INTERNATIONAL TELECOMMUNICATION UNION

ITU-T H.460.4

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

(11/2002)

SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Supplementary services for multimedia

Call priority designation for H.323 calls

ITU-T Recommendation H.460.4

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ITU-T Recommendation H.460.4

Call priority designation for H.323 calls

Summary

There is a desire to provide higher than normal priority call services to support several different applications. These applications include calls by authorized emergency personnel during disaster relief efforts, emergency calls by the public, or calls governed by service level agreements which specify a higher than normal probability of call completion. In order to provide these priority call services, it is necessary to signal to network elements such as Gatekeepers, Border Elements and Gateways that a call requires priority handling. This Recommendation defines messages and procedures necessary to signal the desired priority for an H.323 call.

Source

ITU-T Recommendation H.460.4 was prepared by ITU-T Study Group 16 (2001-2004) and approved under the WTSA Resolution 1 procedure on 29 November 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.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

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.

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ITU-T Recommendation H.460.4

Call priority designation for H.323 calls

1 Scope

This Recommendation specifies the call priority designation for H.323 calls. The use of the call priority designation provides a mechanism to indicate the desired or approved call establishment priority for an H.323 call. It is necessary to signal the call priority during registration, admission, location, and call setup signalling in order for the Gatekeepers, Gateways, and other network elements to take appropriate action to attempt to assure the successful establishment of priority calls over normal traffic during times of degraded operation due to damaged resources or heavy loads.

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.

[1] ITU-T Recommendation H.323 Version 4 (2000), *Packet-based multimedia communications systems*.

[2] ITU-T Recommendation H.225.0 Version 4 (2000), *Call signalling protocols and media stream packetization for packet-based multimedia communication systems*.

[3] ITU-T Recommendation H.460.1 (2002), G*uidelines for the use of the generic extensible framework*.

[4] ITU-T Recommendation H.501 (2002), *Protocol for mobility management and intra/inter-domain communication in multimedia systems*.

[5] ITU-T Recommendation Q.931 (1998), *ISDN user-network interface layer 3 specification for basic call control*.

3 Terms and definitions

This Recommendation defines the following terms:

3.1 call priority: An indication of the importance of a call, as it relates to the probability of call completion and maintenance of call connection.

3.2 call completion: The ability to successfully make a call connection between a calling and called endpoint, assuming a called user is available to accept the call.

3.3 token: A piece of information, either clear or encrypted which can be used to validate a request for a specific call priority.

3.4 domain: A network or collection of networks under a single administrative authority that provides priority call establishment services.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations:

ACF Admission Confirmation

ARQ Admission Request

ASN.1 Abstract Syntax Notation One

LCF Location Confirmation

LRQ Location Request

PDU Payload Data Unit

PIN Personal Identification Number

QoS Quality of Service

RAS Registration, Admission and Status

RCF Registration Confirmation

RRQ Registration Request

5 Call priority definition

There are times when it is important to indicate the desired or required importance of a call. This may be due to service level agreements, emergency communications, or other system requirements. This importance, or call priority, is represented by a Call Priority Designation feature parameter that may be used to control those elements of the network that affect the probability of call completion and minimize call loss. This is not used to specify the quality of the media streams, but pertains only to the completion of the call establishment process. Under normal circumstances, on a well-designed, lightly loaded network, this parameter may have no apparent effect. However, in times of degraded operation, due to damaged resources or heavy loads, the parameter may allow for preferential treatment of certain call classes.

Call priority is indicated by a priorityValue and an optional priorityExtension, which are described below. References to priority in the following clauses refer to this combination of priorityValue and priorityExtension.

The priorityValue indicates a class of service that has a specific relative probability of call completion. Higher priority calls shall have a higher probability of call completion. The following table shows the relative priority of the different values.

Value	Priority
emergencyAuthorized	0 – Highest
emergencyPublic	1
high	2
normal	3 – Lowest

If new values are added, their relative priority shall be indicated in this clause. A domain is free to support and act on only a subset of the call priorityValues, or to treat multiple, adjacent values the same. A device receiving a priorityValue that is not supported within its domain, may respond by assigning a Normal priority to the call. The action to be taken by any device in response to a specified call priority is outside the scope of this Recommendation and is subject to the local policy of the domain.

Any call that does not contain a Call Priority Designation feature parameter is assumed to be of Normal priority.

