(Raster-)Tile-Server-Setup mit Tirex

FOSSGIS 2020

Freiburg, 12.3.2020

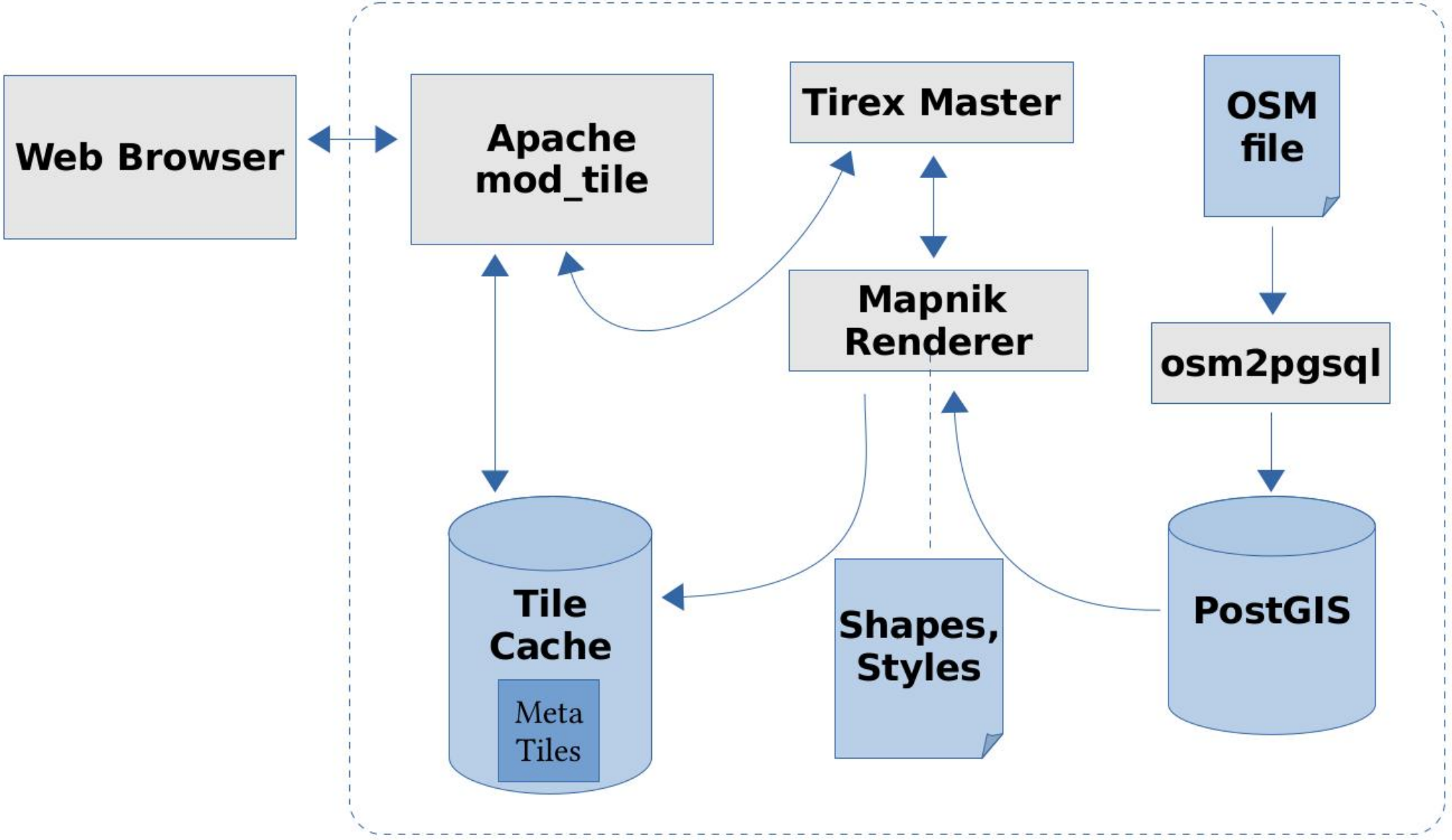
Frederik Ramm

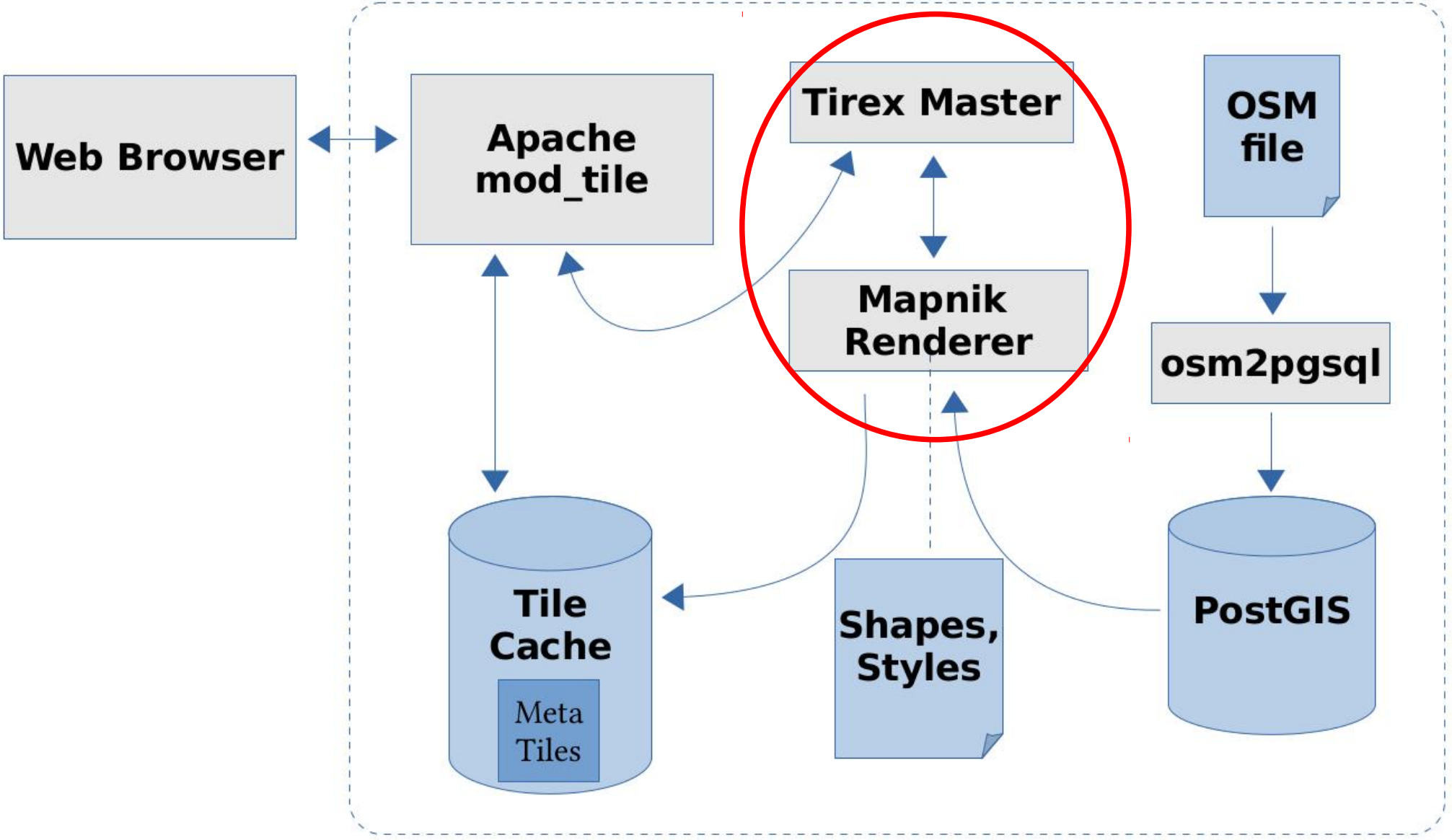
frederik.ramm@geofabrik.de

Tirex

- veröffentlicht 2010:
  github.com/openstreetmap/tirex
  (nicht: t-rex vector tile server)
- plug-in replacement für **renderd:**
  Queue-Management für Tileserver

Wie funktioniert ein Tileserver?


