

WAN Failover

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WAN Failover

📄 by **nix** » August 18th, 2011, 3:53 am

Hi,

Is IPFire supports WAN Failover?

Thanks,
Nix



nix

Posts: 1

Joined: August 18th, 2011, 3:43 am

Re: WAN Failover

📄 by **traxxus** » August 18th, 2011, 4:40 am

No it doesn't.



traxxus
Mentor

Posts: 574

Joined: April 28th, 2010, 4:51 pm

Re: WAN Failover

📄 by **MichaelTremmer** » August 18th, 2011, 9:43 am

🗉 traxxus wrote:
No it doesn't.

It does.

See the second screenshot:

<http://wiki.ipfire.org/en/configuration/system/dial>

Michael



MichaelTremmer
Core Developer

Posts: 5799

Joined: August 11th, 2005, 9:02 am

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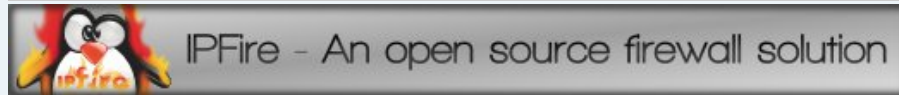


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Re: WAN Failover

by Pa1ch3 » August 18th, 2011, 2:58 pm

What do dial in PPP setting have to do with WAN fail-over? If there really was a fail-over option why is it berried in the dial-in menu. Fail over would be like having two red interfaces, one is the primary (usually the most band-width) the other is secondary in case of a failure. In the past a secondary was always a dial-up connection but now it is common to have a 3g card.



Pa1ch3

Posts: 28
Joined: July 28th, 2011, 6:14 pm
Location: US/NC

Re: WAN Failover

by MichaelTremmer » August 18th, 2011, 3:09 pm

Pa1ch3 wrote:

What do dial in PPP setting have to do with WAN fail-over? If there really was a fail-over option why is it berried in the dial-in menu. Fail over would be like having two red interfaces, one is the primary (usually the most band-width) the other is secondary in case of a failure. In the past a secondary was always a dial-up connection but now it is common to have a 3g card.



MichaelTremmer
Core Developer

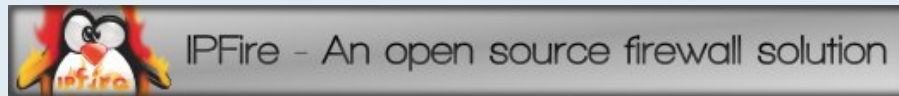
Posts: 5799
Joined: August 11th, 2005, 9:02 am

Well, it's just there, where you do configure the dial-up parameters, that's right. You can add a seconds connection (the 3g one) and configure it as a fallback. That's it. Easy task and at a usable place.

Michael

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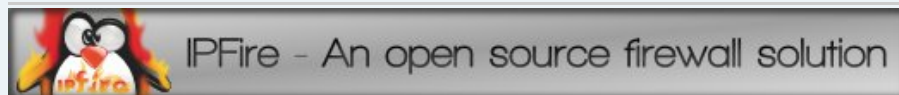
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Re: WAN Failover

by Pa1ch3 » August 18th, 2011, 3:28 pm

So there is an option for fail-over but you have to be using a dial up connection. I know several people who use other hardware to handle the dial-up and just feed that to the router via ethernet. For them there is no option for a fail over because they aren't using dial-up. So I guess the answer to the original question is it depends. If dial-up is being used for the main connection then yes. If ethernet or other forms of connection are being used then no.



Pa1ch3

Posts: 28
Joined: July 28th, 2011, 6:14 pm
Location: US/NC

Re: WAN Failover

by **mcicognani** » August 23rd, 2011, 2:03 pm

I understand that adding failover for the red interface is not trivial, but it'll also be a killer feature for IPFire!

If there is a wishlist I second this request 😊



mcicognani

Posts: 8

Joined: August 23rd, 2011, 1:33 pm



Re: WAN Failover

by **kfnba** » August 28th, 2011, 6:52 am

it's simple trivial, but half-automated, IMHO. +1 add to fully automated WAN failover and load-balancing for future releases. 😊



kfnba

Posts: 2

Joined: April 4th, 2011, 12:52 pm



Re: WAN Failover

by **fkienker** » August 29th, 2011, 3:13 pm

+1 add to fully automated WAN failover and load-balancing for future releases.

