

Dear A+E Networks Affiliate,

In anticipation of possible rule making by the FCC to expand the use of the Video Descriptive Service (VDS) to more networks, we have recently added additional audio PIDs to all our services to ensure we have a second audio service available.

These networks are: A&E, History Channel, Lifetime, Lifetime Movie Network (LMN), FYI, Viceland, Crime & Investigation, Lifetime Real Women, History Channel en Espanol and Military History Channel.

If you are using a D9824, D9854, D9858 or D9859 IRD to receive any of these networks, two actions must be taken on your part to ensure your receivers recognize the presence of this additional audio PID on every service. Other IRD models do not require action at this time.

STEP ONE is to **check and, if necessary, upgrade the version level of the Application Code** (App Code) running on your IRDs.

STEP TWO is to **run a procedure known as a “Resynchronize All”** which is required for the IRDs to recognize any new PIDs added to our streams after the initial deployment of the IRD.

Please review the detailed instructions on how to perform these actions in the attached document.

PLEASE PLAN ACCORDINGLY. BRING A LAPTOP, PAPER AND PENCIL WITH YOU. YOU CAN EXPECT TO SPEND AN AVERAGE OF FIVE TO SIX MINUTES ON EACH IRD AND YOU WILL EXPERIENCE A BRIEF OUTAGE. CONSIDER SCHEDULING THIS WORK DURING A REGULAR MAINTENANCE WINDOW.

You can access the app code files and the same detailed instructions via the following webpage:

<https://IRDUpgrade.AENetworks.com>

Once you've completed both steps, you will also use this site to confirm that you have performed these tasks for each of your headends and IRDs. The deadline to make these updates is **2/5/20**.

If you need technical assistance while performing these actions, please contact us at:

Scrambling Hotline: 866-335-8236 (option 2)

Email: techsupport@aenetworks.com

Thank you!

A+E NETWORKS TECHNICAL BULLETIN

SOFTWARE UPGRADE AND “RESYNCHRONIZE ALL” PROCEDURE INSTRUCTIONS FOR MODELS D9824, D9854, D9858 AND D9859 ONLY

In anticipation of possible rule making by the FCC to expand the use of the Video Descriptive Service (VDS) to more networks, we have recently added additional audio PIDs to all our services to ensure we have a second audio service available.

These networks are: A&E, History Channel, Lifetime, Lifetime Movie Network (LMN), FYI, Viceland, Crime & Investigation, Lifetime Real Women, History Channel en Espanol and Military History Channel.

PLEASE PLAN ACCORDINGLY. BRING A LAPTOP, PAPER AND PENCIL WITH YOU. YOU CAN EXPECT TO SPEND AN AVERAGE OF FIVE TO SIX MINUTES ON EACH IRD.

Two actions must be taken on your part to ensure each of your receivers recognizes the presence of this additional audio PID on every service.

STEP ONE is to **check, and if necessary, upgrade the version level of the Application Code** (App Code) running on your IRDs.

Loading an app code upgrade file and rebooting the IRD should take an average of 5 minutes and may result in a brief outage.

Due to some recurring issues reported at several receive sites, we want to ensure you are running the most current app code level version to ensure system stability.

The latest App Code versions are:

- **D9824 Receiver – App Code V4.80**
- **D9854 Receiver – App Code V4.80***
- **D9858 Receiver – App Code V4.80**
- **D9859 Receiver – App Code V1.80****

IMPORTANT:

For Model D9854:

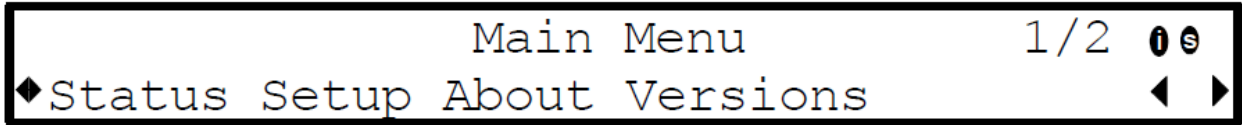
- **If your app code version is below v3.91, you must activate the upgrade file through the front panel; the code has already been sent to your IRD**
- **If your app code version is v3.91 or higher, you can upgrade through the front panel OR follow the instructions below**

