

# ACE Framework

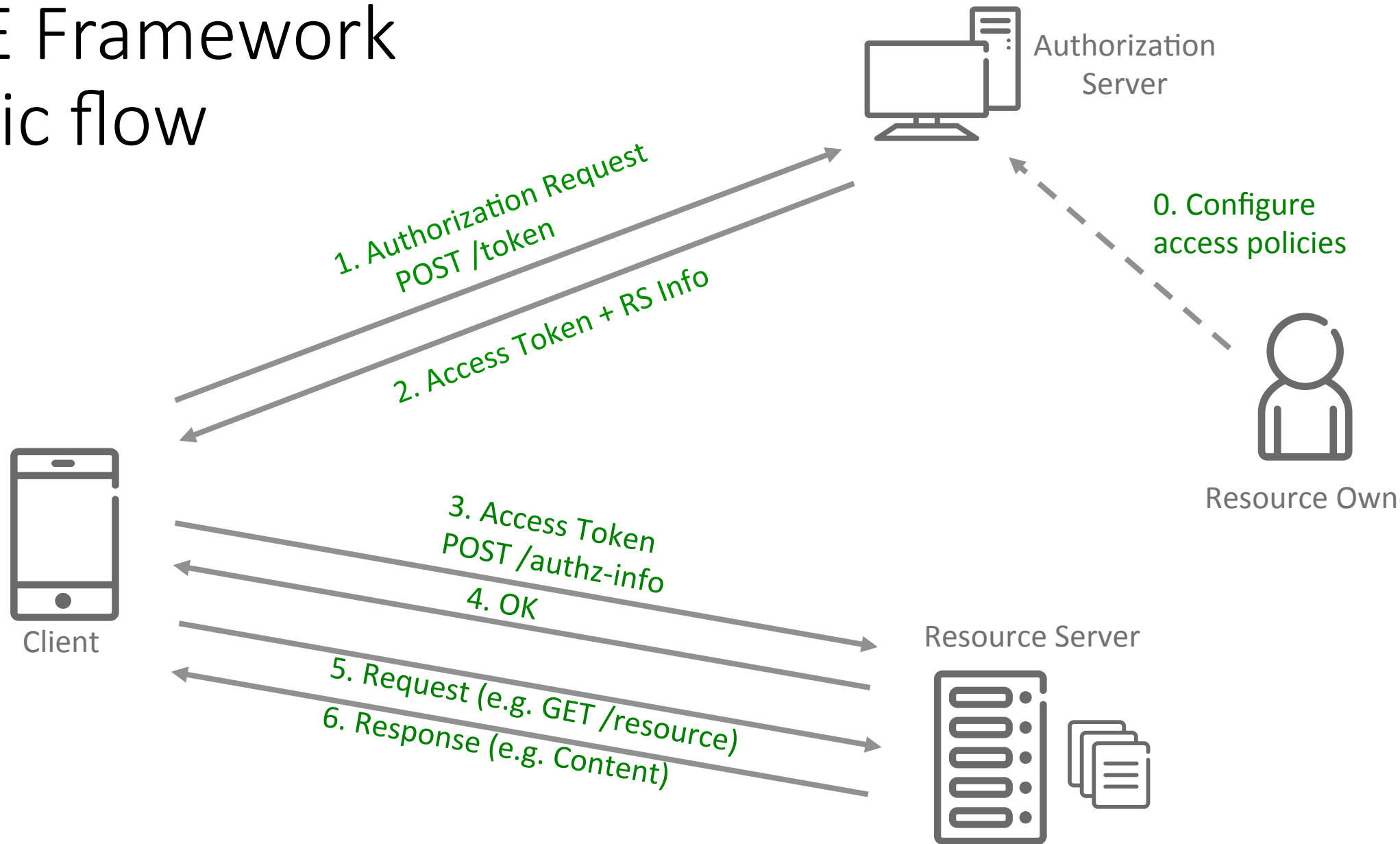
<https://tools.ietf.org/html/draft-ietf-ace-oauth-authz>

