

A chip on its shoulder

The video compressor developed by eInfochips is like the heart of the digital media industry

It is the way of the future, and eInfochips is all set to cash in on it. A \$27 million, Ahmedabad-based company, eInfochips is a design and services company in the field of transcoding for digital video communication. Transcoding is the process of decoding and recoding digital content from one format to another and is an integral part of the Internet and mobile video markets. Transcoders play a key role in helping different platforms share products.

For content to reach consumers across all devices and networks, content providers must address the challenges of transcoding content into the appropriate audio and video codecs, file formats, screen resolutions, and bit rates. This process is made extremely complex by the lack of universally accepted standards and the vast array of device capabilities and network capacities, especially in the mobile video segment.

eInfochips, which provides the design of the transcoder to a US-based Fortune 500 MNC, is currently in an advanced stage of negotiation with three other communication technology companies to develop customised transcoder for them. "We are not a product development company," says Nirav Shah, director (marketing), eInfochips. "We are a design and services company which develops chip designs to meet the hardware and software needs of ICR companies."

Shah said there were three products development companies based in the USA - MediaExcel, RipCode and Digital Ripids - that provide transcoders to leading telecommunications and media content broadcasting establishments. eInfochips has provided the transcoder design to one of these three companies, but Shah declined to name the firm.

Video chip designers face a challenging task in video transcoding due to the high computation complexity, bandwidth requirements, the plethora

of video standards, and increasing consumer demand. "This challenge has made them look for ways to effectively transcode this deluge of video content," says Pratul Shroff, president and CEO, eInfochips.

"Transcoding is a life-or-death issue facing manufacturers and service providers as they try to realise the explosive growth in video entertain-



Shroff: digital advantage

ment," says Gene Frantz, principal fellow of Texas Instruments, with which eInfochips has a product-development tie-up. "Transcoding among multiple formats will be mandatory for all future video products to be successful."

Growth areas

Shroff claims the eInfochips transcoder can compress a large number of files in different formats - whether recorded from mobile phones, camcorders of various qualities or other sources - and allow any Web portal to upload any amount of video file for use while maintaining speed and quality.

Shroff says the video transcoding business is expected to generate as much as 25-30 per cent of the revenue of eInfochips over the next three years. He pointed out that the com-

bined IPTV and switched digital video market, for which transcoding is essential, was expected to reach \$9.8 billion worldwide by 2011. The number of IPTV subscribers is expected to touch 100 million globally over the next three years.

He added that in 2007, the regional breakdown for worldwide IPTV equipment revenue was 40 per cent from North America, 30 per cent for Europe, Middle East and Asia, and 28 per cent for Asia Pacific. Shroff said there were 29.7 million mobile TV viewers worldwide at the end of 2007 and the number was expected to almost double to 56.9 million at the end of 2008, driven by growth in Japan.

Another growth area has been the high-speed Internet or broadband connectivity. With the number of broadband households reaching 60 million in the US and nearly 300 million worldwide in 2007, consumers have begun switching over to the more interactive medium of Internet from television.

This is getting reflected in the growth of online video viewing. According to ABI research, more than 1 billion users will view video online by 2013. At present, on a typical day, over 100 million video streams are watched on YouTube.

The number of Web sites offering video content is also increasing, with video often embedded into blogs and social networking Web sites like MySpace and Orkut. Moreover, major media companies are prioritising digital distribution as a means to build deeper relationships with consumers by distributing online content.

"Third-generation (3G) mobile communication systems will provide more advanced types of interactive and distribution services, and video is one of the most prominent applications for multimedia communications," points out Shroff. Obviously, there is exuberance among top eInfochips executives with the digital media business growing exponentially.

• NACHIKETA DESAI