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ADVANCED ELECTRONIC SOLUTIONS

AVIATION SERVICES

COMMUNICATIONS AND CONNECTIVITY

MISSION SYSTEMS

## CN-002 Real Data Application

July 2016



# 主要内容

- Real Data Application (RDA)概述
- 创建脚本（Provisioning）
- 运行脚本
- 日志实时查看和分析
- 支持和帮助
- 附录



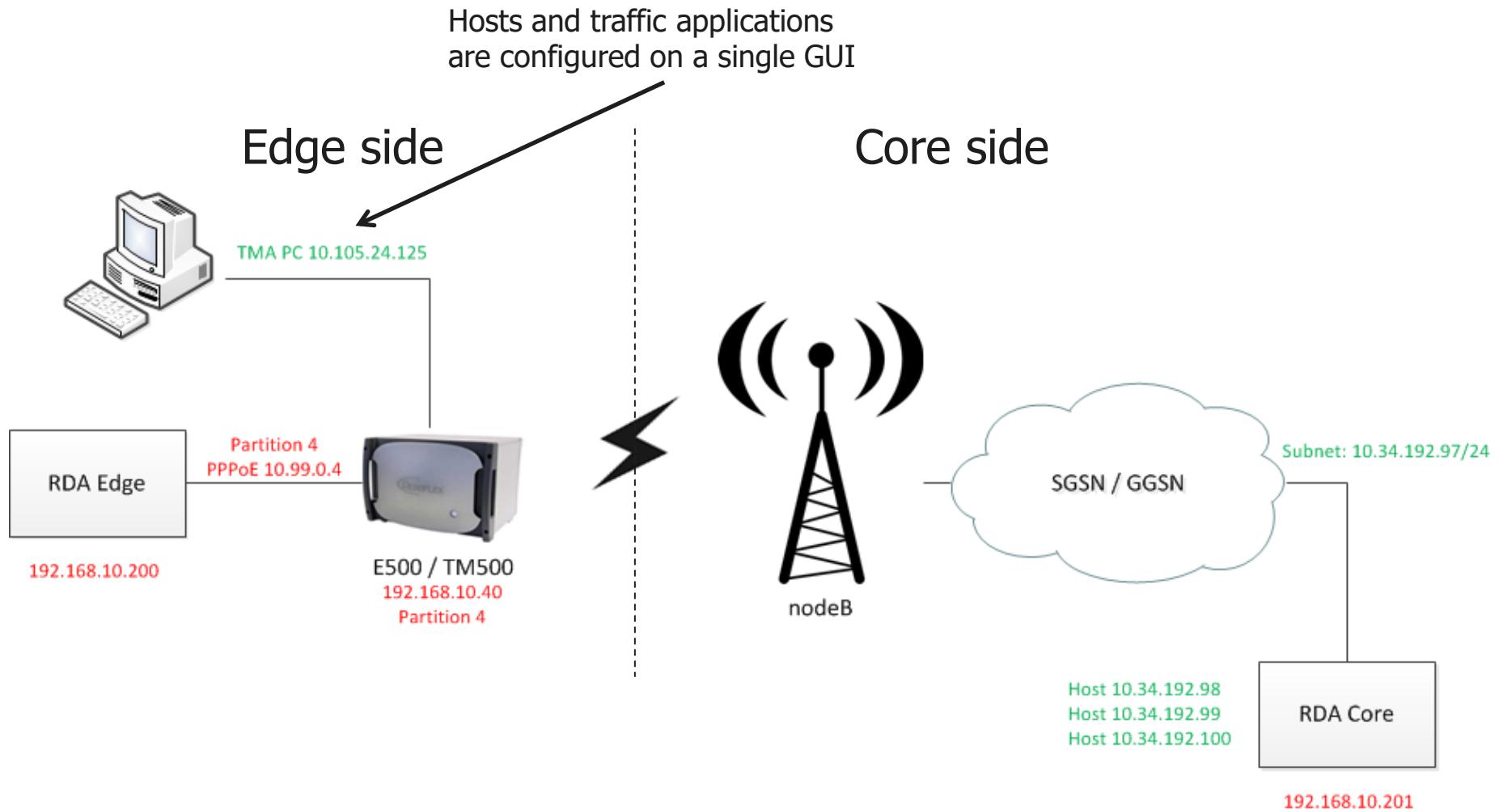
# Real Data Application (RDA) 概述

- TM500 & RDA集成测试环境
- RDA产品架构及简介
- RDA环境连线
- RDA客户端



- 常提及的几个名称
  - diversifEye是业务服务器产品的统称，包含D500/D1000/R630。diversifEye集成到TM500测试环境后，在软件层面，又被称为Real Data Application (RDA).
  - diversifEye是业务服务器客户端，最新的客户端已更名为TeraVM.
  - Shenick是业务服务器的提供商，以前是Aeroflex的合作伙伴。
  - Shenick后来被Aeroflex收购；Cobham后续又收购了Aeroflex.
- 功能
  - 多小区测试环境下，为成千上万终端并行提供各种数据业务。
  - 模拟的应用程序包括FTP/HTTP/TeraFlow/RTSP/VoLTE/PING等等。
  - 同时模拟应用程序客户端（Edge）和服务器（Core）。
  - 支持端到端的测试，实时QoS以及应用程序级别的关键性能指标评估。
  - D500/D1000最多并行支持6个TM500测试环境。

- #待补充真实测试环境图示



## Application Options

Thresholding



Passive Analysis



SMS over IMS



Voice services



Video services



TeraFlow



TWAMP



## Traffic Generation Options

3.6Gbps DL Traffic – R630

2.7Gbps DL Traffic – R630

1.8Gbps DL Traffic – R630 or D1000 Edge+Core

900Mbps DL Traffic – D500 Edge+Core

450Mbps DL Traffic – D500 Edge

HTTP

FTP

eMail

Ping

## Hardware Platforms

D500

D1000

R630



# RDA平台简介

## D500 – D1000 – R630

### D500

- I/O – 1x 1Gbps
- Fixed VLANs per User
  - SGI Servers I/O use VLAN tags
- Number of UEs
  - 6 000
- Number of Applications
  - 24 000 provisioned application clients
  - 12 000 concurrent application clients
- Number of PDN connections
  - 12 000
- Number of fine statistics
  - 500 entities

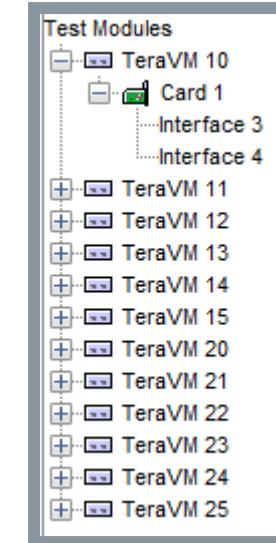
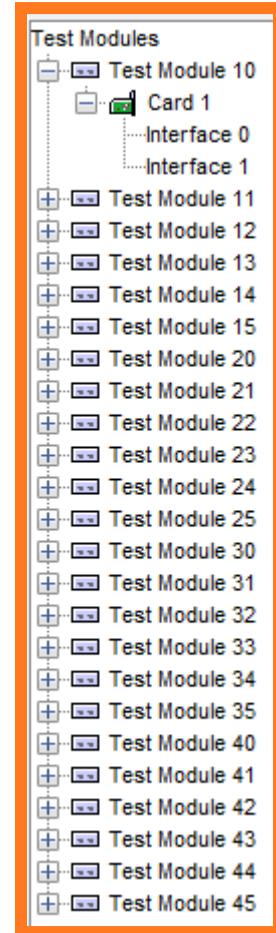
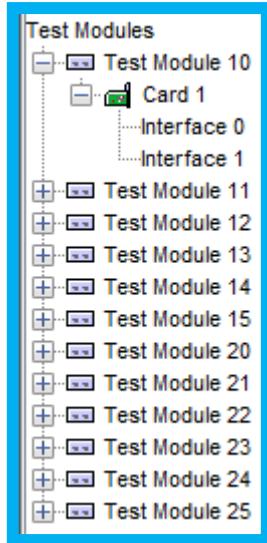
### D1000

- I/O – 2x 1Gbps
- Fixed VLANs per User
  - SGI Servers I/O use VLAN tags
- Number of UEs
  - 12 000
- Number of Applications
  - 48 000 provisioned application clients
  - 24 000 concurrent application clients
- Number of PDN connections
  - 24 000
- Number of fine statistics
  - 500 entities

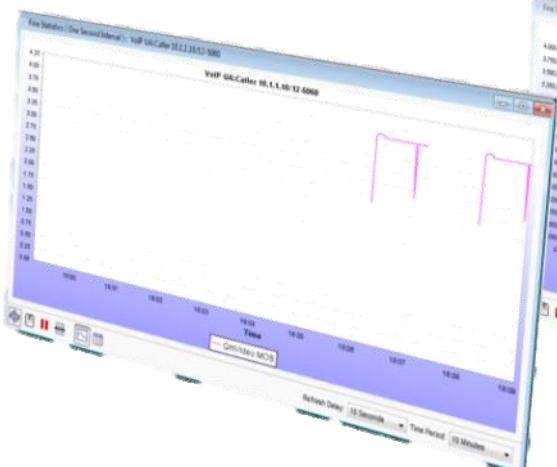
### R630

- I/O – 2x 10Gbps
- Configurable VLANs per User
  - SGI Servers can be used without VLAN tags
- Number of UEs
  - 36 000
- Number of Applications
  - 288 000 provisioned and concurrent application clients
- Number of PDN connections
  - 72 000
- Number of fine statistics
  - 24 000 entities
- Near-real time Streaming of statistics

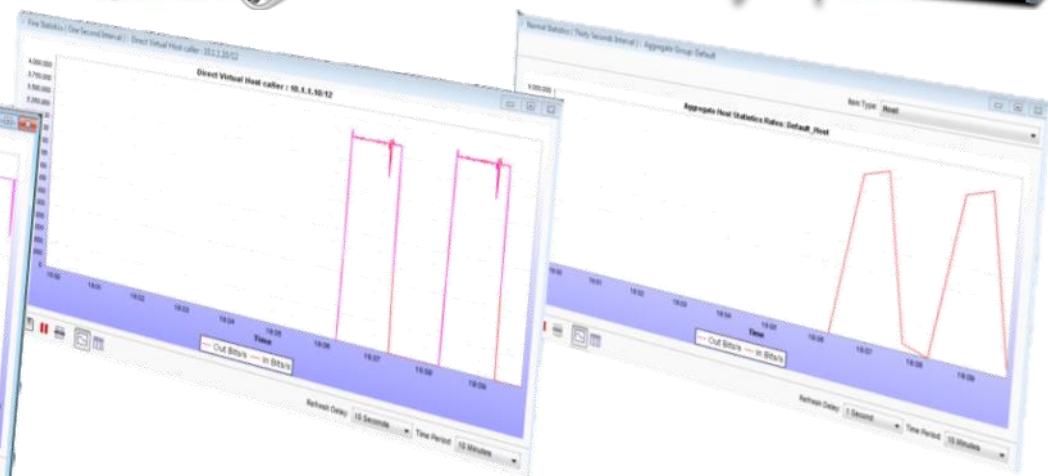
## D500 – D1000 – R630



- per Application
- per flow performance measurements



- per UE
- Aggregate performance



## Standalone D500 Edge/Core

- #待补充环境连线图

## D500 Edge and Core Pair

- #待补充环境连线图

## Standalone Edge/Core D1000

- #待补充环境连线图

## 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。
  - 默认安装即可
- 访问某些RDA管理页面需要用户名和密码。
  - 用户名: diverAdmin
  - 密码: diversifEye

## 下载及安装

The screenshot shows the diversifEye web interface. At the top, there is a header bar with navigation icons (back, forward, refresh), the IP address 192.168.10.200, and a toolbar with a star, a list icon, a pencil icon, a bell icon, and three dots. Below the header is a banner featuring the Shenick Network Systems logo and the text "diversifEye" and "Shenick Network Systems". The main menu bar includes links for Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The "Admin" link is currently selected.

**Welcome to diversifEye**

**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

**System Information**

IP Address:	192.168.10.200
Network Mask:	<a href="#">255.255.0.0</a>
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

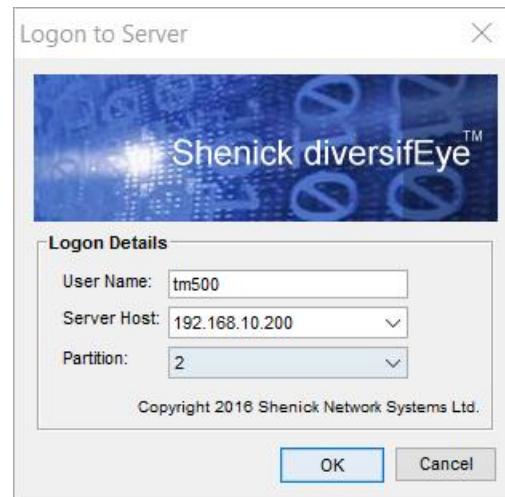
US : 1900 McCarthy Boulevard, Suite 301, Milpitas, CA 95035 Tel: [408-385-7630](#)  
Europe : Brook House, Corrig Avenue, Dun Laoghaire, Co Dublin, Ireland Tel: [+353-1-236-7002](#)

e-mail: [info@shenick.com](mailto:info@shenick.com)

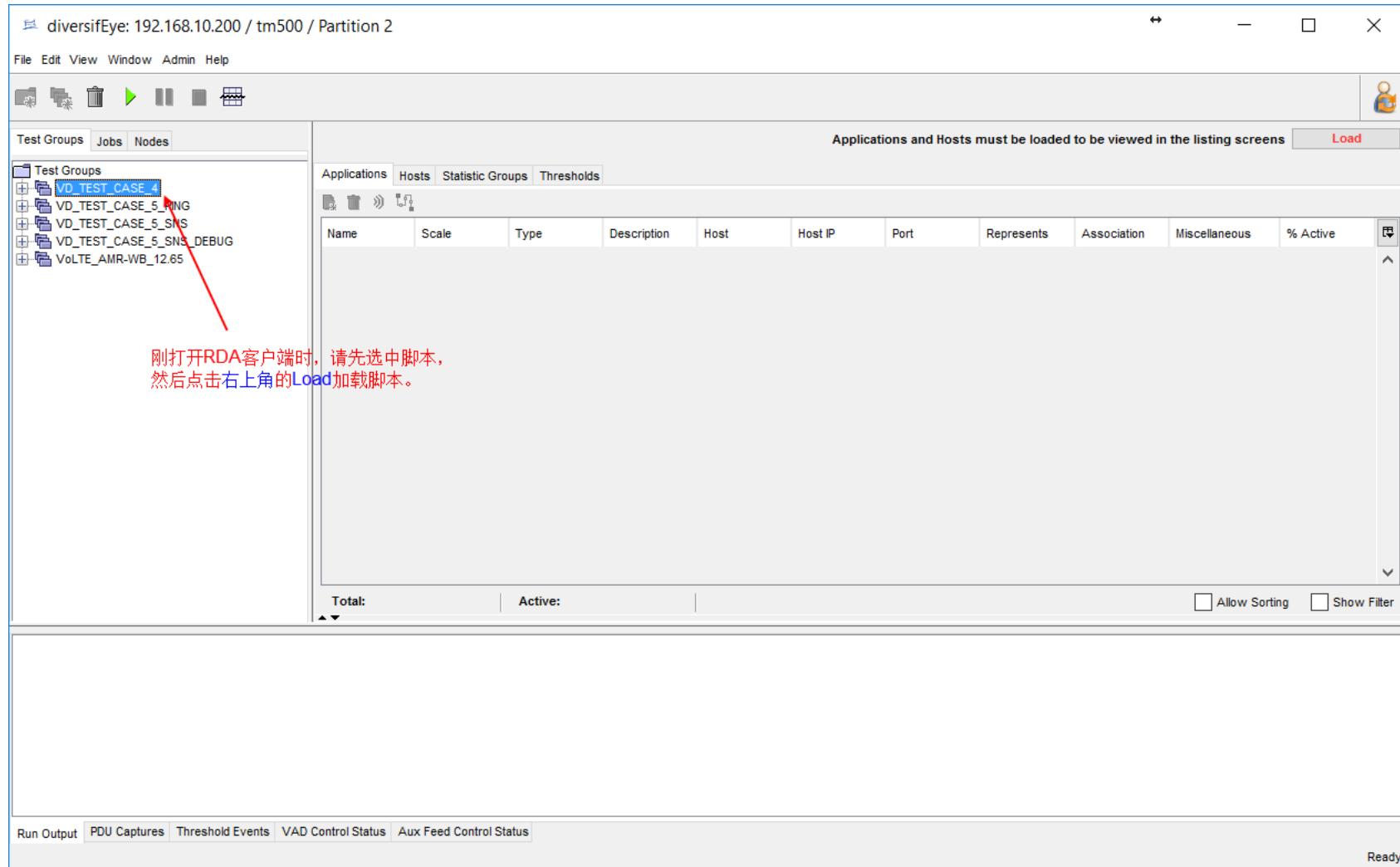
<http://192.168.10.200/InstData/Windows/VM/shenick.exe>

## 登录

- 通过客户端登录RDA
  - User Name:** tm500 (不建议用其它用户名，因为可能导致TM500无法调用RDA脚本)。
  - Server Host:** 192.168.10.200 (默认)。
  - Partition:** 根据RDA测试环境连线，选择对应的Partition.



## 基于Java的GUI



# Test Groups/Applications

The screenshot shows the diversifEye application window with the following details:

- Top Bar:** diversifEye: 192.168.10.200 / tm500 / Partition 2
- Menu Bar:** File Edit View Window Admin Help
- Toolbar:** Includes icons for Run Output, PDU Captures, Threshold Events, VAD Control Status, Aux Feed Control Status, and a magnifying glass.
- Left Sidebar (Test Groups):**
  - Test Groups
  - VO\_TEST\_CASE\_4
    - IP
    - Configuration
      - FTP
        - Command Lists
          - cftp\_get\_ue0\_pdn0
          - Email\_ue0\_pdn0
          - Game\_ue0\_pdn0
          - imeessage\_ue0\_pdn0
          - P2P\_ue0\_pdn0
          - SNS\_ue0\_pdn0
          - Web\_ue0\_pdn0
        - Resource Lists
          - Internal Server Resource L
          - Shared Client Resource L
      - Profile
        - RtpPortProfile
        - RtspPortProfile
        - SilenceProfile
        - VoipPortProfile
      - RTP
        - Codecs AVPs
          - Default AMR NB
  - Total: 30009 | Active: 0
  - Allow Sorting  Show Filter

## Nodes

TeraVM: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

**CARD**

Name: Card 1

Product ID: THT-2-2

Product Description: 2 Port 10/100/1000 Copper

PCM IP Address: 192.168.99.10

Status: Up

**Interfaces**

ID	Address	Description
10/1/0	00:28:D8:01:0A:00	10/100/1000 Copper
10/1/1	00:28:D8:01:0A:06	10/100/1000 Copper

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

Detailed description: This screenshot shows the 'Nodes' tab of the RDA Client software. On the left, there's a tree view of 'Test Modules'. Under 'Test Module 10', 'Card 1' is selected and expanded, showing 'Interface 0' and 'Interface 1'. Other modules like 'Test Module 11' through '43' are listed. The main panel on the right is titled 'CARD' and shows details for 'Card 1'. It includes fields for Name (Card 1), Product ID (THT-2-2), Product Description (2 Port 10/100/1000 Copper), PCM IP Address (192.168.99.10), and Status (Up). Below this is a table titled 'Interfaces' with two entries: '10/1/0' with address '00:28:D8:01:0A:00' and description '10/100/1000 Copper', and '10/1/1' with address '00:28:D8:01:0A:06' and description '10/100/1000 Copper'. At the bottom, there are tabs for Run Output, PDU Captures, Threshold Events, VAD Control Status, and Aux Feed Control Status, along with a 'Ready' status indicator.

## Hosts

diversifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

Hosts

Name	Scale	Interface	IP Assignment	IP Address	G/W Host	G/W IP Address	Description	Type	% Active	% Assigned IP
ExtVoIPServer			Static	103.1.202.1				External Host		
Gateway			Static	103.5.4.254				External Host		
Gateway_v6			Static	FE80::3000:11...				External Host		
pppoe_2535_0	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_0954_1	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_0954_0	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_2322_1	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_2322_0	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_1695_0	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_0425_1	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_0425_0	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_2370_0	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_1210_0	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_2370_1	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_1210_1	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_1695_1	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_0030_1	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		
pppoe_0030_0	11/1/0	PPPoE/IPv4CP	0.0.0.0					Virtual Host		

Total: 6012 Active: 0 Assigned IP: 0

Allow Sorting Show Filter

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

## Statistic Groups

The screenshot shows the RDA client interface with the following details:

- Title Bar:** diversifEye: 192.168.10.200 / tm500 / Partition 2
- Menu Bar:** File Edit View Window Admin Help
- Toolbar:** Includes icons for Test Groups, Applications, Hosts, Statistic Groups (selected), Thresholds, Run Output, PDU Captures, Threshold Events, VAD Control Status, Aux Feed Control Status, and a search icon.
- Left Sidebar:** Test Groups section containing:
  - VD\_TEST\_CASE\_4
  - VD\_TEST\_CASE\_5\_PING
  - VD\_TEST\_CASE\_5\_SNS
  - VD\_TEST\_CASE\_5\_SNS\_DEBUG
  - VoLTE\_AMR-WB\_12.65
- Central Content Area:** Statistic Groups tab selected. A table displays the following data:

Name	Description	Item Count	Enhanced Leave S...	Host Connection S...	Extended TCP St...	Latency Sta...	Response Code S...	DHCP Stat...	PPPoE Stat...	RTP Stat...	UDP Stat...
Default	Default A...	36017									

Buttons at the bottom of the table area: Allow Sorting, Show Filter.
- Bottom Navigation:** Run Output, PDU Captures, Threshold Events, VAD Control Status, Aux Feed Control Status.
- Status Bar:** Ready

## Thresholds

TeraVM: 192.168.10.200 / tm500 / Partition 3

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

Turn ON

Name	Rule	Target(s)	Statistics Type	Start Delay	Violation Delay	Clear Delay	Tag
Low Bitrate - web	'In Bits/s' < 100000	Applications with n...	Normal	120 secs			'In Bits/s' < 100kbit/s
Low Bitrate - P2P	'In Bits/s' < 100000	Applications with n...	Normal	120 secs			'In Bits/s' < 100kbit/s

Total: 2 Enabled: 2

Allow Sorting Show Filter

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# 创建脚本（Provisioning）

- Python安装和设置
- RDA Provisioning
- 导入和导出脚本

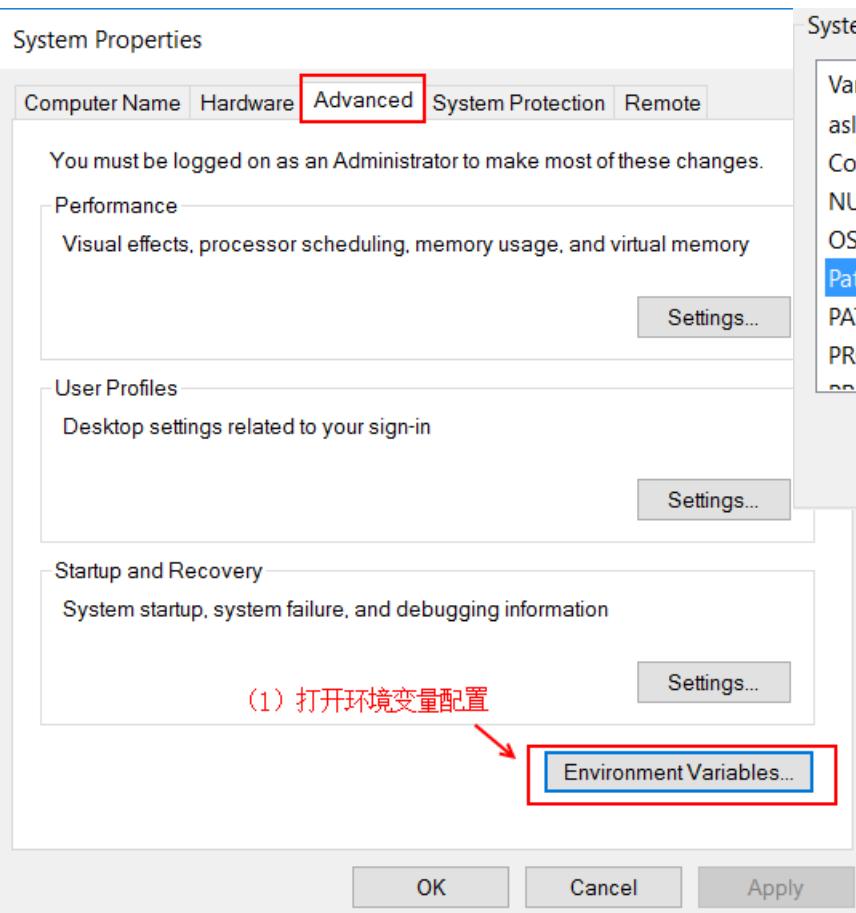


- **Provisioning** : 通过配置文件（tm500.xml），用Python批量生成RDA脚本，这个过程称为Provisioning.
- 电脑运行环境配置
  - 依次下载安装Python相关软件
    - [python-2.7.5.msi](#)
    - [pywin32-214.win32-py2.7.exe](#)
    - [wxPython2.8-win32-unicode-2.8.12.1-py27.exe](#)
    - [xlrd-0.7.9.win32.exe](#)
  - 添加Python安装路径（C:\Python27\）至系统的环境变量。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

注意：Win7和Win10对应的环境变量配置界面略有区别。

# Python安装和设置

COBHAM



The screenshot shows the 'System variables' section of the 'Environment Variables...' dialog. It lists several environment variables with their values. The 'Path' variable is currently selected and highlighted with a blue background. To the right of the table are buttons: 'New...', 'Edit...' (which is highlighted with a red box), and 'Delete'. A red arrow points from the text '(1) 打开环境变量配置' (Step 1: Open Environment Variable Configuration) to the 'Edit...' button. Another red arrow points from the text '(2) 添加环境变量 C:\Python27\' (Step 2: Add environment variable C:\Python27\ ) to the 'Edit...' button.

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

- 每个CUE TM500软件的安装目录下都有Provisioning模板，例如：

C:\Program Files (x86)\Aeroflex\TM500\LTE - LMF 7.0.1\diversifEye\Provisioning\	
Name	Ext
[..]	
live	bat
validate	bat
TM500	pl
extractpayload	py
shenick	py
validate	py
xml2mci	py
install-ping	sh
uninstall-ping	sh
ping	tgz
TM500	xml
TM500_ipv6	xml
TM500_scaled	xml
TM500_scaled_with_ipv4_ipv6	xml
tm500	xsd

- Win7和Win10的C:\Program Files\和C:\Program Files (x86)\目录下的操作需要管理员权限，所以请把Provisioning拷贝到其它路径再进行修改及其它操作。
- 根据测试需求，有两个文件需要更新
  - live.bat
  - TM500.xml

## live.bat

- live.bat: 批处理文件，配置基本环境变量，调用shenick.py生成RDA脚本。需要更新以下信息：
  - aflx\_ip\_addr: RDA IP地址
  - aflx\_group\_name: RDA脚本名字
  - aflx\_part: Partition

```
live - Notepad
File Edit Format View Help
@echo off
set tma_path=%~f1
set aflx_python_script_name=shenick.py
set aflx_ip_addr=192.168.10.200
set aflx_group_name=Training_HTTP_TWAMP
set aflx_rat=LTE
set aflx_ftp_user=cli
set aflx_ftp_password=diversifEye
set aflx_ftp_script=ftp_script.txt
set aflx_part=2

if [%"tma_path%"] EQU ["] goto skipPathChange

:changePath
echo.
echo adding tma_path %tma_path%
echo.
set aflx_python_script_name=%tma_path%\aflx_python_script_name%


:skipPathChange

echo.
echo Removing remotely generated XML file before we start...
echo.

echo %aflx_ftp_user%> %aflx_ftp_script%
```

## TM500.xml

- TM500.xml: RDA配置文件， live.bat将根据此配置文件生成相应的RDA脚本并自动上传至RDA。
- 配置文件主要包含以下模块

The screenshot shows the TM500.xml configuration file in a code editor. The file is an XML document with the following structure:

```
<?xml version="1.0" encoding="utf-8"?>
<!-- Version: 2.8.1 -->
<!-- Date: 25th June 2014 -->
<diversifEye_Configuration xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <Use_Reduce>true</Use_Reduce>                                <!--Use_Reduce
    <Use_Scaled_Entities>false</Use_Scaled_Entities>
    <DiversifEye_Type>500</DiversifEye_Type>                      <!-- 500, 1000
    <Create_Statistic_Groups>false</Create_Statistic_Groups>
    <Latency_Statistics>false</Latency_Statistics>
    <Background_Ping>false</Background_Ping>
    <Use_per_Port_VoIP_Srv_Proxy>true</Use_per_Port_VoIP_Srv_Proxy>
    <TM500>
        <PPPoE>
        <Application Configuration>
        <Threshold Configuration>
        <Network Configuration>
    </diversifEye_Configuration>

```

## 基本配置信息

- 模板默认配置

```
<Use_Reduce>true</Use_Reduce>           <!--Use_Reduce - true or false, specifies provisioning xml for
<Use_Scaled_Entities>true</Use_Scaled_Entities>
<DiversifEye_Type>500</DiversifEye_Type>      <!-- 500, 1000 or 8400, 500 default -->
<Create_Statistic_Groups>false</Create_Statistic_Groups>
<Latency_Statistics>false</Latency_Statistics>
<Background_Ping Ping_IP_Address="4.2.2.2" Delay_Between_Pings="5000" Payload_Size="100">true</Background_Ping>
<Use_per_Port_VoIP_Srv_Proxy>true</Use_per_Port_VoIP_Srv_Proxy>
```

- 建议更新如下配置

- Use\_Scaled\_Entities
- Background\_Ping

```
<Use_Reduce>true</Use_Reduce>           <!--Use_Reduce
<Use_Scaled_Entities>false</Use_Scaled_Entities>
<DiversifEye_Type>500</DiversifEye_Type>      <!-- 500, 1000
<Create_Statistic_Groups>false</Create_Statistic_Groups>
<Latency_Statistics>false</Latency_Statistics>
<Background_Ping>false</Background_Ping>
<Use_per_Port_VoIP_Srv_Proxy>true</Use_per_Port_VoIP_Srv_Proxy>
```

## TM500 Block

- 模板默认配置

```
<TM500> - - - - - - - - - -  
  <Total_UEs>100</Total_UEs>  
  <Minimum_UE_ID_Digits>4</Minimum_UE_ID_Digits>  
  <PDNs_per_UE>3</PDNs_per_UE>          <!--  
  <LAN_IP>192.168.10.71</LAN_IP>          <!--  
</TM500>
```

- 请根据测试需求及环境更新如下配置

- Total\_UEs

- PDNs\_per\_UE

- LAN\_IP: TM500业务口IP地址，用于PPPoE拨号

- 如果是VoLTE相关测试的话，一般建立两个APN，配置更新如下

```
<TM500>  
  <Total_UEs>100</Total_UEs>  
  <Minimum_UE_ID_Digits>4</Minimum_UE_ID_Digits>  
  <PDNs_per_UE>2</PDNs_per_UE>  
  <LAN_IP>192.168.10.71</LAN_IP>          <  
</TM500>
```

## PPPoE Block

- 模板默认配置（IPv4），建议采用默认配置。

```
<PPPoE>
  <MAC_Start>00:1E:6B:03:00:01</MAC_Start>
  <diversifEye_Port>0</diversifEye_Port>
  <MTU>1492</MTU>
</PPPoE>
```

- 模板默认配置（IPv6）

```
<PPPoE>
  <MAC_Start>00:1E:6B:03:00:01</MAC_Start>
  <diversifEye_Port>0</diversifEye_Port>
  <MTU>1492</MTU>
  <IPv6_PPPoE_Client PDN="0,2"/>  <!-- in t
</PPPoE>
```

- 如果是IPv6 VoLTE UE的话，第二个APN用于承载VoLTE，对应的APN为1，配置更新如下所示

- IPv6\_PPPoE\_Client

```
<PPPoE>
  <MAC_Start>00:1E:6B:03:00:01</MAC_Start>
  <diversifEye_Port>0</diversifEye_Port>
  <MTU>1492</MTU>
  <IPv6_PPPoE_Client PDN="1"/>  <!-- in thi
</PPPoE>
```

## Application Block

- Application模块配置包含两部分

- 服务器相关配置
- 客户端相关配置

- 默认配置 (<Default>) : 默认客户端
- Profile\_N配置 (<Profile\_N>) : 除了默认客户端, 同一个服务器还可以配置多个客户端。

```
<Application_Configuration>
  <Server>
  <Server>
  <Server>
  <Server>
  <Server>
  <Server>
  <Client_Profiles>
    <Default>
    <Profile_0>
    <Profile_1/>
    <Profile_2/>
    <Profile_3/>
    <Profile_4/>
    <Profile_5/>
    <Profile_6/>
    <Profile_7/>
    <Profile_8/>
    <Profile_9/>
  </Client_Profiles>
</Application_Configuration>
```

## FTP Server Configuration

- 模板默认配置

```
<Server>
  <diversifEye_Port>1</diversifEye_Port>
  <Type>External</Type>
  <Ip_Version>4</Ip_Version>
  <Application>FTP</Application>
  <Host_Name>ExtFTPServer</Host_Name>
  <IP_Address>99.99.99.1</IP_Address>
</Server>
```

- 主要待更新配置
  - Type/Host\_Name/IP\_Address

```
<Server>
  <diversifEye_Port>1</diversifEye_Port>
  <Type>Internal</Type>
  <Ip_Version>4</Ip_Version>
  <Application>FTP</Application>
  <Host_Name>FTPServer</Host_Name>
  <IP_Address>99.99.99.1</IP_Address>
</Server>
```

## FTP Client Configuration (Get)

- 模板默认配置

```
<FTP_Get UE="0..10,31..49" PDN="1">
    <Server_Host_Name>ExtFTPServer</Server_Host_Name>
    <Path>1GB.bin</Path>
    <Delay_Between_Commands>200</Delay_Between_Commands>
    <Delay_Between_Sessions>500</Delay_Between_Sessions>
    <File_Size>1073741824</File_Size>
    <FTP_Mode>Passive</FTP_Mode>
</FTP_Get>
<FTP_Get UE="11..30" PDN="1">
    <Server_Host_Name>ExtFTPServer</Server_Host_Name>
    <Path>500MB.bin</Path>
    <Delay_Between_Commands>120</Delay_Between_Commands>
    <Delay_Between_Sessions>500</Delay_Between_Sessions>
    <File_Size>536870912</File_Size>
    <FTP_Mode>Passive</FTP_Mode>
</FTP_Get>
```

- 主要待更新配置

- UE/PDN/Server\_Host\_Name

```
<FTP_Get UE="0.." PDN="0">
    <Server_Host_Name>FTPServer</Server_Host_Name>
    <Path>1GB.bin</Path>
    <Delay_Between_Commands>200</Delay_Between_Commands>
    <Delay_Between_Sessions>500</Delay_Between_Sessions>
    <File_Size>1073741824</File_Size>
    <FTP_Mode>Passive</FTP_Mode>
</FTP_Get>
```

## FTP Client Configuration (Put)

- 默认模板配置

```
<FTP_Put UE="0..24" PDN="1">
    <Server_Host_Name>ExtFTPServer</Server_Host_Name>
    <Path/>
    <Delay_Between_Commands>200</Delay_Between_Commands>
    <Delay_Between_Sessions>200</Delay_Between_Sessions>
    <Ftp_Put_Path_Shared>ftpupload/1GB.bin</Ftp_Put_Path_Shared>
    <File_Size>1073741824</File_Size>
    <FTP_Mode>Passive</FTP_Mode>
</FTP_Put>
<FTP_Put UE="25..49" PDN="1">
    <Server_Host_Name>ExtFTPServer</Server_Host_Name>
    <Path/>
    <Delay_Between_Commands>120</Delay_Between_Commands>
    <Delay_Between_Sessions>500</Delay_Between_Sessions>
    <Ftp_Put_Path_Shared>ftpupload/500MB.bin</Ftp_Put_Path_Shared>
    <File_Size>536870912</File_Size>
    <FTP_Mode>Passive</FTP_Mode>
</FTP_Put>
```

- 主要待更新配置

- UE/PDN/ Server\_Host\_Name

```
<FTP_Put UE="0.." PDN="0">
    <Server_Host_Name>FTPServer</Server_Host_Name>
    <Path/>
    <Delay_Between_Commands>200</Delay_Between_Commands>
    <Delay_Between_Sessions>200</Delay_Between_Sessions>
    <Ftp_Put_Path_Shared>ftpupload/1GB.bin</Ftp_Put_Path_Shared>
    <File_Size>1073741824</File_Size>
    <FTP_Mode>Passive</FTP_Mode>
</FTP_Put>
```

