



# ARIN NANOG

---

ON THE ROAD

**San Diego, California**  
25 February 2014

# Obtaining IP Addresses I: ARIN's IPv4 Inventory, Depletion Projections, and Countdown Plan

**Jon Worley**  
Senior Resource Analyst

# ARIN's IPv4 Inventory

As of 20 February 2014, ARIN has 1.39 /8 equivalents of IPv4 addresses remaining

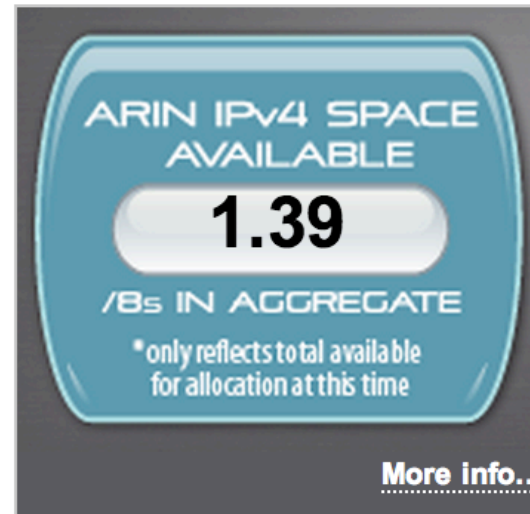
IPv4 inventory published on ARIN's website: [www.arin.net](http://www.arin.net)

Updated daily @ 8PM ET

# Prefix Length Breakdown

## Block Size Distribution of Remaining IPv4 Inventory

Total /9: 1  
Total /10: 2  
Total /11: 1  
Total /12: 1  
Total /14: 2  
Total /15: 2  
Total /16: 12  
Total /17: 11  
Total /18: 19  
Total /19: 20  
Total /20: 16  
Total /21: 89  
Total /22: 93  
Total /23: 514  
Total /24: 1259

