BIAbis(RFC3338bis)
BISbis(RFC2767bis)

denghui@chinamobile.com

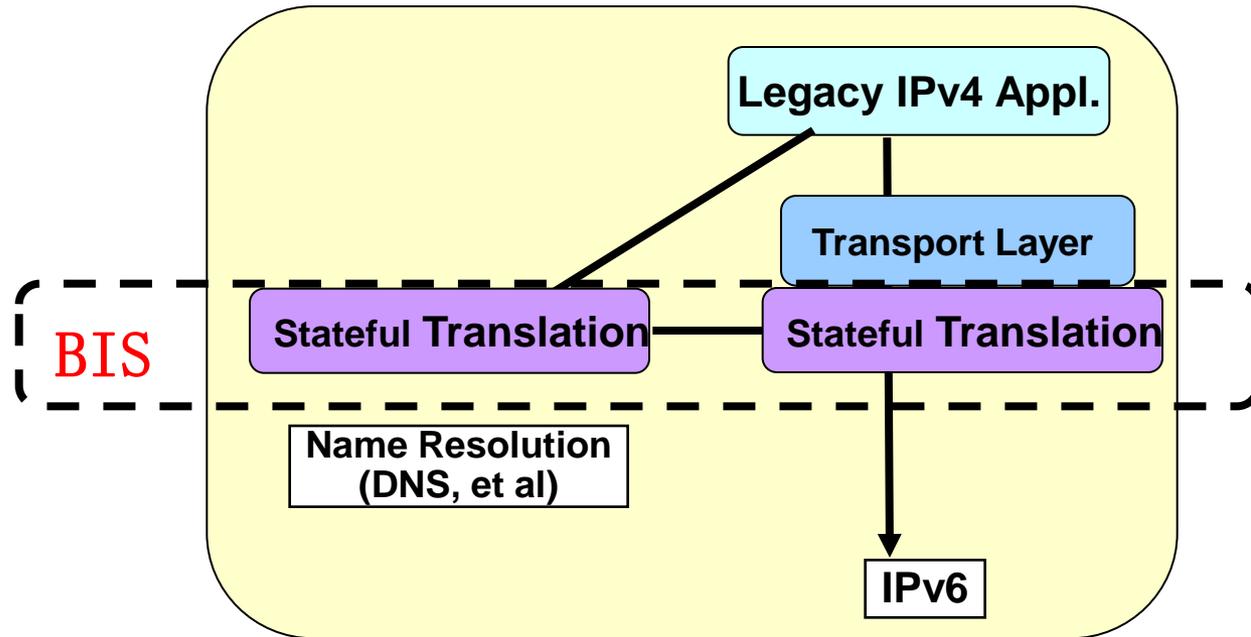# Slide from Behave Interim meeting about host translation

Slide 6/4 translation on a host

> from Dave Thaler 20090520

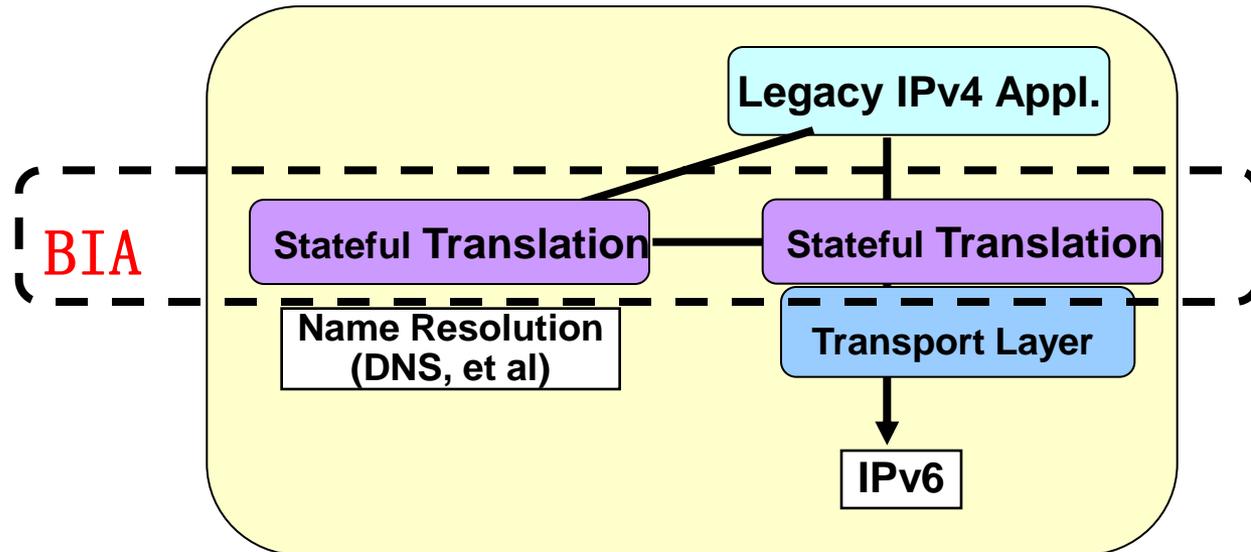An IPv4 application to IPv6 Internet/Network

