# IPv6 Presentation Template

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(Make this title your own!)

# What's happening with IPv4?

- IPv4 exhaustion (link to RIRs and highlight relevant trends for your region)
- Regional Internet Authorities are in various phases of IPv4 exhaustion
- Cloud providers are acquiring IPv4 resources to power their services while they spin up IPv6
- IPv4 acquisition costs are expected to be passed on to the downstream customer
- With limited IPv4 resources available at the RIR level, companies will need to look at third party services

# Why IPv6?

- IPv6 provides a (MUCH) larger address space ([Watch video](#))
- Regional Internet Registries are in various phases of IPv4 exhaustion
- Moving forward, the price of IPv4 addresses will only go up
- You may need to rent addresses from large companies who have already bought considerable portions of the address space
- IPv4 and IPv6 can be used together (dual stack)

# Global State of IPv6 Adoption



https://www.google.com/intl/en/ipv6/statistics.html#tab=per-country-ipv6-adoption
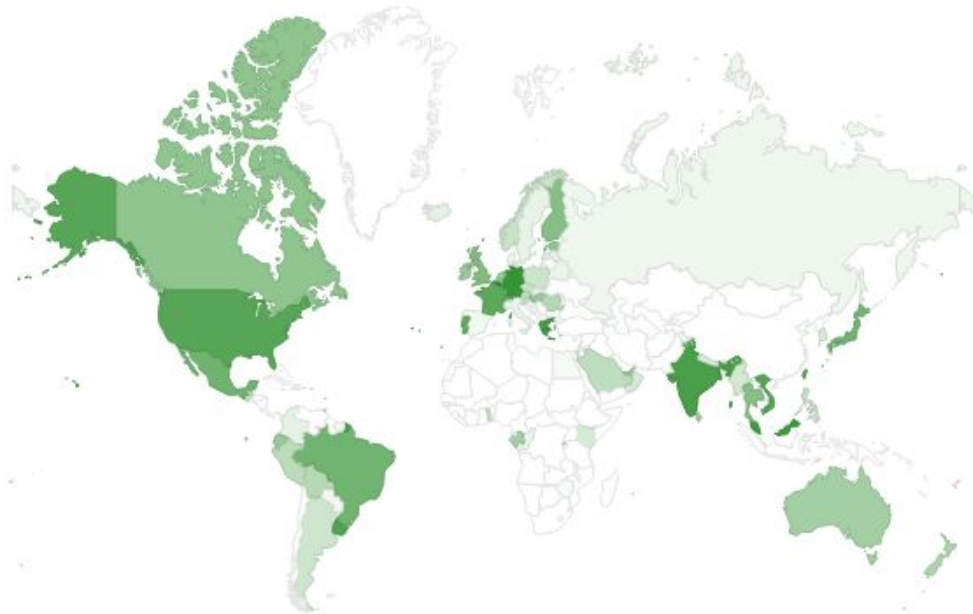
"Some kind of big bold quote that really helps put this into perspective."

*- Person we respect*

# The Power of IPv6: Automation

- Greater integration with provisioning systems
- Centralized systems that talk to each other, siloes need to be tamed!
- API driven infrastructure

# The Power of IPv6: Scalability

Scale of IPv6 requires non-spreadsheet based strategies

Thinking of IPs as "resource pools" instead of individual objects/hosts

How to you bring scalability to the forefront while updating internal processes?

# The Power of IPv6: Speed

- Shifting from NAT/CGN to ACLs
- IPv6 brings about an evolution of your network management tools
- Side effect of IPv6 is flattening of infrastructure
  - What used to require firewall rules, NAT and 1918 space can be reproduced more simply in IPv6 due to minimal translation needs
  - IPv6 can leverage ACLs readily to minimize network hops and efficient routing

# IPv6 Solutions by Example 1

For your first example, you can start by sharing a starter project that can be IPv6 enabled. Something like an internal website/wiki or with the expansion of remote work, audit/survey of users with active IPv6 connections at their home offices.

The goal here is usually two fold:

1)  Show that IPv6 exists "in the wild" and isn't some far away goal
2)  Show that your current users/partners/customers are already using it

# IPv6 Solutions by Example 2

Another example might be shedding some light on the differences that IPv6 has regarding allocation planning. IPv4 environments are pretty easy to subnet and understand utilization. IPv6 changes things a bit - so share some examples.

For instance:

1) In our business, we manage hosts using this plan and have this utilization
2) In IPv6, we would use allocations in a similar way, but our pool(s) would be significantly bigger

For a fun read - check out https://www.howfunky.com/2015/06/ipv6-docker-and-building-for-scale.html?m=1 - has some great examples on the scale difference with IPv4 runout

# IPv6 Solutions by Example 3

You are creative - think of something unique to your business that IPv6 could positively impact!

"An optional quote that really adds some emphasis to what we've covered"

*- Person we respect*

# Call to Action

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Tie this in to your business opportunities