

IPv6 Update

Marco Hogewoning



RIPE NCC Activities

- Distribute and register Internet Number Resources in the Middle East region
- Internet Related Research
- Capacity Building

Breaking News

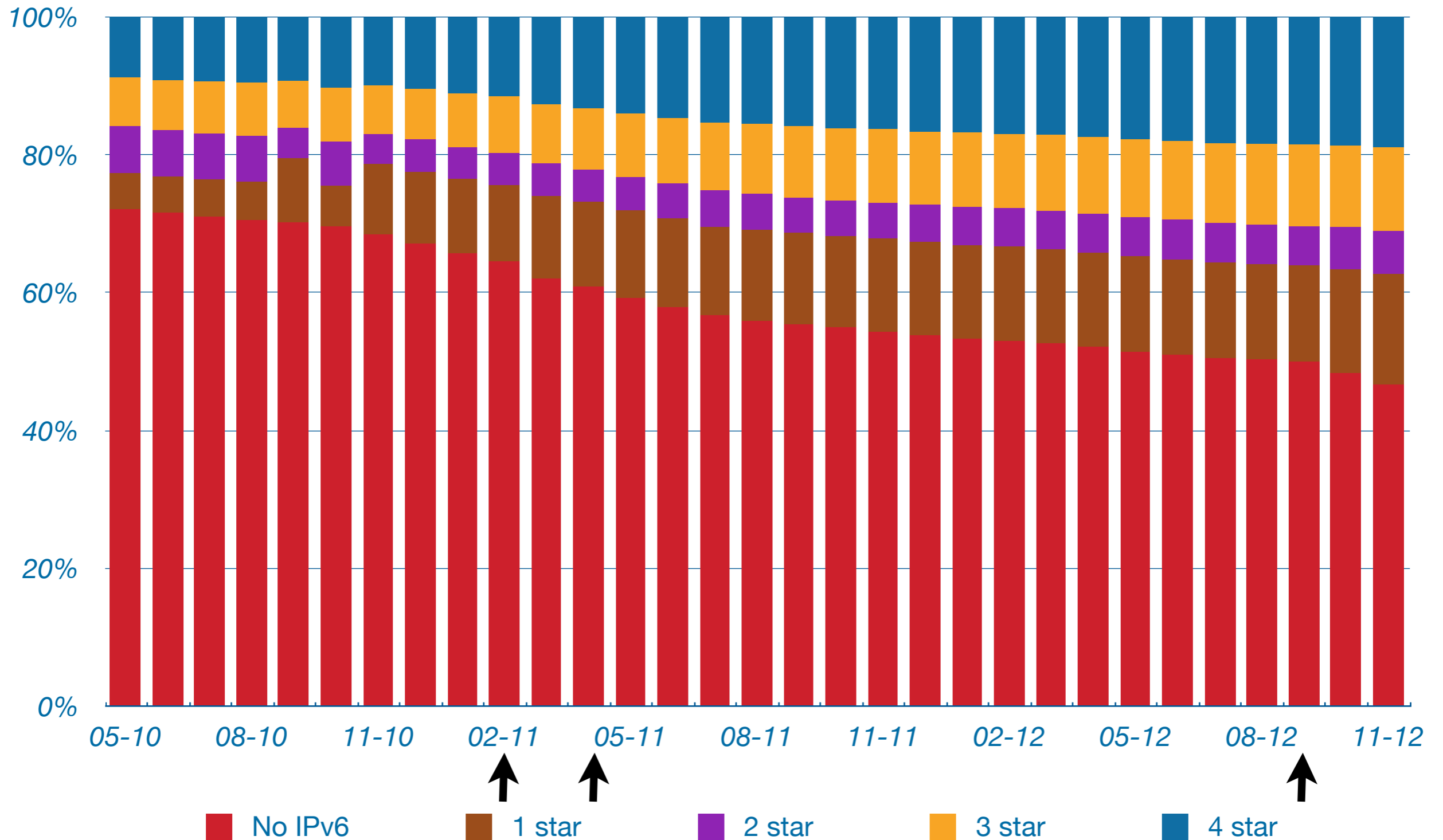
- The RIPE NCC depleted its IPv4 pool
- Final /8 policy is now active
- Every member can only get 1024 IP addresses
 - Both new and existing members
 - But only if they already have IPv6 addresses
 - And they can prove they need them

Does this have an effect on the rate of IPv6 deployment?

