

gp/load\_tls\_se\_304.bat

```
C:\Windows\system32\cmd.exe
PKG: A0000001515350 (LOADED)
Parent: A000000151000000
Version: -1.-1
Applet: A000000151535041

C:\vaio\Wi-Fi\eclipse\workspace\tls_tandem_api\SuperKit\github_iose\IoSE-main\server_r3\gp>PAUSE
Appuyez sur une touche pour continuer...

C:\vaio\Wi-Fi\eclipse\workspace\tls_tandem_api\SuperKit\github_iose\IoSE-main\server_r3\gp>gp -install .\tls_se.cap -de
fault
Picked up JAVA_TOOL_OPTIONS: -Dprimavera.encryptor.provider="IAIK"
[main] WARN pro.javacard.gp.GlobalPlatform - GET STATUS failed for 80F24002024F0000 with 6a88
CAP loaded
[main] WARN pro.javacard.gp.GlobalPlatform - GET STATUS failed for 80F24002024F0000 with 6a88

C:\vaio\Wi-Fi\eclipse\workspace\tls_tandem_api\SuperKit\github_iose\IoSE-main\server_r3\gp>gp -list
Picked up JAVA_TOOL_OPTIONS: -Dprimavera.encryptor.provider="IAIK"
# Mode: GP211
ISD: A000000151000000 (OP_READY)
Parent: A000000151000000
From: A0000001515350
Privs: SecurityDomain, CardLock, CardTerminate, CVMManagement, TrustedPath, AuthorizedManagement, TokenVerificati
on, GlobalDelete, GlobalLock, GlobalRegistry, FinalApplication, ReceiptGeneration

APP: 010203040500 (SELECTABLE)
Parent: A000000151000000
From: 0102030405
Privs: CardReset

PKG: A0000001515350 (LOADED)
Parent: A000000151000000
Version: -1.-1
Applet: A000000151535041

PKG: 0102030405 (LOADED)
Parent: A000000151000000
Version: 1.0
Applet: 010203040500

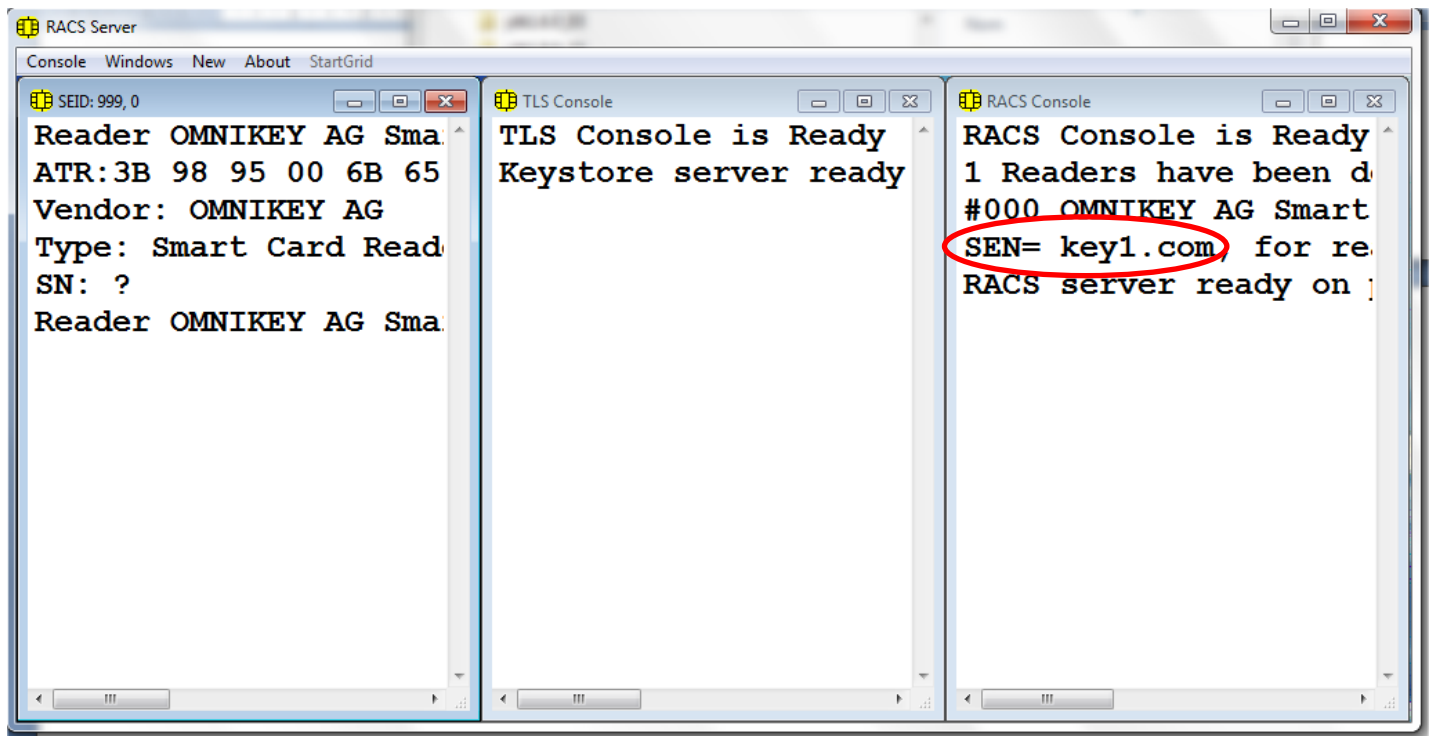
C:\vaio\Wi-Fi\eclipse\workspace\tls_tandem_api\SuperKit\github_iose\IoSE-main\server_r3\gp>PAUSE
```

