holdan

LIVE STREAMING VIDEO

Holdan distributes products that allow users to stream video live to the Internet. This guide hopes to give you an overview of these technologies and help you select the right product for the right purpose.

What is Streaming?

Very simply, streaming is broadcasting live video over the Internet. A video stream is different to a video file. A video file must finish recording before you can upload it, but a video stream continues live until you stop it.

Why is Streaming important to you?

Everyone from the largest broadcaster and media organisation, to police forces, houses of worship and gamers are streaming live to mobile devices, iPads, networked screens, computers, consoles... It's the fastest growing part of the media industry, worth an estimated US$14 billion worldwide.

How do you Stream video?

You first need to compress the video into a size that you can reliably upload to the Internet, and to do that you either use hardware or software. If you use hardware encoders you don't need a computer, so the equipment is smaller and can even be mounted on a camera. If you use software you still need to get the video signal into a computer, and there are boxes that do this too.

Streaming products that work in tandem with a computer

Products from these companies simply allow you to get a video via HDMI or SDI into a USB input on a Mac or PC. As soon as the video device is connected the computer sees it as if it was a Webcam – no special drivers required. These products can be used with vMix, Skype or Skype for Business or using free software they can transmit video to Facebook, YouTube Live, Twitter or Vimeo.

Blackmagic Design Web Presenter

The advantage of the Web Presenter is that it has 12G SDI input, extra audio input and if you buy the control panel you can monitor the video and switch between HDMI and SDI inputs. Add a Teranex Mini Smart Panel to the Web Presenter and you've got incredibly easy switching and monitoring.

Inogeni USB Converters

These are compact, take power from the computer and offer inputs like HDMI, VGA or DVI. This makes them a good fit for the AV Industry. Although the Blackmagic Web Presenter has a 4K input it can only stream video at 1280X720 resolution. Some of the Inogeni boxes support 4K streaming.

Inogeni Share 2

This has 2 inputs, HDMI and DVI, so you can switch between a laptop output showing a PowerPoint and a presenter with a push of a button.

This also has built in Picture in Picture.

Streaming products that use computers are easy to use, but as the computer is doing the work of encoding video it needs to be quite powerful, especially for 4K. Also, free software like Open Broadcast that does the encoding can take time to master.

Datavideo | Hardware Encoding Streaming Devices

Holdan distributes hardware encoding video streaming devices from Datavideo and Teradek.

These boxes have a video input, and a network output, such as Ethernet, WiFi or a 3G/4G mobile connection. They do not need a computer to be used although they might need a computer to set it up initially.

NVS-25 H.264 Streaming Server

The NVS-25 is the best value hardware streaming box Holdan distributes considering it has HD-SDI as well as HDMI and composite input. It can also record the encoded video onto a USB stick. You need a PC, MAC or mobile device to set it up, but once that's done it's standalone.

NVS-30 H.264 Advanced Streaming Server

The NVS-30 only has an HDMI input but it streams and records higher quality video than the NVS-25 and can record onto SD Cards. It also has high quality scaling built-in and a loop through HDMI output.

NVS-40 Multi-channel H.264 Streaming Server

The NVS-40 is a multi-channel video streaming and recording device. It features independent SDI and HDMI inputs, allowing up to four sources to be recorded to any hard drive or SSD and streamed simultaneously. The streaming and recording bitrates can be set independently. It also features external XLR balanced and RCA unbalanced audio connections.

NVD-30 Decoder

When you want to turn that video stream back into a picture an NVD – Network Video Decoder – is just what you need. It's a decoder that's attached to a network, taking a stream via Ethernet and outputting a high-quality HDMI and composite video signal.
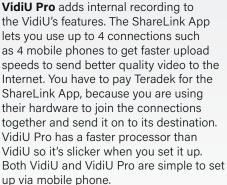
NVD-35 Decoder with SDI

The NVD-35 is an NVD-30 with SDI and composite output instead of HDMI. Ethernet in, SDI out.

Teradek | Hardware Encoding Streaming Devices

VidiU Mini Streaming Encoders

VidiU has a hardware H.264 chip to encode the HDMI input. It needs to be connected to the Internet via Ethernet, WiFi or a single 3G or 4G dongle and it can be controlled by a simple app on an iPhone or by using the built-in screen. It has a built-in battery which is good for about 90 minutes.

