



Latin American and Caribbean Internet Addresses Registry
Registro de Direcciones de Internet para **América Latina** y **Caribe**
Registro de Endereços da Internet para **América Latina** e **Caribe**

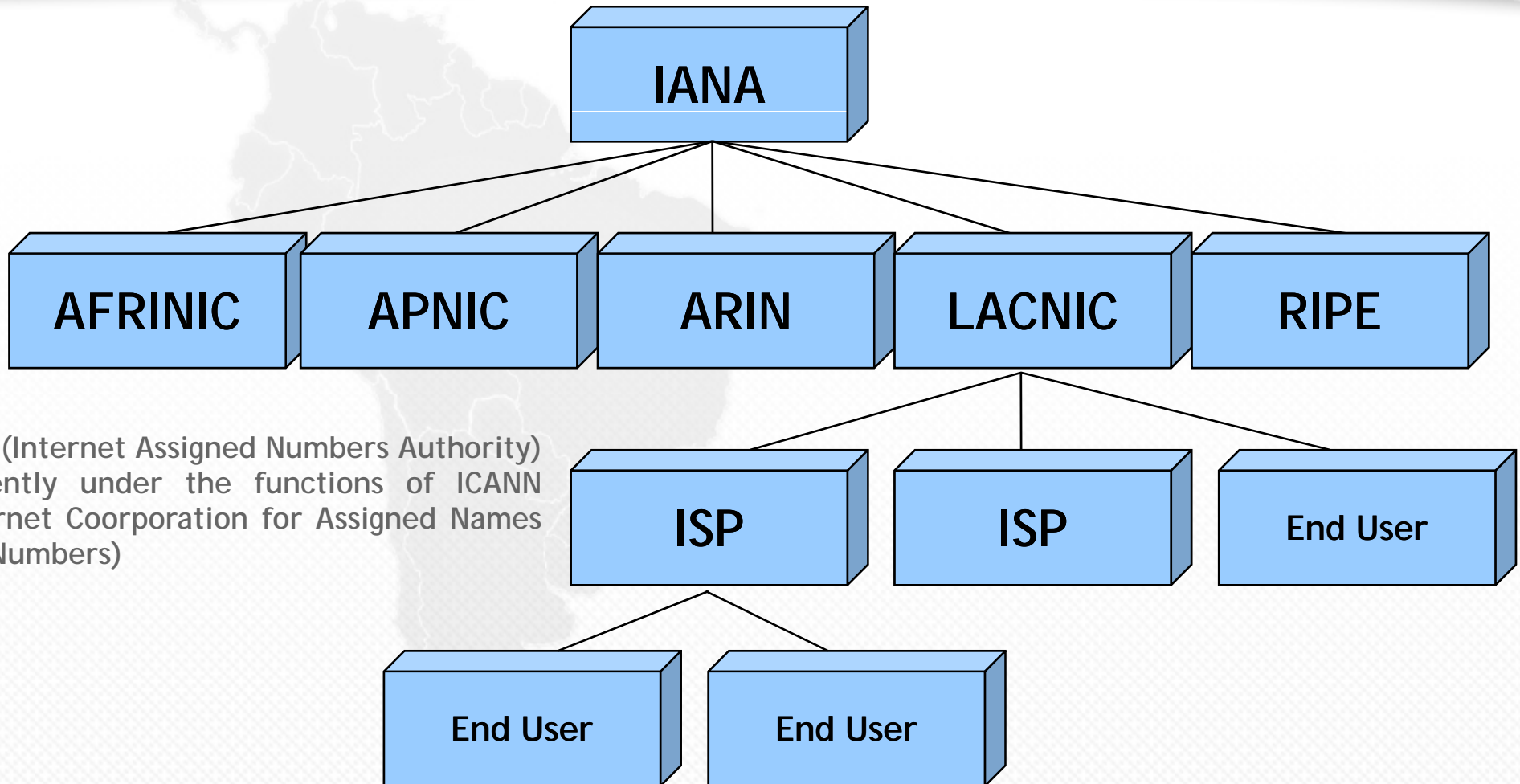
Resource management of Internet address space, global and regional context

