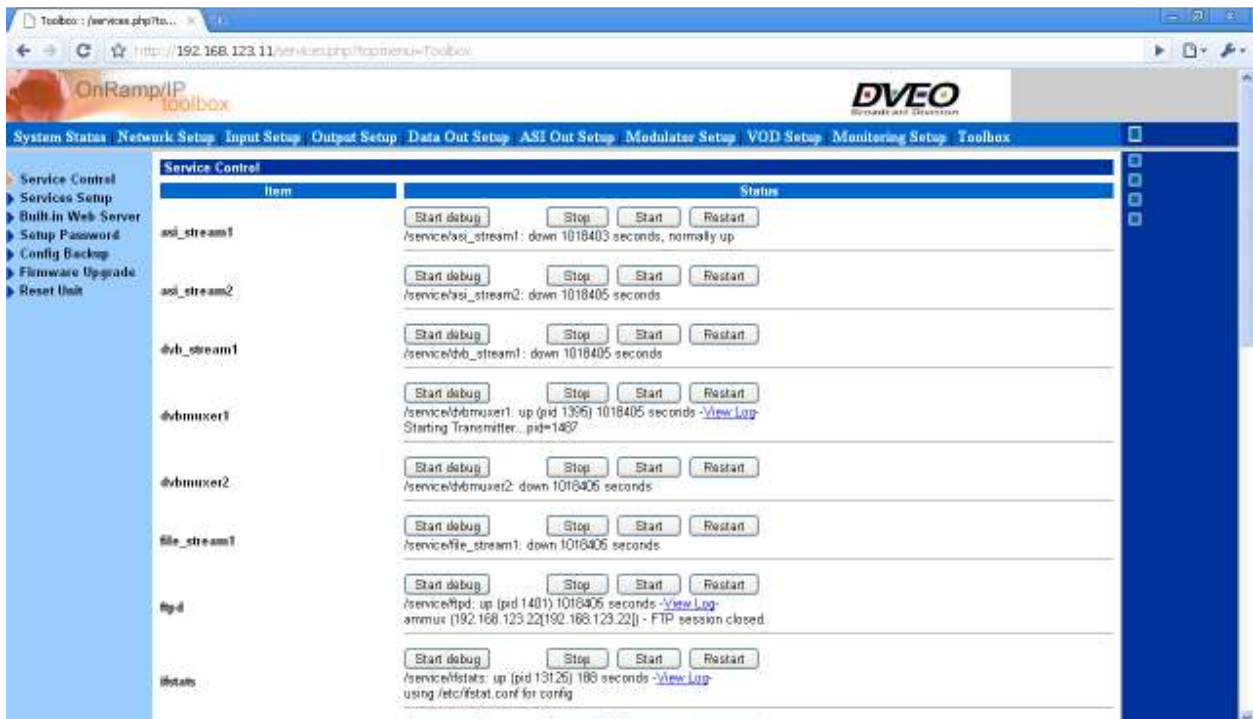
- *Service Control:* This option is used to start and stop service that controls the remote access to the OnRamp for tech support purposes. When this service is running, the tech support staff can enter the OnRamp menus without the need to have a public IP on it or to have a hole in the customer's router.
- *VPN Server Status:* This shows the status of the service as well as the assigned IP address for the remote support tunnel. Give this IP address to the tech support staff when remote support is needed.



6.10. Toolbox

6.10.1. Service Control

- *Service Control List:* This shows the status of all the services as well as the options to stop, start and restart each one of them. This page should be used as a master control for the streams. Here, there is also an option called “Start Debug” which is used to start the streamer in a highly verbose mode for troubleshooting purposes.



6.10.2. Services Setup

- *Log Level:* This option lets you toggle between full history reporting or only status reporting when viewing service information.
- *Log Max Size:* This is the max size of the status buffer for the services. This is a circular buffer.
- *Restart Interval:* This controls how fast a service starts after it has been stopped as part of a restart operation.

The screenshot shows a web browser window with the address bar displaying `http://192.168.123.11/services_setup.php`. The page title is "OnRamp/IP toolbox" and the DVEO logo is in the top right. A navigation bar at the top contains links: System Status, Network Setup, Input Setup, Output Setup, Data Out Setup, ASI Out Setup, Modulator Setup, VOD Setup, Monitoring Setup, and Toolbox. A left sidebar lists menu items: Service Control, Services Setup (highlighted), Built-in Web Server, Setup Password, Config Backup, Firmware Upgrade, and Reset Unit. The main content area is titled "Service Setup" and contains a table with two columns: "Item" and "Value".

