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ETH/RZXC (Elemer Lelik)			2008-01-24	PA1	GASK2

BSSAPP (V7.3.0) Protocol Modules for TTCN-3 Toolset with TITAN, Function Specification

Contents

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1 Introduction

1.1 Revision history

Date	Rev	Characteristics	Prepared
2008-01-24	PA1	First draft version	ETHEKR

1.2 How to Read this Document

This is the Function Specification for the set of BSSAPP protocol modules.
BSSAPP protocol modules are developed for the TTCN-3 Toolset with
TITAN. This document should be read together with Product Revision
Information [3].

1.3 Scope

The purpose of this document is to specify the content of the BSSAPP
protocol modules. Basic knowledge of TTCN-3 [2] and TITAN TTCN-3 Test
Executor [4] is valuable when reading this document.

1.4 References

[1]   3GPP TS 29.018 V7.3.0 (2006-12)
        3rd Generation Partnership Project; Technical Specification Group
        Core Network; General Packet Radio Service (GPRS) Serving GPRS
        Support Node (SGSN) - Visitors Location Register (VLR) Gs interface
        layer 3 specification (Release 7)

[2]   ETSI ES 201 873-1 v.3.2.1 (2007-02)
        The Testing and Test Control Notation version 3. Part 1: Core
        Language

[3]   109 21-CNL 113 580-1 Uen
        BSSAPP (V7.3.0) Protocol Modules for TTCN-3 Toolset with TITAN,
        Product Revision Information

[4]   1/198 17-CRL 113 200 Uen
        User Guide for the TITAN TTCN-3 Test Executor

[5]   2/198 17-CRL 113 200 Uen
        Programmer's Technical Reference for the TITAN TTCN-3 Test
        Executor

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1.5 Abbreviations

BSSAPP   Base Station System Application Part+ (BSSAP+)

TTCN-3   Testing and Test Control Notation version 3

1.6 Terminology

No specific terminology is used.

2 General

Protocol modules implement the message structures of the related protocol in a formalized way, using the standard specification language TTCN-3. This allows defining of test data (templates) in the TTCN-3 language [2] and correctly encoding/decoding messages when executing test suites using the Titan TTCN-3 test environment [4].

The protocol modules are using Titan's RAW encoding attributes [5] and hence they are usable with the Titan test toolset only.

3 Functional specification

3.1 Protocol version implemented

This set of protocol modules implements protocol messages and constants of the BSSAPP protocol.   The modules are based on 29.018 V7.3.0 (see [1]).

3.1.1 Unimplemented Messages, Information Elements and Constants

None.

3.1.2 Protocol Modifications/Deviations

None.

3.2 Encoding/Decoding and Other Related Functions

This product also contains encoding/decoding functions, which assure correct RAW encoding of messages when sent from Titan and correct RAW decoding of messages when received by Titan. Implemented encoding/decoding functions:

Name	Type of formal parameters	Type of return value
enc_PDU_BSSAPp	PDU_BSSAPp	octetstring
dec_PDU_BSSAPp	octetstring	PDU_BSSAPp