

**#ffpb**

PROJEKT

**FREIFUNK PADERBORN**

**WIE GEHT DAS EIGENTLICH?**

DATUM

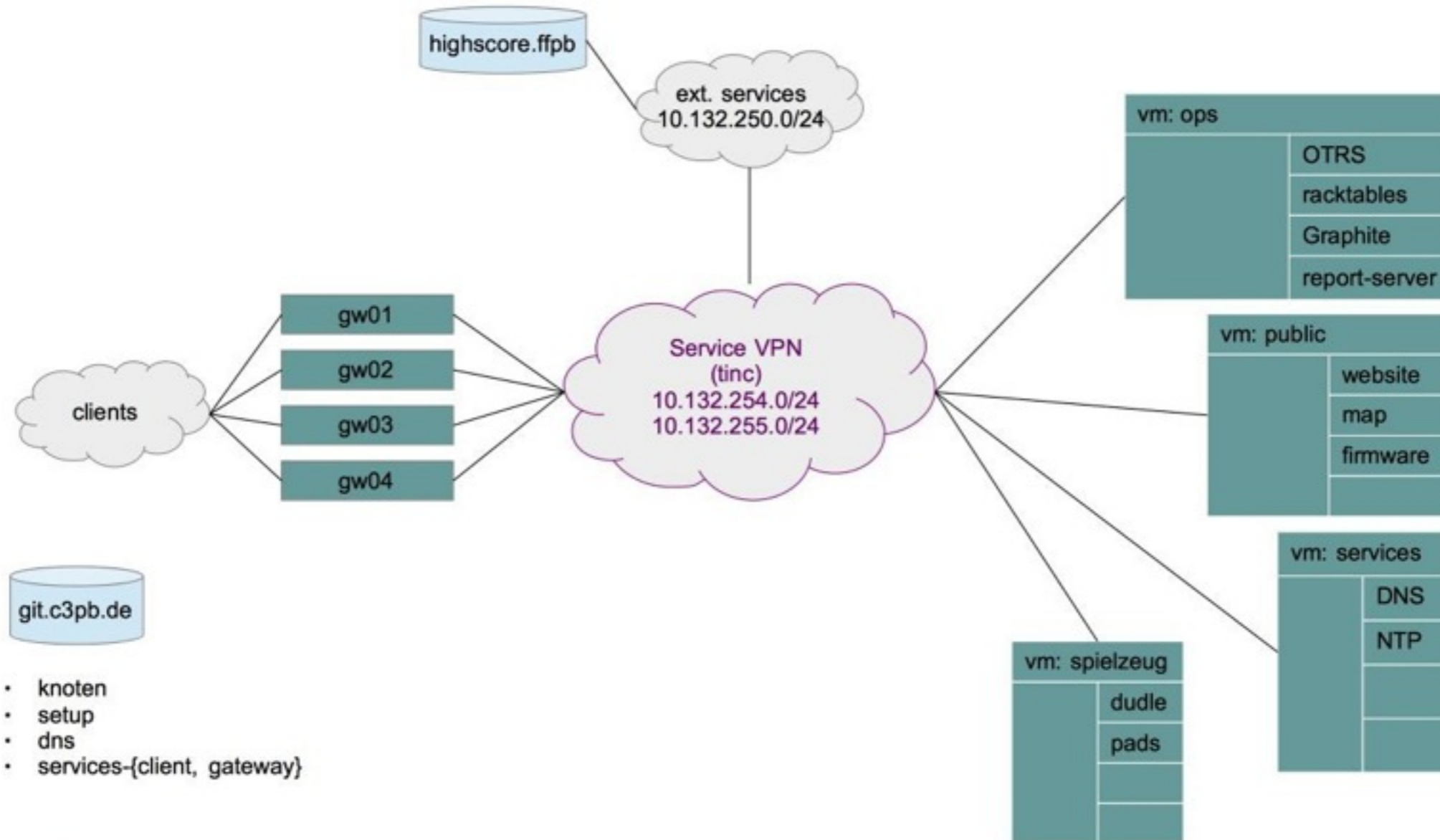
**23.43.1982**

SPEAKER

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# Netzwerk Infrastruktur

## Network Infrastructure details for #ffpb



# How to Gateway #ffpb



# How to Gateway #ffpb

- \* Voraussetzung
  - \* Hardware oder virtuelles System
    - \* Dual core with 2,x GHz, 2-4 GB RAM, 20GB HDD
  - \* Debian Wheezy Basis Installation
  - \* git muss installiert sein
  - \* Internetverbindung, natürlich, Traffic Volumen von mehreren TB im Monat sind zu erwarten

# How to Gateway #ffpb

- \* Du möchtest die Installation in einem screen starten, vertraue mir!
- \* Als erstes holen wir uns das setup git

```
root@gw-dev01:~# cd /srv/  
root@gw-dev01:/srv# git clone git@c3pb.de:freifunk-pb/setup
```

