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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 21645.4-2010

**Technical requirements for automatically switched optical
network -- Part 4: Technical specification of signalling**

自动交换光网络（ASON）技术要求 第4部分：信令技术

(English Translation)

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Foreword

Structure GB/T 21645 "Automatic Switched Optical Network (ASON) technical requirements" standard is expected as follows.

--- Part 1. Architecture and general requirements;

--- Part 2. Terms and definitions;

--- Part 3. Data Communication Network (DCN);

--- Part 4. Signaling Technology;

--- Part 5. User - Network Interface (UNI);

--- Part 6. management plane;

--- Part 7. automatic discovery.

This part of GB/Part 4 T 21645 of.

This part of ITU-TG.7713.2006 "distributed call and connection management (DCM)" and ITU-TG.7713.2.2003 "based on GMPLSRSP-TE's DCM signaling mechanism, "the non-equivalent.

The following sections of this part of the technical content and ITU-TG.7713.2006 and

ITU-TG.7713.2.2003 harmonized.

--- Chapter 4 corresponding to G.7713.2006 Chapter 5, and increase the selection of signaling protocols;

--- Chapter 5 corresponds to the G.7713.2006 Chapter 6;

--- Chapter 6 corresponds to G.7713.2006 Section 6.2;

--- 7,8,9,10 chapter correspond to the G.7713.2006 Chapter 7, Chapter 8, Chapter 9, Chapter 10;

--- Chapter 11 corresponding to G.7713.2.2003 of Chapters 7 and 8 and Appendix I.

In addition, this section also refers to the draft proposal and related automatic switched optical network OIF, IETF and other international standardization organizations.

This part of the Annex A, Annex B and Annex C is informative appendix.

This part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This part of the jurisdiction of the China Communications Standards Association.

This section is drafted. Information CATR, Huawei Technologies, ZTE Corporation, seashells Miguel Alcatel Company.

1 Scope

This section GB/T 21645 specifies the Automatically Switched Optical Network (ASON) signaling technology requirements, including ASON signaling functions to Requirements, operation distributed call and connection management (DCM), the reliability of the signaling controller, DCM list of attributes, DCM message set and shape State map, based on traffic engineering resources Generalized Multi-Protocol Label Switching reservation protocol (GMPLSRSP-TE) signaling procedures and so on.

This section applies to optical transmission ITU-TG.803 defined synchronous digital hierarchy (SDH) transport network and ITU-TG.872 defined Network (OTN).

2 Normative references

The following documents contain provisions which, through reference GB/T 21645 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest version applies to this section.

GB/T 21645.1-2008 Automatic Switched Optical Network (ASON) technical requirements - Part 1. Architecture and general requirements ITU-TG.7713 distributed call and connection management ITU-TG.7713.1 PNNI based distributed call and connection management (DCM) signaling ITU-TG.7713.2 using GMPLSRSP-TE signaling in DCM ITU-TG.7713.3 using GMPLSCR-LDP signaling in DCM IETF RFC2205 RSVP Functional Specification (Version 1) IETF RFC2961 RSVP signaling refresh overhead reduction extensions IETF RFC3209 RSVP-TE Traffic Engineering

3.1 Terms and Definitions

The following terms and definitions apply to this part of the GB/T 21645 of.

3.1.1

Call controller calcontroller Call by call controller, call controller has two components, the calling/called party call controllers and network call controller.

3.1.2

The calling/called party call controller caling/caledpartycalcontroller the controller associated with the call of a terminal, which can be located in a terminal system to be located at the distal end of the other, as a proxy execution Function terminal system. The controller can assume a role or simultaneously assume both roles. support caller, the called party support.

3.1.3

Network Call Controller networkcalcontroller Network Call Controller as two roles, one that supports the calling party, called party support another. The caller and the called party call controller Call controller through one or more intermediate network call controllers interact.

3.1.4

Connection Admission Control Connection admission control is used to determine whether there are enough resources to accommodate a connection (or re-negotiation of resources during a call).