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ADVANCED ELECTRONIC SOLUTIONS

AVIATION SERVICES

COMMUNICATIONS AND CONNECTIVITY

MISSION SYSTEMS

CN-000 TM500 Training Overview (EMUE-GUI)

July 2016

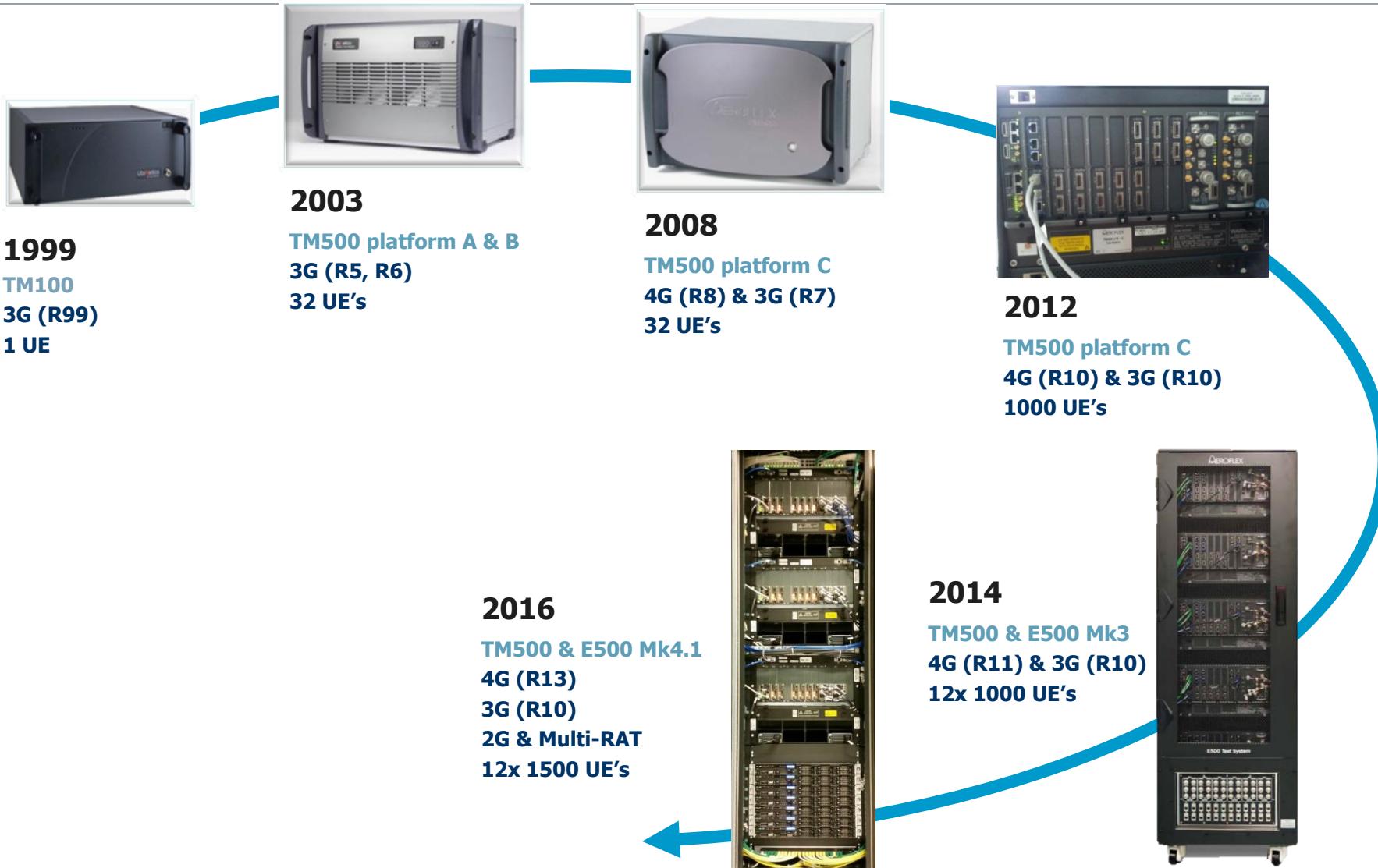


主要内容

- 集成测试环境连线
- 硬件介绍
- 预置条件
- 创建脚本
- 导出和分析日志
- 支持流程



TM500产品演进

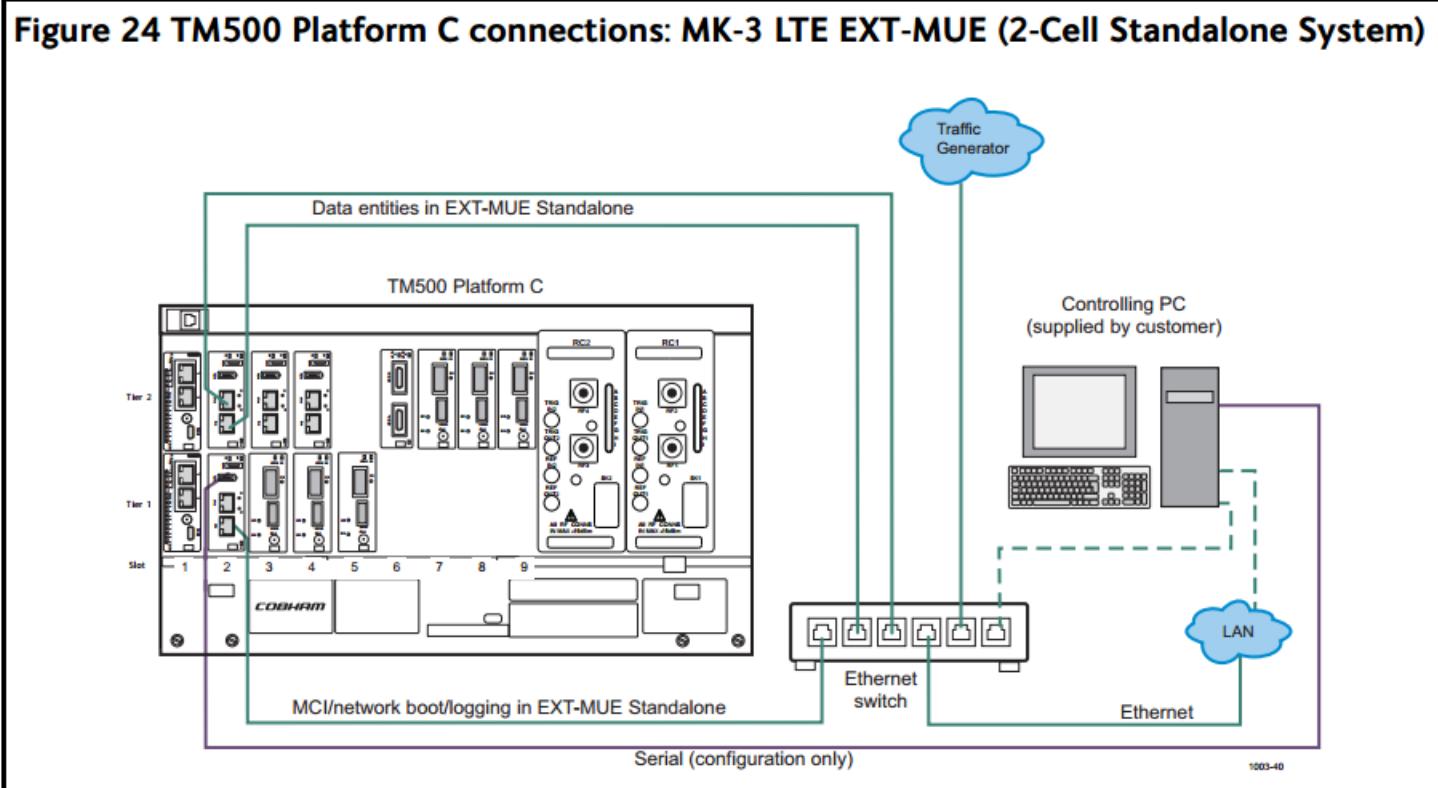


集成测试环境连线

- 网线/串口线/射频线
- DSP同步线/时钟同步线



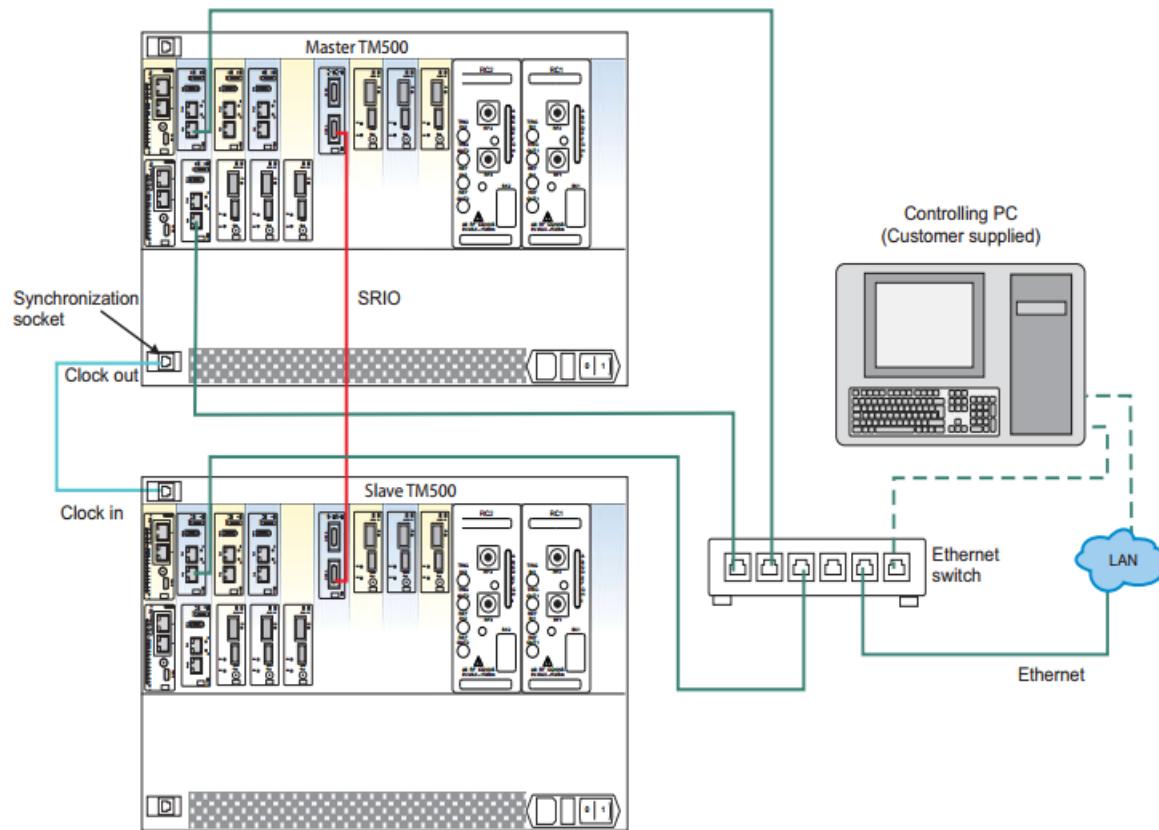
2-Cell Standalone System



TM500 & RDA集成测试环境

Multi-Benchtop 4-Cell Configuration

Figure 34 MK-3 Multi-Benchtop configuration



- #待补充真实TM500 & RDA环境连线图

硬件介绍

- 集成测试环境附件
- TM500硬件架构



网线/交换机

- #待补充

串口线

- #待补充

射频线

- #待补充

DSP同步线/时钟同步线

- #待补充

TM500硬件介绍

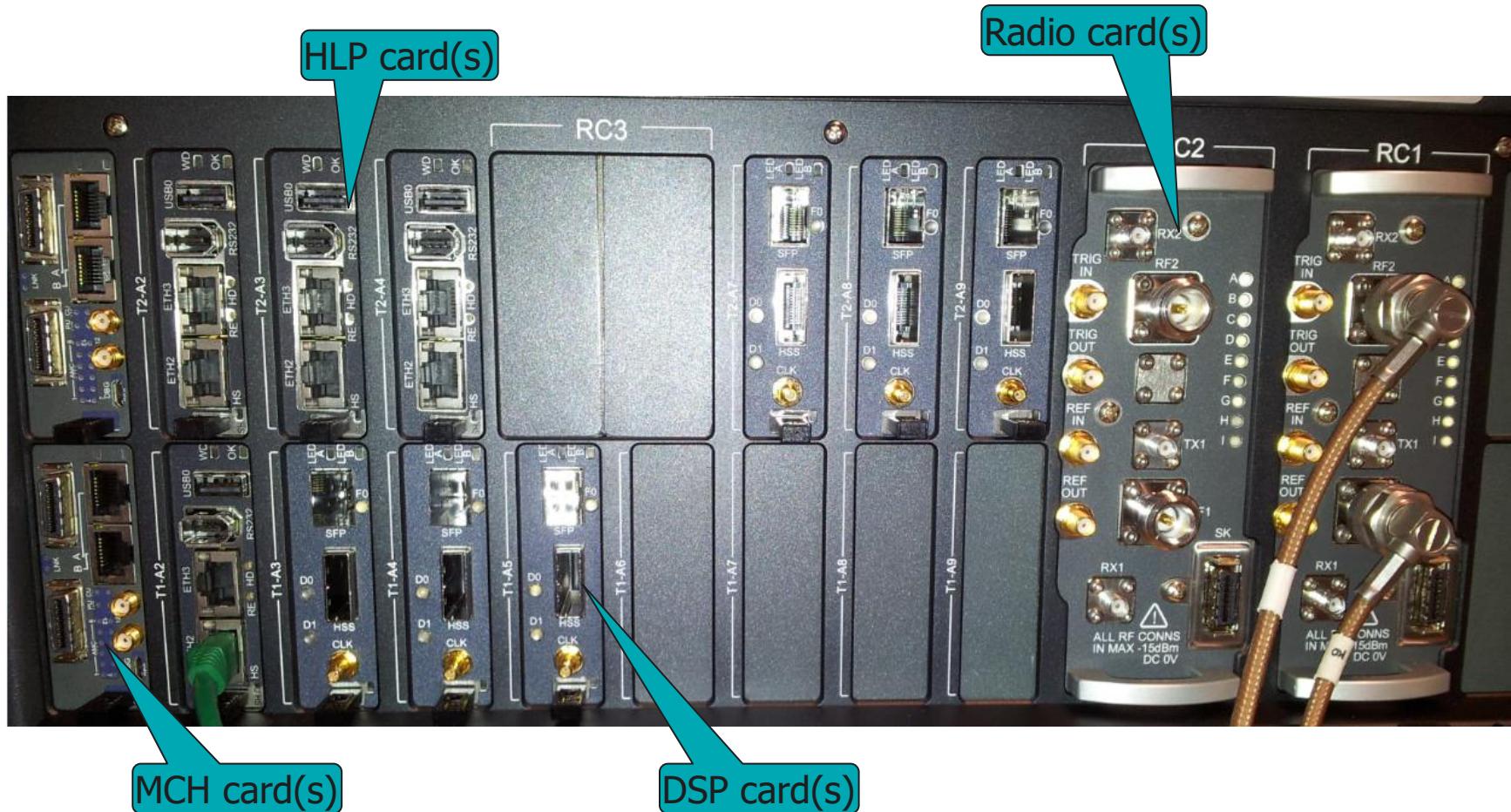
COBHAM

Front Panel



TM500硬件介绍

Back Panel



TM500 硬件介绍

TM500 LED Indicators

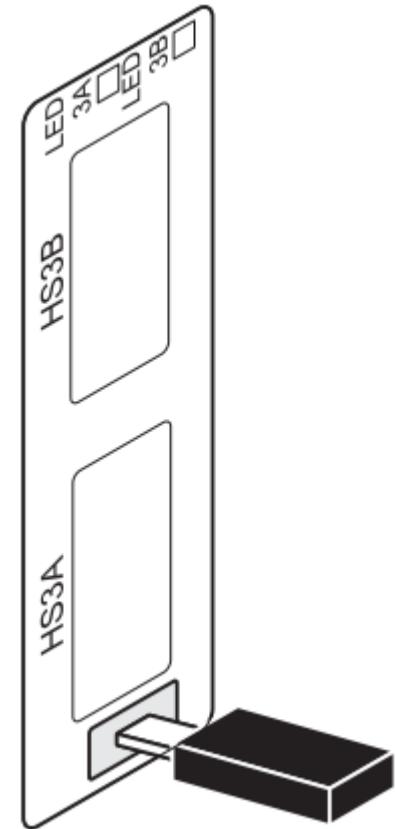
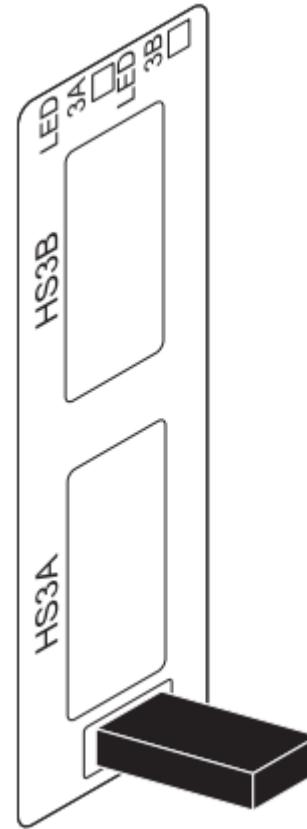
They give clues on their operation.



Blue light indicates the card is not in operation.

The tab to the left of the LED acts as an ON / OFF switch.

Temperature overheating will also be indicated by the LED.



