

FTP64 Consideration

FTPEXT BoF@IETF 78

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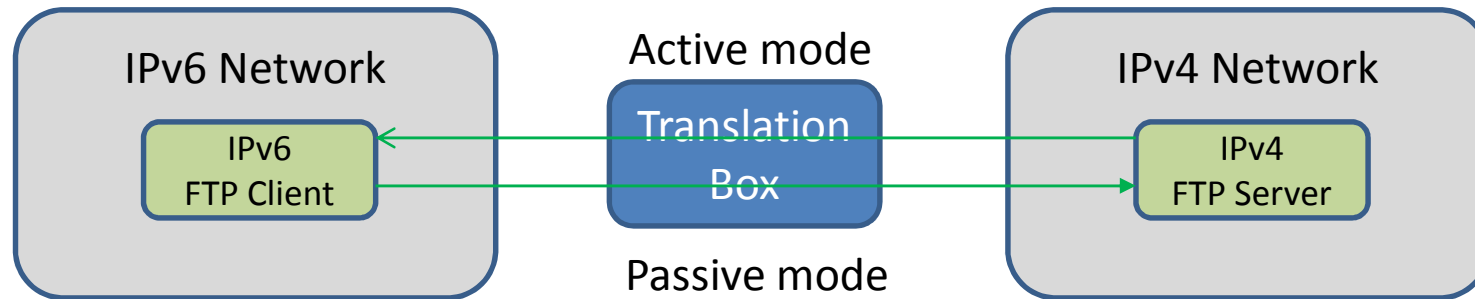
Agenda

- Introduction of FTP64 Scenario and Problem
- Motivation of ftp64 consideration
- Proposal of ftp64

Introduction of FTP64 Scenario and Problem

- FTP extensions for IPv6
 - RFC 2428:
 - FTP Extensions for IPv6 and NATs
 - EPRT/EPSV is proposed to replace PORT/PASV
 - EPRT<space><d><net-prt><d><net-addr><d><tcp-port><d>
 - EPRT |1|132.235.1.2|6275|
 - EPRT |2|1080::8:800:200C:417A|5282|
 - Response of EPSV include only port number no IP address
 - Entering Extended Passive Mode (|||6446|)

FTP64 Scenario and Problem



- IPv6 FTP Client located in IPv6 network
- Translation Box resides between IPv6 network IPv4 network
- Problem
 - Active mode has ALG problem
 - Reason: Embedding IP address in EPORT command
 - In this case, Translation box need to implement FTP ALG
 - Increase complexity

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Motivation of ftp64 consideration

- FTP has two modes
 - Passive mode could avoid ALG issue
 - Active mode need ALG in translation box
- Change FTP behavior vs support ALG in translation box
 - If we can avoid ALG by only a little change of FTP behavior, then why bother to implement it in translation box?

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Proposal of ftp64

- 1. IPv6 FTP client should support both PASV and EPSV
- 2. IPv6 FTP should use EPSV by default
- 3. If EPSV fails, retry with PASV
- 4. If PASV gets response, ignore the IP address contained in the response message; simply use control connection's IP address to connect to the server

Tiny Changing of FTP Implementation Avoid Much Complexity of Network

Thanks!

Q&A