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Belice
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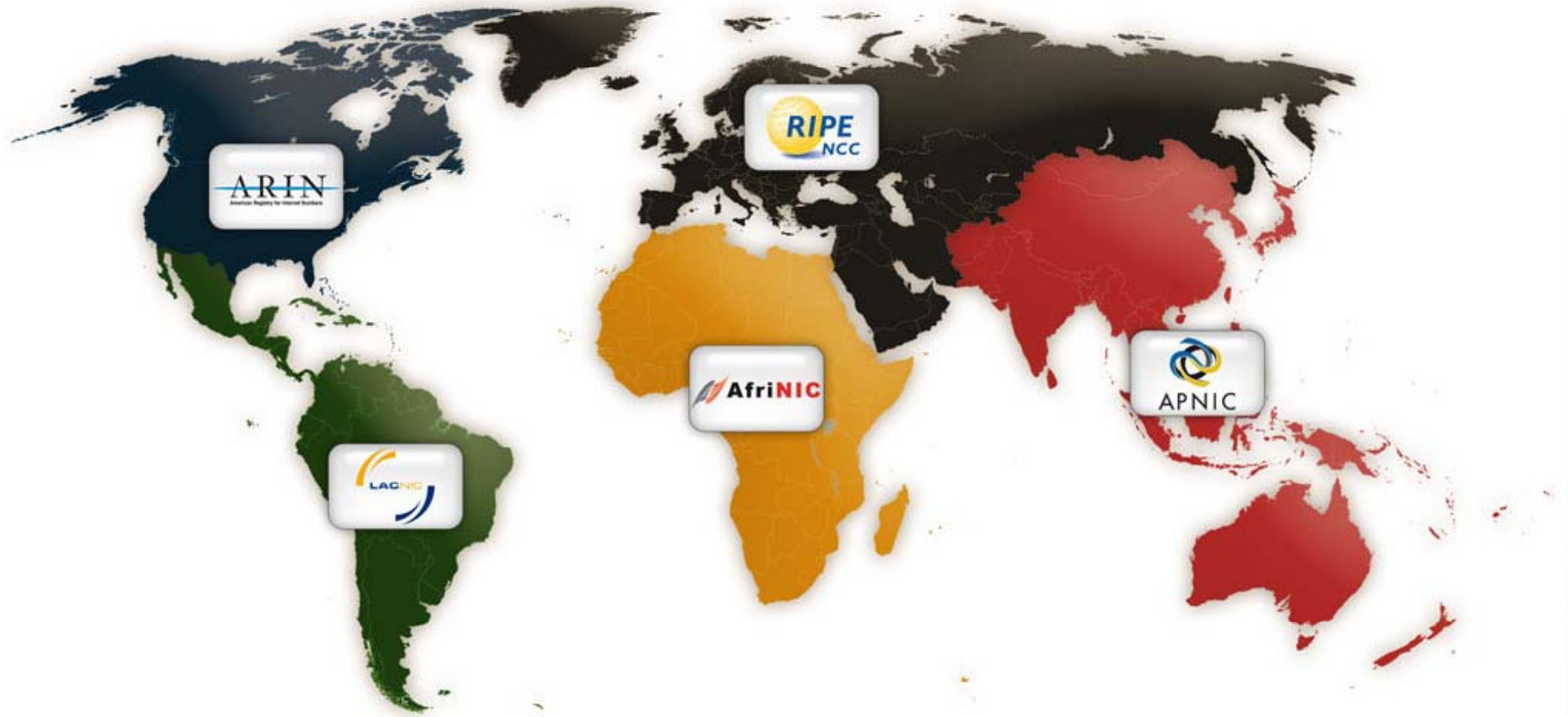
Regional Internet Registries (RIRs)



IANA (Internet Assigned Numbers Authority) currently under the functions of ICANN (Internet Corporation for Assigned Names and Numbers)



Regional Internet Registries (RIRs)





Regional Internet Registries (RIRs)

Organizations

- Non-profit
- Membership
- Bottom up

With the role of:

- Manage the address space and other Internet resources for a particular region



¿What is LACNIC?

