



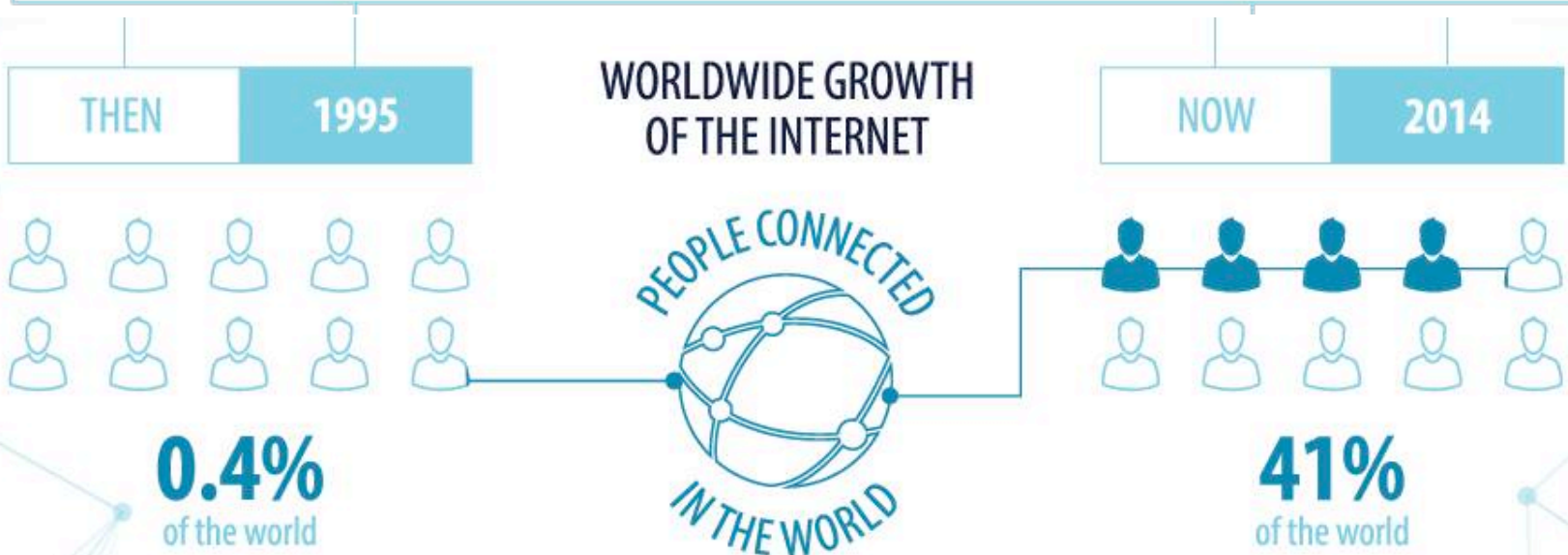
**CONNECT**  
TO THE **WHOLE** WITH **IPv6**  
**INTERNET**

# Changing the Campus IT Networks

John Curran, President and CEO, ARIN

29 July 2015

# Growth of the Internet



# IPv4 Depletion

**ARIN**  
American Registry for Internet Numbers  
est. 1997

 **RIPE**  
NCC  
est. 1992

 **APNIC**  
est. 1993

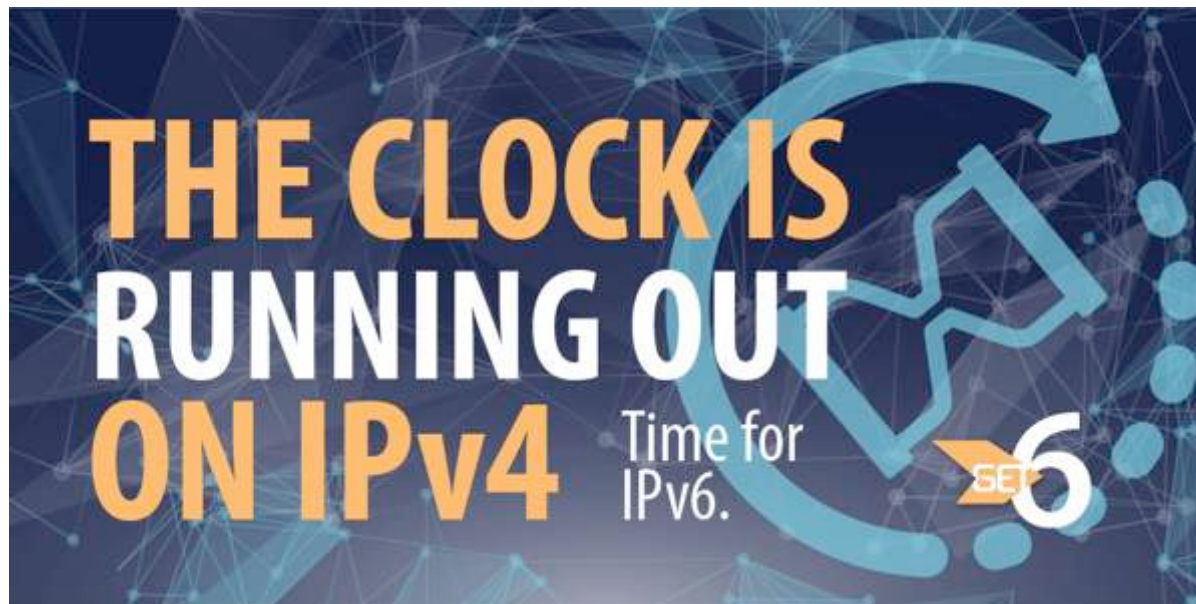
**lacnic**  
est. 2002

**AFRINIC**  
The Internet Numbers Registry for Africa  
est. 2005



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# ARIN IPv4 Depletion Imminent



