Intel® Corporation

Automation Control System (ACS) Release Notes

Version 3.3.1

PSI System Tests Team
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Intel Confidential

Table of Contents

1. Revision History

Version	Date	Changed By	Comment
1.0	October 12, 2010	Arnaud Jamart, Christophe Brésolin	Initial version
1.1	November 18, 2010	Christophe Brésolin	ACS version 2.2 updates
1.2	December 7, 2010	Christophe Brésolin	ACS version 2.3 updates
1.3	January 24, 2011	Christophe Brésolin	ACS version 2.4 updates
1.4	March 21, 2011	Arnaud Jamart	ACS version 2.5 updates
1.5	March 29, 2011	Arnaud Jamart	ACS version 2.5.1 updates
1.6	April 13, 2011	Christophe Brésolin	ACS version 2.6 updates
3.0	June 01, 2011	Arnaud Jamart	ACS version 3.0 updates
3.1	June 27, 2011	Arnaud Jamart	ACS version 3.1 updates
3.2	July 21, 2011	Christophe Brésolin	ACS version 3.2 updates
3.2.1	July 25, 2011	Christophe Brésolin	ACS version 3.2.1 updates
3.2.2	August 3, 2011	Christophe Brésolin	ACS version 3.2.2 updates
3.2.3	August 10, 2011	Eric Libert	ACS version 3.2.3 updates
3.3	August 17, 2011	Eric Libert	ACS version 3.3 updates
3.3.1	August 26, 2011	Arnaud Jamart	ACS version 3.3.1 updates

2. Readme First

This document describes ACS v3.3.1 Release content and specific instructions for installation.

ACS is now deployed in 3 versions:

- ACS LIVE on Windows XP & Win 7
- ACS LIVE on Linux
- ACS LAB on Windows XP & Win 7

ACS LIVE is for light ACS setups when equipment control is not needed (Wifi, BT, Telephony Live, MUM etc…) and UI based tests.

It has below limitations:

- GPIB Equipment are not supported
  - Network Simulators
  - Power Supplies
- USBDIO & ACB are not supported
- Power Measurement are not supported as PAT is not ported on Linux

Given these limitations, it means that all LAB_* Use Cases are not supported.

The USB_RLY08 relay board (used as a Power Supply) is supported. It is enumerated as a serial port under Linux (/dev/ttyUSB*, beware of permissions on this device for the user running ACS)

UI and LIVE Use Cases are supported.

ACS LAB is for full ACS setups with all functionalities enabled.

2.1 ACS LIVE (Windows XP)

2.1.1 Host Software Requirements

Host Computer OS: Windows XP SP3 or Windows 7 Enterprise (64bit)

2.1.2 ACS Third Parties Installer

To install all necessary third party software, download and install **ACS_LIVE_Thirdparties_binaries_V2.0** located at \\tlnap01b.tl.intel.com\release_intel_tools\ACS

Warning:

- Please **re-install 3rd party software if the version installed is different from the one recommended in each release** (incremental install on XP, not working on Windows 7)
- Please keep default installation options of all third-party software (e.g. do not select install just for me!)

For users who want to take Android screen snapshots, please install ffmpeg from the following link: http://ffmpeg.zeranoe.com/builds/

2.1.3 ACS Host Installer

To install ACS on your host PC, **first manually uninstall previous version of ACS**.

Then launch **ACS_Core_Win_V3.3.1.exe** located at: \\tlnap01b.tl.intel.com\release_intel_tools\ACS\V3.3

2.2 ACS LIVE (LINUX)

2.2.1 Host Software Requirements

Host Computer OS: Ubuntu has been validated.

It should work on other distributions, if you have all dependencies installed.
This setup will focus on apt based distributions.

2.2.1.1 Android Setup

Installing JDK:
apt-get install default-jdk

On 64 bits distribution, install 32 bits libraries:
apt-get install ia32-libs

Update udev for ADB over USB:
In /etc/udev/rules.d/, create a new file 51-android.rules, or update it with this line:
SUBSYSTEMS=="usb", ATTRS{idVendor}=="0bb4", ATTRS{idProduct}=="0c02", MODE="0666", OWNER="lab"
SUBSYSTEMS=="usb", ATTRS{idVendor}=="8086", ATTRS{idProduct}=="e004", MODE="0666", OWNER="lab"

idVendor and idProduct are retrieved with lsusb cmdline:

```
Bus 002 Device 039: ID 0bb4:0c02 High Tech Computer Corp. Dream / ADP1 / G1 Phone (Debug)
Bus 002 Device 034: ID 0403:6001 Future Technology Devices International, Ltd FT232 USB-Serial (UART) IC
Bus 002 Device 002: ID 8087:0020 Intel Corp. Integrated Rate Matching Hub
Bus 002 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 001 Device 004: ID 03f0:0024 Hewlett-Packard KU-0316 Keyboard
Bus 001 Device 003: ID 046d:c018 Logitech, Inc. Optical Wheel Mouse
Bus 001 Device 002: ID 8087:0020 Intel Corp. Integrated Rate Matching Hub
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
```

Once udev's rules has been added/updated, restart it with:
/etc/init.d/udev restart

For more details please refer to UMG Wiki page:
http://umgwiki.intel.com/w/index.php?title=Medfield_Android_Bring-Up

2.2.2 ACS Third Parties Installation

Install apt available dependencies:

1. # apt-get install python-setuptools python-numpy python-scipy python-lxml ffmpeg python-wxgtk2.6 python-serial python-pyaudio

Installing Python xpath dependency:

1. Get py-dom-xpath-0.1.tar.gz
2. Uncompress it, then install it with following command (as root):
3. # python setup.py install

For users who want to take Android screen snapshots, please install ffmpeg from the following link: http://ffmpeg.org/download.html

2.2.3 ACS Host Installation

To install ACS on your host Linux PC, go to
\\tlnap01b.tl.intel.com\release_intel_tools\ACS\V3.3

1. Get the latest archive of ACS: **ACS_Core_Linux_V3.3.1.zip**
2. Uncompress the archive in your working directory (i.e user's home ~)
3. Add adb in your $PATH:
   a. Open ~/.profile or /etc/profile or ~/.bashrc, and add the following line
   b. $ export PATH=$PATH:[ANDROID_SDK_PATH] /platform-tools/
4. Add APPDATA variable in your environment:
   a. Open ~/.profile or /etc/profile or ~/.bashrc, and add the following line
   b. $ export APPDATA=/tmp
5. Source the file you updated, or launch a new shell
6. Check that the variables are set:
   a. $ adb version → Android Debug Bridge version 1.0.26
   b. echo $APPDATA → /tmp
7. Setup and configure a campaign:
8. Launch ACS with following cmdline:

```
Usage: CampaignEngine.py -pm=<PhoneModel> -cp=<TestCampaign>
 [-bc=<BenchConfig>] [-bc=<BenchConfig>] [-ff=<"FlashFilePath">]
```

- -pm=<PhoneModel> => Phone model to test (in Phone_Catalog)
  To use ACS in multiple device mode : 'multi' instead of PhoneModel
  You need to define your phones in the Bench Config to use this mode
- -cp=<TestCampaign> => Test Campaign to execute
- -cn=<CampaignExeNb> => Execution number of the campaign if more than one run is required (optional)
- -bc=<BenchConfig> => Bench Config file to use; default is Bench_Config (optional)
- -ff=<FlashFilePath> => Flash zip file full path (optional)

E.g.:

- python CampaignEngine.py -pm=MfldiCDKAndroid -cp=_FUTE_Dummy_Campaign.xml -ff=C:\Users\sfusilie\Desktop\PhoneFlashTool\mfld_pr2-C0-20110812-002.zip

2.3 ACS LAB (Windows XP)

2.3.1 Host Software Requirements

Host Computer OS: Windows XP SP3 or Windows 7 Enterprise (64bit).

