

## EAS-Net Provisions for EAN and EAT

See Important Warnings for older (Version 2.0-0\_a02 and below) software

**ALL EAS-NET CUSTOMERS ARE STRONGLY ENCOURAGED TO UPGRADE TO VER 2.0-0 a03.**

Go to [www.digitalalertsystems.com/registration\\_updates.html](http://www.digitalalertsystems.com/registration_updates.html) and follow the standard upgrade instructions for installing this software on your DASDEC.

### **General Information regarding EAN/EAT over EAS-Net**

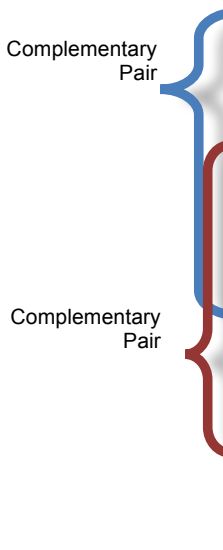
EAN (and EAT) handling presents a special challenge for systems using EAS-Net for centralcasting or central monitoring configurations using DASDEC to DASDEC, DASDEC to OneNet™, or OneNet to OneNet communications.

The EAN is meant to be decoded throughout the country and join with live audio therefore, it is generally recommended using a locally monitored input for the EAN. Understand the DASDEC airs the first EAN received if duplicate handling is set to block auto-forward of duplicates (the standard setting). Moreover, due to the inherent network latency, an EAN is more likely to be decoded from an internal radio before it is received from a remote DASDEC. However, for a central EAS insertion point monitoring for one or more remote DASDEC's where no local radio source is available, EAS-Net's HTTP streaming interface can solve a radio dead zone problem.

If your system is configured using EAS-Net for DASDEC to DASDEC communications please verify the mode of operation and the settings for each machine – Remote sending units and receiving units.

The following does not apply to automation systems interfacing over EAS-Net.

### **There are four basic configuration modes<sup>1</sup> for DASDECs linked with EAS-Net:**

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- **Mode A:** DASDEC is configured to **RECEIVE** data from remote DASDEC(s), controls playout devices, and uses “local” EAN monitoring. (This should always be paired with a Mode C transmit DASDEC.)
  - **Mode B:** DASDEC is configured to **RECEIVE** data from remote DASDEC(s), controls playout devices, and uses “remote” EAN monitoring – audio is streamed from a transmitting DASDEC (This should always be paired with a Mode D transmit DASDEC.)
  - **Mode C:** DASDEC is configured to **TRANSMIT** or send data to another DASDEC, does not directly control playout devices, and does not stream the EAN Audio to the receiving DASDEC.
  - **Mode D:** DASDEC is configured to **TRANSMIT**, or send data to another DASDEC, does not directly control playout devices, and streams the EAN Audio to the receiving DASDEC.

<sup>1</sup> DASDEC's configured as “Collectors” represent a special RECEIVE case as they gather all the upstream information but do not directly act on the EAS event codes. Refer to the last section of this document for more information on Collectors.

**The following applies to all software versions 2.0-0 a03 and above.**

**Mode A:** DASDEC is configured to **RECEIVE** data from remote DASDEC(s), controls playout devices, and uses “local” EAN monitoring

- STEP 1.** Go to **Setup > Net Alerts > EAS NET > Configure EAS NET Decoding**
- STEP 2.** Enable by selecting (clicking in the box) **Block EAS NET processing of National alerts (EAN/EAT) received from a decode event on remote host** as shown in **Figure 1** below.