'On' position (Left), 'Off' position (right)

Multi-Band RF cards

- **TK599-C** 400 MHz - 4 GHz Multiband Radio (MBR)
 - The double height of this MBR imposes restriction for future expansion.
 - Manufacturing of this double height card is to be scaled down.
- **TK600-C** 400 MHz - 4 GHz Compact MBR (C-MBR)
 - This is functionally equivalent to TK599-C, but is half the size, enabling up to 4 C-MBRs to be fitted in one chassis (i.e. 2CC CA, 4x4 MIMO).
- **TK613-C** 400 MHz - 6 GHz (DL) MBR
 - This is the same size as TK599-C but includes support for up to 6 GHz Downlink.
 - Order this card if the customer requires 4 to 6 GHz support (LTE-U / LAA)

TM500硬件介绍

Multi-Band RF cards

**Full height or Half height:
same functionality.**

**Frequency range supported
= 400MHz to 6GHz.**

**Choice of Combined Tx/Rx
or dedicated Tx & Rx RF
ports.**

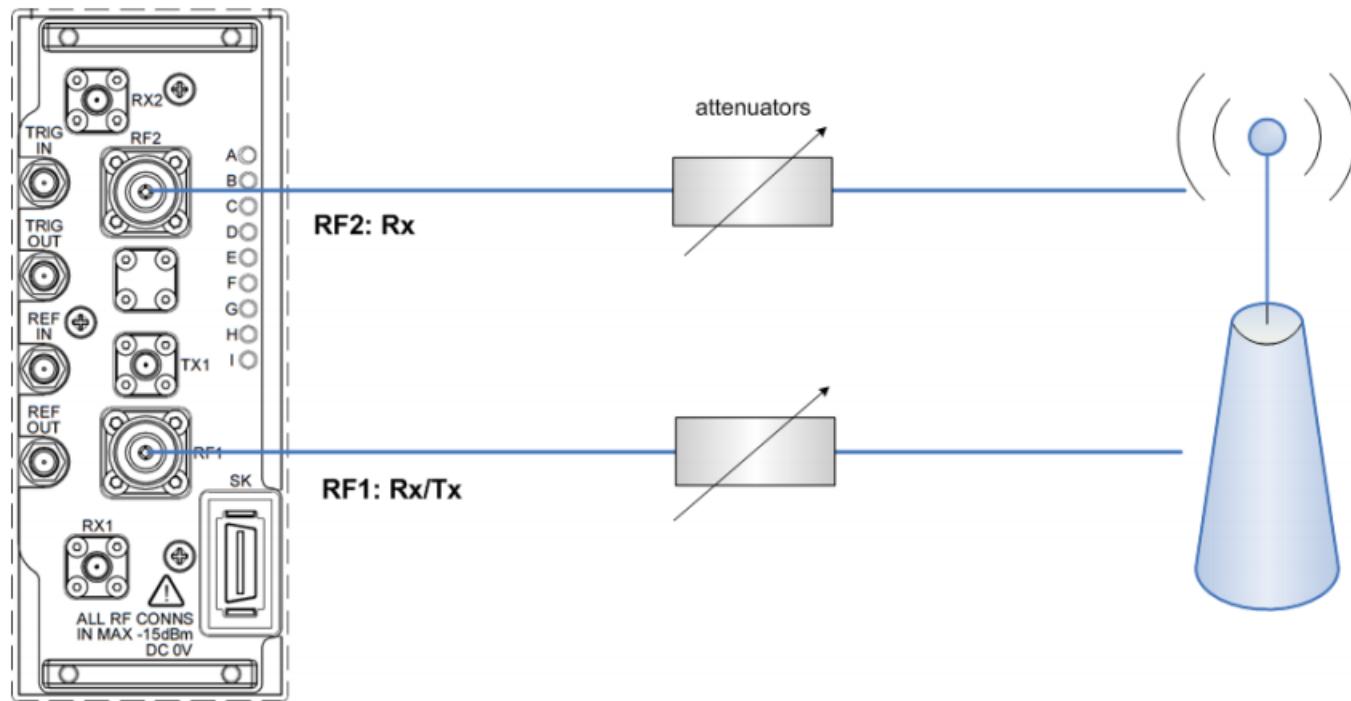


Radio Card LED's



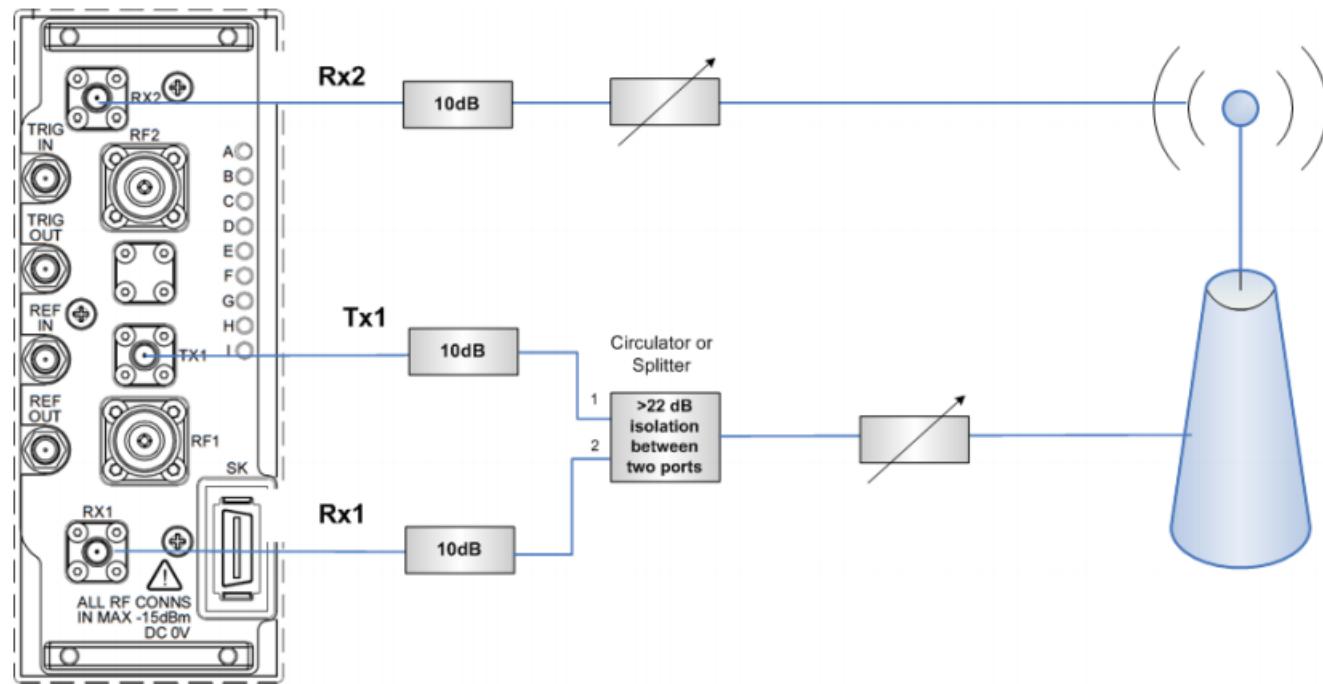
Location	Legend	Color	Indicating
Right side of card	A	Yellow	Hardware assert
	B	—	—
	C	Green	Power input to card OK
	D	—	—
	E	—	—
F		This LED is relevant only if an external reference clock is used to provide baseband timing to the radio card. See the <i>TM500 Command Reference Manual</i> for more information about using this feature.	
		Red	External reference clock signal present but not within range
		Orange	External reference clock signal present and in range
		Green	External reference signal has been synchronized
G	Green	CON FPGA configured	
	Red	CON FPGA not configured	
H	Green	SIG FPGA configured	
	Red	SIG FPGA not configured	
I	Red	Software assert	

Combined Mode



TM500硬件介绍

Dedicated Mode



Multi-Band RF cards

- 上行最大发射功率
 - Combined Mode: 0dBm
 - Dedicated Mode: 16dBm.
- 射频卡最大允许输入信号强度（RSSI）为-25dBm。
 - 搭建测试环境时，除了固定衰减器30dB衰减外，建议设置可调衰减器的初始衰减也为30dB，后续再做微调。
 - 建议的下行RSRP为-60dBm，最大不应该超过-50dBm。完成小区搜索后（运行*Configure Radio Contexts*），可通过如下命令查询小区RSRP/SINR：

```
forw mte GetStats [6] [-1] [0]
```

Back – Fan Tray

- Ventilation / air flow is vital, this keep the AMC cards in operational temperature.
- If the TM500 is overheating, the AMC cards thermal cut-off will take place ensuring the cards do not overheat.
- Initial step would be to power down the TM500 and check if the filter has collected debris over a period of time.
 - There are two screw either side of the filter panel. These can be unscrewed and the filter can be removed.



Standalone Edge/Core D500

- #待补充

Edge & Core D500 Pair

- #待补充

Standalone Edge/Core D1000

- #待补充

Edge & Core D1000 Pair

- #待补充

测试环境准备和配置

- 测试环境配置需求
- 硬件需求
- 软件需求
- 核心网开户需求
- 业务服务器关键配置信息
- 串口配置
- 控制电脑设置
 - ✓ TMA/FileZilla Server安装及设置
 - ✓ diversifEye/TeraVM客户端
 - ✓ IP及防火墙设置



- TM500/RDA (D500/D1000)及VLAN Hub/Control PC
- 千兆交换机和至少CAT5类以上的网线
- 固定衰减器和可调衰减器（每个小区一对）
- 射频线（每个小区一对）
- 串口线
- DSP同步线（可选）
- 环形器（可选）

硬件需求

控制电脑配置需求

- 控制电脑配置需求

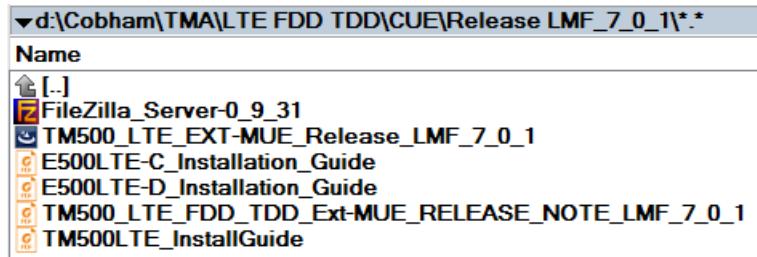
- 操作系统: 64 bit Win7或Win10且安装Windows .NET 4.5.1或更高版本
- 内存: 至少8GB
- 千兆网卡

Control PC Requirement	
Processor	SUE / MUE: Intel® Viiv™ Core™ 2 Duo E6320 Processor. EXT-MUE / E500 / Multi-RAT: Intel® i7 Processor Quad Core with Hyper-Threading, i7-870 or equivalent.
Operating System	SUE / MUE: Minimum: Windows Vista (64 bit). Recommended: Windows 7 (32 and 64 bit). EXT-MUE / E500 / Multi-RAT: Minimum: Windows Vista (64 bit). Recommended: Windows 7 (64 bit). Option: Windows 10 Windows.NET 4.5.1 must also be installed.
Memory	SUE / MUE: 2 GB EXT-MUE / E500 / Multi-RAT: 8 GB
Display	1600 x 900 pixels
Hard disk space	250 GB
Ethernet	1000 Base-T

- 请**务必关闭**控制电脑的防火墙
- TM500客户端 Test Mobile Application (TMA)
- FileZilla Server
- PuTTY (或其它Serial/SSH/Telnet工具)
- RDA客户端 (diverisifEye/TeraVM)
- Python
- Wireshark
- Microsoft Excel
- 文本编辑器 (例如UltraEdit或[Notepad++](#))

Test Mobile Application (TMA)

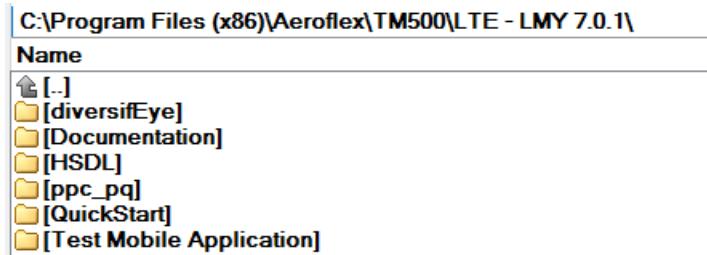
- 请咨询TM500 FAE获取最新的TM500软件版本。
- TM500软件安装包一般包含如下文件（以LMF7.0.1为例）
 - **FileZilla Server:** TM500通过FileZilla Server从它的控制电脑上加载相关软件。
 - **TM500_LTE_EXT-MUE_Release_LMF_7_0_1:** TM500软件
 - **Release Note:** 当前TM500软件版本支持的特性和功能，以及修复的问题等等。
 - **E500/TM500安装手册:** 包括供电需求、如何配置和修改TM500 IP、如何升级固件以及查看或安装license.



Test Mobile Application (TMA)

- TMA软件安装采用默认安装， 安装过程中一直选择下一步即可。
- 默认安装路径
 - 32位操作系统: C:\Program Files\Aeroflex\TM500\LTE - LMF 7.0.1\
 - 64位操作系统: C:\Program Files (x86)\Aeroflex\TM500\LTE - LMF 7.0.1\

备注: Win7以上的操作系统, C:\Program Files\或C:\Program Files (x86)\路径下的操作都需要管理员权限, 如果需要的话, 可以考虑把安装路径改为C:\Aeroflex\...



Test Mobile Application (TMA)

- TMA安装路径包含六个文件夹
 - **diverifEye**: Provisioning模板，用于生成RDA脚本。
 - **Documentation**: TM500相关的帮助文档，包括TM500/E500安装手册、EXT-MUE/E500 TMA用户手册、Command Reference Manual (CRM)、Measurement Reference Manual以及diverifEye Reference Manual等等。
 - **HSDL**: TM500 DSP/HLC log抓取和解析工具。
 - **ppc_pq**: TM500软件。
 - **Test Mobile Application**: TM500客户端（TMA.exe）。
- 通过开始菜单或Test Mobile Application文件夹打开TMA.exe，请选择EXT-MUE界面。

备注：E500界面将在其它文档进一步介绍。

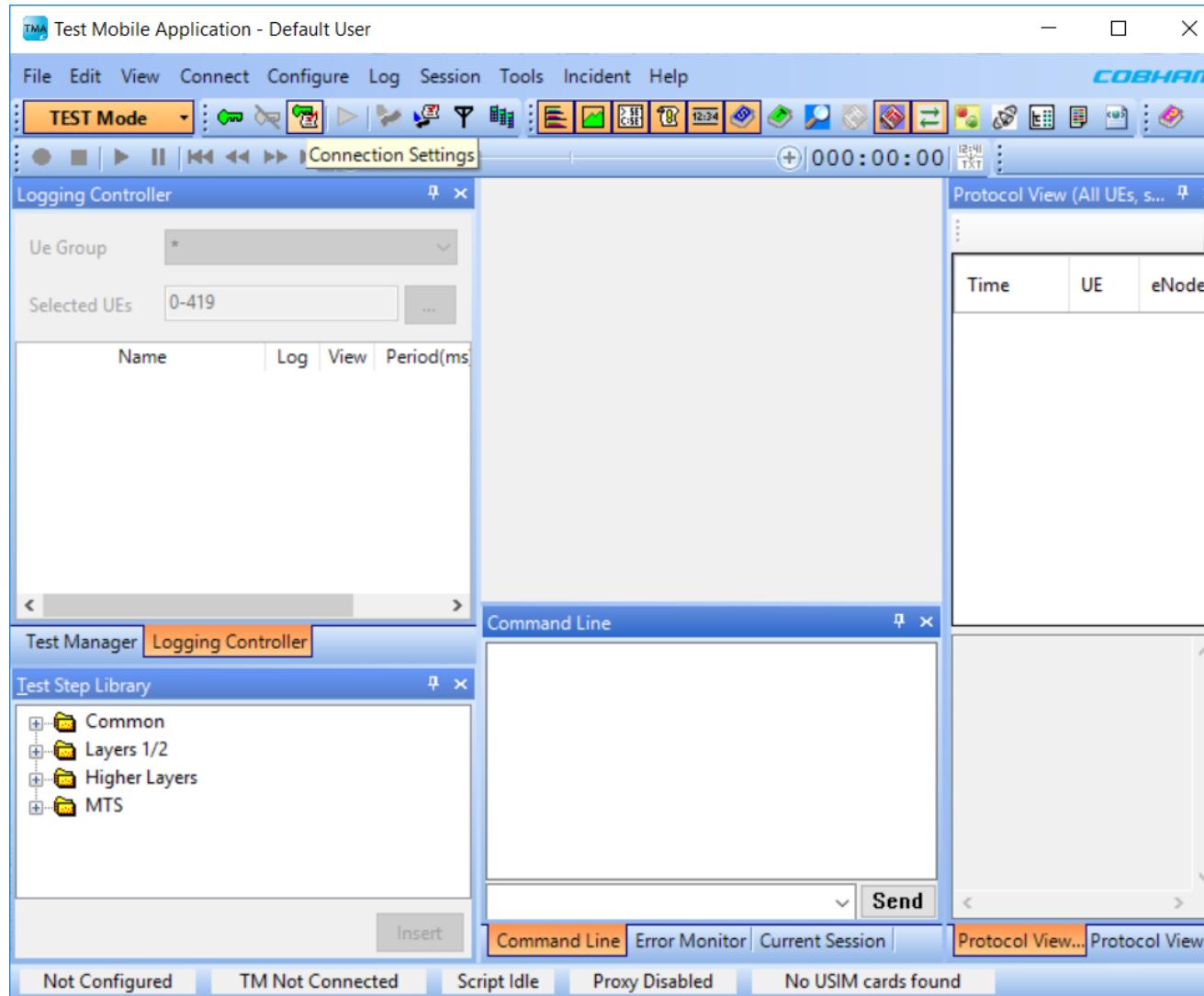
- **Profile**可以用默认的*Default User*, 也可以自定义一个新的profile.



