IPv6 Landscape in the Arab Region: Where Are We Now?

Chafic Chaya | 31 May 2022 | ITU-ARB Regional Training on IPv6 and IoT

The RIPE NCC Service Region

IPv4 Address Exhaustion

IPv4 Allocation: Before 29 November 2019

- Each LIR can get **one /22** block

= 1024 IPv4 addresses

- Cannot be transferred for 24 months after receiving it

IPv4 Allocation: The Waiting List

- Each LIR is put on the first-come, first-served waiting list to get **one /24** block = 256 IPv4 addresses

- Cannot be transferred for 24 months after receiving it
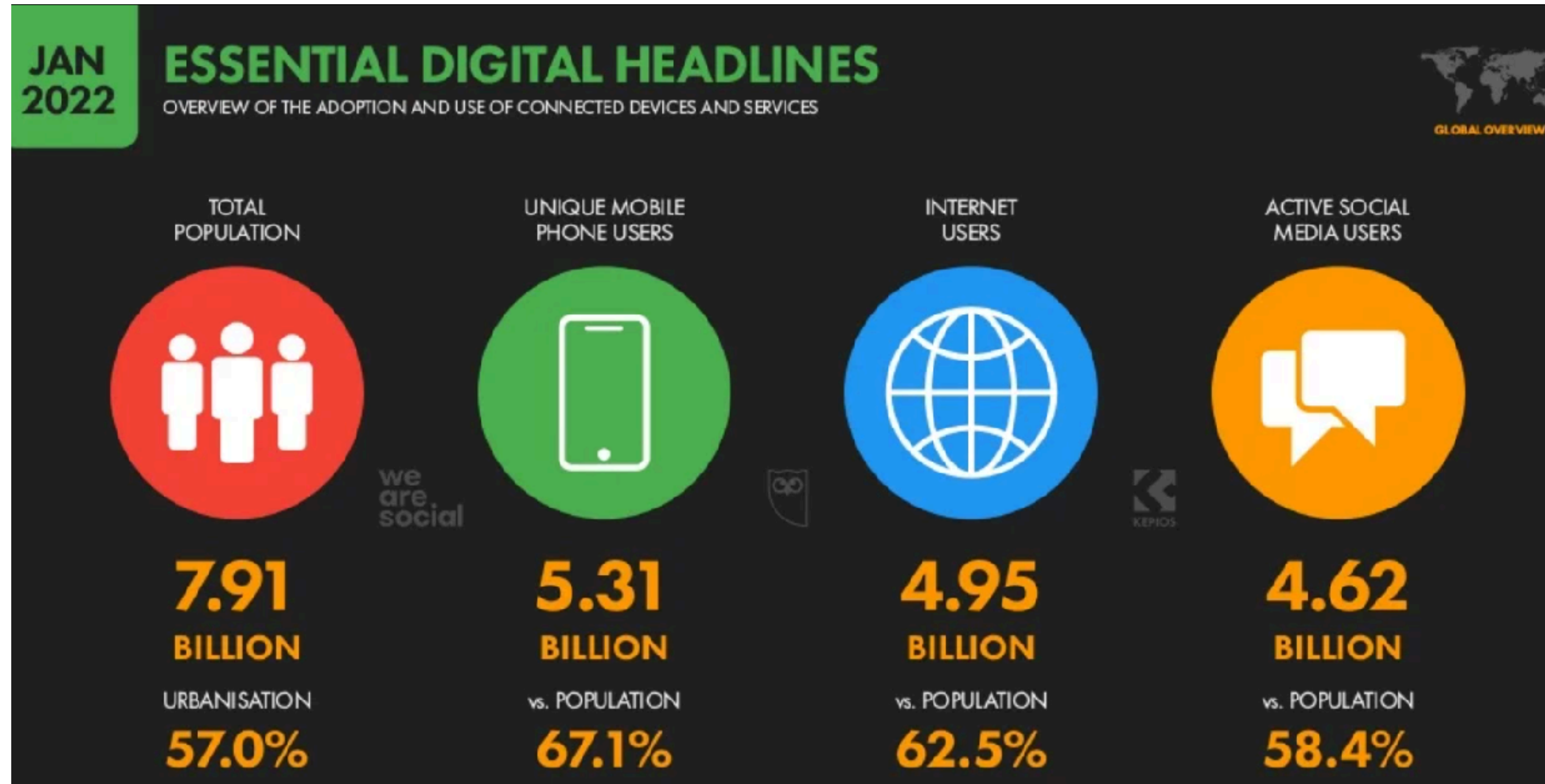
Source: Digital 2022 - Global Overview Report
https://www.hootsuite.com/resources/digital-trends

