

# IPv6 at 25

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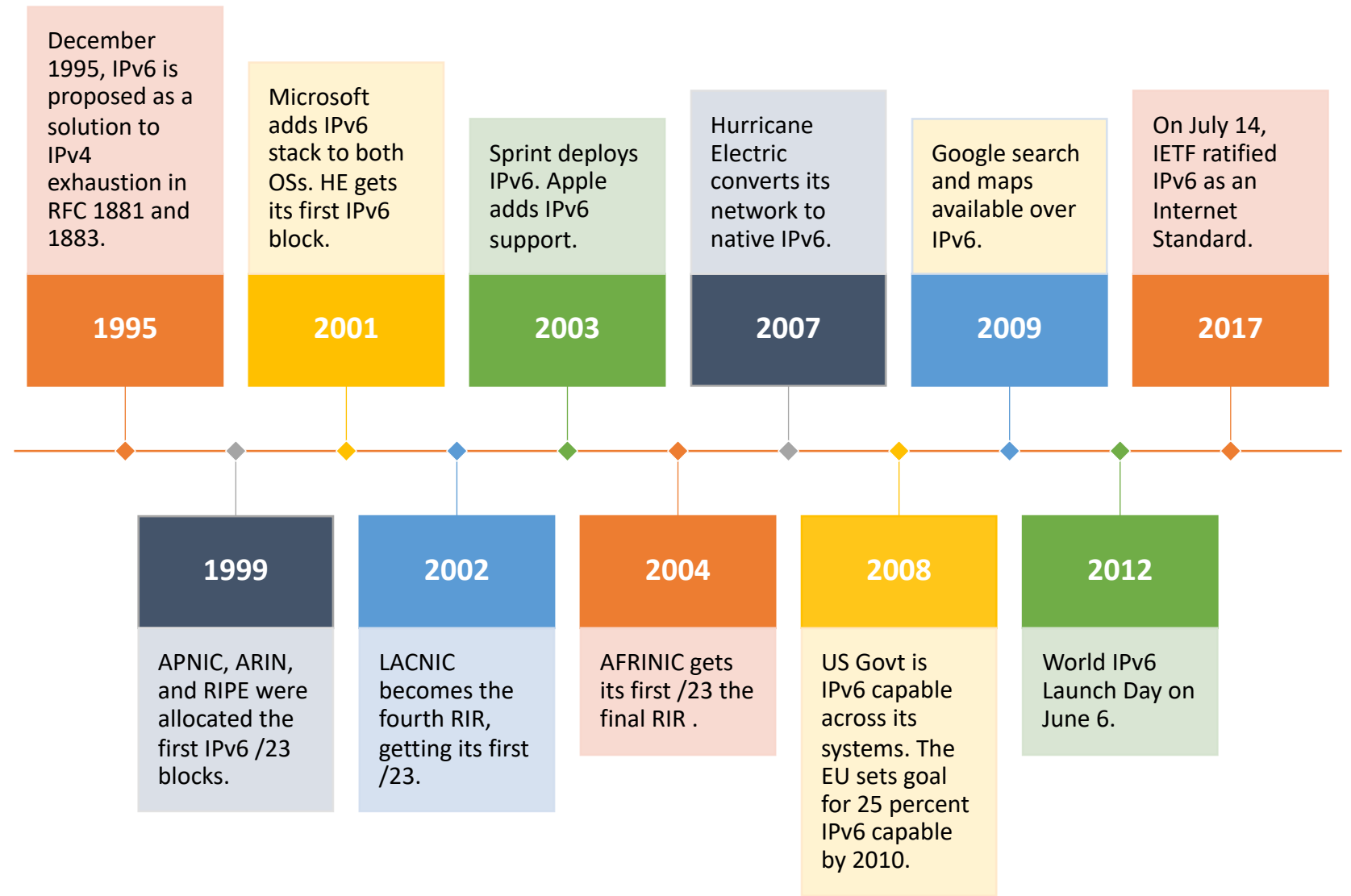
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Hurricane Electric AS6939

# 25 Years of IPv6

IPv6 turned 25 in December.

While global adoption of IPv6 might not be where its architects thought, IPv6 has come of age and inserted itself firmly into the Internet.

# A Trip Down IPv6's Memory Lane



# Why not IPv5?

There is an IPv5

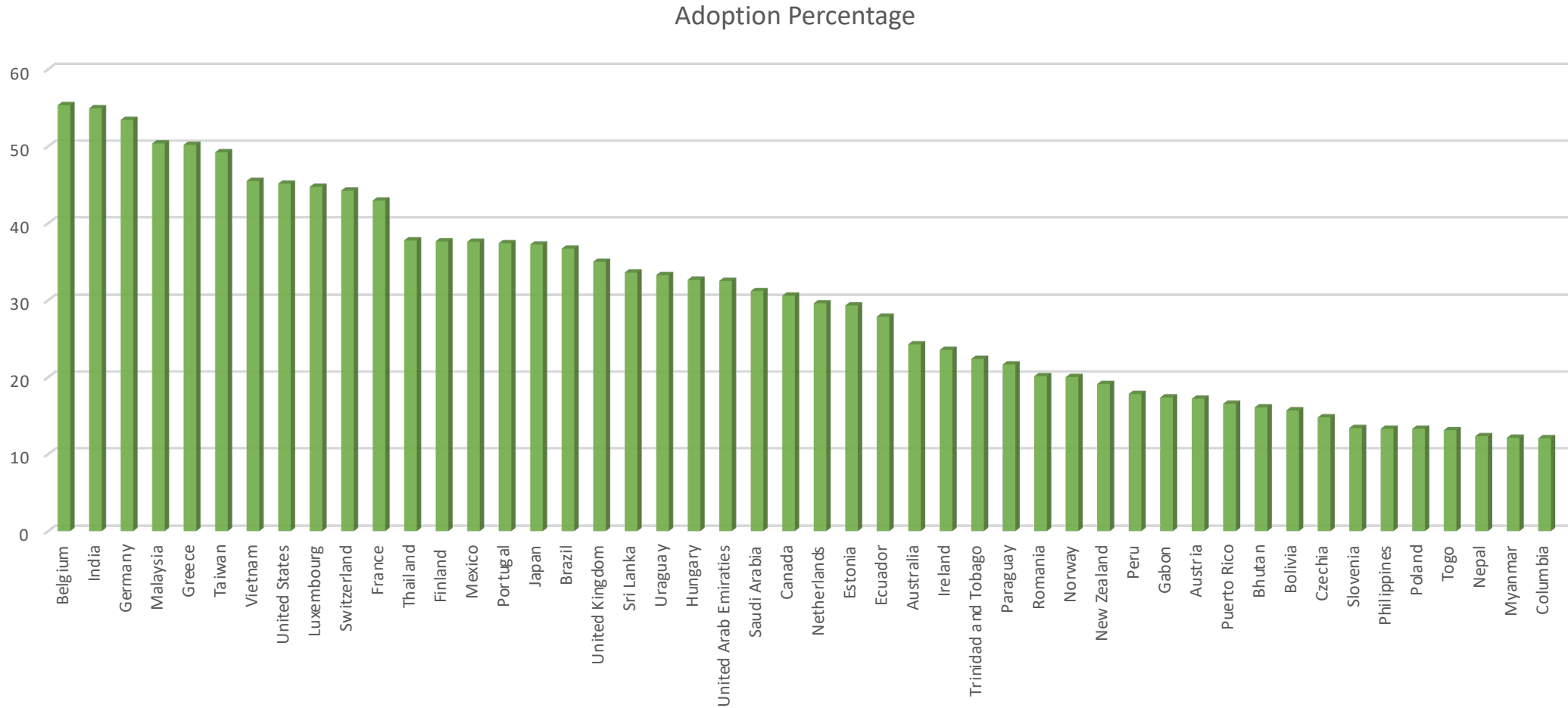
- It was also known as Internet Stream Protocol
- It was designed for connection-oriented communications across IP networks.
- IPv5 was used experimentally but had a 32-bit address scheme.

