

COMING TO A SCREEN NEAR YOU _FAIRLY SOON

WHEN MOST PEOPLE THINK OF FILMS AND BROADBAND THEY USUALLY THINK OF DOWNLOADING MOVIES. BUT DAVID MAIDA AND GREG ADAMS FIND THAT FILM PRODUCERS ALL OVER NEW ZEALAND ARE STRUGGLING TO UPLOAD THEIR CONTENT AND IT'S COSTING THEM BIG BUCKS.

The plot is simple enough to understand. If it is to survive in the modern film-making world, a New Zealand-based production house has to send and receive data that runs into terabytes – and for that it needs to find the secret to high-speed Internet access.

The hero is Brad Broadband (hooray), whose speed and dashing good looks can save the day; the villain is Kill O'Bite (boo, hiss), the cunning mastermind behind an evil plan to restrict bandwidth access, hike costs and generally spread slow Internet speeds throughout the land.

The leading lady is Angelina Jolie (it's our story so we'll tell it how I like!) – although her agent hasn't yet returned our call.

Will Brad prevail? Can he successfully find an affordable, high-speed connection for the production house?

"The telecommunications structure in New Zealand simply does not supply the service that the screen production sector requires," said Tim Thorpe, executive director of the New Zealand Screen Council. "We're increasingly being left behind in this regard and are losing commercial opportunities as a result... Potential growth will be constrained unless it is able to access affordable high-speed broadband."

Huh. So much for a happy ending. And it's an all-too-familiar storyline.

"When we get into the post-production exercise, the biggest failing we have is we can't stream video sufficiently internationally," explained Ian Gibbons, a producer with Exile Films in Auckland.

Exile recently did some computer animation work for a Shell Oil commercial – one of many overseas clients that have serious deadlines and demand to approve material as it is completed.

"There was a computer animation sequence showing the internal action of oil on the engine. The clients were very keen to see the quality of the animation before it went into the actual commercial and it was very difficult to stream in a suitable state. All their technical people needed to approve it. But we eventually got it there in an mpg form."

With about 80 per cent of Exile's business coming from overseas clients, the problem is obvious – and serious.

Today's film studios need to send huge amounts of information. A single frame of high-definition film, ready to be played in the cinema before a paying audience, weighs in at around 12 MB in size. Every second of film is 24 frames long. That's 0.5 GB per running second or around 30 to 40 GB per minute of material.

Telecom reports throughput demand at approximately 60 TB a day (that's terabytes or 1,000 gigabytes – incidentally a 'typical' video store may contain about 8 terabytes of video data).

"This was made possible through custom-designed Filmnet services provided by Telecom," said company spokesman Nick Brown, "which involves a range of tailored solutions for the various stages of production and post-production work. We can tailor data solutions like this to productions of all sizes."

Even so, having to send material by courier is no screen legend. Gibbons has done it. Mike Orton, chief technologist for the Silverscreen Group, also admits to resorting to planes because of the lack of high-speed access.

"We were doing some visual effects for a movie called *Without a Paddle*, with Seth Green and Burt Reynolds. It had to go on to a large fire-wire drive and was flown to Hollywood."

During the course of producing *Lord of the Rings* films, effects house Weta sent Peter Jackson around 1.5 TB of data via courier. Each trip, carrying 30 GB, took up to two days.

New Zealand productions generally use 2k film – the resolution is 2048 pixels across by 1536 pixels down and equates to our 12 MB per frame. The film industry worldwide, however, is moving toward 4k and 8k resolutions. Sony is now distributing its 4k resolution cinema projection systems which look set to be the new industry standard.

Technological advances and the growth of the film industry in New Zealand means the demand for bandwidth is increasing. And the demand will only

increase with the advent of High Definition Television (HDTV).

Thorpe is the first to admit that it doesn't help New Zealand's image overseas for production companies to have to courier their products to clients.

"If you're trying to promote the image of being up to speed with the latest technology in this technological age, it's not a good look for New Zealand."

Dean Lyon, a consultant with Weta, recalls telling one telco that "money was no object" but content needed to be delivered to Los Angeles on a very tight deadline. Unfortunately the telco couldn't deliver and the content finally arrived at its destination almost a full day after a courier could have delivered it by hand.

Not surprisingly, a recent report by the The Screen Production Taskforce – entitled *Taking on the World* – identified broadband as a key consideration for growth.

"The New Zealand screen production sector needs fast, reliable, scalable, and cost-effective high-speed Internet connectivity – defined in the first instance as speeds greater than 1 Gbps – so post-production facilities and production companies can work together more efficiently on a local and global basis," it said.

Two years ago, *Topics* reported that the decision to film *The Last Samurai* in Taranaki was not only due to Mt Taranaki looking rather like Mt Fuji, but also the availability of broadband to transfer material to production studios in the US. Alongside an image

of Tom Cruise we made the observation that 'Broadband brought this man to New Zealand'. The same message still holds true for the technology today – all the industry needs is affordable access.

The Screen Council believes one solution would be to allow film producers to use the Advanced Network, a 100-Mbps network being constructed for the scientific research community. It's currently lobbying Ministers but Thorpe admits they are facing an uphill battle to convince the Government to let the film industry get on board – made more so when you consider the fact that even major public institutions such as hospitals, libraries and councils will have to wait till 2010.

