

# NRO Status Report

## IEPG San Diego

### 5 November 2006

Prepared by  
Regional Internet Registries



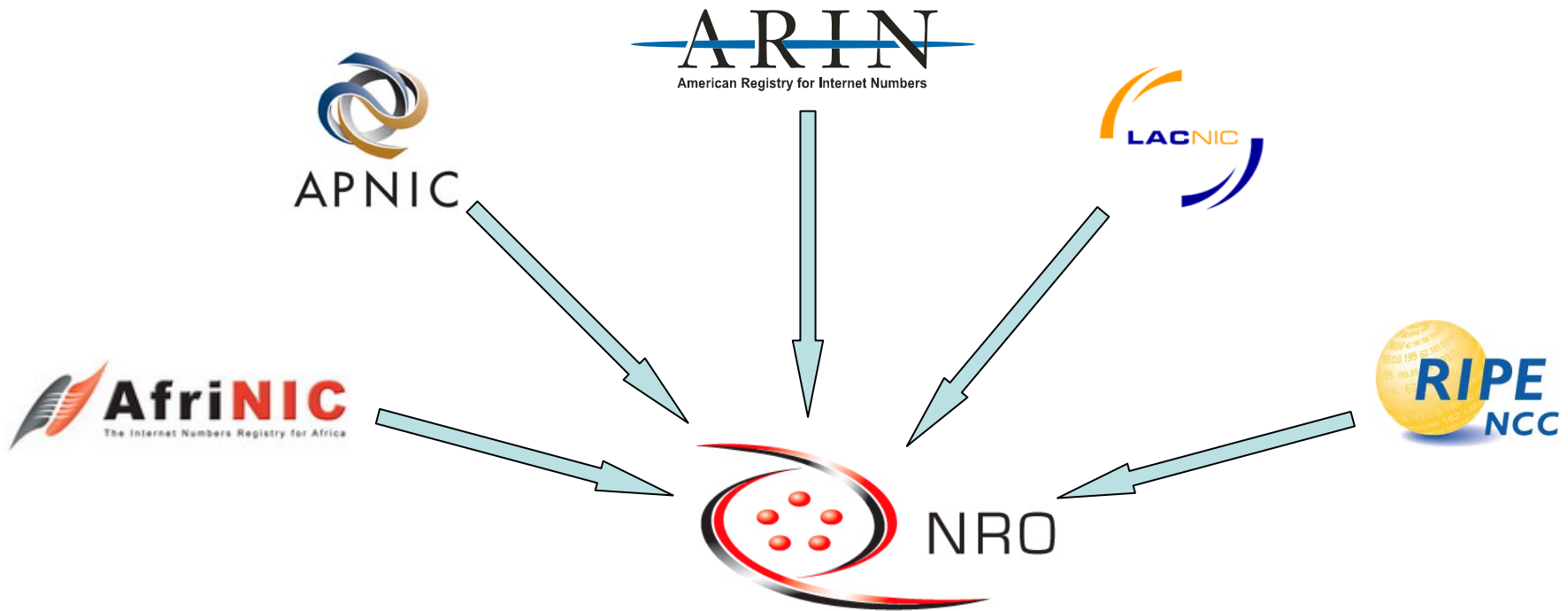
# Overview

- Organization
- Internet Number Resource Status Report
- Policy Discussions

# ORGANIZATION

# Number Resource Organization

## 24 October 2003



Formed by the Regional Internet Registries to formalize their cooperative efforts, the NRO exists to protect the unallocated Number Resource pool, to promote and protect the bottom up policy development process, and to act as a focal point for Internet community input into the RIR system.

