

# Digital Streamlining

Cinemex, Mexico's #2 theatre chain, recently deployed Qube Cinema's 'Qube Wire' system to help better streamline its dCinema operations, resulting in some major technical administrative benefits, as well as resolving the industry's perennial key-delivery problems.

By October of 2013, Cinemex, along with the rest of international Exhibition, underwent full-digitalisation, the new technology designed to enable more efficient as well as cheaper content-distribution, whilst also providing a pin-sharp picture, uncompressed audio and 3D-capability. However, industry-wide specs and interoperability standards have proven complicated when it comes to content-security and especially so when it comes to dCinema's requirement for encrypted-content and keys – or key delivery messages (KDMs) – to be tied to specific playback devices.

## CHALLENGE

So, for the likes of Cinemex, this meant keeping track of dCinema equipment throughout its circuit. Oftentimes, each screen has two playback devices: a server and a projector and, a year ago, the circuit found itself overseeing a plethora of model and serial numbers, also software versions and – most importantly – security certificates for 5,234 playback devices (2,695 servers and 2,539 projectors) across its network of 2,821 screens. No small number, and particularly as the data was being manually maintained via text documents, Excel spreadsheets, and others, by multiple in-house staff. So, if a playback device was removed from a theatre, or if new equipment became introduced, records would be manually updated, along with occasional uncertainties as to the recency of device lists. And, as many exhibitors have discovered during Cinema's Digital Age, this becomes quite a problem when content-providers request such information for issuing keys for upcoming releases. In routinely receiving such requests, Cinemex would distribute their device-list in spreadsheet format.

Of course, sometimes the wrong key could be delivered to one of its multiplexes when equipment had been moved after the Trusted Device List (TDL) had been distributed – and is a common occurrence in modern cinemas. And, when such incidents occur, it frustrates all in the distribution chain: the distributor, the content-provider and, most of all, the exhibitor; and the occurrence of



such instances are the very reason why service-providers have begun requesting machine-generated Extended Facility List Messages (FLM), as standardised by <sup>\*</sup>SMPTE protocol. Thus, Cinemex needed a cost-effective way to compile and distribute an accurate up-to-the-minute FLM for its entire circuit for the benefit of multiple service-providers and via a single FLM-x feed.

Additionally, when content and keys would be delivered to a Cinemex theatre, they'd arrive via hard-drive and email, respectively, meaning that there was no practical way for service providers to automatically track the deliveries, and no way for Cinemex to manage the keys throughout any one location's playback period.

ABOUT CINEMEX

Founded in 1995 from a single Mexico City location, Cinemex has grown into Mexico's second largest cinema chain, indeed the sixth largest globally, and today operates nearly 3,000 screens across over 330 sites located throughout Mexico and, as of 2017, the USA, also.

Cinemex' auditoria are all stadium seating built and have since seen continuous improvements, among others: luxury recliners, in-theatre dining, VIP screens, Event Cinema and 3D & 4D-capability. In addition to the U.S., Cinemex also plans an expansion into Europe.

[wwwcinemex.com](http://www.cinemex.com)

Moreover, the keys were also being delivered to the specific theatres' individual email addresses. Indeed, how, then, could Cinemex' personnel recover any missing keys and deal with identifying the original emails without any complications? Certainly, exhibitors, globally, have discovered that receiving and managing keys on a theatre-by-theatre basis remains a most inefficient method, as well as one prone to disorganisation and error. Thus a solution to centralise keys-management was sorely needed so that the days of Exhibition's sending out spreadsheet-listings of its projection devices could be brought to a swift end.

THE QUBE WIRE SOLUTION

While dCinema's stringent security requirements have played their part in making content-delivery and playback

less straightforward than had been hoped, systems now exist that enable exhibitors to avoid many of the routine pitfalls. And, by implementing its Qube Wire solution, Qube Cinema has helped Cinemex untangle, and then normalise, its device-lists while simultaneously providing

it with a publishable FLM-x feed for third-party service provider-use; and, as a bonus, Cinemex also used Qube Wire to resolve its key-management issues.

Commencing in November 2017, Cinemex provided Qube with its multiple facility device-lists to be cross-referenced with the global TDL [Qube] has maintained for over a decade: the one now found in Qube Wire. And, once each of Cinemex's devices were assigned within the Qube Wire system, an FLM-x feed for the entire circuit



was created automatically. The feed could then be shared via a secure URL for real-time updates (or downloaded as a CSV file) which could be emailed to content-providers.

