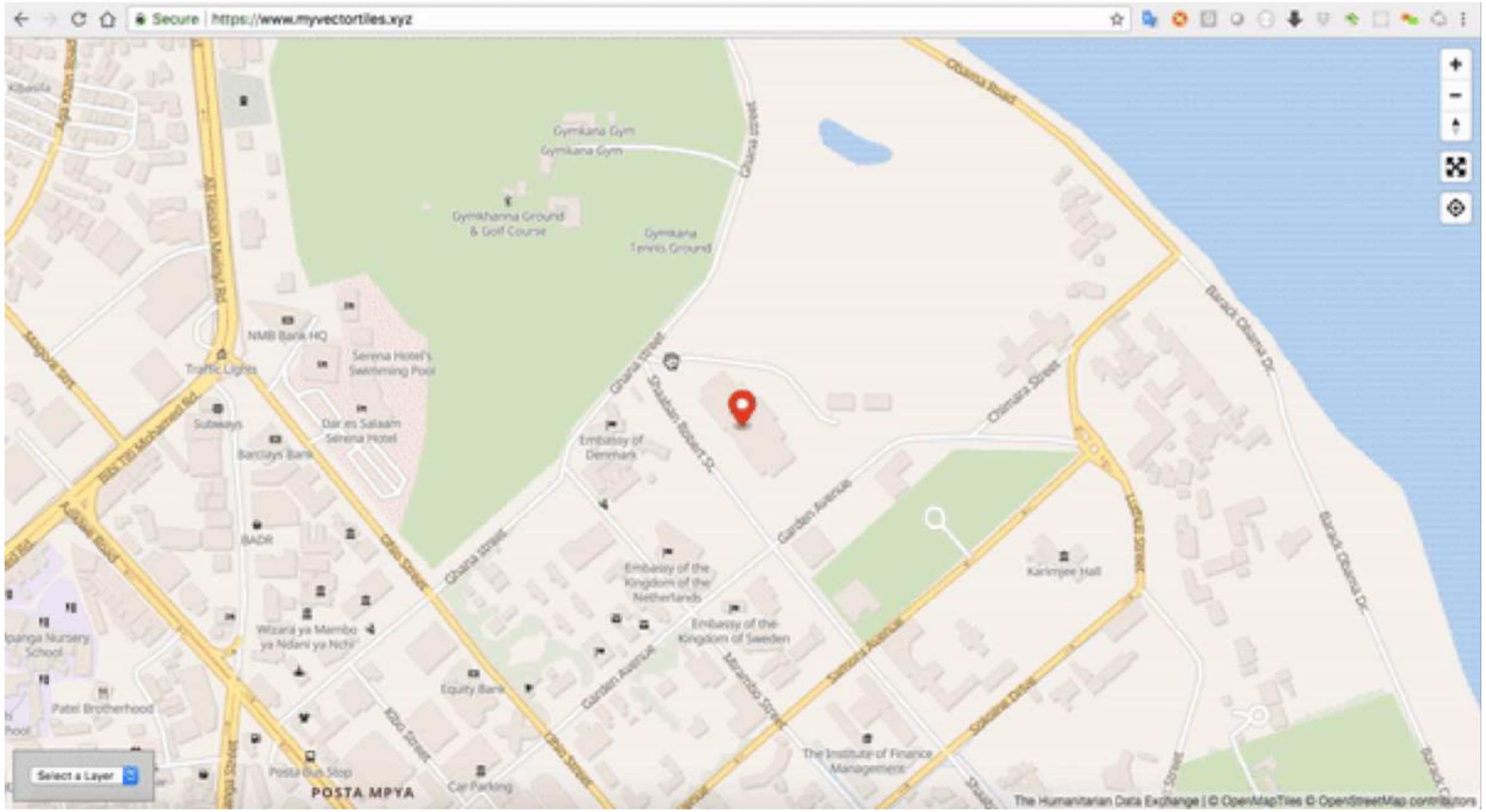
Serverless Vector Tiles on AWS

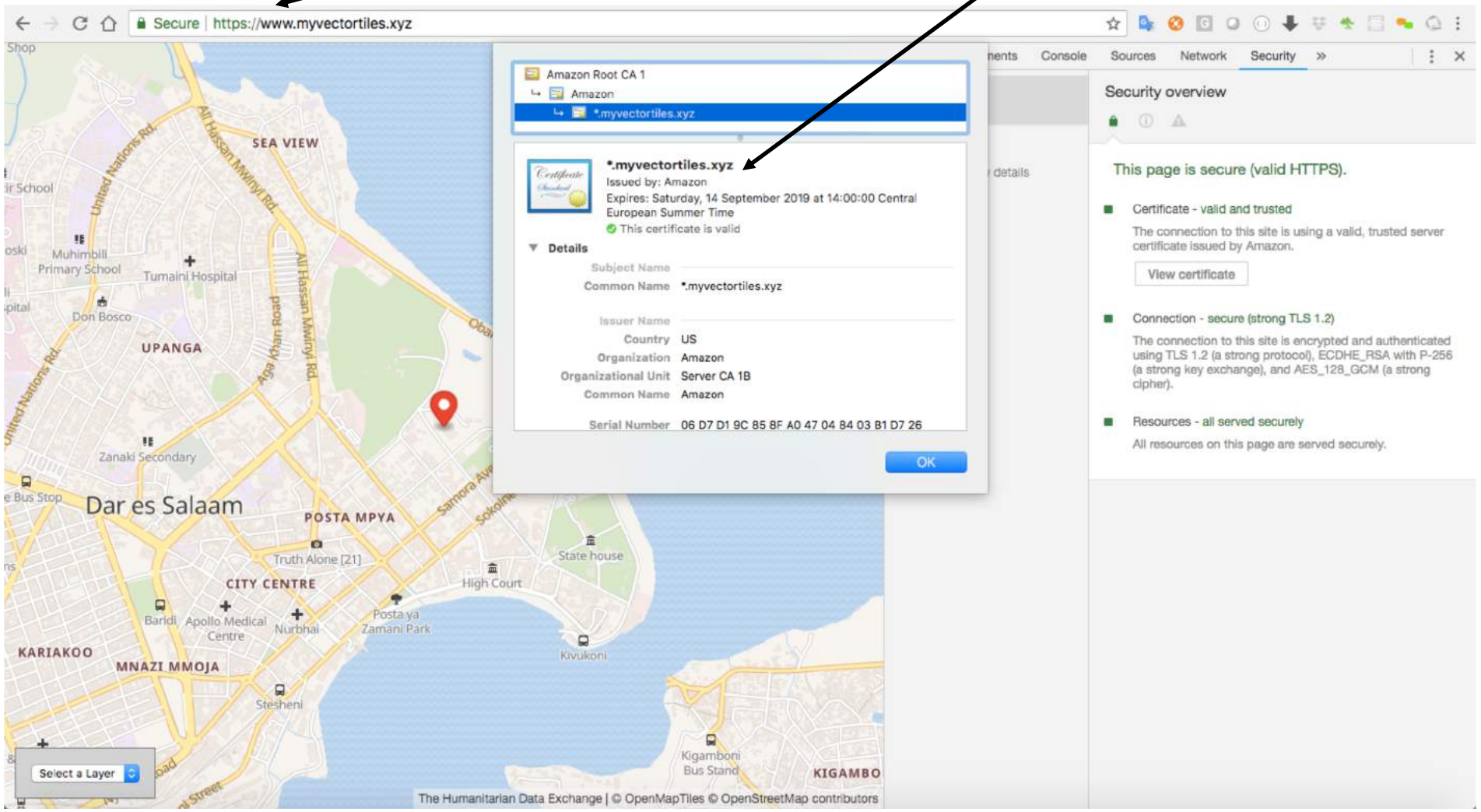
Mark Varley <mark@addresscloud.com>

Let’s start with the end

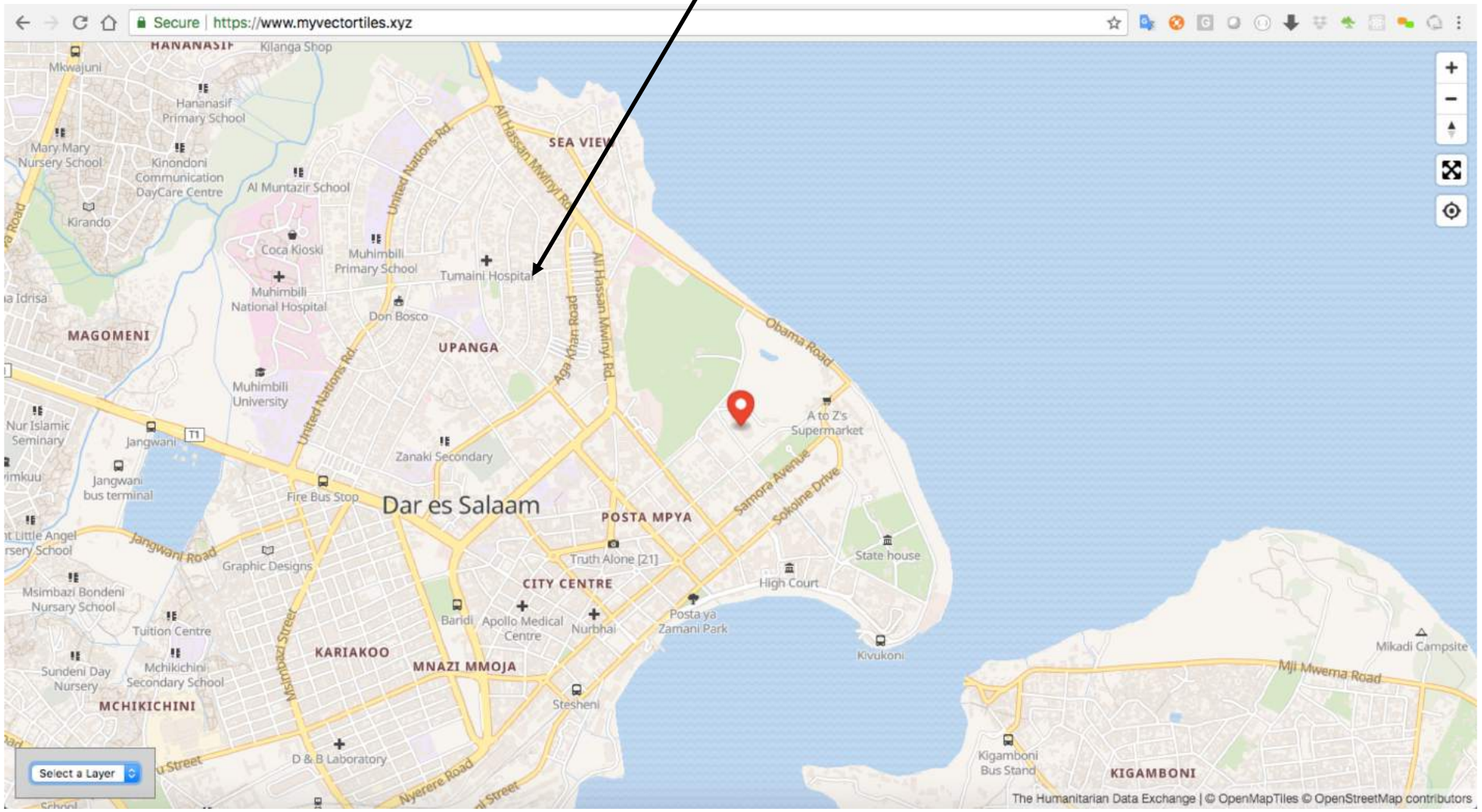

Secure
https://www.myvectortiles.xyz
Obama Road
Gymkana Gym
Gymkhana Ground & Golf Course
Gymkana Tennis Ground
Ghana Street
NMB Bank HQ
Serena Hotel's Swimming Pool
Traffic Lights
Subways
Dar es Salaam Serena Hotel
Barclays Bank
Embassy of Denmark
Garden Avenue
Barack Obama Dr.
BADR
Embassy of the Kingdom of the Netherlands
Embassy of the Kingdom of Sweden
Karimjee Hall
Wizara ya Mambo ya Ndani ya Nchi
Patel Brotherhood
Equity Bank
Samora Avenue
The Institute of Finance Management
Posta Bus Stop
POSTA MPYA
Car Parking
Select a Layer
The Humanitarian Data Exchange | © OpenMapTiles © OpenStreetMap contributors