IPv4 Can No Longer Sustain Growth?
IPv6 Status in the MENA Region

IPv6 Statistics - Google

Percentage of IPv6 users that access Google over IPv6

Native: 39.72% 6to4/Teredo: 0.00% Total IPv6: 39.72% | May 7, 2022

Source: https://www.google.com/intl/en/ipv6/statistics.html
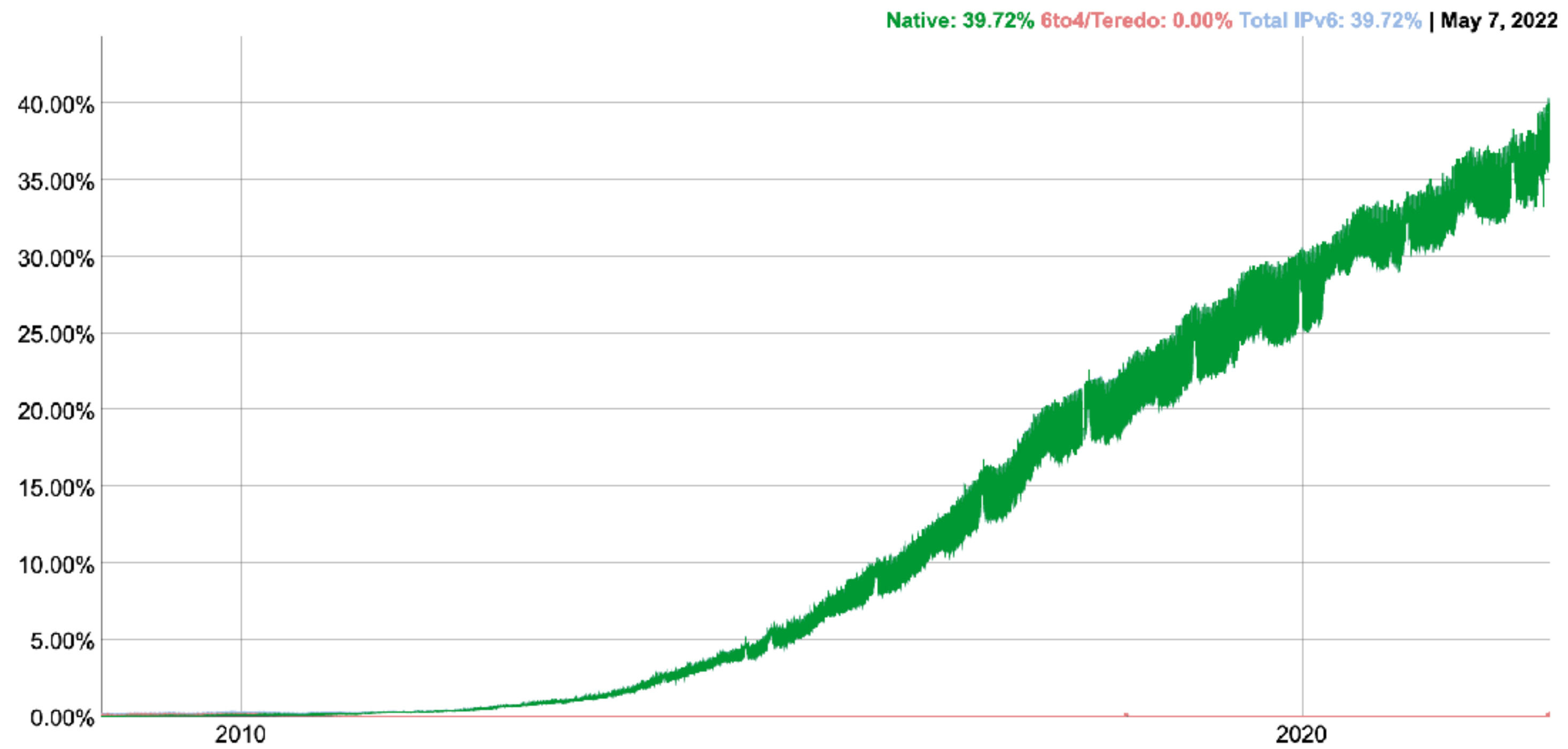
Global IPv6 Traffic Forecast, 2017-2022