# IPv6 Adoption Rate

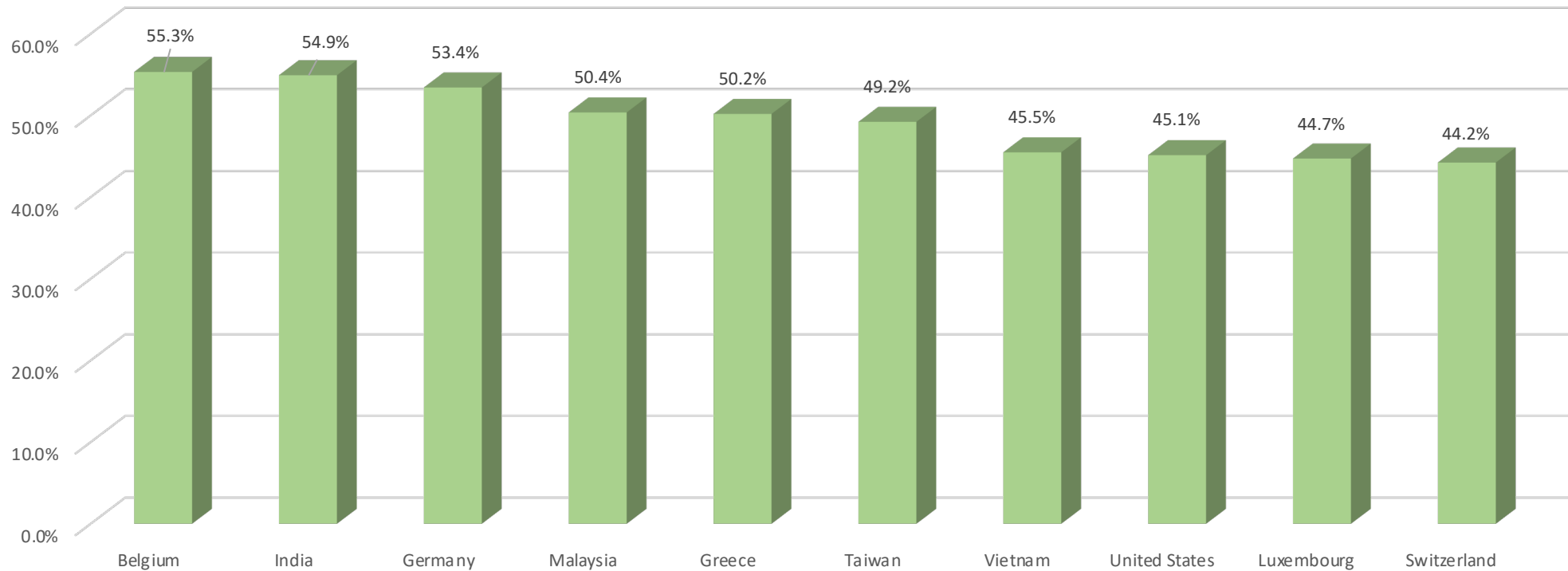
IPv6 has come a long way since its debut in 1995.

- Over 30 percent of the world's Internet users are routed over IPv6.
- The IPv6 routing table exceeded 100,000 prefixes.
- Access to the Internet is driving IPv6 Adoption