Item	Value
Log Level	Full History
Log Max. Size (KB)	100
Restart Interval (Seconds)	1

An "Update" button is located below the table.

6.10.3. Built-in Web Server

- *Web Server Port:* Use this option to change the port used by the configuration web server. This is useful if you need to use port 80 for VOD streams.
- *Disable SSL Web Server:* Use this option to completely disable https support for the configuration web server.
- *Web Server SSL Port:* Use this option to change the port used by the https configuration web server.

Toolbox: (webserver_setup.php) http://192.168.123.11/webserver_setup.php

OnRamp/IP toolbox **DVEO** Broadcast Division

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Service Control
Services Setup
Built-in Web Server
Setup Password
Config Backup
Firmware Upgrade
Reset Unit

Built-in Web Server Setup

Item	Value
Web Server Port	80
Disable SSL Web Server	☐
Web Server SSL Port	443

Update

DV3 COMPLIANT

6.10.4. Setup Password

- *New Password:* Use this option to change the web and SSH password for the admin user.
- *Confirm Password*

Toolbox: (password_setup.php) http://192.168.123.11/password_setup.php

OnRamp/IP toolbox **DVEO** Broadcast Division

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Service Control
Services Setup
Built-in Web Server
Setup Password
Config Backup
Firmware Upgrade
Reset Unit

Setup Password

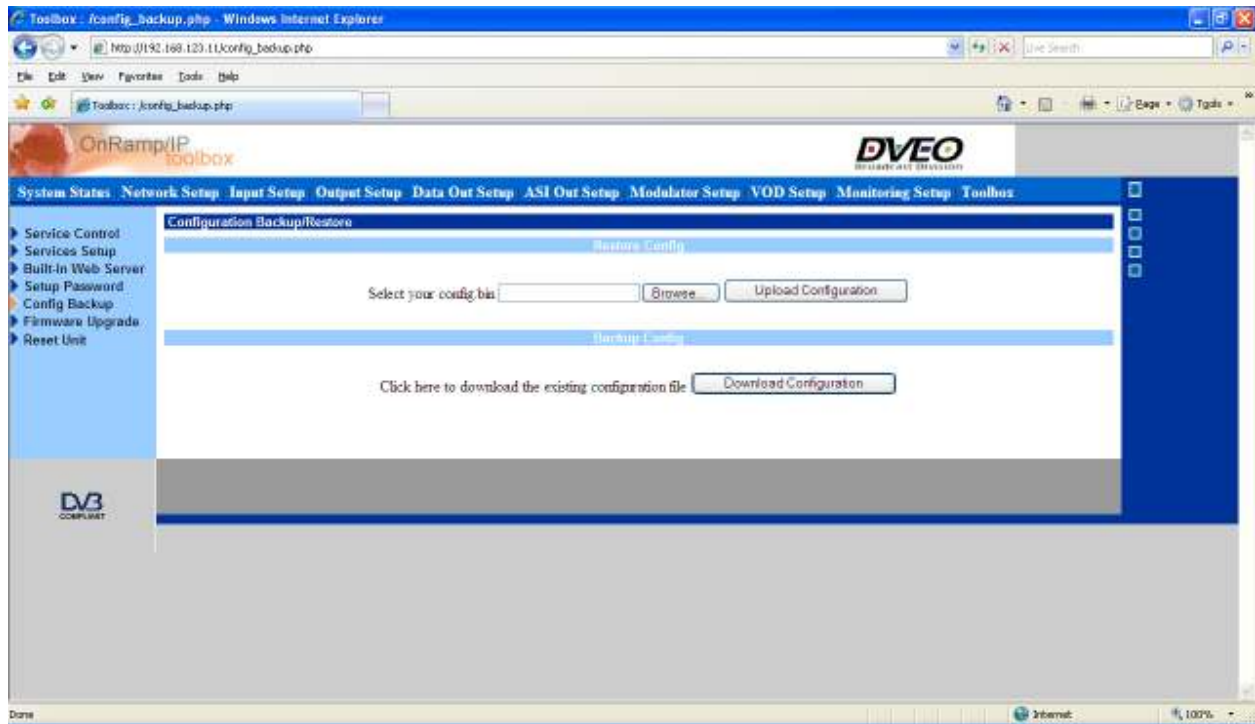
Item	Value
New Password	
Confirm Password	

