

# Addressing Prefix Reachability Issues

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# Overview

- Background
- The problem
- APNIC Resource Quality Assurance
  - Scope
  - Challenges
  - Strategy

# Why IP addresses are blocked?

- IP address can get filtered for various reasons:
  - Outdated bogon lists
  - Past abusive behaviour
  - Blacklist from spamming and DOS attacks
  - Security/access policies

# IP Filtering methods

- Route filtering
- Application filtering, esp. Mail
- Firewall filtering

# The Problem

- Legitimate internet traffic fails to reach the destination due to outdated filters and black/bogon lists
- RIR seen as responsible for allocating 'unusable' blocks
- Situation worsens as free pool of IPv4 addresses reaches exhaustion
  - New address blocks attract un-wanted levels of traffic from private-use domains, mis-configured equipment, and scanning activity.
  - Prefixes get recycled

# Resource Quality Assurance

APNIC acts to minimize any problems in routability through communication, training, and testing

## Testing for new /8 blocks

- NOC mailing lists notification
- Reachability test conducted in conjunction with RIPE NCC
- APNIC conducts further testing, to quantify the extent to which networks attract “pollution” or “unwanted” traffic

# Resource Quality Assurance

- **Community awareness campaign**
  - Build relationships with reputable organizations that maintain bogon/black list
  - Education through publications and APNIC trainings
  - Keep the Whois Database accurate
    - Actively remind resource holders to update their data

# What you can do

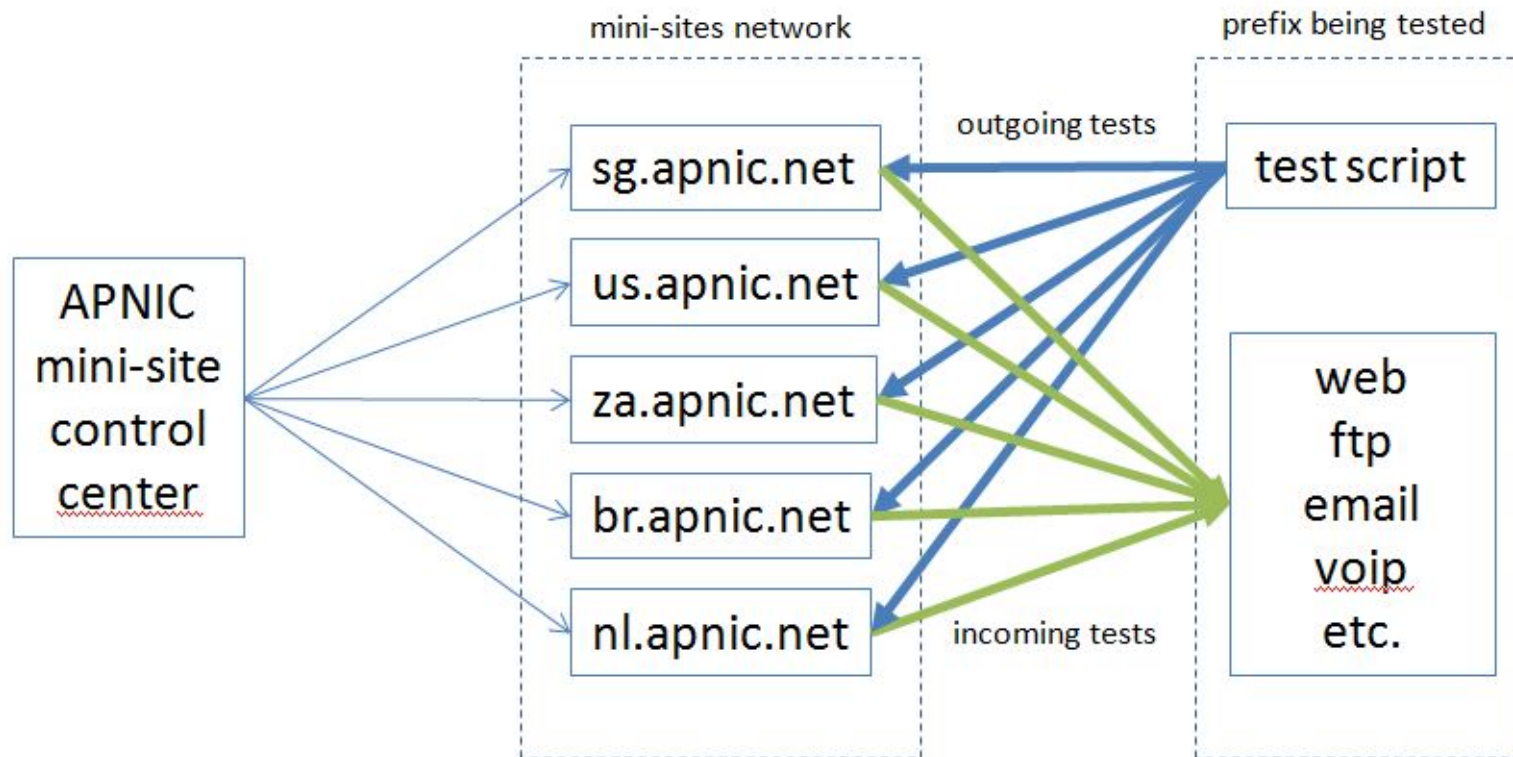
- **Manage bogon filtering responsibly**
  - To ensure that addresses are not mistakenly filtered through routers, it is important to keep router ACLs updated
- **Keep informed about bogon filters and IANA allocations.** Visit regularly:
  - [Team Cymru](#)
  - [IANA](#)



# Future project

- **APNIC managed mini-sites (bots) at strategic locations**
  - Application level tests (http/https, dns, mail, ftp, ssh/telnet, voip, xmpp, vpn etc.)
  - Tests both outgoing and incoming connections to the prefix being tested
  - Reachable on both IPv4 and IPv6
    - To test IPv4 – IPv6 transition works

# Future project



**We need your help, so let's  
work together!**

Thank you

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