- Will not affect your ability to surf the Internet
- But your ISP needs to plan to connect new customers to the public Internet



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# Your Public-Facing Website

- Will perform better if connected to the Internet with both an IPv4 & an IPv6 address
  - by adding IPv6 connectivity to your existing web site
- Your web hosting provider or IT department may already working this, but now is the time to confirm



# Better Performance Over IPv6



- Facebook says it has seen users' news feeds loading 20% to 40% faster on mobile devices using IPv6

# What's campus IT to do?



# Get your campus ready for IPv6

AS MORE SITES ARE IPV6 ENABLED



Share across the entire Internet without IPv4 restrictions



Reach new user communities connecting via IPv6 only



Enhanced user experience with end-to-end connectivity



Produce better targeted content with more accurate analytics





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# Your Complete IPv6 Checklist

- Get your IPv6 address space
- Set up IPv6 connectivity (native or tunneled)
- Configure your operating systems, software, and network management tools
- Upgrade your router, firewall, and other hardware
- Get your IT staff training
- Enable IPv6 on your website





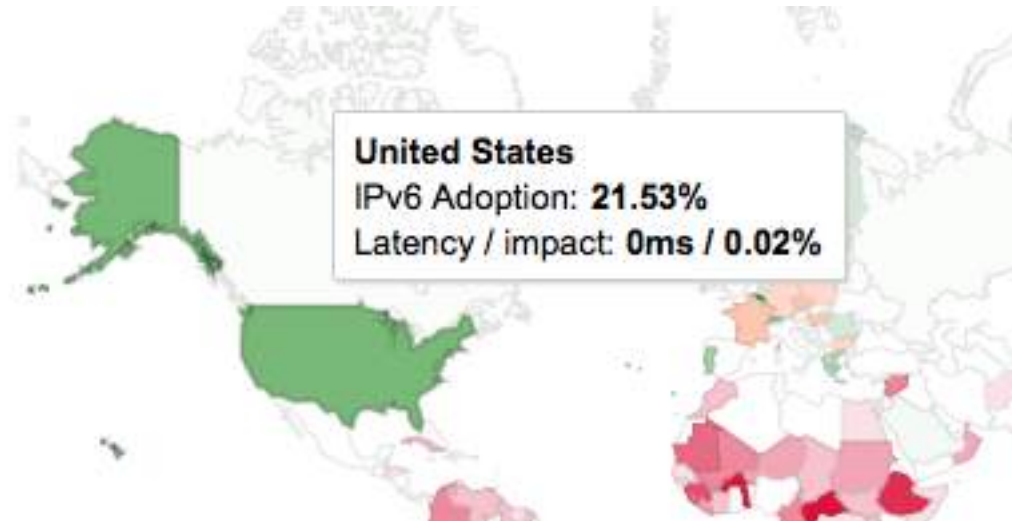
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# Why move to IPv6 now?

- The public Internet is moving to IPv6
- Costs aren't as high as you think
  - Cost of IPv4 will increase
  - Make part of purchasing decisions early
  - ROI – performance
- Value in experience working with IPv6 sooner



# IPv6 Deployment – US ISPs



- > 20% of US customers connected via IPv6 up from 10% one year ago today & growing rapidly



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# Get your IPv6 from ARIN



# Talk to your ISP about IPv6 services

- Many transition technologies available
  - Research options & make architectural decisions



# Dual-stack your network

- Operating systems, software, and network management tools





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# Make your servers reachable over IPv6

- Mail, Web, Applications
- Operating systems, software, & network management tools



# Audit your equipment and software





# Encourage vendors to support IPv6





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# Get IPv6 training for staff





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# Enable IPv6 on your website

WEBSITES THAT ARE FULLY

**IPv6**  
ENABLED

**MUST:**



PUBLISH  
AAAA RECORDS



BE REACHABLE OVER AN  
IPV6 CONNECTION



SERVE DNS  
OVER IPV6



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# Steps To Get Your Website IPv6-Enabled



**START  
HERE »**



**CHECK YOUR EQUIPMENT  
& SOFTWARE**



**GET EDUCATED**



**FIND OUT IF PROVIDERS  
SUPPORT IPv6**



**MAKE AN  
ADDRESSING PLAN**



**EXPERIMENT**



**MONITOR**



**ADVERTISE IN DNS**

VISIT [TEAMARIN.NET/GET6](https://teamarin.net/get6)  
TO LEARN MORE

[TeamARIN.net/get6/who-gets-it/](https://TeamARIN.net/get6/who-gets-it/)



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# Operational Resources





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# Questions?