test/test.bat

```
C:\Windows\system32\cmd.exe
command time: 15 ms
send_apdu -sc 0 -APDU 00DA00032013c013fe4d128570f648985ecde3e71ab03d72f2fc12fe1b95e3dd43dcf46272
send_APDU() returns 0x80209000 (Success)
command time: 16 ms
send_apdu -sc 0 -APDU 0085FF0A230100200102030405060708090A0B0C0D0E0F101112131415161718191A1B1C1D1E1F20
send_APDU() returns 0x80209000 (Success)
command time: 140 ms
send_apdu -sc 0 -APDU 00d8000000
send_APDU() returns 0x80209000 (Success)
command time: 16 ms
send_apdu -sc 0 -APDU 00d80001f016030300f2010000EE0303B1EF0192E5384ADC3FC886C36FB20E9DBBFACE580F23C0D7CBE1671FE01F69CD00
00021304010000C3002D0003020001002B0003020304000D001E001C06030503040302030806080B0805080A08040809060105010401020100330047
004500170041042B3F385471C7D11CB7F90E21152B09BB8E25152895126AB129F0163A3A9F07D042A6A9F9E3D58B9BF3F89223163EC28F8C9888B92B
E9B73E1BA26E45D44A0B55000A00060004001800170029003A0015000F436C69656E745F6964656E74697479000000000021200C3518889B4A5F8FB3
662579A2E45FBCA151ED22615B8279A9;
send_APDU() returns 0x80209000 (Success)
command time: 31 ms
00D801020748193291E7F518
Unknown command 00d801020748193291E7F518
send_apdu -sc 0 -APDU 00d801020748193291E7F518
send_APDU() returns 0x80209F1C (Success)
command time: 250 ms
send_apdu -sc 0 -APDU 00c000001c
send_APDU() returns 0x80209F3A (Success)
command time: 31 ms
send_apdu -sc 0 -APDU 00c000003A
send_APDU() returns 0x80209000 (Success)
command time: 93 ms
send_apdu -sc 0 -APDU 00d800033A1703030035F02BF4DFB2D77F4395DF44187EA69041CD84E3F9F7206AF4E93AFED586702D0F44427D74B8C477
3AA17DEA360F82038C5551081012
send_APDU() returns 0x80209001 (Success)
command time: 188 ms
send_apdu -sc 0 -APDU 00d8010524170303001F95FCBCAF0D945CB80B385941BEE8E84926277D0CBA3682AF9AA126A2A6D81A
send_APDU() returns 0x80209000 (Success)
command time: 46 ms
send_apdu -sc 0 -APDU 00d802030F68656C6C6F20776F6C6673736C2117
send_APDU() returns 0x80209000 (Success)
command time: 47 ms
card_disconnect
command time: 16 ms
release_contextcommand time: 0 ms

C:\vaio\Wi-Fi\eclipse\workspace\tls_tandem_api\SuperKit\github_iose\IoSE-main\server_r3\test>PAUSE
```

