OSDP Trace Samples

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Introduction

Trace samples created using libosdp (for now, should we add samples from vendors?) The sample files were created with libosdp running in "Monitor" mode in a 3-station RS-485 configuration. This was run at 9600 BPS with a poll timeout of 1 second.

Here's a proposed list of additional trace samples.

- sample of tamper event
- sample of secure channel initiation
- sample of ficam challenge/response sequence
- sample of ficam chuid/fascn/guid read

Samples

Poll/Ack

This shows the CP sending an osdp_POLL to a PD at address 0, and the PD responding with an osdp_ACK. (Source: file sample_poll-ack.log in libosdp/doc/trace-samples.)

```
OSDP CP Frame-in:0008 Timestamp:20160824-104935 (Sec/Nanosec: ... ...)
      Raw: 53 00 08 00 06 60 89 cc
  Message: osdp_POLL   Addr:00 Lth:8. CTRL 06 Cmd 60 Seq:02 Sec 0 CRC cc89(4)
OSDP PD Frame-in:0009 Timestamp:20160824-104935 (Sec/Nanosec: ... ...)
      Raw: 53 80 08 00 06 40 3b ca
  Message: osdp_ACK    Addr:00 Lth:8. CTRL 06 Cmd 40 Seq:02 Sec 0 CRC ca3b(4)
```

Identification Request/Response

This shows the CP sending an osdp_ID to a PD at address 0, and the PD responding with an osdp_PDID. (Source: file sample_PD-Ident.log in libosdp/doc/trace-samples.)

```
OSDP CP Frame-in:0002 Timestamp:20160925-092311 (Sec/Nanosec: ... ...)
      Raw: 53 00 09 00 07 61 00 90 3f
  Message: osdp_ID     Addr:00 Lth:9. CTRL 07 Cmd 61 Seq:03 Sec 0 CRC 3f90(4)
OSDP PD Frame-in:0003 Timestamp:20160925-092311 (Sec/Nanosec: ... ...)
      Raw: 53 80 14 00 07 45 08 00 1b 02 01 ca fe de ad 01 00 0a e8 1a
  Message: osdp_PDID   Addr:00 Lth:20. CTRL 07 Cmd 45 Seq:03 Sec 0 CRC 1ae8(4)
  PD Identification
    OUI 08-00-1b Model 2 Ver 1 SN cafedead FW 1.0 Build 10
```

Raw Card Data

This shows the CP sending an osdp_POLL to a PD at address 0, and the PD responding with card data as an osdp_RAW message. By convention in libosdp this is interpreted as 26 bit SIA Wiegand, parity bits and all, in network byte order with the facility code first.

Message Byte/Bit	Contents
0/0	front parity bit
0/1-7	bits 0-6 of facility code
1/0	bit 7 of facility code
1/1-7	bits 0-6 of cardholder number
2/0-7	bits 7-14 of cardholder number
3/0	bit 15 of cardholder number
3/1	back parity bit
3/2-7	must be zero

The raw value 080000C0 is front-parity=0 facility code 0x01 cardholder number 0x0001 back-parity 1.

(Source: file sample_raw-card.log in libosdp/doc/trace-samples.)

```
OSDP CP Frame-in:0225 Timestamp:20160925-102104 (Sec/Nanosec: ... ...)
      Raw: 53 00 08 00 06 60 89 cc
  Message: osdp_POLL   Addr:00 Lth:8. CTRL 06 Cmd 60 Seq:02 Sec 0 CRC cc89(4)
OSDP PD Frame-in:0228 Timestamp:20160925-102108 (Sec/Nanosec: ... ...)
      Raw: 53 80 10 00 07 50 00 00 1a 00 08 00 00 c0 c5 58
  Message: osdp_RAW    Addr:00 Lth:16. CTRL 07 Cmd 50 Seq:03 Sec 0 CRC 58c5(4)
CARD DATA (26 bits): 08-00-00-c0
```