

UKNOF38 – Sheffield

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BIRD–Stack

Automatic BIRD configuration with StackStorm

Route-server limitations

No peers selection possibility

Mostly manual

Time consuming

Not transparent

BIRD-Stack

A “framework” for automatic BIRD
configuration and management



Stackstorm

Brocade product

Runs on **Linux**, made with/for **Python**

coherent with NL-ix tech stack

Event driven

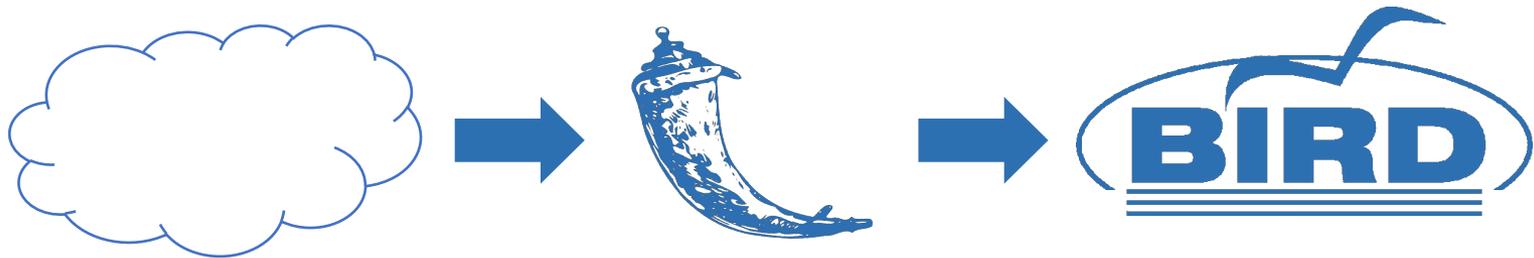
Actions, rules, workflows, audit

Plugin structure

Wide selection of available packs

(<https://exchange.stackstorm.org/>)

