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# British Universities Film & Video Council

moving image and sound, knowledge and access

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# *(geo) Authentication and ERA+*

*Lessons learned through the use of the Box of Broadcasts (BoB National)*

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# The mantra

The British Universities Film & Video Council (BUFVC) promotes the production, study and use of moving image, sound and related media within post-compulsory education and research.

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# The mantra

Supporting learning, teaching and research  
**with** moving image and sound.

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# The mantra

Connecting education with content.

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# BUFVC - who we are

- Founded in 1948 – 60 years of accumulated knowledge
- Established by academic staff to exchange knowledge and information
- Represents and serves the interests of 286 subscribing members, 216 of which are HE/FE sector establishments
- Limited company with charity status
- Democratically elected trustees from 12 HE member institutions and HEFCE



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# The reason we are here

- Our experience of implementing a shared service operating under ERA+ licence

BoB National

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# Online off-air recording

shared service for all staff & students

# Record television & radio

7 days ahead or behind

# Archive indefinitely\*

services managed centrally - no equipment purchase

# Share

create clips, share playlists & programmes, tag, comment, rate

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# The BoB T&Cs

1. Streaming service only – no copying
2. For use in your learning, teaching or academic research relating to your study/work taking place in/through a licensed educational establishment. (excludes friends, family, public)
3. You may only access or use BoB in the territory of the United Kingdom
4. OU programmes are excluded (not covered by ERA licences)

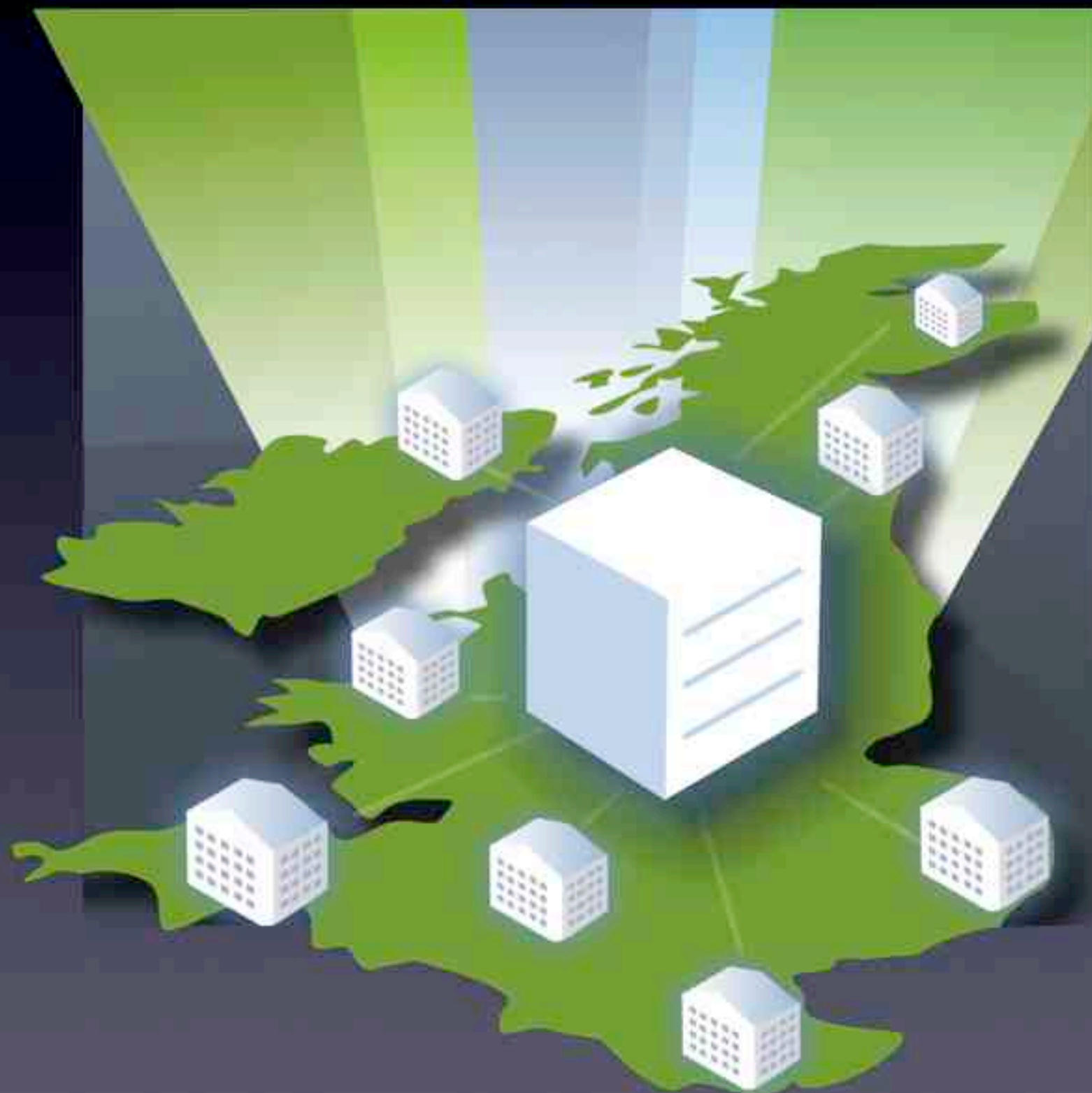
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# BoB National