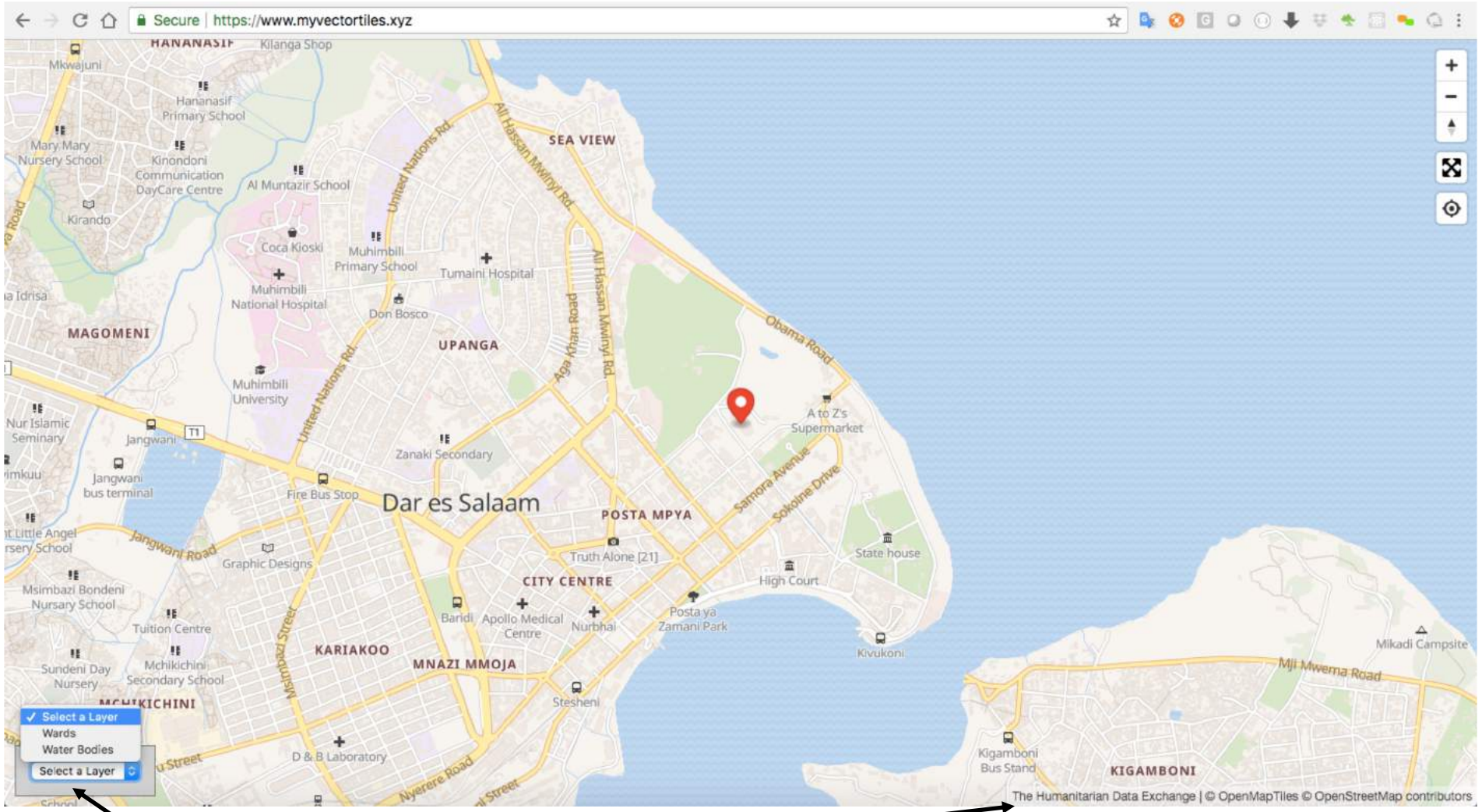

VERY GOOD
I CLAP FOR YOU
quickmeme.com

It’s secure and running on our domain

