

Red alert

Jeff Tyre suggests ways for unlocking revenue streams from alert messaging systems, helping operators go beyond emergency alerts to customer service applications and promotional alerts

From a subscriber's viewpoint, video services are in a constant state of flux. Whether it be changes to the existing channel line-up, planned outages or even the future availability of new services, operators need to find a simple, cheap and effective way of keeping customers fully informed of any alterations to their planned service. Failure to do so could lead to missed revenue opportunities, customer frustration or, even worse, churn.

The most pervasive way of keeping subscribers up to date with issues affecting their TV services is undoubtedly through the use of alert messaging systems, which enable service providers to push messages direct to TV sets. While subscribers can easily miss crucial information about service changes if it is emailed to them, or included somewhere on their monthly bill, it is harder to ignore it if it pops up right in front of their eyes whilst they are watching TV.

Alert messaging systems are nothing new and have a long heritage of use, particularly in the US market, where

“The ability to deliver alerts is becoming particularly difficult as operators support both analogue and digital subscribers.”

operators are legally required to alert subscribers about severe weather conditions and other significant events. Over time, this usage has been extended to support the dissemination of customer service-type alerts,

enabling providers to notify subscribers of issues impacting their service. However, the true value of these systems comes from their ability to support promotional campaigns, helping operators to drive viewership of new shows and channels, and improving the uptake of new services, such as video-on-demand.

For operators, the transition from emergency alerts to customer service applications, and onwards towards promotional alerts, is not without its challenges. Traditionally, alerts have been simple text crawls



Messaging alerts

overlaid across the top or bottom of TV screens, but in today's multimedia world there is a growing appetite for content-rich alerts, which encompass graphics and in some circumstances even video. This requirement is of particular importance to operators wanting to market new services or programmes.

The use of digital, as opposed to analogue, alert systems has to some extent solved this problem, as they make it possible to overlay graphics and video in addition to pure text. However, many providers are today operating services over mixed digital and analogue infrastructures. The challenge here is how to deliver compelling alerts to all subscribers without adding technical complexity.

The evolving use of alerts

Perhaps the most famous example of an alert messaging service is the Emergency Alert System (EAS) in the US. Introduced in 1997 as a national warning system, it was originally designed to enable the US President to talk directly to the nation in as little as ten minutes. While the EAS has never actually been used for this purpose, it is commonly used to notify people about more localised issues, for example, floods or hurricanes. US cable operators with

more than 10,000 subscribers have been mandated to participate in the EAS since 2006.

To TV viewers, the alerts generated by the EAS appear as simple text crawl messages across their screen. This method has proven to be such a powerful way of reaching subscribers it is easy to see why operators have started to use them to communicate vital service information.

Text crawls represent a simple and extremely effective way of notifying viewers about a whole range of issues, for example, changes to the channel line-up, information about migration from analogue to digital, scheduled service outages and blackout periods for sports and other programming. And while the requirement to participate in the EAS system has placed alert messaging systems top-of-mind with many US operators, the rest of the world is starting to take increasing notice of such systems, for example, in the UK, where viewers are reminded of the ongoing digital switchover (DSO) over such systems.

One of the main advantages of alert messaging systems to date has been their ability to deliver localised information to viewers. As with the EAS system, which sends out threat information according to subscriber location, video service operators can also push out messages tailored to the needs of specific service groups or neighbourhoods. Zoning capabilities inherent in alert messaging systems allow operators to define 'messaging zones' and send messages only to specific areas (useful when notifying customers about a planned network upgrade or outages) or over specific channels (useful when disseminating information about changes to the channel line-up) as and when required.

It is this ability to localise content that has driven operators to rethink their messaging systems, and some are now using them to deliver tailored marketing campaigns promoting new service offerings and ultimately generating more revenue. But while the prospect of sending promotional information direct to

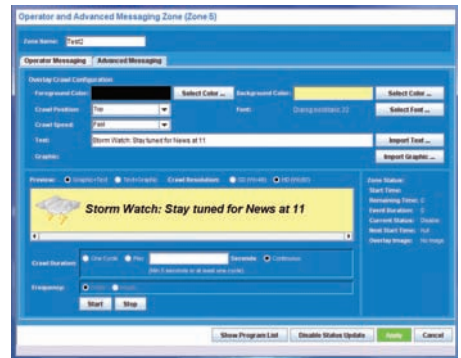


Figure 1a: Advanced messaging systems easily allow for subscriber notifications, as well as graphic and text operator promotions

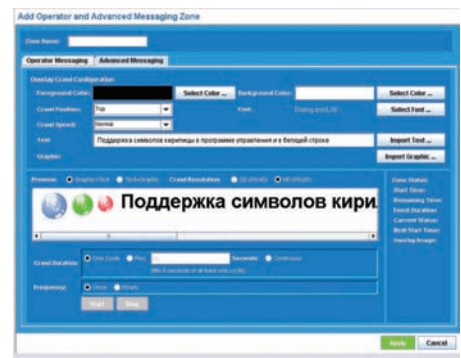


Figure 1b: The ability to accommodate international characters makes today's advanced messaging systems a useful tool for operators worldwide