Web Browser
Apache mod_tile
Tirex Master
OSM file
Mapnik Renderer
osm2pgsql
Tile Cache
Meta Tiles
Shapes, Styles
PostGIS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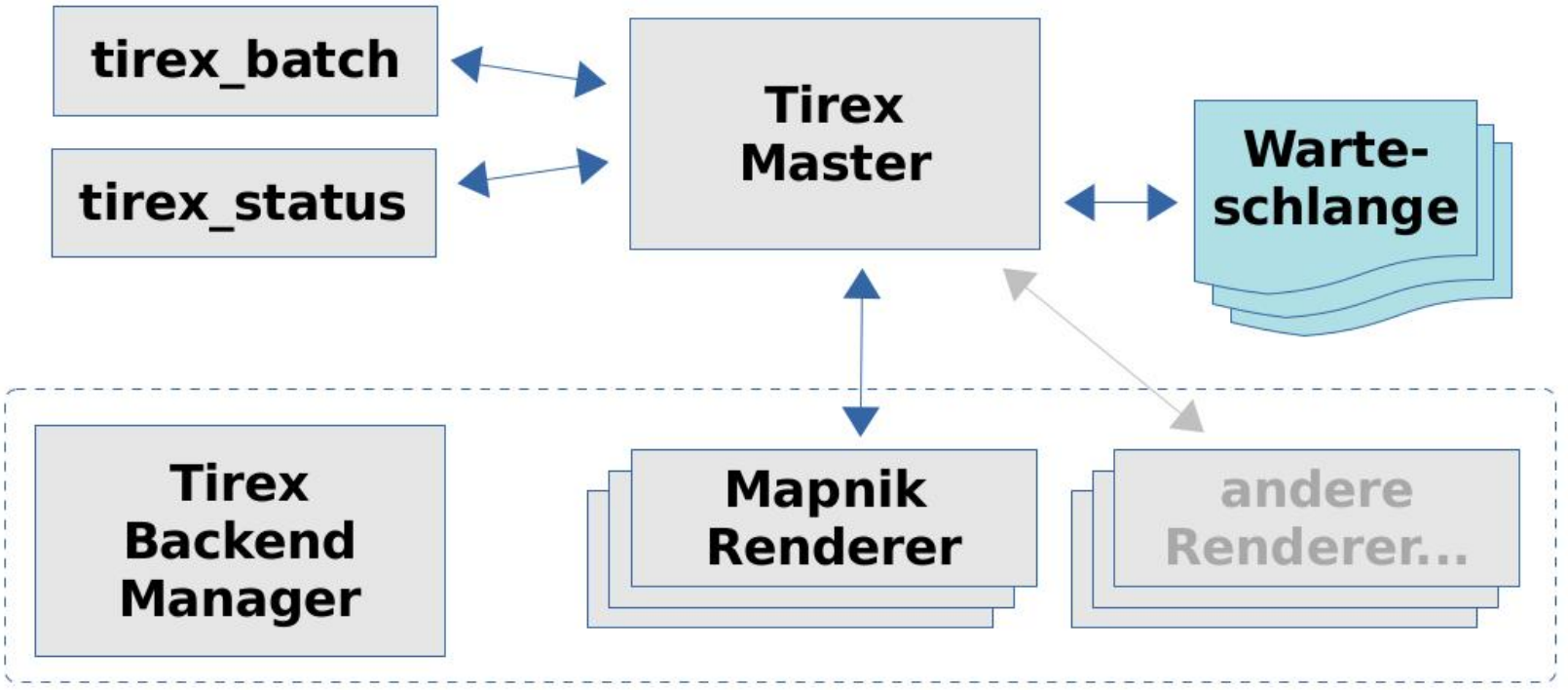
tirex_batch
tirex_status
Tirex
Master
Warte-
schlange
Tirex
Backend
Manager
Mapnik
Renderer
andere
Renderer...

