2008 Annual Report

LACNIC

# Summary

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LACNIC

## Dear members of the LACNIC community:

We are again faced with the challenge of presenting to you the results of a year's worth of our organization's intense labors. All along 2008 we have promoted significant participation of LACNIC in the different fields in which we are involved, be it the management of Internet resources or promoting and supporting the advancement of the Information Society within our region.

We have continued assigning the necessary resources to foster growth and development of services and businesses alike throughout Latin America and the Caribbean, while maintaining our firm commitment to the responsible administration of IP addresses.

At the same time, continuing along the path set forth by the Board of Directors in 2004, we have made extensive efforts to create awareness and provide training towards an effective deployment of IPv6 technology contributing to prepare our region to function efficiently in the scenario created by the new Internet development environments. Eight events in as many countries, hundreds of participants and the availability of new information materials, plus maintaining fee exemptions and other initiatives at the level of different regional forums, are but a few of the steps taken to advance along this path.

In that spirit, our support of the regional process promoted by the governments of our region through the eLAC Regional Plan (in its 2007 and 2010 editions) is a major part of our commitment to cooperating with the region's leadership for the development of an effective Information Society.

Moreover, LACNIC, in coordination with the other Internet Registries, has actively participated in the international forums where Internet Governance issues are studied and discussed. Likewise, in collaboration with other relevant stakeholders of our region, we have promoted the creation of new discussion forums, thereby increasing community participation.

Our annual event, which has already become the major meeting of the regional Internet community, brings together different interests and allows the convergence of technical forums, training workshops and institutional events, not only LACNIC's, but also others convened by sister organizations in the region. This event represents a multistakeholder working platform, an environment that provides participation opportunities for the community at large, with no exclusions whatsoever.

Getting closer to our community, promoting its participation and trying to involve it even further in our activities, are our ever-present concerns. A point in case was our first regional meeting in the Caribbean, where we were able to analyze in detail LACNIC's activities in relation to that important part of the region.

The tasks we have undertaken to accomplish are significant in size and complex in nature, as it will no doubt transpire from this report. It is, however, important to emphasize that throughout the entire process we remain permanently concerned with turning LACNIC into an increasingly useful means to foster our region's development.

Oscar Messano President



## An Open Platform for the Community



A most productive year for LACNIC, for its members, and for all the organizations dedicated to promoting the development of the Internet in Latin America and the Caribbean has gone by. This year 2008 has also been a year of renewed consensus, of new horizons and of strong commitments to increasingly promoting higher levels of participation on the part of all parties seeking to perfect the Information Society. None of this has been simple.

The year started out auspiciously. In February, during the Regional Summit on the Information Society in Latin America and the Caribbean, the region's governments decided to include the following goal in the 2010 Action Plan: "Carry out actions geared towards promoting the adoption of the IPv6 protocol at the public and private levels with a view to making all public services offered via the IP protocol, as appropriate, available on IPv6 and ensuring that the main State infrastructure and applications are IPv6-compatible."

This goal, included in the final document, reflects a strenuous effort on the part of LACNIC and other groups not only during the referred meeting itself but throughout the preliminary stages as well, since there were lengthy negotiations during which we had the opportunity to directly influence the final outcome. This experience evidenced a maturing and strengthening of both the process and its participants, as the private sector and civil society organizations had a chance to participate and make their voices heard in a forum which had until then been restricted to government representatives. It also became evident that, if there is a constructive willingness to participate, there are forums to be found where it is possible to affect and make a significant contribution to such processes. It was a great challenge and also a great success.

The month of May brought with it another milestone: the LACNIC XI Meeting. Through intense debates and the exchange of experiences and ideas, this forum allowed making great progress in the development of Internet policies for the region. Each year, these meetings exceed the expectations and surpass the results of previous events, a fact that has helped transform LACNIC meetings into a key arena that allows the participation of all stakeholders. Each meeting is a further step forward.

Another highlight of 2008 was the preliminary meeting held during the month of August in preparation for the Internet Governance Forum. This meeting, which was held in Montevideo and jointly hosted with APC and RITS with the support of the IDRC, was attended and supported by government, international organization and civil society representatives. The event unprecedented in the region attracted major stakeholders and specialists on Internet matters of Latin America and the Caribbean, and provided an opportunity to close the gap between differing visions on the most pressing issues currently affecting the worldwide web. The on-site analysis by the more than 100 attendees in Montevideo was followed by productive on-line discussions, which attracted an even larger number of participants. This was a clear instance of the networking spirit.

From there, we travelled to the Internet Governance Forum in India. This was the Forum's third meeting, and the high degree of maturity attained contributed to consolidate a model of cooperation among the different Internet stakeholders, which was unthinkable only five years ago. Why is this model a step forward? We value the progress made in this direction because it has always been at the core of LACNIC's discourse: to maintain an open line of communication with all stakeholders, with the aim that they become involved in the debates and engaged as active participants. The consolidation of this multistakeholder model is of great significance to LACNIC and falls in line with what has always been the organization's strategy. Many of the initiatives at regional level originate at international forums. It is sometimes possible to affect regional or national issues through a global perspective.

This year, LACNIC also organized many meetings relating to the issue of the development of regional Internet infrastructure. Forums were provided for all concerned stakeholders (content developers, Internet traffic exchange points, and connectivity providers), so that all members of the community could accurately comprehend the interests at stake, as well as the expectations and needs of the various stakeholders, and accordingly devise a way to improve the region's infrastructure. The impact of these meetings cannot easily be quantified.

#### A gradual and moderate transition

As each year comes to a close, we draw increasingly nearer to the exhaustion of the central stock of IPv4 addresses, a fact that confirms an inexorable trend. Fortunately, the actions undertaken by LACNIC have encouraged the community to take concrete steps towards achieving a smooth and gradual transition to IPv6. These actions include the training workshops and discussion groups conducted during the IPv6 Tour sessions, as well as multiple direct actions for providing information at technical and political level which involved governments, corporations, regulators, and civil society organizations.

