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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS  
Infrastructure of audiovisual services – Communication  
procedures

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**Gateway control protocol: Error code and  
service change reason description**

ITU-T Recommendation H.248.8

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## **ITU-T Recommendation H.248.8**

### **Gateway control protocol: Error code and service change reason description**

#### **Summary**

This Recommendation defines the Service Change Reasons that are used in the core 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.

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

#### **Source**

ITU-T Recommendation H.248.8 was prepared by ITU-T Study Group 16 (2001-2004) and approved under the WTSA Resolution 1 procedure on 29 March 2002.

## FOREWORD

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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

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# ITU-T Recommendation 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 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/H.248.1.

### 2 Definitions

See ITU-T Rec. H.248.1.

### 3 References

See ITU-T Rec. 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 character maximum) string is 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.
- 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 Annexes A or B/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.

NOTE – The actions carried out after an error is discovered, which results in the sending of an error code described in 4.2, are specified in clause 8/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/H.248.1 as applicable. Used when e.g. no Transaction can be parsed.

**Package:** –

**Reference:** No

**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 request(s) has been disregarded due to a violation of Megaco protocol procedures having been detected.

**Package:** –

**Reference:** No

**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.

**Package:** –

**Reference:** No

**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/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.

**Package:** –

**Reference:** clause 8.2.2/ 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.

**Package:** –

**Reference:** clause 11.2 or 11.3/ 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.

**Package:** –

**Reference:** No

**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.

**Package:** –

**Reference:** No

**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.

**Package:** –

**Reference:** No

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.9 Error Code #: 421 Name: Unknown action or illegal combination of actions**

**Definition:** Not used.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.10 Error Code #: 422 Name: Syntax Error in Action**

**Definition:** The Action was disregarded due to the syntax of the Action not conforming to the production of an actionRequest as per Annexes A or B/H.248.1, as applicable. Used when it is not possible to determine the end of an Action, when e.g. no Command can be parsed.

**Package:** –

**Reference:** clause 8.2.2/H.248.1

**Error Text in the error Descriptor:** –

**Comment:** Examples of errors are spelling errors, missing brackets.

#### **4.2.11 Error Code #: 430 Name: Unknown TerminationID**

**Definition:** The TerminationID referred to by the command is unknown and the command is therefore disregarded.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The TerminationID is included in the error text in the error descriptor

**Comment:** –

#### **4.2.12 Error Code #: 431 Name: No TerminationID matched a wildcard**

**Definition:** The command that included one or more wildcard (ALL or CHOOSE) TerminationID(s) is disregarded since the receiver of the command could not find an existing termination, or create a new termination matching the specified pattern.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.13 Error Code #: 432 Name: Out of TerminationIDs or No TerminationID available**

**Definition:** The Add command including the CHOOSE terminationID is disregarded. The MG was unable to provide a TerminationID because it has exhausted the available range of TerminationIDs.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.14 Error Code #: 433 Name: TerminationID is already in a Context**

**Definition:** A TerminationID specified in an Add command already exists within an active context and therefore the command is disregarded.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The ContextID is included in the error text in the error descriptor.

**Comment:** –

#### **4.2.15 Error Code #: 434 Name: Max number of Terminations in a Context exceeded**

**Definition:** The MGC has requested that a termination be added or moved to a context that already contains a maximum number of terminations allowed. The command is therefore disregarded.

**Package:** –

**Reference:** clauses 6.1 and E.2.1/H.248.1

**Error Text in error descriptor:** –

**Comment:** –

#### **4.2.16 Error Code #: 435 Name: Termination ID is not in specified Context**

**Definition:** A specific TerminationID specified in a Modify, Subtract, AuditValue, AuditCapabilities, or ServiceChange command does not exist in a specified context and therefore the command is disregarded.

**Package:** –

**Reference:** –

**Error Text in error descriptor:** The ContextID where the termination is located are included in the error text in the error descriptor.

**Comment:** –

#### **4.2.17 Error Code #: 440 Name: Unsupported or unknown Package**

**Definition:** The Package Name in a property, parameter, event, signal, or statistic identifier is not supported by the receiver. The command related to the unknown identifier is disregarded.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The Package Name is included in the error text in the error descriptor.

