Stateless automatic IPv4 over IPv6 Encapsulation / Decapsulation Technology (SA46T)

draft-matsuhira-sa46t-spec

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Network configuration and SA46T function

- Backbone Network (IPv6 only)
- Stub Network (IPv4 only)
- Stub Network (Dual Stack)
- Stub Network (IPv6 only)

IPv4 to IPv6 encapsulation and decapsulation through SA46T.
Architecture of SA46T  
(Addressing and Routing)

1. Mapping IPv4 address to the IPv6 address space
2. Multiplexing IPv4 networks over single IPv6 network by IPv4 network plane ID

- IP address of inner IPv4 header
- IP address of outer IPv6 header (SA46T address)

 Locator (IPv6)  
 Locator (IPv4)  
 Identifier
Characteristic of SA46T

1. Stateless
2. Reduce operation costs by IPv6 only
3. Few configurations (not $N^2$, just $N$)
4. No additional configuration at existing SA46t when adding new SA46T
5. No special protocol required
6. Can run over any Layer2
7. Can stack many IPv4 networks
8. Provide redundancy with multi-link configuration
9. Easy install to existing network
10. Easy troubleshooting
Status

• Proposing to IETF
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• Implemented and tested at several WIDE camp, JGN2Plus and demonstrated at Interop Tokyo 2011, 2012 and will demonstrate at Interop Tokyo 2013

• More information
  – https://sites.google.com/site/sa46tnet/

• I want presenting more detail at a future APRICOT
IPv4 Networks as IPv6 application

provided by SA46T