## CryptoEngine MqttClient (zephyr) # pk\_ctx\_ : mbedtls\_pk\_context - mqtt\_input\_work\_ : struct mqtt\_work # wdt : const struct device\* - mqtt live work : struct mqtt work # wdt\_channel\_id\_ : const int - broker\_addr\_: struct sockaddr\_in mbedtls\_pers\_ : const char\* - client\_ctx\_ : struct mqtt\_client - cert\_subject\_base\_ : const std::string - client\_conf\_: mqtt\_client\_conf - rsa\_keypair\_ : mbedtls\_rsa\_context - username\_: struct mqtt\_utf8 - ecp\_keypair\_ : mbedtls\_ecp\_keypair - password\_ : struct mqtt\_utf8 - rx\_buffer\_ : uint8\_t - ctrdrbg\_ctx\_ : mbedtls\_ctr\_drbg\_context - entropy\_device\_ : const struct device\* - tx\_buffer\_ : uint8\_t - tx\_mutex\_ : struct k\_mutex + CryptoEngine(const int) # get\_client\_cert(void) : csr\_sign\_resp + MqttClient(void) - generate\_keypair(void) : bool + connect(mqtt\_client\_conf) : bool + disconnect(void) : bool - generate\_csr(void) : std::string - make subject name(void): std::string + publish(std::string, std::string): bool - sign\_csr(std::string) : virtual csr\_sign\_resp + subscribe(const std::vector<std::string>, enum mqtt\_qos): bool + handle\_event(struct mqtt\_client\*, const struct mqtt\_evt\*) : void - resolve broker(void): void - client setup(void): void - start\_loop(void) : void - stop\_loop(void) : void - handle incoming publisher(struct mqtt client\*, const struct mqtt evt\*): void - subscription\_callback(uint8\_t\*, int) : virtual void

inherits inherits

## DecadaManager

- device\_secret\_ : std::string
- decada\_ou\_id : const std::string
- decada\_product\_key\_ : const std::string
- decada\_access\_key\_ : const std::string
- decada\_access\_secret\_ : const std::string
- time\_engine\_ : TimeEngine
- + DecadaManager(const int)
- + connect(void) : bool
- sign\_csr(std::string) : csr\_sign\_resp
- check\_credentials(void) : bool
- subscription\_callback(uint8\_t\*, int)
- send\_service\_response(std::string, std::string, std::string)
- get\_access\_token(void) : std::string
- get\_device\_secret(void) : std::string
- create\_device\_in\_decada(const std::string) : std::string
- check device creation(void): std::string