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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Communication
procedures

Gateway control protocol: Error code and service change reason description

Recommendation ITU-T H.248.8



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Recommendation ITU-T H.248.8

Gateway control protocol: Error code and service change reason description

Summary

Recommendation ITU-T H.248.8 defines the service change reasons that are used in the core ITU-T H.248.1 protocol. It lists the service change reason code associated with the service change reason code name. It provides a definition of when the service change reason is to be used. It also provides an indication of what text may be included in the service change extension to allow further interpretation of the service change reason. Clause 5 provides these details.

This revision addresses the following aspects:

- Addition of new error codes: 507
- Modification of error code: 511

NOTE – This Recommendation has been renamed. It was formerly known as Annex L to Rec. ITU-T H.248.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T H.248 Annex L	2001-07-29	16
2.0	ITU-T H.248.8	2002-03-29	16
2.1	ITU-T H.248.8 (2002) Amd. 1	2004-03-15	16
3.0	ITU-T H.248.8	2005-09-13	16
4.0	ITU-T H.248.8	2007-08-29	16
5.0	ITU-T H.248.8	2013-03-16	16

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FOREWORD

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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.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure, e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

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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, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <http://www.itu.int/ITU-T/ipr/>.

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Recommendation ITU-T H.248.8

Gateway control protocol: Error code and service change reason description

1 Scope

This Recommendation defines the error codes that are used in the core ITU-T H.248.1 protocol. It lists the error code number associated with the error code name. It then provides a definition of when the error code is to be used and if the error code is defined in a package. It also provides an indication of what text may be included in the error text descriptor to allow further interpretation of the error code. Clause 4.2 provides these details. The normal actions for failed transactions and commands apply as specified in clause 8 of [ITU-T H.248.1]. Packages may define error codes not documented in this Recommendation. The IANA registry should be consulted for the complete list of error codes.

Error codes marked as "not used" are historical in nature and are for informational purposes only. These error codes should not be used.

This Recommendation also defines the service change reasons that are used in the core ITU-T H.248.1 protocol. It lists the service change reason code associated with the service change reason code name. It provides a definition of when the service change reason is to be used. It also provides an indication of what text may be included in the service change extension to allow further interpretation of the service change reason. Clause 5.2 provides these details.

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. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T H.248.1] Recommendation ITU-T H.248.1 (2013), *Gateway control protocol: Version 3*.

3 Definitions

See [ITU-T H.248.1].

4 Error codes

4.1 Assigning error codes

The following considerations SHALL be met to register an error code with IANA:

- 1) An error number and a one-line (80 characters maximum) string are registered for each error.
- 2) A complete description of the conditions under which the error is detected shall be included in a publicly available document. The description shall be sufficiently clear to differentiate the error from all other existing error codes.
- 3) The document should be available on a public web server and should have a stable URL.
- 4) Error numbers registered by recognized standards bodies shall have 3- or 4-character error numbers.

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- 5) Error numbers registered by all other organizations or individuals shall have 4-character error numbers.
- 6) An error number shall not be redefined, nor modified except by the organization or individual that originally defined it, or their successors or assigns.

Parameters included in the error text shall be coded according to the principles as specified in Annex A or Annex B of [ITU-T H.248.1]. If more than one parameter is included they shall be included in the order defined in this Recommendation and separated by a comma.

Error text may be included in the error descriptor, even for those error codes for which no specific error text is defined in this Recommendation. If error text is included it should contain the information defined in the error specification.

NOTE – The actions carried out after an error is discovered, which results in the sending of an error code described in clause 4.2, are specified in clause 8 of [ITU-T H.248.1].

4.2 Error code descriptions

4.2.1 Error code #: 400

Name: Syntax error in message

Definition: The transaction request(s) has been disregarded due to a syntax error detected at the message level. The message does not conform to the productions of messages as per Annex A or Annex B of [ITU-T H.248.1] as applicable. Used when, e.g., no transaction can be parsed.

Error text in the error descriptor: –

Comment: If the error is detected prior to determining a valid transaction ID, no meaningful action can be taken on the receipt of the error message.

4.2.2 Error code #: 401

Name: Protocol error

Definition: The transaction or command request(s) has been disregarded due to a violation of Megaco protocol procedures having been detected.

Error text in the error descriptor: –

Comment: Use more specific error codes (e.g., 505) if possible.

4.2.3 Error code #: 402

Name: Unauthorized

Definition: The command is not executed due to the originator of a command not being authorized to execute that command for the termination(s) affected by it.

Error text in the error descriptor: A string containing the command name is included in the error text in the error descriptor.

Comment: –

4.2.4 Error code #: 403

Name: Syntax error in TransactionRequest

Definition: The transaction request is disregarded since it failed to match production of a TransactionRequest as per Annexes A and B of [ITU-T H.248.1], as applicable. Used when, e.g., it is not possible to determine the end of a transaction, or when no action can be parsed.

Reference: Clause 8.2.2 of [ITU-T H.248.1]

Error text in the error descriptor: –

Comment: If the error is detected prior to determining a valid transaction ID, no meaningful action can be taken on the receipt of the error message.

4.2.5 Error code #: 406

Name: Version not supported

Definition: This indicates a lack of support for the protocol version indicated in the message header of the message, or in the ServiceChangeVersion parameter. In the case of the version number being indicated in the message header, the message contents are disregarded.

Reference: Clauses 11.2 or 11.3 of [ITU-T H.248.1]

Error text in the error descriptor: –

Comment: –

4.2.6 Error code #: 410

Name: Incorrect identifier

Definition: The transaction request(s) has been disregarded due to a syntax error (illegal length or illegal character) having been found in a mId, transactionId, contextId, terminationId, propertyId, eventId, signalId, statisticsId, parameterId or requestID.

Error text in the error descriptor: The concerned ID is included in the error text in the error descriptor.

Comment: If the error is detected prior to determining a valid transaction ID, no meaningful action can be taken on the receipt of the error message.

4.2.7 Error code #: 411

Name: The transaction refers to an unknown ContextID

Definition: The ContextID referred to by an action in the transaction request is unknown and the action is therefore disregarded.

Error text in the error descriptor: –

Comment: –

4.2.8 Error code #: 412

Name: No ContextIDs available

Definition: The MG is unable to create a context in response to an "Add" or "Move" command with CHOOSE given as the ContextId because of a shortage of resources within the MG, and the action is disregarded.

Error text in the error descriptor: –

Comment: –

4.2.9 Error code #: 413

Name: Number of transactions in message exceeds maximum

Definition: The message contains more than the maximum allowed number of transactions. If the error descriptor is returned at a message level, the message has not been executed. If the error descriptor is returned at a transaction level, the transaction has not been executed.

Error text in the error descriptor: –

Comment: The MGC/MG should resend the message with the number of transactions reduced less than or equal to the maximum number.