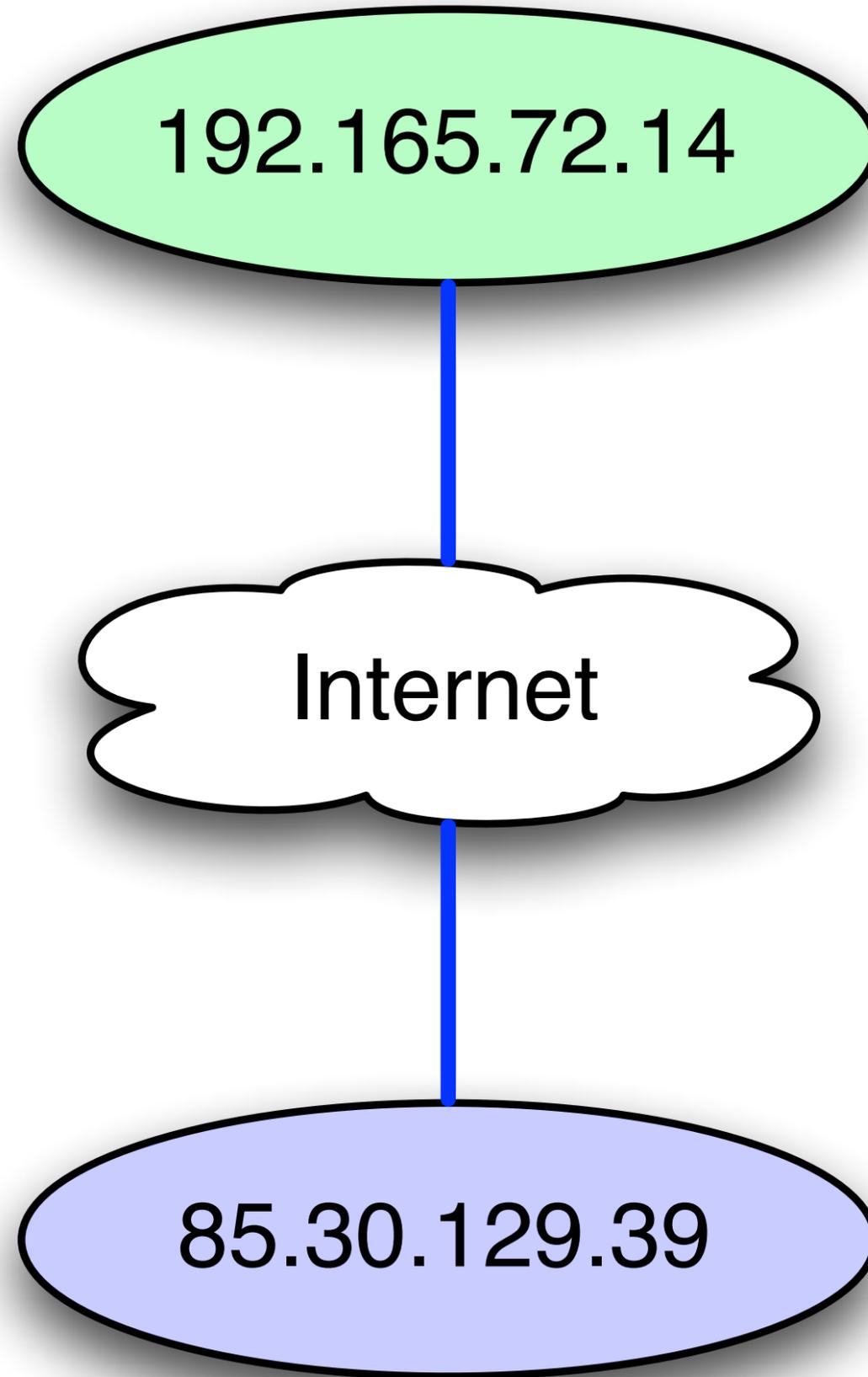




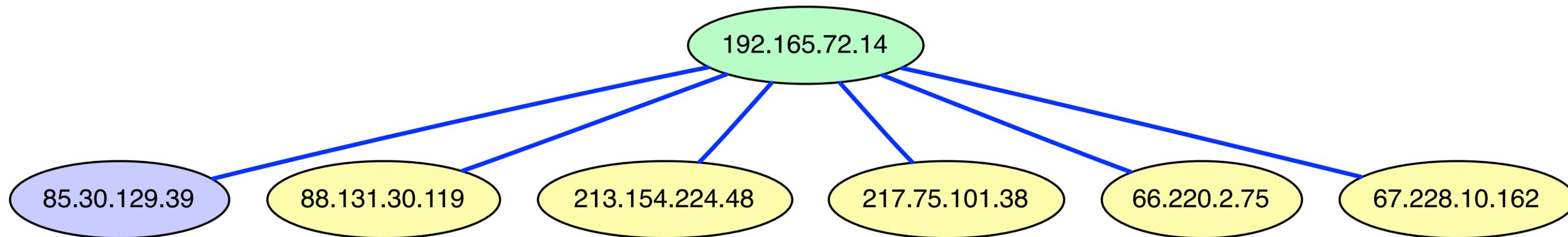
# Patrik Fältström

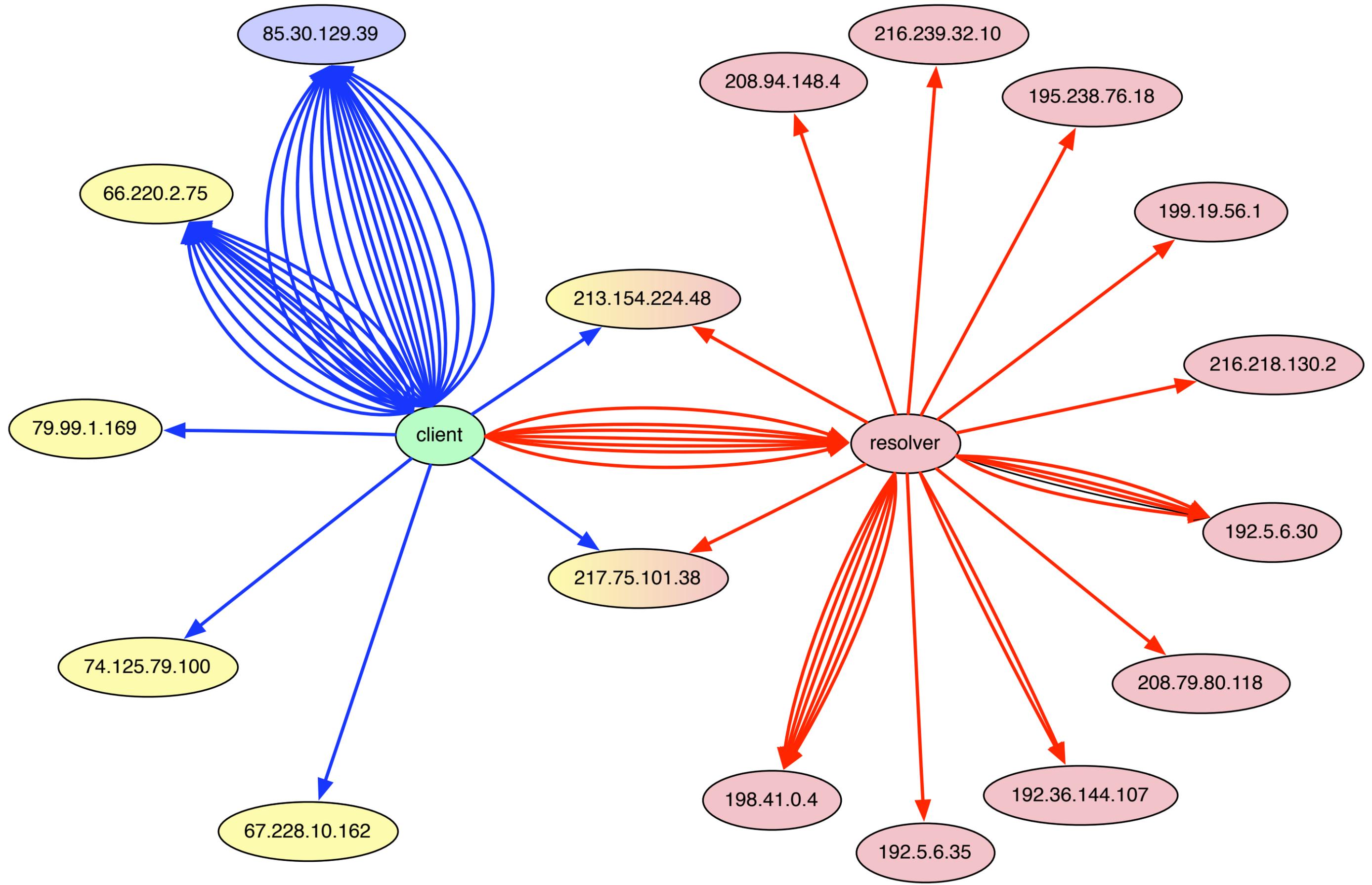
Distinguished Consulting Engineer  
Office of the CTO  
Cisco

