



Application Engineering OTAP

A presentation from ICM WM AE

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OTAP - Overview

Description:

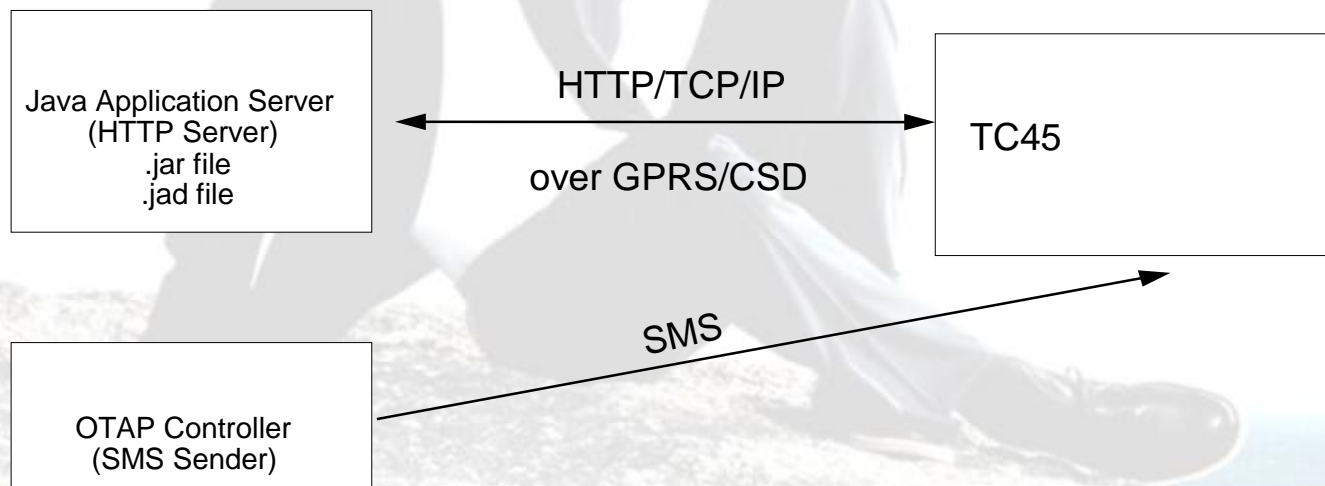
- § OTAP is a mechanism to install, update and delete Java applications over the air interface
- § OTAP can be fully controlled over SMS
- § or over the AT command `at^sjotap`

Requirements:

- § web server for .jad & .jar files (http authentication)
- § GPRS or CSD data connection (set the right parameters)
- § OTAP Controller (something to send SMS to TC45)