Test Mobile Application (TMA)

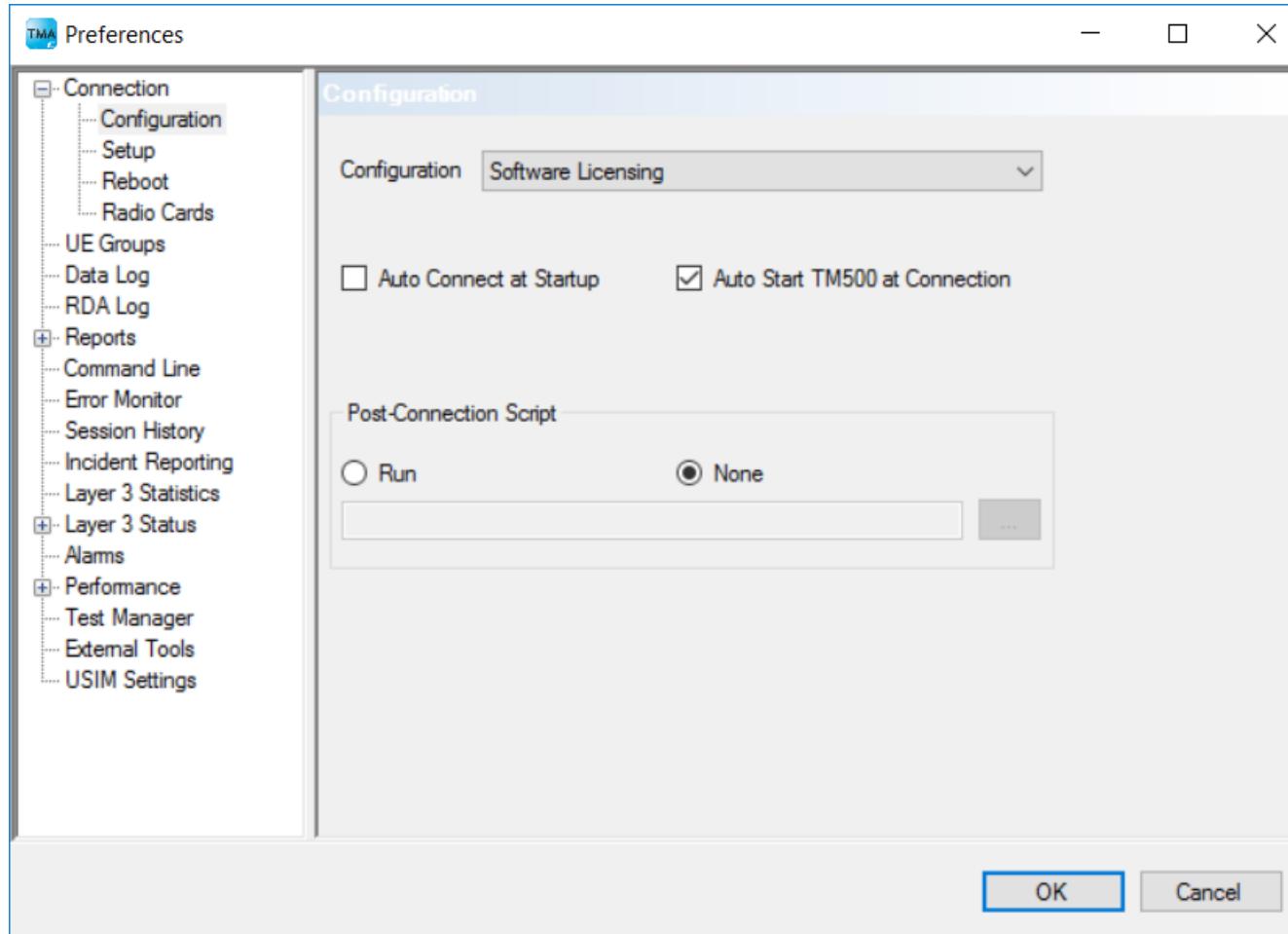
COBHAM

Connection Settings



Preferences

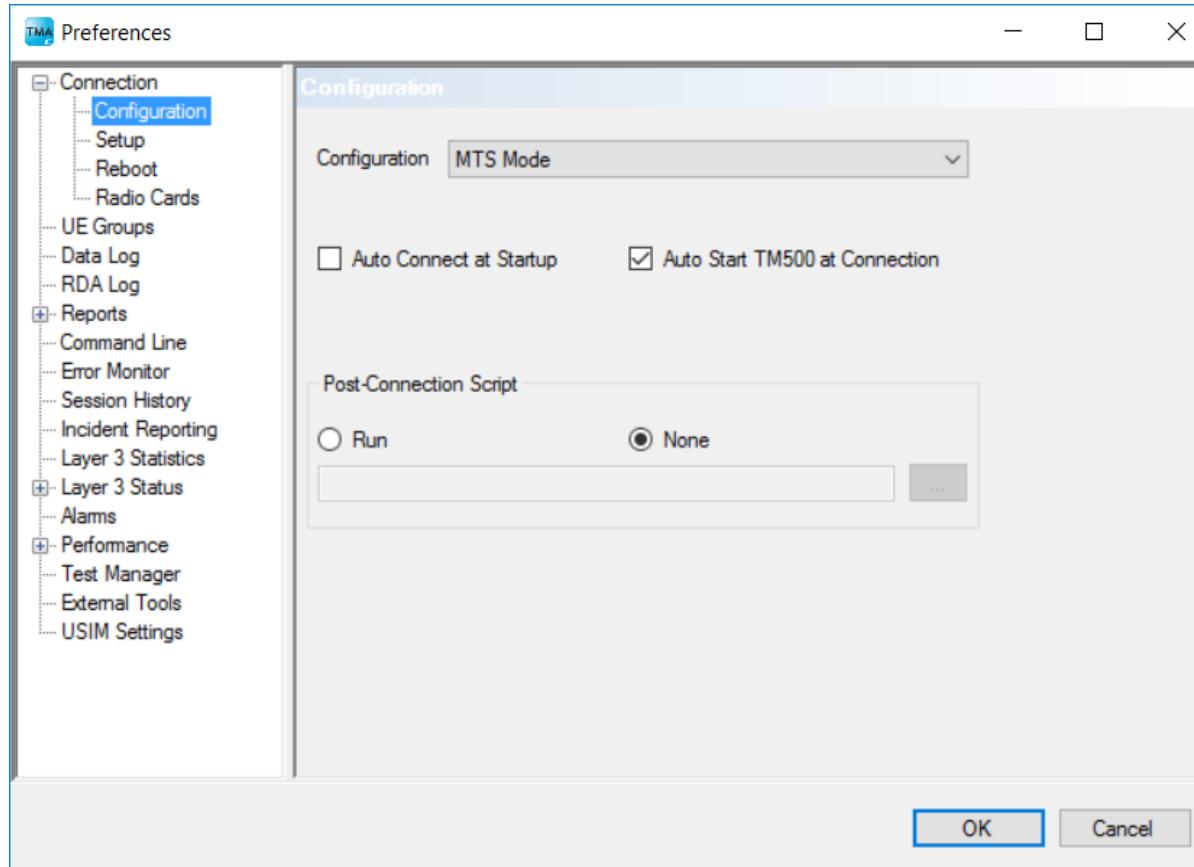
- 点击左上角Connection Settings图标，打开Preferences界面。



Preferences – Configuration

- 主要更新如下默认配置

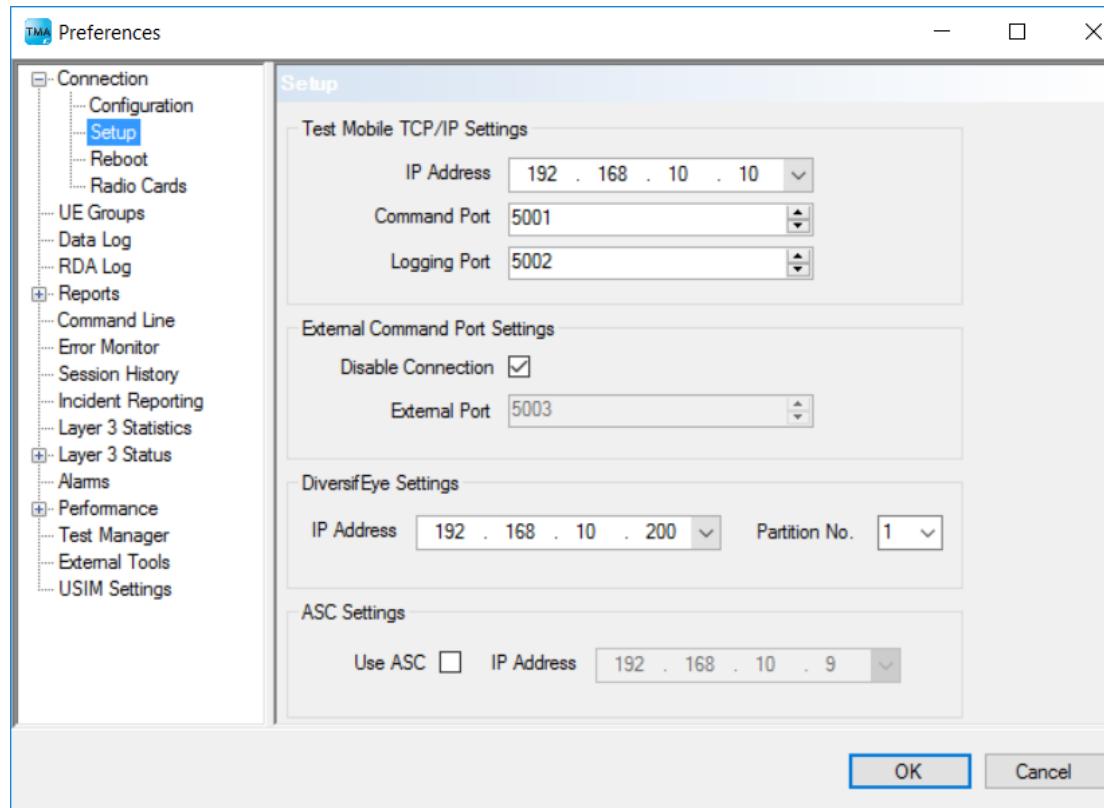
– **Configuration:** 请把默认模式“Software Licensing”更新为“MTS Mode”。



Preferences – Setup

- **Setup**

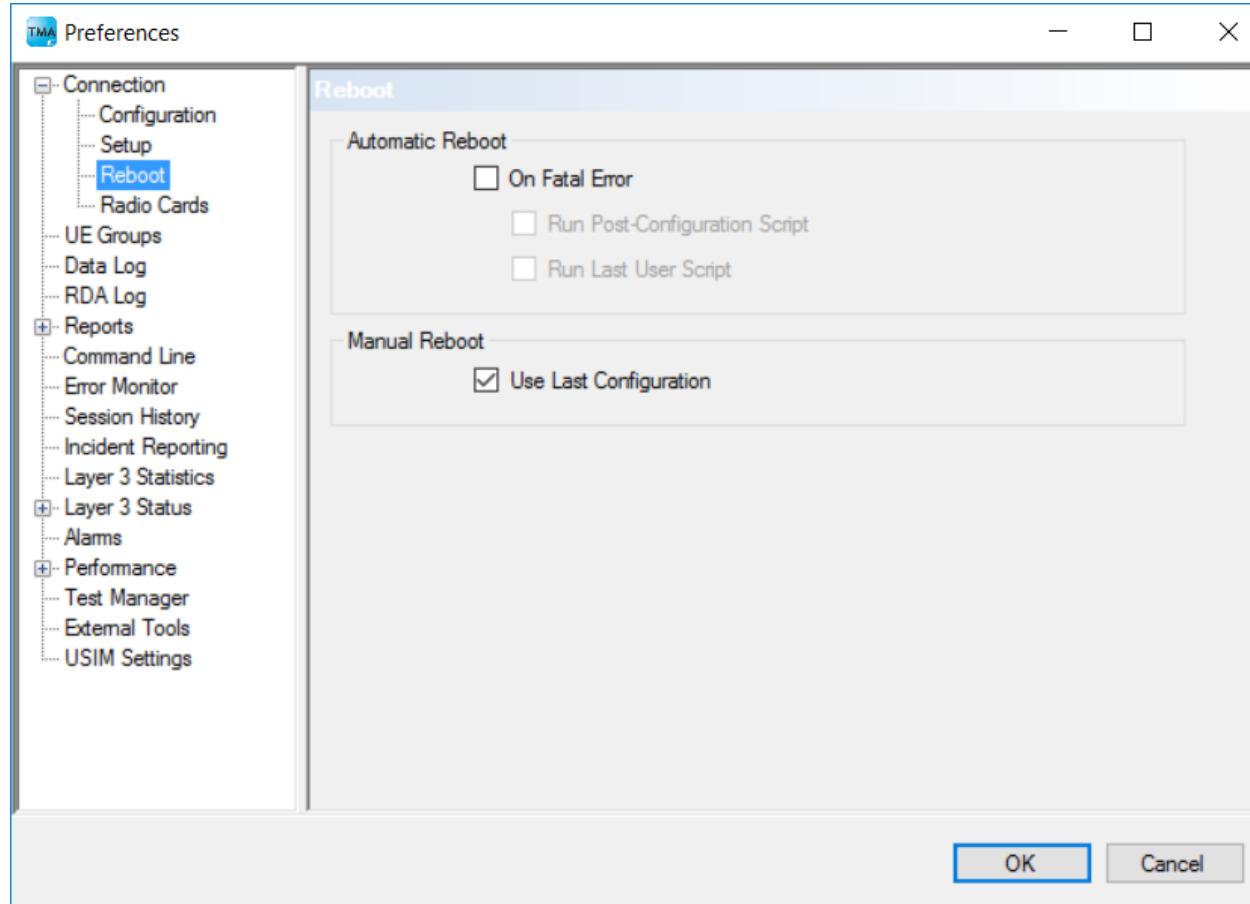
- Test Mobile TCP/IP Settings – IP Address: TM500 IP地址。



备注：串口相关文档（*CN-005-TM500_Serial_Log_MK3.pptx*）将进一步介绍TM500 IP配置。

Preferences – Reboot

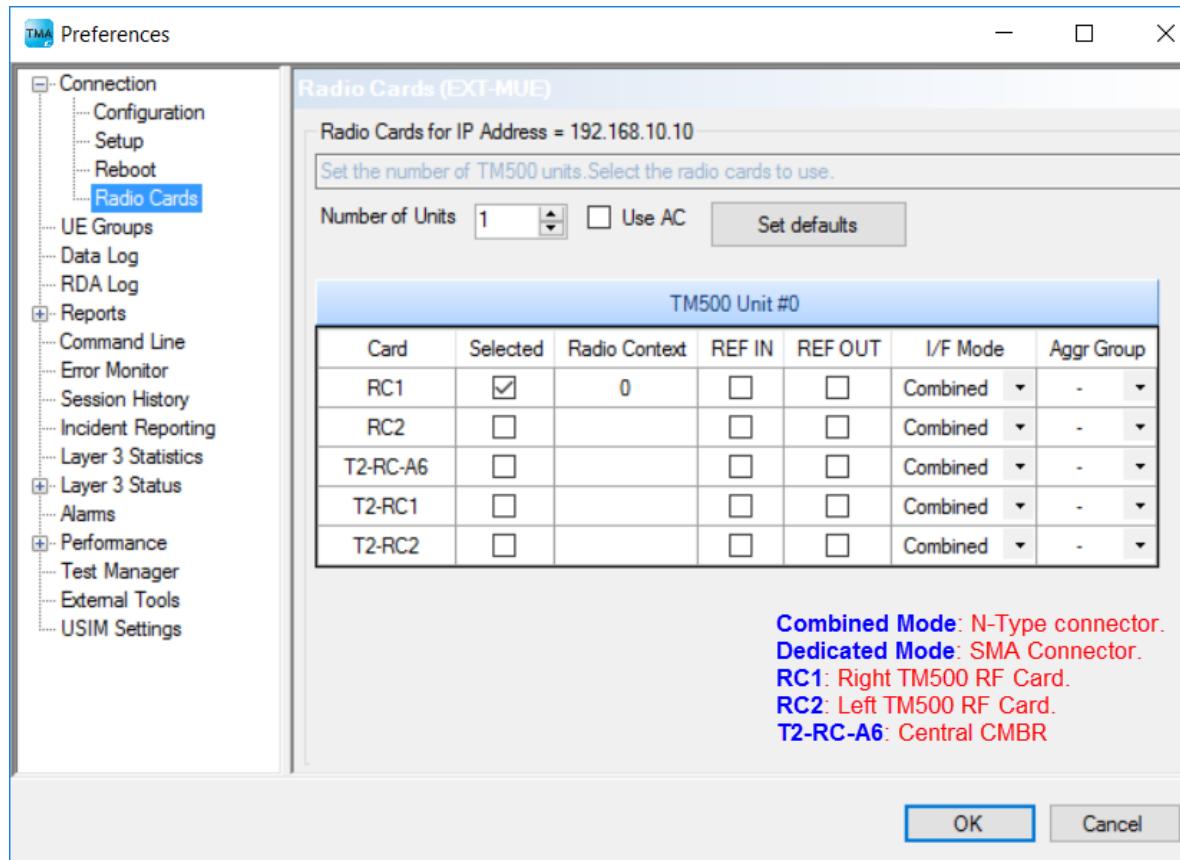
- **Reboot:** 请不要勾选 *On Fatal Error*, 否则出现ASSERT的时候, TM500将自动重启, 无法抓取DTRC log。