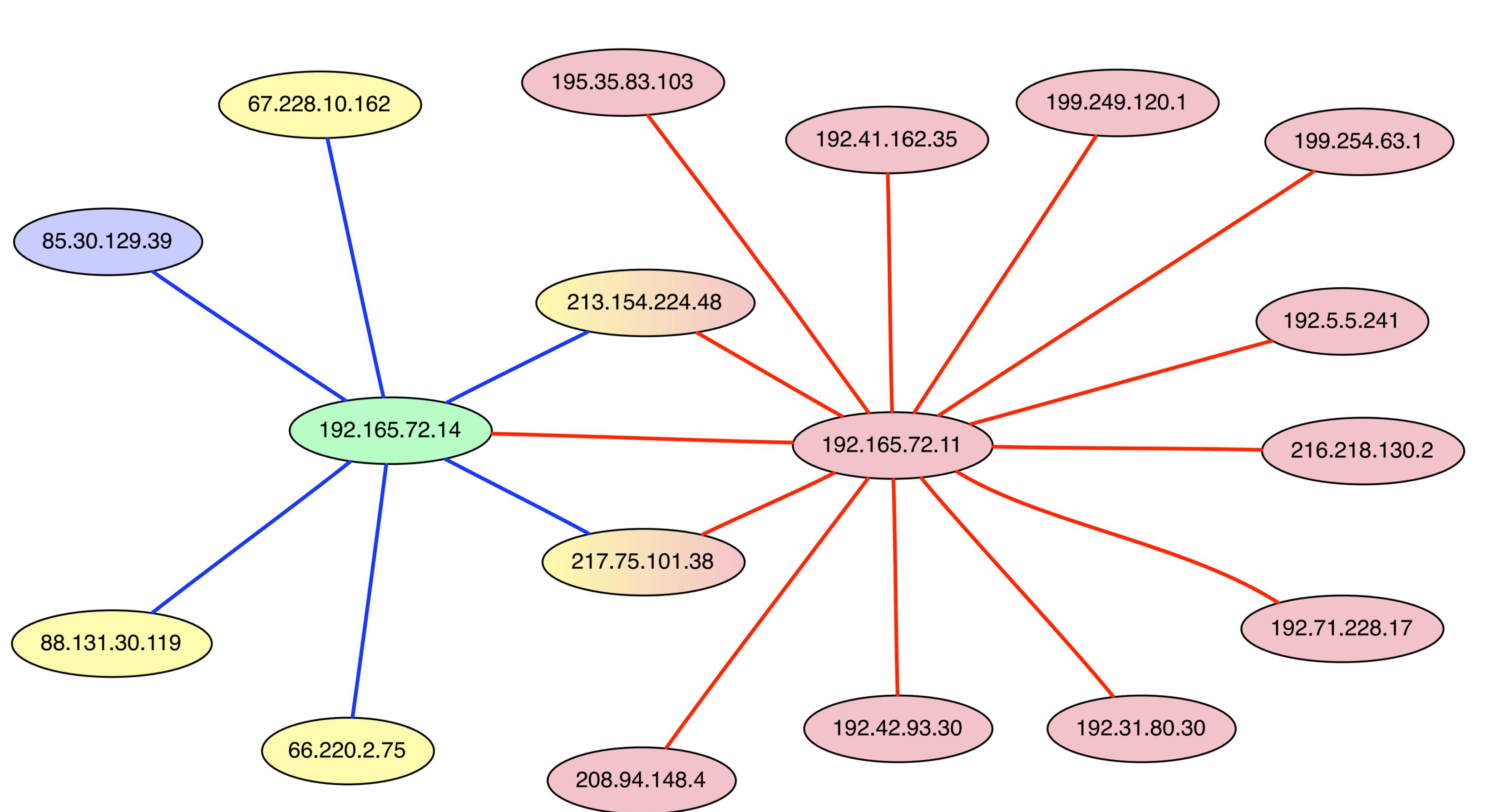


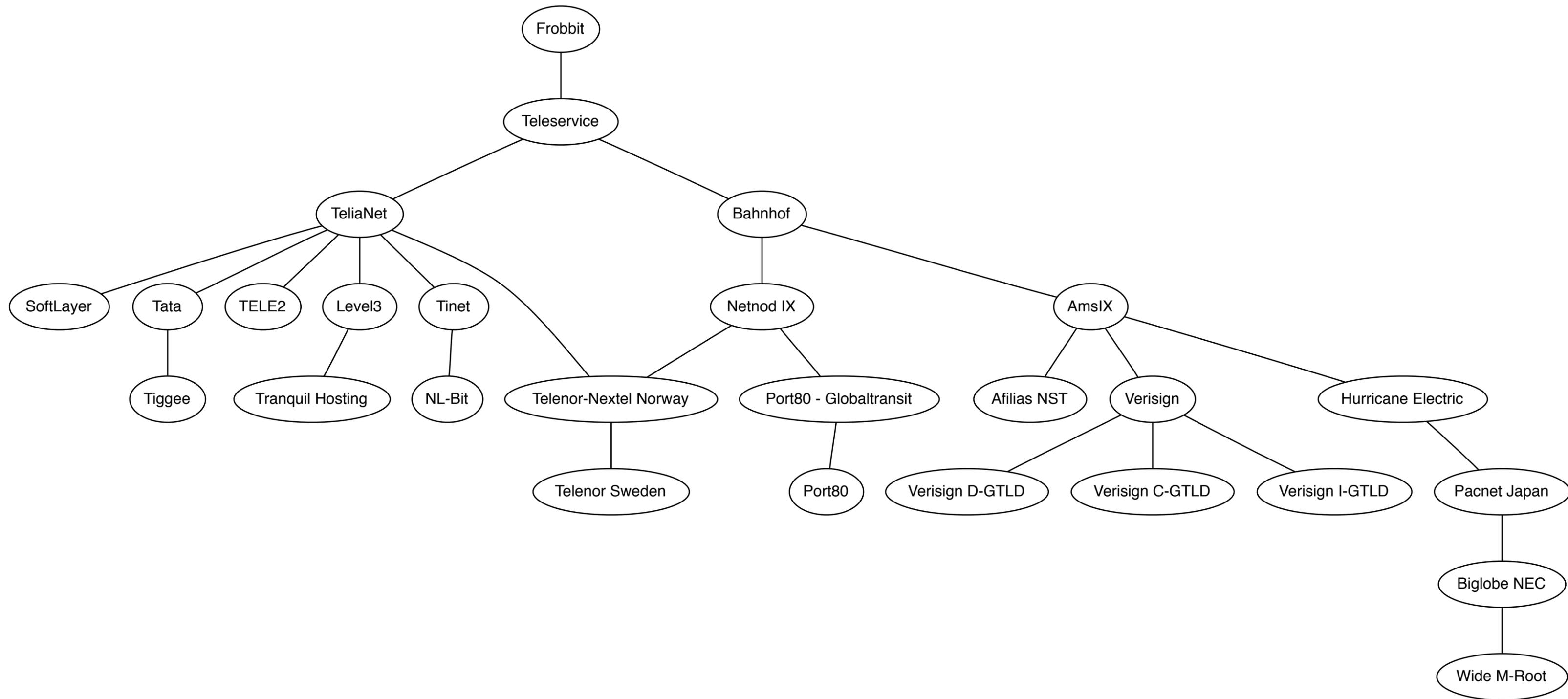
192.165.72.14

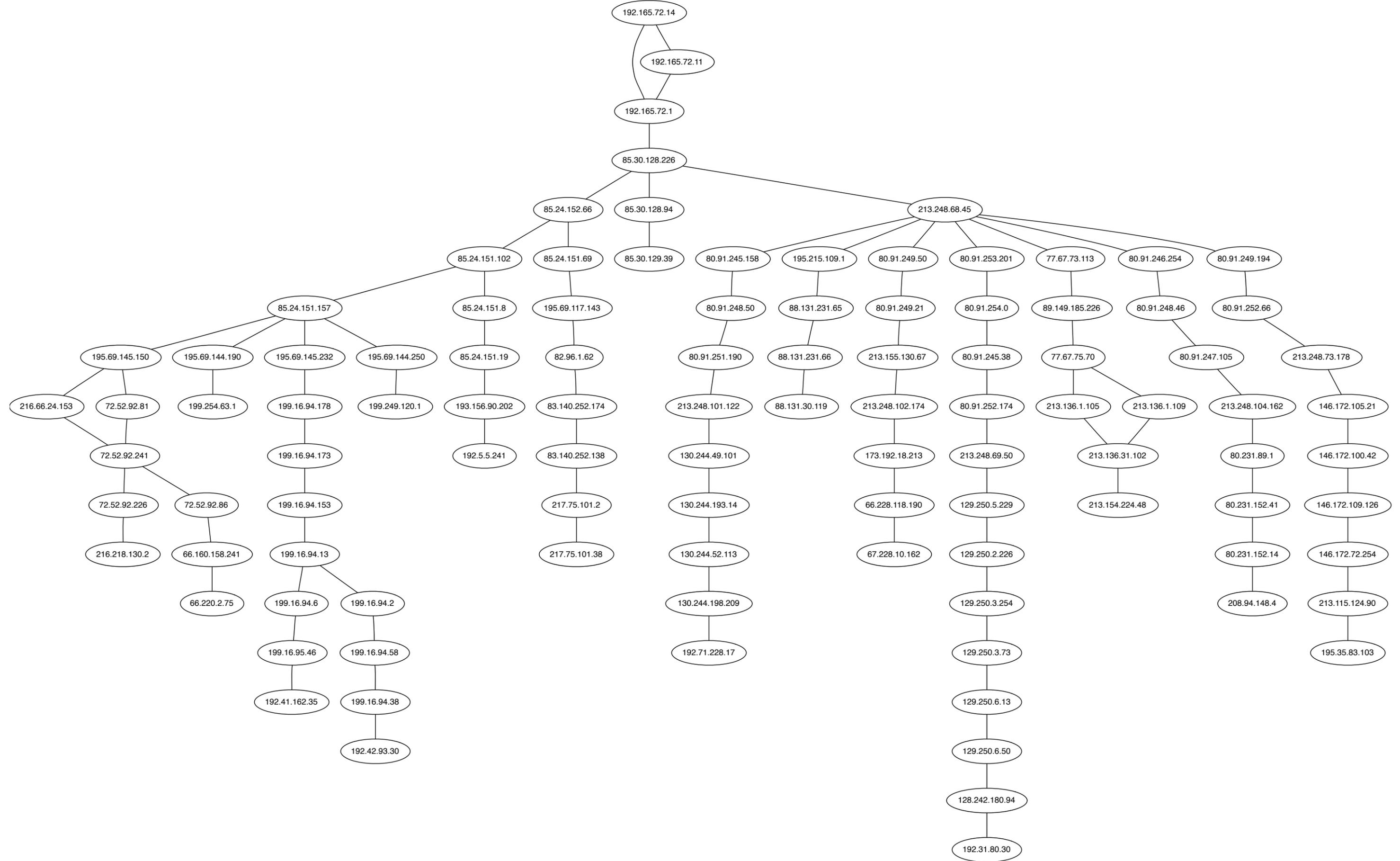
85.30.129.39

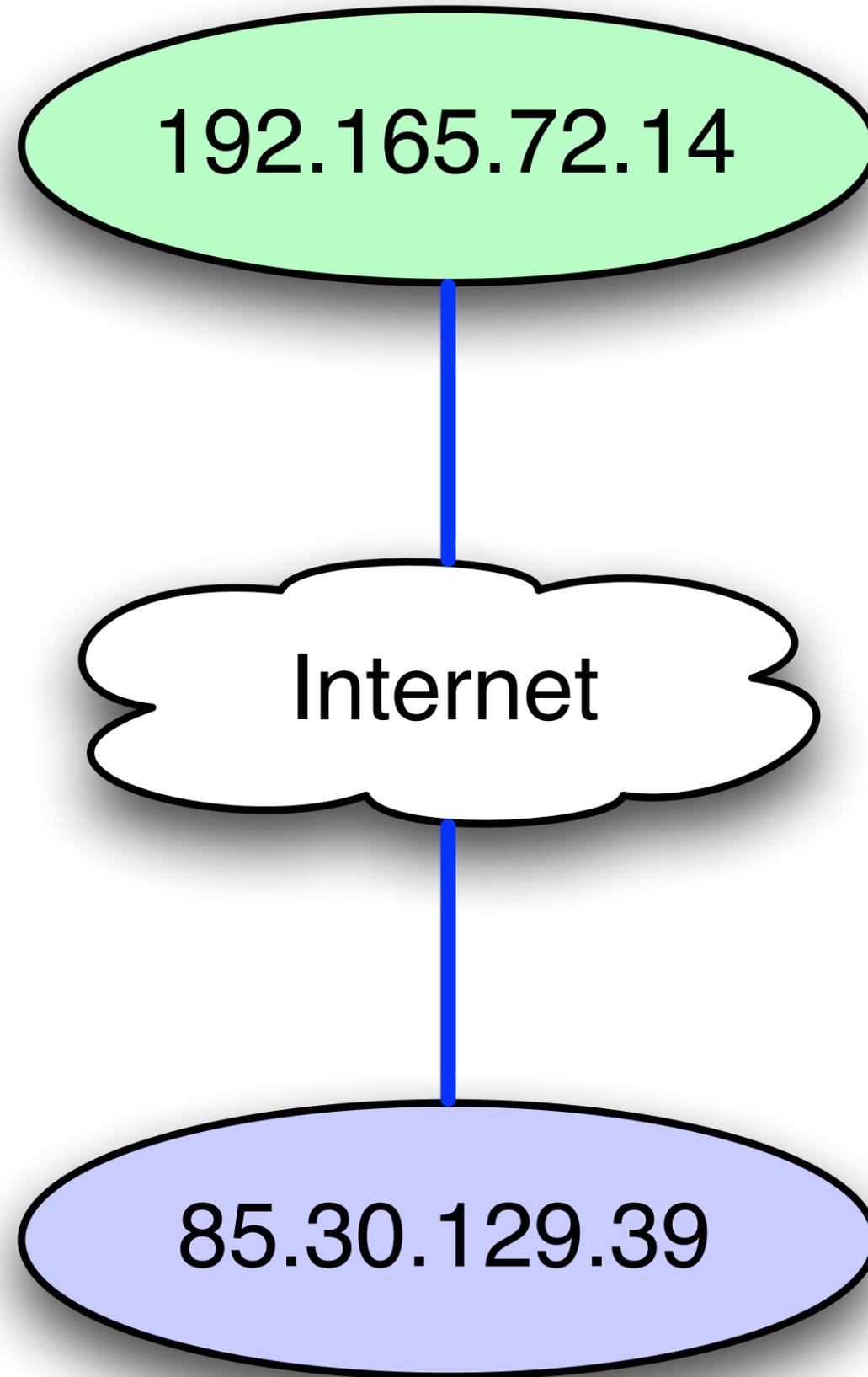








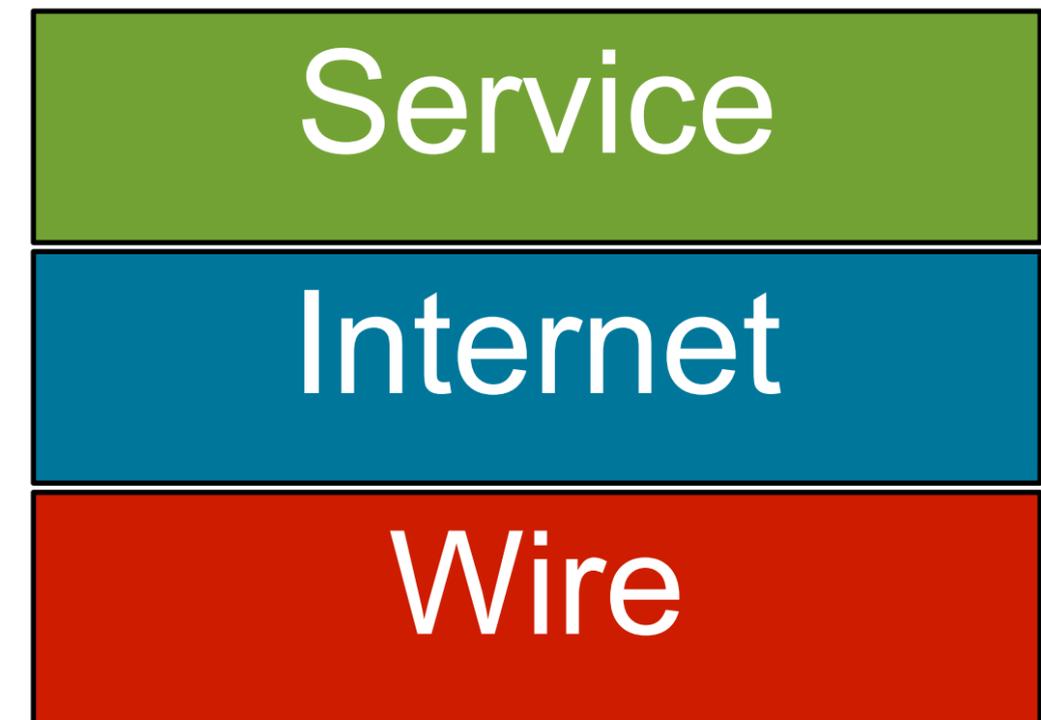


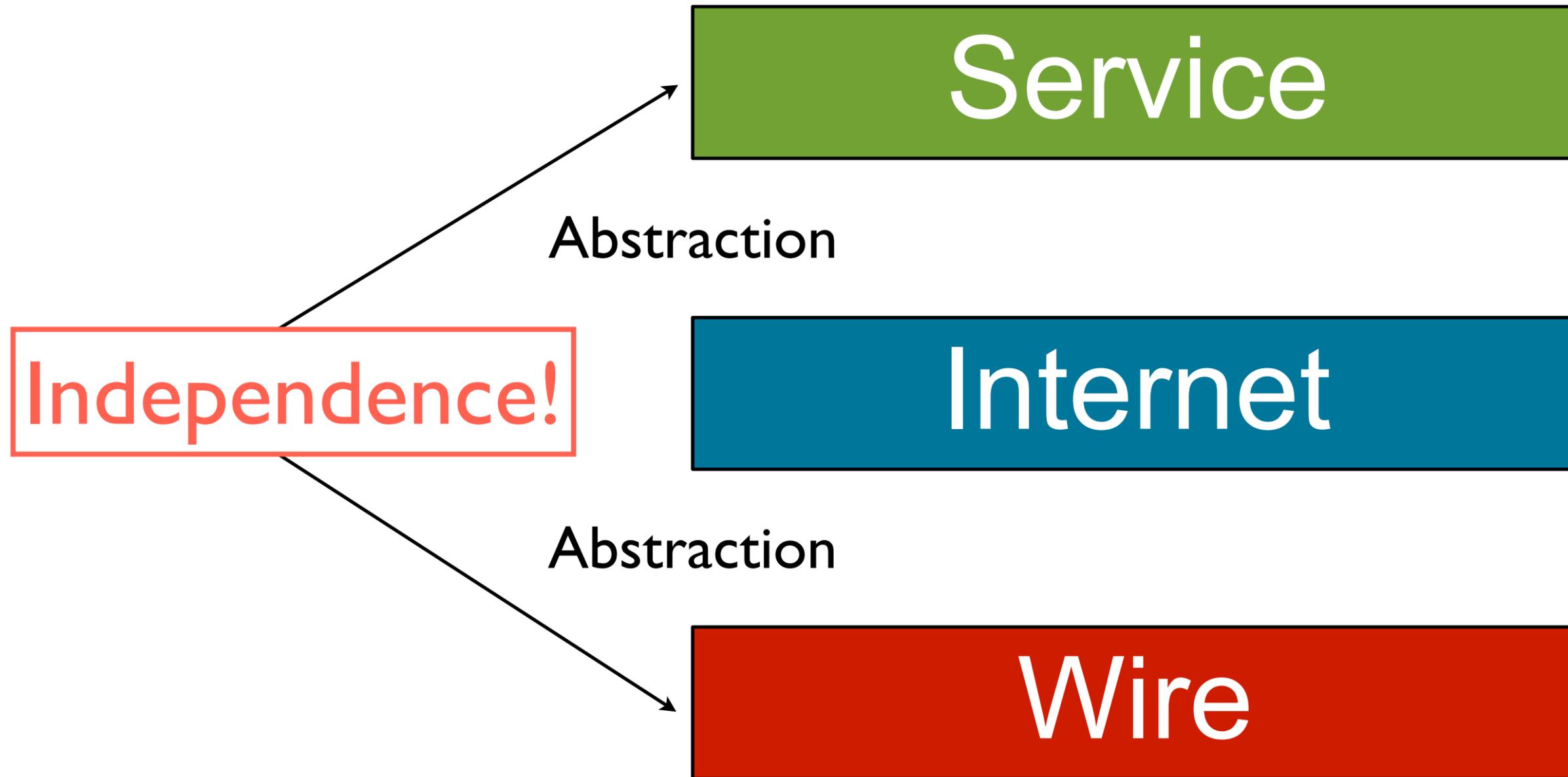


## Historically, Vertically Integrated



## New, Horizontally Integrated





# Why IPv6 is important?

- **Anyone can address anyone else**
  - Market economy forces should do selection of services
  - Innovation is important regardless of location in network
- **Future Internet is (again) p2p communication**
  - For a few years, majority has been client - server
- **End to end is important for transformation of society**
  - For a few years, majority has been client - server