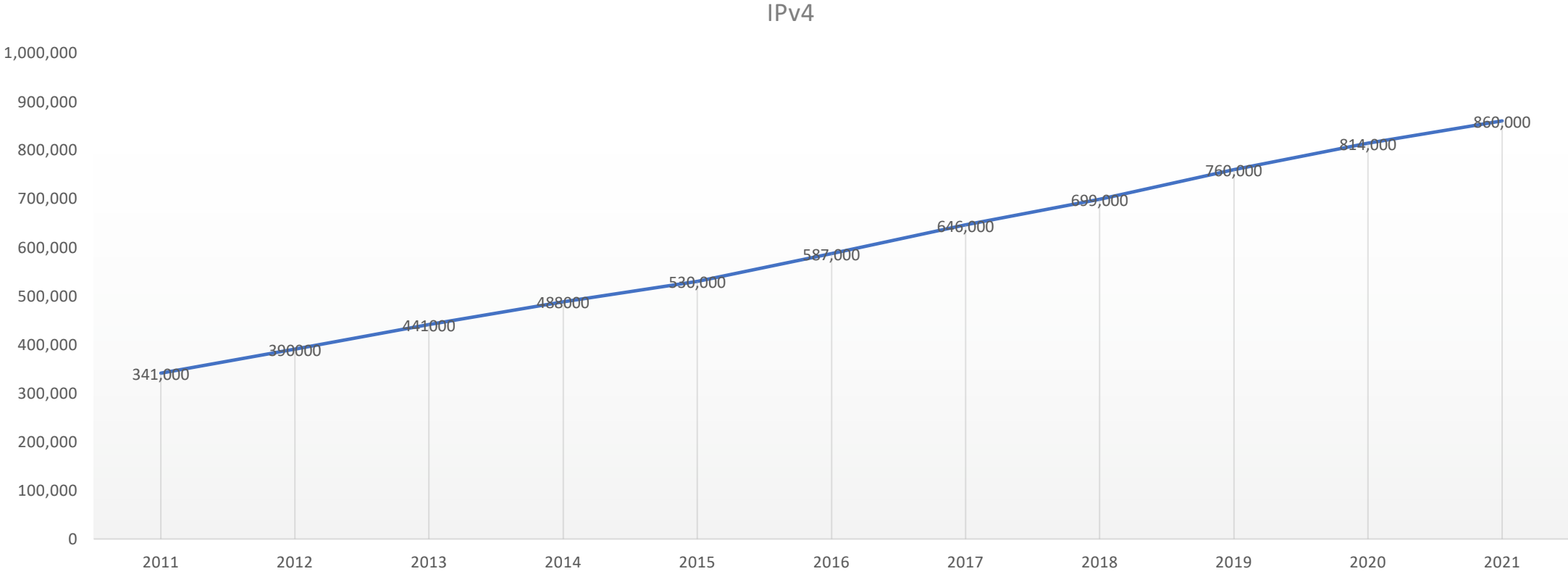
# Global IPv6 Adoption Rate



# Global IPv6 Adoption Rate – Top 10 Countries

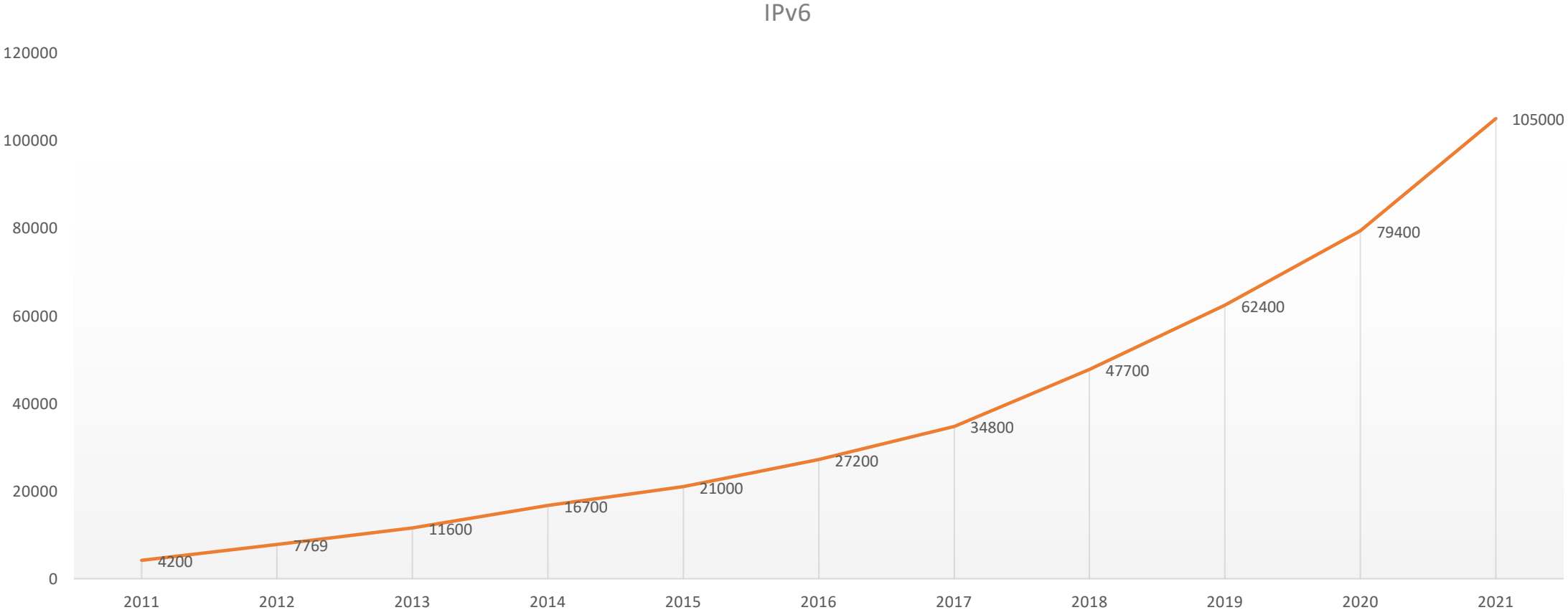


# IPv4 Address Table Growth Over