As already stated in previous paragraphs, at LACNIC's proposal, the eLAC 2010 included the adoption of IPv6 among its goals. This in itself signals a milestone in the region's awareness of the importance of taking actions regarding the future of the Internet. It is now of course time to turn statements into concrete actions and, in this sense, we shall naturally keep up our collaborative efforts.

The true challenge for LACNIC is to continue articulating collaborative efforts towards the development of the Internet and the Information Society; to strive for an increasingly larger and wider network, firmly resting on a solid foundation of collaboration among all of its stakeholders. Therein lies the key: to achieve a platform that is open to all, to unite efforts and interests, and to promote the convergence and growth of the resulting synergies to the benefit of the community as a whole.



To be a leader in the construction and articulation of collaborative efforts for Internet development and stability in Latin America and the Caribbean.

To administrate Internet numbering resources, contributing to the creation of collaboration and cooperation opportunities that will benefit the regional Internet community, committed to:

• The excellence and quality of the services provided to our clients.

• Constantly perfecting an impartial, participative and transparent self-regulation model.

• The adoption and promotion of technological advancements and standards within the industry.

- Strengthening the relationships with the main stakeholders of the Internet within the region.
- The development of regional capabilities through training and the transmission of Internet-related technology.



Vision

## LACNIC's Board of Directors

LACNIC is managed and directed by a Board of Directors made up by six members who are elected by LACNIC member organizations on a yearly basis by means of an electronic voting mechanism.

During 2008, LACNIC's Board of Directors was made up as follows:



-rom left to right: Hartmut Glaser, Oscar Messano, Javier Salazar Oscar Robles, Carlos Neira and Fábio Marinho

Name	Position	Country of Residence	Term Ends in
Oscar Messano	President	Argentina	December 2008 (*)
Fábio Marinho	Vice President	Brazil	December 2010
Oscar Robles	Secretary	Mexico	December 2008 (*)
Javier Salazar	Deputy Secretary	Mexico	December 2010
Hartmut Glaser	Treasurer	Brazil	December 2009
Carlos Neira	Deputy Treasurer	Colombia	December 2009
Raúl Echeberría	Executive Director	Uruguay	

ACNIC

The Executive Director of LACNIC participates in the Board meetings with rights equal to those of a Director, except for the right to vote.

(\*) The 2008 elections resulted in Directors Oscar Messano and Oscar Robles being reelected to their positions on the Board for a further three-year period starting in January 2009.

#### **Fiscal Commission**

During 2008, LACNIC's Fiscal Commission was made up as follows:

Name	Country of Residence	Term Ends on
Adriana Ibarra	Mexico	2009
Cassio Vecchiatti	Brazil	2010
Gabriel Adonaylo	Argentina	2011

#### **Electoral Commission**

During 2008, LACNIC's Electoral Commission was made up as follows:

Name	Country of Residence	Term Ends on
Rodolfo Fariello	Uruguay	2009
José Enrique Díaz	Mexico	2010
Fermín Uribe-Echeverría	Chile	2011

# **Enhanced Cooperation**

#### **Promoting a Participative Model**

In the interest of articulating collaborative efforts and strengthening ties with other stakeholders within the regional Internet community, during the course of 2008 LACNIC continued to promote and support initiatives and joint activities, seeking an enhanced development of the Internet and the Information Society in Latin America and the Caribbean.

On occasion of the Second Ministerial Conference on the Information Society in Latin America and the Caribbean, held in San Salvador from 6 through 8 February 2008, at LACNIC's proposal, twenty-six governments of the region undertook a commitment to promote the adoption of IPv6 both in the public and private sectors. This commitment was included as a goal in eLAC 2010, the Plan of Action for the Information Society in Latin America and the Caribbean.

As a member of CITEL (the Inter-American Telecommunication Commission), LACNIC contributes, together with the member States, to promote the prompt adoption of IPv6 throughout the region and to stimulate the improvement of regional infrastructure and interconnection.

### LACNIC Consultation Meeting - Montevideo

Reaffirming its adherence to the World Summit on the Information Society (WSIS) agreements and, in particular, to the call made through those agreements to all stakeholders interested in the Governance and administration of critical Internet resources to join their efforts and strengthen their mutual cooperation, LACNIC organized a Consultation Meeting in Montevideo, Uruguay, held on 19 August 2008,

The LACNIC Consultation Meeting, as all other instances of this kind, was open to all the relevant stakeholders in the region, and was attended by more than 100 participants representing the governments of the region, the Internet community and civil society. During the course of this event, LACNIC presented to the community the activities undertaken thus far, the projects under way and the challenges that need to be addressed, while providing at the same time a forum for discussion and comments by participants, who expressed their opinions regarding the main subjects of concern within the regional community.





# Regional Preparatory Meeting of the IGF - Montevideo

On 20 August 2008, the Regional Preparatory Meeting for the Internet Governance Forum (IGF) was held in Montevideo, Uruguay, immediately following the LACNIC Consultation Meeting. This meeting was jointly organized by the Association for the Progress of Communications (APC), the Information Network for the Third Sector (RITS) and LACNIC with the support of the IDRC.

During the course of this meeting, debates were conducted with panels of experts made up by representatives of all sectors, thus abiding by one of the WSIS basic principles that of "multistakeholderism". These debates focused on the four major themes of the Internet Governance Forum: reaching the next billion users, Promoting cybersecurity and trust, Critical Internet resources and Emerging issues.

After each issue was presented and discussed at length among the panelists, a general discussion ensued. This allowed the exchange of views among the entire audience and, therefore, the widest possible coverage of the concerns and needs that should be identified and addressed from a regional viewpoint. After the faceto-face debates in which more than 100 participants took part the opportunity for on-line debating was also provided for by means of a mailing list for each issue, a mechanism which enabled extended participation and a broader scope of discussions.



egional Preparatory Meeting of the IGF - Montevideo. August 20th, 2008

Conclusions arrived at during the meeting and the results of the mailing list debates were submitted to the Consultation Meeting prior to the Third Internet Governance Forum held in Geneva in September 2008.

