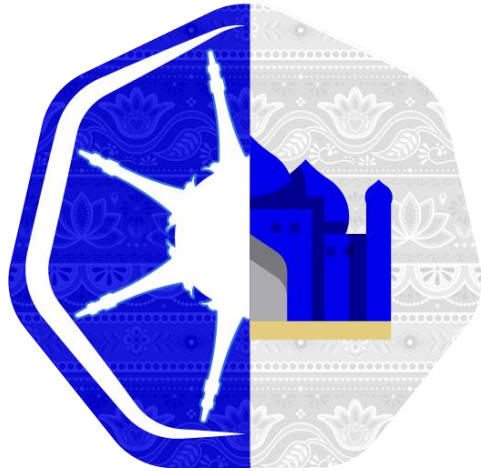


# Getting Involved and Making an Impact with Open Source



**KUBERNETES**  
COMMUNITY DAYS LAHORE

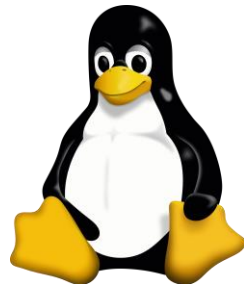


**Qasim Sarfraz**  
Software Engineer  
Microsoft

# What is Open Source ?



*Source Code available freely with across globe collaboration*

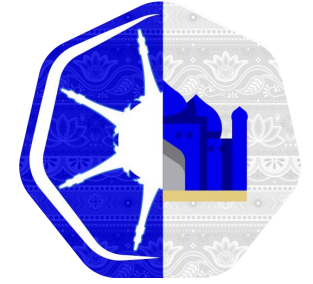


**Linux**



**kubernetes**

# Reasons I love Open Source



- Impact
- Accessibility
- Across the globe Collaboration
- Giving back to the Community

# My Story

(disclaimer)

# My Story – When I heard about Open Source



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# My Story - Not sure what to do next?



[This Photo](#) by Unknown author is licensed under [CC-BY-SA-NC](#).

# My Story - Learning # 1



- Looked for a job where I can use Open Source
- Started using different Open Source projects regularly
- Learning # 1:

*Becoming an Open Source User is the first step of getting involved*

# My Story – First (code) Contribution



*Observed Behavior != Expected Behavior*




# My Story – First (code) Contribution



Closed

why networking/tunnel\_monitor example is failing? #491  
asifhasnain opened this issue on Apr 17, 2016 · 15 comments




mqasimsarfraz commented on May 10, 2016


Contributor

...

I was facing a similar issue and it turned out that my machine was big endian and udp->port in monitor.c has a value of 46354 rather than 4789 (set in main.py).

Following check in udp switch/case statement of monitor.c solved issue for me:  
case 46354: goto vxlan;






4ast commented on May 11, 2016

Member

...

➡ @mqasimsarfraz how about fixing it with something like 'case ntohs(4789): goto vxlan' ?  
similar fix is needed for the rest of the switch cases in monitor.c, right?



<https://github.com/iovisor/bcc/issues/491>

# My Story – First (code) Contribution



## Updated monitor.c to take care of host byte order #535

Merged drzaeus77 merged 3 commits into iovisor:master from mqasimsarfraz:patch-1 on May 23, 2016

Conversation 9 Commits 3 Checks 0 Files changed 2

Changes from all commits File filter Conversations

Filter changed files

examples/networking

distributed\_bridge

tunnel.py

tunnel\_monitor

main.py

```
examples/networking/distributed_bridge/tunnel.py
-35,7 +35,7
35 35 def run():
36 36     ipdb.routes.add({"dst": "224.0.0.0/4", "oif": ifc.index}).commit()
37 37     with ipdb.create(ifname="vxlan0", kind="vxlan", vxlan_id=0,
38 - vxlan_link=ifc, vxlan_port=htons(4789),
38 + vxlan_link=ifc, vxlan_port=4789,
39 39         vxlan_group=str(mcast), vxlan_flowbased=True,
40 40         vxlan_collect_metadata=True,
41 41         vxlan_learning=False) as vx:
```


<https://github.com/iovisor/bcc/pull/535>


# My Story – Learning #2



Avoid byte swap for vxlan port

Signed-off-by: MQasimSarfraz <qasims@example.com> ←

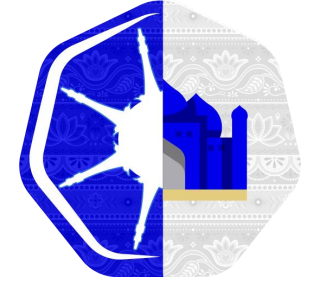
 master (#535)

 v0.28.0 ... v0.2.0

Qasim Sarfraz authored and MQasimSarfraz committed on May 13, 2016

*You have to start from somewhere*

# My Story – Type of Contributions



SPO stuck on UPDATING state because of a mutated webhook config on an AKS cluster #1187



mqasimsarfraz opened this issue on Sep 23, 2022 · 8 comments · Fixed by #1202



mqasimsarfraz commented on Sep 23, 2022 • edited ▾

Contributor ⋮

Assignees

No one assigned

What happened:

Whatever works for you, it would be nice to get a pointer to what you found to `installation-usage.md`. I'm unsure off-bat what would be the best section there, we have sections on webhook configurations but also distro-specific one.

A PR would be appreciated since you understand what went wrong and what fixed it better than I :-)



<https://github.com/kubernetes-sigs/security-profiles-operator/issues/1187>


# My Story – Type of Contributions



docs: add a note to respect control-plane label on an AKS cluster

Merged k8s-ci-robot merged 1 commit into `kubernetes-sigs:main` from `mqasimsarfraz:add-note-for-aks` on Oct 4, 2022

Conversation 5 Commits 1 Checks 16 Files changed 1

 mqasimsarfraz commented on Oct 4, 2022 Contributor

What type of PR is this?

