

CSCF Fault Codes Catalogue

Call Session Control Function

FAULTS CATALOGUE

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Contents

1	Introduction	1
2	Fault Codes Catalogue	3
2.1	Diameter Base Protocol	3
2.2	Session Initiation Protocol	8





1 Introduction

This document describes the fault codes that are generated by the Call Session Control Function (CSCF).

Table 1 Included Interfaces and Protocols with Their Respective Sections

Protocol	Interface and Section
Diameter Base Protocol	CSCF Cx and Dx Interface, see Section 2.1.1 CSCF Cx and Dx Interface on page 3. CSCF Rf Interface (Offline Charging), see Section 2.1.2 Rf Interface on page 5. CSCF Ro Interface (Online Charging), see Section 2.1.3 Ro Interface on page 6. Rx Interface, see Section 2.1.4 Rx Interface on page 8.
Session Initiation Protocol	CSCF Mw Interface, see Section 2.2.1 CSCF Mw Interface on page 8. E-CSCF MI interface, see Section 2.2.2 E-CSCF MI SIP Interface on page 34. CSCF ISC Interface, see Section 2.2.3 CSCF ISC Interface on page 36. CSCF I4 and I5 Interface, see Section 2.2.4 CSCF I4 and I5 Interface on page 47.





2 Fault Codes Catalogue

2.1 Diameter Base Protocol

2.1.1 CSCF Cx and Dx Interface

For more information on the Cx and Dx interface, see [CSCF Cx and Dx Interface](#).

Table 2 Fault Codes for the CSCF to HSS Interface on Cx and Dx

Code	Method	Text	Possible Cause	Recommended Action
3003	—	DIAMETER_REALM_NOT_SERVED	The request failed because the user is not found in the Subscriptions database and the routing by realm is enabled, but the Diameter stack does not provide a purposed realm. Note: The Subscriber Location Function (SLF) replies the corresponding answer message with the “E” bit set.	—
3004	—	DIAMETER_TOO_BUSY	The HSS system is overloaded.	—
5001	—	DIAMETER_ERROR_USER_UNKNOWN	The received Public Identity or Private Identity is unknown.	—
5002	—	DIAMETER_ERROR_IDENTITIES_DO_NOT_MATCH	The Private and Public Identities received in the request are not associated in the HSS.	—
5002	—	DIAMETER_ERROR_IDENTITIES_DO_NOT_MATCH	The Public Identity does not correspond to the private identity.	—
5003	—	DIAMETER_AUTHORIZATION_REJECTED	The Public Identity is barred, and does not belong to an Implicit Registration Set with at least one non-barred Public Identity.	—
5003	—	DIAMETER_ERROR_IDENTITY_NOT_REGISTERED	Trying to de-register a not registered user.	—

Table 2 Fault Codes for the CSCF to HSS Interface on Cx and Dx

Code	Method	Text	Possible Cause	Recommended Action
5003	—	DIAMETER_REALM_NOT_SERVED	The request failed because the user is not found in the Subscriptions database and the routing by realm is enabled but the Diameter stack does not provide a purposed realm. Note: The SLF replies the corresponding answer message with the “E” bit set.	—
5003	—	DIAMETER_ERROR_IDENTITY_NOT_REGISTERED	The Public Identity is not registered and the Originating-Request AVP is not present and the Public Identity has no services associated to unregistered state or, if having them, when the user or subscriber is barred for registration, or the Public Identity is barred for session establishment.	—
5004	—	DIAMETER_ERROR_ROAMING_NOT_ALLOWED	The Public User Identity is not allowed to roam in the visited network.	—
5005	—	DIAMETER_ERROR_IDENTITY_ALREADY_REGISTERED	The Public Identity is already registered, but the S-CSCF name is different from the already stored in the HSS.	—
5005	—	DIAMETER_ERROR_AUTH_SCHEME_NOT_SUPPORTED	The authentication scheme indicated in the authentication request is not supported.	—
5008	—	DIAMETER_ERROR_TOO_MUCH_DATA	The S-CSCF does not have enough memory to store the received data.	—
5009	—	DIAMETER_AVP_OCCURS_TOO_MANY_TIMES	There are more occurrences of an AVP than is permitted in the message definition.	—
5009	—	DIAMETER_ERROR_NOT_SUPPORTED_USER_DATA	The received subscription data contained information which was not recognized or supported by the S-CSCF.	—



Table 2 Fault Codes for the CSCF to HSS Interface on Cx and Dx

Code	Method	Text	Possible Cause	Recommended Action
5011	—	DIAMETER_ERROR_FEATURE_UNSUPPORTED	The feature is not supported by the HSS or the CSCF.	Enable or disable feature in the related node accordingly.
5012	—	DIAMETER_UNABLE_TO_COMPLY	The HSS cannot fulfill the received request because of, for example, a database error. This error code can be generated by the HSS for UAA, LIA, SAA, or MAA.	—
5012	—	DIAMETER_UNABLE_TO_COMPLY	The S-CSCF cannot fulfill the received request from the HSS. The S-CSCF generates this error code for RTA or PPA. For RTA, the reason for the failure indicates that the user identities were only emergency registered in the S-CSCF.	—
5012	—	DIAMETER_ERROR_SERVING_NODE_FEATURE_UNSUPPORTED	The HSS supports the P-CSCF-Restoration-mechanism feature, but none of the user serving nodes, for example, MME supports it.	Enable P-CSCF restoration procedure in other serving nodes.

2.1.2 Rf Interface

For more information about the Rf interface, see [CSCF Rf Interface](#).

Table 3 Fault Codes for the Rf Interface

Code	Method	Text	Possible Cause	Recommended Action
1XXX	Informational	—	—	Charging Session Termination.
2XXX	DIAMETER_SUCCESS	—	—	Process the ACA.



Table 3 Fault Codes for the Rf Interface

Code	Method	Text	Possible Cause	Recommended Action
3XXX	DIAMETER_ERROR	—	—	Send to backup if: <ul style="list-style-type: none">• DIAMETER_UNABLE_TO_DELIVER 3002• DIAMETER_TOO_BUSY 3004 Otherwise Charging Session Termination.
4XXX	TRANSIENT_FAILURE	—	—	Send to backup if: <ul style="list-style-type: none">• DIAMETER_OUT_OF_SPACE 4002• ELECTION_LOST 4003 Otherwise Charging Session Termination.
4011	TRANSIENT_FAILURE	—	Diameter Accounting Not Applicable	Send to backup if: <ul style="list-style-type: none">• DIAMETER_OUT_OF_SPACE 4002• ELECTION_LOST 4003 Otherwise Charging Session Termination.
5XXX	PERMANENT_FAILURE	—	—	Charging Session Termination.
OTHER	Unknown Result Code	—	—	Charging Session Termination.

