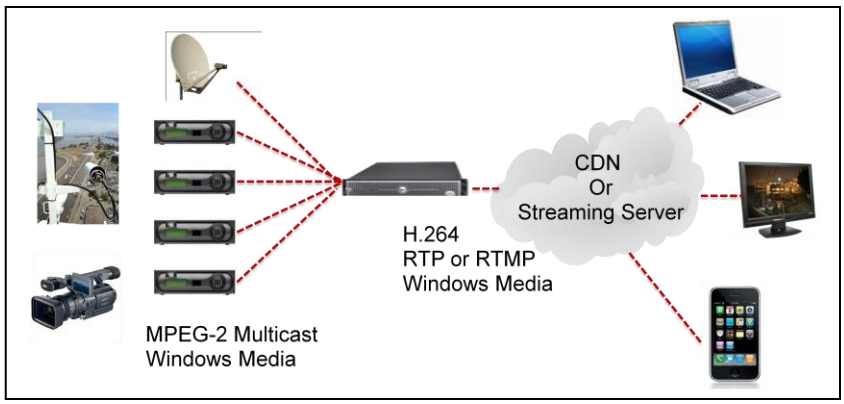
Discover Video Transcoder

MPEG-2 is the historical standard for digital video distribution and there are thousands of live MPEG-2 video streams in use today. These range from commercial television broadcasts to private enterprise video distribution systems in corporate, educational and government networks.

At the same time, there are also thousands of Windows Media streams in use. Thanks to a complete ecosystem, high quality encoding format, and low cost, Windows Media is deployed in television broadcasting (e.g. AT&T U-verse), in corporate, education, and government networks, not to mention its ubiquitous presence on the web.



Many users wish to move to H.264, the newer high quality video compression and streaming standard. For MPEG-2 users, H.264 is considered as a bandwidth savings technology because you can send the same quality video using roughly half the bandwidth required for MPEG-2, and it scales from web streaming to full HD. Windows Media users often wish to provide interoperability with the popular Adobe Flash format for streaming without the wholesale replacement of existing technology or infrastructure. Live transcoding is the solution.

Transcoding

Transcoding is conversion from one format to another. Transcoding is often thought of as a file operation: open file A and save it as file B. But live transcoding is a different, and much more complex proposition. Live transcoding is the reception of a live audio/video stream in one format and the conversion to another format that is streamed in real time.

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The Discover Video Transcoder is a server that can receive multiple MPEG-2 Transport Streams via IP multicast, or multiple Windows Media unicast or multicast streams and transcode them in real time to H.264 video with AAC audio (a.k.a. MPEG-4

Part 10 and AVC). The Transcoder delivers the H.264 in either standard H.264 RTP format, or in the popular RTMP/Flash format.

RTP

If using RTP, the Transcoder automatically creates a sdp file in the server's web directory, allowing the transcoded video to be viewed using popular players such as QuickTime. The output may be unicast or multicast. For example, the Transcoder may receive a live MPEG-2 or WM stream and you may instantly view it on an unlimited number of players using multicast. For unicast, a distribution server (e.g. Darwin, Wowza) can receive the unicast stream from the Transcoder and deliver it to viewers locally or via the web.

Flash

The Transcoder supports direct RTMP streaming to a compatible streaming server such as Adobe FMS, Wowza, or a Content Distribution Network. For example, the Transcoder can receive a live MPEG-2 or WM stream and deliver it to viewers on the web via Flash player.

Windows Media

The Transcoder supports both "push" and "pull" for Windows Media / VC-1 output. The popular Windows Media format is compatible with Windows Media Player, Silverlight, and virtually all video editing and display systems.

Snapshots

While the Transcoder is converting your live video to H.264, it can also create JPEG snapshot images of your video. These images are hosted on the Transcoder's web server. Snapshots have many uses. For example, your web site can show live image previews of "what's on now", and when you click on the image, you view live video via Flash player. Snapshots also allow you to deliver "live" images to low bandwidth uses such as cell phones, and allow you to monitor multiple streams without having to view them.

Capacity

Depending on the model, each Transcoder supports up to 30 simultaneous transcodes, providing a very cost effective solution for live streaming media delivery. Actual simultaneous capacity depends on many factors including resolutions, frame rates, snapshots, etc.

Settings & Integration

The Transcoder is easily configurable on a per-stream basis. The Transcoder supports settings such as stream type, rate, resolution, frame rate, audio rate, and snapshot settings.

Each Transcoder stream is configured by a simple XML file. This allows very easy integration with 3rd party or custom control systems, and the Transcoder comes with a simple web interface that allows you to modify the settings remotely.

Optional Media Server

The Transcoder may include an optional Media Server, allowing direct delivery to thousands of players in Flash, Silverlight, and iPhone video formats.

For more information, contact

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