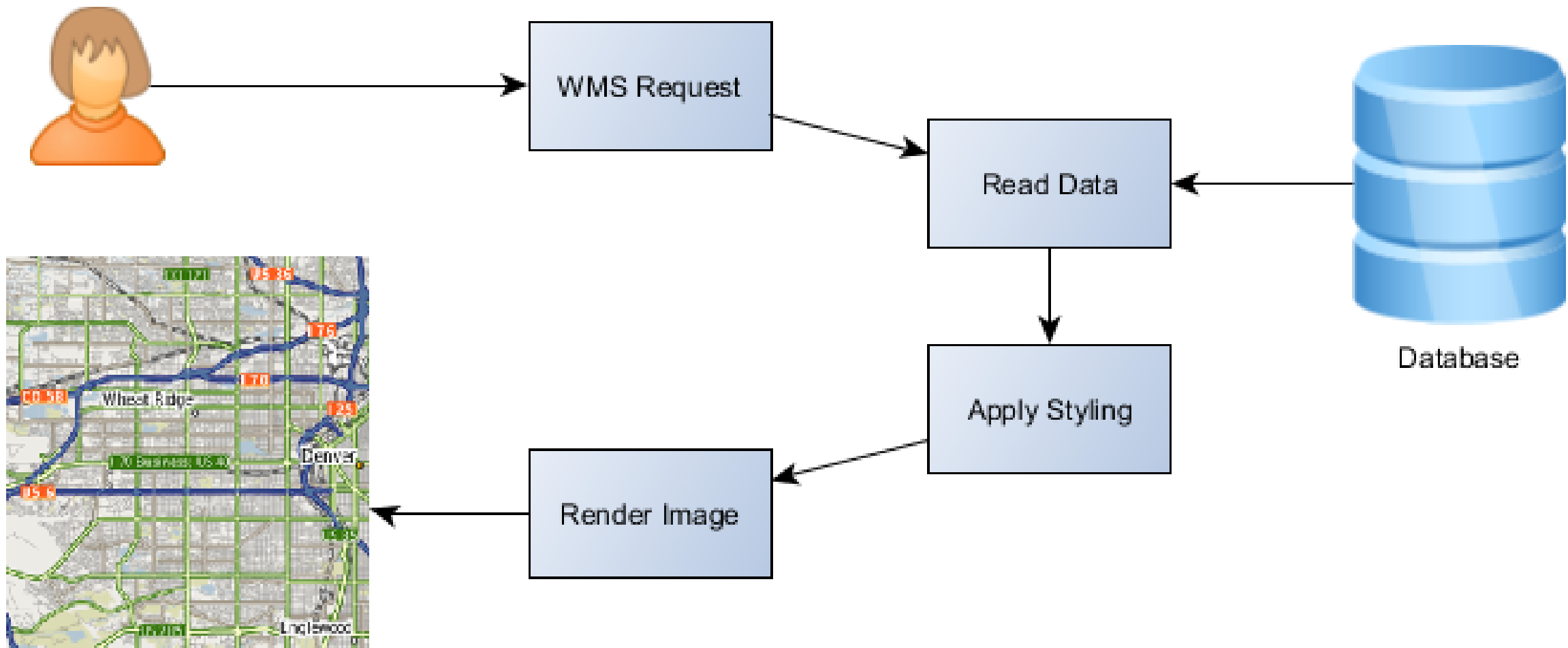