The priorityExtension may be used to indicate sub-priorities within a given priority class or may be used to indicated sub-classes of service within a given priority class. In the former case, it is recommended that higher extension values indicate higher priority levels. In the latter case, the values have no relative priority, but are used to indicate different sub-classes that may be handled differently. A domain is free to support and act on only a subset of the priorityExtension values, or to treat multiple values the same. A device receiving a priorityExtension value that is not supported within its domain, may respond by ignoring the priorityExtension or by treating it the same as any other value. The action to be taken by any device in response to a specified priorityExtension is outside the scope of this Recommendation and is subject to the local policy of the domain.

Call priority policy, value assignment and action are local matters confined to the scope of a domain. Mapping of call priority values and extensions, as well as coordination of actions between domains, is the subject of agreements between domains and is outside the scope of this Recommendation. It is recommended that priorityValues be mapped one-to-one and that they are preserved when passed through transit networks. However, there may be agreements specifying alternate mappings. For example, there may be circumstances under which HighPriority calls coming from another domain are mapped to Normal calls in the destination domain. The priorityExtension mappings need to be explicitly defined since the meaning of the priorityExtension is a local matter. This mapping may include removal of the priorityExtension.

The mapping of the Call Priority Designation between a packet network and a switched circuit network via a Gateway is described in ITU-T Rec. H.246.

Some priority levels may require authentication. A mechanism is provided to allow transmission of clear or encrypted tokens. These tokens may be used to validate the call priority request.

A call priority may be associated with an endpoint at registration time. This could provide a specific call priority for all calls made or received by the endpoint. A call priority may be associated with a call at admission and call setup time. This could provide a specific call priority on a per-call basis.

The calling endpoint may initiate the per-call call priority request, or a local or remote Gatekeeper may initiate it. The Gatekeeper may initiate a call priority request after detecting that the called endpoint requires a specific call priority.

The call priority information is sent to allow Gatekeepers, Gateways, and other network elements to take specific action. The action to be taken is outside the scope of this Recommendation and would depend on service level agreements between the user and the provider, but may include:

- Priority admission confirmation;
- Priority access to gateways;
- Approval of bandwidth requests;
- Request for transport layer QOS from network elements;
- Authentication of service level request;
- Other actions to assure a specific probability of call completion.

The inability of a network, or network element, to provide the call priority requested in the Call Priority Designation feature shall not cause a call to fail. If a device cannot support, authorize, or understand a requested call priority, the action shall be to attempt to complete the call as a normal call or at another priority level that the domain supports.

It is important to note that in many cases, a priority call will be made from an endpoint that does not support the Call Priority Designation feature. In this case, the Gatekeeper or other network element must detect that the call requires a specific priority, and then signal that priority on behalf of the

endpoint. For example, in emergency situations, emergency personnel may need to place a call from any endpoint. The capability of that endpoint cannot restrict the call priority. The emergency user could dial an access phone number and provide authentication, possibly via a PIN. The endpoint would then provide the follow-on dialling information. This access number would need to be detected by the Gatekeeper or other network element in order to mark the follow-on call with emergencyAuthorized priority. The mechanism for authenticating PIN numbers and accepting follow-on dialling information is outside the scope of this Recommendation, but it is expected that this could be provided by an interactive voice response system within the Gatekeeper, or some other feature server, which would be addressed by the access number.

6 Messages and signalling

There are two call priority parameters defined in this Recommendation. They are:

– CallPriorityRequest;

– CallPriorityConfirm.

The call priority parameter is transported in the H.225.0 RAS, H.225.0 Call Signalling (Q.931), Annex G/H.225.0, and H.501 messages using the generic extensibility framework as defined in ITU-T Rec. H.460.1, as follows:

– The CallPriorityRequest parameter may be sent in the call signalling SETUP message, and the CallPriorityConfirm parameter may be sent in the call Signalling CONNECT message. In these cases, the CallPriorityRequest or CallPriorityConfirm parameter is coded within the Call Priority Designation feature, which is placed in the genericData parameter in the H.225.0 H323-UU-PDU in the User-user Information Element.

– The CallPriorityRequest parameter may be sent in the RAS channel RRQ, ARQ, or LRQ message, and the CallPriorityConfirm parameter may be sent in the RAS channel RCF, ACF, or LCF message. In these cases, the CallPriorityRequest or CallPriorityConfirm parameter is coded within the Call Priority Designation feature, which is placed in the genericData parameter in the request, or confirm (for example RegistrationRequest) parameter of the H.225.0 RasMessage element.

