

# BIRD v2 update

**New features, in-progress features,  
and one dirty trick**

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# Custom route attributes

- New feature since v2.0.4
- attribute `int is_blackhole;`

```
...
filter { ...
    if (myas, 666) ~ bgp_ext_community then
        is_blackhole = 1;
    else
        is_blackhole = 0;
    ... }
... }
```

- Types: int, IP addr, community list, BGP path



# Filter benchmark tool: protocol perf

- Run random routes through the given filter
- Collect data from log

```
2019-05-21 16:57:48.913 <INFO>  
Perf v2.0.4-57-g96d757c1 perf_none  
exp=16 times:  
gen=4320081 temp=1939327  
update=2936133 withdraw=1620441
```

- Date, time, version, protocol instance name,  $2^{16} = 65536$  routes, 2.9 ms update time



# Import table

- Store routes **before** import filter is run
- Filter reload without route refresh
- Eats some memory to store the routes
- Compatible with `import keep filtered;`
- Configure as `import table on;` in channel config



# Route autoreload on RPKI change

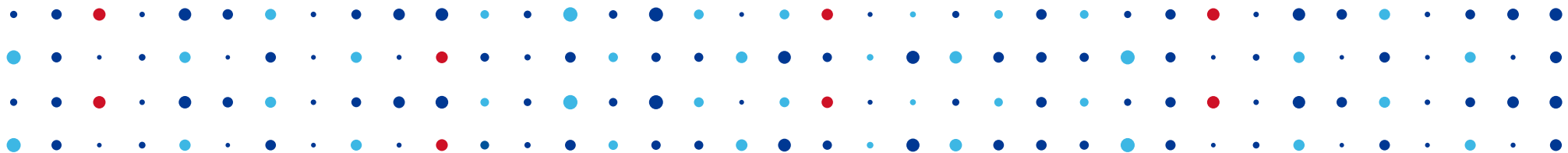
- Is **NOT MERGED YET**
- Dirty workaround
  - Set debug { routes }; in RPKI protocol config
  - Parse log by script and detect ROA changes
  - Invoke reload in in CLI for every affected protocol
- To be released in several months, hopefully
- Import table will be required to do autoreload



# Faster filters

- Not finished yet
- New (and faster!) filter interpreter
- Thread safe execution
- Type check in configure time
- Better data model





# You can upgrade now

**BIRD 2 is the new BIRD**

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