AUSTRALIAN COMMUNICATIONS INDUSTRY FORUM
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PART F SIGNALLING SYSTEM No. 7 – APPLICATION OF THE MESSAGE TRANSFER PART FOR NATIONAL INTERCONNECT

ACIF G500:2000 PART F

Industry Specification

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Part F

SIGNALLING SYSTEM No. 7 – APPLICATION OF THE MESSAGE TRANSFER PART FOR NATIONAL INTERCONNECT

0. General

This document forms part of the Australian Communications Industry Forum (ACIF) G.500 signalling protocol specification for interconnection services to be used in the Australian domestic network.

This document is based on ITU-T recommendations Q.701 to Q.709 (1988) which remains copyright of the ITU-T. This document describes the modifications required to ITU-T recommendations Q.701 to Q.709 to suit Australian network requirements.

0.1 Participants

The ACIF group (Network Reference Panel: Working Committee #7 "Signalling and Interconnect Dial Plan") that developed this document consisted of the following companies and representatives:

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1. Introduction

This document describes the national interconnect implementation of the Message Transfer Part (MTP) of Signalling System No.7 recommended for use by the ACIF.

The MTP implementation described by this document is recommended for use between interconnecting national switch operators. The choice and implementation of the User Parts is beyond the scope of this document.

Any clauses of CCITT Recommendations Q.701 to Q.709, 1988, which are not mentioned in this document are deemed to be fully applicable for national interconnect. These clauses do not require any clarification.

2. References

ITU-T Recommendations Q.701 to Q.709 (1988).

3. Requirements

3.1 Changes to ITU-T Recommendation Q.701 - Functional Description of the Message Transfer Part (MTP) of Signalling System No. 7

Section 2.2.2 Only 64 kbit/s signalling data links will be used.

Section 5 The MTP is required to carry MSUs of up to 272 octets in length

Section 7.2.6 The MTP will support MSUs up to 272 octets. Analysis of the LSSU D-bit is not required on signalling links.

3.2. Changes to ITU-T Recommendation Q.702 - Signalling Data Link

1.3 The 64 kbit/s signalling data link will be delivered as a channel in a 2048 kbit/s digital multiplex signal as defined in Recommendation G.704.

1.4 Analogue signalling data links will not be used.

1.8 Multiplex structures or switchable functions used to connect the signalling data link within an exchange are implementation dependent.

2.1.2,2.1.3,2.2.1,2.2.2,2.2.3 Only 64 kbit/s signalling data links will be used.

5.1 Signalling data links will reside in time slot 1.

5.2 8448 kbit/s digital paths will not be used.

5.3 1544 kbit/s digital paths will not be used.

5.5 Signalling data links established over data circuits will not be used.

6 Analogue signalling data links will not be used.

3.3. Changes to ITU-T Recommendation Q.703 - Signalling Link

1.4.1 Only the basic method of error correction will be used.

1.4.3 The preventive cyclic retransmission method will not be used.

6 The preventive cyclic retransmission method will not be used.

3.4. Changes to ITU-T Recommendation Q.704 - Signalling Network Functions and Messages

1.4.1 Only basic method error correction will be used.

2.2.3 The standard label structure of length 32 bits will be used. The signalling point code value of zero is reserved and will not be allocated.

2.3.5 Multiple congestion levels will not be used.

2.3.5.2 Multiple congestion levels will not be used.

3.3.5.2 Signalling route restricted will not be used.

3.8.2,3.8.3,3.8.4 Just one level of congestion onset and abatement will be used. Multiple levels of congestion are not used.

3.8.5.2 The signalling routeset congestion test is not used.

4.7 Signalling route restriction is not used.

6.2.3 iii) The transfer restricted procedure is not used.

11.2.4,11.2.5 Multiple congestion levels are not used.

12.6 Automatic allocation of signalling data links will not be used.

13.4 Transfer Restricted is not used.

13.7 Multiple congestion levels are not used.

13.8 Multiple congestion levels are not used.

13.9 The signalling routeset congestion test is not used.

14.2.1 The same User Part service indicators will apply to the national network as used in the international network.

14.2.2 All messages sent on the MTP must use a network indicator of “national network”.

15.9 Transfer Restricted message is not used.

15.13 Signalling Data Link Connection Order message is not used.

15.14 Signalling Data Link Connection Acknowledgement message is not used.

15.16 Signalling Routeset Congestion Test message is not used.

3.5. Changes to ITU-T Recommendation Q.705 - Signalling Network Structur e

7. Signalling network structure is a matter for bilateral discussion. Specifically the use of STPs, multiple links in a linkset, load-sharing across linksets, and the use of priority-ordered linksets is a matter for bilateral agreement.

3.6. Changes to ITU-T Recommendation Q.706 - Message Transfer Part Signalling Performance

No variations.

3.7. Changes to ITU-T Recommendation Q.707 - Testing and Maintenance

No variations.

3.8. Changes to ITU-T Recommendation Q.708 - Numbering of International Point Codes

1. International Signalling Point Codes are not recommended for national interconnect. National signalling point codes will be used.

2. National signalling point codes are allocated as decimal numbers from the range 1 - 16,383. Signalling Point Code 0 is reserved. Point code allocations are currently administered by Telstra.

3.9. Changes to ITU-T Recommendation Q.709 - Hypothetical Signalling Reference Connection

No variations.

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