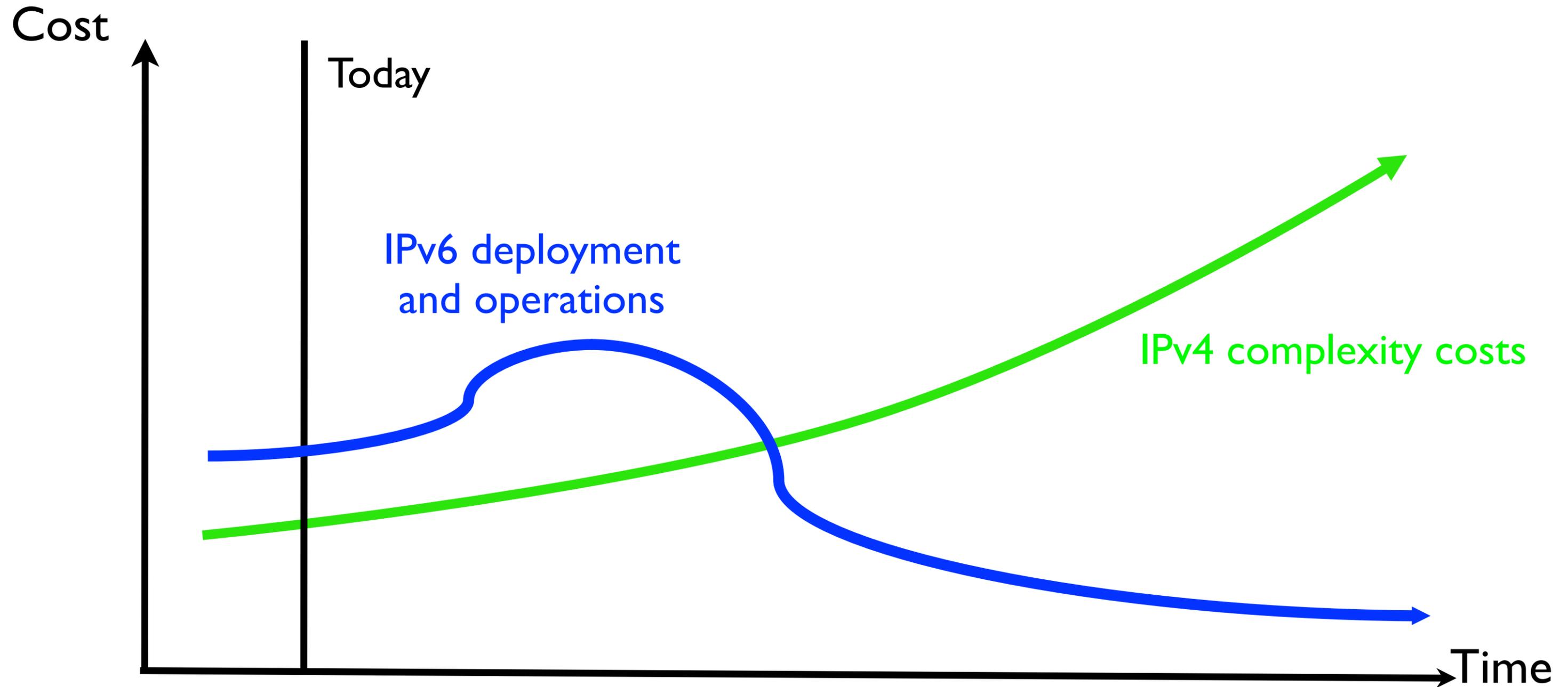
# What is Swedish Government doing?

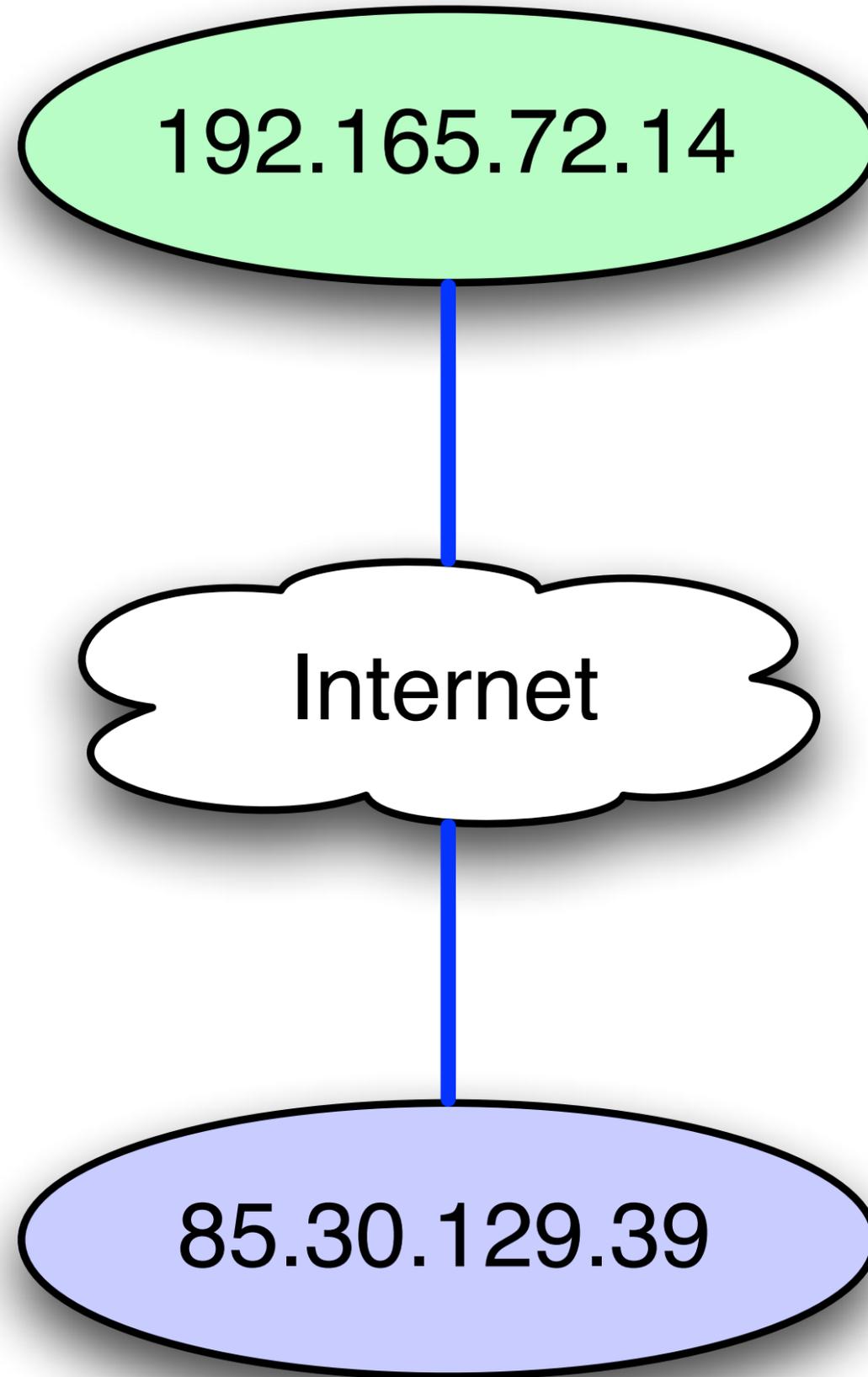
- **Requested e-Delegation to make a plan**
  - <http://www.edelegationen.se/sida/vagledning-for-inforande-av-ipv6>
- **Push for A Digital Agenda for Sweden**
  - Digital divide is of concern
  - Everyone should participate
  - Transformation of society
- **Requested PTS to take one step further**
  - Describe more in detail what people should do