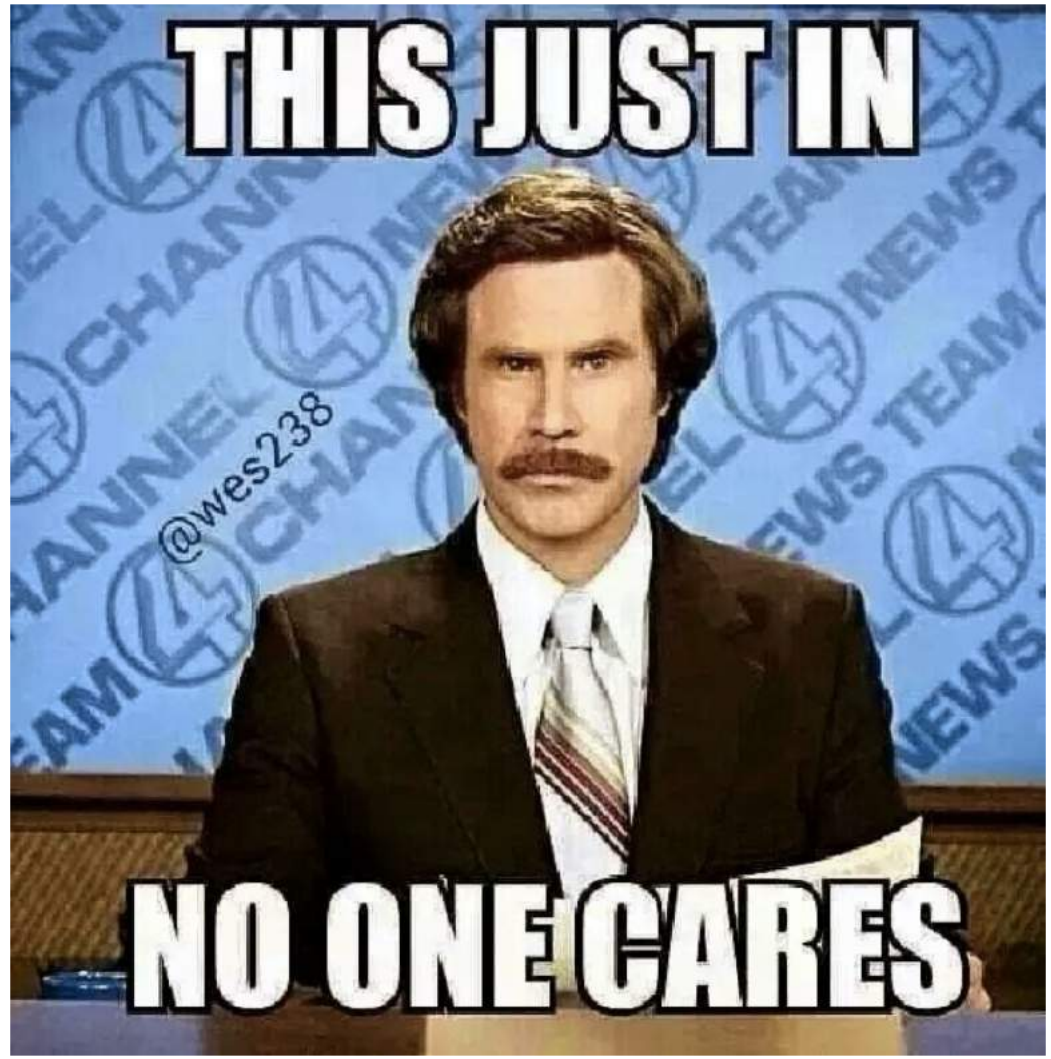


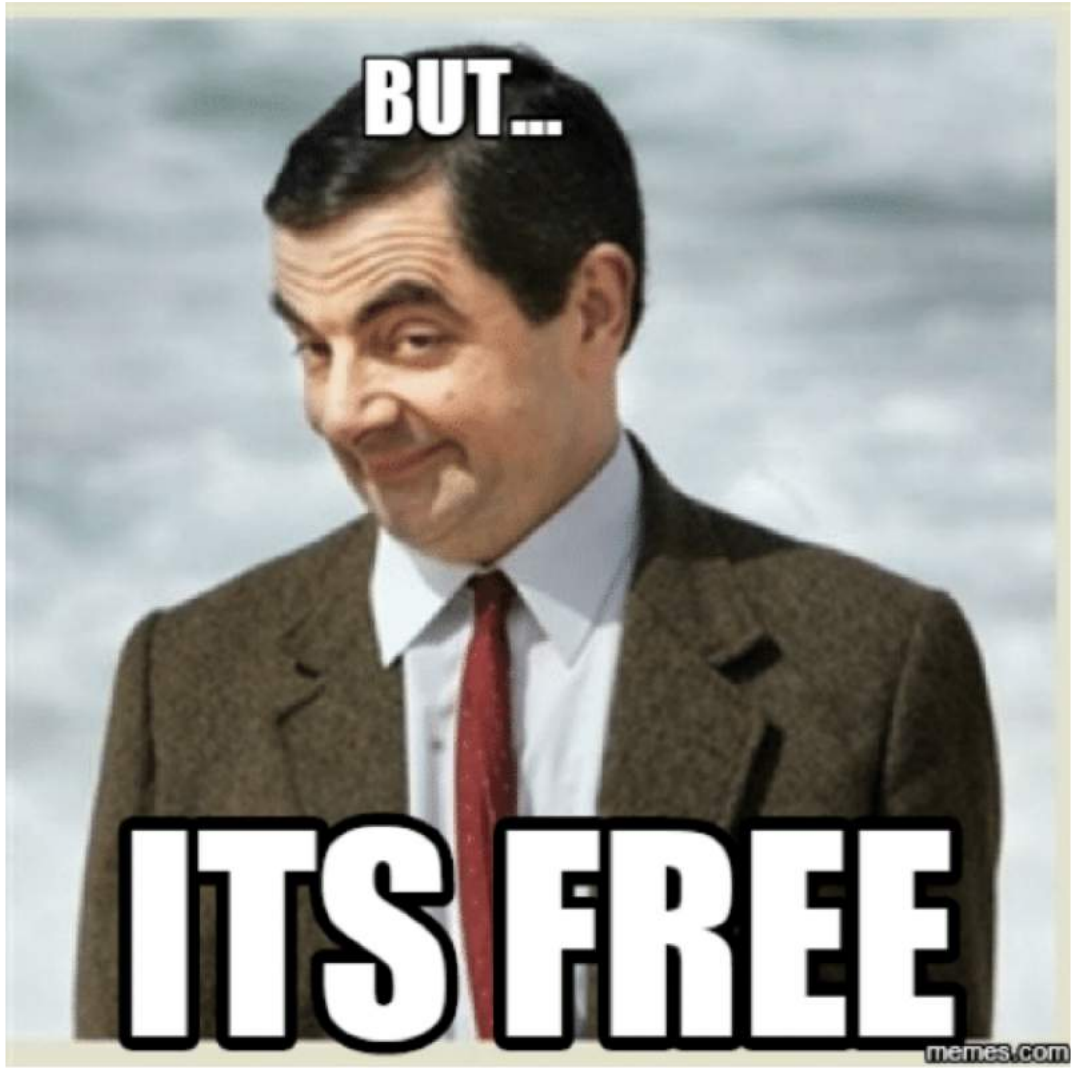
We are hosting our own OpenStreetMap vector tiles which we can style on the fly





We are overlaying our own data


THIS JUST IN
@wes238
NO ONE CARES



*(Almost)


