

Administration GW01.Batman

Alles die Administration von [GW1.Batman](#) betreffend.

Es ist das Paket [etckeeper](#) mit Git als Backend installiert um den Vorteil einer Versionsverwaltung für /etc zu haben. Nach administrativen Aufgaben einfach kurz

```
sudo etckeeper commit
```

und kurz eine Commit Message eingeben. Das Repository ist ausschließlich lokal vorhanden und wird nicht nach draußen gepusht!

Administratoren

(aka Nutzer mit sudo Rechten)

- [tux](#)
- nold
- kwasir

Installierte Dienste

- Node-Exporter
- ISC-DHCP Server
- Bird & Bird6
- FASTD == > [fastd](#)
- alfred
- unbounds

FASTD

Debugging

Command	Description
batctl o	Show Originators
batctl nn	show nc_nodes
batctl bbt	backbonetanle
batctl ping 1e:34:a8:d3:0a:eb	ping device

Bird/ Bird6

bird ist eine Open-Source-Implementierung eines IPv4 als auch IPv6-fähigen TCP/IP-Routing-Daemons. Derzeit unterstützt BIRD mehrere interne Routing-Tabellen, das EGP BGP, die IGP's OSPF und RIP sowie statische Routen.

https://bird.network.cz/?get_doc&v=20&f=bird-4.html

Debuuging

birdc ⇒ IPv4 birdc6 ⇒ IPv6

Show Status

```
# birdc show status
BIRD 1.3.7 ready.
BIRD 1.3.7
Router ID is 10.139.0.9
Current server time is 14-02-2021 19:42:33
Last reboot on 11-02-2021 22:19:21
Last reconfiguration on 11-02-2021 22:19:21
Daemon is up and running
```

Show Interfaces

IPV4

```
# birdc show interfaces
BIRD 1.3.7 ready.
lo up (index=1)
MultiAccess AdminUp LinkUp Loopback Ignored MTU=16436
127.0.0.1/8 (Primary, scope host)
eth0 up (index=2)
MultiAccess Broadcast Multicast AdminUp LinkUp MTU=1500
37.120.160.206/22 (Primary, scope univ)
gre0 DOWN (index=3)
MultiAccess AdminDown LinkDown MTU=1476
backend-bab1 DOWN (index=4)
PtP Multicast AdminUp LinkUp MTU=1400
backend-gw2 DOWN (index=5)
PtP Multicast AdminUp LinkUp MTU=1400
backend-web DOWN (index=6)
PtP Multicast AdminUp LinkUp MTU=1400
mesh-vpn DOWN (index=7)
MultiAccess Broadcast Multicast AdminUp LinkUp MTU=1312
```

```
bat0 up (index=8)
MultiAccess Broadcast Multicast AdminUp LinkUp MTU=1500
10.139.0.9/16 (Primary, scope site)
10.139.0.53/16 (Secondary, scope site)
mesh-vpn-backbo DOWN (index=9)
MultiAccess Broadcast Multicast AdminUp LinkUp MTU=1426
```

ipv6

```
# birdc6 show interfaces
BIRD 1.3.7 ready.
lo up (index=1)
MultiAccess AdminUp LinkUp Loopback Ignored MTU=16436
::1/128 (Primary, scope host)
eth0 up (index=2)
MultiAccess Broadcast Multicast AdminUp LinkUp MTU=1500
2a03:4000:6:30c3::1/64 (Primary, scope univ)
fe80::5054:6fff:febf:e3a/64 (Unselected, scope link)
gre0 DOWN (index=3)
MultiAccess AdminDown LinkDown MTU=1476
backend-bab1 up (index=4)
PtP Multicast AdminUp LinkUp MTU=1400
fda9:26e:5805:bab1:af1:7cb:47:af01/127 (Primary, opposite)
fda9:26e:5805:bab1:af1:7cb:47:af00, scope site)
fe80::200:5efe:2578:a0ce/64 (Unselected, scope link)
backend-gw2 up (index=5)
PtP Multicast AdminUp LinkUp MTU=1400
fda9:26e:5805:bab1:aaaa::5/64 (Primary, scope site)
fe80::200:5efe:2578:a0ce/64 (Unselected, scope link)
backend-web up (index=6)
PtP Multicast AdminUp LinkUp MTU=1400
fd43:c813:cf00:5ed5::4/127 (Primary, opposite fd43:c813:cf00:5ed5::5,
scope site)
fe80::200:5efe:2578:a0ce/64 (Unselected, scope link)
mesh-vpn up (index=7)
MultiAccess Broadcast Multicast AdminUp LinkUp MTU=1312
fe80::d0f4:29ff:fe99:6861/64 (Primary, scope link)
bat0 up (index=8)
MultiAccess Broadcast Multicast AdminUp LinkUp MTU=1500
fda9:26e:5805::9/64 (Primary, scope site)
fe80::a8bd:bfff:fe97:6274/64 (Unselected, scope link)
mesh-vpn-backbo up (index=9)
MultiAccess Broadcast Multicast AdminUp LinkUp MTU=1426
fe80::bc98:1fff:fe07:ff52/64 (Primary, scope link)
```

