

Application Note

Migrating to HD Playout

March 2011

Morpheus offers flexible and affordable solutions for real world media and broadcast business evolution

Today, high definition television (HDTV) has entered the television industry mainstream. In many countries broadcasting in HD is now a requirement instead of an additional value-added service. Additionally, many viewers, equipped with their HD-ready large screen TV, are expecting to see stunning picture quality. As such broadcast media organizations worldwide are searching to find effective means of fulfilling viewer expectations while also differentiating their look from the competition.

Whilst the goal of HD playout is clear, the means of achieving it are much less clear. What about the very considerable standard definition – and even analog – legacy equipment and content that most broadcasters possess? In today's cost conscious world, the way that broadcasters implement their HD migration is critical.

The challenge is to devise an HD migration roadmap that is specifically appropriate to each enterprise and includes step changes towards HD playout that are achievable within the real world environment that we all operate within.

Each HD migration roadmap needs to be specific to the broadcast media organization it serves. There are challenges of HD production and, more immediately, HD playout. The choice of technology partner to support your organization through this change process is critical: it is one of the most important decisions you will make.

Morpheus: HD playout in support of business goals

Snell is a global leader in broadcast automation with an international customer list that reflects its ability to service mission critical enterprise operations in any market. With over 40 year's front line experience to call on, the company has engaged in a major development initiative that has seen the essence of this activity distilled into one highly flexible technology solution – Morpheus.

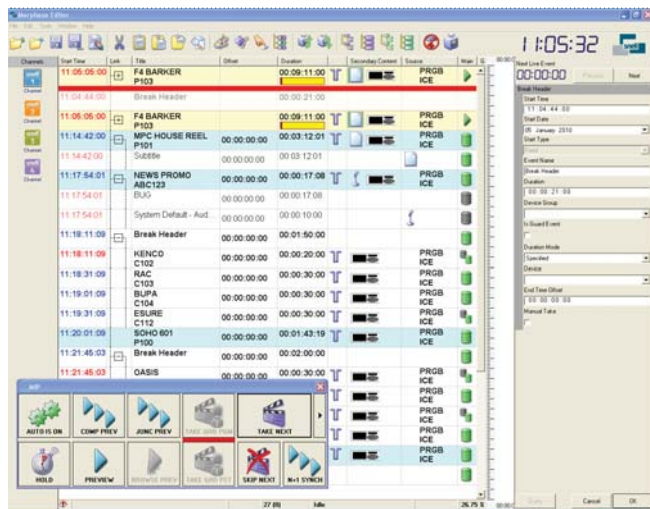
Morpheus is recognized as one of the industry's most advanced multi-channel playout automation systems, capable of adapting its configuration and operating characteristics to a broad range of applications and distribution platforms in both standard and high definition.

Snell's entire approach to enterprise content distribution is insightful and inventive: it is format and device independent. It provides a robust and resilient content distribution mechanism which can integrate new devices as they evolve, and to meet the demands of future services and delivery platforms. Flexible device management ensures that resources can be dynamically deployed to where and when most needed.

From its core database engine through to every automated device, Morpheus is designed for resilience and, where required redundancy. This ensures that the right content and its metadata are in the right place at the right time.

What Snell has created is exceptional – a suite of automation solutions for today's broadcasters: robust in operation and yet extremely flexible in configuration including the variety of content distribution platforms and the size and capacity of the system.

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Morpheus offers the ideal means for broadcast media organizations to migrate their playout infrastructure – and indeed their complete business architecture – to high definition in ways and at speeds that suit their business models.

Using this operating concept, Snell reduces the cost of ownership and also lessens the risk factor faced by any size and scale of media enterprise making the HD playout migration compared with any other automation solution available today.

HD on ICE

Snell has introduced a range of turnkey playout solutions based on Morpheus' Integrated Content Engine (ICE), the company's cost-effective Channel in a Box delivery platform. The new solutions are targeted to smaller, regional stations as well as larger broadcasters that need a cost-effective, more efficient path to HD broadcasting. Powered by Morpheus automation, the ICE solutions give broadcasters everything they need to ingest, manage, and playout live feeds, supporting SD and HD content in both single- and multi-channel operations.

Morpheus ICE is designed for broadcasters who have tried first-generation Channel in a Box graphics servers but have been frustrated with their performance and lack of integration with third-party automation systems, which often results in hidden costs and little to no opportunity for expansion. Since ICE is a more powerful Channel in a

Box solution built on the proven automation technology of Morpheus, the potential for expansion is almost unlimited. As customers requirements grow in channel complexity or across multiple sites, Morpheus can be easily scaled up as required.

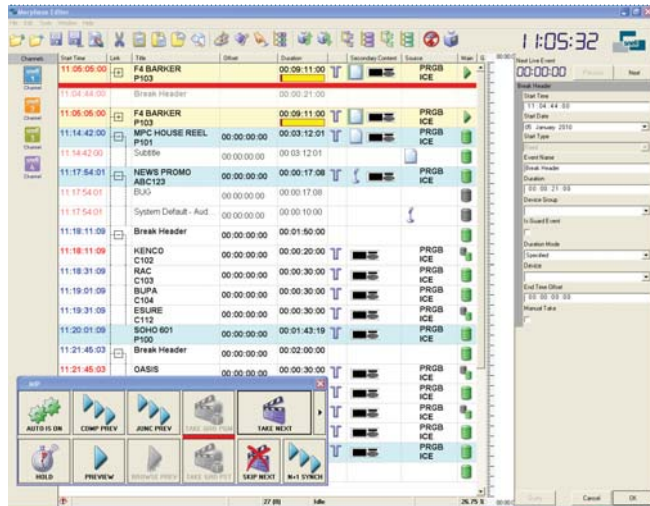
Morpheus ICE brings together a video server, graphics, switchers, channel branding, captioning, and subtitling in a convenient 3RU package, all managed by Morpheus automation. ICE offers a low-cost solution for start-up channels as well as a cost-effective building block for distributed operations. The system works seamlessly with either SD or HD source material, managing all of the processes required to prepare pictures, sound, and ancillary data for the highest-quality HD playout.