2.3.2 ACS Third Parties Installer

To install all necessary third party software, launch **ACS_LAB_Thirdparties_V2.0.exe** located at \\tlnap01b.tl.intel.com\release_intel_tools\ACS

If you intend to use ACS for Power Measurements or RF Coexistence, please select the matching installation; otherwise the minimal installation is enough.

For people that experienced performance issues with Intel network, download on your computer **ACS_LAB_Thirdparties_binaries_V2.0.exe** located at \\tlnap01b.tl.intel.com\release_intel_tools\ACS and then proceed with the installation.

Warning: **Installation Warning**:

- Please **re-install 3rd party software if the version installed is different from the one recommended in each release** (incremental install on XP, not working on Windows 7)
- Please skip reboot after NI tools installation as it will be asked later
- Please keep default installation options of all third-party software (e.g. do not select install just for me!)
- **Please keep me mind that people who are working outside of Toulouse's office need to download the binaries version!**

For users who wants to execute ACS Power Use Cases

- you will have to install patlib_3rd_parties_installer_ACS located at \\tlnap01b.tl.intel.com\release_intel_tools\PAT\PAT_library
- NI-DAQ is no more part of ACS Thirdparties Installer you need to download and install it from National Instruments website http://search.ni.com/nisearch/app/main/p/bot/no/ap/tech/lang/en/pg/1/sn/catnav:du,n8:3478.41,ssnav:sup/

For users who want to take Android screen snapshots, please install ffmpeg from the following link: http://ffmpeg.zeranoe.com/builds/

2.3.3 ACS Host Installer

To install ACS on your host PC, **first manually uninstall previous version of ACS**.

Then launch **ACS_Core_Win_V3.3.1.exe** located at \\tlnap01b.tl.intel.com\release_intel_tools\ACS\V3.3

2.4 Release Deliverables

This release deliverables are located at
\\tlnap01b.tl.intel.com\release_intel_tools\ACS\V3.3

Deliverable	Description	Status
Release Notes v3.3.1.pdf	This document	Updated
Release Notes v3.3.1.docx	This document (to get access to driver doc)	Updated
Use Cases Parameters User's Guide.pdf	This document lists all use case supported by ACS with their parameters	Unchanged
ACS_Core_Win_V3.3.1.exe	**WINDOWS**: Installs ACS core software **including** test equipment drivers (Network simulators, Power supplies, USBDIO, WLAN testers, Audio analyzers)	Updated
ACS_Core_Linux_V3.3.1.zip	**LINUX**: Installs ACS core software **excluding** test equipment drivers (Network simulators, Power supplies, USBDIO, WLAN testers, Audio analyzers)	Updated
A.C.S_Embd_Meego_v3.0.0.tar.bz2	Contains all ACS embedded code and testdata to install on Meego target device.	Unchanged

2.5 Target Software Requirements

This ACS Release is compliant with following Platform

Platform	Versions
Medfield Android	iCDK ES2 & PR2
Samsung Galaxy S2	Android Gingerbread v2.3.4

2.6 Target Installation Procedure

To install ACS target software, follow below procedures:

2.6.1 Android

a) Refer to chapter 3.4

2.6.2 Meego

a) Login to Meego platform as root user

b) Copy A.C.S_Embd_Meego_v3.0.0.tar.bz2 file to current directory (should be /root)

c) Install all ACS code by typing: tar –xf A.C.S_Embd_Meego_v3.0.0.tar.bz2 –C /

d) Run WLAN script to generate unique WLAN MAC address (see wiki)

2.7 Getting Started

Please refer to User's Getting Started section in ACS Wiki page
http://wiki.ith.intel.com/display/SWPediaUMG/PSI+-+System+Test+-+Test+Automation+Team

2.8 How to submit a defect

Bugzilla system to track bugs and enhancements is up and running:
https://bugzilla.tl.intel.com/

3. Specific Instructions

3.1 Specific Software installation for Android under Windows

3.1.1 Android SDK

For using ACS on Android platforms, install Android SDK located at:
http://developer.android.com/sdk/index.html

Android user's guide is available at http://developer.android.com/sdk/installing.html (Step 3 is optional)

Once installed, please update your PATH environment variable to add adb & fastboot paths.

3.1.2 Android iCDK/PR2 drivers

To enable USB communication between Android platform and the Host PC, Android driver needs to be installed. Please follow attached procedure to install them (this procedure will solve the problem of loss of adb composite device); if any issue with the document information, please contact Eric Zhu (eric.zhu@intel.com)

Windows Driver Configuration for Anc

3.2 Boot Metric Features

The purpose of this feature is to classify boot failures.
Collected statistics are:

- Boot failures before ACS communicates with the board
- Boot failures after ACS communicates with the board
- Total number of boot failures
- Total number of boots

To process those statistics, look for [TRIGGER] in log files, copy the result of that search and copy it into Excel. Format it using " " & ";" separator. You will see the boot failure evolution.

3.3 PTI Logging Features

In this release of ACS, PTI logging is available. To enable it, modify the Phone_Catalog.xml file & set the key PTIProbe to either FIDO, LTB (Lauterbach) or None (to disable it).

For PTI setup, please refer to \\tlnap01b.tl.intel.com\release_intel_tools\MPTA documentation.

3.4 Auto Flash & Auto Setup features

ACS is capable of auto-flashing & auto-setup the target:

- Auto-flashing will flash integrated FW, Provisioning OS, Android Image & Modem FW (target has to have a modem SMB!)
- Auto-setup will install ACS APKs in target eMMC; FTP files, MUM files onto target SD card. Iperf is installed as binary for iCDK targets whereas as APK on reference phones (Galaxy S II)

Flash zipped files have to be copied in **"C:\Temp"** of your PC. That path is the 4th parameter passed to ACS main script (e.g. **"C:\Temp\mfld_cdk-C0-20110706-004.zip"**). This flash zipped file can be copied anywhere you want, the only condition for ACS to work is to give this full path in the 4th parameter of ACS.

All necessary files for ACS are contained in http://jfumgbuild-depot.jf.intel.com/build/eng-builds/mfld/android/gingerbread-platform/releases/WW35/MFLD_PR2/flash_files/C0/mfld_pr2-C0-20110825-001.zip (as an example).

mfld_pr2-C0-20110825-001.zip file contains all images as well as flash.xml file used by ACS to flash. Those files are auto-generated by build system.

To enable full automation via auto flashing the iCDK/PR2 **xFSTK drivers** must be installed. Please refer to xFSTK installation procedure (readme.txt included in xFSTK package) to proceed with the installation. In CampaignConfig xml file, the flag isFlashRequested has to be set to **True** for ACS to flash the target.

xFSTK releases are available at the following link:
\\azsvhelios001.amr.corp.intel.com\Public\Release\Medfield\Tools\MTK\xfstk\

For setting up targets with FTP & MUM files, those files have to be copied in Executable_Embedded\Android\FTP & Executable_Embedded\Android\MEDIA. This setup is functional for Intel platforms as well as reference phones.

Thus, in CampaignConfig xml file, flag isSetupEmbeddedRequested has to be set to **True** for ACS to install all embedded files.

