

Application Aspects of IPv6 Transition

draft-shin-v6ops-application-transition-00.txt

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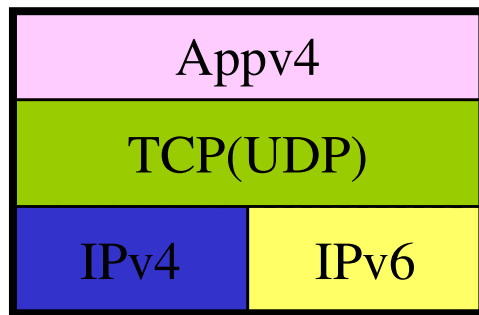
History of this draft

- IETF-52, SLC
 - First draft was presented in Ngtrans.
- IETF-53, Minneapolis
 - Revised draft was presented.
- IETF-55, Atlanta
 - New draft (00) is published in v6ops
 - Issues and guidelines are more clearly defined.
 - New co-authors are added.

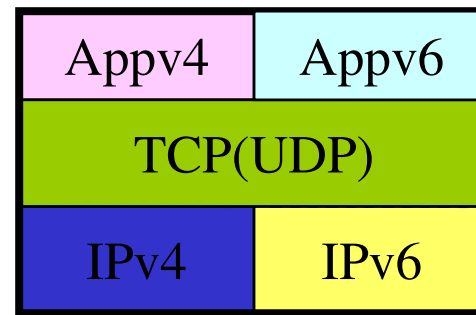
Why this draft ?

- As IPv6 is deployed, the application developers and the administrators will face several problems.
- This draft clarifies the problems occurring in transition period between IPv4 applications and IPv6 applications.
- It also proposes guidelines that help application developers understand how to develop IP version-independent applications during the transition period.

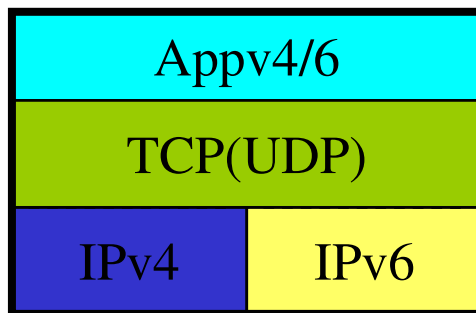
IPv6 Application transition cases



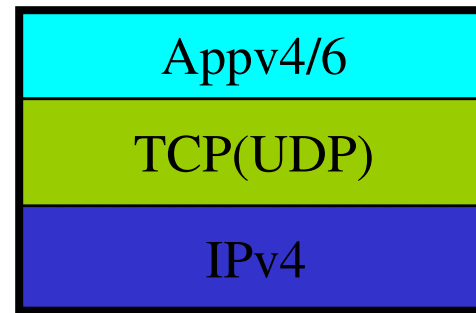
Case 1



Case 2



Case 3



Case 4

Problems with IPv6 application transition

- Dual stack node does not mean having both IPv4 and IPv6 applications.
- We cannot know the version of peer application only by DNS name resolution.
- We may have various versions of the same application.
- Transition mechanism considerations

Guideline summary

- In order to allow applications to communicate with other IPv6 nodes, the first priority is to convert the applications supporting both IPv4 and IPv6.
- The applications should do iterated jobs for finding the working address out of addresses returned by `getaddrinfo()`.
- The applications will have to work properly in IPv4-only nodes (whether IPv6 protocol is completely disabled).

Next steps

- It is time to discuss about '*IPv6 application transition*' in v6ops.
 - This draft can help application developers understand how to develop IP version-independent applications during the transition period.
- Examples will be replaced by very short working applications.
- Accept as wg item (Informational).