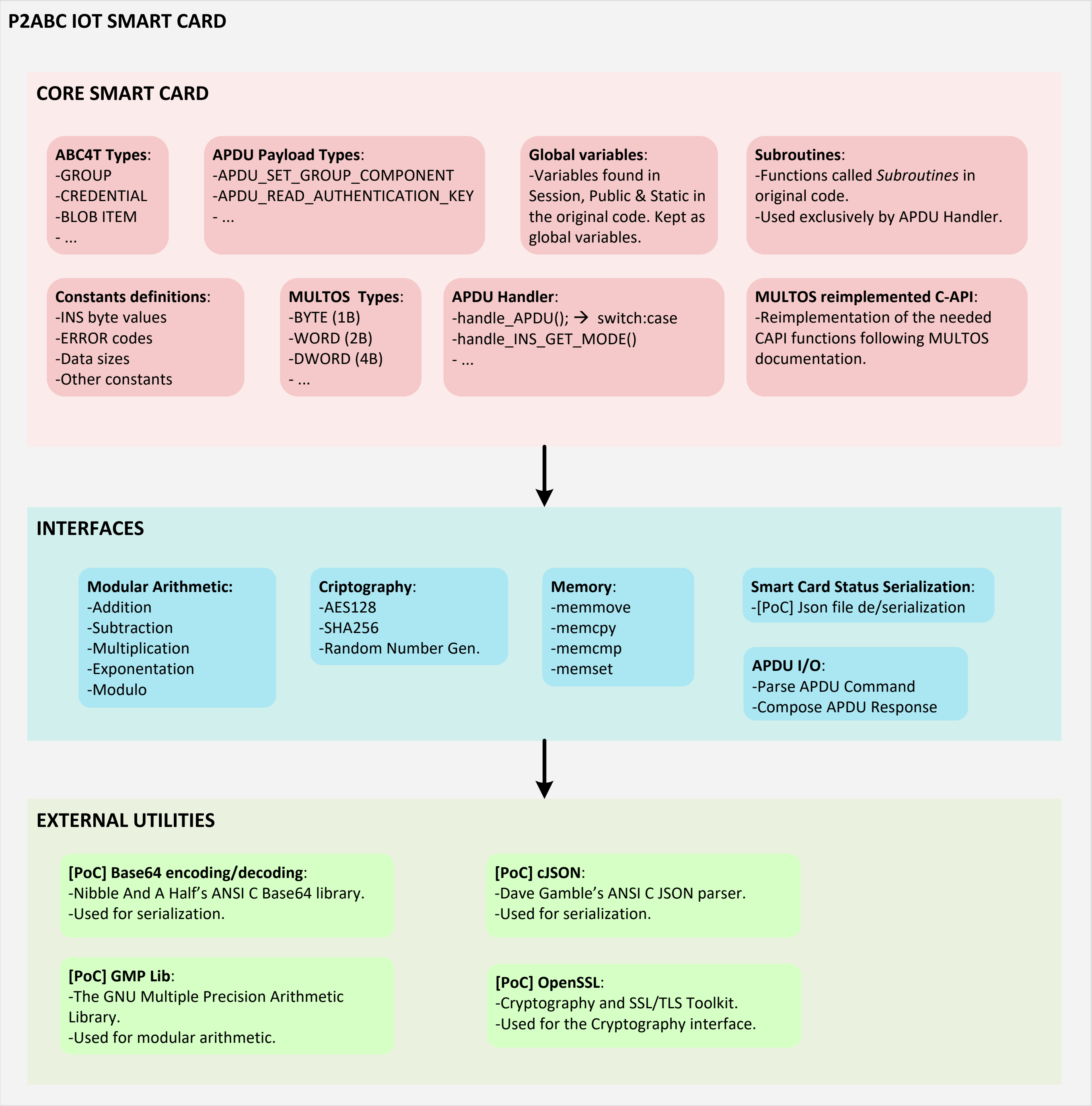

## P2ABC IOT SMART CARD

### CORE SMART CARD

**ABC4T Types**:
-GROUP
-CREDENTIAL
-BLOB ITEM
- ...

**APDU Payload Types**:
-APDU_SET_GROUP_COMPONENT
-APDU_READ_AUTHENTICATION_KEY
- ...

**Global variables**:
-Variables found in Session, Public & Static in the original code. Kept as global variables.

**Subroutines**:
-Functions called *Subroutines* in original code.
-Used exclusively by APDU Handler.

**Constants definitions**:
-INS byte values
-ERROR codes
-Data sizes
-Other constants

**MULTOS Types**:
-BYTE (1B)
-WORD (2B)
-DWORD (4B)
- ...

**APDU Handler**:
-handle_APDU(); → switch:case
-handle_INS_GET_MODE()
- ...

**MULTOS reimplemented C-API**:
-Reimplementation of the needed CAPI functions following MULTOS documentation.

### INTERFACES

**Modular Arithmetic:**
-Addition
-Subtraction
-Multiplication
-Exponentation
-Modulo

**Criptography**:
-AES128
-SHA256
-Random Number Gen.

**Memory**:
-memmove
-memcpy
-memcmp
-memset

**Smart Card Status Serialization**:
-[PoC] Json file de/serialization

**APDU I/O**:
-Parse APDU Command
-Compose APDU Response

### EXTERNAL UTILITIES

**[PoC] Base64 encoding/decoding**:
-Nibble And A Half's ANSI C Base64 library.
-Used for serialization.

**[PoC] cJSON**:
-Dave Gamble's ANSI C JSON parser.
-Used for serialization.

**[PoC] GMP Lib**:
-The GNU Multiple Precision Arithmetic Library.
-Used for modular arithmetic.

**[PoC] OpenSSL**:
-Cryptography and SSL/TLS Toolkit.
-Used for the Cryptography interface.