3.5 ACS Test Report viewable in Firefox

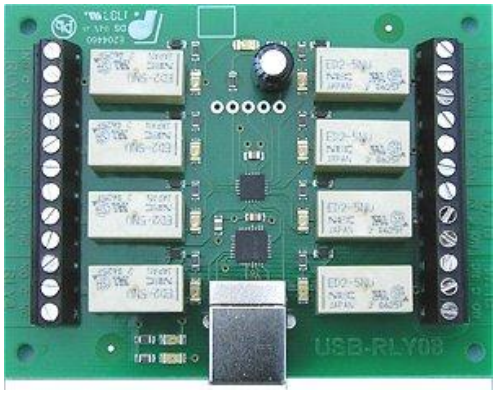
Test report is viewable in Firefox in user friendly form; follow this procedure to view it:

- Open Firefox
- Type about:config in the address bar
- Change security.fileuri.strict_origin_policy to false (toggle it)

3.6 USB Relay Card

USB relay is an easy way to control the device power on/off during the test campaign execution. Here is the link to the manufacturer if you want to purchase the card.

http://www.robot-electronics.co.uk/htm/usb_rly08tech.htm



To setup ACS for this card, please select "USB_RLY08" for POWER_SUPPLY1 equipment in BenchConfig.xml file.

This power supply type is supported by all setups (Windows & Linux)

3.1 Set SMSC on Android

Since 20080818 Android build it is required to set SMSC (Short Message Service Center) to send SMS on Agilent 8960 else all SMS MO Use Cases will fail.

Android Application have no setting or application to do this but you can modify it as follow

1. Go to phone Dialer, an press: *#*#4636#*#*
2. Select Phone Information
3. Scroll down to the bottom of the screen, you'll see the field for SMSC setting
4. [Optional] Click refresh to see current SMSC number
5. Change the SMSC number as you want. Then, Click Update.

Warning: Value will be written on the SIM and there is no possibility to revert the value to empty value except using SIM Card Reader and delete the value.

4. What's New

4.1 New Test Scripts & Features

Note: for Data Android testing please make sure Android is set in Dual mode & flight mode off

Important information:

- This version of **ACS is available on Linux Ubuntu**
- ACS installers have been modified to **reduce their size**, to stabilize the incremental installation on Windows XP & **Windows 7**.

bug id	component	bug severity	target milestone	short description
103	ACS_Core	enhancement	3.3.1	Merge WIFI security into one UC both for IPERF & FTP
978	ACS_Core	enhancement	3.3.1	Review ACS test report & logs folder structure to ease users analysis
1433	EqIO	enhancement	3.3.1	Agilent 8960 new drivers for HSPA configuration
1434	ACS_Core	enhancement	3.3.1	Agilent8960 wrappers and equipment functions for HSPA configuration
1490	ACS_Core	enhancement	3.3.1	improve PWRMEAS BASE
1584	ACS_Core	enhancement	3.3.1	Enhancement of HSPA use case to have the choice of the HSPA categories
1324	ACS_Core	enhancement	3.3.1	Ringtone test UC creation
1325	ACS_Core	enhancement	3.3.1	Migrate sensor tests from STS into ACS
1410	ACS_Core	enhancement	3.3.1	Implement Usecase LIVE_IMAGE_CAPTURE
138	ACS_Core	enhancement	3.3.1	Adapt IPERF configuration to Data Bearer Throughput
1500	Embd_Meego_MW	enhancement	3.3.1	Update embedded iperf ue command to allow extra_options parameter from host side
1501	ACS_Core	enhancement	3.3.1	Align xml reading wifi iperf targets with cellular iperf targets

4.2 Fixed Features

bug id	component	bug severity	target milestone	short description
1476	ACS_Core	blocker	3.3.1	LIVE_VIDEO_CAPTURE_PLAY not functional
1628	EqIO	critical	3.3.1	Add BCH update function for Agilent 8960 (WCDMA)
1374	Embd_Android	major	3.3.1	ACS Android Embd Architecture Compliance for VideoCapture.java
1375	Embd_Android	major	3.3.1	ACS Android Embd Architecture Compliance for PhoneSystem.java
1376	Embd_Android	major	3.3.1	ACS Android Embd Architecture Compliance for ACSFileService.java
1464	ACS_Core	major	3.3.1	problem with testcase parameters on usecase that use audio/video api (multimedia and power measurement)
1477	ACS_Core	major	3.3.1	APK installation fails when already installed on Board
1542	ACS_Core	major	3.3.1	Problems on Data registration
1568	ACS_Core	major	3.3.1	LAB_HSPA_IPERF: registration issue.
1541	ACS_Core	major	3.3.1	Update adb initialization
1537	ACS_Core	major	3.3.1	problem added after android audio recorder usecase merge
1530	ACS_Core	minor	3.3.1	Clean phonesystem.py
1531	Embd_Android	minor	3.3.1	Clean phonesystem.java
658	EqIO	minor	3.3.1	EqIO project solution cleanup
1457	Embd_Android	normal	3.3.1	defect exist in UC: LIVE_FILE_CREATION, when creating 10M files
1472	ACS_Core	normal	3.3.1	uecmd launch_player on video api cause uecmd timeout on usecase if video api is already launch
1497	Embd_Android	normal	3.3.1	Clean obsolete projects on Acs Embd Repository
1509	Embd_Android	normal	3.3.1	Add use-sdk attribute set to AndroidManifest
1513	ACS_Core	normal	3.3.1	UC PWRMEAS video/audio playback should check media playing state in run test
1521	ACS_Core	normal	3.3.1	FUTE_LAB_GSM_CAMP_CS_PCS & FUTE_LAB_GSM_CAMP_PS_PCS cases failed, but not expected
1567	ACS_Core	normal	3.3.1	Update Templates and Config files after BZ 103 and BZ 1501 in ACS_Core
1585	ACS_Core	normal	3.3.1	Test loop permantly when in continous mode
1438	ACS_Core	normal	3.3.1	Templates for LIVE_MMS_LOOPBACK is missing
1485	ACS_Core	normal	3.3.1	Audio playback: make the record operation as an option of the UC
1498	ACS_Core	normal	3.3.1	LIVE_VIDEO_CAPTURE update for camera setting
1502	Embd_Android	normal	3.3.1	Target side for LIVE_VIDEO_CAPTURE
1512	ACS_Core	normal	3.3.1	Add a tag in ACS to enable multiple device execution in parallel
1523	ACS_Core	normal	3.3.1	Introduce device id to acs command line parameters to support multiple phones run together
1527	ACS_Core	normal	3.3.1	Add a option to enable/disable audio record on pc while playing on phone
1546	ACS_Core	normal	3.3.1	Remove phone device id as parameter in command line for old execution method.
1579	ACS_Core	normal	3.3.1	Add device id into report/log name to support multiple DUT on one host
1587	ACS_Core	normal	3.3.1	The ringtone test case not updated with UECmd change
1596	ACS_Core	normal	3.3.1	LIVE_VIDEO_CAPTURE doesn't work
1597	Embd_Android	normal	3.3.1	Video capture test apk has the same package name as camera test
1366	ACS_Core	normal	3.3.1	Case "LAB_GSM_VC_MOMR" can not work for uses
1511	ACS_Core	normal	3.3.1	Create generic exec use case
1491	ACS_Core	normal	3.3.1	PhoneSystem should not contain file operation functions
1526	Embd_Android	normal	3.3.1	ACS Android Embd Architecture Compliance for VoiceCall.java
1572	Embd_Android	normal	3.3.1	Create UCs for file or directory operation at target side
1519	ACS_Core	normal	3.3.1	xpath not fond for ACS3.2.3 Linux release candidate.
1563	ACS_Core	normal	3.3.1	PhoneSystem.py & phone_catalog debug
1589	ACS_Core	normal	3.3.1	LIVE_IMAGE_CAPTURE, LIVE_SENSOR_BASIC,LIVE_SENSOR_LIST, LIVE_SENSOR_SCREEN_DISPLAY, LIVE_SENSOR_MANUAL
1559	ACS_Core	normal	3.3.1	Auto-flash can not work
1471	ACS_Core	normal	3.3.1	error happen when the "isSetupEmbeddedRequested" file is True for ACS in Linux
1467	ACS_Core	normal	3.3.1	LIVE_SYSTEM_SLEEP_ALARM_WAKE failed when the mode is s3

