

## Routing

### Reality check

If you're connecting a couple of networks together, or connecting a network to the Internet, most people would instantly reach for a Cisco router (or, if you were really radical, maybe go for something from Juniper Networks). It's what you do, right?

Wrong!

Have you ever taken a router apart? I know I have. If you were expecting to see real cutting edge hardware for your money in that nice black plastic box you've yet to find it right? Hmm, wonder what all my money's going on . . .

I know. It must be the operating system that goes with it. After all, it's really complicated connecting a network to the Internet and running all those weird routing protocols isn't it? And as for packet filtering, boy I can see why they have to charge me loads extra to add that to my box. And if I change protocols, like from ISDN to ADSL or Frame Relay, it's obvious that I should need to buy all those special new modules and updates to my software. . . isn't it?

No it isn't!

Let's get real. The simple truth is, it really isn't rocket science, and you can actually do everything one of those exclusive, very expensive proprietary boxes does on an old 486. And you can do it do it better and faster.

Here's what you do. Take a commodity PC or low-end server, install Debian GNU/Linux or your favourite Open Source OS, and then slot in a Sangoma Technologies WAN card. Bingo! Instant router! Not only that, but you've now got a router that can grow, shrink, do anything you want, and handle anything that is thrown at it. More than this, you have just saved your business a great deal of money.

We think Sangoma cards are terrific. And that's why we're their UK reseller. Getting off the treadmill

Let's take one of our clients as an example. They're a very rapidly growing business, naturally with a busy Internet connection. They'd done the Cisco thing and bought themselves a 1603 for the best part of a couple of thousand pounds, but within 6 very short months found themselves bumping up against its capacity. Guess what, they were told they should throw it away and buy themselves a mid-range 3600 series. This was going to set them back another Â£4-5 K just to get started (not a lot really - when the time comes for them to have their own E3 line they'll be asked a cool Â£6K just for the adapter module alone!). Then there was the additional training their staff needed, the management toolset the reseller felt they really should have, plus the extra . . . With Ciscos, it can very rapidly get very, very expensive.

That's when the realisation fully set in with our clients. They were on the proprietary suppliers' upgrade treadmill - they would have to do the same thing again, and again, and again, and again.

So we didn't let them do this.

We got them a nice little 1U server from Dell and slotted in one of our Sangoma WAN cards - all for less money than they originally spent on that 'entry level' Cisco. Even with their growth rate it lasted over 2 years! When they did finally reach the limit and had to upgrade, we simply swapped the Sangoma card out and put it into another, bigger, box (this time from DNUK . . .). And, since the old 1U server was commodity hardware, we used it for something else!

What they've got is a system that knocks spots off any Cisco equivalent and at a fraction of the cost. They love it, the FD in particular. Open Source, simply better software

Kicking out the Ciscos means more than just up-front savings too. Updating your Linux box doesn't have to cost you anything. But updating your Cisco IOS most certainly will! And, if you want anything extra, other than bog-standard routing, with the proprietary suppliers you're going to have to pay for that as an extra too!

That's why our clients don't go that way. Once your Sangoma card equipped PC has Linux (or perhaps FreeBSD?) on it you can do anything you want. Packet filtering Â£â€œ no problem, just add IPtables. Cost of packet filtering - nothing! Proxying Â£â€œ no problem, just add Squid. Cost of proxying - nothing! Now just try doing that with a Cisco. They'll be laughing all the way to your bank! No wonder they power the Internet. I could on all that money!

But, they say, 'dedicated hardware' - it's bound to outperform a plain vanilla Intel/Linux box isn't it? Actually, NO. We've seen it in practice, and figures from Sangoma prove it. The figures show the Sangoma card outperforms the Cisco under ALL measures (with small packet sizes, by over 50%!) right up until saturation of the line, when the Cisco eventually achieves parity!

By the way. There's another thing our clients like about doing routing this way. You stick a Cisco into your network and you've got another box, another set of cables, another hop on the way out, and yet another operating system to learn all about (and have you looked at IOS?).

Why would anyone want all this complexity, hassle and cost? Stick one of these WAN cards in your Linux box and you simplify the whole thing. It's faster, it's cheaper, and it's a whole lot simpler to set up and administer. Have a look at Sangoma's home page. It may not be as funny as [routergod.com](http://routergod.com) but, if you ever do need a good laugh, there's always [Slashdot](http://Slashdot).

So there you have it. A couple of day's work and you have a router that's as powerful as anything on the market. And, believe me, it really is as easy as that. You've now got a more reliable, simpler and faster solution. You've eliminated another box in your server room, and replaced it with something far easier to administer. You've reduced your exposure to, and dependency on, proprietary technologies and the constant hardware/software upgrade treadmill they force you on. Even more than this, you've saved the business a great deal of money on hardware, support staff time, software licences and 'extra' modules.