MQTT-TLS Profile of ACE

draft-ietf-ace-mqtt-tls-profile-03

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Updates since IETF 106:

- draft-ietf-ace-mqtt-tls-profile-03:
  - Added the option of Broker certificate thumbprint in the 'rs_cnf' sent to the Client.
  - Clarified the use of a random nonce from the TLS Exporter for PoP, added to the IANA requirements that the label should be registered.
  - Added a client nonce, when Challenge/Response Authentication is used between Client and Broker.
  - Clarified the use of the "authz-info" topic and the error response if token validation fails.
  - Added clarification on wildcard use in scopes for publish/subscribe permissions
  - Reorganised sections so that token authorisation for publish/ subscribe messages are better placed

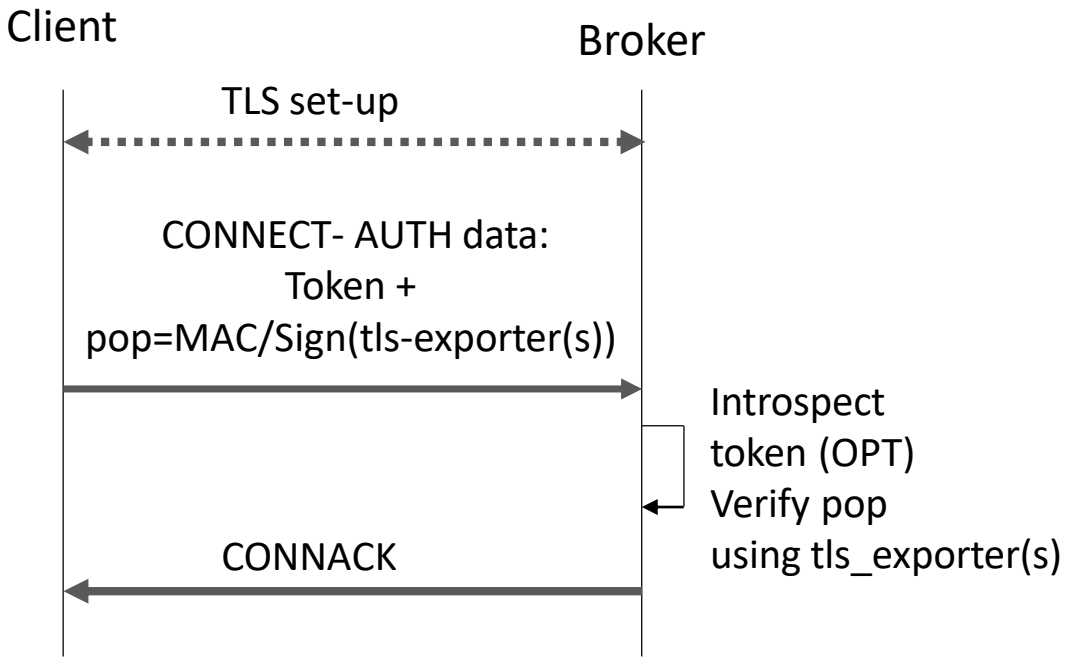
Client Authentication/Authorisation

Daniel's comments on presentation, and multiple tokens

TLS \ MQTT	None	ACE
Anon	Public topics Authz-info	Token in CONNECT AS-Discovery
Known (RPK/PSK)	RPK – token via authz-info PSK– token "psk_identity" [I-D.ietf-ace-dtls-authorize]	SHOULD NOT be chosen Token in CONNECT overwrites any permission during TLS handshake

TLS:none – MQTT:ACE

MQTT v5: Authentication Using AUTH Property



Proof-of-Possession using a secret from the TLS session

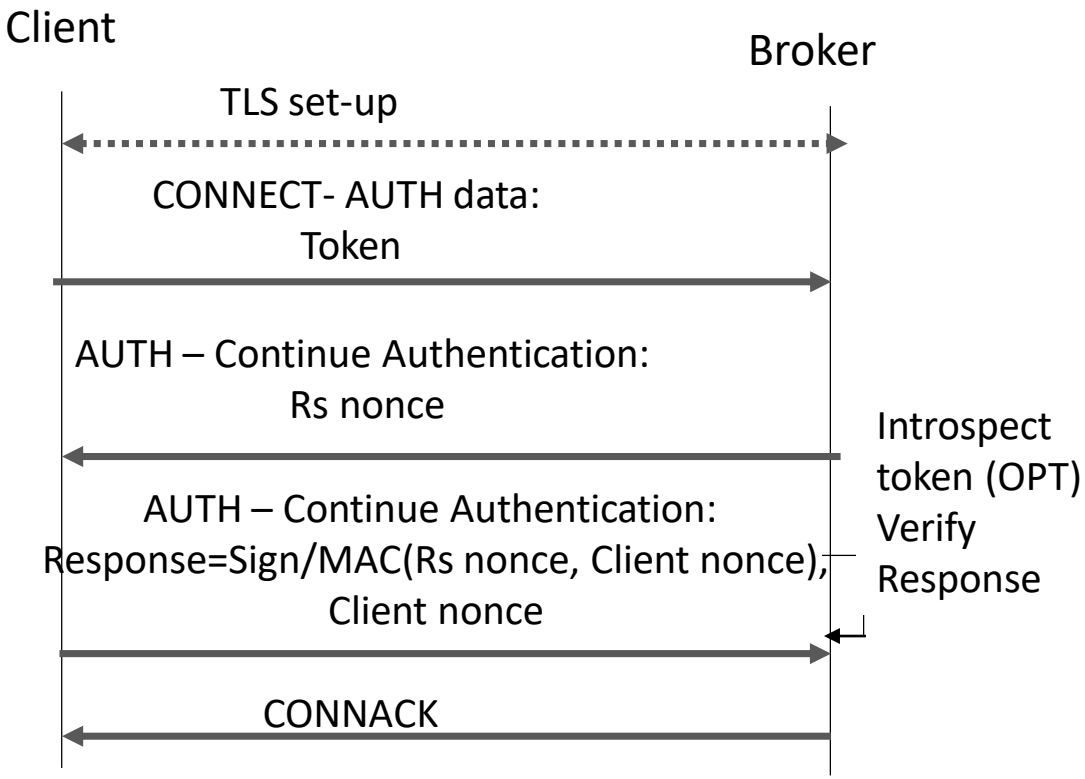
Only option for MQTT v3.1.1: Username=Token; Password= pop

MQTT Binary Data encoding for token + pop

Open issues:

The length and format of the input challenge configurable? RECOMMEND length? **STILL TO BE DECIDED.**

Register which tls-exporter label? **DONE – EXPORTER-ACE-Sign-Challenge.**



Proof-of-Possession using a challenge/response

Open issues:

The length and format of the input challenge configurable? RECOMMEND length? **STILL TO BE DECIDED.**

Does not use channel binding.

Open issues / Other Discussion Points:

IETF 106 Singapore

- Add payload encryption for the PUBLISH message – Discussion started for the pub-sub document

Reviews Jim/Daniel

1. Clarify format of AS Creation Hints in CONNACK: https://github.com/ace-wg/mqtt-tls-profile/issues/46
2. Omit Authentication Data for AS Discovery: https://github.com/ace-wg/mqtt-tls-profile/issues/42
3. Format of the AUTH data: https://github.com/ace-wg/mqtt-tls-profile/issues/40
4. Text improvements/clarifications: Github issues 37-39, 41, 43-45; Terminology wording?
5. Matching Wildcard topics in subscriptions to wildcards in permissions.
6. Question about WPKI etc. support in the document…
7. Specify further what token as reference looks like?