

## Re: bridge with access on both interfaces

**Source:** <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/net/2003-12/0191.html>

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**From:** Ian Smith (*smithi\_at\_nimnet.asn.au*)

**Date:** 12/23/03

Date: Wed, 24 Dec 2003 06:41:00 +1100 (EST)  
To: "Michael W. Oliver" <michael@gargantuan.com>

On Tue, 23 Dec 2003, Michael W. Oliver wrote:

> *On Wed, Dec 24, 2003 at 04:38:32AM +1100, Ian Smith wrote:*

> *[...]*

>

>> *In short, ifconfig appears unwilling to have two NICs covering the same  
>> /24. Can this be set up? I'm also at a bit of a loss with the routing,  
>> so inside packets to the bridge box (ie unbridged packets) are responded  
>> to on the same interface, and outside unbridged packets go only to/from  
>> the gw. Some tcpdumps on both in and outside interfaces suggest an ARP  
>> response problem also, perhaps; no responses on the inside iface at all.*

> *You can't have two interfaces within the same IP subnet, with the same  
> mask, on one box. What you can do is configure the primary interface  
> with the /24 mask, and then configure the other interface with a /32  
> mask. This is the same process that you would use to put two (or more)  
> addresses from the same IP subnet on a single interface.*

Ah, thankyou. In that case, what we'd seem to need is the outside (gw) interface as the /32 – since only the gw is outside here – and the /24 inside, since all the internal boxes need access to its servers. Will try that out tomorrow (family / holiday plans permitting :)

> *Regarding the other stuff, if a particular service is configured to  
> listen on any interface (noted by the "\*.\*" under "Local Address" in a  
> netstat listing), then it should be available via either interface of  
> the bridge, assuming that the bridge is configured correctly (sysctl's  
> and such).*

Sounds good, and as I'd hoped initially. Webmin/apache/samba listen where they're told to anyway, and IPFW will be moderating all that.

> *What are your /etc/rc.conf settings with regards to the bridge  
> configuration?*

So far, only gateway\_enable="NO" and basic IPFW setup ("open" till this much goes, on a protected subnet currently so no worries there), 4.8-R

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GENERIC kernel – brought the bridge up with kldload and sysctls, as per [http://www.freebsd.org/doc/en\\_US.ISO8859-1/articles/filtering-bridges/](http://www.freebsd.org/doc/en_US.ISO8859-1/articles/filtering-bridges/)

Specifically, in /etc/rc.local for now, pre invoking IPFW, just:

```
kldload bridge
sysctl net.link.ether.bridge_cfg=ed0,ed1
sysctl net.link.ether.bridge=1
```

tubi# kldstat

```
Id Refs Address Size Name
1 7 0xc0100000 41b538 kernel
2 1 0xc0d32000 6000 ipfw.ko
3 1 0xc0d9c000 2000 green_saver.ko
4 1 0xc0d9f000 15000 linux.ko
5 1 0xc0dcd000 3000 streams.ko
6 1 0xc0dd0000 11000 svr4.ko
7 1 0xc0df3000 7000 bridge.ko
```

Of course I'll be building it a proper kernel after proving concept. I see at 4.8 it's no longer necessary to use IPFWALL\_DEFAULT\_TO\_ACCEPT to pass ARP and other non-IP traffic (after reading many earlier docs!)

As mentioned, no problems seen with bridging; this session is doing a round trip through ssh into a box behind the bridge, back to this gw; rebooting the box hasn't even murdered ssh sessions bridged through it.

I can't see any problem with just having a /32 on the gw side, and will swap the ifconfig over to bring up the /24 on the inside iface instead.

Thanks heaps Mike,

Cheers, Ian

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