THAT FACE U MAKE WHEN
SOMEONE SAY IT'S FREE
AND THERE ISN'T A CATCH
imgflip.com

amazon web services™

Free Usage Tier

For New AWS Customer

*Free for one year since AWS sign up

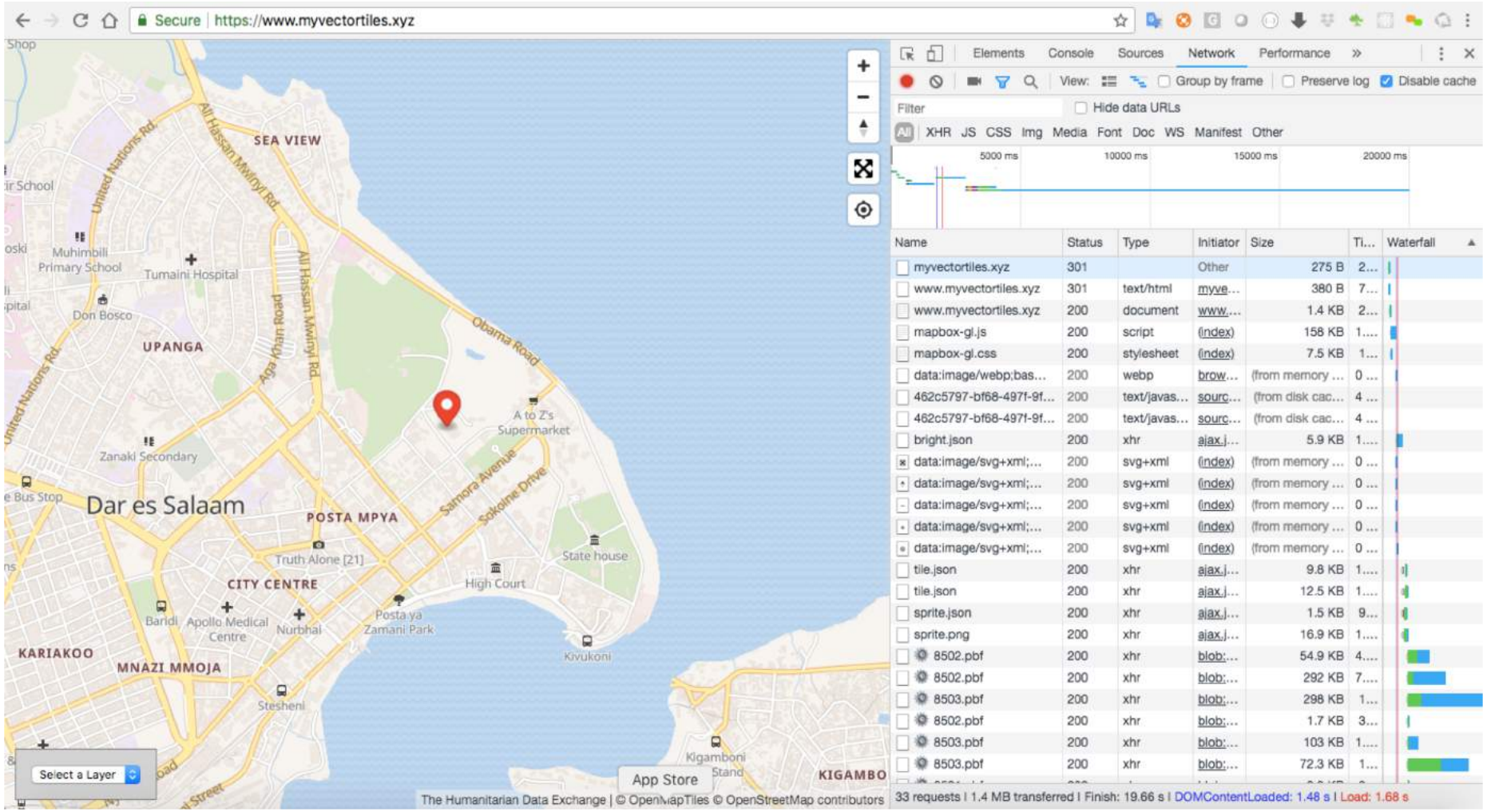
+

OpenStreetMap

Amazon CloudFront	$0.18
Charges	$0.17
VAT **	$0.01
GST	$0.00
Estimated US sales tax to be collected	$0.00
CT	$0.00

What are our requirements?

https://www.myvectortiles.xyz/



1) We need to serve the map page and have it load quickly


amazon
web services™
S3

+


amazon
cloudfront

2) We need to support HTTPS

amazon cloudfront

+

3) We need to generate vector tiles and serve these quickly

OpenMapTiles.org

Vector Tiles from OpenStreetMap

+

amazon cloudfront

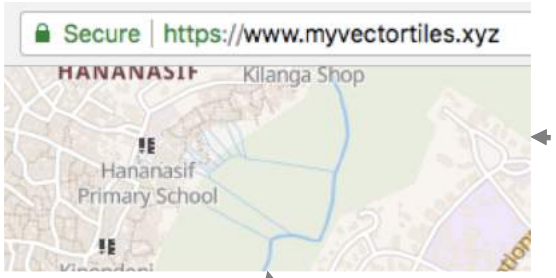
4) We need to support multiple subdomains to optimise performance

