

Eigener Sync-Server für Firefox (Rust)

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Gliederung

Firefox Sync

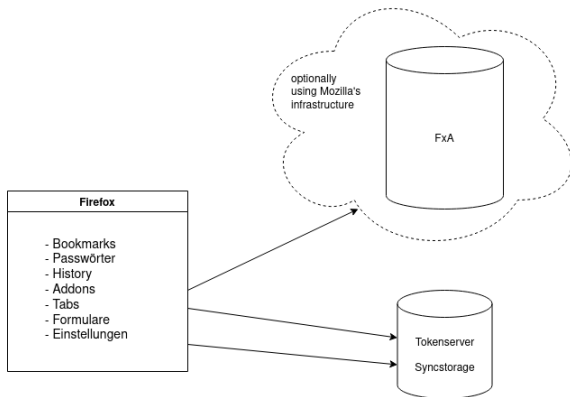
Setup

Demo

Was ist Sync?

- ▶ Firefox Synchronisierungstool für Bookmarks, Passwörter, History, Einstellungen, Addons, Formularfelder, offene Tabs und senden von Tabs
- ▶ Private by default
- ▶ Verwendet Mozilla's Infrastruktur
- ▶ Ist Open Source und lässt sich selbst hosten
- ▶ Server in Rust seit 2015

Firefox Sync



Syncstorage Datenbank

```
[mariadb] $ select * from bso LIMIT 5;
```

userid	collection	id	sortindex	payload	modified	ttd	payload_size	
4	1	etAuLwnla0FY		NULL	["ciphertext":"MOM0[...]=","IV":"fx7qly2Qz0v0Cu72onqg=","hmac":"8f10[...]"]	166558667000	168113867000	0
4	1	jaFz-tykYH8n		NULL	["ciphertext":"gS91[...]=","IV":"ZM7BPv9rEvehExckMndSCu=","hmac":"5282[...]"]	1665586388530	1681138388530	0
4	2	keys		NULL	["ciphertext":"3SE4[...]=","IV":"9Ciu2+Jihx+SdZkyM7/Ddg=","hmac":"5075[...]"]	1665586666800	3765586666800	0
4	3	3zxif7JxQMSzDL4		NULL	["ciphertext":"0ot3[...]=XCG","IV":"xClnrSjNQ86l1jARHUPeg=","hmac":"efaf[...]"]	1665586667480	1760194667480	0
4	3	6SRcEFLPQTaNNXcK		NULL	["ciphertext":"lKH0[...]=uL","IV":"dLjuF2LhapX85ipzrdKEN=","hmac":"a4ca[...]"]	1665586667480	1760194667480	0

Tokenserver Datenbank

```
MariaDB [syncstorage_rs]> select * from users;
```

uid	service	email	generation	client_state	created_at	replaced_at	nodeid	keys_changed_at
4	1	c07aef783a04f76ba8cc5b7bda692@apl.accounts.stage.mozilla.net	1665404627540	77fa13d1d6ead94b91036bbf5abb0f8	1665586064445	NULL	1	1665404627540

```
1 row in set (0.003 sec)
```

Overview

- ▶ Podman - rootless docker
- ▶ MariaDB - MySQL implementation
- ▶ syncstorage-rs

Warum Podman?

- ▶ Podman ist eine Containerisierungsimplementierung für Linux von Red Hat
- ▶ bietet root und rootless Modus an
- ▶ daemonless
- ▶ `alias docker=podman`

Einrichten von rootless Podman

```
$ sudo pacman -S podman
$ # "user" ersetzen mit dem tatsächlichen Benutzernamen
$ echo user:10000:65536 >> /etc/subuid
$ echo user:10000:65536 >> /etc/subgid
```

Podman gibt Fehler beim starten von Pods

podman system service: /usr/bin/slirp4netns failed: open("/dev/net/tun") #9543

New Issue

 Closed **lburgazzoli** opened this issue on Mar 1, 2021 · 2 comments



lburgazzoli commented on Mar 1, 2021

Is this a **BUG REPORT** or **FEATURE REQUEST**? (leave only one on its own line)

/kind bug

Description

I'm trying to set-up podman to work with [TestContainers](#) but I see a failure related to slirp4netns and the tun device

Assignees

No one assigned

Labels

kind/bug

Projects



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lburgazzoli commented on Mar 1, 2021

Author ...

oh, stupid me, I did a kernel update ...