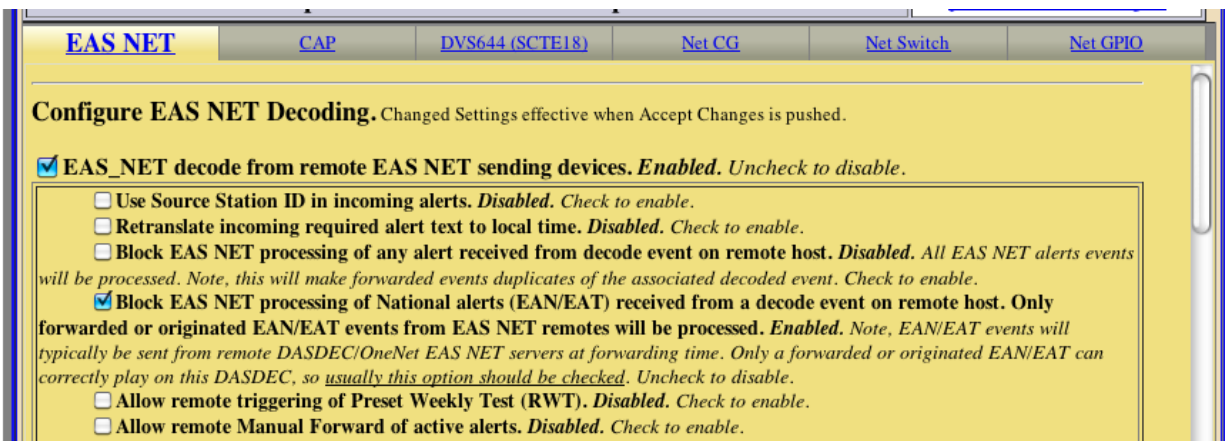


Figure 1 Configuring the receiving DASDEC to ignore an EAN EAS-Net “decode event” but still recognize an EAN EAS-Net “forward event”

- STEP 3.** Since the EAN is coming from the local radio receivers, verify the radio stations are properly tuned. (Refer to the manual for additional information.)

**Mode B:** DASDEC is configured to **RECEIVE** data from remote DASDEC(s), controls playout devices, and uses “remote” EAN monitoring – audio is streamed from a transmitting DASDEC

Follow **STEP 1** and **STEP 2** for **Mode A** configuration above.

- STEP 3.** Go to **Setup > Audio > Encoder Audio > Audio Output Sample Rate**

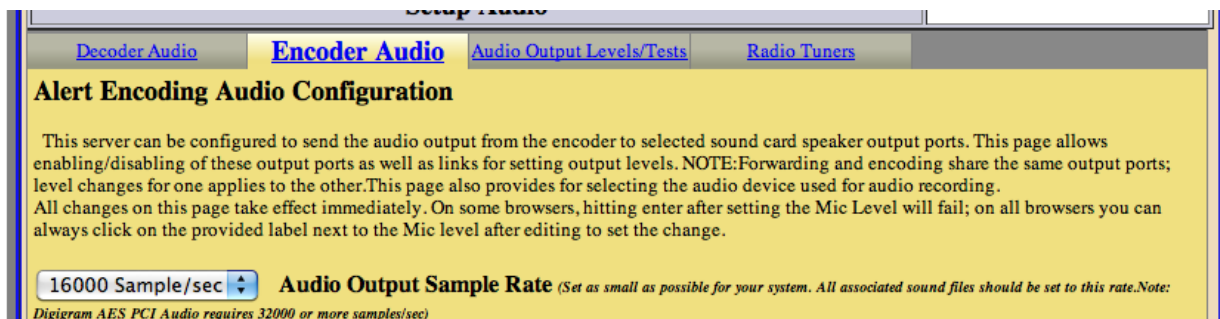


Figure 2 Setting the Audio Output Sample Rate to match the rate of streaming audio if using a remote DASDEC to send EAN audio. (See text for more information)

- STEP 4.** Verify the **Audio Output Sample Rate** of the receiving DASDEC matches the transmitting DASDEC. It is CRITICAL THE AUDIO SAMPLE RATES of the Receiving DASDEC and Transmitting DASDEC MATCH or the audio may be truncated and not play correctly. (See Mode D configuration for more matching information).

Note: This is a monaural streaming rate therefore the Audio Output Sample Rate should be set as low as possible. Lower values for streaming audio use less network bandwidth.

