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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Communication procedures

Gateway control protocol: Inactivity timer package

ITU-T Recommendation H.248.14

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ITU-T Recommendation H.248.14

Gateway control protocol: Inactivity timer package

Summary

This Recommendation provides a package that allows a Media Gateway to detect the failure of its active Media Gateway Controller through message inactivity.

NOTE – This Recommendation has been renumbered. It was formerly known as ITU-T Rec. H.248, Annex M6.

Source

ITU-T Recommendation H.248.14 was prepared by ITU-T Study Group 16 (2001-2004) and approved under the WTSA Resolution 1 procedure on 29 March 2002.

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 not 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.248.14

Gateway control protocol: Inactivity timer package

1 Scope

This package contains an event that can be implemented by a MGC and by a MG on its root termination. The purpose of the event is to allow the MG to detect periods of silence of messaging from the MGC. Once the period of silence exceeds the threshold provided in the event, the MGC is notified.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

– ITU-T Recommendation H.248.1 (2002), *Gateway Control Protocol*.

3 Definitions

See ITU-T Rec. H.248.1.

4 Abbreviations

This Recommendation uses the following abbreviations:

MG Media Gateway

MGC Media Gateway Controller

5 Inactivity Timer package

PackageID: it, 0x0045

Version: 1

Extends: None

This package provides support for MGs detecting the failure of MGCs by message silence and is only used on the ROOT termination.

5.1 Properties

None.

5.2 Events

Inactivity Timeout

EventID: ito, (0x0001)

Detects that inactivity timer has expired. A mit value of 0 disables inactivity timing.

EventsDescriptor parameters:

Maximum Inactivity Time

ParameterID: mit (0x0001)

Type: integer (in 10 millisecond steps)

Possible values: 0..65535 (0, 10 ms, 20 ms, …, to 655.35 seconds)

ObservedEventsDescriptor parameters:

None

5.3 Signals

None.

5.4 Statistics

None.

5.5 Procedures

An MGC that support this package may detect whether or not a MG supports the package by auditing it. An MGC may choose to set the inactivity timer event containing the maximum silence period or "maximum inactivity time" on the ROOT termination. The MGC should then ensure that the time between messages sent to that MG never exceeds this period. The MGC ensures this by sending any message as a test or keep-alive message (such as the empty Audit of ROOT) whenever no other message is needed within the period.

MGCs may test MGs using a test message (for example, an AuditValue command with an empty AuditDescriptor) without implementing this package or to test MGs that do not implement the package. This package adds the ability for MGs to detect MGC failure through message silence.

An MG that supports this package and receives the event will monitor incoming messages for periods of silence exceeding the maximum inactivity timer value. On the detection of the silence period a Notify with the observed event is generated.

NOTE – The detection of the silence period may be done by starting a timer with the specified timeout that resets to zero on the arrival of each message from MGC and reaches timeout only after the indicated inactivity period. Another approach for the MG would be to keep a "message received" Boolean, which should be associated to a normal timer and set to 1 when each message is received. When the timer expires and the Boolean is still 0, the MG would send the event Notice; if the Boolean is 1, the MG would set the Boolean to 0 and restart the timer.

If the MGC has failed, the event will not receive a reply. If no reply is received, the MG will consider the MGC to have failed and will follow the procedures of 11.5/H.248.1.

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