



# IPv6 in NIC Chile

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# IPv6: how and when

- NIC Chile IPv6 goals:
  - Support for AAAA records in the .CL zone
  - IPv6 connectivity for our services
- A few customers request IPv6 support
  - First request December 2004
- Chilean ISPs support for IPv6:
  - First informal and “best effort” link March 2006
  - First contract for IPv6 connectivity June 2008

# History 2003

- **January:** First IPv6 block assigned by LACNIC
  - 2001:1200::/32 Mexico
- **May:** LACNIC announces “easy access to IPv6 blocks”
  - No payment for the first two years
- **August:** First IPv6 block assigned to Chile
  - 2001:1310::/32 Reuna

# History 2004

- **December:** NIC Chile advisory committee (CNNA) suggests support for IPv6 in the .CL zone
- **December:** NIC Chile starts searching for a “native” IPv6 link in Chile

# History 2005

- **April:** Only one chilean ISP answers to NIC Chile request “no support for IPv6”
- **August:** First IPv6 tour in Chile
- **September:** 2001:1398::/32 NIC Chile
- **November:** IPv6 support in the .CL zone
- **November:** 2800:8::/32 Netup (small chilean ISP, later called Netglobalis)

# History 2006

- **March:** santiago6.nic.cl, a secondary DNS server for .CL hosted in Netglobalis, starts answering DNS queries exclusively in IPv6
  - santiago6.nic.cl was never included in the .CL zone
- **June:** End of 6bone

# History 2007

- **August:** 2008:150::/32 VTR (biggest cable TV and Internet provider to homes in Chile)
- **August:** NIC Chile local network works in dual-stack
  - Started work for IPv6 connectivity in our main site, via a tunnel with Netglobalis
- **August:** 2800:160::/32 GTD
- **September:** Second IPv6 tour in Chile
- **October:** 2008:1b0::/32 Catholic University
- **November:** Adexus promises NIC Chile IPv6 connectivity in March/2008
- **December:** 2800:1f0::/32 Adexus

# History 2008

- **February:** Root servers support AAAA records
- **April:** NIC Chile launches first RFP in Chile for IPv6 connectivity:
  - Two ISPs interested
  - Only one understood we required IPv6
- **June:** GTD got the contract for an IPv6 link for NIC Chile



# Time and costs

- NIC Chile local network in dual-stack
  - About one week half time of our 2 most qualified net-admins
  - Our Linux-based routers, not a problem at all
  - No problems with other network equipment, servers and clients (Windows, Linux, Mac)
  - Most of the time dedicated to bring IPv6 connectivity via a tunnel with NetGlobalis

# Time and costs

- Native IPv6 connectivity
  - Since 2004 we have requested IPv6 connectivity from local ISPs
  - First promises: November 2007
  - First contract for IPv6 connectivity: June 2008
  - We are aware of 2 other ISPs with serious plans for offering IPv6 connectivity
  - The 3 main ISPs in Chile: No IPv6 connectivity yet
  - Informally we learned that some ISPs have to invest for traffic shaping in IPv6

# Future work

- Service with IPv6
  - DNS in our primary and our own anycast secondary DNS cloud
  - whois
  - http
- Change the rest of our Internet links to dual-stack
  - Depends on the main chilean ISPs



# NIC Chile

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