**Mode C:** DASDEC is configured to **TRANSMIT** or send data to another DASDEC, does not directly control playout devices, and does not stream the EAN Audio to the receiving DASDEC

- STEP 1. Go to **Setup > Net Alerts > EAS NET > Configure EAS NET Clients**
- STEP 2. Enable or Disable (check or uncheck) the following boxes as shown in **Figure 3**

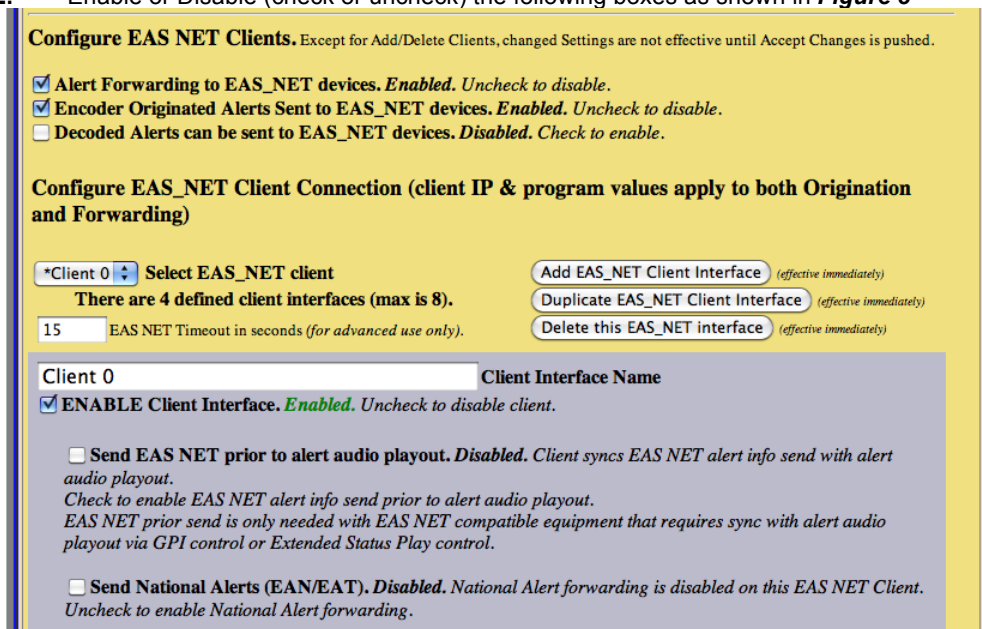


Figure 3 Setting transmitting DASDEC to NOT send EAN/EAT over EAS-Net

Note: The configuration above **WILL NOT** transmit the National Alerts (EAN or EAT) over EAS-Net.

**Mode D:** DASDEC is configured to **TRANSMIT**, or send data to another DASDEC, does not directly control playout devices, and streams the EAN Audio to the receiving DASDEC

**If** an EAN is to be carried from the remote DASDEC to the master or central DASDEC audio streaming must be enabled – otherwise the live audio will not be aired. For the live audio to be aired or recorded the transmitting DASDEC must have EAS-Net Web audio streaming enabled!

- STEP 1. Go to **Setup > Net Alerts > EAS NET > Configure EAS NET Clients**
- STEP 2. Enable or Disable (check or uncheck) the following boxes as shown in **Figure 4**