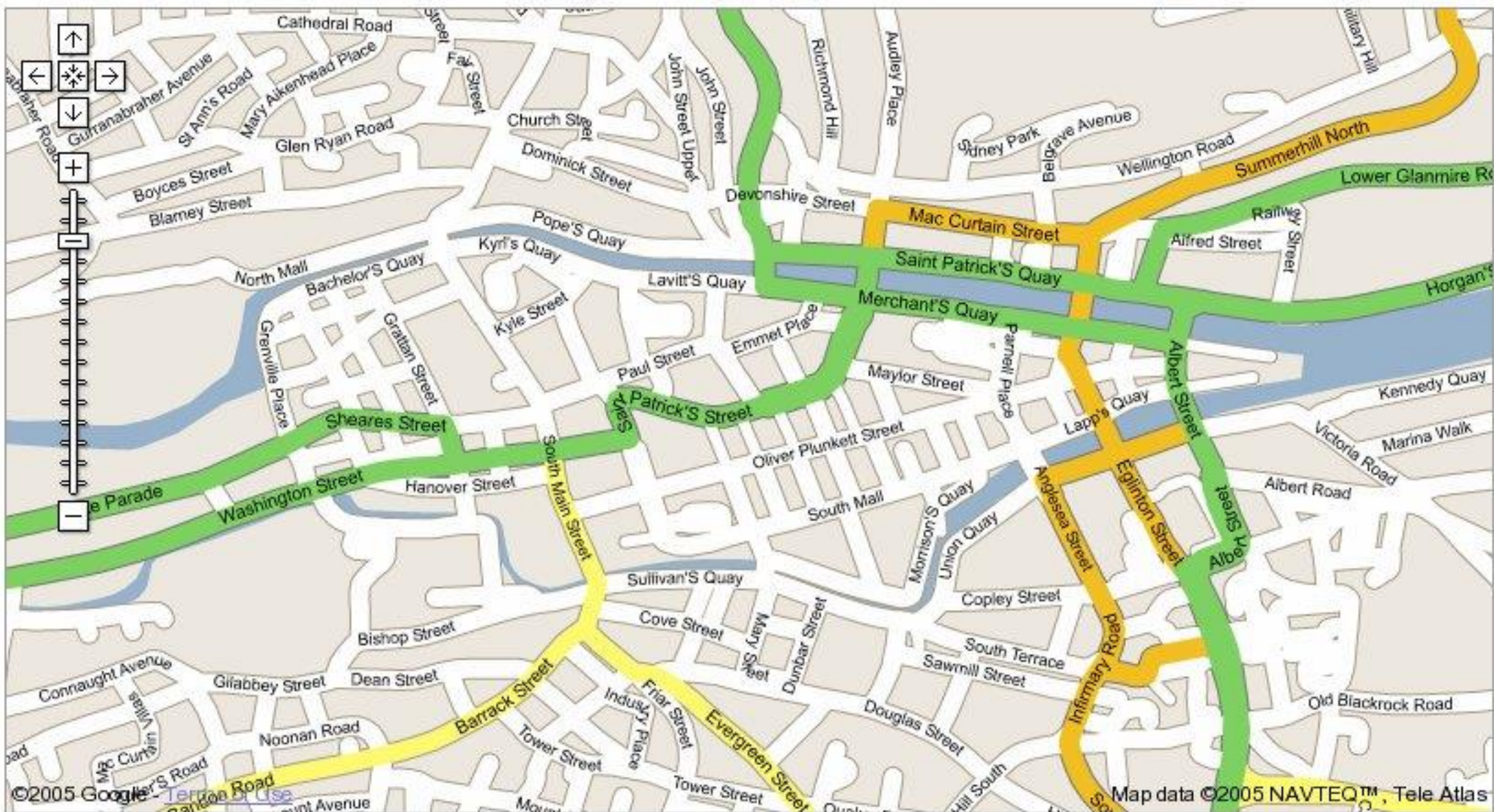
Lightning Mapping using OSGeo's MapCache