OTAP – how it works



OTAP - parameters

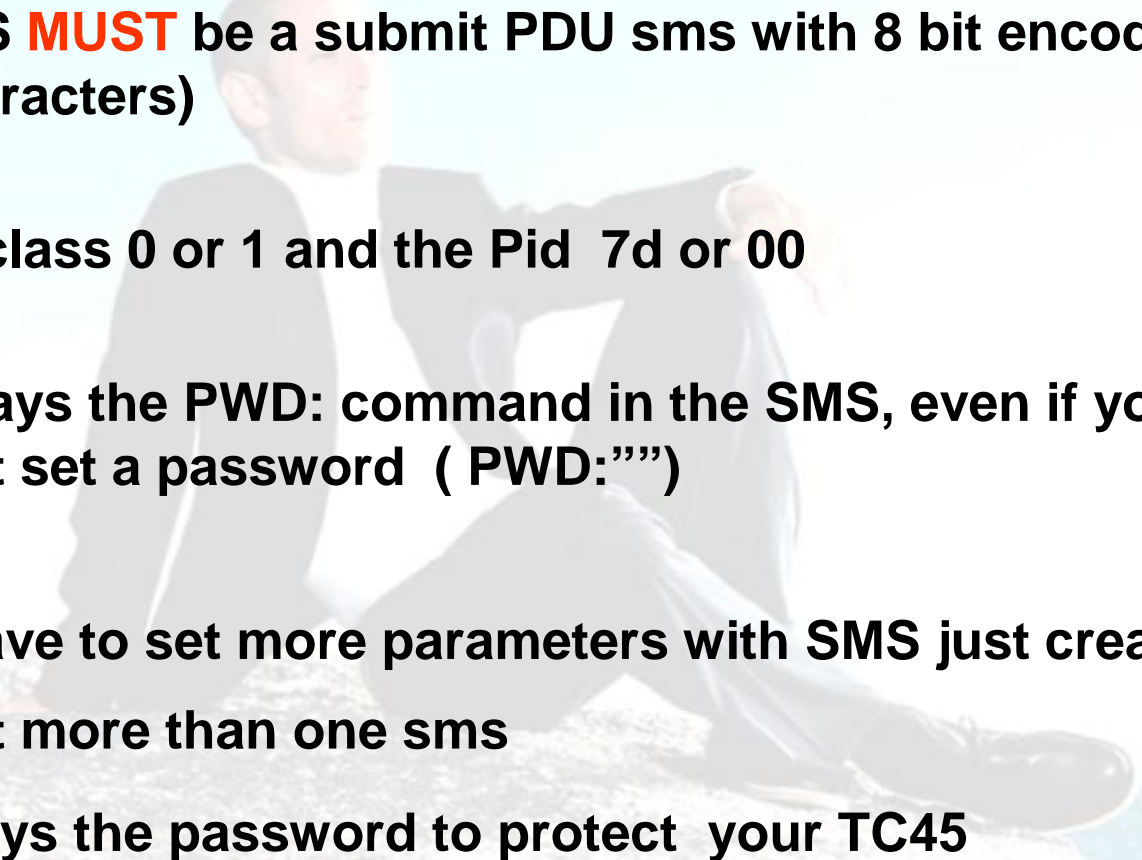
Parameters which control OTAP procedure

set by **AT^SJOTAP** or **SMS**

- § **sms password to protect TC45**
- § **url from java application server**
(location for install and update procedures)
- § **http username and password** (http authentication)
- § **Destination folder on nTC45 (a:/tc45/otap/newappl)**
- § **data connection “gprs” or “csd”**
- § **APN (Access Point Name or number to dial)**
- § **Username and password for the GPRS network (opt.)**
- § **DNS (Domain Name Server)**



OTAP - pay attention (1)

- 
- § The SMS **MUST** be a submit PDU sms with 8 bit encoding (140 characters)
 - § **Can** be class 0 or 1 and the Pid 7d or 00
 - § Use always the PWD: command in the SMS, even if you have not set a password (PWD:””)
 - § If you have to set more parameters with SMS just create and sent more than one sms
 - § Set always the password to protect your TC45

OTAP - pay attention (2)

**§ Start each SMS with OTAP_IMP1.0
PWD:"password"**

§ Insert <line feed> hex 0A after each command, also on the end of the sms

**§ Is not possible to change the parameters set by
at^sjotap command via SMS (security)**

§ Error reports are posted to the web server (http)

§ .JAD file is very important for OTAP

§ If the destination folder doesn't exist TC45 will create it

OTAP - example - use at^sjotap

otap over gprs/csd

Password: siemens (OTAP password for sms)

JAD-URL: <http://www.wmae.com/otap/infosms/infosms.jad>

Application folder for the java file: a:/ota

Bearer service: gprs

Access Point Name: e.g. web.vodafone.de (Germany)

User name: none

Password: none

Primary DNS 139.7.30.125

```
at^sjotap="siemens","http://www.wmae.com/otap/infosms/infosms.jad"  
,"a:/ota","","","gprs"," web.vodafone.de", "", "", "139.7.30.125,,
```

```
at^sjotap="siemens","http://www.wmae.com/otap/infosms/infosms.jad"  
,"a:/ota","","","csd","02113005244","internet","internet",",,
```

at^sjotap <return> starts otap

OTAP - example - use submit PDU SMS

sms receiver +491751839832
service center adr. +491710760000
class 0/8bit, validity period not present

Text:

OTAP_IMP1.0
PWD:siemens
START:install

079194710167000001000C9194711538892300F4264F54415011494D50312
E300A5057443A7369656D656E730A53544152543A696E7374616C6C0A
length = 51

at+cmgs=51 <return>
>079194710167000001000C9194711538892300F4264F54415011494D50312
E300A5057443A7369656D656E730A53544152543A696E7374616C6C0A
<cntrl Z>