## HTTP Server Configuration

- 默认模板配置

```
<Server>
  <diverisifEye_Port>1</diverisifEye_Port>
  <Type>External</Type>
  <Ip_Version>4</Ip_Version>
  <Application>HTTP</Application>
  <Host_Name>ExtHTTPServer</Host_Name>
  <IP_Address>99.99.99.2</IP_Address>
</Server>
```

- 主要待更新配置
  - Type/Host\_Name/IP\_Address

```
<Server>
  <diverisifEye_Port>1</diverisifEye_Port>
  <Type>Internal</Type>
  <Ip_Version>4</Ip_Version>
  <Application>HTTP</Application>
  <Host_Name>HTTPServer</Host_Name>
  <IP_Address>99.99.99.2</IP_Address>
</Server>
```

## HTTP Client Configuration (GET)

- 模板默认配置

```
<HTTP UE="50..70" PDN="1">
  <Server_Host_Name>ExtHTTPServer</Server_Host_Name>
  <Http_Operation>GET</Http_Operation>
  <Path>1Mb.bin</Path>
  <File_Size>1048576</File_Size>
  <Delay_Between_Requests>120</Delay_Between_Requests>
  <Delay_Between_Connections>500</Delay_Between_Connections>
</HTTP>
```

- 主要待更新配置

- UE/PDN/Server\_Host\_Name

```
<HTTP UE="0.." PDN="0">
  <Server_Host_Name>HTTPServer</Server_Host_Name>
  <Http_Operation>GET</Http_Operation>
  <Path>1Mb.bin</Path>
  <File_Size>1048576</File_Size>
  <Delay_Between_Requests>120</Delay_Between_Requests>
  <Delay_Between_Connections>500</Delay_Between_Connections>
</HTTP>
```

## HTTP Client Configuration (POST)

- 模板默认配置

```
<HTTP UE="71..90" PDN="1">
  <Server_Host_Name>ExtHTTPServer</Server_Host_Name>
  <Http_Operation>POST</Http_Operation>
  <Path>post-test.php</Path>
  <File_Size>1024</File_Size>
  <POST_Content>HMRW658vQGP2kQR45VZ2vrbLAkh08A48JP9JDlSIwsUB1
  <Delay_Between_Requests>500</Delay_Between_Requests>
  <Delay_Between_Connections>100</Delay_Between_Connections>
</HTTP>
```

- 主要待更新配置

- UE/PDN/Server\_Host\_Name/File\_Size/POST\_Content

```
<HTTP UE="0.." PDN="0">                                         <!
  <Server_Host_Name>HTTPServer</Server_Host_Name>                <!
  <Http_Operation>POST</Http_Operation>
  <Path>post-test.php</Path>
  <File_Size>1024</File_Size>
  <POST_Content>HMRW658vQGP2kQR45VZ2vrbLAkh08A48JP9JDlSIwsUB1
  <Delay_Between_Requests>500</Delay_Between_Requests>
  <Delay_Between_Connections>100</Delay_Between_Connections>
</HTTP>
```

## HTTP Client Configuration (HEAD)

- 模板默认配置

```
<HTTP UE="91.." PDN="1">
  <Server_Host_Name>ExtHTTPServer</Server_Host_Name>
  <Http_Operation>HEAD</Http_Operation>
  <Path>head-test.html</Path>
  <Delay_Between_Requests>1000</Delay_Between_Requests>
  <Delay_Between_Connections>100</Delay_Between_Connections>
</HTTP>
```

- #待进一步拓展。

## HTTP Client Configuration (IM)

- 模板默认配置

```
<HTTP UE="50..70" PDN="0" UE_Pattern="Even">
    <Alias>im</Alias>
    <Description>Simulated Instant Messaging Client talking to HTTP server on 1<br/>
    <Server_Host_Name>im_%UE_ID+1%_%PDN%</Server_Host_Name>  <!-- HTTP server name for all HTTP -->
    <Http_Operation>POST</Http_Operation>                      <!-- Choice of GET, POST or HEAD -->
    <Path>im-post-test.php</Path>                                <!-- Full HTTP get/post/head URI (e.g. /index.html) -->
    <POST_Content>fdd6NP0m1XNr0VgN7FtqmrwlbnKvOXGIR0D3wIr1NYgN3Sfb6ICzNrh5x61</POST_Content>
    <Delay_Between_Connections>500</Delay_Between_Connections>  <!-- in ms -->
</HTTP>
<SHTTP UE="50..70" PDN="0" UE_Pattern="Odd">
    <Alias>im</Alias>
    <Description>Simulated Instant Messaging Server on PPPoE Host</Description>
</SHTTP>
```

- 主要待更新配置

- UE/PDN/Alias/File\_Size

```
<HTTP UE="0.." PDN="0" UE_Pattern="Even">                                <!-- either use .. or ->
    <Alias>imessage</Alias>
    <Description>Simulated Instant Messaging Client talking to HTTP server on PPPoE Host</Description>
    <Server_Host_Name>imessage_%UE_ID+1%_%PDN%</Server_Host_Name>  <!-- HTTP server name for all HTTP -->
    <Http_Operation>POST</Http_Operation>                      <!-- Choice of GET, POST or HEAD -->
    <File_Size>50</File_Size>
    <Path>im-post-test.php</Path>                                <!-- Full HTTP get/post/head URI (e.g. /index.html) -->
    <POST_Content>fdd6NP0m1XNr0VgN7FtqmrwlbnKvOXGIR0D3wIr1NYgN3Sfb6</POST_Content>
    <Delay_Between_Requests>10000</Delay_Between_Requests>      <!-- in ms -->
    <Delay_Between_Connections>10000</Delay_Between_Connections> <!-- in ms -->
</HTTP>
<SHTTP UE="0.." PDN="0" UE_Pattern="Odd">
    <Alias>imessage</Alias>
    <Description>Simulated Instant Messaging Server on PPPoE Host</Description>
</SHTTP>
```

## VoLTE Server Configuration

- 模板默认配置

```
<Server>
  <diversifEye_Port>1</diversifEye_Port>
  <Type>External</Type>
  <Ip_Version>4</Ip_Version>
  <Application>VoIP</Application>
  <Host_Name>ExtVoIPServer</Host_Name>
  <IP_Address>99.99.99.2</IP_Address>
...
</Server>
```

- 主要待更新配置
  - Ip\_Version/IP\_Address

```
<Server>
  <diversifEye_Port>1</diversifEye_Port>
  <Type>External</Type>
  <Ip_Version>4</Ip_Version>
  <Application>VoIP</Application>
  <Host_Name>ExtVoIPServer</Host_Name>
  <IP_Address>103.1.202.1</IP_Address>
...
</Server>
```

## VoLTE Client Configuration (Digest)

- 模板默认配置

```
<VoIP UE="0..49" PDN="0">
    <SIP_Server>
        <Server_Host_Name>ExtVoIPServer</Server_Host_Name>
        <Username>44123456789012+&UE_ID%</Username>
        <Password>password</Password>
        <Domain>testdomain.com</Domain>
    </SIP_Server>
    <Call_Duration>33000</Call_Duration>
    <Initial_Call_Delay>1000</Initial_Call_Delay>
    <VoIP_Media_Profile>
        <Media_Type>Voice</Media_Type>
        <RTP_Data>Full Duplex</RTP_Data>
        <RTCP>true</RTCP>
        <Silence_Suppression>true</Silence_Suppression>
        <Silence_Ratio>40</Silence_Ratio>
        <Silence_Length>50000</Silence_Length>
        <Codec>
            <Codec_Name>Our GSM Codec</Codec_Name>
            <Codec_Used_For>Voice</Codec_Used_For>
            <Codec_Encoding_Name>GSM</Codec_Encoding_Name>
            <Codec_Media_Type>audio</Codec_Media_Type>
            <Codec_Payload_Type>0</Codec_Payload_Type>
            <Codec_Payload_Size>320</Codec_Payload_Size>
            <Codec_ms_Packet>20.0</Codec_ms_Packet>
            <Codec_Stream_Rate>1024</Codec_Stream_Rate>
            <Codec_Frequency>8000</Codec_Frequency>
            <Codec_Channels>1</Codec_Channels>
            <Codec_Data_File/>
            <SDP_Attributes/>
        </Codec>
    </VoIP_Media_Profile>
    <Allow_Delay_Between_Calls>true</Allow_Delay_Between_Calls>
    <BHCA>38</BHCA>
    <Mobile_Originated_Pattern>Even</Mobile_Originated_Pattern>
    <Destination_Call_URI_Is_SIP>true</Destination_Call_URI_Is_SIP>
    <VoIP_Passive_Analysis Pattern="Odd">
        <Playout_Jitter>40</Playout_Jitter>
        <Max_Jitter>80</Max_Jitter>
        <Media_Type>Voice</Media_Type>
    </VoIP_Passive_Analysis>
    <Latency_Statistics>true</Latency_Statistics>
</VoIP>
```

## VoLTE Client Configuration (Digest)

- 主要待更新配置
  - Username/Password
  - Domain
  - SIP\_Auth\_Username
  - Call\_Duration
  - Media\_Type
  - Silence\_Ratio
  - Silence\_Length
  - Codec
  - BHCA
  - Pattern

```
<VoIP UE="0.." PDN="1">
  <Description>AMR-WB</Description>
  <!--
  <SIP_Server>
    <Server_Host_Name>ExtVoIPServer</Server_Host_Name>
    <Username>+8210201501000+$UE_ID%</Username>
    <!--
    <Password>111111</Password>
    <Domain>ims.mnc006.mcc450.3gppnetwork.org</Domain>
    <SIP_Auth_Username/>
  </SIP_Server>
  <Call_Duration>604800000</Call_Duration>
  <Initial_Call_Delay>1000</Initial_Call_Delay>
  <VoIP_Media_Profile>
    <Media_Type>Multimedia</Media_Type>
    <RTP_Data>Full Duplex</RTP_Data>
    <RTCP>true</RTCP>
    <Silence_Suppression>true</Silence_Suppression>
    <!--
    <Silence_Ratio>50</Silence_Ratio>
    <!--
    <Silence_Length>5000</Silence_Length>
    <!--
    <Codec>
      <Codec_Name>Default AMR-WB</Codec_Name>
    </Codec>
  </VoIP_Media_Profile>
  <Allow_Delay_Between_Calls>true</Allow_Delay_Between_Calls>
  <BHCA>40</BHCA>
  <Mobile_Originated_Pattern>Even</Mobile_Originated_Pattern>
  <Destination_Call_URI_Is_SIP>true</Destination_Call_URI_Is_SIP>
  <Call_Answering_Delay>0</Call_Answering_Delay>
  <VoIP_Passive_Analysis_Pattern="All">
    <Playout_Jitter>40</Playout_Jitter>
    <Max_Jitter>80</Max_Jitter>
    <Media_Type>Voice</Media_Type>
  </VoIP_Passive_Analysis>
  <Latency_Statistics>true</Latency_Statistics>
</VoIP>
```

## VoLTE Client Configuration (AKA)

---

- 主要待更新配置
  - Username/Password
  - Domain
  - SIP\_Auth\_Username
  - Call\_Duration
  - Media\_Type
  - Silence\_Ratio
  - Silence\_Length
  - Codec
  - BHCA
  - Pattern
  - VoLTE Section
    - AKA\_Key
    - AKA\_Operator\_Id
    - ESP\_Encryption\_Algorithm
    - ESP\_Auth\_Algorithm

## VoLTE Client Configuration (AKA)

```

<VoIP UE="0.." PDN="1">
    <Description>AMR-WB</Description>
    <SIP_Server>
        <Server_Host_Name>ExtVoIPServer</Server_Host_Name>
        <Username>+8616801005000+%UE_ID%</Username>
            <!-- i.e. voip-user%UE_ID% => voip-us
            <!-- i.e. 44123456789012+%UE_ID% => 4
        <Password>123456</Password>
        <Domain>ims.mnc000.mcc460.3gppnetwork.org</Domain>
        <SIP_Auth_Username>460001004205000+%UE_ID%@ims.mnc000.mcc460.3gppnetwork.org</SIP_Auth_Username>
    </SIP_Server>
    <VoLTE>
        <AKA_Key>12345678123456781234567812345678+%UE_ID%</AKA_Key>
        <AKA_Operator_Id>4DC34FD479D23E5D173871C6C997B5E3</AKA_Operator_Id>
        <Protected_SIP_Port>2468</Protected_SIP_Port>
        <ESP_Encryption_Algorithm>aes-cbc</ESP_Encryption_Algorithm>
        <ESP_Auth_Algorithm>hmac-md5-96</ESP_Auth_Algorithm>
    </VoLTE>
    <Call_Duration>60000</Call_Duration>
        <!-- in ms, aka Average Hold Time, between
    <Initial_Call_Delay>1000</Initial_Call_Delay>
    <VoIP_Media_Profile>
        <Media_Type>Multimedia</Media_Type>
        <RTP_Data>Full Duplex</RTP_Data>
        <RTCP>true</RTCP>
        <Silence_Suppression>true</Silence_Suppression>
        <Silence_Ratio>50</Silence_Ratio>
        <Silence_Length>5000</Silence_Length>
        <Codec>
            <Codec_Name>Default AMR-WB</Codec_Name>
        </Codec>
    </VoIP_Media_Profile>
    <Allow_Delay_Between_Calls>true</Allow_Delay_Between_Calls>
    <BHCA>40</BHCA>
    <Mobile_Originated_Pattern>Even</Mobile_Originated_Pattern>
        <!-- Odd, Even, List -->
    <Destination_Call_URI_Is_SIP>true</Destination_Call_URI_Is_SIP>
        <!-- Only used if "Odd" or "Even" is selected -->
    <Call_Answering_Delay>0</Call_Answering_Delay>
        <!-- Delay in milliseconds before sending a response -->
    <VoIP_Passive_Analysis_Pattern>All</VoIP_Passive_Analysis_Pattern>
        <Playout_Jitter>40</Playout_Jitter>
        <Max_Jitter>80</Max_Jitter>
    </VoIP_Passive_Analysis>
    <Latency_Statistics/>
</VoIP>

```

## RTSP Server Configuration

- 模板默认配置

```
<Server>
  <diversifEye_Port>1</diversifEye_Port>
  <Type>External</Type>
  <Ip_Version>4</Ip_Version>
  <Application>RTSP</Application>
  <Host_Name>ExtRTSPServer</Host_Name>
  <IP_Address>99.99.99.4</IP_Address>
  ...
</Server>
```

- 主要待更新配置
  - Type/Host\_Name/IP\_Address

```
<Server>
  <diversifEye_Port>1</diversifEye_Port>
  <Type>Internal</Type>
  <Ip_Version>4</Ip_Version>
  <Application>RTSP</Application>
  <Host_Name>RTSPServer</Host_Name>
  <IP_Address>103.5.4.9</IP_Address>
  ...
</Server>
```

## RTSP Client Configuration

- 模板默认配置

```
<RTSP UE="0..10" PDN="0..2">
    <Alias>crtsp</Alias>
    <Description>Test media stream</Description>
    <Server_Host_Name>ExtRTSPServer</Server_Host_Name>
    <Path>/media/low-bitrate.3gp</Path>
</RTSP>
```

- 主要待更新配置

- UE/PDN/Server\_Host\_Name/RTSP\_Media\_Profile/Media\_Stream\_Duration

```
<RTSP UE="0.." PDN="0">
    <Alias>crtsp</Alias>
    <Description>Video On Demand</Description>
    <Server_Host_Name>RTSPServer</Server_Host_Name>
    <Path>/media/low-bitrate.3gp</Path>
    <RTSP_Media_Profile>
        <Codec>
            <Codec_Name>MPEG2</Codec_Name>
            <Codec_Used_For>Streaming</Codec_Used_For>
            <Codec_Encoding_Name>MPEG2-TS</Codec_Encoding_Name>
            <Codec_Media_Type>video</Codec_Media_Type>
            <Codec_Payload_Type>32</Codec_Payload_Type>
            <Codec_Payload_Size>1316</Codec_Payload_Size>
            <Codec_Stream_Rate>200</Codec_Stream_Rate>
            <Codec_Frequency>90000</Codec_Frequency>
            <Codec_Data_File/>
            <SDP_Attributes/>
        </Codec>
    </RTSP_Media_Profile>
    <Media_Stream_Duration>Indefinite</Media_Stream_Duration>
</RTSP>
```

## cPing Client Configuration

- cPing不需要配置对应的Server.
- 模板默认配置

```
<cPing>
  <Ping_IP_Address>0.0.0.0</Ping_IP_Address>
  <Start_After>1000</Start_After>
  <Stop_After>6000</Stop_After>
  <Delay_Between_Pings>2</Delay_Between_Pings>
  <Packet_Size>100</Packet_Size>
</cPing>
```

- 主要待更新配置
  - UE/PDN/Ping\_IP\_Address/Start\_After/Stop\_After/Delay\_Between\_Pings/Packet\_Size

```
<cPing UE="0.." PDN="0">
  <Ping_IP_Address>103.5.4.8</Ping_IP_Address>
  <Start_After>0</Start_After>
  <Stop_After/>
  <Delay_Between_Pings>2</Delay_Between_Pings>
  <Packet_Size>100</Packet_Size>
</cPing>
```

## sPing Server & Client Configuration

- 模板默认配置

```
<Server>
    <diversifEye_Port>1</diversifEye_Port>      <.
    <Type>Internal</Type>                            <.
    <Ip_Version>4</Ip_Version>                      <.
    <Application>PING</Application>                 <.
    <Host_Name>s0</Host_Name>           <!-- Used in
    <IP_Address>99.99.99.99</IP_Address>          <.
    . . . . . . . . . . . . . . . . . . . . . . . . <.
    <Physical_Location>Core</Physical_Location>
</Server>

<sPing>
    <Server_Host_Name>s0</Server_Host_Name>
    <Ping_IP_Address>0.0.0.0</Ping_IP_Address>
    <Start_After>1000</Start_After>
    <Stop_After>6000</Stop_After>
    <Delay_Between_Pings>2</Delay_Between_Pings>
    <Packet_Size>100</Packet_Size>
</sPing>
```

- #待进一步拓展。

## TeraFlow Server Configuration (UL UDP)

- 模板默认配置

```
<Server>
  <diversifEye_Port>1</diversifEye_Port>
  <Type>External</Type>
  <Ip_Version>4</Ip_Version>
  <Application>TeraFlow</Application>
  <Host_Name>ExtTFServer</Host_Name>
  <IP_Address>99.99.99.101</IP_Address>
...
</Server>
```

- 主要待更新配置
  - Type/Host\_Name/IP\_Address

```
<Server>
  <diversifEye_Port>1</diversifEye_Port>
  <Type>Internal</Type>
  <Ip_Version>4</Ip_Version>
  <Application>TeraFlow</Application>
  <Host_Name>TFServerUI</Host_Name>
  <IP_Address>132.248.1.202</IP_Address>
...
</Server>
```

## TeraFlow Client Configuration (UL UDP)

- 模板默认配置

```
<TeraFlow>
    <Server_Host_Name>ExtTFServer</Server_Host_Name>
    <Start_After>10</Start_After>
    <Stop_After>6000</Stop_After>
    <Throughput>1</Throughput>
    <Throughput_Metric>mbps</Throughput_Metric>
    <TeraFlow_Payload_Size>8192</TeraFlow_Payload_Size>
    <Number_of_Sessions>1</Number_of_Sessions>
</TeraFlow>
```

- 主要待更新配置

- UE/PDN/Alias/Server\_Host\_Name/Start\_After/Stop\_After/Throughput/Throughput\_Metric

```
<TeraFlow UE="0.." PDN="0">
    <Alias>ULUDP</Alias>
    <Server_Host_Name>TFServerUL</Server_Host_Name>
    <Start_After>0</Start_After>
    <Stop_After>0</Stop_After>
    <Throughput>200</Throughput>
    <Throughput_Metric>kbps</Throughput_Metric>
    <TeraFlow_Payload_Size>1024</TeraFlow_Payload_Size>
    <Number_of_Sessions>1</Number_of_Sessions>
</TeraFlow>
```

## TeraFlow Server Configuration (DL UDP)

- 模板默认配置

```
<Server>
    <diversifEye_Port>1</diversifEye_Port>
    <Type>External</Type>
    <Ip_Version>4</Ip_Version>
    <Application>TeraFlow</Application>
    <Host_Name>ExtTFServer</Host_Name>
    <IP_Address>99.99.99.101</IP_Address>
    ...
</Server>
```

- 主要待更新配置
  - Type/Host\_Name/IP\_Address

```
<Server>
    <diversifEye_Port>1</diversifEye_Port>
    <Type>Internal</Type>
    <Ip_Version>4</Ip_Version>
    <Application>TeraFlow</Application>
    <Host_Name>TFServerDL</Host_Name>
    <IP_Address>132.248.1.201</IP_Address>
    ...
</Server>
```

## TeraFlow Client Configuration (DL UDP)

- 模板默认配置

```
<TeraFlow>
    <Server_Host_Name>ExtTFServer</Server_Host_Name>
    <Start_After>10</Start_After>
    <Stop_After>6000</Stop_After>
    <Throughput>1</Throughput>
    <Throughput_Metric>mbps</Throughput_Metric>
    <TeraFlow_Payload_Size>8192</TeraFlow_Payload_Size>
    <Number_of_Sessions>1</Number_of_Sessions>
</TeraFlow>
```

- 主要待更新配置

- UE/PDN/Alias/Server\_Host\_Name/Server\_on\_PPPOE/Start\_After/Stop\_After/Throughput/Throughput\_Metric

```
<TeraFlow UE="0.." PDN="0">
    <Alias>DLUDP</Alias>
    <Server_Host_Name>TFServerDL</Server_Host_Name>
    <Server_on_PPPOE>true</Server_on_PPPOE>
    <Start_After>0</Start_After>
    <Stop_After>0</Stop_After>
    <Throughput>1</Throughput>
    <Throughput_Metric>mbps</Throughput_Metric>
    <TeraFlow_Payload_Size>1024</TeraFlow_Payload_Size>
    <Number_of_Sessions>1</Number_of_Sessions>
</TeraFlow>
```

## TWAMP Server & Client Configuration

- 默认模板不含TWAMP相关配置，如有测试需求，请依据如下信息分别配置TWAMP Server/Client.
- 主要待更新配置
  - IP\_Address/Delay\_Between\_Packets/Payload\_Size

```
<Server>
  <diverisifEye_Port>1</diverisifEye_Port>
  <Type>Internal</Type>
  <Ip_Version>4</Ip_Version>
  <Application>TWAMP</Application>
  <Host_Name>TWAMPServer</Host_Name>
  <IP_Address>99.99.99.3</IP_Address>
  ...
</Server>

<TWAMP UE="0.." PDN="0">                                <!-- either use .. or --
  <Server_Host_Name>TWAMPServer</Server_Host_Name>
  <Delay_Between_Packets>100</Delay_Between_Packets>      <!-- in ms -->
  <Payload_Size>100</Payload_Size>
  <Indefinite_Session_Duration>true</Indefinite_Session_Duration>
</TWAMP>
```

## Profile\_0 Configuration

- 模板默认配置

```
</Default>
<Profile_0>
    <FTP_Get UE="0..10,31..49" PDN="1">
        <Server_Host_Name>ExtFTPServer</Server_Host_Name>
        <Path>500MB.bin</Path>
        <Delay_Between_Commands>50</Delay_Between_Commands>
        <Delay_Between_Sessions>50</Delay_Between_Sessions>
        <File_Size>536870912</File_Size>
        <FTP_Mode>Passive</FTP_Mode>
    </FTP_Get>
    ...
    <RTSP UE="0..10" PDN="0..2">
        <Alias>crtsp</Alias>
        <Description>Test media stream</Description>
        <Server_Host_Name>ExtRTSPServer</Server_Host_Name>
        <Path>/media/high-bitrate.3gp</Path>
        <RTSP_Media_Profile>
            <Media_Type>Multimedia</Media_Type>
            <RTP_Data>Full Duplex</RTP_Data>
            <RTCP>true</RTCP>
            <Silence_Suppression>true</Silence_Suppression>
            <Silence_Ratio>40</Silence_Ratio>
            <Silence_Length>50000</silence_Length>
            <Codec>
                <Codec_Name>MPEG2</Codec_Name>
            </Codec>
        </RTSP_Media_Profile>
    </RTSP>
</Profile_0>
<Profile_1/>
```

## Profile\_0 Configuration

- 如果不想定义Profile\_0, 请更新上述配置为</Profile\_0>.

```
</Default>
<Profile_0/>
<Profile_1/>
<Profile_2/>
<Profile_3/>
<Profile_4/>
<Profile_5/>
<Profile_6/>
<Profile_7/>
<Profile_8/>
<Profile_9/>
</Client_Profiles>
</Application_Configuration>
```

## Network Configuration

- 模板默认配置

```
<Network_Configuration>
    <IPv4>
        <Server_IP>132.248.1.200</Server_IP>                                <!-- Sta
        <Gateway_IP>132.248.1.1</Gateway_IP>                                <!-- Gat
        <Core_Gateway_IP>10.250.250.250</Core_Gateway_IP>                  <!-- Cor
    </IPv4>
    <IPv6>
        <Server_IPv6>2001:4711:AFEE:1001:1:1:</Server_IPv6>                <!-- Start IP
        <Gateway_IPv6>FE80::3000:1100:1:</Gateway_IPv6>                    <!-- Gateway
        <Core_Gateway_IPv6>2001:4711:AFAA:1001::1</Core_Gateway_IPv6>      <!-- Gateway
    </IPv6>
    <TCP_Characteristics>
        <Window_Scale>2</Window_Scale>
        <Use_SACK_When_Permitted>true</Use_SACK_When_Permitted>
        <Set_SACK_Permitted>true</Set_SACK_Permitted>
        <Max_Advertised_Received_Window_Size>32768</Max_Advertised_Received_Window_Size>
        <Max_Transmit_Buffer_Size>131072</Max_Transmit_Buffer_Size>
        <Support_Timestamp_when_requested>true</Support_Timestamp_when_requested>
        <Request_Timestamp>true</Request_Timestamp>
    </TCP_Characteristics>
```

- 主要待更新配置

- Gateway\_IP/Gateway\_IPv6

- live.bat和TM500.xml配置完成后，请在Provisioning文件夹打开DOS窗口，然后运行live.bat即开始生成脚本。

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

c:\Aeroflex\TM500\LTE - LMF 7.0.1\diversifEye\Provisioning>live.bat
```

- 脚本生成成功后，将在**Provisioning**文件夹保存一份**RDA**脚本，同时也将自动导入一份脚本至**RDA**.
  - 可以在**RDA**客户端进一步更新**Application/Host**对应的配置。更多配置信息，请参阅本文档附录的**Applications & Hosts Properties**.
- 如果脚本生成失败的话，请查看**DOS**窗口打印的信息，以及**Provisioning**文件夹下的**shenick.log**，以进一步定位问题。
  - 如果需要寻求**TM500 FAE**协助定位，请提供以下信息
    - **TM500.xml**
    - **shenick.log**

# Host Physical Interface

Standalone D500 – Edge/Core

- Standalone D500 VLAN Hub端口示意图

D500 Hybrid (TK791-C)		Port							
		Connect TM500				Connect SGi			
VLAN		1	2	3	4	5	6	7	8
VLAN	1	U	E	E	E	E	E	E	U
	10	T	U	E	E	E	E	E	T
	11	T	E	U	E	E	E	E	T
	12	T	E	E	U	E	E	E	T
	16	T	E	E	E	U	E	E	T
	17	T	E	E	E	E	U	E	T
	18	T	E	E	E	E	E	U	T
	13-15, 19-21	T	E	E	E	E	E	E	T
Physical Interface Partition		D500 Gb2	10/1/0	11/1/0	12/1/0	10/1/1	11/1/1	12/1/1	
			1	2	3	1	2	3	

# Host Physical Interface

D500 Pair -> Edge

- Edge VLAN Hub端口示意图

D500 Edge (TK780-C)		Port							
		1	2	3	4	5	6	7	8
VLAN	1	U	E	E	E	E	E	E	U
	10	T	U	E	E	E	E	E	T
	11	T	E	U	E	E	E	E	T
	12	T	E	E	U	E	E	E	T
	13	T	E	E	E	U	E	E	T
	14	T	E	E	E	E	U	E	T
	15	T	E	E	E	E	E	U	T
	16-21	T	E	E	E	E	E	E	T
	Physical Interface Partition	Edge Gb2	10/1/0 1	11/1/0 2	12/1/0 3	13/1/0 4	14/1/0 5	15/1/0 6	

# Host Physical Interface

D500 Pair -> Core

- Core VLAN Hub端口示意图

D500 Core (TK781-C)		Port							
VLAN		1	2	3	4	5	6	7	8
	1	U	E	E	E	E	E	E	U
	16	T	U	E	E	E	E	E	T
	17	T	E	U	E	E	E	E	T
	18	T	E	E	U	E	E	E	T
	19	T	E	E	E	U	E	E	T
	20	T	E	E	E	E	U	E	T
	21	T	E	E	E	E	E	U	T
	10-16	T	E	E	E	E	E	E	T
Physical Interface Partition		Core Gb2	20/1/1	21/1/1	22/1/1	23/1/1	24/1/1	25/1/1	
			1	2	3	4	5	6	

### d1000 VLAN – port mapping:

Physical Interface	VLAN ID	Test Module / Port	
Edge 10G/1	10 – 15	10/0 – 15/0	
Edge 10G/1	30 – 35	30/0 – 35/0	unused if core present
Edge 10G/2	16 – 21	10/1 – 15/1	unused if core present
Edge 10G/2	36 – 41	30/1 – 35/1	
Core 10G/1	10 – 15	20/0 – 25/0	unused
Core 10G/1	30 – 35	40/0 – 45/0	
Core 10G/2	16 – 21	20/1 – 25/1	
Core 10G/2	36 – 41	40/1 – 45/1	unused

# 导入和导出脚本

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes Applications Hosts Statistic Groups Thresholds

Run Results... Properties... Delete Copy Export to XML... Export to XML as... Import from XML... Expand All Collapse All

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ExtVoIPServer...		External VoIP ...		ExtVoIPServer	103.1.202.1	5060	1 Application			
RTSPServer_rt...		RTSP Server		Host_103.5.4.9	103.5.4.9/16	554	1 Application			
FTPServer_ftp		FTP Server		Host_103.5.4.12	103.5.4.12/16	21	1 Application			
EmailServer_ftp		FTP Server		Host_103.5.4.7	103.5.4.7/16	21	1 Application			
P2PServer_ftp		FTP Server		Host_103.5.4.8	103.5.4.8/16	21	1 Application			
IMServer_ftp		FTP Server		Host_103.5.4.5	103.5.4.5/16	21	1 Application			
SNSServer_ftp		FTP Server		Host_103.5.4.4	103.5.4.4/16	21	1 Application			
WebServer_ftp		FTP Server		Host_103.5.4.6	103.5.4.6/16	21	1 Application			
GameServer_ftp		FTP Server		Host_103.5.4.11	103.5.4.11/16	21	1 Application			
cvoip_1450_1		VoIP UA	AMR-WB	pppoe_1450_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_2632_1		VoIP UA	AMR-WB	pppoe_2632_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_1981_1		VoIP UA	AMR-WB	pppoe_1981_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0828_1		VoIP UA	AMR-WB	pppoe_0828_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_2218_1		VoIP UA	AMR-WB	pppoe_2218_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0183_1		VoIP UA	AMR-WB	pppoe_0183_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_2834_1		VoIP UA	AMR-WB	pppoe_2834_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_1938_1		VoIP UA	AMR-WB	pppoe_1938_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_1047_1		VoIP UA	AMR-WB	pppoe_1047_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_1121_1		VoIP UA	AMR-WB	pppoe_1121_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_2546_1		VoIP UA	AMR-WB	pppoe_2546_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0131_1		VoIP UA	AMR-WB	pppoe_0131_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		

Total: 30009 Active: 0 Allow Sorting Show Filter