Last Decade



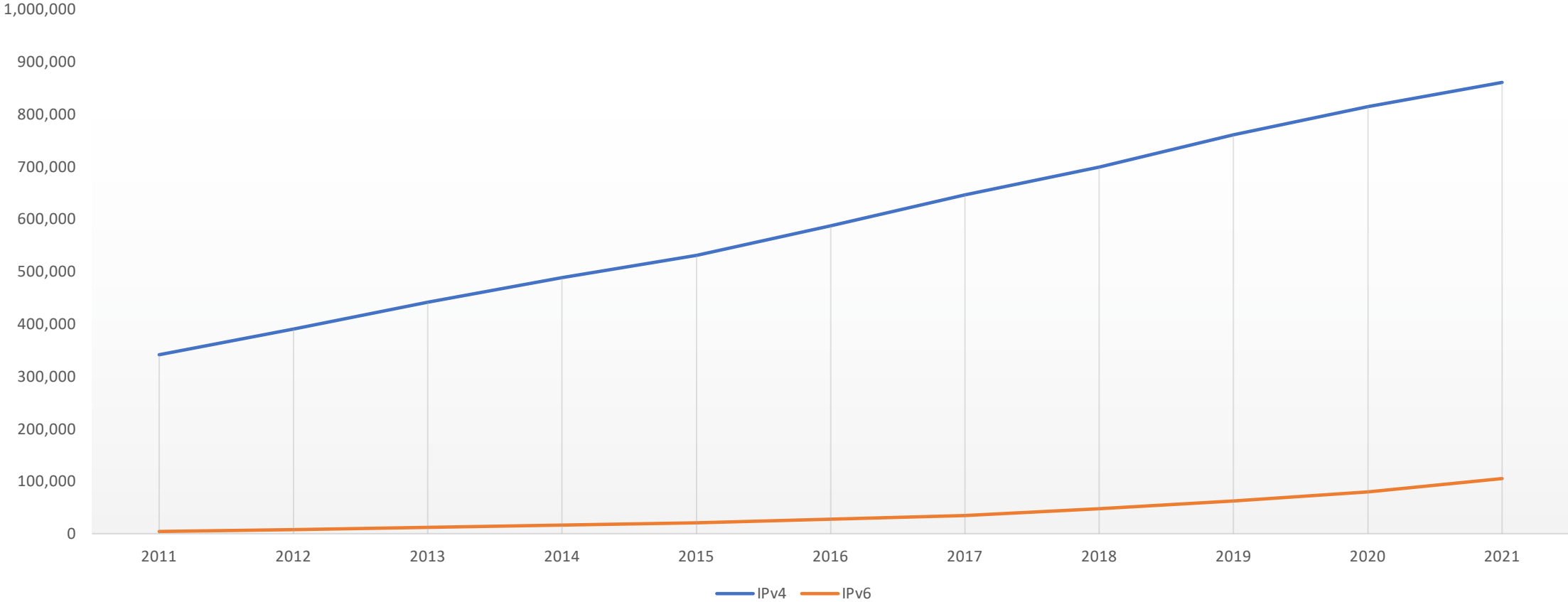


# IPv6 Address Table Growth Over Last Decade



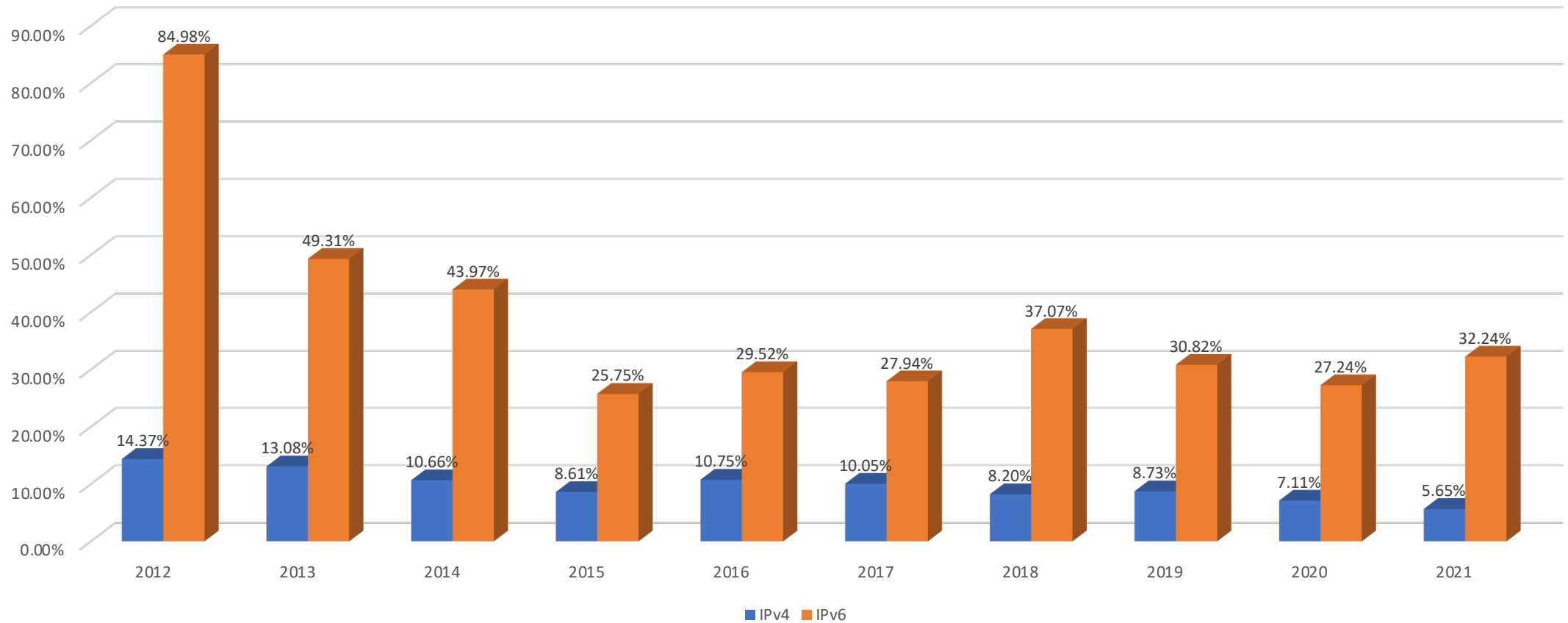
# IPv6 Address Table Growth Over Last Decade

