

Live Streaming Systems _____

StreamZ Live™ Digital Rapids Broadcast Manager®

Live video streaming – whether viewed on a television screen through a set-top box, on a PC, or on a mobile device, and whether delivered through a closed network or the public Internet – lets you extend your reach to more viewers in more markets than ever before. The StreamZ Live™ family of live streaming media encoders deliver the quality and reliability of our award-winning StreamZ™ studio encoding servers in a streamlined configuration optimized for live applications from IPTV channels to webcasts. For mission-critical and larger-scale applications, multiple StreamZ Live encoders can be combined with the Digital Rapids Broadcast Manager® software for centralized management, remote control, status monitoring and fault tolerance, simplifying operations with a complete enterprise-level live stream encoding workflow.



Ingest • Encode • Transcode • Stream • Deliver • Protect • Playout



www.digital-rapids.com

StreamZ Live Highlights

- Live media encoding and streaming in your choice of format
- Advanced video and audio preprocessing for exceptional streaming quality and optimal bandwidth usage
- Robust reliability for unforgiving live environments
- Strict stream compliance for broad device compatibility including set-top boxes
- Simultaneous archiving to files for future on-demand use
- Comprehensive analog and digital input options

Need portability?

The **StreamP™** portable media encoder brings the same live streaming power to your laptop.

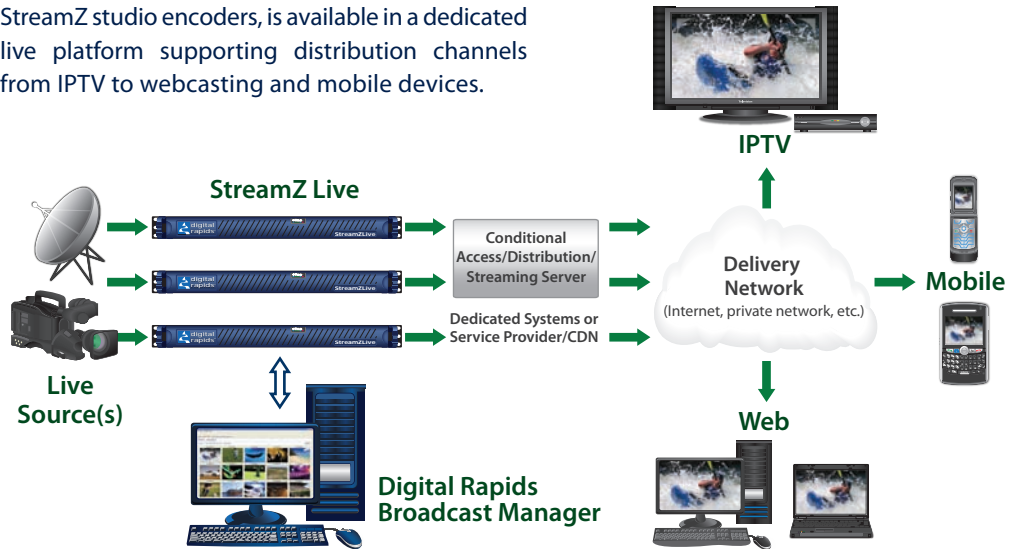
Want to add the benefits of StreamZ Live to an existing Windows workstation?

DRC-Stream board-and-software bundles offer the same live streaming advantages plus studio encoding capabilities in a do-it-yourself configuration.

Need encoding to files, transcoding and live streaming?

StreamZ studio media encoding servers combine all of the live capabilities of StreamZ Live with powerful tools for encoding on-demand content.

Whether viewed through a PC or set-top box, IP-based streaming content delivery is redefining broadcast. Bridging the worlds of traditional video and IP networks, your media encoding and streaming platforms are key points along the critical path between you and your viewers. With StreamZ Live, the same exceptional output quality, robust reliability and efficient operation that leading studios and networks depend on daily in our StreamZ studio encoders, is available in a dedicated live platform supporting distribution channels from IPTV to webcasting and mobile devices.



StreamZ Live encoders are available with your choice of encoding formats: AVC (H.264, MPEG-4 Part 10) with AAC audio (available with RTP/RTSP streaming, or RTMP streaming for Adobe® Flash®), SMPTE VC-1 (Microsoft® Windows Media®), On2 VP6-based video for Adobe Flash, MPEG-2 or 3GPP/Mobile (H.263, H.264, MPEG-4 Part 2, AAC and AMR audio). An optional module for H.264 RTP/RTSP configurations adds the ability to deliver H.264 in a Transport Stream, and AC-3 audio can be added as an option. StreamZ Live encoders feature a comprehensive range of analog and digital input options, and dual-channel models (available for select formats) support capture and encoding from two distinct input sources simultaneously.