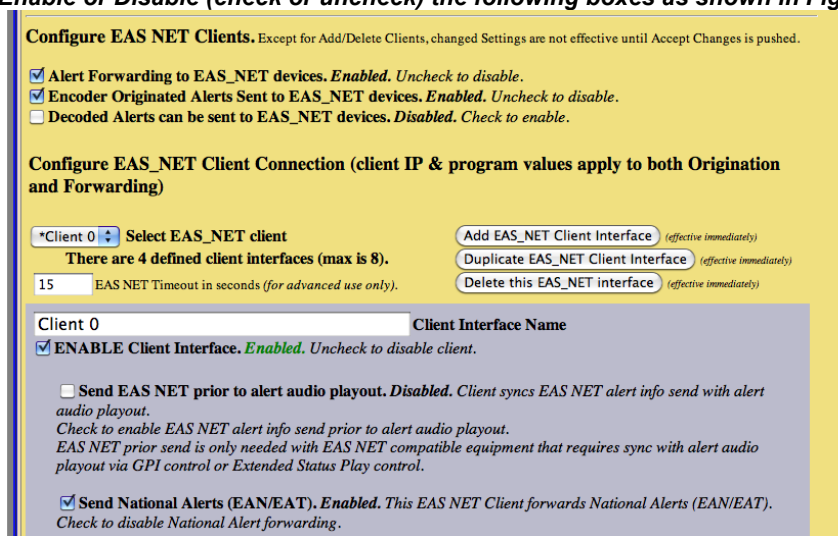


Figure 4 Setting transmitting DASDEC to send EAN/EAT over EAS-Net

Note: The configuration above **WILL** transmit the National Alerts (EAN or EAT) over EAS-Net.

**STEP 3. Go to Setup > Net Alerts > EAS NET > Configure EAS NET Web audio streaming**

Figure 5 Settings for streaming EAN/EAT audio to another DASDEC for playback

Apply select or deselect the following parameters (see Figure 5):

- STEP 4.** Select **OGG/Vorbis**
- STEP 5.** Set **Delay time before stream start** to 0
- STEP 6.** Set **Starting and Ending silence** to 0.
- STEP 7.** Select via the pull down menu the **Streamed Audio Output Sample Rate** to match the receiving DASDEC **Audio Output Sample Rate** setting (See Mode B for details). Use the lowest rate possible for your system which depends on requirements of the receiving DASDEC.
- STEP 8.** Deselect any other any other EAS audio options (e.g. no headers or EOM).

**For all releases 2.0-0\_a02 and prior:**

IMPORTANT WARNINGS regarding version 2.0-0\_a02 and below

- **Due known issues and potential network streaming problems, it is not recommended to use EAS-Net for playing an EAN/EAT. As previously noted it is better to use a local radio station as the source for an EAN or EAT.**
- If transmission of the EAN/EAT from a remote site is necessary (no local sources) then one SHOULD NOT use EAS-Net for sending EAN/EAT from MORE THEN ONE remote DASDEC/OneNets to a central EAS insertion server under these older releases.
- An EAN from an EAS-Net “decode event” sent by a remote DASDEC would be treated as the actual live playing alert. However, this will not work for play out on the central DASDEC as a “decode event” contains no audio – merely the message that the remote DASDEC has decoded an EAN alert code and there is no way to program a receive DASDEC to block EAS-Net “decode” events”. The transmit DASDEC must also be set to allow EAS-Net “forward events” and have audio streaming enabled to include the audio from the remote site.
- There is a known anomaly which can occur if a second live EAN or EAT is decoded from an upstream EAS-Net source *BEFORE* the first one is finished – the receiving DASDEC will treat this as a new event and play the EAN (or EAT) a second time.
- Additionally, if a serial port protocol is not used, the second instance of the EAN/EAT airing may not play the EOM effectively “hanging” the unit until the alert expires thereby creating a potential violation of EAS policy and a latched on-air condition. Pressing Restart Server at the bottom of the Setup > Server > Main/License page will clear this condition.
- Note that the first EAN received on this DASDEC/OneNet is the one that will air if duplicate handling is set to block autoforward of duplicates (the standard setting). And, due to the latency of EAS NET, an EAN is more likely to be decoded from an internal radio before it is received from the EAS NET decoder.
- Also, due to a software limitation, only the first EAS NET alert will record the audio stream from the remote unit.
- The EAS Audio GPO will likely end before EOM finishes. This could truncate the end of the EAS audio. Instead of using EAS Audio for controlling audio insertion, enable TV Video Out and use EAS Video GPO.