For Model D9859:

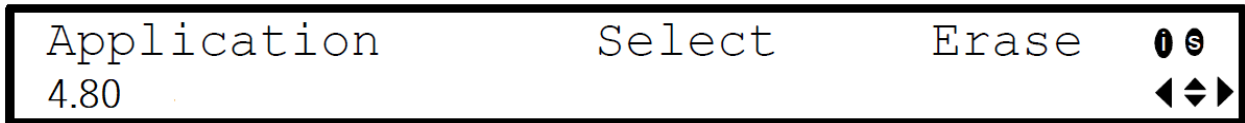
- **If your app code version is below 1.11, you'll need to upgrade in steps: v1.11, then v1.50, before upgrading to v1.80**
- **If your app code version is below 1.50, you'll need to upgrade to v1.50 before upgrading to v1.80**

Instructions for Model D9854 front panel upgrade only:

To manually activate updated App Code, go to the Main Menu, select Versions.



Next, Up Arrow twice to the menu which looks like this:



Press Select in order to scroll through the various App Code versions available on your receiver, then press Select when App Code version 4.80 appears.

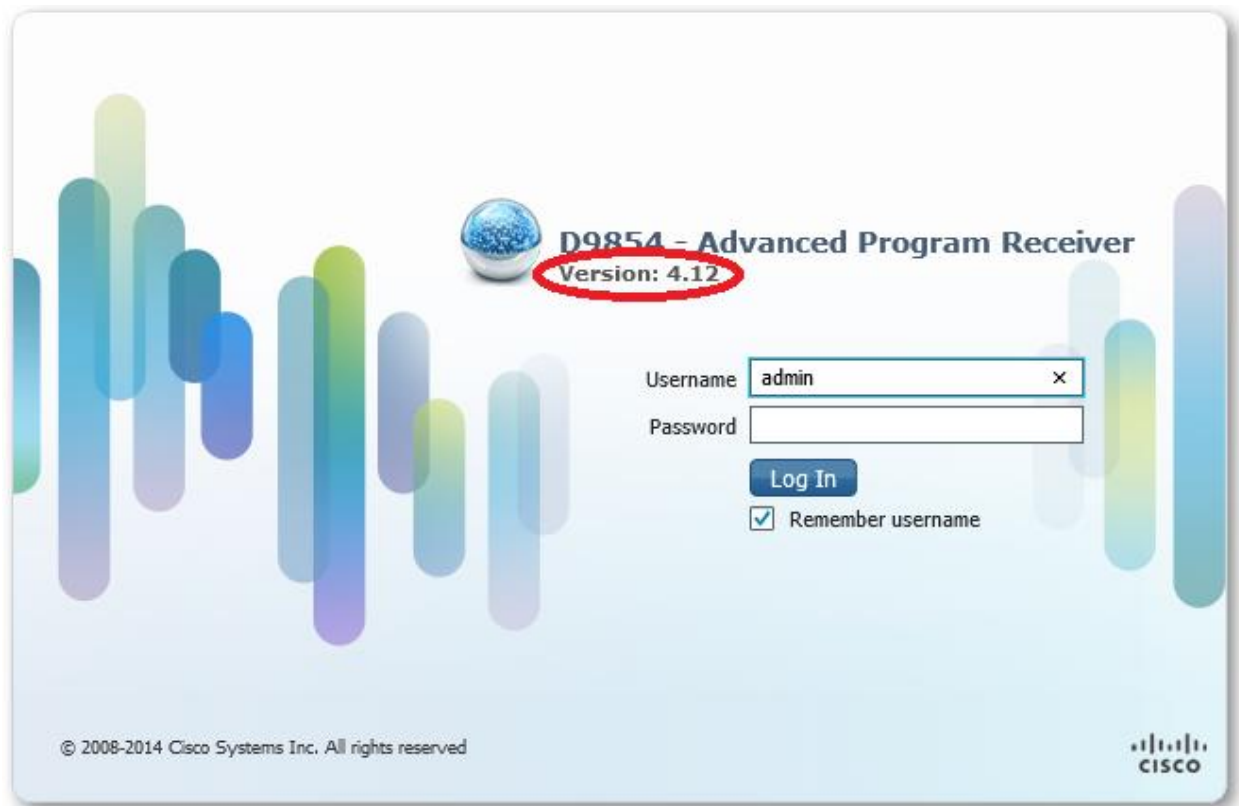
Arrow right once to the "Select" option and press the select button to activate the new code.