ROUTE 53

5) We need to to be able to scale from 1 to 1 million users instantly


SIT BACK 'N RELAX
WE GOT THIS
imgflip.com

Putting it all together



amazon web services™ ROUTE 53

myvectortiles.xyz

www.myvectortiles.xyz

a.tiles myvectortiles.xyz

b.tiles myvectortiles.xyz

amazon cloudfront

CDN

CDN

mbutil

OpenMapTiles

amazon web services™ S3

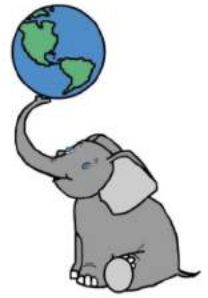
myvectortiles.xyz

www.myvectortiles.xyz

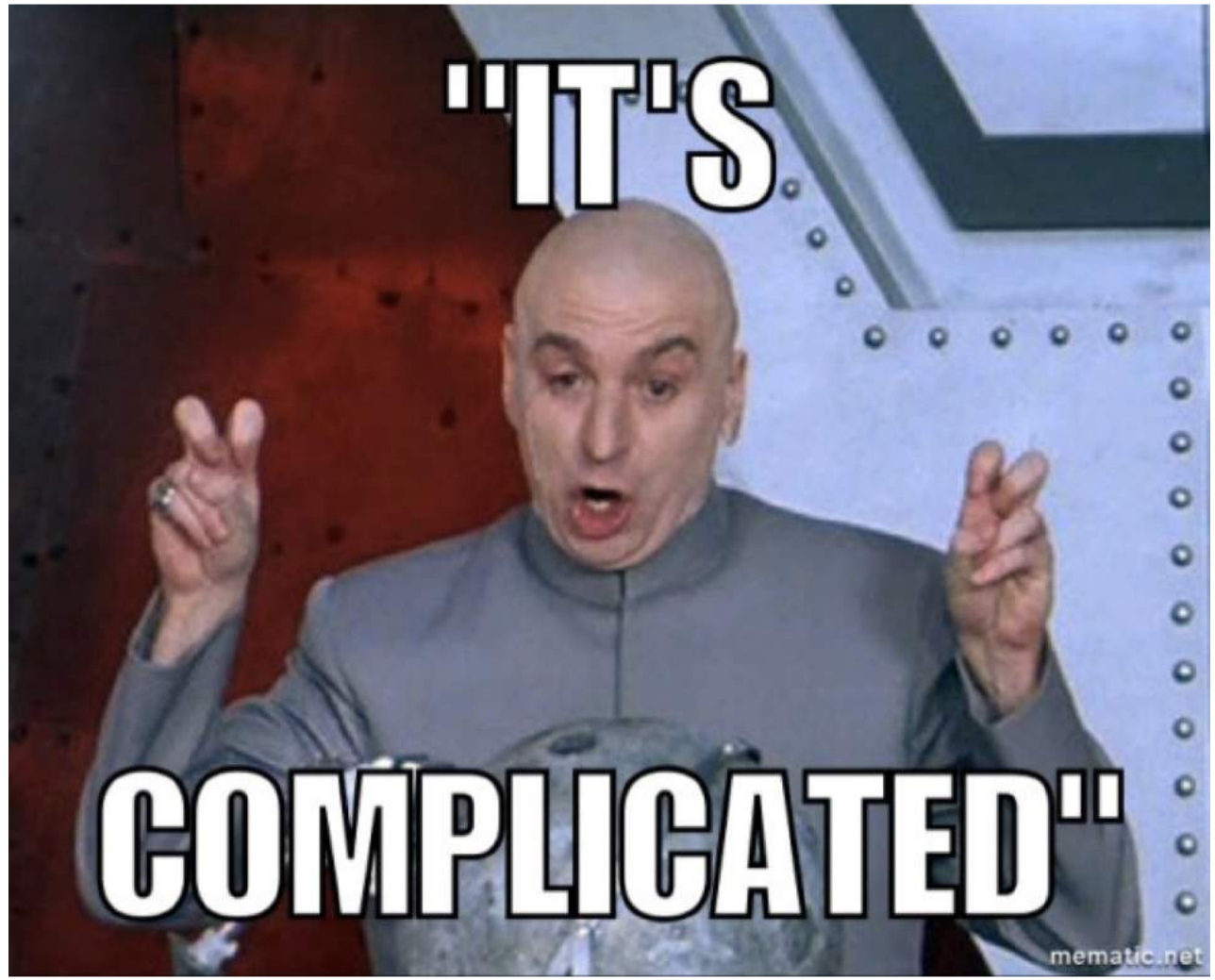
tiles.myvectortiles.xyz

redirect

ogr2ogr + tippecanoe



PostGIS


"IT'S
COMPLICATED"
mematic.net

So I did it myself and wrote it all down

https://github.com/addresscloud/serverless-tiles

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