Best regards,
Fred



fkienker

Posts: 126

Joined: March 3rd, 2011, 4:59 pm



Re: WAN Failover

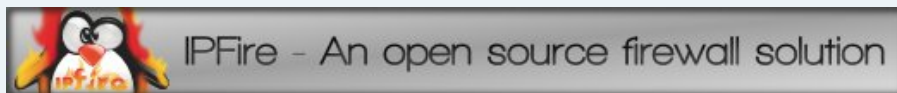
by **MichaelTremmer** » August 29th, 2011, 3:53 pm

I am not quite sure if that got clear:

IPFire has got WAN failover.

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MichaelTremmer

Core Developer



Posts: 5799

Joined: August 11th, 2005, 9:02 am



Re: WAN Failover

by **mcicognani** » August 31st, 2011, 7:58 am

MichaelTremmer wrote:

I am not quite sure if that got clear:

IPFire has got WAN failover.

I think people are talking about a backup ethernet card to be associated to the RED interface, not a dial-up solution.

I'm going to do this using a dual wan router, like the Draytek Vigor2830 or the AtlantisLand RAU341.

Unfortunately there isn't much choice around without spending too much and



mcicognani

Posts: 8

Joined: August 23rd, 2011, 1:33 pm

the option to add a simple backup card in IPFire is still appealing. We are only talking about failover, having two fully functional RED interfaces with load balancing or other amenities is a thing completely different.



Re: WAN Failover

by **MichaelTremer** » August 31st, 2011, 10:29 am



“ mcicognani wrote:

“ MichaelTremer wrote:

I am not quite sure if that got clear:

IPFire has got WAN failover.

I think people are talking about a backup ethernet card to be associated to the RED interface, not a dial-up solution.

I'm going to do this using a dual wan router, like the Draytek Vigor2830 or the AtlantisLand RAU341.

Unfortunately there isn't much choice around without spending too much and the option to add a simple backup card in IPFire is still appealing. We are only talking about failover, having two fully functional RED interfaces with load balancing or other amenities is a thing completely different.



MichaelTremer
Core Developer



Posts: 5799

Joined: August 11th, 2005, 9:02 am

It is possible to have two ISPs (let's say DSL connection), which is configurable in the WUI and there has only one NIC to be where you plug both modems in by using a switch. That's it.

Failover for like DHCP or static IP configuration does not make any sense.

Michael

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Re: WAN Failover

by **bugui** » March 27th, 2013, 6:30 pm



Hello,

I have a red interface and we would like to have a second DSL as backup. Its there any possibilities to do this?

Hernan

bugui

Posts: 2

Joined: September 13th, 2010, 2:53 am



Re: WAN Failover

by **trymes** » March 27th, 2013, 8:28 pm



Lots of confusion here, mostly because the documentation is unclear.

Michael: Can you provide more details as to how one would go about setting this up? I know that, here in the US, at least, a common setup might be a cable-modem for main WAN and a DSL modem for Failover/secondary.

Normally I would imagine using two NICs, one connected to the cable-modem and one connected to the DSL modem. You have said that we would actually connect both to the single NIC via a switch, but then what would we do?

Tom



trymes

Posts: [664](#)

Joined: February 9th, 2011, 4:10 pm

Location: New England, USA



Re: WAN Failover

by **andremorro** » March 28th, 2013, 2:40 pm



MichaelTremmer wrote:

It is possible to have two ISPs (let's say DSL connection), which is configurable in the WUI and there has only one NIC to be were you plug both modems in by using a switch. That's it.

Failover for like DHCP or static IP configuration does not make any sense.

Michael



andremorro

Global Moderator



Posts: [515](#)

Joined: July 4th, 2012, 1:17 pm

Location: Florianópolis, SC - Brasil

Hey Michale, sorry to disagree but Failover for DHCP or Static IP it does make sense.