Tirex-Features

- Queues verschiedener Prioritäten
- „Seeding“ mit **tirex-batch**
- Monitoring mit **tirex-status**
- verschiedene Backends
- kompatibel zu renderd/mod_tile

Konfiguration x3

- global
  (/etc/tirex/tirex.conf)
- pro Renderer
  (/etc/tirex/renderer/mapnik.conf)
- beim Mapnik-Renderer pro Stil
  (/etc/tirex/renderer/mapnik/osm.conf)

tirex-batch

tirex-batch

-p *prio*
-f *filter*

map=*mapname*
bbox=*links,unten,rechts,oben*
z=*min-max*

tirex-status

```
Tirex Master Status (updated=2020-03-11 18:15:14)

Master server:
 started=2020-03-11 18:03:58 pid=10807

Statistics:
 count_error=0
 count_expired=0
 count_rendered[osm]=0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 1, 2, 2, 2, 4
 count_requested=14
 count_timeouted=0
 sum_render_time[osm]=0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1:36.155, 0, 0, 0, 11.323, 12.189, 8.649, 8.304, 5.500

Queue:
 Prio   Size Maxsize             Age
    1      0       1

  all      0       1

Buckets: (load=0.76)
 Name                 Priority  Rendering  MaxRend  Maxload Active Can Queued             Age
 live                   1-   9          1        4       20    yes yes      0
 important             10-  19          0        3        8    yes yes      0
 background            20-               0        2        4    yes yes      0

Currently rendering: (num=1)
 Map                            X          Y   Z Prio   Age
 osm                         8544       5696  14    1     6
```

Setup auf Ubuntu 18.04

95.217.11.254

apt update
apt install postgresql-10-postgis-2.4-scripts postgresql-10-postgis-2.4 osm2pgsql

su - postgres
createdb gis
createuser -s root
createuser -s tirex
psql gis -c "create extension hstore"
psql gis -c "create extension postgis"
exit

```
apt-get install git npm python3-distutils mapnik-utils
cd /srv
git clone https://github.com/gravitystorm/openstreetmap-carto

npm install -g carto
cd openstreetmap-carto
carto  project.mml > project.xml
python3 scripts/get-shapefiles.py

cd /tmp
wget http://download.geofabrik.de/europe/germany/baden-wuerttemberg/freiburg-regbez-latest.osm.pbf

osm2pgsql freiburg-regbez-latest.osm.pbf -S /srv/openstreetmap-carto/openstreetmap-carto.style --tag-transform
/srv/openstreetmap-carto/openstreetmap-carto.lua  -d gis --hstore

add-apt-repository -y ppa:osmadmins/ppa
add-apt-repository -y ppa:framm/tirex
apt-get install libapache2-mod-tile tirex-core tirex-backend-mapnik
```

- apache add tile config, socket, restart
-
- vi /etc/tirex/renderer/mapnik.conf
-
- /etc/tirex/renderer/mapnik/osm.conf
- name=osm
- tiledir=/var/lib/tirex/tiles/osm
- mapfile=/srv/openstreetmap-carto/project.xml
- maxz=18
-
- install -o tirex -d /var/lib/mod_tile/osm
-
- a2ensite
- a2dissite
-
- minus:
- alles als root
- alte versionen
-