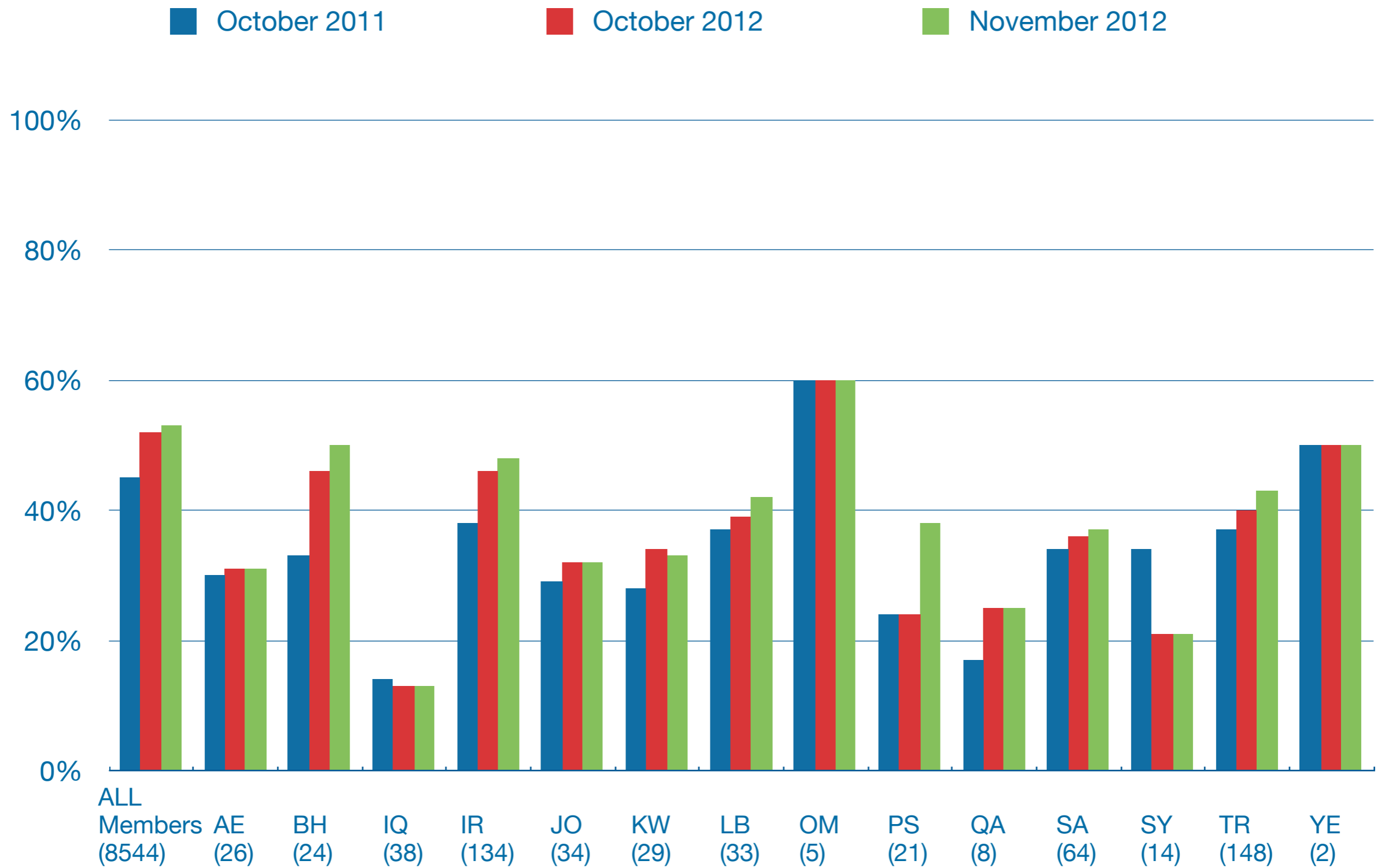
RIPEness

- Measures IPv6 deployment amongst members
 - First star: when you have IPv6 addresses
 - Additional stars for Routing, Reverse DNS and a route6 object
- Important dates:
 - February 2011: IANA runs out
 - April 2011: APNIC runs out
 - September 2012: RIPE NCC runs out