Preferences – Radio Cards

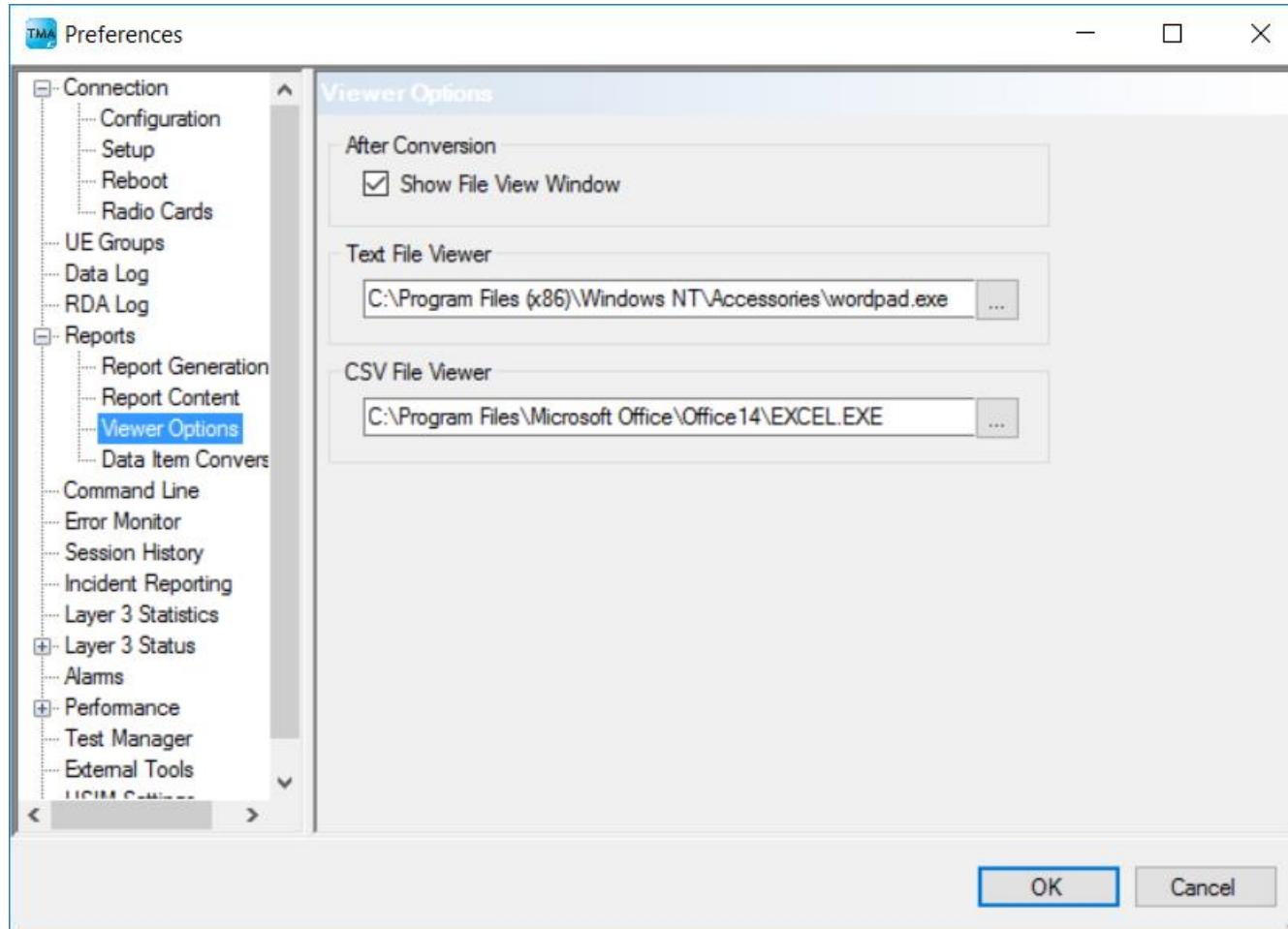
• Radio Cards

- 单台或两台TM500级联时，请**不要**勾选Use AC.
- 请根据射频连线，选择对应的射频卡以及I/F Mode.



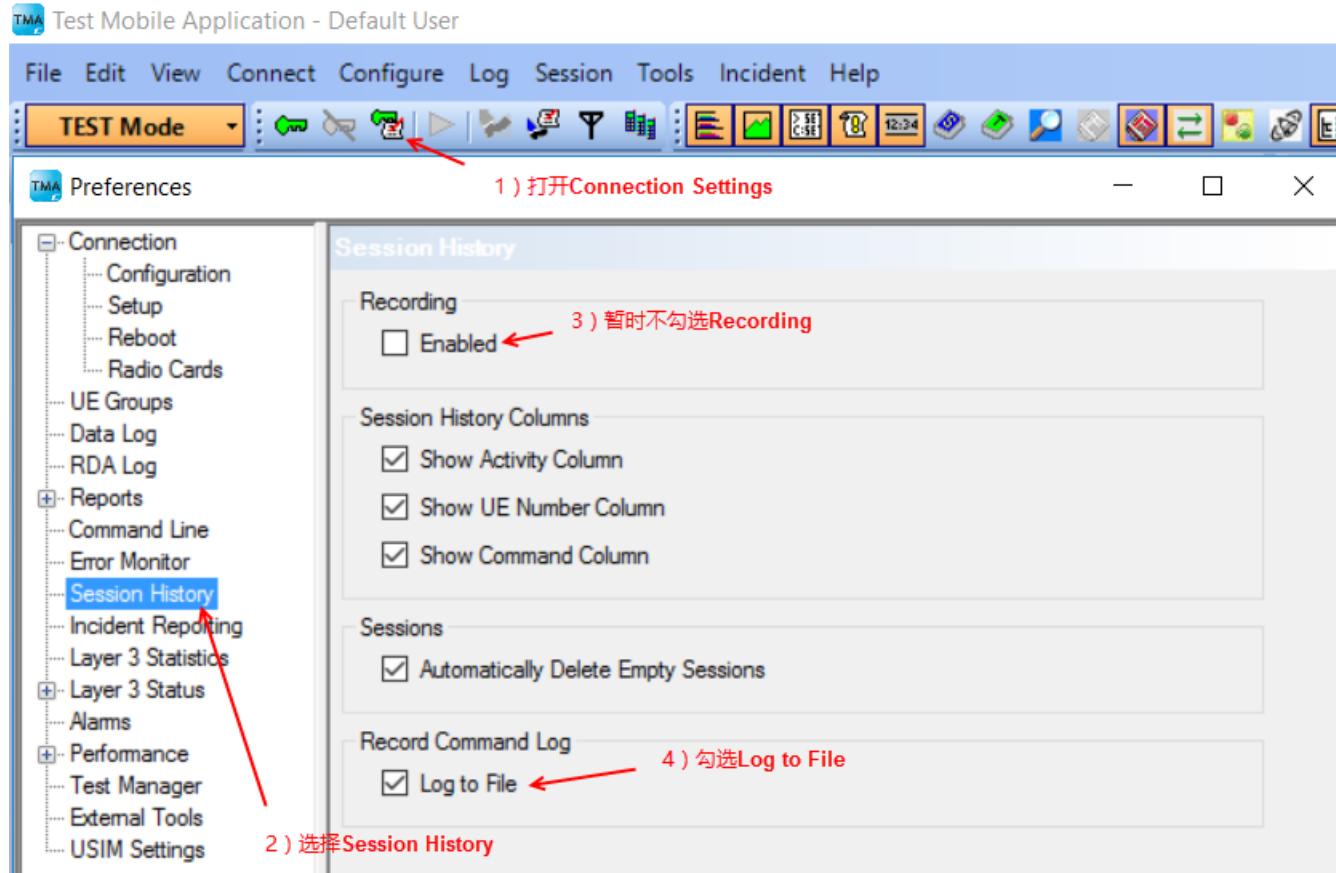
Preferences – Viewer Options

- **Viewer Options:** 请更新CSV File Viewer为Microsoft Excel.



Preferences – Session History

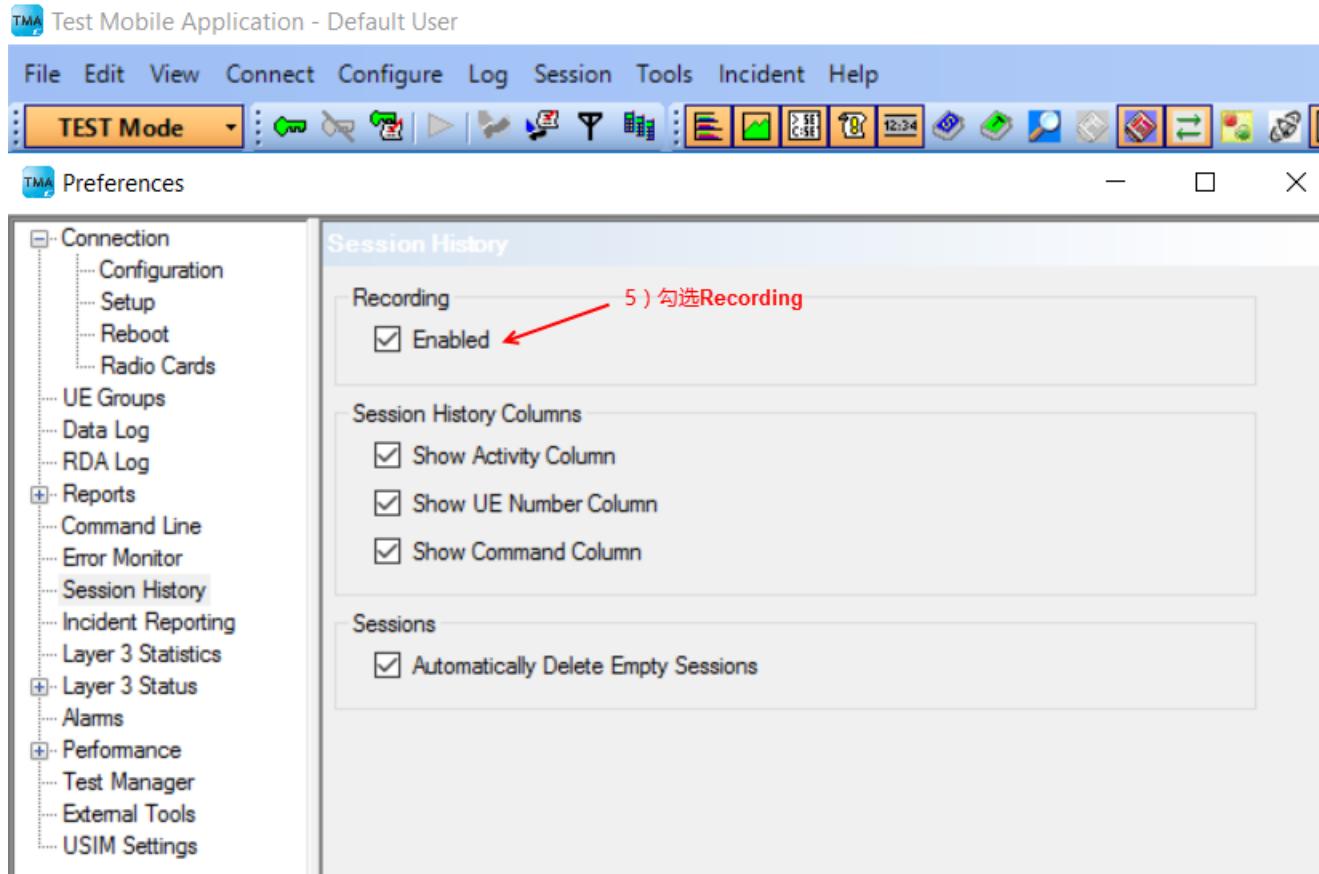
• Session History



Test Mobile Application (TMA)

COBHAM

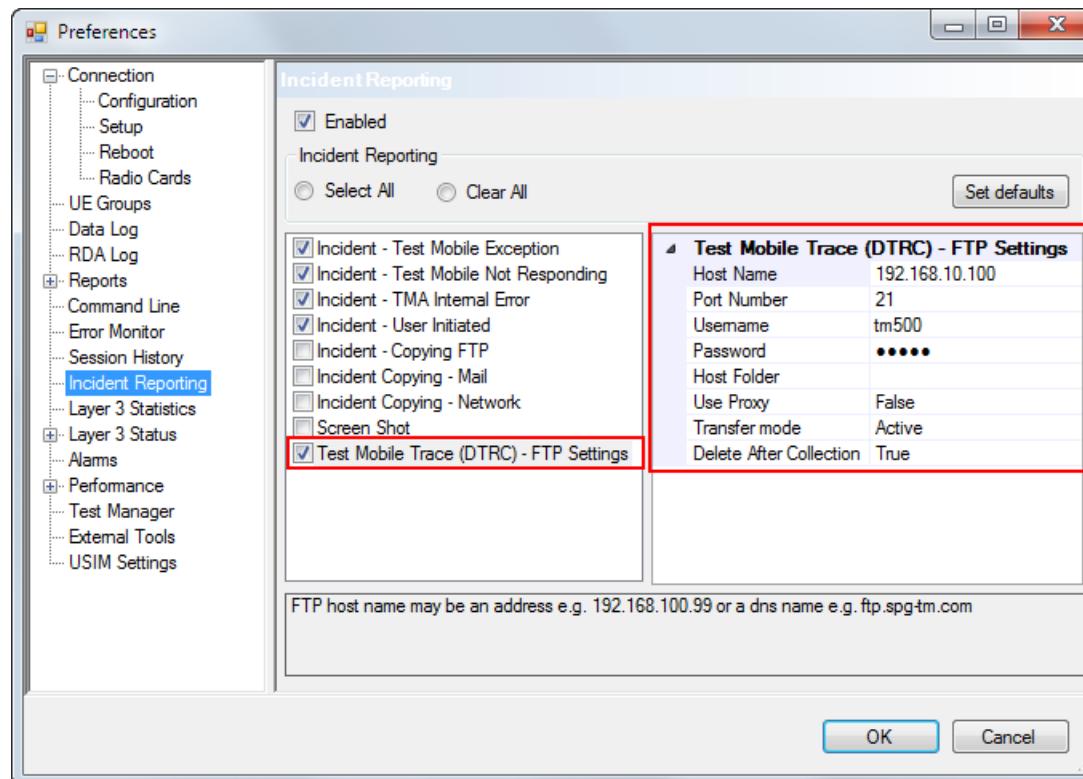
Preferences – Session History



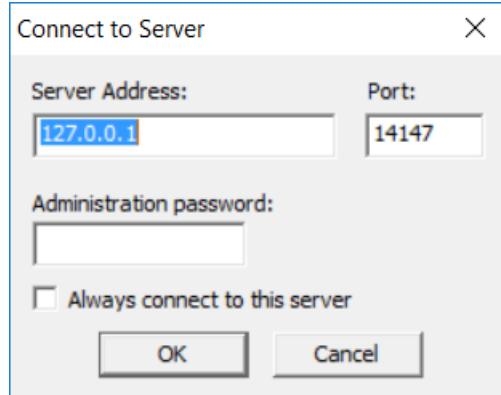
Preferences – Incident Reporting

- Test Mobile Trace (DTRC) – FTP Settings

- **Host Name:** TM500控制电脑IP.
- **Username/Password:** TM500配置的用户名和密码（一般默认配置是tm500/tm500）。

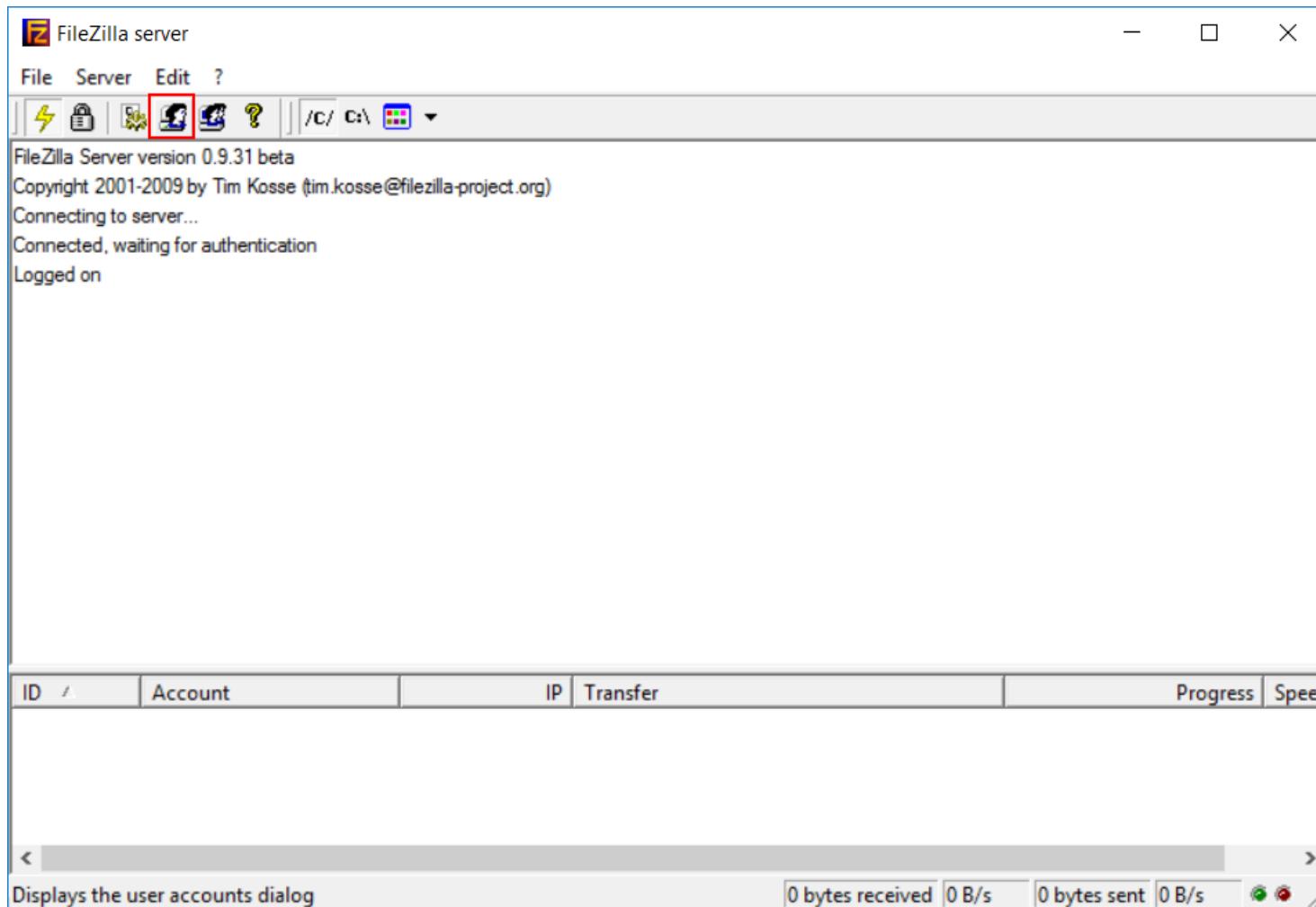


- 双击 *FileZilla_Server-0_9_31.exe* 默认安装。
 - 安装完成后，打开 FileZilla Server，，默认路径：
C:\Program Files\FileZilla Server\FileZilla Server Interface.exe (32位操作系统)
C:\Program Files (x86)\FileZilla Server\FileZilla Server Interface.exe (64位操作系统)
 - 连接时请用如下图所示默认配置，**不要更改 Server Address 和 Port.**