OTAP - example - SMS commands - install

First SM

OTAP_IMP1.0

PWD:secret

JADURL:<http://www.greatcompany.com/coolapps/mega.jad>

APPDIR:a:/work/appdir

HTTPUSER:user

HTTPPWD:anothersecret

Second SM

OTAP_IMP1.0

PWD:secret

BEARER:gprs

APNORNUM:access.to-the.net

NETUSER:nobody

NETPWD:nothing

DNS:192.168.1.2

START:install

OTAP - example - SMS commands - delete

OTAP_IMP1.0

PWD:secret

APPDIR:a:/work/appdir

START:delete

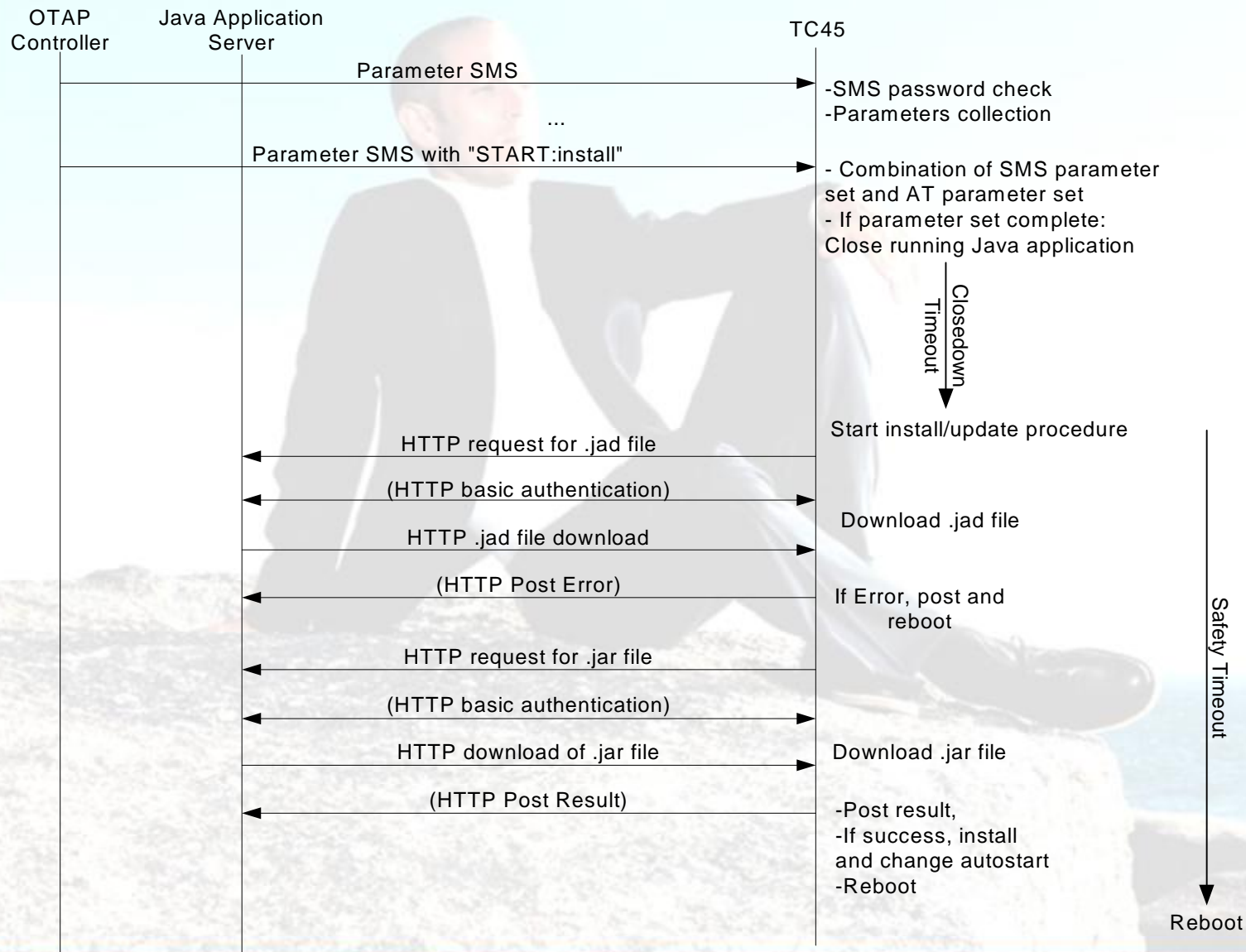
Only folders can be deleted

OTAP summary

- **Installing, Updating and Deleting JAVA applications over the Air**
- **No serial interface is needed**
- **Http server must be reachable by the TC45 over TCP / IP connection**
- **Check errors by Result Codes returned by the module**
- **Old application is deleted after otap was succesfull**
- **To protect old application use different name**
- **Space in flash for old and new application**
- **If no enough space, delete old application first**
- **For more details -> TC45 Java Users Guide**
- **Free tools to create PDU SMS (pduspy, pdugen)**



OTAP (10)



A man in a dark suit and white shirt is sitting on a large, light-colored rock. He is looking out towards the right, where the ocean and a clear blue sky are visible. The image is semi-transparent, allowing the text to be overlaid.

**Thank you for your
attention**

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