IPv4 and IPv6 Routing Table Growth

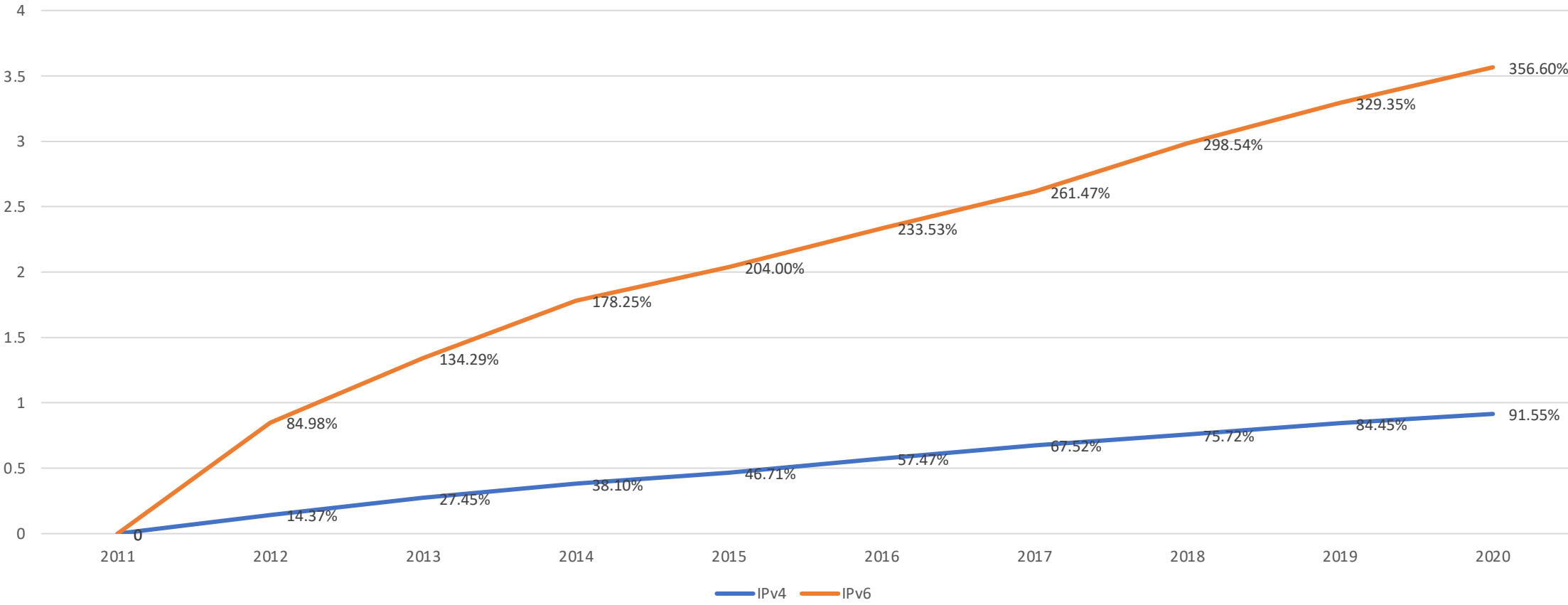


# IPv6 Address Table Percentage Growth

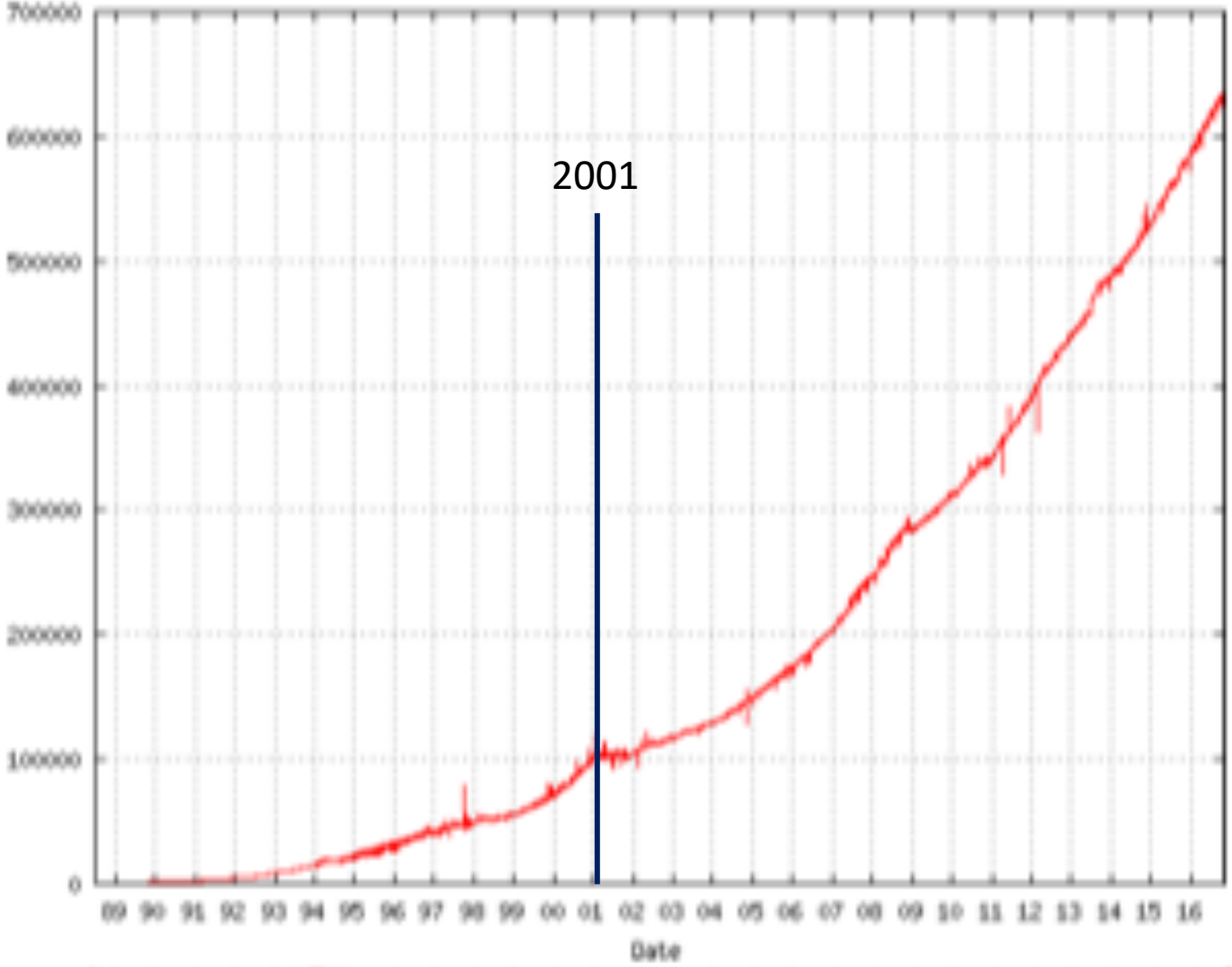
Yearly Prefix Table Growth



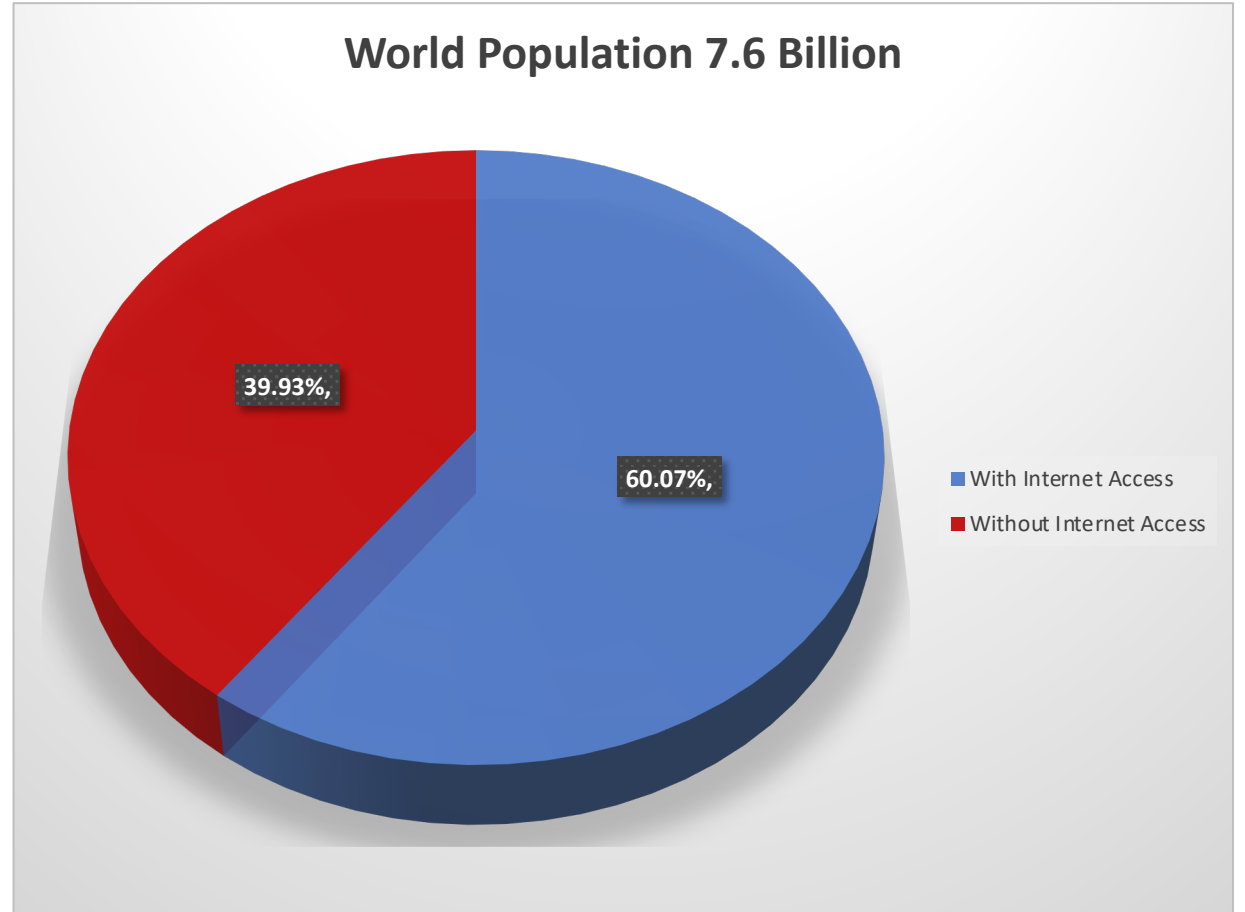
# IPv6 Address Table Percentage Growth



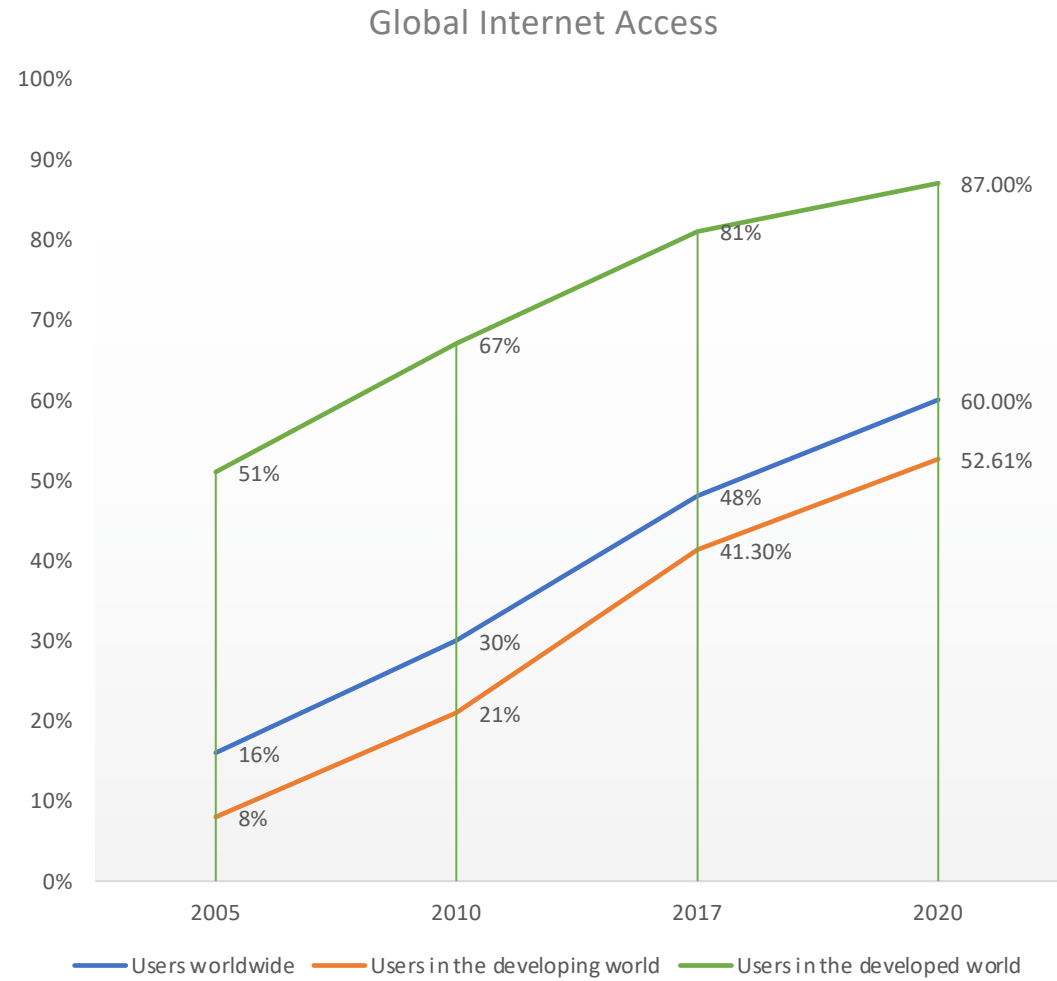