1548	ACS_Core	normal	3.3.1	Some screenshot cannot be decoded by ffmpeg
1303	ACS_Core	normal	3.3.1	Screenshotwith ACS Android UI works randomly
1525	ACS_Core	normal	3.3.1	Problems with Screenshots in ACS
1657	ACS_Core	normal	3.3.1	Fix adb_screenshot.exe under Windows, PNG generation fails
1641	ACS_Core	normal	3.3.1	global name 'PowerMeasurementsError' is not defined and acs go into indefinite loop

4.3 Known Issues & Coming Enhancements

bug id	component	bug severity	target milestone	short description
1536	ACS_Core	critical	3.3.2	LIVE_IMAGE_OPEN not functional
1489	ACS_Core	enhancement	3.3.2	Create a hook in order to launch UI sequence in non-UI campaigns (investigation)
1544	ACS_Core	enhancement	3.3.2	Add a comment tag into GPIB xml configuration file
1550	ACS_Core	enhancement	3.3.2	[Mobility] Python Agilent 8960 wrapper development for mobility priority 1
1551	ACS_Core	enhancement	3.3.2	[Mobility] LAB_MOBILITY_EXT_HO_BASE + LAB_MOBILITY_EXT_HO_VC Use Cases development for mobility priority 1
1556	ACS_Core	enhancement	3.3.2	usecase LIVE_BT_SEND_FILE
1402	ACS_Core	enhancement	3.3.2	Enable "turn on and off BT multiple times" per BT ST domain request
1539	ACS_Core	enhancement	3.3.2	Into test report add SW version (IFWI, POS, SYSTEM, MODEM)
1453	ACS_Core	enhancement	3.3.2	Add an option to activate/deactivate cleaning/dumping of crashlogs
883	ACS_Core	enhancement	3.3.2	addition of SENSITIVITY_LIMIT in Spec file
1560	ACS_Core	enhancement	3.3.2	Align xml reading Ping targets with others targets
1561	ACS_Core	enhancement	3.3.2	Align xml reading Live Wcdma iperf targets with Lab Wcdma iperf targets
1552	ACS_Core	enhancement	3.3.3	[Mobility] LAB_MOBILITY_EXT_HO_FTP Use Case development for mobility priority 1
1397	ACS_Core	major	3.3.2	exception in Audio.py multimedia/android/application framework
1423	ACS_Core	major	3.3.2	Usecase multimedia audio does not match with other existing usecase implementation
1564	ACS_Core	major	3.3.2	problem with RECORD parameter on multimedia audio
1614	ACS_Core	normal	3.3.2	Create WIFI UCs including AP configuration
1466	ACS_Core	normal	3.3.2	UCs that can not support 'lpmp3' sleep mode well.
1467	ACS_Core	normal	3.3.2	LIVE_SYSTEM_SLEEP_ALARM_WAKE failed when the mode is s3.
1611	ACS_Core	normal	3.3.2	Implement UC for test case ST_Imaging_IC_TCM_003 NFT
1612	ACS_Core	normal	3.3.2	Create UC for transferring file/folder between dut and pc
1624	ACS_Core	normal	3.3.2	Browse folder on PC via MSD
1367	ACS_Core	normal	3.3.2	Case "LAB_GSM_VC_MONR" can not work for uses
1368	ACS_Core	normal	3.3.2	Case "LAB_WCDMA_VC_MOMR" can not work for uses
1370	ACS_Core	normal	3.3.2	Case "LAB_WCDMA_VC_MONR" can not work for uses
1600	ACS_Core	normal	3.3.2	Use cases missing: LIVE_WIFI_WEP_FTP, LIVE_WIFI_WPA_FTP, LAB_WCDMA_VC_RINGTONE_MTMR
1613	ACS_Core	normal	3.3.3	Integrate ADB test scripts into ACS framework
1622	ACS_Core	normal	3.3.3	Wifi download while doing other tasks
1625	ACS_Core	normal	3.3.3	Retrieve phone system information
1545	ACS_Core	trivial	3.3.2	Correct wrong spelling into Rf Performance templates and Add good header for voice call Use Case file
1592	Embd_Android	critical	3.3.2	Update ACS APK information
1582	Embd_Android	normal	3.3.2	Audio Playback Dismatch Record in MIC and VC
1626	Embd_Android	normal	3.3.2	Set phone screen awake all the time
1586	Embd_Android	normal	3.3.2	lot of unused import added with sensor and screendisplay file
1576	Embd_Android	normal	3.3.3	Create UCs for time zone and time format at target side
1549	EqIO	enhancement	3.3.2	[Mobility] C++ Agilent 8960 driver development for mobility priority 1
1576	ACS_Core	normal	3.4	Bug 1642 - audio and video playback with PWRMEAS wrong because PowerProject instance type unmatched

4.4 User Interface Changes (xml files)

Major modifications in templates for this release 3.3.1, please read first:

Modification of WIFI UC Templates due to BZ 103:

These WIFI Related Use Case templates have been modified:

LIVE_WIFI_FTP_Template.xml
LIVE_WIFI_IPERF_Template.xml
LIVE_WIFI_PING_Template.xml

You have to set the new parameter WIFI_SECURITY in order to select what type of Wifi Router you want to be connected to (Open, WEP or WPA) for all Live WIFI UseCases.

So that mean the previous Uses Cases (and related Templates) are no more used:
LIVE_WIFI_WEP_FTP
LIVE_WIFI_WPA_FTP

Note:
The parameter "security" has disapear from the Router configuration block in the Bench_Config_acs_dev_X.xml file.

Modification of Campaign Config Template (Campaign_Config_Template.xml) due to BZ 1501:

Now the wifiULThroughputTarget and wifiDLThroughputTarget values are set into the Throughput_Targets xml file in _Config folder.

The new block allows configuration of Target and Failure values for Upload and Download (in KBps).

Modification of HSPA UC Templates:

New parameters have been added to support both HSPA DL_RAB Cat 14 and Cat 10 settings.

Differences from **Release 3.3**& **Pre-Release 3.3.1**:

Differences shown cover **_Catalogs**; **_Configs** & **_Templates folders**.
(A = Added; M = Modified; D = Deleted)

A Executable/_Templates/TestCases/Communication/Messaging/LIVE_MMS_LOOPBACK_Template.xml
A Executable/_Templates/TestCases/Misc/EXEC_Template.xml
A Executable/_Templates/TestCases/Multimedia/LAB_AUDIO_RECORD_VC_Template.xml
A Executable/_Templates/TestCases/Multimedia/LIVE_VIDEO_CAPTURE_Template.xml
A Executable/_Templates/TestCases/System/LIVE_FILE_CREATE_Template.xml
A Executable/_Templates/TestCases/System/LIVE_FILE_DIR_COPY_Template.xml
A Executable/_Templates/TestCases/System/LIVE_FILE_DIR_CREATE_Template.xml
A Executable/_Templates/TestCases/System/LIVE_FILE_DIR_MOVE_Template.xml
A Executable/_Templates/TestCases/System/LIVE_FILE_DIR_REMOVE_Template.xml
A Executable/_Templates/TestCases/System/LIVE_IMAGE_CAPTURE_Template.xml
A Executable/_Templates/TestCases/System/LIVE_SCREEN_DISPLAY_Template.xml
A Executable/_Templates/TestCases/System/LIVE_SENSOR_BASIC_Template.xml
A Executable/_Templates/TestCases/System/LIVE_SENSOR_LIST_Template.xml
A Executable/_Templates/TestCases/System/LIVE_SENSOR_MANUAL_Template.xml
D Executable/_Templates/TestCases/Multimedia/LIVE_AUDIO_RECORD_VC_Template.xml
D Executable/_Templates/TestCases/Multimedia/LIVE_VIDEO_CAPTURE_PLAY_TEMPLATE.xml
D Executable/_Templates/TestCases/Networking/LIVE_WIFI_WEP_FTP_Template.xml

