Press Release

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Anritsu introduces effective test solution for MMS

by expanding application test functions of Signalling Tester MD8470A.

Anritsu Corporation has reinforced functions of the Wireless Network Simulator (WNS) incorporated in the W-CDMA/GSM Simulation Kit MX847010A for the Signalling Tester MD8470A. This not only enhances its SMS (Short Message Service) and video call test functions but also allows transmission/reception tests of MMS (Multimedia Messaging Service) whose use is rapidly increasing. Furthermore, service interrupts such as incoming voice call / video call during packet call or SMS / MMS reception during voice, packet or video call can be tested. This function reinforcement enables the MD8470A to conduct a wider range of application tests in response to the increase of 3G mobile terminal applications development and verification operations.

- **SMS (Short Message Service)**
  SMS is a popular service allowing the exchange of short messages between mobile terminals.
- **MMS (Multimedia Messaging Service)**
  MMS is a message service allowing the exchange of multimedia contents such as sounds, image and moving image, while keeping interoperability with SMS. It is expected that the number of MMS users will increase as the global popularization of packet communications and 3G mobile communications advances.

[Development background]

As the spread of 3G mobile communication systems is accelerating around the world, new applications such as MMS and video call are rapidly being introduced one after another. Among these services, usage of MMS is particularly expanding due to its capability to exchange multimedia message while maintaining interoperability with SMS.

In July 2004 Anritsu developed Signalling Tester MD8470A, a single unit of

which can support development and verification of mobile telephone applications. Thereafter, Anritsu has further increased the efficiency of development and verification operations of mobile terminal applications by adding the Wireless Network Simulator (WNS), which realizes simulation for interactive behavior of mobile network. The WNS provides easy way to establish application test environment.

Moreover, we have reinforced the WNS function at this time to handle MMS test requirements in addition to strengthening functions for SMS and video call tests, and also enhanced service interruption test functions. Since mobile terminals are acquiring more sophisticated functions, and development/verification operations for applications are increasing, Anritsu enables you to conduct a wider range of application tests more efficiently.

[Product outline]

Signalling Tester MD8470A is a base-station simulator, a single unit of which can support development and verification of mobile terminal application software such as voice call, video call, execution of content download using packet call and messaging services. In addition to the enhancement of the WNS function and SMS/Video call tests, the MD8470A can provides effective transmission/reception tests of MMS. Moreover, it enables service interruption tests such as incoming voice / video call during packet call or SMS/MMS reception during voice, packet and video call.

<Major function/measure reinforcements>

■ Enhancement of WNS (Wireless Network Simulator) function

- **Expansion of SMS test**

  Unicode and Binary formats are supported in addition the 7-bit ASCII.
- **Expansion of MMS test**

  In combination use with the MMS server, MMS transmission and reception tests can be conducted easily.
- **Video call loop-back test support**

  Video call loop-back test is now supported by the WNS. This capability provides easier and cost-effective way to conduct video call testing.
- **Expansion of service interruption tests**

  Behavior of applications at service interruptions such as incoming voice /video call during packet call or SMS/MMS reception during voice, packet or video call can be tested using the WNS.

■ Enhancement of scrip based simulation

- **Message encoding/decoding library provided**

The new message encoding/decoding library facilitates changing or extracting information element of the protocol message in the scenario. Supported messages RRC*2, NAS*3, SMS and SS*4. This library is useful to describe conditional branch process in the scenario, judgment process of received message or other purposes.

- **Sample scenarios (test case script) provided**

  Sample scenarios corresponding to connection/operation tests for basic call, emergency call, SMS, USSD*5 and Supplementary Services can be downloaded from the website under the support service license agreement.

[Market and usage]

- For application software development of W-CDMA and GSM/GPRS system mobile terminals or new mobile service development utilizing W-CDMA and GSM/GPRS systems.

[Terminology]

*1 **Scenario**
Denotes a protocol sequence described in C language. It is possible to handle various test operation/communication conditions at the layer 3 level of a base station.

*2 **RRC (Radio Resource Control)**
Protocol message of RRC layer mainly defined by the 3GPP TS25.331.

*3 **NAS (Non-Access Stratum)**
Layer 3 message mainly defined by the 3GPP TS24.007 and TS24.008.

*4 **SS (Supplementary Service)**
Additional service message mainly defined by the 3GPP TS24.080.

*5 **USSD (Unstructured Supplementary Service Data)**
Used for data exchange when a user receives an interactive service. USSD is used for various applications.