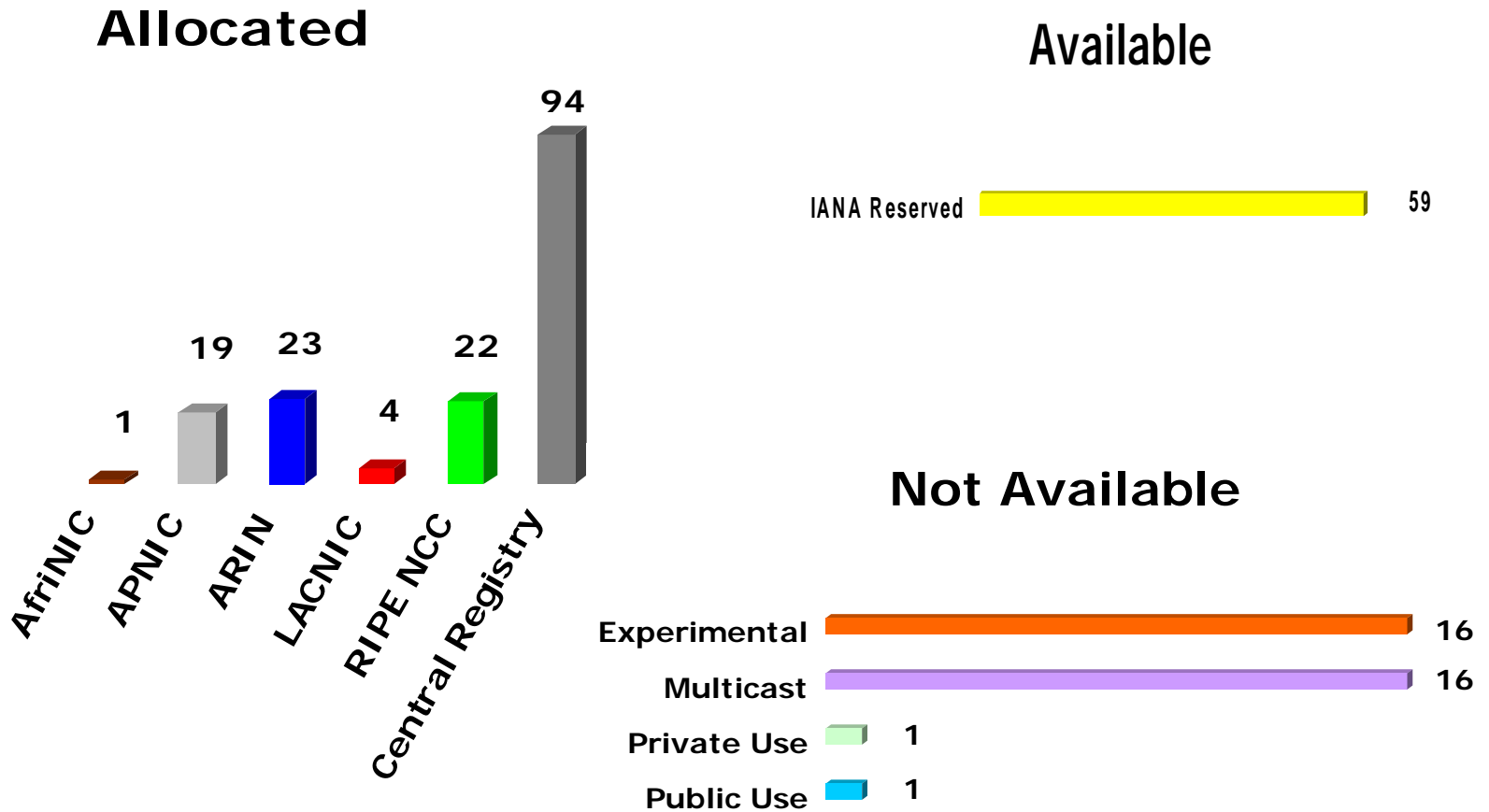
# NRO – Current Main Topics

- **ICANN**
  - **Contract**
  - **Issued Each RIR One (1) /12 IPv6**
- **IGF**
  - **Athens Meeting**
- **ITU**
  - **Liaison**
  - **Plenipotentiary Meeting – Antalya**
  - **World Telecom – Hong Kong**
- **Joint RIR Activity**
  - **Certification Issues**
  - **Harmonization of IP allocation practices**