Let's assume that IPv4 application could be regarded as IPv4 Network

BIS (RFC 2767)

- Uses well-known IPv4 prefix (RFC 1918), LIR IPv6 prefix

- Name resolution synthesizes IPv4 address only if IPv6-only response

BIA (RFC 3338)

- Uses well-known IPv4 prefix (0.0.0/24), LIR IPv6 prefix

- Name resolution synthesizes IPv4 address only if IPv6-only response

Conclusions from Dave's slide

- v6/4 translation [v4 mapped socket] is already common in hosts and will only become more so

- App-layer issues (e.g., referrals, etc) are independent of whether translation is in host or network

Supporting legacy IPv4 applications

Scenario 1: IPv6 only end to end peer network, dual stack server (private IPv4)

Dual Stack

V4 only app

Internet

Net 10 v6

Dual stack server
10.1.1.1
AAAA : 2009::1
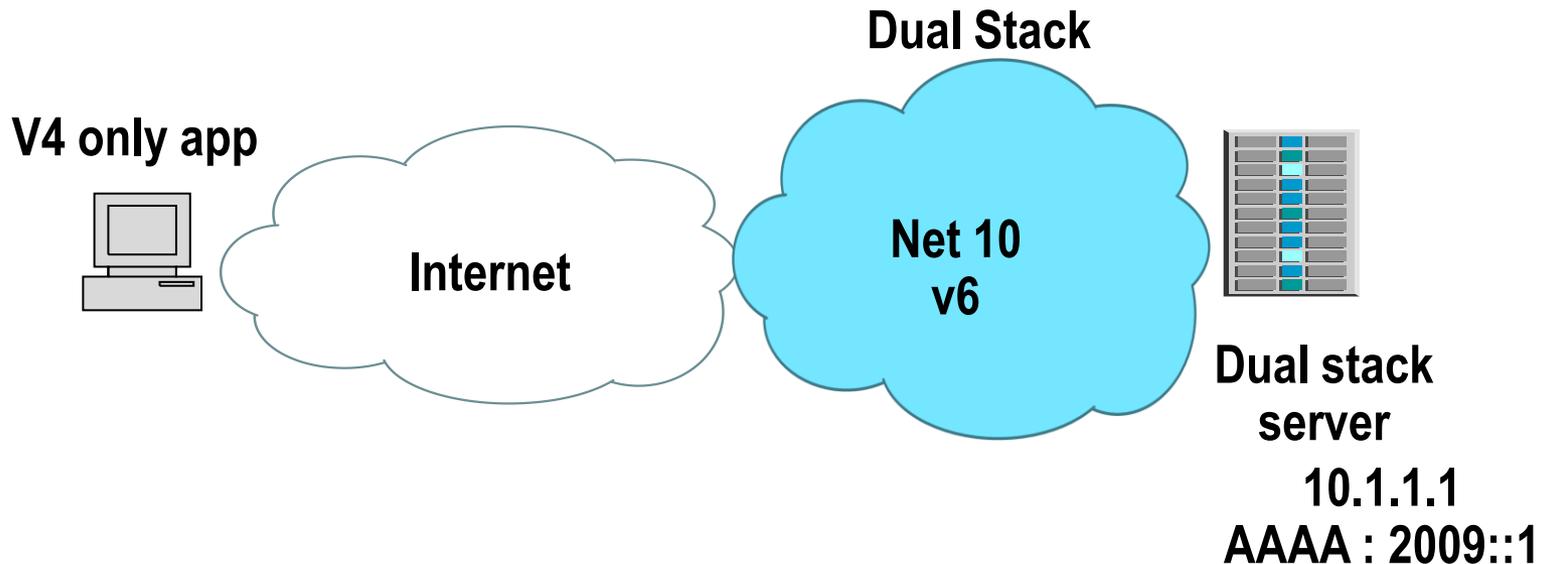
Application class:
1: Work through NAT w/o ALG
2: Do name resolution

RFC 3338 bis (BIAbis)

1. IPv4 address pool use private address

2. Handling other record types should be consistent with DNS64/DNS46 (eg PTR)

3. Adding an possibility for DNS stub resolver to refer to server on the same host and do the DNS ALG there

RFC 2767bis (BISbis)

1. Handling other record types should be consistent with DNS64/DNS46 (eg PTR)

2. Adding an possibility for DNS stub resolver to refer to server on the same host and do the DNS ALG there

Work item?

- Behave re-charter to cover the issues in host-based translation?

- BIA and BIS have lots of similar text, should we consider to unify BIAbis and BISbis document into one document?