D Executable/_Templates/TestCases/Networking/LIVE_WIFI_WPA_FTP_Template.xml
D Executable/_Templates/TestCases/System/LIVE_FILE_CREATION_Template.xml
D Executable/_Templates/TestCases/System/HSPA_FTP_Template.xml
M Executable/_Catalogs/Phone_Catalog.xml
M Executable/_Catalogs/Usecase_Catalog.xml
M Executable/_Configs/EquipmentConfiguration/HSDPACategories.xml
M Executable/_Configs/Throughput_Targets.xml
M Executable/_Templates/BenchConfigs/Bench_Config_Generic_Template.xml
M Executable/_Templates/BenchConfigs/Bench_Config_Multiphone_Template.xml
M Executable/_Templates/TestCampaigns/Campaign_Config_Template.xml
M Executable/_Templates/TestCases/Communication/VoiceCall/LAB_GSM_VC_RINGTONE_MTMR_Template.xml
M Executable/_Templates/TestCases/Communication/VoiceCall/LAB_WCDMA_VC_RINGTONE_MTMR_Template.xml
M Executable/_Templates/TestCases/Multimedia/LIVE_AUDIO_PAUSE_RESUME_Template.xml
M Executable/_Templates/TestCases/Multimedia/LIVE_AUDIO_PLAY_STOP_Template.xml
M Executable/_Templates/TestCases/Multimedia/LIVE_AUDIO_PLAYBACK_Template.xml
M Executable/_Templates/TestCases/Multimedia/LIVE_AUDIO_STOP_REPLAY_Template.xml
M Executable/_Templates/TestCases/Networking/LAB_HSPA_FTP_Template.xml
M Executable/_Templates/TestCases/Networking/LAB_HSPA_IPERF_Template.xml
M Executable/_Templates/TestCases/Networking/LAB_HSPA_PING_MO_Template.xml
M Executable/_Templates/TestCases/Networking/LIVE_WIFI_FTP_Template.xml
M Executable/_Templates/TestCases/Networking/LIVE_WIFI_IPERF_Template.xml
M Executable/_Templates/TestCases/Networking/LIVE_WIFI_PING_Template.xml
M Executable/_Templates/TestCases/PowerMeasurement/LAB_PWRMEAS_BT_A2DP_AUDIO_PLAYBACK_Template.xml
M Executable/_Templates/TestCases/System/LIVE_FILE_COPY_Template.xml

4.5 Use Case Changes (py files)

Differences from **Release 3.3** & **Pre-Release 3.3.1**:

Differences shown cover **UseCase** folder.
(A = Added; M = Modified; D = Deleted)

A Executable/UseCase/Misc/EXEC.py
A Executable/UseCase/Multimedia/LAB_AUDIO_RECORD_VC.py
A Executable/UseCase/Multimedia/LIVE_IMAGE_CAPTURE.py
A Executable/UseCase/Multimedia/LIVE_VIDEO_CAPTURE.py
A Executable/UseCase/System/LIVE_SYSTEM_FILE_DIR_COPY.py
A Executable/UseCase/System/LIVE_SYSTEM_FILE_DIR_CREATION.py
A Executable/UseCase/System/LIVE_SYSTEM_FILE_DIR_MOVE.py
A Executable/UseCase/System/LIVE_SYSTEM_FILE_DIR_REMOVE.py
A Executable/UseCase/System/LIVE_SYSTEM_SCREEN_DISPLAY.py
A Executable/UseCase/System/LIVE_SYSTEM_SENSOR_BASIC.py
A Executable/UseCase/System/LIVE_SYSTEM_SENSOR_LIST.py
A Executable/UseCase/System/LIVE_SYSTEM_SENSOR_MANUAL.py
D Executable/UseCase/Multimedia/LIVE_AUDIO_RECORD_VC.py
D Executable/UseCase/Multimedia/LIVE_VIDEO_CAPTURE_PLAY.py
D Executable/UseCase/Networking/LIVE_WIFI_WEP_FTP.py
D Executable/UseCase/Networking/LIVE_WIFI_WPA_FTP.py
M Executable/UseCase/Multimedia/LIVE_AUDIO_PAUSE_RESUME.py
M Executable/UseCase/Multimedia/LIVE_AUDIO_PLAY_STOP.py
M Executable/UseCase/Multimedia/LIVE_AUDIO_PLAYBACK.py
M Executable/UseCase/Multimedia/LIVE_AUDIO_RECORD_MIC.py
M Executable/UseCase/Multimedia/LIVE_AUDIO_STOP_REPLAY.py
M Executable/UseCase/Multimedia/LIVE_IMAGE_CAPTURE_DISPLAY.py
M Executable/UseCase/Multimedia/LIVE_IMAGE_OPEN.py
M Executable/UseCase/Multimedia/LIVE_VIDEO_PAUSE_RESUME.py
M Executable/UseCase/Multimedia/LIVE_VIDEO_PLAY_STOP.py
M Executable/UseCase/Multimedia/LIVE_VIDEO_PLAYBACK.py
M Executable/UseCase/Multimedia/LIVE_VIDEO_STOP_REPLAY.py
M Executable/UseCase/Networking/LAB_EGPRS_IPERF.py
M Executable/UseCase/Networking/LAB_GPRS_IPERF.py
M Executable/UseCase/Networking/LAB_HSPA_BASE.py
M Executable/UseCase/Networking/LAB_HSPA_IPERF.py
M Executable/UseCase/Networking/LAB_WCDMA_BASE.py
M Executable/UseCase/Networking/LAB_WCDMA_IPERF.py
M Executable/UseCase/Networking/LIVE_WCDMA_IPERF.py
M Executable/UseCase/Networking/LIVE_WIFI_BASE.py
M Executable/UseCase/Networking/LIVE_WIFI_FTP.py
M Executable/UseCase/Networking/LIVE_WIFI_IPERF.py
M Executable/UseCase/Networking/LIVE_WIFI_PING.py
M Executable/UseCase/PowerMeasurement/LAB_PWRMEAS_BASE.py
M Executable/UseCase/PowerMeasurement/LAB_PWRMEAS_BT_A2DP_AUDIO_PLAYBACK.py
M Executable/UseCase/PowerMeasurement/LIVE_PWRMEAS_AUDIO_PLAYBACK.py
M Executable/UseCase/PowerMeasurement/LIVE_PWRMEAS_BASE.py
M Executable/UseCase/PowerMeasurement/LIVE_PWRMEAS_VIDEO_PLAYBACK.py
M Executable/UseCase/System/LIVE_SYSTEM_FILE_COPY.py
M Executable/UseCase/System/LIVE_SYSTEM_FILE_CREATION.py
M Executable/UseCase/TestCaseRunner.py

5.Release Content

This section lists the overall features supported by ACS v3.3.1. In **bold** are latest features added in this release.

