CCTV Global News Production Platform

When it comes to innovation within news broadcasting and production, China is currently ahead of the game. In a market where the lines between linear TV and the web are at their most blurred, the broadcasters and service providers are constantly seeking out new ways to efficiently and cost-effectively attract and retain an audience.

This is epitomised by the national broadcaster China Central Television (CCTV). CCTV has a vision for a new global news production operation that is a step ahead of anything else in the broadcast market, using both public and private cloud to create a worldwide collaboration platform for its journalists and bureaus across the world.

Who is CCTV?

The Beijing-based public national broadcaster CCTV operates 43 TV channels including five overseas English, French, Spanish, Russian and Arabic. Offering news, documentary, comedy, entertainment and drama programming, it has a combined audience of more than one billion viewers.



CCTV's news operation consists of 31 Chinese journalist stations, two overseas branch stations, five overseas central journalist stations and 63 overseas journalist offices.

What is the challenge?

CCTV plans to adopt a global collaboration platform that allows it to produce TV and new media content at the same time across its global output. The requirement is for a collaborative network that is accessible by all of its offices and locations and allows them to share and exchange content and access scheduling and planning functions. High availability is key.

The effective adoption of both private and public cloud is a critical success criteria – making best use of the benefits of both technologies whilst avoiding the inherent limitations - utilising a software platform that is easily deployable in both environments.

Liu, Wanming, Technical Director of News in CCTV says "The globalisation of News requires a global perspective delivered with local understanding. Our goal is to give immediate access to content from across all of our regions, from a wide range of creative toolsets, to enable this localisation of stories for the audience and their devices"

What is the solution?

Partering with Sobey for the HQ system in Beijing, CCTV has opted for Hive, the unified content platform.

By making use of distributed micro-service technology in the backend, and providing operations analysis via customisable dashboards at the front, Hive streamlines and controls a news production operation.

Through the use of published APIs many different types of creative and authoring tools are integrated onto the Hive back-end. For the first time journalists from different groups and experiences can access the same content, at the same time using their toolsets to craft their story, tailoring it to their particular audience or device.

Each journalist will have a number of different toolsets available to him or her, including Web Editing; WeChat Authoring; Craft Editing; an Omni-Media Web Portal; Image Authoring; H5 Mobile Authoring; SNS Authoring (Weibo/Twitter/Facebook/Youtube); and APP Authoring.

With the private cloud, operating as a data centre on-premise, managing metadata and both proxy files and high-resolution footage, facilitating content sharing and new media production.

The public cloud will then contain a synchronised version of the private cloud that has mirrored metadata, the proxy files and on demand high res.

Using public cloud service in China the public cloud repository will allow journalists to access content, handle User Generated material and produce new media output locally, and then distribute it across social media.

Irrespective of where the journalist is based, they will be able to build an Edit Decision List (EDL) and create a news story package using footage and data gathered from anywhere around the world. The initial work will be done using proxies that are then published back into the main system and re-linked to the high-res footage.

Journalists could also be download clips and control and manipulate them locally.

CCTV project manager , Shi, Qiang stated that: "Providing the easiest access to content ,securely, from literally anywhere, requires a single platform capable of running in private environments and public cloud natively. Our ability to reduce engineering, integration, training and support cost with this single overall architecture and yet ensuring the scalability and flexibility to decide where to place the platforms and which partners to work with is absolutely critical to the success of this project."

When is it happening?

By the time you read this, CCTV Beijing will be operational.

The network will be implemented in a phased fashion, in two stages. Phase1 will include the construction of CCTV's headquarters in China complete with private cloud and public cloud capabilities. This will initially support new media production only with TV news being produced using a legacy system.

Phase 2 will see an enhancement and scaling of the headquarters so that it can support both TV production and new media production simultaneously.

The first CCTV China elements are due to go live in February 2017. The American and European region will follow up later this year.