- \* Gentleman, start your engines

```
root@gw-dev01:~# cd /srv/  
root@gw-dev01:/srv# git clone git@c3pb.de:freifunk-pb/setup  
Cloning into 'setup'...  
remote: Counting objects: 348, done.  
remote: Compressing objects: 100% (344/344), done.  
remote: Total 348 (delta 198), reused 0 (delta 0)  
Receiving objects: 100% (348/348), 54.79 KiB, done.  
Resolving deltas: 100% (198/198), done.  
root@gw-dev01:/srv# ls  
setup  
root@gw-dev01:/srv# cd setup/  
root@gw-dev01:/srv/setup# ls  
files                functions.sh          generate_ff_config.py  install-gateway.sh    system.packages  
freifunk.packages    gateway.conf.local.ffpb  generate_gateway.conf.py  install-map.sh        templates  
root@gw-dev01:/srv/setup# ./install-gateway.sh
```

# How to Gateway #ffpb

- \* Folge dem flausch on screen

```
root@gw-dev01:/srv/setup# ./install-gateway.sh
CONFIG_FILE ("/etc/freifunk/gateway.conf") is missing, but is required for install-gateway.sh to run.
Shall I generate one for thou? [y/N] y
Please enter gateway number: 05
Please edit "/etc/freifunk/gateway.conf" to your needs and run this script again.
root@gw-dev01:/srv/setup# vi /etc/freifunk/gateway.conf
root@gw-dev01:/srv/setup# ./install-gateway.sh
```

- \* Schnapp dir nen Snickers, das kann länger dauern

```
root@gw-dev01:/srv/setup# ./install-gateway.sh
+ This script installs a Freifunk GATEWAY.
configuring Freifunk-related repositories
gpg: requesting key CB201D9C from hkp server keyserver.ubuntu.com
gpg: key CB201D9C: public key "Matthias Schiffer <mschiffer@universe-factory.net>" imported
gpg: no ultimately trusted keys found
gpg: Total number processed: 1
gpg:          imported: 1 (RSA: 1)
apt-get update
+ install necessary system software and tools
Reading package lists...
Building dependency tree...
Building dependency tree...
Reading state information...
git is already the newest version.
iproute is already the newest version.
iptables is already the newest version.
openssl is already the newest version.
openssl set to manually installed.
The following extra packages will be installed:
  bind9utils fontconfig fontconfig-config libcairo2 libdatriel libdbi1 libffi5 libfontconfig1 libglib2.0-0 libglib2.0-data liblzo2-2
  libopts25 libpango1.0-0 libpixman-1-0 libpkcs11-helper1 libpng12-0 librrd4 libthai-data libthai0 libxcb-render0 libxcb-shm0 libxft2
  libxrender1 python-lockfile python3-minimal python3.2 python3.2-minimal shared-mime-info ttf-dejavu ttf-dejavu-core ttf-dejavu-extra
Suggested packages:
  bind9-doc resolvconf ufw isc-dhcp-server-ldap ttf-baekmuk ttf-arphic-gbsn00lp ttf-arphic-bsmi00lp ttf-arphic-gkai00mp
  ttf-arphic-bkai00mp ntp-doc p7zip-rar python-argparse-doc ipython python-netaddr-docs python3-doc python3-tk python3.2-doc binutils
  bind9-doc resolvconf ufw isc-dhcp-server-ldap ttf-baekmuk ttf-arphic-gbsn00lp ttf-arphic-bsmi00lp ttf-arphic-gkai00mp
  ttf-arphic-bkai00mp ntp-doc p7zip-rar python-argparse-doc ipython python-netaddr-docs python3-doc python3-tk python3.2-doc binutils
  binfmt-support librrds-perl
The following NEW packages will be installed:
  bind9 bind9utils bridge-utils fontconfig fontconfig-config iptables-persistent isc-dhcp-server libcairo2 libdatriel libdbi1 libffi5
  libfontconfig1 libglib2.0-0 libglib2.0-data liblzo2-2 libopts25 libpango1.0-0 libpixman-1-0 libpkcs11-helper1 libpng12-0 librrd4
```

# How to Gateway #ffpb

- \* Noe, wir brauchen die iptables v4 Regeln nicht

```
Configuring iptables-persistent  
  
Current iptables rules can be saved to the configuration file /etc/iptables/rules.v4. These rules will then be loaded automatically during system startup.  
  
Rules are only saved automatically during package installation. See the manual page of iptables-save(8) for instructions on keeping the rules file up-to-date.  
  
Save current IPv4 rules?  
  
<Yes>q2: channel 0: window 999341 sent adjust <No>5
```

- \* Und die v6 Regeln auch nicht

```
Configuring iptables-persistent  
  
Current iptables rules can be saved to the configuration file /etc/iptables/rules.v6. These rules will then be loaded automatically during system startup.  
  
Rules are only saved automatically during package installation. See the manual page of ip6tables-save(8) for instructions on keeping the rules file up-to-date.  
  
Save current IPv6 rules?  
  
<Yes> <No>
```

