

FEATURE | DILITHIUM NETWORKS

VIDEO GETS A BAD PRESS IN THE MOBILE SPACE, BUT IF DONE WELL IT COULD HOLD THE KEYS TO INCREASED DATA REVENUE.

By Mitch Lewis, VP marketing and product management, Dilithium Networks

Video content and applications driving the 3G market

In most of the 3G/UMTS networks being rolled out today, 90 per cent or more of the network utilisation is mobile voice telephony, with much of the data services being used for email or SMS applications.

However, in many markets, there is the beginning of take-up for newer services. Experts predict that 2006 will see the beginning of volume use for a variety of other, more content-based services, such as: games download/multi-player; internet browsing; music downloads; location-based alerts; and electronic wallet.

As both 3G mobile handsets and subscriber tariffs continue to decline in price, the market for these services will continue to develop. But to take full advantage of the bandwidth available in 3G networks, and most importantly, to increase existing ARPU and new subscriber uptake, further innovations need to occur, specifically in the areas of video and multimedia.

There are five main areas of video and multimedia services that are most demanded by both global operators and end-customers. These are: video clips and streaming; video messaging; video conferencing; real-time conversational video-telephony; and video call centres.

Each of these services is ideally suited for mobile and fixed broadband based on either 3G/UMTS, WLAN/WiMAX or DSL/cable networks. The advantage they bring is the ability to offer seamless convergent services over networks specifically designed to offer high-bandwidth applications.

The challenges these services face include network demands such as latency and delay, as well as interoperability between different networks based on circuit switching and IP/packet. Another challenge is the requirement for innovative marketing and bundling by the operator to educate and stimulate usage by 'uninitiated' customers.

Examples of these include watching breaking news pictures and sports highlights, or "one-to-many" applications such as adult or mature content. Key customer issues include the video corruption inherent in mobile networks—a one to three minute download could have errors sufficient to disrupt the transmission enough to cause the customer to abandon the service.

Many analysts feel that this service will be more interesting for customers than watching broadcast TV on their mobiles. For example, small and interesting custom-made-for-mobile vignettes and mini-pictures have been quite successful in South Korea as 'soap opera-type' downloads. The main challenges for video clips and streaming portals include typical over-the-air errors and corruption that can occur, as well as quality of the video clip itself, security and slow call-set up times.

While voice messaging, text messaging (SMS) and instant messaging (IM) have enjoyed great success over the past few years, multimedia messaging (MMS) has not. Many attribute this lack of success to interoperability issues, costs/price, and ease of usage.

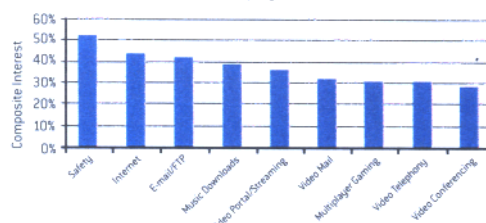
Percentage of total WCDMA applications minutes of use (2006)

Source: Company research



Composite interest by subscribers for various 3G services

Source: Company research



However, one of the areas that is seen as really driving growth in mobile video applications is video messaging. This service lets the subscriber leave a one-to-two minute video mail using their mobile phone that is easily picked up via another mobile phone or via PC. This is also an easy way for people to leave a nice birthday or holiday greeting, sending a "see what I see" holiday photo message and—combined with music—a true multimedia experience.

Standard features can permit the ability to send a video message to a small or large group—such as a company-wide message from the CEO to a geographically dispersed group. This is a service where lip synchronisation is especially important to the overall quality of the customer experience.

Video conferencing has become more accepted and frequently used in the enterprise market, but has been limited to dedicated conference rooms with expensive installed equipment. However, the success of video conferencing has led to the need for a more mobile version as people increasingly work from home.

Video conferencing over mobiles is a simple and easy to use application. As well as business and enterprise conferencing, much of the success of this service will ultimately come from the youth market, as teenagers love to see a group of their friends on their mobile and see what each other is doing. Additional services include live forums (one-to-many), live video chat sessions, and family calls.

Other than the common issues around lip synchronisation and call-set up times, the main issue

to be addressed here is around voice and video delays which can ruin the overall experience.

Today's real-time conversational video-telephony brings "face-to-face" video calls to a whole new quality of customer experience. The closest circles where one could anticipate video calls (such as today's mobile voice calls) is generally close members of one's family and friends. Calls between strangers or business contacts are expected to continue as voice, rather than video, due to cultural reasons of closeness.

One of the more interesting applications is the video call centre. A number of companies have sprung up in this space and have demonstrated the value of adding "sight" to call centres for a number of important reasons. The value of video is that it personalises the experience with a customer.

Besides normal call centre applications, other interesting areas include the warranty and help desk services—the ability to see and fix a problem with a product in real-time.

A key area of concern is the session density of the multimedia gateway and the ability of the 3G/broadband video network to handle massive busy hour call attempts (BHCA) without downtime or degradation of service.

A key area to focus on is the ability of the market to develop new and compelling applications, rather than being too technology-driven.

Besides developing and promoting the five main video applications, there is also the requirement for the operator to make these available to its 3G and broadband subscribers, along with any

required local customisation. Where multimedia gateways are deployed as part of the 3G network, this opens up the ability for the operator, along with the content community, to develop and ultimately deploy interesting and easy to use services. Once these new services have been developed, the requirement on the network to be able to facilitate them becomes even more critical.

It has been well documented that circuit-switched (TDM) and IP networks will continue to co-exist in most markets for at least another 10-15 years. The requirement for legacy networks is to deliver quality in a mixed network with layered and non-layered architecture, and IP switches and routers. New and evolving service layer applications can put a tremendous strain on the network attempting to create seamless interoperability across diverse handsets.

However, quality is the one area of differentiation for service providers that can never be compromised. As subscribers use these new video services for the first time, any issue with quality may cause them to never come back a second time.

As such, new multimedia gateways exist that facilitate this mix of technologies and layers in the network. H.324M test equipment can also help ensure end-to-end compatibility from the handset, through the application layer and delivered across these networks.

Finally, once these new services have been developed and the network deployed to deliver quality, the main question is about keeping existing customers through minimising churn and developing the market to ensure take-up of these new services.

The needs of satisfied customers are related to the value received from the network and service provided, the customer service received and the relative strengths or merits of the competition. A number of studies have shown why people choose or leave a certain mobile phone carrier. As expected, important attributes are always coverage and capacity, good value (not necessarily low-price leaders), excellent quality, simplicity and the ease of use combined with convenience and service.

Deploying video services across mobile networks puts an especially high demand due to the inherent requirements for video and integrated applications and the ability of many of these networks to manage. As many of the leading global and national operators have shown, good marketing and branding can expand the customer relationship, leading to more satisfied customers and greatly reducing churn through inspiring better loyalty.

To solve the 3G video and multimedia challenge requires addressing the applications development, marketing and tariffing combined with the inherent network demands. Through innovative knowledge of video applications and services together with world-leading technologies, these issues and challenges can be readily solved leading to satisfied customers and increased shareholder return for the service provider. ■