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Approved	Checked	Date	Rev	Reference
ETH/XZXC (Tibor Csöndes)		2012-12-12	A	GASK2

BSSMAP (11.2.0) 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
2012-11-05	PA1	First draft version	ETHEKR
		.	

1.2   How to Read this Document

This is the Function Specification for the set of BSSMAP (v11.2.0) protocol modules. BSSMAP protocol modules are developed for the TTCN-3 Toolset with TITAN. This document should be read together with the Product Revision Information [3].

1.3   Scope

The purpose of this document is to specify the content of the BSSMAP (V11.2.0) protocol modules.

1.4   References

[1]   3GPP TS 48.008 V11.2.0 (2012-05)
3rd Generation Partnership Project;
Technical Specification Group GSM/EDGE Radio Access Network;
Mobile Switching Centre - Base Station System
(MSC-BSS) interface;
Layer 3 specification
(Release 11)

[2]   ETSI ES 201 873-1 v4.4.1 (2012-04)
The Testing and Test Control Notation version 3; Part 1: Core Language

[3]   109 21-CNL 113 761-1 Uen
BSSMAP (v11.2.0) Protocol Modules for TTCN-3 Toolset with TITAN, Product Revision Information

[4]   1/198 17-CRL 113 200 Uen
TITAN User Guide

1.5   Abbreviations

3GPP   3rd Generation Partnership Project
BSSAP   Base Station Subsystem Application Part
BSSMAP   Base Station Subsystem Management Application Part
TTCN-3   Testing and Test Control Notation version 3

ERICSSON ⊠	Ericssonwide Internal FUNCTION SPECIFICATION	3 (4)

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1.6 Terminology

TITAN   TTCN-3 Test Executor (see [4]).

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.

Protocol modules are using TITAN's RAW encoding attributes [4] and hence 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 BSSMAP protocol, version 11.2.0 (see [1]).

3.2 Modifications/deviations Related to the Protocol Specification

3.2.1 Implemented messages

All BSSMAP messages listed in chapter 3.2 of [1] are implemented, except for the ones listed in Protocol Modifications/Deviations.

3.2.2 Protocol Modifications/Deviations

The following messages are not implemented:

- EMERGENCY RESET INDICATION

- EMERGENCY RESET COMMAND

Message type definitions for these messages are missing from [1].

3.3 Encoding/Decoding and Other Related Functions

This product also contains encoding/decoding functions that assure correct encoding of messages when sent from TITAN and correct decoding of messages when received by TITAN. Implemented encoding/decoding functions:

Name	Type of formal parameters	Type of return value
`enc_PDU_BSSAP`	`PDU_BSSAP`	`octetstring`
`dec_PDU_BSSAP`	`octetstring`	`PDU_BSSAP`
`enc_PDU_BSSAP_fast`	`PDU_BSSAP`	`octetstring`
`dec_PDU_BSSAP_backtrack`	`octetstring`	`PDU_BSSAP`

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3.4   Limitations

Debug log generation is not supported when this revision of this product is used with TITAN version R7A (1.7pl0), because the encoder/decoder functions, automatically generated by TITAN version R7A (1.7pl0) doesn't contain logging functions. Newer versions of TITAN supports the debug logging within the automatically generated encoder/decoder functions that can be activated by allowing the DEBUG_ENCDEC (see Programmer's Technical Reference for TITAN TTCN-3 Test Executor, clause 6.2.3.2) in TITAN runtime configuration files.