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# Authentication

- Federated Access Management (Shibboleth), Athens (and email – being discontinued)
- Only legitimate users (staff and students) are authorised
- Authentication – internally at the institution (usually linked to a register of staff/students)
- The scenarios that follow assume that the users are valid (i.e. from a licensed educational establishment)
- Apologies to techies in the room if they are too obvious!



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# IP address



172.31.255.180

poppi@eth.ac.uk



192.168.0.98

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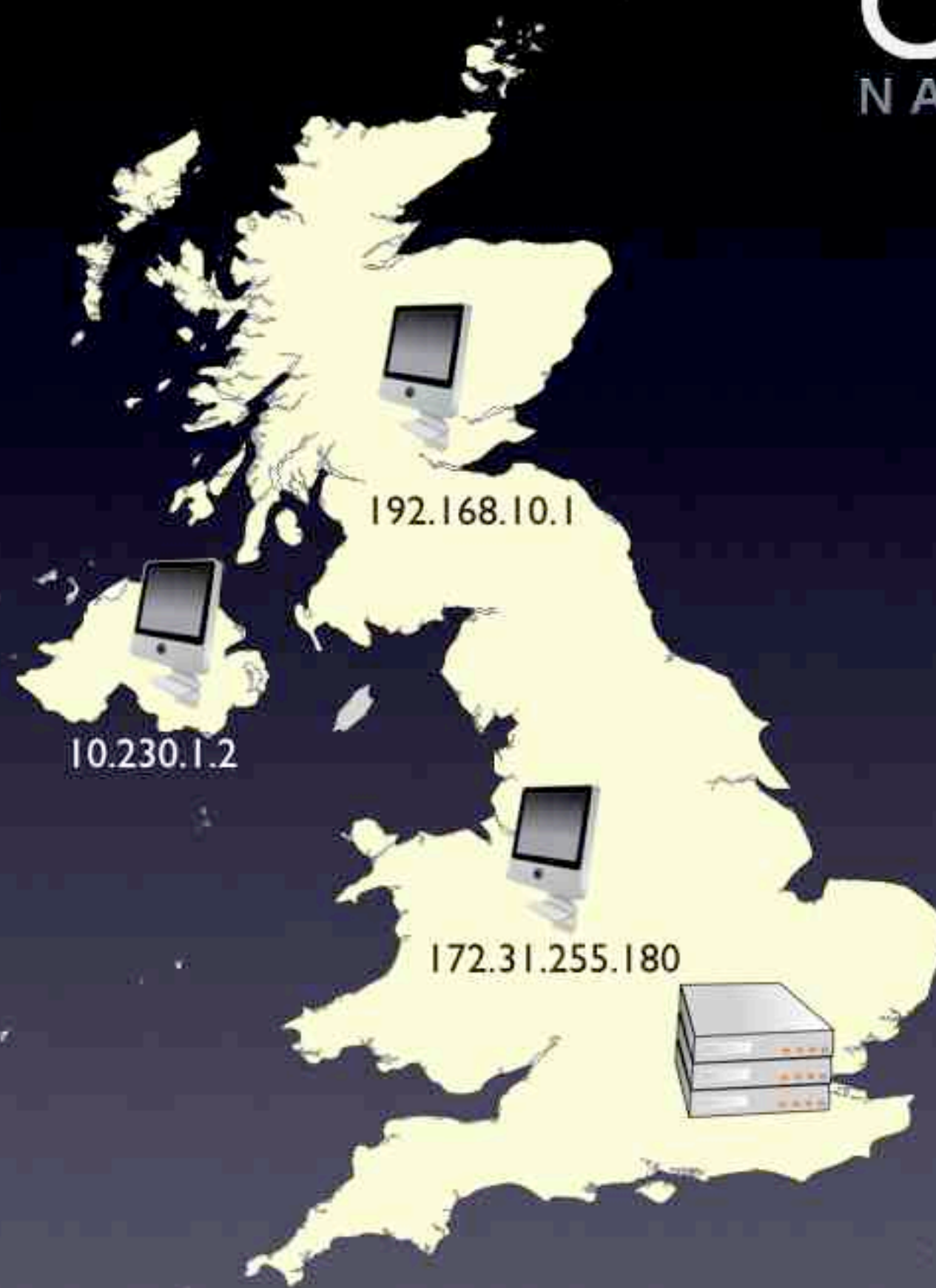
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10.112.8.14

