Rocket: time you re-evaluated it?

Once seen as the great hope for music production and composition, the RocketNetwork is alive and well and living in areas not originally expected. PAUL HAZEL points out that it's continually being evolved and that its potential remains enormous, its reality inevitable.

Bran

I FIRST CAME ACROSS the RocketNetwork towards the end of 2000. Steinberg and Emagic had both released Rocket Powered versions of their software and, as I was working on an MA which involved an investigation into the means for musicians to collaborate via the Internet, I was immediately intrigued. I set up a small on-line community project using Rocket, and then in January 2001 attended a demo at Strongroom studios, London where I met RocketNetwork co-founder Tim Bran. Tim later came to Gateway School of Recording (my day job) at our invitation and has introduced the system to our suitably impressed students.

During the two years that I've been using Rocket, what has surprised me the most is how low the general awareness of it remains, and how little musicians seem to be using it (although it has made significant in-roads into the postproduction business). This article attempts to redress this a little, describing what the RocketNetwork is and where it came from. It looks at the way people are using it now and suggests ways in which it might be used in the future.

In 1995 Tim Bran of Dreadzone was producing an album for Londonbeat, and during the recording struck up a friendship with their guitarist and songwriter, Willy Henshall. After the album had been finished, Londonbeat and Dreadzone went off on separate world tours and Tim and Willy stayed in touch via email, actually writing songs together by sending each other MIDI files as they went.

After the tours were over and both were back in London, this remote collaboration was taken to it's logical conclusion when they created a virtual band called ResRocketSurfer (a name generated by entering a long list of appropriately cyber-sounding words into a computer program called Band-O-Matic). This project really took shape when they hooked up with American programmers Canton Becker and Matt Moller who had a Dungeons and Dragons-like virtual environment that they had developed for musicians called the Distributed Real-time Groove Network (DRGN).

This allowed those logging in to the ResRocket web site to go into a 'room' and 'pick up' an instrument and then sequence it on a drum machine style grid. These could then be shared among the other members of the virtual group and chaining these patterns together created songs. Within weeks, membership was around 900 collaborating musicians and things even developed to the stage where an album was completed. Unfortunately the legal complications created by having a group with 900 members proved insurmountable and the album never saw the light of day.

To cut a long story short, a long period of development and fundraising followed during which the software developed by Tim, Willy, Canton, and Matt first acquired audio and then sophisticated encryption, audio compression codecs, chat facilities, and a management system built around the idea of a virtual studio where storage and collaboration could easily be managed by users. Finally, in 2000 Steinberg released a version of Cubase that had RocketControl, quickly followed by a similarly equipped Emagic Logic Audio. The RocketNetwork had arrived. So how does it work?

The Rocket Network allows musicians to collaborate with each other via the Internet and to work on a project together at the same time despite being in different locations. This is made possible by the fact that Pro Tools, Cubase, and Logic make use of a small program called RocketControl. This Application Programming Interface (API) allows the host program to 'talk' to the RocketNetwork and does all the necessary translations, format conversions, and 128-bit encryption.

As Tim describes it: 'We give them [Steinberg, Emagic, or Digidesign] a CD with our code on, which has loads of hooks sticking out of it that if you pull they do certain things,' explains Tim. 'One sends the audio, one sends the region data, one sends the edit, one sends the volume, and then loads of custom objects which they can do what they want with – things specific to that program like VST instruments or Pro Tools commands or something. They can program as deeply as they want to.'

As an example, let's say you wanted to work on a Pro Tools project with someone in New Orleans. First, you would both have to become registered RocketNetwork users, have a Rocket-enabled version of Pro Tools (v5.2 or later), and have the RocketControl API installed and active. Second, one of you would need a private user account at one of the Studio Centres, which in this case would most likely be Digidesign's DigiProNet Studio. Third, whoever had the user account would then have to grant their collaborator access to that private session, with the management software allowing a number of different levels of access depending on the type of collaboration you're involved in. This can range from basic read-only to full read/write permission.

How you proceed from here is largely up to you. If both of you were recording audio independently and contributing equally, it would probably make sense to centralise all the source files on the server. Anything you wanted to access could then be downloaded as needed, with Pro Tools automatically informing you of when changes had been made and when there are new audio files or edits to download. The downloads themselves could be in a range of formats ranging from 'source' down to a compressed 12:1 'preview' format. Huge chunks of audio don't need to be downloaded every time an edit is made: region list data, plug-in settings, and mixer information are all communicated as metadata. In other words, the settings that relate to the behaviour of the audio files can be transmitted as relatively small data packets – the audio only needs to be downloaded once.

Once you get into it, it's all very straightforward. The always-live chat facility allows collaborators to communicate with each other as they work, the management software is very quick and easy to use, and the system itself is reliable and highly secure. It can be used with a 56k modem although broadband is recommended for any serious and sustained use.

Prices are reasonable and charged on a sliding scale. Using the Emagic studio centre as an example, a one-month lease on a private studio with 400Mb of storage and a 2400Mb transfer allowance is about £60(UK). On top of this there would be a once only fee payable by anyone you collaborate with. This gives them ProUser status and therefore access to the private studio area: about £20(UK). There are also pay-as-you-go schemes.

