

SA46T, SA46T-PR and SA46T-PT

draft-matsuhira-sa46t-spec
draft-matsuhira-sa46t-pr-spec
draft-matsuhira-sa46t-pt-spec

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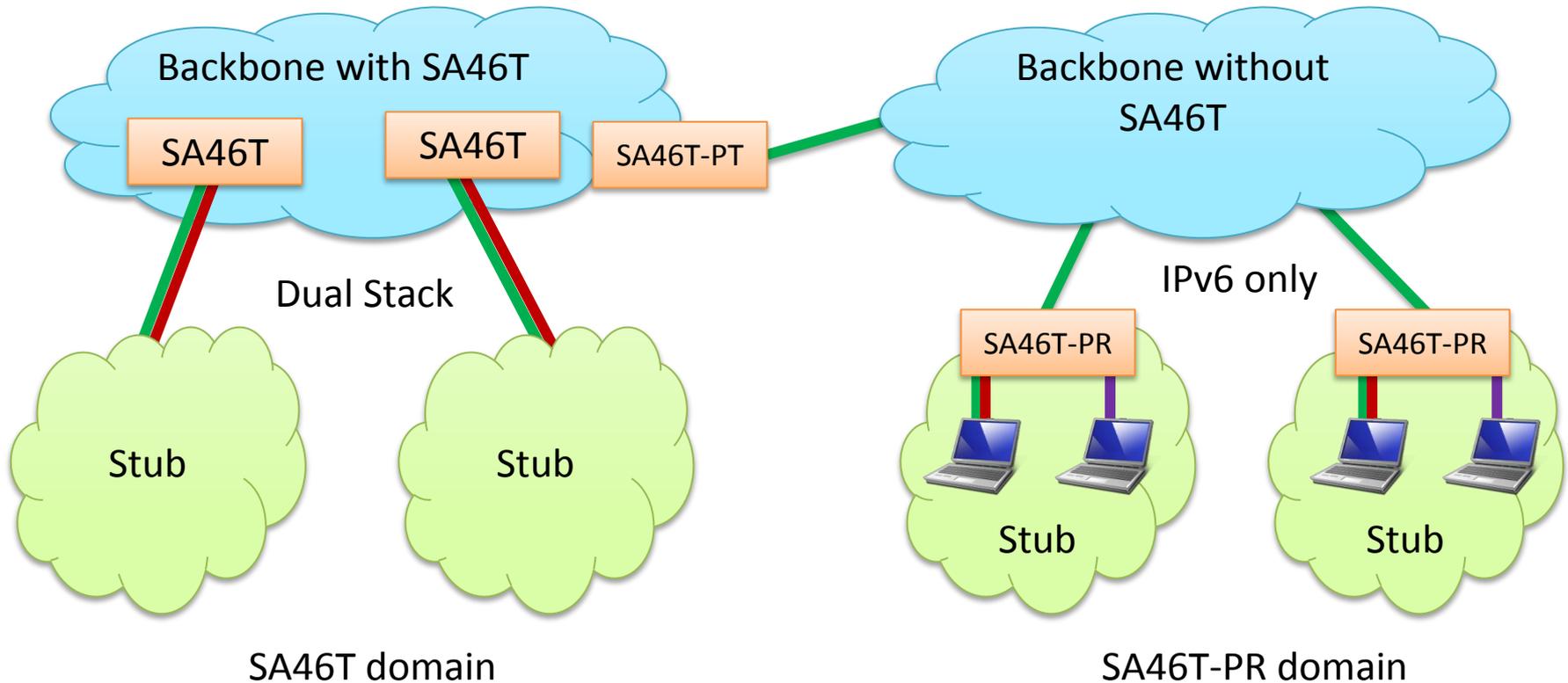
2013/7/30

87th IETF Berlin, July 2013

Current Status

- SA46T
 - First proposed v6ops WG at 77th Anaheim IETF
 - Proposed softwire WG after 78th Maastricht IETF
 - SA46T Multicast support at 82nd Taipei IETF
- SA46T-PR and SA46T-PT
 - new proposal at this meeting (87th Berlin)
- Fujitsu updated / issued patent statements.
 - Update: SA46T, issued: SA46T-PR and SA46T-PT
 - The contents of these statements are the same.

