



eduroam

LARGE SCALE
WIRELESS
ROAMING
INFRASTRUCTURE
IN BULGARIA

net365

2014/04/15 SEE3 RIPE
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main and sub goals

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Easy to use open WiFi network

Sub goals:

- single open SSID
- access provided to public places (administrative buildings, parks, schools, metro stations)
- unlimited access
- free of charge



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Large scale wireless access roaming infrastructure

Sub goals:

- standards based
- no client installation required
- authentication and authorization at 'home' institution
- cheap
- no overheard
- distributed IdP and SP

privacy and security



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- Radius servers (freeradius, radiator)
- Standards: 802.11 a/b/g/n
- SSID: eduroam
- Security: WPA2/AES
- Username:
user@domain.cctld



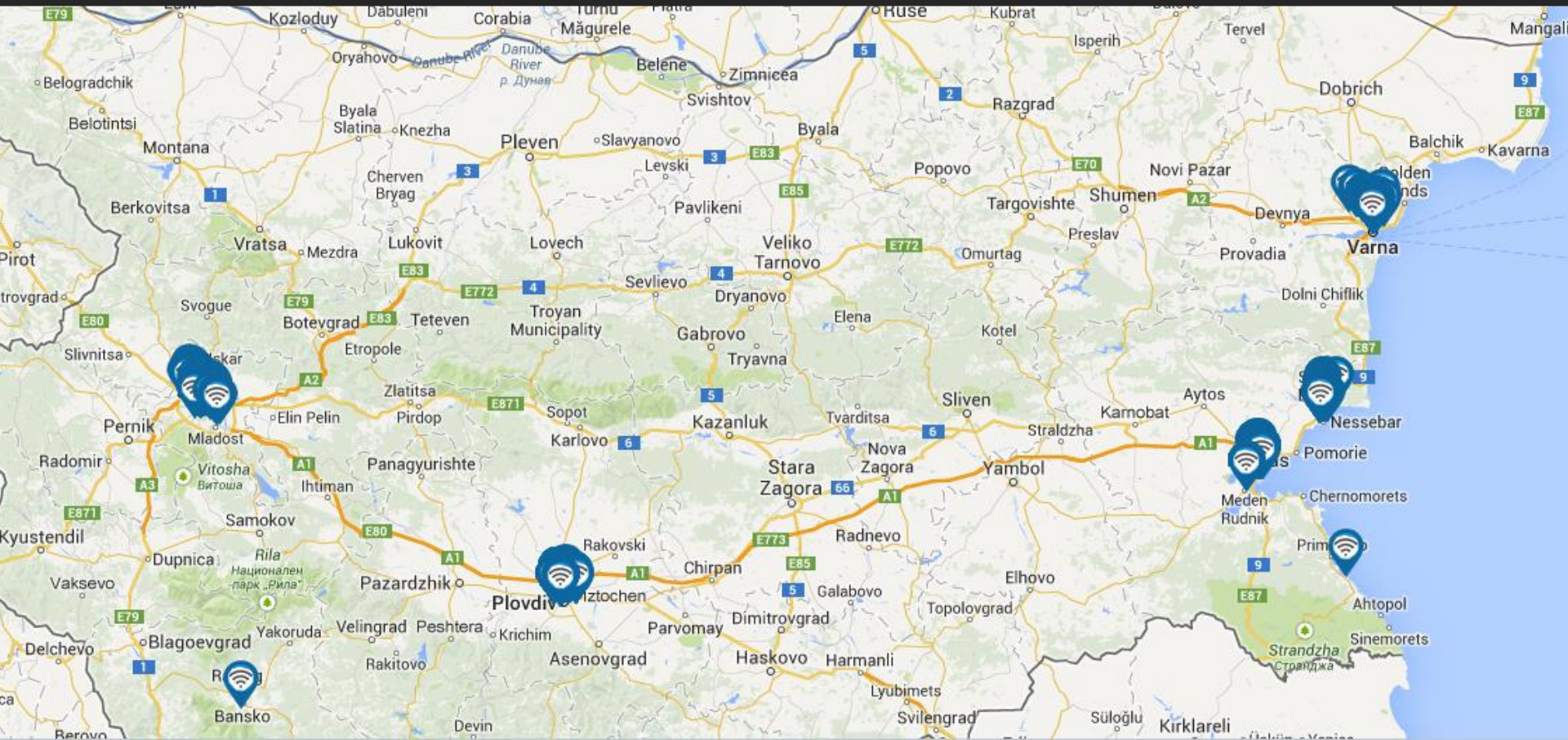
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- Traffic transport over VLAN
- Standard: 802.11 a/b/g/n/ac
- WiFi certified hardware
- User roaming between the hotspots