Lets put this scenario:

2 Internet Connections: Dial xDSL and a DHCP Straight from a satellite connection.

IF my xDSL is my "primary" connection, I'll setup my RED as Dial. BUT, my secondary connections does not require this. again... IF my xDSL fails, I'll have to setup (again) my RED do be DHCP, not dial.

So the existing failover only works for Dial connections.

Thats the kind of failover we're talking about.

Hope I cleared a little.



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Re: WAN Failover



by **trymes** » March 29th, 2013, 12:53 pm

Another important fact, I think, is that "dial" style connections are FAR more prevalent in Europe than in the US, so any feature that relies on dial-only limits the usefulness of that feature to certain portions of the world.

At least where I am:

1. Only corporate/advanced users will care about failover.
2. Corporate users' main connections are far LESS likely to be dial and MORE likely to be static, or perhaps DHCP.
3. A failover device is more and more likely to be a USB WWAN device.
4. Thus, the users who are interested in failover (at least those near me) are **precisely** the same users who will want a failover from Static/DHCP (Cable, T1/E1, etc) to a dial-type connection.

Undoubtedly, that sort of failover does nothing for your incoming traffic (web/email server), but that's really a DNS problem, not a router problem.

Tom



trymes

Posts: 664

Joined: February 9th, 2011, 4:10 pm

Location: New England, USA

Re: Re: WAN Failover



by **andremorro** » March 30th, 2013, 1:39 am

trymes wrote:

Undoubtedly, that sort of failover does nothing for your incoming traffic (web/email server), but that's really a DNS problem, not a router problem.

Tom



andremorro

Global Moderator



Posts: 515

Joined: July 4th, 2012, 1:17 pm

Location: Florianópolis, SC - Brasil

Didn't get the idea here...



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Re: WAN Failover

by **trymes** » March 30th, 2013, 1:47 am



Andre,

I was assuming that part of the reason that Michael considered failover to be inappropriate for a static setup was that a static IP implies that you are hosting a server (web, e-mail, etc.) at that address. In that case, a failover connection will restore your outbound service, but not your inbound service, because clients will still be trying to connect via the failed connection.

My point was that, while the above is true, it is still useful to have outbound service in that scenario, even if it doesn't cover all of your needs.

Tom



trymes

Posts: 664

Joined: February 9th, 2011, 4:10 pm

Location: New England, USA



Re: WAN Failover

by **andremorro** » March 30th, 2013, 1:53 am



Got it now.

Assuming we're hosting then we need to be prepared for full failover including dns roundrobin etc...

But anyway, a outgoing failover would be a great feature. In fact I need it so I could remove an old hardware that is doing it now .

André



andremorro

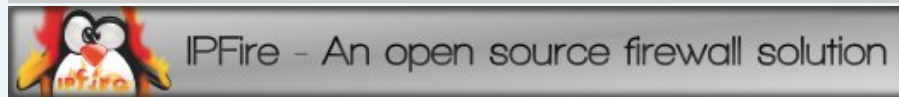
Global Moderator



Posts: 515

Joined: July 4th, 2012, 1:17 pm

Location: Florianópolis, SC - Brasil



Re: WAN Failover

by **mvaldez** » May 8th, 2013, 6:54 pm



If you are using multiple static links and a single NIC for the RED interface, I think setting simple WAN failover is not that hard. You can set your ONTs/modems/routers/whatever in the same subnet, connect them together, then connect the RED interface of IPFire to one of them, and configure IPFire to use your main link as gateway. Then in IPFire, using a Bash/Perl/whatever script check every n seconds an external resource (or multiple external resources, like DNS query with nslookup, web site with curl, etc.) If the resource is unavailable for a given time consider the link down and then modify the gateway address in `/var/ipfire/ethernet/settings` to point to the secondary link and reset the RED interface (running `/etc/init.d/networking/red stop`, then `/etc/init.d/networking/red start`).

If you are using multiple static links and want to use multiple NICs for the red interface (one per link) then you could do something similar, but it would also require to reassign the RED interface to each alternate NIC (doing the same thing the setup script do, but automated).

