

## pfSense - Bug #3607

### apinger misconfigured when using PPPoE link

04/17/2014 08:17 AM - Gilles Compienne

<b>Status:</b>	Resolved	<b>Start date:</b>	04/17/2014
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>	Gateways	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>		<b>Affected Architecture:</b>	All
<b>Affected Version:</b>	2.1		

#### Description

When using a PPOE link for a WAN then the script configuring apinger (i.e. /etc/inc/gwlb.inc) will not configure apinger properly (this has been verified on pfSense 2.1.2).

This happens because the IP address for the PPOE link is internally reported as "dynamic" and the configuration script will reject that as not being a valid IP. In practice the "if" test for this was probably wrong because inside the "if" block the IP check is done again (and the code inside the block seems to be careful to handle the "dynamic" scenario). So, all I had to do to fix this was to change the outer if block to check the protocol variant (IPv4 or v6) instead of simply checking the IP address itself.

There was another problem that, if a monitor address was specified, then the script was not checking if that address was local link or not (the script was currently only doing that for the gateway address itself, and it forgot that the monitor address probably should have been checked first).

So, in my case, I got things to work by editing the "gwlb.inc" file and replacing the block:

```
if (is_ipaddr4($gateway['gateway'])) {  
...  
} else if (is_ipaddr6($gateway['gateway'])) {  
...  
} else  
continue;
```

BY:

```
if ($gateway['ipprotocol'] == "inet") {  
    $gwifip = find_interface_ip($gateway['interface'], true);  
    if (!is_ipaddr4($gwifip))  
        continue; //Skip this target  
  
/*  
* If the gateway is the same as the monitor we do not add a  
* route as this will break the routing table.  
* Add static routes for each gateway with their monitor IP  
* not strictly necessary but is a added level of protection.  
*/  
    if (is_ipaddr4($gateway['gateway']) && $gateway['monitor'] != $gateway['gateway']) {  
        log_error("Removing static route for monitor {$gateway['monitor']} and adding a ne  
w route through {$gateway['gateway']}");  
        mwexec("/sbin/route change -host " . escapeshellarg($gateway['monitor']) .  
            " " . escapeshellarg($gateway['gateway']), true);  
    }  
} else if ($gateway['ipprotocol'] == "inet6") {  
    if ($gateway['monitor'] == $gateway['gateway']) {  
        / link locals really need a different src ip */  
        if (is_linklocal($gateway['gateway'])) {  
            $gwifip = find_interface_ipv6_ll($gateway['interface'], true);  
        } else {  
            $gwifip = find_interface_ipv6($gateway['interface'], true);  
        }  
    }  
}
```

```

    } else {
        $gwifip = find_interface_ipv6($gateway['interface'], true);
        if (is_linklocal($gateway['monitor'])) {
            if (!strstr($gateway['monitor'], '%')) {
                $gateway['monitor'] .= "%{$gateway['interface']}";
            }
        } else {
            // Monitor is a routable address, so use a routable address for the "src" part
            $gwifip = find_interface_ipv6($gateway['interface'], true);
        }
    }
}
if (!is_ipaddrv6($gwifip))
    continue; //Skip this target

/*
 * If the gateway is the same as the monitor we do not add a
 * route as this will break the routing table.
 * Add static routes for each gateway with their monitor IP
 * not strictly necessary but is a added level of protection.
 */
if (is_ipaddrv6($gateway['gateway']) && $gateway['monitor'] != $gateway['gateway']) {
    log_error("Removing static route for monitor {$gateway['monitor']} and adding a ne
w route through {$gateway['gateway']}");
    mwexec("/sbin/route change -host -inet6 " . escapeshellarg($gateway['monitor']) .
        " " . escapeshellarg($gateway['gateway']), true);
}
} else {
    continue;
}
}

```

Now, I must admit I don't know how to apply these fixes to the source code and I suspect they would have to be validated first. Hence this bug report...

HTH

## Associated revisions

### Revision 8c7e38ff - 04/18/2014 04:43 AM - Gilles Compienne

[pfSense - Bug #3607] Ensure gateway detection can cope with the gateway being a dynamically assigned Ppoe interface.

### Revision dd8d9bdc - 04/18/2014 04:55 AM - Gilles Compienne

pfSense - Bug #3607: Fix issue whereby the ICMP6 messages sometimes have the wrong source IP when a monitor gateway has been set.

## History

### #1 - 04/17/2014 08:21 AM - Gilles Compienne

- File *gwlb.inc* added

Posting the source code on the bug report does not seem to have gone well (missing bits and the like, escape issues I suppose). So I am attaching the modified file (note that full file probably still has some of the debug "print" command I used to trace the problem. But the main if block with its changes will be intact).

### #2 - 04/17/2014 12:51 PM - Phillip Davis

Go to <https://github.com/pfsense/pfsense> and make yourself an account and submit the code change there. It will be much easier to review.

### #3 - 04/18/2014 05:03 AM - Gilles Compienne

Phillip Davis wrote:

Go to <https://github.com/pfsense/pfsense> and make yourself an account and submit the code change there. It will be much easier to review.

Ok, I have submitted pull request 1098:  
<https://github.com/pfsense/pfsense/pull/1098>

Hope this helps.

Regards,

Gilles.

#### #4 - 05/15/2014 02:48 AM - Chris Buechler

- Subject changed from *apinger misconfigured when using PPOE link* to *apinger misconfigured when using PPPoE link*
- Status changed from *New* to *Resolved*

#### Files

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gwlb.inc	33.1 KB	04/17/2014	Gilles Compienne
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