– The CallPriorityRequest parameter may be sent in the Annex G/H.225.0 or H.501 Access Request message, and the CallPriorityConfirm parameter may be sent in the Annex G/H.225.0 or H.510 Access Confirmation message. In these cases, the CallPriorityRequest or CallPriorityConfirm parameter is coded within the Call Priority Designation feature, which is placed in the genericData parameter in the Annex G/H.225.0 AnnexGCommonInfo element or the H.501 MessageCommonInfo element.

The CallPriorityRequest or CallPriorityConfirm parameter contains the ASN.1 CallPriorityInfo structure, which contains the appropriate call priority fields.

7 Call priority procedures

7.1 Call priority request during registration

An endpoint may wish to establish a specific call priority for all calls originating and/or terminating at that endpoint. This is useful in establishing a priority dial tone service, or indicating that the endpoint is a priority destination. To do this, the endpoint shall include the CallPriorityRequest in the RRQ message. This element specifies the desired priority for all calls originating and terminating at the endpoint.

If the Gatekeeper supports the Call Priority Designation feature, it shall reply with the CallPriorityConfirm in the RCF message. If the Gatekeeper is able to grant the requested priority, then the CallPriorityConfirm shall contain the same priority as the request. If the Gatekeeper is

unable to grant the request, then the CallPriorityConfirm shall contain the priority that can be granted and the rejectReason value shall be set to priorityUnavailable.

If a CallPriorityConfirm is not returned, it shall be assumed that the Gatekeeper does not support the Call Priority Designation feature.

The endpoint may include a token in the CallPriorityRequest contained in the RRQ. This token may be used by the Gatekeeper to authenticate the call priority request. The mechanism for giving this token to the endpoint is outside the scope of this Recommendation. If a token is required by the Gatekeeper, and is either not present or not valid, the Gatekeeper may revert the call priority to Normal, and shall respond with the CallPriorityConfirm containing the new priority and the rejectReason value set to priorityUnauthorized.

The Gatekeeper may return a token in the CallPriorityConfirm contained in the RCF. This token may be used by the endpoint to indicate, in subsequent messages, that the Gatekeeper has authorized the request. If the token is present, the endpoint shall include it in all subsequent ARQ, SETUP, and CONNECT messages that originate at the endpoint.

Once a Gatekeeper returns a CallPriorityConfirm within the RCF, all calls to or from the registered endpoint shall be treated by the Gatekeeper as having the confirmed priority, regardless of the priority signalled in the ARQ (including no priority request), unless the endpoint indicates a higher priority for a specific call. The Gatekeeper shall follow the procedure described in 7.2, however, if the Gatekeeper cannot support the higher priority requested, it shall not confirm a priority lower than the one confirmed in the RCF.

7.2 Call priority request during admission request

7.2.1 Request by endpoint

An endpoint may wish to establish a specific call priority for a call originating or terminating at that endpoint. To do this, the endpoint shall include the CallPriorityRequest in the ARQ message. This specifies the desired priority for this call.

If the Gatekeeper supports the Call Priority Designation feature, it shall reply with the CallPriorityConfirm in the ACF message. If the Gatekeeper is able to grant the requested priority, then the CallPriorityConfirm shall contain the same priority as the request. If the Gatekeeper is unable to grant the request, then the CallPriorityConfirm shall contain the priority that can be granted and the rejectReason value set to priorityUnavailable.

If a CallPriorityConfirm is not returned, it shall be assumed that the Gatekeeper does not support the Call Priority Designation feature.

The endpoint may include a token in the CallPriorityRequest contained in the ARQ. This token may be used by the Gatekeeper to authenticate the call priority request. This token may have been received by the endpoint in a previous RCF, or may have been received through some other mechanism that is outside the scope of this Recommendation. If a token is required by the Gatekeeper, and is either not present or not valid, the Gatekeeper may revert the call priority to Normal, and shall respond with the CallPriorityConfirm containing the new priority and the rejectReason value set to priorityUnauthorized.

The Gatekeeper may return a token in the CallPriorityConfirm contained in the ACF. This token may be used by the endpoint to indicate, in subsequent messages, that the Gatekeeper has authorized the request. If the token is present, the endpoint shall include it in the subsequent SETUP or CONNECT message sent by the endpoint for this call.