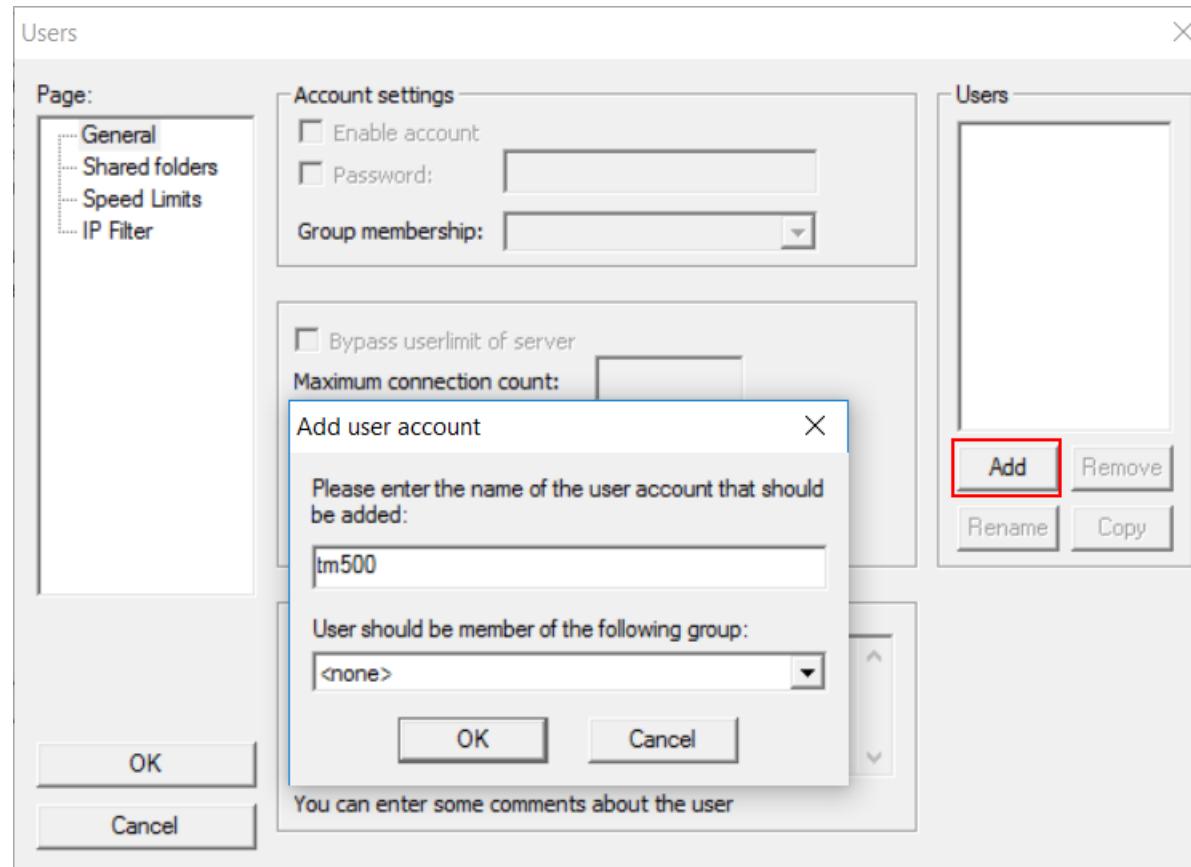
配置用户信息

- 点击如下图所示图标配置用户信息。



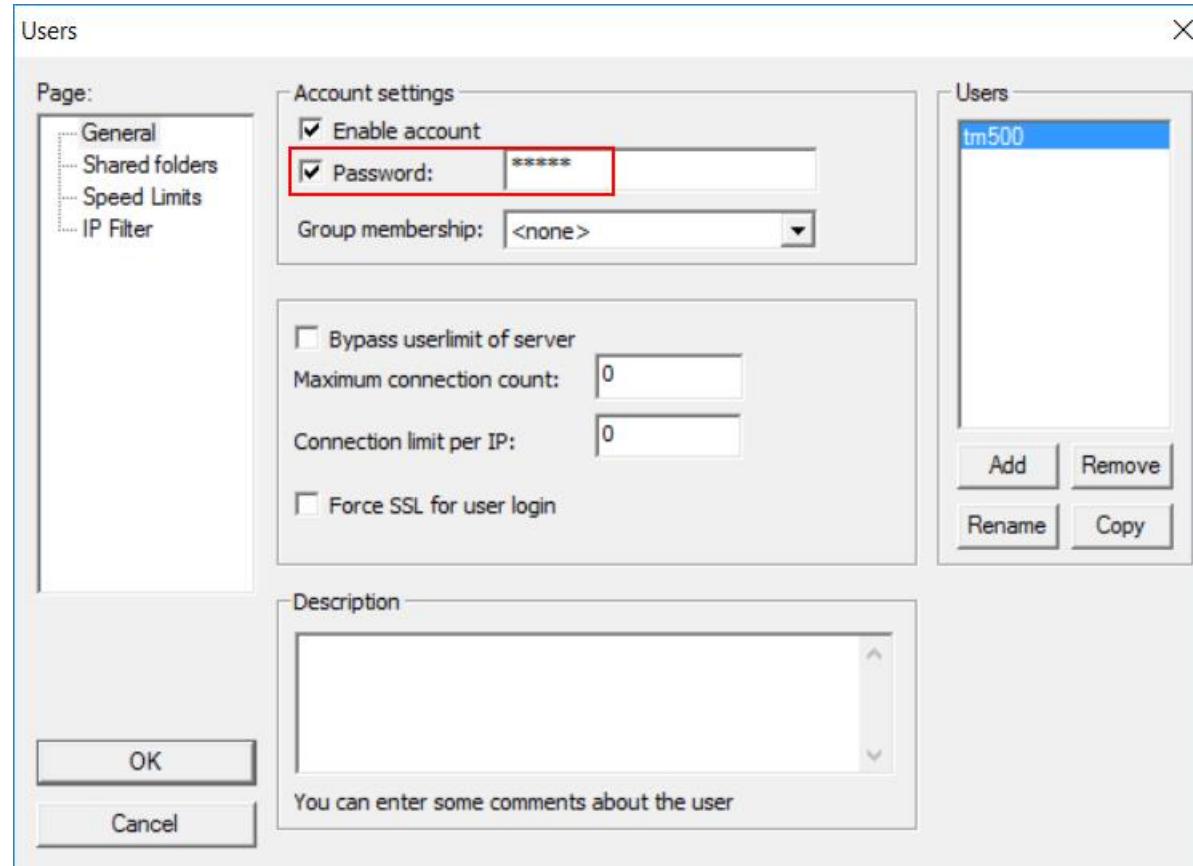
添加用户

- 添加用户（一般默认配置是*tm500*），需要和TM500设置的用户名一致。



设置密码

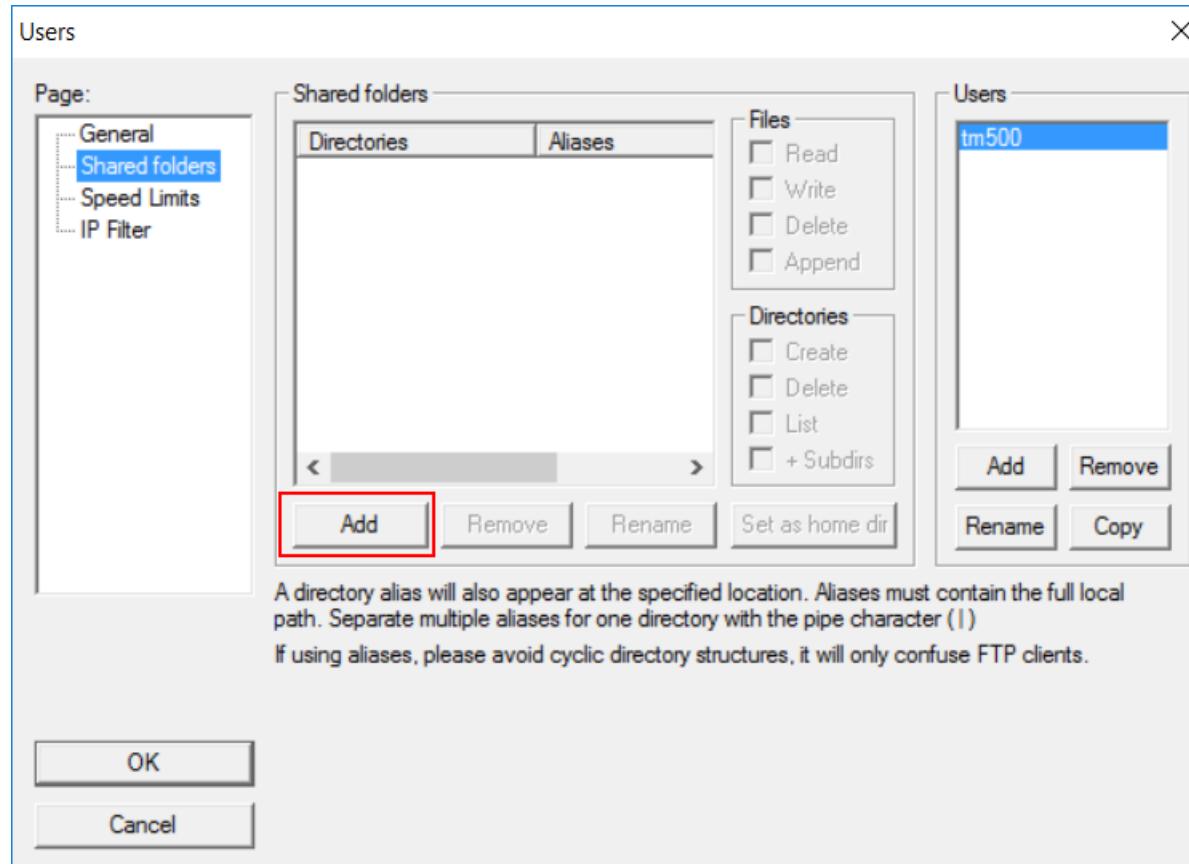
- 设置密码（一般默认配置是*tm500*），需要和TM500设置的密码一致。



添加共享路径

- 添加共享路径 (*ftp_root*文件夹)

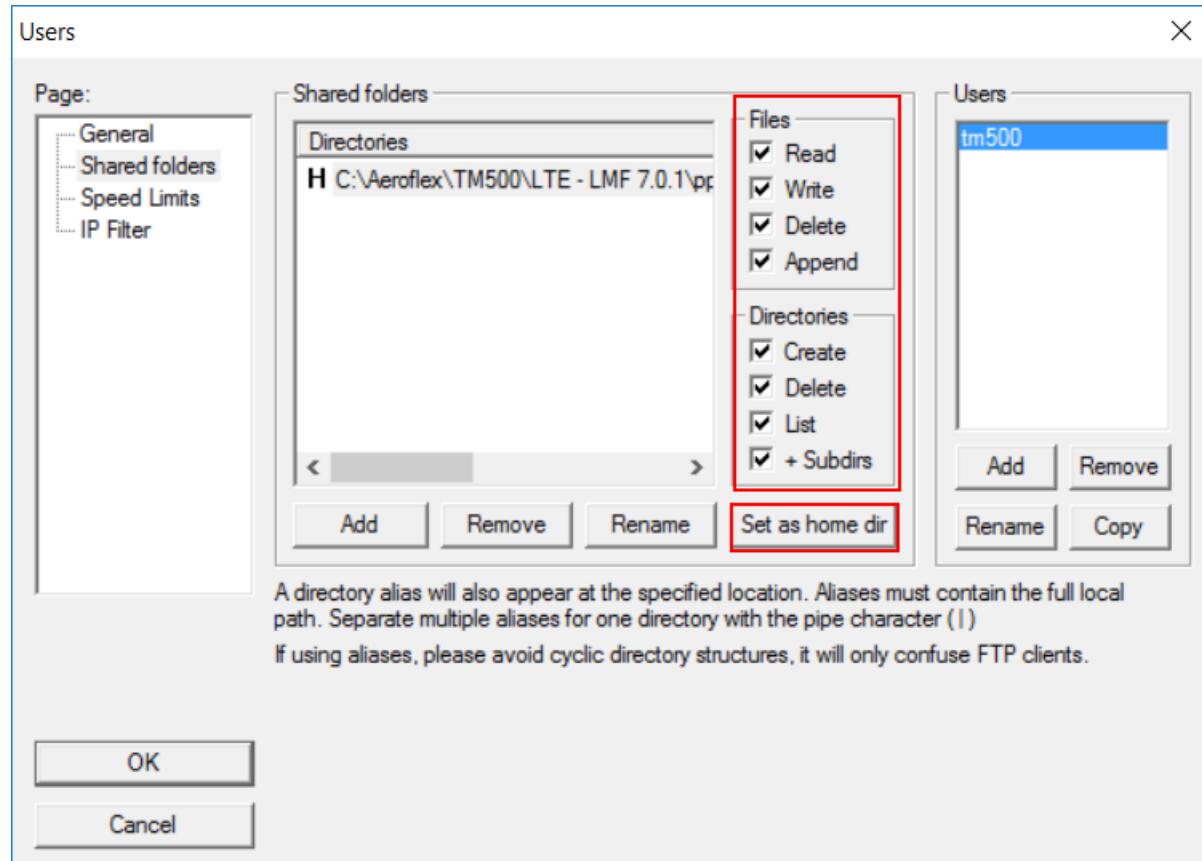
..\\Aeroflex\\TM500\\LTE - LMF 7.0.1\\ppc_pq\\public\\ftp_root\\



添加共享路径

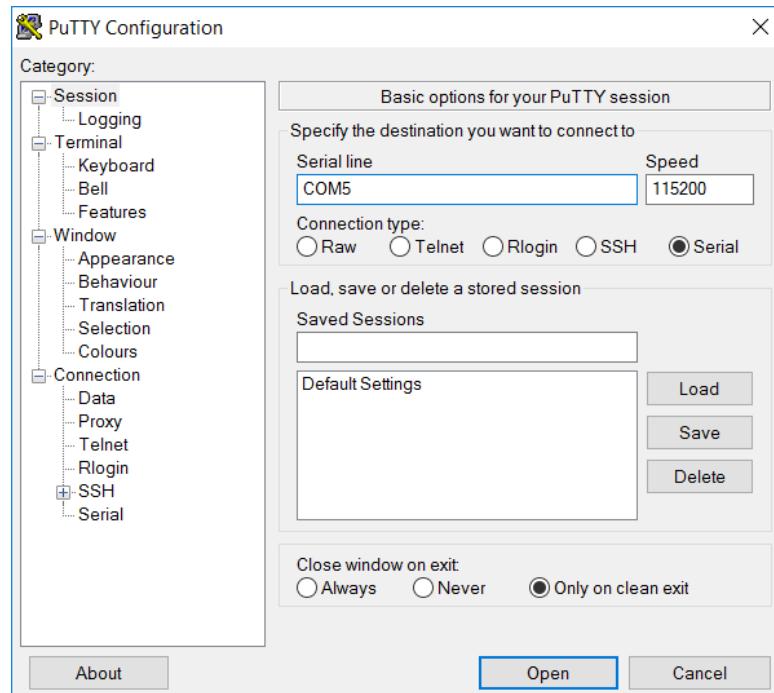
- 路径添加完成后

- 请确保 *Files & Directory* 对应的 8 个选项均已勾选。
- 点击 “Set as home dir” 设置新添加的路径为当前路径（如“H”所示），完成设置。



- PuTTY: 开源的Serial/SSH/Telnet工具

- 下载路径: <http://www.putty.org/>
 - 主要用于通过串口配置TM500 HLP卡信息，包括TM500 Control PC和控制口IP、用户名、密码以及业务口IP等等。



备注：串口相关配置，请参阅CN-005-TM500_Serial_Log_MK3.pptx。

下载及安装

- 早期的RDA客户端**diversifEye**, 最新的客户端**TeraVM**
- 默认的管理IP地址: 192.168.10.200.
- 请通过网页浏览器登录管理页面, 下载安装RDA客户端。
 - 用户名: diverAdmin
 - 密码: diversifEye
 - 默认安装即可

下载及安装

The screenshot shows the diversifEye web interface running on a local IP address (192.168.10.200). The top navigation bar includes icons for back, forward, and refresh, along with a star icon and other user settings. The main header features the Shenick Network Systems logo and the text "diversifEye". Below the header is a menu bar with links: Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The "Admin" link is currently selected.