IOSE.exe



openssl/OPENSSL\_TLS\_SE\_LOCAL\_8888

```
C:\Windows\system32\cmd.exe

C:\vaio\Wi-Fi\eclipse\workspace\tls_tandem_api\SuperKit\github_iose\IoSE-main\server_r3\openssl>open
3 -connect 127.0.0.1:8888 -servername key1.com -groups P-256 -cipher DHE -ciphersuites TLS_AES_1
icket -psk 0102030405060708090A0B0C0D0E0F101112131415161718191A1B1C1D1E1F20
CONNECTED(00000094)
---
no peer certificate available
---
No client certificate CA names sent
Server Temp Key: ECDH, P-256, 256 bits
---
SSL handshake has read 252 bytes and written 375 bytes
Verification: OK
---
Reused, TLSv1.3, Cipher is TLS_AES_128_CCM_SHA256
Secure Renegotiation IS NOT supported
No ALPN negotiated
Early data was not sent
Verify return code: 0 (ok)
---
?00
Ethertrust keystore 1.3
?02
read:errno=0

C:\vaio\Wi-Fi\eclipse\workspace\tls_tandem_api\SuperKit\github_iose\IoSE-main\server_r3\openssl>PAUS
Appuyez sur une touche pour continuer...
```

RACS Server

Console Windows New About StartGrid

Session 1 Users key1.com time 21

27 bytes received  
47 bytes sent  
27 bytes received  
TLS error  
Closing session

TLS Console

Keystore server ready on port 0.0  
Keystore server ready on port 0.0  
Keystore session #1 (sid) opened  
key1.com TLS in use (sid=1)  
(05/09/2021 15:46:25) End of sess.

SEID: 999, 0

00 (10 ms)  
Tx(1): 00 D8 00 03 1B 17 03 03 00  
22 4A D2 44 EF E9 02 EB  
Rx(1): 6D 16 (30 ms)  
Reader OMNIKEY AG Smart Card Read

RACS Console

RACS Console is Ready ...  
1 Readers have been detected  
#000 OMNIKEY AG Smart Card Reader  
SEN= key1.com, for reader# 000, C  
RACS server ready on port 0.0.0.0

admin/list\_SCP03.bat

C:\Windows\system32\cmd.exe

|  |  |                       |  |  |
|--|--|-----------------------|--|--|
|  |  | Trusted Path          |  |  |
|  |  | Authorized Management |  |  |
|  |  | Token Management      |  |  |
|  |  | Global Delete         |  |  |
|  |  | Global Lock           |  |  |
|  |  | Global Registry       |  |  |
|  |  | Final Application     |  |  |
|  |  | Receipt Generation    |  |  |

