Motion Picture Solutions pioneers media storage with SpycerNode

Based in West London, Motion Picture Solutions (MPS) is a leading international film services facility that supports major Studios and independent distributors alike with the worldwide theatrical release of titles including day-and-date blockbuster franchises. With a services suite that encompasses mastering, content localisation, creative effects work and secure electronic distribution through to live event cinema and downstream VOD deliverables, MPS has been operating in the digital cinema sector since the company was founded in 2005.

MPS is a major user of Rohde & Schwarz's mastering and distribution platform, Clipster. To support this mission critical investment, last September, the company invested in the new media storage system, R&S SpycerNode. Here we talk with Eric D'Souza, Head of Technology at Motion Picture Solutions about how this elegant technology combination is driving business growth at MPS.

As a film mastering and distribution house, Motion Picture Solutions offers unparalleled expertise in Digital Cinema Package (DCP) creation for Hollywood studios, but its services reach far wider. A large amount of its work is for the 'big six', offering global trailer distribution and DCP delivery using IP and satellite solutions, but the team also do a lot of independent movies.

In an average month MPS will work on at least three major features. For a global release, it can create DCPs for up to 35 different territories all of which MPS handles on its Rohde & Schwarz Clipsters. MPS got its first Clipster seven years ago and has been adding more and upgrading - seamlessly – ever since. MPS now have eight new Clipster v 6 systems.

To support this large Clipster network, MPS has invested in two 5U84 SpycerNode storage systems from Rohde & Schwarz. The two systems are configured in a synchronous cluster spread over two locations. One node is in MPS' Mission Hall site in Olympia, London, and the other in a data centre 11km away. They are connected by two diverse dark fibres running 100 gigabit ethernet over CWDM optical multiplexing. The data is immediately copied to another location, giving instant backup.



The previous MPS storage systems were fibre channel SANs also from Rohde & Schwarz. Introduced at IBC 2019, SpycerNode represents a new and radically different approach to the media storage challenge and utilizes the latest advances in high power computer processing.

One key feature of SpycerNode is its integration of IBM's Spectrum Scale technology, formerly

known as General Purpose File Systems (GPFS). Eric D'Souza sees this being key to the performance that SpycerNode offers his operations. "Spectrum Scale is a more advanced filesystem than the previous SAN and uses 100gigabit ethernet as the interconnection," he explains. "Unlike layer 2 fibre channel, 100 gigabit ethernet allows redundant layer 3 network topologies to be extended over

metropolitan distances. It is also much faster and cheaper. Networking and storage now share a common advanced topology."

"SpycerNode's synchronous replication means that the data exists in two geographical locations for disaster recovery," Eric D'Souza continues. "Spectrum Scale snapshots provide the ability recover files that have been accidentally deleted or changed.

Advanced media storage translates to business advantage at MPS

"The bottom line is that the SpycerNode system and provides fast storage for the Clipsters," states Eric D'Souza. To understand how this directly translates into a significant business advantage for MPS, we need to look further at how they use the Clipster mastering and distribution platform.



MPS will version the DCPs based on markets. For a big release they might have 120 shots that need localisation and graphics work. This could include road signs that might be in a particular language that need to change according to the territory, or as on one project, MPS had a shot of a mobile phone that had a vital text message on it and they had to cut that out and write it back out in 32 different languages.

Any sort of editorial trimming that MPS need they can do within Clipster. On a typical project, film masters will be in DCDM format (Digital Cinema Distribution Master) or DCP. They come in via Aspera to our Data I/O department where they are ingested on to SpycerNode. From here any clips that need localisation or modification are exported using Clipster. MPS teams work on the shots with a combination of tools including Adobe After Effects, Cinema 4D and Nuke, before dropping them back into the timeline on the Clipster ahead of mastering to DCP and distribution.

MPS has to be able to service clients with the very latest technological needs as well as all the traditional deliveries. They can see advantages in fulfilling versioning within the IMF package, particularly with respect to demand for VOD. To do another VOD version in its pipeline is relatively straightforward, so the fact that the Clipsters are all IMF-capable was one of the reasons for buying so many of them. Another of the key features for Clipster is the colour processing engine. MPS have to service the HDR market and this allows them to work with Dolby Vision HDR for cinema as well as being geared up to do HDR for VOD.

These advanced workflows require similarly state-of-the-art storage facilities and it was a straightforward decision for MPS to invest in SpycerNode when it became commercially available. "SpycerNode provides a single large fast namespace for all systems working on a project," explains Eric D'Souza. "Data does not need to be moved during the workflow - this improves efficiency and profitability throughout our operations."

"Clipster is a unique product that is at heart of mastering DCPs at MPS. It was essential that our new storage architecture would provide outstanding support for Clipster and with SpycerNode this was

never in doubt," Eric D'Souza concludes. "Rohde & Schwarz provided the support to ensure that both systems would be fully integrated from day one within our very specific requirements at MPS. Clipster and SpycerNode improve the efficiency and stability of the operation at MPS."

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Rohde & Schwarz

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