# **Internet Number Resource Status Report**

**As of 30 September 2006**

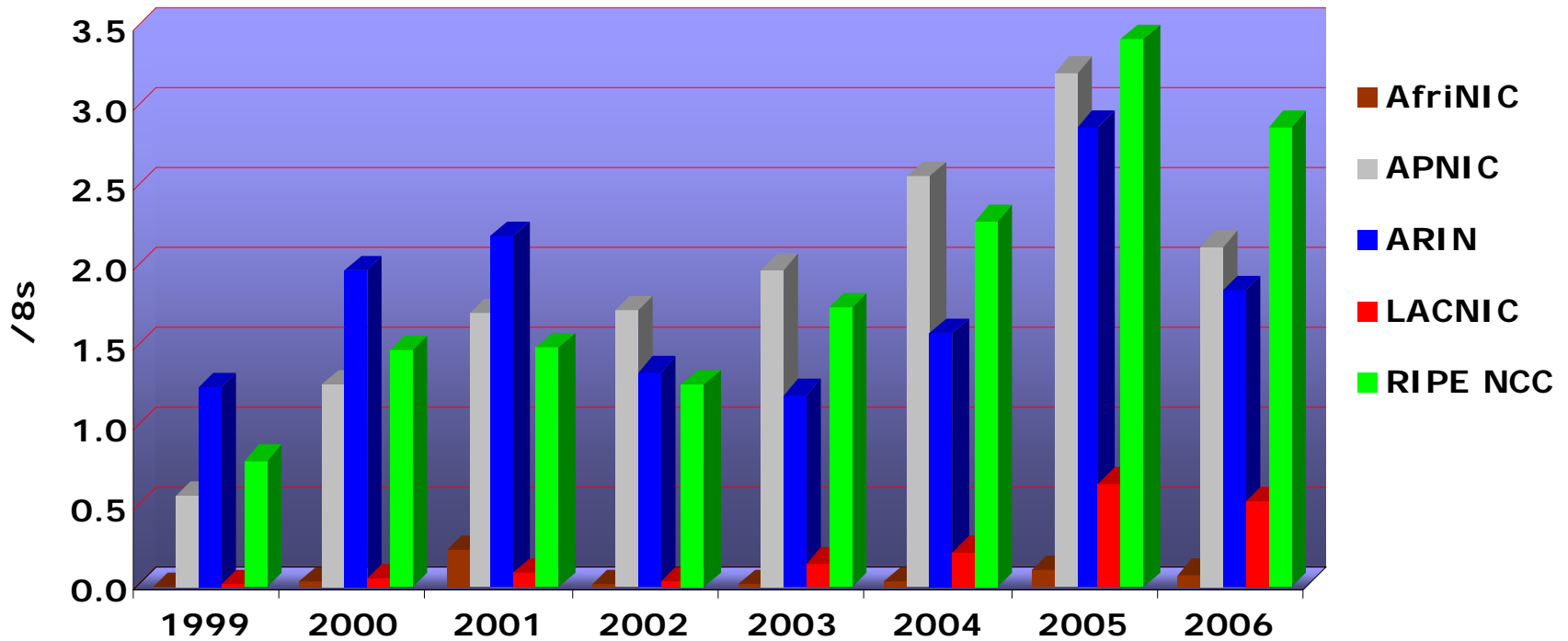
# Status of IPv4 Address Space (/8s)