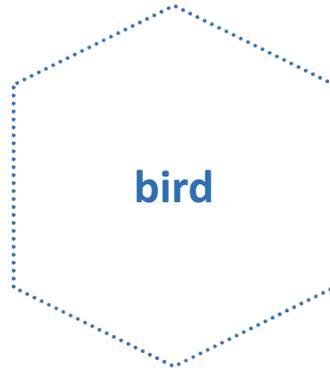
BIRD-Proxy



Flask (Python) application

BIRD control via **HTTP(S)**
operations exposed via **web endpoints**

BIRD St2 pack



Feature-rich BIRD config file generation

Automatic configuration deployment

Prefixes information retrieval and storage

BIRD status queries

BIRD configuration features

Custom templating

Filter and prepend support

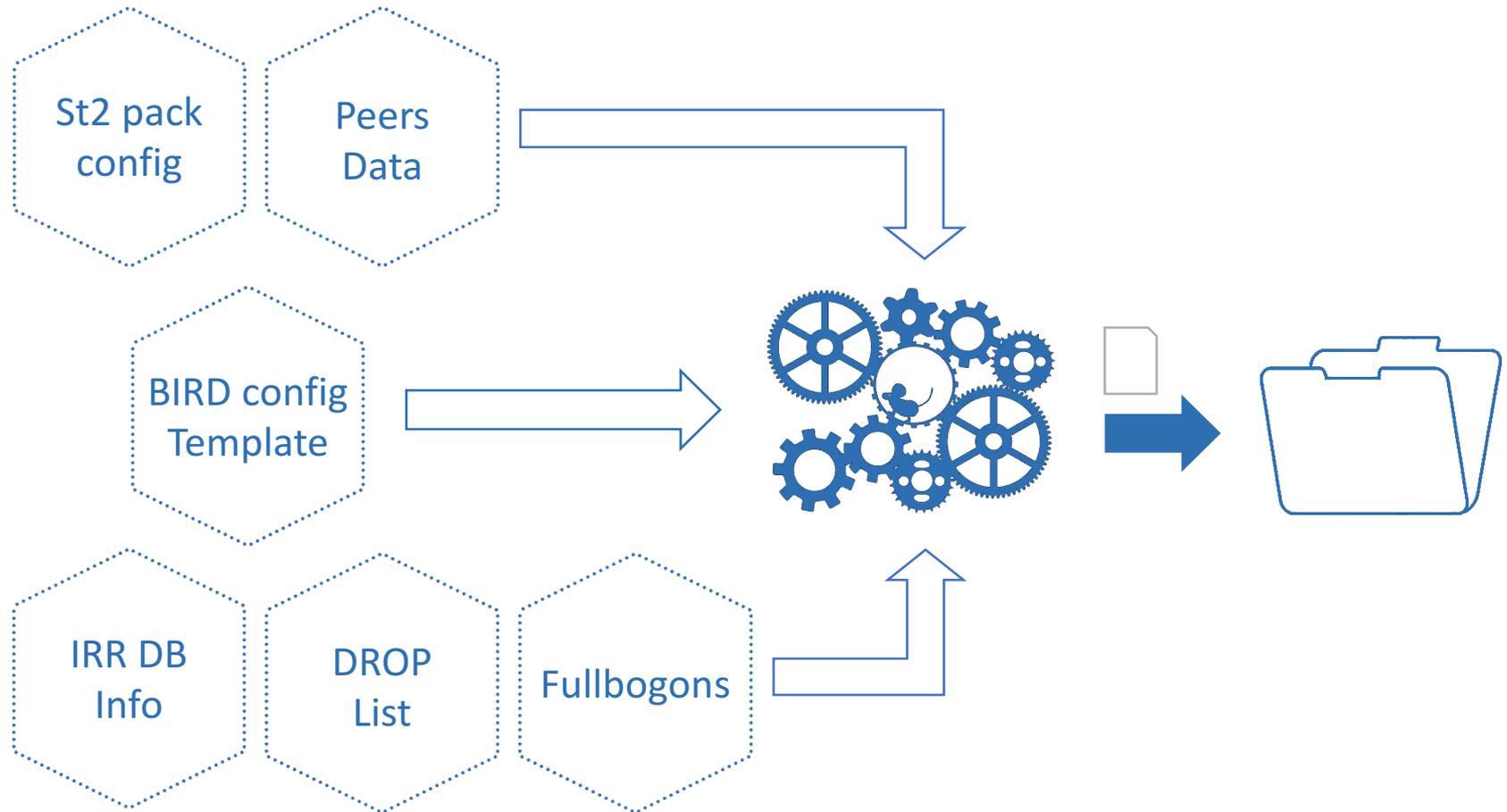
Members black/white-listing

IRR DB info prefixes filtering

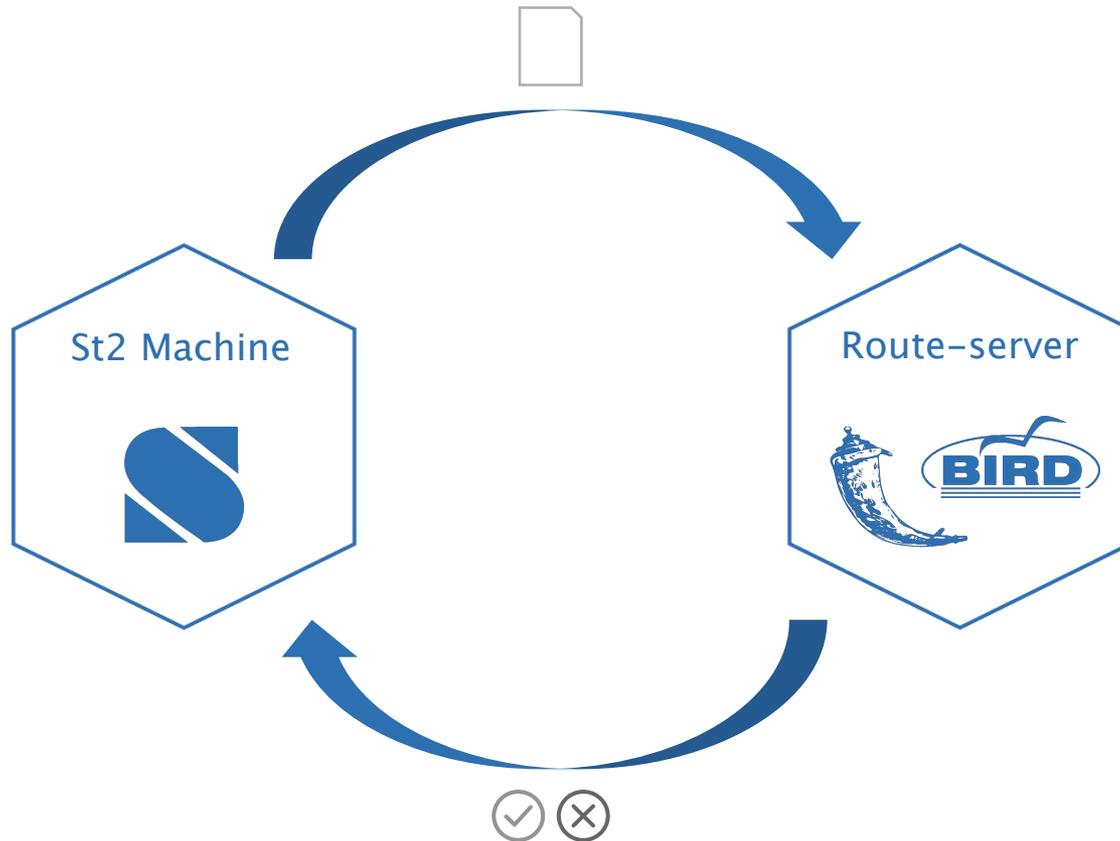
DROP lists filtering

Fullbogons filtering

Generate config



Deploy config



and then...