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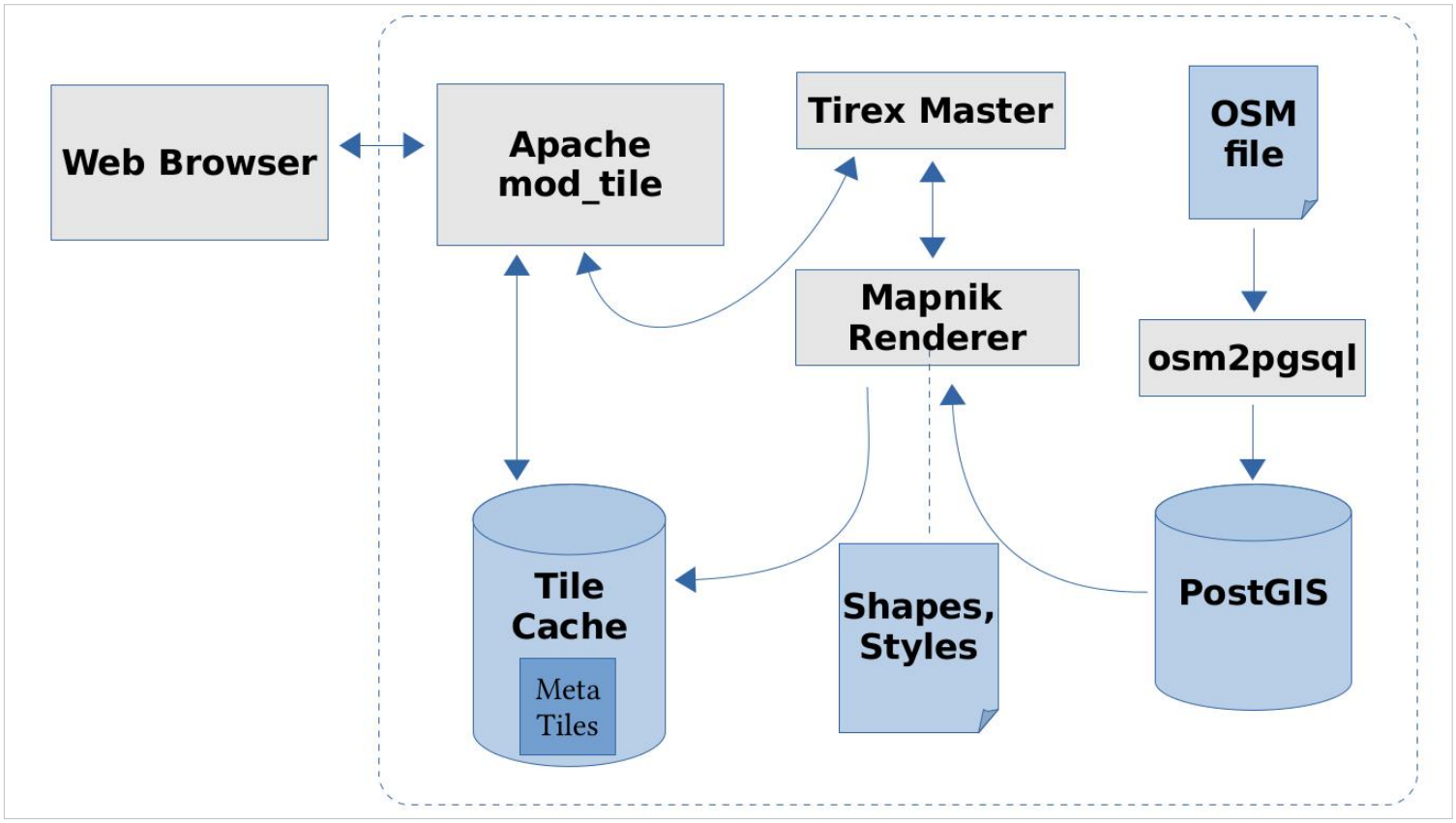
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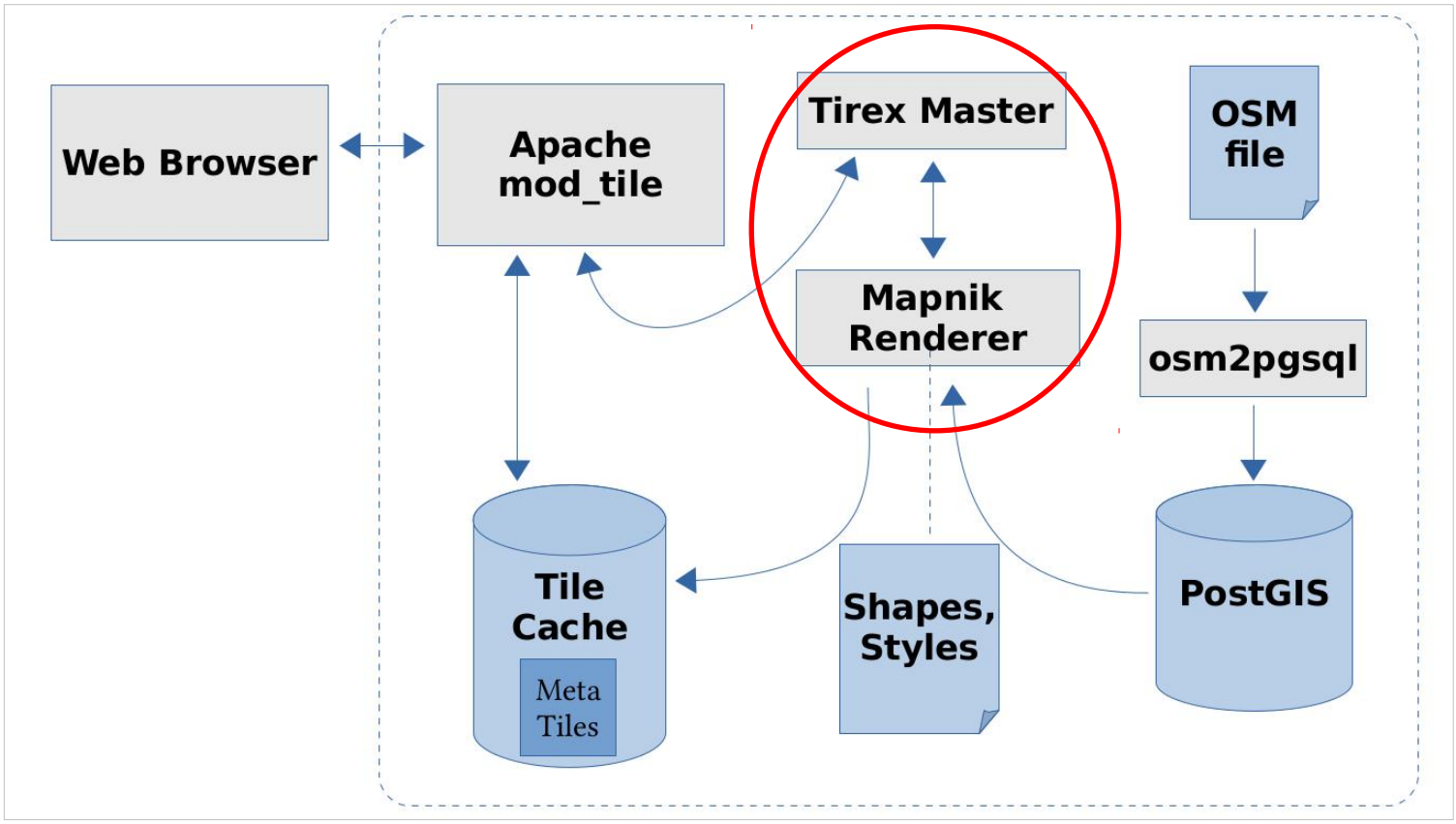