**Comment:** –

#### **4.2.18 Error Code #: 441 Name: Missing Remote or Local Descriptor**

**Definition:** The requested command requires that the Remote/Local Descriptor includes necessary or adequate information and therefore the action is not carried out.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** The error associated with this code may not be detectable until after the current command or subsequent commands result in failure to process the requested behaviour (e.g. the bearer setup fails).

#### **4.2.19 Error Code #: 442 Name: Syntax Error in Command**

**Definition:** A command request has failed to match the syntax of the commandRequest production and is therefore disregarded. Used when e.g. end of a command cannot be determined.

**Package:** –

**Reference:** clause 8.2.2/H.248.1

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.20 Error Code #: 443 Name: Unsupported or Unknown Command**

**Definition:** The requested Command is not recognized by the receiver and is therefore disregarded.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** A string containing the Command name is included in the error text in the error descriptor.

**Comment:** –

**4.2.21 Error Code #: 444 Name: Unsupported or Unknown Descriptor**

**Definition:** The descriptor in a Command Request or reply is not recognized by the receiver and is therefore disregarded.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** A string containing the name of the Descriptor is included in the error text in the error descriptor.

**Comment:** –

**4.2.22 Error Code #: 445 Name: Unsupported or Unknown Property**

**Definition:** Property Name (Annex A/H.248.1) or ItemID (Annex B/H.248.1) of a property Parameter within a descriptor is recognized but not supported and the command related to the property is not carried out.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The Property Name (Annex A/H.248.1) or ItemID (Annex B/H.248.1) is included in the error text in the error descriptor

**Comment:** –

**4.2.23 Error Code #: 446 Name: Unsupported or Unknown Parameter**

**Definition:** The Parameter in a Command Request is not recognized by the receiver and the command related to the descriptor is not carried out.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The ParameterID is included in the error text in the error descriptor.

**Comment:** –

**4.2.24 Error Code #: 447 Name: Descriptor not legal in this command**

**Definition:** The descriptor cannot be used in this command in accordance with the definition in Annexes A and B/H.248.1 and the command, including the descriptor, is not carried out.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** A string containing the name of the Descriptor is included in the error text in the error descriptor.

**Comment:** –

**4.2.25 Error Code #: 448 Name: Descriptor appears twice in a command**

**Definition:** The Descriptor appears twice in the command and the command including the descriptor is not carried out.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** A string containing the name of the Descriptor is included in the error text in the error descriptor.

**Comment:** –

#### **4.2.26 Error Code #: 450 Name: No such property in this package**

**Definition:** Property Name (Annex A/H.248.1) or ItemID (Annex B/H.248.1) of a property Parameter within a descriptor is not recognized and the command including the property/item is not carried out.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The Property Name (Annex A/H.248.1) or ItemID (Annex B/H.248.1) is included in the error text in the error descriptor.

**Comment:** –

#### **4.2.27 Error Code #: 451 Name: No such event in this package**

**Definition:** The command including the Event Name is not executed because it is not considered to be a part of this version of the package.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The Event Name is included in the Error text in the error descriptor.

**Comment:** –

#### **4.2.28 Error Code #: 452 Name: No such signal in this package**

**Definition:** The command including the Signal Name is not executed due to it not being considered by the MG to be a part of this version of the package.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The Signal Name is included in the Error text in the error descriptor.

**Comment:** –

#### **4.2.29 Error Code #: 453 Name: No such statistic in this package**

**Definition:** The command including the Statistic Name is not executed due to it not being considered by the MG to be a part of this version of the package.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The Statistic Name is included in the Error text in the error descriptor.

**Comment:** –

#### **4.2.30 Error Code #: 454 Name: No such parameter value in this package**

**Definition:** The command including the parameter value is not executed because it is not considered to be a part of this version of the package.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The Parameter Name is included in the Error text in the error descriptor.

**Comment:** –

#### **4.2.31 Error Code #: 455 Name: Property illegal in this Descriptor**

**Definition:** The command including the property was disregarded since the MG does not consider it to be a part of this descriptor.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The Property Name is included in the Error text in the error descriptor.