2.1.3 Ro Interface

For more information about the Ro interface, see [CSCF Ro Interface](#).



Table 4 Fault Codes for the Ro Interface

Code	Method	Text	Possible Cause	Recommended Action
1XXX	Informational	—	—	End credit control and SIP sessions.
2XXX	DIAMETER_SUCCESS	—	—	Process the CCA.
3XXX	DIAMETER_ERROR	—	—	For Result-Code = DIAMETER_UNABLE_TO_DELIVER (3002) DIAMETER_TOO_BUSY (3004) DIAMETER_LOOP_DETECTED (3005) Otherwise, end credit control and SIP sessions.
4XXX	TRANSIENT_FAILURE	—	—	If Result-Code = 4011 then allow service and end credit control session. If Result-Code = 4010 or 4012 then end credit control and SIP sessions. See section Error Handling in CSCF Ro Interface.
5XXX	Permanent Failures	—	—	If Result-Code = 5030 then end credit control and SIP sessions. See section Error Handling in CSCF Ro Interface.
OTHER	Non-recognized class	—	—	End credit control and SIP sessions. See section Error Handling in CSCF Ro Interface.



2.1.4 Rx Interface

For more information about the Rx interface, see [CSCF Rx Interface](#).

Table 5 Fault Codes for the Rx Interface

Code	Method	Text	Possible Cause	Recommended Action
1XXX	Informational	—	—	Policy Session Termination.
2XXX	DIAMETER_SUCCESS	—	—	Process the AAA or STA message.
3XXX	DIAMETER_ERROR	—	—	Policy Session Termination.
4XXX	TRANSIENT_FAILURE	—	—	Policy Session Termination.
5XXX	Permanent Failures	—	—	Policy Session Termination.
OTHER	Unknown Result Code	—	—	Policy Session Termination.

2.2 Session Initiation Protocol

This section describes fault codes for the Session Initiation Protocol (SIP). The tables define the default error codes, reason phrases generated by the system, and the recommended actions.

The CSCF generates the following SIP non-positive responses:

- Redirection 3xx
- Request Failure 4xx
- Server Failure 5xx
- Global Failure 6xx

Note: The SIP error response configuration described in [CSCF Configuration Management](#) provides a mechanism for modifying both the generated and transited error codes.

2.2.1 CSCF Mw Interface

For more information about the Mw interface, see [CSCF Mw Interface](#).



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
100	—	Trying	The CSCF generates this response for an INVITE request. This response indicates that the INVITE request has been received by the CSCF and that the UE stops retransmission.	—
200	—	OK	The CSCF can generate this response to a CANCEL request or a successfully processed REGISTER request.	—
200	—	OK	The CSCF generates this response code in case the CSCF receives an OPTIONS request targeting this CSCF node.	—
305	—	Use Proxy	The S-CSCF generates this response when the Server-Assignment-Request fails with DIAMETER_ERROR_IDENTITY_ALREADY_REGISTERED. The CSCF adds the already assigned server name in the HSS to the Contact header in the 305 response.	—
305	—	Use Proxy	The S-CSCF generates this response if a REGISTER request (initial REGISTER, REGISTER of updating registered contact or REGISTER of new contact for a registered user (regular or emergency)) is received when the S-CSCF administrative state is Shutting Down, the redundant S-CSCF is configured, and users have no ongoing INVITE sessions.	—
400	—	Actual transport protocol used does not match topmost Via <transport protocol>	The CSCF generates this response if the parsing of the request fails because the transport protocol over which the request was sent differs from the transport protocol indicated in the topmost Via header.	—
400	—	Bad Request	The CSCF generates this response if an invalid Contact header is identified in a REGISTER request.	—

Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
400	—	Bad Request	<p>The CSCF generates this response if the Contact header contains the URI parameter bnc in REGISTER and any of the following conditions are met:</p> <ul style="list-style-type: none"> • The Require header does not contain the option tag “gin”. • The Contact header includes a user portion. • The Contact header includes a parameter user. <p>The CSCF also generates this response if the Contact header does not contain the URI parameter bnc but the option tag “gin” is included in the Require header.</p>	—
400	—	Bad Request (Varying reason phrase)	<p>The CSCF generates this response if a SIP request is received and the lazy parsing stage of the message fails or if the validation of mandatory headers fails. The following are examples of reason phrases generated by the CSCF:</p> <ul style="list-style-type: none"> • Invalid Call-ID header. • Invalid start-line. • Actual transport protocol used (UDP) does not match topmost Via (TCP). • Invalid To header. • Malformatted CIC. • Malformatted RN. 	—
400	—	Bad Request: Multiple Vias Are Not Allowed	<p>The GIBA authentication fails if, on the reception of a REGISTER request, there are two Via headers, and if the previous hop before P-CSCF is not a trusted gateway, or, if there are more than two Via headers.</p>	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
400	—	Bad Request: Unknown Resource-Priority	<p>The CSCF generates this response if a SIP request is received, CscfPrioritySupportEnabled parameter is enabled, and if the Resource-Priority header contains any of the following:</p> <ul style="list-style-type: none"> • Multiple ets or wps values (for example, ets.0, wps.3, wps.4). • wps is not in the range of 0-4. • ets.0 is not present (for example, wps.4) or ets value is non-zero. 	—
400	—	Body shorter than indicated by Content-Length: <actual length> compared to <specified length>	The CSCF generates this response if the parsing of the request fails because the actual length of the message body is shorter than the length as specified in the Content-Length header.	—
400	—	CSeq method different from request method: [:"<Method>":]	The CSCF generates this response if the parsing of the request fails because of the "Method" part of the CSeq header differs from the "Method" part in the Request-Line.	—
400	—	Invalid <Header-Name> header [:"<parse error details>":]	The CSCF generates this response if the parsing of the request fails because the format of a mandatory header – To, From, Call-ID, CSeq, Via, Content-Length – is invalid.	—
400	—	Invalid start-line [:"<parse error details>":]	The CSCF generates this response if the parsing of the request fails because the format of the start-line of the request is invalid.	—
400	—	Malformatted CIC	This response may be generated on the reception of a malformed CIC in the incoming SIP Request.	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
400	—	Malformatted RN	This response may be generated on the reception of a malformed RN in the incoming SIP Request.	—
400	—	Malformatted SDP	The CSCF generates this response if the parsing of the SDP body fails in the context of Rx or Subscribed Media Profile (SMP).	—
400	—	Missing <Header-Name> header	The CSCF generates this response if the parsing of the request fails because a mandatory header – To, From, Call-ID, CSeq, Via, Content-Length – is missing.	—
400	—	No nonce security parameter found	The CSCF sends this response if the Authorization header does not contain nonce.	—
400	—	No response security parameter found	The CSCF sends this response if the Authorization header does not contain response.	—
400	—	No username security parameter found	The CSCF sends this response if the Authorization header does not contain username.	—
400	—	No security scheme	The CSCF sends this response if the Authorization header does not contain scheme.	—
401	—	Unauthorized	The CSCF generates this response if any of these conditions are met: <ul style="list-style-type: none">• Authentication of a received REGISTER request has failed and an authentication challenge is to be sent.• The CSCF expects authentication response but receives a new initial registration. This response is valid when AKA authentication is used.	—
403	—	Authentication Requires ds1-location Parameter	The NASS Bundled Authentication requires a line identifier in the ds1-location parameter.	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
403	—	Calling User Not Registered	<p>The CSCF generates this response if an originating SIP request (not generated for a REGISTER request) is received for a Public User Identity that is not registered. Note: This response is generated even if the calling user does not have a user profile in HSS. The CSCF is not able to distinguish between the case that the user is not currently registered and the case that the user does not have a user profile in HSS.</p> <p>The S-CSCF also generates this response if an originating non-REGISTER SIP request is received from a Public User Identity that is registered with only an emergency contact.</p>	<p>User not Registered:</p> <p>If the Public User Identity is not registered for the user, register the calling user.</p> <p>User does not Exist in the HSS:</p> <p>If the user does not have a user profile in the HSS:</p> <ol style="list-style-type: none"> 1. Check that the private user identity and the Public User Identity exist in the HSS. 2. Check that the Public User Identity received in the request is associated with the private user identity received in the request.



