

SmartStudio IMS/RCS Test Solution

Signalling Tester MD8475A

SmartStudio MX847570A

- Extended CSCF Option MX847570A-080
- IMS Supplementary Service Option MX847570A-081
- RCS Basic Option MX847570A-083
- GBA Authentication Option MX847570A-084
- IMS Script Basic Option MX847570A-060
- XCAP Script Option MX847570A-061

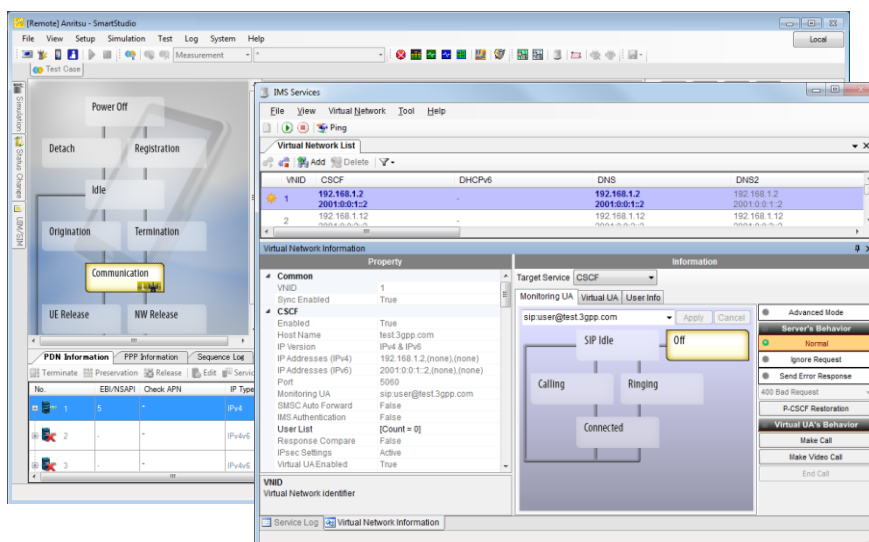
With increasing LTE deployment, more mobile services are becoming IP-based, and IMS (IP Multimedia Subsystem) is becoming a key mobile technology. Providers are planning the rollout of various value-added services using IMS so smartphone applications using IMS will perform an increasing number of a phone's key functions. Testing a smartphone's IMS functions will be critical to ensure a high quality user experience.

The MD8475A is an all-in-one IMS test solution, driven by the integral SmartStudio GUI for simple and easy to use control.

We offer a comprehensive set of MD8475A software options for you to configure an extended test environment for evaluating IMS services.

Built-in Server for VoLTE/IMS Tests

Testing IMS-based mobile services requires both a base station simulator and an IMS server. All IMS services—including VoLTE—can be tested easily from just one MD8475A using the SmartStudio user interface. SmartStudio provides simple radio bearer configuration, allowing you to quickly focus on the application layer without the need for extensive knowledge of the low level radio protocols.



SmartStudio - IMS Services -

■ Add-in Services

- CSCF
- DHCPv6
- DNS
- MWI^{*1}
- NDP
- NTP
- PSAP
- RCS^{*2}
- Conference^{*1}
- XCAP
- BSF^{*3}

*1 Requires separately sold MX847570A-081 IMS Supplementary Service Option

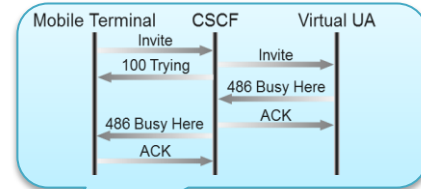
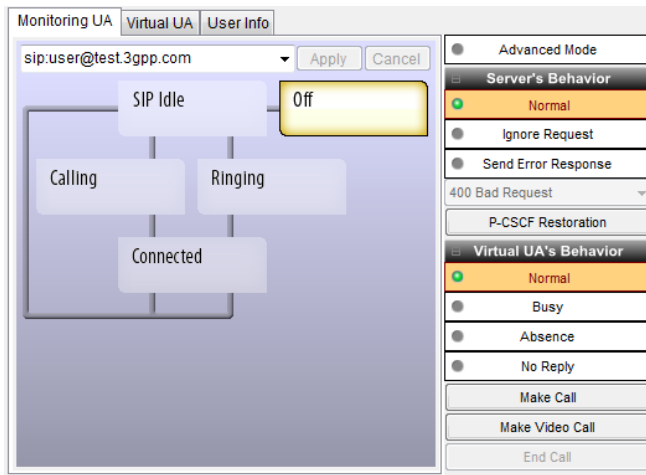
*2 Requires separately sold MX847570A-083 RCS Basic Option

*3 Requires separately sold MX847570A-084 GBA Authentication

Simulating CSCF Operations

The Extended CSCF Option MX847570A-080 offers an environment for simulating various operations via CSCF (Call Session Control Function), such as calling and call blocking, from a virtual User Agent (UA).

