



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

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

The RIPE NCC Service Region



ARIN
American Registry for Internet Numbers

RIPE NCC
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lacnic

AFRINIC
The Internet Numbers Registry for Africa

APNIC

IPv4 Address Exhaustion



A screenshot of the RIPE NCC website. At the top, there is a search bar labeled "Search IP Address or ASN". Below it is a navigation menu with items: "Manage IPs and ASNs", "Analyse", "Participate", "Get Support", and "Publication". A breadcrumb trail reads: "You are here: Home > Publications > News > About RIPE NCC and RIPE > The RIPE NCC has run out of IPv4 Addresses". On the left, a sidebar menu is open to "News", with sub-items: "RSS News Feeds" and "About RIPE NCC and RIPE". The main content area features the article title "The RIPE NCC has run out of IPv4 Addresses". A yellow warning box states: "You're viewing an archived page. It is no longer being updated." The article text begins: "Today, at 15:35 (UTC+1) on 25 November 2019, we made our final /22 IPv4 allocation from the last remaining addresses in our available pool. We have now run out of IPv4 addresses." The next paragraph reads: "Our announcement will not come as a surprise for network operators - IPv4 run-out has long been anticipated and planned for by the RIPE community. In fact, it is due to the community's responsible stewardship of these resources that we have been able to provide many thousands of new networks in our service region with /22 allocations after we reached our last /8 in 2012." The section "Recovered IPv4 Addresses and the Waiting List" follows, with the text: "Even though we have run out, we will continue to recover IPv4 addresses in the".