# ACE Framework Outline

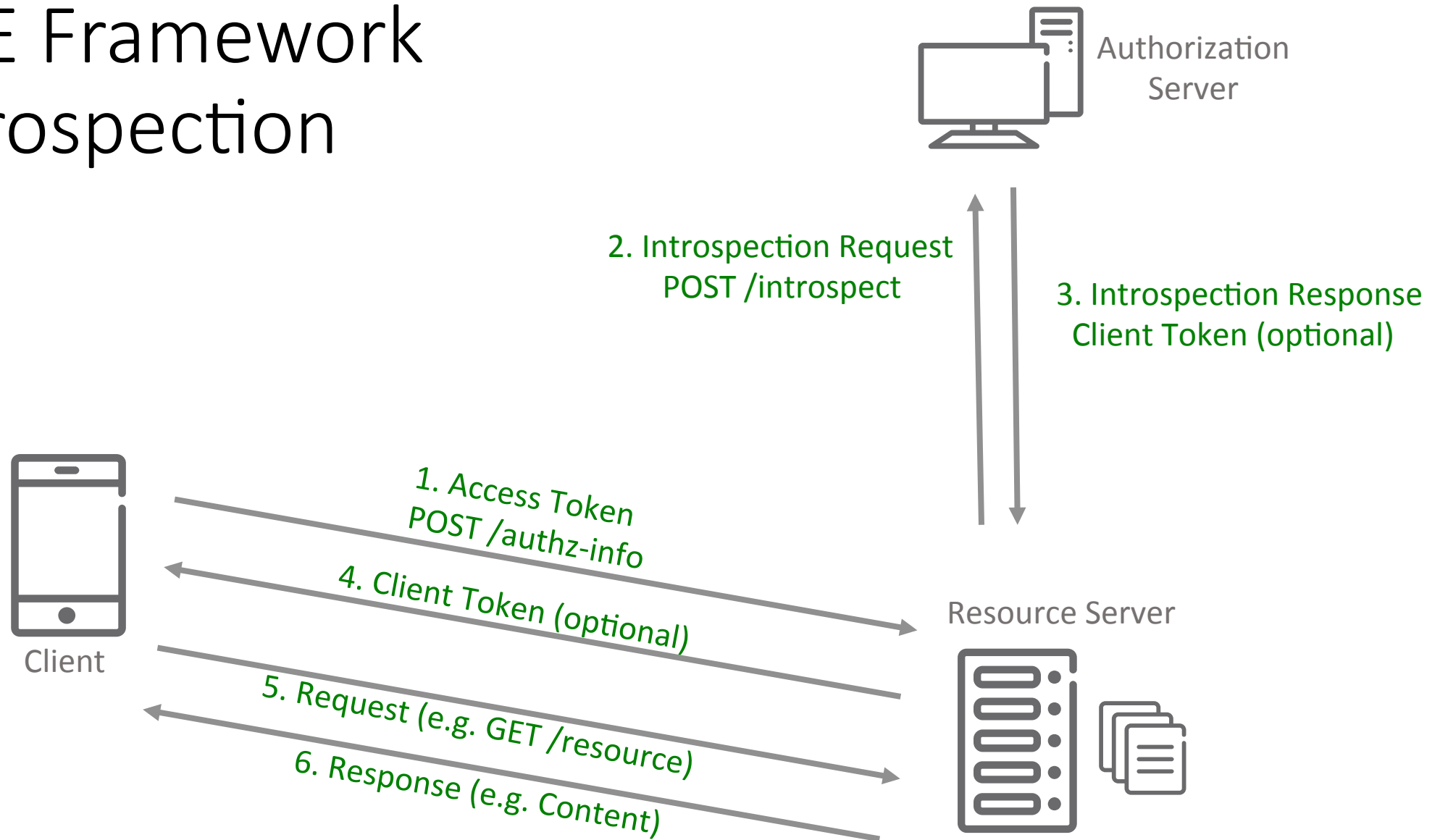
- A framework for authentication and authorization in Internet of Things (IoT)
- Four building blocks
  - OAuth 2.0 [RFC6749] – reuse existing authorization framework
  - CoAP [RFC7252] – lightweight protocol
  - CBOR [RFC7049] – compact encoding
  - COSE [RFC8152] – application layer security
- ACE framework describes the overall procedure, endpoints, tokens
- Interoperable specifications are defined in ACE profiles