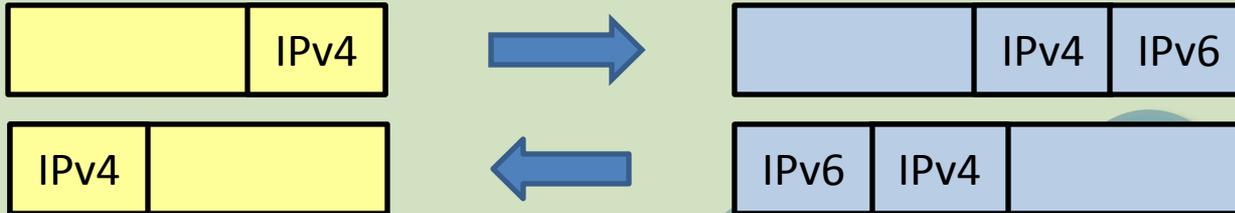
Position of SA46T/SA46T-PR/SA46T-PT



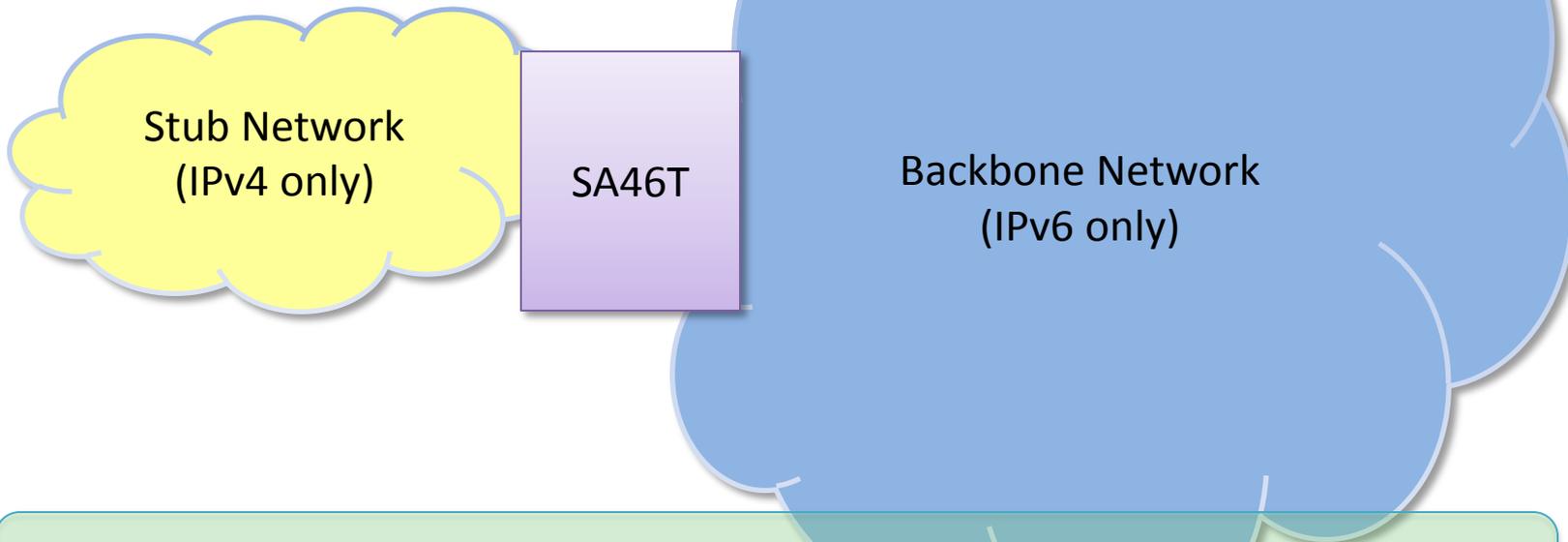
- SA46T: Backbone Network Based solution
- SA46T-PR: Stub Network Based solution
- SA46T-PT: Connect between SA46T domain and SA46T-PR domain

Function of SA46T

(1) Encapsulation / Decapsulation of IPv4 packet



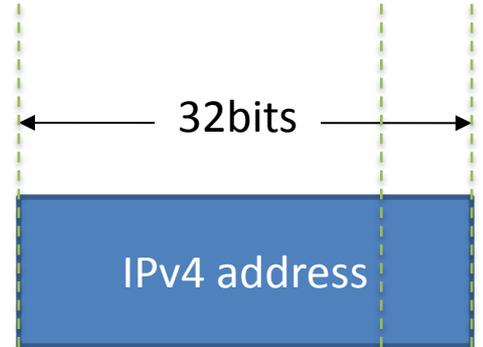
(1-1) Return ICMP Packet too big message (if exceed MTU)