About six months ago RocketNetwork released a new piece of software that will potentially extend their services outside the narrow confines of the audio industry. This is called RocketDelivery and is a very clever little piece of software based on the RocketControl API. Again available as a free download from their site, RocketDelivery allows anybody to send a relatively large chunk of data to any number of recipients without recourse to FTP or unwieldy email attachments.

Let's say we want to send a finished mix of a track to an A&R person in LA along with some photos and a short QuickTime movie of our band. We download RocketDelivery and put the folder containing all our stuff into it. RocketDelivery then losslessly compresses the folder, adds 128-bit encryption, and it gets sent off to the Rocket server farm where we pay a small one-shot fee for storage. In the meantime, the A&R person gets an automatically generated email with a link to the 'package'. They click on the link and it downloads to their machine where it decompresses itself. Bingo.

I would have thought that anyone who sends large files of any sort on a regular basis – audio, video, graphics, archives, and databases – would benefit from the use of RocketDelivery. It's simple, secure, easy to use, relatively inexpensive, and it works.

A perfect example of the way RocketDelivery can completely change an established working practice has been provided by the imminent Warner Brothers production of Harry Potter and the Chamber of Secrets. A modern international film production will usually be released simultaneously in as many countries as possible to maximise marketing dollars and to minimise the opportunities for piracy. To achieve this, multiple foreign language versions of the film have to be derived from the English language master. Ray Gillon specialises in this sort of work and bumped into Tim at UK dealers Gearbox where Ray mention that a film production he was working on was being delayed because the Turkish language reels were currently stuck in customs. One Rocket demo later Ray had decided to do the complete Harry Potter and the Chamber of Secrets foreign language production using RocketDelivery.

Ray began by preparing a guide sound mix of the film in Pro Tools, with all sound effects on one mono track and all the dialogue on another. Copies of these – 14 in this case – were then sent off to studios all over Europe to have the foreign language dialogue added. Once completed, these finished Pro Tools sessions were returned to Ray for mixing. For the first time, Ray sent and received all the sessions using RocketDelivery and the project has been such a success that Ray has sworn never to go back to the 'snail mail' delivery he's been using for so long.

'Even if it takes 8 hours to get there, there's no other way to get it there in that time,' says Tim. 'Unless it's huge – massive, massive amounts of gigabytes – you can do it, you can still beat the CDs and for a fraction of the price.'

Let's fly over that one again: no packages to produce and none to go astray, no customs, no courier charges. All you have to do is send one RocketDelivery package and all of your recipients will immediately get an email telling them there's a package ready for them. They can then all download copies of that single original. And, in case you're wondering, if the connection goes down at any time during the download procedure, Rocket will automatically reconnect and pick up where it left off.

A major upgrade to RocketDelivery is forthcoming that will allow multiple 'threads' to be transmitted at the same time, significantly reducing download times. You'll need the bandwidth to start with, but RocketDelivery will be able to send your 'packages' up to 32 times faster than it does at present.

As I said at the beginning, perhaps the strangest thing about RocketNetwork is that it seems to have been largely ignored by working musicians. This is evident when you visit the Studio Centres, where you can sometimes feel a ghostly digital wind blowing down empty cyber streets. I can only put this down to the notion of musicians collaborating on-line in this way is an idea for a time yet to come or is it just not a good idea to start with. It may be that the lack of physical contact, the lack of the social dimension, is just too great a hurdle for most musicians to negotiate. Groups just like to hang out with each other!

However, it may be the simple logistical problem of bulk data management that brings the RocketNetwork to the attention of the working musician in the long run. The logic of using their bank-level archiving facilities integrated with a transfer protocol specifically designed

to handle audio data may simply prove irresistible.

Tascam, for example, has just signed a deal with Rocket that will allow MX-2424 users to archive their audio data direct to the RocketNetwork server farm, and the next major Pro Tools upgrade will feature a database driven back-end that I wouldn't mind betting addresses the archiving facilities at their DigiProNet studios more-or-less directly. Couple these developments with an imminent RocketNetwork hardware and software package that will effectively allow you to set up a server farm on your own premises and you will have a very powerful solution to what is becoming an increasingly urgent problem.

I would expect to see Rocket being used in the near future for the transfer of finished masters from the mastering house to the pressing plant. At the moment this is done using a variety of outmoded or non-standard formats: keeping it in a transmissible and secure software format seems the ideal solution.

My own opinion is that RocketNetwork technologies represent a paradigm shift in the transmission, storage, and archiving of digital media. To exploit it fully users are required to completely change the way they think about what they do, and this remains the biggest hurdle to its acceptance. However, when musicians, engineers, and producers see how easy Rocket is to use – actually experience it for themselves – they cannot help but be won over by the inevitability of this way of working. Certainly, I now think it essential that all students leaving Gateway are familiar with the system.

I'll leave the last words to Tim Bran: 'New technology is hard. It's taken all these years from '95 until now to get this far with it. But it's not the future any more. It's now.' ■

LINKS
www.rocketnetwork.com
www.rocketdelivery.net
www.resrocket.com
www.timbran.com
www.xiph.org/ogg/vorbis/
http://www.digipronet.com