

## Multimedia Transcoder

### Codec Conversion

Codec conversion is the basic element of any transcoder. We support all major audio and video codecs used on the internet and the mobile internet. Our R&D team is committed to support any known codec used in the IP world.

### Protocol Conversion

Different devices speak different communication protocols. We support the most popular protocols found in the internet and the mobile internet, i.e. HTTP, RTSP and RTP. We also offer tailor-made solutions per customer specifications to support proprietary protocols.

### On the Fly Conversion

On-the-fly conversion is essential to support real-time streaming content such as surveillance applications and live events. On-the fly transcoding is also necessary if the content source is dynamic and not static. We support streaming transcoding with minimal delay such that live and continuous streams can be delivered efficiently.

### High Availability and Load Balancing

Multimedia transcoding is a CPU-intensive job. To support a large amount of concurrent transcoding sessions, our transcoders are integrated with an auto load-balancing solution, such that it is fully fault tolerant and provides high availability to the end users. If one transcoding session fails, it will only affect that particular user and all other users will be intact. If one transcoder node fails, the other nodes will continue to serve incoming streams and requests.

### Built on Standard Hardware and Linux

Our transcoder and load-balancers are software based solutions which do not require specialized hardware. This minimizes investment in hardware since it operates on standard X86 machines or servers running on low-cost Linux operating systems and even "old" machines can be reused to setup additional transcoder nodes. This solution is a powerful and cost-effective means for real-time video encoding, decoding and transcoding, providing transmission of high quality video to nearly any IP network.

#### **Video Adaptation**

The system will support standard video formats used in popular websites.

#### **These include:**

#### **Flash based, H.264 and MPEG4 video**

The system will support the adaptation of web sites that deliver video through the following methods:

HTTP progressive download  
RTMP (used by some Flash-based Video delivery systems, like YouTube )

**This section presents the general video adaptation matrix of the system:**

#### **Mobile Device Format**

The file format matrix is for input only, since for output we support streaming delivery on mobile devices which do not involve any file format.

Input:

.3GP  
.FLV  
.SWF  
.MP4

Output: RTP packets

#### **Video Encoding matrix**

The following presents the video encoding matrix of the system:

Source: FLV, H.264, MPEG4  
Output: H.263, H.264, MPEG4  
As QCIF, QVGA

## Ordering Information

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