ACS Client

- Test Campaign & Test cases edition
- Test Runner & Test Execution progress window

ACS Core Framework

- Multi OS support: Meego (MW component level) & Android (adb shell and UI level)
- Multi API level support capability
- Test cases sequencer.
- Test bench configuration in xml files.
- Test campaign configuration in xml files
- Test parameters definition in xml files.
- Control of Ariane Control Board (ACB):
  - Skipping CDK firmware update mode when USB cable is inserted at bootup
  - Allowing unplug USB cable during power measurements
  - Allowing pressing Power ON button on nCDK
  - Supports all types of ACB (proto, normal, extended)
- Control of USB relay for device power On/Off
- Robustness:
  - Phone reboot on critical failure (dbus exceptions, ssh disconnection)
  - Retry CDK SSH connection **(**configurable in Phone_Catalog.xml file)
  - Retry CDK boot sequence up (configurable in Phone_Catalog.xml file)
  - Configurable settle down time once phone has booted (configurable in Phone_Catalog.xml file)
- 2 Back to back iteration modes (set into TC parameter xml file):
  - All TC steps are repeated (initial conditions steps, test steps & post conditions steps)
  - Only test steps are repeated (Continuous Mode)
- Test verdict:
  - Based on Test steps execution
  - Based on acceptance criteria (e.g.: data throughput targets, ping percentage loss, power measurement targets)
- Statistics on tests execution:
  - Pass/Fail/Blocked Rates
  - Execution Time
  - Number of critical failures
  - MTBF calculation
  - Boot failure
- Test report in xml format
- Logging Capabilities
  - Phone boot Log
  - Test Campaign execution log, 4 Level of information:
    - INFO, WARNING, ERROR, DEBUG
  - PTI logging feature via FIDO or Lauterbach
  - Logcat Android logging
- Send "shutdown now" command to CDK Meego before power cycling
- ACS & 3rd party software Installers
- Campaign integrity check (checks XML files availability)

- Auto board flashing for Android (IFWI, KBOOT, Android Image & Modem Image)
- Auto board setup for Android (ACS_Agent.apk, FTP Files, MUM files, Iperf)
- UI Test framework (Android device only)
  - Device Events (Short KeyPress, Long KeyPress, TouchScreen, Take ScreenShot, Check logcat event)
  - Operation set definition in xml files.
  - Test Sequence defined in xml files.
- Enhanced logging printouts showing which ACS component sends each log (this will ease ACS log analysis)
- Support of Linux for Host PC (ACS LIVE version)
- Capability to take android screen snapshots using *"takeScreenshot"* parameter in Phone_Catalog.xml file
- Support of Win 7 OS for Host PC (both ACS LIVE & LAB versions)
- Code refactoring
- BT HSP enhancement
- Audio Playback enhancement
- **HSDPA/HSDPA+ Throughput enhancement**

EqIO

- Support of Network Simulator Agilent 8960 & R&S CMU200
- Support of Power Supply (Agilent E3642A & 663xxD)
- Support of Audio Analyser R&S UPV
- Support of USBDIO-32 (used for ACB board control)
- Test Equipment C Libraries
- Python Test Equipment wrapper exposing 2G / 3G Messaging, Voice, Data services.
- Support of switching & control module Agilent L4491A
- Support of Wifi Simulator Anristu 8860
- Support of BT Simulator N4010A.
- Add Anritsu (WLAN) Beacon configuration management
- **HSDPA category GPIB command update**

Test Coverage

- **System:**
  - Boot GSM Voice Call on Agilent 8960.
  - SOi3 / S3 Wake Up on USB Plug Unplug.
  - SOi3 Wake Up on Alarm.
  - File Copy & File creation

- **Communication:**
  - GSM & WCDMA Voice Call MO/MT/MR/NR on Agilent 8960.
  - GSM & WCDMA SMS CS MO/MT (all text sizes) on Agilent 8960
  - WCDMA/EDGE SMS PS MO/MT (all text sizes) on Agilent 8960
  - GSM & WCDMA Camp/Registration on Agilent 8960
  - GSM & WCDMA Camp/Registration with time to camp measurements on Agilent 8960
  - GSM & WCDMA Voice call with audio check (user action required) on Agilent 8960
  - GSM ⇔ WCDMA Loss/Recovering of coverage (Tunnel effect)
  - WCDMA Voice Call with time to measure establishment
  - Support of Ofono 0.41
  - Support of Android Froyo (v2.2)
  - Support of Android Gingerbread (v2.3)

- **Data Cellular Networking:**
  - EGPRS / WCDMA / HSPA Ping on Agilent 8960.
  - GPRS / EGPRS / WCDMA / HSPA FTP / IPERF on Agilent 8960.
  - Live FTP/IPERF
  - Support of Conman 0.69

- **WIFI Networking:**
  - Ping
  - Uplink and downlink FTP/IPERF on various secured SSID (WPA, WEP, NoSecurity...)
  - Support of Conman 0.69

- **Local Connectivity:**
  - BT Scan Mode
  - BT Change Scan Mode
  - BT L2Cap ping
  - BT Service Browsing
  - BT Service Browsing by Class
  - BT Pairing to headset
  - BT Connect/Reconnect to HID device (user action required)

- **Power Measurement** (according to DG09 specifications):
  - Flight Mode
  - BT Idle
  - GSM and WCDMA Idle
  - GSM and WCDMA Voice Calls
  - GSM and WCDMA Idle / BT idle
  - WIFI Idle associated
  - WIFI Idle non associated
  - WIFI FTP
  - WCDMA Idle / WIFI associated
  - Audio Playback
  - Video Playback
  - Power measurement data saving capability
  - Power calculation from voltage & current data
  - Power measurements data in xml format
  - Extra CDK information added in test report via PnP_Config_Template.xml file
  - BT A2DP Audio playback & HSP 3G Voice Call
  - Web browsing over WCDMA & WIFI technologies

- **Multimedia:**
  - Audio Playback (Play, Play-Stop, Pause-Resume, Stop-replay).
  - Video Playback (Play, Play-Stop, Pause-Resume, Stop-replay).
  - Video Capture.
  - Image Capture & Display
  - Image opening

- **Audio Quality:**
  - GSM & WCDMA MO Voice Call with PESQ measurements
  - GSM & WCDMA MT Voice Call with PESQ measurements
  - GSM Voice Call with speech codec switch

- **Energy Management (only on Meego):**

- *Energy Management campaigns shall be run separately. The flag skipBootOnPowerCycle shall be set to True. In all other cases, that flag shall be set to False*

- Hardware Charging; platform is OFF, USB Wall charger is plugged in
- Battery Insertion; insert a valid battery as single power source
- Plug USB with no battery inserted
- Export Infos; plug USB charger while platform is ON, platform shall start charging
- Remove Charger; unplug USB charger while platform is ON, charge level is enough to carry on
- Battery Discharge Monitor; monitor battery discharge rate while platform is ON and no charger present
- Limited Charge USB Cable; Monitor battery Charge USB Downstream Charger
- USB RW OTG; platform power supplies a device through USB
- USB Over Voltage; monitor battery charge when setting USB over voltage
- Battery Charge over Temperature; monitor battery Charge when setting battery temperature
- GSM Voice with Battery Charging; monitor battery Charge during GSM Voice Call

RF coexistence:

- WIFI agresses GSM
- WIFI agresses WCDMA
- WCDMA agresses WIFI
- GSM agresses WIFI
- WIFI agresses BT
- GSM agresses BT
- WCDMa agresses BT
- BT agresses WIFI
- BT agresses GSM
- BT agresses WCDMA

RF Performance:

- GSM & WCDMA RF performance tests

6.Limitations

ACS

- ACS on Linux can run only LIVE UC excluding power measurement UCs
- Power Measurement UCs shall be run in a separate campaign. It is recommended to power cycle the CDK between each TC as enabling/disabling Modem, BT, WIFI & FM is not reliable
- Energy Management not yet ported on Android platform
- Wide Band AMR is not supported by ACS UCs.
- Audio & Video Playback during power measurement are not yet ported to Android platform
- BT L2CAP Ping & BT HID are not supported on Android platform

7.ACS Test Script List & Platform Applicability

New UCs introduced in this release are in **bold**.