- LACNIC manages the Internet numbering resources for Latin America and the Caribbean, ensuring that all stakeholders have equal access to these resources by working upon the spirit of community service
- It is a membership-based organization, nonprofit, legally established and recognized as an International Organization by the Uruguayan government



¿What is not LACNIC?

- Internet Service Provider
- Regulator
- Content controller of Internet websites
- Internet Police
- Domain Name Registrar

- Yes: Internet Resource Distribution in Latin America and the Caribbean



Which Internet Resources?

Fundamental Resources for deployment and growth of the Internet:

- IPv4 Addresses
- IPv6 Addresses
- Autonomous System Numbers

Services

- Whois Directory
- Reverse DNS



Evolution of the Regional Internet Registries (RIR) System

- Before 1992 – System was Centralized
 - 1992 – RIPE NCC in Europe
 - 1994 – APNIC in Asia – Pacific region
 - 1997 – ARIN starts operations in America
- The RIR system is global, since 1997
 - 2002 – LACNIC is recognized
 - 2004 – AfriNIC, the last RIR is created
- Legacy space – IP addresses assigned before the RIRs existence



LACNIC - Background

People from the Latin American Networks Forum got together started working to create a Registry for the region with an added value

LACNIC became the 4th RIR in October 31, 2002 through the ICANN Board resolution during its Shanghai meeting:

<http://www.icann.org/minutes/prelim-report-31oct02.htm#FinalApprovalofLACNIC>



LACNIC Service Area

Argentina	Aruba	
Belize	Bolivia	
Bonaire	Brazil	
Chile	Colombia	
Costa Rica	Cuba	
Curaçao	Ecuador	El Salvador
Falkland Islands	Guyana	French Guiana
Guatemala	Haiti	Honduras
Mexico	Nicaragua	Panama
Paraguay	Peru	Dominican Republic
Saba	Sint Eustatius	Sint Maarten
South Georgia and the South Sandwich Islands		Suriname
Trinidad and Tobago	Uruguay	Venezuela



