

Re: combining 2 ADSL Lines

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/questions/2004-12/1840.html>

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Date: 12/18/04

Date: Fri, 17 Dec 2004 15:32:07 -0800

To: Hexren <me@hexren.net>

On Fri, 17 Dec 2004 15:32:50 +0100, Hexren <me@hexren.net> wrote:

> *I have the following problem, I have 2 ADSL Lines and would like to*
> *combine those 2 into 1 big. I have full control of both the gateway*
> *from my LAN and another Server in the internet which I could use as a*
> *second gateway.*
>
> *What I am thinking of is something like virtualizing so that in the*
> *end I have VirtualInterface1 which is DSL1 and DSL2.*

Assuming these are just normal DSL lines with no special options which would allow them to be combined, your options are limited I think.

This message assumes these are your typical Residential/business type DSL lines which provide a few IP's to the end Customer.

In general, when using two different connections (DSL, T1 or otherwise) between two different providers you have to pick one connection or the other to send traffic over when communicating with a given host on the Internet. There are many ways to "share" the two connections in an automated way, so that some traffic goes over one connection and some traffic goes over the other, but this doesn't allow you to bond the two connections. "Bonding" being defined as the ability to combine the bandwidth of both connections to provide higher peak transfer rates.

The basic problem is that each ISP is only going to route traffic to the IP address they provide you. Since it's highly unlikely that both providers are providing the same IP you have to use NAT. When you send traffic out of your network, it has to originate from one or the other IP address and response traffic is only going to come back to that IP address, thus only using that DSL line. You can certainly send the next connection out the other DSL line, but again, it will only use that one DSL line.

There have been threads in the past discussion the use of policy routing to send traffic from different parts of your network over different connections – thus sharing the overall load between the two connections. This gives you some additional capacity, but does not

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provide higher throughput than a bonded connection would provide.

Setting up each connection individually on the FreeBSD gateway and then investigating the use of pf or ipfw to provide policy routing is probably the closest you are going to get to using both connections at the same time. Perhaps someone else has some suggestions for options I'm not aware of.

Aaron

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