VidiU Pro adds internal recording to the VidiU's features. The ShareLink App lets you use up to 4 connections such as 4 mobile phones to get faster upload speeds to send better quality video to the Internet. You have to pay Teradek for the ShareLink App, because you are using their hardware to join the connections together and send it on to its destination. VidiU Pro has a faster processor than VidiU so it's slicker when you set it up. Both VidiU and VidiU Pro are simple to set up via mobile phone.

The latest model is the **VidiU GO**. H264 and H.265 encoding, better WiFi, and they can be used with Teradek's new 'Node' modems. The Go has both SDI and HDMI and is designed to make streaming to social media platforms simple.

Cube Multi-Purpose Mini Encoders

The 3rd generation Teradek Cube combines the functionality of VidiU with extra features and options. The 600 and 700 series Cubes have both HD-SDI and HDMI inputs and they are built into sturdy metal boxes. The WiFi versions have external aerials and like a swiss army knife they have multiple applications.

Cubes come as either transmitters or receivers; a receiver takes the encoded video stream from a network or the Internet and converts it back into a video signal.

Cubes can be used on film sets for sending video to iPads and iPhones for monitoring, they can send video to a Cube decoder to transmit over the Internet and then turn back into a video signal again. It's like a pocket-sized satellite truck.

The new 700 Series Cubes have H.265 (AKA HEVC) as well as H.264 encoding, which means they can send much better-quality video when bandwidth is a problem because H265 is twice as efficient as H.264.

Cubes always have Ethernet connections and the '55' versions have WiFi too. Like the VidiU they can use a single 3G or 4G dongle and the TeraLink App for multiple connections. Many broadcasters use Cubes for getting video back from far flung places where a satellite truck would cost too much. For getting video over the Internet you should buy an MPEG-TS licence.

To stream video you need to be connected to the Internet; when you are streaming from remote areas this can be a real challenge, especially when all you've got is a mobile phone network. Bonding lets you join together multiple cellular networks to get more upload speed for better quality video and a reliable connection.
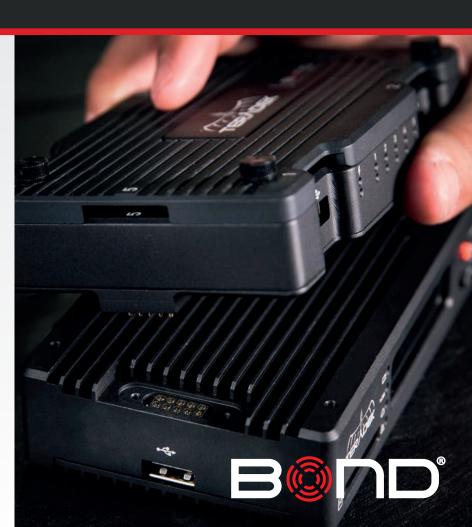
Bond: 3G/4G Transmitter

Teradek Bond units piggy-back on the Cube 600 and 700 series and let you connect up to 5 USB cellular modems. If you have modems with sims from different mobile phone networks, they can share the load of transmitting video – if one network is weak another might be stronger. You can even bond together WiFi and Ethernet via USB adaptors and add this into the mix. Bonding is only half the story, because the encoded video travels over many paths to get to the Internet. At some point, you then need to re-assemble or de-bond the data into a watchable video.

Debonding

This can be done running a Sputnik system in the Cloud or in the media centre. Sputnik is Teradek's debonding software that runs on the Linux operating system; it recombines the various video feeds from Bond into a cohesive stream that can then be sent to an H.264 decoder or played back online.

The alternative is Teradek's Core cloud service which manages the debonding process and sends the signals on to one or multiple destinations. Core starts at $49 a month.

Node

For the best performance, insert your SIM into Teradek's cellular USB or Lemo modems. These have much better transmission performance than normal USB modems. A single Node can be used with a Cube to get fantastic performance from a single 4G SIM card.

Bond Backpack

Complete Teradek Bond units can be bought in a specially designed backpack which takes V lock or Gold Mount batteries.