Welcome to diversifEye

System Information

IP Address:	192.168.10.200
Network Mask:	255.255.0.0
MAC Address:	44:A8:42:00:AC:6F
Software Version:	11.1
Software Build:	300
Connected Clients:	192.168.10.100 192.168.10.29

Quick Links Menu

- [Download diversifEye 11.1 Client](#)
- [Upgrade System](#)
- [Backup Test Configuration](#)
- [Restore Test Configuration](#)
- [Global Settings](#)
- [Card Resource Usage](#)
- [Download System Logs](#)
- [diversifEye Chassis Information](#)

US : 1900 McCarthy Boulevard, Suite 301, Milpitas, CA 95035 Tel: [408-385-7630](#)
Europe : Brook House, Corrig Avenue, Dun Laoghaire, Co Dublin, Ireland Tel: [+353-1-236-7002](#)

e-mail: info@shenick.com

<http://192.168.10.200/InstData/Windows/VM/shenick.exe>

登录

- 打开RDA客户端，默认路径：

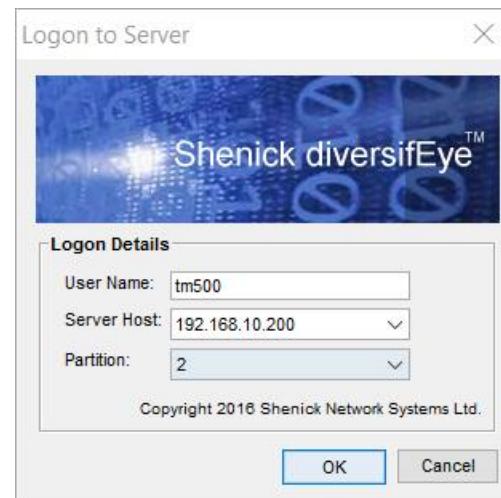
diversifEye: C:\diversifEyeClient\diversifEye.exe

TeraVM: C:\TeraVMClient\TeraVM.exe

– **User Name:** tm500 (默认)。

– **Server Host:** 192.168.10.200 (默认)。

– **Partition:** 根据RDA测试环境连线，选择对应的Partition.

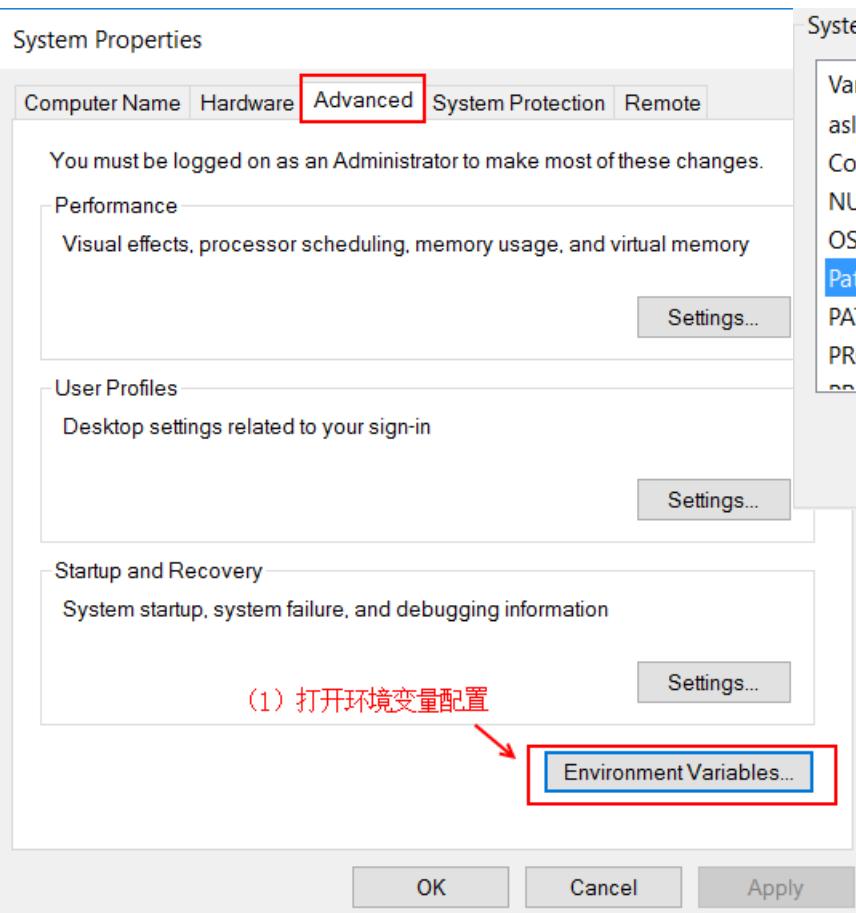


安装

- **Provisioning** : 通过配置文件（tm500.xml），用Python批量生成RDA脚本，这个过程称为Provisioning.
- 电脑运行环境配置
 - 依次下载安装Python相关软件
 - [python-2.7.5.msi](#)
 - [pywin32-214.win32-py2.7.exe](#)
 - [wxPython2.8-win32-unicode-2.8.12.1-py27.exe](#)
 - [xlrd-0.7.9.win32.exe](#)
 - 添加Python安装路径（C:\Python27\）至系统的环境变量。
 - 右键点击“我的电脑”，选择“属性”；
 - 选择“高级”->“环境变量”

备注：Win7和Win10对应的环境变量配置界面略有区别。

添加系统环境变量



System variables	
Variable	Value
asl.log	Destination=file
ComSpec	C:\Windows\system32\cmd.exe
NUMBER_OF_PROCESSORS	4
OS	Windows_NT
Path	C:\Program Files (x86)\Intel\iCLS Client\;C:\Program Files\Intel...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PROCESSOR_ARCHITECTU...	AMD64

(2) 添加环境变量 C:\Python27\

New...

Edit...

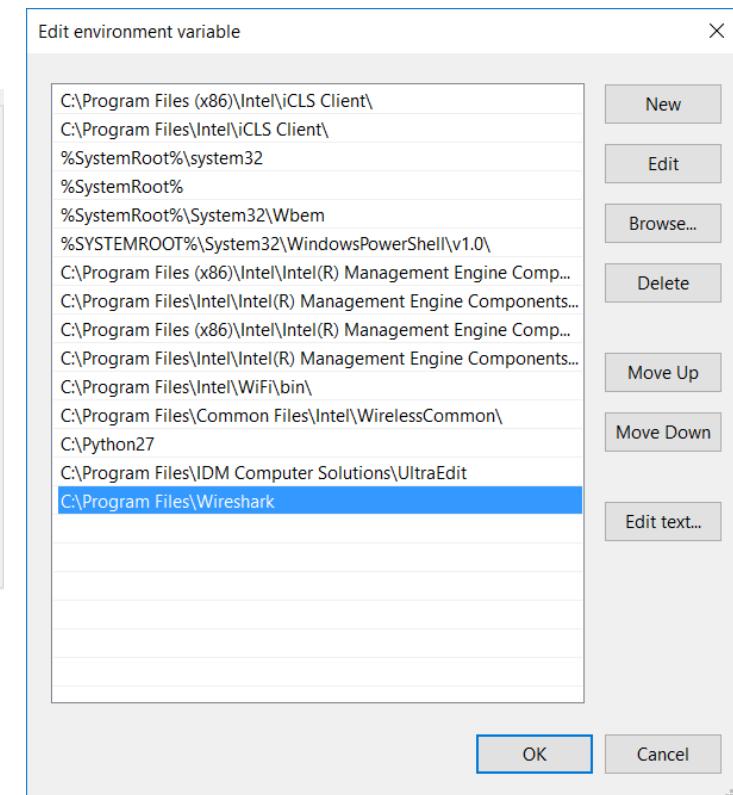
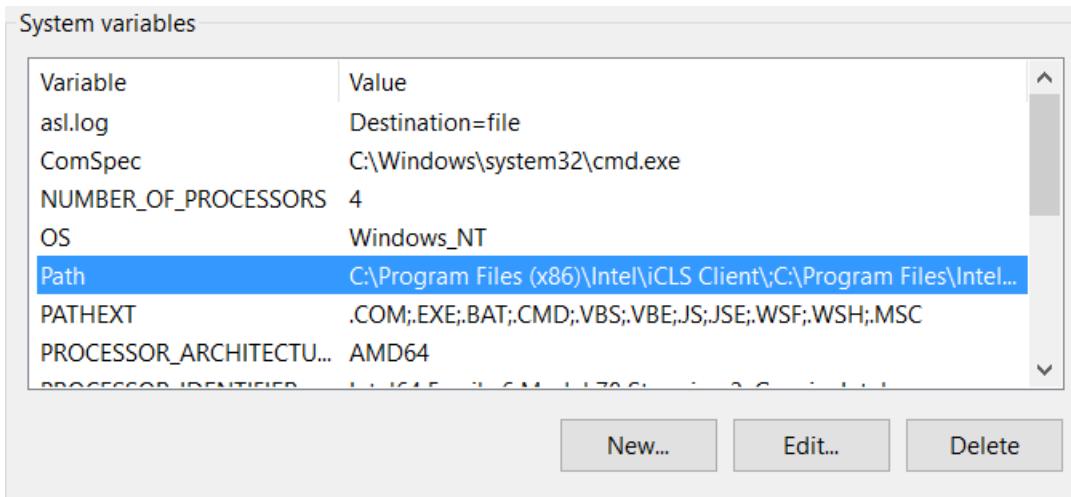
Delete

(1) 打开环境变量配置

Environment Variables...

安装及添加系统环境变量

- RDA支持实时抓取任意Node/Application/Host的PDU.
- 为了在RDA客户端直接打开抓取的PDU日志，请先安装Wireshark并把Wireshark安装路径添加至系统环境变量。
 - Wireshark下载路径: <https://www.wireshark.org/download.html>
 - 添加系统环境变量



- IMSI/Authentication Key/OP(*or OPc*)/PLMN/APN
- Cell ID/Frequency(*or EARFCN*)/Bandwidth
- 参考信号发射功率 (*referenceSignalPower* in SIB2)
- 业务服务器配置
 - P-GW IP
 - 业务服务器IP
 - VoLTE相关配置
 - P-CSCF IP
 - 用户名/域名/密码/鉴权信息

- 固件是指TM500射频卡对应的固件，主要包括API/CON/SIG/MOD.

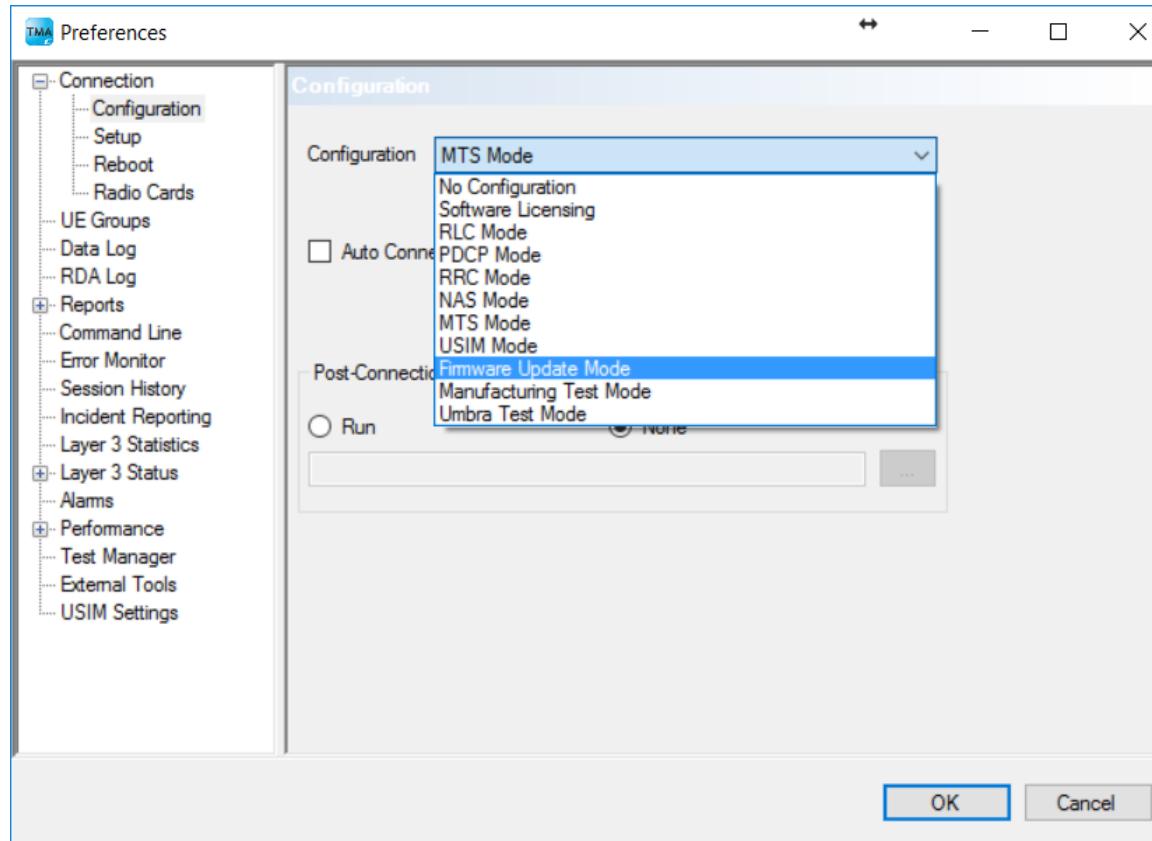
UMBRA-1

```
    API: 8019.1.0 Product: 3
    APP: 1.0.167 Built: Apr 19 2016 18:06:17
    CON: 3.5.3 Build: 0
    SIG: 2.1.1 Build: 46
    MMC: 1.7
    Carrier:      <Hardware Specific>
    PCB:          <Hardware Specific>
    SN:           <Hardware Specific>
    BarCode:       <Hardware Specific>
    MOD: 23.2.1   Build: 46
    Carrier:      <Hardware Specific>
    PCB:          <Hardware Specific>
    SN:           <Hardware Specific>
    BarCode:       <Hardware Specific>
```

- 每个TM500软件版本对应的固件信息可通过其Release Note的*Verifying Firmware Versions*章节查询。
- 不同的TM500软件版本所对应的固件如果有差异的话，首先需要升级固件，然后才能配置MTS Mode运行脚本。
- 固件升级步骤如下
 - 如果刚安装好新的TM500软件并且FileZilla Server共享路径已经配置

完成，请下电重启TM500，以把新的软件加载至TM500.

- 打开TMA，配置Firmware Upgrade Mode，点击OK以后TM500将自动检测是否需要升级固件。



Command Line

```
20/05/16 14:57:16:926 $$CONNECT
20/05/16 14:57:17:815 C: CONNECT 0x00 ok. Waiting for User to Configure Test Mobile
20/05/16 14:57:17:815 GSTS
20/05/16 14:57:17:815 C: GSTS 0x00 Ok Reset
20/05/16 14:57:17:815 ABOT 0 0 0
20/05/16 14:57:17:815 C: ABOT 0x00 Ok 0x00000001e
20/05/16 14:57:17:815 EREF 0 0 0
20/05/16 14:57:17:830 C: EREF 0x00 Ok
20/05/16 14:57:17:830 GETR
20/05/16 14:57:17:986 I: CMPI 0x0 Warning: Selected radio card is not compatible
20/05/16 14:57:17:986 C: GETR 0x00 Ok
20/05/16 14:57:17:986 Radio cards
20/05/16 14:57:17:986 -----
20/05/16 14:57:17:986 * Card : UMBRA2 LTE (20MHz)
20/05/16 14:57:17:986 Slot : RC1
20/05/16 14:57:17:986 Chassis: 0
20/05/16 14:57:17:986 Context: NOT compatible
20/05/16 14:57:17:986 -----
20/05/16 14:57:17:986 Card : UMBRA2 LTE (20MHz)
20/05/16 14:57:17:986 Slot : RC2
20/05/16 14:57:17:986 Chassis: 0
20/05/16 14:57:17:986 Context: NOT compatible
20/05/16 14:57:17:986 -----
20/05/16 14:57:17:986 Card : ARC
20/05/16 14:57:17:986 Slot : T2-RC-A6
20/05/16 14:57:17:986 Chassis: 0
20/05/16 14:57:17:986 Context: -
20/05/16 14:57:17:986 RF : type 400
20/05/16 14:57:17:986 A: DL : 400.0 - 4000.0 MHz
20/05/16 14:57:17:986 UL : 400.0 - 4000.0 MHz
20/05/16 14:57:20:061 SCFG FW_UPDATE_MODE
20/05/16 14:57:20:061 I: CMPI FUM Preparing hardware for firmware update, please wait...
20/05/16 14:57:44:179 C: SCFG 0x00 Ok FW_UPDATE_MODE
20/05/16 14:57:44:288 STRT
20/05/16 14:57:44:288 C: STRT 0x00 Ok
```