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
403	—	Forbidden	<p>The CSCF generates this response if a SIP request is received for any of the following:</p> <ul style="list-style-type: none">• A REGISTER request if it contains an unknown Public User Identity.• A REGISTER request if it contains a contact on the format <userinfo@FQDN> that is configured to be restricted to prevent loops in the SIP network.• An INVITE request if the maximum number of allowed sessions is exceeded (maximum number of allowed sessions is a configuration option in HSS).• Other originating SIP requests that contain a Public User Identity that is barred (typically the Temporary Public Identity is barred).	<p>To find out why a user is unknown in the HSS, do the following:</p> <ol style="list-style-type: none">1. Check that the private user identity and the Public User Identity exist in the HSS.2. Check that the Public User Identity received in the request is associated with the private user identity received in the request.3. Check whether the Public User Identity received in the request is barred for the establishment of multimedia sessions.4. Check that the user is not locked in the HSS.5. Check maximum number of allowed sessions for the user.



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
403	—	Forbidden	<p>The CSCF generates this response if it receives an indication from HSS during authentication that:</p> <ul style="list-style-type: none"> • Private User Identity and Public User Identity do not exist in HSS. • Private and Public User Identities do not match in HSS. • Authentication verification failure <p>The E-CSCF generates this response if:</p> <ul style="list-style-type: none"> • The URN received in Request-URI is not Emergency Service URN. • A SUBSCRIBE is received from an entity whose IP address is not configured in <code>ecscfTrustedLrfEntry</code> 	—
403	—	Forbidden	<p>The S-CSCF generates this response to a REGISTER request when:</p> <ul style="list-style-type: none"> • The user has a contact with <code>bnc</code> parameter registered and the user tries to register a contact without <code>bnc</code> parameter. • The user has a contact without <code>bnc</code> parameter registered and the user tries to register a contact with <code>bnc</code> parameter. 	—

Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
403	—	Forbidden: not authorized because of missing service priority in profile	<p>If the request is a GETS-FC call, the S-CSCF generates this response if all the following apply:</p> <ul style="list-style-type: none"> ScscfPriorityAuthorizationEnabled and CscfPrioritySupportEnabled, are TRUE. There is no service priority in the profile of the user. <p>If the request is a GETS-FC call, the S-CSCF generates this response if ScscfPriorityAuthorizationEnabled is set to FALSE.</p> <p>If the request is not a GETS-FC call, the S-CSCF generates this response if all the following apply:</p> <ul style="list-style-type: none"> ScscfPriorityAuthorizationEnabled, CscfPrioritySupportEnabled, and ScscfRejectIfNoPrioInProfileEnabled are TRUE. The request contains a Resource-Priority header. There is no service priority in the profile of the user. 	—
403	—	Max Number Of Allowed Active Contacts Reached	The CSCF generates this response if a REGISTER request is received that contains a new contact and the maximum number of allowed contacts is exceeded (maximum number of allowed contacts is a configuration option in the CSCF).	—
403	—	Missing Authorization Data	This response is generated if either Authorization header is missing, when required (Digest, IMS AKA authentication), or username parameter is omitted.	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
403	—	No Roaming Agreement From Current Network	The CSCF generates this response if a REGISTER request is received and there is no roaming agreement between the home and visited network. Allowed networks are a configuration option in the HSS.	To verify that roaming agreement exists, do the following: 1. Check the HSS to verify that the roaming agreement between the home network and the visited network of the multimedia system exist.
403	—	User Agent not authorized	The CSCF generates this response if a SIP request is received that contains a User Agent value that is not authorized. The authorization of User Agent values is a configuration option in the CSCF.	If the user agent is not authorized, do the following: 1. Add the user agent as CscfUserAgent WhiteList entry under CscfUaR restrictionKey in the CSCF configuration or check if the AS is to be added in the list of trusted ASs (CscfTrustedASentry).
403	—	User Not Authenticated	The CSCF generates this response if, for a non-register SIP request, the Via set check fails during AKA, NBA, GIBA, or digest authentication process. CSCF generates this response if, for an initial REGISTER, re-REGISTER or de-REGISTER SIP request, GIBA, or NBA authentication fails. The CSCF generates this response for REGISTER requests if the HSS is unable to support the authentication scheme selected by the S-CSCF.	To find out why the user is not authenticated, do the following: 1. Validate that the public identity and password of the user exist in the HSS. 2. Unlock the user in the HSS.

Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
403	—	User Not Authorized	<p>The CSCF generates this response if, for example, a REGISTER request is received and:</p> <ul style="list-style-type: none"> • The Public User Identity is barred for session establishment and does not belong to an Implicit Registration Set. OR • The user or subscriber in HSS is barred for registration. <p>The CSCF generates this response if a SUBSCRIBE request is received from an unauthorized subscriber.</p>	<p>To find out why the user is not authorized, do the following:</p> <ol style="list-style-type: none"> 1. Check that the Public User Identity is allowed to roam in the visited network. 2. Check whether the Public User Identity received in the request is barred for the establishment of multimedia sessions. 3. Check that the user is not locked in the HSS.
403	—	Wildcarded Public Identity Registration Forbidden	<p>At initial registration, if there are wildcarded public user identities included in SAA, and the ScscfwImpuEnabled is set to FALSE, the S-CSCF responds 403 (Wildcarded Public Identity Registration Forbidden) to the P-CSCF, and the initial registration fails.</p>	<p>Purchase the optional feature “IP-PBX Registration Support”, and set ScscfwImpuEnabled to TRUE; or clear the wildcarded public user identities (wIMPU) provisioned in HSS</p>
404	—	Called User Unknown	<p>The CSCF generates this response if a terminating SIP request is received for a Public User Identity that does not have user profile in HSS.</p>	<p>To find out why the user is unknown, do the following:</p> <ol style="list-style-type: none"> 1. Register the caller.



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
404	—	Not Found	The CSCF generates this response if a terminating SIP request is received for a Public User Identity that is barred (this response can only be generated if the Public User Identity is part of an Implicit Registration Set and the CSCF has performed terminating routing optimization). The CSCF generates this response if the HSS is returning User does not exist when originating I-CSCF has sent a Location Information Request (LIR) to the HSS.	To find out why the user is not found, do the following: 1. Check whether the Public User Identity received in the request is barred for the establishment of multimedia sessions. 2. Check that the user is locked in the HSS.
407	—	Proxy Authentication Required	The CSCF generates this response if authentication of a received SIP request has failed and an authentication challenge is to be sent. This response is valid when digest authentication is used.	If the authentication has failed, do the following: 1. UAC resubmits a request with its credentials.
408	—	Request Timeout	The CSCF generates this response if a SIP request that is forwarded by the CSCF time-out.	If a SIP request has timed out, do the following: 1. Check DNS configuration. 2. Check the status of the node (up or down). 3. Check if this UAC is reachable by pinging the IP address of the UAC.
416	—	Malformed Request-URI	The CSCF generates this response if the parsing of the Request-URI fails.	For further information, consult the next level of support.
416	—	Unsupported URI-Scheme	The CSCF generates this response if URI scheme is unknown to the CSCF; that is, for P-/ I-/ S-CSCF, it is not SIP URI or tel URI; for E-CSCF, it is not SIP URI, tel URI, or URN.	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
420	—	Bad Extension	The CSCF generates this response if an unsupported Proxy-Require header or Require header (for registration) is received by the CSCF.	If receiving the bad extension message, do the following: 1. The UAC retries the request, this time omitting any extensions listed in the unsupported header field in the response.
422	—	Session Expires Too Small	The CSCF generates this response if a request is received and the Session-Expires value is less than the configurable, allowed minimum value.	—
423	—	Interval Too Brief	The CSCF generates this response if a REGISTER request is received and the Expires time for the contact is less than the minimum allowed value (configuration option in the CSCF). The CSCF generates this response if a SUBSCRIBE request is received and the Expires value in the request is less than the allowed minimum value (configuration parameter).	—
480	—	Called Party Not Registered	The CSCF generates this response if a terminating SIP request is received for a Public User Identity that does not have a contact registered that matches the received caller preferences.	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
480	—	Temporarily Unavailable	<p>The CSCF generates this response if a REGISTER request is received:</p> <ul style="list-style-type: none"> • When an S-CSCF is in Locked state, but before all the users are removed. • When an S-CSCF is in administrative state Shutting down, and an Initial REGISTER, re-REGISTER, or REGISTER a new contact request (but not de-REGISTER and REGISTER query) is received from a user who does not have any ongoing sessions. <p>The S-CSCF generates this response if an INVITE, UPDATE, MESSAGE, or NOTIFY request is received and one of the following conditions is met:</p> <ul style="list-style-type: none"> • The S-CSCF triggers P-CSCF Restoration for the terminating user related to the request. • The previously triggered P-CSCF Restoration for the same terminating user is still in progress. 	—
480	—	Called User Not Registered	<p>A precondition for the CSCF to return this response is that the CSCF has received a terminating SIP request for a Public User Identity that has a user profile in HSS and the user has unregistered terminating services. The CSCF generates this response, as follows:</p> <ul style="list-style-type: none"> • If there are concurrent registration procedures ongoing for the target Public User Identity. • After execution of the unregistered terminating services, if an Application Server has not taken control over this request or changed the request target. 	<p>If the called user is not registered, do the following:</p> <ol style="list-style-type: none"> 1. Register the called user.

Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
480	—	Called User Unregistered	<p>The CSCF generates this response if a terminating SIP request is received:</p> <ul style="list-style-type: none"> • For a Public User Identity that has a user profile in HSS and that does not have unregistered terminating services. • If the user or subscriber is barred for registration. • If the public identity is barred for session establishment. • If the user is locked. <p>The S-CSCF generates this response if a terminating SIP request is received for a Public User Identity that is registered with only an emergency contact and does not have any unregistered terminating services.</p>	To find out why the called user is unregistered, do the following: 1. Validate that the public identity of the user is registered to make any call.
481	—	Call/Transaction Does Not Exist	<p>The CSCF generates this response if a SIP request is received:</p> <ul style="list-style-type: none"> • For a dialog (To-tag included in the request) and the CSCF does not have any dialog data stored. • For a CANCEL request and when no matching transaction is found in the CSCF. 	—
482	—	Loop Detected	<p>The CSCF generates this response if a SIP request is received where the From tag, Call-ID, and CSeq exactly match those associated with an ongoing transaction, but the request does not match that same transaction (using the same branch parameter value). Retransmitted requests received over the same transaction, using the same branch parameter value, are discarded.</p>	—
483	—	Too Many Hops	<p>The CSCF generates this response if a SIP request is received with a Max-Forward header value equal to zero.</p>	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
487	—	Request Terminated	The CSCF generates this response for an INVITE request if it receives a CANCEL request for the INVITE transaction while it is waiting for a response from an external server (HSS or DNS) during processing of the INVITE.	—
488	—	Exceeded Max Flow	The CSCF generates this response if the media flows in the SDP exceed the maximum number of allowed media flows.	Verify that the SMP Max media Flow Table is correctly defined.
488	—	Payload types not allowed	The CSCF generates this response if the SDP is not compliant with the configured Subscribed Media Profile (SMP) white list.	Verify that the CscfPayloadBlackWhiteList is correctly defined.
488	—	SDP Answer not valid	The CSCF generates this response if the SDP Answer is not equal to the SDP Offer.	—
488	—	SDP parse Error	The CSCF generates this response if there is an SDP Parse error in the Subscribed Media Profile (SMP) state machine.	—
488	—	SDP signaling not allowed	The CSCF generates this response in case the Subscribed Media Profile (SMP) state machine is already in terminated state for non2xxInvite responses.	—
488	—	SDP_NOT_ALLOWED	The CSCF generates this response if an unspecified Subscribed Media Profile (SMP) error occurs.	—
489	—	Bad Event	<p>The S-CSCF generates this response for a SUBSCRIBE request if it receives an Event header field for an event that it does not support.</p> <p>The S-CSCF generates this response for a SUBSCRIBE request from a contact that is emergency registered.</p>	<p>When the bad event message is generated, do the following:</p> <ol style="list-style-type: none"> 1. Check if the Reg-Event is enabled and if the ID parameter is correct. 2. If the problem is not corrected, consult the next level of support.



