

SOFTCAST

Software for Broadcast

GLOBECAST AMERICAS SELECTS SOFTCAST FROM *IDEAL SYSTEMS*



SoftCast Technology was selected by Globecast Americas migrate their Media Factory operations and Multi-Channel Playout facility from its existing location in Miami, Florida to a new playout facility Los Angeles, California designed and build by Ideal Systems.

SoftCast consists of an innovative suite of broadcast applications and services that form the SoftCast Ecosystem. Each application serves a specific function within this Ecosystem, all reporting back to a central core management and database architecture that allows seamless communication throughout the platform.

The migration involved the commissioning of new Ingest & Multi-Channel Playout platforms, as well as the migration of all assets stored within an old tape library situated in their Miami facility. All media files contained in the legacy systems were of a proprietary format, so the brief was further extended to ensure the content was transcoded into the industry standard IMX30 MXF D10 format that could be played out on SoftCast, as well as be re-purposed for other requirements such as non-linear VOD and editing requirements in the future.

The delivery window for the project was extremely short, and the SoftCast had to be operational within twelve weeks from the order. These twelve weeks were inclusive of hardware ordering, system design, commissioning and testing the platform. Due to the timeline, proprietary broadcast hardware was not an option to GlobeCast due to manufacturing lead-times. SoftCast however runs on industry standard Dell workstations and servers, and uses AJA as its standard SDI Video I/O. Both these components are readily-available from local suppliers, and all hardware was delivered within 10 days of the project commencing. Regional support available from Dell was standard with no additional cost, this strong hardware support is worldwide from Dell and each server comes with a 3-year Next Business Day warranty as standard, which can be increased as required



All SoftCast software modules are distributed online, with no physical hardware, allowing for an extremely quick deployment of core system modules. This also allowed for a large majority of the commissioning to be done remotely, reducing the cost of on-site commissioning, and allowing for a compressed delivery timeline.

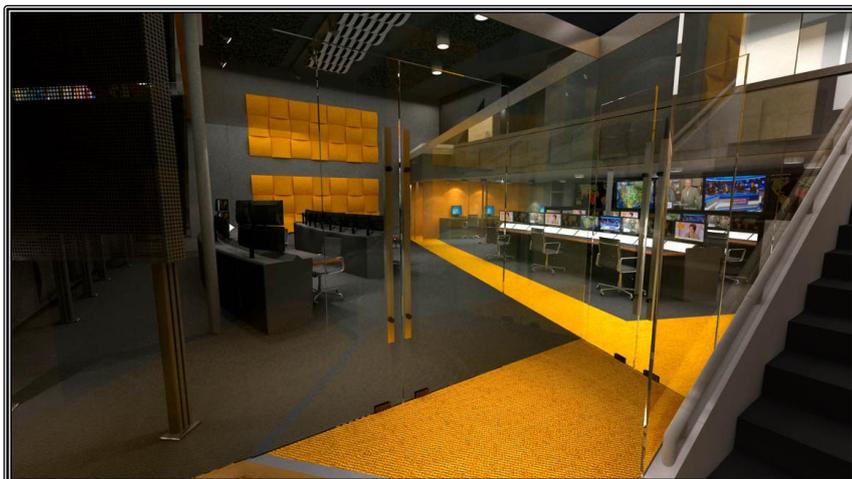
In parallel to the hardware and software commissioning, Ideal Systems also worked with Globecast to migrate the content stored within an IBM LTO-4 archive in Miami to a new EMC X400 Cluster located in Los Angeles. Custom applications were designed by the SoftCast team in order to manage, report and analyze the process, as well as to prioritize the transmission critical content for transcode.

While a large majority of the content was migrated from the existing Miami facility, new content was arriving in a variety of file based and tape formats. All files received were passed through a Harmonic ProMedia Carbon, and the exported MXF file is placed into a SoftCast Drop Folder for import into the workflow. Tape based ingest was managed through a dedicated SoftCast SC-Ingest Server, with a server in Los Angeles, and another in Globecast's new remote Ingest facility in Coral Gables, Florida. SC-Ingest was responsible for communication to each VTR through a Moxa NPort 5650 RS-422 convertor, each supporting up to 8 VTR's. Each VTR can then be controlled through the desktop application and cued up for Ingest. The ingested file is recorded directly to the SC-Ingest server into the Master File Format, then transferred back to the central Isilon storage for QC, before it is transferred for playout.

Once the core workflow was commissioned, Globecast could begin importing traffic schedules into the SoftCast platform via the SoftCast SC-Linker application, a powerful tool that allows broadcasters to use their existing Schedule, As-Run, Import & Asset Lists, and translate them seamlessly into the SoftCast architecture. In Globecast's case, this meant a transparent solution to their customers where they could continue receiving the schedules in their current format, and returning them as-run's in an identical format as well, causing minimum inconvenience to their customers.

SC-Linker was also responsible for handling the import of their existing MAM database located in Miami. As each asset was transcoded, a metadata file was attached which included information such as SOM/EOM, Duration, Title and Channel Information. This was translated into the SoftCast MAM system, preventing the re-entry of the entire MAM database. A QC workflow was setup to allow users to watch the transcoded assets, approve or reject the assets, as well as update critical metadata such as SOM & EOM information which would flow to the playlist managed by SC-AutoPlay.

SC-AutoPlay is the SoftCast playout engine, and has a Channel-In-A-Box architecture that includes Video Playout, Graphics Insertion, Subtitle Playout as well as Voiceover, GPI and secondary event triggers. SC-AutoPlay is available in a number of configurations including Standalone, N+M (Multiple Backups to a number of Main Channels), or 1+1 (Full redundancy for any channel). The Globecast Americas system used a combination of these architectures, with their SD services running in a 10+4 configuration, the HD services running as 1+1 across 2 separate physical servers, and an Ad Hoc channel for test and occasional play-out running as a standalone channel.



All these services are managed through the SC-MultiChannel desktop application which runs on a pair of dedicated Dell Optiplex workstations located in the Los Angeles Master Control Room. The SC-MultiChannel uses an API to communicate with all playout channels located across multiple playout servers, including the backups as required, and reports the current timeline of events, any content errors, and whether the channel has failed and is currently running off its redundant server. SC-MultiChannel also allows standard control of the channels such as 'Take Next', 'Pause', 'Play' etc. By having a single application to communicate with all machines, the interface of each individual server does not need to be accessed directly.

SoftCast is designed to be highly scalable, whilst having no impact to on-air services. Due to the way the architecture is structured, each channel can be fully independent from any other element in the system. The entire SoftCast architecture of 10 SD Channels, and 1 HD channel went live on schedule in November 2014, exactly 10 weeks after the initial project kick-off. The design build and delivery of the SoftCast system ran parallel to the design build and delivery by Ideal Systems of a new broadcast facility with a new T.O.C and M.C.R. all of which had to be on-air, on time and on budget.