

How can I solved this problem? Thanks a lot for your kindness!



antoninbas commented 6 days ago

Member



I am confused by why you are using p4factory for this. p4factory is pretty much deprecated at this stage for the bmv2 workflow, which is what you are using here. You actually seem to be following what the examples in the tutorials repo are doing (<https://github.com/p4lang/tutorials>). Could you give the output of `sudo /home/wasdns/p4factory/targets/demo/behavioral-model demo.json` ? Based on the information you are giving, I am a little scared you are are trying to compile and run bmv1, as if it were bmv2...



Wasdns commented 5 days ago



@antoninbas

The output showed below:

```
root@ubuntu:/home/wasdns/p4factory/targets/demo# sudo ./behavioral-model demo.json
No PD RPC server address specified, using 127.0.0.1:9090
No listener specified, switch will run in standalone mode

P4 Program:  demo

Starting RPC server on port 9090
```

I'm using the p4factory because it showed me the same excepetion when I used bmv2 before. When I saw the error information, I think it should be some problem with the software switch. In fact, the demo.p4 is the same with the l2_switch.p4 . I didn't change it yet. The target I used before was l2_switch.



Wasdns commented 5 days ago



@antoninbas

My demo ran well with the target simple_switch, and I opened the runtime CLI successfully by using thrift port 22222. But another problem occured. When I using the command `mc_mgrp_create 1` , it showed that:

```
RuntimeCmd: mc_mgrp_create 1
Creating multicast group 1
Traceback (most recent call last):
  File "./runtime_CLI.py", line 2216, in <module>
    main()
  File "./runtime_CLI.py", line 2213, in main
    RuntimeAPI(args.pre, standard_client, mc_client).cmdloop()
  File "/usr/lib/python2.7/cmd.py", line 142, in cmdloop
    stop = self.onecmd(line)
  File "/usr/lib/python2.7/cmd.py", line 221, in onecmd
    return func(arg)
  File "./runtime_CLI.py", line 587, in handle
    return f(*args, **kwargs)
  File "./runtime_CLI.py", line 1452, in do_mc_mgrp_create
    mgrp_hdl = self.mc_client.bm_mc_mgrp_create(0, mgrp)
  File "/usr/local/lib/python2.7/dist-packages/bm_runtime/simple_pre/SimplePre.py", line 1:
    return self.recv_bm_mc_mgrp_create()
  File "/usr/local/lib/python2.7/dist-packages/bm_runtime/simple_pre/SimplePre.py", line 1:
    raise x
thrift.Thrift.TApplicationException: TMultiplexedProcessor: Unknown service: simple_pre
```

and cmd exit unexcepted.

Is there something wrong with my steps?



antoninbas commented 5 days ago

Member



When running `simple_switch`, prefer the `simple_switch` CLI (https://github.com/p4lang/behavioral-model/blob/master/targets/simple_switch/sswitch_CLI). It gets installed as `simple_switch_CLI` when you run `make install`.

Alternatively, you can keep using the basic runtime CLI here, but you need to pass `--pre SimplePreLAG` when starting it.



Wasdns commented 4 days ago

+ 😊 ✎ ✕

@antoninbas

Thank you very much! But I still have a question.

As far as I know, the control plane in the target "I2_switch" using `learn_client` to receive the digest from the data plane, then generate flow entries to deploy to the switches in the data plane. Reference: [How learn_client work with I2_switch in mininet?](#)

But how can I use the learning engine for the switches in my specific virtual topo logic? In the other words, is there something like `learn_client` in `simple_switch`?



antoninbas commented 4 days ago • edited

Member + 😊

It should not be too hard to adapt the `learn_client` to work with your own P4 program (running in `simple_switch`), providing you are not doing anything to advanced. You will have to adapt the struct representing the learning sample and modify the table names if needed. You also need to provide the correct notification socket (https://github.com/p4lang/behavioral-model/blob/master/targets/I2_switch/learn_client/learn_client.cpp#L87) for each switch instance, so you may want to make it a command line argument for the `learn_client` executable and start a `learn_client` process for every switch in the topology. You could also modify `learn_client` in such a way that a unique instance can manage N switches, so whatever you prefer.

Note that the `learn_client` is an example which is not tied to a specific bmv2 architecture (i.e. it can work with `simple_switch`) but is tied to a specific P4 program (in this case `I2_switch.p4`). It therefore needs to be adapted to the P4 program you are running.



Wasdns commented 3 days ago

+ 😊 ✎ ✕

@antoninbas

I see. Thanks a lot and happy Chinese new year!



Wasdns closed this 3 days ago



Wasdns referenced this issue in `p4lang/behavioral-model` 11 minutes ago

An exception about `Learn_Client` #284

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