```
Mon May 09 15:59:06 CST 2016 - Creating Configuration Items...
Mon May 09 15:59:06 CST 2016 - Creating Hosts...
Mon May 09 15:59:06 CST 2016 - Creating Applications...
Mon May 09 15:59:06 CST 2016 - Enabling Stats Notifications...
Mon May 09 15:59:06 CST 2016 - Starting Hosts...
Mon May 09 15:59:06 CST 2016 - Starting Applications...
Mon May 09 15:59:06 CST 2016 - Test group configuration complete
```

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

- RDA脚本可以导出保存为.*xm*l格式。
- 可以通过文本编辑器（例如UltraEdit或Notepad++）编辑RDA脚本，例如批量替换PPPoE IP  
(*<service\_name>tm500\_lte\_10.99.0.2\_500\_0</service\_name>*)或者Physical Interface  
(*<physical\_interface>11/1/0</physical\_interface>*), 然后再导入RDA，实现RDA脚本批量快速修改。

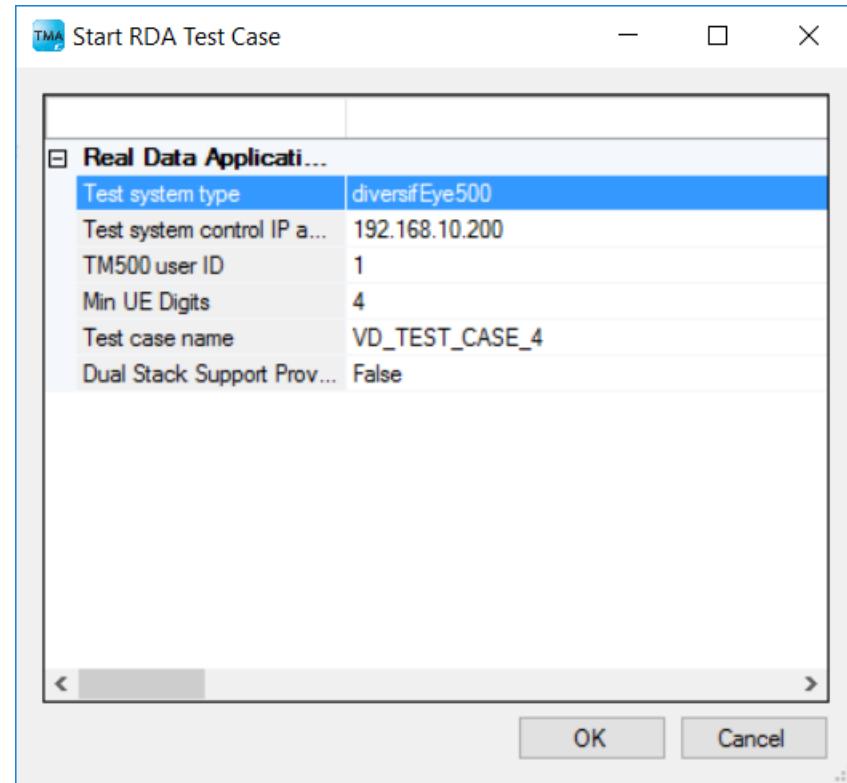
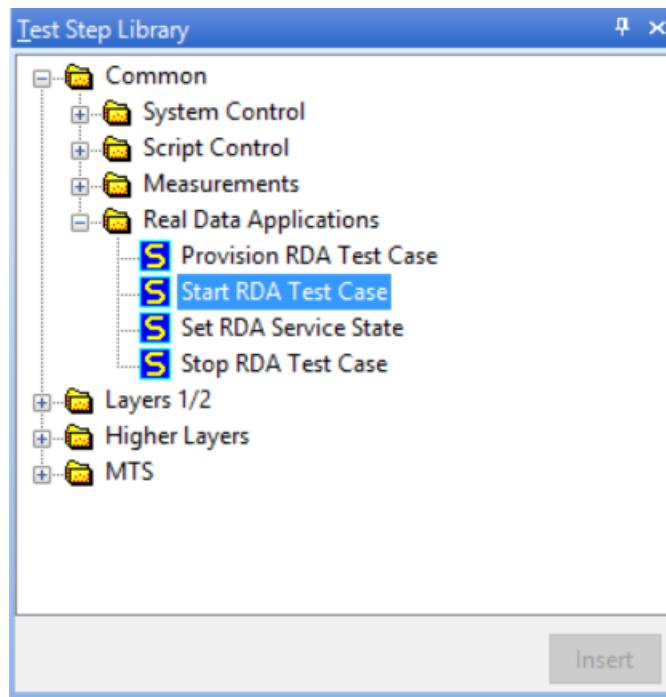
# 运行脚本

- TM500调用RDA脚本
- 手动运行脚本



# TM500调用RDA脚本

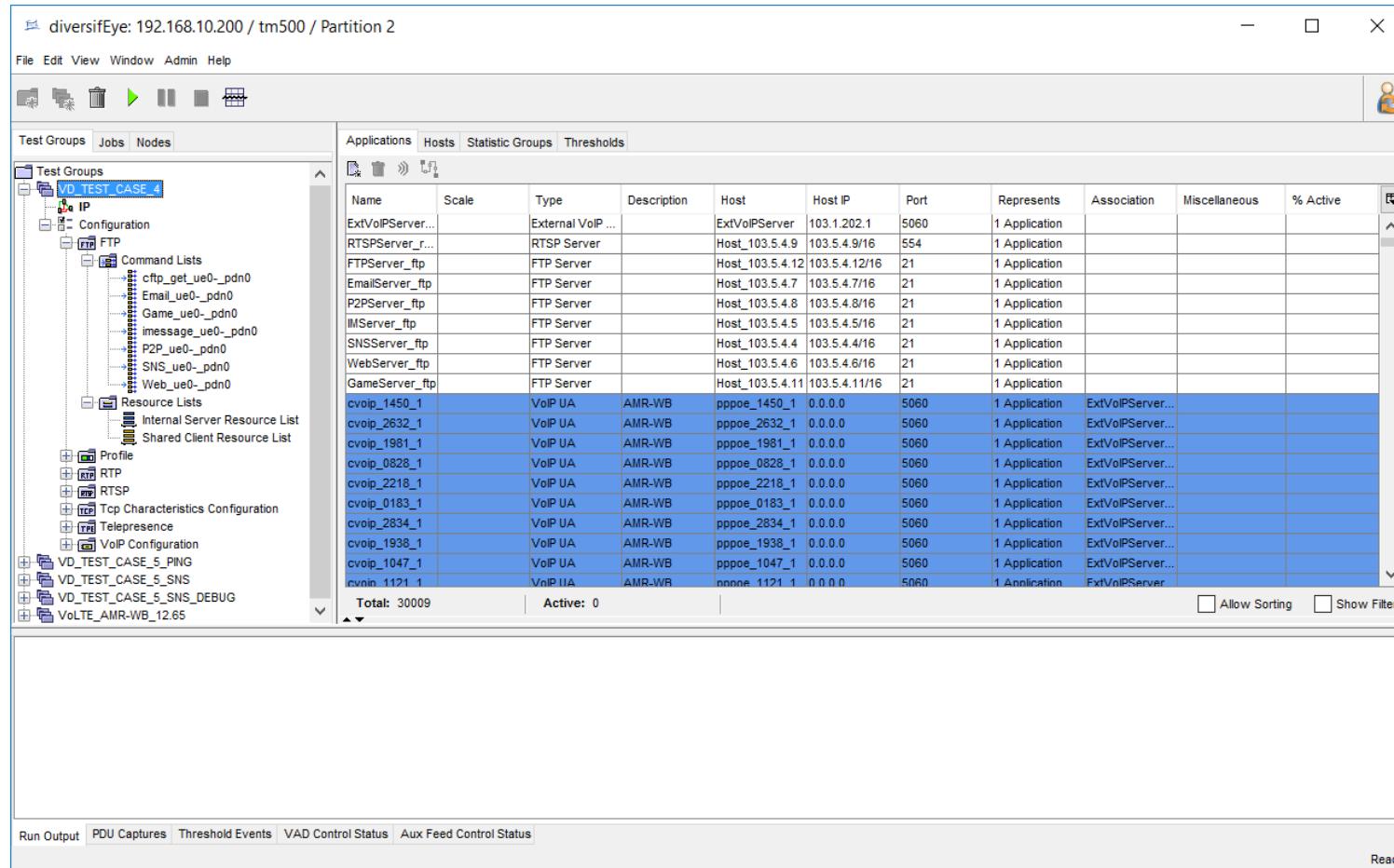
- TM500通过cli命令调用运行RDA脚本。
  - 运行/终止脚本
  - 设置PPPoE为In/Out of Service状态
  - 设置Applications为In/Out of Service状态



# 手动运行RDA脚本

COBHAM

- 通过RDA客户端运行脚本： 选中脚本， 然后点击左上角绿色按钮运行脚本。



- 手动设置对应UE的Application/PPPoE为In/Out of Service状态
- 设置Application为In Service状态之前，首先需要确保PPPoE已经处于In Service状态且PPPoE建立成功（已获取UE IP地址信息）。

# 设置Application/Host状态

## Set In Service

diverisifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ULUDP_0110_0		TeraFlow Client	TeraFlow	pppoe_0110_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0000_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0181_0				pppoe_0181_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0083			Add Threshold On	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0002			Capture PDU's	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0348			Ping From	pppoe_0348_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0373			Trace Route From	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0085			Disable	pppoe_0381_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0381			Set In Service	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0271				pppoe_0056_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0056				pppoe_0082_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0082				TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0219				DLUDP_034						
DLUDP_034				TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0088			Select All	pppoe_0088_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0178			Select All with the same Description	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0047			Properties...	pppoe_0047_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0055			Copy	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0341			Delete	pppoe_0341_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0189				pppoe_0189_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0222_0				pppoe_0222_0	0.0.0.0		1 Application	TFServerUL_tf		
Total: 1202			Active: 5				<input type="checkbox"/> Allow Sorting	<input type="checkbox"/> Show Filter		

```
Mon May 09 15:59:06 CST 2016 - Creating Configuration Items...
Mon May 09 15:59:06 CST 2016 - Creating Hosts...
Mon May 09 15:59:06 CST 2016 - Creating Applications...
Mon May 09 15:59:06 CST 2016 - Enabling Stats Notifications...
Mon May 09 15:59:06 CST 2016 - Starting Hosts...
Mon May 09 15:59:06 CST 2016 - Starting Applications...
Mon May 09 15:59:06 CST 2016 - Test group configuration complete
```

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

# 设置Application/Host状态

## Set Out Of Service

diverisEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes Applications Hosts Statistic Groups Thresholds

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ULUDP_0110_0		TeraFlow Client	TeraFlow	pppoe_0110_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0006_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_018		Add Threshold On		pppoe_0181_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_008		Capture PDU's		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_000		Ping From		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_034		Trace Route From		pppoe_0348_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_037		Disable		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_008		Set Out Of Service		pppoe_0381_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_027		Statistics...		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_005		Select All		pppoe_0056_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_008		Select All with the same Description		pppoe_0082_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_021		Properties...		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_033		Copy		pppoe_0088_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_008		Delete		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_017		Total: 1202		pppoe_0047_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_004		Active: 5		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_005				pppoe_0341_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_034				pppoe_0189_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0189_0				TF_DL_Server	103.5.4.5/16		1 Application	TFServerUL_tf		
ULUDP_0222_0				pppoe_0222_0	0.0.0.0		1 Application	TFServerUL_tf		

Allow Sorting  Show Filter

Mon May 09 15:59:06 CST 2016 - Creating Configuration Items...  
Mon May 09 15:59:06 CST 2016 - Creating Hosts...  
Mon May 09 15:59:06 CST 2016 - Creating Applications...  
Mon May 09 15:59:06 CST 2016 - Enabling Stats Notifications...  
Mon May 09 15:59:06 CST 2016 - Starting Hosts...  
Mon May 09 15:59:06 CST 2016 - Starting Applications...  
Mon May 09 15:59:06 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: /Test-Case

# 统计日志分析和保存

- 实时查看统计日志
- 保存统计日志
- 实时抓取PDU



- RDA Statistics分为两大类
  - Normal Statistics: 每30秒钟输出一次统计， 默认打开；
  - Fine Statistics: 每1秒钟输出一次统计， 默认关闭；
- 支持实时查看统计信息
  - 基于图形曲线
  - 基于列表
- 测试脚本运行以后， 统计相关的日志自动保存在RDA上， 可通过如下方式把日志保存到RDA控制电脑上。
  - 测试脚本正在运行，请用**Save Current Detailed Results**保存日志。
  - 测试脚本已经停止运行且尚未再次运行脚本，请用**Save Historical Detailed Results**保存日志。

# 实时查看RDA Statistics

Fine Statistics默认关闭

The screenshot shows the diversifEye application window with the title "diversifEye: 192.168.10.200 / tm500 / Partition 1". The main interface has tabs for Applications, Hosts, Statistic Groups, and Thresholds. The Applications tab is selected.

**Test Groups:**

- 120VoLTE\_Traffic\_Mix
- 2CC\_10UE\_UDP\_10G\_2
- 2CC\_1200UE\_UDP
- 2CC\_1200UE\_UDP\_E12
- 2CC\_3600UE\_FTP
- 2CC\_3600UE\_UDP
- 300VoLTE\_Traffic\_Mix
- FDD\_TDD\_3600UE\_UDP
- HW\_1200UE\_VOLTE
- HW\_1200UE\_VOLTE\_1230
- HW\_1200UE\_VOLTE\_TEST
- HW\_3600UE\_UDP
- Test-Case** (selected)
- Test-Case\_1
- Test-Case\_Test
- Traffic\_Mix\_OMM
- Traffic\_Mix\_OMM\_20UE
- Traffic\_Mix\_OMM\_600UE
- Traffic\_Mix\_OMM\_DEBUG
- VD\_TEST\_CASE\_4
- VD\_TEST\_CASE\_5\_DEBUG
- VD\_TEST\_CASE\_DEBUG
- VD\_VOLTE\_DEBUG
- VoD\_&\_IM\_Example
- VoLTE\_3600UE\_12.2
- VoLTE\_3600UE\_23.85
- VoLTE\_600UE\_H264

**Applications Table:**

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ULUDP_0110_0		TeraFlow Client	TeraFlow	pppoe_0110_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0000_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0181_0			Add Threshold On	pppoe_0181_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0083_0			Capture PDU's	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0002_0			Ping From	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0348_0			Trace Route From	pppoe_0348_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0373_0			Disable	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0085_0			Set Out Of Service	pppoe_0381_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0271_0				TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0056_0			Statistics...				1 Application	TFServerUL_tf		
ULUDP_0082_0			Select All				1 Application	TFServerUL_tf		
DLUDP_0219_0			Select All with the same Description				1 Application	DLUDP_STF_0...		
DLUDP_0334_0			Properties...				1 Application	DLUDP_STF_0...		
ULUDP_0088_0			Copy				1 Application	TFServerUL_tf		
DLUDP_0178_0			Delete				1 Application	DLUDP_STF_0...		
ULUDP_0047_0				ULUDP_0189_0	TeraFlow Client	TeraFlow				
DLUDP_0055_0				ULUDP_0222_0	TeraFlow Client	TeraFlow				
ULUDP_0341_0										
			Total: 1202		Active: 5					

A context menu is open over the row for ULUDP\_0056\_0, with the "Enable Fine Statistics" option highlighted.

**Log Output:**

```
Mon May 09 15:59:06 CST 2016 - Creating Configuration Items...
Mon May 09 15:59:06 CST 2016 - Creating Hosts...
Mon May 09 15:59:06 CST 2016 - Creating Applications...
Mon May 09 15:59:06 CST 2016 - Enabling Stats Notifications...
Mon May 09 15:59:06 CST 2016 - Starting Hosts...
Mon May 09 15:59:06 CST 2016 - Starting Applications...
Mon May 09 15:59:06 CST 2016 - Test group configuration complete
```

**Run Output:** PDU Captures | Threshold Events | VAD Control Status | Aux Feed Control Status

User tm500 is running Test Group: /Test-Case

# 实时查看RDA Statistics

## Fine Statistics打开

diverisEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes Applications Hosts Statistic Groups Thresholds

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ULUDP_0110_0		TeraFlow Client	TeraFlow	pppoe_0110_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0000_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_018		Add Threshold On		pppoe_0181_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_008		Capture PDU's		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_000		Ping From		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_034		Trace Route From		pppoe_0348_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_037		Disable		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_008		Set Out Of Service		TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_027		Statistics...					1 Application	TFServerUL_tf		
ULUDP_005		Select All					1 Application	TFServerUL_tf		
ULUDP_008		Select All with the same Description					1 Application	DLUDP_STF_0...		
DLUDP_021		Properties...					1 Application	DLUDP_STF_0...		
DLUDP_033		DLUDP_008					1 Application	TFServerUL_tf		
ULUDP_008		DLUDP_017					1 Application	DLUDP_STF_0...		
DLUDP_017		Copy					1 Application	TFServerUL_tf		
ULUDP_004		Delete					1 Application	DLUDP_STF_0...		
ULUDP_005		Total: 1202					1 Application	TFServerUL_tf		
ULUDP_034		Active: 5					1 Application	TFServerUL_tf		
ULUDP_0189_0										
ULUDP_0222_0										

Allow Sorting  Show Filter

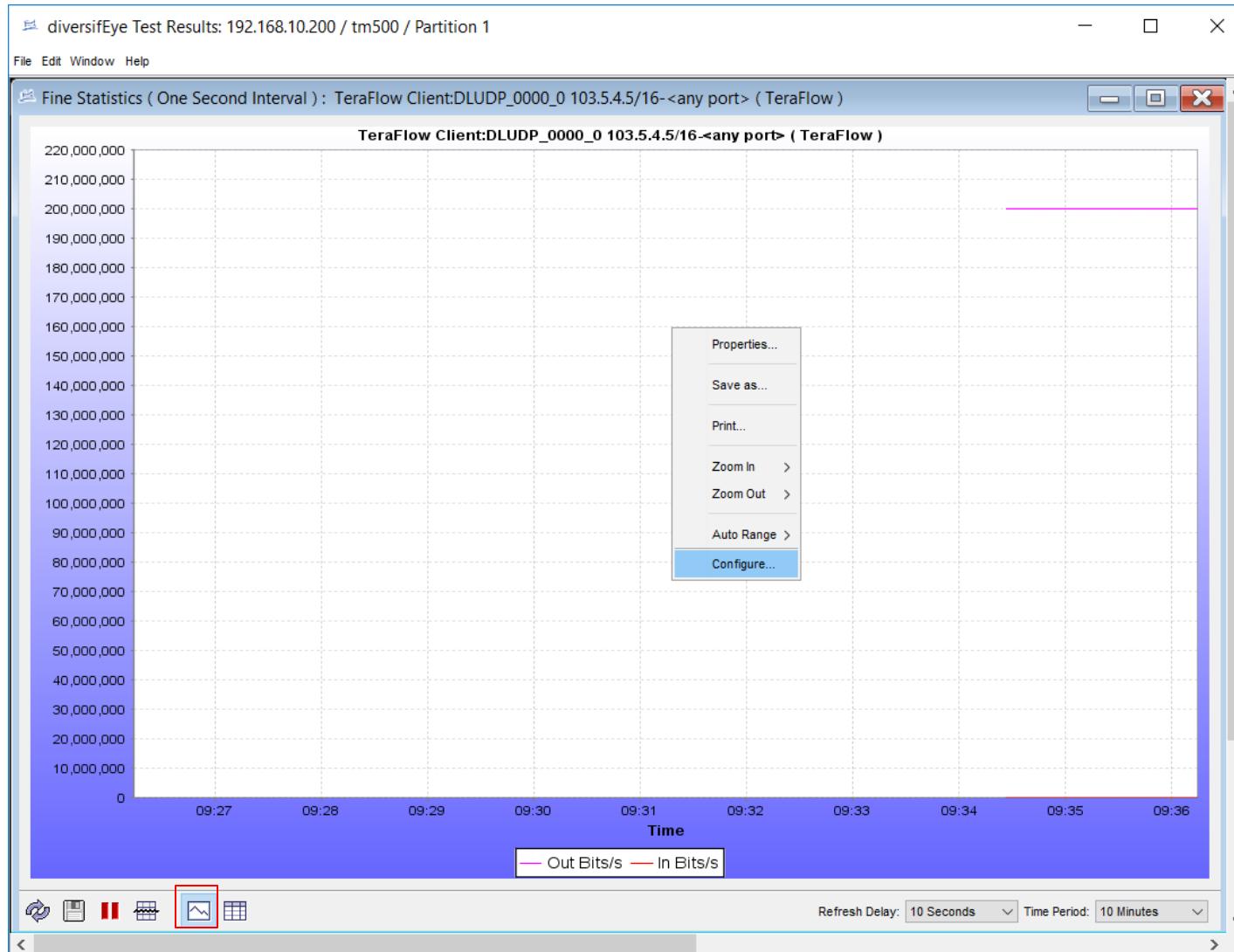
Mon May 09 15:59:06 CST 2016 - Creating Configuration Items...  
Mon May 09 15:59:06 CST 2016 - Creating Hosts...  
Mon May 09 15:59:06 CST 2016 - Creating Applications...  
Mon May 09 15:59:06 CST 2016 - Enabling Stats Notifications...  
Mon May 09 15:59:06 CST 2016 - Starting Hosts...  
Mon May 09 15:59:06 CST 2016 - Starting Applications...  
Mon May 09 15:59:06 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: /Test-Case

# 实时查看RDA Statistics

基于图形的统计显示

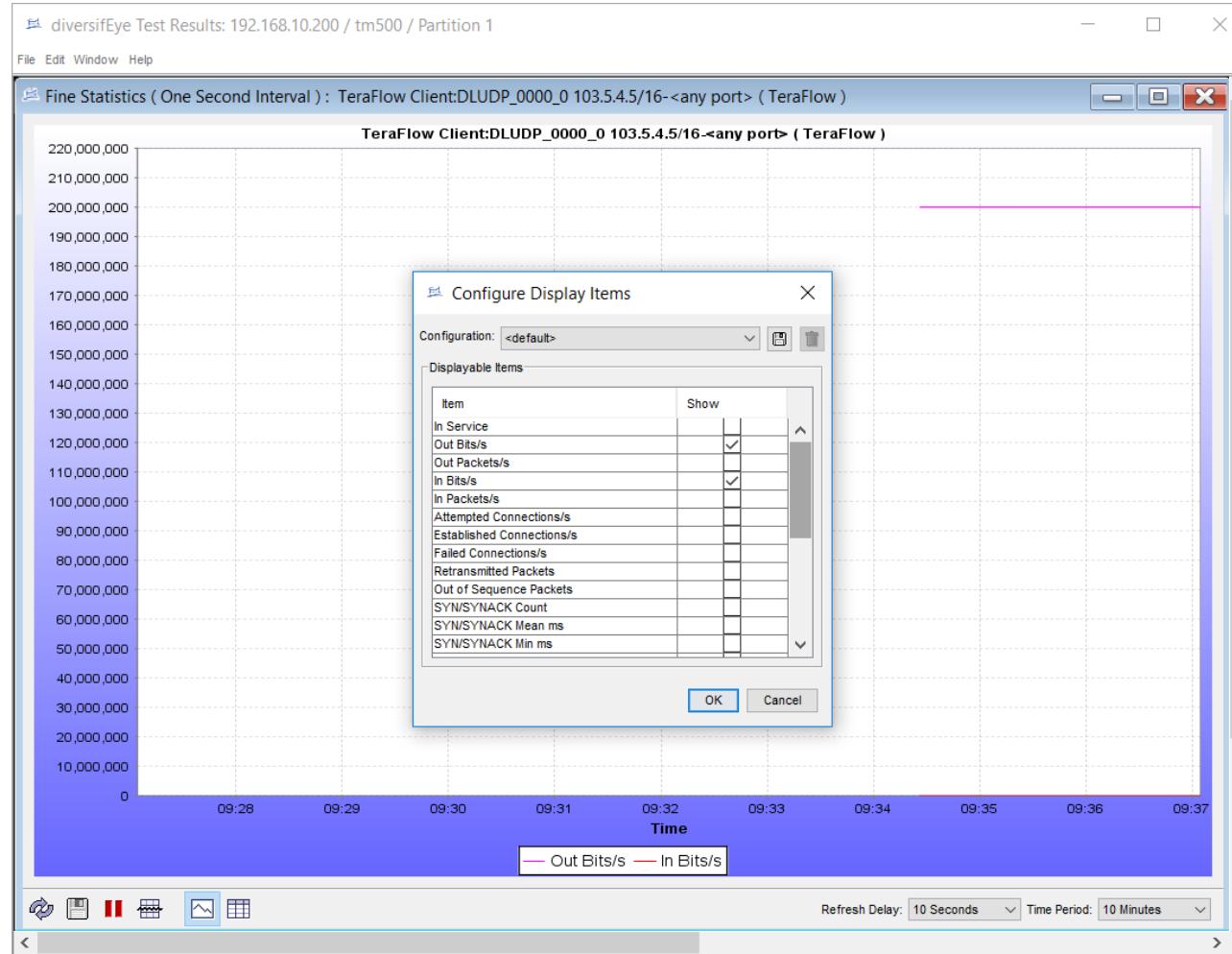


# 实时查看RDA Statistics

COBHAM

## 配置统计选项

- 不同Application对应的统计选项，请参阅附录。



# 实时查看RDA Statistics

COBHAM

## 基于列表的Fine Statistics

diverisifEye Test Results: 192.168.10.200 / tm500 / Partition 1

Fine Statistics ( One Second Interval ) : TeraFlow Client:DLUDP\_0000\_0 103.5.4.5/16-<any port> ( TeraFlow )

Time	In Service	Out Bits/s	Out Packets/s	In Bits/s	In Packets/s	Attempted Connections/s	Established Connections/s	Failed Connections/s	Retransm
2016-05-09 09:41:36.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:35.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:34.600	true	200,009,60...	17,858.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:33.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:32.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:31.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:30.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:29.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:28.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:27.600	true	200,009,60...	17,858.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:26.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:25.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:24.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:23.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:22.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:21.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:20.600	true	200,009,60...	17,858.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:19.600	true	199,998,59...	17,857.018	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:18.600	true	199,998,20...	17,856.982	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:17.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:16.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:15.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:14.600	true	199,998,40...	17,857.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:13.600	true	200,009,60...	17,858.000	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:41:12.600	true	[NoPreviousData]	[NoPreviousData]	[NoPreviousData]	[NoPreviousData]	[NoPreviousData]	[NoPreviousData]	[NoPreviousData]	[NoPreviousData]

Refresh Delay: 1 Second Time Period: 10 Minutes

1 Second  
10 Seconds  
30 Seconds

# 实时查看RDA Statistics

## 基于列表的Normal Statistics

diverseEye Test Results: 192.168.10.200 / tm500 / Partition 1

File Edit Window Help

Normal Statistics ( Thirty Seconds Interval ): TeraFlow Client:DCLUDP\_0000\_0 103.5.4.5/16-<any port> ( TeraFlow )

Time	In Service	Out Bits/s	Out Packets/s	In Bits/s	In Packets/s	Attempted Connections/s	Established Connections/s	Failed Connections/s	Retransm
2016-05-09 09:39:57.600	true	200,000.26...	17,857.167	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:39:27.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:38:57.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:38:27.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:37:57.600	true	200,000.26...	17,857.167	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:37:27.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:36:57.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:36:27.600	true	200,000.26...	17,857.167	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:35:57.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:35:27.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:34:57.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:34:27.600	true	200,000.26...	17,857.167	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:33:57.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:33:27.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:32:57.600	true	200,000.26...	17,857.167	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:32:27.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:31:57.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:31:27.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:30:57.600	true	200,000.26...	17,857.167	0.000	0.000	0.000	0.000	0.000	0
2016-05-09 09:30:27.600	true	199,999.89...	17,857.133	0.000	0.000	0.000	0.000	0.000	0

Refresh Delay: 10 Seconds Time Period: 10 Minutes  
10 Minutes  
6 Hours  
12 Hours

# 保存统计日志

## Save Current Detailed Results

diverseEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes Applications Hosts Statistic Groups Thresholds

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ULUDP_0110_0		TeraFlow Client	TeraFlow	pppoe_0110_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0000_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0181_0		TeraFlow Client	TeraFlow	pppoe_0181_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0083_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0002_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0348_0		TeraFlow Client	TeraFlow	pppoe_0348_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0373_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0085_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0381_0		TeraFlow Client	TeraFlow	pppoe_0381_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0271_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0056_0		TeraFlow Client	TeraFlow	pppoe_0056_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0082_0		TeraFlow Client	TeraFlow	pppoe_0082_0	0.0.0.0		1 Application	TFServerUL_tf		
		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
		TeraFlow Client	TeraFlow	pppoe_0088_0	0.0.0.0		1 Application	TFServerUL_tf		
		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
		TeraFlow Client	TeraFlow	pppoe_0047_0	0.0.0.0		1 Application	TFServerUL_tf		
		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
		TeraFlow Client	TeraFlow	pppoe_0341_0	0.0.0.0		1 Application	TFServerUL_tf		
		TeraFlow Client	TeraFlow	pppoe_0189_0	0.0.0.0		1 Application	TFServerUL_tf		
		TeraFlow Client	TeraFlow	pppoe_0222_0	0.0.0.0		1 Application	TFServerUL_tf		

Results... > View Normal Rates Statistics  
 Results... > View Normal Totals Statistics  
 Results... > Save Historical Summary Results...  
 Results... > Save Historical Detailed Results... >  
 Results... > Save Current Summary Results...  
 Results... > Save Current Detailed Results... >  
 Results... > Save Normal Results...  
 Results... > Analyse Results > Save Fine Results...  
 Allow Sorting  Show Filter

Mon May 09  
 Mon May 09  
 Mon May 09 15:59:06 CST 2016 - Creating Configuration Items...  
 Mon May 09 15:59:06 CST 2016 - Creating Hosts...  
 Mon May 09 15:59:06 CST 2016 - Enabling Stats Notifications...  
 Mon May 09 15:59:06 CST 2016 - Starting Hosts...  
 Mon May 09 15:59:06 CST 2016 - Starting Applications...  
 Mon May 09 15:59:06 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

# 保存统计日志

## Save Historical Detailed Results

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes Applications Hosts Statistic Groups Thresholds

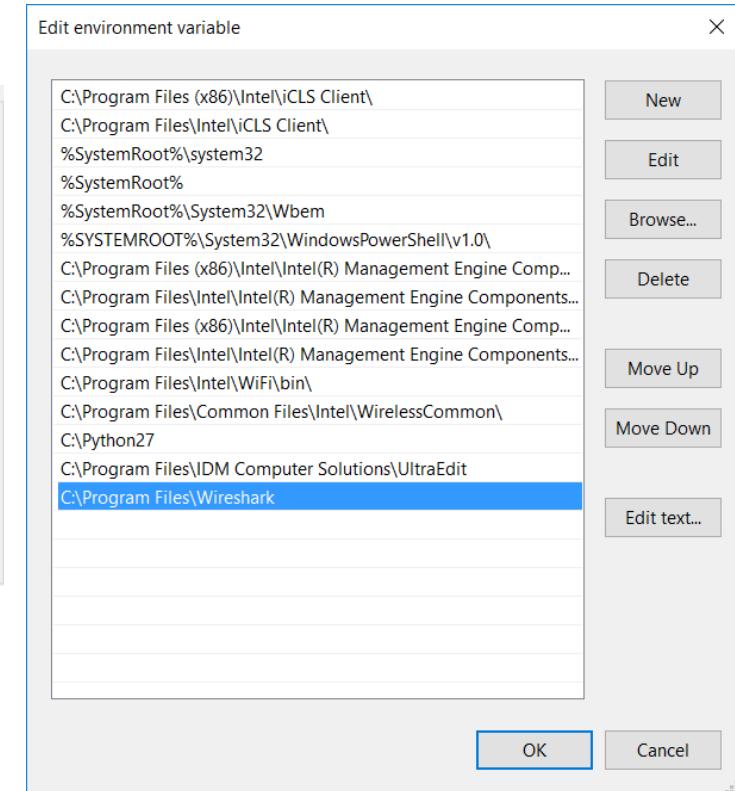
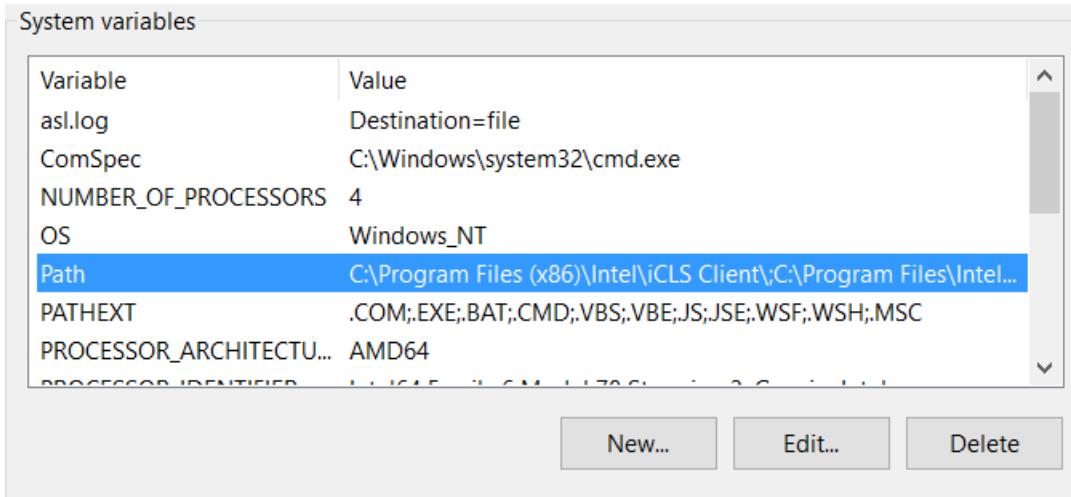
Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ULUDP_0110_0		TeraFlow Client	TeraFlow	pppoe_0110_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0000_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0181_0		TeraFlow Client	TeraFlow	pppoe_0181_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0083_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0002_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0348_0		TeraFlow Client	TeraFlow	pppoe_0348_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0373_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
DLUDP_0085_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0381_0		TeraFlow Client	TeraFlow	pppoe_0381_0	0.0.0.0		1 Application	TFServerUL_tf		
DLUDP_0271_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0056_0		TeraFlow Client	TeraFlow	pppoe_0056_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0082_0		TeraFlow Client	TeraFlow	pppoe_0082_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0046_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0088_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	DLUDP_STF_0...		
ULUDP_0047_0		TeraFlow Client	TeraFlow	TF_DL_Server	103.5.4.5/16		1 Application	TFServerUL_tf		
ULUDP_0341_0		TeraFlow Client	TeraFlow	pppoe_0341_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0189_0		TeraFlow Client	TeraFlow	pppoe_0189_0	0.0.0.0		1 Application	TFServerUL_tf		
ULUDP_0222_0		TeraFlow Client	TeraFlow	pppoe_0222_0	0.0.0.0		1 Application	TFServerUL_tf		

Allow Sorting Show Filter

Test Groups Test-Case Stop Pause Results... Properties... Delete Copy Export to XML... Export to XML as... Import from XML... Expand All Collapsing Configuration Items... Collapsing Hosts... Mon May 09 15:59:06 CST 2016 - Creating Applications... Mon May 09 15:59:06 CST 2016 - Enabling Stats Notifications... Mon May 09 15:59:06 CST 2016 - Starting Hosts... Mon May 09 15:59:06 CST 2016 - Starting Applications... Mon May 09 15:59:06 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status User tm500 is running Test Group: //Test-Case

- 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



- 右键点击对应的Node/Application/Host，在弹出的菜单里选择Capture PDU's.

The screenshot shows the diversifEye software interface. On the left, there is a tree view of test cases and configurations. In the center, a table lists various applications and their details. A context menu is open over one of the rows, with 'Capture PDU's' highlighted. The bottom pane displays log messages.

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
cvoip_0001	-WB	pppoe_0000_1	0.0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_0001	Add Threshold On	pppoe_0001_1	0.0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_0001	Capture PDU's	> On VoIP UA	0.0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_0001	Ping From	On VoIP UAS	0.0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_0001	Trace Route From	Both Sides	0.0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_0001	Disable	-WB	pppoe_0006_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	Set In Service	-WB	pppoe_0007_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	Disable RTP Transmission	-WB	pppoe_0008_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	Statistics...	> -WB	pppoe_0009_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	pppoe_0010_1	-WB	pppoe_0010_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	pppoe_0011_1	-WB	pppoe_0011_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	Select All	-WB	pppoe_0012_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	Select All with the same Description	-WB	pppoe_0013_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	pppoe_0014_1	-WB	pppoe_0014_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	Properties...	-WB	pppoe_0015_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	pppoe_0016_1	-WB	pppoe_0016_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	Copy	-WB	pppoe_0017_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0001	Delete	-WB	pppoe_0018_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0019_1	Voice UA	AMR-WB	pppoe_0019_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			
cvoip_0020_1	Voice UA	AMR-WB	pppoe_0020_1	0.0.0.0	5060	1 Application	ExtVoIPServer...			

Total: 30009      Active: 0      Allow Sorting      Show Filter

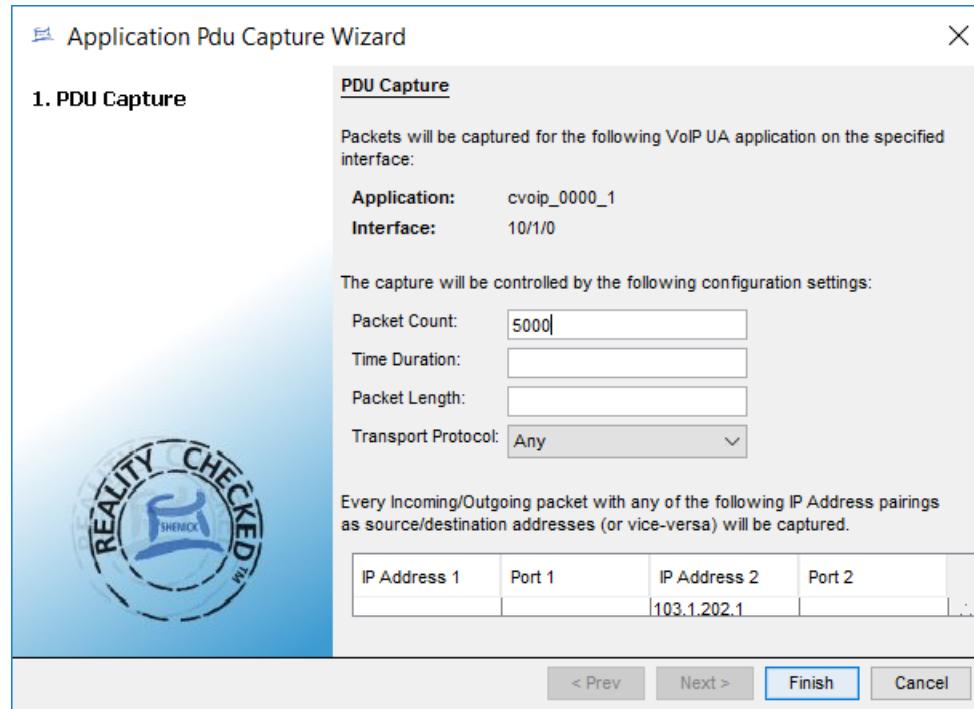
```