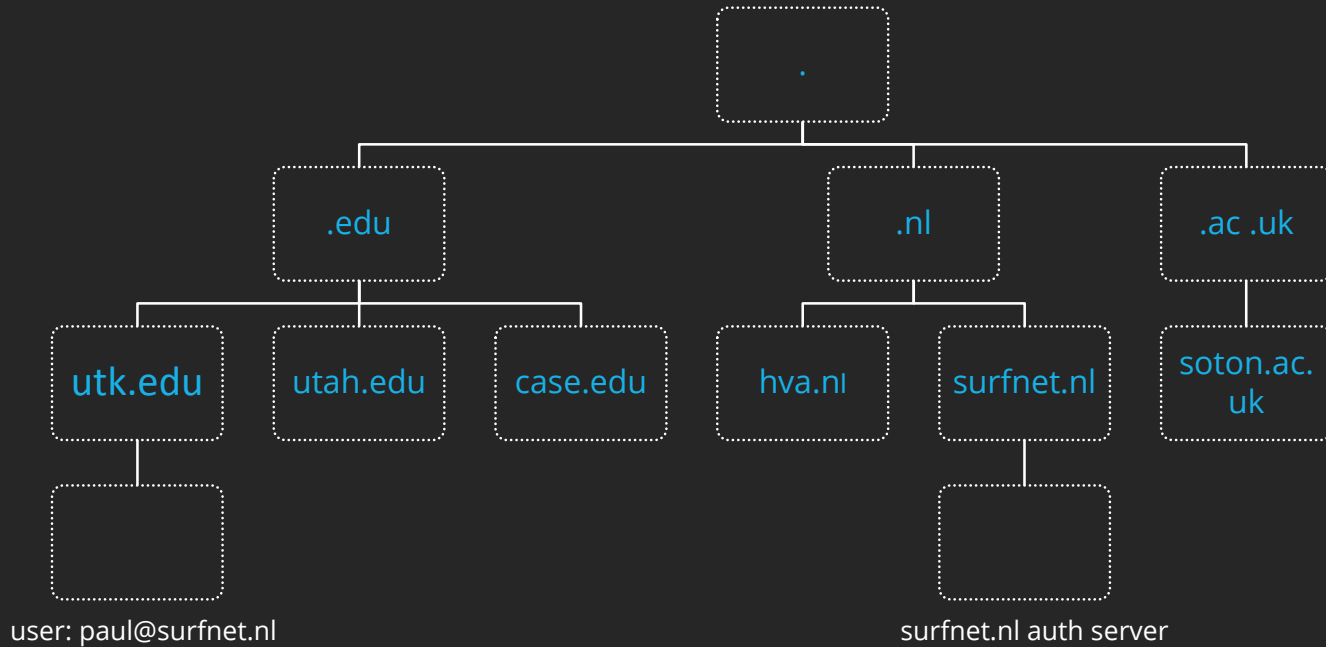
eduroam coverage:



net365.mobi coverage:



