DNA Authentication Alternatives

IETF 81

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Problem Statement (per Richard Barnes)

• **XMPP outsourcing providers don’t want to have to hold certificates with their clients’ domain names in them.**
  - *Risk of key compromise, hijacking other services, masquerading, etc.*

• Note: this is absolutely standard practice for Web hosting

  ... but let’s assume it’s bad for XMPP
How To Provide a certificate that can only be used for XMPP

- Threat then limited to XMPP service

- Options:
  - XMPP URI in SAN
  - Certificate with special name in the SAN or CN
    * E.g., __xmpp__.example.com
    * Unlikely this will be confused with any other kind of cert
  - May need to modify XMPP clients to detect this kind of cert
    * But modification needed for DNSSEC in any case
Putting it Together

- Hosting provider server has multiple certs
  - His own cert, which he uses for most connections
  - One cert for each customer, which he used to validate the binding to his cert

- Certificate selection is by SNI

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