

# IPv4 Final Distribution

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Business Processes

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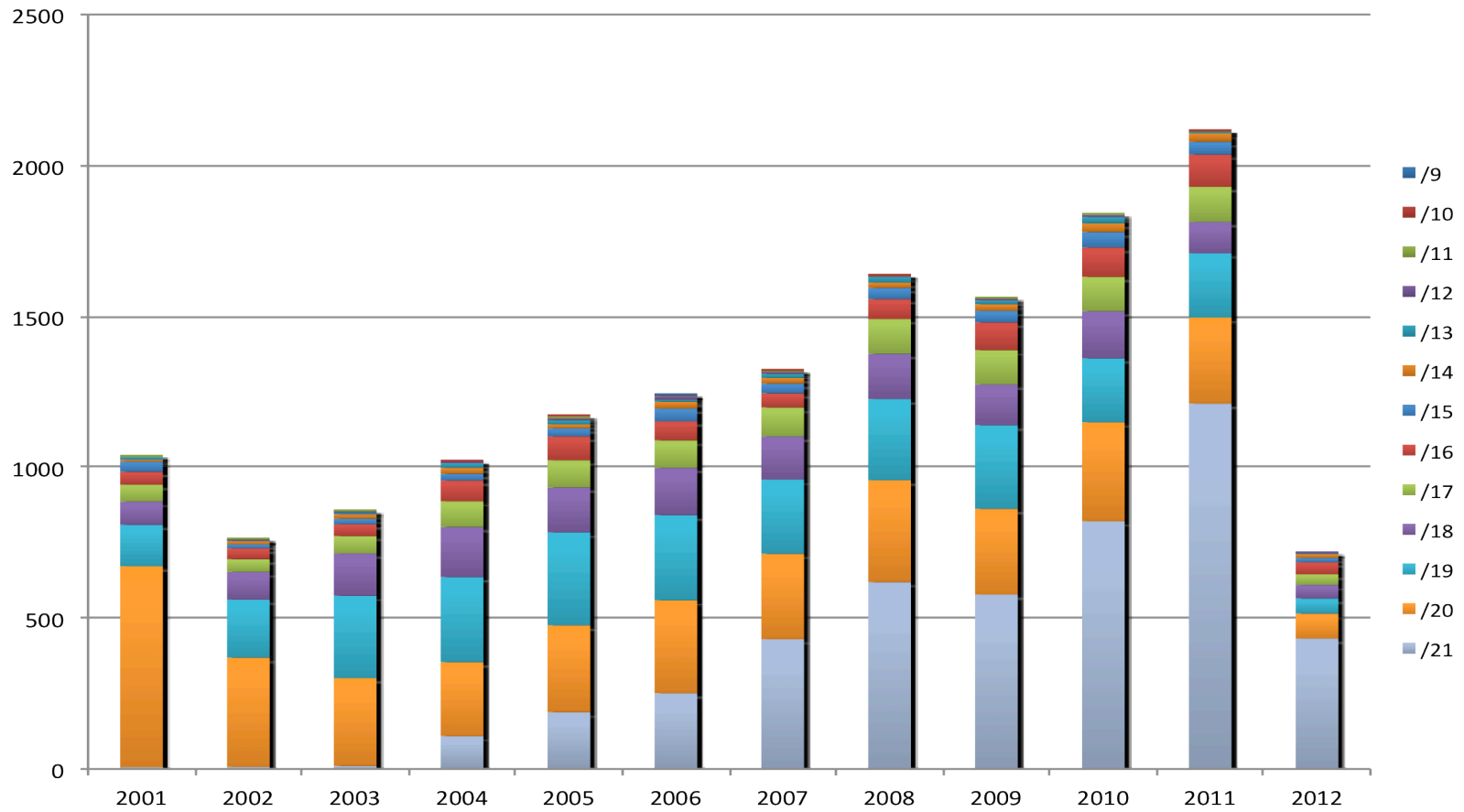
# Current Situation

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- IANA depleted its available pool of IPv4 address space in February 2011
- APNIC reached the last /8 in April 2011
- RIPE NCC will reach the last /8 soon...