# IPv4 Address Table Growth



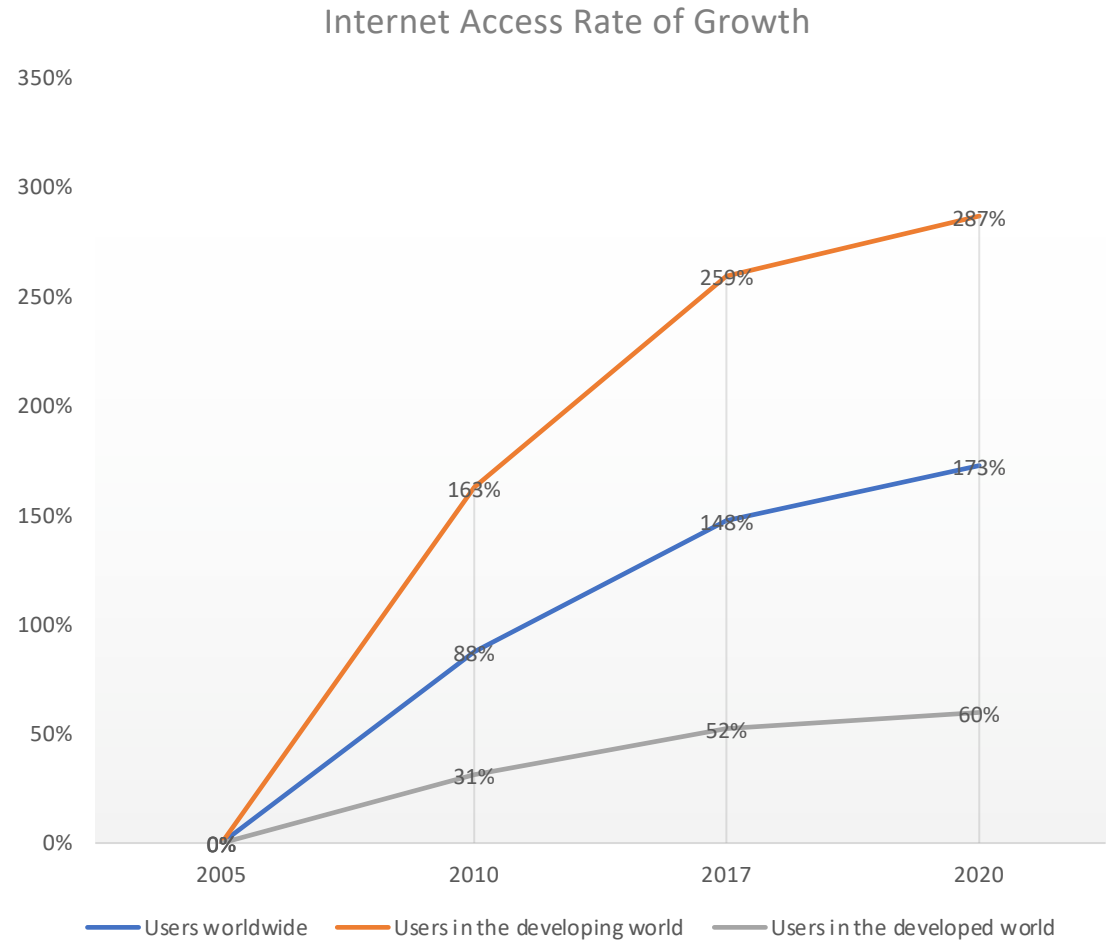
# Global Internet Usage



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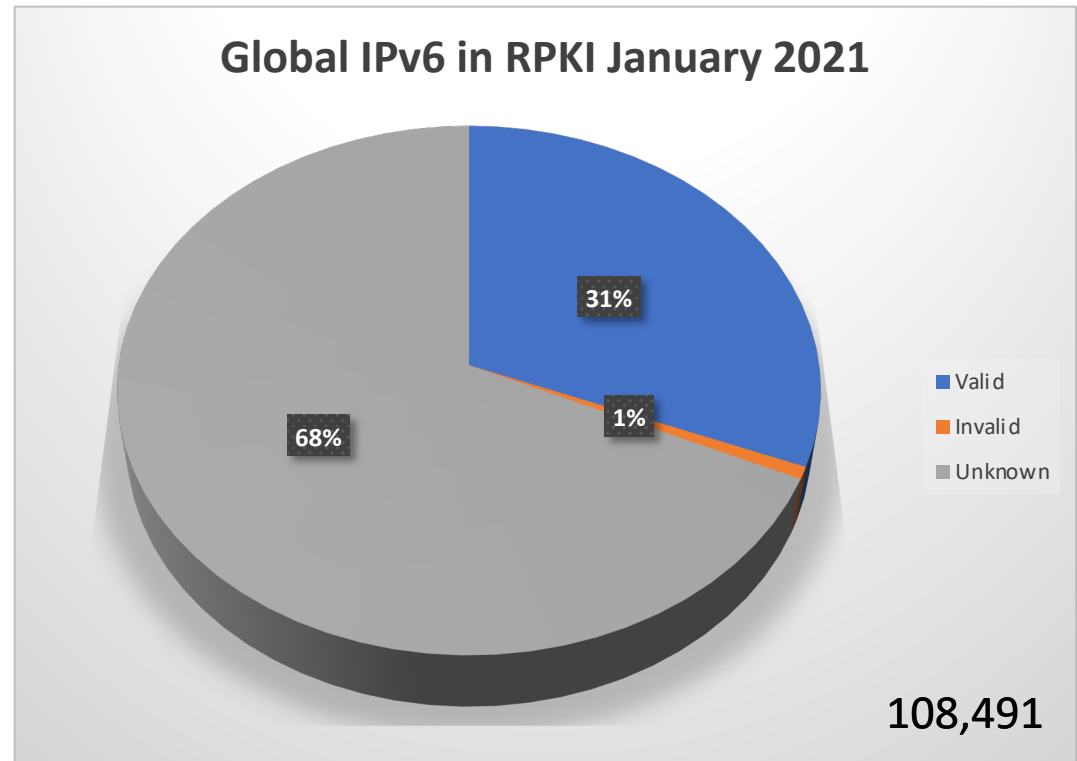
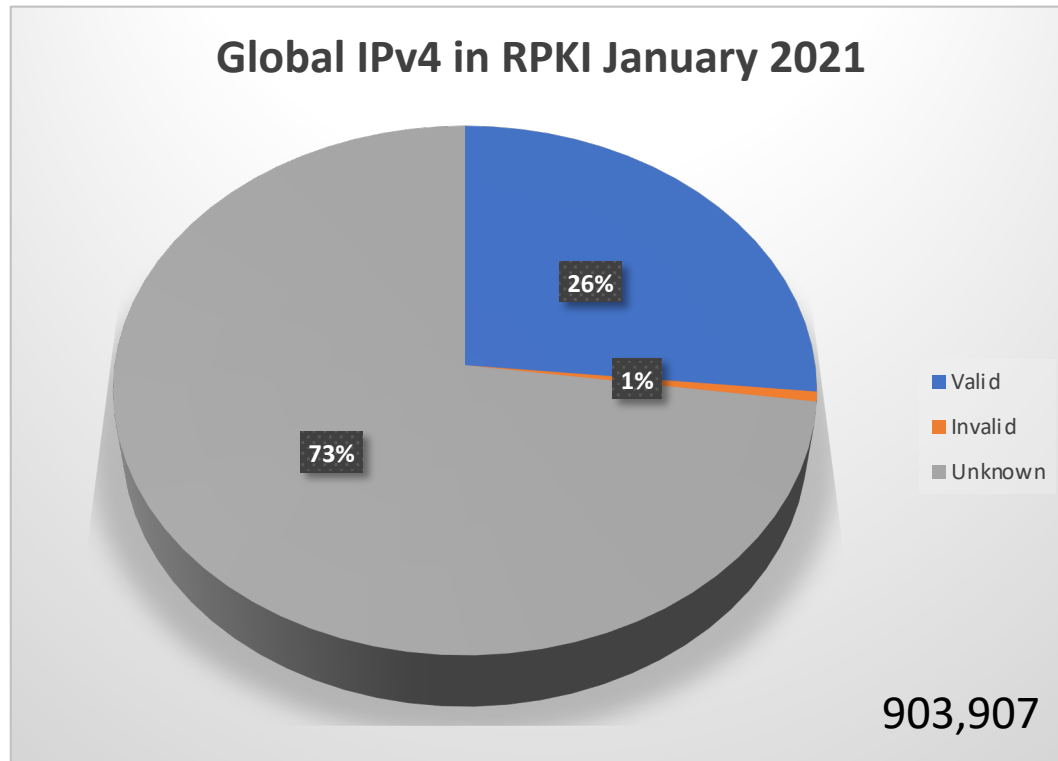


