



# Motorola

## MPEG-4 HD Content Distribution Overview

**Q: What is the advantage of MPEG-4 advanced video compression technology over MPEG-2?**

**A: MPEG-4 advanced video compression technology optimizes bandwidth in content delivery without loss of content quality.**

Growing consumer demand and increasing deployment of high-bandwidth applications are leading programmers and operators to adopt MPEG-4 technology.



### Delivering Efficiency

By 2011, an estimated 148 million households worldwide will have high definition televisions (source: IMS, June 2007). At the same time, consumers are seeing a greater choice of HD programming than ever before, leaving operators with the challenge of how to support and deliver the exponential demand.

A new video compression standard – MPEG-4 AVC – is being adopted by programmers and distribution companies. However, a number of cable companies currently use MPEG-2 technology throughout their networks, which creates a potential challenge financially.

Motorola, a leader in video delivery systems, has created solutions that enable the content distribution industry to take advantage of MPEG-4 advanced video compression without sacrificing investment in MPEG-2 technology.

Motorola's DSR-6000 series receivers, the first of a new generation of receiver-transcoders, allow programmers to distribute content in MPEG-4 to delivery systems using MPEG-2 technology.

The DSR-6000 family of receiver-transcoders converts the MPEG-4 signal to MPEG-2 for cable operators, and allows DBS and telco operators to distribute in MPEG-4.

The DSR-6000 series reduces bandwidth requirements by up to 75 percent while delivering high-quality content to television viewers.

### Forging Partnerships

MPEG-4 is increasingly being adopted as the video compression standard of choice for content providers. Motorola's system compresses, encrypts, modulates, and receives the HD signals within a single integrated transmission system to allow its partners to expand their HD offerings to subscribers. Motorola has announced agreements with leading programmers including:

- HBO
- Starz
- Showtime

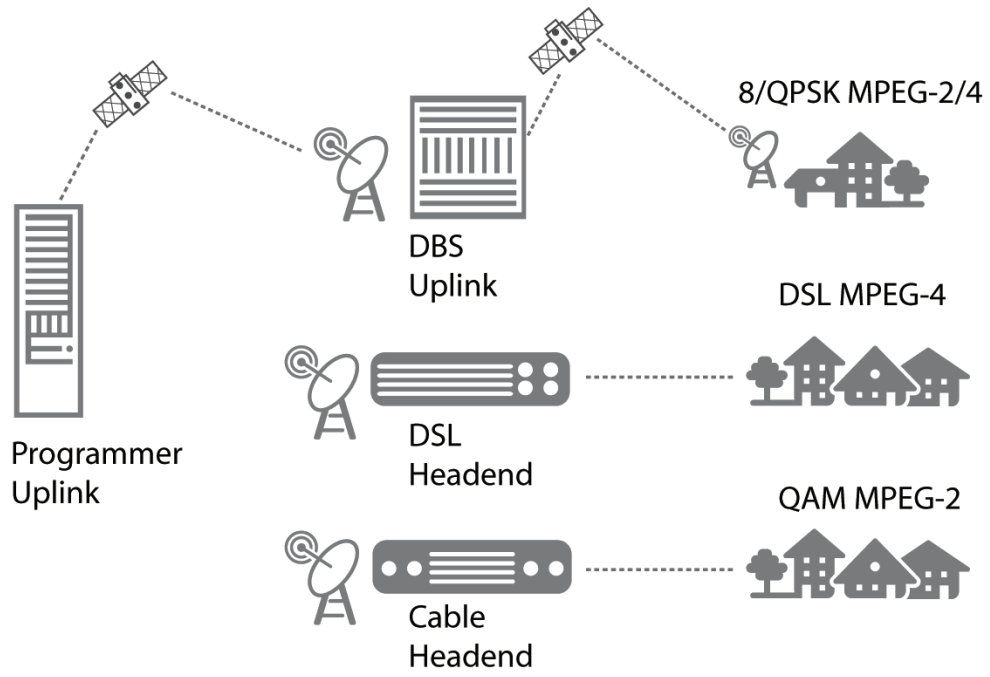
### Driving Innovation

Motorola has been a leader in HDTV digital compression systems for nearly 20 years. Motorola was a founding member of the Grand Alliance HD encoding effort and has deployed hundreds of MPEG-2 HD encoding systems.

Leveraging its extensive real-world compression experience, Motorola has now launched a new class of encoders based upon the MPEG-4 AVC standard for both high and standard definition services.

The new product line centers around the model SE-5100/SE-4100 MPEG-4 AVC encoders. These products have implemented an optimized set of the MPEG-4 AVC toolkit to provide excellent video quality at very low bitrates. In addition, there are configuration options and targeted applications that make the SE-5100/4100 especially attractive:

- Low resolution proxy allows a secondary stream output that can be used for enhanced program guides or for monitoring applications.
- Operation in Constant Bitrate(CBR) or Variable Bitrate(VBR) modes allow transmission over a variety of network types.
- Build in receivers support efficient ingest of off-air signals as input to the MPEG-4 encoding engine.



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