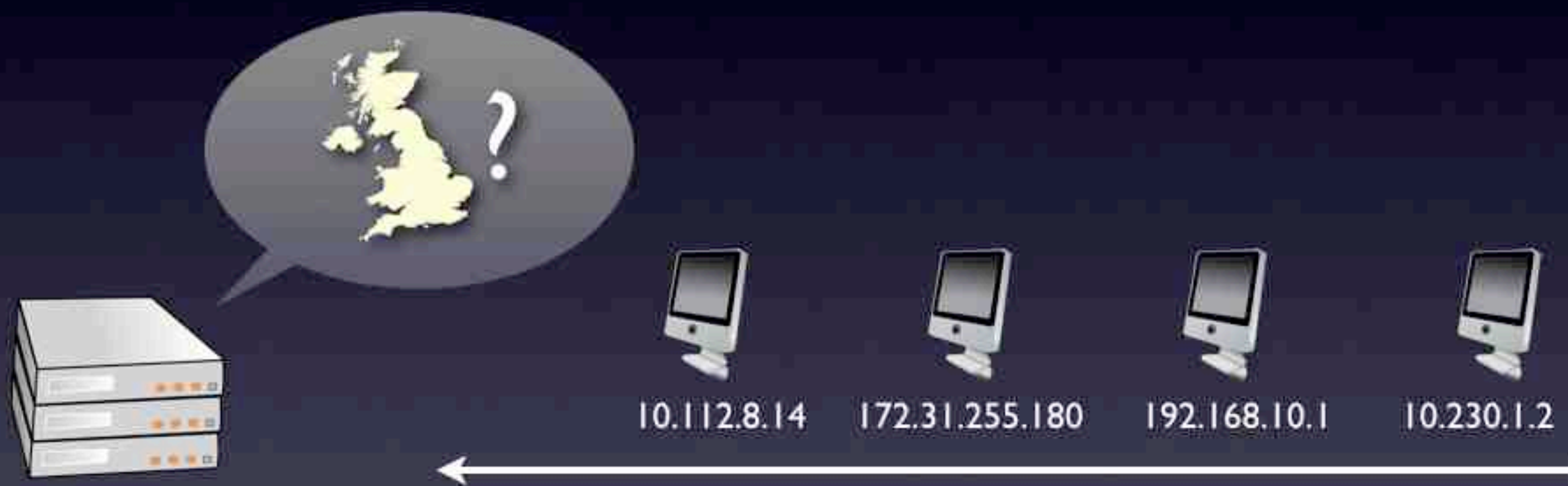
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**accuracy?**