IPv4 Allocation: Before 29 November 2019

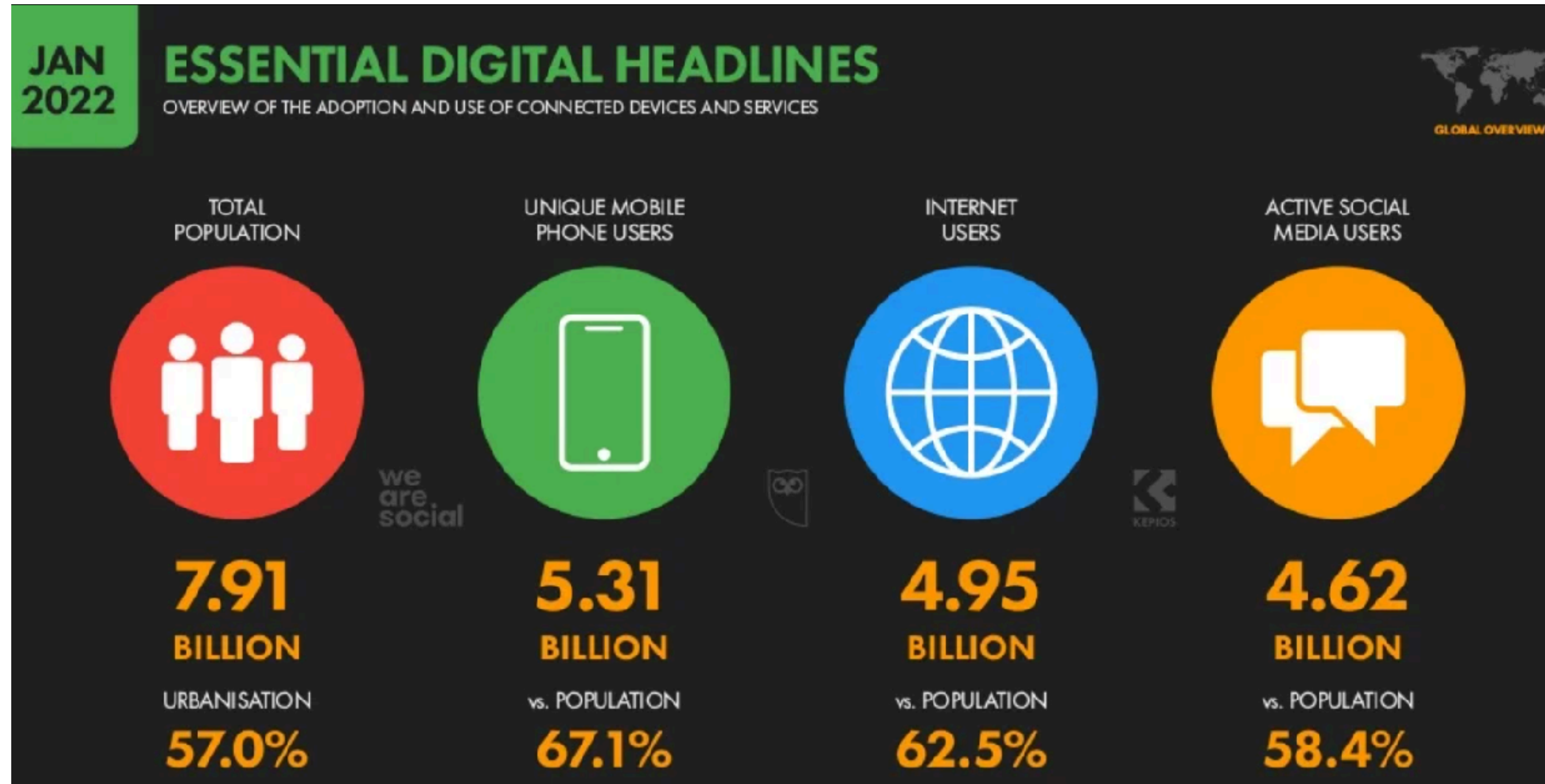


- Each LIR can get **one /22** block
= 1024 IPv4 addresses
- Cannot be transferred for 24 months after receiving it

