

# DNS Reverse Delegations in IPv6

## Lacnic on the Move

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# DNS – Domain Name System

- Domain Name System is a distributed data base system which allows the translation of name to an IP address

www.lacnic.net → 200.3.14.184

# Reverse DNS

- Opposite to DNS, translate IP to name

## **IPv4 example**

```
$nslookup 200.3.14.184
```

```
184.14.3.200.in-addr.arpa name = www.lacnic.net.
```

## **IPv6 example**

```
nslookup 2001:13c7:7002:3000::10
```

```
0.1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.3.2.0.0.7.7.c.3.1.1.0.0.2.ip6.arpa name =  
ns.lacnic.net.
```

# Why to use rDNS?

Some services in our network need rDNS to work properly:

- Email server need to be configure in order to reject SPAM
- ftps servers some times are configured to check rDNS
- Some http (web server) are configured as well to check rDNS

# Configuring an IPv6 zone in your server

- Zone must be configured in your server following the nibble boundary format
- A **nibble boundary** is a network mask which aligns on a 4-bit **boundary**, e.g. /48 /44 /40 /36 /32 etc
- An example of configuration zone you can find at <https://www.lacnic.net/639/2/lacnic/configurations-ipv6-blocks>

# Delegating the reverse DNS

- Log into the MiLacnic portal at <http://milacnic.lacnic.net> and authenticate with the admin userID

ES EN PT

**milacnic**  
Management System

User ID

Password

Login

[Forgot your password?](#) | [Forgot your User ID?](#)

# Delegating the reverse DNS

The screenshot displays the LACNIC web interface for managing an IPv6 address. The address **2801:1b8::/44** is highlighted with a red circle. The interface is divided into several sections:

- Autonomous Systems:** A list of ASes including AS28001, AS28002, and AS28110.
- IP by LACNIC:** A list of IP ranges such as 45.6.248.0/22, 45.6.252.0/22, 168.121.184.0/22, 170.247.168.0/22, and 179.0.156.0/22.
- 2801:1b8:: - 2801:1b8:f:ffff:ffff:ffff:ffff:ffff:** A detailed view of the selected IPv6 address, marked as **ASSIGNED**. It features two pie charts:
  - DNS reverso:** A green pie chart labeled "Correcto", indicating that reverse DNS is correctly configured.
  - Subasignaciones:** A blue pie chart labeled "Disponibile", indicating that the address is available for delegation.
- Organization:** LACNIC - Latin American and Caribbean IP address (UY-LACN-LACNIC).
- Date assigned:** 02-sep-2016
- Date updated:** 02-sep-2016
- Contacts:** TECHNICAL (AIL) and ABUSE (AIL).
- Action Buttons:** Sub-Assign, **Delegate (rDNS)** (highlighted with a red circle), Edit Contacts, and Origin ASN.
- Help:** A green button with a question mark icon.

# Delegating the reverse DNS

**Documents**  
**Membership**

Geolocation **BETA**  
RPKI status  
rDNS status  
Payments  
Transfers  
Security  
Bulkwhois  
Other Organizations

### New delegation

Ingrese los bloques IP's que desea delegar

**Primary (\*)**

**Alternate**

**Alternate**

**Alternate**

**Alternate**

**Alternate**

### Zone verification (dig)

|  |  |
|--|--|
| 0.0.0.8.b.1.0.1.0.8.2.ip6.arpa.<br>NS1.LACNIC.NET.UY | <input checked="" type="checkbox"/> 2019060406 |
| 0.0.0.8.b.1.0.1.0.8.2.ip6.arpa.<br>NS2.LACNIC.NET.UY | <input checked="" type="checkbox"/> 2019060406 |

### Preview

**Organización**  
UY-LACN-LACNIC

**Rangos IP's**  
2801:1B8::/44

**NS Primario**  
NS1.LACNIC.NET.UY

**NS Esclavos**  
NS2.LACNIC.NET.UY

Are you sure you want to perform the delegation?



# rDNS propagation

The servers are updated, with information registered on that system, on a daily basis in the following time schedule:

- 00:00 hrs (BRST/BRT)
- 04:00 hrs (BRST/BRT)
- 8:00 hrs (BRST/BRT)
- 12:00 hrs (BRST/BRT)
- 16:00 hrs (BRST/BRT)
- 20:00 hrs (BRST/BRT)

More info: [https://www.lacnic.net/1017/2/lacnic/dns-\\_-reverse-resolution](https://www.lacnic.net/1017/2/lacnic/dns-_-reverse-resolution)

# Checking via whois query

Accessing to the LACNIC whois server you can verify if the a range are correctly configured:

<http://whois.lacnic.net>

```
inetnum:      2801:1b8::/44
status:       assigned
aut-num:      N/A
owner:        LACNIC - Latin American and Caribbean IP address
ownerid:      UY-LACN-LACNIC
responsible:  Ernesto Majó
address:      Rambla República de México, 6125, -
address:      11400 - Montevideo -
country:      UY
phone:        +598 26042222 [0000]
owner-c:      AIL
tech-c:       AIL
abuse-c:      AIL
inetrev:      2801:1b8::/44
nserver:      NS1.LACNIC.NET.UY
nsstat:       20190702 AA
nslastaa:     20190702
nserver:      NS2.LACNIC.NET.UY
nsstat:       20190702 AA
nslastaa:     20190702
created:      20160902
changed:      20160902
```

# QUESTIONS?