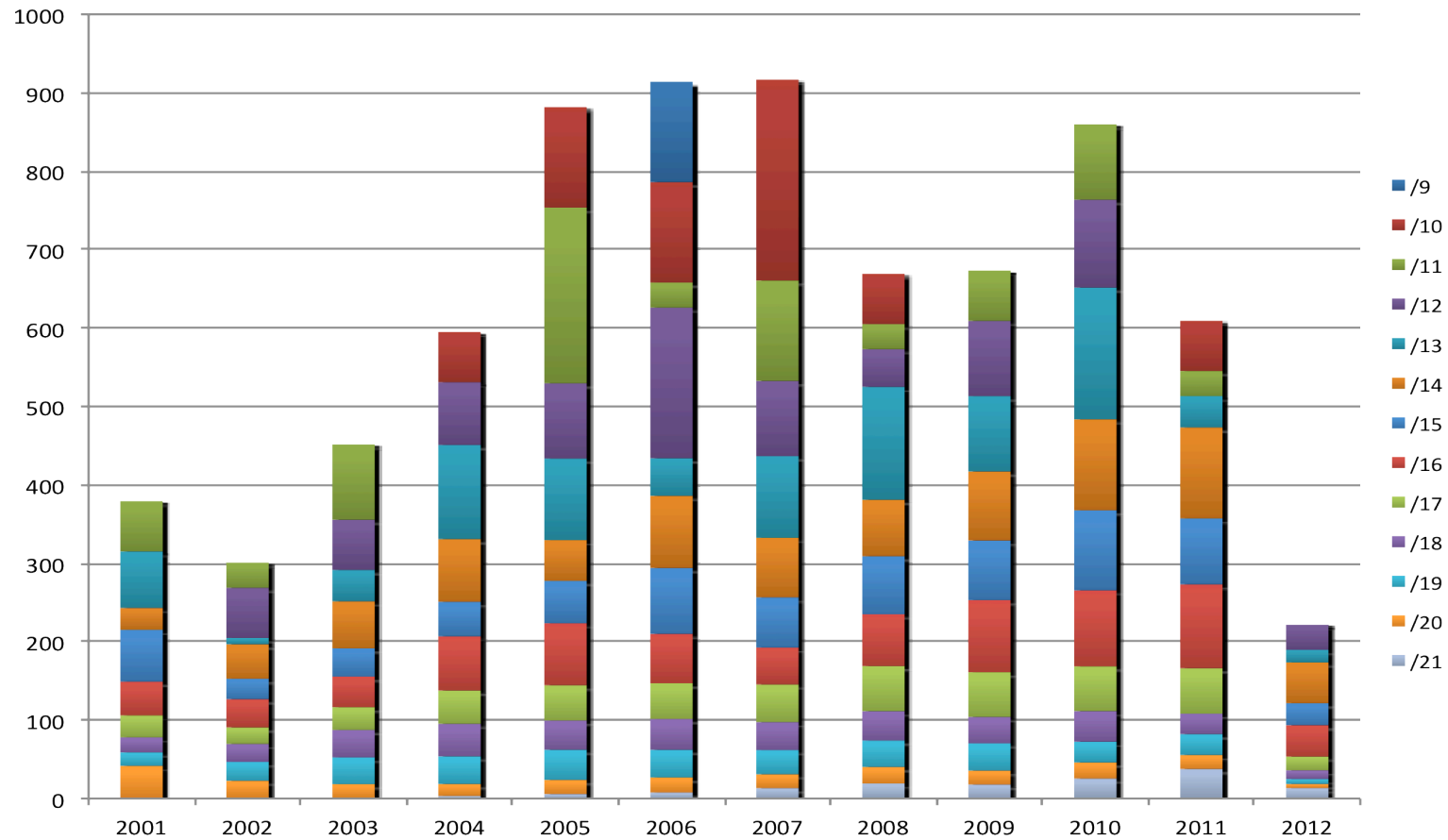
# IPv4 Distribution

## IPv4 Allocations by number of allocations



# IPv4 Distribution (continued)

## IPv4 Allocations by size (/16s)

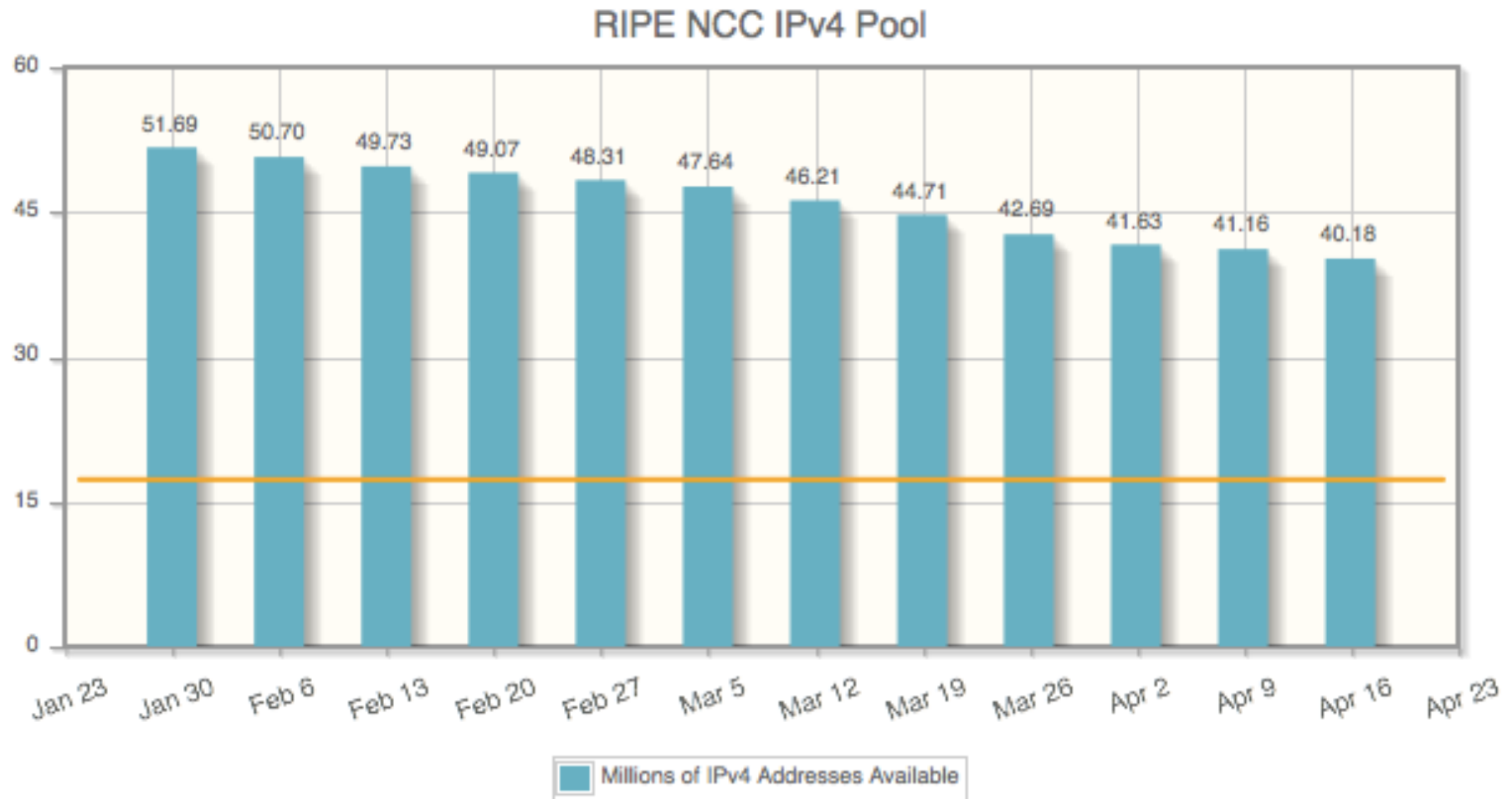


# Run Out Fairly

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- Run out fairly policy accepted in December 2009
- Gradually reduced the allocation and assignment periods
- Not intended to stretch the lifetime of the unallocated pool
- Ensuring the allocation and assignment of IPv4 resources remain perceived as “fair”