7.2.2 Request by gatekeeper

If the endpoint does not include a CallPriorityRequest in the ARQ message, the Gatekeeper may wish to establish a specific call priority for a call originating or terminating at the endpoint. This may be useful for marking emergencyPublic priority for calls to emergency numbers such as 911, 119, or 999. To do this, the Gatekeeper shall include a CallPriorityConfirm in the ACF message. This element shall specify the priority that the Gatekeeper wants for the call.

If the endpoint supports the Call Priority Designation feature, it shall include the CallPriorityRequest containing the priority in the subsequent SETUP or CONNECT messages for this call.

If the endpoint does not support the Call Priority Designation feature, the CallPriorityConfirm shall be ignored. In this case, there is no mechanism for marking the call signalling messages unless the Gatekeeper is using the Gatekeeper Routed call signalling model, in which the Gatekeeper may modify the subsequent SETUP or CONNECT call signalling messages to include the CallPriorityRequest.

7.3 Call priority request during call setup

7.3.1 Request by calling endpoint

A calling endpoint may wish to establish a specific call priority for a call originated by that endpoint. To do this, the calling endpoint shall include the CallPriorityRequest in the SETUP message. This element shall specify the desired priority for this call. This is particularly useful if the called endpoint has resources that may be allocated based, on priority requests such as a Gateway or Multipoint Control Unit.

If the called endpoint supports the Call Priority Designation feature, it shall first forward that request to its Gatekeeper in the ARQ message. In this case, the procedures of 7.2.1 shall be followed.

After receiving the ACF from the Gatekeeper, the called endpoint shall reply with the CallPriorityConfirm in the CONNECT message. If the called endpoint is able to grant the priority returned by the Gatekeeper, then the CallPriorityConfirm in the CONNECT message shall contain the same priority as that received from the Gatekeeper. If the endpoint is unable to grant the request, then the CallPriorityConfirm shall contain the priority that can be granted and the rejectReason value set to priorityUnavailable.

If no CallPriorityConfirm is returned, it shall be assumed that either the called endpoint or its Gatekeeper do not support the Call Priority Designation feature.

The calling endpoint may include a token in the CallPriorityRequest contained in the SETUP message. This token may be used by the called endpoint to authenticate the call priority request. This token may have been received in a previous RCF, ACF, or may have been received through some other mechanism that is outside the scope of this Recommendation. If a token is required by the called endpoint, and is either not present or not valid, the called endpoint may revert the call priority to Normal, and shall respond with the CallPriorityConfirm containing the new priority and the rejectReason value set to priorityUnauthorized.

The called endpoint may return a token in the CallPriorityConfirm contained in the CONNECT message. This token may be used by the calling endpoint in subsequent calls to the called endpoint.

7.3.2 Request by called endpoint

If the calling endpoint does not include a CallPriorityRequest in the SETUP message, the called endpoint may wish to establish a specific call priority for the call.

If the called endpoint supports the Call Priority Designation feature, it shall first send the CallPriorityRequest to its Gatekeeper in the ARQ message. In this case, the procedures of 7.2.1 shall be followed.

After receiving the ACF from the Gatekeeper, the called endpoint shall forward the received CallPriorityConfirm in the CONNECT message.

If no CallPriorityConfirm is returned, it shall be assumed that the gatekeeper does not support the Call Priority Designation feature. In this case, the called endpoint may forward the original CallPriorityConfirm in the CONNECT message.

The called endpoint may return a token in the CallPriorityConfirm contained in the CONNECT message. This token may be used by the calling endpoint in subsequent calls to the called endpoint.

7.4 Call priority request during location discovery

7.4.1 Request forwarded by calling endpoint's Gatekeeper

A Gatekeeper, which supports the Call Priority Designation feature, on receiving an ARQ containing the CallPriorityRequest for a called endpoint that is not in its zone, may forward the request to other Gatekeepers using the LRQ message. Alternatively, if the ARQ does not contain the CallPriorityRequest, but the Gatekeeper wishes to establish a call with a specific priority, the Gatekeeper may forward the CallPriorityRequest to other Gatekeepers in the LRQ message.

If the Gatekeeper receiving the LRQ containing the CallPriorityRequest recognizes the called endpoint as being in its zone and if the Gatekeeper supports the Call Priority Designation feature, it shall reply with the CallPriorityConfirm in the LCF message. If the Gatekeeper is able to grant the requested priority, then the CallPriorityConfirm shall contain the same priority as the request. If the Gatekeeper is unable to grant the request, then the CallPriorityConfirm shall contain the priority that can be granted and the rejectReason value set to priorityUnavailable.

