- Official translation -

Notification of the National Telecommunications Commission

Re: Technical Standard for Next Generation Network (NGN) Interconnection

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Whereas it is deemed appropriate to prescribe technical standards for Next Generation Network (NGN) interconnection, which is widely adopted internationally in the telecommunications business, in order to keep pace with current technological circumstances and principle of free and fair competition, while the National Telecommunications Commission has stipulated that all licensees with own networks shall interconnect based on the technical standards prescribed by the Commission;

Pursuant to Section 51 (6) (7) and Section 78 paragraph one of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services B.E. 2543 (2000), and Section 32 paragraph one of the Telecommunications Business Act B.E. 2544 (2001), the National Telecommunications Commission hereby issues the Notification regarding Technical Standard for Next Generation Network (NGN) Interconnection, as detailed in the Standard No. NTC TS 6201-2550 appended hereto.

This Notification shall come into force as from the day following the date of its publication in the Government Gazette.

Announced on the 14th day of November B.E. 2550 (2007)

General Choochart Promphrasid

Chairman of the National Telecommunications Commission

Technical Standard

For Next Generation Network (NGN) Interconnection

NTC TS 6201-2550

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Technical Standard for Next Generation Network (NGN) Interconnection

1. Scope

This technical standard specifies the minimum technical characteristics for network interconnection of the Next Generation Network (NGN), which includes the following types of interconnections:

1.1 NGN - NGN interconnection

1.2 NGN - TDM interconnection

2. Definition

2.1 **NGN** is the Next Generation Network, which is a packet-based telecommunication network able to provide diversified telecommunication and broadband services. It has the data transmission technology that is able to ensure service quality and can function independently from the accommodating data transmission technology. The NGN service users may opt for the service provided by other service providers through the unlimited access technology. This type of telecommunication network can support the generalized mobility service consistently and ubiquitously.

2.2 **TDM** is the Time Division Multiplexed network, which is telecommunication network operating on circuit-switched time division multiplexing method.

2.3 **IETF** is the Internet Engineering Task Force, which is the standard-setting body for the Internet Protocol. It is composed of various working groups which meet and exchange opinions regularly. IETF is under the supervision of the Internet Society (ISOC), a non-profit international organization which advises on and supervises the use of internet. The technical standard specified is in RFC format.

2.4 **RFC** is the Request for Comments, which is the IETF's official document based on the comments and recommendations of the drafting committee and interested working groups. The final draft of the RFC has the status of a standard, which cannot be amended, unless it has been approved by the RFC Committee for a revision.

2.5 **SIP** is the Session Initiation Protocol in accordance with the IETF's RFC 3261 SIP as the control protocol of peer-to-peer signaling for initializing, adjusting and closing different sessions, such as telephone and teleconference through an internet network.

2.6 **BICC** is the Bearer Independent Call Control Protocol in accordance with the ITU-T Recommendation Q. 1902.1 in order to facilitate the TDM network in its Voice over Packet service.

2.7 **SIP-I** is the Inter-working between Session Initiation Protocol in accordance with the ITU-T Recommendation Q. 1912.5, which defines the Signaling for Inter-working between the BICC protocol, or the Integrated Services Digital Network (ISDN) User Part (ISUP), and the SIP.

2.8 **SIGTRAN** is the SIGnaling TRANsport Protocol in accordance with the IETF's RFC 2719, which is the protocol for the transmission and reception of signaling system number 7 of the TDM network on the IP network between the Media Gateway Controller and the Signaling Gateway in the NGN network.

3. Technical requirements

The technical requirements for the NGN network according to its characteristics and type shall be as follows:

3.1 NGN - NGN interconnection

Type of network interconnection	Protocol	Reference standard	Subject
3.1.1 Between SIP based equipment	SIP	IETF RFC 3261	Session Initiation Protocol
3.1.2 Between Soft Switches *	BICC and/or SIP-I	ITU-T Rec. Q. 1902.1 and/or ITU-T Rec. Q. 1912.5	Bearer Independent Call Control Protocol and/or Inter-working between Session Initiation Protocol (SIP)
3.1.3 Between NGN and other IP networks provided by Internet service providers	SIP and/or SIP-I	IETF RFC 3261 or ITU-T Rec. Q. 1912.5	Session Initiation Protocol or Inter-working between Session Initiation Protocol (SIP-I)

* Including the networks which use the Media Gateway as Soft Switch

3.2 NGN - TDM interconnection

Type of network interconnection	Protocol	Reference standard	Subject
3.2.1 Between NGN and TDM	SIGTRAN or SS No. 7	IETF RFC 2719	Signaling Transport Signaling System No. 7

3.3 Conditions

3.3.1 The requirements shown in the above tables, which are the minimum technical requirements for the network interconnection, shall be adhered to.

3.3.2 The National Telecommunications Commission may further issue Notification on technical standards.