Seth Girvin, Compass Informatics



WMS Request

Maps



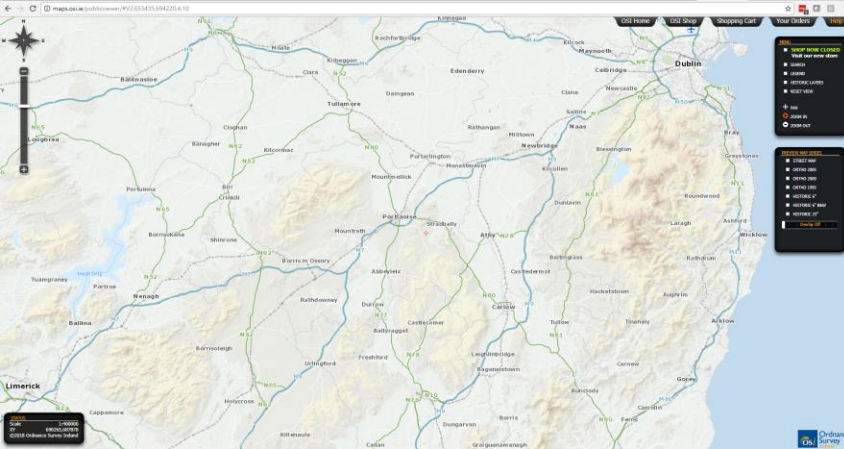