With the purpose of reaching a wider audience for the LACNIC Consultation Meeting and the Regional Preparatory Meeting for the Third Internet Governance Forum, and with a view to facilitating participation, both meetings were webcast and simultaneous Spanish-English translation was provided. Additionally, twenty participants from fifteen countries within the region were offered sponsorships. These meetings and the subsequent on-line activities signaled a landmark in the organization of debates on Internet Governance within a multistakeholder environment from a regional perspective. The total number of participants amounted to 260.

Further information on the meeting can be found at:

http://lacnic.net/en/eventos/mvd2008/igf.html

## Internet Governance Forum, IGF 2008, Hyderabad, India

LACNIC attended the IGF held at Hyderabad, India, from 3 to 6 December 2008, was represented at one of the main sessions by members of its staff, and was present at the NRO booth, a responsibility shared by LACNIC with its colleagues from other Regional Internet Registries. Two reports prepared for this event jointly with the other RIRs were released, namely:

NRO Continuing Cooperation report

http://www.nro.net/docs/brochure-mediumres.pdf

• The Regional Internet Registries: Global Management of Internet Resources and the Transition to IPv6

http://www.nro.net/docs/NRO\_IGF2008\_Brochure.pdf

Raúl Echeberría (LACNIC) was a speaker at one of the main sessions, where he addressed the issue of Critical Internet Resources. NRO representatives and Regional Registry staff members also participated as panelists during the main sessions, in workshops and in forums.



Internet Governance Forum, IGF 2008, Hyderabad, India

# Focusing: LACNIC on the Caribbean

The diversity and complexity of the realities that exist throughout the LACNIC service region is one of its distinctive characteristics. Different languages, economies of different sizes, different cultural foundations, and vast physical distances are but some of the aspects that require specific responses from our organization.

LACNIC regional meetings are organized taking into consideration all of these features, a fact that allows us to strengthen our relationships with our members, organizations, governments, and stakeholders immersed in the different realities of the Internet community of Latin America and the Caribbean.



## LACNIC-CARIBBEAN Meeting – Curaçao, July 2008.

More than 70 participants from 15 countries of the Latin American and Caribbean Region met on 21 and 22 July 2008 in Curaçao, Netherlands Antilles, for the first LACNIC-CARIBBEAN meeting, which was summoned



by LACNIC. The 4th Caribbean Internet Governance Forum was held immediately afterwards, hosted by the Caribbean Telecommunications Union (CTU). This first Caribbean-focused event has allowed members and participants of this major sector of our community to become more closely acquainted with the activities carried out by LACNIC and encouraged them to make a contribution by working on the areas of primary interest to LACNIC.

This event included technical workshops on IPv6, Interconnection and Peering, all of which were conducted in a highly dynamic atmosphere and attended by an



Curt Brunings, Assistant to the Minister; Maurice Adriens, Minister of the Bureau of Communications and Post of the Netherlands Antilles; Bernadette Lewis, Caribbean Telecommunications Union (CTU); Raúl Echeberría, LACNIC.

audience which showed great interest in the different topics that were discussed. The meeting also offered the Caribbean Internet community closer insight into LACNIC, its organizational structure, operations, and scope of activities, as well as a chance to learn more about various issues such as, among others, the Policy Development Process (PDP) for the assignment of Internet resources, the current status of IPv4 and IPv6 resources, initiatives for strengthening the Information Society throughout the region, participation mechanisms and discussion forums.

Major contributors to the organization of this event were the local organizers and the Bureau of Telecommunications and Post, who were supported by the meeting's sponsors UTS, Terremark, Google, OCIX and ICANN all of whom helped make the event possible.





## IPv6 TOUR in the Caribbean

During 2008, the IPv6 Tour organized four training workshops in the Caribbean. These meetings, which focused on disseminating and providing technical training on IPv6 technology, were attended by important numbers of participants from the Caribbean community and resulted in more than 200 individuals receiving training in this particular field.

The participation and level of commitment of national Caribbean organizations from the public and private sectors as well as regional organizations such as CTU played a key role in the successful development of these events, allowing the establishment of closer ties with a view to future activities.

The events took place in:

• Curaçao, Netherlands Antilles, 21 and 22 July 2008, with the support of Bureau of Communications and Post of the Netherlands Antilles and CTU.

• Port-au-Prince, Haiti, 28 and 29 August 2008, with the support of AHTIC and CTU (\*)

• Havana, Cuba, 15 October 2008, with the support of CITMATEL.

 Trinidad and Tobago, 31 October 2008, with the support of CTU and TSTT (\*)

(\*) These activities included the "IPv6 Experiment".





LACNIC was present at the "CIVIC 2.0 Consultation" meeting, held on 13 and 14 November 2008 in the Dominican Republic. It was there that a strategic plan for the CIVIC community was drafted. The Caribbean ICT Stakeholders Virtual Community CIVIC is a multisector, regional virtual network that brings together approximately 300 members, encompassing individuals from all sectors (government, international cooperation organizations, academia, NGOs, civil society, regional organizations, commercial organizations, etc.) who have an interest in promoting the use of ICTs as a means towards regional development.

#### Sponsors Exercemark: Exercema



Local organizer:

# LACNICX

26/30 MAIO 2008 SALVADOR/BAHIA - BRASIL

As usual, during the last week of May LACNIC held its annual meeting, this time in the city of Salvador, Brazil. The following are the most important activities that took place during the event:

#### **Tutorials**

Three parallel workshops were conducted: IPv6, Interconnection Schemes and Strategies for ISPs, and CSIRT Creation and Management.

The materials used during the tutorials are available at the event's website:

http://lacnic.net/en/eventos/lacnicxi/agenda.html

All LACNIC XI presentations and webcasting files are available at: http://lacnic.net/en/eventos/lacnicxi/index.html

Simultaneous translation in three languages: Spanish - English - Portuguese

Webcast retransmission in three languages.

Remote participation through a Jabber conference server.

## 289 participants

**31** countries

## 29 sponsored participants

Represented sectors: Governments, academic sector, ISPs, ccTLD and NAP operators, Regional Internet Registries, ICANN and civil society.