(2) Route Advertisement of Stub Network

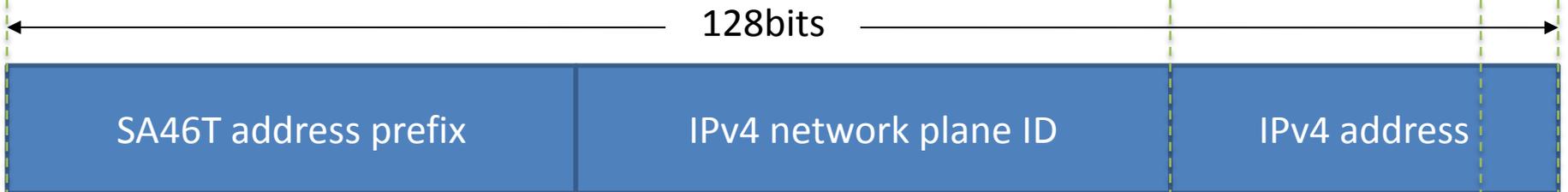
SA46T address architecture and routing

■ IP address of inner IPv4 header



← /24 →

■ IP address of outer IPv6 header (SA46T address)



← /120 →

SA46T-PR

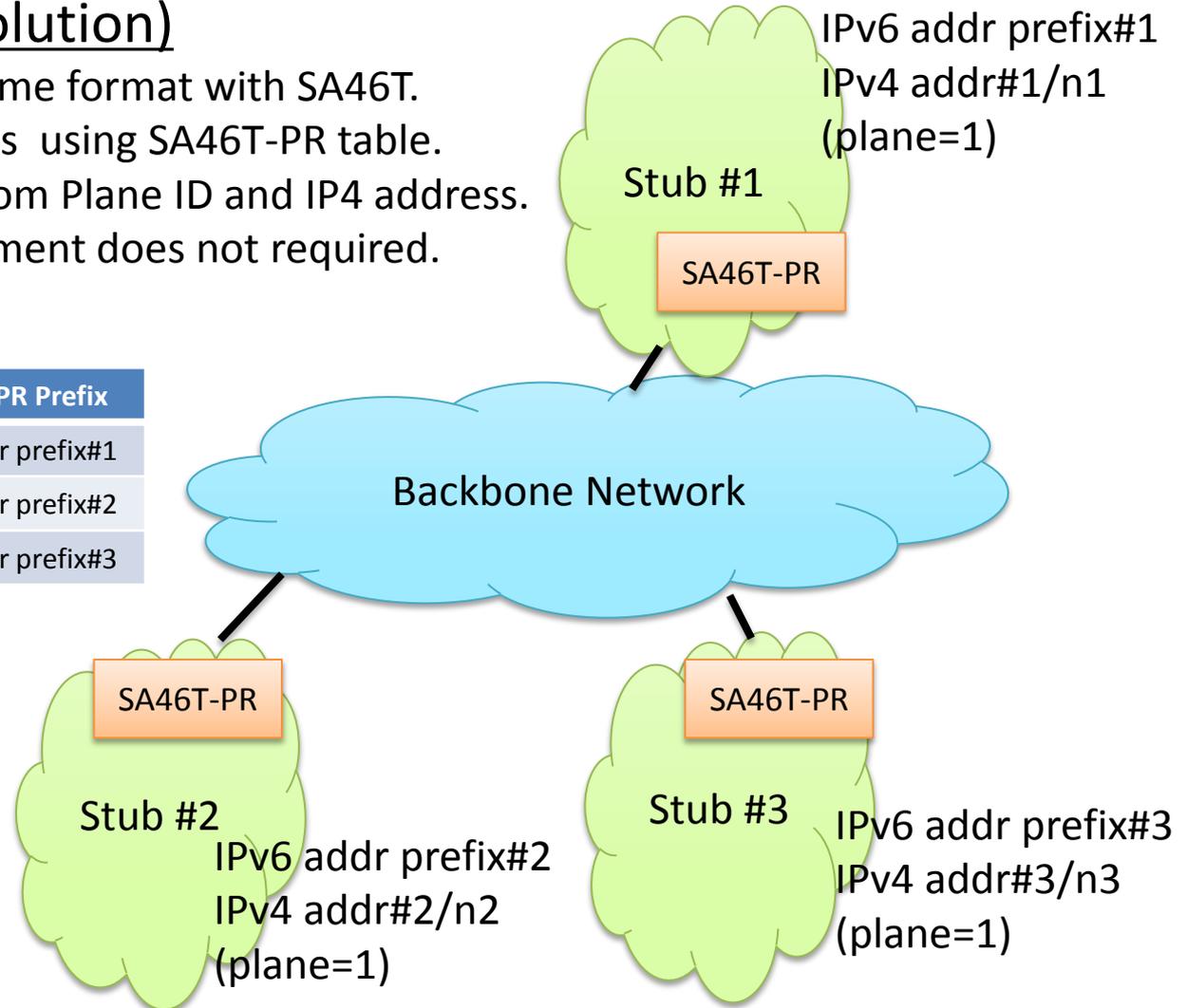
SA46T-PR (Prefix Resolution)

- SA46T-PR address is the same format with SA46T.
- Generate SA46T-PR address using SA46T-PR table.
- Resolve SA46T-PR Prefix from Plane ID and IP4 address.
- Additional route advertisement does not required.