NL-ix route-server configurator

All BIRD-Stack functionalities

+

Geobased filtering

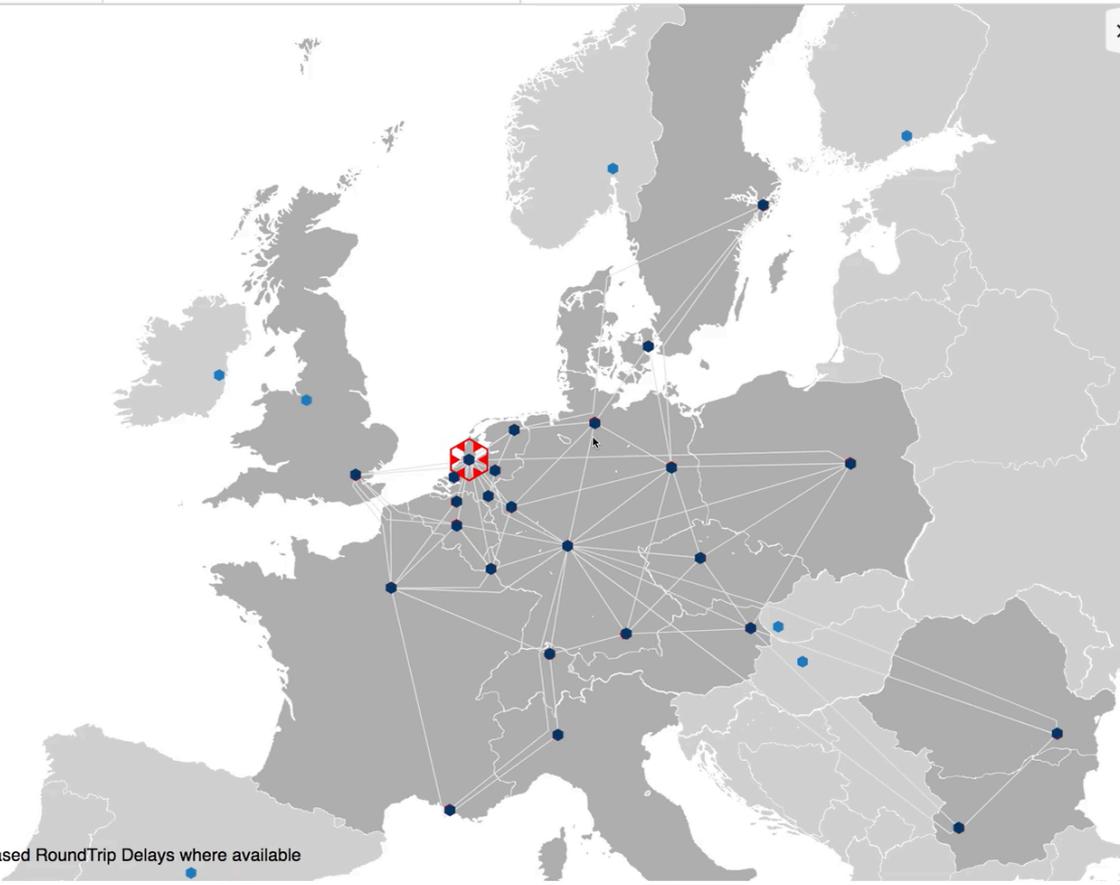
Latency based filtering

PeeringDB filtering

Extra peering info and stats

NL-ix route-server configurator

 port NIKHEF Amsterdam Ams... latency: 30ms OPEN PEERING



Measurement are ITU-T Y, 1731 ETH-DM based RoundTrip Delays where available

sessions (378 of 389) blocked (0)

sort on

✓ Select the members you wish to peer with, then click [Apply]

- AFNIC (AS2484)**
IP: 193.239.116.211
DC: Datacenter United Brussels DC (Brussels)
UP | Prefixes: 501
- Join Experience (AS60319)**
IP: 193.239.116.71
DC: interxion BRU1 (Brussels)
UP | Prefixes: 738
- Unix-Solutions (AS39923)**
IP: 193.239.117.14
DC: interxion BRU1 (Brussels)
UP | Prefixes: 294
- VOO/BRUTELE (AS12392)**
IP: 193.239.117.236
DC: interxion BRU1 (Brussels)
UP | Prefixes: 897
- Schedom (AS29587)**
IP: 193.239.117.32
DC: interxion BRU1 (Brussels)
UP | Prefixes: 729
- Belgian Network Solutions (AS8368)**
IP: 193.239.117.0

RFC Bogons filtering always activated
IRRDB filtering (recommended)
Fullbogons filtering (recommended)
DROP List filtering
powered by [Spamhaus](#)

BIRD-Stack



<https://github.com/NL-ix/bird-stack>
[#nl-ix-bird](https://stackstorm-community.slack.com)

Info

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Q&A