|                 |                 |
|-----------------|-----------------|
| 62.3.192.0/18   | 62.3.192.0/18   |
| 62.6.0.0/16     | 62.6.0.0/16     |
| 62.7.0.0/16     | 62.7.0.0/16     |
| 62.8.96.0/19    | 62.8.96.0/19    |
| 62.13.128.0/19  | 62.13.128.0/19  |
| 62.18.0.0/15    | 62.18.0.0/15    |
| 62.23.0.0/16    | 62.23.0.0/16    |
| 62.24.128.0/17  | 62.24.128.0/17  |
| 62.30.0.0/16    | 62.30.0.0/16    |
| 62.31.0.0/16    | 62.31.0.0/16    |
| 62.32.96.0/19   | 62.32.96.0/19   |
| 62.44.64.0/19   | 62.44.64.0/19   |
| 62.49.0.0/16    | 62.49.0.0/16    |
| 62.50.0.0/19    | 62.50.0.0/19    |
| 62.50.32.0/19   | 62.50.32.0/19   |
| 62.50.64.0/19   | 62.50.64.0/19   |
| 62.50.178.0/24  | 62.50.178.0/24  |
| 67.177.152.0/24 | 67.177.152.0/24 |

**geoIP**

[www.maxmind.com](http://www.maxmind.com)



10.112.8.14

[www.countryIPblocks.net](http://www.countryIPblocks.net)





## Proxy server



- Can be configured to divert all web traffic (just tell your browser to use it)
- Maxmind provides a service to spot them but geared at banking (\$\$\$)
- There are plenty of commercial services

## VPN

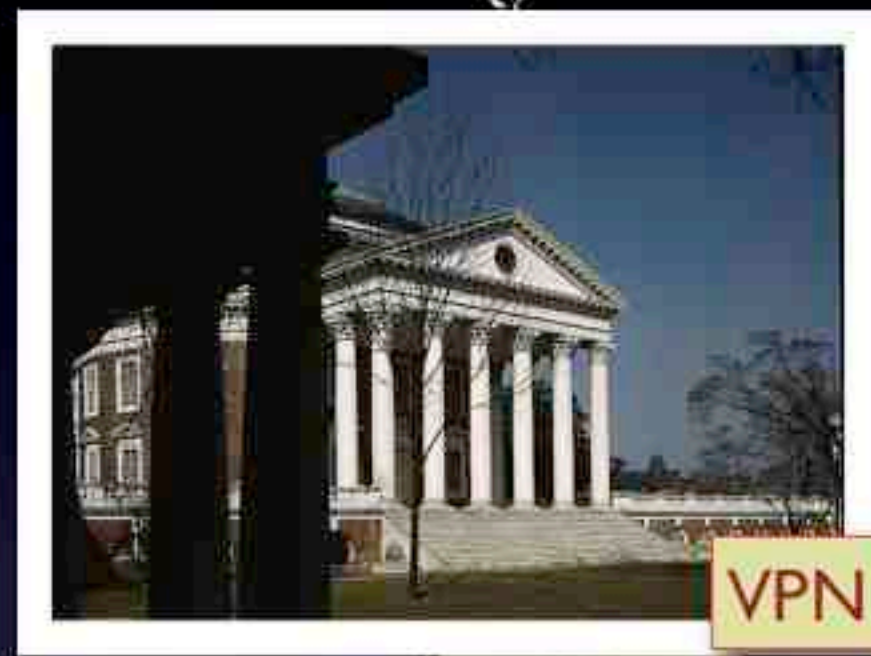
- A secure connection into a location (e.g. office)
- *It puts your computer in the office for network purposes*



