



TransAct Transcoder

RGB Networks' TransAct product family enables live and on-demand multiscreen transcoding, packaging and video delivery for smartphones, tablets, PCs, traditional set-top boxes and connected TVs.

TransAct Transcoder Advantages

- **Real-Time Video Transcoding:** High-density live and on-demand HD/SD transcoding and delivery of streaming video content.
- **Policy-Based Transcoding:** Performance-tuned for optimal balance between key transcoding criteria: concurrency, quality and time-to-transcode.
- **Flexibility:** Supports stream-to-stream (S2S), file-to-file (F2F) or on-demand in a single platform.
- **Scalability:** Appliances can be clustered to create a system that easily scales from tens to thousands of concurrent transcodes.
- **Ease of Integration:** Open XML-based-API ensures seamless integration with third-party platforms including device detection databases, content management systems and ad servers.
- **Reliability:** Designed to meet carrier-class reliability standards including hot-swappable power supply and fans, redundant I/O, full mirroring and comprehensive system monitoring.
- **Devices:** Supports Apple iOS, Android and 3GPP smartphones, tablets, PCs, traditional set-top boxes and connected TVs.
- **Bitrate Encoding:** Supports variable bitrate (VBR), constant bitrate (CBR) and adaptive bitrate (ABR).
- **Streaming Protocols:** Supports MPEG-2 TS, Apple HTTP Live Streaming (HLS), Adobe RTMP, HTTP FLV, 3GPP RTP/RTSP and more.
- **Integrated Packaging:** Outputs multi-profile streams to RGB's TransAct Packager to deliver segmented and encrypted files to any device.

A key component of the TransAct family of products, RGB's TransAct Transcoder software offers a highly flexible solution for a variety of transcoding applications. Specifically designed for the next generation of video delivery, the TransAct Transcoder is offered as a software license or a dedicated, 1 RU appliance with the flexibility to support three transcoding modes of operation in a unified platform: stream-to-stream (S2S) for live/linear transcoding, file-to-file (F2F) for offline transcoding, and RGB's unique on-demand transcoding (ODT), a powerful and useful combination of S2S and F2F for on-the-fly encoding of long-tail content. Addressing transcoding needs for IPTV, web and mobile applications, the TransAct Transcoder accommodates on-demand and live video delivery needs with market-leading price, performance, flexibility, scalability and interoperability.

Modern transcoding requires the flexibility to decode a wide variety of current and emerging codec formats including VP8, H.264 (MPEG-4 AVC), MPEG-2, Windows Media, Flash, Sorenson and more. At the same time, encoding needs are expanding, given the swift evolution of video consumption across multiple screens – TV, web and mobile devices. The TransAct Transcoder gives content owners, hosters and delivery providers this flexibility, while also meeting demanding real-time, quality and concurrency needs.



AMS TransAct Transcoder

TransAct Solution Integration

As solution-based video delivery extends well beyond transcoding, the Transcoder works in concert with the TransAct Commander and third-party applications, enabling transcoding to become 'transactional' within the network and greatly simplifying end-to-end solution provisioning and cost of ownership – all vital for profitable, large-scale video delivery.

Video Infrastructure Integration

The TransAct Transcoder is also designed with a flexible API for standards-based integration with third-party ad network servers, device detection databases, content management systems, user identification applications and billing systems.

Mission Critical Reliability

Designed with redundancy in mind, the TransAct Transcoder is architected to support dual hot-swappable power supplies and fans; redundant, dual homing management and I/O connections; and N+1 appliance level failover.

Supported Containers, Codecs and Delivery Protocols

The TransAct Transcoder supports the most popular codecs (highlight list below), as well as container and delivery standards demanded by the digital video industry. The product is future-proofed to support newly available codecs through user-controlled software updates.

CONTAINERS	VIDEO CODECS	AUDIO CODECS	TRANSPORT & APPLICATION PROTOCOLS	DELIVERY PROTOCOLS
WebM	VP8	MPEG-1	UDP	RTP
ASF	WMV9 SP, MP, AP	MPEG-2	TCP	RTSP
FLV	VP6	MPEG-2.5 L3	FTP	HTTP
MP4	MXF	WMA7, 8, 9	NFS / CIFS	HTTPPS
MPEG2 TS	H.264 BP, MP, HIP	PCM		HTTP Progressive Download
MPEG-2 PS	MPEG-2	AAC-LC		HTTP Live Streaming
AVI	MPEG-1	AAC-HE		
3GP	M-JPEG	AMR-NB		
3GPP (3G2)	H.263	AMR-WB		
MP3	MPEG-4	AC-3		
	Sorenson			

Hardware or Software

RGB Networks offers the TransAct Transcoder as either a software license or as an appliance. The software license-only solution can be downloaded or shipped on a DVD and allows customers to deploy on their choice of server-based hardware platform. Running on an RGB supported appliance – the Application Media Server (AMS) – the TransAct Transcoder provides a minimum MTBF of 100,000 hours, as the AMS is an extremely durable hardware appliance requiring minimal ongoing maintenance.

RGB TransAct Transcoder Specifications

VIDEO/AUDIO PROCESSING	
Video	<p>Bitrates: 16 Kbps – 50 Mbps Frame rates: 1 – 60 fps Resolutions: SQCIF – HD 1080</p> <p>Advanced video scaling Bitrate optimization w/ CBR/VBR and adaptive support Automatic source ingest error pre-processing Optimized motion adaptive de-interlacing – auto detect Aspect ratio preservation Multi-encode per decode Video segmentation (iPhone) Live video recording Real-time transcoding prioritization Deblocking</p>
Audio	<p>Audio gain/leveling Audio sample rate change +/- Audio channel stereo to mono and 5.1 mixing Dolby Pulse & Dolby Digital</p>
MANAGEMENT	
Features	<p>Terminal access via serial port for CLI Web browser GUI Secure shell (SSH) XML-RPC 1.2 In-band / out-of-band support Front panel LCD for system status SNMP traps Remote upgrades</p>
AMS HARDWARE	
I/O	Up to six Ethernet (10/100/1000 Base-T) ports
Form Factor	1 rack unit
Dimensions	1.68" H x 18.99" W x 30.39" D 42.6 mm H x 482.4 mm W x 772 mm D
Weight	39 lbs. / 17.69 Kgs
Power	AC P/S operating in the range of 100V-240V Nominal voltage 120V AC 717 W, dual-line cord 1+1 PFC (dual power supply redundant configuration)
Temperature	Operating Temperature: 50 to 95° F (10 to 35° C) Relative Humidity: 20 to 80% non-condensing
Regulatory	FCC Part 15; NRTL; UL / CSA



RGB Networks, Inc.
390 West Java Drive, Sunnyvale, CA 94089 USA
T: +1.408.701.2700 | F: +1.408.701.2710
www.rgbnetworks.com