eduroam RADIUS hierarchy

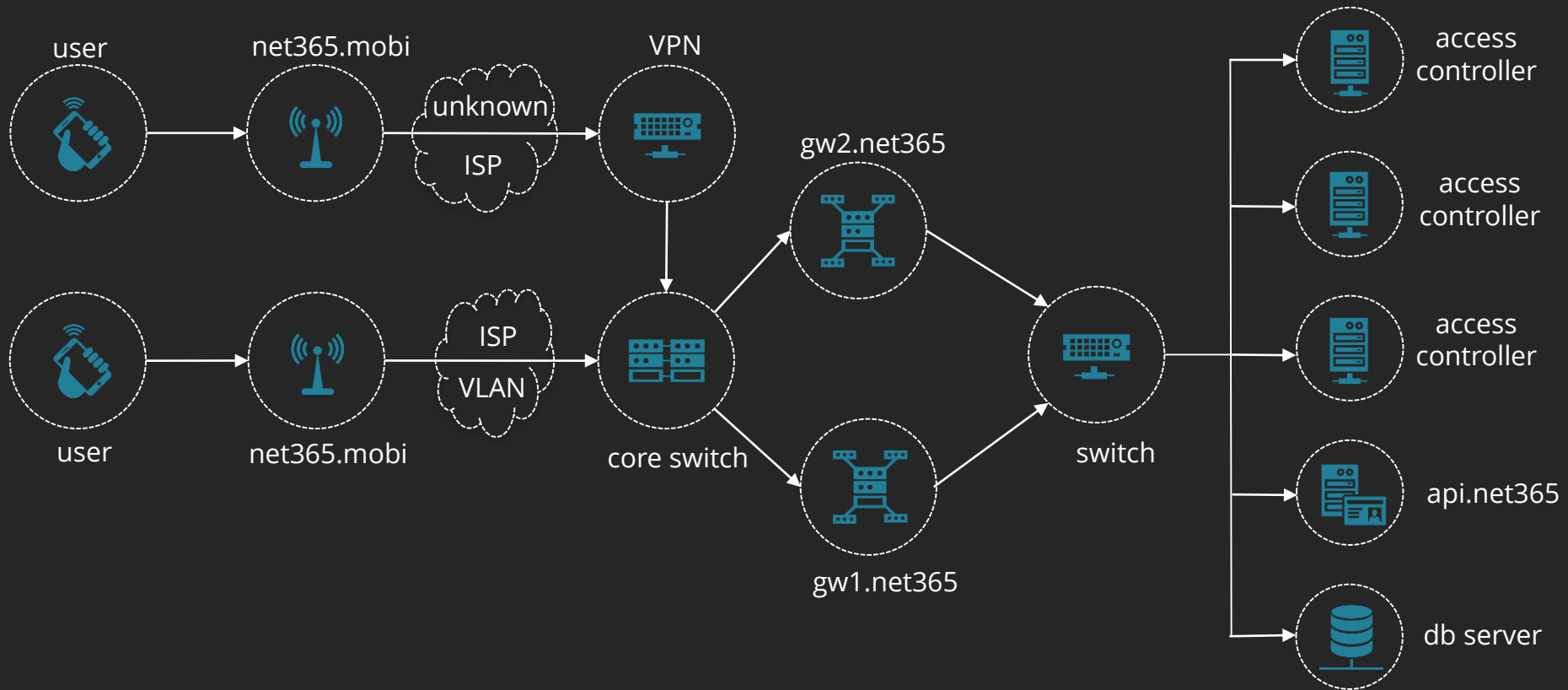


accept responses statistics

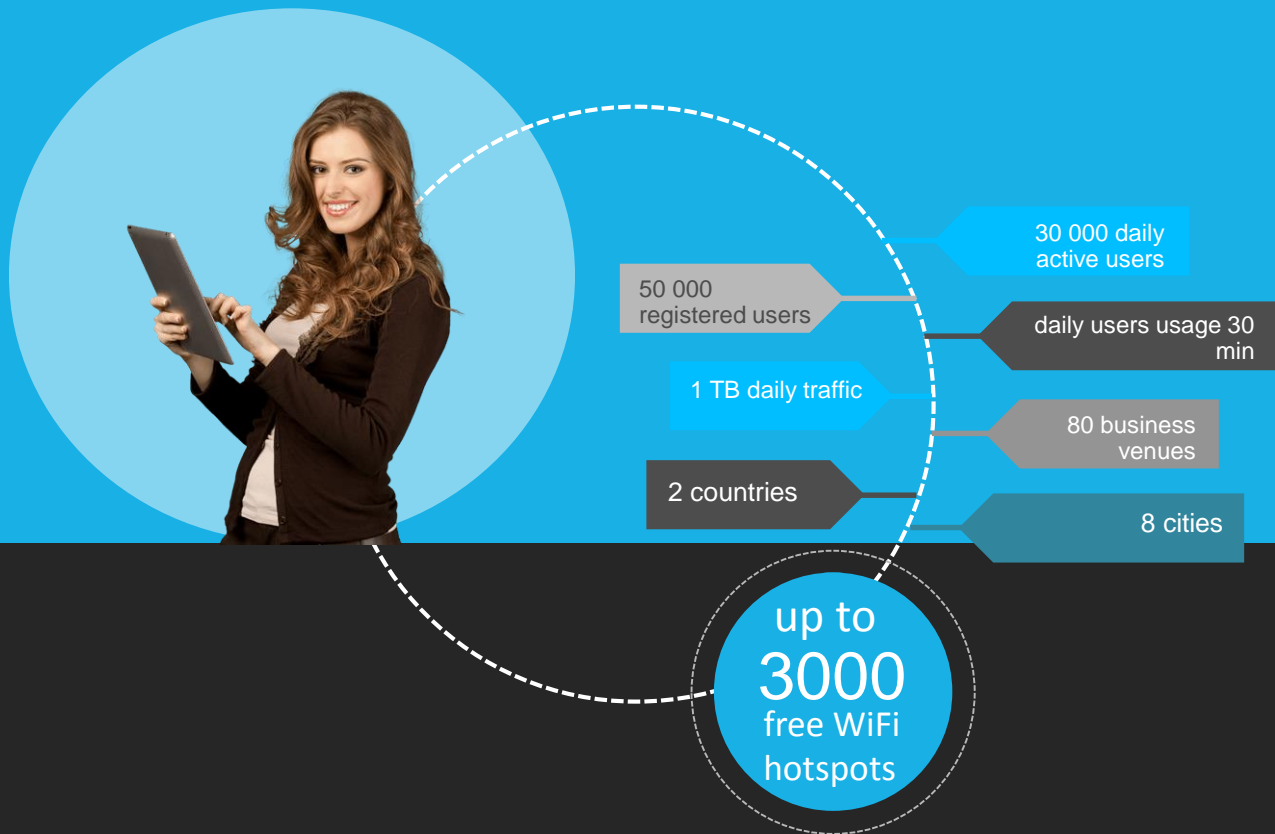
Visited Federation	Users from bg	Total users coming from	Visited Federation	Users from bg	Total users coming from
Belarus (.by)		451	Luxembourg (.lu)		4373321
Moldova (.md)		544	Norway (.no)		5038921
Armenia (.am)		2019	Austria (.at)	33	5350710
Macedonia (.mk)		7737	Switzerland (.ch)		5573021
.org		21870	Italy (.it)	126	5576939
Russia (.ru)		42258	France (.fr)		6962274
Bulgaria (.bg)	43163	47094	Denmark (.dk)	7	7640691
Poland (.pl)	6	152047	Portugal (.pt)	48	8138274
Greece (.gr)		181426	Belgium (.be)	79	8547748
Israel (.il)		259005	Czech Republic (.cz)	3007	10167196
Serbia (.rs)	2	378505	Spain (.es)	38	16546205
Hungary (.hu)	13	390717	Sweden (.se)		16838964
Slovakia (.sk)		432283	Croatia (.hr)		21666218
Finland (.fi)		1521574	Germany (.de)	4557	53883706
Singapore (.sg)		2300280	Netherlands (.nl)	110	59124440
Ireland (.ie)		2381947	United Kingdom (.uk)	915	63749633
∑ National	43163	270343650			
∑ International	8941	36954368			
∑ Total	52104	307298018			