lburgazzoli closed this as completed on Mar 1, 2021



Finaler Setupschritt

```
$ sudo systemctl reboot
```

MySQL setup

```
$ sudo pacman -S mariadb
$ sudo systemctl start mariadb
$ sudo mysql_secure_installation
$ mysql -u root -p
[mariadb]$ CREATE USER syncstorage IDENTIFIED BY '**hidden**';
[mariadb]$ CREATE DATABASE syncstorage_rs;
[mariadb]$ GRANT ALL PRIVILEGES on syncstorage_rs.* to syncstorage;
```

Tokenserver database setup

```
$ sudo pacman -S diesel-cli # oder cargo install diesel_cli
$ diesel --database-url
↳ mysql://syncstorage:**hidden**@localhost/syncstorage_rs migration
↳ --migration-dir syncstorage/src/tokenserver/migrations/ run
$ mysql -u syncstorage -p
[mariadb]$ USE syncstorage_rs;
[mariadb]$ INSERT INTO `services` (`id`, `service`, `pattern`) VALUES
↳ ('1', 'sync-1.5', '{node}/1.5/{uid}');
[mariadb]$ INSERT INTO `nodes` (`id`, `service`, `node`, `available`,
↳ `current_load`, `capacity`, `downed`, `backoff`) VALUES ('1', '1',
↳ 'http://localhost:8000', '1', '0', '1', '0', '0');
```

Konfiguration config.toml

```
# Example MySQL DSN:
```

```
database_url = "mysql://syncstorage:**hidden**@localhost/syncstorage_rs"
```

```
"limits.max_total_records"=1666 # See issues #298/#333
```

```
master_secret = "mysecret" # head -c 20 /dev/urandom | shasum
```

```
# removing this line will default to moz_json formatted logs (which is  
↪ preferred for production envs)
```

```
human_logs = 1
```

```
# enable quota limits
```

```
enable_quota = 0
```

```
# set the quota limit to 2GB.
```

```
# max_quota_limit = 200000000
```

Konfiguration config.toml (cont)

```
# Example Tokenserver settings:
disable_syncstorage = false
tokenserver.database_url =
↳ "mysql://syncstorage:**hidden**@localhost/syncstorage_rs"
tokenserver.enabled = true
tokenserver.fxa_email_domain = "api.accounts.stage.mozaws.net"
tokenserver.fxa_metrics_hash_secret = "mysecret"
tokenserver.fxa_oauth_server_url = "https://oauth.accounts.firefox.com"
tokenserver.fxa_browserid_audience = "https://token.stage.mozaws.net"
tokenserver.fxa_browserid_issuer =
↳ "https://api-accounts.stage.mozaws.net"
tokenserver.fxa_browserid_server_url =
↳ "https://verifier.stage.mozaws.net/v2"
tokenserver.test_mode_enabled = false
tokenserver.additional_blocking_threads_for_fxa_requests = 2

# cors settings
# cors_allowed_origin = "localhost"
cors_allowed_origin = "null"
# cors_max_age = 86400
```


Angelagert beim Synchronisieren

- ▶ Fehlersuche mit wenig Dokumentation
- ▶ Beste & Aktuellste Quellen: Issues + AUR Kommentare

```
< tokenserver.fxa_oauth_server_url = "https://oauth.stage.mozaws.net "  
> tokenserver.fxa_oauth_server_url = "https://oauth.accounts.firefox.com "
```

Nginx reverse proxy

```
http {  
    server {  
        listen          443 ssl;  
        server_name     syncserver.mabu.dev;  
        ssl_certificate  fullchain.pem;  
        ssl_certificate_key  privkey.pem;  
        ssl_session_cache  shared:SSL:1m;  
        ssl_session_timeout 5m;  
        ssl_ciphers      HIGH:!aNULL:!MD5;  
        ssl_prefer_server_ciphers on;  
        location / {  
            proxy_pass http://127.0.0.1:8000;  
            proxy_set_header Host $host;  
            proxy_set_header X-Forwarded-Host $host;  
            proxy_set_header X-Forwarded-Server $host;  
            proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;  
            proxy_set_header X-Forwarded-Proto $scheme;  
        }  
    }  
}
```

Firefox about:config



```
identity.sync.tokenserver.uri https://syncserver.mabu.c
```



```
identity.sync.tokenserver.uri http://localhost:8000/1.0
```

Ausblick

- ▶ Warten bis Refactor vorbei → Stabilere Konfigdatei
- ▶ FxA mit selbst hosten
- ▶ Mit podman wrappen

Demo

!

Fragen?

?