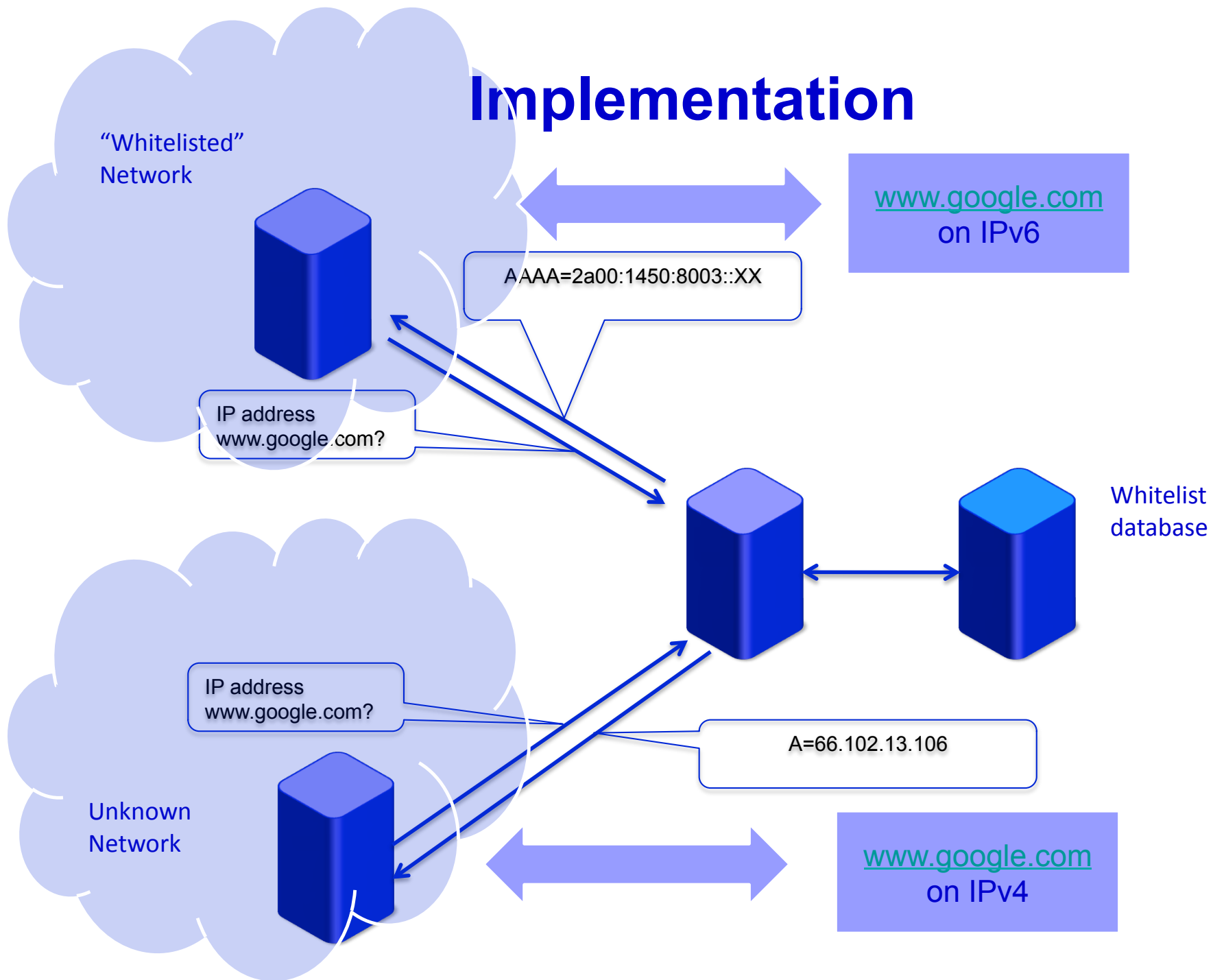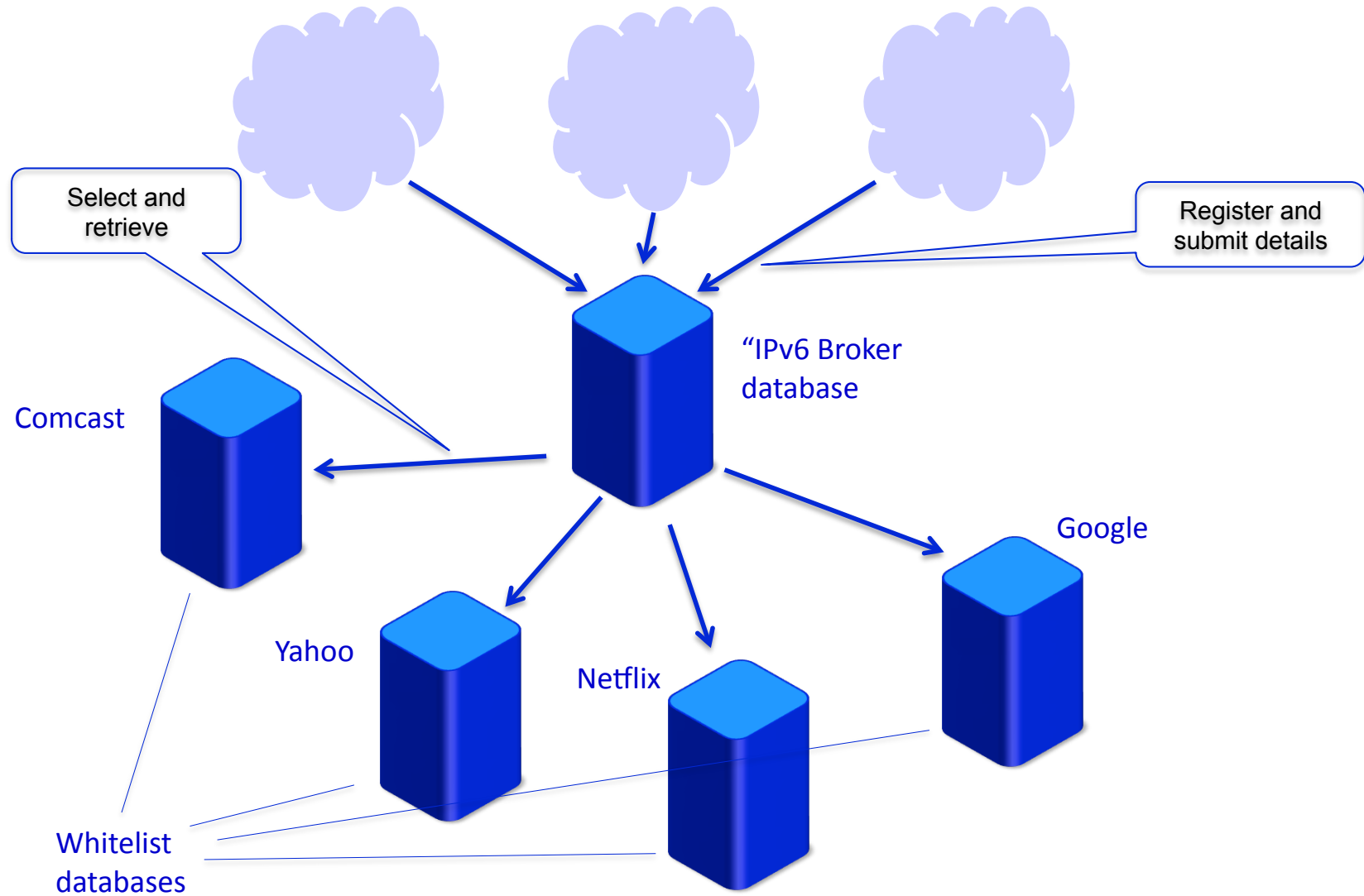# IPv6 Broker Database