from 01.01.2014 to 10.04.2014

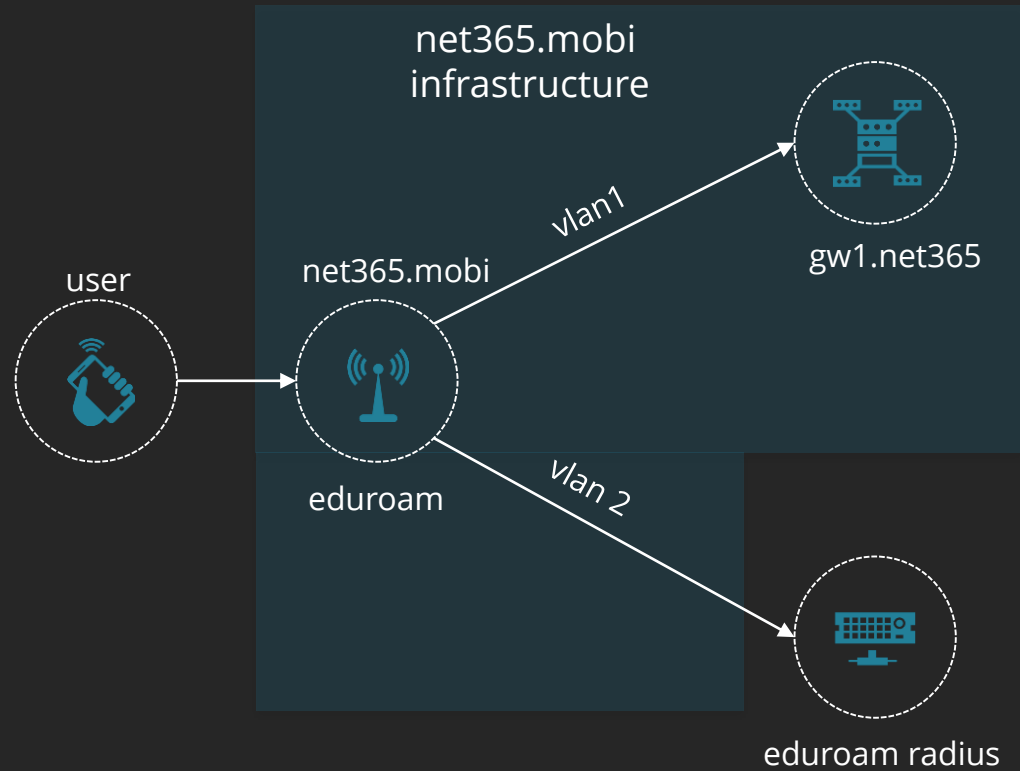
net365.mobi structure



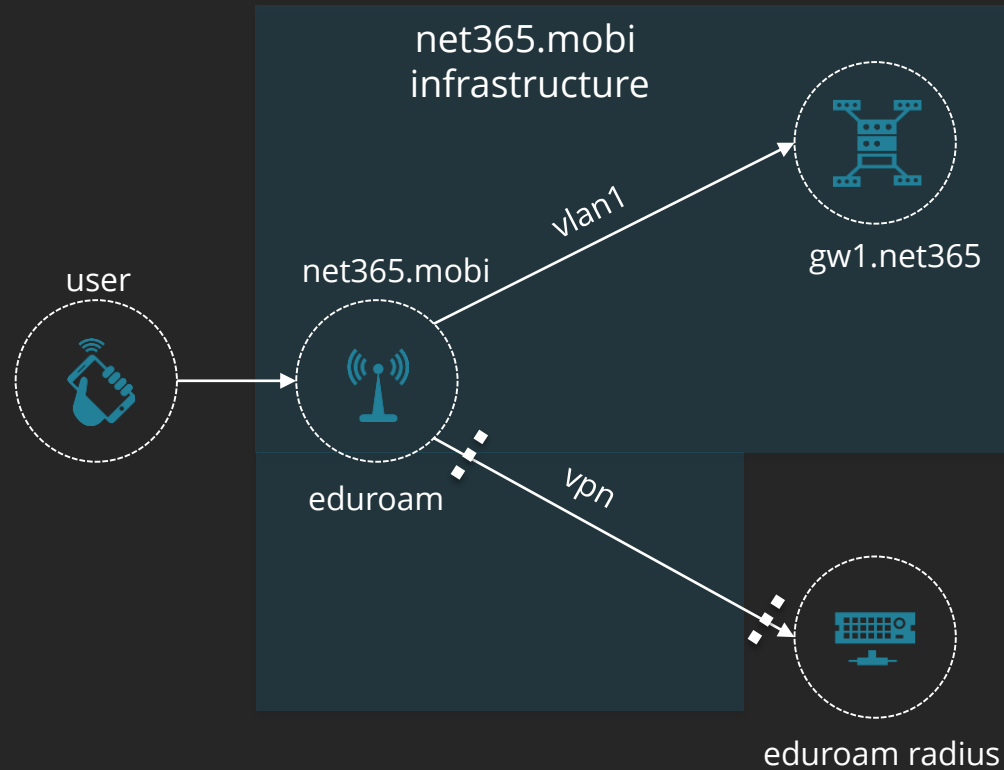