For instance, ICE provides integral, real-time up-scaling of SD source material on-the-fly, which can be easily combined with HD material on the same timeline.

When higher-quality, real-time up-conversion is required, ICE provides an HD/SDI insertion point for each output to enable access by an external up-conversion system such as Snell's Quasar Ph.C. Each ICE system offers up to 500 hours of storage with the ability to manage SD and HD assets with a variety of wrappers side-by-side in the same system.

"We took a broadcast-specific approach when developing ICE, combining both IT and broadcasting technologies to deliver a uniquely flexible multi-function building block for managing a wide range of programming and event types, especially HD," explained Snell's Jamie Gatto. "ICE dramatically reduces the costs and risks of third-party system integration, since both the automation and the HD infrastructure are supplied as a complete package by Snell."

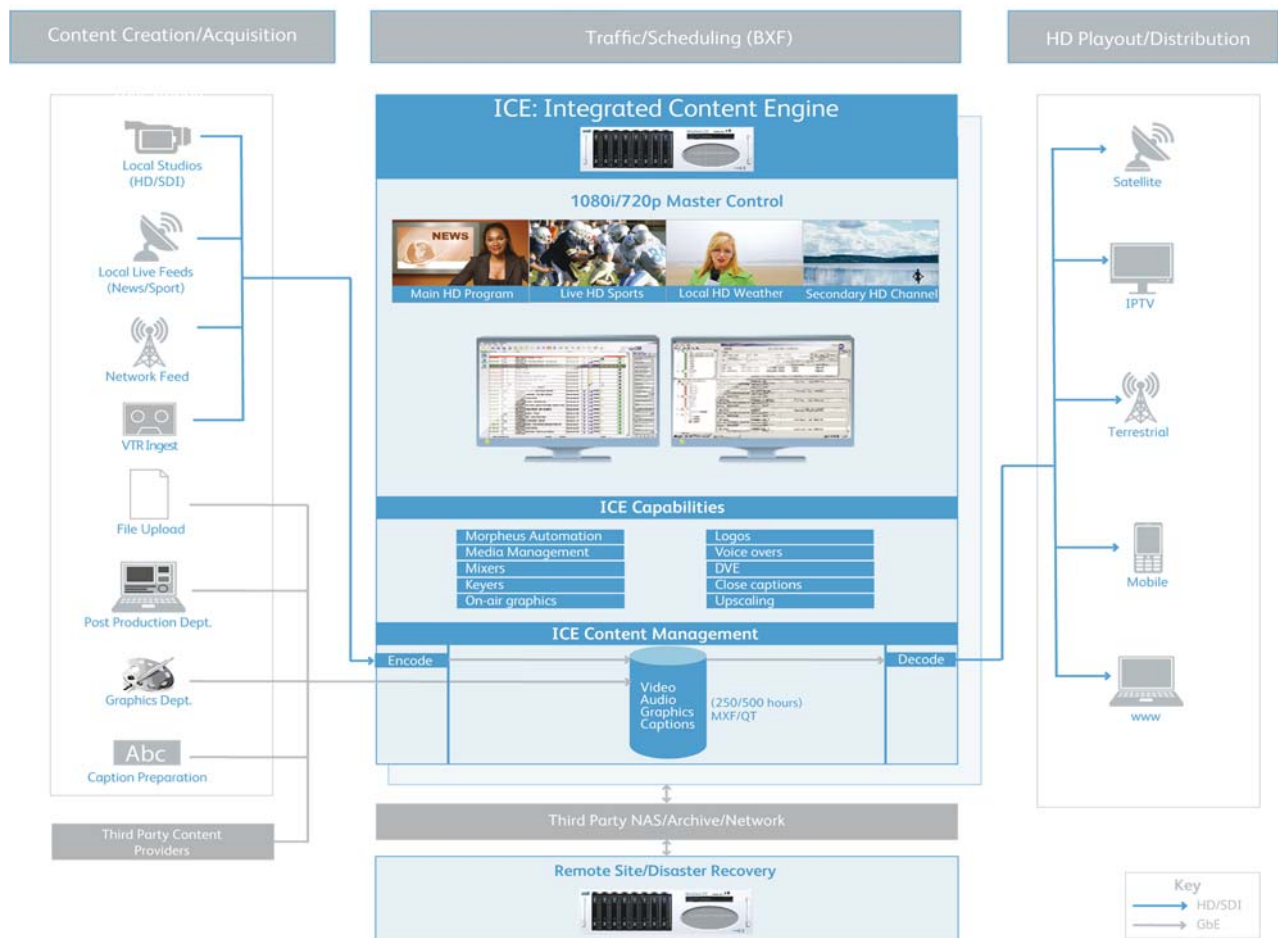
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