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Virtual Private  
Network

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proxy server



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UK registered



UK registered

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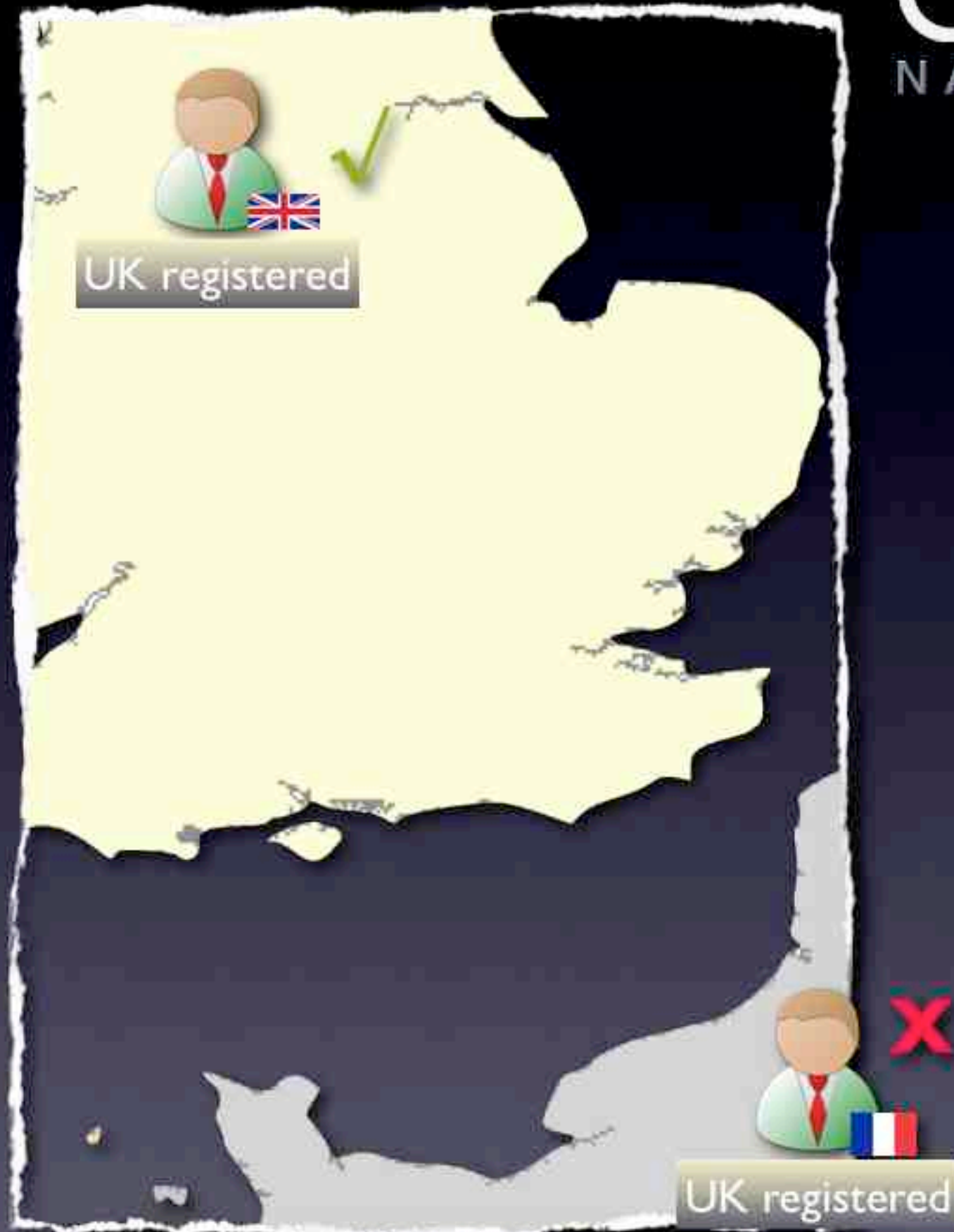
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Do you know

- who resides abroad?
- who resides in the UK?
- what if that changes?
- how serious is getting this wrong?