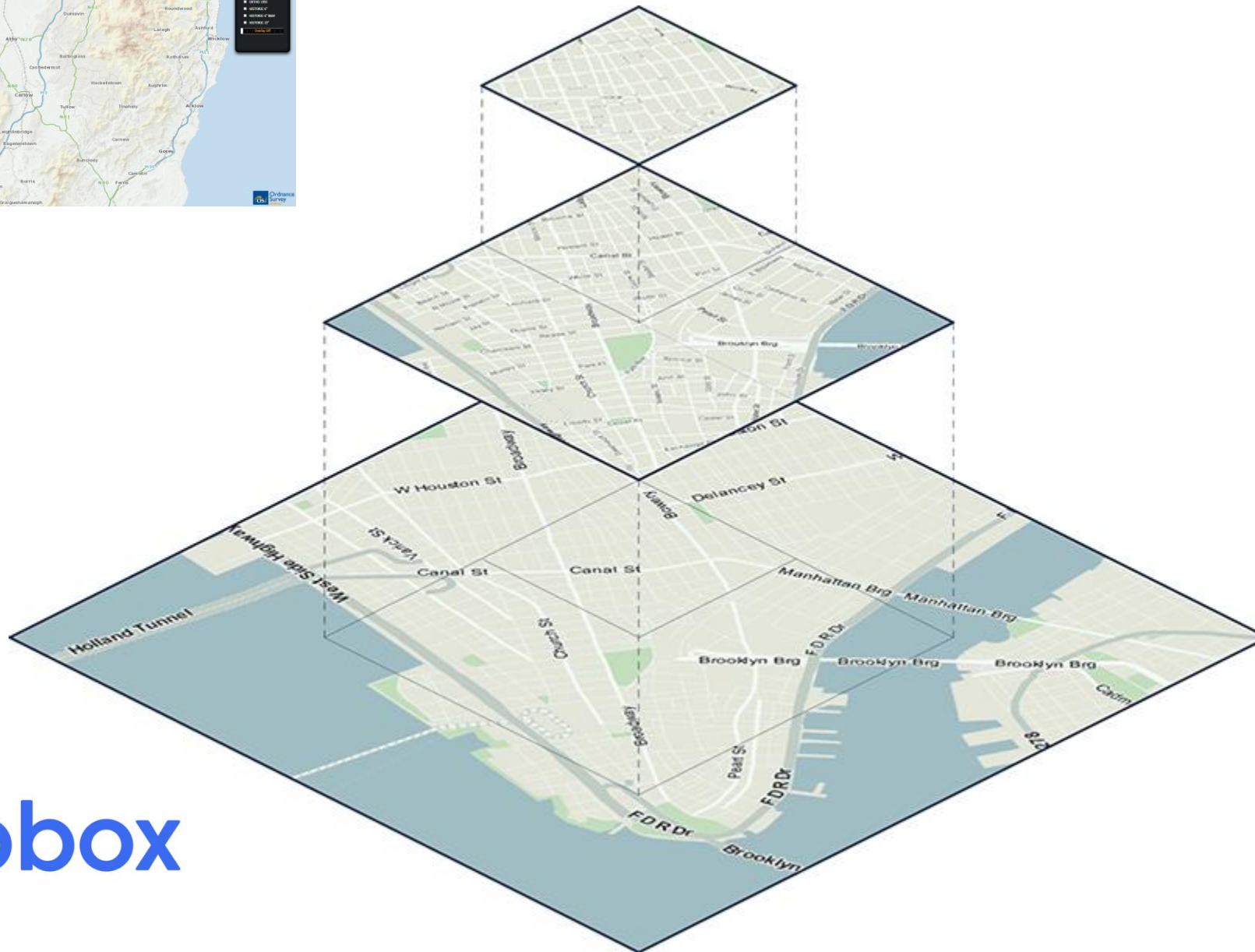
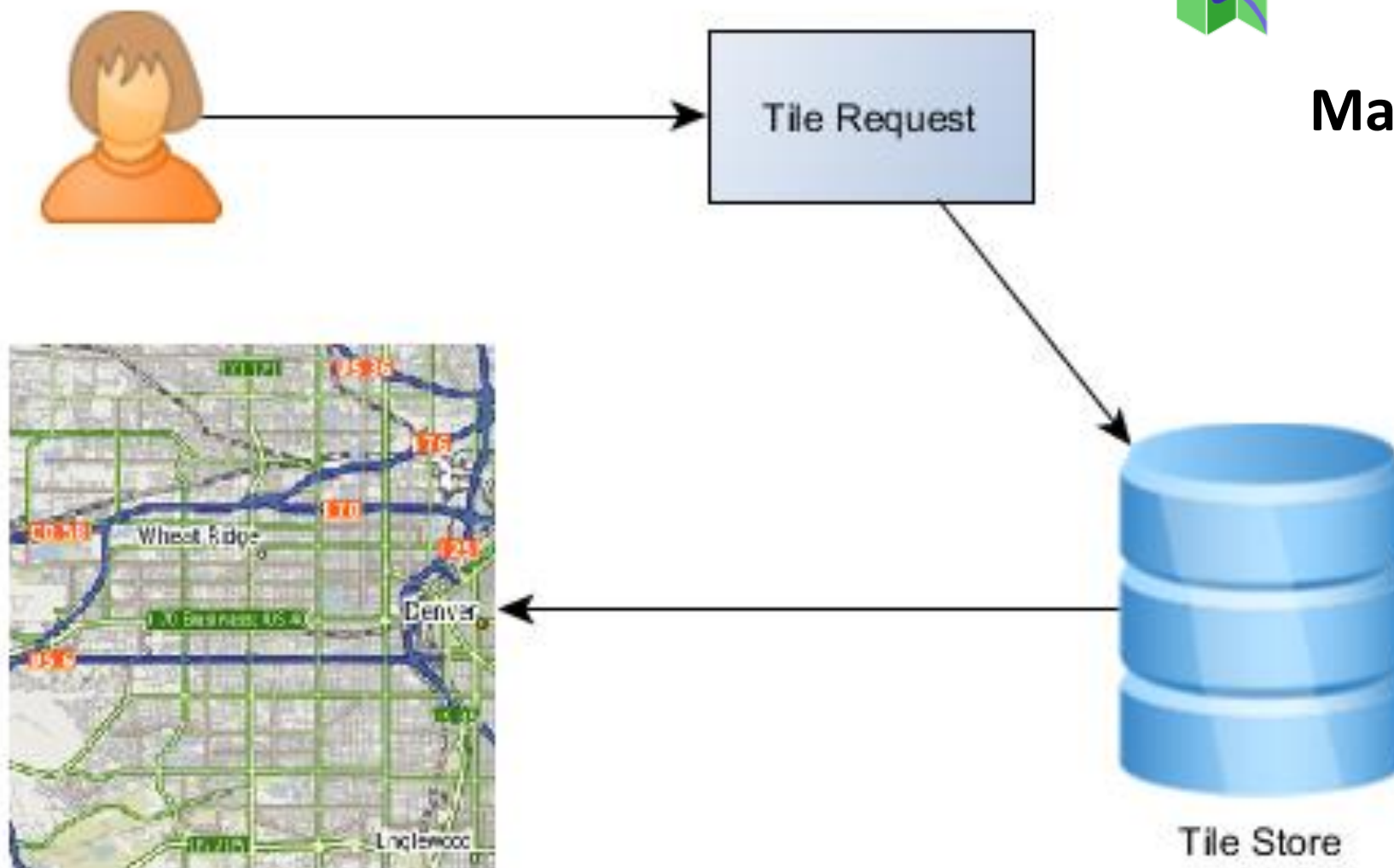