77% CAGR 2017-2022

Exabytes per Month

- Latin America (LATAM) (63% CAGR)
- Middle East and Africa (MEA) (96% CAGR)
- Central and Eastern Europe (CEE) (72% CAGR)
- Western Europe (WE) (72% CAGR)
- North America (NA) (79% CAGR)
- Asia Pacific (APAC) (79% CAGR)

2017: 7.5
2022: 132

2022 breakdown:
- 4.7%
- 6.3%
- 6.1%
- 16%
- 29.5%
- 37.4%

Source: Cisco VNI Global IP Traffic Forecast, 2017–2022
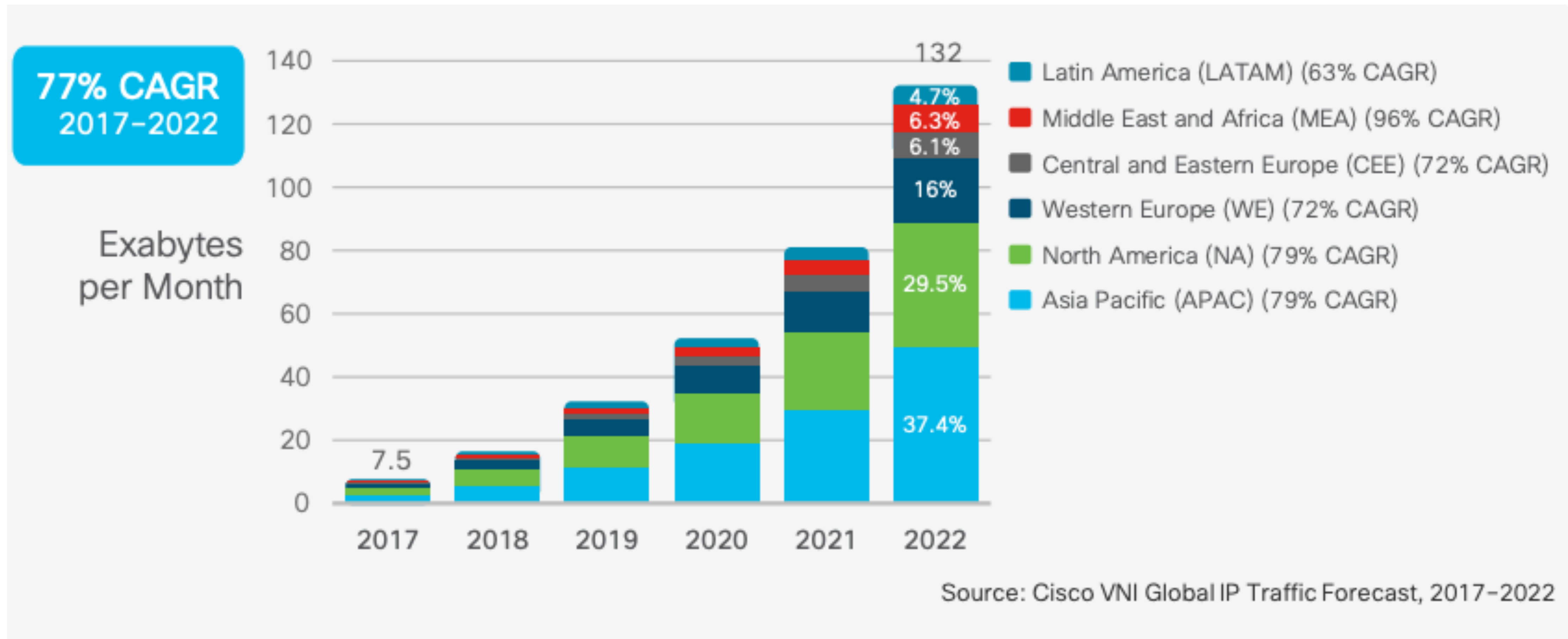
IPv6-Enabled Countries