SCFG FW_UPDATE_MODE

Send

Command Line Error Monitor Current Session

- 如果提示需要升级固件的话，请在Command Line窗口输入如下命令，然后点击Send并耐心等待固件升级顺利完成。

forw fum updaterradio

注意：固件升级过程中TM500不能断电，TM500和控制PC之前也不能断开连接，也不要关闭TMA，否则将导致射频卡损坏。

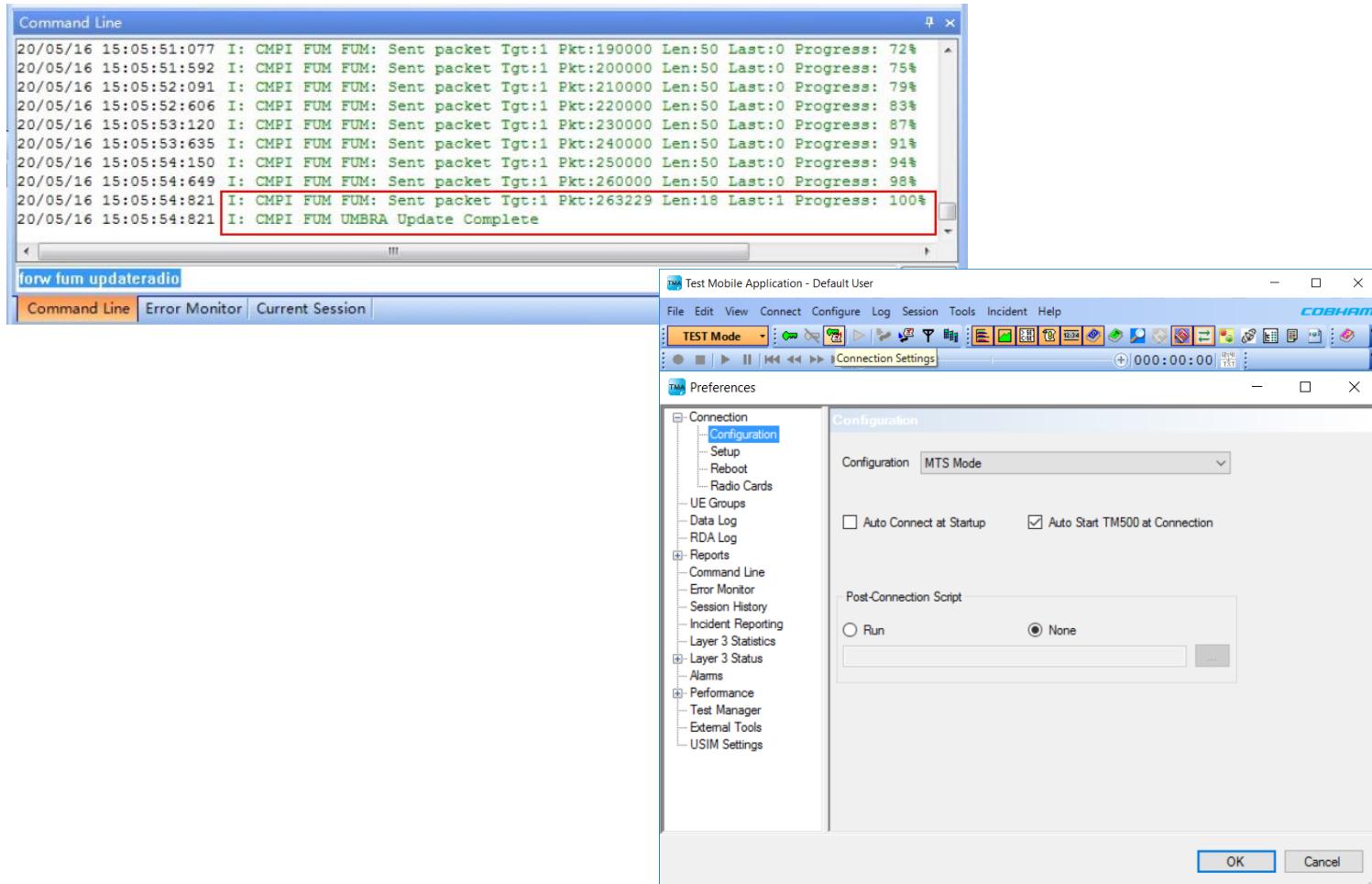
```
Command Line
20/05/16 14:57:46:394 I: CMPI FUM FUM App: 1.1.0 Build: 0, (1.1.0 Build: 0)
20/05/16 14:57:46:394 I: CMPI FUM FUM VHDL: 2.0.28 Build: 174, (2.0.28 Build: 174)
20/05/16 14:57:46:394 I: CMPI FUM =====
20/05/16 14:57:46:394 I: CMPI FUM Updates REQUIRED or (available)
20/05/16 14:57:46:394 I: CMPI FUM Card: [0] CON
20/05/16 14:57:46:394 I: CMPI FUM Card: [1] CON
20/05/16 14:57:46:394 I: CMPI FUM No bootrom updates required
20/05/16 14:57:46:394 I: CMPI FUM Firmware Update ready
20/05/16 15:00:14:930 forw fum updaterradio
20/05/16 15:00:14:930 I: CMPI FUM Auto updating:
20/05/16 15:00:14:930 I: CMPI FUM Card: [0] CON
20/05/16 15:00:14:930 I: CMPI FUM Card: [1] CON
20/05/16 15:00:14:930 C: FORW 0x00 OK FUM
20/05/16 15:00:14:930 DO NOT SWITCH OFF OR DISCONNECT FROM THE TEST MOBILE
20/05/16 15:00:14:930 Do not reboot until all components have been updated
20/05/16 15:00:14:930 This procedure may take several minutes to complete
20/05/16 15:00:14:930 Please be patient
20/05/16 15:00:15:929 I: CMPI FUM Decompressing CON...
20/05/16 15:00:17:161 I: CMPI FUM Image size: 52645872 bytes
20/05/16 15:00:17:161 I: CMPI FUM Programming... This may take some time...
20/05/16 15:00:17:161 I: CMPI FUM FUM: Sent packet Tgt:1 Pkt:0 Len:50 Last:0 Progress: 0%
```

forw fum updaterradio

Send

Command Line Error Monitor Current Session

- 固件升级完成后，请先断开TMA连接，然后点击Connection Settings，连接模式修改为*MTS Mode*.



- 请通过背面板右下角的电源开关下电TM500，等待**至少30秒钟**以后再重新上电；等重启完成后，即可开始运行测试用例。

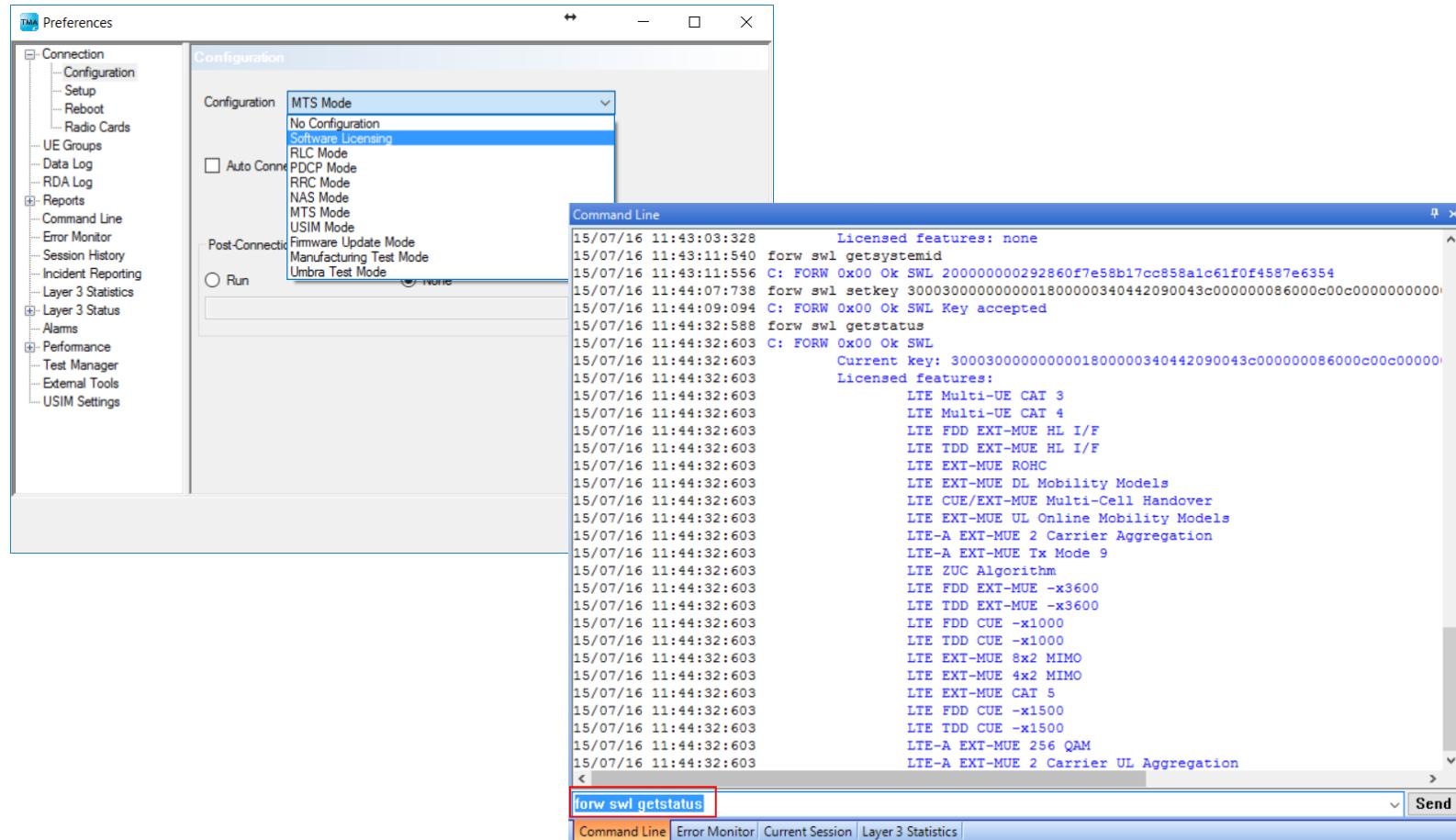


- 如果不需要升级固件的话, 请直接断开TM500连接, 点击 Connection Settings, 修改模式为MTS Mode, 然后通过连接面板右下角的电源开关下电TM500, 等待至少30秒钟后再重新上电。

```
Command Line
22/07/16 14:18:15:970 I: CMPI FUM FUM API: 1.0.0 Product ID: -1, (1.0.0 Product ID: -1)
22/07/16 14:18:15:970 I: CMPI FUM FUM App: 1.1.0 Build: 0, (1.1.0 Build: 0)
22/07/16 14:18:15:970 I: CMPI FUM FUM VHDL: 2.0.28 Build: 174, (2.0.28 Build: 174)
22/07/16 14:18:15:970 I: CMPI FUM =====
22/07/16 14:18:15:970 I: CMPI FUM Radio card: 5 => RC2, chassis 3, Module Type = 200
22/07/16 14:18:15:970 I: CMPI FUM Fail-safe update is active
22/07/16 14:18:15:970 I: CMPI FUM Versions: Current, (Update Package)
22/07/16 14:18:15:970 I: CMPI FUM CON API: 22.0.0 Product ID: 3, (22.0.0 Product ID: 3)
22/07/16 14:18:15:970 I: CMPI FUM CON App: 1.0.173 Build: 0, (1.0.173 Build: 0)
22/07/16 14:18:15:970 I: CMPI FUM CON VHDL: 3.5.3 Build: 0, (3.5.3 Build: 0)
22/07/16 14:18:15:970 I: CMPI FUM SIG VHDL: 2.1.1 Build: 46, (2.1.1 Build: 46)
22/07/16 14:18:15:970 I: CMPI FUM MOD TX VHDL: 0.0.17 Build: 16, (0.0.17 Build: 16)
22/07/16 14:18:15:970 I: CMPI FUM MOD RX VHDL: 0.0.34 Build: 40, (0.0.34 Build: 40)
22/07/16 14:18:15:970 I: CMPI FUM FUM API: 1.0.0 Product ID: -1, (1.0.0 Product ID: -1)
22/07/16 14:18:15:970 I: CMPI FUM FUM App: 1.1.0 Build: 0, (1.1.0 Build: 0)
22/07/16 14:18:15:970 I: CMPI FUM FUM VHDL: 2.0.28 Build: 174, (2.0.28 Build: 174)
22/07/16 14:18:15:970 I: CMPI FUM =====
22/07/16 14:18:15:970 I: CMPI FUM No bootrom updates required
22/07/16 14:18:15:970 I: CMPI FUM No Radio card updates required
22/07/16 14:18:15:970 I: CMPI FUM Firmware Update ready
GVER
Send
Command Line Error Monitor Current Session Layer 3 Statistics
```

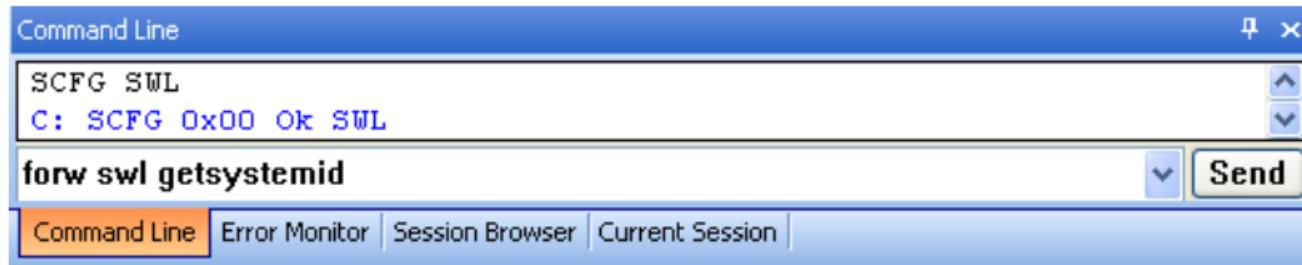
查询

- 配置 *Software Licensing* 模式，连接完成后
 - 查询license: `forw swl getstatus`



申请

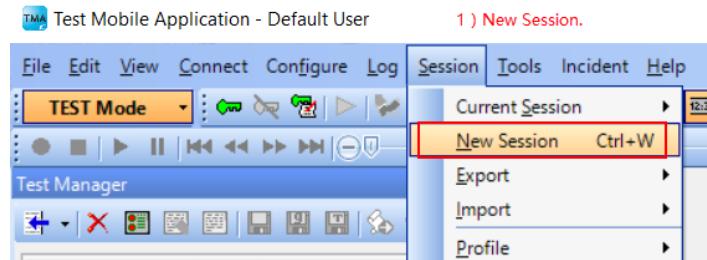
- 请找负责TM500接口的销售申请新的license，需要提供以下信息：
 - 配置Software Licensing模式，请在TMA Command Line窗口运行如下命令获取System ID。
`forw swl getsystemid`



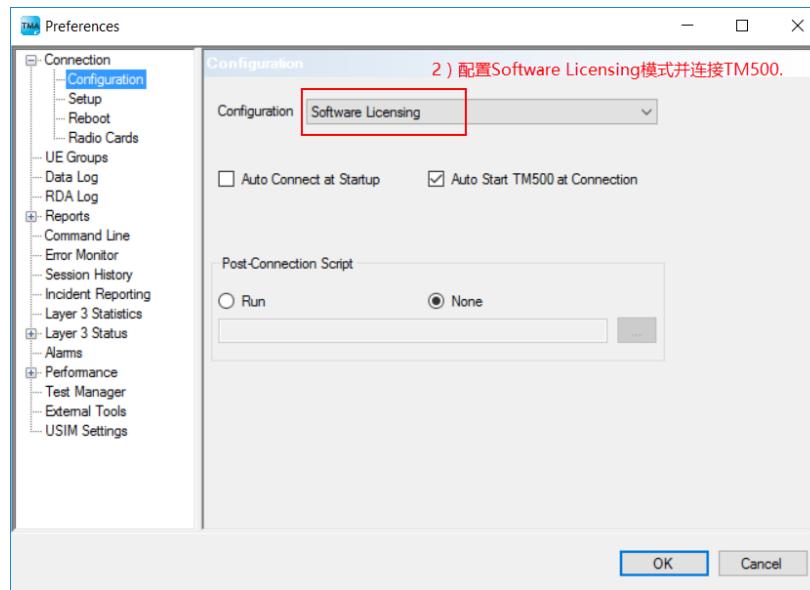
- 从TM500背面板的右上角获取TM500序列号，例如：18-TM500-3003128.
- 请发送邮件至负责TM500接口的销售和相关FAE，并抄送邮件至TM500Support.CN@cobham.com，附上以下信息：
 - System ID
 - TM500序列号
 - 期望申请的license

安装

- License安装步骤
 - 连接TM500之前, 请先New Session.



- 配置Software Licensing模式并连接TM500.