Instructions for all other upgrades:

The App Code version you are currently running can be found on the login screen of your IRD.

To login to your IRD, open a browser (Google Chrome is preferred) and go to Default IP Address: 192.131.244.6. The Username is “admin” and the Password is “localadmin”.

An example of a D9854 is shown below.



The current App Code can also be viewed from the IRD front panel.

On the D9824 and D9854, press Menu. Arrow over to Versions and press Select. The current App Code should be displayed.

On the D9858 and D9859, press Menu. Arrow over to Versions and press Select. On the next screen Select Main. The current App Code should be displayed.

The App Code upgrade files can be downloaded from the following website:

<https://IRDUpgrade.AENetworks.com>

Once the App Code has been upgraded, please go on to **STEP TWO**, described below.

STEP TWO is to run a procedure known as a “Resynchronize All” which is required for the IRDs to recognize any new PIDs added to our streams after the initial deployment of the IRD.

The “Resynchronize All” function should take less than one minute. If you need to remap PIDs (see **IMPORTANT NOTE** below), you may experience a brief outage.

Please note the “Resynchronize All” on digital pass-through receivers (D9824, D9858 and D9859) may cause additional data from this second audio service to pass out of the ASI or MPoIP outputs. **THIS INCREASE MAY BE AS MUCH AS 350KBPS PER SERVICE.** Care should be taken to ensure any downstream multiplexers are configured to accept this additional data payload prior to performing the “Resynchronize All”.

IMPORTANT NOTE: Additionally, if you are performing any PID remapping in the D9824, D9858 or D9859 you will need to write down this information prior to performing the “Resynchronize All” and re-enter it again as this mapping will be deleted as part of the Resynchronize process.

To perform a “Resynchronize All”, first login to your IRD. **Open a browser (Google Chrome is preferred) and go to IP Address: 192.131.244.6. The Username is “admin” and the Password is “localadmin”.**

Once you are logged in, follow the steps below. The example below shows a D9858 IRD but the steps are the same for all IRD models.

Click on the Transport Stream tab.

The screenshot displays the Cisco D9858 Advanced Receiver Transcoder web interface. The top navigation bar includes 'Summary', 'Input', 'Audio & Video', 'Transport Stream' (selected), 'System Settings', and 'Support'. The left sidebar shows 'Transport Handling' with sub-items: 'ASI Output', 'MPEG over IP Output', and 'Transcoder Setup'. The main content area is titled 'ASI Outputs' and contains 'ASI Settings' with the following configuration:

Rate Control	User
User Rate	55.0 Mbps
Output Mode	Full DPM Control
Mode Status	Edited by User
Descrambled	Descrambled
Null Packet Insertion	Yes

Below the settings are 'ASI Auto Sync' options:

Enable Auto Fix for Collision	No	View Conflicts
Enable Fixed Output	No	Fixed Output Options
Enable Auto Map For Auxiliary PEs	No	

At the bottom, the 'ASI Output Status' section shows:

Output Rate (Mbps)	54.999999
Free Bandwidth (Mbps)	29.37312

Buttons for 'Apply', 'Refresh', and 'Cancel' are located at the bottom of the configuration area.

