INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

H.324

Annex I

(07/2001)

SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Systems and terminal equipment for audiovisual services

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Terminal for low bit-rate multimedia communication

Annex I: Usage of HTTP generic capability in H.324 terminals

ITU-T Recommendation H.324 – Annex I

(Formerly CCITT Recommendation)

ITU-T H-SERIES RECOMMENDATIONS

AUDIOVISUAL AND MULTIMEDIA SYSTEMS

CHARACTERISTICS OF VISUAL TELEPHONE SYSTEMS	H.100–H.199
INFRASTRUCTURE OF AUDIOVISUAL SERVICES	
General	H.200–H.219
Transmission multiplexing and synchronization	H.220–H.229
Systems aspects	H.230–H.239
Communication procedures	H.240–H.259
Coding of moving video	H.260–H.279
Related systems aspects	H.280–H.299
SYSTEMS AND TERMINAL EQUIPMENT FOR AUDIOVISUAL SERVICES	**H.300–H.399**
SUPPLEMENTARY SERVICES FOR MULTIMEDIA	H.450–H.499

For further details, please refer to the list of ITU-T Recommendations.

ITU-T Recommendation H.324

Terminal for low bit-rate multimedia communication

ANNEX I

Usage of HTTP generic capability in H.324 terminals

Summary

This annex defines the usage of HTTP (Hypertext Transfer Protocol) in H.324 terminals as an optional data application protocol. This will enable the H.324 terminals to be used for non-conversational services with a user interface through web-like menus.

Source

Annex I to ITU-T Recommendation H.324 was prepared by ITU-T Study Group 16 (2001-2004) and approved under the WTSA Resolution 1 procedure on 29 July 2001.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

CONTENTS

ITU-T Recommendation H.324

Terminal for low bit-rate multimedia communication

ANNEX I

Usage of HTTP Generic Capability in H.324 terminals

I.1 General

This annex defines the usage of HTTP (Hypertext Transfer Protocol) [1] Capability in H.324 terminals. HTTP is an application-level protocol for distributed, collaborative, hypermedia information systems, and its technical specifications are provided in IETF RFC 2616. The capability presented in this annex is used for applications that want to make use of HTTP capabilities in H.324 terminals.

The purpose of using a HTTP channel associated with an H.324 call is to permit the HTTP client (e.g. Web browser) to remotely operate a far-end H.324 endpoint (in which the HTTP server is implemented). This is especially useful in cases where the far-end H.324 endpoint is an automatic device.

For example, by selecting items on a Web page, the human user could cause the far-end system to switch input video or audio sources, or control far-end audio pickup. In another example, the human user could choose via a Web page to view one of a set of stored audiovisual streams, which might contain entertainment or educational material.

Figure I.1 illustrates such an example. In this example, an H.324 Annex I terminal (on the left) receives audiovisual content from a Content server where H.324 Annex I is implemented. The logical channel for HTTP transactions, which is used to select the audiovisual content to be sent, is opened using H.245 logical channel signalling. Separate logical channels for delivery of audio and video data may be opened using H.245 logical channel signalling, if necessary.