# IPv4 Allocations

## RIRs to LIRs/ISPs

### Yearly Comparison

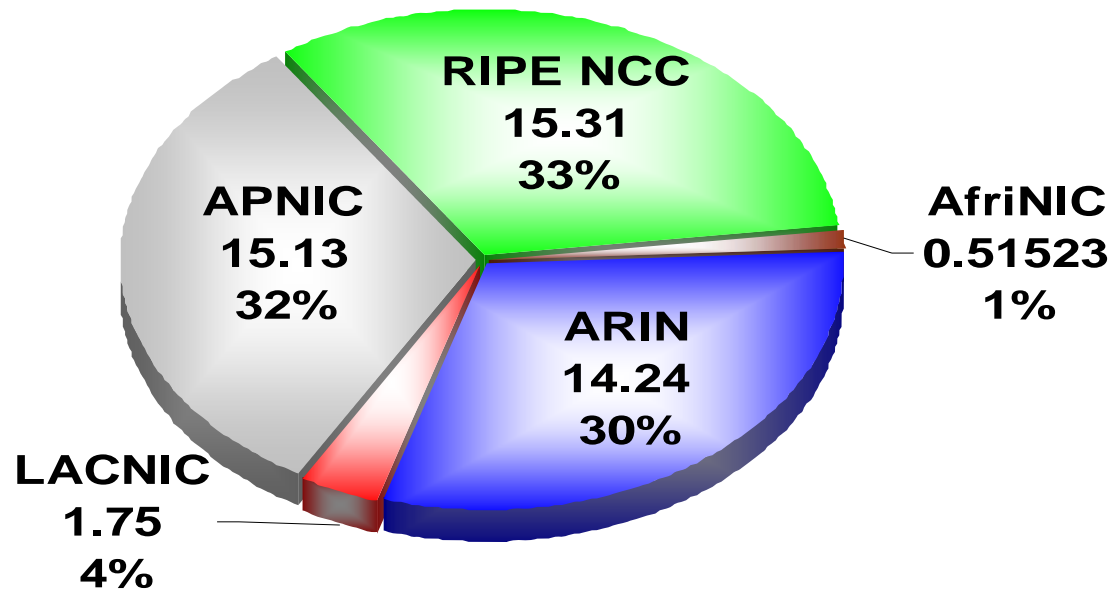




# IPv4 Allocations

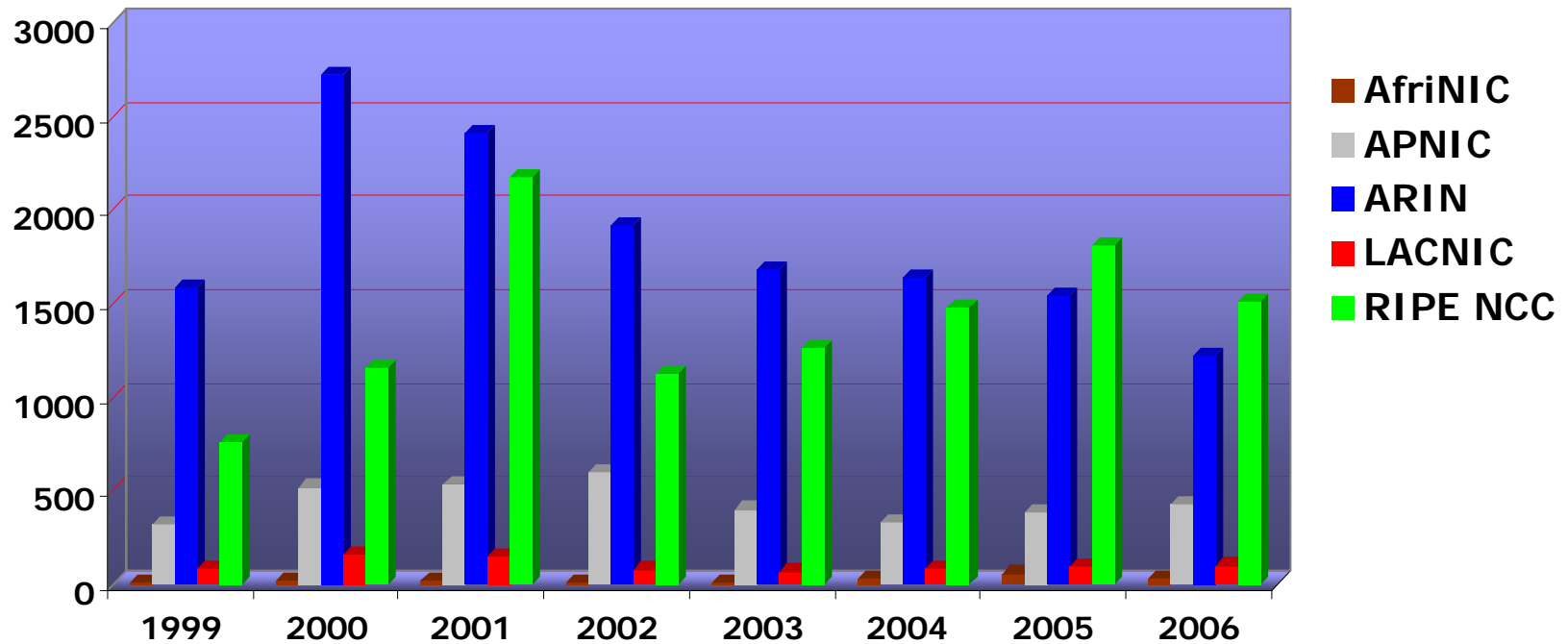
## RIRs to LIRs/ISPs

Cumulative Total (Jan 1999 – Sept 2006)