If the CallPriorityConfirm is not returned, it is assumed that the Gatekeeper does not support the Call Priority Designation feature.

If a token is required by the called endpoint's Gatekeeper, and is either not present or not valid, the Gatekeeper may revert the call priority to Normal, and shall respond with the CallPriorityConfirm containing the new priority and the rejectReason value set to priorityUnauthorized.

The called endpoint's Gatekeeper may return a token in the CallPriorityConfirm contained in the LCF. This token may be used to indicate, in subsequent messages, that the Gatekeeper has authorized the request. If the token is present, the calling endpoint shall include it in the subsequent SETUP message sent by the endpoint for this call.

The calling endpoint's Gatekeeper, after receiving the LCF, shall in turn, forward the CallPriorityConfirm to the calling endpoint in the ACF. The calling endpoint's Gatekeeper may modify the CallPriorityConfirm, or replace it if it cannot provide the indicated call priority.

7.4.2 Request generated by called endpoint's Gatekeeper

A Gatekeeper, on receiving an LRQ that does not contain a CallPriorityRequest, may wish to establish a specific call priority for a call terminating at an endpoint in its zone. To do this, the Gatekeeper shall include the CallPriorityConfirm in the LCF message. This element specifies the desired priority that the Gatekeeper wants signalled for the call.

The calling endpoint's Gatekeeper, after receiving the LCF shall forward the CallPriorityConfirm to the calling endpoint in the ACF. If the calling endpoint's Gatekeeper is able to grant the requested

priority, then the CallPriorityConfirm shall contain the same priority as the request. If the calling endpoint's Gatekeeper is unable to grant the request, then the CallPriorityConfirm shall contain the priority that can be granted and the rejectReason value set to priorityUnavailable.

If the calling endpoint's Gatekeeper does not support the Call Priority Designation feature, the CallPriorityConfirm shall be ignored.

An endpoint receiving an ACF containing the CallPriorityConfirm element shall follow the procedure in 7.2.2.

7.5 Call priority indication during access request

7.5.1 Request forwarded by calling endpoint's gatekeeper/border element

A Gatekeeper/Border Element, which supports the Call Priority Designation feature, on receiving an ARQ containing the CallPriorityRequest for a called endpoint that is not in its zone, shall forward the request to other Border Elements in any Annex G/H.225.0 or H.501 AccessRequest message that it sends. Alternatively, if the ARQ does not contain the CallPriorityRequest, but the Gatekeeper/Border Element wishes to establish a call with a specific priority, the Gatekeeper/Border Element may forward the CallPriorityRequest to other Gatekeepers in the AccessRequest message.

If the Border Element receiving the AccessRequest containing the CallPriorityRequest recognizes the called endpoint as being in its zone, and if the Border Element supports the Call Priority Designation feature, it shall reply with the CallPriorityConfirm in the AccessConfirmation message. If the Border Element is able to grant the requested priority, then the CallPriorityConfirm shall contain the same priority as the request. If the Border Element is unable to grant the request, then the CallPriorityConfirm shall contain the priority that can be granted, and the rejectReason value set to priorityUnavailable.

If the CallPriorityConfirm is not returned, it is assumed that the Border Element does not support the Call Priority Designation feature.

If a token is required by the Border Element, and is either not present or not valid, the Border Element may revert the call priority to Normal, and shall respond with the CallPriorityConfirm containing the new priority and the rejectReason value set to priorityUnauthorized.

The Border Element may return a token in the CallPriorityConfirm contained in the AccessConfirmation. This token may be used to indicate, in subsequent messages, that the Border Element has authorized the request. If the token is present, the calling endpoint shall include it in the subsequent SETUP message sent by the endpoint for this call.

The calling endpoint's Gatekeeper/Border Element, after receiving the AccessConfirmation, shall in turn, forward the CallPriorityConfirm to the calling endpoint in the ACF. The calling endpoint's Gatekeeper/Border Element may modify the CallPriorityConfirm or replace it if it cannot provide the indicated call priority.

7.5.2 Request generated by responding Border Element

A Border Element, on receiving an AccessRequest that does not contain a CallPriorityRequest, may wish to establish a specific call priority for a call terminating at an endpoint in its zone. To do this, the Border Element shall include the CallPriorityConfirm in the AccessConfirmation message. This element specifies the desired priority that the Border Element wants signalled for the call.