On the left side, click on the Digital Program Mapping option for the type of output you use (ASI or MPEG over IP).

The screenshot shows the Cisco D9858 Advanced Receiver Transcoder web interface. The top navigation bar includes 'Summary', 'Input', 'Audio & Video', 'Transport Stream', 'System Settings', and 'Support'. The left sidebar is titled 'Transport Handling' and contains a tree view with 'ASI Output' expanded to 'Digital Program Mapping'. The main content area is titled 'ASI Digital Program Mapping' and contains a 'DPM Program Entry Setup' table. Below the table are buttons for 'Edit', 'Resynchronize', 'Resynchronize All', and 'View Conflicts'. At the bottom, there is a 'DPM General Settings' section with various dropdown menus and buttons for 'Apply', 'Refresh', 'Cancel', and 'Copy to MOIP'.

Program Entry	Chl #	Name	Action
<input type="radio"/> PE1	1	A&E East HD	XCode
<input type="radio"/> PE2	2	History East HD	XCode
<input type="radio"/> P1A	1	A&E East HD	Drop
<input type="radio"/> P2A	2	History East HD	Drop

DPM General Settings

Remapping Mode:

Duplication Method:

Unreferenced Content:

Service ID Output:

SI Regeneration Option:

PSI Table Output Option:

PSI Regeneration Option:

This item affects all Transport outputs.

Click on the button to the left of PE1 and then click Edit to view any PID Mapping which you might be doing.

Please note whether any Output PIDs do not match the Input PIDs and write down any differences. You will need to re-enter this mapping after performing the "Resynchronize All". If the Input and Output PIDs match, then you are not remapping PIDs in the IRD and do not need to write anything down.

ASI Digital Program Mapping

DPM Program Entry Setup

Program Entry	Chl #	Name	Action	Output Chl#
<input checked="" type="radio"/> PE1	1	A&E East HD	XCode	10
<input type="radio"/> PE2				
<input type="radio"/> P1A				
<input type="radio"/> P2A				

DPM PE PID MAP

Input Channel# 1 Output Channel # 10

Input PMT PID 5001 Output PMT PID 5010

Edit Delete Add Row

	Input Stream	INPUT PID	Action	Stream Type	Category	Instance	OUTPUT PID
<input type="radio"/>	PCR	110	Map	0	PCR	1	1010
<input type="radio"/>	VID	110	Map	27	VID	1	1010
<input type="radio"/>	DPI	130	Map	134	DPI	1	1030
<input type="radio"/>	AUD 1	170	Map	129	AUD	1	1070
<input type="radio"/>	AUD 2	172	Map	129	AUD	2	1072
<input type="radio"/>	SUBT	124	Map	6	SUBT	1	1024

OK Cancel

If you are remapping PIDs, repeat this process for every PE so you have a complete list of the changes.

To perform a “Resynchronize All”, click on the “Resynchronize All” button.

The screenshot shows the Cisco D9858 Advanced Receiver Transcoder web interface. The main navigation bar includes Summary, Input, Audio & Video, Transport Stream, System Settings, and Support. The left sidebar shows the Transport Handling menu with options for ASI Output, Digital Program Mapping, Output Transport Status, MPEG over IP Output, Digital Program Mapping, Output Transport Status, and Transcoder Setup. The main content area is titled 'ASI Digital Program Mapping' and contains the 'DPM Program Entry Setup' section. This section features a table with columns for Program Entry, Chl #, Name, and Action. The table lists four entries: PE1 (Chl # 1, Name A&E East HD, Action XCod), PE2 (Chl # 2, Name History East HD, Action XCod), P1A (Chl # 1, Name A&E East HD, Action Drop), and P2A (Chl # 2, Name History East HD, Action Drop). Below the table, there are buttons for Edit, Resynchronize, Resynchronize All (highlighted with a red circle), and View Conflicts. The 'DPM General Settings' section includes dropdown menus for Remapping Mode (Svc ID & PID), Duplication Method (Pkt Copy), Unreferenced Content (Drop), Service ID Output (Valid Ch), SI Regeneration Option (SA Std), PSI Table Output Option (Ct By Table), and PSI Regeneration Option (Always). A 'Table Options' button is also present. At the bottom, there are buttons for Apply, Refresh, Cancel, and Copy to MOIP.