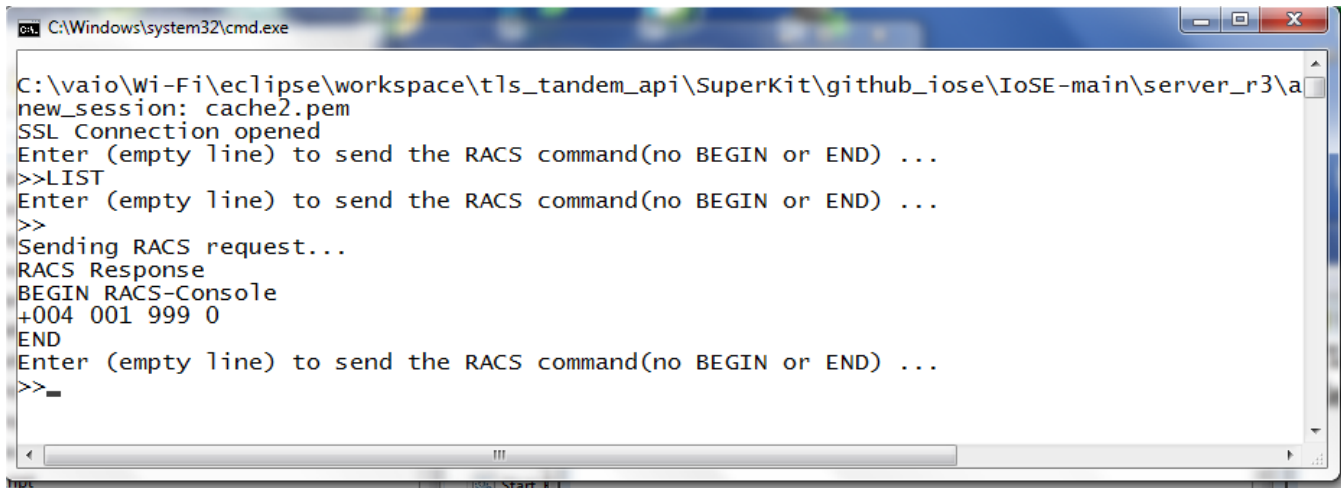
get\_status -element 10 -noStop  
Command --> 80F21002024F0000  
Wrapped command --> 84F21002184DF67CCB3FC5F3B62C3E81EDEC2CDD665B713156581CDFF600  
Response <-- E3254F07A00000015153509F700101CE02FFFF8408A000000151535041CC08A000000151000000E3214F0501020304059F700101CE0201008406010203040500CC08A0000001510000009000  
Unwrapped response <-- E3254F07A00000015153509F700101CE02FFFF8408A000000151535041CC08A000000151000000E3214F0501020304059F700101CE0201008406010203040500CC08A0000001510000009000

| Load File AID  | State  | Version | Module AID       | Linked Security Domain |
|----------------|--------|---------|------------------|------------------------|
| --             | --     | --      | --               | --                     |
| a0000001515350 | Loaded | ffff    |                  | a000000151000000       |
| a0000001515350 | Loaded | ffff    |                  |                        |
|                |        |         | a000000151535041 |                        |
| --             | --     | --      | --               | --                     |
| 0102030405     | Loaded | 0100    |                  | a000000151000000       |
| 0102030405     | Loaded | 0100    |                  |                        |
|                |        |         | 010203040500     |                        |