As a quality control measure, Qube validated the FLM-x feed with service-providers, like Deluxe, to quickly ensure its correct receipt and consumption. Going forward, all that Cinemex employees now needed to do to keep their FLM-x feed current, was to provide incremental updates when devices within any auditorium change, or perhaps if a new theatre comes online – which can also be effected through a secure web-user interface accessed via password-protected accounts supervised by a Cinemex administrator. Ideally, each site's TMS would recognise new devices, or those having changed auditorium, and to update Qube Wire directly without human intervention. However, this is not a feature most TMS applications offer yet and Qube is working with TMS-developers to expedite such functionality.

Once Qube Wire was up-and-running at Cinemex, the exhibitor instructed content-providers and distributors to be sending keys to a single email address, for example:

With [Qube Wire], updates to our TDLs are effected in under an hour of notification of a server-change, and we're also having fewer 'wrong keys' as well as faster delivery of new ones when servers do change – the platform is simple to use and the Qube Wire support team is always available to help. It's actually been a very positive experience

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Manager of Projection, Cinemex

“dropbox@qubewire.com”. When keys are sent to this address, Qube Wire receives the key and parses it before directing it to the correct theatre based on the email stored in the Qube Wire database. Qube Wire also stores all of the keys sent to Cinemex for any future use in a Universal Inbox. Cinemex employees, in their administrative capacities, can then view the status of booked-content, download keys and even choose to automatically forward any key issued either from Qube Wire or any third-party KDM-provider directly to the theatre's KDM-delivery email address, and all via the Universal Inbox interface.

THE RESULTS

Towards the end of January 2018, Cinemex had fully implemented Qube Wire's FLM-x and key-management features and no longer needed multiple employees to try to maintain separate and conflicting versions of its TDLs. Aldo Sánchez González, Manager of Projection for all Cinemex locations, observed: “Using an online platform means our TDL can be updated by any approved Cinemex personnel accessing the Qube Wire system... this reduces response-times while also increasing the accuracy of our TDL so that, now, it's both faster and easier to update and with the information more reliable and always available”; before adding: “It used to take almost a month to update our TDL, depending on the number of servers that changed and if the

one in charge of updating received emails informing them of the needed changes. Consequently, the information most of the time wasn't available and the TDL therefore not fully reliable. Now, with Qube Wire, the update is effected in under an hour of notification of a server-change”.

In fact, rather than sending distributors and content providers multiple spreadsheet versions listing thousands of dCinema devices, Cinemex now publishes an industry standard FLM-x feed and, for those entities which, for whatever reason, can't receive or import an FLM-x feed via a URL, Cinemex emails the latest version of its TDL instantly in the standardised format. Importantly, it now counts on the accurate FLM-x feed to reduce the time to obtain KDMs when a server is changed, due to failure or maintenance, and of course the ultimate goal is to have the right key for all of its servers at all times, while reducing lost shows and increasing profitability.

“We are having fewer wrong keys and faster deliveries of new ones when servers change”, asserted Aldo Sánchez González, who reports Cinemex to be updating its TDLs faster than some of the content-service providers can send KDMs each

week. And, because the distributors and service-providers have just one email address to remember when sending keys, more of them are arriving at the proper TMS. “To date, the Universal Inbox is solving the problem we've had with keys sent by some distributors when the emails containing the KDM don't go directly to the TMS... using the Qube Wire user-interface is now helping us receive the keys into the TMS automatically”, affirmed Aldo Sánchez González. Also if, for whatever reason, a key does go missing, it can always be found in the Universal Inbox with no more lengthy trawling through emails for the right key.

Cinemex is also now able to request keys for any content sent via Qube Wire, so that if a content-provider delivers in this way and the key for a specific auditorium goes astray, a duplicate can easily be requested without the need even for a phone call. At the same time, distributors sending keys to Cinemex, via Qube Wire, now have the luxury of knowing whether or not they have actually arrived at specific cinema locations.

Qube has thus assisted Cinemex through the roll out process following years of development and testing of Qube Wire and, as summarises Aldo Sánchez González: “The platform is quite simple to use and the Qube Wire support team is always available to help. It's been a very good experience”.

[www.qubewire.com](http://www.qubewire.com)

<sup>\*</sup>SMPTE ST 430-16: to be transmitted to them using the FLM-x protocol standardized by SMPTE ST 430-15.