Mon May 09 15:59:06 CST 2016 - Creating Configuration Items...
Mon May 09 15:59:06 CST 2016 - Creating Hosts...
Mon May 09 15:59:06 CST 2016 - Creating Applications...
Mon May 09 15:59:06 CST 2016 - Enabling Stats Notifications...
Mon May 09 15:59:06 CST 2016 - Starting Hosts...
Mon May 09 15:59:06 CST 2016 - Starting Applications...
Mon May 09 15:59:06 CST 2016 - Test group configuration complete
  
```

Run Output    PDU Captures    Threshold Events    VAD Control Status    Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

- 可以按照抓取包的数目，抓取的时间和包的长度来定义抓取时长。
- 可以限定抓特定源或目标IP地址的包，默认设置和当前选择的 Application相关，如果去掉IP限定的话，将抓取所有的包，和当前 Application无关。



- 抓包的控制窗口在屏幕下方，可以随时停止抓包，也可以查看、保存或者删除抓取的文件。

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

VD\_TEST\_CASE\_4

- IP
- Configuration
  - FTP
    - Command Lists
      - cftp\_get\_ue0\_pdn0
      - Email\_ue0\_pdn0
      - Game\_ue0\_pdn0
      - imessage\_ue0\_pdn0
      - P2P\_ue0\_pdn0
      - SNS\_ue0\_pdn0
      - Web\_ue0\_pdn0
    - Resource Lists
      - Internal Server Resource L
      - Shared Client Resource L
  - Profile
  - RTP
    - Codec AVPs
    - Stream Profiles
    - Adaptive Bit Rate Level Lists
    - Bit Rate Level Change Lists
  - RTSP
  - Tcp Characteristics Configuration
    - default
  - Telepresence
  - VoIP Configuration
- VD\_TEST\_CASE\_5\_DEBUG

Applications Hosts Statistic Groups Thresholds

Name	/	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
cvoip_0000_1			VoIP UA	AMR-WB	pppoe_0000_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0001_1			VoIP UA	AMR-WB	pppoe_0001_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0002_1			VoIP UA	AMR-WB	pppoe_0002_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0003_1			VoIP UA	AMR-WB	pppoe_0003_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0004_1			VoIP UA	AMR-WB	pppoe_0004_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0005_1			VoIP UA	AMR-WB	pppoe_0005_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0006_1			VoIP UA	AMR-WB	pppoe_0006_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0007_1			VoIP UA	AMR-WB	pppoe_0007_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0008_1			VoIP UA	AMR-WB	pppoe_0008_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0009_1			VoIP UA	AMR-WB	pppoe_0009_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0010_1			VoIP UA	AMR-WB	pppoe_0010_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0011_1			VoIP UA	AMR-WB	pppoe_0011_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0012_1			VoIP UA	AMR-WB	pppoe_0012_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0013_1			VoIP UA	AMR-WB	pppoe_0013_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0014_1			VoIP UA	AMR-WB	pppoe_0014_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0015_1			VoIP UA	AMR-WB	pppoe_0015_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0016_1			VoIP UA	AMR-WB	pppoe_0016_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0017_1			VoIP UA	AMR-WB	pppoe_0017_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0018_1			VoIP UA	AMR-WB	pppoe_0018_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0019_1			VoIP UA	AMR-WB	pppoe_0019_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0020_1			VoIP UA	AMR-WB	pppoe_0020_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		

Total: 30009 Active: 0 Allow Sorting Show Filter

Start Time Description Duration Status

Mon May 09 18:01:12 CST 2016 VoIP UA: cvoip\_0000\_1, iface: 10/1/0, IP: - 103.1.202.1 5000 packets 0 bytes

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

# 支持和帮助

- RDA基本信息



- 请尽可能提供以下信息和日志以协助RDA问题定位
  - Current/Historical Detailed Results
  - RDA脚本
  - System logs
  - Chassis Information
  - 脚本正在运行时读取的Card Resource Usage
  - cli.log

## System Logs/Chassis Info/Card Resource Usage

The screenshot shows the diversifEye web interface. At the top, there is a header bar with navigation icons (back, forward, refresh), the IP address 192.168.10.200, and a toolbar with various icons. Below the header is the Shenick Network Systems logo and the diversifEye logo. A horizontal menu bar includes Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The main content area features a "Welcome to diversifEye" message and a "Quick Links Menu" on the left. The "Card Resource Usage" link in the quick links menu is highlighted with a red box. To the right, there is a "System Information" panel displaying the following details:

System Information	
IP Address:	192.168.10.200
Network Mask:	<a href="#">255.255.0.0</a>
MAC Address:	44:AB:42:00:AC:6F
Software Version:	11.1
Software Build:	300
Connected Clients:	192.168.10.100

At the bottom of the page, there is footer information about US and Europe office addresses and contact numbers.

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](mailto:info@shenick.com)

## cli.log

- 通过FTP Client登录Edge (默认IP: 192.168.10.200)
  - 用户名: cli
  - 密码: diversifEye
- 下载cli.log

# Appendix

- Gracefully Reboot and Restart RDA
- RDA Management Web Interface
- Normal/Fine Statistics
- VLAN Configurations
- Upgrade System and License Installation
- Additional Applications Introduction
- Troubleshooting



# Gracefully Restart and Shutdown RDA

- via RDA Client GUI
- via SSH



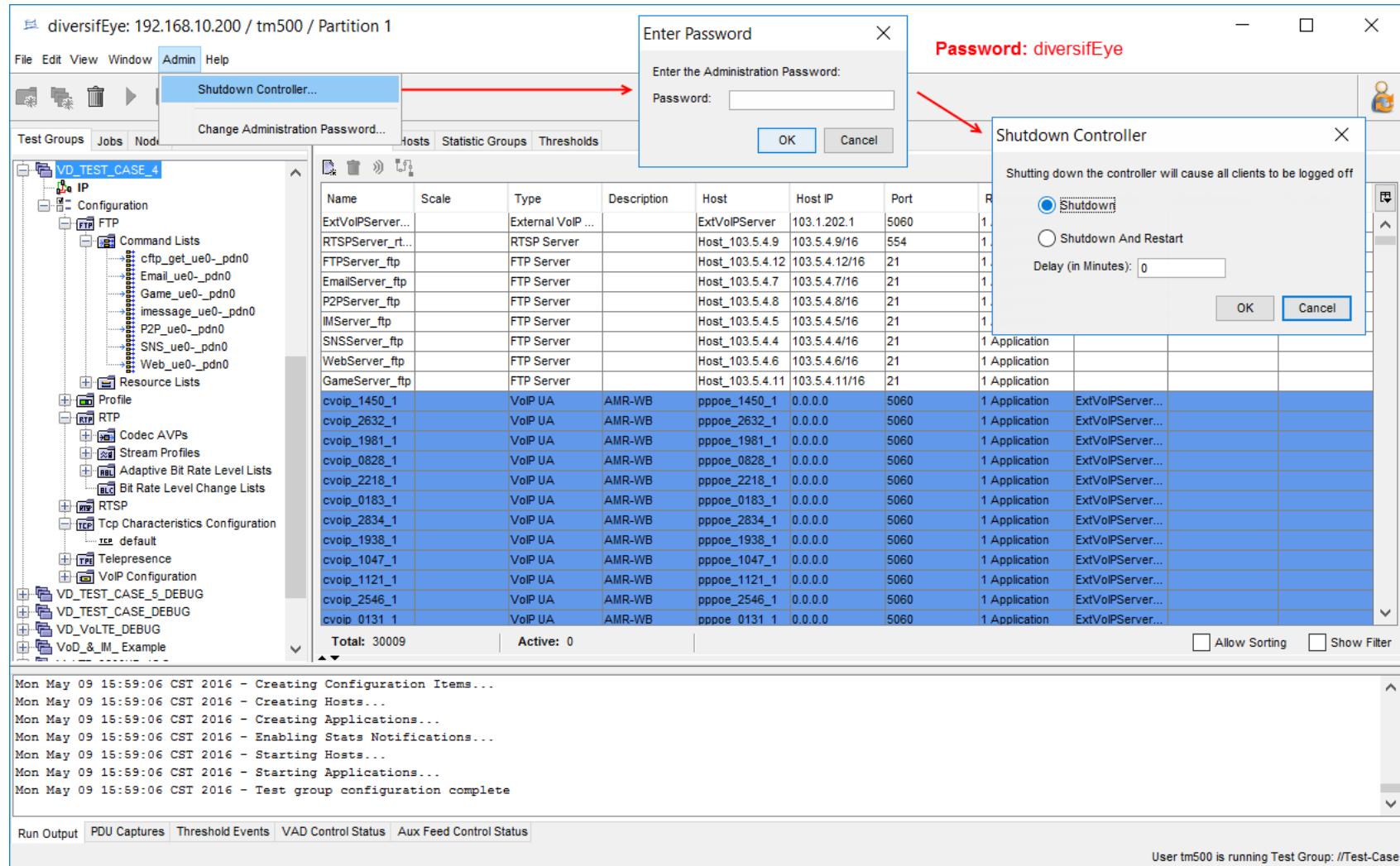
- 重启和关机RDA的两种方式
  - RDA Client GUI
    - 对于Edge & Core的配置，通过此方式将同时重启或下电两台设备。
  - SSH
    - 对于Edge & Core的配置，需要分别SSH到Edge（默认IP: 192.168.10.200）和Core（默认IP: 192.168.10.201）进行重启或下电的操作。
    - 重启
      - 用户名: reboot      密码: restartd
    - 关机
      - 用户名: poweroff      密码: shutdown

**注意：异常断电可能导致RDA损坏，需要返厂维修，所以请不要强行下电或拔电源。**

# Restart and Shutdown RDA

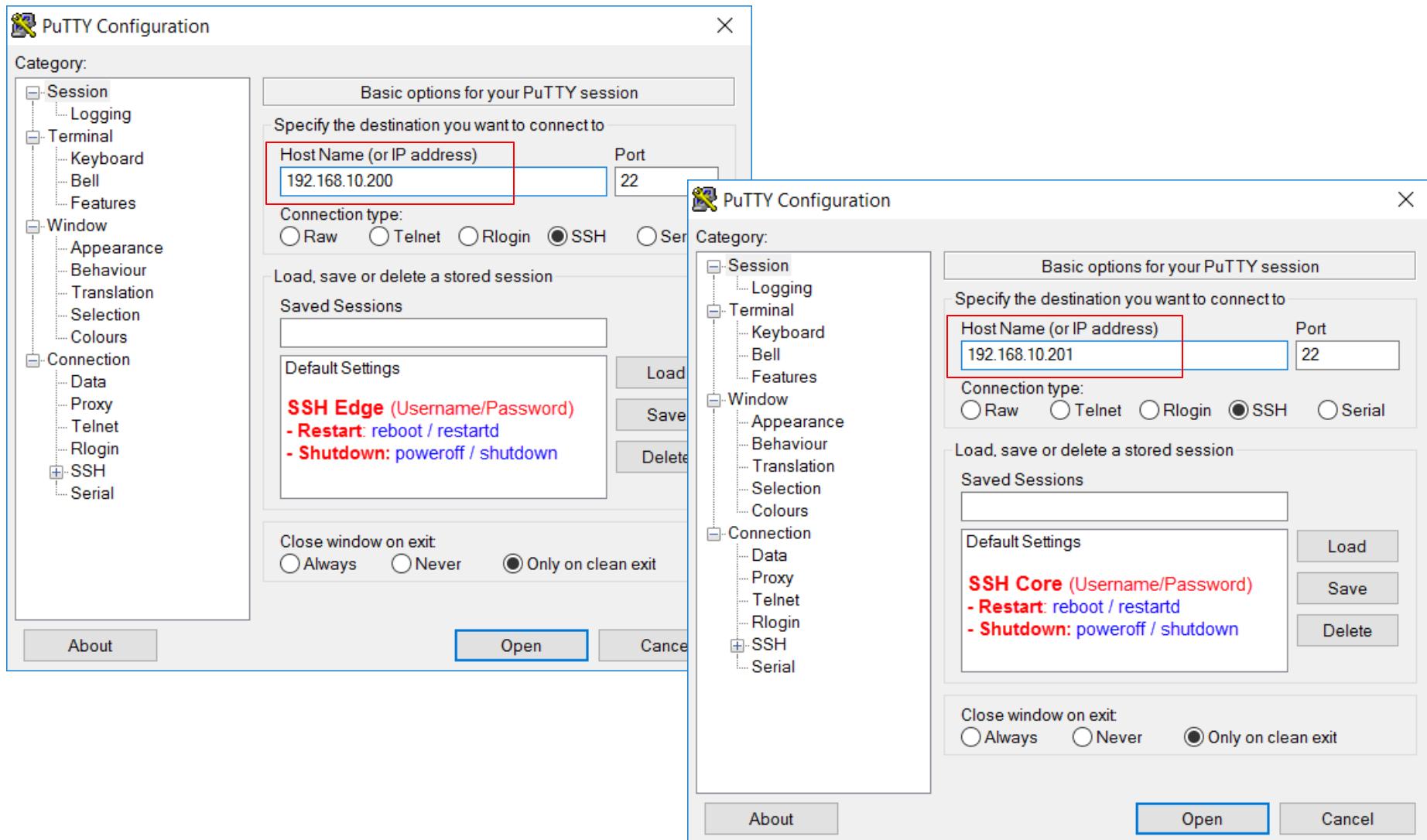
COBHAM

## via RDA Client GUI



# Restart and Shutdown RDA via SSH

COBHAM



# RDA Management Web Interface

- Download System Logs
- diversifEye System Information
- Card Resource Usage
- Client Install
- Online Help
- Global Settings for All Cards
- Admin – Network Properties
- Admin – Global Settings for Each Cards



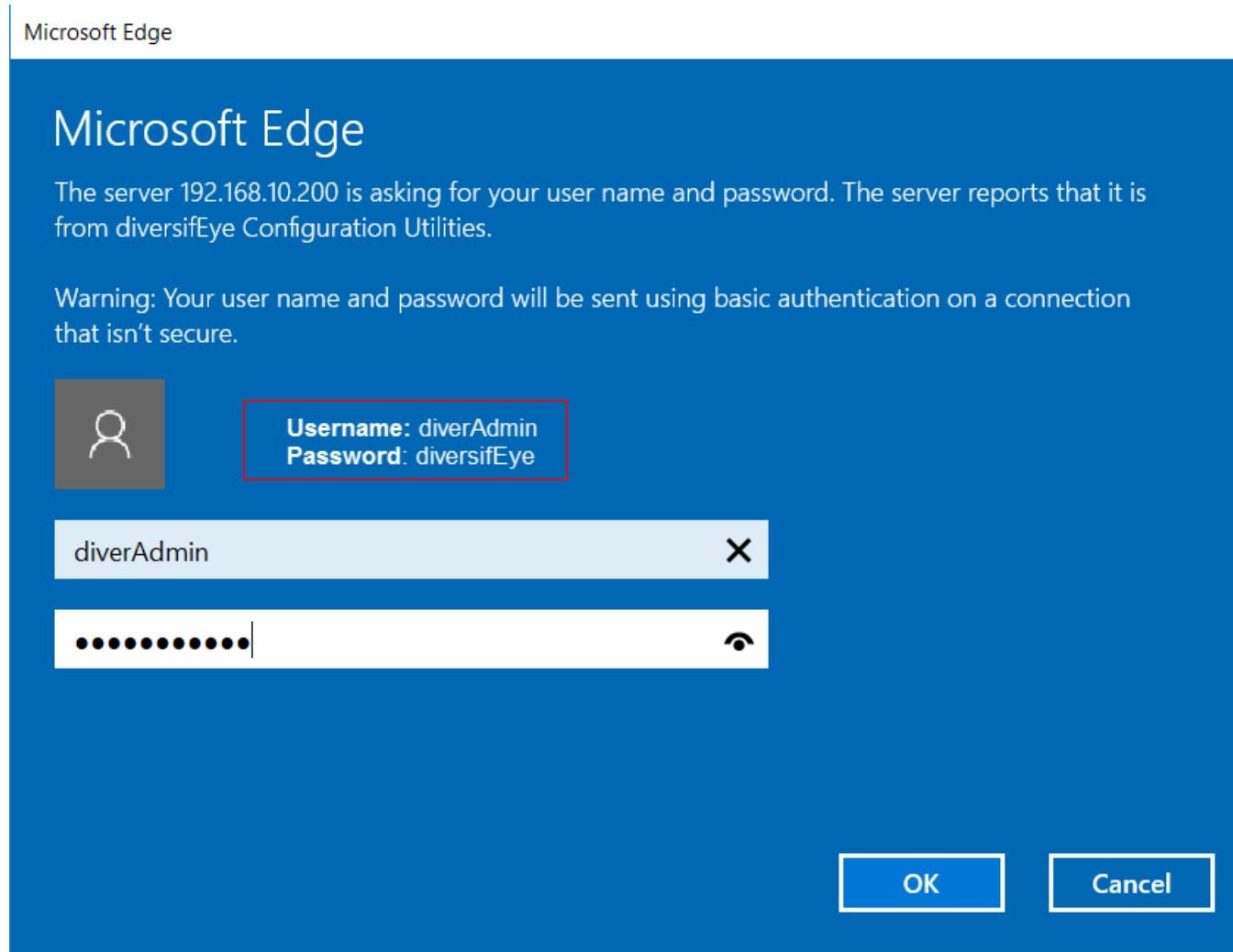
## Download System Logs

The screenshot shows a web browser window with the URL 192.168.10.200. The page title is "diversifEye" and it features the "SHENICK" logo. A navigation menu at the top includes Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. On the left, a "Quick Links Menu" contains links for Download diversifEye 11.1 Client, Upgrade System, Backup Test Configuration, Restore Test Configuration, Global Settings, Card Resource Usage, Download System Logs (which is highlighted in red), and diversifEye Chassis Information. On the right, a "System Information" panel displays the following details:

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

At the bottom of the page, there is footer information: US (1900 McCarthy Boulevard, Suite 301, Milpitas, CA 95035, Tel: 408-385-7630) and Europe (Brook House, Corrig Avenue, Dun Laoghaire, Co Dublin, Ireland, Tel: +353-1-236-7002). The e-mail address info@shenick.com is also listed. The URL http://192.168.10.200/admin/logs/downloadLogs.php is shown in a box at the bottom left.

## Username/Password



## diversefEye Chassis Information

The screenshot shows a web browser window for the diversefEye Admin interface at the URL [192.168.10.200](http://192.168.10.200). The page title is "diversefEye" and it includes the "Shenick Network Systems" logo.

The navigation menu at the top includes links for Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The "Admin" link is currently selected.

The main content area features a "Welcome to diversefEye" message and a "Quick Links Menu" on the left side. The "Quick Links Menu" contains the following items:

- Download diversefEye 11.1 Client
- Upgrade System
- Backup Test Configuration
- Restore Test Configuration
- Global Settings
- Card Resource Usage
- Download System Logs
- diversefEye Chassis Information

To the right of the menu, there is a "System Information" panel displaying the following details:

System Information	
IP Address:	192.168.10.200
Network Mask:	<a href="#">255.255.0.0</a>
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

At the bottom of the page, contact information is provided:

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](mailto:info@shenick.com)

The URL <http://192.168.10.200/admin/system/chassis/> is shown in the address bar.

## Chassis Info - diversifEye System Information

The screenshot shows a web-based administration interface for a diversifEye system. At the top, there's a header bar with navigation icons (back, forward, refresh) and a URL field showing 192.168.10.200/admin/system/chassis. To the right of the URL are icons for bookmarking, editing, and user authentication.

The main content area has a blue header with the diversifEye logo and the text "SHENICK". Below the header, the title "Chassis Info" is displayed. A navigation menu bar contains links for Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The "Admin" link is currently selected.

The breadcrumb navigation shows the path: Home > Admin > Chassis Info.

On the left side, there's a "Chassis Info:" section with "Download" and "Reload" buttons. Below it is a "diversifEye System Information:" section containing the following configuration parameters:

```
CHASSIS_TYPE=d1000
CHASSIS_REV=Rev01
FABRIC_CARD=no
NGIO=no
NGIO_GIGE=no
MIXTURE=no
SERIAL_NUMBER=SN03031504E

#####
#
# Configuration file specifying how the mastercontroller should be configured.
# Values in this file should be set at kickstart time or by an SE wishing to
# change the way the system is used.
#
# Copyright (C) 2009-2010, Shenick Network Systems, Ltd. All Rights Reserved.
#
#####
# This specifies the type of hardware. Currently supported values are "ATC6239"
# "PowerEdge R210", "PowerEdge R300", "CPB4812", "DTIMS4712", "DTIMS4612"
# "diversifEye-LiTE", "d1000" and "VMware Virtual Platform".
hardware_type="d1000"
```

On the right side, there's a "System Information" panel with a green header. It lists the following system details:

IP Address:	192.168.10.200
Network Mask:	<a href="#">255.255.0.0</a>
MAC Address:	44:A8:42:00:AC:6F
Software Version:	11.1
Software Build:	300
Connected Clients:	192.168.10.100 192.168.10.200 192.168.10.29

## Chassis Info - diversifEye License Information

Actual MAC Addresses:

**diversifEye Licence Information:**

- duos
- dhcp
- dual\_hosted\_voip\_b2b
- dual\_hosted\_voip\_ua
- ftp
- http
- http\_adaptive\_bit\_rate
- latency
- multi\_user
- p2p
- p2p\_tcp\_playback
- passive\_analysis
- ping
- pop3
- pppoe
- raw\_port\_playback
- rtp
- rtsp
- smtp
- tcp\_playback
- telepresence
- teraflow
- thresholding
- twamp
- udp\_playback
- voip
- voip\_b2b

MLIPS Version: 011.01.00, diversifEye 11.1, build 300, Revision: 89329 #28B0

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e-mail: [info@shenick.com](mailto:info@shenick.com)

## Card Resource Usage

The screenshot shows the diversifEye Admin interface running on a web browser at 192.168.10.200. The top navigation bar includes links for Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The main content area features a "Welcome to diversifEye" message and a "Quick Links Menu" on the left. The "Card Resource Usage" link in the menu is highlighted in red. To the right, there is a "System Information" panel displaying various system details.

**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

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e-mail: [info@shenick.com](mailto:info@shenick.com)

<http://192.168.10.200/admin/system/cardstats/>

## Card Resource Usage

The screenshot shows a web-based management interface for a network device. At the top, there's a header bar with navigation icons (back, forward, refresh), a URL field (192.168.10.200/admin/system/cardstats), and a toolbar with various icons. Below the header is a banner featuring the **diversifEye** logo and the word **SHENICK**. The main content area has a title **Card Resource Usage**.

The interface includes a navigation menu at the top with links: Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help.

The breadcrumb navigation shows the current location: [Home](#) > [Admin](#) > [Card Resource Usage](#).

The main content is divided into two main sections:

- Card Resource Usage:** A table showing network card statistics. The columns are: Card, CPU Usage, Memory Usage, Queues Overloaded, In Packets Queued, and Out Packets Queued. The table lists 10 entries, with the first entry being 10/1 with 26.43% CPU usage and 0.534% memory usage.
- System Information:** A summary of the system's configuration. It includes:
  - 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

At the bottom, there are pagination controls: First, Previous, Next, Last, and a note indicating "Showing 1 to 10 of 24 entries".

Card	CPU Usage	Memory Usage	Queues Overloaded	In Packets Queued	Out Packets Queued
10/1	26.43%	0.534%	No	0	0
20/1	22.535%	0.491%	No	0	0
11/1					
12/1					
13/1					
14/1					
15/1					
21/1					
22/1					
23/1					

## Client Install

The screenshot shows a web browser window with the URL 192.168.10.200/clientInstall. The page title is "Client Install". The top navigation bar includes links for Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. Below the navigation is a breadcrumb trail: Home > Client Install.

**Available Installers:**

Platform	File	Instructions
Windows	<a href="#">Download [184.12 MB]</a>	<a href="#">View</a>
Linux	<a href="#">Download [218.54 MB]</a>	<a href="#">View</a>
Mac OS X	<a href="#">Download (Java VM Not Included) [148.28 MB]</a>	<a href="#">View</a>
Solaris	<a href="#">Download [217.38 MB]</a>	<a href="#">View</a>

**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:	192.168.10.100 192.168.10.200 192.168.10.29

**Windows Instructions**

**Instructions**

- After downloading, double-click `shenick.exe`

**Notes**

- You do not need to install any other software. A Java virtual machine is included with this download.

[\(Go to Top\)](#)

**Linux Instructions**

## Online Help

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Europe : Brook House, Corrig Avenue, Dun Laoghaire, Co Dublin, Ireland Tel: +353-1-236-7002

e-mail: [info@shenick.com](mailto:info@shenick.com)

## Global Settings – All Cards

The screenshot shows a web browser window with the URL [192.168.10.200](http://192.168.10.200). The page title is "diversifEye" and it displays the "Shenick Network Systems" logo. The navigation menu includes links for Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The main content area features a "Welcome to diversifEye" message and a "Quick Links Menu" on the left. The "Quick Links Menu" contains the following items:

- Download diversifEye 11.1 Client
- Upgrade System
- Backup Test Configuration
- Restore Test Configuration
- Global Settings** (highlighted in red)
- Card Resource Usage
- Download System Logs
- diversifEye Chassis Information

To the right, there is a "System Information" panel with the following details:

System Information	
IP Address:	192.168.10.200
Network Mask:	<a href="#">255.255.0.0</a>
MAC Address:	44:A8:42:00:AC:6F
Software Version:	11.1
Software Build:	300
Connected Clients:	192.168.10.100 192.168.10.200 192.168.10.29

At the bottom of the page, there is contact 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](#)

The footer shows the URL <http://192.168.10.200/admin/global/> and the e-mail address [info@shenick.com](mailto:info@shenick.com).

## Admin

The screenshot shows the diversifEye Administration interface on a web browser at the URL 192.168.10.200/admin. The top navigation bar includes links for Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The main content area features several sections: Network Properties, Date/Time Settings, diversifEye Chassis Information, Card Resource Usage, and LCD. A sidebar on the right displays System Information with details like IP Address, Network Mask, MAC Address, Software Version, Software Build, and Connected Clients. The diversifEye logo, featuring a blue stylized eye and the word "SHENICK", is visible in the top left corner.

**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:	192.168.10.100 192.168.10.200 192.168.10.29

**Network Properties**  
Configure the network properties of the diversifEye Server, in particular the addressing details. [Configure...](#)

**Date/Time Settings**  
The Date/Time settings of the diversifEye Server. [Configure...](#)

**diversifEye Chassis Information**  
A lot of useful information is available regarding the diversifEye Chassis. [View...](#)

**Card Resource Usage**  
View the CPU and Memory usage on the cards. [View...](#)

**LCD**

## Network Properties

The screenshot shows a web-based administrative interface for a diversifEye system. At the top, there's a header bar with navigation icons (back, forward, refresh), a URL field showing "192.168.10.200/admin/system/network", and several menu icons. Below the header is a banner featuring the SHENICK logo and the diversifEye brand name. A navigation menu at the top includes Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The main content area shows the current page path: Home > Admin > Network. On the left, a form titled "IP Address Settings:" contains fields for Address Assignment (Static IP Address selected), Host Name (d1000-Edge), Host IP Address (192.168.10.200), Netmask (255.255.0.0), and Default Route (empty). On the right, a green-bordered box titled "System Information" lists the following details:

System Information	
IP Address:	192.168.10.200
Network Mask:	<a href="#">255.255.0.0</a>
MAC Address:	44:A8:42:00:AC:6F
Software Version:	11.1
Software Build:	300
Connected Clients:	192.168.10.100 192.168.10.200 192.168.10.29

A note below the IP settings states: "Note: Changing the IP Address Settings will require a reboot of the diversifEye System. Please ensure all users are logged off before saving an updated configuration." At the bottom of the screen are two buttons: "Save" and "Reset".

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Europe : Brook House, Corrig Avenue, Dun Laoghaire, Co Dublin, Ireland Tel: [+353-1-236-7002](#)

e-mail: [info@shenick.com](mailto:info@shenick.com)

## Global Settings

The screenshot shows the diversifEye Administration interface at the URL 192.168.10.200/admin. The top navigation bar includes links for Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous (which is selected), and Online Help. The left sidebar has a 'Categories:' section with 'Device Management' highlighted, and other options like Multi-User Configuration, Global Settings, UI Defaults, Cards/Interfaces Settings, Tests Configuration, Security Management, System Backup/Restore, and System Logs. Below this are sections for Network Properties (Configure network properties of the diversifEye Server), Date/Time Settings (Configure Date/Time settings), diversifEye Chassis Information (View chassis information), Card Resource Usage (View CPU and Memory usage), and LCD (View LCD status). On the right, a 'System Information' panel displays the 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), and Connected Clients (192.168.10.100, 192.168.10.29).

192.168.10.200/admin

diversifEye

Administration

Home Admin d1000 Admin Client Install Automation Miscellaneous Online Help

Home > Admin

**Categories:**

- Device Management
- Multi-User Configuration
- Global Settings
- UI Defaults
- Cards/Interfaces Settings
- Tests Configuration
- Security Management
- System Backup/Restore
- System Logs

**Network Properties**

Configure the network properties of the diversifEye Server, in particular the addressing details.

**Date/Time Settings**

The Date/Time settings of the diversifEye Server. [Configure...](#)

**diversifEye Chassis Information**

A lot of useful information is available regarding the diversifEye Chassis. [View...](#)

**Card Resource Usage**

View the CPU and Memory usage on the cards. [View...](#)

**LCD**

**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

## Global Settings - Select Cards

The screenshot shows a web-based administration interface for diversifEye. At the top, there's a header bar with navigation icons (back, forward, refresh), a URL field showing "192.168.10.200/admin", and a toolbar with various icons. Below the header is the diversifEye logo and the word "Administration". A horizontal menu bar includes "Home", "Admin", "d1000 Admin", "Client Install", "Automation", "Miscellaneous", and "Online Help". The main content area has a breadcrumb trail "Home > Admin".

**Categories:** Global Settings

**Global Settings**  
Configure diversifEye global settings for:  
This feature should only be used by Support or by customers under Technical Support.

**All Cards**

- 10/1
- 11/1
- 12/1
- 13/1
- 14/1
- 15/1
- 20/1
- 21/1
- 22/1
- 23/1
- 24/1
- 25/1
- 30/1
- 31/1
- 32/1
- 33/1
- 34/1
- 35/1
- 40/1
- 41/1
- 42/1
- 43/1
- 44/1
- 45/1

**Global Settings** dropdown menu

**Configure...** button

**System Information**

IP Address:	192.168.10.200
Network Mask:	<a href="#">255.255.0.0</a>
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

Suite 301, Milpitas, CA 95035 Tel: [408-385-7630](#)  
Dun Laoghaire, Co Dublin, Ireland Tel: [+353-1-236-7002](#)  
Email: [info@shenick.com](mailto:info@shenick.com)

## Global Settings – Host IPv6 Settings

The screenshot shows a web-based administration interface for diversifEye. At the top, there's a header bar with navigation icons (back, forward, refresh) and a URL field showing [192.168.10.200/admin/global/index.php?pp=10/1](http://192.168.10.200/admin/global/index.php?pp=10/1). To the right of the URL are several small icons for bookmarking, editing, and user management.

The main title is "diversifEye" with a logo featuring a stylized eye and the word "SHENICK". Below the title is the sub-page title "Global Settings".

The navigation menu at the top includes links for Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help.

The breadcrumb navigation shows the current path: [Home](#) > [Admin](#) > [Global Settings](#).

A message in the center states: "Version: 011.01.00, diversifEye 11.1, Config Revision: 88691, HTML Template Rev 0-1".

The left sidebar contains a "Categories:" section with various configuration options:

- Enable IPv6 fragment reassembly:
- IPv6 Tunnels fragment instead of adjusting MTU:
- MTU sized fragments first, (default is smallest fragment first):
- "Fragmentation" MTU, (fragment outbound IPv6 packets that exceed this size):
- Attempt Stateless IPv6 Address Auto Configuration, (Router Solicitation):
- Attempt DHCPv6 if Stateless IPv6 Address Auto Configuration fails:
- Attempt DHCPv6 regardless of Stateless IPv6 Address Auto Configuration status:
- Enable Neighbor Solicitation for Duplicate Address Detection, (NS-DAD):
- NS-DAD retransmission delay, (milliseconds):
- Number of NS-DAD transmissions:
- Send MLDv1 Reports for All Nodes and Solicited Nodes:
- Send MLDv2 Report for Solicited Nodes:
- Include Source Link Layer Address option in NS-DAD:

A vertical dropdown menu on the right lists various network settings, with "Host IPv6 Settings" highlighted in blue:

- TCP Settings
- Checksum Settings
- Cryptographic Settings
- Host Settings
- Host IPv4 Settings
- Host IPv6 Settings**
- Host PPPoE Settings
- PPPoE Server Settings
- SMTP Transmitter Settings
- POP3 Client Settings
- HTTP Client Settings
- HTTP Server Settings
- TeraFlow Client Settings
- TeraFlow Server Settings
- TWAMP Client Settings
- TWAMP Server Settings
- RTSP Client Settings
- RTSP Server Settings
- VoIP Client Settings
- Cisco TelePresence Settings
- SIP Field Settings
- IKE Client Settings
- WebVPN Client Settings
- TCP Replay Client Settings
- TCP Replay Server Settings
- IP Replay Settings
- AMT Settings
- GTP Settings
- Webportal Client Settings
- Media Streaming Client Settings

## Global Settings – Mandatory Configurations for IPv6

The screenshot shows the COBHAM TeraVM Admin interface at the URL 192.168.10.200/admin/global/index.php?pp=10/1. The top navigation bar includes Home, Admin, d1000 Admin, Client Install, Automation, Miscellaneous, and Online Help. The Admin link is underlined, indicating the current section. Below the navigation is a breadcrumb trail: Home > Admin > Global Settings. A status bar at the top right displays the version information: Version: 011.04.00, diversifEye 11.4, build 1602111438, Revision: 101236 #4F9B, Config Revision: 98815, HTML Template Revision: 101153, and Modifying config for: 10-1. The main content area is titled "Categories:" and has a dropdown menu set to "Host IPv6 Settings". The configuration options listed are:

- Enable IPv6 fragment reassembly:
- IPv6 Tunnels fragment instead of adjusting MTU:
- MTU sized fragments first, (default is smallest fragment first):
- "Fragmentation" MTU, (fragment outbound IPv6 packets that exceed this size):
- Attempt Stateless IPv6 Address Auto Configuration, (Router Solicitation):
- Attempt DHCPv6 if Stateless IPv6 Address Auto Configuration fails:
- Attempt DHCPv6 regardless of Stateless IPv6 Address Auto Configuration status:
- Enable Neighbor Solicitation for Duplicate Address Detection, (NS-DAD):
- NS-DAD retransmission delay, (milliseconds):
- Number of NS-DAD transmissions:
- Send MLDv1 Reports for All Nodes and Solicited Nodes:
- Send MLDv2 Report for Solicited Nodes:

# Applications & Hosts Properties

- Applications
  - FTP/VoLTE/TeraFlow/RTSP/PING/HTTP/TWAMP
- Hosts
  - Gateway/Internal Server/External Server/PPPoE



# Applications – FTP

COBHAM

## Overview

diverisEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

Test Groups

- VD\_TEST\_CASE\_4
  - IP
    - Configuration
    - FTP
      - Command Lists
        - cftp\_get\_ue0\_pdn0
        - Email\_ue0\_pdn0
        - Game\_ue0\_pdn0
        - imeessage\_ue0\_pdn0
        - P2P\_ue0\_pdn0
        - SNS\_ue0\_pdn0
        - Web\_ue0\_pdn0
      - Resource Lists
        - Internal Server Resource List
        - Shared Client Resource List
    - Profile
    - RTP
    - RTSP
    - TCP
    - Tcp Characteristics Configuration
    - Telepresence
    - VoIP Configuration
    - VD\_TEST\_CASE\_5\_PING
    - VD\_TEST\_CASE\_5\_SNS
    - VD\_TEST\_CASE\_5\_SNS\_DEBUG
    - VoLTE\_AMR-WB\_12.65

Applications

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ExtVoIPServer...		External VoIP ...		ExtVoIPServer	103.1.202.1	5060	1 Application			
RTSPServer_r...		RTSP Server		Host_103.5.4.9	103.5.4.9/16	554	1 Application			
FTPServer_ftp		FTP Server		Host_103.5.4.12	103.5.4.12/16	21	1 Application			
EmailServer_ftp		FTP Server		Host_103.5.4.7	103.5.4.7/16	21	1 Application			
P2PServer_ftp		FTP Server		Host_103.5.4.8	103.5.4.8/16	21	1 Application			
IMServer_ftp		FTP Server		Host_103.5.4.5	103.5.4.5/16	21	1 Application			
SNSServer_ftp		FTP Server		Host_103.5.4.4	103.5.4.4/16	21	1 Application			
WebServer_ftp		FTP Server		Host_103.5.4.6	103.5.4.6/16	21	1 Application			
GameServer_ftp		FTP Server		Host_103.5.4.11	103.5.4.11/16	21	1 Application			
cvoip_1450_1	VolP UA	AMR-WB	pppoe_1450_1 0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_2632_1	VolP UA	AMR-WB	pppoe_2632_1 0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_1981_1	VolP UA	AMR-WB	pppoe_1981_1 0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_0828_1	VolP UA	AMR-WB	pppoe_0828_1 0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_2218_1	VolP UA	AMR-WB	pppoe_2218_1 0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_0183_1	VolP UA	AMR-WB	pppoe_0183_1 0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_2834_1	VolP UA	AMR-WB	pppoe_2834_1 0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_1938_1	VolP UA	AMR-WB	pppoe_1938_1 0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_1047_1	VolP UA	AMR-WB	pppoe_1047_1 0.0.0	5060	1 Application	ExtVoIPServer...				
cvoip_1121_1	VolP UA	AMR-WB	pppoe_1121_1 0.0.0	5060	1 Application	ExtVoIPServer...				

Total: 30009 Active: 0

Allow Sorting Show Filter

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# Applications – FTP

## Command Lists (get)

The screenshot shows the diversifEye software interface for managing test cases and configurations. On the left, a tree view displays various test groups and specific configurations like IP, Configuration, and FTP. Under the FTP section, a 'Command Lists' folder contains several entries, with 'cftp\_get\_ue0\_pdn0' selected. This selection is reflected in the main window, which shows the 'FTP COMMAND LIST' dialog. The dialog has a title bar 'Name: cftp\_get\_ue0\_pdn0' and a table under 'Commands' with one row: 'Command: get' and 'Path: 1GB.bin'. A smaller 'Edit Command' dialog is overlaid on the main window, also showing 'Command: get' and 'Path: 1GB.bin'. At the bottom of the main window, there are 'OK' and 'Cancel' buttons.

Test Groups Jobs Nodes

File Edit View Window Admin Help

Test Groups

VD\_TEST\_CASE\_4

IP

Configuration

FTP

Command Lists

cftp\_get\_ue0\_pdn0

Email\_ue0\_pdn0

Game\_ue0\_pdn0

imessage\_ue0\_pdn0

P2P\_ue0\_pdn0

SNS\_ue0\_pdn0

Web\_ue0\_pdn0

Resource Lists

Internal Server Resource List

Shared Client Resource List

Profile

RTP

RTSP

Tcp Characteristics Configuration

Telepresence

VoIP Configuration

VD\_TEST\_CASE\_5\_PING

VD\_TEST\_CASE\_5\_SNS

VD\_TEST\_CASE\_5\_SNS\_DEBUG

VoLTE\_AMR-WB\_12.65

FTP COMMAND LIST

Name: cftp\_get\_ue0\_pdn0

Commands

Command	Path
get	1GB.bin

FTP Command List Properties

Name: cftp\_get\_ue0\_pdn0

Commands:

Command	Path
get	1GB.bin

Add... Edit... Delete OK Cancel

Edit Command

Command: get

Path: 1GB.bin

OK Cancel

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# Applications – FTP

COBHAM

## Command Lists (put)

The screenshot shows the diversifEye software interface for managing test cases and command lists. The left sidebar displays 'Test Groups' containing several entries like 'VD\_TEST\_CASE\_4', 'VD\_TEST\_CASE\_5\_PING', etc. The main area is titled 'FTP COMMAND LIST' for a test group named 'Email\_ue0-\_pdn0'. It shows a table of commands with columns 'Command' and 'Path'. One row is selected, showing 'put' under 'Command' and 'ftpupload/1KB.bin' under 'Path'. A modal dialog titled 'Edit Command' is open over this table, also showing 'put' in the 'Command' field and 'ftpupload/1KB.bin' in the 'Path' field. At the bottom of the main window, there are tabs for 'Run Output', 'PDU Captures', 'Threshold Events', 'VAD Control Status', and 'Aux Feed Control Status', with 'Run Output' being the active tab. The status bar at the bottom right indicates 'Ready'.

Command	Path
put	ftpupload/1KB.bin

FTP Command List Properties

Name:	Commands:
Email_ue0-_pdn0	put

Edit Command

Command:	Path:
put	ftpupload/1KB.bin

OK Cancel

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# Applications – FTP

COBHAM

## Internal Server Resource List

The screenshot shows the diversifEye application interface for managing test cases and resources. The left sidebar displays a tree view of test groups, with 'VD\_TEST\_CASE\_4' expanded to show its sub-components like IP, Configuration, and FTP. The 'FTP' section under Configuration contains several command lists such as cftp\_get\_ue0\_pdn0, Email\_ue0\_pdn0, Game\_ue0\_pdn0, imessage\_ue0\_pdn0, P2P\_ue0\_pdn0, SNS\_ue0\_pdn0, and Web\_ue0\_pdn0. Below these is a 'Resource Lists' section where 'Internal Server Resource List' is selected. The main panel shows the 'FTP RESOURCE LIST' configuration with three resources listed: 100KB.bin (102400 Bytes of data), 80MB.bin (83886080 Bytes of data), and 1GB.bin (1073741824 Bytes of data). A modal dialog titled 'Edit Resource' is open over this list, showing details for the 1GB.bin resource. The 'Edit Resource' dialog has fields for Name (Internal Server Resource List), Path (1GB.bin), Type (Fixed Size), and Resource (1073741824). Buttons for OK and Cancel are at the bottom right of the dialog.

diverseEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Test Groups

- VD\_TEST\_CASE\_4
  - IP
  - Configuration
    - FTP
      - Command Lists
        - cftp\_get\_ue0\_pdn0
        - Email\_ue0\_pdn0
        - Game\_ue0\_pdn0
        - imessage\_ue0\_pdn0
        - P2P\_ue0\_pdn0
        - SNS\_ue0\_pdn0
        - Web\_ue0\_pdn0
      - Resource Lists
        - Internal Server Resource List
        - Shared Client Resource List
    - Profile
    - RTP
    - RTSP
    - TCP Tcp Characteristics Configuration
    - Telepresence
    - VoIP Configuration
  - VD\_TEST\_CASE\_5\_PING
  - VD\_TEST\_CASE\_5\_SNS
  - VD\_TEST\_CASE\_5\_SNS\_DEBUG
  - VolTE\_AMR-WB\_12.65

FTP RESOURCE LIST

Name: Internal Server Resource List

Resources

Path	Resource
100KB.bin	102400 Bytes of data
80MB.bin	83886080 Bytes of data
1GB.bin	1073741824 Bytes of data

FTP Resource List Properties

Path	Resource
100KB.bin	102400 Bytes of data
80MB.bin	83886080 Bytes of data
1GB.bin	1073741824 Bytes of data

Edit Resource

Name: Internal Server Resource List

Resources:

Path	Resource
100KB.bin	102400 Bytes of data
80MB.bin	83886080 Bytes of data
1GB.bin	1073741824 Bytes of data

Path: 1GB.bin

Type: Fixed Size

Resource: 1073741824

OK Cancel

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# Applications – FTP

## Shared Client Resource List

The screenshot shows the diversifEye application interface for managing test cases and resource lists.

**Test Groups:**

- VD\_TEST\_CASE\_4
  - IP
  - Configuration
  - FTP
    - Command Lists
      - cftp\_get\_ue0\_pdn0
      - Email\_ue0\_pdn0
      - Game\_ue0\_pdn0
      - imeessage\_ue0\_pdn0
      - P2P\_ue0\_pdn0
      - SNS\_ue0\_pdn0
      - Web\_ue0\_pdn0
    - Resource Lists
      - Internal Server Resource List
      - Shared Client Resource List
  - Profile
  - RTP
  - RTSP
  - TCP
    - Tcp Characteristics Configuration
  - Telepresence
  - VoIP Configuration
  - VD\_TEST\_CASE\_5\_PING
  - VD\_TEST\_CASE\_5\_SNS
  - VD\_TEST\_CASE\_5\_SNS\_DEBUG
  - VolTE\_AMR-WB\_12.65

**FTP RESOURCE LIST:**

Name: Shared Client Resource List

**Resources:**

Path	Resource
ftpupload/10KB.bin	10240 Bytes of data
ftpupload/100B.bin	100 Bytes of data
ftpupload/1KB.bin	1024 Bytes of data

**FTP Resource List Properties:**

Name: Shared Client Resource List

Resources:

Path	Resource
ftpupload/10KB.bin	10240 Bytes of data
ftpupload/100B.bin	100 Bytes of data
ftpupload/1KB.bin	1024 Bytes of data

**Edit Resource:**

Path: ftpupload/10KB.bin

Type: Fixed Size

Resource: 10240

OK Cancel

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status Ready

# Applications – FTP

## FTP Client Properties

diverisifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

**VD\_TEST\_CASE\_4**

- IP
- Configuration
- FTP**
  - Command Lists
    - cftp\_get\_ue0\_pdn0
    - Email\_ue0\_pdn0
    - Game\_ue0\_pdn0
    - imessage\_ue0\_pdn0
    - P2P\_ue0\_pdn0
    - SNS\_ue0\_pdn0
    - Web\_ue0\_pdn0
  - Resource Lists
    - Internal Server Resource List
    - Shared Client Resource List
- Profile
- RTP RTP
- RTSP RTSP
- TCP Tcp Characteristics Configuration
- Telepresence
- VoIP Configuration
- VD\_TEST\_CASE\_5\_PING**
- VD\_TEST\_CASE\_5\_SNS**
- VD\_TEST\_CASE\_5\_SNS\_DEBUG**
- VoLTE\_AMR-WB\_12.65

Applications Hosts Statistic Groups Thresholds

**FTP Client Properties**

Application Details Client Details Session Details Additional Configuration

Configure As: Single App per Row

Name: cftp\_get\_0000\_0  
Description: FTP (GET)

Host(s): pppoe\_0000\_0

TCP Port:   Use Next Available

Data Ports:   Use Next Available

ToS/DiffServ: 0

Advanced TCP...

OK Cancel

**Select TCP Profile**

Test Group: VD\_TEST\_CASE\_4

Choose from Selection:

Name  
**default**

Add... Edit... Delete

**Properties of Selected Item:**

Property Name	Property Value
Max. Transmit Buffer Size	131072 bytes
Max. Advert. Recv Window Size	32768 bytes
Initial Retransmission Time-Out	
TCP Timer	
Emulate Delayed ACKs	All Segments

Select Cancel

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# Applications – FTP

COBHAM

## TCP Characteristics Properties

TCP Characteristics Properties

Name: default

TCP Parameters TCP Behaviour TCP Options

Maximum Transmit Buffer Size: 131072

Maximum Advertised Receive Window Size: 32768

Initial Retransmission Time-Out (RTO):

TCP Timer:

OK Cancel

TCP Characteristics Properties

Name: default

TCP Parameters TCP Behaviour TCP Options

Emulate Delayed ACKs: All Segments

First data segment can ACK a SYN-ACK:

Final data segment can include FIN:

Final data segment ACK can include FIN:

OK Cancel

TCP Characteristics Properties

Name: default

TCP Parameters TCP Behaviour TCP Options

Maximum Segment Size:

Window Scale: 2

Use Selected ACK (SACK) when permitted:

Set Selected ACK (SACK) permitted:

Support Timestamp when requested:

Request Timestamp:

OK Cancel

# Applications – FTP

## FTP Client Properties

FTP Client Properties

Application Details Client Details Session Details Additional Configuration

Server(s):  ...

The mode determines whether the client (passive) or server (active) will initiate the data connection:

FTP Mode:

A client must authenticate itself with the Server using a username and password. The client can also login as the "anonymous" user:

Use Anonymous Login

Username:

Password:

OK Cancel

FTP Client Properties

Application Details Client Details Session Details Additional Configuration

Command List:  ...

The FTP Session will execute the following commands:

Command	Path
get	1GB.bin

The following fields control the behaviour of each session:

Delay Between Commands:  ms ...

Delay Between Sessions:  ms ...

OK Cancel

# Applications – FTP

COBHAM

## FTP Client Properties & Profile

**FTP Client Properties**

Application Details Client Details Session Details Additional Configuration

Applications can be configured to start and stop after specified time periods:

Start After:  secs

Stop After:  secs

Both normal and fine statistics can be enabled on an application:

Enable Normal Statistics

Enable Fine Statistics

Applications can be grouped with the other applications and hosts for the purpose of statistics collection:

Aggregate Group:

**Select Profile**

Test Group: VD\_TEST\_CASE\_DEBUG

Choose from Selection:

Name
SilenceProfile
EmailProfile
ImProfile
PingIntervalProfile
PingSizeProfile
SnsProfile
WebProfile
GameProfile
P2pProfile

Properties of Selected Item:

% Distribution	Value
80 %	17
20 %	60

# Applications – FTP

COBHAM

## Add Profile

The screenshot shows the diversifEye application interface. The title bar reads "diversifEye: 192.168.10.200 / tm500 / Partition 1". The menu bar includes File, Edit, View, Window, Admin, and Help. The toolbar contains icons for New, Open, Save, Print, and others. The left sidebar has tabs for Test Groups, Jobs, and Nodes, with "VD\_TEST\_CASE\_4" selected. Under "VD\_TEST\_CASE\_4", there are sections for IP, Configuration, and FTP. The FTP section is expanded, showing Command Lists (containing cftp\_get\_ue0\_pdn0, Email\_ue0\_pdn0, Game\_ue0\_pdn0, imessage\_ue0\_pdn0, P2P\_ue0\_pdn0, SNS\_ue0\_pdn0, Web\_ue0\_pdn0) and Resource Lists (containing EmailProfile, GameProfile, ImProfile, P2pProfile, PingIntervalProfile, PingSizeProfile, RtpPortProfile, RtspPortProfile, SilenceProfile, SnsProfile, VoipPortProfile, WebProfile). A context menu is open over the "Profiles" list in the center pane, listing options: Add Profile, Copy, Export to XML..., Import from XML..., Expand All, and Collapse All. The right pane displays a log of configuration items being created and hosts being enabled. The bottom navigation bar includes Run Output, PDU Captures, Threshold Events, VAD Control Status, and Aux Feed Control Status. A status message at the bottom right says "User tm500 is running Test Group: //Test-Case".

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

**PROFILE CONFIGURATION FOLDER**

Profiles:

- Name
- RtspPortProfile
- RtpPortProfile
- VoipPortProfile
- SilenceProfile
- EmailProfile
- GameProfile
- ImProfile
- P2pProfile
- PingIntervalProfile
- PingSizeProfile
- RtpPortProfile
- RtspPortProfile
- SilenceProfile
- SnsProfile
- VoipPortProfile
- WebProfile

Add Profile

Copy

Export to XML...

Import from XML...

Expand All

Collapse All

Mon May 09 14:58:13 CST 2016 - Creating Configuration Items...

Mon May 09 14:58:13 CST 2016 - Creating Hosts...

Mon May 09 14:58:13 CST 2016 - Creating Applications...

Mon May 09 14:58:14 CST 2016 - Enabling Stats Notifications...

Mon May 09 14:58:14 CST 2016 - Starting Hosts...

Mon May 09 14:58:14 CST 2016 - Starting Applications...

Mon May 09 14:58:14 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

# Applications – FTP

## Add Profile

diverisEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

**VD\_TEST\_CASE\_4**

- IP
  - Configuration
  - FTP
    - Command Lists
    - ftp\_get\_ue0\_pdn0
    - Email\_ue0\_pdn0
    - Game\_ue0\_pdn0
    - imeessage\_ue0\_pdn0
    - P2P\_ue0\_pdn0
    - SNS\_ue0\_pdn0
    - Web\_ue0\_pdn0
  - Resource Lists
  - Profile
    - EmailProfile
    - GameProfile
    - ImProfile
    - P2pProfile
    - PingIntervalProfile
    - PingSizeProfile
    - RtpPortProfile
    - RtspPortProfile
    - SilenceProfile
    - SnsProfile
    - VoiceProfile
    - WebProfile
  - RTP
  - RTSP

**PROFILE CONFIGURATION FOLDER**

Profiles:

**RtspPortProfile**

**Add Profile (Probability Distribution Function)**

Name:

Description:

Configure one or more elements where each element represents a value or a range of values associated with a time period.

% Time Coverage: 0 %  100 %

**Add Profile Element**

0 %  100 %

% Used  % New  % Free

Time Period

Period: <  > 0 %

Value:  1 to   Use Range

OK Cancel

Mon May 09 14:58:13 CST 2016 - Creating Configuration Items...

Mon May 09 14:58:13 CST 2016 - Creating Hosts...

Mon May 09 14:58:13 CST 2016 - Creating Applications...

Mon May 09 14:58:14 CST 2016 - Enabling Stats Notifications...

Mon May 09 14:58:14 CST 2016 - Starting Hosts...

Mon May 09 14:58:14 CST 2016 - Starting Applications...

Mon May 09 14:58:14 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

# Applications – FTP

**COBHAM**

# FTP Server Properties

diversifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Test Groups

- 2CC\_1200UE\_UDP
- VD\_TEST\_CASE\_4
  - IP
    - FTP
    - Profile
  - RTP
    - Codec AVPs
      - Default AMR-NB
      - Default AMR-WB
      - Default Cisco E20-C20 H.264
      - Default Cisco E20-C20 MP4A
      - Default CTS AAC-LD
      - Default CTS H.264
      - Default G.711a (PCMA)
      - Default G.711u (PCM)
      - Default G.722 (ACELP)
      - Default G.723 5.3 kbit/s (MP-M)
      - Default G.723 6.3 kbit/s (MP-M)
      - Default G.728
      - Default G.729
      - Default GSM
      - Default ILBC 13.33 kbit/s
      - Default ILBC 15.2 kbit/s
      - MPEG2
    - Stream Profiles

Applications Hosts Statistic Groups Thresholds

FTP Server Properties

Application Details Server Details Additional Configuration

Configure As: Single App per Row

Name: FTPServer\_ftp

Description:

Host(s): Host\_103.5.4.12

TCP Port: 21

Data Ports:  Use Next Available

ToS/DiffServ: 0

Advanced TCP...

OK Cancel

Mon May 09 14:49:06 CST 2016 - Importing f  
Mon May 09 14:49:06 CST 2016 - Parsing con  
Mon May 09 14:49:06 CST 2016 - Checking st  
Mon May 09 14:49:06 CST 2016 - Importing c  
Mon May 09 14:49:08 CST 2016 - Processing  
Mon May 09 14:49:09 CST 2016 - Processing Hosts  
Mon May 09 14:49:10 CST 2016 - Optimizing Hosts  
Mon May 09 14:49:10 CST 2016 - Processing Applications

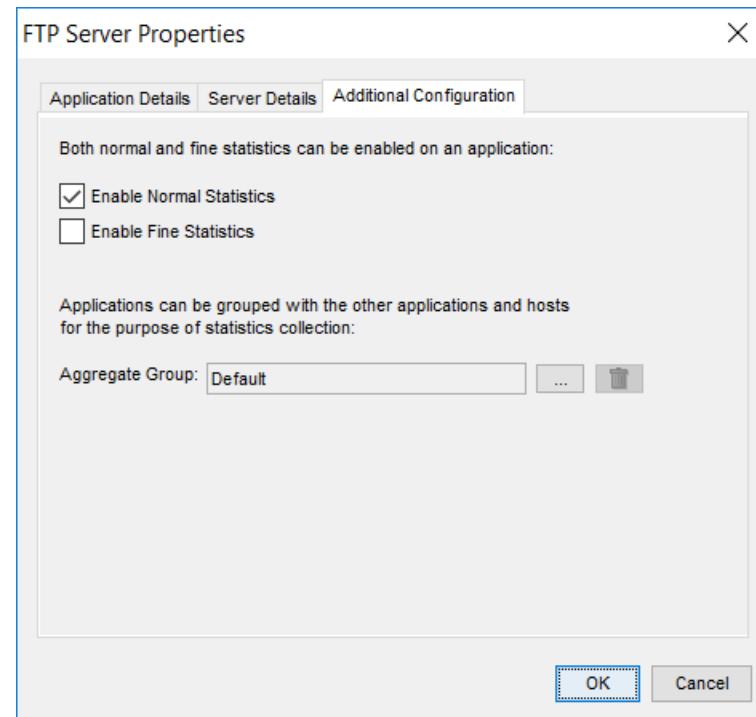
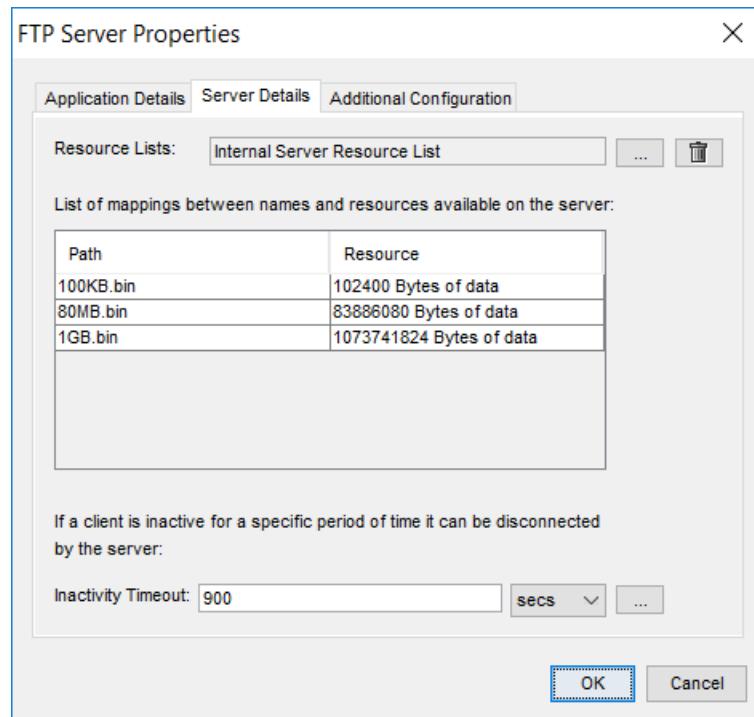
Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status XML Import: 2CC\_1200UE\_UDP.xml

Ready

# Applications – FTP

COBHAM

## FTP Server Properties



# Applications – VoLTE

COBHAM

## Overview

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes Applications Hosts Statistic Groups Thresholds

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ExtVoIPServer...		External VoIP ...		ExtVoIPServer	103.1.202.1	5060	1 Application			
RTSPServer_rt...		RTSP Server		Host_103.5.4.9	103.5.4.9/16	554	1 Application			
FTPServer_ftp		FTP Server		Host_103.5.4.12	103.5.4.12/16	21	1 Application			
EmailServer_ftp		FTP Server		Host_103.5.4.7	103.5.4.7/16	21	1 Application			
P2PServer_ftp		FTP Server		Host_103.5.4.8	103.5.4.8/16	21	1 Application			
IMServer_ftp		FTP Server		Host_103.5.4.5	103.5.4.5/16	21	1 Application			
SNSServer_ftp		FTP Server		Host_103.5.4.4	103.5.4.4/16	21	1 Application			
WebServer_ftp		FTP Server		Host_103.5.4.6	103.5.4.6/16	21	1 Application			
GameServer_ftp		FTP Server		Host_103.5.4.11	103.5.4.11/16	21	1 Application			
cvoip_1450_1		VoIP UA	AMR-WB	pppoe_1450_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_2632_1		VoIP UA	AMR-WB	pppoe_2632_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_1981_1		VoIP UA	AMR-WB	pppoe_1981_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0828_1		VoIP UA	AMR-WB	pppoe_0828_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_2218_1		VoIP UA	AMR-WB	pppoe_2218_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0183_1		VoIP UA	AMR-WB	pppoe_0183_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_2834_1		VoIP UA	AMR-WB	pppoe_2834_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_1938_1		VoIP UA	AMR-WB	pppoe_1938_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_1047_1		VoIP UA	AMR-WB	pppoe_1047_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_1121_1		VoIP UA	AMR-WB	pppoe_1121_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_2546_1		VoIP UA	AMR-WB	pppoe_2546_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		
cvoip_0131_1		VoIP UA	AMR-WB	pppoe_0131_1	0.0.0.0	5060	1 Application	ExtVoIPServer...		

Total: 30009 | Active: 0 | Allow Sorting | Show Filter

```
Mon May 09 13:16:03 CST 2016 - Stopping Test Group
Mon May 09 13:16:03 CST 2016 - Disabling Stats Notifications...
Mon May 09 13:16:03 CST 2016 - Stopping Applications...
Mon May 09 13:16:03 CST 2016 - Stopping Hosts...
Mon May 09 13:16:05 CST 2016 - All test entities stopped.
Mon May 09 13:16:05 CST 2016 - Stopping thresholding
Mon May 09 13:16:05 CST 2016 - Thresholding stopped
Mon May 09 13:16:06 CST 2016 - ----- Test Group [Test-Casual] stopped -----
```

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

No Active Job/Test Group

# Applications – VoLTE

COBHAM

## Add Codec AVP

The screenshot shows the diversifEye software interface for managing test configurations. The main window title is "diversifEye: 192.168.10.200 / tm500 / Partition 1". The left sidebar displays a tree structure of test groups and configurations, with "VD\_TEST\_CASE\_4" expanded to show "IP", "Configuration", "FTP", "Profile", and "RTP". The "RTP" node is selected, revealing its sub-folders: "Codec AVPs" (selected), "Stream Profiles", and "File". The "Codec AVPs" folder contains a list of codec entries, many of which are marked as "Default". A context menu is open over the "AMR-NB 12.2" entry, with options including "Add Codec AVP", "Export to XML...", "Import from XML...", "Expand All", and "Collapse All". The "Add Codec AVP" option is highlighted. The bottom pane shows a log of system events and a status bar indicating the current test group.

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

RTP CODEC AVP FOLDER

Codec AVPs:

- Name
- Default Cisco E20-C20 MP4A
- Default Cisco E20-C20 H.264
- Default CTS AAC-LD

Add Codec AVP 54

Export to XML... Add Codec AVP

Import from XML...

Expand All

Collapse All

AMR-NB 12.2

AMR-WB 23.85

Default AMR-NB

Default AMR-WB

Default Cisco E20-C20

Default Cisco E20-C20

Default CTS AAC-LD

Default CTS H.264

Default G.711a (PCMA)

Default G.711u (PCM)

Default G.722 (ACELP)

Default G.723 5.3 kbytes/s (M

Default G.723 6.3 kbytes/s (M

Default G.728

Default G.729

Default GSM

Default iLBC 13.33 kbytes/s

Default iLBC 15.2 kbytes/s

MPEG2

Stream Profiles

Mon May 09 14:58:13 CST 2016 - Creating Configuration Items...

Mon May 09 14:58:13 CST 2016 - Creating Hosts...

Mon May 09 14:58:13 CST 2016 - Creating Applications...

Mon May 09 14:58:14 CST 2016 - Enabling Stats Notifications...

Mon May 09 14:58:14 CST 2016 - Starting Hosts...

Mon May 09 14:58:14 CST 2016 - Starting Applications...

Mon May 09 14:58:14 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

# Applications – VoLTE

COBHAM

## Add Codec AVP

The screenshot shows the diversifEye application window with the following details:

- Top Bar:** diversifEye: 192.168.10.200 / tm500 / Partition 1. Includes File, Edit, View, Window, Admin, Help menus and standard window controls.
- Left Sidebar:** Test Groups, Jobs, Nodes. Under Test Groups, the VD\_TEST\_CASE\_4 group is expanded, showing sub-folders IP, Configuration, RTP, and Codec AVPs. The RTP Codec AVPs folder contains several entries, with AMR-WB 23.85 selected and highlighted in blue.
- Middle Panel:** RTP CODEC AVP configuration dialog for "AMR-WB 23.85".
  - Name:** AMR-WB 23.85
  - Used For:** Pcap Replay
  - Encoding Name:** AMR-WB
  - Media Type:** audio
  - Payload Type:** 120
  - Payload Size:** ms/Packet
  - Delay:** ms
  - Packet Rate:** ms
  - Stream Rate:** ms
  - Frequency:** 16000 Hz
  - Channels:** None
  - Data:** C:/AMR Codec/AMR-WB\_23.85.pcap
  - SDP Attributes:** b=AS:40
- Bottom Panel:** Log output showing test group configuration progress:

```
Mon May 09 14:58:13 CST 2016 - Creating Configuration Items...
Mon May 09 14:58:13 CST 2016 - Creating Hosts...
Mon May 09 14:58:13 CST 2016 - Creating Applications...
Mon May 09 14:58:14 CST 2016 - Enabling Stats Notifications...
Mon May 09 14:58:14 CST 2016 - Starting Hosts...
Mon May 09 14:58:14 CST 2016 - Starting Applications...
Mon May 09 14:58:14 CST 2016 - Test group configuration complete
```
- Bottom Navigation:** Run Output, PDU Captures, Threshold Events, VAD Control Status, Aux Feed Control Status.
- Bottom Right:** User tm500 is running Test Group: //Test-Case

A modal dialog titled "Configure SDP Attributes" is open over the main configuration window, containing the following fields:

- SDP Attributes:** b=AS:40
- Buttons:** Add..., Edit..., Delete, OK, Cancel.

# Applications – VoLTE

## VoIP UA Properties

**VoIP UA Properties**

SMS Message	Additional Configuration	Passive Analysis
Application Details	General Details	In/Out Call Setup
Configure As:	Single App per Row	<input type="button" value="..."/>
Name:	cvoip_0000_1	
Description:	AMR-WB	
Host(s):	pppoe_0000_1	<input type="button" value="..."/>
Transport Type:	UDP	<input type="button" value="..."/>
SIP Port	5060	RTP Ports: /oipPortProfile <input type="button" value="..."/>
SIP ToS/DiffServ:	0	RTP ToS/DiffServ: 0
<input type="button" value="Advanced TCP..."/>		
<input type="button" value="OK"/> <input type="button" value="Cancel"/>		

**VoIP UA Properties**

SMS Message	Additional Configuration	Passive Analysis
Application Details	General Details	In/Out Call Setup
Server:	ExtVolPServer_voip	<input type="button" value="..."/>
The following fields control the UA identification:		
SIP Username:	+8210201501000	
SIP Domain Name:	ims.mnc006.mcc450.3gppnetwork.org	<input type="checkbox"/> Use Client IP
Authentication Details can be configured to specify additional SIP authentication and authorization parameters:		
<input type="button" value="Authentication Details..."/>		
The following fields control the UA's registration with the SIP proxy Server and indicate support for IMS Multimedia:		
Register with Server:	Enabled	
<input type="button" value="Advanced..."/>		
The following field controls the phone type that is emulated by the UA:		
Emulate Phone Type:	Generic Phone	
<input type="button" value="OK"/> <input type="button" value="Cancel"/>		

# Applications – VoLTE

COBHAM

## Authentication Details

Authentication Details

Authentication Algorithm: Digest

SIP Password can be configured given a specific value.

Use SIP Username

SIP Password: 111111

It is possible to specify an alternate username to the SIP Username to be placed in the SIP Authorization field when authenticating requests.

Specify Authorization Username

Authorization Username:

# Applications – VoLTE

COBHAM

## VoIP UA Properties

VoIP UA Properties

SMS Message	Additional Configuration	Passive Analysis
Application Details	General Details	In/Out Call Setup
Call Details		

The following fields configure the **outgoing** call behaviour of the UA.

Allow UA Initiate Calls:

Called Party Selection:

Call URI:

Call List:

The following fields control the **incoming** call behaviour of the UA.

Call Answering Delay:  ms

Busy Ratio:  %

Allow UA End Call:

VoIP UA Properties

SMS Message	Additional Configuration	Passive Analysis
Application Details	General Details	In/Out Call Setup
Call Details		

The following field specifies the Stream Profile used for all calls:

Stream Profile:

The following fields control the transmission of RTP data:

Disable RTP Transmission:  Enable SRTP:

The UA can be configured to generate periodic RTCP reports:

Generate RTCP Reports:

A UA can be configured to have a delay between outgoing calls. This delay is controlled by the BHCA.

Allow Delay Between Calls:

BHCA:

The following fields are shared between incoming and outgoing calls. A UA can be configured to end a call after a certain period of time using the Average Hold Time.

Average Hold Time:  ms

# Applications – VoLTE

COBHAM

## VoIP UA Properties

VoIP UA Properties

Application Details	General Details	In/Out Call Setup	Call Details
SMS Message	Additional Configuration	Passive Analysis	

Analyse Media Type: voice

Passive Analysis analyses the packet stream for many factors including loss and jitter to determine the resulting quality:

Playout Jitter Buffer Delay: 40 ms

Max Jitter Buffer Size: 80 ms

Passive Analysis Statistics can be enabled on the client.

Enable Passive Analysis Statistics:

**OK** **Cancel**

VoIP UA Properties

Application Details	General Details	In/Out Call Setup	Call Details
SMS Message	Additional Configuration	Passive Analysis	

Applications can be configured to start and stop after specified time periods:

Start After: 0 ms ...

Stop After: secs ...

An initial delay can be applied before any calls or SMS are initiated by the UA:

Initial Call Delay: 1000 ms ...

Initial SMS Delay: ...

Passive Analysis can be performed on the client:

Configure Passive Analysis

Applications can be grouped with the other applications and hosts for the purpose of statistics collection:

Aggregate Group: Default ...

**Statistics...**

**OK** **Cancel**

VoIP Statistics

Normal, Fine and Latency Statistics can be enabled on the application:

Enable Normal Statistics  Enable Latency Statistics  
 Enable Fine Statistics

**OK** **Cancel**

# Applications – VoLTE

COBHAM

## RTP Stream Profiles

The screenshot shows the diversifEye software interface for managing test groups, jobs, and nodes. The main window displays a tree view of configuration items under 'Configuration' (FTP, Profile, RTP), 'Codec AVPs' (AMR-NB 12.2, AMR-WB 23.85, Default AMR-NB, Default AMR-WB, Default Cisco E20-C20 H.26, Default Cisco E20-C20 MP4, Default CTS AAC-LD, Default CTS H.264, Default G.711a (PCMA), Default G.711u (PCM), Default G.722 (ACELP), Default G.723 5.3 kbit/s, Default G.723 6.3 kbit/s, Default G.728, Default G.729, Default GSM, Default ILBC 13.33 kbit/s, Default ILBC 15.2 kbit/s, MPEG2), and 'Stream Profiles' (crtsp\_ue0\_pdn0, cvoip\_ue0\_pdn1). A 'STREAM PROFILE' dialog is open for 'cvoip\_ue0\_pdn1', set to 'Used For: Multimedia'. It contains tabs for RTP Codec AVPs, Data Settings, Silence Suppression, and Adaptive Stream Changes. Under RTP Codec AVPs, there is a table:

Name	Type	Data	Data Override
AMR-WB 23.85	Pcap Replay	C:/AMR Codec/AMR-WB_23.85.pcap	

A sub-dialog titled 'RTP Stream Profile Properties' is also visible, showing the same information. At the bottom of the main window, a log window shows the following messages:

```
Mon May 09 14:19:33 CST 2016 - Creating
Mon May 09 14:19:33 CST 2016 - Creating
Mon May 09 14:19:33 CST 2016 - Creating
Mon May 09 14:19:34 CST 2016 - Enabling
Mon May 09 14:19:34 CST 2016 - Starting Hosts...
Mon May 09 14:19:34 CST 2016 - Starting Applications...
Mon May 09 14:19:34 CST 2016 - Test group configuration complete
```

At the bottom of the interface, there are tabs for Run Output, PDU Captures, Threshold Events, VAD Control Status, and Aux Feed Control Status. A status message at the bottom right indicates: 'User tm500 is running Test Group: //Test-Case'.

# Applications – VoLTE

COBHAM

## RTP Stream Profile Properties

RTP Stream Profile Properties

Name: cvoip\_ue0\_ue0\_pdn1  
Used For: Multimedia

RTP Codec AVP Data Settings Silence Suppression Adaptive Stream Changes

RTP Data: Full Duplex  
RTCP:

RTP Stream Profile Properties

Name: cvoip\_ue0\_ue0\_pdn1  
Used For: Multimedia

RTP Codec AVP Data Settings Silence Suppression Adaptive Stream Changes

Bit Rate Level List:  ...

OK Cancel

RTP Stream Profile Properties

Name: cvoip\_ue0\_ue0\_pdn1  
Used For: Multimedia

RTP Codec AVP Data Settings Silence Suppression Adaptive Stream Changes

Enable Silence Suppression

Silence Ratio: 50 %  
Silence Length: 5000

OK Cancel

# Applications – VoLTE

## VoIP Call List Properties

diverisifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

**CALL LIST**

Name: cvoip0000

Call Lists

URI  
sip:+8210201501001@ims.mnc006.mcc...

Add... Delete

Move Up Move Down

The Call Mode controls how URIs are selected from the list above

Call Mode: Sequential

**VoIP Call List Properties**

Name: cvoip0000

Call Lists

URI  
sip:+8210201501001@ims.mnc006.mcc...

Add... Delete

Move Up Move Down

The Call Mode controls how URIs are selected from the list above

Call Mode: Sequential

OK Cancel

Mon May 09 14:19:33 CST 2016 - Creating Configuration Items...  
 Mon May 09 14:19:33 CST 2016 - Creating Hosts...  
 Mon May 09 14:19:33 CST 2016 - Creating Applications...  
 Mon May 09 14:19:34 CST 2016 - Enabling Stats Notifications...  
 Mon May 09 14:19:34 CST 2016 - Starting Hosts...  
 Mon May 09 14:19:34 CST 2016 - Starting Applications...  
 Mon May 09 14:19:34 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

## Applications – VoLTE

**COBHAM**

# External VoIP Proxy Properties

diversifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Test Groups

- 2CC\_1200UE\_UDP
- VD\_TEST\_CASE\_4
  - IP
    - Configuration
    - FTP
    - Profile
    - RTP
      - Codec AVPs
        - Default AMR-NB
        - Default AMR-WB
        - Default Cisco E20-C20 H.264
        - Default Cisco E20-C20 MP4A
        - Default CTS AAC-LD
        - Default CTS H.264
        - Default G.711a (PCMA)
        - Default G.711u (PCM)
        - Default G.722 (ACELP)
        - Default G.723 5.3 kbit/s (MP-M)
        - Default G.723 6.3 kbit/s (MP-M)
        - Default G.728
        - Default G.729
        - Default GSM
        - Default iLBC 13.33 kbit/s
        - Default iLBC 15.2 kbit/s
      - MPEG2
    - Stream Profiles

Applications Hosts Statistic Groups Thresholds

External VoIP SIP Proxy Properties

Application Details

Name: ExtVoIPServer\_voip

Description:

Host: ExtVoIPServer

SIP Port: 5060

SIP Domain Name: ims.mnc006.mcc450.3gppnetwork.org

OK Cancel

External VoIP SIP Proxy Properties

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
ExtVoIPServer_voip		External VoIP ...		ExtVoIPServer	103.1.202.1	5060	1 Application			
9	103.5.4.9/16	554					1 Application			
12	103.5.4.12/16	21					1 Application			
7	103.5.4.7/16	21					1 Application			
8	103.5.4.8/16	21					1 Application			
5	103.5.4.5/16	21					1 Application			
4	103.5.4.4/16	21					1 Application			
6	103.5.4.6/16	21					1 Application			
11	103.5.4.11/16	21					1 Application			
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
1	0.0.0.	5060					1 Application	ExtVoIPServe...		
cvoip_0131_1	VoIP UA	AMR-WB	pppoe_0131_1	0.0.0.	5060	1 Application	ExtVoIPServe...			

Total: 30009 Active: 0

Allow Sorting Show Filter

Mon May 09 14:49:06 CST 2016 - Importing from XML file:C:\Users\Klein Jiang\Desktop\2CC\_1200UE\_UDP.xml  
Mon May 09 14:49:06 CST 2016 - Parsing contents of XML file...  
Mon May 09 14:49:06 CST 2016 - Checking structure of XML file...  
Mon May 09 14:49:06 CST 2016 - Importing contents of XML file...  
Mon May 09 14:49:08 CST 2016 - Processing Aggregate Groups  
Mon May 09 14:49:09 CST 2016 - Processing Hosts  
Mon May 09 14:49:10 CST 2016 - Optimizing Hosts  
Mon May 09 14:49:10 CST 2016 - Processing Applications

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status XML Import: 2CC\_1200UE\_UDP.xml

Ready

## Applications – DL UDP

**COBHAM**

# TeraFlow Client Properties

diversifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

DLUDP\_0000\_0 TeraFlow Client TeraFlow Host\_90.20.8.5 103.5.4.4/16 1 Application DLUDP\_STF\_0...

TeraFlow Client Properties

Application Details Client Details Additional Configuration

Configure As: Single App per Row

Name: DLUDP\_0000\_0

Description: TeraFlow

Host(s): Host\_90.20.8.5

Protocol: UDP

Port:   Use Next Available

ToS/DiffServ: 0

Advanced TCP...

OK Cancel

Mon May 09 14:49:06 CST 2016 - Importing f  
Mon May 09 14:49:06 CST 2016 - Parsing con  
Mon May 09 14:49:06 CST 2016 - Checking st  
Mon May 09 14:49:06 CST 2016 - Importing c  
Mon May 09 14:49:08 CST 2016 - Processing  
Mon May 09 14:49:09 CST 2016 - Processing  
Mon May 09 14:49:10 CST 2016 - Optimizing hosts  
Mon May 09 14:49:10 CST 2016 - Processing Applications  
Mon May 09 14:49:13 CST 2016 - Optimizing Applications  
Mon May 09 14:49:13 CST 2016 - Processing Thresholds  
Mon May 09 14:49:13 CST 2016 - Import Complete.

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status XML Import: 2CC\_1200UE\_UDP.xml

Ready

# Applications – DL UDP

COBHAM

## TeraFlow Client Properties

**TeraFlow Client Properties**

**Application Details** **Client Details** **Additional Configuration**

Server(s):  ...

It is possible to control the amount of data that is sent to the Server(s) and the number of simultaneous UDP Streams to be created:

Throughput:  Mbit/s

Payload Size:  Bytes

Number of Sessions:

**TeraFlow Client Properties**

**Application Details** **Client Details** **Additional Configuration**

Applications can be configured to start and stop after specified time periods:

Start After:  ms

Stop After:  secs

Both normal and fine statistics can be enabled on an application:

Enable Normal Statistics

Enable Fine Statistics

Enable Latency Statistics

Applications can be grouped with the other applications and hosts for the purpose of statistics collection:

Aggregate Group:

## Applications – DL UDP

**COBHAM**

# TeraFlow Server Properties

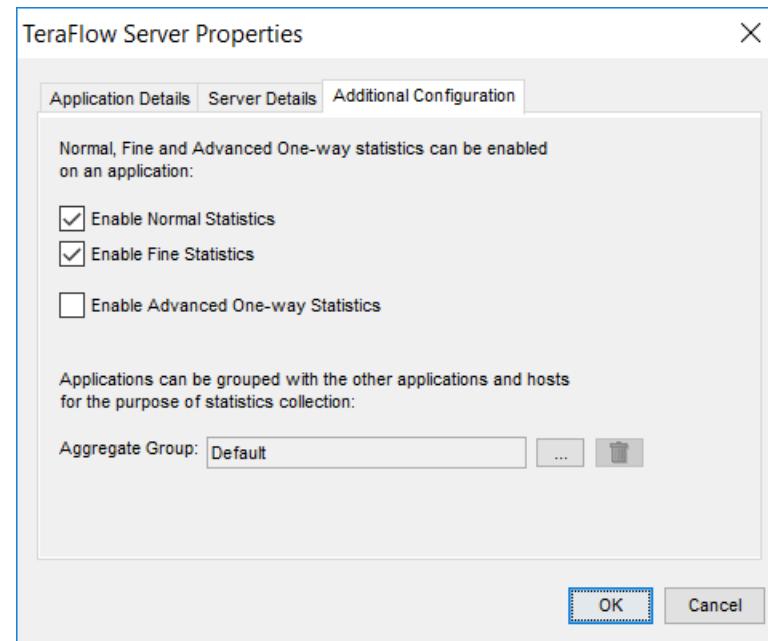
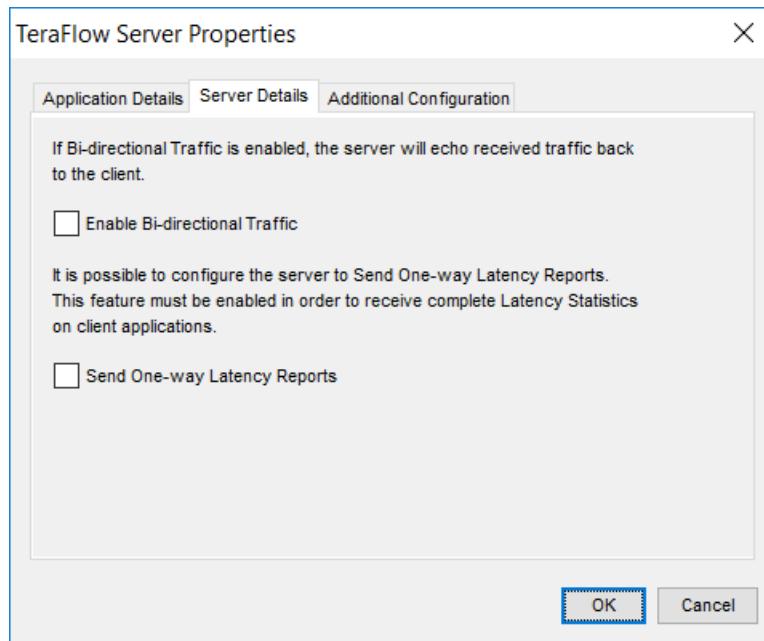
The screenshot shows the diversifEye application window with the following details:

- Title Bar:** diversifEye: 192.168.10.200 / tm500 / Partition 2
- Menu Bar:** File, Edit, View, Window, Admin, Help
- Toolbar:** Includes icons for Test Groups, Jobs, Nodes, and various monitoring functions.
- Left Panel (Test Groups):**
  - 2CC\_1200UE\_UDP
    - IP
      - Configuration
      - Profile
      - RTP
      - Tcp Characteristics Configuration
      - Telepresence
    - VD\_TEST\_CASE\_4
      - IP
        - Configuration
        - FTP
        - Profile
        - RTP
          - Codec AVPs
            - Default AMR-NB
            - Default AMR-WB
            - Default Cisco E20-C20 H.264
            - Default Cisco E20-C20 MP4A
            - Default CTS AAC-LD
            - Default CTS H.264
            - Default G.711a (PCMA)
            - Default G.711u (PCM)
            - Default G.722 (ACELP)
            - Default G.723 5.3 kbytes/s (MP-M)
            - Default G.723 6.3 kbytes/s (MP-M)
            - Default G.728
  - Center Panel (Applications):** Shows a table of applications with the following columns: Name, Scale, Type, Description, Host, Host IP, Port, Represents, Association, Miscellaneous, and % Active. One entry is selected: TFServerDL\_tf (TeraFlow Server) on Host\_90.20.8.5 (IP 103.5.4.4/16) port 5001, representing 1 Application.
  - Modal Dialog (TeraFlow Server Properties):** This dialog is open over the Applications table, containing tabs for Application Details, Server Details, and Additional Configuration. The Application Details tab shows:
    - Configure As: Single App per Row
    - Name: TFServerDL\_tf
    - Description: (empty)
    - Host(s): Host\_90.20.8.5
    - Protocol: UDP
    - Port: 5001
  - Bottom Panel (Log):** Displays system logs from May 9, 2016, including XML import and processing steps.
  - Bottom Navigation:** Run Output, PDU Captures, Threshold Events, VAD Control Status, Aux Feed Control Status, XML Import: 2CC\_1200UE\_UDP.xml, and Ready status.

# Applications – DL UDP

COBHAM

## TeraFlow Server Properties



## Applications – DL UDP

**COBHAM**

# TeraFlow Server Properties

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

DLUDP\_STF\_0000\_0 TeraFlow Serv... TeraFlow pppoe\_0000\_0 0.0.0.0 5001 1 Application

TeraFlow Server Properties

Application Details Server Details Additional Configuration

Configure As: Single App per Row

Name: DLUDP\_STF\_0000\_0

Description: TeraFlow

Host(s): pppoe\_0000\_0

Protocol: UDP

Port: 5001

Allow Sorting Show Filter

OK Cancel

Mon May 09 14:58:13 CST 2016 - Creating Configuration Items...

Mon May 09 14:58:13 CST 2016 - Creating Hosts...

Mon May 09 14:58:13 CST 2016 - Creating Applications...

Mon May 09 14:58:14 CST 2016 - Enabling Stats Notifications...

Mon May 09 14:58:14 CST 2016 - Starting Hosts...

Mon May 09 14:58:14 CST 2016 - Starting Applications...

Mon May 09 14:58:14 CST 2016 - Test group configuration complete

PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

## Applications – UL UDP

**COBHAM**

# TeraFlow Client Properties

diverisEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

ULUDP\_0000\_0 TeraFlow Client TeraFlow pppoe\_0000\_0 0.0.0 1 Application TFServerUL\_tf

TeraFlow Client Properties

Application Details Client Details Additional Configuration

Configure As: Single App per Row

Name: ULUDP\_0000\_0

Description: TeraFlow

Host(s): pppoe\_0000\_0

Protocol: UDP

Port:   Use Next Available

ToS/DiffServ: 0

Advanced TCP...

OK Cancel

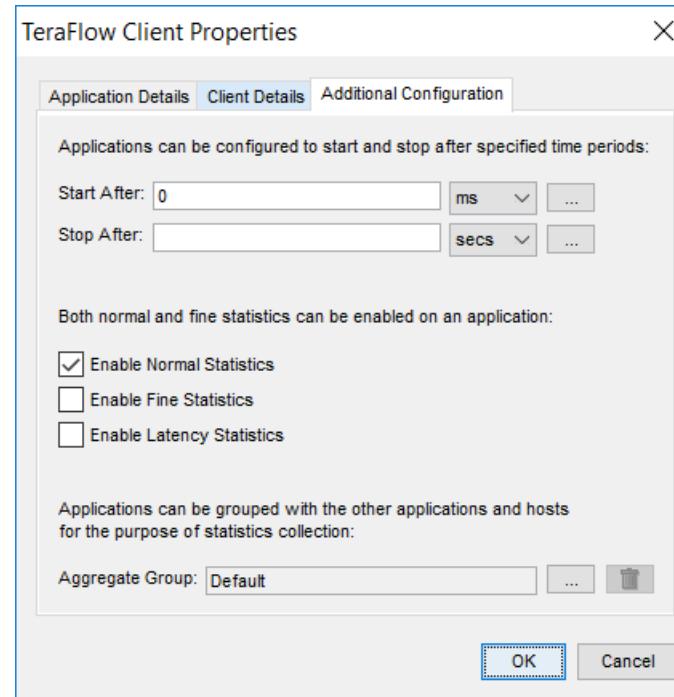
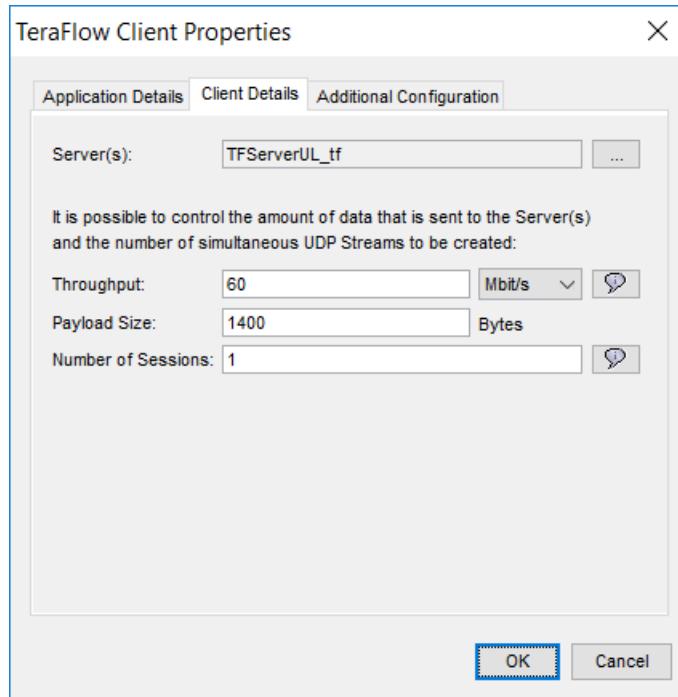
Mon May 09 14:49:06 CST 2016 - Importing f:  
Mon May 09 14:49:06 CST 2016 - Parsing con:  
Mon May 09 14:49:06 CST 2016 - Checking st:  
Mon May 09 14:49:06 CST 2016 - Importing c:  
Mon May 09 14:49:08 CST 2016 - Processing i:  
Mon May 09 14:49:09 CST 2016 - Processing i:  
Mon May 09 14:49:10 CST 2016 - Optimizing Hosts  
Mon May 09 14:49:10 CST 2016 - Processing Applications  
Mon May 09 14:49:13 CST 2016 - Optimizing Applications  
Mon May 09 14:49:13 CST 2016 - Processing Thresholds  
Mon May 09 14:49:13 CST 2016 - Import Complete.

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status XML Import: 2CC\_1200UE\_UDP.xml

# Applications – UL UDP

COBHAM

## TeraFlow Client Properties



# Applications – UL UDP

## TeraFlow Server Properties

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
TFServerUL_tf		TeraFlow Serv...		Host_90.20.8.6	103.5.4.5/16	5001	1 Application			

**TeraFlow Server Properties**

Application Details Server Details Additional Configuration

Configure As: Single App per Row

Name: TFServerUL\_tf

Description:

Host(s): Host\_90.20.8.6

Protocol: UDP

Port: 5001

Allow Sorting Show Filter

OK Cancel

Mon May 09 14:58:13 CST 2016 - Creating Configuration Items...  
Mon May 09 14:58:13 CST 2016 - Creating Hosts...  
Mon May 09 14:58:13 CST 2016 - Creating Applications...  
Mon May 09 14:58:14 CST 2016 - Enabling Stats Notifications...  
Mon May 09 14:58:14 CST 2016 - Starting Hosts...  
Mon May 09 14:58:14 CST 2016 - Starting Applications...  
Mon May 09 14:58:14 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

# Applications – RTSP

**COBHAM**

# RTSP Client Properties

# Applications – RTSP

COBHAM

## RTSP Client Properties

RTSP Client Properties

Session Details	Additional Configuration	Passive Analysis
Application Details		
Server(s):	RTSPServer_rtsp	...
Proxy:		...
The Media Resource List contains a list of paths identifying resources on the Server. These paths will be used by the Client to request Server resources.		
Media Resource Lists:	crtsp_ue0-_pdn0	...
Pathname List:	Pathname /media/low-bitrate.3gp	
Selection Mode:	Sequential	...
Ignore Redirects:	<input type="checkbox"/>	
<a href="#">Authentication...</a>		
<a href="#">OK</a>		<a href="#">Cancel</a>

RTSP Client Properties

Application Details	Client Details
Session Details	Additional Configuration
The following fields control the media session:	
Media Transport:	RTP
Generate RTCP Reports:	<input checked="" type="checkbox"/>
Media Stream Type:	All
Media Inactivity Timeout:	1000 ms
Media Stream Duration:	Indefinite
The following fields control the session behaviour of the RTSP client	
Delay Between Sessions:	50 ms
<a href="#">Advanced...</a>	
<a href="#">OK</a>	
<a href="#">Cancel</a>	

# Applications – RTSP

## RTSP Client Properties

RTSP Client Properties

Session Details	Additional Configuration	Passive Analysis
Applications can be configured to start and stop after specified time periods.		
Start After:	0	ms
Stop After:		secs
Passive Analysis can be performed on the client.		
<input type="checkbox"/> Configure Passive Analysis		
The Jitter Buffer determines if packets can be played out or discarded.		
Playout Jitter Buffer Delay:	40	ms
Maximum Jitter Buffer Size:	80	ms
Applications can be grouped with the other applications and hosts for the purpose of statistics collection.		
Aggregate Group:	Default	<input type="button" value="..."/>
<input type="button" value="Statistics..."/>		
<input type="button" value="OK"/>		<input type="button" value="Cancel"/>

RTSP Client Properties

Session Details	Additional Configuration	Passive Analysis
Passive Analysis is currently not configured.		
<input type="button" value="OK"/>		<input type="button" value="Cancel"/>

# Applications – RTSP

## RTSP Stream Profile Properties

diverisEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

**STREAM PROFILE** Name: crtsp\_ue0-\_pdn0

Used For: Multimedia

RTP Codec AVPs Data Settings Silence Suppression Adaptive Stream Changes

Name	Type	Data	Data Override
MPEG2	Streaming		

**RTP Stream Profile Properties**

Name: crtsp\_ue0-\_pdn0  
Used For: Multimedia

RTP Codec AVP Data Settings Silence Suppression Adaptive Stream Changes

Name	Type	Data	Data Override
MPEG2	Streaming		

Ignore all configured data and use arbitrary data.

OK Cancel

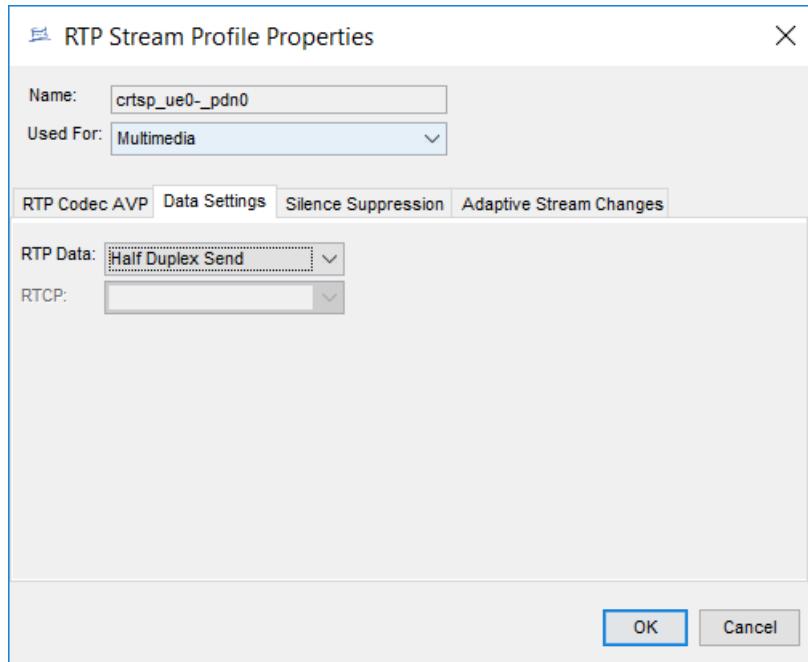
Mon May 09 14:49:06 CST 2016 - Importing fr  
Mon May 09 14:49:06 CST 2016 - Parsing cont  
Mon May 09 14:49:06 CST 2016 - Checking str  
Mon May 09 14:49:06 CST 2016 - Importing co  
Mon May 09 14:49:08 CST 2016 - Processing Aggregate Groups  
Mon May 09 14:49:09 CST 2016 - Processing Hosts  
Mon May 09 14:49:10 CST 2016 - Optimizing Hosts  
Mon May 09 14:49:10 CST 2016 - Processing Applications

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status XML Import: 2CC\_1200UE\_UDP.xml

Ready

# Applications – RTSP

## RTSP Stream Profile Properties



# Applications – RTSP

**COBHAM**

# RTSP Server Properties

diversifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

Test Groups

- 2CC\_1200UE\_UDP
- VD\_TEST\_CASE\_4
  - IP
  - Configuration
    - FTP
    - Profile
  - RTP
    - Codec AVPs
      - Default AMR-NB
      - Default AMR-WB
      - Default Cisco E20-C20 H.264
      - Default Cisco E20-C20 MP4A
      - Default CTS AAC-LD
      - Default CTS H.264
      - Default G.711a (PCMA)
      - Default G.711u (PCM)
      - Default G.722 (ACELP)
      - Default G.723 5.3 kbit/s (MP-M
      - Default G.723 6.3 kbit/s (MP-M
      - Default G.728
      - Default G.729
      - Default GSM
      - Default iLBC 13.33 kbit/s
      - Default iLBC 15.2 kbit/s
      - MPEG2
    - Stream Profiles

RTSP Server Properties

Application Details

Name: RTSPServer\_rtsp

Description:

Host: Host\_103.5.4.9

TCP Port: 554

Media Port(s): Rtspprofile

ToS/DiffServ: 0

Media ToS/DiffServ: 0

Advanced TCP...

OK Cancel

Allow Sorting Show Filter

Mon May 09 14:49:06 CST 2016 - Importing f  
Mon May 09 14:49:06 CST 2016 - Parsing con  
Mon May 09 14:49:06 CST 2016 - Checking st  
Mon May 09 14:49:06 CST 2016 - Importing c  
Mon May 09 14:49:08 CST 2016 - Processing  
Mon May 09 14:49:09 CST 2016 - Processing  
Mon May 09 14:49:10 CST 2016 - Optimizing  
Mon May 09 14:49:10 CST 2016 - Processing Applications

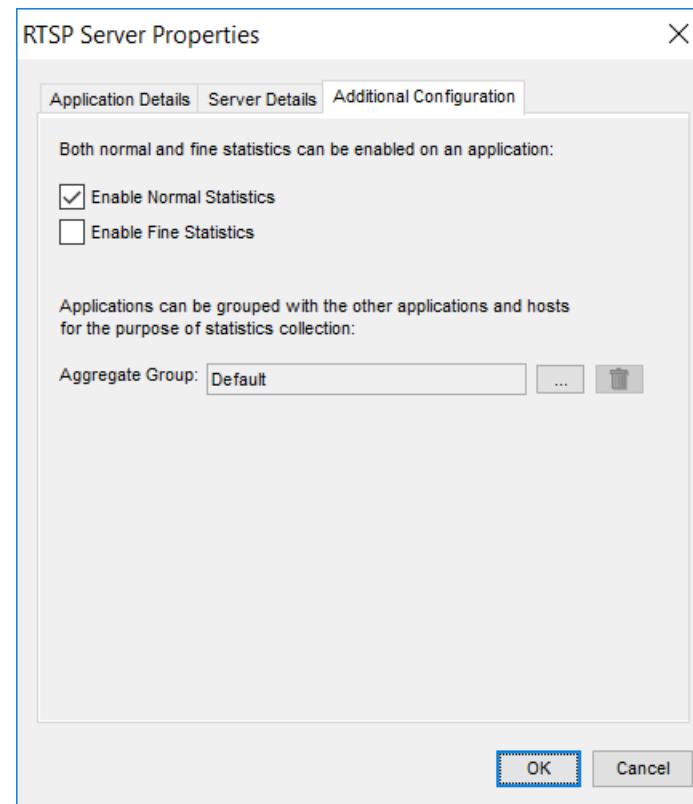
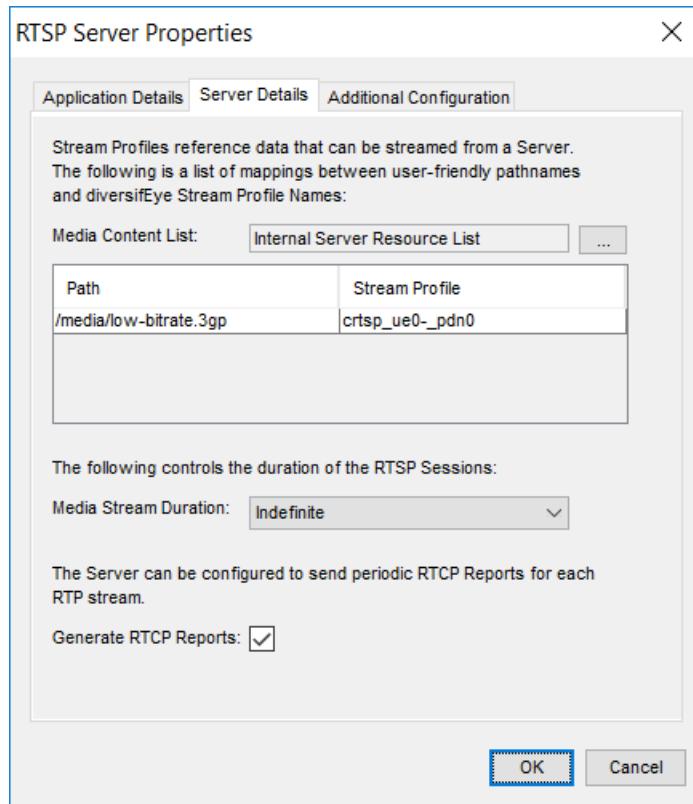
Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status XML Import: 2CC\_1200UE\_UDP.xml

Ready

# Applications – RTSP

COBHAM

## RTSP Server Properties



# Applications – PING

**COBHAM**

# Ping Application Properties

# Applications – PING

COBHAM

## Ping Application Properties

Ping Application Properties

Application Details Ping Details Additional Configuration

Ping IP Address: 103.5.4.8 ...

The following fields control the frequency and size of each Ping:

Delay Between Pings: 2 ms ...

Packet Size (in Bytes): 100 ...

OK Cancel

Ping Application Properties

Application Details Ping Details Additional Configuration

Applications can be configured to start and stop after specified time periods:

Start After: 0 ms ...

Stop After: secs ...

Both normal and fine statistics can be enabled on an application:

Enable Normal Statistics

Enable Fine Statistics

Applications can be grouped with the other applications and hosts for the purpose of statistics collection:

Aggregate Group: Default ...

OK Cancel

# Applications – HTTP

## HTTP Client Properties

diversifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

2CC\_1200UE\_UDP  
Training\_HTTP\_TWAMP  
IP  
Configuration  
HTTP  
Header Field Lists  
Request Lists  
chttp\_ue9\_pdn0  
chttp\_ue10\_pdn0  
Resource Lists  
Internal Server Resource List  
Profile  
RTP  
Tcp Characteristics Configuration  
Telepresence  
VD\_TEST\_CASE\_4  
VD\_TEST\_CASE\_5\_PING  
VD\_TEST\_CASE\_5\_SNS  
VD\_TEST\_CASE\_5\_SNS\_DEBUG  
VoLTE\_AMR-WB\_12.65

chttp\_0000\_0

HTTP Client Properties

Application Details Client Details Connection Details Additional Configuration

Configure As: Single App per Row

Name: chhttp\_0000\_0

Description: HTTP

Host(s): pppoe\_0000\_0

Enable TLS:

TCP Port:  Use Next Available

ToS/DiffServ: 0

Advanced TCP...

OK Cancel

Allow Sorting Show Filter

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# Applications – HTTP

## HTTP Client Properties

HTTP Client Properties

Application Details Client Details Connection Details Additional Configuration

Server(s):  ...  
Proxy:  ...

Proxy Headers: Unconfigured ...

The following fields control the type of request to be issued by the HTTP Client:

HTTP Version:  ...  
Request List:  ...

Method Type	URI
GET	1Mb.bin

Advanced...

OK Cancel

HTTP Client Properties

Application Details Client Details Connection Details Additional Configuration

The following fields control the behaviour of the TCP connection(s):

No. of Requests per Connection:  ...  
Delay between Requests:  ms ...  
Delay between Connections:  ms ...

Advanced...

OK Cancel

# Applications – HTTP

COBHAM

## HTTP Client Properties

HTTP Client Properties

Application Details Client Details Connection Details Additional Configuration

Applications can be configured to start and stop after specified time periods:

Start After:  secs

Stop After:  secs

Normal, fine and HTTP response code statistics can be enabled on an application:

Enable Normal Statistics  
 Enable Fine Statistics  
 Enable HTTP Response Code Statistics

Applications can be grouped with the other applications and hosts for the purpose of statistics collection:

Aggregate Group:

OK Cancel

HTTP Client Properties

Application Details Client Details Connection Details Additional Configuration

Server(s):

Proxy:

Proxy Headers: Unconfigured

