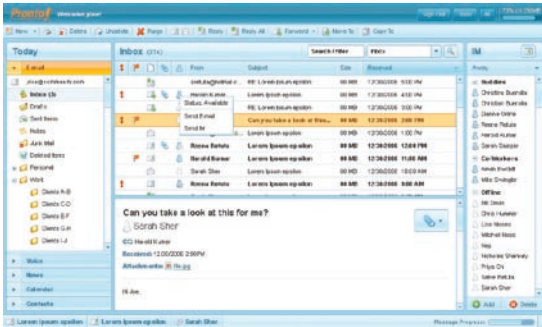### CommuniGate Systems takes a lead in converged application deployment with Pronto! client framework

Why mobile and fixed operators must bring on value added services quickly

The use of Flash technology gives a full PC experience

Both mobile and fixed operators face rapidly declining revenues from their traditional cash cows of voice and internet access services, which have become commodities and subject to continual price cutting.

The knee-jerk response has all too often been to cut costs without seeking sources of revenue replacement. This can only be a recipe for long term decline as revenues shrink, even if it provides temporary relief for the bottom line.

The only way forward is to develop new revenue streams through value added services, as analyst groups such as Gartner keep emphasising.

Yet this brings a problem for operators, because it overturns their traditional business models, requiring a fundamental shift in strategy and the acquisition of application-related skills they are unfamiliar with.

In the enterprise arena, such applications have long been provided by major established vendors such as Oracle and SAP, while in the consumer space social networking sites such as MySpace and Google/YouTube are driving much of the innovation.

These players are themselves looking to distribute their services to portable and mobile devices, threatening to relegate operators to a subordinate role as custodian of the dumb pipe, with limited opportunities for revenue growth.

This problem is compounded further by the fast emergence of free content and distribution services, often with storage bundled in, funded entirely by online advertising. While operators would dearly love to tap into the market for online advertising, it will at best be some years before this could compensate for lost voice and broadband data revenues.

Furthermore there is limited scope for seeking revenues merely by distributing new types of content over fixed line networks, given the trend towards triple-play services within which TV, broadband data, and voice, are all bundled for prices around €30.

On their own, therefore, TV services offer little hope of restoring lost revenues. Even on the mobile side, margins on voice services are now being squeezed. Prices are being driven down both by competition and by regulatory decisions such as the EU's recent insistence that operators slash roaming charges by up to 70% from August 1 2007.

The challenge for operators therefore is to persuade both their consumer and business customers to pay for services, even when there may be cheaper or free alternatives available.

Fortunately this is where we at CommuniGate Systems have proven expertise, having already helped major operators — such as Verizon in the US, Tele2 in Europe, and Batelco in the Middle East — to develop new services.

We begin by helping our customers establish new business models tailored to their aspirations and subscriber base, and then provide the platform and consultancy for deploying value added services exploiting messaging and multimedia.

The key to success for operators lies in tapping growing markets or fields that play to their strengths, and are not dominated by any one player.

Unified messaging (UM) provides a great opportunity, because it combines voicemail, email, and text messages, as well as bringing together mobile handsets, PCs and home and office phones — all of which lie within the operator's domain.

Furthermore the UM market is growing at a healthy rate, set to reach $1.28 billion globally by 2010, up from $772.3 million in 2005, according to telecoms analyst and consultancy firm Commfusion.

UM on its own will not make up lost voice revenues, but it illuminates the direction in which operators need to go, relying as it does on fixed-mobile convergence, which will provide the fundamental platform for most value added services. At least this much has been recognized by many operators, with 80% planning to offer fixed-mobile convergence by 2008, according to Infonetics Research.

Equally significant perhaps will be convergence at another level, between consumer and enterprise applications that exploit the underlying fixed-mobile platform. These have been largely separate worlds until now, but convergence is being driven by the compelling nature of consumer applications such as podcasting, blogging, and video on demand, which will permeate the workplace by 2012, driven by a new generation of workers raised on the technology, according to Gartner.

The other significant application trend to absorb is that messaging services currently accessed from PCs and confined largely to fixed-line services will spread rapidly to mobiles.

Wireless email in particular is predicted by Gartner to reach commodity status by 2012. The significance of the word "commodity" here should now be clear. The implication is that operators cannot thrive by offering the service alone — there must be added value.

Added value equates to added revenue, but the point is that over time the potential for exploiting new services diminishes as competitors catch up.

Operators therefore need to be able to deploy new services quickly, and also to be able to try out appli-

Pronto! is a dashboard for services including instant messaging

cations with no certainty that will succeed.