card\_disconnect  
release\_context

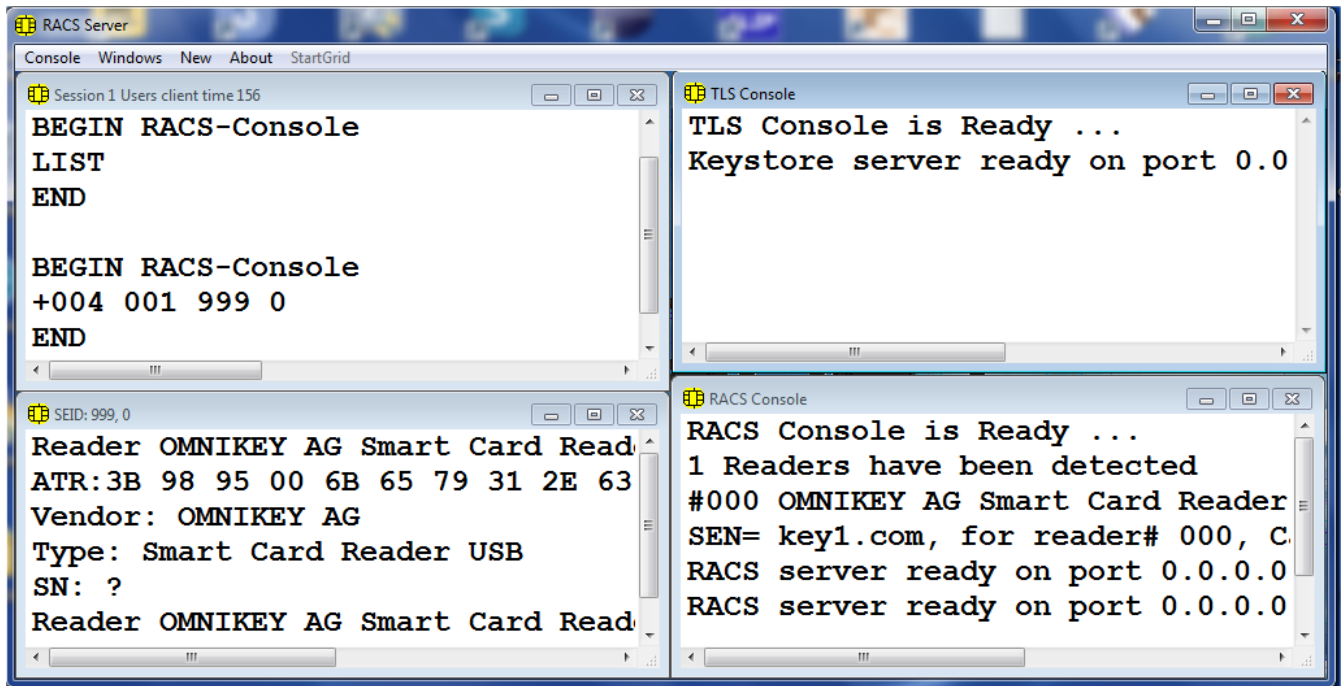
```
C:\Windows\system32\cmd.exe
Wrapped command --> 84E80066F88E7CA1430A23D6D1AFFED52E80C590FD80A8BE08BE542EE34EA6868C646F06D2331504A5EC2CFB693062572973
89E338A1ED28C0F7DE623F40D09522435628F27F4FF533D382A6FBAE706C9E80F6FECEE78E468063945EB4FCB14B91CE61D22A3BAEBBDC4E6529130
2120AC6D409E1909E22AF36A06A67162677E8699BB824A427AA5B900327DC711B02BA9A871A645757F02F48B86E307D09D422A2435A69E4DA4
CB0038F05D94D3A45FEB239C1137257AAB3CA0016FF857350BDA988931035A2194736039009AD71C0ED30A5E8CA643D96471D9026E25C2035CF94618
A903FCC88B874A8E023A6780BD40F08A47B4E8860E373B
Response <-- 009000
Unwrapped response <-- 009000
Command --> 80E80067E78201E10182018201E401E701E701EA01E701E701E701ED0182018201A201EFFFFF018201F301C801F7FFFF01D801FB
01FE0182017E01AD01BA0203019C020301820182020701D8020BFFFFFFFFFF020F0182017E01B8019C021401AB01820219021C021E0182018201820
01DA02220227022B01C801C801AB022E021C01C8023101B8201820222018202201820182018201820182018202301820182018201820231
022B023501C8023A023E0242024601AB0182024A018201AB01AB01ABFFFFFFFFFF024E0182025102540259025E02630267026C0271027401EDFFFF0219
01AB
Wrapped command --> 84E80067F81D7E1FD7BDC0C35CCC7512845818B6BEF0CFF1E797E6DE1A3F6ADF0B55367C16C96B08BA3DEC067B75DB82015
C5DFDAB574CAC46A9FFBAEB3D394483B5D1A7399FF825BF4E783BCAA2185C0F4057015E2B40B24A3EADD075F2F1E3C422EB181814B1C0AA35AD60B
8FA0C5D80E0537BA5CCFFACDBC6E55767888CAAAB2110898E788C24BEFF7C8ABF3138B82B87C79ADA1560363499FBEE5F475B8E652BC6A11BAAAC0F
7D8057AD1695CE9032236472A6AA01984C69C3DEAA0600683759024E0E56332CF09B6D7D66DEA3FA5FAB7233939A3F0BD586EB5E01C5E9464BC27C27
23023A04516B27A379243E0AC49BB1E19176DDFA49E706
Response <-- 009000
Unwrapped response <-- 009000
Command --> 80E80068E7022E014001C001B0056810E0056810B0056820100568114005E81100056811600120056810F00FB44B446810BB42100110
086800AB4104B4410334002B406B4441268201B44B44B44B4406B44B440B444B44B44B442006B4B4302410768100310022103844004B4440344
200344400244056810200668102105681030034410076800AB100568009006B44B44205B443400868110B340768009B1004B431013005B44002700B44
44200668110403432004B43202420374074B44400543B44400643B442064B442205B442005B44B1003331003341007326810F00732681160073268
10B0
Wrapped command --> 84E80068F8C4E63E95C0C71902EED79B7638B4669EB631B8FCFE987AD038AF154DBE8A733CADDDB5B62E2A93315A217779
D2629170D61B759C38AF58CE26DE9CD5358D3EE201E83C21ED00D789532BEADDD839787C82C500EE968D86031AEC2ED26A5DDB320AECFCEBA6687037
76238FF9B974604D4E4E9C4608E4D57B88AD9336922302D7E2EB896CA6555D1CD6A413EA1F6DBBD191014EF06833C027D0CED41348401AA2C180FA51
E02644F1FCFB7E31B47BB5D4EE1C862266085AC3E328C8594D05BF402D51631BA98E912059A694C2930D8CA25520656072482DAD2DFA2D4FF8494A
8A261EBA94DC00BA0EEEBF48708CFF27C805674975B094
Response <-- 009000
Unwrapped response <-- 009000
Command --> 80E880691E0636810E07326820100342681000343B00343C009B44B44B4420066800A100
Wrapped command --> 84E8806928D4D59AB085178A27F600D9387FC19EABC684923258609A00D73EE6526E8293AFEFF0C06D18705E2600
Response <-- 009000
Unwrapped response <-- 009000
Command --> 80E60C001A05010203040506102030405006010203040500010402C90000
Wrapped command --> 84E60C00282BFFA09114F89E4921FCBCDB3CF0D136F74A799BA9407DF90546C75AC648BA07E2C46B03C0341100
Response <-- 009000
Unwrapped response <-- 009000
Card_disconnect
release_context
C:\vaio\Wi-Fi\eclipse\workspace\tls_tandem_api\SuperKit\github_iose\IoSe-main\server_r3\admin>PAUSE
```