# RIPE NCC IPv4 Available Pool



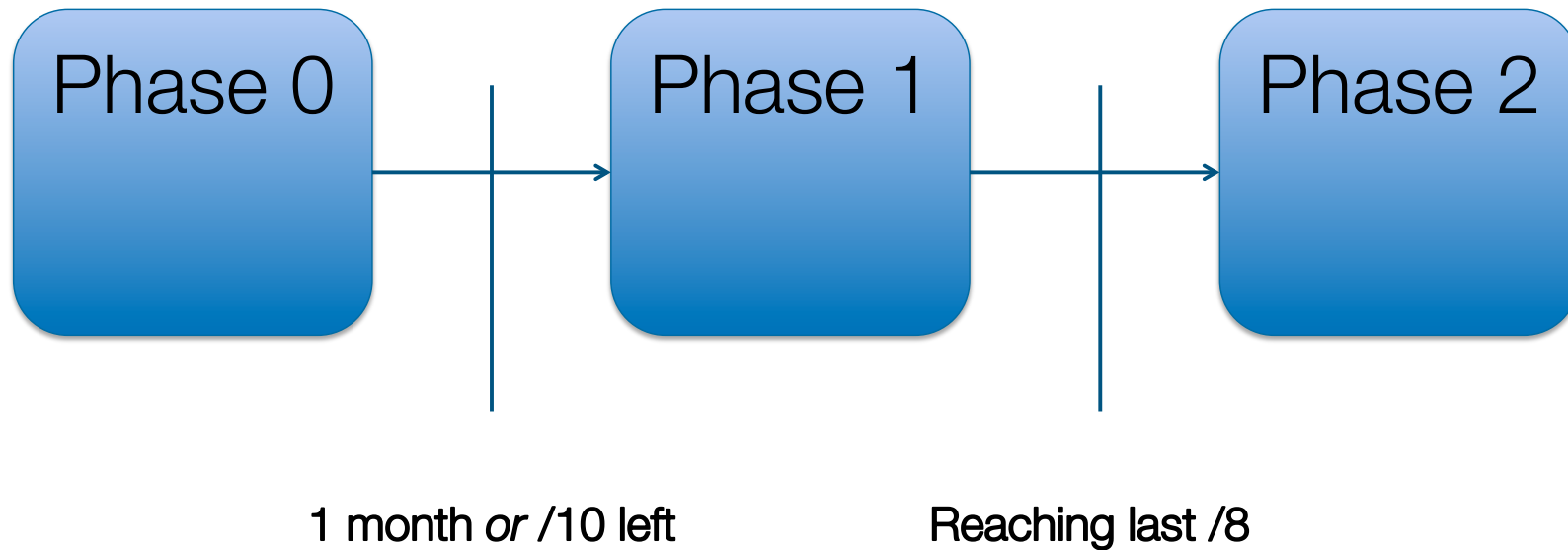
# Principles

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- No changes in evaluation procedures
- Fine tuning processes to further increase
  - Due diligence
  - Fairness
  - Consistency
  - Transparency

# Reaching Last /8 Phases

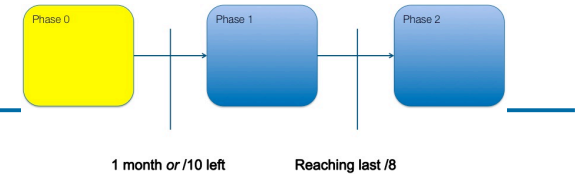
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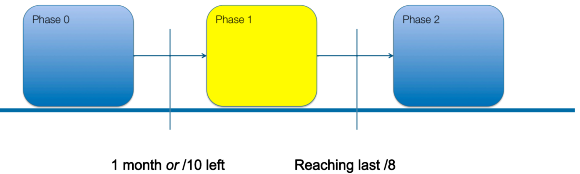
# Phase 0

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- Current phase
- New and ongoing requests for IPv4 space routed to a dedicated ticket queue
- New IPv4 graphs on [www.ripe.net](http://www.ripe.net)
  - IPv4 available pool
  - Number of hours a request for IPv4 addresses is waiting for a reply
  - Number of requests for IPv4 addresses in the wait queue
- Informing all requesters, members and potential members of the current situation

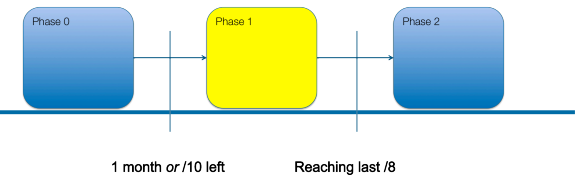
# Phase 1



- When the RIPE NCC has 1 month *or* a /10 left of IPv4 address space
- IPRAs will work in pairs
  - Fairness, consistency and transparency
  - Longer response times
- Change in ‘call back’ procedure
  - Requester called only when ticket at top of the queue
- ‘Approvable’ tickets moved to a separate queue
  - Approval artificially delayed until 9:00 next morning
  - Allows for additional checks

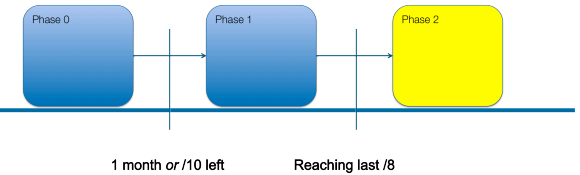
# Phase 1 (continued)

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- Requests for IPv4 address space evaluated between 9:00 and 17:00
- Evaluations of large requests escalated between 17:00 and 9:00
- If Phase 1 ends on a Friday or the day before a bank holiday, we will continue on the next day

# Phase 2



- When the RIPE NCC starts allocating IPv4 address space from the last /8
- Members can receive **one** /22 (1,024 IPv4 addresses), even if they can justify a larger allocation
  - LIRs must already have an IPv6 allocation from an upstream LIR or the RIPE NCC
- No new IPv4 Provider Independent (PI) address space will be assigned

# Useful Links

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Public exhaustion pages

<http://www.ripe.net/internet-coordination/ipv4-exhaustion>

IPv4 available pool chart

<http://www.ripe.net/internet-coordination/ipv4-exhaustion/ipv4-available-pool-graph>

IPv4 response time statistics

<http://www.ripe.net/lir-services/resource-management/tools-for-lirs/reponse-time-ipv4>

Questions?