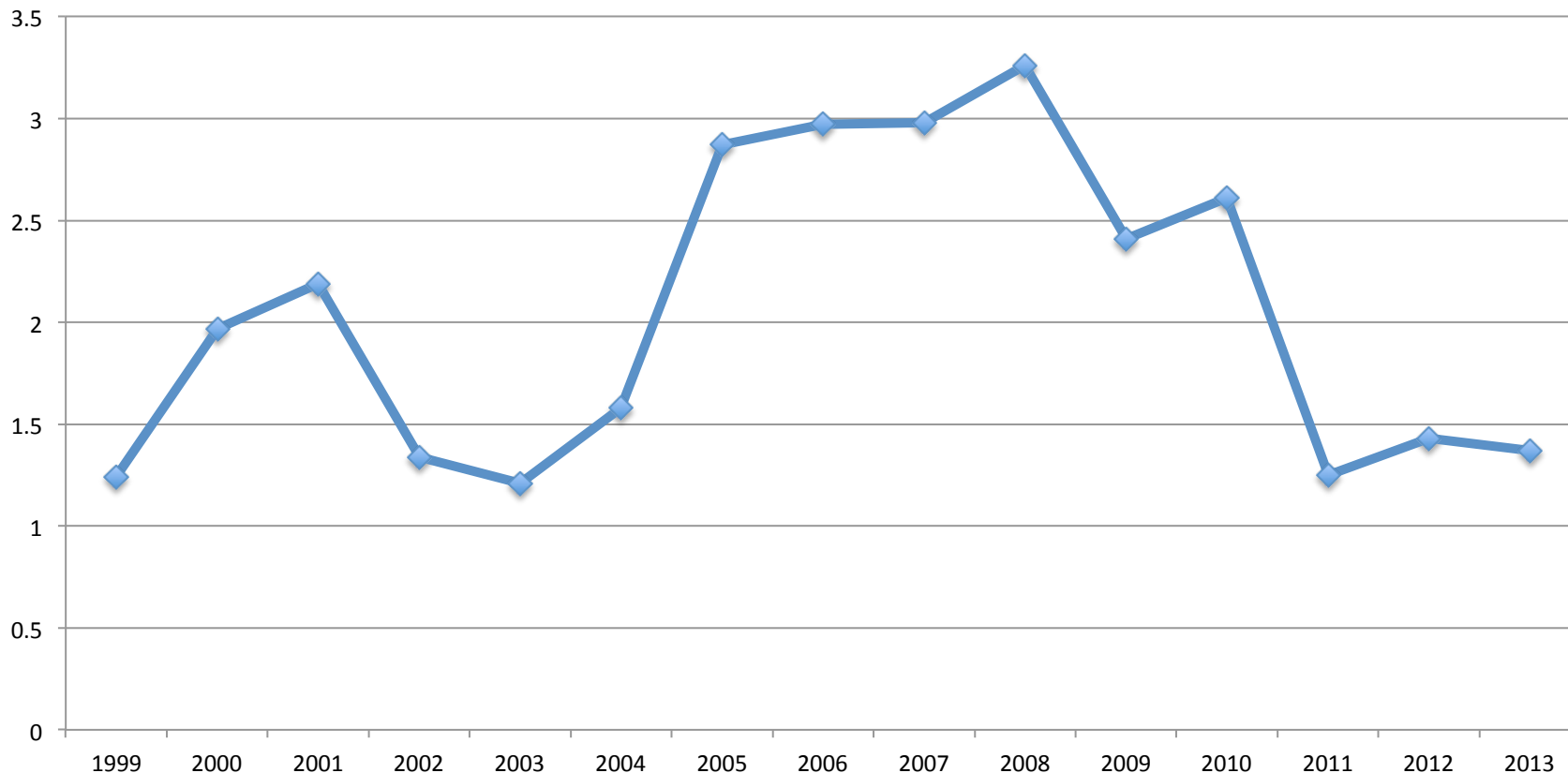


## ARIN IPV4 COUNTDOWN INFORMATION

- > [IPv4 Countdown Plan](#)
- > [Phase 2 Information](#)
- > [Phase 3 Information](#)