I'll try my first solution, because currently I have to manually disconnect and reconnect the ONT and the ADSL modem when one of them fails, and I'm not always in the office to do it.

mvaldez

Posts: 1

Joined: May 8th, 2013, 6:33 pm



If you have any extra idea, please post it here.

Regards, MValdez.

Re: WAN Failover

by **utnapischtim** » April 26th, 2014, 8:05 am

Hello,

I have got a red interface which is connected to an ADSL Modem.
I would like to have a USB UMTS Stick as red failover interface.
Hmm, this seems to be a nice idea?

Best regards



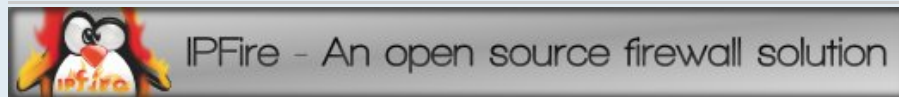
utnapischtim

Posts: 2
Joined: April 26th, 2014, 8:00 am

Re: WAN Failover

by **andremorro** » June 16th, 2014, 8:57 pm

It will work, but only you can say if is a good idea or not.



andremorro
Global Moderator

Posts: 515
Joined: July 4th, 2012, 1:17 pm
Location: Florianópolis, SC - Brasil

Re: WAN Failover

by **Kick@ss** » November 28th, 2015, 9:31 pm

For anyone as annoyed by the fact that no 'REAL' practical solution exists to this particular problem, that is:
a WAN Failover --- "THAT ISN't DialUp", I mean really! Dialup.
I feel like we're in the 2000's...REALLY???Dialup?

Anyway, I wrote a Bash script that does what I needed it to, a quick solution if you will.

Have to give credit to:



Louwrentius

he wrote it originally for debian based Linux distro's.
I only made it workable with IPFire.

My scenario: a Primary WAN TCP/IP gateway and a secondary TCP/IP gateway both connected via Ethernet cable. In my scenario both gateways was on the same subnet, there is however no reason this should be the case with this script.

My situation had both gateways connected to the red interface, once again no reason why that should be the case, the OS should resolve the interface on its own and alter the routing table appropriately.

I would recommend that both WAN gateways be on the red interface, unless your internet speed is so kick@ss that you utilize the entire wire's bandwidth per gateway. Unlikely..., so keeping both gateways on the red interface means ipfire handles everything exactly the same and any small changes you



Kick@ss

Posts: 8
Joined: November 28th, 2015, 8:54 pm

need to make can be done on the gateway itself or on the PRIMARY_CMD or the SECONDARY_CMD

I might spend some time in the future integrating a full version into the WUI, for now though I hope this can help someone who needs this obvious and lacking feature.

Maybe even bring in a load balancing algorithm to utilize both WAN gateways simultaneously with a graceful fallback if one of the links goes down.

I do not take any responsibility for anyone messing up ANYTHING through the use of this script, directly or indirectly. I am assuming anyone who tries to install this script has a basic knowledge of Posix systems and a basic working understanding of bash scripts. I will help anyone who asks but, don't come crying to me if you break your system. This is going to alter your system's routing table, no persistent change though so a system reboot should solve any problems you may encounter.

The install script has a "remove" argument.

I am not writing any documentation for this script, if anyone has any problems please message me, I will try to help where I can.

Link v0.51: <http://www.filedropper.com/wfs>

Last edited by **Kick@ss** on December 19th, 2015, 9:54 am, edited 2 times in total.

Re: WAN Failover

by **trymes** » December 4th, 2015, 6:54 pm

Thanks for the details, Kick@ss. For the record, the term "Dialup" in this context is not truly a 56k analog modem, as you seem to imply. Rather, it is more likely to be one of the following:

- 1.) DSL modem using PPPoE.
- 2.) GSM/CDMA cellular modem.

Both of these are modern, high-speed connections, but are still technically "dialup".

Tom



trymes

Posts: 664

Joined: February 9th, 2011, 4:10 pm

Location: New England, USA

Re: WAN Failover

by **trymes** » December 4th, 2015, 6:59 pm

Also, I cannot access your files, as it seems that filedropper requires me to create an account.