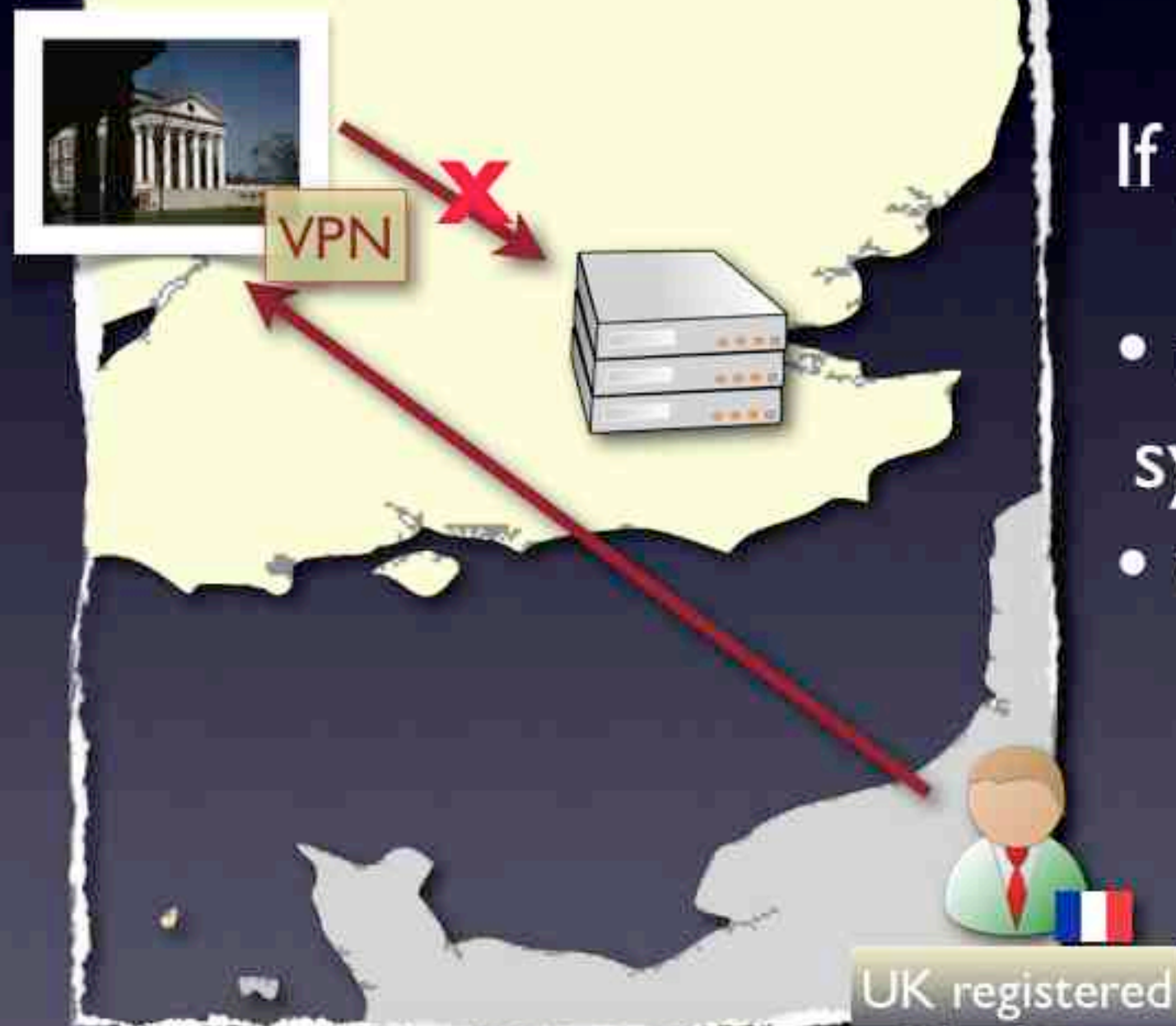
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If you do know...