安装

- 安装新的license之前，请先查询获取当前的license信息。
- 请在TMA Command Line窗口直接运行获取的license key。
- License安装成功后，再次查询license信息，以确认新特性对应的license均已添加。

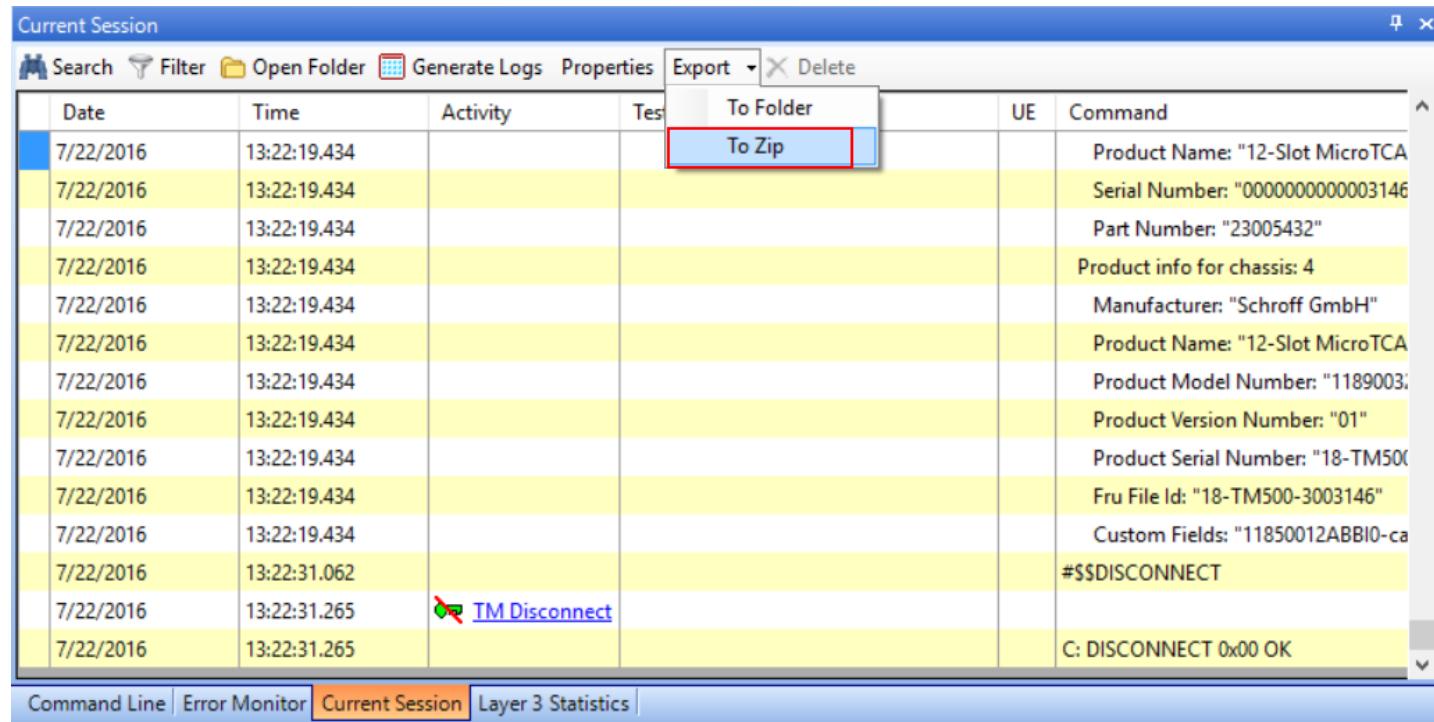
The screenshot shows a command-line interface window titled "Command Line". It displays a log of events from July 16, 2015, at 12:13:19. The log includes several key entries:

- "forw swl getstatus" (line 1) - A red box highlights this command.
- "C: FORW 0x00 Ok SWL" (line 2) - A red box highlights this response.
- "Current key: 当前license." (line 3)
- "Licensed features: none" (line 4)
- "forw swl getsystemid" (line 5)
- "C: FORW 0x00 Ok SWL 2000000003228931c6e44ed4fae81fd36e062a24befa7" (line 6) - A red box highlights this response.
- "forw swl setkey 30002000000000180000340442090043c00000086000c00c0100000000" (line 7)
- "C: FORW 0x00 Ok SWL Key accepted" (line 8) - A red box highlights this response.
- "forw swl getstatus" (line 9) - A red box highlights this command.
- "C: FORW 0x00 Ok SWL" (line 10) - A red box highlights this response.
- "Current key: 30002000000000180000340442090043c00000086000c00c01000" (line 11)
- "Licensed features:" (line 12)
- "LTE Multi-UE CAT 3" (line 13)
- "LTE Multi-UE CAT 4" (line 14)
- "LTE FDD EXT-MUE HL I/F" (line 15)
- "LTE TDD EXT-MUE HL I/F" (line 16)
- "LTE EXT-MUE ROHC" (line 17)
- "LTE EXT-MUE DL Mobility Models" (line 18)
- "LTE CUE/EXT-MUE Multi-Cell Handover" (line 19)
- "LTE EXT-MUE UL Online Mobility Models" (line 20)
- "LTE-A EXT-MUE 2 Carrier Aggregation" (line 21)
- "LTE-A EXT-MUE Tx Mode 9" (line 22)
- "LTE ZUC Algorithm" (line 23)
- "LTE FDD EXT-MUE -x3600" (line 24)
- "LTE TDD EXT-MUE -x3600" (line 25)
- "LTE FDD CUE -x1000" (line 26)
- "LTE TDD CUE -x1000" (line 27)
- "LTE EXT-MUE 8x2 MIMO" (line 28)
- "LTE EXT-MUE 4x2 MIMO" (line 29)
- "LTE EXT-MUE CAT 5" (line 30)
- "LTE FDD CUE -x1500" (line 31)
- "LTE TDD CUE -x1500" (line 32)
- "LTE-A EXT-MUE 256 QAM" (line 33)
- "LTE-A EXT-MUE 2 Carrier UL Aggregation" (line 34)

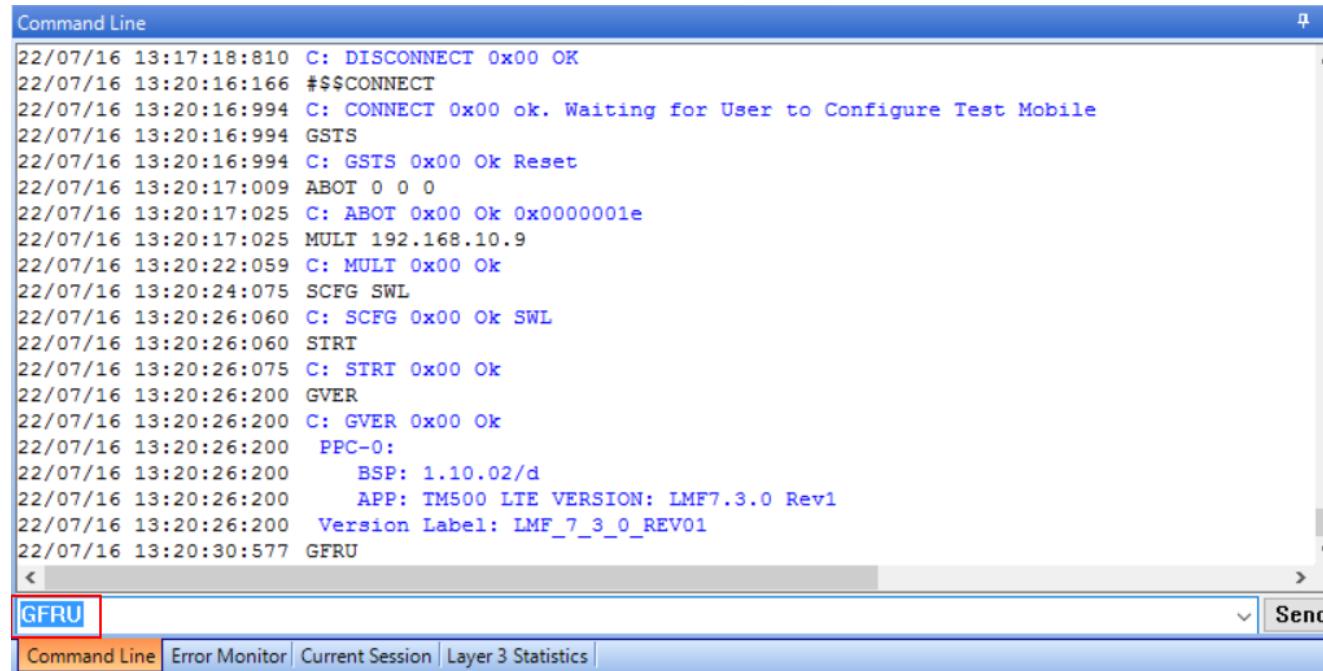
At the bottom of the window, there is a command input field containing "forw swl getstatus" and a "Send" button. Below the input field, there are tabs for "Command Line", "Error Monitor", "Current Session", and "Layer 3 Statistics".

安装

- 导出Session log，并将此log发送至负责TM500接口的相关FAE，以便进一步确认新的license准确无误。



- GFRU用于查询TM500序列号以及其各板卡序列号。
 - 配置TMA模式为*MTS Mode*或*Software Licensing*.
 - 在TMA Command Line窗口运行*GFRU*命令，即可返回相关信息。



```
Command Line
22/07/16 13:17:18:810 C: DISCONNECT 0x00 OK
22/07/16 13:20:16:166 $$CONNECT
22/07/16 13:20:16:994 C: CONNECT 0x00 ok. Waiting for User to Configure Test Mobile
22/07/16 13:20:16:994 GSTS
22/07/16 13:20:16:994 C: GSTS 0x00 Ok Reset
22/07/16 13:20:17:009 ABOT 0 0 0
22/07/16 13:20:17:025 C: ABOT 0x00 Ok 0x00000001e
22/07/16 13:20:17:025 MULT 192.168.10.9
22/07/16 13:20:22:059 C: MULT 0x00 Ok
22/07/16 13:20:24:075 SCFG SWL
22/07/16 13:20:26:060 C: SCFG 0x00 Ok SWL
22/07/16 13:20:26:060 STRT
22/07/16 13:20:26:075 C: STRT 0x00 Ok
22/07/16 13:20:26:200 GVER
22/07/16 13:20:26:200 C: GVER 0x00 Ok
22/07/16 13:20:26:200 PPC-0:
22/07/16 13:20:26:200     BSP: 1.10.02/d
22/07/16 13:20:26:200     APP: TM500 LTE VERSION: LMF7.3.0 Rev1
22/07/16 13:20:26:200 Version Label: LMF_7_3_0_REV01
22/07/16 13:20:30:577 GFRU
```

创建脚本

- TM500/RDA脚本



- TM500脚本创建请参阅
 - *CN-001-TM500_MTS_Test_Script.pptx*
- RDA脚本创建请参阅
 - *CN-002-Real_Data_Application.pptx*

导出和分析log

- TM500 log
- RDA log



- 请分别参阅如下文档
 - *CN-003-TM500_Export_TM500_Logs.pptx (TM500)*
 - *CN-002-Real_Data_Application.pptx (RDA)*

支持和帮助

- Observation



Observation

- Cobbham通过ClearQuest跟踪和维护TM500相关问题。

The screenshot shows the Rational ClearQuest Web interface. The top navigation bar includes the Rational logo, the title "Rational ClearQuest", a welcome message for "KJiang", and links for "ARXXEMEA/ubi", "Log out", and "Manage Reports", "Preferences", "Help". The left sidebar has sections for "New Observation", "Search" (with "ubi00113835" entered), "Navigator" (Personal and Public Queries), "Favorites", and "Recent Items" (Observation/ubi00113835). The main content area displays a "Welcome to Rational ClearQuest Web" message, instructions for using ClearQuest, and a "What's New" section. A large blue swoosh graphic contains the "AEROFLEX" logo. To the right, there are "Aeroflex Resources" (Support Portal Usage Guide, Operations Guide, FAQ, Email SCM Helpdesk) and "Web Resources" (developerWorks links).

Welcome KJiang | ARXXEMEA/ubi | Log out
You have 0 new items

New Observation ▾

ubi00113835 Search

Full Text By ID

Welcome ubi00113835

Navigator

- Personal Queries
- Public Queries

Favorites

Recent Items

- Observation/ubi00113835

Welcome to Rational ClearQuest Web

Use Rational ClearQuest to work with change requests, or create and run queries to view records. You can also use predefined report and chart formats to view defect status when tracking projects.

If you have any support issues please email the SCM Helpdesk

What's New

Aeroflex Resources

- Aeroflex Support Portal Usage Guide
- CQ Operations Guide
- FAQ
- Email SCM Helpdesk

Web Resources

- developerWorks: Rational: ClearQuest
- Rational ClearQuest Support
- developerWorks : Rational
- developerWorks : Rational : New to Rational
- Measured Capability Improvement

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支持和帮助

Observation

ubi00113835

Observation:ubi00113835

Main Notes Customer History Related records Test Attachments KPI CCI OEM Track Merge

Record No: ubi00113835 Title: E500 GUI does not Generate Script if Several Ranges of IMSI are Defined

Old Rec No: Type: Defect Submit Date: 4/20/2016

Project: LTE-A CUE FDD/TDD CA Defect type: New Reported_by: Yushan Li

Team: TM500 TMA Severity: 1-High Owner: smolloy

Ver_Found: LMF7.0.0_MK3 Priority: 3-High Fullname: Stephen Molloy

Detected In Phase: Customer Source type: Customer Assignee: smolloy

Targetted\Fixed in: LMF7.0.1_MK3 Duplicate Of: Fullname: Stephen Molloy

Last Cloned Obs: Duplicates: State: Validate

0 No of Cloned Obs: likely release date: Customer state: Target Release

Description: Formal Test Cloned from UBI Ext Ref: COBHAM

From: Jiang, Klein FP COM <Klein.Jiang@cobham.com>

Hi R&D team,

E500 GUI does not generate proper script if there are more than one range of IMSI is defined.

[cid:image001.png@01D19B44.43ABD0B0]

The warning shows when we try to run the Test Case. Actually, there are 100 IMSI available for the test case which has been divided into two range.

[Description: C:\Users\Klein\AppData\Local\Temp\SNAGHTML84393b.PNG]

And from the script, the USIM is defined with context of UE instead of a group of UE.

Conditions Found In: Refresh

INTERNAL OBS
LMF7.0.0
E500 GUI

Observation

- TM500相关问题，请发送邮件至 TM500Support.CN@cobham.com 并抄送对应的接口FAE。
 - 邮件标题务必用英文；能用英文写邮件正文最好，只要能把问题描述清楚，理论上也不排斥中文。
 - 邮件正文的详细要求请参阅下一页。
 - 问题描述请尽可能详细和清晰，log也务必尽可能完整，最好附上预分析，这样有助于TM500 FAE在第一时间理解清楚测试场景和问题，以便尽早定位问题和回复。
 - 如果问题描述不清或log缺失的话，将极大增加沟通成本，增加问题处理的时延。

支持和帮助

Observation

Enquiry Type
Bug Report, New Feature Request, or Product Enquiry.

TM500/RDA SW Version
Specify the TM500 and RDA software version.

Test Scenario
Highlight the key configurations and test scenario as clearly as possible.

Problem Description
Elaborate what the problem is and the expected test result. Initial analysis based on the logs is always appreciated.
List any error messages or preferably provide a screenshot.
Has the test ever worked with previous releases? Is this issue only seen since moving to new release?
Is the problem repeatable or intermittent? If the problem is intermittent, then an indication of frequency and triggering events will speed up the investigation.

Logs
TM500 Command Line log, L1CLLWATCH and Protocol logs are essential logs. Other relevant TM500 GUI logs are helpful as well.
Dump Trace (DTRC) logs are mandatory in case of TM500 ASSERT.
Serial log is required in case of TM500 Connection or hardware issues.
RDA relevant logs if necessary.

Observation

- 收到邮件以后，ClearQuest (CQ) 将在第一时间创建Observation (OBS)，用于跟踪问题进展。
- CQ自动回复邮件给邮件列表的所有人，告知OBS创建成功，并在邮件标题附上OBS ID（例如： *ubi00113835*）。

[Aeroflex ubi00113808] COBHAM Unable to Add New UE Group to the Test Case if the Total

G.MEL.TM500Support.CN (FP COM)

Sent: Wed 4/20/2016 15:30

To: Skidmore, David (FP COM); Joshi, Hitesh (FP COM); Jiang, Klein (FP COM); Li, Yushan (FP COM)

Dear Customer,

Your enquiry has been logged with the TM500 Helpdesk.

Your enquiry reference number is located in the email subject field.

Priority: 4-Medium

Severity: 3-Average

Problem description:

From: Jiang, Klein FP COM <Klein.Jiang@cobham.com>

Hi David,

Here is another issue we noticed with the E500 GUI. As you can see, the New button turns to be GRAY when the total Number of UE Group is 10.

Could you please help confirm whether we have some limitation here?

I am copy the mail to TM500Support.CN@cobham<mailto:TM500Support.CN@cobham> for raising an new OBS. Will update the mail subject once I receive the confirmation mail from CQ

By the way, the TM500 SW is LMF7.0.0 (E500 GUI).

[\[cid:image001.png@01D19B19.3D0FFA40\]](#)

Thanks,
Klein

Observation

- 同时CQ也将上述邮件广播给所有TM500 FAE，也就是说，所有TM500 FAE都能看到所有客户创建的OBS。
- 后续讨论请不要更改邮件标题的OBS ID，并务必把邮件抄送TM500Support.CN@cobham.com。
 - 确保所有的沟通和交流以及log都自动保存在CQ里，同时也方便其他FAE及时看到问题进展以及下载相关log。
 - 如果邮件标题里的OBS ID缺失，但邮件又抄送TM500Support.CN@cobham.com的话，那将导致创建重复的OBS.

特别注意：

- 如果问题已澄清或解决，请及时回复邮件告知TM500 FAE，然后我们将在CQ里关闭此问题。
- 为了使OBS清晰明了，请不要基于已经关闭的OBS的基础上去讨论新的问题，建议及时创建新的OBS。
- 如果T500/RDA log太大（超过10M）而无法邮件发送的话，请分段后再发送或自行上传至网盘。

Observation

- 创建OBS时，请尽可能第一时间在邮件附上以下信息。
 - TM500
 - Command Line log
 - GUI log，至少包括L1CELLWATCH/SYSOVERVIW/Protocol log
 - DTRC log（可选，测试过程中出现ASSERT）
 - Serial log（可选，硬件或无法连接的问题）
 - 测试脚本
 - RDA
 - Current/Historical Detailed Results
 - RDA脚本
 - System logs
 - Chassis Information
 - 脚本正在运行时读取的Card Resource Usage
 - shenick.log（可选，Provisioning生成脚本异常）

- TM500 FAE
 - #待更新FAE姓名
 - #待更新邮件地址
- 大中华区TM500支持邮箱
 - TM500Support.CN@cobham.com



- Capacity UE (CUE) TM500 SW

- 目前应用最为广泛的软件分支，适用于实验室线缆连接大容量UE的各种特性测试，每两周发布一个新版本。
- 所有新特性优先基于此版本开发。
- 非常方便构建移动模型和业务模型。
- 包含两个软件分支
 - **LMF**: 除4x4 MIMO和TM9 8x4 MIMO外，其它特性测试都应基于此版本。
 - **LMY**: 专门用于4x4 MIMO和TM9 8x4 MIMO相关测试。

- Single UE (SUE) TM500 SW – **LSE**

- 最多支持1 UE，可以用于外场测试。
- 提供详细的TTI级别的**GUI logging**（输出基于.csv格式）。
- 新版本更新较慢且发布周期不固定。
- 请联系TM500 FAE获取最新的软件版本。

- TM500 LTE Standalone SUE, MUE & Ext-MUE v6.pptx
- CN-001-TM500_MTS_Test_Script.pptx
- CN-002-Real_Data_Application.pptx
- CN-003-TM500_Export_TM500_Logs.pptx
- CN-005-TM500_Serial_Log_MK3.pptx

Change History



Version	Date	Author	Reviewed by	Approved by	Change history
0.1	13/05/2016	Klein Jiang	NA	NA	Initial draft
0.2	29/05/2016	Klein Jiang	NA	NA	Reviewed by Corey/Sining
0.3	20/06/2016	Klein Jiang	NA	NA	Reviewed by Klein
0.4	24/07/2016	Klein Jiang	NA	NA	Update



Connected – Seamless – Wireless