ALTO Server Discovery
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S. Kiesel, M. Stiemerling, N. Schwan,
M. Scharf, H. Song
martin.stiemerling@neclab.eu
Updates in -03

• Normative Language aligned
• Addresses items identified by expert review (Thanks to Olafur Gudmundsson)
  – New section: Operational Considerations
  – New section: General Security Considerations
Items addressing Expert Review

• Clarifications in Introduction
  – Goal is to find closest ALTO server
  – Rational for U-NAPTR is to find URL not only server name
  – ALTO servers cannot redirect clients to better server

• New Pre-Conditions - Not in scope:
  – Best ALTO server for multi-interfaced client
  – NAT discovery

• Clarified use of methods to retrieve domain name
  – „A client SHOULD use the first DNS suffix determined and MAY try other methods in case the U-NAPTR lookup failed."
  – Shortening of domain suffixes reduced to one step
Items addressing Expert Review

New section: Operational Considerations

• Reverse DNS lookup Limitations
  – No unique way of maintaining the DNS tree
  – Clients must be able to deal with failures of the reverse DNS lookup
  – Tree climbing is problematic, in particular for IPv6 [RFC4472]
  – Populating a DNS name space like a reverse tree is a significant administrative DNS overhead
  – Tree walking raises several issues: Only one step for shortening
    → Implementers SHOULD consider skipping this step
New section: General Security Considerations

- Two failures caused by malicious attacks or by configuration problems
  - Discovery fails even if suitable ALTO server exists
    - Application performance corresponds to scenario without ALTO guidance
    - No significant additional security risk
  - Discovery yields sub-optimal or wrong ALTO server
    - ALTO service useless as no suitable information available
    - Sub-optimal or forged information
      - Performance problems or potentially unwanted traffic
      - Disabling of ALTO service as counter measure
Next Steps

• All items addressed?
Thank you and Time for your questions!
Acks

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