**Mode A:** DASDEC is configured to **RECEIVE** data from remote DASDEC(s), controls playout devices, and uses “local” EAN monitoring

**STEP 1.** Go to **Setup > Net Alerts > EAS NET > Configure EAS NET Decoding**

**STEP 2.** Verify **EAS\_NET decode from remote EAS NET sending devices** is enabled shown in Figure 6.

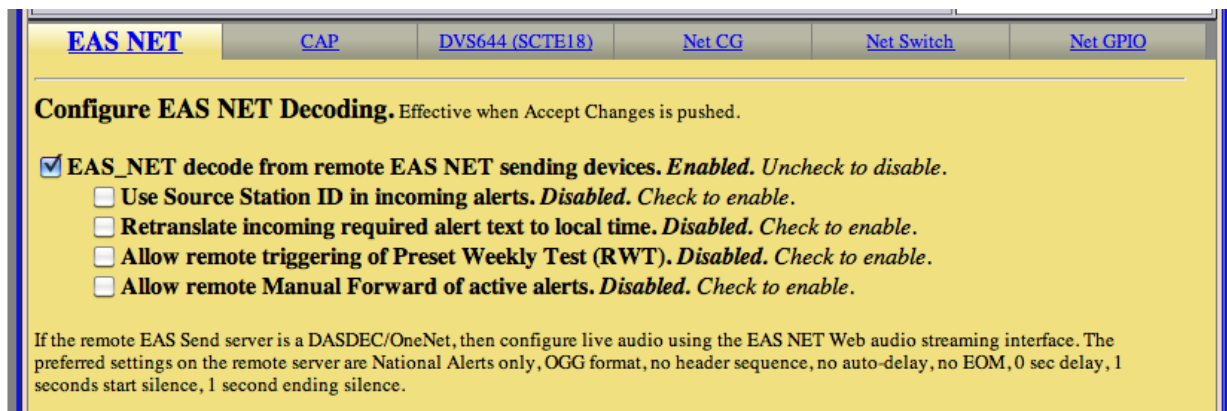


Figure 6 Configuring EAS-Net to NOT send EAN or EAT events to receiving sites

**STEP 3.** Since the EAN is coming from the local radio receivers, verify the radio stations are properly tuned. (Refer to the manual for additional information.)

**Mode B:** DASDEC is configured to **RECEIVE** data from remote DASDEC(s), controls playout devices, and uses “remote” EAN monitoring – audio is streamed from a transmitting DASDEC

Follow **STEP 1** and **STEP 2** for **Mode A** configuration above.

**STEP 3.** Go to **Setup > Audio > Encoder Audio > Configure EAS NET Decoding**

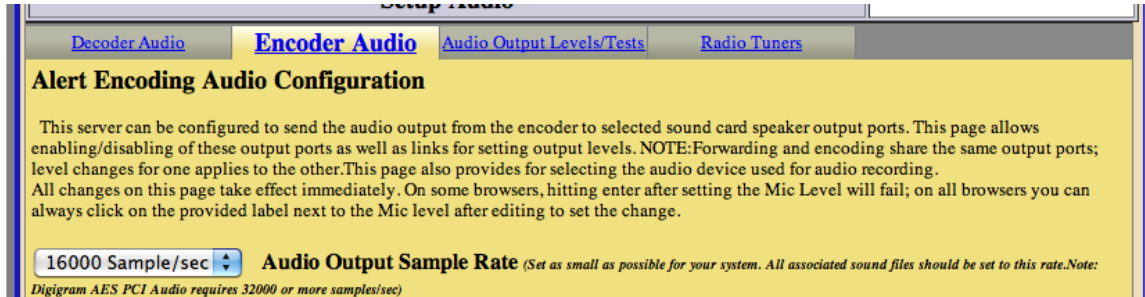


Figure 7 Setting the Audio Output Sample Rate to match if using a remote DASDEC to send EAN audio. (See text for more information)

**STEP 4.** Verify the audio **Audio Output Sample Rate** of the receiving DASDEC matches the transmitting DASDEC. It is CRITICAL THE AUDIO SAMPLE RATES of the Receiving DASDEC and Transmitting DASDEC MATCH or the audio will be truncated and not play correctly. (See Mode D configuration for more matching information).  
 Note: This is a monaural streaming rate therefore the Audio Output Sample Rate should be set to as low as possible. Lower values for streaming audio use less network bandwidth.