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>

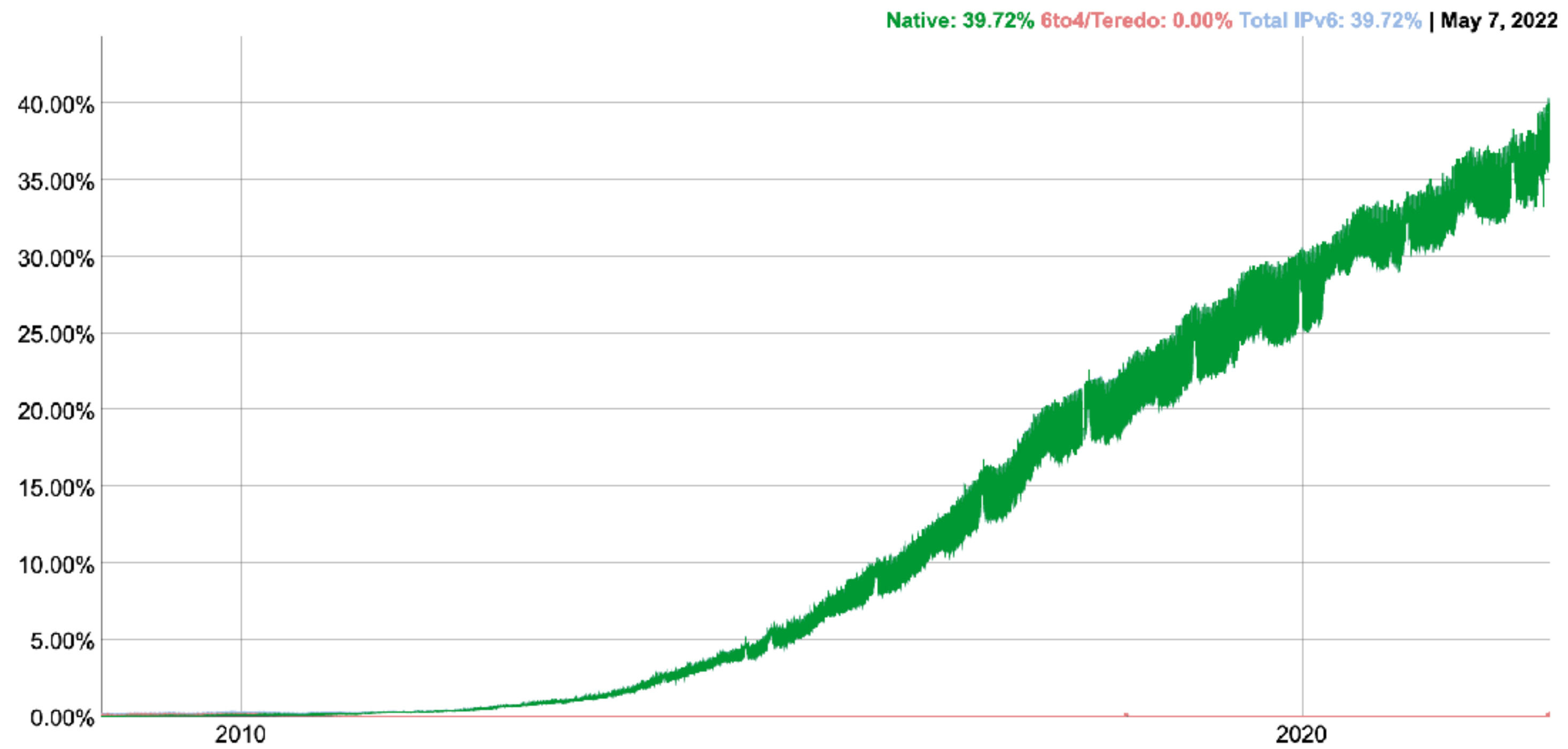


IPv4 Can No Longer Sustain Growth? IPv6 Status in the MENA Region

IPv6 Statistics - Google

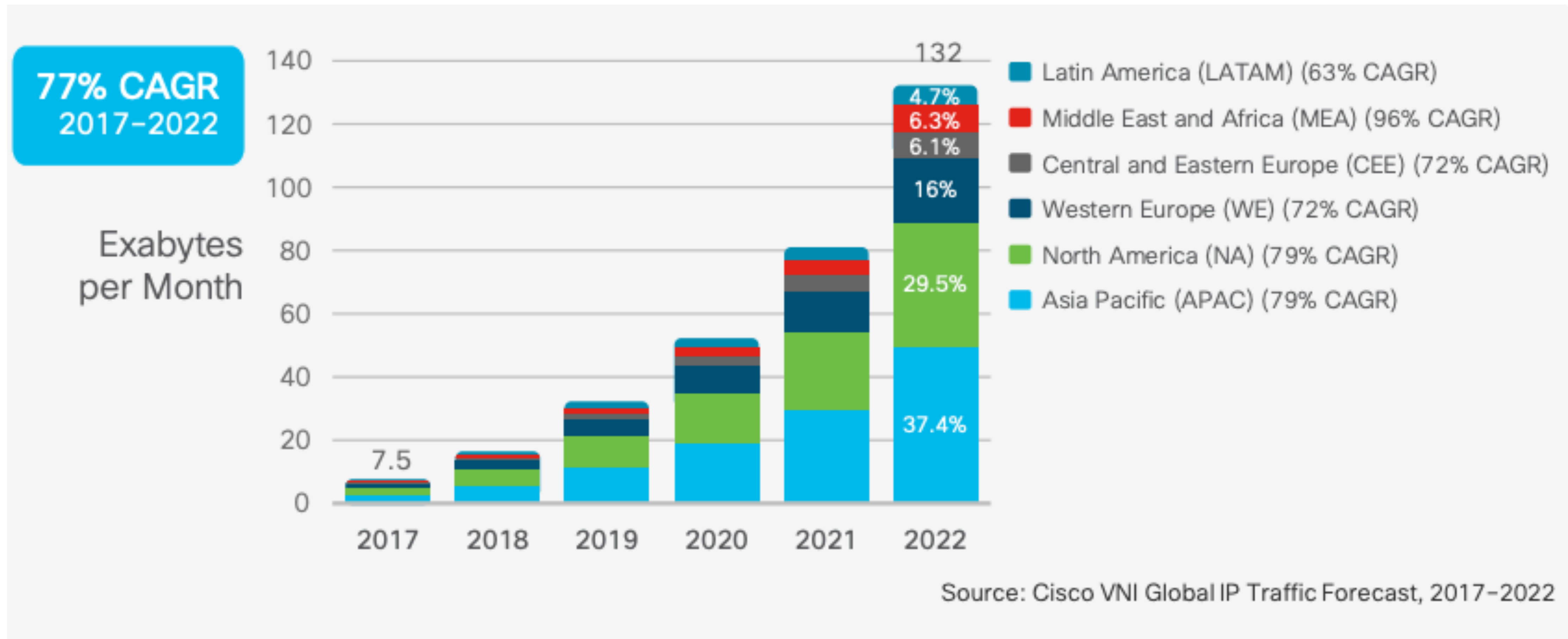