**Comment:** –

#### **4.2.32 Error Code #: 456 Name: Property appears twice in this Descriptor**

**Definition:** The command, including the property, is not executed due to the parameter or property appearing twice in this descriptor.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The Property Name is included in the Error text in the error descriptor.

**Comment:** –

#### **4.2.33 Error Code #: 457 Name: Missing parameter in signal or event**

**Definition:** The command was disregarded due to a missing mandatory parameter.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** If possible, the missing Parameter Name is included in the Error text in the error descriptor.

**Comment:** –

#### **4.2.34 Error Code #: 471 Name: Implied Add for Multiplex failure**

**Definition:** A termination listed within a multiplex descriptor could not be added to the current context and the "ADD" command is not carried out.

**Package:** –

**Error Text in the error Descriptor:** The TerminationID is indicated in the error text in the error descriptor.

**Comment:** If the termination is already in a different active context, use error code 433.

#### **4.2.35 Error Code #: 500 Name: Internal software failure in the MG**

**Definition:** A command could not be executed due to a software failure within the MG.

**Package:** –



**Error Text in the error Descriptor:** –

**Comment:** For hardware failures, see error code 529.

**4.2.36 Error Code #: 501 Name: Not Implemented**

**Definition:** A property, parameter, signal, event or statistic mentioning the command has not been implemented.

**Package:** –

**Error Text in the error Descriptor:** –

**Comment:** –

**4.2.37 Error Code #: 502 Name: Not ready**

**Definition:** The command directed to a termination was not executed because of the service state of the termination.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The service state is indicated in the error text in the error descriptor.

**Comment:** –

**4.2.38 Error Code #: 503 Name: Service Unavailable**

**Definition:** Not used.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

**4.2.39 Error Code #: 504 Name: Command Received from unauthorized entity**

**Definition:** Not used.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

**4.2.40 Error Code #: 505 Name: Transaction Request Received before a ServiceChange Reply has been received**

**Definition:** Sent by the MG/MGC which has sent a ServiceChange request to an MGC/MG and receives a transaction request from that MGC/MG before it has received the corresponding ServiceChange reply. The actions included in the transaction request are not carried out.

**Package:** –

**Reference:** clause 11.2/H.248.1

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.41 Error Code #: 506 Name: Number of TransactionPendings Exceeded**

**Definition:** Indicates that the maximum number of TransactionPendings have been received and that the transaction can be assumed to be in error.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.42 Error Code #: 510 Name: Insufficient resources**

**Definition:** The command(s) was rejected due to lack of common resources in the MG.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The error text in the error descriptor includes the name or identity of the property, signal or event that represents a resource lacking in the MG.

**Comment:** –

#### **4.2.43 Error Code #: 512 Name: Media Gateway unequipped to detect requested Event**

**Definition:** The MG is unable to detect the requested event due to lack of resources.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.44 Error Code #: 513 Name: Media Gateway unequipped to generate requested Signals**

**Definition:** The MG is unable to send the requested signal due to lack of resources.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.45 Error Code #: 514 Name: Media Gateway cannot send the specified announcement**

**Definition:** The MG is unable to send the requested announcement due to lack of resources.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.46 Error Code #: 515 Name: Unsupported Media Type**

**Definition:** The stream included in the command is not supported by the MG, therefore the command is disregarded.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The streamID is included in the error text in the error descriptor.

**Comment:** –

#### **4.2.47 Error Code #: 517 Name: Unsupported or invalid mode**

**Definition:** The stream mode value is not supported for that stream. Therefore, the command related to that parameter is not executed.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The streamID and stream mode value is included in the error text in the error descriptor

**Comment:** –

#### **4.2.48 Error Code #: 518 Name: Event buffer full**

**Definition:** Indicates that the event buffer in the MG is full.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** Sent in a notify command.

#### **4.2.49 Error Code #: 519 Name: Out of space to store digit map**

**Definition:** The MG is out of storage space for DigitMap descriptors, or is not capable of using DigitMaps.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** The MGC should fall back to single digit collection or unnamed digit maps.

#### **4.2.50 Error Code #: 520 Name: Digit Map undefined in the MG**

**Definition:** The digit map named in a command is not defined in the MG, and the command is not executed.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** The DigitMap Name is included in the error text in the error descriptor.