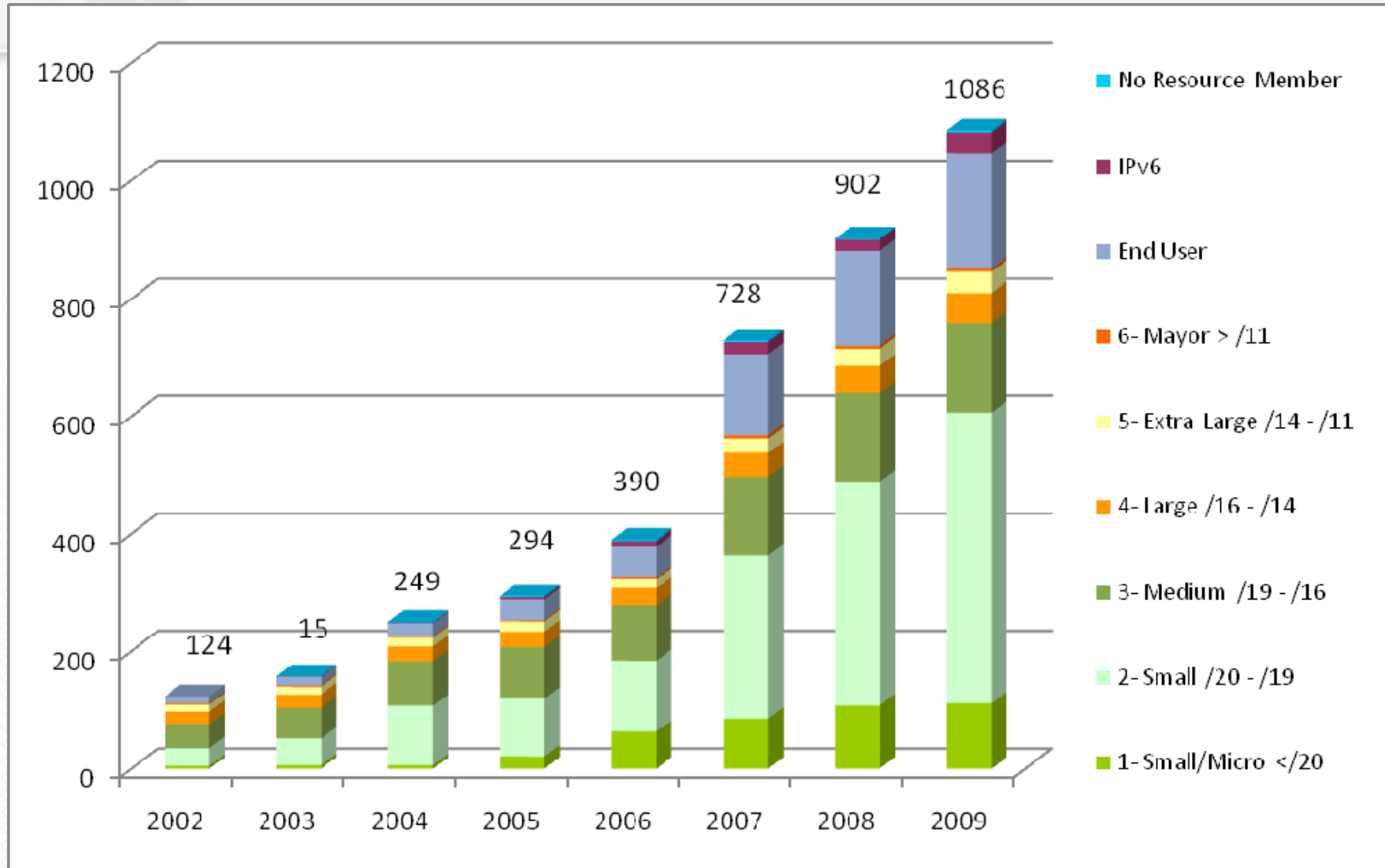


LACNIC Membership

- **ACTIVE A** – Organizations with resources assigned by LACNIC
- **ACTIVE B** – Organizations that share LACNIC objectives and principles, located in the LAC region, but do not have resources from LACNIC
- **ADHERENT** – Organizations located in the LAC region administer resources outside the region, any person or legal entity.