## Regional Interconnection Forum, NAPLA 2008

This technical forum, which had a sizeable participation from regional NAPs, included a session on content providers. It was at this meeting that the "beta" version of the NAPLA website was launched:

http://napla.lacnic.net

All the presentation files are available at:

http://lacnic.net/en/eventos/lacnicxi/napla.html





#### LACNIC XI

#### LACNOG

LACNOG, the Latin America and Caribbean Region Network Operators Group was launched during LACNIC XI as a new regional forum for the exchange of information and experiences on issues related to the operation of Internet networks. The event started out with presentations on IPv4 routing, the Certification of Internet Resources (RPKI), the NTP Brazilian project, and the evolution of the Internet in Brazil. All presentations delivered at this forum are available at:

http://lacnic.net/en/eventos/lacnicxi/lacnog.html

## Third Network Security Forum for Latin America and the Caribbean

The Network Security Forum maintained throughout the year a high degree of maturity, which was reflected from the start not only on the list's traffic and discussions, but also on the entire process of identification, selection and presentation of papers for LACNIC XI.

Subject themes included: security information management (SIM) tools, spam reduction strategies, the role of botnets in fraud, security weaknesses of the TCP and IP protocols, as well as case studies of phishing incidents in Brazil.

An updated progress report was also provided on the advances, current status and probable future impact of the Certification of Internet Resources (RPKI) project.

The event also included a tutorial on the Creation and Management of Security Incident Response Teams, conducted by Cristine Hoepers and Klaus Steding-Jessen, of CERT.br. This tutorial, which sought to address a perceived need within the community, could materialize thanks to the cooperation of CERT.br and Carnegie Mellon University, that made it possible and facilitated the distribution of relevant materials.

The large audiences drawn by this new edition of the Event emphasized the importance that the community grouped around LACNIC ascribes to the issue of security. All the event's presentations and webcasting sessions are available at:

http://lacnic.net/en/eventos/lacnicxi/seguridad\_en\_redes.html

#### Public Policy Forum

At the Public Forum, four out of the five proposals submitted were approved. These policies then entered the customary 45-day last call for comments period:

#### LAC-2008-01 - Global Policy for the Allocation of

#### the Remaining IPv4 Address Space.

This policy describes the process for the allocation of the remaining IPv4 space from IANA to the RIRs. When a minimum amount of available space is reached, one /8 will be allocated from IANA to each RIR, replacing the current IPv4 allocation policy which had been approved at the previous year's Forum. This was approved by all the RIRs and has already been ratified by the ICANN Board of Directors.

LAC-2008-02 - Provider Independent (PI) IPv6 Assignments to End User Organizations with PI IPv4 Assignments.

As per this policy, an organization belonging to the End User category that has already received an IPv4 address block assignment qualifies for an IPv6 address block assignment.

#### LAC-2008-03 – Provider Independent (PI) IPv6 Assignments to End User Organizations.

This policy sets forth the guidelines other organizations must follow to justify the assignment of IPv6 address blocks.

#### LAC-2008-04 - Special IPv4 Allocations/ Assignments Reserved for New Members.

As per this new policy, when LACNIC has only one /12 left, assignments may be made only to new Internet Service Providers and critical infrastructure that have



Francisco Arias (Mexico) was elected as moderator of the LACNIC Public Forum (2008 2010).



not yet received a direct IPv4 assignment from LACNIC. This is a way of ensuring that new organizations are given the chance to enter the market with a minimum of address space for providing services.



Christian O'Flaherty (Argentina) ended his term as Moderator of the LACNIC Public Forum.

#### LAC-2007-01 – Modifications to the IPv6 Block Publishing Policy.

This proposal did not meet with consensus and will be returned to the policy list for further discussion. The proposed amendments to the policy development process (PDP) were approved, whereby the position of Co-Chair for the LACNIC Public Forum was created and a fasttrack procedure outlined for proposals whose consideration cannot be deferred for a year until the next Public Forum is held.

#### Latin American IPv6 Forum, FLIP 6

The 6th Latin American IPv6 Forum was held with the participation of high-level speakers who presented a series of papers on cases and practical instances of IPv6 implementation within the region. The participating experts broached the subject matter each from a different angle, providing ample information and practical case studies on the most relevant issues for IPv6 implementation.

The Task Forces (TFs) in charge of promoting IPv6 deployment in their own countries contributed their expertise as well. The meeting included the presentation of the activity report of the LAC IPv6 TF, and a panel discussion on the activities of national IPv6 TFs with the participation of representatives from the Cuban, Peruvian and Uruguayan TFs.

#### **IPv6 Experiment**

The "IPv6 Experiment", presented by technical staff from LACNIC, was conducted for the first time in our region. The

experiment involved enlisting the participation of the audience members for testing applications through IPv6-only networks and through the NAT-PT service. To this end, the IPv4 network was shut down for 30 minutes and the NAT-PT was enabled for an equivalent period of time.

Participants were charged with completing tests of mounting complexity. Prizes had been prepared as an incentive for participants to become involved, and the more complex the test, the more attractive were the prizes awarded for its successful completion.



#### LACNIC XI

## IPv4 and IPv6 Internet connection through a 100 Mbps physical link.

Maximum consumption: 15 Mbps during peak hours.

Internet access through wireless Internet stations installed throughout the meeting rooms and corridors.

#### Annual LACNIC Member Assembly

The report, general balance sheet, inventory, expense and income account, Independent Auditor's Report and Fiscal Commission's Report as at 31 December 2007 were unanimously approved by the Member Assembly. The proposal to modify annual membership fees was approved by a majority vote. The new fees came into force on 1 July 2008, and are duly registered in the minutes of the Assembly, as published on LACNIC's website. Likewise, the amendments to the articles of LACNIC's bylaws submitted for the consideration of the Assembly were unanimously approved.

#### The new text of said articles is available at:

http://lacnic.net/documentos/lacnicxi/art\_prop\_reforma-en.pdf

#### LACTLD Meeting

On occasion of the LACNIC XI Meeting, LACTLD (the Organization of Latin American and Caribbean ccTLDs) held its 9th meeting, at the close of which its General Assembly elected a new Board of Directors.