Map of IPv6 capability per country: 2020 vs 2021

IPv6 Today's Adoption

Source: https://www.google.com/intl/en/ipv6/statistics.html#tab=per-country-ipv6-adoption
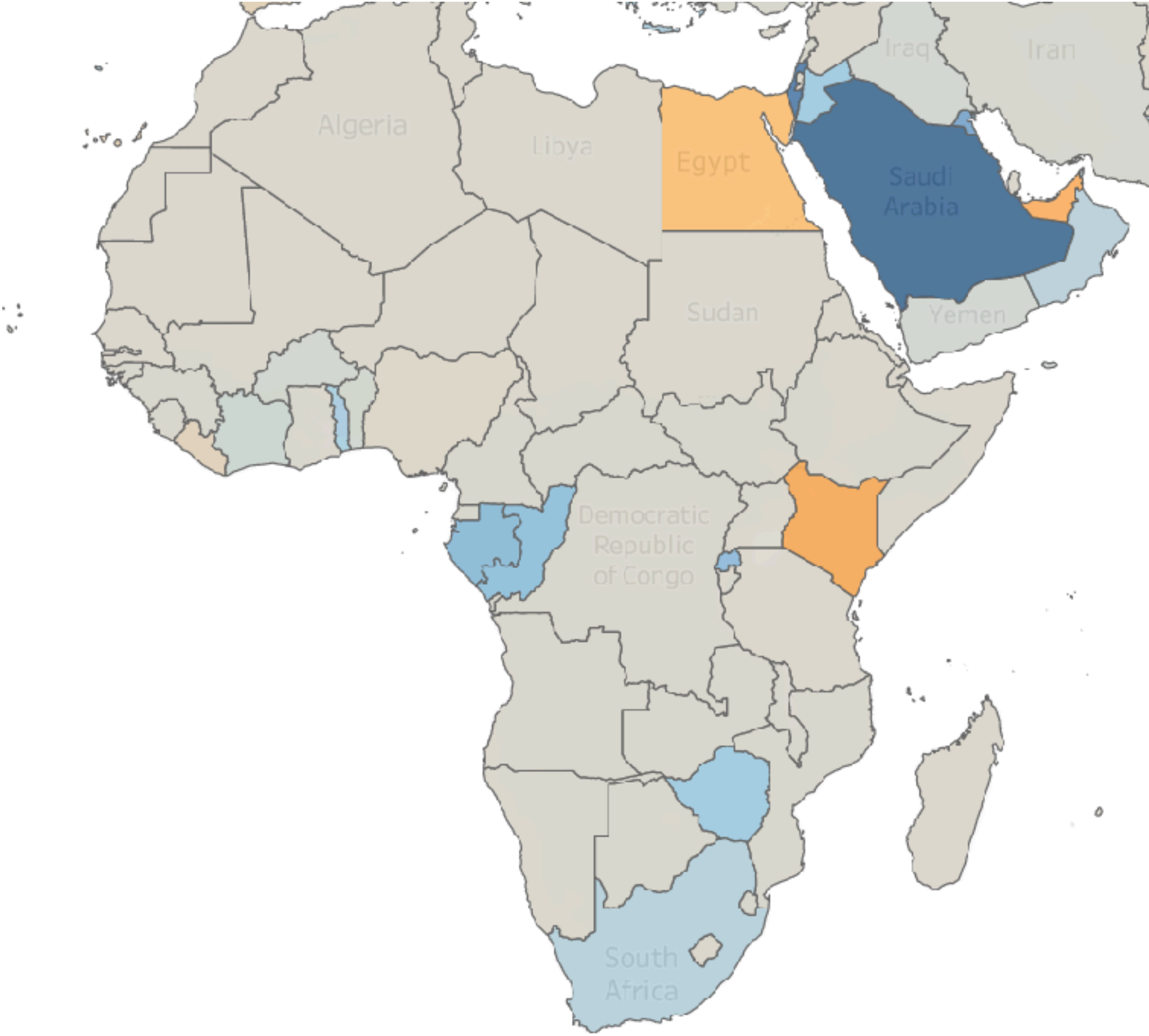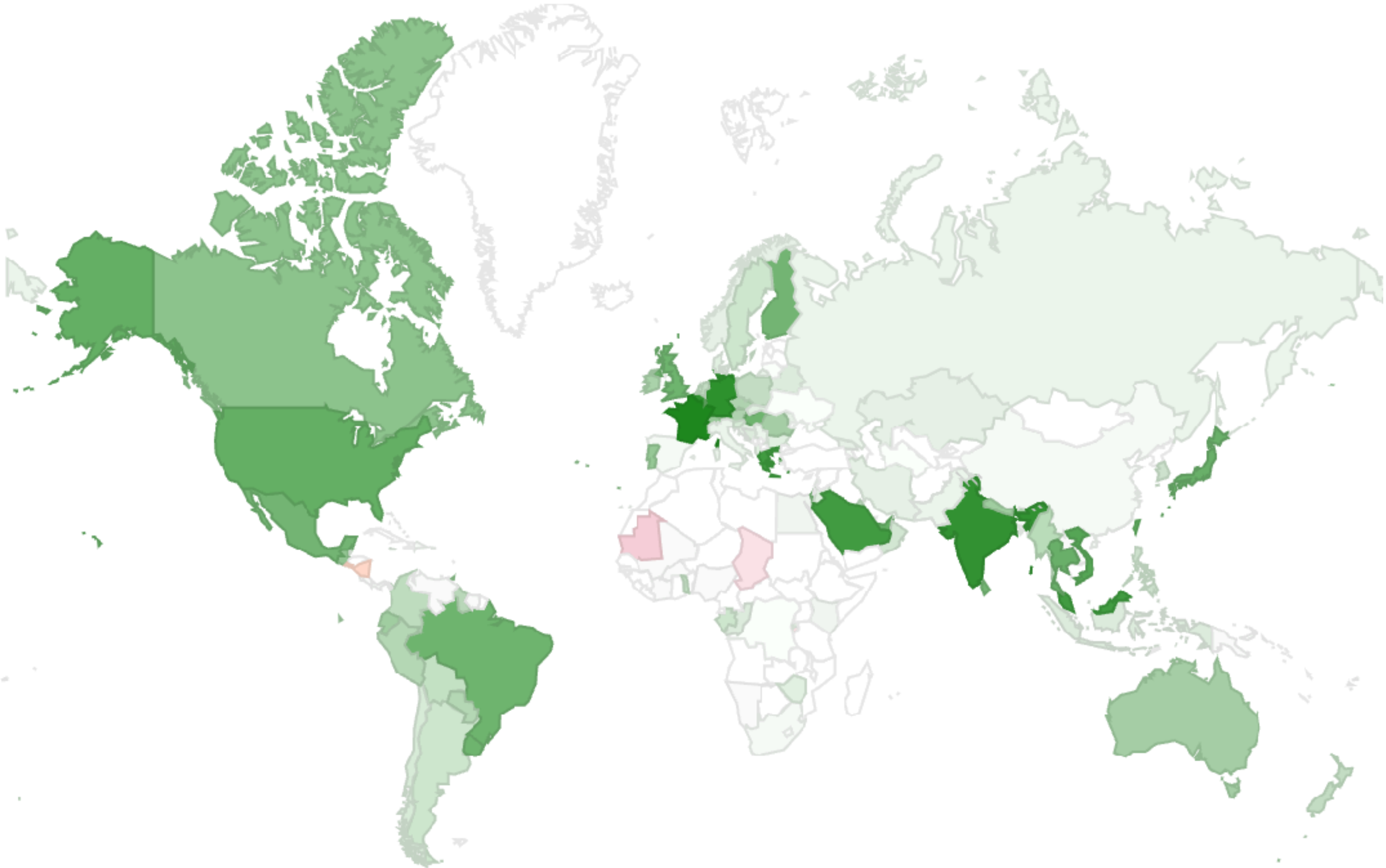
Arab Countries Ranking in IPv6