Why not post them here in a code block? Are they particularly large?



trymes

Posts: 664

Joined: February 9th, 2011, 4:10 pm

Location: New England, USA

Re: WAN Failover

by **Kick@ss** » December 19th, 2015, 9:44 am

Yes, with PPPoE it is possible to connect to a broadband connection it's obsolete though(atleast in my opinion).

Strange, I managed to download them fine. I'll look into it...



Kick@ss

Posts: 8
Joined: November 28th, 2015,
8:54 pm



Re: WAN Failover

by **Kick@ss** » December 19th, 2015, 9:52 am

Yes I see they have tons of ads now.
It wasn't like that.
I see the file also disappeared, had to re-upload.
Uploaded it again. Will search for a more permanent solutions.



Kick@ss

Posts: 8
Joined: November 28th, 2015,
8:54 pm



Re: WAN Failover

by **trymes** » December 19th, 2015, 3:38 pm

Thanks for your work on this, Kick@ss. It would be a nice feature to have.

Your impression about PPPoE being obsolete is not really accurate, though. It only seems that way because the only providers that use it in your area are those that are technologically behind.

The hard part about crafting a truly universal WAN failover solution, would be allowing a static Ethernet Red to failover to a PPP WWAN link, such as a USB CDMA/GSM modem.

Tom



trymes

Posts: 664
Joined: February 9th, 2011, 4:10
pm
Location: New England, USA



Re: WAN Failover

by **petergunn** » February 13th, 2016, 5:11 pm

Kick@ss, I'm interested in your WAN failover script but the filedropper link doesnt work for me. Can you repost?

Thanks

-PG



petergunn

Posts: 15
Joined: October 5th, 2015, 10:18
pm



Re: WAN Failover

by **mountainx** » September 11th, 2016, 8:45 pm

petergunn wrote:

Kick@ss, I'm interested in your WAN failover script but the filedropper link doesnt work for me. Can you repost?

Thanks

-PG



mountainx

Posts: 56
Joined: June 28th, 2016, 9:53
pm

Me too. Why not just paste the code here?



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Re: WAN Failover



📄 by **siclone** » October 17th, 2016, 4:59 am

🗨️ petergunn wrote:

Kick@ss, I'm interested in your WAN failover script but the filedropper link doesnt work for me. Can you repost?

Thanks

-PG

siclone

Posts: 1

Joined: October 17th, 2016, 3:42 am

I'd also like to check out the script but like others have found, the link is dead.

My request is (possibly) a bit simpler than some of the scenarios here. What I'd like to do is have a script that I can run from an SSH connection that simply switches between 2 profiles (I don't want to use the web interface for this task). Both profiles use the same Red interface (PPPoE DHCP) connected to an ADSL modem in pure bridge mode, the only difference is that each profile is a different account with the same ISP.

Here is the sequence of events for the script:

- Red interface is currently connected to "Profile_1"
- When the script is run, it first disconnects "Profile_1"
- Waits 5 seconds
- Then connects "Profile_2"

Any help would be really appreciated 😊



Re: WAN Failover



📄 by **trymes** » October 22nd, 2016, 1:56 am

For anyone looking to replicate what kick@ss did, here is the script he used as a starting point: [http://louwrentius.com/wfs-wan-failover ... lable.html](http://louwrentius.com/wfs-wan-failover...lable.html)



trymes

Posts: 664

Joined: February 9th, 2011, 4:10 pm

Location: New England, USA



Re: WAN Failover

by **Kick@ss** » March 8th, 2017, 8:11 am

Hi Everyone,

Saw some people asked for the script, I can see the link is down.
I'm gonna look for the latest version and post it when I find it.

No there are multiple files with config etc. That's why I added an install script, it wasn't just for looking cool 😎



Kick@ss

Posts: 8

Joined: November 28th, 2015, 8:54 pm



Re: WAN Failover

by **trymes** » March 8th, 2017, 11:35 am

Great news!



trymes

Posts: 664

Joined: February 9th, 2011, 4:10 pm

Location: New England, USA



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