# IPv6 RPKI Adoption

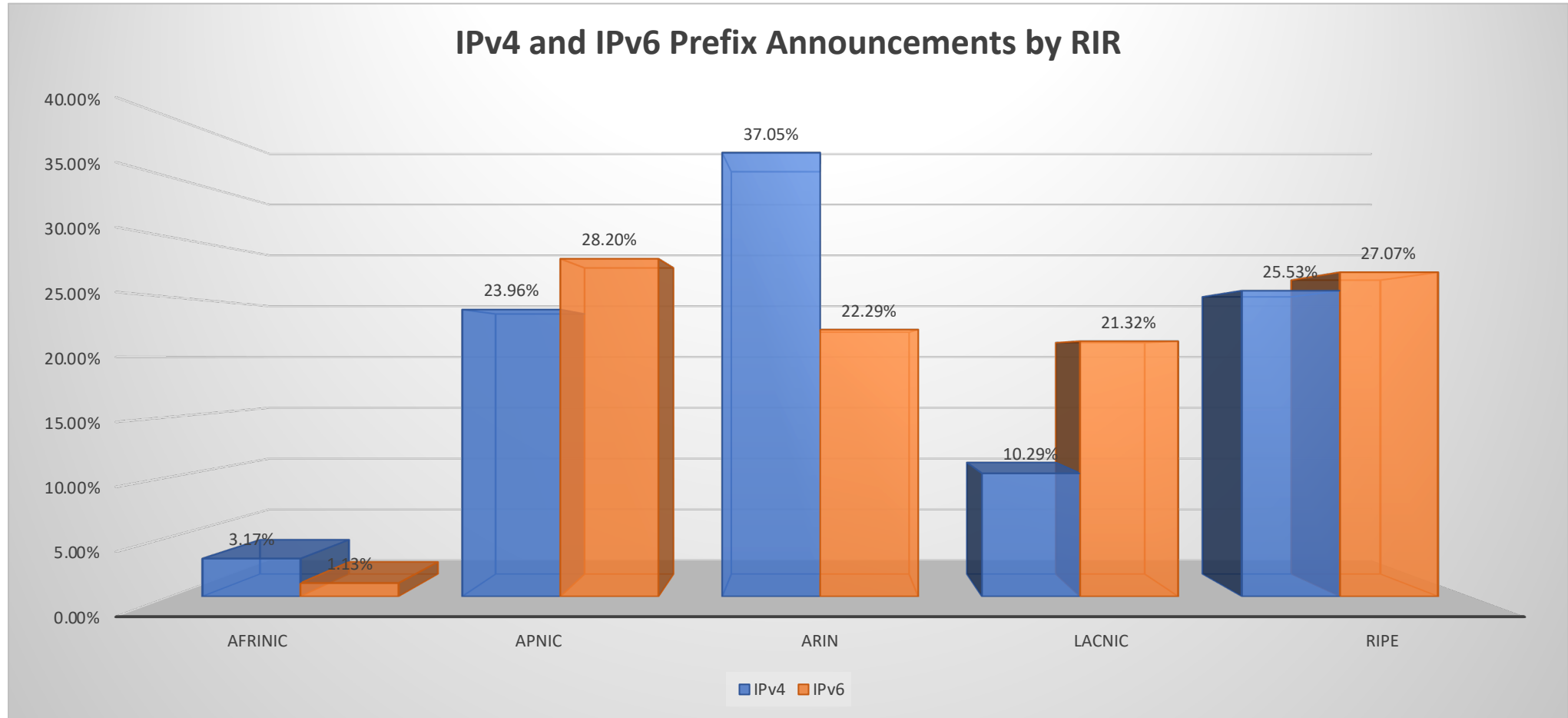
IPv6 is not only outpacing IPv4 in the address tables. It is leading the way in adopting RPKI.

- RPKI is a crucial tool in preventing prefix hijacking and route leaks.
- The IPv6 prefixes in RPKI is outpacing IPv4.