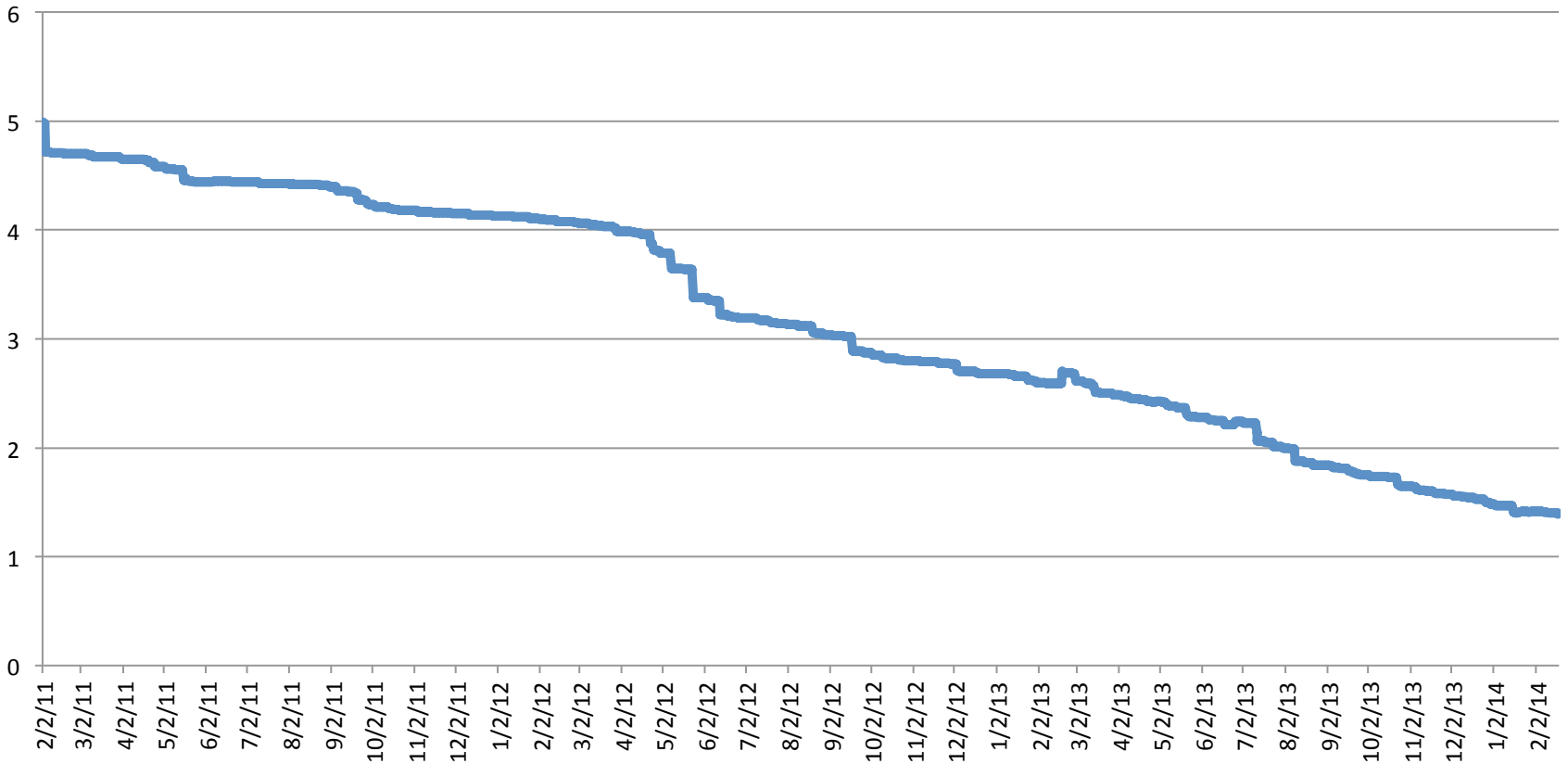
# IPv4 Annual Burn Rate

**/8 Equivalents Issued**



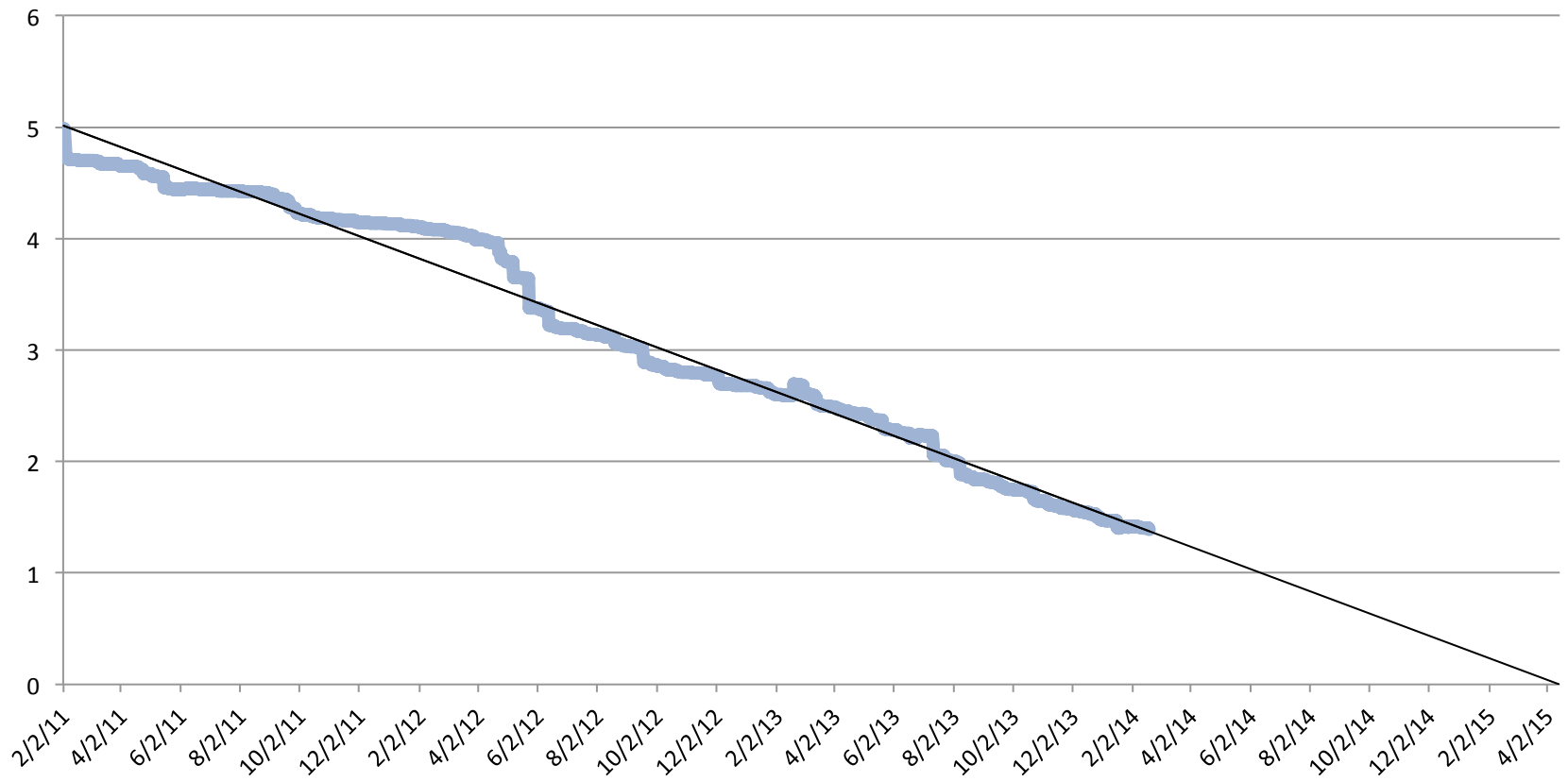
# ARIN's IPv4 Free Pool

/8 Equivalents in ARIN Free Pool



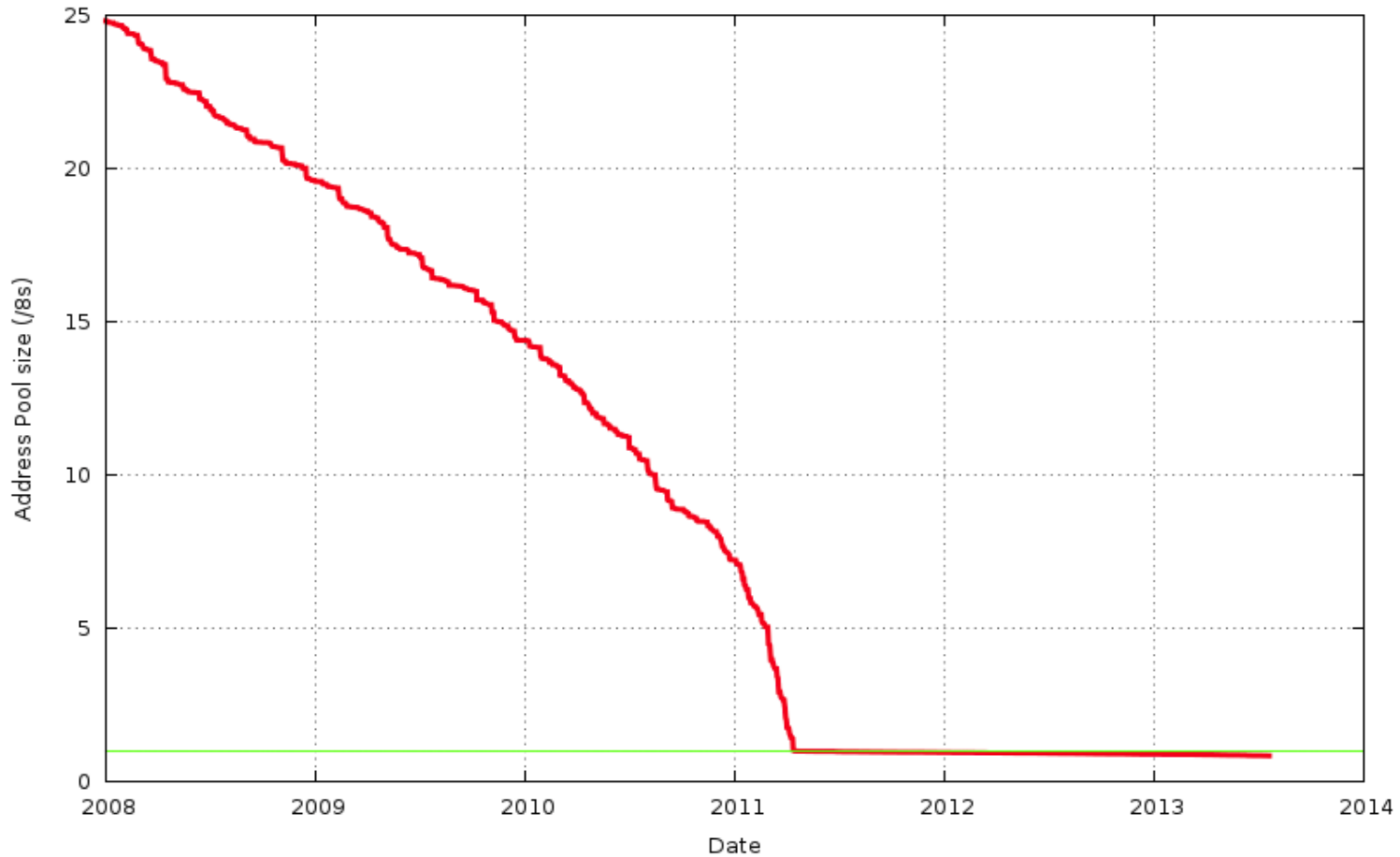
# Linear Depletion Projection

/8 Equivalents in ARIN Free Pool



# APNIC Depletion

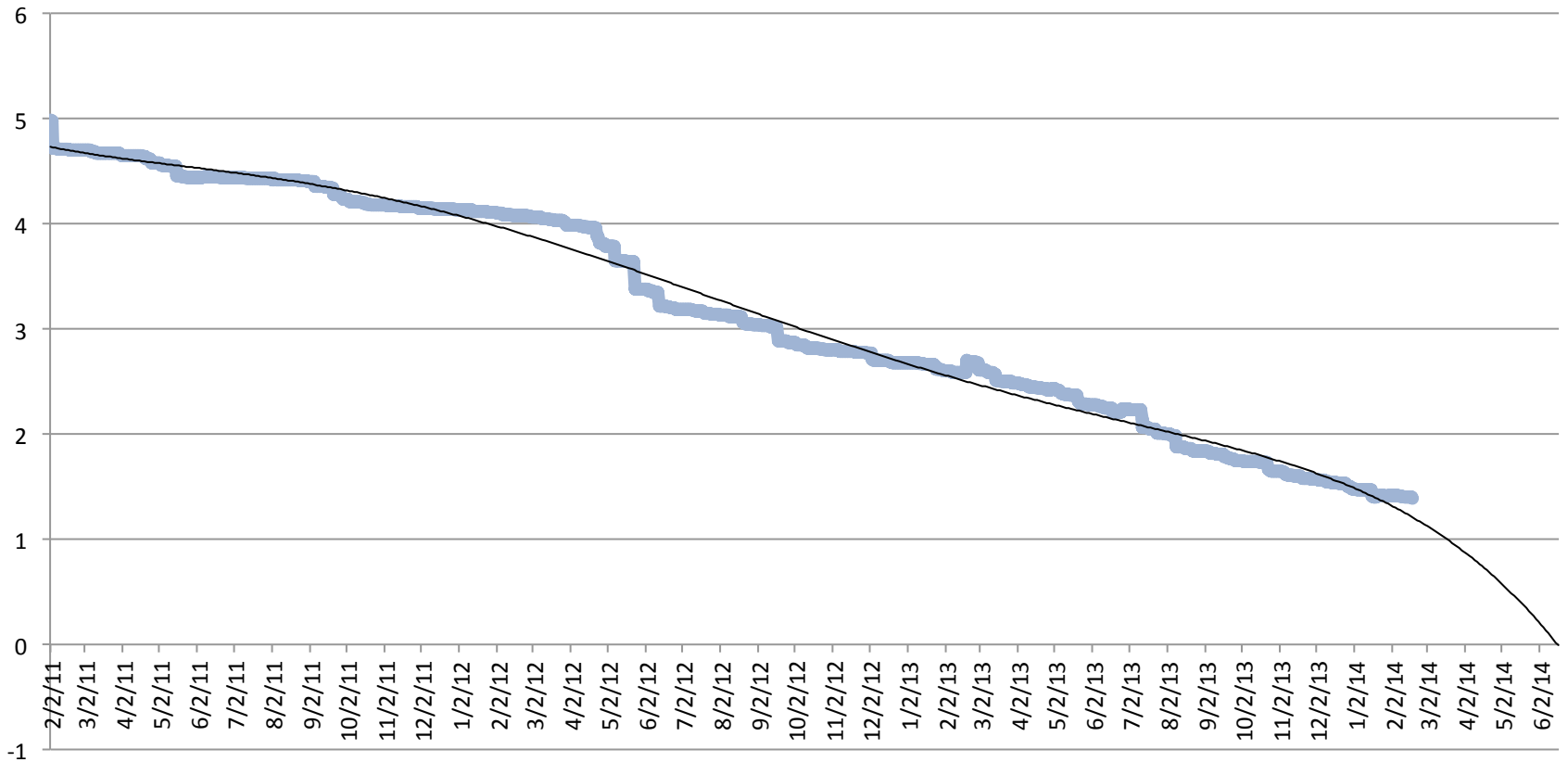
APNIC IPv4 Address Pool





# “Run On The Bank” Projection

/8 Equivalents in ARIN Free Pool



## Which Projection is More Likely?

- Probably linear, but it only takes one unexpected very large request (e.g. / 9) to change things completely