**Mode C:** DASDEC is configured to **TRANSMIT** or send data to another DASDEC, does not directly control playout devices, and does not stream the EAN Audio to the receiving DASDEC

**STEP 1.** Go to **Setup > Net Alerts > EAS NET > Configure EAS NET Clients**

**STEP 2.** Enable (check) the following boxes as shown in Figure 8

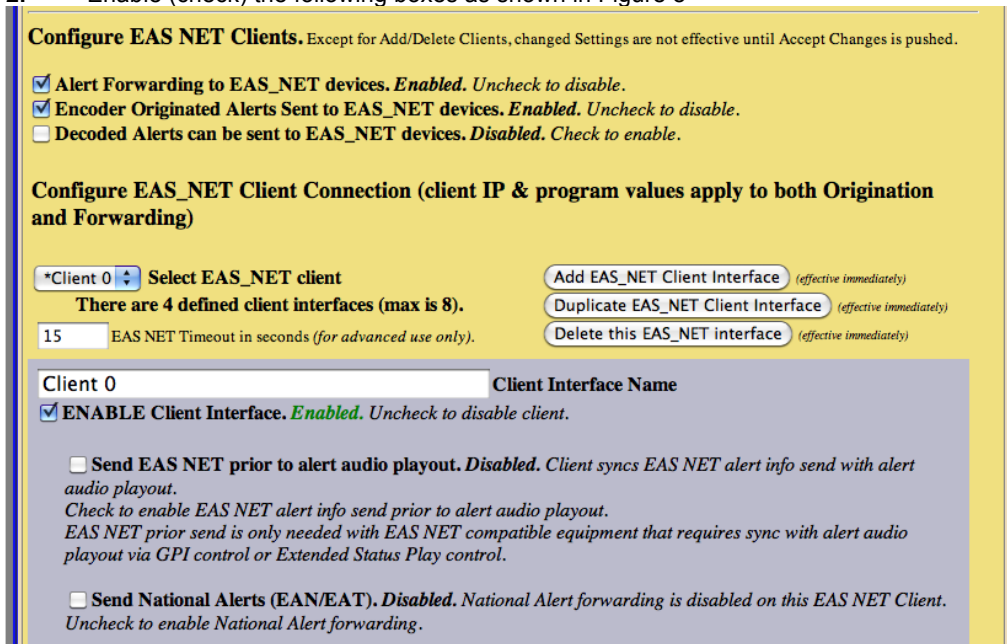


Figure 8 Setting transmitting DASDEC to NOT send EAN/EAT over EAS-Net

*Note: The configuration above WILL NOT transmit the National Alerts (EAN or EAT) over EAS-Net.*

**Mode D:** DASDEC is configured to **TRANSMIT**, or send data to another DASDEC, does not directly control playout devices, and streams the EAN Audio to the receiving DASDEC

Due several known issues, do not use EAS-Net for sending EAN/EAT from more then one of remote DASDEC/OneNets to a central EAS insertion server under 2.0-0\_a02 or older releases.

**If** an EAN is to be carried from the remote DASDEC to the master or central DASDEC audio streaming must be enabled – otherwise the live audio will not be aired. For the live audio to be aired or recorded the transmitting DASDEC must have EAS-Net Web audio streaming enabled!

- STEP 1.** Go to **Setup > Net Alerts > EAS NET > Configure EAS NET Clients**
- STEP 2.** Enable or Disable (check or uncheck) the following boxes as shown in **Figure 9**. **MAKE SURE ONLY ONE UPSTREAM TRANSMIT DASDEC is set to Mode D - Configured to send EAN! All other upstream senders should be set to Mode C.**