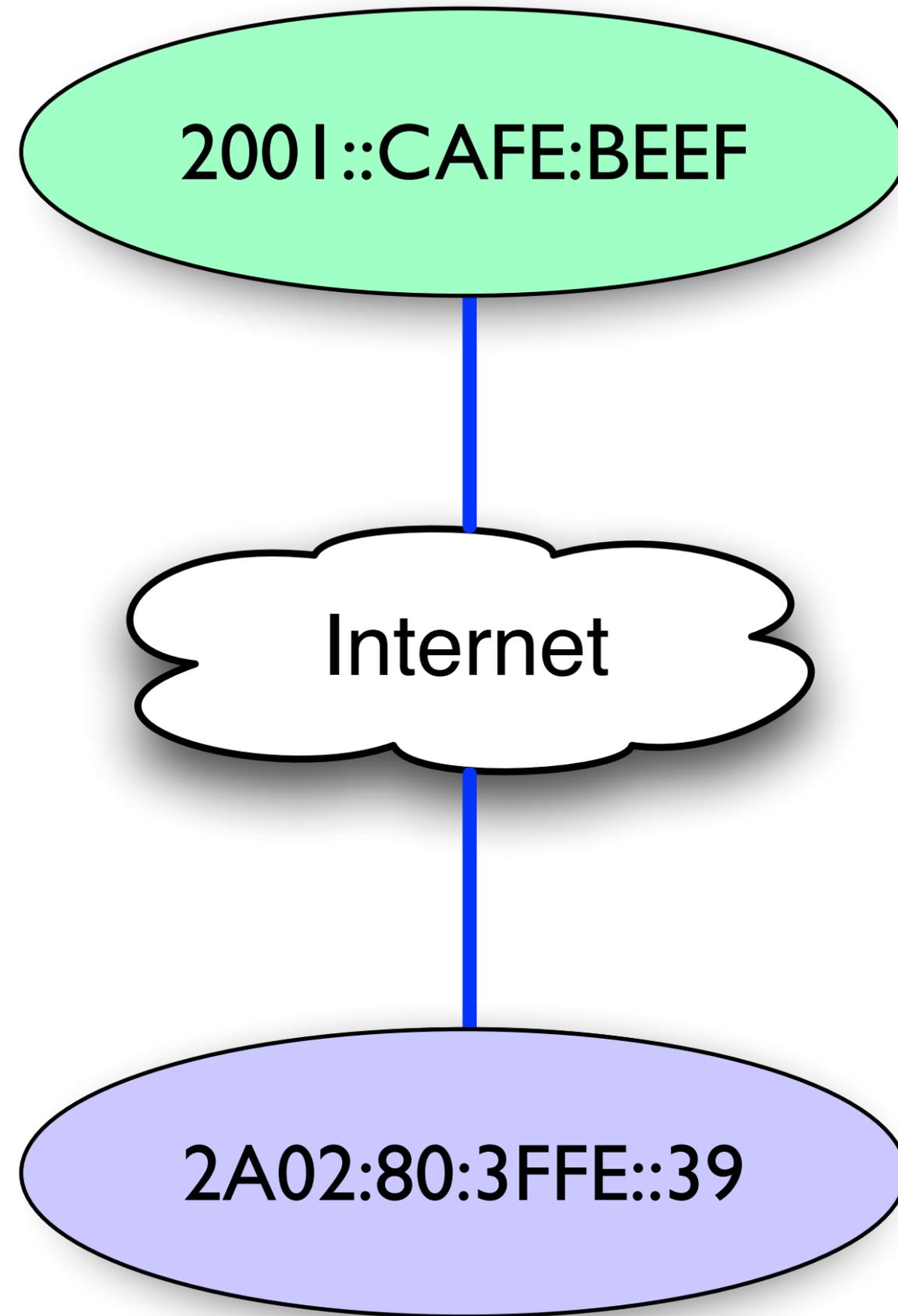
# The IPv6 plan

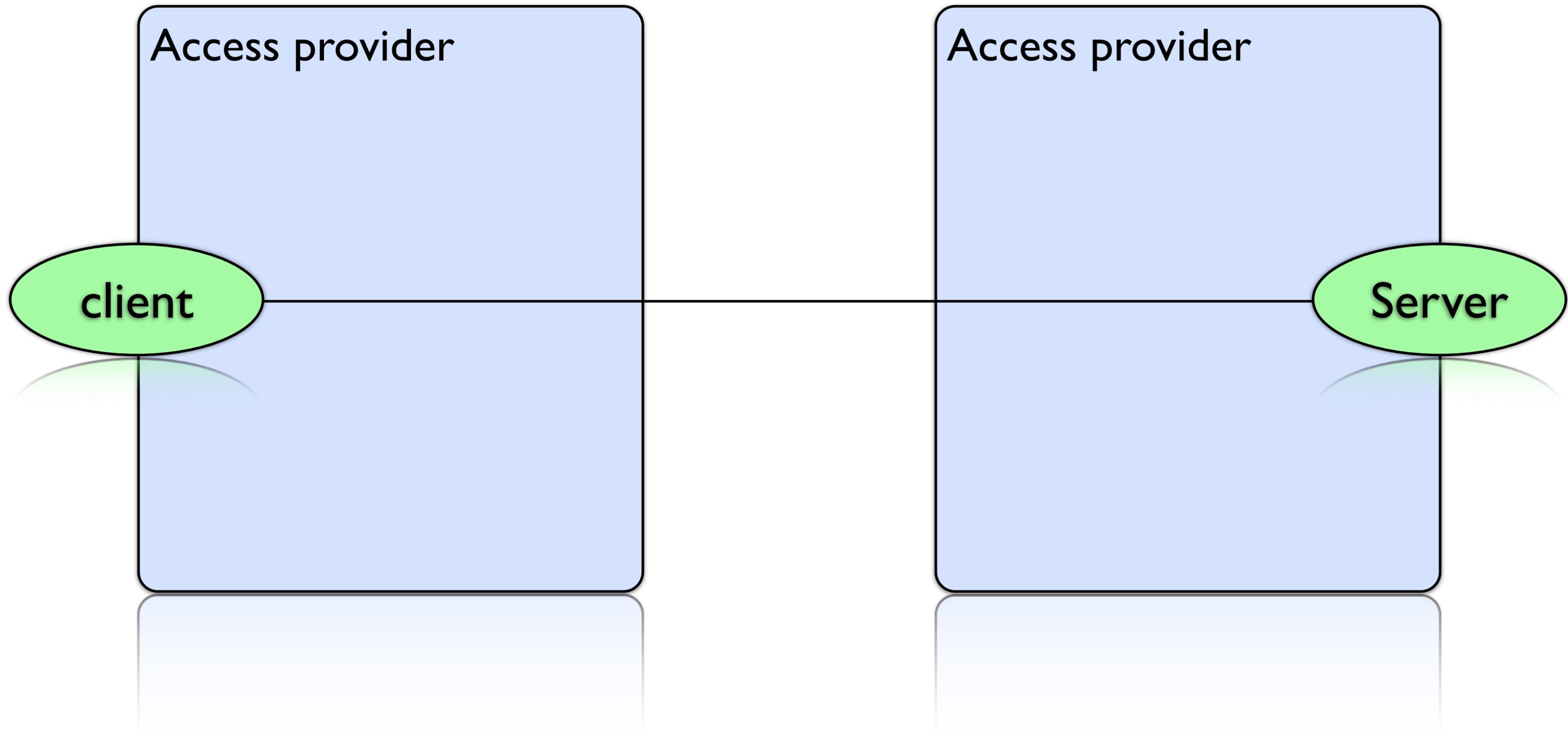
- *Vad vill uppnås med denna vägledning?*
- **Mål:** En övergång till IPv6, för myndighetens externa kommunikation (webbplats och publika e-tjänster), bör vara genomförd senast vid utgången av 2011. Det är sedan upp till var myndighet att göra sin egna bedömning av tidpunkten för omställningen av den interna IT-miljön till IPv6.
- **Syfte:** Att stödja offentlig förvaltning att i ett första steg genomföra en konsekvens- analys avseende övergång till IPv6 och därefter genomföra själva övergången.