admin/Start\_RACS\_Console\_Local.bat



```
C:\Windows\system32\cmd.exe

C:\vaio\wi-fi\eclipse\workspace\tls_tandem_api\SuperKit\github_iose\IoSE-main\server_r3\ad
new_session: cache2.pem
SSL Connection opened
Enter (empty line) to send the RACS command(no BEGIN or END) ...
>>LIST
Enter (empty line) to send the RACS command(no BEGIN or END) ...
>>
Sending RACS request...
RACS Response
BEGIN RACS-Console
+004 001 999 0
END
Enter (empty line) to send the RACS command(no BEGIN or END) ...
>>
```



**RACS Server**

Console Windows New About StartGrid

Session 1 Users client time 156

**BEGIN RACS-Console**  
**LIST**  
**END**

**BEGIN RACS-Console**  
**+004 001 999 0**  
**END**

**TLS Console**

**TLS Console is Ready ...**  
**Keystore server ready on port 0.0**

**SEID: 999, 0**

**Reader OMNIKEY AG Smart Card Read**  
**ATR:3B 98 95 00 6B 65 79 31 2E 63**  
**Vendor: OMNIKEY AG**  
**Type: Smart Card Reader USB**  
**SN: ?**  
**Reader OMNIKEY AG Smart Card Read**

**RACS Console**

**RACS Console is Ready ...**  
**1 Readers have been detected**  
**#000 OMNIKEY AG Smart Card Reader**  
**SEN= key1.com, for reader# 000, C**  
**RACS server ready on port 0.0.0.0**  
**RACS server ready on port 0.0.0.0**