The following fields control the type of request to be issued by the HTTP Client:

HTTP Version:

Request List:

Method Type	URI
POST	post-test.php

Advanced...

OK Cancel

# Applications – HTTP

## HTTP Server Properties

diverisifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Test Groups

- 2CC\_1200UE\_UDP
- Training\_HTTP\_TWAMP
  - IP
  - Configuration
    - HTTP
      - Header Field Lists
      - Request Lists
        - chttp\_ue0-9\_pdn0
        - chttp\_ue10\_pdn0
      - Resource Lists
        - Internal Server Resource List
    - Profile
    - RTP
    - Tcp Characteristics Configuration
    - Telepresence
  - VD\_TEST\_CASE\_4
  - VD\_TEST\_CASE\_5\_PING
  - VD\_TEST\_CASE\_5\_SNS
  - VD\_TEST\_CASE\_5\_SNS\_DEBUG
  - VoLTE\_AMR-WB\_12.65

Applications Hosts Statistic Groups Thresholds

HTTP Server Properties

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
TWAMPServer_twamp		TWAMP Server		Host_99.99.99.3	99.99.99.3/16	861	1 Application			
HTTPServer_http		HTTP Server		Host_99.99.99.2	99.99.99.2/16	80	1 Application			

Configure As: Single App per Row

Name: HTTPServer\_http

Description:

Host: Host\_99.99.99.2

Enable TLS:

TCP Port: 80

ToS/DiffServ: 0

Advanced TCP...

OK Cancel

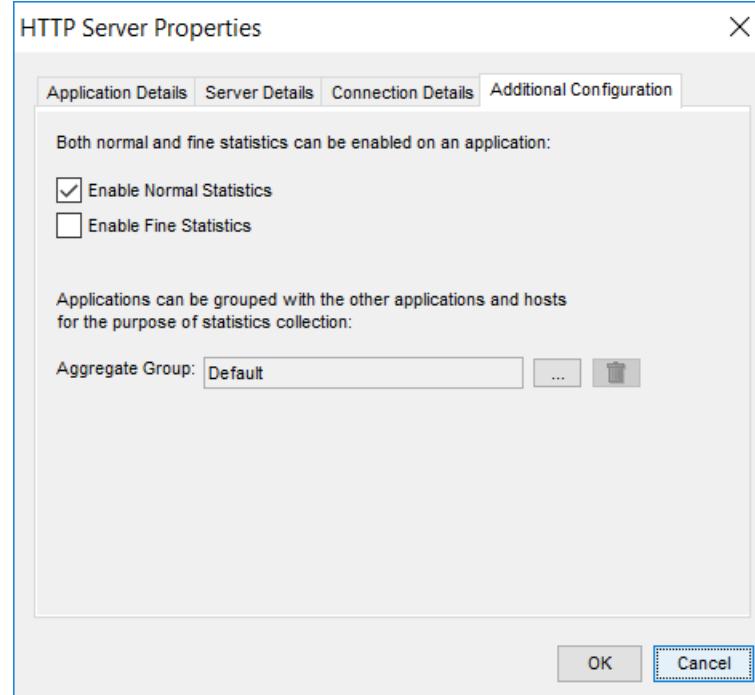
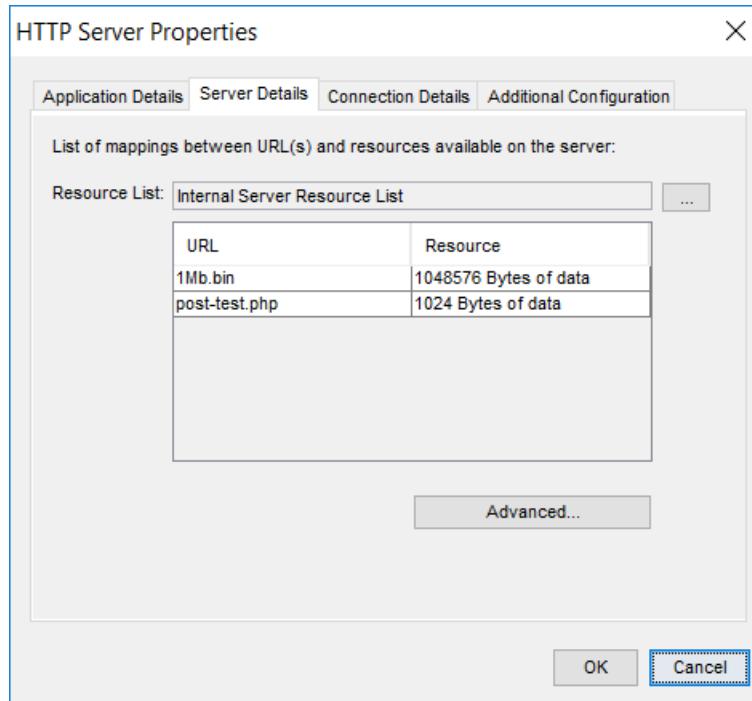
Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# Applications – HTTP

COBHAM

## HTTP Server Properties



# Applications – HTTP

## Request Lists (GET)

diverisifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

**HTTP REQUEST LIST**

Name: chttp\_ue0-9\_pdn0

Requests

Command	URI	Multipart	Headers
GET	1Mb.bin	<input type="checkbox"/>	<input type="checkbox"/>

**HTTP Request List Properties**

Name: chttp\_ue0-9\_pdn0

Requests:

Command	URI	Multipart	Headers
GET	1Mb.bin	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Add... Edit... Delete

The selection mode controls how requests are selected from the list above

Selection Mode: Sequential

OK Cancel

**Edit Request**

Request Method: GET

URI: 1Mb.bin

Header Field List:

OK Cancel

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# Applications – HTTP

## Request Lists (POST)

diverisifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

**HTTP REQUEST LIST**

Name: chttp\_ue10-\_pdn0

Command	URI	Multipart	Headers
POST	post-test.php	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**HTTP Request List Properties**

Name: chttp\_ue10-\_pdn0

Requests:

Command	URI	Multipart	Headers
POST	post-test.php	<input checked="" type="checkbox"/>	

Add... Edit... Delete

The selection mode controls how requests are selected from the list above

Selection Mode: Sequential

**Edit Request**

Request Method: POST

URI: post-test.php

Content Type: multipart/form-data

Body Parts:

- Content Type: text/plain
- Content Transfer Encoding: 8bit
- Content Disposition: name="null";

Header Field List:

OK Cancel OK Cancel

# Applications – HTTP

COBHAM

## Request Lists (POST)

Edit Request

Request Method: POST

URI: im-post-test.php

Content Type: multipart/form-data

Body Parts:

Content type	text/plain
Content Transfer Encoding	8bit
Content Disposition	name="null";

Header Field List:

OK Cancel

Add Request Body Parts

Body Data Type: File

Content: cobham/LTE/LOGS/CMCC/diversifEye\_IM/100KB.dat

Content Type: application/octet-stream

Content Type Charset:

Content Transfer Encoding: Not specified

Content Disposition:

Name	Value
name	
filename	100KB.dat

Additional Headers:

OK Cancel

Add Request Body Parts

Body Data Type: File

Content:

Content Type:

Content Type Charset:

Content Transfer Encoding: Not specified

Content Disposition:

Name	Value
name	

Additional Headers:

OK Cancel

Edit Request

Request Method: POST

URI: im-post-test.php

Content Type: multipart/form-data

Body Parts:

Content type: application/octet-stream	Content Transfer Encoding: Not specified
Content Disposition: name="";filename="100KB.dat";	

Header Field List:

OK Cancel

# Applications – HTTP

## Internal Server Resource List

diverisEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

**HTTP RESOURCE LIST**

Name: Internal Server Resource List

HTTP Resources:

Path	Resource
1Mb.bin	1048576 Bytes of data
post-test.php	1024 Bytes of data

**HTTP Resource List Properties**

Name: Internal Server Resource List

Resources:

Path	Resource
1Mb.bin	1048576 Bytes of data
post-test.php	1024 Bytes of data

Add... Edit... Delete OK Cancel

**Edit Resource**

Path: post-test.php

Type: Random Data

Size: 1024

OK Cancel

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

## Applications – TWAMP

**COBHAM**

## TWAMP Client Properties

diversifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

2CC\_1200UE\_UDP Training\_HTTP\_TWAMP

IP Configuration HTTP Header Field Lists Request Lists Internal Server Resource List Profile RTP Tcp Characteristics Configuration Telepresence

VD\_TEST\_CASE\_4 VD\_TEST\_CASE\_5\_PING VD\_TEST\_CASE\_5\_SNS VD\_TEST\_CASE\_5\_SNS\_DEBUG VoLTE\_AMR-WB\_12.65

TWAMP Client Properties

Application Details TWAMP Details Additional Configuration

Name: ctwamp\_0000\_0  
Description: TAWMP  
Host(s): pppoe\_0000\_0  
Control Port:   Use Next Available  
Control QoS: 0  
Advanced TCP...

OK Cancel

Allow Sorting Show Filter

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

Ready

# Applications – TWAMP

COBHAM

## TWAMP Client Properties

**TWAMP Client Properties**

Application Details   TWAMP Details   Additional Configuration

Select the Server used for controlling test sessions and exchanging test packets.

Server:  ...

The following fields control the behaviour of the test session.

Source Port:   Use Next Available

Destination Port:   Use Source Port ...

Session QoS:

Delay Between Packets:  ms ...

Payload Size:  ...

Use Indefinite Duration

Session Duration:  ... ...

Session Timeout:  secs

OK Cancel

**TWAMP Client Properties**

Application Details   TWAMP Details   Additional Configuration

Applications can be configured to start and stop after specified time periods:

Start After:  secs ...

Both normal and fine statistics can be enabled on an application:

Enable Normal Statistics

Enable Fine Statistics

Applications can be grouped with the other applications and hosts for the purpose of statistics collection:

Aggregate Group:  ... 

OK Cancel

# Applications – TWAMP

## TWAMP Server Properties

diverisifEye: 192.168.10.200 / tm500 / Partition 2

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

**Test Groups**

- 2CC\_1200UE\_UDP
- Training\_HTTP\_TWAMP
  - IP
  - Configuration
    - HTTP
      - Header Field Lists
      - Request Lists
        - chttp\_ue0-9\_pdn0
        - chttp\_ue10-\_pdn0
      - Resource Lists
        - Internal Server Resource List
    - Profile
    - RTP
    - Tcp Characteristics Configuration
    - Telepresence
  - VD\_TEST\_CASE\_4
  - VD\_TEST\_CASE\_5\_PING
  - VD\_TEST\_CASE\_5\_SNS
  - VD\_TEST\_CASE\_5\_SNS\_DEBUG
  - VoLTE\_AMR-WB\_12.65

**Applications**

Name	Scale	Type	Description	Host	Host IP	Port	Represents	Association	Miscellaneous	% Active
TWAMPServer_twamp		TWAMP Server		Host_99.99.99.3	99.99.99.3/16	861	1 Application			

**TWAMP Server Properties**

**Application Details**

Name: TWAMPServer\_twamp  
 Description:  
 Host: Host\_99.99.99.3  
 Control Port: 861  
 Control QoS: 0  
 Session QoS: 0

**Additional Configuration**

Both normal and fine statistics can be enabled on an application:

Enable Normal Statistics  
 Enable Fine Statistics

Applications can be grouped with the other applications and hosts for the purpose of statistics collection:

Aggregate Group: Default

**TWAMP Server Properties**

**Application Details**

OK Cancel Allow Sorting Show Filter

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status Ready

# Hosts – Gateway

**COBHAM**

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

VD\_TEST\_CASE\_4

- IP
- Configuration
- FTP
  - Command Lists
    - cfcp\_get\_ue0\_pdn0
    - Email\_ue0\_pdn0
    - Game\_ue0\_pdn0
    - imessage\_ue0\_pdn0
    - P2P\_ue0\_pdn0
    - SNS\_ue0\_pdn0
    - Web\_ue0\_pdn0
  - Resource Lists
- Profile
- RTP
- RTSP
- TCP
  - Tcp Characteristics Configuration
    - default
  - Telepresence
  - VoIP Configuration
- VD\_TEST\_CASE\_5\_DEBUG
- VD\_TEST\_CASE\_DEBUG
- VD\_VOLTE\_DEBUG
- VoD\_&\_IM\_Example
- VolTE\_3600UE\_12.2
- VolTE\_3600UE\_23.85
- VolTE\_600UE\_H.264
- VolTE\_FTP\_3600UE

Applications Hosts Statistic Groups Thresholds

Host Properties

General Optional Properties

Configure As: Single Host per Row

Name: Gateway

Description:

Type: External Host

IP Address: 103.5.4.254

OK Cancel

Mon May 09 14:58:13 CST 2016 - Creating Configuration Items...

Mon May 09 14:58:13 CST 2016 - Creating Hosts...

Mon May 09 14:58:13 CST 2016 - Creating Applications...

Mon May 09 14:58:14 CST 2016 - Enabling Stats Notifications...

Mon May 09 14:58:14 CST 2016 - Starting Hosts...

Mon May 09 14:58:14 CST 2016 - Starting Applications...

Mon May 09 14:58:14 CST 2016 - Test group configuration complete

PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

# Hosts – Internal Server

COBHAM

## Host Properties

The screenshot shows the diversifEye software interface for managing network hosts. The main window title is "diversifEye: 192.168.10.200 / tm500 / Partition 1". The menu bar includes File, Edit, View, Window, Admin, and Help. The toolbar contains icons for New, Open, Save, Print, Copy, Paste, and Delete. The left sidebar displays a tree view of test groups and configurations, including "VD\_TEST\_CASE\_4" and various sub-sections like IP, Configuration, FTP, and TCP.

The central area has tabs for Applications, Hosts, Statistic Groups, and Thresholds. The Hosts tab is selected, showing a list of hosts:

Name	Scale	Interface	IP Assignment	IP Address	G/W Host	G/W IP Address	Description	Type	% Active	% Assigned IP
ExtVoIPServer			Static	103.1.202.1				External Host		
Gateway			Static	103.5.4.254				External Host		
Host_103.5.4.10	20/1/1		Static	103.5.4.10/16	Gateway	103.5.4.254		Virtual Host		

A detailed "Host Properties" dialog is open for "Host\_103.5.4.10". The dialog has tabs for Statistics, Activity Settings, and Additional Configuration. Under Additional Configuration, the "Configure As" dropdown is set to "Single Host per Row". The host properties are as follows:

Name:	Host_103.5.4.10
Description:	(empty)
Type:	Virtual Host
Network Visible:	True
IP Address Assignment:	Static
IP Address:	103.5.4.10/16
Gateway Host:	Gateway
Advertise Routes:	Disabled
PPPoE Enabled:	<input type="checkbox"/>

At the bottom of the dialog are "OK" and "Cancel" buttons. The status bar at the bottom right shows "User tm500 is running Test Group: //Test-Case".

# Hosts – Internal Server

COBHAM

## Host Properties

Host Properties

Statistics	Activity Settings	Additional Configuration	
General	Link Layer Settings	DHCP Options	PPPoE Settings

Physical Interface: 20/1/1 ...

Configure the MAC Address Properties:

Assignment Mode: Use Specific MAC Address

MAC Address: 00:11:00:03:00:09

MTU: 1500

Link Layer: Ethernet

**Tagging**

No Configuration Required

Host Properties

Statistics	Activity Settings	Additional Configuration	
General	Link Layer Settings	DHCP Options	PPPoE Settings

DHCP is currently not enabled.

## Host Properties

Host Properties

X

Statistics	Activity Settings	Additional Configuration
General	Link Layer Settings	DHCP Options
PPPoE Settings		

PPPoE is currently not enabled.

OK Cancel

Host Properties

X

General	Link Layer Settings	DHCP Options	PPPoE Settings
Statistics	Activity Settings	Additional Configuration	

Both normal and fine statistics can be enabled on a host.

Enable Normal Statistics

Enable Fine Statistics

The following categories of statistics can be collected on the host.

Type	Enabled
Connection Statistics	
Extended TCP Statistics	
DHCP Statistics	
PPPoE Statistics	

A host can be grouped with the other hosts and applications for the purpose of statistics collection.

Aggregate Group: Default

OK Cancel

# Hosts – Internal Server

COBHAM

## Host Properties

Host Properties

General Link Layer Settings DHCP Options PPPoE Settings

Statistics Activity Settings Additional Configuration

A host, by default, will start immediately unless a delay is specified.

Enable Start After Delay:

Start After Delay:    ...

Once started, it is possible to configure cycles of activity/inactivity for a host. If an activity cycle is not specified, a host will remain continuously active until it is stopped.

Activity Cycles: < Unconfigured >

A host, by default, will not stop until the test is stopped. However, it is possible to specify a time period after which a host will stop.

Enable Stop After Time:

Stop After Time:    ...

Host Properties

General Link Layer Settings DHCP Options PPPoE Settings

Statistics Activity Settings Additional Configuration

Block all traffic acts like a simple "all-or-nothing" firewall. It should be enabled for hosts supporting the targets of DDoS attackers.

Enable Block All Traffic

## Hosts – External Server

**COBHAM**

## Host Properties

diversifEye: 192.168.10.200 / tm500 / Partition 1

File Edit View Window Admin Help

Test Groups Jobs Nodes

Applications Hosts Statistic Groups Thresholds

VD\_TEST\_CASE\_4

- IP
  - Configuration
  - FTP
    - FTP
    - Command Lists
      - ftp\_get\_ue0\_pdn0
      - Email\_ue0\_pdn0
      - Game\_ue0\_pdn0
      - imessage\_ue0\_pdn0
      - P2P\_ue0\_pdn0
      - SNS\_ue0\_pdn0
      - Web\_ue0\_pdn0
    - Resource Lists
    - Profile
    - RTP
    - RTSP
    - Tcp Characteristics Configuration
      - default
    - Telepresence
    - VoIP Configuration
  - VD\_TEST\_CASE\_5\_DEBUG
  - VD\_TEST\_CASE\_DEBUG
  - VD\_VOLTE\_DEBUG
  - VoD\_&\_IM\_Example
  - VolTE\_3600UE\_12.2
  - VolTE\_3600UE\_23.85
  - VolTE\_600UE\_H.264
  - VolTE\_FTP\_3600UE

ExtVoIPServer

Host Properties

General Optional Properties

Configure As: Single Host per Row

Name: ExtVoIPServer

Description:

Type: External Host

IP Address: 103.1.202.1

Total: 6011 Active: 0 Assigned IP: 0

OK Cancel

Allow Sorting Show Filter

Mon May 09 14:58:13 CST 2016 - Creating Configuration Items...  
Mon May 09 14:58:13 CST 2016 - Creating Hosts...  
Mon May 09 14:58:13 CST 2016 - Creating Applications...  
Mon May 09 14:58:14 CST 2016 - Enabling Stats Notifications...  
Mon May 09 14:58:14 CST 2016 - Starting Hosts...  
Mon May 09 14:58:14 CST 2016 - Starting Applications...  
Mon May 09 14:58:14 CST 2016 - Test group configuration complete

Run Output PDU Captures Threshold Events VAD Control Status Aux Feed Control Status

User tm500 is running Test Group: //Test-Case

# Host Properties

## Host Properties

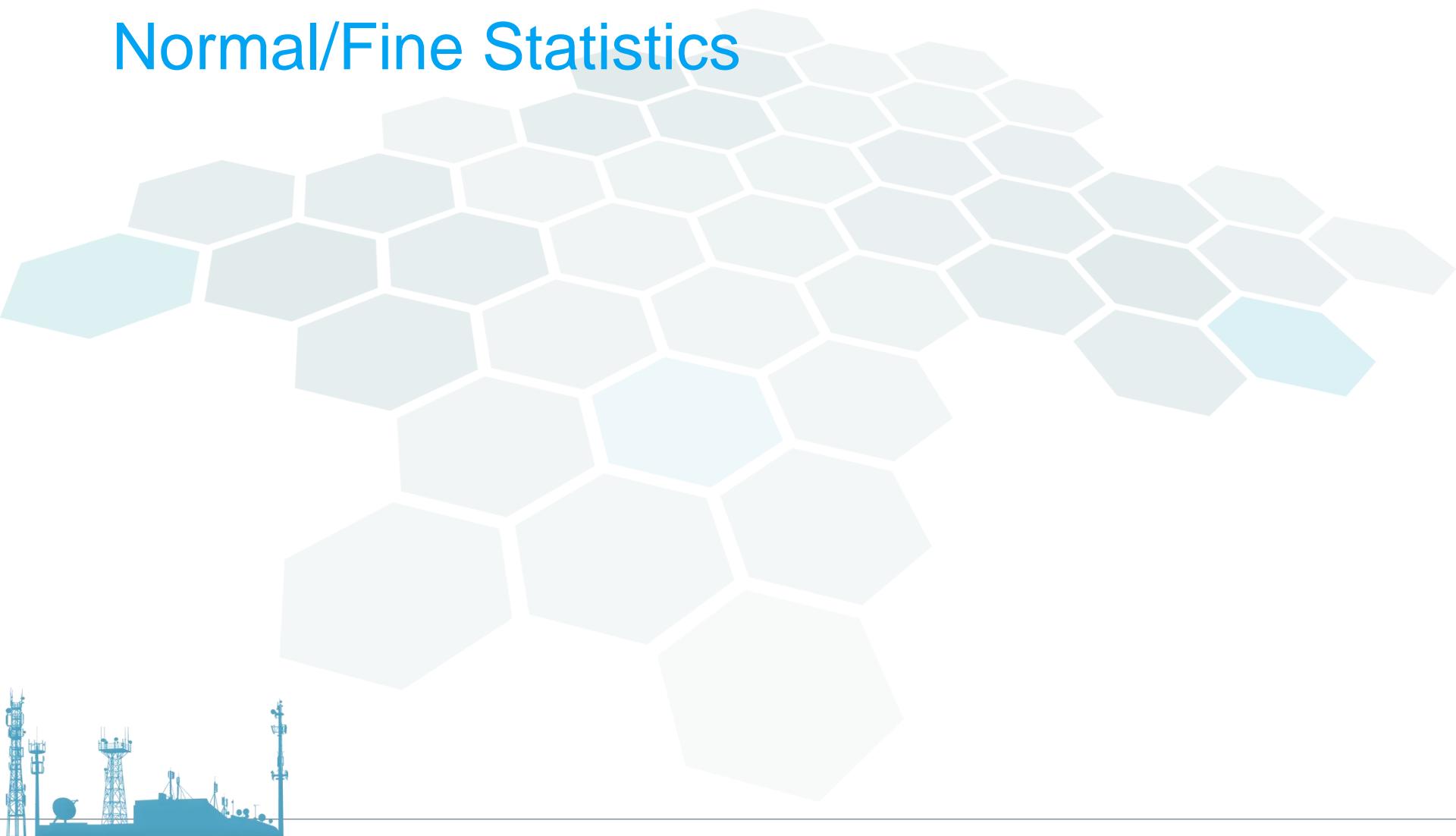
**Host Properties**

Statistics		Activity Settings		Additional Configuration	
General	Link Layer Settings	DHCP Options	PPPoE Settings		
Physical Interface:	10/1/0			<input type="button" value="..."/>	
Configure the MAC Address Properties:					
Assignment Mode:	Use Specific MAC Address			<input type="button" value="?"/>	
MAC Address:	00:1E:6B:03:00:01				
MTU:	1492				
Link Layer:	Ethernet			<input type="button" value="..."/>	
<b>Tagging</b>					
No Configuration Required					

**Host Properties**

Statistics		Activity Settings		Additional Configuration	
General	Link Layer Settings	DHCP Options	PPPoE Settings		
<input type="checkbox"/> Supports PAP Authentication <input type="checkbox"/> Supports CHAP Authentication					
User Name/Peer ID: <input type="text"/>					
Password/Secret: <input type="password"/>					
Service Name: tm500_lte_192.168.10.78_0_0					
Access Concentrator: <input type="text"/>					
Retransmit Timer: 3000 <input type="button" value="ms"/> <input type="button" value="..."/>					
MRU: 1492					
<input type="button" value="Advanced..."/>					

# Normal/Fine Statistics



# Applications – FTP Client

COBHAM

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
In Service	<input type="checkbox"/>
Out Bits/s	<input type="checkbox"/>
Out Packets/s	<input type="checkbox"/>
In Bits/s	<input type="checkbox"/>
In Packets/s	<input type="checkbox"/>
Attempted Connections/s	<input type="checkbox"/>
Established Connections/s	<input type="checkbox"/>
Failed Connections/s	<input type="checkbox"/>
Retransmitted Packets	<input type="checkbox"/>
Out of Sequence Packets	<input type="checkbox"/>
SYN/SYNACK Count	<input type="checkbox"/>
SYN/SYNACK Mean ms	<input type="checkbox"/>
SYN/SYNACK Min ms	<input type="checkbox"/>
SYN/SYNACK Max ms	<input type="checkbox"/>
SYN/Data Count	<input type="checkbox"/>
SYN/Data Mean ms	<input type="checkbox"/>
SYN/Data Min ms	<input type="checkbox"/>
SYN/Data Max ms	<input type="checkbox"/>
FIN/FINACK Count	<input type="checkbox"/>
FIN/FINACK Mean ms	<input type="checkbox"/>
FIN/FINACK Min ms	<input type="checkbox"/>
FIN/FINACK Max ms	<input type="checkbox"/>
SYN/FIN Count	<input type="checkbox"/>
SYN/FIN Mean ms	<input type="checkbox"/>
SYN/FIN Min ms	<input type="checkbox"/>

OK Cancel

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
Out of Sequence Packets	<input type="checkbox"/>
SYN/SYNACK Count	<input type="checkbox"/>
SYN/SYNACK Mean ms	<input type="checkbox"/>
SYN/SYNACK Min ms	<input type="checkbox"/>
SYN/SYNACK Max ms	<input type="checkbox"/>
SYN/Data Count	<input type="checkbox"/>
SYN/Data Mean ms	<input type="checkbox"/>
SYN/Data Min ms	<input type="checkbox"/>
SYN/Data Max ms	<input type="checkbox"/>
FIN/FINACK Count	<input type="checkbox"/>
FIN/FINACK Mean ms	<input type="checkbox"/>
FIN/FINACK Min ms	<input type="checkbox"/>
FIN/FINACK Max ms	<input type="checkbox"/>
SYN/FIN Count	<input type="checkbox"/>
SYN/FIN Mean ms	<input type="checkbox"/>
SYN/FIN Min ms	<input checked="" type="checkbox"/>
SYN/FIN Max ms	<input type="checkbox"/>
Dropped Packets	<input type="checkbox"/>
In Files/s	<input type="checkbox"/>
In File Bits/s	<input checked="" type="checkbox"/>
In Files Errorred/s	<input type="checkbox"/>
Out Files/s	<input type="checkbox"/>
Out File Bits/s	<input type="checkbox"/>
Out Files Errorred/s	<input type="checkbox"/>
Mean File Transfer Time ms	<input type="checkbox"/>

OK Cancel

# Applications – FTP Server

COBHAM

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
In Service	<input checked="" type="checkbox"/>
Out Bits/s	<input type="checkbox"/>
Out Packets/s	<input type="checkbox"/>
In Bits/s	<input type="checkbox"/>
In Packets/s	<input type="checkbox"/>
Attempted Connections/s	<input type="checkbox"/>
Established Connections/s	<input type="checkbox"/>
Failed Connections/s	<input type="checkbox"/>
Retransmitted Packets	<input type="checkbox"/>
Out of Sequence Packets	<input type="checkbox"/>
SYN/SYNACK Count	<input type="checkbox"/>
SYN/SYNACK Mean ms	<input type="checkbox"/>
SYN/SYNACK Min ms	<input type="checkbox"/>
SYN/SYNACK Max ms	<input type="checkbox"/>
SYN/Data Count	<input type="checkbox"/>
SYN/Data Mean ms	<input type="checkbox"/>
SYN/Data Min ms	<input type="checkbox"/>
SYN/Data Max ms	<input type="checkbox"/>
FIN/FINACK Count	<input type="checkbox"/>
FIN/FINACK Mean ms	<input type="checkbox"/>
FIN/FINACK Min ms	<input type="checkbox"/>
FIN/FINACK Max ms	<input type="checkbox"/>
SYN/FIN Count	<input type="checkbox"/>
SYN/FIN Mean ms	<input type="checkbox"/>
SYN/FIN Min ms	<input type="checkbox"/>

OK Cancel

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
Out of Sequence Packets	<input type="checkbox"/>
SYN/SYNACK Count	<input type="checkbox"/>
SYN/SYNACK Mean ms	<input type="checkbox"/>
SYN/SYNACK Min ms	<input type="checkbox"/>
SYN/SYNACK Max ms	<input type="checkbox"/>
SYN/Data Count	<input type="checkbox"/>
SYN/Data Mean ms	<input type="checkbox"/>
SYN/Data Min ms	<input type="checkbox"/>
SYN/Data Max ms	<input type="checkbox"/>
FIN/FINACK Count	<input type="checkbox"/>
FIN/FINACK Mean ms	<input type="checkbox"/>
FIN/FINACK Min ms	<input type="checkbox"/>
FIN/FINACK Max ms	<input type="checkbox"/>
SYN/FIN Count	<input type="checkbox"/>
SYN/FIN Mean ms	<input type="checkbox"/>
SYN/FIN Min ms	<input checked="" type="checkbox"/>
SYN/FIN Max ms	<input type="checkbox"/>
Dropped Packets	<input type="checkbox"/>
In Files/s	<input type="checkbox"/>
In File Bits/s	<input type="checkbox"/>
In Files Errorred/s	<input type="checkbox"/>
