



Deployment Checklist for Production

General platform considerations

- ❑ Living As One highly recommends operating a decoder at the encoding site for the following reasons: 1) To allow the host site to quality check the live stream and see exactly what the remote sites see. 2) Set cues for their remote campuses. This is done most easily by those at the host site because they can see what is going on in person, whereas the remote campus only sees the video feed(s). 3) Having a backup unit on hand in case there is a hardware issue with a remote campus decoder. 4) Being able to replay events, and play live events from other churches and conferences.
- ❑ If the encoder and decoder site(s) consistently have 2.5x the encoding bandwidth, a two minute minimum playback delay is recommended for decoders running in LAN mode, and a five minute minimum delay is recommended for decoders running in Cloud mode.
- ❑ Start encoding during rehearsal and check audio and video early for any problems.
- ❑ Each encoding event can be up to 12 hours. It's easier for your remote volunteers to have a single event which contains multiple services, than for them to have to switch events. Use cues to identify [sermon] start/stop points within the service flow.
- ❑ Add support@livingasone.com and alerts@livingasone.com to your email address book.

Encoder installation preparation

- ❑ **Physical mounting.** All encoders are short-depth 2U rackmountable. The encoder should operate in a well air conditioned room with adequate front and rear ventilation.
- ❑ **Encoder Power.** Encoders accept standard 110-240V AC power, and come with 6' power cable(s). It is recommended to power the encoder through an uninterruptible power supply and a voltage regulator. Review the encoder's data sheet for power draw.
- ❑ **Encoder Network(s).** By default encoders are configured to accept a DHCP internet connection via Ethernet. Fixed IP addresses should be assigned through MAC-based IP Reservation on the router instead of setting a static address on the encoder. If the network requires that a static IP be set on the encoder itself, contact Living As One support so one can be set for you.
- ❑ **Video Input(s).** All encoders can accept video over HDMI or SDI. By default the encoder is set to SDI input; contact Living As One if HDMI is needed. If you have an encoder with more than one capture card but are only encoding one video channel, provide video to the capture card labeled with the lowest number.
- ❑ **Audio Input.** Audio should be embedded on the video input (HDMI or SDI). By default the encoder is looking for audio on the lowest numbered input card (if multiple cards are present). Certified audio embedders may be found on our Certified Peripherals web page. Audio may be transmitted with the following profiles: 2-ch, 5.1-ch, and 7.1-ch. Audio channels map 1:1 for input:output; channel 4 is low frequency only (20-120Hz).
Important note about ATEM Switchers: If you are using a BlackMagic Design ATEM 4K Switcher to embed audio for your encoder, please ensure you are running switcher firmware version 7.2 or higher due to an audio problem on earlier versions.

Decoder installation preparation

- ❑ **Physical mounting.** Decoders are short-depth 2U rackmountable. The decoder should operate in a well air conditioned room with adequate front and rear ventilation.
- ❑ **Computer Monitor, Keyboard, & Mouse.** A 16x9 1080p DVI-D or HDMI monitor will be needed to control the decoder; analog video signals such as VGA are not supported. A wired keyboard and wired mouse will also be needed. If the monitor, keyboard, and mouse need to be extended for remote control from another area of a building, certified IP KVM extenders may be found on our Certified Peripherals web page.
- ❑ **Decoder Power.** Decoders accept standard 110-240V AC power, and come with 6' power cable(s). It is recommended to power the decoder through an uninterruptible power supply and a voltage regulator. Review the decoder's data sheet for power draw.
- ❑ **Decoder Network(s).** By default the decoder is configured to accept a DHCP internet connection via Ethernet. Fixed IP addresses should be assigned through MAC-based IP Reservation on the router instead of setting a static address on the decoder. If the network requires that a static IP be set on the decoder itself, a static address can be configured on the login screen for the decoder.
- ❑ **Video Outputs(s).** All decoders have two pairs of HDMI and SDI outputs for production video. Video is output over HDMI and SDI simultaneously, one video channel per pair. The video output format (resolution, scan type, and frame rate) must be initially configured via the UI before video will output. Refer to the decoder's data sheet for compatible output formats. Decoder's do not accept reference-in. If synchronized video is needed and a frame synchronizer is not available on the switcher or router, a Decimator MD-HX can be used to time the decoder's output video signal (one Decimator per production video channel).
- ❑ **Audio Disembedding** - Audio should be de-embedded from the decoder's SDI video output. Audio is output over each SDI channel where video output is enabled. Certified audio de-embedders may be found on our Certified Peripherals web page (link below). Audio output is mapped 1:1, matching encoder input with decoder output. Channel 4 is low frequency only (20-120Hz).

Web Links

Support: <https://livingasone.com/multisite/support/>

Best Practices: <https://livingasone.com/multisite/documentation/best-practices/>

Certified Peripherals: <https://livingasone.com/multisite/documentation/certified-peripherals/>

E1200 Encoder Data Sheet: http://docs.livingasone.com/mp/E1200-Data_Sheet.pdf

E2211 Encoder Data Sheet: http://docs.livingasone.com/mp/E2211-Data_Sheet.pdf

D2200 Decoder Data Sheet: http://docs.livingasone.com/mp/D2200-Data_Sheet.pdf