/kind documentation

What this PR does / why we need it:

AKS mutates the webhook config which makes SPO stuck on 'UPDATING' state. This happens because AKS mutates the webhook configs to exclude internal AKS namespaces. We add instructions to patch `spod webhookOptions` respecting AKS control-plane label ensuring SPO goes to 'RUNNING' state.

Which issue(s) this PR fixes:

Fixes [#1187](#)

Does this PR have test?

N/A

<https://github.com/kubernetes-sigs/security-profiles-operator/pull/1202>



# My Story – Learning # 3

- Different Contributions:

- Documentation
- Discussion
- Review
- Issue
- Code
- ...


- Learning # 3

*Every type of contribution matters*


# My Story – Becoming a Maintainer




March 18th, 2021 ▾

 **Qasim Sarfraz** 2:11 PM  
Hello, I am looking for some advice on DNS caching via `dnsmasq`. We have `dnsmasq` agent on all of our kube-nodes for caching but since `ra flag` is removed, caching is not working. I realized this is `expected` with `dnsmasq` so should we add some flag in core-dns to to toggle ra flag or it needs to be fixed in `dnsmasq`? (edited)

[#2408 disable ra flag for several plugins](#)


 [coredns/coredns](#) | Dec 18th, 2018 | Added by GitHub (Legacy)

[CHANGELOG:1063](#)


 [imp/dnsmasq](#) | Added by GitHub (Legacy)

 [3 replies](#) Last reply 2 years ago



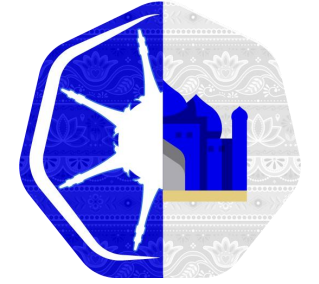
 **Chris O'Haver** 2 years ago  
A generalized fix that *might* be accepted into coredns would be to extend the *rewrite* plugin to allow changing query/response flags.

 1 

 **Qasim Sarfraz** 2 years ago  
Thanks for sharing. Yes, makes much more sense to do via the *rewrite* plugin. Let me open a PR soon and see where it goes! 😊

 1 

# My Story – Learning # 4



- Different Communication Channels:
  - Slack
  - Mailing List
  - GitHub Discussions
  - Contributing Guidelines
- Learning # 4

*Communication is the key*





# My Story – Becoming a Maintainer

- I have a clear task at hand:
  - Enhance [rewrite plugin](#) to support my use case.
- I start my implementation and open a PR:

➡ Add field to rewrite plugin to support flag rewrites. #4541

Closed mqasimsarfraz wants to merge 1 commit into `coredns:master` from `mqasimsarfraz:rewrite-flags`

Conversation 10 Commits 1 Checks 0 Files changed 5

mqasimsarfraz commented on Mar 22, 2021 Collaborator ...

**1. Why is this pull request needed and what does it do?**

There are cases where users want to change the response flags to fit their needs. e.g `dnsmasqd` needs `ra` for caching so having a generic way to changes response might be helpful in such cases.

Also, this is just a draft of an idea I had so I am sure it can be further improved. It would be great if I can please get the maintainers review on this?

<https://github.com/coredns/coredns/pull/4541>

# My Story – Becoming a Maintainer



## plugin/header: Introduce header plugin #4752



**Merged** miekg merged 4 commits into `coredns:master` from `mqasimsarfraz:feature/header-plugin` on Jul 15, 2021

Conversation 10

Commits 4

Checks 0

Files changed 8



mqasimsarfraz commented on Jul 14, 2021 • edited

Collaborator

### 1. Why is this pull request needed and what does it do?

There are cases where users want to change the response flags to fit their needs. e.g `dnsmasqd` needs `ra` for caching so having a generic way to changes response might be helpful in such cases.

### 2. Which issues (if any) are related?

miekg commented on Jul 15, 2021

Member



Good. then you can add yourself (and me?) in the `CODEOWNERS` file for this new plugin and I'll invite to the repo.



<https://github.com/coredns/coredns/pull/4752>



# My Story – Becoming a Maintainer

- The plugin was [enhanced](#) to handle further use-cases
- I have seen [blog posts](#) where people found the work useful

Stumbled upon this page when I encountered the same issue.

Found the solution while standing under the shower, maybe someone else will find it helpful :)

There's a plugin for core-dns called "header", which allows to set arbitrary headers in the DNS request or response.  
The solution is to add the following lines to a section:

```
header {  
  response set ra # set RecursionAvailable flag  
}
```

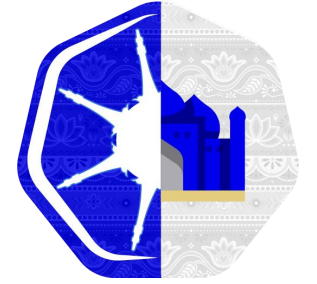
This set's the RA flag to the response, which makes everyone happy.

Tested with the file and forward plugins, both reported "WARNING: recursion requested but not available" before, and are now happy with the reply from CoreDNS.



<https://github.com/coredns/coredns/issues/3690>

# Conclusion



- Start by being a user of Open Source
- Remember you have to start from somewhere
- Every type of contribution matters
- Communication is the key
- Be persistent
- Broadens you Horizon
- Open doors for opportunities

Thanks for listening!