Enterprise IPv6 Transition Matrix
IETF 60
IPv6 Operations Working Group
Aug 2-6, 2004
San Diego, CA

Jim Bound, Yanick Pouffary, Tim Chown, Jordi Palet

Scenario	Origination			Destination			Recommended Mechanism
	Host/App	Intranet	Svc Provider	Svc Provider	Intranet	Host/App	
1	v4	v4	v4	v4	v4	v4	
2	v6	v6	v6	v6	v6	v6	
3	Dual-IP	Dual-IP	Dual-IP	Dual-IP	Dual-IP	Dual-IP	
4	Dual-IP	v4	v4			v4	
5						v6	
6						Dual-IP	
7	v4	Dual-IP	v4			v4	
8						v6	
9						Dual-IP	
10	v4	v4	Dual-IP			v4	
11						v6	
12						Dual-IP	
13	Dual-IP	v6	v6			v4	
14						v6	
15						Dual-IP	
16	v6	Dual-IP	v6			v4	
17						v6	
18						Dual-IP	
19	v6	v6	Dual-IP			v4	
20						v6	
21						Dual-IP	
22	Dual-IP	v4	v6			v4	
23						v6	
24						Dual-IP	
25	Dual-IP	v6	v4			v4	
26						v6	
27						Dual-IP	
28	v6	Dual-IP	v4			v4	
29						v6	
30						Dual-IP	
31	v4	Dual-IP	v6			v4	
32						v6	
33						Dual-IP	
34	v4	v6	Dual-IP			v4	
35						v6	
36						Dual-IP	
37	v6	v4	Dual-IP			v4	
38						v6	
39						Dual-IP	
40	Dual-IP	Dual-IP	v4			v4	
41						v6	
42						Dual-IP	
43	Dual-IP	Dual-IP	v6			v4	
44						v6	
45						Dual-IP	
46	Dual-IP	v4	Dual-IP			v4	
47						v6	
48						Dual-IP	
49	Dual-IP	v6	Dual-IP			v4	
50						v6	
51						Dual-IP	
52	v4	Dual-IP	Dual-IP			v4	
53						v6	
54						Dual-IP	
55	v6	Dual-IP	Dual-IP			v4	
56						v6	
57						Dual-IP	

Matrix Discussion

- 36 of these entries are trivial and straight forward tunnel or translation
- 12 correspond to a v4 or v6 only service provider and not likely
- Then 9 of them correspond to the scenarios that require more analysis and scrutiny.
- Those are 37, 38, 39, 41, 43, 47, 49, 53, and 55
- Identifying the key combinations of mechanisms that support these 9 scenarios would be very useful analysis for the enterprise.
- Where v6 must get to v4 or v4 to v6 is where the more complex decisions for transition will take place and require a choice based on deployment scenario.
- The job is to look at the mechanisms using tunnels or translation and what is required and suggesting a recommended mechanism.
- The current available mechanisms users are using now to analyze this matrix exercise are Configured Tunnels, 6to4, ISATAP, Teredo, Tunnel Broker, DSTM, and some form of Translation.
- The Enterprise IETF Team will have to do the analysis to describe an approach to this problem space for selection, based on the Enterprise Scenarios document.
- One size does not fit all for sure