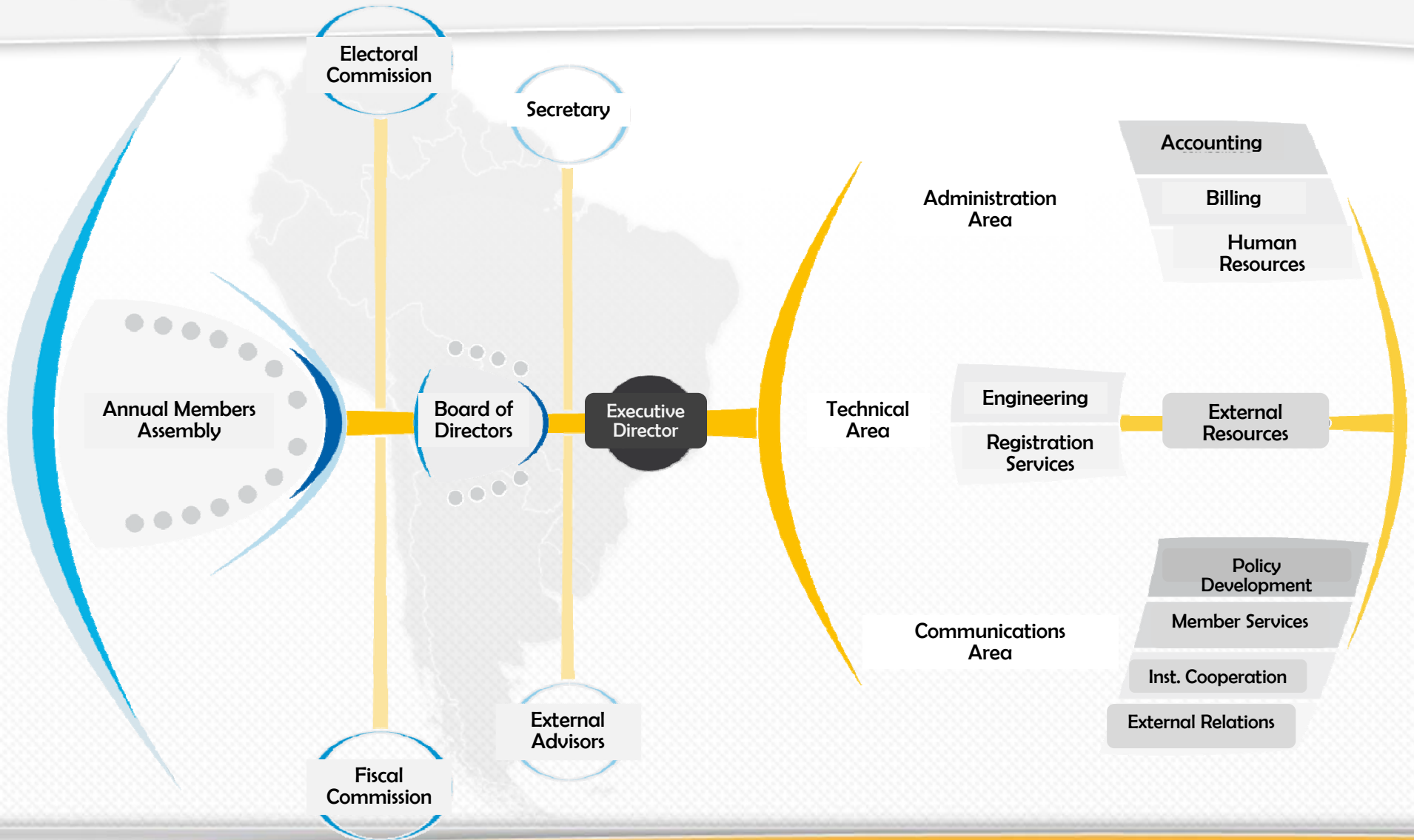


Membership Evolution





Organizational structure





LACNIC General Members Assembly

- Annual Members Assembly (May)
- Ordinary Assembly - approval of annual report, balance sheet, election of Fiscal and Electoral Commission members
- Extraordinary Assembly - bylaws modification
- Membership contact allowed to vote
- Vote according to membership category



LACNIC Board of Directors

- Responsible for the administration of the institution's resources
- Exercises LACNIC's political representation
- Represents its membership
- 6 members, elected by electronic vote
- Term: 3 years. Two are elected every year
- Must have residence in the LAC region and be nominated by a LACNIC member
- Current Board: **Oscar Messano** (President-AR); **Fabio Marinho** (Vice-presidente-BR), **Oscar Robles** (Secretary-MX); **Javier Salazar** (Deputy Secretary-MX); **Hartmut Glasser** (Treasurer); **Carlos Neira** (Deputy Treasurer-CO)
- Executive Director, **Raúl Echeberría**, has no vote



Fiscal Commission

- .LACNIC's control organ
- .Oversees the operation of the institution and the actions of the Board of Directors
- .Elected by the Ordinary Members Assembly
- .Current members:
 - . Adriana Ibarra (MX)
 - . Cassio Vecchiatti (BR)
 - . Gabriel Adonaylo (AR)



Electoral Commission

- .Organizes and oversees all elections
- .In charge of counting the votes, determining results and winning candidates.
- .Elected by the Ordinary Members Assembly
- .Current members:
 - . Jorge Raúl Cabañas (PY)
 - . Fermín Uribe-Echevarría (CL)
 - . José Enrique Díaz (MX)



Multilingualism

- LACNIC Staff: 20 persons
- Multilingual staff
- Website in 3 languages (English, Portuguese, Spanish)
- Simultaneous translation in all LACNIC events
- English, Spanish and Portuguese in all mailing lists



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Registration Services



Who can apply for resources?