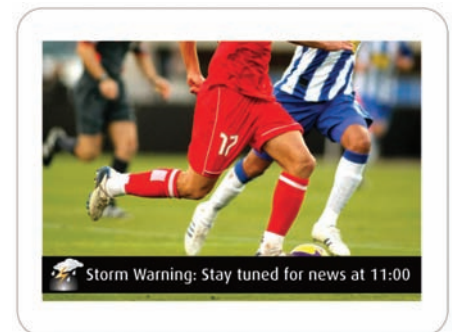


Figure 2: Advanced messaging combines graphics and text crawls

specific viewers' TV sets is hugely attractive to operators, the basic text messages generated by older analogue systems - which are based on simple character generators - have only limited appeal for marketing purposes.

To a large extent, this problem is overcome by the emergence of digital alert systems. Based on MPEG technology, these digital systems have many advantages over their analogue predecessors, allowing operators to overlay all types of content directly onto



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any standard- or high-definition MPEG encoded digital programme before delivering it to any digital subscriber set-top box or TV with a built-in decoder (such as for HDTV).

Utilising the same interface used for entering standard text crawls (as depicted in figures 1a & 1b), operators can also overlay video, audio and logos. They can also extend message lengths and include international characters. Alerts can be programmed to appear immediately or at a predetermined time, and last for a predefined period. An example of how a combined graphic/text overlay might appear to a viewer is shown in figure 2.

Legacy analogue alert systems pushed to the limit

While alert messaging systems represent a critical communication channel by which video service providers can reach their subscriber base, their effectiveness is now being severely hampered by the overall complexity of today's operator infrastructures.

The ability to deliver alerts is becoming particularly difficult as operators support both analogue and digital subscribers. For example, some current analogue methods of sending out alerts often result in messages being indiscriminately delivered to subscribers well outside the intended geographic area. There have also been incidents of legacy systems not being able to provide service to viewers with certain brands or models of set-top box, or with TV sets featuring built-in decoders.

The consequences of this cannot be underestimated. While some viewers find themselves spammed with irrelevant alerts (and will eventually tune out to all messages), huge swathes of subscribers are left completely unaware of the issues that will directly affect them.

This situation presents a significant challenge for operators, who simply cannot justify the costs and disruption of a complete infrastructure overhaul simply to improve the effectiveness and reliability of the messaging alert systems.

The way forward

To keep pace with industry changes, it is clear that alert messaging systems must support more advanced features which allow operators to seamlessly overlay logos, audio and video box-outs over their regular programme streams. However, this alone is not enough. They also need to operate effectively in mixed analogue and digital environments, catering for consumers using an array of set-top boxes, TVs and other decoders.

These challenges are by no means insurmountable. Over recent years, operators have been making increasing use of digital processing solutions in order to offer localised video content and advertising. The attraction of these solutions is they are capable of centrally processing content from many sources, provided in a variety of codecs, before transmitting it to multiple set-top boxes or TVs.

A natural extension of this functionality is to also process messages and other digital overlays. Overcoming the hurdle of supporting both digital and analogue subscribers, such systems are capable of delivering these overlays to headend analogue decoders. Not only does this set-up ensure alerts reach the people who need to see them (and no one else), it dramatically simplifies the overall operation and management, making it a cost-effective alternative to a complete channel override.

The relative merits of alert messaging systems have long been enjoyed in the

Alert systems in action

US cable operators have been relatively quick to recognise the benefits of alert messaging systems, initially from their participation in the EAS, but latterly to inform subscribers of essential upgrades as well as service enhancements. At least two of the top ten US MSOs have already moved beyond the basic 'text crawl' approach to deliver more impactful message alerts, combining both graphics and text.

These MSOs are in the process of switching from analogue to digital channel line-ups, and are using these services to inform users of the change. Whilst the latest digital processors manage digital, rather than analogue TV, by sending programming with digital overlays to headend analogue decoders, these operators are able to send out important alerts to all subscribers.

US, allowing operators to instantly update their subscribers with issues relating to services, as well as notifying them of more localised issues, such as weather warnings. For other markets, however, while moves have been made to use such systems - particularly with the UK digital switchover - they remain for the most part a largely untapped resource.

With consumer demand ripe, a variety of industry advancements are providing operators with the means to offer more content-rich alerts to users. The use of digital processing solutions, has further overcome the traditional barriers associated with alert delivery within a mixed digital and analogue environment. Both of these factors combined mean that alert messaging systems are now more than ever an attractive proposition for operators, providing a simple and cost-effective tool for communication with subscribers. **CSI**

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