Show Protocols

```
# birdc show protocols
```

```

BIRD 1.3.7 ready.
name      proto    table    state    since      info
k_mast    Kernel    master   up        Feb11
k_frei    Kernel    freifunk up        Feb11
device1   Device    master   up        Feb11
p_maintbl Pipe      master   up        Feb11    => ebgp
p_ibgptbl Pipe      ebgp      up        Feb11    => ibgp
p_freitbl Pipe      ibgp      up        Feb11    => freifunk
unreachable_default Static    freifunk up        Feb11
static_ffmd Static    ebgp      up        Feb11
local_ffmd Static    freifunk up        Feb11
vpn2      BGP       ibgp      start    Feb11      Connect      Socket:
Connection timed out
Bielefeld1 BGP       ebgp      start    Feb11      Idle
Bielefeld2 BGP       ebgp      start    Feb11      Idle

```

Procols Verbose

```

# birdc show protocols all
BIRD 1.3.7 ready.
name      proto    table    state    since      info
k_mast    Kernel    master   up        Feb11
Preference: 10
Input filter: REJECT
Output filter: (unnamed)
Routes:      0 imported, 0 exported, 0 preferred
Route change stats:      received    rejected    filtered    ignored    accepted
  Import updates:          0          0          0          0          0
  Import withdraws:        0          0         ---          0          0
  Export updates:          0          0          0         ---          0
  Export withdraws:        0         ---         ---         ---          0

```

show static

```

Show detailed information about static routes.
birdc show static local_ffmd
BIRD 1.3.7 ready.
10.139.0.0/16 dev bat0
birdc show static static_ffmd
BIRD 1.3.7 ready.
10.139.0.0/16 unreachable

```

Openvpn

erzeugt mullvad device

Starten/ Stoppen

```
service openvpn start
service openvpn stop

@gwl:# service openvpn status
[ ok ] VPN 'ipredator' is running.
```

debugging

```
ps -ef |grep open
root      968    697    0 20:45 pts/2    00:00:00 grep open
root     21285      1    0 Feb10 ?        00:00:22 /usr/sbin/openvpn --writepid
/run/openvpn/ipredator.pid --daemon ovpn-ipredator --status
/run/openvpn/ipredator.status 10 --cd /etc/openvpn --config
/etc/openvpn/ipredator.conf
```

ISC-DHCP Server

Starten/ Stoppen

```
/etc/init.d/isc-dhcp-server stop
```

```
/etc/init.d/isc-dhcp-server start
```

```
/etc/init.d/isc-dhcp-server status
Status of ISC DHCP server: dhcpd is running.
```

Debugging

```
tcpdump -n -i br0 port bootps or port bootpc
```

```
root@gwl:/home/kwasir# ps -ef |grep dhcp
root      903    697    0 20:33 pts/2    00:00:00 grep dhcp
root     3296      1    0 Jan31 ?        00:00:21 /usr/sbin/dhcpd -q -6 -cf
/etc/dhcp/dhcpd6.conf -pf /var/run/dhcpd6.pid bat0
root     21304      1    0 Feb10 ?        00:00:21 /usr/sbin/dhcpd -cf
/etc/dhcp/dhcpd.conf bat0
```

Alfred

A.L.F.R.E.D - Almighty Lightweight Fact Remote Exchange Daemon

alfred is a user space daemon for distributing arbitrary local information over the mesh/network in a decentralized fashion. This data can be anything which appears to be useful - originally designed to replace the batman-adv visualization (vis), you may distribute hostnames, phone books, administration information, DNS information, the local weather forecast ...

Alfred

Alfred_Architecture <https://github.com/ffnord/alfred/blob/master/README>

Start / Stop/ Staus

```
service alfred start
[ ok ] Starting A.L.F.R.E.D: alfred.
```

```
service alfred stop
```

```
service alfred status
[ ok ] alfred is running.
```

Debugging

```
ps -ef |grep alfred
root      1149      1  0 21:03 ?                00:00:00 /usr/sbin/alfred -i bat0 -b
bat0 -m
```

Abfragen

Sind Nodes online, die gluon-announce installiert und am laufen haben, sollte man json/gzip Daten erhalten:

```
alfred -r 158 -u /var/run/alfred-wi.sock
[...]
{ "xx:xx:xx:xx:xx:xx", "\xxx\xxx [...] \xxx\xxx" },
[...]
```

Ist alfred-json installiert kann man sich die Daten gleich mit entpacken lassen:

```
alfred -r 158 -s /var/run/alfred.sock -z
[...]
{
  "xx:xx:xx:xx:xx:xx": {
    "location": {
      "longitude": 0.0,
      "latitude": 0.0
    },
  },
}
```

```
        "network": {
            "mac": "xx:xx:xx:xx:xx:xx",
            [...]
        },
        [...]
    },
    [...]
}
```

Hier nervt: Zur Angabe des Sockets nutzt alfred-json den Flag -s, alfred hingegen -u.

Wenn bereits ein Router in der Hood ist, kann mit

```
alfred -r 158 -u /var/run/xx.sock
```

<https://github.com/FreifunkFranken/alfred-json>

```
alfred-json -zr 158 -s /var/run/alfred.sock
```

```
alfred-json -zr 158
```

Datensatz 158 und 159 sollten daten liefern Bzw. Datensatz 1

Unbound

Starten Stoppen

```
# /etc/init.d/unbound status
[ ok ] unbound is running.
```

```
# /etc/init.d/unbound start
[ ok ] unbound is starting
```

```
# /etc/init.d/unbound stop
[ ok ] unbound is stopping
```

Changelog

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