Category	Id	Description	Android Applicable	Meego Applicable	Test Equipment required
Misc	DUMMY	Dummy UC for testing ACS framework	X	X	
Audio	LAB_AUDIO_GSM_VC_COD_SWI	Switch Codec during GSM Mobile Originated Voice call and check the audio quality	X	X	CMU200 UPV
	LAB_AUDIO_GSM_VC_MO_PESQ	Check Audio Quality (PESQ) during GSM Mobile Originated Call on simulated network	X	X	CMU200 UPV
	LAB_AUDIO_GSM_VC_MT_PESQ	Check Audio Quality (PESQ) during GSM Mobile Terminated Call on simulated network	X	X	CMU200 UPV
	LAB_AUDIO_WCDMA_VC_MO_PESQ	Check Audio Quality (PESQ) during WCDMA Mobile Originated Call on simulated network	X	X	CMU200 UPV
	LAB_AUDIO_WCDMA_VC_MT_PESQ	Check Audio Quality (PESQ) during WCDMA Mobile Terminated Call on simulated network	X	X	CMU200 UPV
Communication	LAB_CAMP_TUNNEL	Network registration from initial cell technology to a target cell	X	X	Agilent8960
	LAB_GSM_CAMP	GSM Network Registration on simulated network	X	X	Agilent8960
	LAB_GSM_CAMP_TIME	GSM Network Registration time measurement	X	X	Agilent8960
	LAB_WCDMA_CAMP	WCDMA Network Registration on simulated network	X	X	Agilent8960
	LAB_WCDMA_CAMP_TIME	WCDMA Network Registration time measurement	X	X	Agilent8960
	LIVE_SMS_LOOPBACK	SMS loopback on live network	X	X	

	LAB_GSM_SMS_CS_MO	GSM Mobile Originated SMS over CS on simulated network	X	X	Agilent8960
	LAB_GSM_SMS_CS_MT	GSM Mobile Terminated SMS over CS on simulated network	X	X	Agilent8960
	LAB_WCDMA_SMS_CS_MO	WCDMA Mobile Originated SMS over CS on simulated network	X	X	Agilent8960
	LAB_WCDMA_SMS_CS_MT	WCDMA Mobile Terminated SMS over CS on simulated network	X	X	Agilent8960
	LAB_WCDMA_SMS_CS_MO_TIME	WCDMA Mobile Originated SMS time measurement (over CS) on network simulator	X	X	Agilent8960
	LAB_WCDMA_SMS_PS_MT	WCDMA Mobile Terminated SMS (over PS) on network simulator	X	X	Agilent8960
	LAB_WCDMA_SMS_PS_MO	WCDMA Mobile Originated SMS over PS on simulated network	X	X	Agilent8960
	LAB_EGPRS_SMS_PS_MT	EGPRS Mobile Terminated SMS over PS on simulated network	X	X	Agilent8960
	LAB_EGPRS_SMS_PS_MO	EGPRS Mobile Originated SMS over PS on simulated network	X	X	Agilent8960
	LAB_GSM_VC_MOMR	Test GSM Mobile Call Originated and Mobile Call Released	X	X	Agilent8960
	LAB_GSM_VC_MOMR_AUDIO (semi-auto)	Test GSM Mobile Call Originated and Mobile Call Released with Audio Check	X	X	Agilent8960
	LAB_GSM_VC_MONR	Test GSM Mobile Call Originated and Network Call Released	X	X	Agilent8960
	LAB_GSM_VC_MONR_AUDIO (semi-auto)	Test GSM Mobile Call Originated and Network Call Released with Audio Check	X	X	Agilent8960
	LAB_GSM_VC_MTMR	Test GSM Mobile Call Terminated and Mobile Call Released	X	X	Agilent8960
	LAB_GSM_VC_MTNR	Test GSM Mobile Call Terminated and network Call Released	X	X	Agilent8960

	LAB_WCDMA_VC_MOMR	Test WCDMA Mobile Call Originated and Mobile Call Released	X	X	Agilent8960
	LAB_WCDMA_VC_MOMR_AUDIO (semi-auto)	Test WCDMA Mobile Call Originated and Mobile Call Released with Audio Check	X	X	Agilent8960
	LAB_WCDMA_VC_MONR	Test WCDMA Mobile Call Originated and Network Call Released	X	X	Agilent8960
	LAB_WCDMA_VC_MONR_AUDIO (semi-auto)	Test WCDMA Mobile Call Originated and Network Call Released with Audio Check	X	X	Agilent8960
	LAB_WCDMA_VC_MTMR	Test WCDMA Mobile Call Terminated and Mobile Call Released	X	X	Agilent8960
	LAB_WCDMA_VC_MTNR	Test WCDMA Mobile Call Terminated and Network Call Released	X	X	Agilent8960
	LAB_WCDMA_VC_MT_TIME	WCDMA Mobile Terminated time measurement	X	X	Agilent8960
	LIVE_VC_MOMR	Mobile Originated / Mobile Release on live network	X	X	NA
Energy Management	LAB_EM_BATT_DIS_MONITOR	Monitor battery discharge rate while platform is ON and no charger present.		X	Agilent66319
	LAB_EM_BATT_INSERTION	Insert a valid battery as single power source		X	Agilent66319
	LAB_EM_BATT_OVER_TEMP	Monitor battery Charge when setting Battery temperature.		X	Agilent66319
	LAB_EM_EXPORT_INFOS	Plug USB charger while platform is ON . Platform shall start charging.		X	Agilent66319
	LAB_EM_GSM_VC_BATTERY_CHARGING	Monitor battery Charge during GSM Voice Call.		X	Agilent66319
	LAB_EM_HW_CHARGING	Platform is OFF USB Wall charger is plugged in		X	Agilent66319
	LAB_EM_LIMITED_CHG_USB_CABLE	Monitor battery Charge USB Downstream Charger.		X	Agilent66319
	LAB_EM_PLUG_USB_NO_BATT	Plug USBData OFF.		X	Agilent66319
	LAB_EM_REMOVE_CHARGER	UnPlug USB charger while platform is ON, charge level is enough to carry on.		X	Agilent66319