The meeting was attended not only by LACTLD members, who actively participated and delivered presentations, but also by numerous guests, including, among others, ICANN and ISOC staff.

More information about the meeting as well as the presentations can be accessed at:

http://www.lactld.org/reuniones/IXLACTLD/document\_view

#### INET 2008

During the Internet Society's regional event organized by the Regional Office for Latin America and the Caribbean discussions were conducted on issues which are relevant for the region as they relate to the future of the Internet, the importance of cooperation among the different stakeholders within our community, and specific topics on issues affecting Latin America and the Caribbean in particular.

All presentations are available at:

http://lacnic.net/en/eventos/lacnicxi/inet.html

The LACNIC XI meeting was made possible thanks to the support and cooperation of many individuals and organizations. LACNIC would like to thank the event's sponsors and all those who contributed to its success:



#### About the Organizers

The Brazilian Internet Steering Committee (CGI.br) was created by the government of Brazil with the aim of coordinating and integrating all Internet service activities in the country, promoting technical quality, innovation and the dissemination of the offered services.

CGI.br is made up by representatives of the government, the commercial sector, the third sector and the academic community, and is based on the principles of multistakeholderism, transparency and democracy.

The Brazilian Network Information Center (NIC. br) is a non-profit civil organization that has been implementing the decisions and projects of the Brazilian Internet Steering Committee since 2005.



## IPv6: On the Road to Deployment

During 2008, LACNIC implemented a broad range of actions designed to facilitate the deployment of IPv6 within our region. Keeping in mind the goal already established by the Board of Directors in 2007, that is, to attain full IPv6 compatibility of Latin American and Caribbean networks by 1/1/2011, a work plan was developed and coordinated, encompassing all the issues which had been identified as challenges: information, training, and political commitment.

Against this backdrop, actions were implemented to address various targets, both at political as well as at technical level. These included activities with governments (eLAC, CITEL), training and promotion activities in technical and political environments (IPv6 Tour), and Information (IPv6 Portal).

At the political level, the region made significant progress by having the objective of promoting IPv6 adoption in the region included among the 83 goals of the 2010 eLAC Plan, approved as part of the El Salvador Commitment.

"Carry out actions geared towards promoting the adoption of the IPv6 protocol at the public and private levels with a view to making all public services offered via the IP protocol, as appropriate, available on IPv6 and ensuring that the main State infrastructure and applications are IPv6-compatible. Actions to be implemented will, to the extent possible, include the early implementation of requirements to ensure that governments procure equipment and applications that are IPv6-compatible."



IPv6 Tutorial - LACNIC XI

In addition, efforts were made at the Permanent Consultative Committee I (Telecommunications) of CITEL (the Inter-American Telecommunication Commission) to achieve the approval of a resolution geared towards the same direction, i.e., seeking government support for the adoption of IPv6 within government entities.

## Helpful Information for the Deployment Process

Central to the strategy adopted for achieving IPv6 deployment in Latin America and the Caribbean, is the IPv6 portal:

http://portalipv6.lacnic.net

All along this year, available information has been considerably increased, as reflected by the inclusion into the portal of new sections and useful data.

The new "Statistics" section allows monitoring the evolution of IPv6 deployment, both at regional level as well as at the level of each individual country.

The community has likewise reaffirmed the usefulness of the portal by assuming the responsibility of permanently enriching the site. In this spirit, a FAQ section was added during 2008, with the purpose of providing guidance to anyone interested in learning more about IPv6, or directly involved with implementing this protocol in a specific network.

Additionally, LACNIC has developed two IPv6 implementation guides, one for use at Internet Exchange Point (IXP) level and the other for use at Country Code Top Level Domain (ccTLD) administrator level. These guides were drafted as a way of cooperating with the organizations operating within our region, and may be found at:

http://portalipv6.lacnic.net/en/ipv6/links/ixps





#### **IPV6: ON THE ROAD TO DEPLOYMENT**

#### IPv6 Tour 2008

Additionally, during 2008 it was resumed the successful path of the IPv6 Tour. Consequently, a series of activities were coordinated with different organizations in each country for conducting training workshops and discussion forums on the procedures and responsibilities for the effective deployment of IPv6 in the region.



During 2008, IPv6 workshops were held in Argentina, Uruguay, Brazil, Netherlands Antilles, Haiti, Cuba, Trinidad and Tobago and Costa Rica. The success of this effort was in no small part due to the significant support provided by the local organizers who were committed to the same goals and provided the required basic support. Among them were government entities (Argentina, Curaçao, Trinidad and Tobago), academic institutions (Cuba), private and non-profit organizations (UY6TF of Uruguay; AHTIC of Haiti), corporations (ICE in Costa Rica) and regional institutions (CTU).



Since 2005, more than 3,500 people have participated in these IPv6 workshops, a testimony to the program's success that encourages us to develop new actions to allow their integration within this regional objective.

#### 6Deploy

At the same time, and in the interest of strengthening IPv6-related activities within the region, LACNIC joined a group of organizations, mainly academic and belonging to the European Union, for working on the 6Deploy project. This project aims mainly at providing technical IPv6 training, as well as documenting the deployment of networks that use this protocol.

LACNIC's joining in this project has made additional resources available (IPv6 Tour) and provided a forum for technical exchange which benefits the region. This project will continue to be active in 2009, during the course of which further training activities will be conducted.



# Strengthening the Development of the Regional Community





Centre de recherches pour le développement international

Internet

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

In 2008, the FRIDA Program (managed by LACNIC) kept on working on the activities previously initiated and, together with IDRC, ICA and ISOC, a call was made for research projects on new technologies in the fields of information and communication technologies. Since the first call in 2004, the number of projects submitted has reached 789, 48 of which have obtained funding from the FRIDA program.

In response to the 2008 call, 110 projects were submitted from eighteen countries within the region. After an exacting selection process conducted by an independent Evaluation Committee, eight projects for a total amount of USD 112,632 were approved. This time the selected projects were presented by researchers from Brazil, Colombia, Peru, Cuba, Ecuador and Venezuela. The selected papers dealt with the most diverse topics, from climatic change in Piura, Peru, to the vulnerability of young people in Brasilia, Brazil.