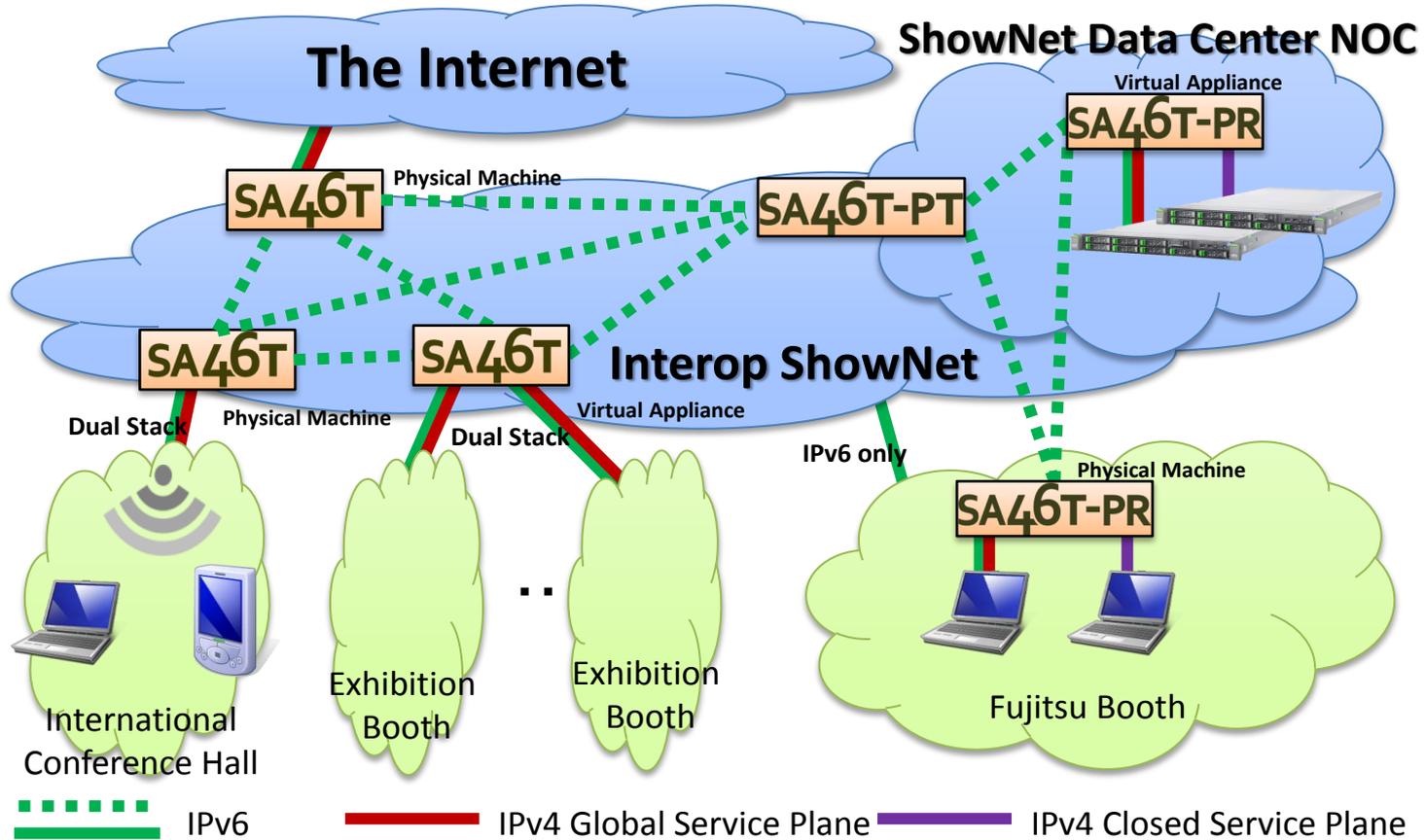
SA46T-PR table

PlaneID+IPv4addr	Mask	SA46T -PR Prefix
Plane1+IPv4addr#1	/96+n1	IPv6addr prefix#1
Plane1+IPv4addr#2	/96+n2	IPv6addr prefix#2
Plane1+IPv4addr#3	/96+n3	IPv6addr prefix#3

- # of table entry = # of pair of plane ID + IPv4 stub
- Every SA46T-PR have same table
- Can co-existing different plane in same Stub network



Interop Tokyo 2013 ShowNet Cooperation demonstration using SA46T, SA46T-PR and SA46T-PT



- SA46T-PR Box which provide both IPv4 Global Service and IPv4 Closed Service in Fujitsu Booth.
- SA46T, SA46T-PR and SA46T-PT worked well.

**IPv4 Networks
as
IPv6 application**

provided by SA46T