Image from <http://workshops.boundlessgeo.com> CC BY-NC-SA 3.0



MapCache



Seeding

- On request
- Prefilled

```
mapcache_seed.exe -c mapcache.xml -t NationalSpeedLimits -e -1165312,6701360,-668544,7435992 -z 7,10
```



17,592,186,044,416 tiles at zoom level 22 – would take **54** TB of storage

Only **1.79%** are viewed

TC

CD

PC

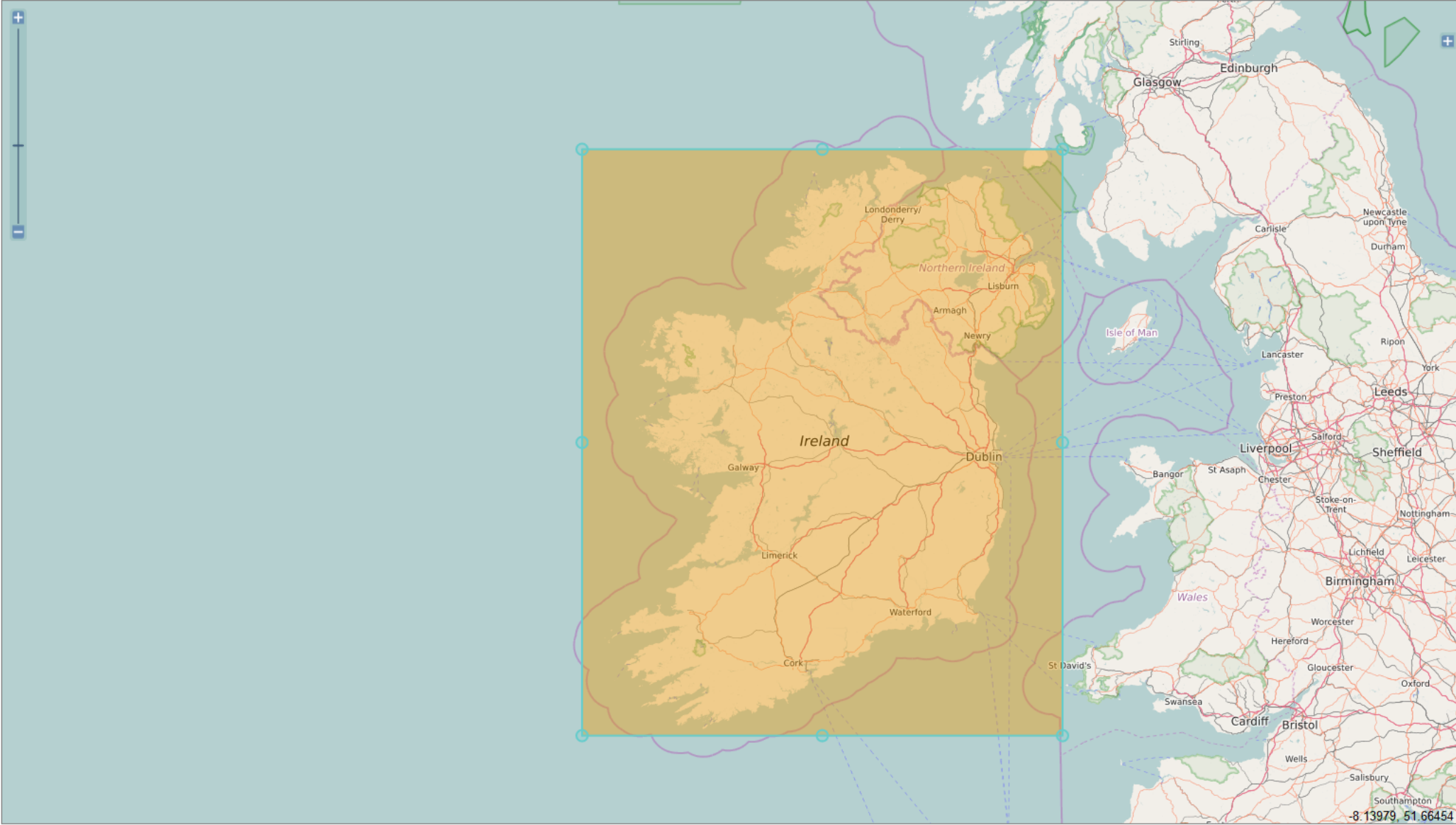
Tile size and number of
tiles in given bounding
box:

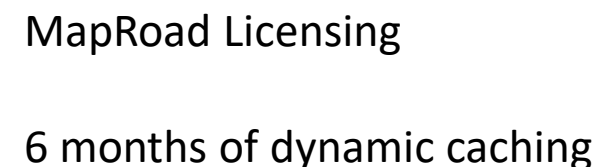
Zoom	Size	Total Size	#tiles	Total #tiles
6	58 kB	58 kB	4	4
7	104 kB	162 kB	9	13
8	371 kB	533 kB	30	43
9	1.0 MB	1.5 MB	99	142
10	2.9 MB	4.4 MB	357	499
11	7.0 MB	11 MB	1320	1819
12	24 MB	35 MB	5070	6889
13	90 MB	125 MB	20 k	27 k
14	257 MB	383 MB	79 k	105 k
15	1010 MB	1.4 GB	314 k	420 k
16	3.0 GB	4.4 GB	1.3 M	1.7 M
17	9.7 GB	14 GB	5.0 M	6.7 M
18	14 GB	28 GB	20 M	27 M

This table approximates the tile sizes of the given bounding box. The calculation is based on all rendered tiles on the server. Be aware that these values may be biased by spots on the map which have been viewed more often.

Click on "+" to choose other maps.

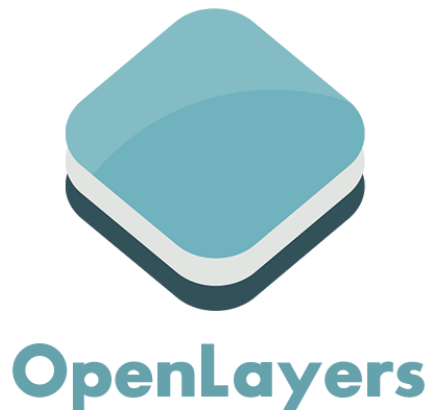
Hold "Ctrl" to draw a new rectangle.





Accessing a TileCache

```
new TileLayer({  
  source: new XYZ({  
    url: 'https://{a-c}.tile.thunderforest.com/cycle/{z}/{x}/{y}.png' +  
    '?apikey=Your API key from http://www.thunderforest.com/docs/apikeys/ here' })  
})
```



Advantages of a TileCache



- Fast mapping
- Support large numbers of users
- Cheaper servers
- Read-only exports
- Secure data access

When not to Use



- High resolution printing
- Dynamic data
- When seeding takes longer than updating the cache

Installing MapCache

Windows - <https://ms4w.com/> - comes with Apache

Linux - <https://mapserver.org/mapcache/install.html>

```
sudo apt-get install cgi-mapserver mapcache-cgi libapache2-mod-mapcache
```

Coming soon on **OSGeoLive 13**

Alternatives



Thank you for your time!

sgirvin@compass.ie



@geographika