Trends in telephony applications, especially on the faster-moving mobile side, have been notoriously hard to predict, as shown by the unexpectedly great success of text messaging and the pay-as-you-go model.

Operators need to take a suck-it-and-see approach by bringing a range of services to market, knowing only some will achieve traction.

To do this, operators need an application development and deployment platform that enables new applications to be built quickly, and with minimal impact. This means applications must also be inexpensive to deploy, and not interfere with or detract from existing services, just in case they end up failing and have to withdrawn.

This is just what CommuniGate Systems provides, with our Flash-based client-side application server framework.

We present Pronto! as a dashboard for services based on email, collaboration, secure instant messaging and rich media. It comprises highly flexible client software that can be deployed in various ways to suit just about any mobile handset, PC, set top box or other device.

The client itself can be "thick", enabling sophisticated multimedia applications on a state-of-the-art graphics station, or thin to suit a vanilla mobile phone.

This flexibility makes it possible for operators to exploit fully the potential of fixed-mobile convergence and the contrasting capabilities of the various devices.

A user may want to shoot a video clip with a mobile handset, and upload it for safe storage on the network or post it to their blog in real-time. For this the primary requirement is ease of use, enabling basic functions with the minimum number of key strokes.

Then when at home, that same clip can be retrieved and edited on a PC using more sophisticated functions.

The same principle applies to other applications, including still photography, email, and blogging, with the onus on simplicity when in the field — where mobile access itself is the added value.

This combination of lightweight mobile clients and heavier processing from the PC also contributes to the stickiness operators are seeking — to discourage customers from defecting to a competitor or internet community service, while also encouraging them to store content on their network, even if they have to pay for the service to store that content.

While the big mobile platform providers also supply enabling technologies and infrastructure, they often lack the coherent focus on value added services, and are held back by legacy software based on JavaScript, or its successor Ajax (Asynchronous Java plus XML). They are also biased towards the mobile side and less able to fully exploit the power of the latest PC technology in converged applications such as UM.

CommuniGate Systems instead has based its platform on the much more advanced Adobe Flex 3 Flash technology, which enables us to develop applications incorporating richer media with a much more fluid feel.

Unlike our competitors, the use of Flash technology enables us to provide a full PC experience, and at the same time allow any mobile handset to access the same application with great ease of use.

We also support all the key protocols that allow this to happen, such as SyncML, recently adopted by the Open Mobile Alliance and implemented on Symbian and Nokia handsets, along with ActiveSync, used on Windows mobile platforms.

Both these standards, as well as some open alternatives that we also support, allow mobile devices to be synchronized with our messaging and collaboration applications at carrier levels with no need for Microsoft's Exchange Server.

Using Flash brings other advantages, such as built in support for high definition video.

Flash players are included in 98% of today's browsers, which means that operators basing their deployments on Pronto! need not worry about downloading codecs to support video. Flash is now effectively ready for high definition TV and video, following release in August 2007 of the latest version of Adobe's Flash Player.

Our Pronto! platform has endless possibilities, and its flexibility enables operators to tailor it precisely to their own strategies shaped by their current network and subscriber profiles. This is reflected in the different ways it has been deployed so far.

Verizon uses it for voicemail, while Danger and T-Mobile have taken CommuniGate Pro to build a state-of-the-art messaging service based on the hybrid Sidekick PDA phone. This comprises a flip down keyboard, proving very popular among 14-to-23-year-olds for texting, because of its ease of use and sheer coolness.

Even for voice messaging, which does not at first sound so exciting, Pronto! is adding value in a way that is almost impossible with older legacy platforms from the big mobile and fixed platform suppliers.

With Pronto! it is easy for example to set up a service so that certain calls are routed in a certain way — say to a mobile between nine and five and to voice mail at other times, unless coming from specified individuals, such as family, close friends or your boss.

This is a simple, yet powerful, application, easy to configure within the Pronto! dashboard environment via a tick box.

Of course ease of use and configurability would be of little value to a major operator without two other crucial properties, scalability and availability. These are both enabled through a powerful multi-threading approach built into our Communigate Pro architecture underlying Pronto!

Unlike our competitors, we provide documented benchmarks demonstrating our scalability and availability, and this transparency has helped convince customers that we actually deliver on our promises.

But the real test is whether our customers are actually making more money, and this is proving the case almost every time. The only problem is that our customers naturally are reluctant to reveal the secrets of our success to their competitors. But that perhaps is a small price to pay for success. ■