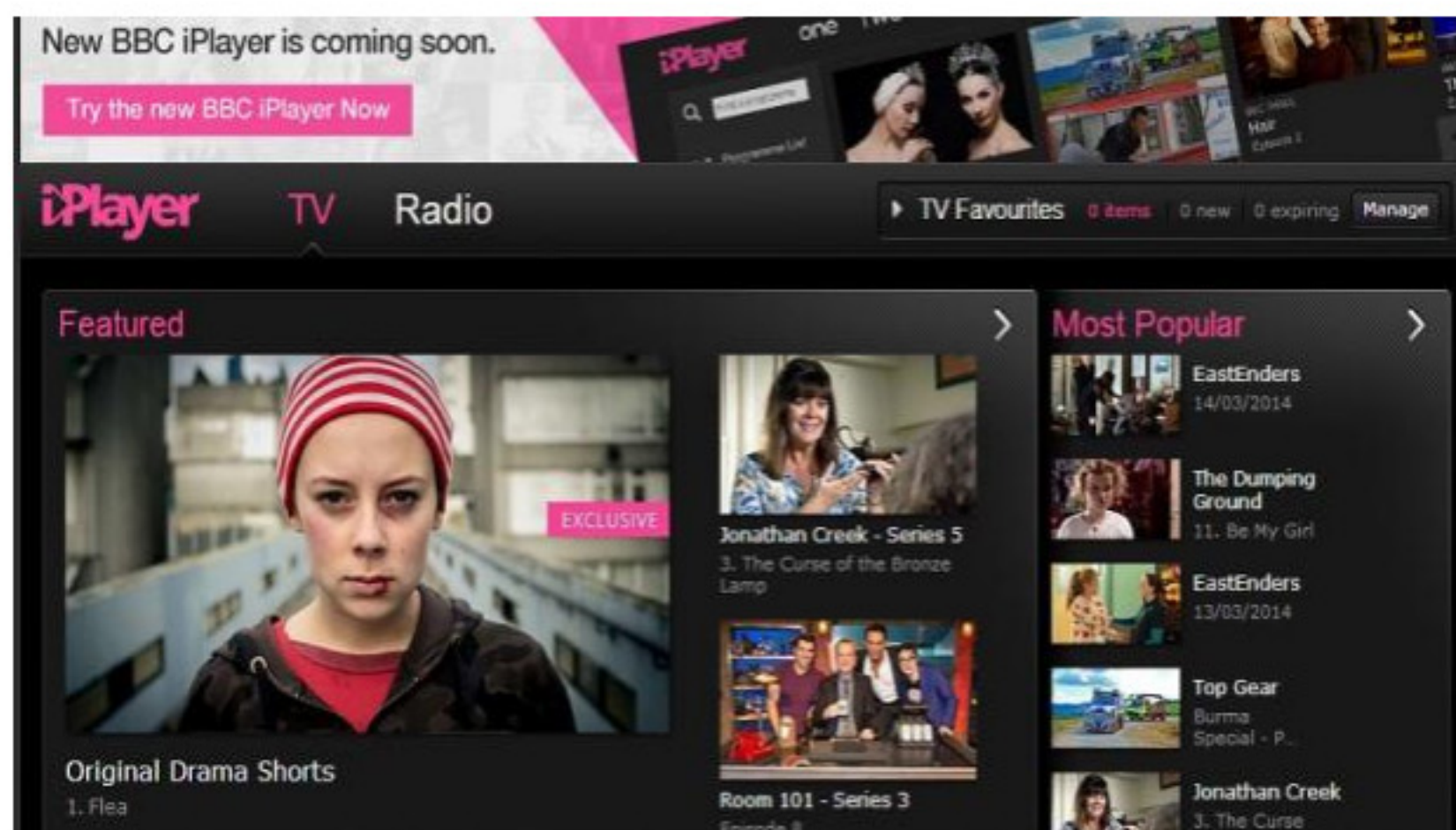# BBC: Making use of the cloud to transcode video and reduce costs

Broadcaster uses cloud to aid flexibility and boost Winter Olympics coverage

The BBC's iPlayer service has become a firm favourite since it was launched in 2007. In that time, the service has had to evolve as it has become morein demand. It isnow the most popular video-on-demand service in the UK. Indeed, iPlayer served up 36.5 billion minutes of content with help from the cloud in 2012 alone.

One of the most notable changes during this time has been the increase in viewers using tablets and smartphones to consume available media. Add to this, special events such as Glastonbury and the Olympics, and the service soon began to run into problems using traditional infrastructure.

The organisation was using a ground-based hardware system that was put together around five years ago, long before the rise in popularity of mobile devices, according to Stephen Godwin, senior technical architect at the BBC.

"That system was built at a time we weren't [focused on] smartphones or tablets. We were constantly running into limitations of the system as we added these new things in," he says.

He says that the old system would run out of disk storage and run out of I/O on the disk or on the network. "Those are really difficult things to upgrade and really difficult limits to remove," Godwin adds.

The cloud gave the BBC an opportunity to scale up to meet demand as well as being able to effectively and efficiently serve these new form factors. While scalability was a key factor, it was also important to have transparency around the costs involved so that the organisation could anticpate exactly how much it would have to pay to serve greater volumes of content.

In late 2012, Godwin's team embarked on a project that looked to cloud computing to help it achieve its aims. The project, dubbed Video Factory, focused on the cloud as it was believed it could provide both the levels of scalability and reliability that would enable it to handle spikes in content loading and demand without issue.

"The transcode infrastructure became the bottle neck for what we could make available online. We were making decision about what we made available online based on the transcode system which is the wrong way around," Godwin says.

"The old system has single-points-of-failure. We wanted to move to a model where we had the resiliency of the broadcast chain."