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
491	—	Request Pending	The P-CSCF generates this response to a re-INVITE/UPDATE request, if the CM parameter <i>CscfMediaBearerAuthorizationPolicy</i> is set to a value other than Inactive , and the re-INVITE/UPDATE request, with SDP offer, is received on a dialog while a re-INVITE/UPDATE that had been sent on that dialog is still in progress.	—
491	—	Request Pending	The S-CSCF generates this response to a re-INVITE/UPDATE request if all the following conditions are met: <ul style="list-style-type: none">• The CM parameter <i>CscfSmpAuthorization</i> is set to Active.• An SMP ID has been received in the user profile.• The re-INVITE/UPDATE request, with SDP offer, is received on a dialog while a re-INVITE/UPDATE that had been sent on that dialog is still in progress.	—
500	—	Connection to ENS failed	The CSCF generates this response if the External Network Selection (ENS) server process has ended unexpectedly.	For further information, consult the next level of support.
500	—	Could not create application	The CSCF generates this response if an internal application error occurs.	For further information, consult the next level of support.



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
500	—	CSCF Server Internal Error	<p>The CSCF generates this response if an internal unspecified temporary error has occurred. This could, for example, be as follows:</p> <ul style="list-style-type: none"> • When, within a dialog, the received CSeq value is less than the stored CSeq value or the received Call-Id does not match the stored Call-Id. • S-CSCF receives a REGISTER request including an Authorization header with an integrity-protected parameter with a value other than “no”. • S-CSCF has a user profile but the registration indication from I-CSCF indicates “not registered”. 	—
500	—	CSCF Server Internal Error	<p>The S-CSCF generates this response with a Retry-After header when the SIP client of the request is blacklisted because the maximum number of authentication attempts has been exceeded without an authentication success. This scenario is applicable if digest authentication is used and the blacklist function is enabled.</p>	—
500	—	Cx Unable To Comply	<p>The CSCF generates this response if an unspecified error has occurred in the communication between the CSCF and the HSS, including:</p> <ul style="list-style-type: none"> • Time-out error when the S-CSCF fails to get any response from the HSS. • Erroneous data from the HSS in SAA, MAA, and LIA with unsuccessful result. • Fail to send diameter message to the HSS. • All TCP/SCTP connections on the Cx/Dx interface are congested and in this case a Retry-After header is included in the response. 	For further information, consult the next level of support.



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
500	—	Destination Unreachable	The CSCF generates this response when sending of a SIP request is inhibited because the destination has reported ICMP error information or is blacklisted.	—
500	—	DNS Not Configured	The CSCF generates this response if the local CSCF DNS server configuration is invalid.	If the DNS is not configured, do the following: 1. Configure the DNS server address in the DNS server table.
500	—	Internal Error	The CSCF generates this response if there is an inconsistent user state between the HSS and the CSCF.	—
500	—	Malformatted CIC or Malformatted RN	The CSCF generates this response when the CIC or RN received from ENUM server is not formatted properly.	—
500	—	Malformatted URI Return from ENUM	The CSCF may generate this response if the URI returned from ENUM is malformatted.	For further information, consult the next level of support.
500	—	No PSI for unallocated user	The CSCF generates this response when there has been a match for unallocated user but HSS returns something else than a wildcarded PSI.	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
500	—	No S-CSCF Available	<p>The CSCF generates this response in backward compatibility mode if the selection of an S-CSCF fails during:</p> <ul style="list-style-type: none"> • The user registration procedure. • The terminating unregistered service procedure. 	<p>From the configuration management interface, do the following if the S-CSCF is not available:</p> <ol style="list-style-type: none"> 1. Check if any alarm is raised. 2. Check the port and the IP connection of the CSCF. 3. Check the AdminState of the S-CSCF (0 is locked, 1 is unlocked). 4. Check the DNS configuration (IP, Port). 5. Check the Cx interface and validate all the configuration of the CSCF and the HSS.
500	—	PSTN Gateway Unreachable	<p>The CSCF generates this response if the External Network Selection function fails to find a destination for the request. The failure can be caused by improper configuration of the External Network Selection function or that the received phone number is invalid.</p>	<p>If the PSTN gateway is unreachable, do the following:</p> <ol style="list-style-type: none"> 1. Check External Network Selection configuration. 2. Validate the received phone number.

Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
500	—	Server Internal Error	<p>The CSCF generates this response when the CSeq value received for this transaction is a lesser value than the CSeq received in a previous transaction.</p> <p>The I-CSCF and the S-CSCF generate this response code in case the maximum redirect attempts redirecting the request on a 3xx response is reached.</p> <p>In case the terminating P-CSCF receives a 3xx response it maps the 3xx response code into this error code before sending the response upstream.</p>	Consult the next level of support.
500	—	Service Execution Error	<p>The CSCF generates this response for SIP requests if:</p> <ul style="list-style-type: none"> A request fails user trigger analysis because the trigger contained a syntax fault or had invalid data. This is a user profile configuration issue in HSS. The CSCF is used in collocated mode but is not properly configured (the Domain Alias or Resources Broker configuration is to be checked). 	<p>If the CSCF fails to start the AS, do the following:</p> <ol style="list-style-type: none"> 1. Check the Domain Alias or Resources Broker configuration. 2. Validate all trigger configuration.
500	—	Service Execution Error	<p>The CSCF generates this response for SIP requests if:</p> <ul style="list-style-type: none"> The Loose-Route-Indication received from HSS is set to LOOSE_ROUTE_REQUIRED when receiving a Contact header containing the URI parameter bnc in a REGISTER request. 	Check and update the service profile in HSS.