RIPE NCC Service Region over time



Members Holding IPv6 Resources



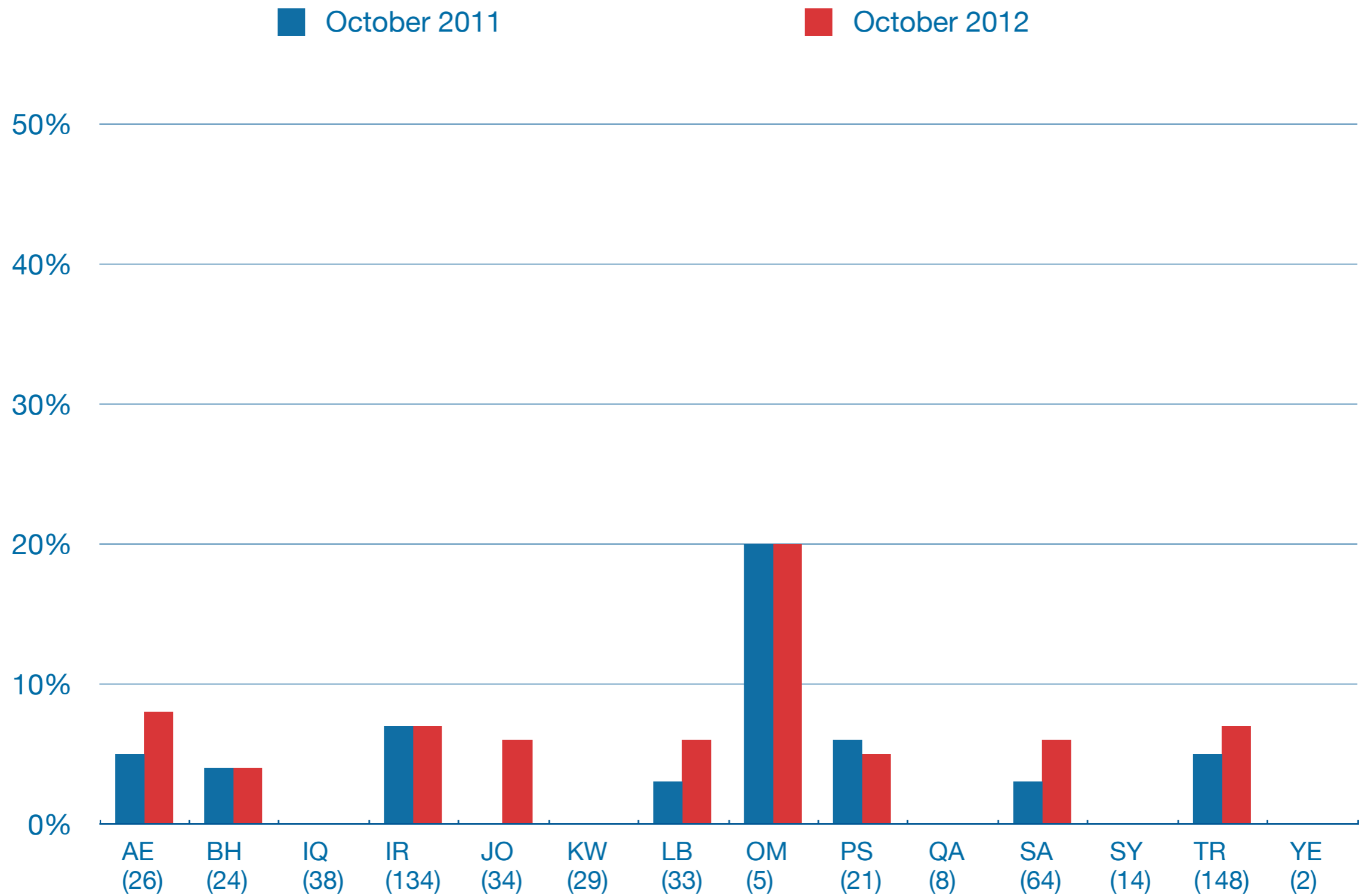
Conclusion

- IPv6 awareness is still increasing
- More members are getting IPv6 addresses
 - Remember: they need IPv6 to get IPv4!
- Getting IPv6 addresses is the easy bit
 - What about routing?

Routing is the Hard Part

- It is easy to get to 3 star RIPEness
 - Getting addresses and Database objects do not require changes to the network
- See how many members announce their space
 - If it is not routed, most likely there is no deployment

IPv6 Addresses Routed



(IPv6 RIPEness)



Conclusions

- Only a small number of the IPv6 addresses are visible in the global routing table
- Saudi Arabia shows a lot of growth here

How about a 5th star?