	LAB_EM_USB_OVER_VOLTAGE	Monitor battery Charge when setting USB over voltage.		X	Agilent66319
	LAB_EM_USB_RW_OTG	Platform supplies a device through USB.		X	Agilent66319
Networking	LAB_GPRS_FTP	FTP Upload / Download over GPRS on simulated network	X	X	Agilent8960
	LAB_GPRS_IPERF	GPRS throughput measurement using IPERF on simulated network	X	X	Agilent8960
	LAB_EGPRS_FTP	FTP Upload / Download over EGPRS on simulated network	X	X	Agilent8960
	LAB_EGPRS_IPERF	EGPRS throughput measurement using IPERF on simulated network	X	X	Agilent8960
	LAB_WCDMA_FTP	FTP Upload / Download over WCDMA on simulated network	X	X	Agilent8960
	LAB_WCDMA_IPERF	WCDMA Throughput Measurement using IPERF	X	X	Agilent8960
	LAB_HSPA_FTP	FTP Upload / Download over HSUPA / HSDPA on simulated network	X	X	Agilent8960
	LAB_HSPA_IPERF	HSPA Throughput Measurement using IPERF	X	X	Agilent8960
	LIVE_WCDMA_FTP	FTP Upload / Download over Cellular Simulated Network	X	X	Agilent8960
	LIVE_WCDMA_IPERF	WCDMA Throughput Measurement using IPERF	X	X	Agilent8960
	LAB_EGPRS_PING_MO	EGPRS Ping on simulated network	X	X	Agilent8960
	LAB_WCDMA_PING_MO	WCDMA Ping on simulated network	X	X	Agilent8960
	LAB_HSPA_PING_MO	HSPA Ping on simulated network	X	X	Agilent8960
Power Measurement	LAB_PWRMEAS_BT_IDLE	Power consumption measurement (in mA) in Bluetooth Idle mode	X	X	NI-DAQ
	LAB_PWRMEAS_FLIGHT_MODE	Power consumption measurement in flight mode	X	X	NI-DAQ

	LAB_PWRMEAS_GSM_IDLE	Power consumption measurement (in mA) in GSM Idle mode	X	X	Agilent8960 NI-DAQ
	LAB_PWRMEAS_GSM_IDLE_BT	Power consumption measurement (in mA) in GSM Idle mode with bluetooth activated	X	X	Agilent8960 NI-DAQ
	LAB_PWRMEAS_GSM_VC	Power consumption measurement (in mA) in GSM Voicecall	X	X	Agilent8960 NI-DAQ
	LAB_PWRMEAS_WCDMA_IDLE	Power consumption measurement (in mA) in WCDMA Idle mode	X	X	Agilent8960 NI-DAQ
	LAB_PWRMEAS_WCDMA_IDLE_BT	Power consumption measurement (in mA) in WCDMA Idle mode with bluetooth activated	X	X	Agilent8960 NI-DAQ
	LAB_PWRMEAS_WCDMA_IDLE_WIFI_ASS	Power consumption measurement (in mA) in WCDMA Idle mode and with WLAN associated	X	X	Agilent8960 NI-DAQ
	LAB_PWRMEAS_WCDMA_VC	Power consumption measurement (in mA) in WCDMA VoiceCall	X	X	Agilent8960 NI-DAQ
	LAB_PWRMEAS_WIFI_FTP	Power consumption measurement (in mA) during WLAN FTP Upload / Download	X	X	Agilent8960 NI-DAQ
	LAB_PWRMEAS_WIFI_IDLE_ASS	Power consumption measurement (in mA) in WLAN Idle mode associated	X	X	NI-DAQ
	LAB_PWRMEAS_WIFI_IDLE_NON_ASS	Power consumption measurement (in mA) in WLAN Idle mode non-associated	X	X	NI-DAQ
	LIVE_PWRMEAS_AUDIO_PLAYBACK	Power consumption measurement (in mA) during an audio playback	X	X	NI-DAQ
	LIVE_PWRMEAS_VIDEO_PLAYBACK	Power consumption measurement (in mA) during a video playback	X	X	NI-DAQ
Multimedia	LIVE_AUDIO_PLAYBACK	Audio playback	X	X	NA
	LIVE_AUDIO_PLAY_STOP	Audio play then stop	X		NA
	LIVE_AUDIO_PAUSE_RESUME	Audio play pause then resume	X		NA
	LIVE_AUDIO_STOP_REPLAY	Audio play stop then replay	X		NA
	LIVE_VIDEO_PLAYBACK	Video playback	X	X	NA
	LIVE_VIDEO_PLAY_STOP	Video play then stop	X		NA
	LIVE_VIDEO_PAUSE_RESUME	Video play pause then resume	X		NA

	LIVE_VIDEO_STOP_REPLAY	Video play stop then replay	X		NA
	LIVE_VIDEO_CAPTURE_PLAY	Video Capture with camera the play	X		
Bluetooth	LIVE_BT_CHANGE_SCAN_MODE	BlueTooth Change Scan mode of device	X	X	Any BT device
	LIVE_BT_HID	Connect with HID device		X	Any BT device
	LIVE_BT_L2CAP_PING	Ping Remote BlueTooth Device using BD address	X	X	Any BT device
	LIVE_BT_PAIRING	Pairing to BlueTooth device	X	X	BT headset
	LIVE_BT_SCAN	BlueTooth Scan of device in range	X	X	Any BT device
	LIVE_BT_SERVICE_BROWSING	Service Browsing of the Remote BlueTooth Device	X	X	Any BT device
	LIVE_BT_SERVICE_BROWSING_BY_CLASS	Service Browsing by class of the Remote BlueTooth Device	X	X	Any BT device
	LIVE_WIFI_FTP	FTP Upload / Download over WLAN	X	X	Wifi Router
	LIVE_WIFI_IPERF	WIFI Throuhput Measurement using IPERF	X	X	Wifi Router
	LIVE_WIFI_PING	Ping an IP address over WLAN	X	X	Wifi Router
	LIVE_WIFI_WEP_FTP	FTP Upload / Download over WLAN using WEP security	X	X	Wifi Router (WEP)
	LIVE_WIFI_WPA_FTP	FTP Upload / Download over WLAN using WPA security	X	X	Wifi Router (WPA)
RF Coexistence	LAB_COEX_BT_AGR_GSM	RF Coexistence, BT agresses GSM	X	X	CMU200 Agilent N4010A Agilent L4491A
	LAB_COEX_BT_AGR_WCDMA	RF Coexistence, WLAN agresses WCDMA	X	X	CMU200 Agilent N4010A Agilent L4491A
	LAB_COEX_BT_AGR_WLAN5G	RF Coexistence, BT agresses WLAN 5GHz	X	X	Agilent N4010A Agilent L4491A Anritsu 8860
	LAB_COEX_GSM_AGR_BT	RF Coexistence, GSM agresses BT	X	X	CMU200 Agilent N4010A Agilent L4491A
	LAB_COEX_GSM_AGR_WLAN	RF Coexistence, WLAN agresses GSM	X	X	CMU200 Agilent L4491A

					Anritsu 8860
	LAB_COEX_WCDMA_AGR_BT	RF Coexistence, WLAN agresses WCDMA	X	X	CMU200 Agilent N4010A Agilent L4491A
	LAB_COEX_WCDMA_AGR_WLAN	RF Coexistence, WCDMA agresses WLAN	X	X	CMU200 Agilent L4491A Anritsu 8860
	LAB_COEX_WLAN_AGR_GSM	RF Coexistence, WLAN agresses GSM	X	X	CMU200 Agilent L4491A Anritsu 8860
	LAB_COEX_WLAN_AGR_WCDMA	RF Coexistence, WLAN agresses WCDMA	X	X	CMU200 Agilent L4491A Anritsu 8860
	LAB_COEX_WLAN5G_AGR_BT	RF Coexistence, WLAN 5GHz agresses BT	X	X	Agilent N4010A Agilent L4491A Anritsu 8860
System	LAB_SYSTEM_BOOT_GSM_VC	Boot test followed by a camp and a 2G voice call	X		Agilent8960
	LAB_SYSTEM_SLEEP_ALARM_WAKE	Wake Up board on Alarm event (SOi3)	X		
	LIVE_SYSTEM_SLEEP_USB_WAKE	Wake Up board on USB Plug (SOi3)	X		

8.ACS Use Cases Parameters

See ACS Use Cases Parameters User's Guide document available at \\tlnap01b.tl.intel.com\release_intel_tools\ACS\V3.3