# ACE Framework

## Basic flow



# ACE Framework Introspection



# ACE Profiles

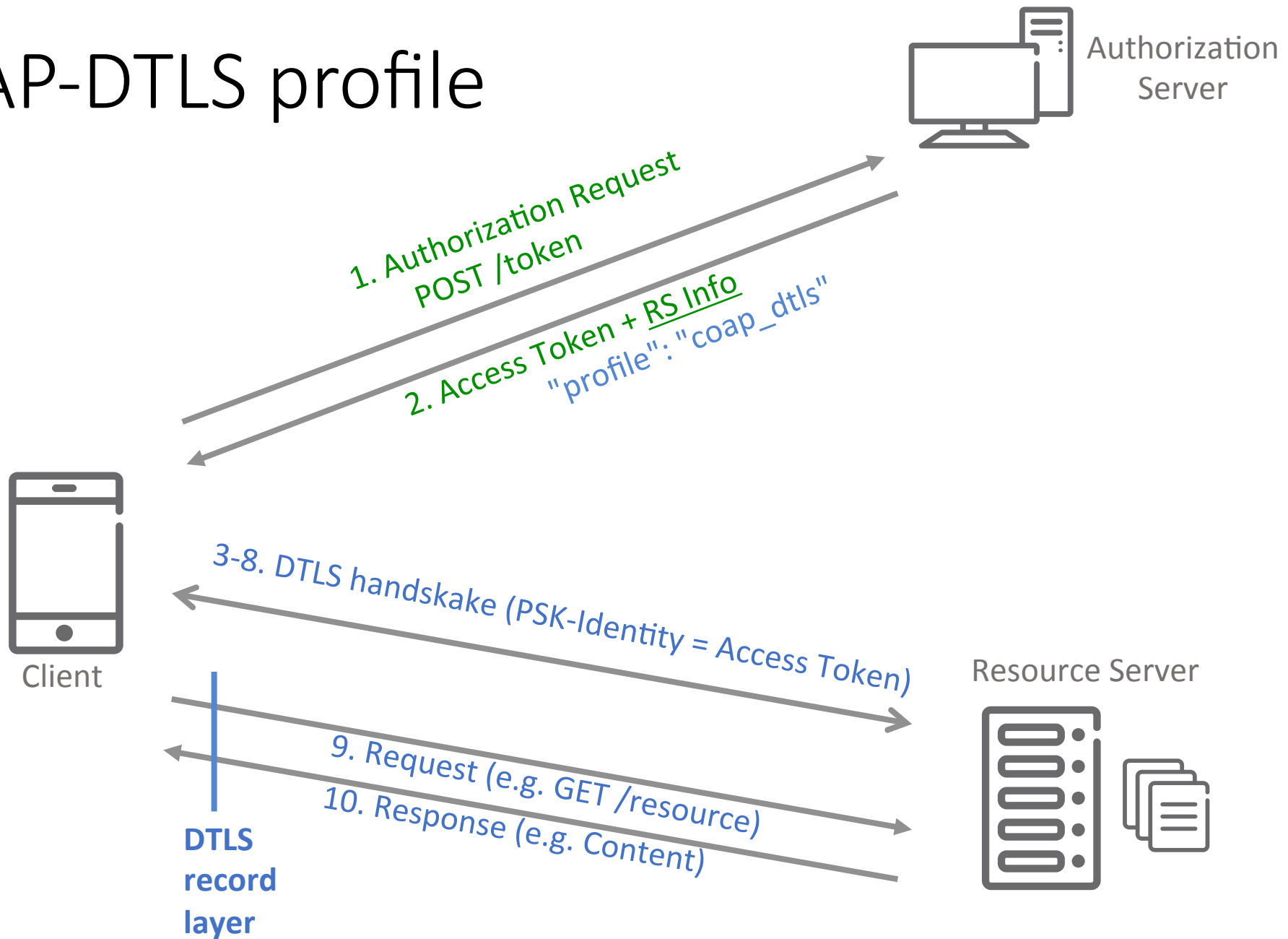
An ACE profile includes:

- Communication & security protocol between Client and RS, and between Client and AS.
- Proof-of-possession protocol, key types
- Other methods of token transport than POST /authz-info (optional)
- Profile identifier
- "Transport profiles": generic resources, e.g. "coap\_dtls", "coap\_oscore"
- "Application profiles": specific resources, e.g. group keys (re-using other profiles), or other capabilities, e.g. "publisher", "subscriber"

# CoAP-DTLS profile

<https://tools.ietf.org/html/draft-ietf-ace-dtls-authorize>

# CoAP-DTLS profile



# CoAP-OSCORE profile

<https://tools.ietf.org/html/draft-ietf-core-object-security>



# CoAP-OSCORE profile