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
500	—	Service Unavailable	<p>The CSCF generates this response if:</p> <ul style="list-style-type: none"> • It proxies a received 503 (Service Unavailable) response downstream. • The Reporting Role for the SIP Overload Control is enabled and the fairness function is configured to send SIP 500. • The Reacting Role for the SIP Overload Control is enabled and traffic is rejected on behalf of downstream node. • The CSCF is administratively shutting down. • The HSS indicates overload on the Cx interface. • The request has been throttled because of a detected overload on HSS. • The processor load or memory consumption is above the configured limit in the CSCF. <p>The E-CSCF generates this response:</p> <ul style="list-style-type: none"> • For the request of emergency service test calls, when the LRF address is not configured. • For the request of emergency service test calls, when there is no LRF reachable. • For the request of emergency service test calls, when there are no PSAP addresses received from LRF. • For the request of emergency calls, when there is no available PSAP address. 	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
500	—	Service Unavailable: All Ports Locked	The CSCF generates this response if the CSCF is in the process of being administratively shut down.	To unlock the application, do the following: 1. Change the AdminState Locked to 1 (unlock the application).
500	—	Socket Service Unavailable	The CSCF generates this response if it fails to send because of an internal socket error.	—
500	—	Unsupported Contact Schema	The CSCF generates this response, if it could not find a contact with SIP schema, while there was at least one contact with a TEL schema. That is, the CSCF does only support SIP contacts to be registered explicitly.	—
500	—	DNS Not Configured	The CSCF generates this response when the query to the DNS query response indicates that there are no entries configured in the DNS server for this query request.	—
501	—	Not Implemented	<p>The E-CSCF and BCF generate this response:</p> <ul style="list-style-type: none">• If a standalone request excluding OPTIONS is received.• If an OPTIONS is received, and the FQDN or IP address in the received Request-URI does not match the incoming E-CSCF/BCF port and Max-Forwards has a value greater than zero. <p>The E-CSCF generates this response, if a request within dialog, excluding BYE, CANCEL, PRACK, ACK, (re)INVITE, and UPDATE, is received.</p> <p>The S-CSCF generates this response if the S-CSCF receives a deregistration request from an emergency contact.</p>	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
502	—	Bad DNS Request	The CSCF generates this response if a DNS server responds with bad request, to a DNS query performed by the CSCF.	When the bad DNS request message is generated, do the following: 1. Check the DNS configuration. 2. Validate the format of DNS query.
503	—	CSCF Server Internal Error	The CSCF generates this response if an internal unspecified temporary error has occurred.	If there is a resource problem, do the following: 1. Check the alarm viewer and verify that it is the CPU and memory alarm. 2. If there is a CPU and memory alarm, follow the instruction on how to resolve this alarm. 3. Check the DNS entry. 4. If the problem is not corrected, consult the next level of support.
503	—	Cx Unable To Comply	The CSCF generates this response in backward compatibility mode if an unspecified error has occurred in the communication between CSCF and HSS. This includes time-out error when S-CSCF fails to get any response from HSS.	If this message occurs frequently, consult the next level of support.



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
503	—	Service Unavailable	<p>The CSCF generates this response:</p> <ul style="list-style-type: none">• When the S-CSCF is in Locked state, but before all the registered users are removed.• If the processor load or memory consumption is above the configured limit in the CSCF.• When SIP overload control reporting role, according to RFC 7339, is enabled and the CSCF reports $oc > 0$, corresponding amount of incoming traffic is rejected with the 503 (Service Unavailable) response without Retry-After header to the upstream node that does not support RFC 7339.	If this message occurs frequently, consult the next level of support.
503	—	Socket Service Unavailable	The CSCF generates this response if the CSCF fails to send a request because of an internal socket error.	Consult the next level of support.
504	—	DNS Query Timed Out	The CSCF generates this response if a DNS server (name server) does not respond to a DNS query. This could for instance happen if the DNS server does not recognize the domain name in the query; or if the DNS server is not reachable.	—



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
504	—	Server Time-Out	The I-CSCF generates this response if a selected S-CSCF does not respond to a REGISTER request and the request included an Authorization header with an integrity-protected parameter set to a value other than “no”.	<p>If the DNS server does not respond to DNS queries, do the following:</p> <ol style="list-style-type: none"> 1. Check the connection between the DNS client and the DNS server, as described Managed Object Model (MOM). 2. Check if the DNS server is up running. 3. Restart the DNS server.
505	—	Unsupported version: SIP/x.y	The CSCF generates this response if a SIP request is received and the request line of the message indicates another SIP version than “2.0”.	<p>If using the wrong SIP version, do the following:</p> <ol style="list-style-type: none"> 1. Check terminal.



Table 6 Fault Codes for the CSCF Mw Interface

Code	Method	Text	Possible Cause	Recommended Action
513	—	Message Too Large (more than <x> bytes)	The CSCF generates this response if a SIP request is received and the request is larger than the maximum allowed configured SIP message size in the CSCF.	If the received SIP request is larger than the maximum allowed SIP message size, do the following: 1. Check the CSCF configuration parameters CscfMaxSipMessageSizeUdp and CscfMaxSipMessageSizeTcp in Managed Object Model (MOM).
600	—	Busy Everywhere	The CSCF generates this response if there is no configured S-CSCF that matches the service capabilities received from HSS.	If the Busy Everywhere response is generated, do the following: 1. Check the Resource Broker configuration with the parameter CscfResourceBrokerEntry in Managed Object Model (MOM).

2.2.2 E-CSCF MI SIP Interface

For more information about the E-CSCF MI SIP interface, see [E-CSCF MI SIP Interface](#).

Table 7 Fault Codes for the E-CSCF MI SIP Interface

Code	Method	Text	Possible Cause	Recommended Action
200	—	OK	The E-CSCF can generate this response to a successfully processed SUBSCRIBE request subscribing to the dialog event package.	—



Table 7 Fault Codes for the E-CSCF MI SIP Interface

Code	Method	Text	Possible Cause	Recommended Action
403	—	Forbidden	The E-CSCF generates this response for SUBSCRIBE requests from an LRF that is not authorized to subscribe to the dialog event package.	—
423	—	Interval Too Small	The E-CSCF generates this response if a SUBSCRIBE request is received subscribing to the dialog event package and the Expires value in the request is less than the allowed minimum value (configuration parameter).	—
489	—	Bad Event	<p>The E-CSCF generates this response for a SUBSCRIBE request if:</p> <ul style="list-style-type: none"> • Dialog event monitoring is not enabled. • It receives an Event header field for an event that it does not support. • No Event header is received including both Call-id and To-tag parameters. • The FSM is not found. • The id parameter in a subsequent SUBSCRIBE request does not match what was received in a previous request. 	—
500	—	Server Internal Error	<p>The E-CSCF generates this response when the CSeq value received for this transaction is a lesser value than the CSeq received in a previous transaction.</p> <p>Note: This is applicable for a subscription refresh.</p>	—