- Policy requirement to only fill requests with one block will prevent large ISPs from depleting all of the small blocks

# IPv4 Countdown Plan



## IPv4 Countdown Plan – Phase 3

- /16 and larger requests team-reviewed in a first in, first out fashion
- 60 days to complete payment/RSA for IPv4 requests
- IPv4 hold period moves from 6 to 3 months

## IPv4 Countdown Plan – Phase 4

- Begins at 1 /8 Equivalent Left
- All IPv4 requests team-reviewed and processed on a first in, first out basis
- IPv4 hold period drops to 2 months

# Qualifying for IPv4 - ISPs

- Multi-homed
  - 2 /24s reassigned to you
  - data to show 2 /24s efficiently used
- Single-homed
  - 16 /24s reassigned to you
  - data to show 16 /24s efficiently used
- Immediate need

## IPv4 ISP Data Typically Requested

- Mapping of static IPs/subnets to customer names and street addresses
- List of all dynamic pools with prefix/range assigned, area served, util %
- Mapping of internal subnets with description and # IPs used

# Other IPv4 ISP Data Requested

- Customer justification data
- Customer contact information and proof of customer payments
- Data must be verifiable



## 3 Month Supply Calculation

- NRPM: Justified need, not solely predicted growth
- Utilization rate of last allocation
- Immediate need for exceptional circumstances

# Qualifying for IPv4 – End Users

- Multi-homed
  - 64 IP addresses used immediately
  - 128 IP addresses used within one year
- Single-homed
  - 1,024 IP addresses used immediately
  - 2,048 IP addresses used within one year

# IPv4 End User Data Requested

- Subnet mapping showing each subnet to be created and for each subnet
  - description of its purpose
  - # IPs used within 30 days
  - # IPs used within one year

# Hosting: ISP or End User?

- Dedicated servers, VPS, colocation = ISP
- SaaS, VPN, ASP = End User

## The Bottom Line

- An IPv4 request submitted today could be your last
- Plan appropriately to ensure continued growth of your network

# Q&A