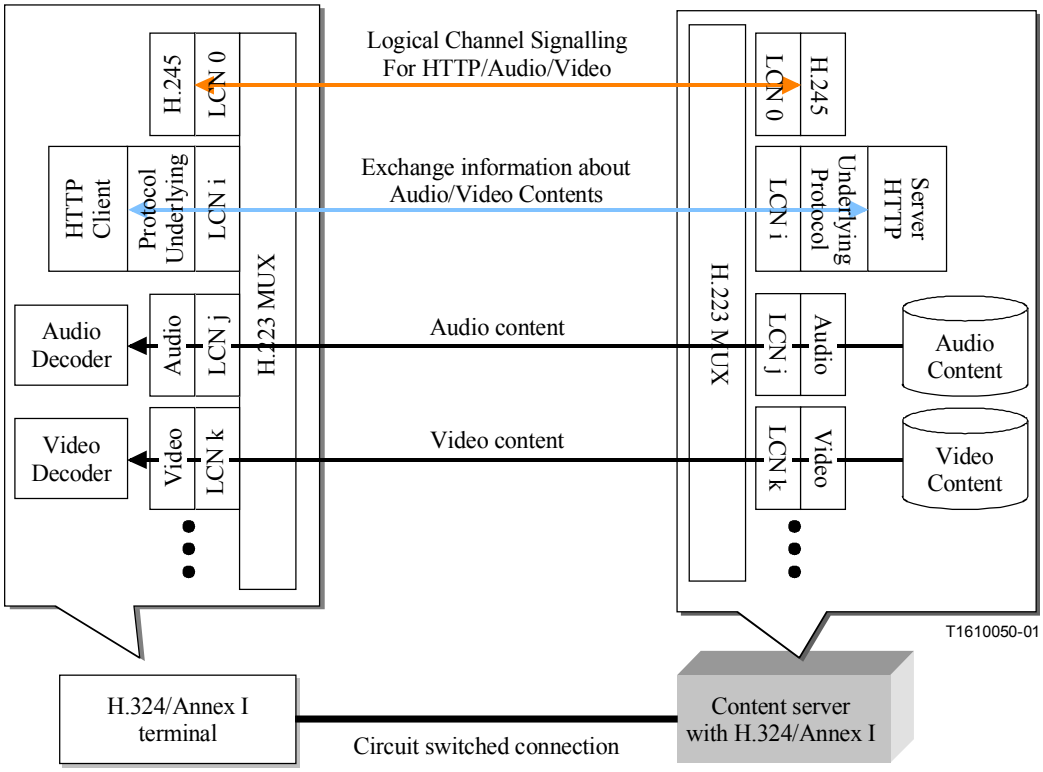

Figure I.1/H324 – An application using H.324 Annex I

I.2 Logical channel for HTTP

The terminals which intend to use the HTTP capability shall open bi-directional logical channels for HTTP messages encapsulated by the underlying protocol specified in Table I.3/H.324.

The error protection for these logical channels may be arbitrarily negotiated, requested and chosen by use of the "transport" field in the Generic Capability.

I.3 HTTP Generic Capability

Table I.1 defines the capability identifier for HTTP Generic Capability. Tables I.2 and I.3 define the associated capability parameters.

Table I.1/H.324 – Capability Identifier for HTTP Capability

Capability name	HTTP
Capability class:	Data application
Capability identifier type:	Standard
Capability identifier value:	itu-t (0) recommendation (0) h (8) 324 generic-capabilities (1) 0
maxBitRate:	This field shall be included.
nonCollapsingRaw:	This field shall not be included.
transport:	This field shall be included.

Table I.2/H.324 – Mode for HTTP Capability

Parameter name	mode
Parameter description:	This is a nonCollapsing GenericParameter. mode indicates the operating mode of the terminal: 1: Server 2: Client 3: Server & Client (this mode may be used in Capability exchange, but shall not be set in Logical Channel Signalling)
Parameter identifier value:	0
Parameter Status:	Mandatory
Parameter type:	UnsignedMin.
Supersedes:	–

Table I.3/H.324 – Underlying protocol for HTTP Capability

Parameter name	underlyingProtocol
Parameter description:	This is a nonCollapsing GenericParameter. underlyingProtocol indicates the protocol under HTTP: 0: None 1: TCP/IP/PPP 2 ~ : Reserved for future extension
Parameter identifier value:	1
Parameter Status:	Mandatory
Parameter type:	UnsignedMin
Supersedes:	–

I.4 References

[1] FIELDING (R.) *et al.*: Hypertext Transfer Protocol – HTTP/1.1, *RFC 2616, Internet Engineering Task Force*, June 1999.

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Series A	Organization of the work of ITU-T
Series B	Means of expression: definitions, symbols, classification
Series C	General telecommunication statistics
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	**Audiovisual and multimedia systems**
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Telephone transmission quality, telephone installations, local line networks
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks and open system communications
Series Y	Global information infrastructure and Internet protocol aspects
Series Z	Languages and general software aspects for telecommunication systems

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