A lot of error types not only helps confirm various network error conditions in the presumed test environment but also simplifies subnormal test evaluations by changing CSCF responses according to specific messages.

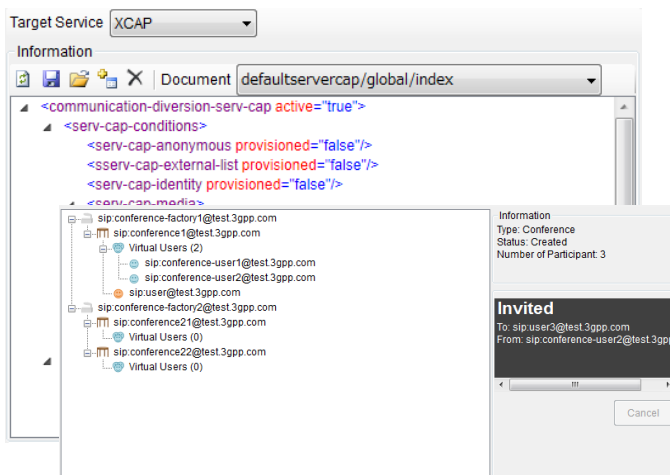


- Support Extended CSCF Function
 - Abnormal Server Condition
 - Various Virtual UA Behavior
 - Call connection from Virtual UA

Extended CSCF Option MX847570A-080

Supporting Diversifying Supplementary Services

The IMS Supplementary Service Option MX847570A-081 supports tests of supplementary VoLTE services, such as call forwarding and call holding. It also supports diversifying VoLTE functions such as the VoLTE Conference function and Message Waiting Indication (MWI).

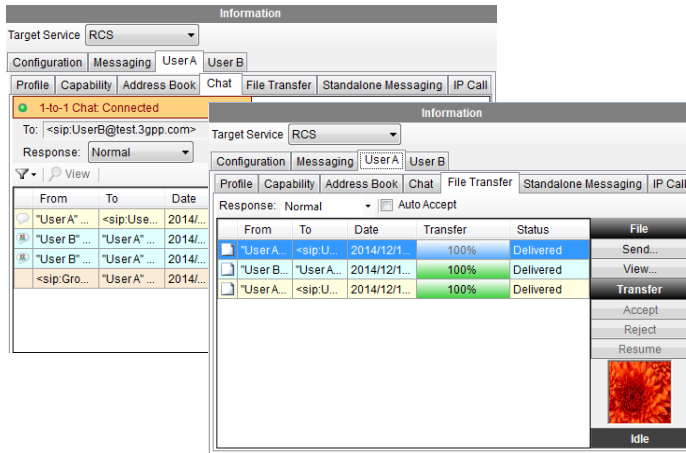


- Support Supplementary Service
 - Call Forwarding
 - Originating Identification Presentation
 - Originating Identification Restriction
 - Terminating Identification Presentation
 - Terminating Identification Restriction
 - Call Waiting/Hold/Barring
 - Message Waiting Indication
 - VoLTE Conference Call

IMS Supplementary Service Option MX847570A-081

Supporting Extended RCS Mobile Service Applications

The RCS Basic Option MX847570A-083 offers RCS Client/Server functions supporting the services defined in GSMA RCS 5.1. The SmartStudio user interface provides an easy way to test an RCS service environment configured from multiple servers, helping to cut test time.