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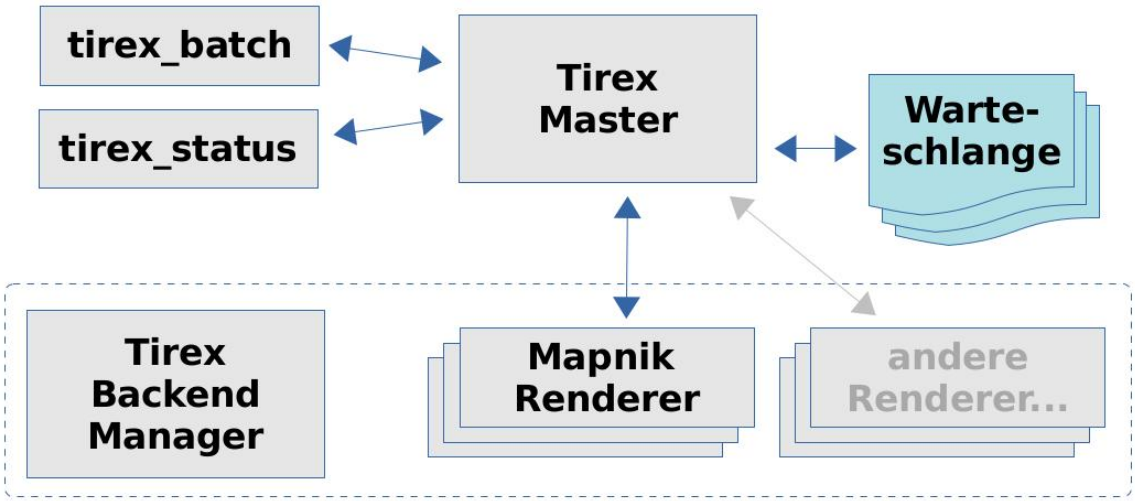
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