- Government Networks
- Internet Service Providers (ISPs)
- Banking Sector
- Academic Networks / Universities
- Datacenter Operators
- NGOs



How to apply for resources

Pre-requisites for requesting resources

- **Be legally established in our service area (LAC) and comply with current policies**
- **Initiate a request for resources in LACNIC's website** (after approval of the request, LACNIC is responsible for registering the applicant in the system, assigning an owner Id)
- **No membership is required to request Internet Resources** (when an organization receives IP addresses, automatically becomes a member of LACNIC)



How long does the process take?

- The process is quick
- After the form is received, our time response is 24/48 hrs
- In general we make some additional consultations
- If the exchange of information is fast with the applicant, the process may be completed in less than a week



IPv6 Application

- For ISPs the minimum block is a /32
 - Documenting service plan and IPv6 connectivity
 - Advertise on the inter-domain route system a single block, aggregating the Ipv6 assignment received within 12 months
 - Provide services within 24 months
- For End Users the minimum is a /48 and maximum a / 32
 - Announce a single block aggregating the total IPv6 address allocation received
 - Addressing plan for a year, number of terminals per subnet and detailed description of the network topology

LACNIC's board determined that until July 2012 there will be no charges for the allocation and maintenance of IPv6 blocks



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Policy Development Process



PDP - Its importance

LACNIC believes in the importance of listening to the needs of the Latin American and Caribbean community

- The criteria and rules are set by our own community, reflect their realities and expectations
- It is an open public process



LACNIC PDP

- Indicates how to create and modify policies for distribution and allocation of Internet resources to our members
- The PDP is a bottom-up process
- The dicussions take place in the Policy mailing list : politic@lacnic.net and in the Open Policy Forum



Summary of normal Policy Development





About PDP

Today there are over 600 registered participants and anyone can submit a new proposal

- Up to 4 weeks before accepting new public forum comments and proposals allowing possible adjustments
- At the forum a proposal may reach consensus or be rejected by the community
 - If rejected, the proposal may return to the list for discussion and possibly be presented at the next forum
- If policy reaches consensus
 - LACNIC Board of Directors verifies whether the process complied with the rules, ratifies and implements the policy



How to participate?

Join the list LACNIC Public Policy politicas@lacnic.net at:
<https://mail.lacnic.net/mailman/listinfo/politicas>

Participate in LACNIC's Open Policy Forum and LACNIC's regional meetings. Remote Participation is also possible

If you want to propose or modify a policy, the form is available at:
<http://lacnic.net/cgi-bin/formpoliticas/sp/formpoliticas.cgi>



LACNIC XII Meeting - Panama



- ✓ May 24-29, 2009
- ✓ 305 participants
- ✓ 40 countries
- ✓ 8 Caribbean countries





LACNIC CARIBBEAN 2 Meeting - Trinidad

Fostering a greater participation of the Caribbean members

- ✓ July 16-17, 2009
- ✓ 70 attendees
- ✓ 17 LAC countries
- ✓ CANTO meeting and trade exhibition





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Development Agenda



Development Agenda

- LACNIC invests much of its income in activities aimed at promoting the Information Society and Internet development in the region
- This includes many initiatives and programs such as:
 - Frida Program
 - Flip6
 - Napla
 - +Raices
 - Security / AMPARO Project
 - Training and Outreach
 - Cooperation Agreements
 - Scholarship Programs



Strategic Areas

- Dynamic involvement in regional and international processes (eLAC, CITELE, IGF, ICANN)
- Capacity Building (FRIDA, WALC, IPv6 Tour)
- Infrastructure: +RAICES, Security, 6DEPLOY, RPKI, Regional Interconnection
- Institutional Support (LACTLD, CLARA, eCOMLac)