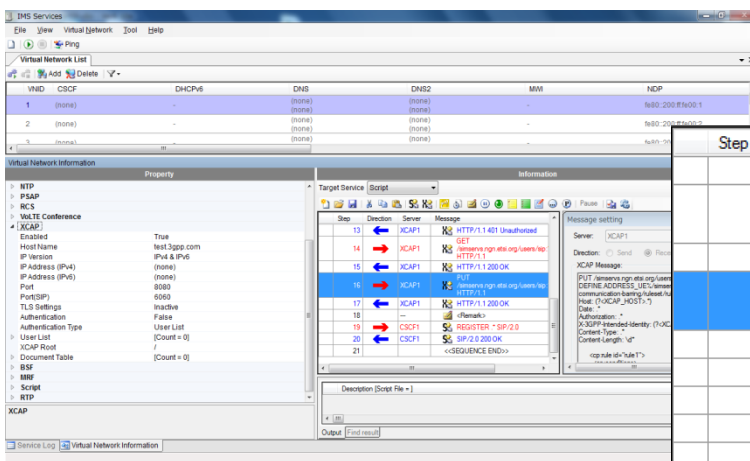


- Support RCS Function
 - 1-to-1 Chat
 - Group Chat
 - File Transfer
 - Social Presence Information
 - IP Voice Call
 - IP Video Call

RCS Basic Option MX847570A-083

Evaluating Leading Mobile Services & Improving QoS with Custom Tests

The IMS Script Basic Option MX847570A-060 and the XCAP Script Option MX847570A-061 offer a scripting environment for a CSCF server, XCAP server and virtual UA within SmartStudio. Scripts can be created using a ladder sequence, supporting high flexibility and extendibility. The operator can easily configure both a test environment for the service design specification testing stage, as well as for various customized tests, such as subnormal and abnormal test environments.



- *Requires separate purchase of additional MX847570A-TS160 MX847570A-060 1 Year Technical Support Service
- *Requires separate purchase of additional MX847570A-TS161 MX847570A-061 1 Year Technical Support Service

Step	Direction	Server	Message
13	←	XCAP1	HTTP/1.1 401 Unauthorized
14	→	XCAP1	GET /simservs.ngn.etsi.org/users/sip: HTTP/1.1
15	←	XCAP1	HTTP/1.1 200 OK
16	→	XCAP1	PUT /simservs.ngn.etsi.org/users/sip: HTTP/1.1
17	←	XCAP1	HTTP/1.1 200 OK
18	---		<Remark>
19	→	CSCF1	REGISTER * SIP/2.0
20	←	CSCF1	SIP/2.0 200 OK
21			<<SEQUENCE END>>

IMS Script Basic Option MX847570A-060
XCAP Script Option MX847570A-061

- Creating and Editing SIP Sequences and XCAP Sequences:
The flexible interface supports the following test environments:
Leading-edge mobile service tests
Subnormal and abnormal system test sequences
- Running and Analyzing Scripts:
The status of IMS function development can be checked and analyzed efficiently at the sequence level.
- Automating Testing:
Scripts can be specified and run using the MD8475A automation framework (SmartStudio Manager) control interface to confirm the status of functions and support an IMS function regression testing environment.
- Bundled with Sample Scripts:
The bundled library of sample sequences for standard IMS services such as voice calling and SMS sending and receiving offers users fast and easy editing of the test environment.

Additional IMS-related Software Options

Operators can configure an easily extensible environment for function confirmation using the LTE RoHC Option MX847550A-060 supporting the voice packet compression and decompression features required by VoLTE functions, the IMS Early Media Option MX847570A-085 supporting customized network-side calling such as Network Ringback Tone (NRBT) and Customized Alerting Tone (CAT), as well as the GBA Authentication Option MX847570A-084 supporting GBA authentication used by Web access applications, etc.

Ordering Information

Model	Name	Outline of Functions
MX847570A-080	Extended CSCF Option	Simulates subnormal/abnormal tests of functions such as VoLTE/SMS
MX847570A-081	IMS Supplementary Service Option	Supports supplementary services functions such as caller ID and call forwarding
MX847570A-083	RCS Basic Option	Offers RCS functions such as presence and chat
MX847570A-084	GBA Authentication Option	Supports GBA authentication used at Web access, etc.
MX847570A-085	IMS Early Media Option	Confirms customized network-side functions such as Ring Tone
MX847570A-060	IMS Script Basic Option	Offers scripting interface for confirming subnormal tests and leading-edge services
MX847570A-TS160	MX847570A-060 1 Year Technical Support Service	MX847570A-060 Technical Support Contract
MX847570A-061	XCAP Script Option	Offers scripting interface for confirming subnormal tests and for setting XCAP document in detail
MX847570A-TS161	MX847570A-061 1 Year Technical Support Service	MX847570A-061 Technical Support Contract
MX847550A-060	LTE RoHC Option	Supports compression/decompression of VoLTE voice packets