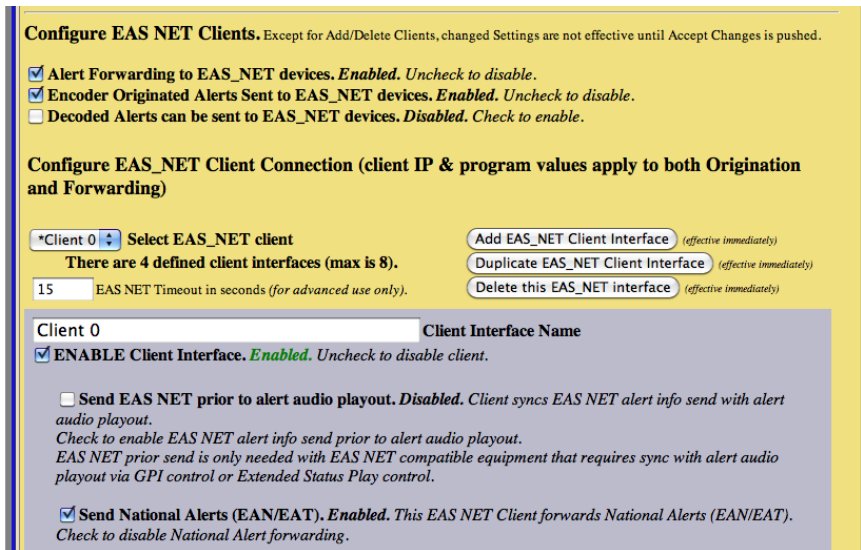


Figure 9 Setting transmitting DASDEC to send EAN/EAT over EAS-Net. This should only be configured on one DASDEC

Note: The configuration above WILL transmit the National Alerts (EAN or EAT) over EAS-Net.

- STEP 3.** Go to **Setup > Net Alerts > EAS NET > Configure EAS NET Web audio streaming**

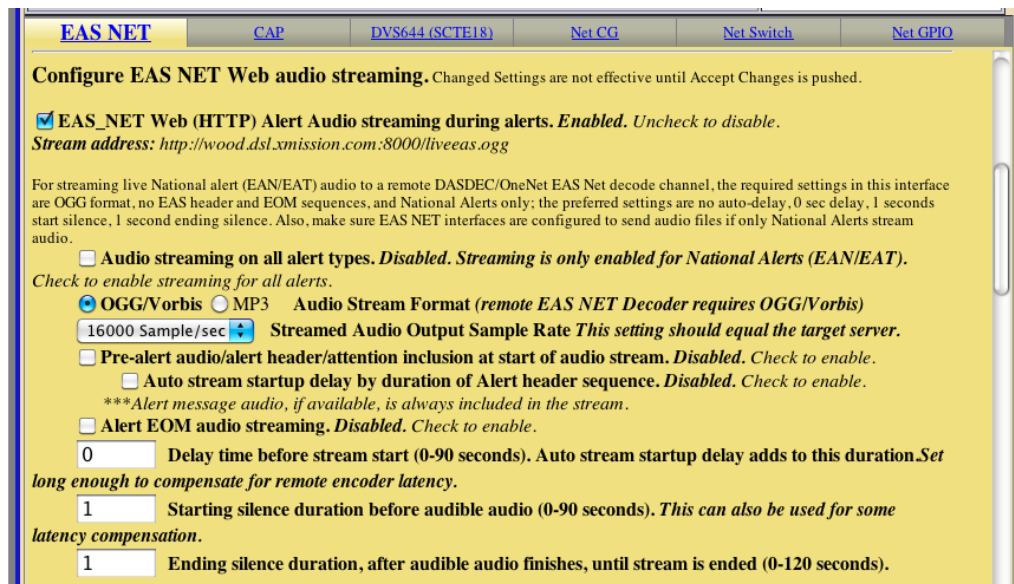


Figure 10 Settings for streaming EAN/EAT audio to another DASDEC for playout

Apply select or deselect the following parameters (see Figure 10):

- STEP 4.**     **Select OGG/Vorbis**
- STEP 5.**     Set *Delay time before stream start* to 0
- STEP 6.**     Set **Starting and Ending silence** to 0.
- STEP 7.**     Select via the pull down menu the **Streamed Audio Output Sample Rate** to match the receiving DASDEC **Audio Output Sample Rate** setting (See Mode B for details). Use the lowest rate possible for your system which depends on requirements of the receiving DASDEC.
- STEP 8.**     Deselect any other any other EAS audio options (e.g. no headers or EOM).