The calling endpoint's Gatekeeper/Border Element, after receiving the AccessConfirmation, shall forward the CallPriorityConfirm to the calling endpoint in the ACF. If the calling endpoint's Gatekeeper/Border Element is able to grant the requested priority, then the CallPriorityConfirm shall contain the same priority as the request. If the calling endpoint's Gatekeeper/Border Element is

unable to grant the request, then the CallPriorityConfirm shall contain the priority that can be granted and the rejectReason value set to priorityUnavailable.

If the calling endpoint's Gatekeeper does not support the Call Priority Designation feature, it shall ignore the CallPriorityConfirm.

An endpoint receiving an ACF containing the CallPriorityConfirm element shall follow the procedure in 7.2.2.

8 H.225.0 generic data usage

Generic extensibility framework shall be used to specify the call priority parameter for use in H.225.0 RAS and Call Signalling messages as described below.

8.1 Call Priority Designation feature table

The following table defines the Call Priority Designation feature.

Feature Name:	CallPriorityDesignation
Feature Description:	This data is sent in H.225.0 RAS, H.225.0 Call Signalling, Annex G/H.225.0, and H.501 messages to indicate the requested or approved priority for the call.
Feature Identifier Type:	Standard
Feature Identifier Value:	4

8.2 Call Priority Designation parameter tables

The following tables define the various parameters used to indicate call priority requests and confirmations. A Call Priority Designation GenericData message shall contain one, and only one, of the two defined parameters.

Parameter Name:	CallPriorityRequest
Parameter Description:	This is sent to indicate the requested priority for the call. The content is a raw field consisting of the ASN.1 PER encoded CallPriorityInfo as specified in the ASN.1 notation in Annex A.
Parameter Identifier Type:	Standard
Parameter Identifier Value:	1
Parameter Type:	Raw
Parameter Cardinality:	Once and Only Once

Parameter Name:	CallPriorityConfirm
Parameter Description:	This is sent to indicate the approved or allowed priority for the call. The content is a raw field consisting of the ASN.1 PER encoded CallPriorityInfo as specified in the ASN.1 notation in Annex A.
Parameter Identifier Type:	Standard
Parameter Identifier Value:	2
Parameter Type:	Raw
Parameter Cardinality:	Once and Only Once

Annex A

Call Priority ASN.1 definitions for use inside Generic Data

A.1 Call Priority ASN.1 definition

```
CALL-PRIORITY {itu-t(0) recommendation(0) h(8) 460 4 version1(0)} DEFINITIONS
AUTOMATIC TAGS ::=
BEGIN

IMPORTS
       ClearToken,
       CryptoToken
     FROM H235-SECURITY-MESSAGES;

CallPriorityInfo  ::= SEQUENCE     -- root for Call Priority related asn.1
{
     priorityValue           CHOICE
     {
       emergencyAuthorized   NULL,
       emergencyPublic       NULL,
       high                  NULL,
       normal                NULL,
       …
     },
     priorityExtension       INTEGER (0..255)   OPTIONAL,
     tokens                  SEQUENCE OF ClearToken OPTIONAL,
     cryptoTokens            SEQUENCE OF CryptoToken OPTIONAL,
     rejectReason            CHOICE
     {
       priorityUnavailable        NULL,
       priorityUnauthorized       NULL,
       priorityValueUnknown       NULL,
       …
     } OPTIONAL,    -- Only used in CallPriorityConfirm
     …
}

END     -- of ASN.1
```

A.2 Description of New ASN.1 types and fields

CallPriorityInfo – Allows specification of call priority parameters within RAS and Call Signalling messages.

priorityValue – Identifies the priority of the call. This is used to indicate a specific probability of call completion. emergencyAuthorized is expected to be used for local, national, or other government emergency communications. emergencyPublic is to be used for public access to emergency services such as 911. High may be used for calls related to service level agreements that guarantee a specific probability of completion. Normal is used for calls that do not have a priority request.

priorityExtension – Allows subdivision or sub-grouping of the specified priority levels.

rejectReason – Used only in the Call Priority Confirm message to indicate why the requested priority is not provided. priorityUnavailable is used when the element cannot provide the requested priority. priorityUnauthorized is used when the element cannot authorize the requested priority. priorityUnknown is used when the element does not recognize the requested priority.

token, cryptoToken – These fields may contain tokens which indicate the authority to use or request specific Call Priorities.

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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
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Printed in Switzerland
Geneva, 2003