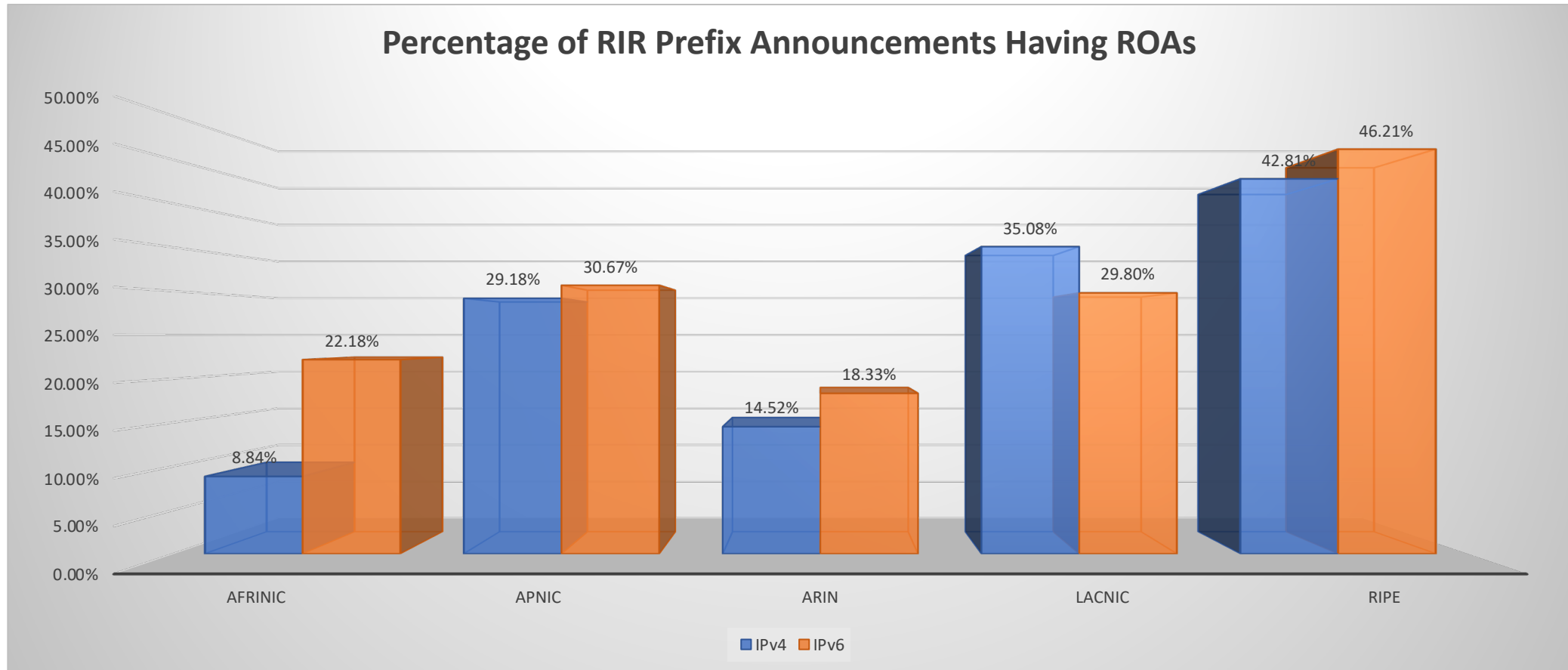
# RPKI IPv4 versus IPv6



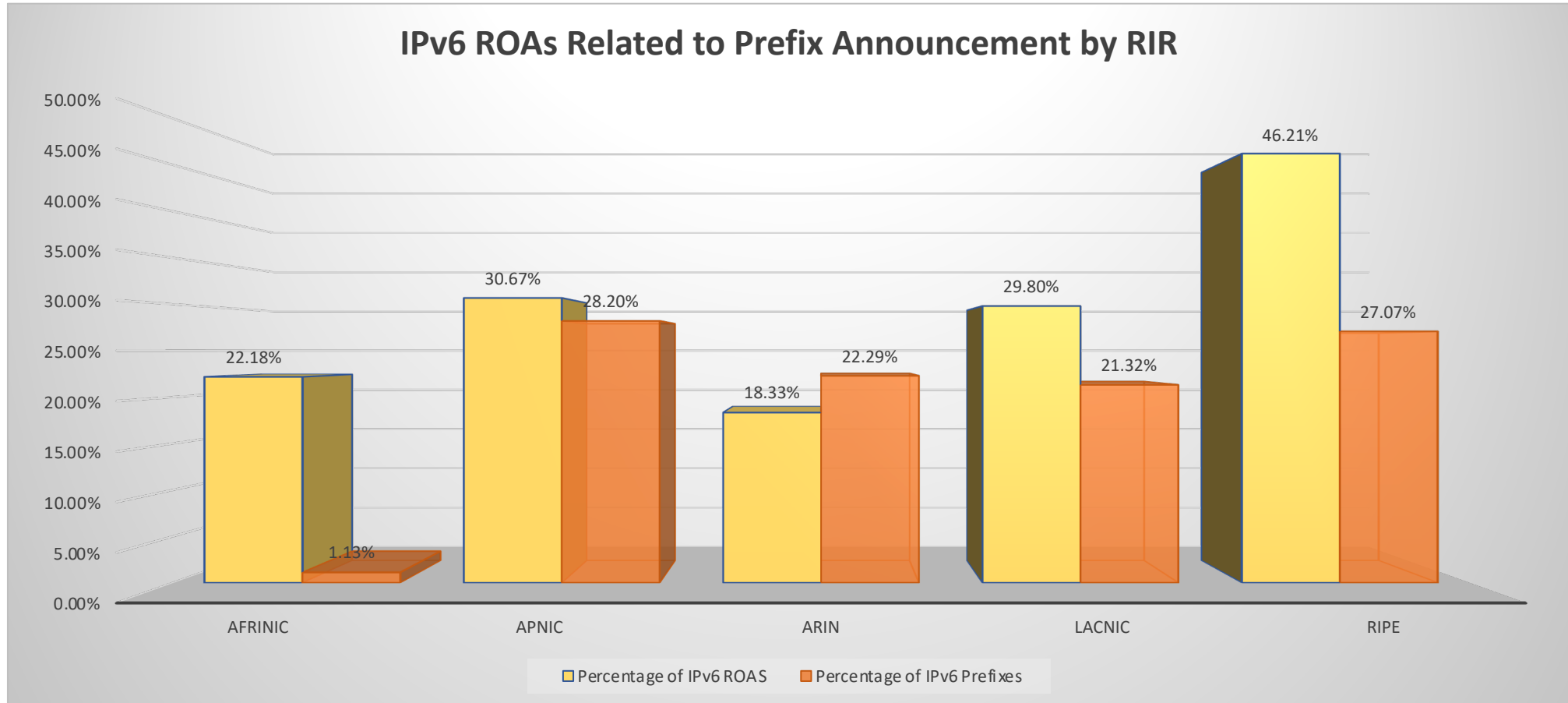
# RPKI IPv4 versus IPv6



# RPKI IPv4 versus IPv6



# RPKI IPv4 versus IPv6



# 25 Years of IPv6

## Summary:

- Over 30 percent of the world's Internet users are routed over IPv6, and this is increasing steadily.
- The IPv6 routing table growth rate is outpacing IPv4.
- Internet user numbers are increasing at a rapid rate, and IPv6 is the only protocol that has room for them.

Thank you!

Questions?