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Background

- More networks are becoming IPv6 enabled
  - Some implementations are broken and may be hard to detect
  - Looking for content

- More Content Providers have content on IPv6
  - Concerned about suboptimal performance as compared to IPv4
  - Don't want to offer poor service to end users

- Google are using whitelisting to provide access
  - Network operator certifies mature deployment
  - Commits to fix any detected issues

Implementation

"Whitelisted" Network

www.google.com on IPv6

AAAA=2a00:1450:8003::XX

IP address www.google.com?

Whitelist database

IP address www.google.com?

A=66.102.13.106

Unknown Network

www.google.com on IPv4

IPv6 Broker Database

Select and
retrieve

Register and
submit details

"IPv6 Broker
database

Comcast

Google

Yahoo

Netflix

Whitelist
databases

4

Why are we interested?

- Within our mission of a NCC
  - Provide neutral and impartial coordination services

- Allows incremental deployment
  - Gradually improves confidence

- Social and publicity element
  - Public list of ISPs that claim their IPv6 maturity
  - Public list of content providers that support IPv6

- We can offer simple checks and tools
  - Check and compare connectivity (IP4/IPv6)
  - Diagnostics
  - Statistics

Roll-out

- **Phase 1**
    - Proof of concept
    - NCC is the sole end user of Google resources

- **Phase 2**
    - Additional content providers

- **Phase 3**
    - Invite existing Google whitelist members to join

- **Phase 4**
    - Open to other network operators

Proof of concept

- http://ipv6netdb.ripe.net/   un: ipv6 pw: ipv6

Questions?