Percentage of IPv6 users that access Google over IPv6

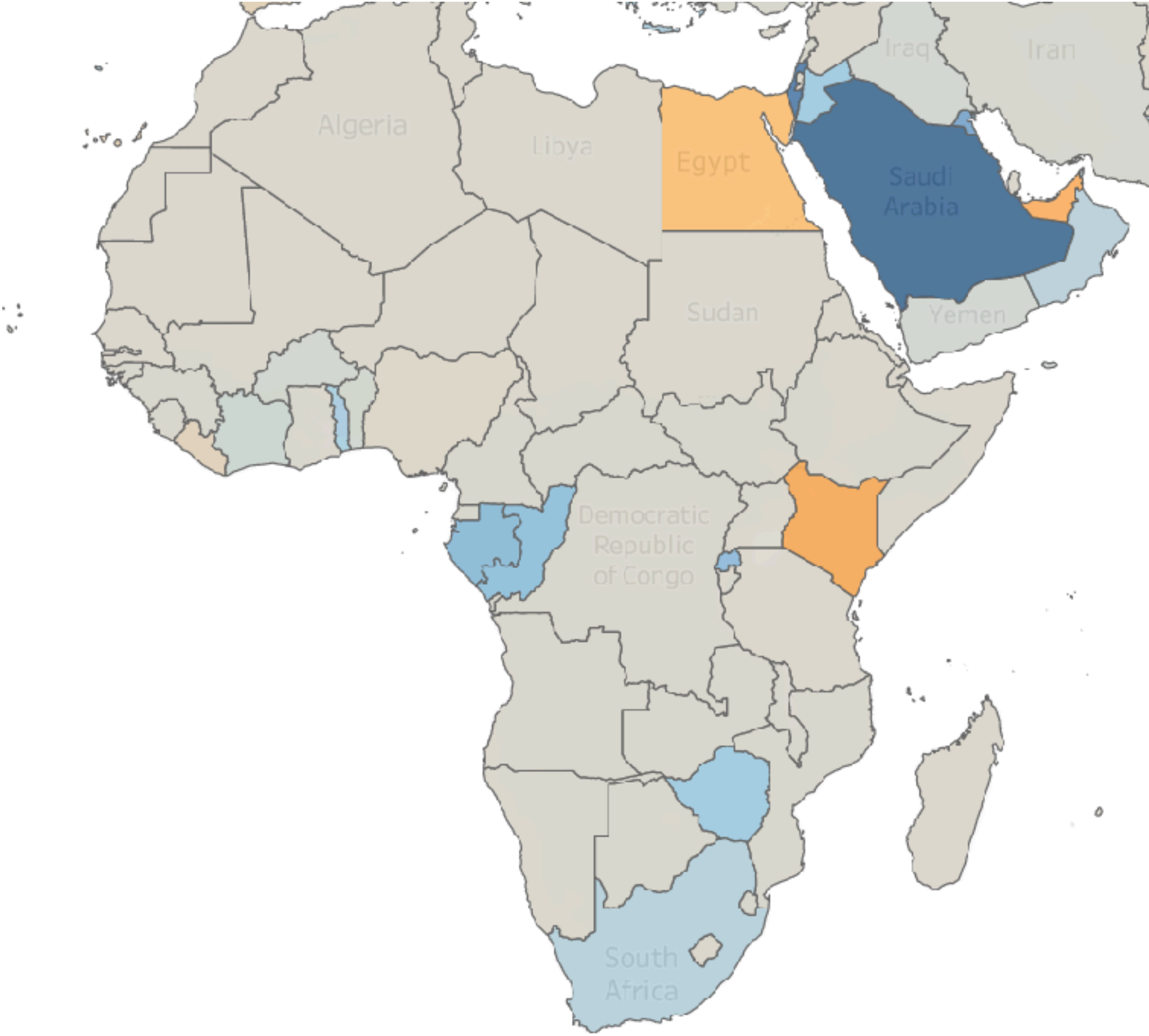


Source: <https://www.google.com/intl/en/ipv6/statistics.html>

Global IPv6 Traffic Forecast, 2017-2022

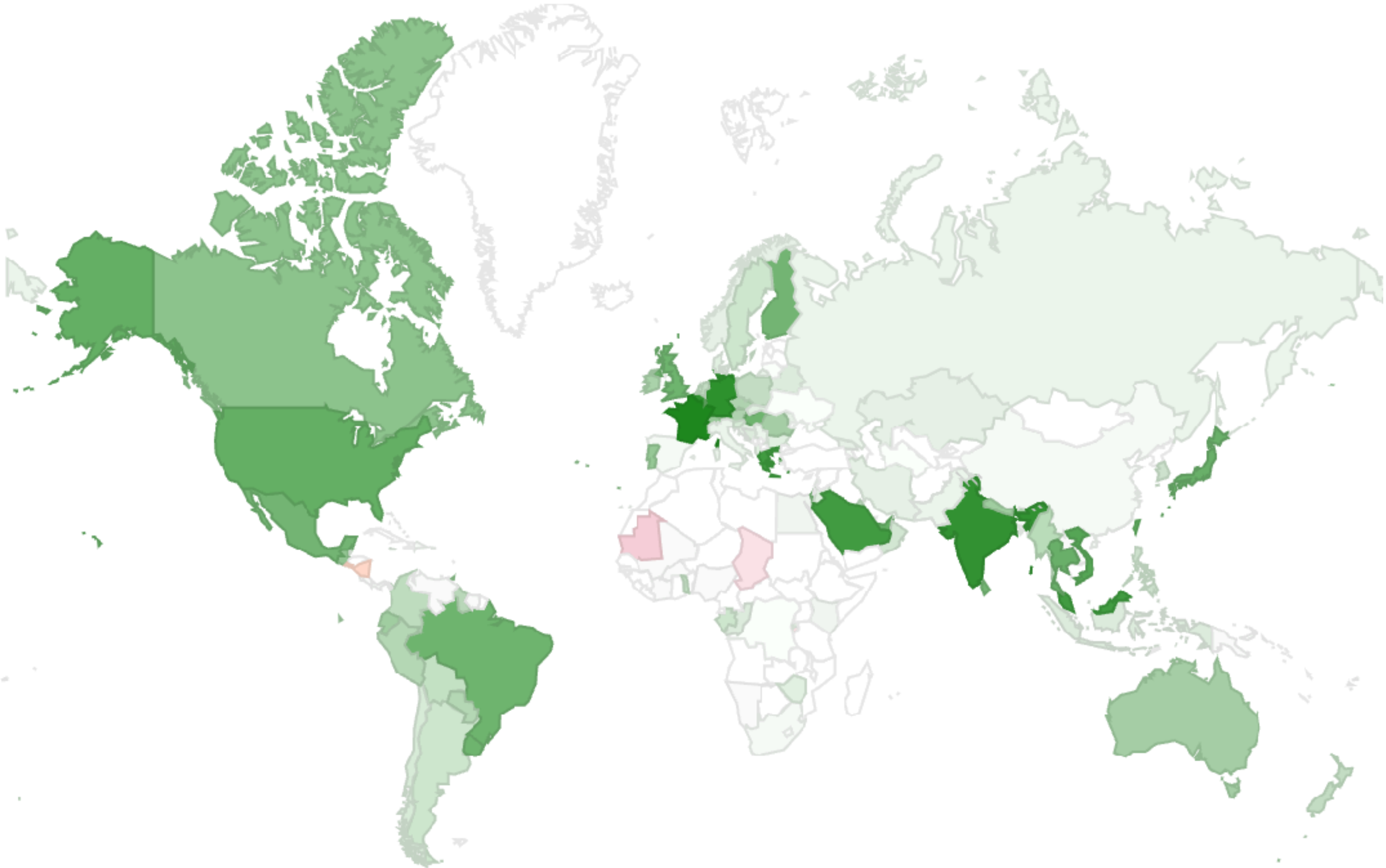


IPv6-Enabled Countries



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



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

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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