Out Files/s	<input type="checkbox"/>
Out File Bits/s	<input checked="" type="checkbox"/>
Out Files Errorred/s	<input type="checkbox"/>
Mean File Transfer Time ms	<input type="checkbox"/>

OK Cancel

# Applications – VoLTE

COBHAM

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
In Service	<input checked="" type="checkbox"/>
Out RTP Bits/s	<input type="checkbox"/>
Out RTP Packets/s	<input type="checkbox"/>
In RTP Bits/s	<input type="checkbox"/>
In RTP Packets/s	<input type="checkbox"/>
RTP Out of Sequence Packets	<input type="checkbox"/>
RTP Dropped Packets	<input type="checkbox"/>
RTP Duplicate Packets	<input type="checkbox"/>
Out Calls Attempted/s	<input type="checkbox"/>
Out Calls Established/s	<input type="checkbox"/>
Out Calls Rejected	<input type="checkbox"/>
In Calls Attempted/s	<input type="checkbox"/>
In Calls Established/s	<input type="checkbox"/>
In Calls Rejected	<input type="checkbox"/>
Calls Errored	<input type="checkbox"/>
SIP Out Messages	<input type="checkbox"/>
SIP Messages Resent	<input type="checkbox"/>
SIP In Messages	<input type="checkbox"/>
Registrations Attempted	<input type="checkbox"/>
Registrations Successful	<input type="checkbox"/>
Registrations Rejected	<input type="checkbox"/>
Registrations Errored	<input type="checkbox"/>
Calls Received Ringing	<input type="checkbox"/>
Mean Time To Ringing ms	<input type="checkbox"/>
Min Time To Ringing ms	<input type="checkbox"/>

OK Cancel

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
Calls Received Ringing	<input type="checkbox"/>
Mean Time To Ringing ms	<input type="checkbox"/>
Min Time To Ringing ms	<input type="checkbox"/>
Max Time To Ringing ms	<input type="checkbox"/>
Calls Received RTP Packet	<input type="checkbox"/>
Mean Time To RTP Packet ms	<input type="checkbox"/>
Min Time To RTP Packet ms	<input type="checkbox"/>
Max Time To RTP Packet ms	<input type="checkbox"/>
Out RTCP Packets	<input type="checkbox"/>
In RTCP Packets	<input type="checkbox"/>
RTP Jitter (RFC3550) ms	<input type="checkbox"/>
RTP Max Jitter ms	<input type="checkbox"/>
QmVoice R-Factor	<input type="checkbox"/>
QmVoice MOS	<input type="checkbox"/>
QmVoice Codec	<input type="checkbox"/>
QmVoice Stream ID	<input type="checkbox"/>
QmVoice In Packets	<input type="checkbox"/>
QmVoice Dropped Packets	<input type="checkbox"/>
QmVoice Out of Sequence Packets	<input type="checkbox"/>
QmVoice Discarded Packets	<input type="checkbox"/>
QmVoice Underrun Discarded Packets	<input type="checkbox"/>
QmVoice Overrun Discarded Packets	<input type="checkbox"/>
QmVoice Duplicate Packets	<input type="checkbox"/>
QmVoice Mean PDV ms	<input type="checkbox"/>
QmVoice Max PDV ms	<input type="checkbox"/>

OK Cancel

# Applications – RTSP Client/Server

COBHAM

The image shows two identical configuration dialogs for 'Configure Display Items'. Both dialogs have a header 'Configure Display Items' with a close button 'X' and a toolbar with a save icon and a delete icon.

The left dialog is titled 'RTSP Client' and the right dialog is titled 'RTSP Server'. Both dialogs have a 'Configuration' dropdown set to '<default>' and a toolbar with a save icon and a delete icon.

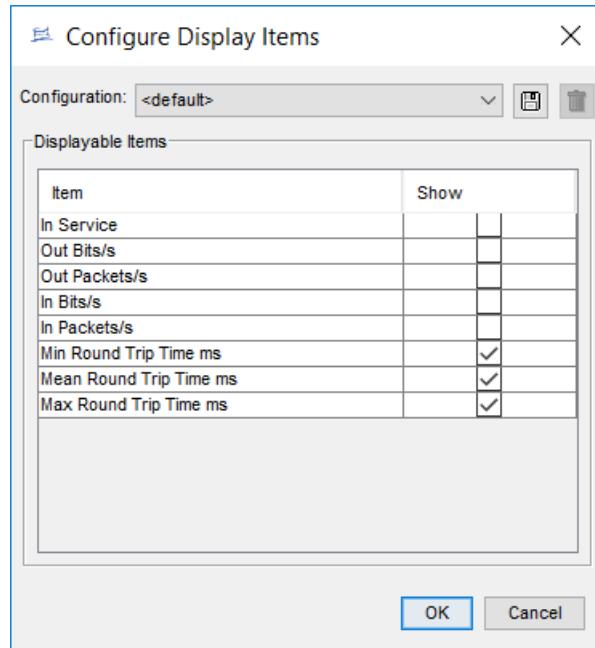
The main area is a table titled 'Displayable Items' with columns 'Item' and 'Show'. In the 'RTSP Client' dialog, the 'In Service' item is selected (highlighted with a blue border). In the 'RTSP Server' dialog, the 'Out Media Packets/s' item has a checked checkbox under 'Show'.

Item	Show
In Service	<input checked="" type="checkbox"/>
In Media Bits/s	<input type="checkbox"/>
In Media Packets/s	<input type="checkbox"/>
Media Out of Sequence Packets	<input type="checkbox"/>
Media Dropped Packets	<input type="checkbox"/>
Media Duplicate Packets	<input type="checkbox"/>
Out RTCP Packets	<input type="checkbox"/>
In RTCP Packets	<input type="checkbox"/>
Jitter Buffer Underrun Discarded Packets	<input type="checkbox"/>
Jitter Buffer Overrun Discarded Packets	<input type="checkbox"/>
RTP Jitter (RFC3550) ms	<input type="checkbox"/>
RTP Max Jitter ms	<input type="checkbox"/>
Sessions Attempted	<input type="checkbox"/>
Sessions Established	<input type="checkbox"/>
Sessions Rejected	<input type="checkbox"/>
Sessions Errored	<input type="checkbox"/>
Sessions Completed	<input type="checkbox"/>
Mean Session Duration ms	<input type="checkbox"/>
Sessions Received Media Packet	<input type="checkbox"/>
Mean Time to Media Packet ms	<input type="checkbox"/>
Min Time to Media Packet ms	<input type="checkbox"/>
Max Time to Media Packet ms	<input type="checkbox"/>

At the bottom of each dialog are 'OK' and 'Cancel' buttons. The 'RTSP Client' dialog also contains a red text label 'RTSP Client'.

# Applications – PING

COBHAM



# Applications – HTTP Client/Server

COBHAM

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
In Service	
Out Bits/s	<input checked="" type="checkbox"/>
Out Packets/s	<input checked="" type="checkbox"/>
In Bits/s	<input checked="" type="checkbox"/>
In Packets/s	<input checked="" type="checkbox"/>
Attempted Connections/s	
Established Connections/s	
Failed Connections/s	
Retransmitted Packets	
Out of Sequence Packets	
SYN/SYNACK Count	
SYN/SYNACK Mean ms	
SYN/SYNACK Min ms	
SYN/SYNACK Max ms	
SYN/Data Count	
SYN/Data Mean ms	
SYN/Data Min ms	
SYN/Data Max ms	
FIN/FINACK Count	
FIN/FINACK Mean ms	
FIN/FINACK Min ms	
FIN/FINACK Max ms	
SYN/FIN Count	
SYN/FIN Mean ms	
SYN/FIN Min ms	
SYN/FIN Max ms	
Gets/s	
In Message Bits/s	
Failed In Messages/s	
Out Messages/s	
Out Message Bits/s	
Failed Out Messages/s	
Mean Get Time ms	

OK Cancel

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
Retransmitted Packets	
Out of Sequence Packets	
SYN/SYNACK Count	
SYN/SYNACK Mean ms	
SYN/SYNACK Min ms	
SYN/SYNACK Max ms	
SYN/Data Count	
SYN/Data Mean ms	
SYN/Data Min ms	
SYN/Data Max ms	
FIN/FINACK Count	
FIN/FINACK Mean ms	
FIN/FINACK Min ms	
FIN/FINACK Max ms	
SYN/FIN Count	
SYN/FIN Mean ms	
SYN/FIN Min ms	
SYN/FIN Max ms	
Gets/s	
In Message Bits/s	
Failed In Messages/s	
Out Messages/s	
Out Message Bits/s	
Failed Out Messages/s	
Mean Get Time ms	

OK Cancel

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
Retransmitted Packets	
Out of Sequence Packets	
SYN/SYNACK Count	
SYN/SYNACK Mean ms	
SYN/SYNACK Min ms	
SYN/SYNACK Max ms	
SYN/Data Count	
SYN/Data Mean ms	
SYN/Data Min ms	
SYN/Data Max ms	
FIN/FINACK Count	
FIN/FINACK Mean ms	
FIN/FINACK Min ms	
FIN/FINACK Max ms	
SYN/FIN Count	
SYN/FIN Mean ms	
SYN/FIN Min ms	
SYN/FIN Max ms	
Gets/s	
In Message Bits/s	
Failed In Messages/s	
Out Messages/s	
Out Message Bits/s	
Failed Out Messages/s	
Mean Get Time ms	

HTTP Server

OK Cancel

# Applications – TWAMP Client/Server

COBHAM

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
In Service	<input type="checkbox"/>
Out Bits (control)/s	<input type="checkbox"/>
Out Packets (control)/s	<input type="checkbox"/>
In Bits (control)/s	<input type="checkbox"/>
In Packets (control)/s	<input type="checkbox"/>
Attempted Connections (control)/s	<input type="checkbox"/>
SYN/SYNACK Count	<input type="checkbox"/>
SYN/SYNACK Mean ms	<input type="checkbox"/>
SYN/SYNACK Min ms	<input type="checkbox"/>
SYN/SYNACK Max ms	<input type="checkbox"/>
SYN/Data Count	<input type="checkbox"/>
SYN/Data Mean ms	<input type="checkbox"/>
SYN/Data Min ms	<input type="checkbox"/>
SYN/Data Max ms	<input type="checkbox"/>
FIN/FINACK Count	<input type="checkbox"/>
FIN/FINACK Mean ms	<input type="checkbox"/>
FIN/FINACK Min ms	<input type="checkbox"/>
FIN/FINACK Max ms	<input type="checkbox"/>
SYN/FIN Count	<input type="checkbox"/>
SYN/FIN Mean ms	<input type="checkbox"/>
SYN/FIN Min ms	<input type="checkbox"/>
SYN/FIN Max ms	<input type="checkbox"/>
Session Id	<input type="checkbox"/>
Session Packets Out	<input type="checkbox"/>
Session Packets In	<input type="checkbox"/>
Session Packets Out	<input type="checkbox"/>
Session Packets In	<input type="checkbox"/>

OK Cancel

Configure Display Items

Configuration: <default>

Displayable Items

Item	Show
SYN/Data Min ms	<input type="checkbox"/>
SYN/Data Max ms	<input type="checkbox"/>
FIN/FINACK Count	<input type="checkbox"/>
FIN/FINACK Mean ms	<input type="checkbox"/>
FIN/FINACK Min ms	<input type="checkbox"/>
FIN/FINACK Max ms	<input type="checkbox"/>
SYN/FIN Count	<input type="checkbox"/>
SYN/FIN Mean ms	<input type="checkbox"/>
SYN/FIN Min ms	<input type="checkbox"/>
SYN/FIN Max ms	<input type="checkbox"/>
Session Id	<input type="checkbox"/>
Session Packets Out	<input type="checkbox"/>
Session Packets In	<input checked="" type="checkbox"/>
Session Packets Dropped CR	<input type="checkbox"/>
Session Packets Dropped RC	<input type="checkbox"/>
Mean One Way Latency CR ms	<input type="checkbox"/>
Max One Way Latency CR ms	<input type="checkbox"/>
Min One Way Latency CR ms	<input type="checkbox"/>
One Way Jitter CR ms	<input type="checkbox"/>
Max One Way Jitter CR ms	<input type="checkbox"/>
Mean Round Trip Latency ms	<input checked="" type="checkbox"/>
Max Round Trip Latency ms	<input type="checkbox"/>
Min Round Trip Latency ms	<input type="checkbox"/>
Round Trip Jitter ms	<input checked="" type="checkbox"/>
Max Round Trip Jitter ms	<input type="checkbox"/>

OK Cancel

Configure Display Items

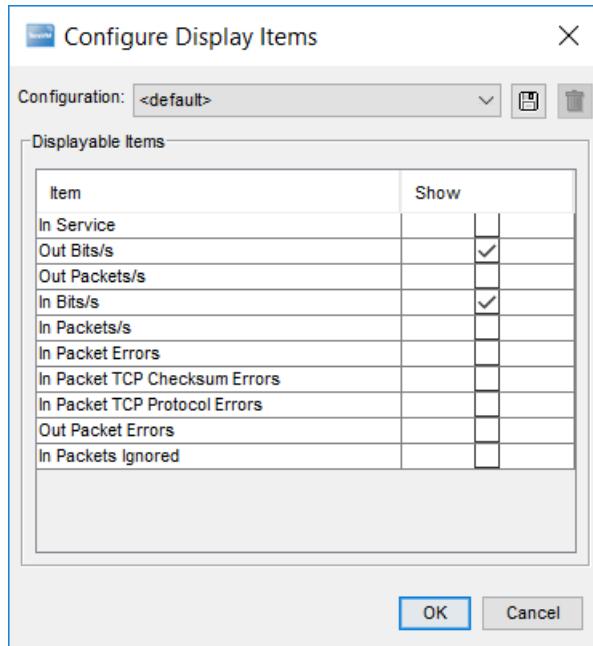
Configuration: <default>

Displayable Items

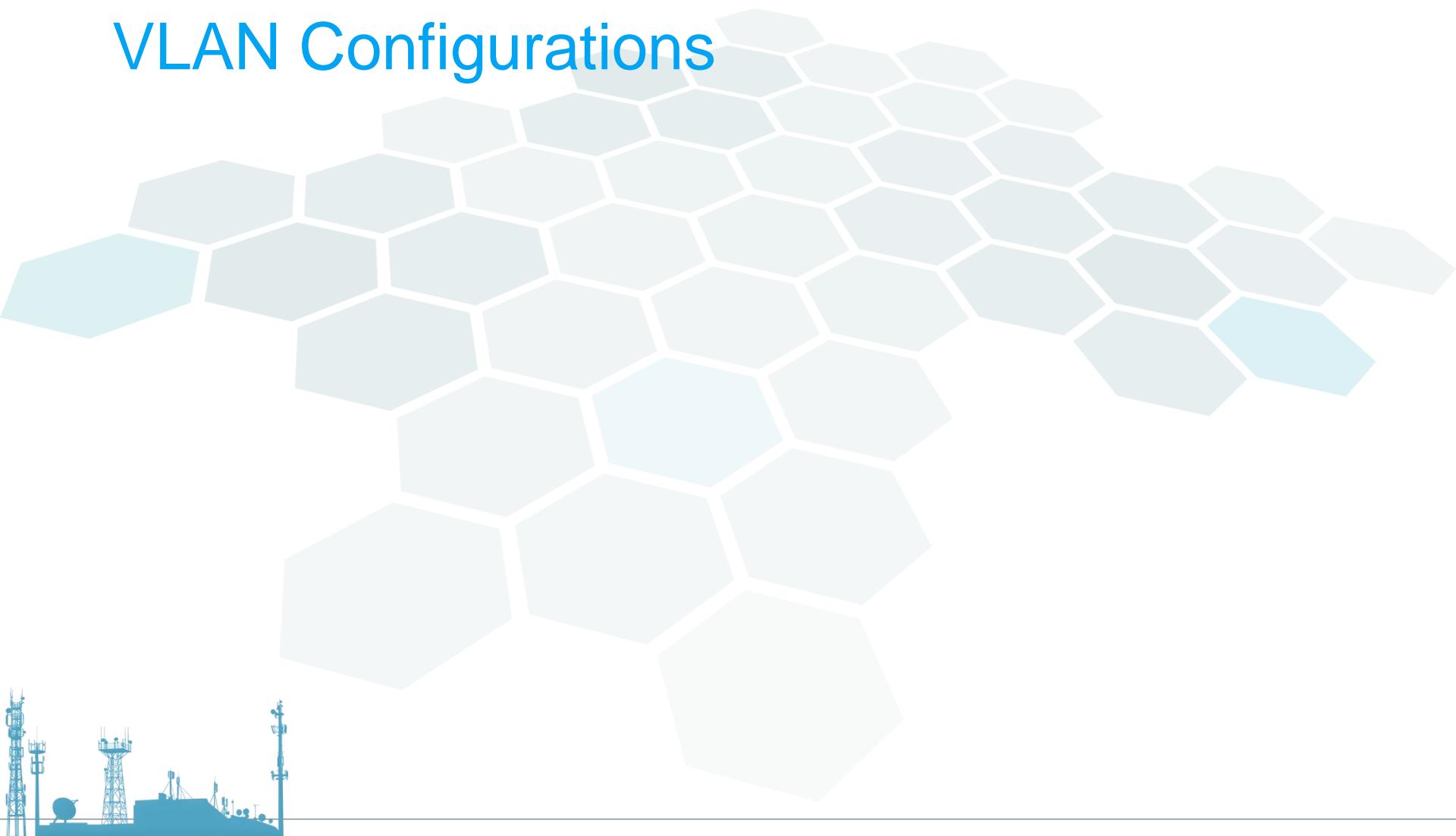
Item	Show
In Service	<input type="checkbox"/>
Out Bits (control)/s	<input type="checkbox"/>
Out Packets (control)/s	<input type="checkbox"/>
In Bits (control)/s	<input type="checkbox"/>
In Packets (control)/s	<input type="checkbox"/>
SYN/SYNACK Count	<input type="checkbox"/>
SYN/SYNACK Mean ms	<input type="checkbox"/>
SYN/SYNACK Min ms	<input type="checkbox"/>
SYN/SYNACK Max ms	<input type="checkbox"/>
SYN/Data Count	<input type="checkbox"/>
SYN/Data Mean ms	<input type="checkbox"/>
SYN/Data Min ms	<input type="checkbox"/>
SYN/Data Max ms	<input type="checkbox"/>
FIN/FINACK Count	<input type="checkbox"/>
FIN/FINACK Mean ms	<input type="checkbox"/>
FIN/FINACK Min ms	<input type="checkbox"/>
FIN/FINACK Max ms	<input type="checkbox"/>
SYN/FIN Count	<input type="checkbox"/>
SYN/FIN Mean ms	<input type="checkbox"/>
SYN/FIN Min ms	<input type="checkbox"/>
SYN/FIN Max ms	<input type="checkbox"/>
Session Packets In	<input checked="" type="checkbox"/>
Session Packets Out	<input checked="" type="checkbox"/>

TWAMP Server

OK Cancel



# VLAN Configurations



- 请参阅TTK780\_001\_Issue\_3.pdf

# Upgrade System & License Installation



- RDA软件版本升级，请联系TM500 FAE.

# Additional Applications

- Voice services
- Video services
- Media & Voice Passive Analysis
- TWAMP – Two Way Active Measurement
- Thresholding
- TeraFlow
- SMS over IMS



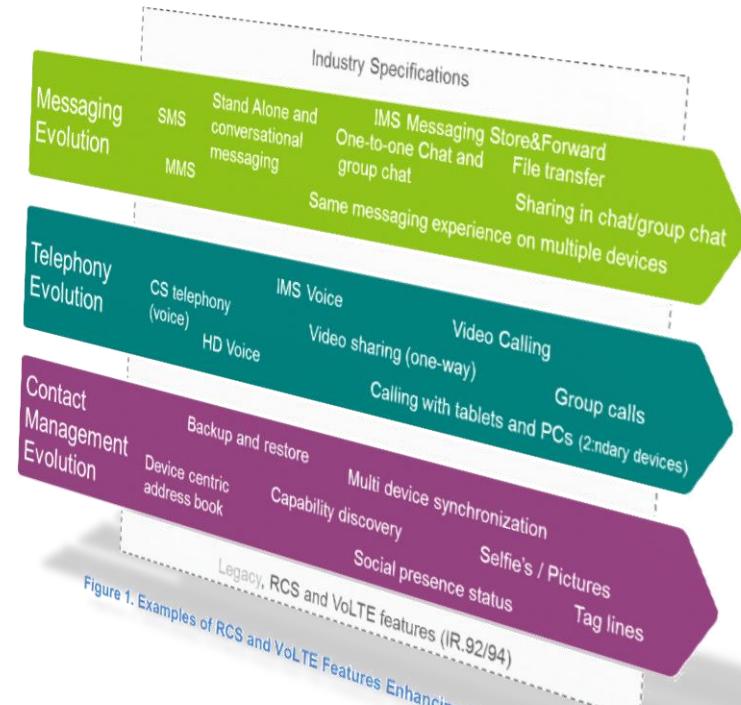
# Voice services



## Will Voice be “just” data?

- Explosive demand, increasing price pressure and OTT competition drive VoLTE
- Opens new business opportunities
- Helps improve customer experience

Cobham VoLTE option allows emulation of VoLTE UEs with different audio codecs to ensure that the coveted QoE improvements are achieved, VoLTE traffic is prioritized appropriately through the entire network and performance can be optimized



•4G Americas VoLTE\_RCS  
TECHNOLOGY ECO-SYSTEM AND  
EVOLUTION  
[www.cobham.com/wireless](http://www.cobham.com/wireless)

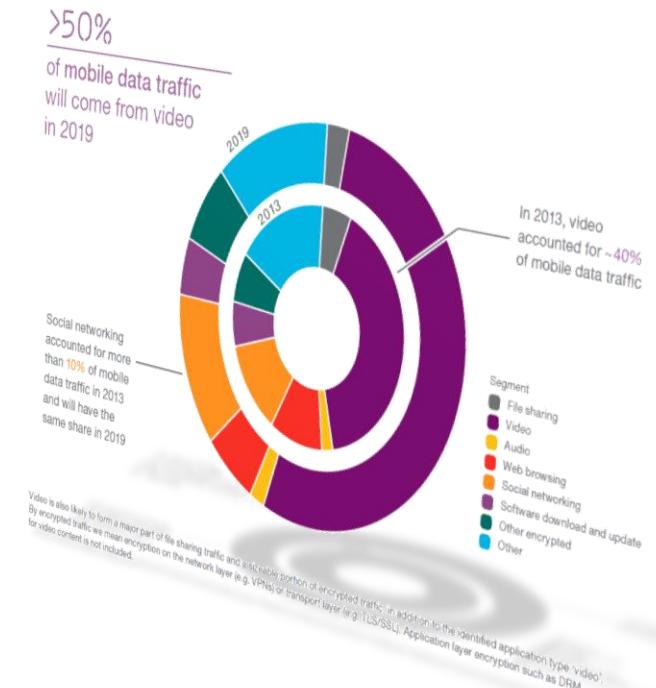
# Video services



Video on demand (VoD) and video streaming (VS) are the most popular applications in LTE networks and thus are under most scrutiny for quality of experience.

Cobham Video service option allows emulation of UEs connecting to VoD or VS servers as well as emulation of these servers to see the impact on the network performance or to see the network impact on the Video service performance.

Cobham implementation supports multiple Audio and Video codecs which allows users to test with scenarios that reflect their own network or to evaluate planned deployment performance.

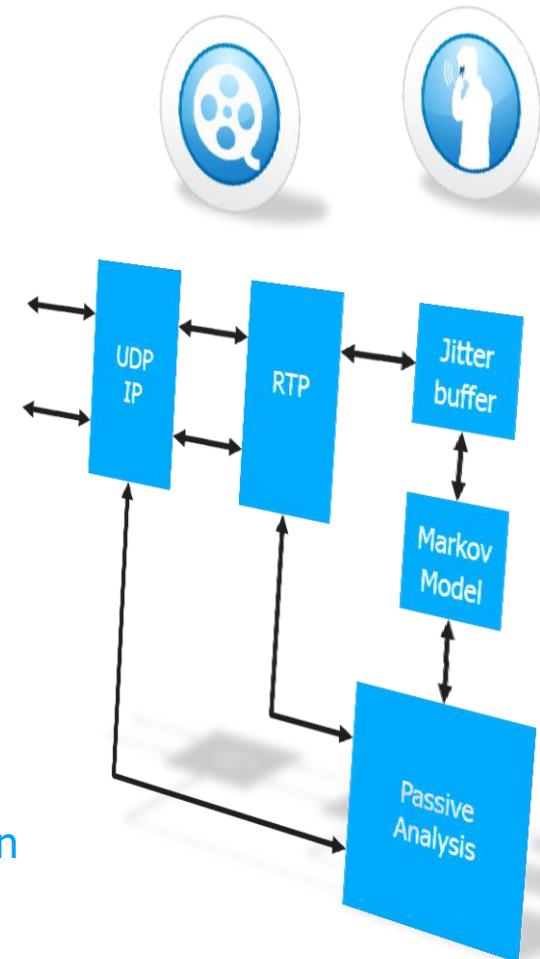




Service's overall quality is how the **video** or the **audio** quality is perceived by consumers. This is typically exemplified with Mean Opinion Score (MOS). Cobham's Passive Analysis option allows to quantify how network layer imperfections affect this quality of experience (QoE) factor.

Cobham implementation supports both audio and video quality analysis and also uses:

- Jitter Buffer models real UE packet queuing and playback effects to
  - detect lost packet
  - Predict which packets would be discarded
- Markov Model to statistically learn the distribution of lost and discarded packets during a call, and then apply this distribution for MOS calculation



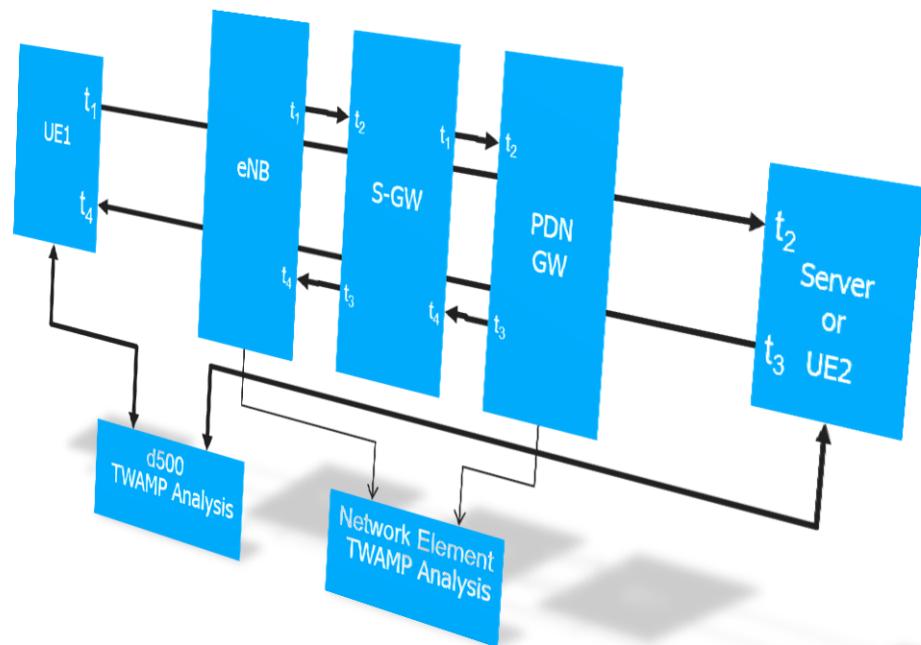
# TWAMP – Two Way Active Measurement

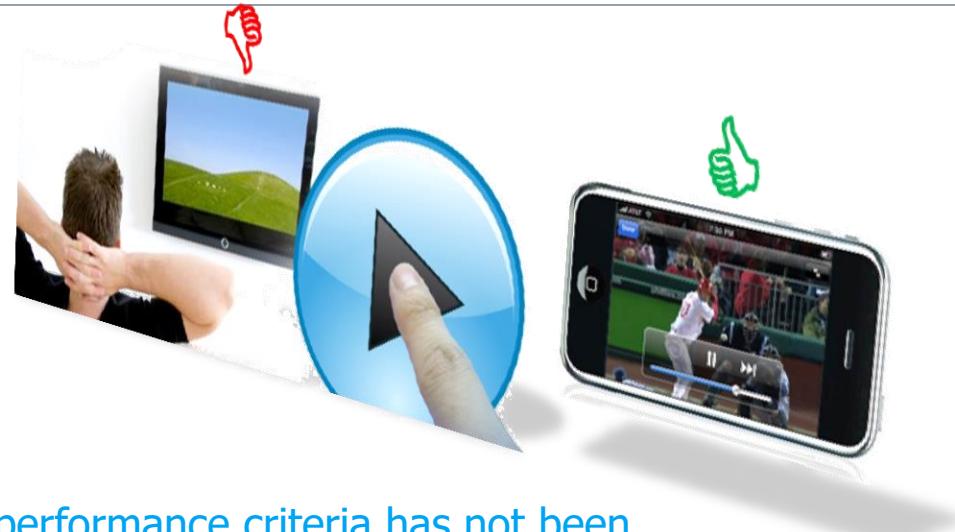


- Measuring the performance of IP networks is a challenge
  - Standard tools were designed for simple troubleshooting
- The Two-Way Active Measurement Protocol (**TWAMP**)
  - defines a flexible method for measuring round trip IP performance among any two devices in a network that support the standard
  - provides a flexible choice of solutions and full visibility into network performance

Cobham TWAMP option is

- Compliant to work with any network element that supports TWAMP
- Allows measurements between any two endpoints
- IP performance can be measured effectively at all locations in the network





## Cobham Thresholding Option

- automatically determines if the expected performance criteria has not been met during testing
- Saves time by identifying what, where and when it has been outside of tolerance
- Allows monitoring of multiple applications simultaneously with different criteria
  - Different UE groups (for example VIP customers and data only subscriptions) can have individual criteria
  - Setting up different violation and clearance duration

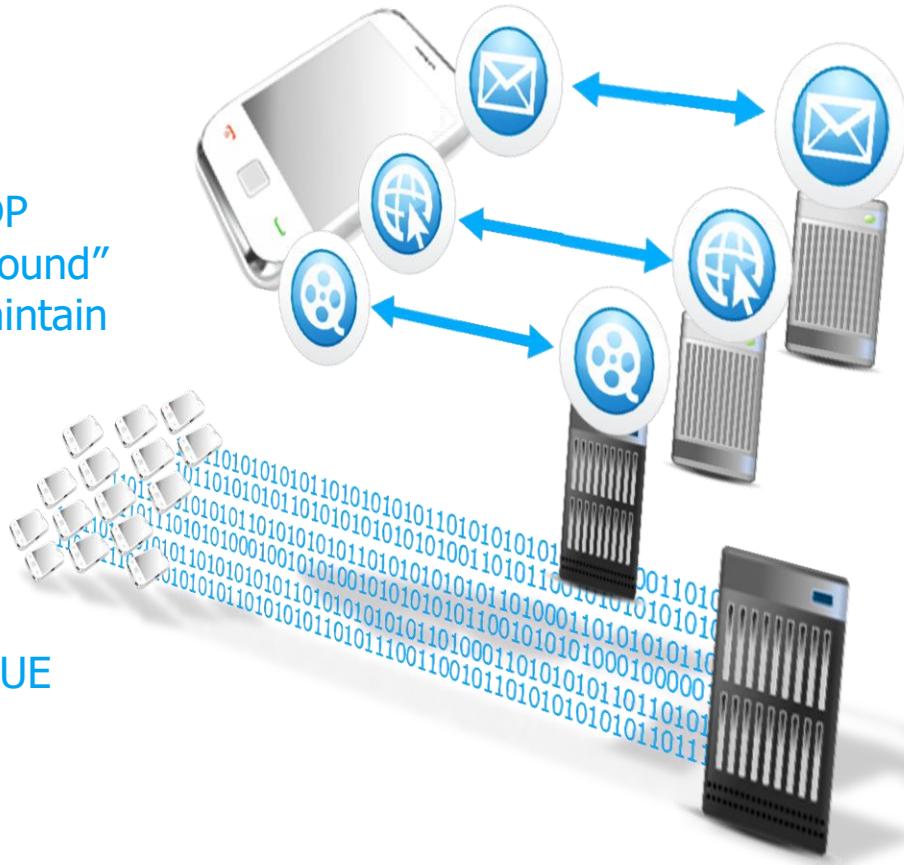




Cobham TeraFlow Option creates TCP and/or UDP protocol traffic. This allows easily create “background” traffic while validating that other applications maintain acceptable level of performance.

# Cobham TeraFlow Option

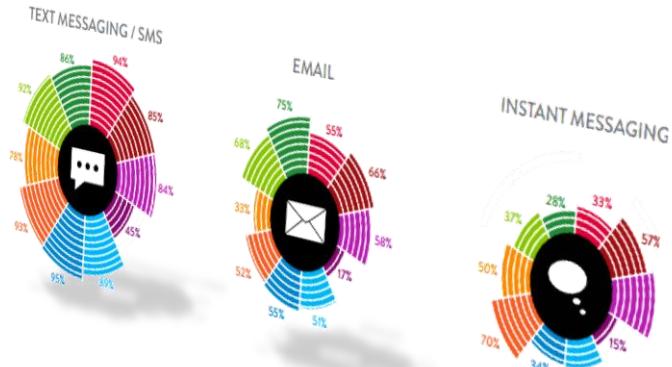
- Generation of traffic at pre-defined level
  - Mirroring the UE data back for bi-directional measurement
  - Can be configured and turned On and Off per UE





The IP Multimedia System (IMS) is not only used for VoLTE, but also to deliver other services such as traditional messaging services (SMS).

Cobham SMS option allows emulation UEs to connect to IMS SMS servers and ensure that the coveted integration of SMS services function properly and transmission and reception of SMS messages works properly through the entire network.



• Nielsen Mobile-Consumer-Report-

2013

[www.cobham.com/wireless](http://www.cobham.com/wireless)

# Troubleshooting

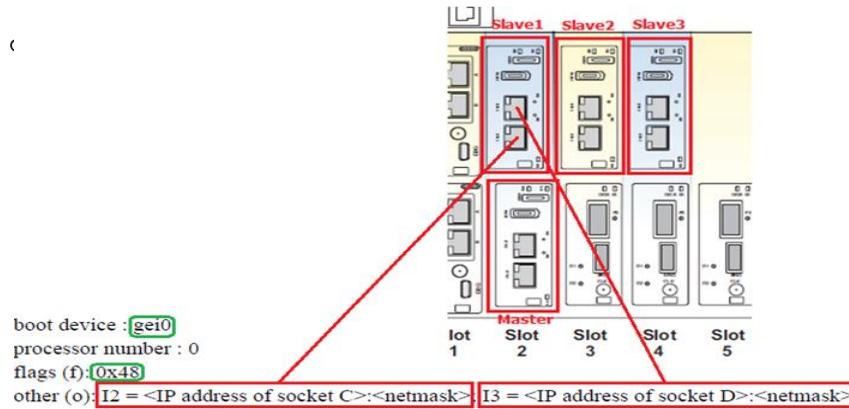


## 脚本无法导入RDA内

- 检查脚本**Physical Interface**是否和当前RDA硬件配置匹配。
  - 例如，当前RDA脚本是基于D500 Part (Core & Edge) Partition 1 生成的，那么对应的**Physical Interface**分别为10/1/0 (Host -> PPPoE) 和20/1/1 (Host -> Internal Server)，如果导入 Standalone D500，则需先用文本编辑器把Server对应的**Physical Interface**更新为10/1/1。
- 可以用文本编辑器批量替换修改RDA脚本。
  - 例如，把基于Partition 1生成的脚本导入Partition 2使用，则在导入脚本前，需要批量替换PPPoE对应的所有**Physical Interface**。

## PPPoE IP地址获取不到

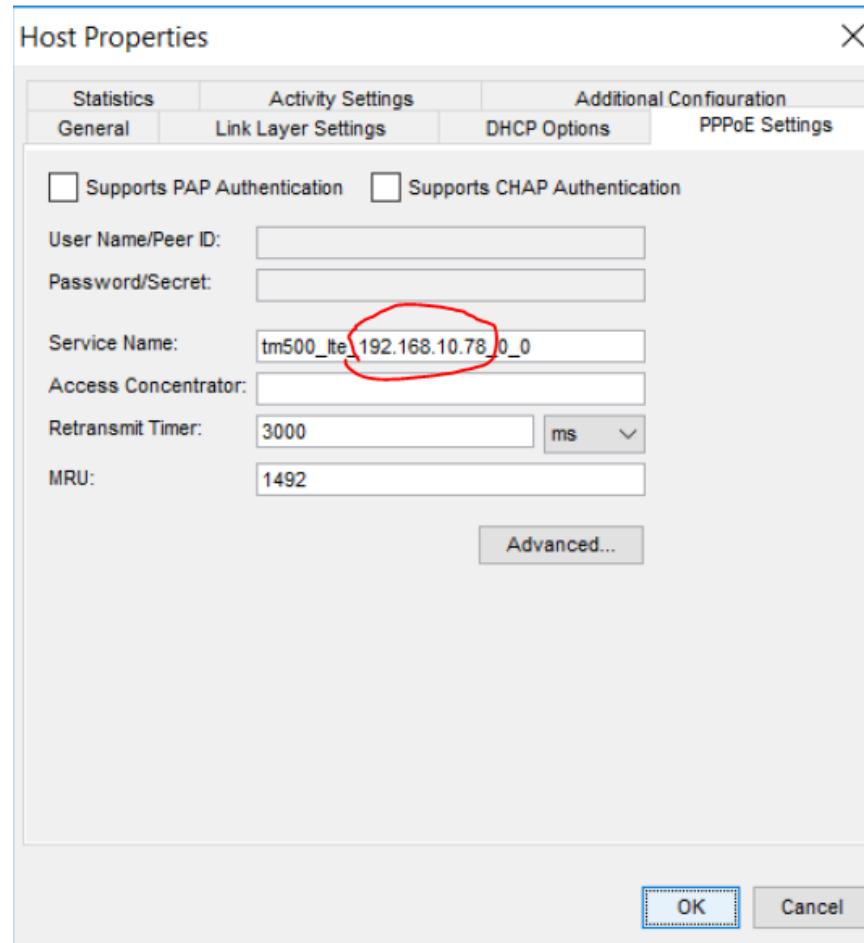
- 检查网线连接是否正确，尤其是RDA Hub上的端口是否和当前分区对应。
  - 例如，如果当前使用单台D500，并且使用的是分区2，那么RDA的Gb2口应该连接到Hub的1口，TM500的PPPoE口连接到Hub的3口，核心网SGi口连接到Hub的6口。
- 另外，还需注意TM500侧连接的网口是否是正确的PPPoE口（在TM500上排HLP卡上）。
- 检查TM500 PPPoE IP地址是否配置正确，可以通过串口线连接到TM500上排的HLP卡查看配置，PPPoE地址为other(o)字段内I2=后面的IP地址。



# Troubleshooting

## PPPoE IP地址获取不到

- 检查RDA脚本内PPPoE的IP地址是否与TM500 PPPoE口的IP地址一致。



## PPPoE IP地址获取不到

- 检查RDA脚本内PPPoE的Physical Interface是否正确。例如，如果当前使用单台D500，并且使用的是分区3，那么PPPoE的Physical Interface应该是12/1/0。
- 如果以上配置和连线都没有问题，那么需要检查VLAN配置是否正确。注意单台RDA和一对RDA使用时配置的不同。比如，单台D500时，只需要一个Hub，VLAN 10在2口，VLAN11在3口，VLAN12在4口为Untag状态，VLAN16在5口，VLAN17在6口，VLAN 18在7口为Untag状态；一对D500时，需要两个HUB，VLAN 10~15分别在EDGE HUB的2~7口上Untag，VLAN 16~21分别在CORE HUB的2~7口上Untag。

## TMA无法调用RDA脚本

- 检查**TMA**脚本内，**RDA**脚本名称和分区等信息是否配置正确。
- **TM500**控制口和**RDA**管理口**Gb1**需连在同一个**Hub**，且它们的**IP**在同一个网段。

# Troubleshooting

## 如何调试RDA业务不通

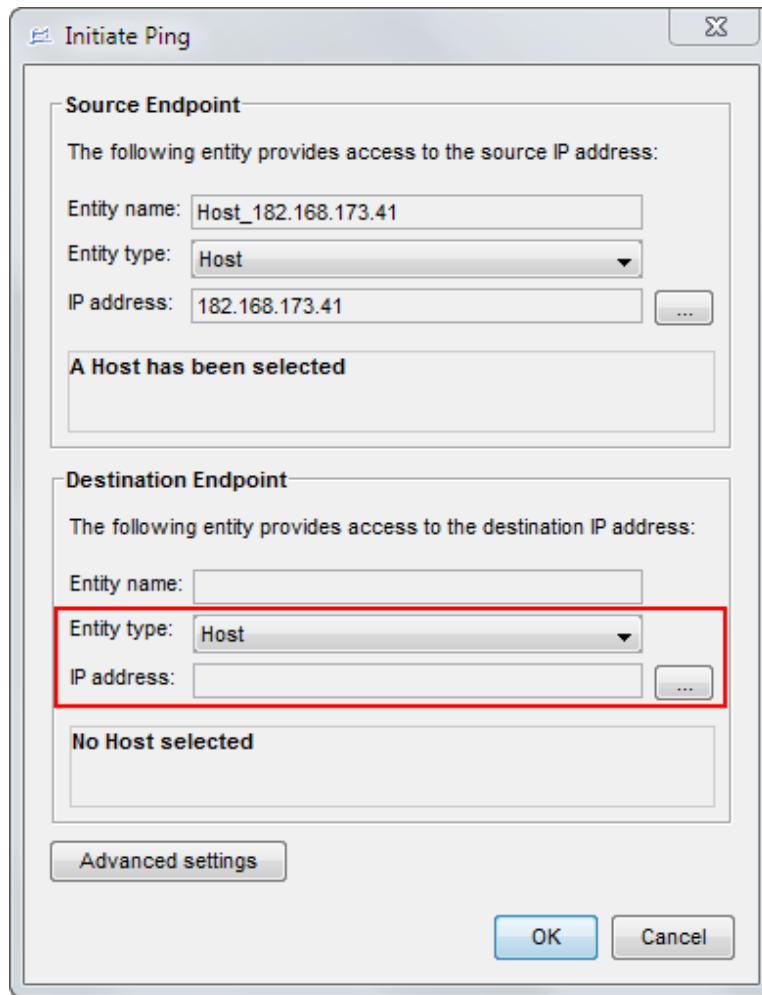
- 请先检查FTP/HTTP/UDP Server能否Ping通Gateway和pppoe\_0000\_0。
  - 在RDA客户端Hosts页面，右键点击FTP/HTTP/UDP Server，选择Ping From；

Name	Scale	Interface	IP Assignment	IP Address
Gateway			Static	182.168.173.38
Host_182.168.173.41	10/1/1		Static	182.168.173.41/24
pppoe_0000_0	Add Threshold On		PPPoE/IPv4CP	20.20.0.25
pppoe_0001_0	Capture PDU's		PPPoE/IPv4CP	20.20.0.26
pppoe_0002_0	Ping From		PPPoE/IPv4CP	20.20.0.27
pppoe_0003_0	Trace Route From		PPPoE/IPv4CP	20.20.0.28
pppoe_0004_0	Enable Block All Traffic		PPPoE/IPv4CP	20.20.1.169
pppoe_0005_0	Set Out Of Service		PPPoE/IPv4CP	20.20.0.30
pppoe_0006_0			PPPoE/IPv4CP	20.20.0.31
pppoe_0007_0			PPPoE/IPv4CP	20.20.0.32
pppoe_0008_0	Statistics...		PPPoE/IPv4CP	20.20.0.33

# Troubleshooting

## 如何调试RDA业务不通

- 选择Entity type为Host，然后点击IP address右边的小图标；



# Troubleshooting

## 如何调试RDA业务不通

- 选择Host为Gateway;

Select Host(s)

Name	/	Scale	Interface	IP Assign...	IP Addr...	G/W H...	G/W IP ...	Descri...	Type	% A...	% A...
Gateway				Static	182.168...			External ...			
Host_182.168.173.41			10/1/1	Static	182.168...	Gateway	182.168.1...		Virtual H...		
pppoe_0000_0			10/1/0	PPPoE/IPv...	20.20.0.25		169.254.2...		Virtual H...		
pppoe_0001_0			10/1/0	PPPoE/IPv...	20.20.0.26		169.254.2...		Virtual H...		
pppoe_0002_0			10/1/0	PPPoE/IPv...	20.20.0.27		169.254.2...		Virtual H...		
pppoe_0003_0			10/1/0	PPPoE/IPv...	20.20.0.28		169.254.2...		Virtual H...		
pppoe_0004_0			10/1/0	PPPoE/IPv...	20.20.1.1...		169.254.2...		Virtual H...		
pppoe_0005_0			10/1/0	PPPoE/IPv...	20.20.0.30		169.254.2...		Virtual H...		
pppoe_0006_0			10/1/0	PPPoE/IPv...	20.20.0.31		169.254.2...		Virtual H...		
pppoe_0007_0			10/1/0	PPPoE/IPv...	20.20.0.32		169.254.2...		Virtual H...		
pppoe_0008_0			10/1/0	PPPoE/IPv...	20.20.0.33		169.254.2...		Virtual H...		
pppoe_0009_0			10/1/0	PPPoE/IPv...	20.20.0.34		169.254.2...		Virtual H...		
pppoe_0010_0			10/1/0	PPPoE/IPv...	20.20.0.36		169.254.2...		Virtual H...		
pppoe_0011_0			10/1/0	PPPoE/IPv...	20.20.0.35		169.254.2...		Virtual H...		
pppoe_0012_0			10/1/0	PPPoE/IPv...	20.20.0.37		169.254.2...		Virtual H...		
pppoe_0013_0			10/1/0	PPPoE/IPv...	20.20.0.38		169.254.2...		Virtual H...		
pppoe_0014_0			10/1/0	PPPoE/IPv...	20.20.0.39		169.254.2...		Virtual H...		
pppoe_0015_0			10/1/0	PPPoE/IPv...	20.20.0.40		169.254.2...		Virtual H...		
pppoe_0016_0			10/1/0	PPPoE/IPv...	20.20.0.42		169.254.2...		Virtual H...		
pppoe_0017_0			10/1/0	PPPoE/IPv...	20.20.0.41		169.254.2...		Virtual H...		
pppoe_0018_0			10/1/0	PPPoE/IPv...	20.20.0.42		169.254.2...		Virtual H...		

Total: 1202

Allow Sorting    Show Filter

Initiate Ping

Source Endpoint

The following entity provides access to the source IP address:

Entity name: Host\_182.168.173.41  
Entity type: Host  
IP address: 182.168.173.41

A Host has been selected

Destination Endpoint

The following entity provides access to the destination IP address:

Entity name: Gateway  
Entity type: Host  
IP address: 182.168.173.38

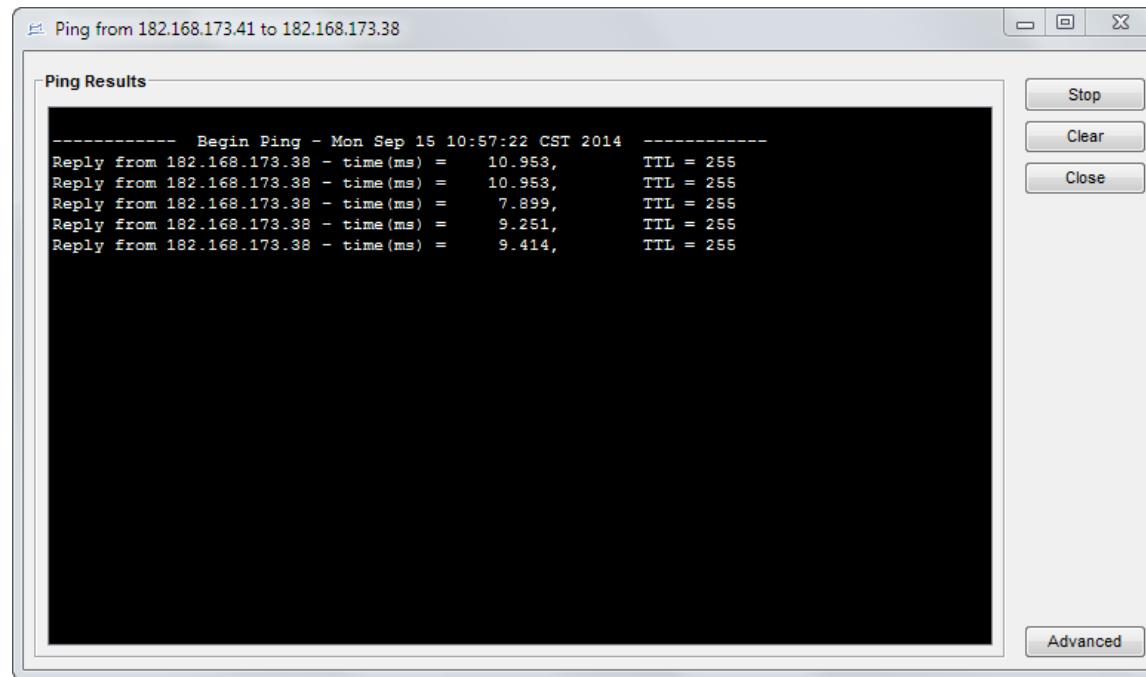
A Host has been selected

Advanced settings

# Troubleshooting

## 如何调试RDA业务不通

- 确保从FTP/HTTP/UDP Server可以Ping通Gateway;

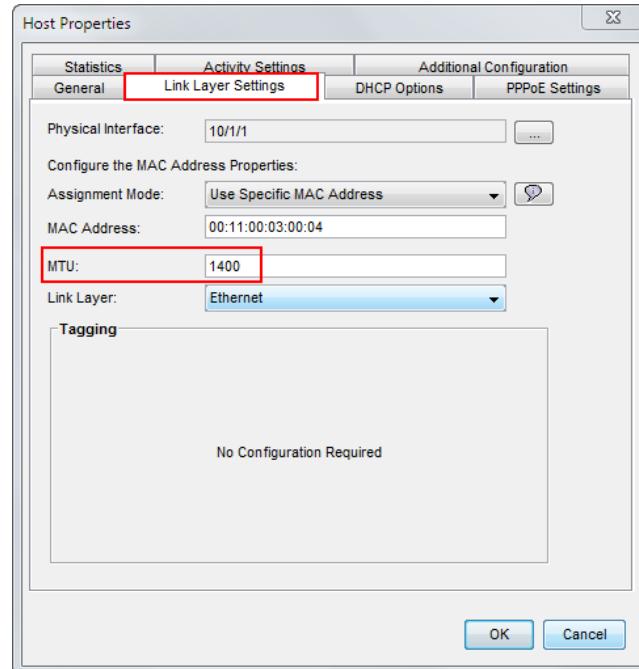


- 同理，请确认从FTP/HTTP/UDP Server可以 Ping通pppoe\_0000\_0;
- 如果FTP/HTTP/UDP Server无法Ping通Gateway，请确认：
  - Gateway是否可Ping;
  - Gateway/FTP/HTTP/UDP Server IP及子网掩码是否配置正确;

# Troubleshooting

## 如何调试RDA业务不通

- 尝试找一台电脑，把IP配置为Gateway的IP，然后连接到VLAN Hub对应的SGi口，确认能否从FTP/HTTP/UDP Server Ping通这个IP，以确定是Gateway还是Gateway与SGi连接网线引起的异常；
- 如果FTP/HTTP/UDP Server都能Ping通Gateway和pppoe\_0000\_0，但是Shenick依然业务不通，请检查FTP/HTTP/UDP Server属性所配置的MTU是否超过了EPC/eNB配置的MTU。



## 无法抓取有效的出问题UE的PDU

- 比如**VoIP**测试中，有些问题会随机出现在某些**UE**上，如果问题出现之后再到对应的**Application**上抓取**PDU**，将不能抓到出问题时的**log**，如果提前抓取，又不确定问题会出现在哪些**UE**上。对于这种情况，可以随意选择一个**UE**的**Application**然后在抓取**PDU**时去掉对于源和目标**IP**地址的限制，这样就可以抓取所有**UE**的**log**了，问题出现之后，再在**WiresharK**内过滤出对应**UE**的**IP**地址就可以了。

- Real Data Apps Overview.pptx
- RDA\_D500-D1000.pptx
- TTK780\_001\_Issue\_3.pdf

## Change History



**Connected – Seamless – Wireless**