

CommuniGate's adoption of Adobe's Flash for its Pronto! client framework will lead to a new era of interactivity and entertainment associated with mobility, location and presence services

CommuniGate's Flash unites communications with media and entertainment



It may seem hard to believe, given its extraordinary growth over the last two years, but it could well be that the real power of unified communications has yet to be unleashed. Unified communications (UC) is entering new territory as it converges with the world of media and entertainment, combining video, interactivity, multiplayer gaming, and location based mobile services.

As this happens, UC, along with its close relative unified messaging (UM), will become an integral part of application environments such as online shopping, gaming, blog management, and electronic voting, adding compelling features that increase their allure and productivity.

Yet in a sense this just continues the strategy taken by the UC community over the last few years, which has moved forward through integration of UC with popular applications such as calendaring, rather than promoting it as the ultimate communications utility in its own right.

UM was first touted in the early 1990s as a panacea for communications and messaging with the objective of providing a single point of access, contact, and management for voice, email, fax, instant messaging and everything else, able to translate seamlessly between formats and deliver to the right place at the

right time in the right medium. Yet in reality these features have emerged gradually as technology has advanced, and only gained traction from users as they have been successfully integrated with processes or applications that enhance their productivity, or just make life easier.

Such at any rate has been the story so far. The big difference now is that UM, or UC, is starting to enhance people's entertainment as well as their productivity and availability. In so doing it is increasingly facilitating communication and interactivity between processes and components as well as people. It was against this background that CommuniGate Systems took the bold and dramatic step of making Adobe Flash the mechanism for transmitting UC applications to clients in the Pronto! client framework.

By adopting Flash, rather than inferior alternatives such as JavaScript or HTML, we have seized the initiative in the fast emerging field of communications for digital entertainment. While some other vendors have built voice over IP applications, for example, in Flash, none have done so for their entire messaging suite as we have.

The first point to note is that Flash has become the de facto standard environment for developing rich multimedia internet-based applications, by adding animation and interactivity to web pages, as it has too for video clips, having been adopted by video sharing sites such as YouTube.

Secondly it enables the clients to be much thinner, which is essential for making UC-based applications work efficiently and cost effectively on hand-held mobile devices.

Most current UC based solutions have fat client pieces that have to be downloaded and run in a client-server application. As well as consuming resources, this does not conform with the emerging trend for "portable presence" web-based applications that people can access from any device wherever they are.

The use of Flash has enabled CommuniGate Systems to make our client very light yet powerful and to be pumped in on demand through the browser, achieving almost total device independence.

Indeed the third benefit Flash brings is phenomenal portability, since the technology is built into about 98% of web clients and is supported by the main PC operating platforms, Microsoft, Apple Mac, Linux and Solaris. Users can pick up any

device in any of these environments and have the same Pronto! experience.

Above all though, Flash provides a flexible and creative environment for enhancing web sites, portals, and multimedia applications through the creation of portable snap-in components that provide interactive links between applications and processes. Although such components can be developed in say Java, or Microsoft's UM environment, more work is involved, and without the same portability or ease of integration.

These snap-in components have been called "software widgets" because they can operate as stand alone utilities, adding to the quality, or utility, of a dashboard, community web site, or online shopping portal.



A widget might be an instant messaging (IM) window that opens up, allowing people watching a movie, or participating in a shared experience, to communicate with each other. Or it might be a pop up that allows people to respond to a classified advert, either by email or voice.

The real power of the CommuniGate Flash-based software widget lies partly in its repertoire, limited only by the imagination of its creator, and partly in its portability, allowing it to be snapped in and out of particular environments at will, like drag and drop objects.

For example a widget could be snapped into our CommuniGate Pronto! client interface, to add a particular function for a new application, and then snapped out by the user for deployment elsewhere, perhaps on a mobile phone, or even a TV set top box.

Indeed it is through quadruple play, the integration between the internet, mobile handsets, fixed line telephony, and TV, that the power of UC will be recruited to enrich media and entertainment. In this context UC can be seen as a cocoon wrapping these islands of communication or media and entertainment and bringing them together.

On the quad-play front, CommuniGate Systems has been working with cable TV companies in the US and Europe to exploit Pronto! for bringing telephony information onto the TV, with a pop up informing the viewer when there is a call coming in, or if one has been missed. This sort of application comes into its own when a person watching TV may not want to be disturbed by casual callers, but wants the option of picking up calls from close friends, or perhaps instead replying by email or instant message so as not to interrupt viewing.

The TV example highlights the pivotal role of "presence" in UC-related applications. Presence is a much misunderstood and abused word, often taken to mean little more than an indication of whether a person is online or not.

A person's "presence" can be shaded in many different ways that can be related to a unified messaging application, and can be defined by mood, time of day,

and current activities. So when a person is watching TV, they can be defined as being available to some people but not to others, or perhaps only for instant messaging chat. Alternatively incoming phone calls can be routed to voice mail, or diverted to email.

Presence can also be extended to location-based services in various powerful ways. In a dating application people with matching profiles who happened to be in the same area while also being available for contact could be invited to get in touch with each other by mobile phone, instant message, or SMS.

Subscribers could browse through photos and personal details on their handsets before making their choice or taking a decision to make contact. In this way, the mobile handset could give subscribers to a dating service instant visibility of potential partners in the vicinity at the time, adding excitement and spontaneity.

This is quite a leap forward from the first computerised dating services over a generation ago involving printed updates posted to subscribers once a month.

Another existing application that is being transformed by the incorporation of messaging is online gaming in its various flavours. Even Microsoft has opened up channels of communication for its Xbox console, but the experience is clunky, leaving the door open for a more smooth and seamless integration via our Flash-based technology.

In any case there are great untapped opportunities to exploit IM, voice, and video chat within online mind games such as chess, poker or bridge, as opposed to those requiring motor coordination. This would allow participants to indulge in the same post mortems and analyses that they do in face-to-face versions of the same games.

Underpinning all these opportunities is the latest Flash Player 9 environment, upon which the CommuniGate Pronto! is based. Compared to other plug-ins such as Java, QuickTime or Windows Media Player, Flash is a lighter client, which is easier to install, quicker to download, and faster to execute. Furthermore Flash allows files or streams to be generated very economically, consuming less bandwidth, memory and CPU power than the rival approaches just mentioned.

An important recent enhancement to Flash 9 was the MovieStar addition. Adobe incorporated the H.264 video codec that is becoming the standard for full-screen HD quality video distribution, especially in IPTV, because of its encoding efficiency and quality.

Alongside this Adobe announced Flash Media Server 3, the release supporting streaming of H.264 content to the Flash player. One version of this, called Flash Media Interactive Server, allow streams to be customised and linked to social sharing or media and entertainment applications.

This is an important step forward for Flash, and further vindication of CommuniGate System's wisdom in adopting it for Pronto! We believe the platform will lead to a new era of interactivity and entertainment associated with mobility, location and above all "presence services" that can indicate personal preferences, mood, emotion, or status for media and communication types. ■