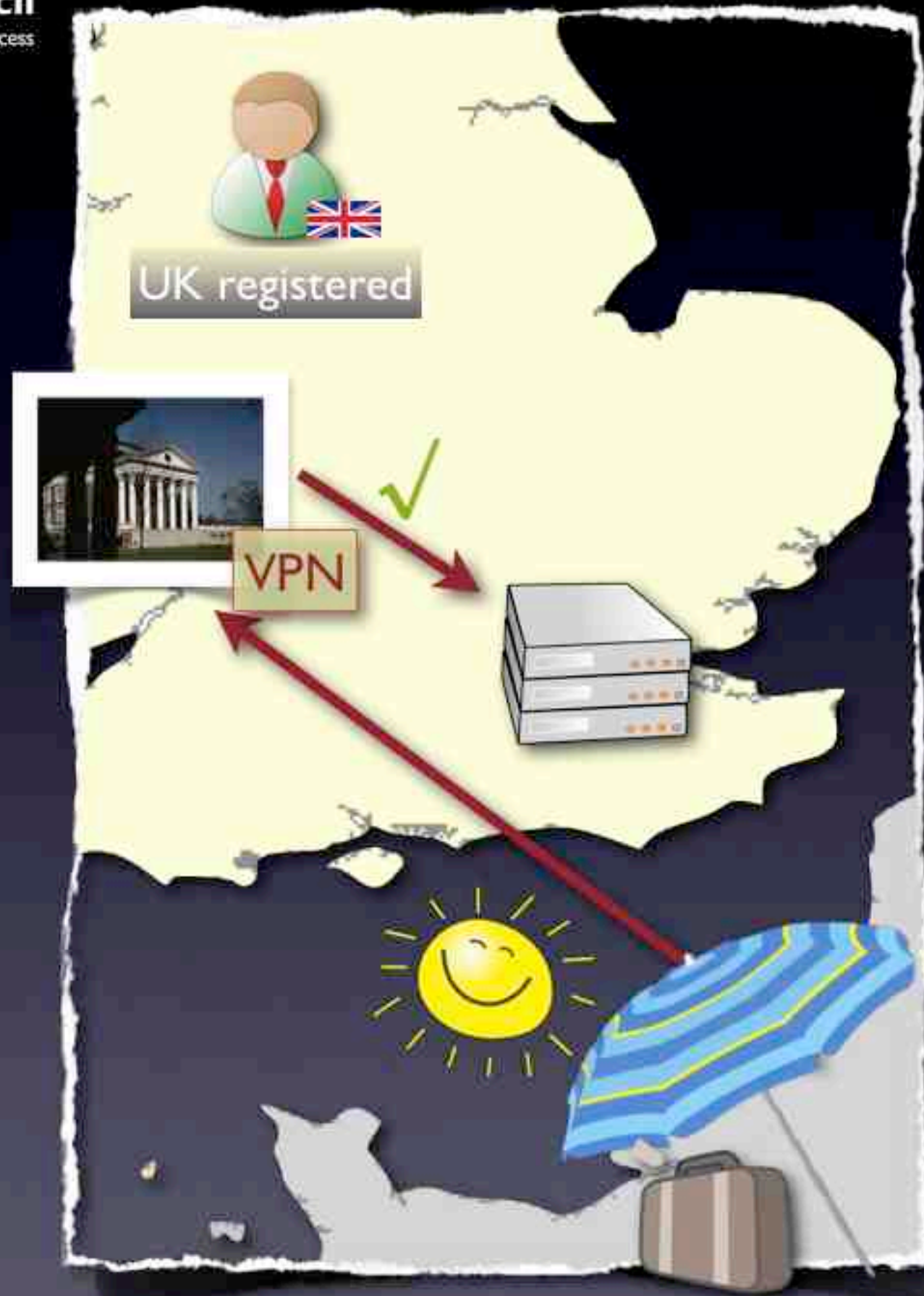
- use authentication system
- works even with VPN

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# Key Scenarios

- Accurate enough GeoIP databases
- UK-resident user goes abroad with VPN access
- UK-registered user resident abroad with VPN access
- Users pay for/setup proxies to bypass geo-authentication

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# Want to find more?

The screenshot shows the bob national website interface. At the top left is the 'bob BOX OF BROADCASTS' logo. Below it is a login section with fields for 'Email:' and 'Password:', a 'login' button, and links for 'Register?', 'Forgotten your password?', and 'UK Federation login'. To the right is a 'Latest additions to archive' section featuring an 'MP3 audio' player with a green bar chart and a speaker icon. Below the player is a 'Clip from: Word of Mouth' with the text 'BBC Radio 4 on Tuesday 7th September 2010'. To the right of the player are three video thumbnails: 'Five News at 7', 'Live From Stud...', and 'Word of Mouth'. At the bottom left is a 'Search the archive' section with a search box and the text 'Search the archive for a tv or radio programme by keyword or title.' At the bottom right is a 'Highest Rated Playlists' section with a search box and a 'Find playlist' button. A large red URL is overlaid on the bottom of the screenshot.

<http://bobnational.net>

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