**Comment:** –

#### **4.2.51 Error Code #: 521 Name: Termination is "Service Changing"**

**Definition:** Not used.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

**4.2.52 Error Code #: 526 Name: Insufficient bandwidth**

**Definition:** The MG was unable to execute a command because of insufficient bandwidth at the network interface or externally to the MG.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

**4.2.53 Error Code #: 529 Name: Internal hardware failure in MG**

**Definition:** The command could not be executed due to hardware failure in the MG.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** This error code is to be generated if the failure situation is not already covered by a more specific error, such as "514 – MG cannot send specified announcement", or whatever error is appropriate.

**4.2.54 Error Code #: 530 Name: Temporary Network failure**

**Definition:** The command could not be executed due to a problem in the surrounding network. The problem is considered to be of a short-term duration.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

**4.2.55 Error Code #: 531 Name: Permanent Network failure**

**Definition:** The command could not be executed due to a problem in the surrounding network. The problem is considered to be of a long-term duration.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

**4.2.56 Error Code #: 532 Name: Audited Property, Statistic, Event or Signal does not exist**

**Definition:** The MGC has tried to audit the value of a property or statistic which is currently not instantiated, or a signal that is not active, or an event that is not instantiated.

**Package:** –

**Reference:** No

**Error Text in the error Descriptor:** NA

**Comment:** –

#### **4.2.57 Error Code #: 533 Name: Response exceeds maximum transport PDU size**

**Definition:** The MG or MGC is unable to assemble a complete transaction response because the number of bytes for the message would exceed the maximum protocol data unit size of the underlying transport. The command instance in the response to that would have caused the overflow is treated as if it were in error, and the remainder of the transaction is not executed, even if the command was marked "optional".

This situation will typically arise in conjunction with the use of wildcarding, which causes the original command to be expanded into a series of similar command instances.

If the request contained a wildcarded termination ID, the MGC or MG should send later requests with a smaller subset of termination Ids.

**Package:** –

**Reference:** clause 8/H.248.1

**Error Text in the error Descriptor:** NA

**Comment:** Implementors' note: the detection of PDU overflow must occur at a point where there is still room in the PDU for the error descriptor.

#### **4.2.58 Error Code #: 534 Name: Illegal write of read only property**

**Definition:** The MGC has tried to write a property whose characteristics are defined as read only. The command containing the property is disregarded.

**Package:** –

**Reference:** No

**Error Text in the error Descriptor:** A string containing the package ID and property ID of the property trying to be written.

**Comment:** –

#### **4.2.59 Error Code #: 540 Name: Unexpected initial hook state**

**Definition:** This error is generated when the MGC has tried to request a hook state transition event with the "strict" parameter set to "failWrong", and the hook state is already what the transition implies.

**Package:** E.9/H.248.1 "Analogue Line Supervision Package".

**Reference:** E.9.6/H.248.1

**Error Text in the error Descriptor:** –

**Comment:** –

#### **4.2.60 Error Code #: 581 Name: Does Not Exist**

**Definition:** Not Used.

**Package:** –

**Reference:** –

**Error Text in the error Descriptor:** –

**Comment:** –

## 5 Service Change Reasons

### 5.1 Assigning Service Change Reasons:

The following considerations SHALL be met to register service change reason with IANA:

- 1) A one-phrase, 80-character maximum, unique reason code is registered for each reason.
- 2) A complete description of the conditions under which the reason it is used is detected, shall be included in a publicly available document. The description shall be sufficiently clear to differentiate the reason from all other existing reasons.
- 3) The document should be available on a public web server and should have a stable URL.

Reason text included in the ServiceChangeReason shall be coded according to the principles as specified in Annex A or B/H.248.1 with a white space between the reason number and the reason text.

### 5.2 Service Change Reason Description

#### 5.2.1 Reason #: 900 Name: Service Restored

**Definition:** It indicates that the entity indicated with the TerminationID is in ServiceState "In-Service".

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

#### 5.2.2 Reason #: 901 Name: Cold Boot

**Definition:** This indicates that the entity indicated by the TerminationID is in ServiceState "In-Service", and that it has gone through a start, or recovery action and all associated contexts, except the null context, have been cleared.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** This reason code only applies for TerminationID root.

