

nftables

Traffic Shaping with nftables and tc

Using shell commands:

```
nft add table ip filter
nft add map filter deucalion { type ipv4_addr : classid\; }
```

Using nftables file:

deucalion.nft

```
table ip filter {
    map deucalion {
        type ipv4_addr : classid;
        elements = { 1.1.1.2 : 2:2222, 1.1.1.3 : 3:3333 }
    }

    chain input {
        type filter hook input priority 0; policy accept;
        meta priority set ip daddr map @deucalion;
    }
}
```

Patch

This patch is already merged upstream (as of 2018 Archlinux and Ubuntu have it, Debian not yet!):

- <https://www.spinics.net/lists/netfilter/msg57694.html>
- <https://www.spinics.net/lists/netfilter/threads.html#57694>

You need it if nft shows this error:

```
<cmdline>:1:45-51: Error: syntax error, unexpected classid, expecting string
or dscp or ecn or mark
add map filter deucalion { type ipv4_addr : classid; }
                                   ^^^^^^^

<cmdline>:1:26-52: Error: map definition does not specify key data type
add map filter deucalion { type ipv4_addr : classid; }
                                   ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
```

nft-classid.patch

```
parser: allow classid as set key
```

```
From: Arturo Borrero Gonzalez <arturo@xxxxxxxxxxxx>
```

```
Allow TC classid as set key.
```

```
Signed-off-by: Arturo Borrero Gonzalez <arturo@xxxxxxxxxxxx>
```

```
---
```

```
src/parser_bison.y | 1 +
1 file changed, 1 insertion(+)
```

```
diff --git a/src/parser_bison.y b/src/parser_bison.y
```

```
index 7016f5b..2918875 100644
```

```
--- a/src/parser_bison.y
```

```
+++ b/src/parser_bison.y
```

```
@@ -1545,6 +1545,7 @@ type_identifier : STRING { $$ = $1; }
| MARK { $$ = strdup("mark"); }
| DSCP { $$ = strdup("dscp"); }
| ECN { $$ = strdup("ecn"); }
+ | CLASSID { $$ = strdup("classid"); }
;
```

```
hook_spec : TYPE STRING HOOK STRING
dev_spec  PRIORITY prio_spec
```

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<https://wiki.spoje.net/> - **SPOJE.NET**

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<https://wiki.spoje.net/doku.php/howto/network/nftables>

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