

Cost effective connectivity

The UK's ITV network is implementing a new integrated news operation, in a project being led by Avid Technology with key contributions from Telestream. An important part of the project is to integrate the small news bureaux, which provide local news coverage, within the regional structure of ITV. **JAMES NUTTALL** looks at providing cost-effective connectivity for these local operations.

On the traditional broadcast infrastructure, to set up a local news office would involve installing video circuits to, and probably from, the regional centre. These video circuits are expensive to install and maintain, and require operators to handle the ingest: these costs could even be a decision breaker when considering a new operation.

On the other hand, delivering localised news quickly is always important, and certainly was high in the minds of those specifying and developing the new ITV news network. The key was to move from video to

data delivery, meaning that the signal could be carried over widely available data circuits - 2Mb broadband carriers are preferred, but any IP circuit will do - but at the expense of not being a real-time transfer.

So, as part of the tender documents for the new installation, a low bitrate transfer facility was specified. The winning choice was from Telestream, a well-proven solution for delivering uncorrupted video files over low bandwidth circuits, using IP for resilience.

Paul Stevenson is leading the project for ITV News: as part of the team at Meridian, the ITV franchisee for the south and south-east of

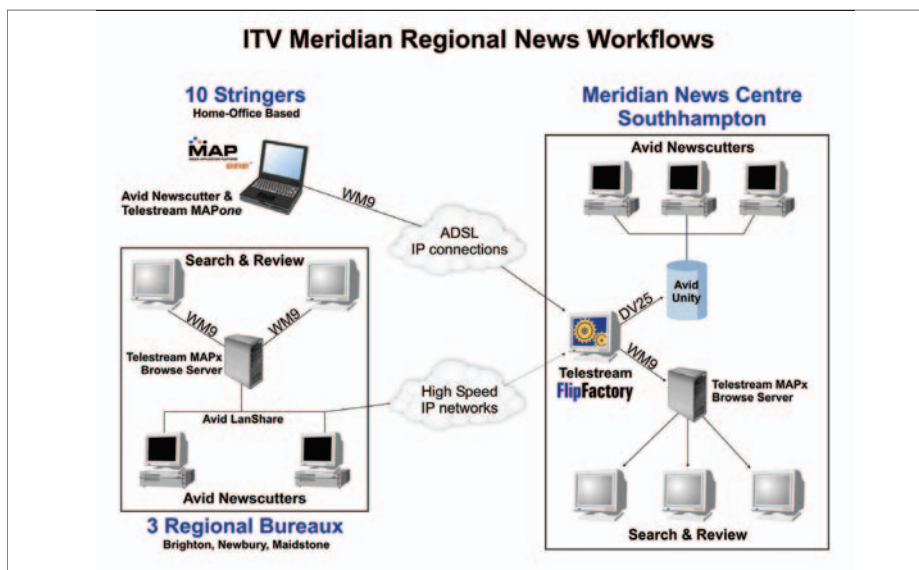


England, he has already implemented just such a low bitrate circuit and is currently working on the rest of the Meridian area as the pilot scheme.

"We have a video journalist based on the Isle of Wight who edits his own packages and sends them to the Southampton newsroom down a domestic broadband connection," he explained. "What we wanted to do with the new system is extend this idea so that anyone could file material and 'flip' it into the Avid Unity. To do that, we are exploiting the compression offered by Telestream to transmit DV25 quality video over a low bitrate in a reasonable time."

Stevenson uses the word 'flip' because part of the Telestream offering is FlipFactory, a utility which translates the data as well as transferring it. FlipFactory decompresses the incoming file and converts it to DV25, then works with the Avid Unity TransferManager to publish it onto the Unity shared storage system.

At the journalist end, Telestream software called MAPone is a plug-in to the Avid editor. Once the package is completed the editor calls up the Telestream wizard which compresses the video to contribution quality and sends it



ITV Meridian regional news workflows

over IP, at whatever line speed is available. That means that the journalist - already under plenty of pressure in shooting and editing the story - does not need to worry about any of the technicalities.

So essentially it is a one-button operation: the journalist simply sends the completed package and Telestream automatically deals with file format conversion. The story just pops up in the main news system.

Contribution quality is maintained; transmission times obviously vary on bandwidth, but typically a 2Mb connection will carry a two-minute package in 10 to 15 minutes. "The Telestream system also tells users how long it is going to take to transfer the material," Stevenson added. "It is a workflow that we like."

George Boath of Telestream explained: "ITV is the first European broadcaster to realise the benefit of using low-cost IP for contribution on a regular basis, as a general part of the process. It is certainly not a replacement for the conventional SNG unit that we have all got used to: they will still be needed for the big stories, the late-breaking news, and the stories which have to go live.

"But most news is not so time-critical," he continued. "The time penalty is small, and the cost saving is huge. I have heard suggestions that, using IP delivery, a broadcaster can put a stringer on the road for less than £10k: a camera kit, a laptop Avid editor with Telestream MAPone, and ADSL to the home. That transforms local newsgathering."



Meridian's new production centre at Whiteley, Hampshire in the UK.

A second benefit of the Telestream implementation is that it provides a low bitrate browse system in the reverse direction, using MAPx software. Journalists working anywhere can look through the contents of the Unity, using a Windows Media viewer. This might be used, for example, where the local reporter is providing a contribution to a larger package, to check that the script and pictures are likely to complement not duplicate other reports. It could also be used as a research tool.

Again, this was specified in the original ITV tender. Interestingly, the requirement was not for browse resolution editing, which places very much higher demands on the system. Using MAPx just to provide browsing is another major cost saving, at less than £10k per site.

The main impact, though, will be felt in the way it allows additional news operations to be added quickly and extremely cheaply. "It means circuits can be moved around and new circuits added, because they are low cost," said ITV's Paul Stevenson. "In turn, that means we can add an extra layer to our reporting - local journalists as well as regional news bureaux feeding into the main newsroom."

"The incumbent technology could only work real time, so all processes had to be based on the worst case," added Telestream's George Boath. "This technology allows the journalist to use whatever connection is available to get the story back. It could be ADSL, it could be a wifi hotspot, it could be a hotel business centre. And with the pace of development in broadband connections it is good today and will be even better tomorrow."

"We have proved it works with the Isle of Wight service," concluded Stevenson. "Now we are adding 2Mb IP circuits between the Southampton newsroom and local operations in Ashford, Salisbury and Bournemouth. For each of these we are replacing expensive dedicated video circuits with data connections, which are as near as free. We will be rolling it out across the whole of the ITV network."



Telestream's MAPone