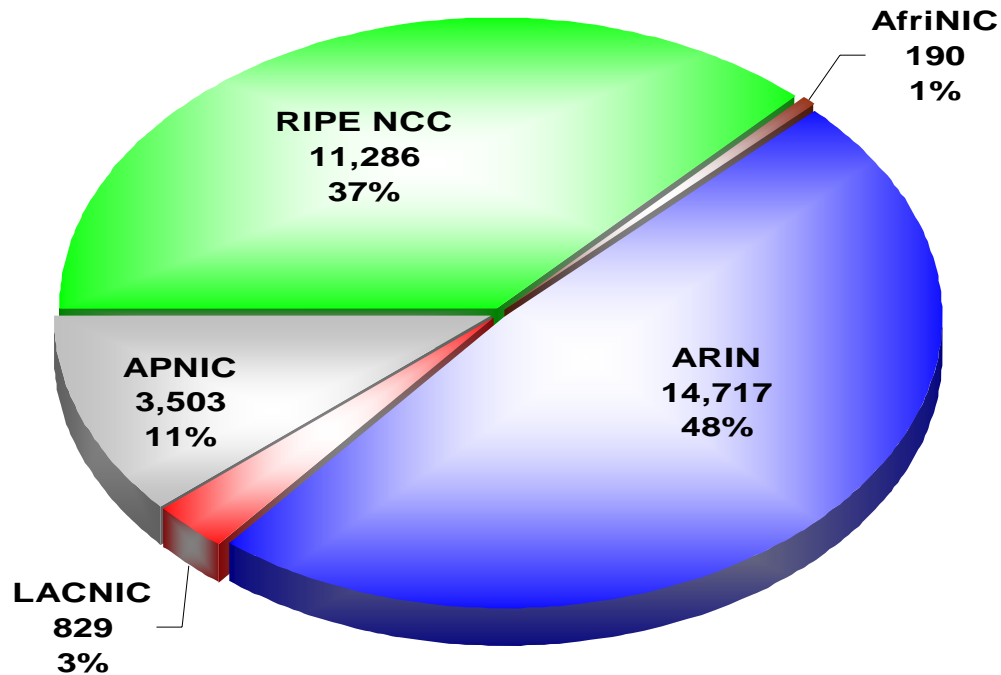
# ASN Assignments

## Yearly Comparison

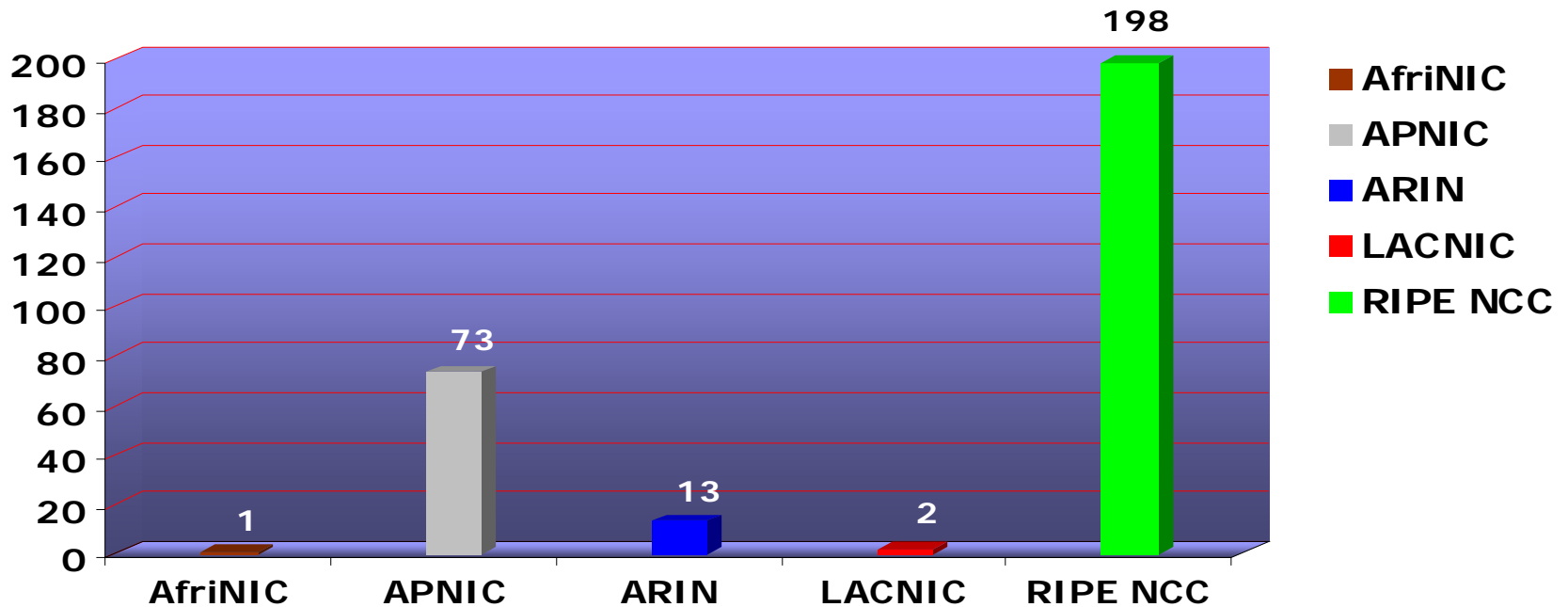


# ASN Assignments

## Cumulative Total (Jan 1999 – Sept 2006)



# IANA IPv6 Allocations to RIRs\*

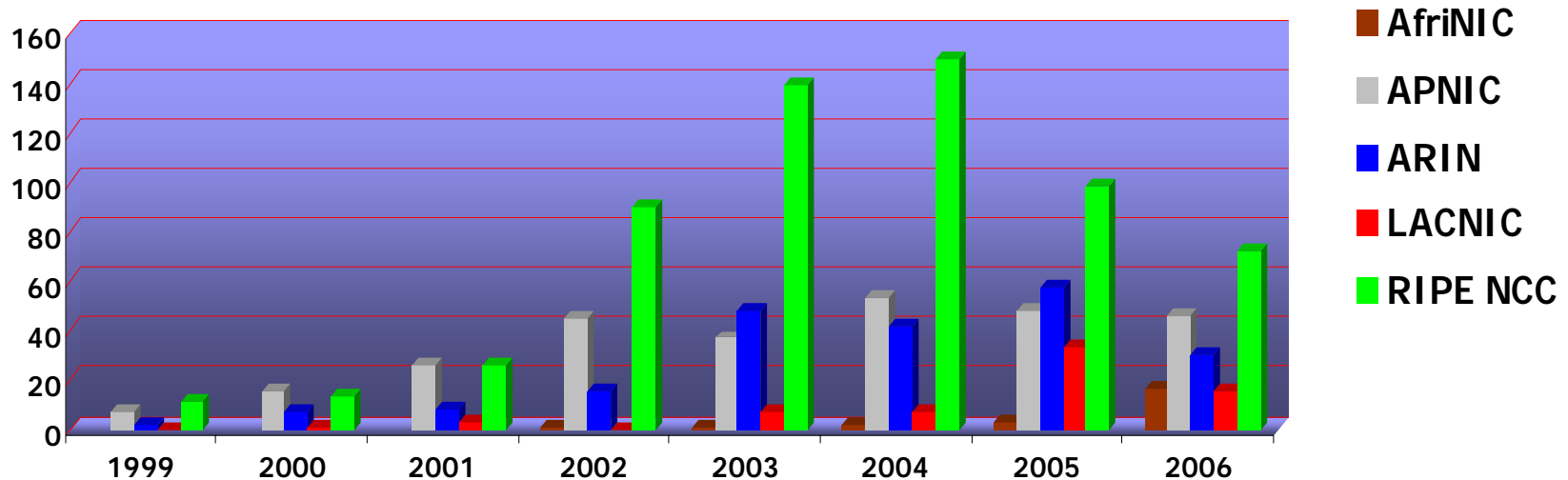


\*number of /23s

# IPv6 Allocations

## RIRs to LIRs/ISPs

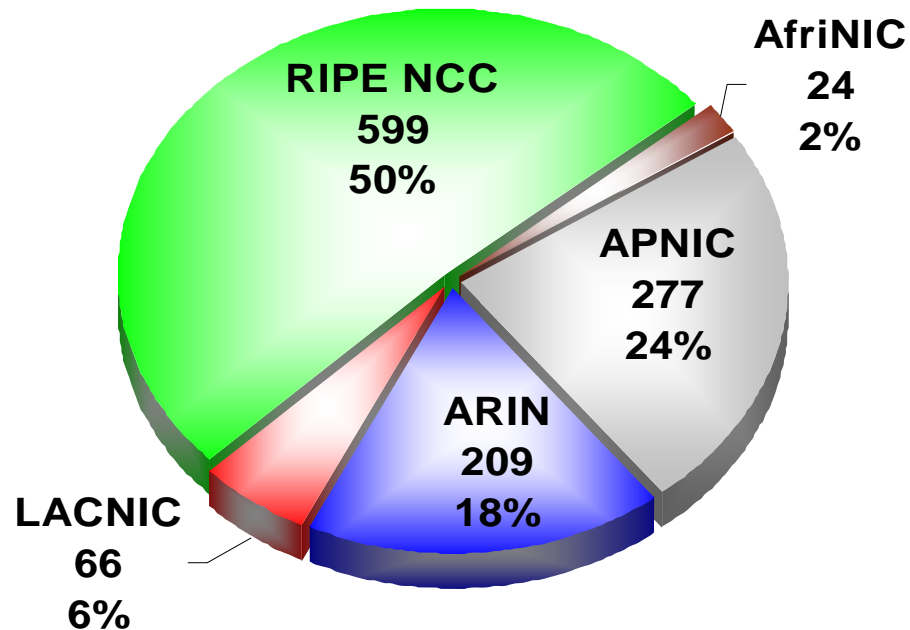
### Yearly Comparison



# IPv6 Allocations

## RIRs to LIRs/ISPs

Cumulative Total (Jan 1999 – Sept 2006)



# Links to RIR Statistics

- **RIR Stats:**

<http://www.nro.net/statistics/>

- **Raw Data/Historical RIR Allocations:**

<http://www.aso.icann.org/stats>