#### 5.2.3 Reason #: 902 Name: Warm Boot

**Definition:** This indicates that the entity indicated with the TerminationID is in ServiceState "In-Service", and that it has gone through a start, or recovery, action. All transactions in process may be lost, but otherwise all states are preserved on the termination.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** This reason code only applies for TerminationID root.

#### 5.2.4 Reason #: 903 Name: MGC Directed Change

**Definition:** This indicates that the MG is directed by an MGC to use the receiver as MGC.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** clause 11.5/H.248.1

### **5.2.5 Reason #: 904 Name: Termination malfunctioning**

**Definition:** This indicates that the entity indicated with the TerminationID is in ServiceState "Out-Of-Service" due to some problem directly related to the termination.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

### **5.2.6 Reason #: 905 Name: Termination taken out of service**

**Definition:** This indicates that the entity indicated with the TerminationID is in ServiceState "Out-Of-Service" due to maintenance action.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

### **5.2.7 Reason #: 906 Name: Loss of lower layer connectivity (e.g. downstream sync)**

**Definition:** This indicates that the entity indicated with the TerminationID is in ServiceState "Out-Of-Service" due to the termination having experienced loss of lower layer connectivity on the incoming stream.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

### **5.2.8 Reason #: 907 Name: Transmission Failure**

**Definition:** This indicates that the entity indicated with the TerminationID is in ServiceState "Out-Of-Service" due to the termination having experienced a transmission failure e.g. a degradation of transmission quality.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

### **5.2.9 Reason #: 908 Name: MG Impending Failure**

**Definition:** Indicates that the entity indicated with the TerminationID will go to the ServiceState "Out-of-service" and is unable to handle new traffic.

**Reference:** clause 11.4/H.248.1

**Text in the Service Change extension:** –

**Comment:** Note: This reason code only applies for TerminationID root.

### **5.2.10 Reason #: 909 Name: MGC Impending Failure**

**Definition:** Indicates that the sender will go to the ServiceState "Out-of-service" and is unable to handle new transactions.

**Reference:** clause 11.5/H.248.1

**Text in the Service Change extension:** –

**Comment:** –

### **5.2.11 Reason #: 910 Name: Media Capability Failure**

**Definition:** This indicates that the entity indicated with the TerminationID has experienced a change of its media capability.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

### **5.2.12 Reason #: 911 Name: Modem Capability Failure**

**Definition:** This indicates that the entity indicated with the TerminationID has experienced a change in its modem capability.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

### **5.2.13 Reason #: 912 Name: Mux Capability Failure**

**Definition:** This indicates that the entity indicated with the TerminationID has a experienced a change in its MUX capability.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

### **5.2.14 Reason #: 913 Name: Signal Capability Failure**

**Definition:** This indicates that the entity indicated with the TerminationID has experienced a capability change for its signal capability. This includes changes in packages and/or signalIDs.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

### **5.2.15 Reason #: 914 Name: Event Capability Failure**

**Definition:** This indicates that the entity indicated with the TerminationID has experienced a capability change for its events capability. This includes changes in packages and/or eventsIDs.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:**

Note For codes 911-914: an audit with respect to the

- current Packages;
- current Packages and Properties (with Values);
- Event Descriptor;
- Signal Descriptor;
- Digit Map Descriptor,

may be performed to get more information about the changed condition.



#### **5.2.16 Reason #: 915 Name: State Loss**

**Definition:** This indicates that the entity indicated with the TerminationID has experienced loss of state and that the ServiceState is out of service.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

#### **5.2.17 Reason #: 916 Name: Packages Change**

**Definition:** This indicates that the packages, or package versions, implemented on the Media Gateway have changed. The MGC should consider performing an AuditValue of the Media Gateway to determine which packages have changed.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –

#### **5.2.18 Reason #: 917 Name: Capabilities Change**

**Definition:** This indicates that the capabilities of the Media Gateway have changed. This is used in the case where the package has not changed but the capabilities of properties/parameters have. The MGC should consider performing an AuditCapabilities of the Media Gateway to determine which capabilities have changed.

**Reference:** –

**Text in the Service Change extension:** –

**Comment:** –





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