"Part of what gives us some leverage is that when the Advanced Network was first being considered, the original documentation included the creative sector – primarily screen," he added.

Part of the Screen Council's frustration stems from the fact that there's little or no other choice – according to Thorpe alternatives range from "not very good" to "okay if you are prepared to spend the money."

"We just want commercially viable high-speed broadband for the sector. We're not looking for a handout. We're looking for broadband that suits us."

Silverscreen has a 10-Mbps ICONZ-dedicated line nationally but just short of that bandwidth internationally at a fixed monthly fee. It became a problem with a recent bid.

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"In order to bid on a job which is out of Los Angeles for a series of visual effects for a major motion picture, we needed to have 10 MB internationally," explained Orton. "If we increased our capacity, it would be too expensive and make our bid uncompetitive. So, it will be a drawback."

ICONZ sales manager Toni Laursen said mobile satellite Internet is available from anywhere in New Zealand but agrees it is expensive. The fibre-optic network is only available in the CBDs but film-makers are encouraged to use it instead to save costs.

"We do a lot of bandwidth on demand when they have to send a large amount of data," said Laursen. "To send a terabyte on fibre internationally will cost \$4,000. That is on a 100-MB circuit which gives 10 Mbps."

Orton admitted the lack of access during the production of *Lord of the Rings* meant a large percentage of the work was sent to South Australia production company Rising Sun.

"Our problem is that other companies have been the recipients of government largesse so they have basically been subsidised."

Even where a service is available, the Screen Council describes the pricing model as "outrageous". It cites traffic charges from Auckland to Los Angeles as being 10 times the cost of sending data from London to Los Angeles.

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Sohonet, a bandwidth provider that specialises in the screen industry in the UK, has a ‘point of presence’ in Auckland. However, it says it cannot operate as it would like in New Zealand because of the “appalling” pricing structures that mean sending data from Auckland to Wellington which is more expensive than sending the same amount of traffic from London to Los Angeles.

It reports Telecom charging \$95 per gigabyte of traffic on one of its ATM offerings.

“\$95 per gigabyte is outrageous,” said a company spokesman. “We looked at this some time ago and worked out that on average we pay a few US cents per gigabyte at the most. The customer would have to hammer their link 24/7 for it to cost us [as much as Telecom charges].”

So, what’s the success of the film industry worth to New Zealand – and to the Government? Look at the numbers and it soon becomes obvious that we’re talking peanuts here. Even before Jackson and his Tolkien trilogy put New Zealand firmly on the film-making map, the creative sector was responsible for an estimated 3.2 per cent of GDP. That puts it on a par

TESTING TIME FOR USE OF HIGH-SPEED INTERNET

In Australia, CSIRO (Commonwealth Scientific and Industrial Research Organisation) is running a high-speed Internet trial with a number of post-production houses.

The research organisation is providing a 1-Gbps switched Ethernet network linking six sites in Sydney, with either a 1-Gbps or 100Base-T Ethernet connection to the trialist’s nominated machine.

Each post-production house is being invited to test such things as:

- large file transfer;
- streaming video over the network for collaborative editing or client review;
- video-conferencing.

“The project will familiarise participants with high-speed network technology and provide a basis for the development of more sophisticated projects in this area,” said CSIRO’s Teresa Pun.

“We will work with everyone to evaluate the effectiveness of the configuration on an ongoing basis and will endeavour to overcome any major technical limitations that are identified. If people develop any additional functions they wish to trial, or identify any additional network requirements during this phase as a result of the experience, we will also attempt to meet these.”

More at: www.csiro.au

with education, government and defence spending, finance and communications as an industry sector.

The Screen Council believes that there’s much more to come, especially from growth in post-production.

“New Zealand’s build-up of expertise and increasing use of animation digitalisation internationally means that we can attract the post-production even if the shooting is not done here,” said Thorpe.

The time differences mean that film could be shot in America then sent to New Zealand for effects and arrive back on site before shooting begins the next day. But affordable broadband is required to combat New Zealand’s location.

“In order to be competitive with Hollywood or Vancouver we have to shrink that physical distance,” said Orton. “We not only have to compete on pricing and on talent but we also have to make it real easy for our customers to send and receive their material.”

Ultimately, it’s hard to argue with the Screen Council’s assertion that access to broadband is “fundamental for New Zealand post-production facilities to participate in or bid for offshore projects.”

We have an industry to be proud of, but for how long?

“New Zealand’s screen production sector is at a crossroad,” said Thorpe. “To go forward means increasing reliance on telecommunications both internationally, to reach clients and customers, and nationally, to collaborate with other producers.”

Fox TV wants to film a reality television show in Central Otago, but the project is likely to go to Australia because footage cannot be sent to the US as quickly or as frequently as Fox wanted. That contract is worth US\$8 million.

“High-speed Internet is crucial to maintaining the long-term viability and growth of our creative sector; growth which is required to ensure ongoing capital investment in the sector and the ability to retain world-class talent.

“Unfortunately, however, access to appropriate broadband in New Zealand today at commercially affordable prices is simply not available.”

It really would be a good story if, for a change, the Titanic made it to New York. ■

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