### **SPECIAL CASE FOR DASDEC COLLECTORS CONFIGURATION (Covers all software versions)**

DASDEC EAS-Net Collectors are a special class of RECIEVER that collects event information from a number of remote systems. It can forward alerts internally as a normal part of operation, but it is not connected to any broadcast equipment and therefore will not insert EAS into a program stream. Collector systems serve to monitor the operation of a set of remote DASDECs.

A collector DASDEC should be configured as in Figure 1 Configuring the receiving DASDEC to ignore an EAN EAS-Net “decode event” but still recognize an EAN EAS-Net “forward event” above if the software version is 2.0-0\_a03 or above. Other versions should be configured below.

The TRANSMIT DASDECs upstream of a collector are typically programmed to send each of the three alert EAS-Net events:

- 1- “Decode events”, and
- 2- “Forwarding events”, and
- 3- “Origination events”

The TRANSMIT DASDECs may also be configured to have separate EAS-Net interfaces to send alerts to Centralcast RECEIVE DASDEC’s. These should be configured as described above.

**Configure EAS NET Clients.** Except for Add/Delete Clients, changed Settings are not effective until Accept Changes is pushed.

**Alert Forwarding to EAS\_NET devices.** *Enabled. Uncheck to disable.*

**Encoder Originated Alerts Sent to EAS\_NET devices.** *Enabled. Uncheck to disable.*

**Decoded Alerts can be sent to EAS\_NET devices.** *Enabled. Uncheck to disable.*

**Configure EAS\_NET Client Connection (client IP & program values apply to both Origination and Forwarding)**

\*Collector DASDEC  **Maximum of 8 Client interfaces reached.**  
**There are 8 defined client interfaces (max is 8).**  *(effective immediately)*

EAS NET Timeout in seconds *(for advanced use only).*

Collector DASDEC  **Client Interface Name**

**ENABLE Client Interface.** *Enabled. Uncheck to disable client.*

**Event Data Protocol**

**EAS NET**  **Common Alert Protocol (CAP)**

*Interface last ran Tue Oct 25 11:30:25 2011. [Click on link to see EAS NET Event data file.](#)*

Send only at Decode (omit Frwr and Orig send)  **Always send (Decode,Frwr and Orig)**  Send only at Frwr or Orig (omit Decode send)

**EAS NET Client Interface Send Options**

**For EAS NET Decoded alerts send received EAS NET ID info unchanged.** *Enabled. Uncheck to disable.*

**Send EAS NET prior to alert audio payout.** *Disabled. Client syncs EAS NET alert info send with alert audio payout. Check to enable EAS NET alert info send prior to alert audio payout. EAS NET prior send is only needed with EAS NET compatible equipment that requires sync with alert audio payout via GPI control or Extended Status Play control.*

**Send National Alerts (EAN/EAT).** *Disabled. National Alert forwarding is disabled on this EAS NET Client. Uncheck to enable National Alert forwarding.*

Figure 11. EAS-Net Settings for DASDEC Collectors



**STEP 1.**     Go to **Setup > Net Alerts > EAS NET > Configure EAS NET Decode**

**STEP 2.**     **Setup > Net Alerts > EAS NET > Configure EAS NET Clients**

**STEP 3.**     **Enable the three main options:**

- Alert Forwarding to EAS\_NET devices. Enabled.*
- Encoder Originated Alerts Sent to EAS\_NET devices. Enabled.*
- Decoded Alerts can be sent to EAS\_NET devices. Enabled.*

**STEP 4.**     *To send EAS events to a collector, an EAS NET client interface must be configured with the IP address of the collector, using the standard DASDEC to DASDEC settings. You must decide which alert event types are to be sent.. This option should be set to the requirements of your collector system. For the typical setup in which every event is sent, choose the option: Always send (Decode,Frwr and Orig)*

**MAKE SURE ONLY ONE UPSTREAM COLLECTOR TRANSMIT DASDEC is set to Mode D - Configured to send National Alerts IF USING SOFTWARE VERSIONS 2.0-0\_ao2 and less.**