In the pop-up window, select the top option as seen below (“Resynchronize Program, PMT PID, ES List & ES PIDs”) and click OK.

The screenshot shows a 'Confirm Resynchronization' dialog box with a close button (X) in the top right corner. It contains four radio button options: 'Resynchronize Program, PMT PID, ES List & ES PIDs' (which is selected), 'Resynchronize ES List', 'Resynchronize ES PIDs', and 'Resynchronize Template ES List & PIDs'. At the bottom right, there are 'OK' and 'Cancel' buttons.

Back on the main Transport Stream page, click Apply to ensure the changes are saved.

Transport Handling

- ASI Output
 - Digital Program Mapping
 - Output Transport Status
- MPEG over IP Output
 - Digital Program Mapping
 - Output Transport Status
 - Transcoder Setup

ASI Digital Program Mapping

DPM Program Entry Setup

	Program Entry	Chl #	Name
<input type="radio"/>	PE1	1	A&E East HD
<input type="radio"/>	PE2	2	History East HD
<input type="radio"/>	P1A	1	A&E East HD
<input type="radio"/>	P2A	2	History East HD

DPM General Settings

Remapping Mode:

Duplication Method:

Unreferenced Content:

Service ID Output:

SI Regeneration Option:

PSI Table Output Option:

PSI Regeneration Option:

This item affects all Transport outputs.

Once the “Resynchronize All” is complete, if you are remapping PIDs in your IRD you will need to re-enter the PID mapping.

To update the PID mapping, from the main Transport Stream page click the Button to the left of PE1 and then click Edit.

On the Edit screen, click on the first Output PID you need to update. The screen should change to be similar to the one below.

DPM PE PID MAP

Input Channel# 1 Output Channel # 10
Input PMT PID 5001 Output PMT PID 5010

Edit Delete Add Row

Input Stream	Input PID	Action	Stream Type	Category	Instance	Output PID
PCR	110	Map	0	PCR	1	1010
VID	110	Map	27	VID	1	1010
DPI	130	Map	134	DPI	1	1030
AUD 1	170	Map	129	AUD	1	1070
AUD 2	172	Map	129	AUD	2	1072
SUBT	124	Map	6	SUBT	1	1024

OK Cancel

Change the Output PID to the correct value and then click the SAVE button which dropped down below the PID line. This has been outlined in red in the example above.

Repeat this process for every PID which requires remapping and then click OK in the bottom right of this Edit window.

Once back at the main Transport Stream page, click Apply to make certain all changes are stored.

ASI Digital Program Mapping

DPM Program Entry Setup

Program Entry	Chl #	Name
<input type="radio"/> PE1	1	A&E East HD
<input type="radio"/> PE2	2	History East HD
<input type="radio"/> P1A	1	A&E East HD
<input type="radio"/> P2A	2	History East HD

Edit Resynchronize Resynchronize All View Conflicts

DPM General Settings

Remapping Mode: Svc ID & PID
Duplication Method: Pkt Copy
Unreferenced Content: Drop
Service ID Output: Valid Ch
SI Regeneration Option: SA Std
PSI Table Output Option: Ctl By Table
PSI Regeneration Option: Always

Table Options

This item affects all Transport outputs.

Apply Refresh Cancel Copy to MOIP

IMPORTANT: Once you have completed the “Resynchronize All” function, go back into the website (<https://IRDUpgrade.AENetworks.com>) and provide us with the TID and Master UA for each IRD that is used for our networks. A separate entry should be made for each IRD at each headend.

If you need technical assistance while performing these actions, please contact us at:

Scrambling Hotline: 866-335-8236 (option 2)

Email: techsupport@aenetworks.com

Thank you!