The FRIDA program continues to uphold its commitment to developing regional research capabilities in the field of technological innovation within the region of Latin America and the Caribbean by means of small grants (15,000 dollars for each annual project), seeking new partners to support the work that has been accomplished during these past five years and to assist in advancing even further.

47 projects supported

# USD 860,000 granted

# 15 countries involved

In 2008, a series of changes were implemented in the FRIDA program. Its website was revamped, and now includes new links which are updated monthly ("news" and "relevant documents"); the Program was presented at regional academic events as well as at technical meetings; certain conditions for the presentation of applications were modified; and special emphasis was placed on supporting those initiatives likely to inspire the implementation of new public policies within the region.

The year 2008 also saw the completion and progress of several interesting projects which had begun at the end of 2007. Two of these initiatives are briefly outlined in the following page.





STRENGTHENING THE DEVELOPMENT OF THE REGIONAL COMMUNITY

#### **Project**:

Analysis, use, adaptation and appropriation of wireless-based services in remote, difficult-toaccess indigenous villages of the Andean Cauca. Cauca University (Universidad del Cauca), Colombia.



The purpose of this project was to deploy telecommunication network services based on wireless systems in remote rural areas of Latin America. The actual area of direct impact where a pilot was implemented was the Andean Cauca, in the southwestern part of Colombia, where there is a significant concentration of indigenous villages. The use of open standards and open-source software was introduced in order to keep implementation costs at a minimum.

#### Project:

Study of the use and application of Information and Communication Technologies by authorities and employees in two rural municipalities of the Puno department in Peru. Recommendations for the implementation of electronic government in rural municipalities.

SER Association, Peru.



This project sought to identify existing Peruvian e-government programs and policies by researching specific policies and programs for rural areas, and to learn details about the usage of ICTs by authorities and employees of the rural districts in Peru, in order to subsequently present proposals and recommendations for the implementation of electronic government in rural municipalities.

RAICES

## Strengthening the Development of the Regional Community

#### Security

There has been a growing awareness in the public and private sectors alike of the need to become actively involved in devising a regional strategy for computer and network security, a trend which has been more noticeable during 2008. LACNIC has been supporting the strong drive towards the creation of computer security incident response teams (CSIRTs) for many years now, along with other organizations (NIC.br). Identifying joint areas of cooperation and coordinating efforts with international organizations, private entities and governments, represent some the work that has accomplished in this direction.



#### IFVO TOUL - COSIA KI

#### **6DEPLOY**

LACNIC is a member of the consortium of executive organizations for the 6Deploy project. Financially backed by the European Commission, this project promotes the deployment of the IPv6 protocol. 6DEPLOY was active during 2008 and 2009 and provides resources for the development of computer systems, training workshops and the dissemination of practical cases of IPv6 implementation in commercial networks. Profuse documentation on IPv6, as well as a description of the activities performed to date, can be found at the project's website

http://www.6deploy.org/

#### +RAICES

In addition to maintaining in operation the five copies of the F Root Server which were previously installed jointly with the Internet System Consortium (ISC), during 2008 a vast amount of work was carried out in terms of providing information and identifying prospective partners and beneficiaries throughout the entire region. This will allow the installation in 2009 of new copies of root servers to support Internet stability within Latin America and the Caribbean.

#### **Certification of Resources**

The community's concern with the security issues posed by the incorrect routing of Internet addresses, whether intentional or not, have prompted discussions on devising a digital certification structure for Internet Resources (RPKI). LACNIC and the other Internet National Registries have all been closely involved with the development of such a system within the framework of the IETF (Internet Engineering Task Force). Besides continuing to discuss the development of the required standards, during 2008 actions were coordinated with all other Registries so as to align potential developments in each individual region.

#### **Traffic Quality Measurements**

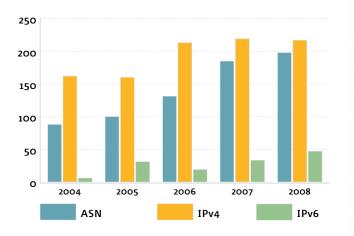
The region of Latin America and the Caribbean has its own set of issues regarding its infrastructure needs to allow for an adequate development of the Information Society. Strengthening the interconnection between the different countries and the development of traffic exchange points are pivotal to LACNIC's communityoriented efforts. In that sense, agreements have been reached with RIPE-NCC to participate in the Test Traffic Measurements (TTM) project, which is based on monitoring key network quality variables and will allow improving our knowledge of the performance of the Internet within our region.



# Internet Resources at LACNIC

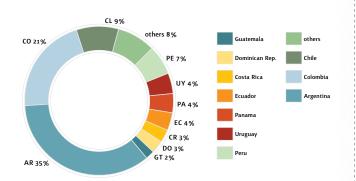
During 2008, more than 44,000 /24 IPv4 address blocks were assigned in the LAC region, which is equivalent to 67% of a /8 block. In addition, more than 39 /32 IPv6 address blocks were assigned, which represents 19 direct assignments to organizations of 12 different countries within the region.

Evolution in the assignment of Internet resources in the LAC region during the last 5 years

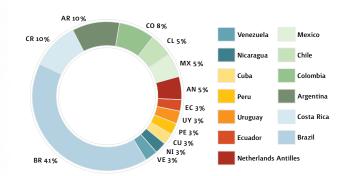


# Resource allocation by country during 2008

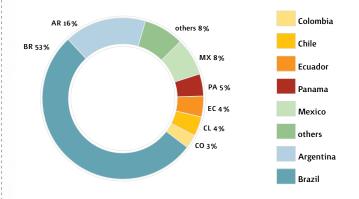
#### **IPv4** Allocation



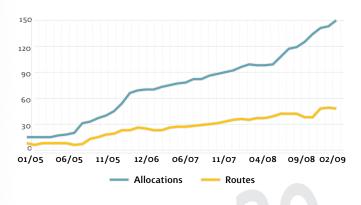






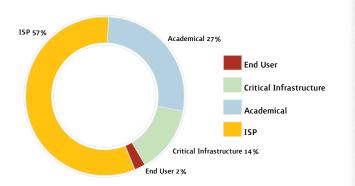


As regards IPv6, not only has the assignment rate grown, but the usage has also increased. This may be clearly appreciated in the chart below, which compares the number of assignments and the number of visible prefixes in the routing table.