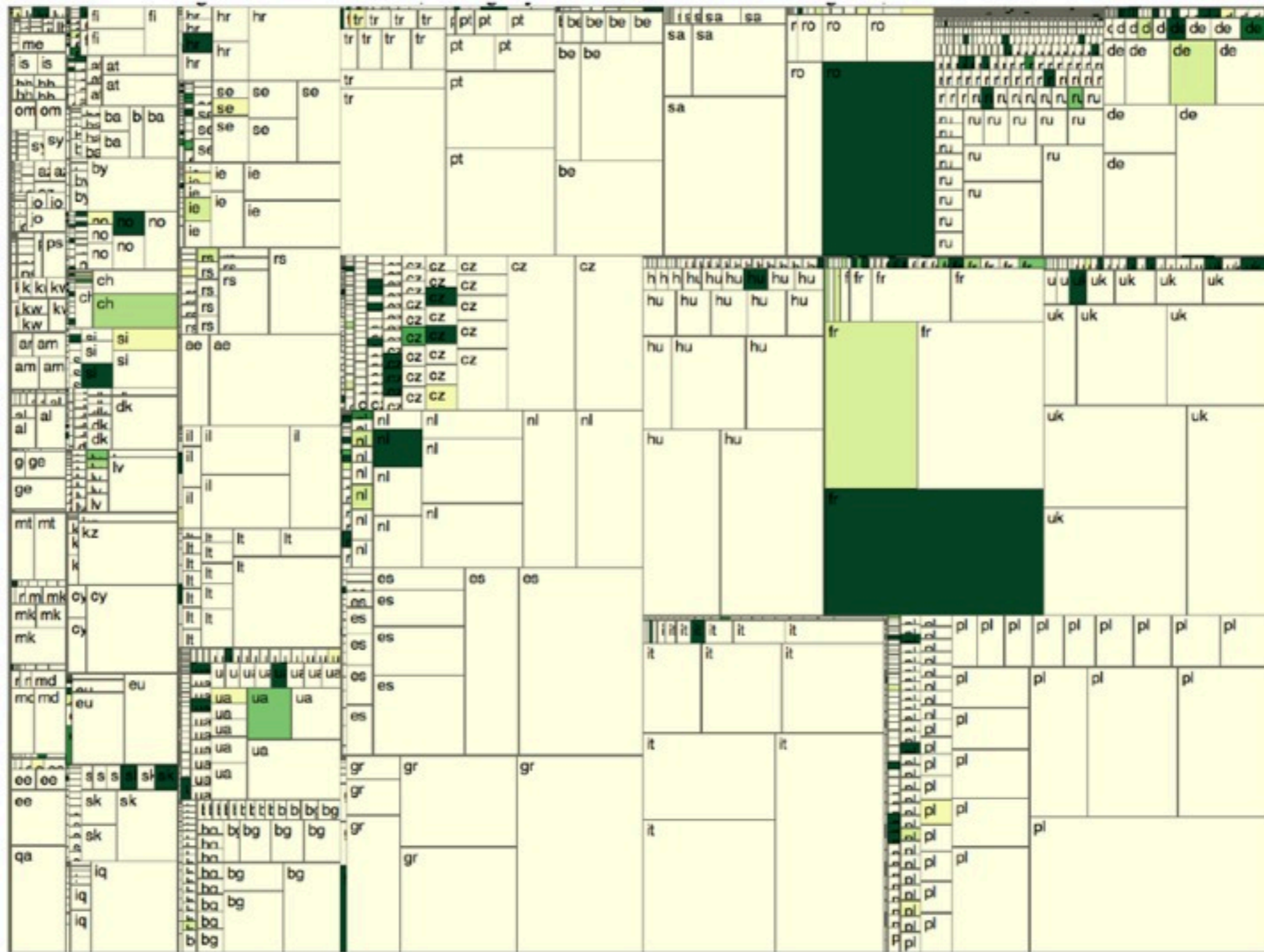


Measuring End User Deployment

- See if an end user can connect to an IPv6 site
- APNIC Google ads
 - Use flash banners to measure IPv6
 - Large number of tests at low cost
 - Truly random targets

(Size of the square represents number of measurements done,
not the size of the country/network)

IPv6 Access Landscape



Percentage IPv6 detected: 0% (yellow) to >10% (dark green)

More Information

- Graphics prepared by Emile Aben
 - It is all in the details
 - See his presentation at RIPE 65 for details
 - <https://ripe65.ripe.net/archives/video/95/>

Conclusions

- Globally we detect 1.02% IPv6 deployment
- In Saudi Arabia it is around 0.001% :(
- This can change rapidly:
 - Romania got from 0 to 11% in 6 months
 - Caused by a single operator switching on IPv6

Questions?
(marco@ripe.net)