# How to Gateway #ffpb

- \* WICHTIG! WICHTIG! WICHTIG! WICHTIG!
- \* Bevor es weitergeht, muss der Key, wie zu lesen ist, an die ffpb admins geschickt werden, sonst erfolgt kein Zugriff aufs git

```
✓ I just generated a SSH key for you. Please send your public key via email to:  
admins@paderborn.freifunk.net
```

```
----- >8 SNIP >8 -----  
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDCLB5cEsmvwUFyu24ZWeGMyBYIQ7n8w2PKi7vpZEdCezGVi7T92tEW4i8Q8+gok4aApQ6sumk6a  
MD3GAW0p1TwRsh+4coiCpGnXCgC/NvR6CI8arICxbuDzqqPgTc0o6l54LljH9Msg2oWnrB+z2ZGSzZ02GlZvGGw2EANAAlAVz3pqucKBua1aguFQK  
oq2SK07RgkpiEz0oMbYDc75ujXH1Pl5cYy4RI/w108HNv1jIQX05TDHjtxZEKfQwclI2hbW9QT3G/gipBNSMc6kanCc5rmX/ogKobEiJ7H root@gv  
----- 8< SNAP 8< -----
```

```
Press <ENTER> after you have received a 'go ahead' from the admins.
```

```
Fetching list of peers ...
```

```
git clone from c3pb.de (ECDSA key fingerprint = 60:97:30:24:0b:85:21:e4:c3:49:c2:f5:12:de:1c:da)
```

```
Cloning into '/etc/fastd/ffpb-mesh-vpn//peers'...
```

```
The authenticity of host 'git.c3pb.de (85.10.248.248)' can't be established.
```

```
ECDSA key fingerprint is 60:97:30:24:0b:85:21:e4:c3:49:c2:f5:12:de:1c:da.
```

```
Are you sure you want to continue connecting (yes/no)? yes
```



# How to Gateway #ffpb

- \* Diese Infos müssen dann im zweiten Schritt folgen

```
Configuring tinc net "ffpb-services" for auto startup ...
Restarting tinc daemons: ffpb-servicesNo other tincd is running for net `ffpb-services'.
.

Please send this config to maschinenraum@paderborn.freifunk.net:
----- >8 SNIP -----
Address = gw05.paderborn.freifunk.net 10001

# Clients Subnetz
Subnet = 10.132.0.0/17
Subnet = fdca:ffee:ff12:132:0:0:0:0/64

# Services subnet
Subnet = 10.132.254.5/32
Subnet = fdca:ffee:ff12:a254:0:0:0:5/128

# Hosts subnet
Subnet = 10.132.255.5/32
Subnet = fdca:ffee:ff12:a255:0:0:0:5/128

-----BEGIN RSA PUBLIC KEY-----
MIICCAgKCAgEAvB/F8QaF/Qfh11ydBZ62k7txErZFnHd6kV/W1CewLoUntiEI9niE
GFUn7aTUTPPs7Up9sU2FVdV/T0BQE3WZd5E4Vt+XBBCHpe7KyheZZ5GeDBESN9Q
PUSGK8AdSI4yosX40DZg3fipfMlEggeV0QVX8uv8zFPsSMTrNTw4oZuxvftMnwwa
fDwMrFR/A9IyhUYTgCqcRB6NVPoEI8QrpPclcrwlZC7BewyUbyZg5b7/hcwovhAd
5qa0jw9o7FWrjRcY6DBVDQembL70daFo4bNpGhFVx4HRJJiAjaqSm6PkwDVKAI6t
GSqxEFBHBG8i1RIAx1uKusaPIcb64lwV7MlKUj4ukIbL1+P5kiNf0fT42uJhNlE6
Ftwe9XxonisqSq4ZpIETs2MM6BFVAhwPIceTkQsiz/o2guEmL2WuCEyJwHZdJhpf
3ejHddZkAcGc03UIUvck6613CIxFt5b1P7vG9HTCpHtNqpHg4gN0rRQPTQMSKPoI
M0ZiGRny726Z2pCM0Aw+j0egSELNrVy5eatuBA9Fd/+Uj9D74BuvmlCg9da50FU5
iAsjo80dEekEH7Y97Qc23a60qT98pmW26QFS+sVnGEcKAS0Yq0UC08zp2uw0F4LV
vYqjnIHPWCdOP7HM6YKHiJGmP1hom+ot2WQNf07t7cJ1WfIzd326kXsCAwEAAQ==
-----END RSA PUBLIC KEY-----
----- 8< SNAP -----

After the admins process your entry you're ready to go!
+ Setting up gateway statistics collector daemon ...
Stopping Freifunk Gateway Statistics daemon: gwstat-daemon.
Starting Freifunk Gateway Statistics daemon: gwstat-daemon.
✓ Everything done :-)
```



**JUP!**

Fragen?!