<http://www.iana.org/assignments/ipv4-address-space>

<http://www.iana.org/assignments/as-numbers>

<http://www.iana.org/assignments/ipv6-unicast-address-assignments>

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# Policy Activity






# IPv4 Policy Discussions

RIR	TOPIC	STATUS
 <p><b>Afrinic</b> The Internet Numbers Registry for Africa</p>	<ul style="list-style-type: none"> <li>• End User Assignment Criteria</li> <li>• Temporary Assignments</li> </ul>	<ul style="list-style-type: none"> <li>• Adopt</li> <li>• Adopt</li> </ul>
 <p><b>APNIC</b></p>	<ul style="list-style-type: none"> <li>• None</li> </ul>	
 <p><b>ARIN</b> American Registry for Internet Numbers</p>	<ul style="list-style-type: none"> <li>• None</li> </ul>	
 <p><b>LACNIC</b></p>	<ul style="list-style-type: none"> <li>• 12 Month Allocation Period</li> <li>• Critical Infrastructure Assignments</li> <li>• Resource Recovery</li> </ul>	<ul style="list-style-type: none"> <li>• Adopt</li> <li>• Discuss</li> <li>• Adopt</li> </ul>
 <p><b>RIPE</b> NCC</p>	<ul style="list-style-type: none"> <li>• Anycast for TLD Services</li> <li>• 12 Month Allocation Period</li> <li>• Minimum Size for PI Assgnments</li> </ul>	<ul style="list-style-type: none"> <li>• Adopt</li> <li>• Discuss</li> <li>• Discuss</li> </ul>

