Issues with ENUM & E2MD

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Goals

- Feedback to provide guidance to chairs and ADs
  - Is there future work needed on ENUM?
  - Is there an agreement on a problem statement?
  - Where would such potential work be carried out?

- Input to further E2MD activities
  - Bar-BoF on Thursday, 8 pm, MECCCafe
ENUM uses NAPTR and is successfully deployed

Multiple problems with NAPTR / NAPTR was reported as wrong choice for ENUM

- Something written up by IAB (Reference?)
- What exactly is the problem with NAPTR in the ENUM context?

Alternatives

- Define new RR type(s)
- Underscore prefixing used with SRV RR
  - Wildcards won't work as expected
#6 DNS Basis

- DNS has many benefits for E.164 numbers
  - DNS is a good way of distributing the responsibility (hierarchical model)
  - Fast due to “load balancing” and caching features
  - DNS proven to work for ENUM
- Some claim that DNS is not the right place for E.164 related stuff
  - Too many DNS hierarchy levels
  - Lot of other E.164 number related information is outside DNS
  - Potential for contradictions or unclear semantics
#10 DNS record size

- DNS limits on size per RR
- Use cases requiring large RRs are out-of-scope
  - Indirecting to be used instead
- Many NAPTR RR in DNS answers perceived as a problem
- Real deployments have not encountered such (e.g. .tel)
- Is this a real problem?
Some use-cases are perceived to not to be specific to E.164, but general to DNS

- In particular those that jump or cut the tree are perceived to be harmful if used outside E.164

- Clear applicability statement to avoid this might be needed
#5 Commonality among services

- NAPTR in a DNS response need to have anything in common?
- DDDS filtering happens on client side
  - DDDS is anyways broken in a sense that it only allows one entry as output, but used differently
- Is this a real issue?
Some ENUM and E2MD use cases may require authenticated access. We have several possible fixes, such as:

1. Applicability statements to restrict subtype use to a private network
2. Encrypting the sensitive data in its NAPTR
3. Put a URI for the data into the NAPTR and use another protocol for AAA

Is the presence or absence of any specific record type sensitive?
ENUM discontinued the work on this topic? Milestone still open in the charter? Why?