Technical Tip

Integration with Video Propulsion HD MPEG4 to SD MPEG2 Transcoder
COM46 and COM51
2/22/2019

As DIRECTV migrates away from broadcasting SD content, existing COM systems configured to these channels will need to transition to the corresponding HD channels. However, the HD channels are encrypted and may not be suitable at the current installation. To continue to provide the SD digital channels to the property the encrypted HD content will need to be transcoded back to unencrypted SD.

DIRECTV has approved the use of the Video Propulsion FG4630 HD MPEG4 to SD MPEG2 transcoder. This device receives encrypted HD programming from the COM system over IP, transcodes it to unencrypted SD and streams it back over IP to the Technicolor QAM.

To assist in integration and configuration of the system Technicolor has created a streamlined procedure for both COM46 and COM51 receivers.

Required Software:

- COM46 version 03.03.91
- COM51 version 04.01.27

A license key for transcoding will be required. This feature license file is available from your Technicolor distributor at no charge and will require an AT&T approval.

Once the software and license keys are loaded on the cards there is an "easy button" that will configure the COM cards for integration with the Video Propulsion Transcoder.

Verify the following before starting:

- The COM system is currently set to all standard definition clear QAM. (Security = None)
- You have followed AT&T procedures to authorize the customer account for HD

Navigate to the COM cards **TuneAll** tab and click on the Transcode button.

Submit

Transcode

Current Tuning Table

```
1-1-1, 192.168.6.2:17, 202-65535-0;
1-1-2, 192.168.6.2:18, 204-65535-0;
1-1-3, 192.168.6.2:19, 209-65535-0;
1-1-4, 192.168.6.2:33, 206-65535-0;
1-1-5, 192.168.6.2:34, 212-65535-0;
1-1-6, 192.168.6.2:35, 218-65535-0;
```

You will see the channels populate in the text field formulated for use by the transcoder.

    a. Adding 50 to the IP address
    b. Adding 20000 to the port number
    c. Changing SD channels to HD channels.
    d. Changing the Security Mode to 3=Transcode

Tune All

```
Chassis-Slot-Tuner, IP_Dest:Port, MajorNum-MinorNum-Mode;
5-2-1, 192.168.100.4:1234, 287-65535-1;
0-0-0, 192.168.100.4:1235, 284-65535-1;     //use any tuner
287sd -> 50-1                               //QAM24 mode
284hd -> 50-2                               //QAM24 mode
1-1-1, 192.168.6.52:20017, 202-65535-3;
1-1-2, 192.168.6.52:20018, 204-65535-3;
1-1-3, 192.168.6.52:20019, 209-65535-3;
1-1-4, 192.168.6.52:20033, 206-65535-3;
1-1-5, 192.168.6.52:20034, 212-65535-3;
1-1-6, 192.168.6.52:20035, 218-65535-3;
```

Click submit to accept the changes. As usual the system will display the discover screen when tuning is completed.

The encrypted HD video is received by the transcoder at 192.168.6.52. It is then decrypted and transcoded to unencrypted SD and forwarded to the Technicolor QAM at 192.168.6.2 and port 20000 less than the input port.

Example:

VP input 192.168.6.52:20017   VP output 192.168.6.2:17

To confirm the changes are successful and the system is working well, you can verify the bitrate of the transcoded video in the web interface.