# IPv6 Policy Discussions

RIR	TOPIC	STATUS
	<ul style="list-style-type: none"> <li>• PI Assignments for End Sites</li> <li>• Critical Infrastructure Assignments</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss</li> <li>• Discuss</li> </ul>
	<ul style="list-style-type: none"> <li>• PI Assignments for End Sites</li> <li>• /56 for End Sites</li> <li>• Critical Infrastructure Assignments</li> </ul>	<ul style="list-style-type: none"> <li>• Last Call</li> <li>• Last Call</li> <li>• Last Call</li> </ul>
	<ul style="list-style-type: none"> <li>• Micro Allocation for Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Last Call</li> </ul>
	<ul style="list-style-type: none"> <li>• PI Assignments for End Sites</li> <li>• HD Ratio</li> <li>• /56 for End Sites</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss</li> <li>• Adopt</li> <li>• Discuss</li> </ul>
	<ul style="list-style-type: none"> <li>• /56 for End Sites</li> <li>• HD Ratio</li> <li>• PI for End Sites</li> <li>• Anycast for TLD Services</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss</li> <li>• Discuss</li> <li>• Discuss</li> </ul>





# Other Policy Discussions

RIR	TOPIC	STATUS
	<ul style="list-style-type: none"> <li>• 4 Byte ASN</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss</li> </ul>
	<ul style="list-style-type: none"> <li>• None</li> </ul>	
	<ul style="list-style-type: none"> <li>• Capturing Route Origins</li> <li>• Residential Customer Privacy</li> </ul>	<ul style="list-style-type: none"> <li>• Last Call</li> <li>• Abandon</li> </ul>
	<ul style="list-style-type: none"> <li>• 4 Byte ASN</li> <li>• WHOIS Privacy</li> </ul>	<ul style="list-style-type: none"> <li>• Adopt</li> <li>• Discuss</li> </ul>
	<ul style="list-style-type: none"> <li>• 4 Byte ASN</li> <li>• POC Email Requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Adopt</li> <li>• Discuss</li> </ul>

# Public Policy Meetings

RIR	DATE	LOCATION
 <b>Afrinic</b> The Internet Numbers Registry for Africa	<b>27 – 28 November 2006</b>	<b>Mauritius</b>
 APNIC	<b>26 Feb – 2 Mar 2007</b>	<b>Bali</b>
 <b>ARIN</b> American Registry for Internet Numbers	<b>22 – 25 April 2007</b>	<b>TBA</b>
 LACNIC	<b>21 – 25 May 2007</b>	<b>Isla Margarita</b>
 <b>RIPE</b> NCC	<b>7 – 11 May 2007</b>	<b>Tallinn</b>

# Policy Archives

RIR	LINK
 <b>Afrinic</b> The Internet Numbers Registry for Africa	<a href="http://www.afrinic.net/policy.htm">http://www.afrinic.net/policy.htm</a>
 APNIC	<a href="http://www.apnic.net/docs/policy/proposals/archive.html">http://www.apnic.net/docs/policy/proposals/archive.html</a>
 American Registry for Internet Numbers	<a href="http://www.arin.net/policy/proposals/proposal_archive.html">http://www.arin.net/policy/proposals/proposal_archive.html</a>
 LACNIC	<a href="http://lacnic.net/en/politicas/desarrollo.html">http://lacnic.net/en/politicas/desarrollo.html</a>
 RIPE NCC	<a href="http://www.ripe.net/ripe/policies/proposals/">http://www.ripe.net/ripe/policies/proposals/</a>



**Thank You**