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