Even the most compelling content can fall flat if delivered at poor quality, and the renowned quality of the StreamZ family ensures that your streams will exceed your audiences' expectations. StreamZ Live's advanced video preprocessing features include motion adaptive de-interlacing, scaling, filtering and 2D and 3D noise reduction, delivering superior streaming quality and enabling the most efficient use of bandwidth in the compressed result. StreamZ Live also offers hardware-based graphic overlay and video proc amp controls, with 7-band parametric EQ and dynamic range compression/expansion ensuring great-sounding audio.

The integrated Stream Live software provides an operator-friendly interface for configuring StreamZ Live's top-quality encoding and streaming capabilities. Encoding parameters from frame sizes and bit rates to advanced codec options can be configured, and video and audio pre-processing settings can be interactively adjusted. Multiple encoding and streaming configuration profiles can be stored, enabling easy recall of parameters for one-click operation. Persistent Streaming mode enables streaming to start automatically upon power-up with the current parameters – just one part of StreamZ Live's dependable reliability.



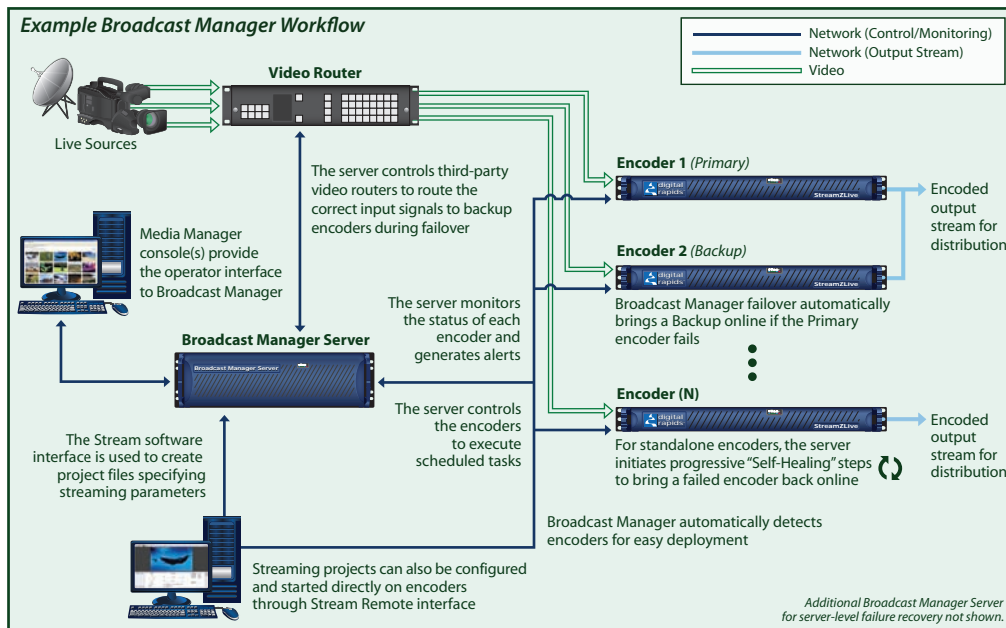
Digital Rapids Broadcast Manager®

Trusted Reliability

Live streaming gives no second chances, and StreamZ Live encoders feature robust reliability to meet these unforgiving demands. To bolster reliability even further or to streamline multi-channel operations, multiple StreamZ Live encoders can be combined with the scalable Digital Rapids Broadcast Manager software for enterprise-level management, remote control, scheduling, monitoring and fault tolerance.

Whether you have two encoders for fault tolerance of mission-critical applications or two hundred encoders for enterprise-level installations such as IPTV, the Broadcast Manager software bolsters reliability while reducing operational cost and complexity.

Digital Rapids Broadcast Manager provides failover management and “self-healing” recovery to automatically respond to failures, boosting your reliability of service to your viewers. Broadcast Manager monitors the encoding and streaming process on all active systems. If a failure is detected, Broadcast Manager automatically transfers operation to a backup system, with minimal interruption to your customers’ viewing experience. Broadcast Manager’s progressive “self-healing” functions attempt to resolve problems directly on failed systems – particularly significant if backup encoders are unavailable. Broadcast Manager will attempt to restart the encoding process on the system and, if the node is configured to permit it, remotely reboot the system if necessary. Broadcast Manager can also alert engineering and operations staff to events such as failures and scheduled task completions through configurable alert notifications.



