



## Background

With the wide variety of mobile handsets available today, consumers have more choices than ever to invest in a cell phone or PDA that suits their personal tastes or professional needs.

A number of such devices now contain basic multimedia capabilities. In some cases, an "embedded" media player (software programmed directly into the device at the factory) is included.

### EMBEDDED LIMITATIONS

While the simplicity of embedded media players can be appealing, they can often be too limiting for various applications. As an example, if specific capabilities are required to interact with a particular type of new media, an embedded player wouldn't be able to offer the required features. This limitation underscores the challenges of using a generic, all purpose media player for quickly evolving consumer and corporate demands.

### MOVIDITY'S MOBILE PLAYER

In order to circumvent the limitation of embedded players, Movidity has created a true mobile media player in the form of an ultra-efficient Java midlet (along with C-language for PDA's) software application. As part of Movidity's patent-pending Multimedia Mobility solution, our media player is so efficient that testing has shown performance increases of up to 250% over embedded media players. This, along with interactive and highly customizable features makes Movidity's media player a logical choice for discerning mobile providers and users.

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### SIMPLE, POWERFUL, EFFECTIVE

Installing the Movidity player is as simple as browsing to an Internet address from the handset, where the application automatically downloads and self installs. Due to player's extremely compact nature, installation is quick and seamless.

Movidity's player is a marvel of integrated engineering. At under 25KB in size (in certain forms), it manages all aspects of object transmission, interfaces with underlying hardware, decodes, renders and plays true MPEG4 video and AAC audio on Java enabled devices (and PDA's).

Our player is self-adjusting, performing over three dozen individual optimizations for the local device environment, including bandwidth management, processing adaptation, video display tuning, etc. The optimized frame rate and synchronized audio quality delivered through this intelligence provides a superior multimedia experience.

All these features, along with local and integrated server side capabilities (such as pause, rewind and fast-forward - for live and archived media) make Movidity the new standard for mobile multimedia.

## A COMPARISON

	MOVIDITY	Embedded
<b>Performance</b>	Equivalent or better – 36 specific handset optimizations	Equivalent or worse – little or no specific handset optimization
<b>Accessibility</b>	Initial and updated versions are easily downloaded and installed directly from the handset	Embedded
<b>Bandwidth</b>	True interactive bit-rate control	Little or no true bit-rate control
<b>Codec</b>	True MPEG4 and AAC decoding (or other codec if desired – server side will transcode other formats; new player version can downloaded immediately )	MPEG4 or other specific format – no changing
<b>Security</b>	Inherent in play-list specification; content is lockable, hence player can be cater to subgroups of clients	No security directly specific or customizable to player
<b>Playlist</b>	Specific to player; can be changed dynamically on server-side	Not related to player; changed through browser. Player must work with new content as if a new application
<b>Encryption</b>	Equivalent	Equivalent
<b>Installation</b>	Simple; installed by fetching URL	Pre-installed
<b>Server Side</b>	Creation of discrete and dynamic media lists of MPEG3 to MPEG10 through dynamic, adaptive multirate transcoding. Live or archived media, Object transmission and true codec stream to player	Re-coded to MPEG4. Recoded audio. May / may not use transcoding for live streams
<b>Transmission Model</b>	Completely independent of audio / video codec	Completely tied to audio / video codec
<b>Media Content</b>	Adaptable to different media applications for specific clients	No adaptation possible once installed
<b>Hardware Acceleration</b>	Adaptable with low level calls	Either uses it or not

## OTHER PLAYERS

Aside from embedded players, other downloadable players in the industry today suffer from similar issues. Case in point, many so-called media players are based on a simple JPEG sequential-flasher approach, where progressive images are flashed on a screen, not unlike old style animation. This approach to “simulated” video doesn’t deal with issues such as real-time motion, chrominance, luminance, interleaving, higher compression and a range of other complex requirements for accurate rendering. Simply put, JPEG flashers are not real video, but a half-hearted simulation with sub-standard results.

## CLEARLY SUPERIOR

The combination of performance, flexibility and adaptability make Movidity a clearly superior solution for mobile media.

Whether you’re looking for live television, movies, radio, video training, live surveillance video with interactive control, or a host of other mobile media applications, Movidity is your answer.



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