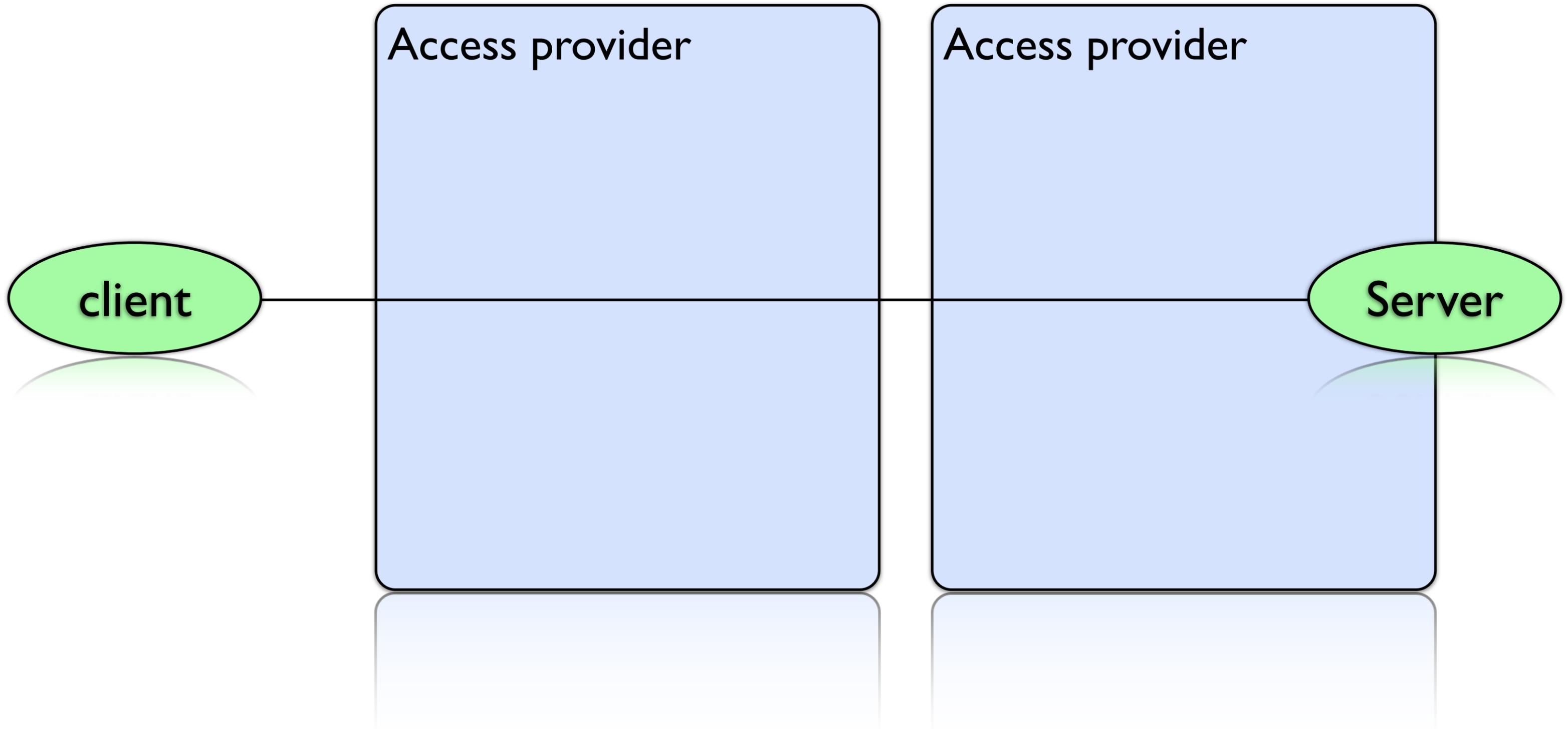
# IPv6 vs. IPv4 costs over time

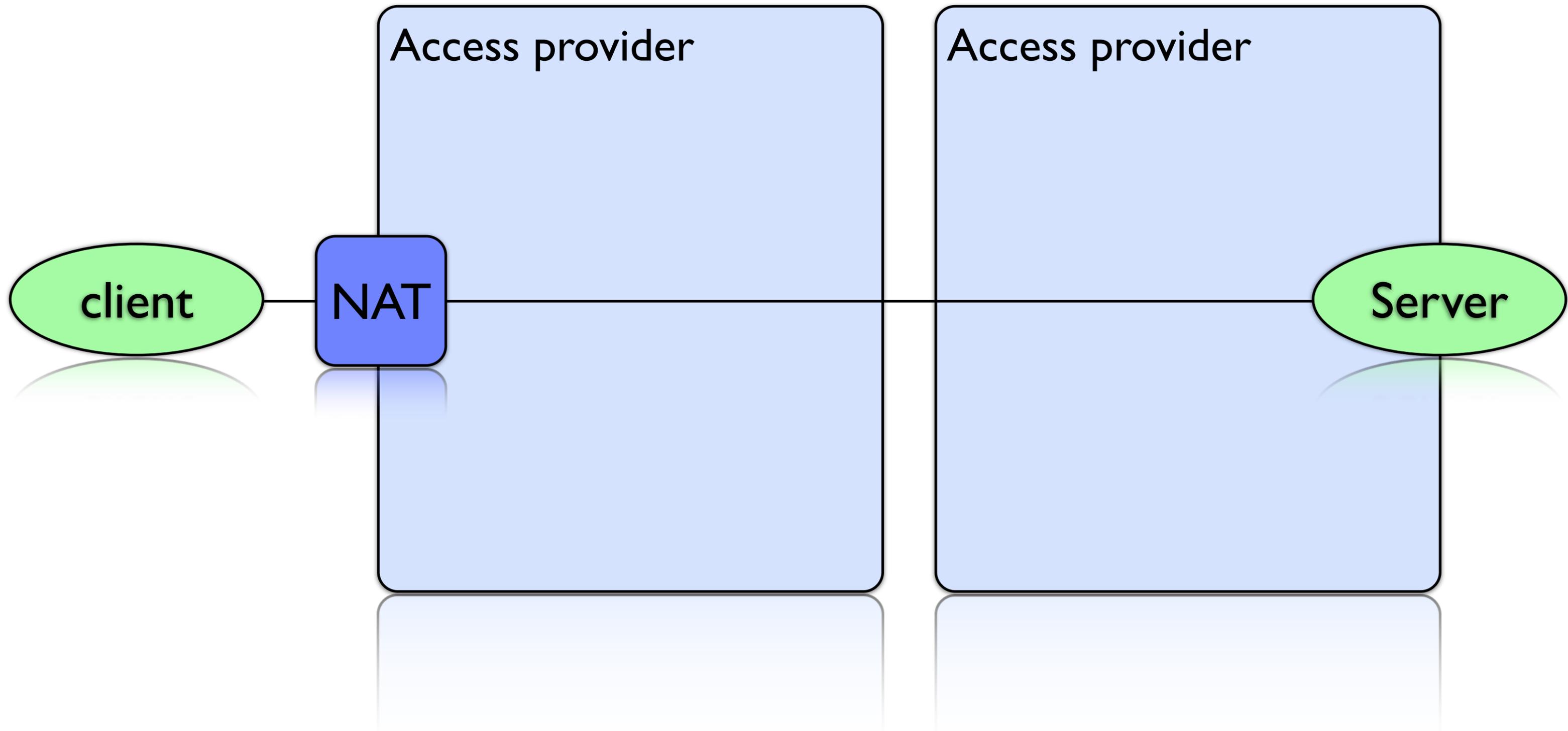


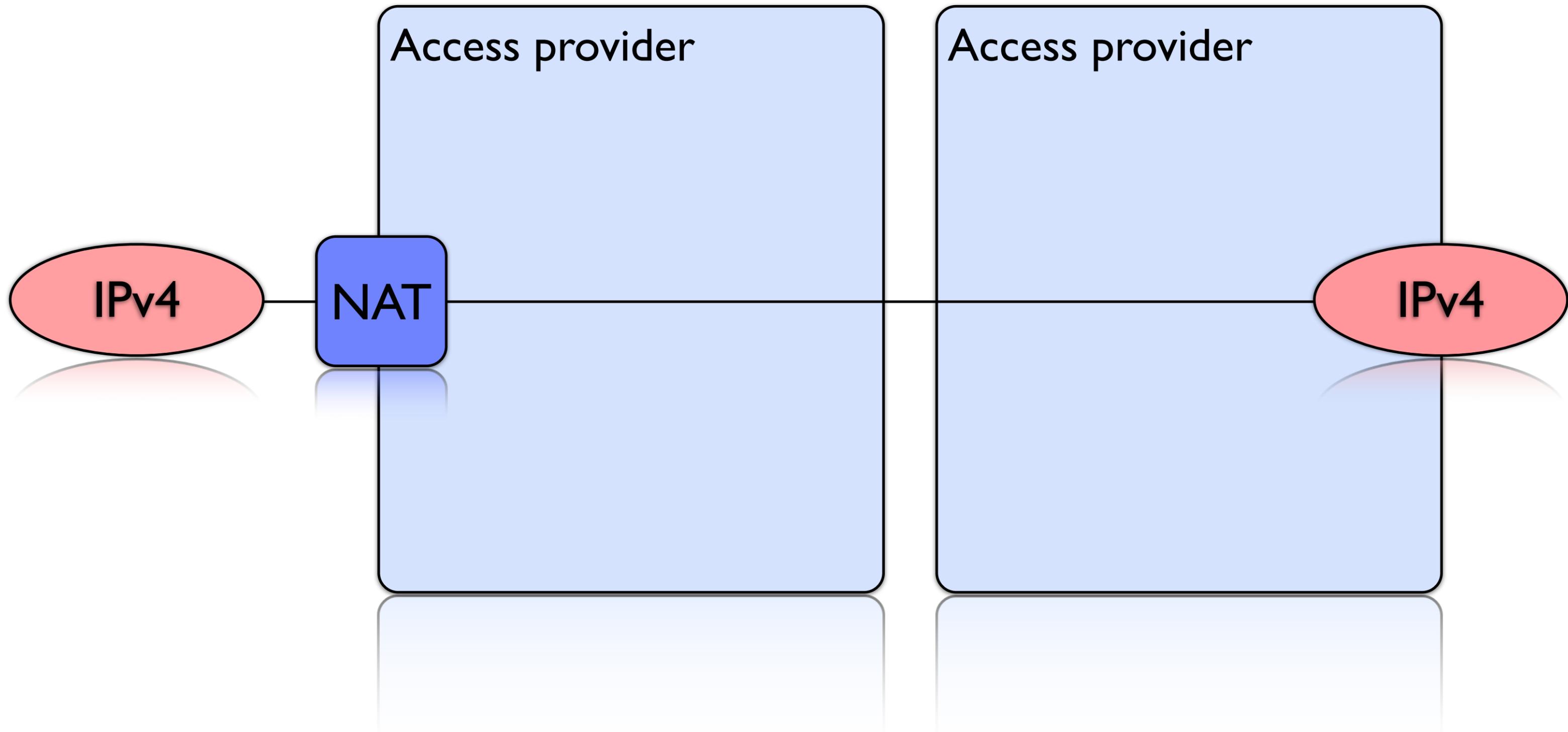


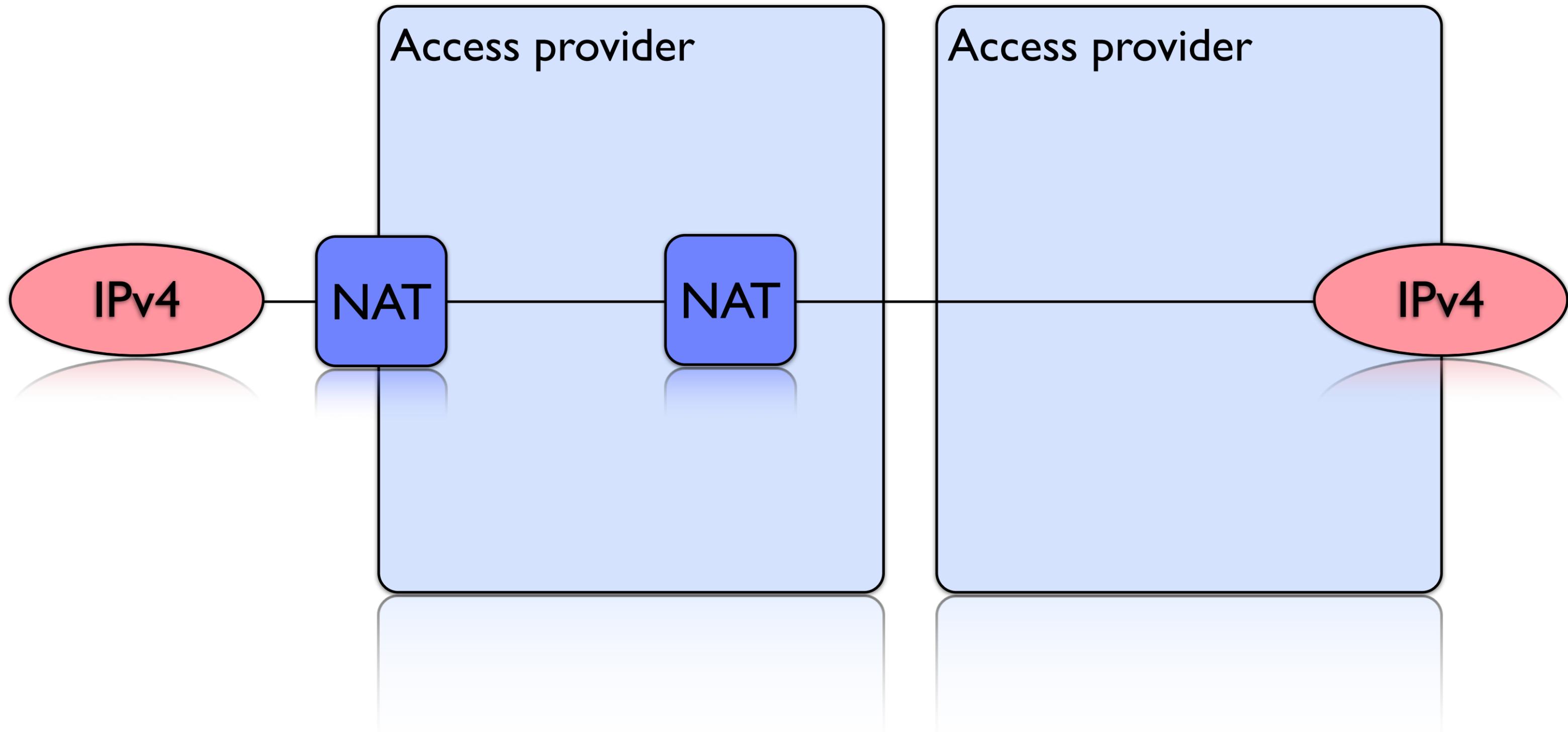


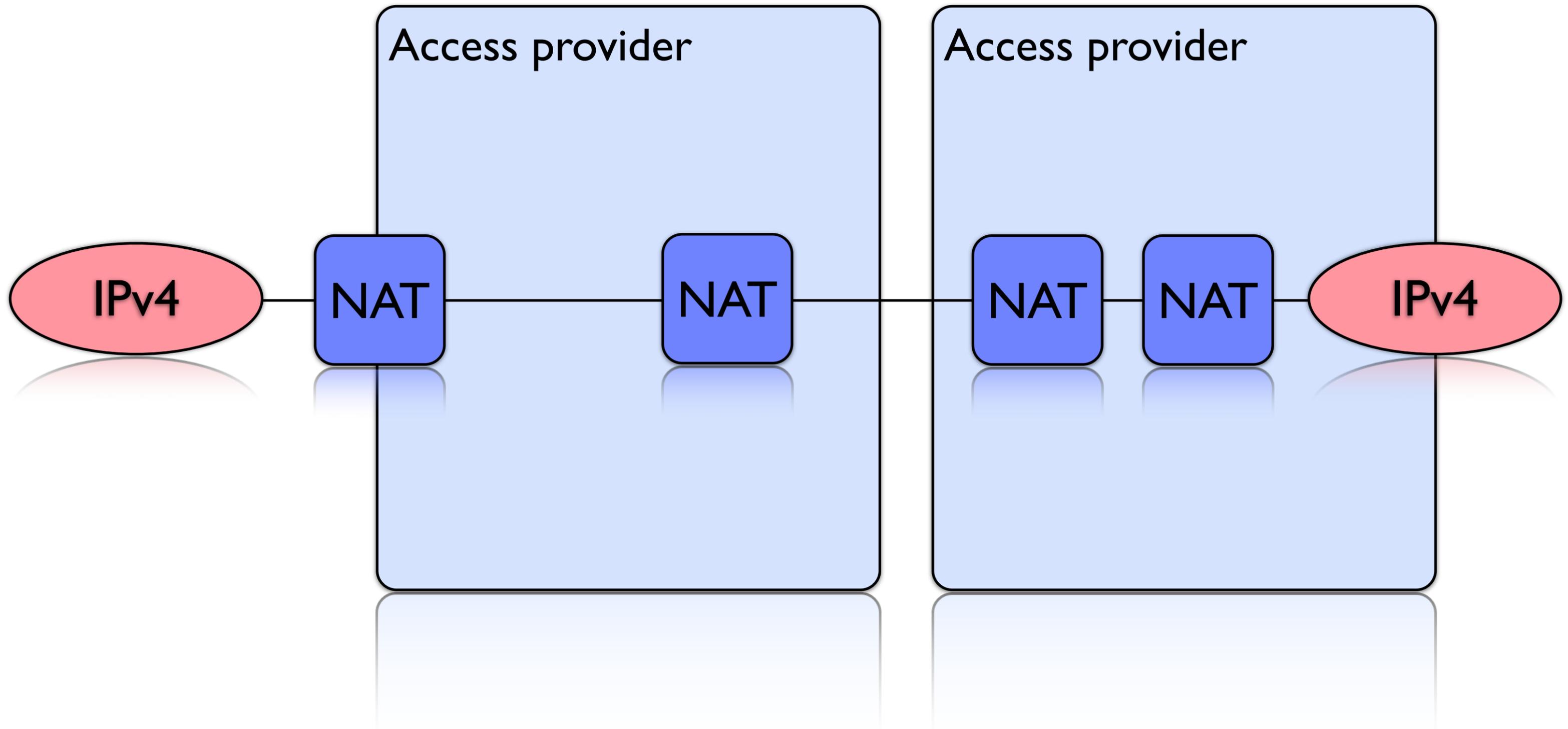


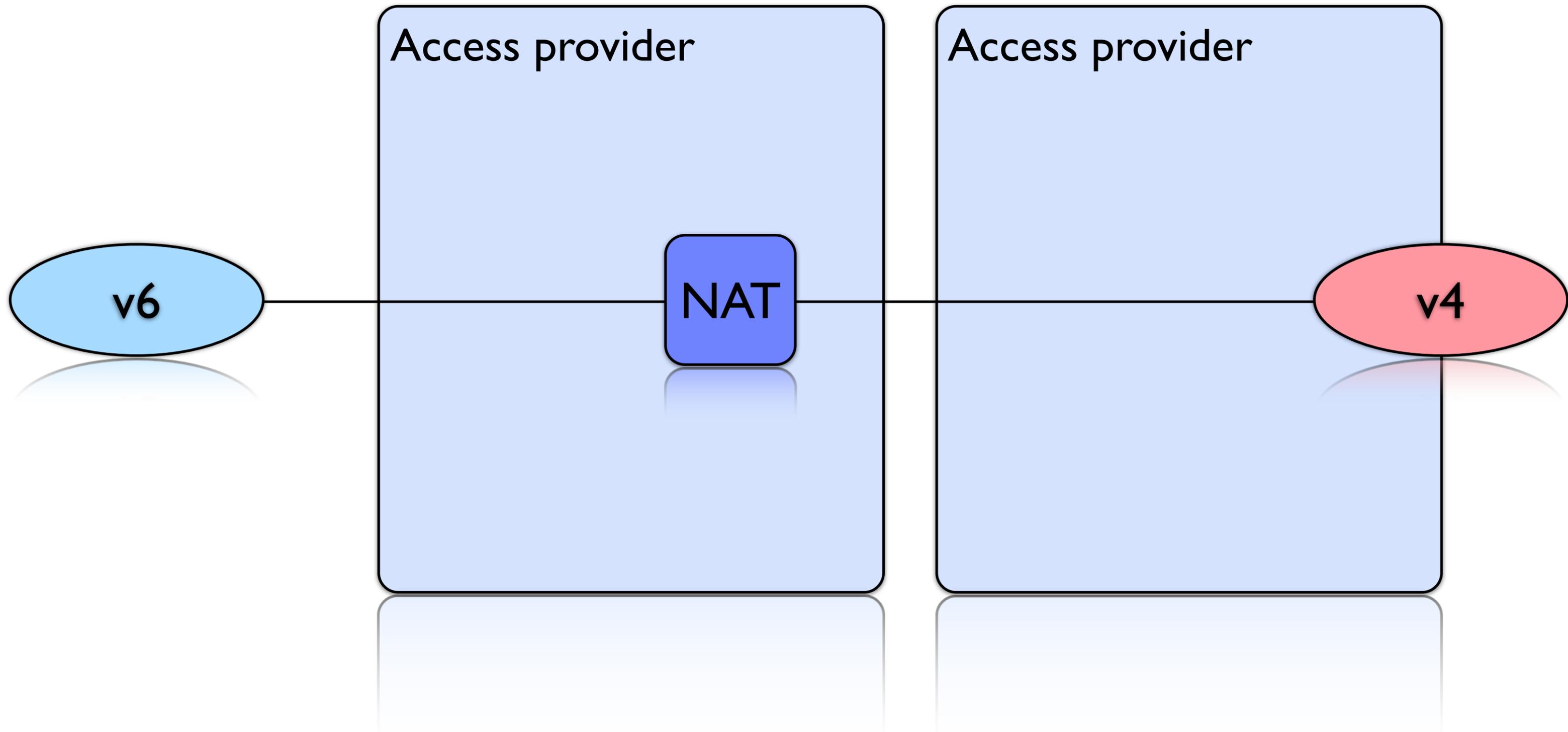




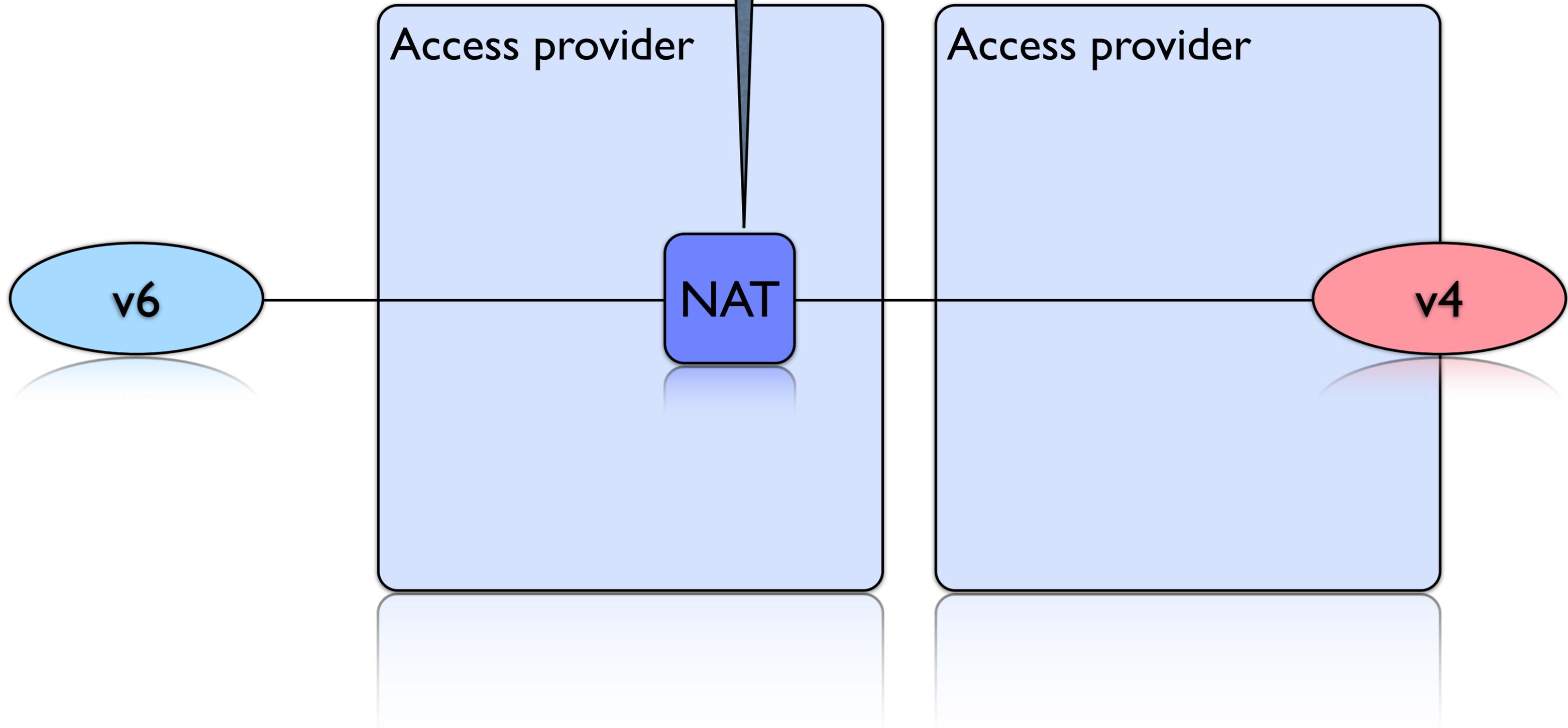


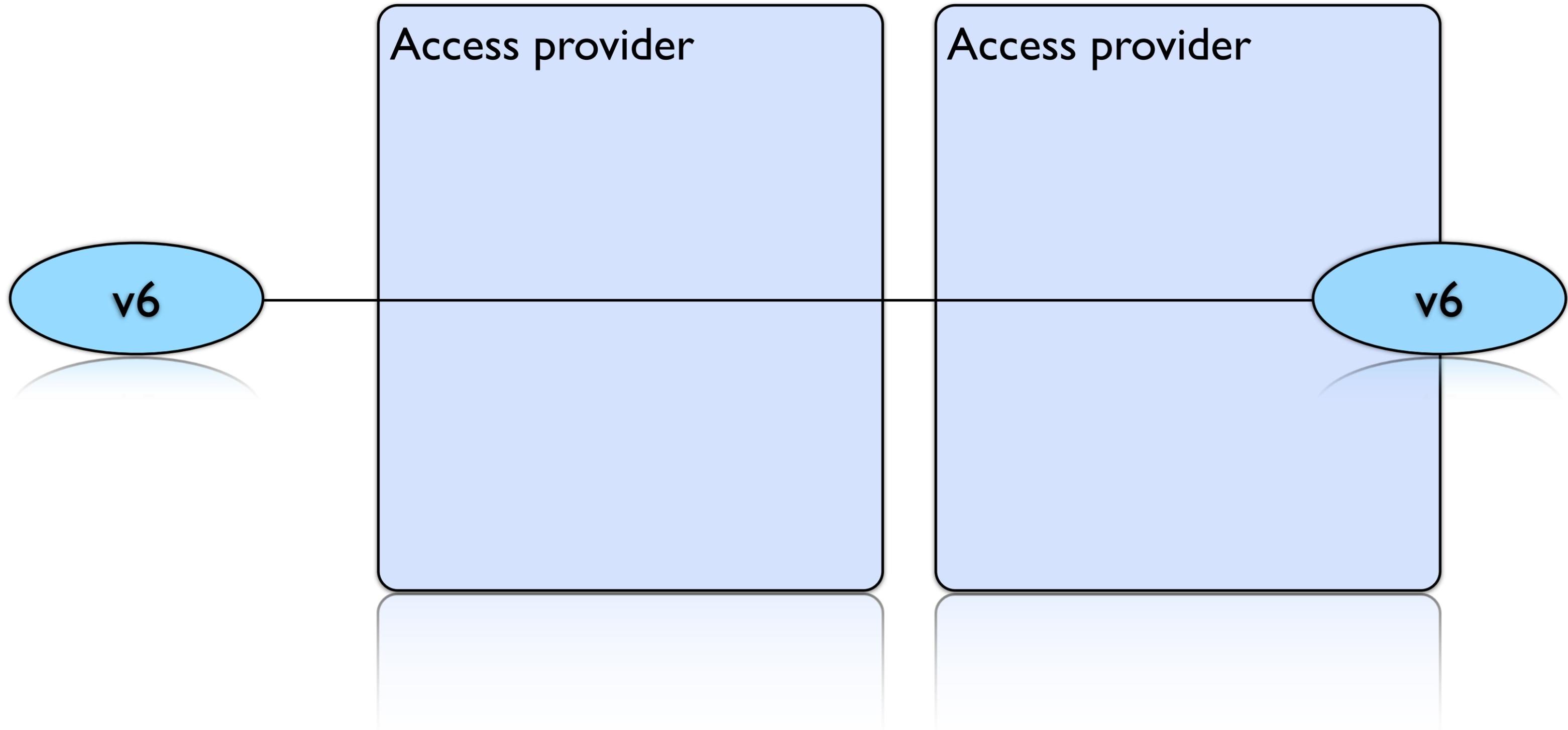






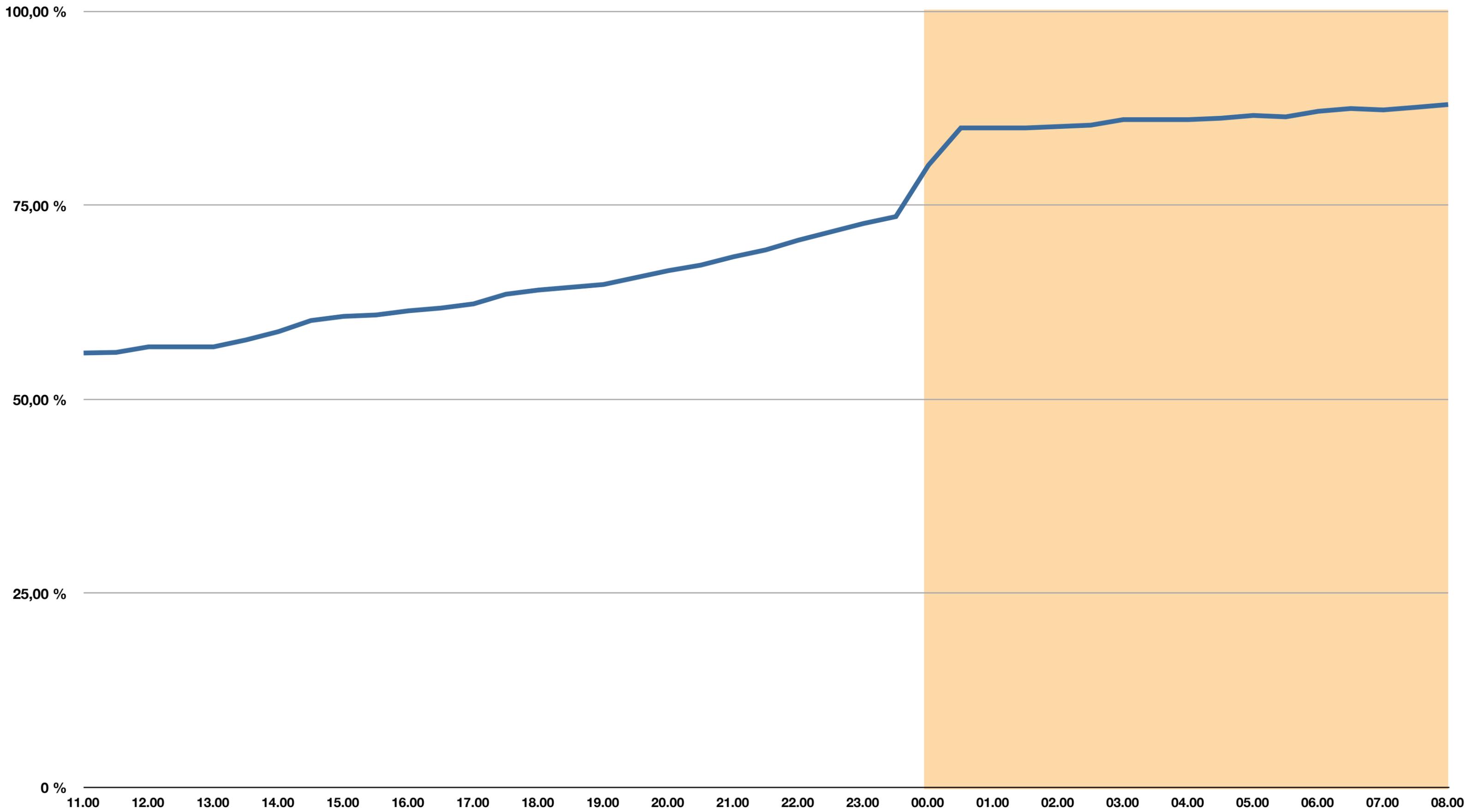
Functionality of service is dependent of well working NAT





# Why is IPv6 important?

- **Services must work over IPv6 when first end user only have IPv6**
- **Office network have same environment as end users**
- **By being first customer, public sector help deployment of new technologies**



# DNSSEC and IPv6

[Home](#) [My CV \( Swedish Only \)](#) [World IPv6 day](#)

## World IPv6 day

My page with all participation web-sites at [World IPv6 Day](#)

😊👍 and green = the server has enabled IPv6 with a AAAA RR, Google and Youtube is always green because my server is living in a Google approved IPv6 network.