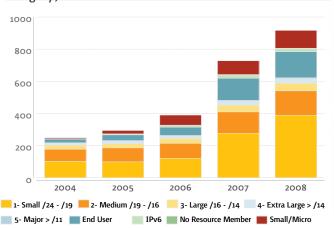
Other IPv6 statistics, including a breakdown by country, may be found at LACNIC's IPv6 Portal (http://portalipv6. lacnic.net).

Allocation of IPv6 blocks by type of organization



Of the total volume of IPv6 addresses assigned within the region, 57% has been assigned to Internet service providers.

#### **Membership Evolution**



Number of members 2004 - 2008 (Aggregate, by category)

## Enhanced Services and an Improved Infrastructure

The following are some internal projects developed during 2008 which have contributed towards enhancing member data management:

CRM (Customer Relationship Management) software, which allows managing client relationships originating at different LACNIC areas from one centralized location.

New management system for handling the requests and questions addressed to the hostmaster.

Project for updates to LACNIC's Internet resource management system. The aim of this project is to allow automatic updates to the database. A protocol is being developed to enable communication between the providers' internal systems and LACNIC's systems. This protocol is being designed based on the EPP protocol (Extensible Provisioning Protocol), an IETF standard.

New structure for the internal network at LACNIC's offices. This structure was commissioned in 2008, resulting in enhanced security, performance and autonomy of services and equipment. Improvements include broader bandwidth, Internet connection with dynamic routing protocol and also a new, state-of-the-art video-conference system with high-definition capabilities.

Project for Internet Resource Certification. Up to this time, we have closely followed the discussions and proposals of the IETF SIDR working group, as well as those of the other RIRs. Going into the next stage, we envisage developing our own system for issuing digital certificates for Internet resources. During the course of 2008, extensive documentation for internal use was prepared, and plans have been drafted to develop a prototype system to this effect.





# STATEMENT OF ASSETS AND LIABILITIES AS OF DECEMBER 31, 2008

(In U.S. Dollars)

	31.12.2008	31.12.2007
ASSETS		
CURRENT ASSETS		
CASH AND BANKS (Note 2.6)		
Cash	571	305
Banks	167.960	117.568
	168.531	117.873
SHORT TERM INVESTMENTS (Note 2.9 y 4)		
Investments	313.795	2.685
	313.795	2.685
ACCOUNTS RECEIVABLE (Note 2.7)		
Trade Debtors	713.039	633.728
Less:		
Deferred Income	(180.077)	(242.395)
Allowance for Doubtful Accounts (Note 2.8)	(18.279)	(26.554)
	514.683	364.779
OTHER RECEIVABLES		
Guaranty Deposits (Note 9)	12.044	432.626
Payments in Advance	-	5.779
Insurance to Fall Due	3.165	2.293
Other receivables	18.092	30.806
	33.301	471.504
TOTAL CURRENT ASSETS	1.030.310	956.841
NON CURRENT ASSETS		
ACCOUNTS RECEIVABLE (Note 2.7)		
Trade Debtors	-	3.400
Deferred Income	-	(3.400)
	-	-
FIXED ASSETS (Note 2.10 and Appendix I)		
Property, Plant and Equipment	1.896.054	1.073.797
Less: Accumulated Depreciation	(114.468)	(82.086)
	1.781.586	991.711
INTANGIBLES (Note 2.10 and Appendix I)		
Intangibles	20.415	18.357
Less: Accumulated Depreciation	(18.886)	(15.684)
	1.529	2.673
TOTAL NON CURRENT ASSETS	1.783.115	994.384
TOTAL ASSETS	2.813.425	1.951.225

The accompanying notes and appendixes are an integral part of the financial statements

	31.12.2008	31.12.2007
LIABILITIES		
CURRENT LIABILITIES (Note 2.11)		
COMMERCIAL DEBTS		
Accounts Payable	42.413	28.817
	42.413	28.817
FINANCIAL DEBTS		
Bank Loans (Note 6)	153.393	118.527
	153.393	118.527
OTHER DEBTS		
Provisions for Employee Benefits	48.800	46.274
Benefits for Staff Retirement	5.407	30.572
Advanced Collections	82.123	21.941
Payroll	-	8.675
Other Debts	26.960	118.396
	163.290	225.858
TOTAL CURRENT LIABILITIES	359.096	373.202
NON-CURRENT LIABILITIES		
FINANCIAL DEBTS		
Bank Loans (Note 6)	639.943	188.888
	639.943	188.888
OTHER DEBTS		
Advanced Collections	-	8.300
	-	8.300
TOTAL NON-CURRENT LIABILITIES	639.943	197.188
TOTAL LIABILITIES	999.039	570.390
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5,0.570
EQUITY ( Appendix II)		
Accumulated Surplus	1.380.835	965.032
Net Income of the Year	433.551	415.803
	1.814.386	1.380.835
TOTAL EQUITY	1.814.386	1.380.835
TOTAL LIABILITIES AND EQUITY	2.813.425	1.951.225

The accompanying notes and appendixes are an integral part of the financial statements

# PROFIT AND LOSS STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2008

(In U.S. Dollars)

	Year ended 2008	Year ended December 31, 2007
Operating Revenues		
Net Operating Revenues	2.040.649	1.709.539
	2.040.649	1.709.539
SELLING AND ADMINISTRATIVE EXPENSES		
Salaries and Contributions for Retirement	(650.833)	( 481.148)
Travel and Training	(370.687)	( 307.308)
Hired Services	(150.171)	(189.529)
Cooperation, Contributions and Memberships	(178.162)	( 145.274)
Correspondence and Communications	(70.116)	( 52.328)
Fixed Assets Depreciation	(52.918)	( 34.646)
Dissemination Expenses	(64.567)	( 30.964)
Stationery and Other Office Supplies	(33.849)	( 13.901)
Electric Power and Water	(11.670)	( 11.039)
Insurance	(4.408)	( 5.601)
Loss for Bad Debts	(11.000)	( 2.572)
Other Expenses	(17.928)	(10.849)
	(1.616.309)	(1.285.159)
OTHER RESULTS		
Other Results	63.661	14.461
	63.661	14.461
FINANCIAL RESULTS		
Interest Paid	(39.685)	( 44.210)
Interest Income	12.500	17.482
Differences of Investment Valuation	(32.829)	11.636
Exchange Differences	5.564	( 7.946)
	(54.450)	( 23.038)
NET INCOME OF THE YEAR	433.551	415.803