FRIDA -Development Fund for Digital Innovation in Latin America and the Caribbean

- Program administered by LACNIC, and co-financed by IDRC, ICA and ISOC
- Promote the development of research and technical capacities in the LAC region on ICTs
- Since 2004: 47 projects supported, USD 860,000 granted, 15 countries involved
- Small Grants, USD 15.000 up to one year



FRIDA - 2009 Call for Projects

- 5th Call for Research Projects in LAC ICT closed last month
- 118 projects submitted
- Results will be published at Frida website in December
www.programafrida.net
- Program Coordinator: Alexandra Dans alexandra@lacnic.net



FRIDA Meeting - April 2009, Uruguay

- 80 participants, 10 LAC countries
- Activities: Training workshops
- Promotion of ICT research
- Help researchers to get fund for projects





+RAICES

- Objective: To install anycast copies of root servers (DNS) in the region
- Agreement with ISC 2004 - Manager of Server “F”
- Key findings:
 - 6 copies installed in: Chile (NIC Chile) 2005, Argentina (CABASE) and Venezuela (CNTI) 2006; Panamá (UTP), Ecuador (AEPROVI / NIC.EC) 2007 and Sint Maarten (OC-IX) 2009
 - 2009: 1 more copy will be installed



6DEPLOY



- Financing of the European Commission (FP7)
- 17 organizations in Europe (Academy) and RIRs (LACNIC)
- Identify and systematize training material and training sessions
- Training workshops on IPv6 (focusing primarily to train trainers)
- E-learning
- Collaboration with programs for the strategic adoption of Ipv6 and advising on practical matters such as equipment required, Key issues, staff training, etc.
- Guide to the adoption of IPv6 to be maintained and supplemented with case studies
- Technical guide aimed at managers and decision makers



W A L C

- Training workshops in networking technologies for LAC
- One week, several parallel sessions
- Organizer: ESLARED, Merida - Venezuela
- Supported by: LACNIC, ISOC, ICA, UNESCO and others
- Annual calls for implementation
- WALC 2009 – Colombia, September



Strengthening Regional Interconnection

- Napla/Regional Interconnection Forum (NAPs IXPs)
 - Started in 2001, since 2004 annual meeting with LACNIC
 - Discussion list: napla@lacnic.net
 - Web: napla.lacnic.net
 - Working Group on eLAC
- Training workshops: facilitating new IXPs in the region
- Seminar on Infrastructure and regional interconnection at CITELE September 7th, 2009, Bariloche, Argentina
- IGF 2009: Workshop on Public Policy for a low cost improved interconnection (LACNIC INDOTEL, SUBTEL, CABASE, NAP of the Caribbean, Google)



SECURITY - *AMPARO Project*

Strengthening regional capacity for prevention and response to cyber security incidents in Latin America and the Caribbean.

Maintained by LACNIC and IDRC-funded

- To develop applied research activities to contribute in solving the main aspects of the security threats in our region
- To promote the development of a network of Computer Security Incident Response Teams (CSIRTs) in countries of the region
- To promote the creation of a regional training platform of Computer Security experts.
- To contribute to the creation of a regional CSIRT
- Web site and call for projects launched October 13th. at:

www.proyectoamparo.net/en



RPKI (Resource Certification)

- Resource Public Key Infrastructure (Resource certification)
- Hierarchical structure of IP addressing is the basis
- RIR = certification authority (CA) issues certificates to ISPs of IP addresses and other resources allocated to them (“right to use”)
- RIR signing digital documents certifying the assignment of IP addresses
- Each ISP can become a certification authority and issue certificates of resources to their clients
- LACNIC currently working in the project - Implementation in 2010



Scholarship Programs

- .Promote participation
- .Open to the entire community
- .Partial funding - Commitment
- .More than 80 people per year awarded



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Thank you very much!