net365.mobi result achievements



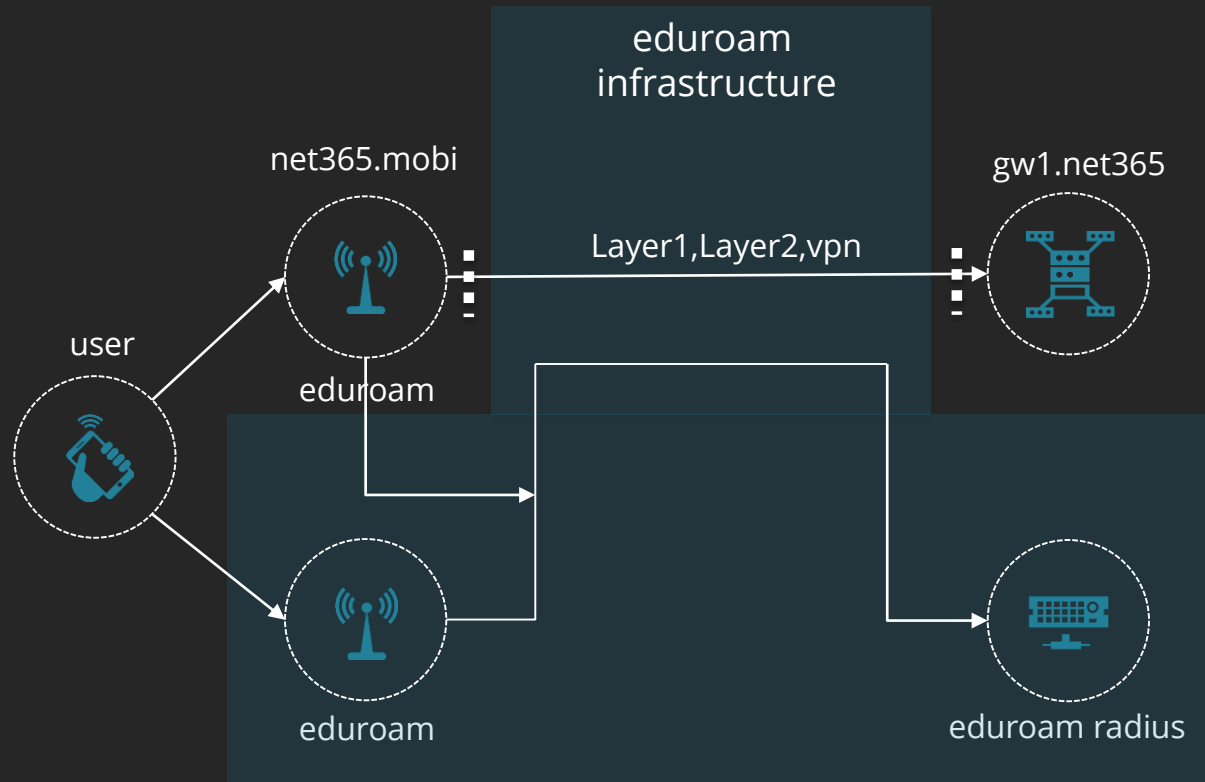
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THANK YOU

for your attention