The page will be updated every 30 minutes.

Updated Wed Jun 8 10:31:51 CEST 2011

492 of 559 domain sites is IPv6 enabled

😊👍 [www.google.com](http://www.google.com)

😊👍 [www.youtube.com](http://www.youtube.com)

😊👍 [www.facebook.com](http://www.facebook.com)

😊👍 [www.yahoo.com](http://www.yahoo.com)

😊👍 [www.akamai.com](http://www.akamai.com)

😊👍 [www.limelightnetworks.com](http://www.limelightnetworks.com)

😊👍 [www.cisco.com](http://www.cisco.com)

😊👍 [www.meebo.com](http://www.meebo.com)

😊👍 [www.genius.com](http://www.genius.com)

😊👍 [www.w3.org](http://www.w3.org)

😊👍 [-----](#)

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# DNSSEC and IPv6

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## Digitaliseringsrådet

Från <http://www.sweden.gov.se/sb/d/119/a/162868>

~”Digitaliseringsrådet kommer att spela en viktig roll framöver. I arbetet med En Digital agenda för Sverige behöver vi hjälp av skarpa hjärnor med olika erfarenhet och kunskap.”

Borde inte de förstå att IPv6 och DNSSEC är något de borde tänka på?

 = domänen säkrad med DNSSEC

  = Webbsidan har aktiverat IPv6

Updated Wed Jun 8 11:14:42 CEST 2011

[juliagruppen.se](#)

[svid.se](#)

[itotelekomforetagen.se](#)

[handisam.se](#)

  [cisco.com](#)

   [frobbit.se](#)

 [ericsson.com](#)

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Check whether a domain support IPv6

Om

Utveckling

# Go6

*Go6 i Sverige*

TESTS DONE

6169

MOST POPULAR DOMAINS  
WITH ERRORS

aftonbladet.se  
dn.se  
ericsson.se  
google.com  
iis.se  
itu.int  
my6.se  
tdc.no  
telia.se  
vg.no

CORRECT DOMAINS

## Check whether a domain support IPv6

Domain name:

.....

*Note that the tests for mail and web only test whether a TCP connection to port 25 and 80 respectively do open. There is no real check for whether the application layer come up correctly.*

.....



Flattr

**www.cisco.com. IN AAAA 2001:420:80:1:c:15c0:d06:f00d**



**Patrik Fältström**  
**paf@cisco.com**