The accompanying notes and appendixes are an integral part of the financial statements





Contadores Públicos Auditoría Impuestos

#### **INDEPENDENT AUDITORS' REPORT**

То

Directors and Members of the General Meeting of Registro Regional de Direcciones IP para América Latina y el Caribe (LACNIC) Montevideo - Uruguay

#### Report on the Financial Statements

 We have audited the enclosed Statements of Assets and Liabilities of Registro Regional de Direcciones IP para América Latina y el Caribe (LACNIC) as of 31<sup>st</sup> December 2008, and the related Statement of Profit and Loss, Changes in Shareholders' Equity and Cash Flows, stated in United States Dollars for the year then ended, and a summary of significant accounting policies and other explanatory notes.

#### Management's Responsibility for the Financial Statements.

2. Management of **Regional de Direcciones IP para América Latina y el Caribe (LACNIC)** is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards. This responsibility includes: designing, implementing and maintaining an internal control relevant to the preparation and fair presentation of the financial statements that should be free from material misstatement, either due to fraud or to error, selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

#### Auditor's Responsibility

- 3. Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance that the financial statements are free from material misstatement.
- 4. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, either due to fraud or to error. In making those risks assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting principles used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.
- We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Independent Auditors' Report

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#### Opinion

6. In our opinion, the financial statements present fairly, in all material aspects, the financial position of Registro Regional de Direcciones IP para América Latina y el Caribe (LACNIC) as of December 31<sup>st</sup>, 2008 and the results of its operations, the changes in its shareholders' equity and its cash flows for the year then ended, in accordance with International Financial Reporting Standards.

#### Limitation of Use

7. This report is only for information and use of the Management of **Registro Regional de Direcciones IP para América Latina y el Caribe (LACNIC)** and it must not be used for any other purpose.

Montevideo, 2nd March 2009.

Cr. Jorge Gutfraind mri – Contadores Públicos C.P. 32.922

Professional stamp in original copy

Independent Auditors' Report









#### FISCAL COMMISSION'S REPORT

(Free translation of the original document in Spanish)

According to the provisions of Article 27, Item (c), of the approved and valid Bylaws of the LATIN AMERICAN AND CARIBBEAN INTERNET ADDRESS REGISTRY (LACNIC), a meeting of the Control Organ is held, with the presence of Cassio Vecchiatti, Gabriel Adonaylo and Adriana Ibarra Vázquez.

In view of the above, a report is issued in reference to the Financial Statements corresponding to the term ended December 31, 2008, and the Independent Auditor's Report.

ONE The results of the audit carried out by MRI Contadores Públicos, Auditoría e Impuestos, in their capacity as independent auditors, in relation to the Financial Statements corresponding to the term ended on December 31, 2008, were reviewed. The result of said audit has been favorable and the referenced financial statements reasonably represent, in all significant aspects,

LACNIC's financial situation as at December 31st, 2008.

TWO - Based on the analysis of the external audit report prepared by the Control Organ and the documentation submitted by or requested from LACNIC, it is our conclusion that the information we have been presented truthfully reflects LACNIC's financial situation as at December 31, 2008, and therefore we advise its approval by the General Assembly under the provisions of LACNIC's Bylaws.

April 3rd, 2008

Cassio Vecchiatti

Gabriel Adonaylo

Adriana Ibarra Vázquez

#### DICTAMEN DE LA COMISION FISCAL

Con fundamento en artículo 27, inciso e) de los Estatuto aprobados y vigentes del REGISTRO DE DIRECCIONES DE INTERNET PARA AMÉRICA LATINA Y CARIBE (LACNIC), se reúne el Órgano de Fiscalización conformado por Cassio Vecchiati, Gabriel Adonaylo y Adriana Ibarra Vázquez.

Atendiendo lo anteriormente expuesto se emite un dictamen relativo a los Estados Contables correspondientes al ejercicio finalizado al 31 de diciembre de 2008 e informe de auditoría independiente.

PRIMERO.- Se reviso el resultado de la auditoría de los Estados Contables del ejercicio finalizado al 31 de diciembre de 2008 realizado por la firma MRI Contadores Públicos, Auditoría e Impuestos como auditor independiente. El resultado de dicha auditoría ha sido fiovanable y los estados contables referidos presentan razonablemente en todos sus aspectos significativos la situación patrimonial de LACNIC al 31 de diciembre de 2008.

SEGUNDO.- Derivado del análisis que realizo el Órgano de Fiscalización del informe del auditor independiente y la documentación presentada por o requerida a LACNIC, concluimos que los datos presentados reflejan razonablemente la situación patrimonial de LACNIC al 31 de diciembre de 2008, por lo que aconsejamos su aprobación por la Asamblea General de conformidada con el Estatuto de LACNIC.

> Cabriel d Cabriel Adonayto

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## Main Activities and Services Offered by LACNIC

LACNIC, the Latin American and Caribbean Internet Addresses Registry, is the organization responsible for allocating and administrating IP Addresses and related resources (Autonomous System Numbers and Reverse Resolution) for the region of Latin American and the Caribbean. It is one of the five Regional Internet Registries that exist worldwide.

## IPv6 Address Allocation IPv6 Address Allocation Autonomous System Numbers Allocation Training Activities Public Policy Forum Annual Member Assembly Coordination and Participation in Coordination and Participation in

LACNIC operates on the basis of a self-regulation model whereby Internet resource administration policies are developed openly, transparently, and based on participative processes.





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