



July 1, 2012

Real World Application:

“On Air” Content Distribution Over Public Internet – It Works!

Introduction

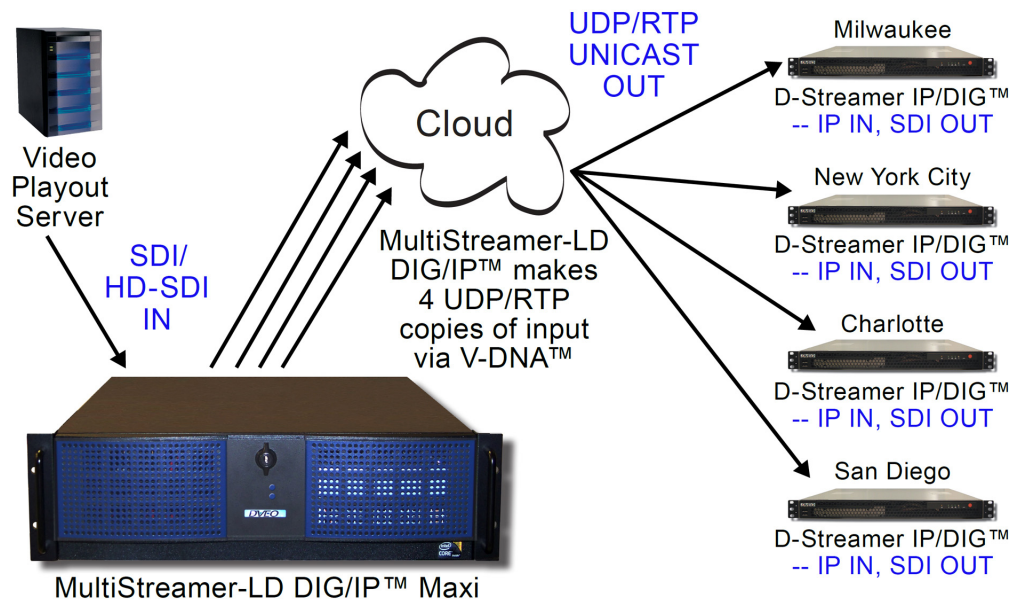
In the last few years, industrial strength internet has become available in major large cities. This type of internet comes with written guaranteed bandwidth but is available to corporations only. This type of circuit has proven to work extremely well with our CBR (constant bit rate) flash (RTMP) based encoder that uses a unique stream replication technology called V-DNA™. V-DNA makes it possible to replicate encoded streams and send them out via IP unicast to multiple locations. We at DVEO have recently set up several TV Class A or B stations who are “on Air” 24x7 using our MultiStreamer-LD Maxi and D-Streamer IP/DIGs. Below are two scenarios.

- 1) Los Angeles to Miami – Ethnic Channel
This customer is streaming his live L.A. content directly to Miami – and happy with the results.

- 2) Dallas to Two Nearby Cities
This customer is distributing religious content from Dallas to nearby cities. The content comes from a playout server. We bring in SD-SDI from the server, encode the content to H.264, and create 21 unicast V-DNA replicated copies that are individually streamed to the various stations. The aptly named 6 core MultiStreamer-LD Maxi can support about 40 unicast HD streams. This number is limited by the 400 MBS throughput of the GigE port. The customer is happy with the results.

Dallas Application Example

In this workflow a playout device with a HD-SDI output feeds a MultiStreamer-LD Dig/IP (maxi). Off this one input; four Unicast UDP/RTP HD streams are sent out.



Simply use the SDI input and send out one Unicast UDP stream to the IP address of the MultiStreamer-LD. The MultiStreamer-LD Midi signal replication technology we call “V-DNA™” can make up to 50+ copies of the encoded stream. The number of streams is limited by the 400 Mbps I/O available via our Gig/E port. The MultiStreamer-LD Maxi and MultiStreamer-LD “Brutus” can make even more copies of encoded streams.

Then set up your IRD (D-Streamer IP/DIG™) to receive the UDP stream. Set the output of the IRD to be either ASI or SDI.

Conclusion

DVEO’s H.264 encoder with Flash creates streams that are well supported by public internet routers. Our efficient content replication technology can make 25+ copies with our high-end MultiStreamer-LD Maxi encoder. Our matching D-Streamer IP/DIG seems to complement the encoder and our customers are pleased to get “On Air” reliable delivery of HD over public internet.

Author: Laszlo Zoltan