Country	IPv6 Capable APNIC	IPv6 Capable Google	#Arab Region	#Worldwide
Saudi Arabia, Western	58.65%	57.63%	1	3
United Arab Emirates,	40.53%	45.81%	2	20
Kuwait, Western Asia, Asia	18.11%	18.43%	3	54
Oman, Western Asia, Asia	12.55%	13.1%	4	65
Jordan, Western Asia, Asia	11.96%	8.99%	5	66
Egypt, Northern Africa, Africa	4.22%	3.39%	6	94
Lebanon, Western Asia, Asia	1.63%	2.51%	7	109

Source: https://stats.labs.apnic.net/ipv6

Source: https://www.google.com/intl/en/ipv6/statistics.html

IPv6 for Sustainable Development

Leave No One Behind

RIPE NCC Engagements and Activities

Government and Regulator Engagements (Meetings and Roundtables)	**Law Enforcement Agency Engagements** (Trainings and webinars)
Sectorial Engagements (Banking, Academic and Community Projects Fund)	**Internet Measurements** (Country Reports, RIPE Atlas and RIPEstat)
Capacity Building (Technical training, workshops, webinars, RIPE NCC Academy, e-learning, Certified Professionals)	**MENOG & Peering Forum** (Sharing knowledge and best practices)

The Challenges Ahead…

- **IPv6 for Digital Transformation and Digital Economy:** Develop Internet infrastructure that provides security and efficiency and bridges the digital gap

- **Routing:** Keep data traffic inside the region

- **Capacity Building:** Gain know-how and technical expertise

- **Adaptive Regulation:** Ensure regulation to meet technology advancements

- **Data and Analysis:** Deploy more Internet measurement tools

Questions

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