These are designed for rugged field use and are ideal for news crews, journalists working remotely, blue light services or the armed forces.

The Bond Backpack comes in H.264 or H.264 / H.265 versions with a choice of battery plate. As well as having a high gain WiFi aerial it can also house 4 Teradek Nodes.

Datavideo | Streaming to multiple sites at the same time

People watch video online on many different platforms. Facebook, YouTube, Periscope, Vimeo etc. or just using free software on a Mac or PC like VLC.

All of our streaming devices can send video to one of these platforms at a time but these days it's important to reach audiences watching on all sorts of streaming platforms. The solution is to send one stream to lots of different places at once and to do that you need something more...

NVS-40 4-Channel H264 Streaming Server

The latest Datavideo encoder is really 4 NVS-30 encoders in one box. It can record multiple channels of video too! When you want to stream multiple camera angles there really isn't anything this compact on the market. The unit also offers Picture in Picture and multiviewer processing power.
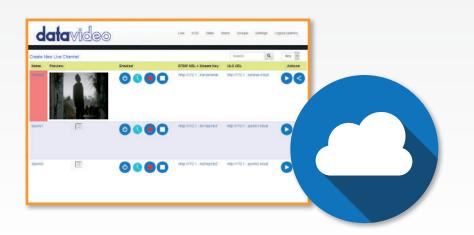

DVS-200 Multi-channel recorder, encoder and streamer

Datavideo DVS-200 Software is incredibly powerful and has recently been purchased by broadcasters, sports media and corporates.

It can record multiple channels, output to many more, convert video, give you your own YouTube-style on-demand service and send your one stream from a Teradek Cube or a Datavideo encoder simultaneously to lots of destinations.

One source to YouTube, Facebook, your own network or anywhere on the Internet for less than £1000. You can run it in the cloud or on a computer somewhere on the Internet with a good connection running Linux.

DVS-200

DVS-200 Turnkey

If phrases like 'run in the cloud' or 'Linux Virtual Machine' are making you want to run and hide, then Holdan can build a preconfigured computer for your customer. A DVS-200 Turnkey can even have multiple video inputs like SDI or HDMI.

This is complex stuff, so don't worry if you don't feel confident discussing it with customers, just put them on to our team and we'll keep you in the loop.

DVS-200
Cloud Streaming Software

MULTI-PLATFORM STREAMING
Stream content to Facebook, YouTube and your website simultaneously to reach a wider audience.

MULTI-CHANNEL RECORDING
The DVS-200 can ingest multiple inputs at the same time.

Teradek | Enterprise Encoding, Decoding and Streaming

T-RAX Modular Encoding / Decoding Solution

T-RAX is a modular rack that, when populated, can encode or decode multiple channel streams. It's a serious piece of kit that has been installed by broadcasters, corporate enterprises and social media networks to deliver mission-critical video over the Internet and between media organisations.

T-RAX is machine-room friendly, with remote management, redundant power options, and hot-swappable modules. It is very convenient for media companies which receive feeds from multiple encoders or that need to transmit over numerous channels simultaneously. T-RAX allows you to deliver live video simultaneously in a variety of popular formats. Insert up-to 8 encoder cards into T-Rax for multiple bitrate encoding of your video sources. It's totally flexible and adapts instantly according to your changing needs. A great solution for OB, broadcast and event streaming.
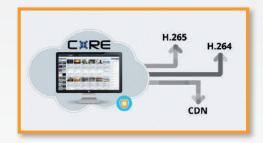
Core Cloud-based Streaming and Management Platform

Teradek devices like Cubes can send streams to Datavideo DVS-200 software for sending out to multiple destinations in the most cost effective way. You can also rent a similar service from Teradek, and it's called Teradek Core. Teradek Core is slick and lets you drag and drop streams to destinations like a virtual video router. Additionally, It can remote control a Cube. Core is available directly from Teradek and there are monthly or annual charges for using it.

Slice: Rack-based Encoder and Decoder

Teradek Slice units are the rack mounted versions of the new Cube encoders. They include the broadcast friendly MPEG Transport Stream licence so cost more than the Cubes and come as encoders or decoders. If Cubes are being permanently installed or run 24/7 a Slice might well be a better choice.

Contact us now for more details on our full range of streaming products

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