Update

DV3 COMPLIANT

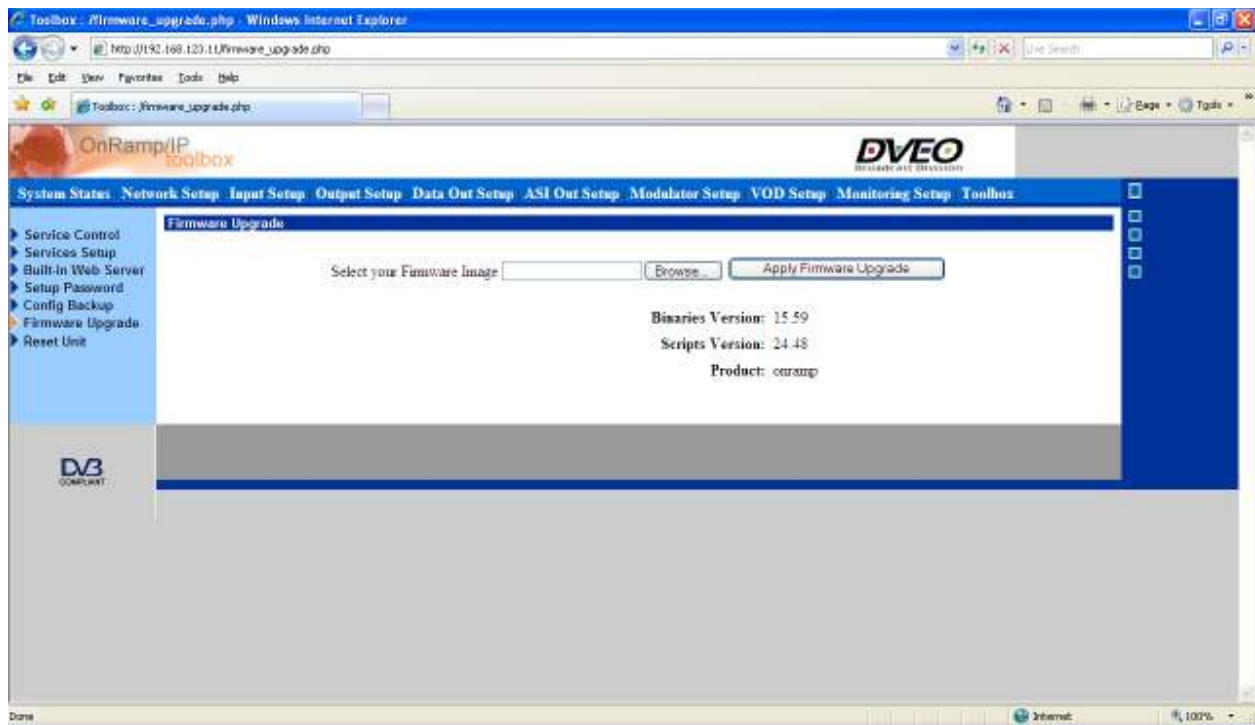
6.10.5. Config Backup

- *Configuration Download:* This option allows you to save a snapshot of the entire configuration of the OnRamp. You can use this as a way of performing backups before making changes to the unit.
- *Configuration Upload:* This option allows you to restore a previously configuration backup. Be aware that the network settings are part of the configuration backups.



6.10.6. Firmware Upgrade

- *Firmware Upgrade:* To perform a firmware upgrade you should first download a firmware file from our tech support web site. Then, click on “Browse” and select the firmware file from your local machine. Click on “Apply Firmware Upgrade” and wait for 2 minutes.
- *Firmware Version Information:* This shows the current firmware revision running on your OnRamp.



6.10.7. Reset Unit

- *Switch to Advanced Mode:* This option will enable some menus that will let you configure some advanced options.
- *Reset to Factory Defaults:* This option will return all settings in the OnRamp to their factory shipped defaults. Once you apply this, you will have to go back and access the unit using its default IP address.
- *Reboot Now:* This option will do a soft-boot of the OnRamp. It takes about 30 seconds for the machine to do a full reboot.