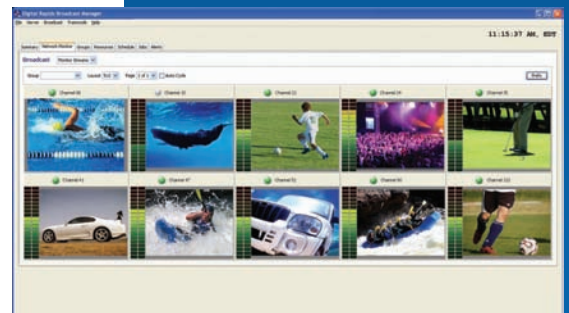
Centralization and Scheduling Bring Simplicity

Broadcast Manager offers individual or group-based node management, significantly simplifying operation. Setup is streamlined through automatic detection of encoders on the network using discovery protocols, enabling seamless scalability and expansion. Mosaic-style multi-channel video confidence monitoring lets you view the signal of multiple encoders at a glance, while an integrated database keeps track of all activities and events. Encoding and streaming parameters are easily assigned to encoders within Broadcast Manager through reusable project files.

Broadcast Manager features flexible scheduling capabilities for easy automation. Individual or groups of encoders can be started, stopped, or taken offline (such as for maintenance or upgrades) at scheduled times, with the flexibility of using a different set of encoding parameters (including different compression formats) for each scheduled task if desired. A graphical scheduling interface provides an at-a-glance visual representation of scheduled tasks and enables easy identification of scheduling gaps and conflicts.

Digital Rapids Broadcast Manager Highlights

- Streamlined management and control of multiple live encoders from one or more locations
- Increased reliability of service to viewers with failover and self-healing failure recovery
- Reduced operational overhead and errors through automation and scheduling of tasks
- “Control room” view with mosaic-style multi-channel video confidence monitoring
- Control of third-party video routers for enhanced failover
- Works with StreamZ Live, StreamZ and StreamZHD™ encoding solutions
- Web Services API for integration into custom applications and existing enterprise management systems



Features and Specifications

• standard ○ optional

Inputs and Encoding Channels	StreamZ-Live-500	StreamZ-Live-1400	StreamZ-Live-2600 ¹
Encoding channels	1	1	2
Component analog video inputs (3 BNC)		2 ²	2 ²
Y/C (S-Video) video inputs (Mini-Din)	1	2 ²	2 ²
Composite video inputs (BNC)	1 RCA	4 BNC ²	4 BNC ²
Balanced analog audio inputs (XLR)	4	4 ²	4 ²
Unbalanced analog audio inputs (RCA)	2	4 ²	4 ²
SDI (supports embedded audio)		1	2
AES/EBU stereo audio (XLR)		2 ²	2 ²
VBI capture with Closed Caption support ³		•	•

Features

StreamZ Live

Form factor	1RU rack-mountable turnkey system
Video/audio input connectivity	StreamZ-Live-500: direct connectivity StreamZ-Live-1400/2600: SDI connectivity standard; breakout cable or 1RU breakout box optional
Available encoding format options (must specify when ordering)	AVC (H.264, MPEG-4 Part 10) with AAC audio (RTP/RTSP), AVC (H.264, MPEG-4 Part 10) with AAC audio (RTMP for Adobe Flash), SMPTE VC-1 (Microsoft Windows Media), On2 VP6 for Adobe Flash, MPEG-2 (UDP/RTP with RTSP), 3GPP/Mobile (H.263, H.264, MPEG-4 Part 2, AAC and AMR audio)
Transport Stream multiplexing/output	○
AC-3 (Dolby Digital) stereo or surround audio encoding	○
Input video frame formats	480i @ 59.94Hz (NTSC), 576i @ 50Hz (PAL)
Hardware-based video pre-processing (motion adaptive de-interlacing, 2D & 3D noise reduction, aspect ratio conversion, cropping, scaling, filtering, proc amp controls, gamma correction)	•
Hardware-based audio processing (7-band parametric EQ per channel, dynamic range compression/expansion, base/treble, sample rate conversion, volume)	•
Graphic overlay	•
Support for third-party Windows Media DRM (Entriq, SyncCast, thePlatform, generic, etc) ⁴	•
Operator-friendly software interface for configuration	•
Unlimited saved profiles for quick recall and one-click encoding	•
Scheduling, failover and automation through Digital Rapids Broadcast Manager	○

Features

Digital Rapids Broadcast Manager

Supported encoders (sold separately)	StreamZ Live, StreamZ, StreamZHD, DRC-Stream cards with StreamPro™ software
Failover and "self-healing" fault recovery modes	•
Alert notifications	•
Scheduling (online/offline, start/stop, encoding tasks/parameters, reboot, etc.)	•
Individual and group-based encoder management	•
Manual encoder remote control	•
Event history tracking	•
Web Services (SOAP) API for custom integration	•

Please see our website for additional details.

1. Dual-channel models available for select formats only
2. Optional breakout cable or breakout box required for analog and AES/EBU inputs (SDI connectivity standard)
3. Closed Caption supported in select encoding formats
4. VC-1 model only



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