Table 7 Fault Codes for the E-CSCF MI SIP Interface

Code	Method	Text	Possible Cause	Recommended Action
501	—	Not Implemented	<p>The E-CSCF generates this response if:</p> <ul style="list-style-type: none"> • An initial SUBSCRIBE request, subscribing to the dialog event package, is received with an Expires header value equal to 0. • A standalone request excluding OPTIONS is received. • An OPTIONS is received, and the FQDN or IP address in the received Request-URI does not match the incoming E-CSCF/BCF port and Max-Forwards has a value greater than zero. • A request within dialog, excluding BYE, CANCEL, PRACK, ACK, (re)INVITE, and UPDATE, is received. 	—
503	—	Service Unavailable	<p>The E-CSCF generates this response:</p> <ul style="list-style-type: none"> • If the processor load or memory consumption is above the load regulation threshold value or if the administrative state is set to state LOCKED (before dialog events are removed and ports are closed). • When SIP overload control reporting role, according to RFC 7339, is enabled and the CSCF reports $oc > 0$, corresponding amount of incoming traffic is rejected with the 503 (Service Unavailable) response without Retry-After header to the upstream node that does not support RFC 7339. 	—

Note: For all SIP requests other than SUBSCRIBE, the E-CSCF does not generate any result code.

2.2.3 CSCF ISC Interface

For more information about the CSCF ISC interface, see [CSCF ISC Interface](#).



Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
100	—	Trying	The CSCF generates this response for an INVITE request. This response indicates that the INVITE request has been received by the CSCF and that the AS stops retransmission.	—
200	—	OK	The CSCF can generate this response to a CANCEL request or a successfully processed REGISTER request.	—
305	—	Use Proxy	The S-CSCF generates this response when the Server-Assignment-Request fails with DIAMETER_ERROR_ID ENTITY_ALREADY_REGISTERED. The CSCF adds the already assigned server name in the HSS to the Contact header in the 305 response.	—
400	—	Bad Request (Varying reason phrase)	<p>The CSCF generates this response if a SIP request is received and the lazy parsing stage of the message fails or if the validation of mandatory headers fails. The following are examples of reason phrases generated by the CSCF:</p> <ul style="list-style-type: none"> • Invalid Call-ID header. • Invalid start-line. • Actual transport protocol used (UDP) does not match topmost Via (TCP). • Invalid To header. • Malformatted CIC [RFC4694]. • Malformatted RN [RFC4694]. 	—

Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
403	—	Calling User Not Registered	<p>The CSCF generates this response if an originating SIP request (not generated for REGISTER requests) is received from a UE for a Public User Identity that is not registered.</p> <p>Note: This response is generated even if the calling user does not have a user profile in HSS. CSCF is not able to distinguish between the case that the user is not currently registered and the case that the user does not have a user profile in HSS.</p>	<p>User not Registered:</p> <p>If the Public User Identity is not registered for the user, register the calling user.</p> <p>User does not Exist in the HSS:</p> <p>If the user does not have a user profile in the HSS:</p> <ol style="list-style-type: none"> 1. Check that the private user identity and the Public User Identity exist in the HSS. 2. Check that the Public User Identity received in the request is associated with the private user identity received in the request.
403	—	Forbidden	<p>For other originating SIP requests that contain Public User Identity that is barred (typically the Temporary Public Identity is barred).</p> <p>E-CSCF generates this response:</p> <ul style="list-style-type: none"> • If the URN received in Request-URI is not Emergency Service URN. • If a SUBSCRIBE is received from an entity whose IP address is not configured in ecscfTrustedLrfEntry. 	—



Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
403	—	User Agent not authorized	<p>The CSCF generates this response if a SIP request is received:</p> <ul style="list-style-type: none"> • When the application is not in the list of authorized Application Servers. • Contains a User Agent value that is not authorized. The authorization of User Agent values is a configuration option in the CSCF. 	<p>If the user agent is not authorized, do the following:</p> <ol style="list-style-type: none"> 1. Check if the AS is to be added in the list of trusted ASs (CscfTrustedASEntry).
408	—	Request Timeout	The CSCF generates this response if a SIP request that is forwarded by the CSCF times out.	<p>If a SIP request has timed out, do the following:</p> <ol style="list-style-type: none"> 1. Check DNS configuration. 2. Check the status of the node (up or down). 3. Check if this AS is reachable by pinging the IP address of the AS.
416	—	Malformed Request-URI	The CSCF generates this response if the parsing of the Request-URI fails.	—
416	—	Unsupported Request URI-Scheme	The CSCF generates this response if URI scheme is unknown to the CSCF; that is, it is not SIP or TEL.	—
420	—	Bad Extension	The CSCF generates this response if an unsupported Proxy-Require header or Require header (for registration) is received by the CSCF.	<p>If receiving the bad extension message, do the following:</p> <ol style="list-style-type: none"> 1. The UAC retries the request, this time omitting any extensions listed in the unsupported header field in the response.
422	—	Session Expires Too Small	The CSCF generates this response if a request is received and the Session-Expires value is less than the configurable, allowed minimum value.	—

Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
423	—	Interval Too Brief	The CSCF generates this response if a SUBSCRIBE request is received and the Expires value in the request is less than the allowed minimum value (configuration parameter).	—
480	—	Called Party Not Registered	The CSCF generates this response if a terminating SIP request is received for a Public User Identity that does not have a contact registered that matches the received caller preferences.	—
480	—	Called User Not Registered	<p>A precondition for the CSCF to return this response is that the CSCF has received a terminating SIP request for a Public User Identity that has a user profile in HSS and the user has unregistered terminating services. The CSCF generates this response, as follows:</p> <ul style="list-style-type: none"> • If there are concurrent registration procedures ongoing for the target Public User Identity. • After execution of the unregistered terminating services, if an Application Server has not taken control over this request or changed the request target. 	<p>If the called user is not registered, do the following:</p> <ol style="list-style-type: none"> 1. Register the called user.



Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
480	—	Called User Unregistered	<p>The CSCF generates this response if a terminating SIP request is received:</p> <ul style="list-style-type: none"> • For a Public User Identity that has a user profile in HSS and that does not have unregistered terminating services. • If the user or subscriber is barred for registration. • If the public identity is barred for session establishment. • If the user is locked. 	To find out why the called user is unregistered, do the following: 1. Validate that the public identity of the user is registered to make any call.
480	—	Temporarily Unavailable	The CSCF generates this response when the caller preferences included in the request has resulted in an empty terminating contact list. That means none of the contacts of the called user has fulfilled the caller preferences.	—
481	—	Call/Transaction Does Not Exist	<p>The CSCF generates this response if a SIP request is received:</p> <ul style="list-style-type: none"> • For a dialog (To-tag included in the request) and when the CSCF does not have any dialog data stored. • For a CANCEL request and when no matching transaction is found in the CSCF. 	—
483	—	Too Many Hops	The CSCF generates this response if a SIP request is received with a Max-Forward header value equal to zero.	—
487	—	Request Terminated	The CSCF generates this response for an INVITE request if it receives a CANCEL request for the INVITE transaction while it is waiting for a response from an external server (HSS or DNS) during processing of the INVITE.	—



Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
488	—	Exceeded Max Flow	The CSCF generates this response if the media flows in the SDP exceed the maximum number of allowed media flows.	Verify that the SMP Max media Flow Table is correctly defined.
488	—	Payload types not allowed	The CSCF generates this response if the SDP is not compliant with the configured Subscribed Media Profile (SMP) whitelist.	Verify that the CscfPayloadBlackWhiteList is correctly defined.
488	—	SDP Answer not valid	The CSCF generates this response if the SDP Answer is not equal to the SDP Offer.	—
488	—	SDP parse Error	The CSCF generates this response if there is an SDP Parse error in the Subscribed Media Profile (SMP) state machine.	—
488	—	SDP signaling not allowed	The CSCF generates this response in case the Subscribed Media Profile (SMP) state machine is already in terminated state for non2xxInvite responses.	—
488	—	SDP_NOT_ALLOWED	The CSCF generates this response if an unspecified Subscribed Media Profile (SMP) error occurs.	—
489	—	Bad Event	The S-CSCF generates this response for a SUBSCRIBE request if it receives an Event header field for an event that it does not support.	When the bad event message is generated, do the following: 1. Check if the Reg-Event is enabled and if the ID parameter is correct. 2. If the problem is not corrected, consult the next level of support.
500	—	Connection to ENS failed	The CSCF generates this response if the External Network Selection (ENS) server process has ended unexpectedly.	For further information, consult the next level of support.
500	—	Could not create application	The CSCF generates this response if an internal application error occurs.	For further information, consult the next level of support.



Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
500	—	CSCF Server Internal Error	The CSCF generates this response when, within a dialog, the received CSeq value is less than the stored CSeq value or the received Call-Id does not match the stored Call-Id.	—
500	—	DNS Not Configured	The CSCF generates this response if the local CSCF DNS server configuration is invalid.	If the DNS is not configured, do the following: 1. Configure the DNS server address in the DNS server table.
500	—	Internal Error	The CSCF generates this response if there is an inconsistent user state between the HSS and the CSCF.	—
500	—	Malformatted CIC or RN	The CSCF generates this response when the CIC or RN received from ENUM server is not formatted properly. [RFC4694]	—
500	—	Malformatted URI Return from ENUM	The CSCF may generate this response if the URI returned from ENUM is malformed.	For further information, consult the next level of support.
500	—	PSTN Gateway Unreachable	The CSCF generates this response if the External Network Selection function fails to find a destination for the request. The failure can be caused by improper configuration of the External Network Selection function or that the received phone number is invalid.	If the PSTN gateway is unreachable, do the following: 1. Check External Network Selection configuration. 2. Validate the received phone.
500	—	Server Internal Error	The CSCF generates this response when the CSeq value received for this transaction is a lesser value than the CSeq received in a previous transaction.	Consult the next level of support.



Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
500	—	Service Execution Error	<p>The CSCF generates this response for SIP requests if:</p> <ul style="list-style-type: none">• A request fails user trigger analysis because the trigger contained a syntax fault or had invalid data. This is a user profile configuration issue in HSS.• The CSCF is used in collocated mode but is not properly configured (the Domain Alias or Resources Broker configuration is to be checked).• The SIP request is a late request from Proxy AS. A 408 (Request Timeout) response has been previously sent to the client for the SIP request of the client.• A request has more than 20 rules specified in its Accept-Contact and Reject-Contact headers together.	<p>If the CSCF fails to start the AS, do the following:</p> <ol style="list-style-type: none">1. Check the Domain Alias or Resources Broker configuration.2. Validate all trigger configuration.
500	—	Service Unavailable	<p>The CSCF generates this response if:</p> <ul style="list-style-type: none">• It received a 503 (Service Unavailable) response and proxies the message downstream.• The HSS indicates overload on the Cx interface.• The HSS request has been throttled because of a detected overload on HSS.	—
500	—	Socket Service Unavailable	<p>The CSCF generates this response if it fails to send because of an internal socket error.</p>	—



Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
500	—	Unsupported Contact Schema	The CSCF generates this response, if it could not find a contact with SIP schema, while there was at least one contact with a TEL schema. That is, the CSCF does only support SIP contacts to be registered explicitly.	—
500	—	Server Internal Error	This response code is returned in case the CSCF reaches the maximum redirect attempts redirecting the request on 305 responses.	—
501	—	Not Implemented	<p>The E-CSCF generates this response:</p> <ul style="list-style-type: none"> • If a standalone request excluding OPTIONS is received. • If an OPTIONS is received, and the FQDN or IP address in the received Request-URI does not match the incoming E-CSCF/BCF port and Max-Forwards has a value greater than zero. • If a request within dialog, excluding BYE, CANCEL, PRACK, ACK, (re)INVITE, and UPDATE, is received. 	—
502	—	Bad DNS Request	The CSCF generates this response if a DNS server responds with bad request, to a DNS query performed by the CSCF.	<p>When the bad DNS request message is generated, do the following:</p> <ol style="list-style-type: none"> 1. Check the DNS configuration. 2. Validate the format of DNS query.



Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
503	—	CSCF Server Internal Error	The CSCF generates this response if an internal unspecified temporary error has occurred.	If there is a resource problem, do the following: 1. Check the alarm viewer and verify that it is the CPU and memory alarm. 2. If there is a CPU and memory alarm, follow the instruction on how to resolve this alarm. 3. Check the DNS entry. 4. If the problem is not corrected, consult the next level of support.
503	—	Cx Unable To Comply	The CSCF generates this response if an unspecified error has occurred in the communication between the CSCF and HSS.	If this message occurs frequently, consult the next level of support.
503	—	Service Unavailable	The CSCF generates this response: <ul style="list-style-type: none">• When the S-CSCF is in Locked state, but before all the registered users are removed.• If the processor load or memory consumption is above the configured limit in the CSCF.• When SIP overload control reporting role, according to RFC 7339, is enabled and the CSCF reports oc>0, corresponding amount of incoming traffic is rejected with the 503 (Service Unavailable) response without Retry-After header to the upstream node that does not support RFC 7339.	If this message occurs frequently, consult the next level of support.
503	—	Socket Service Unavailable	The CSCF generates this response if the CSCF fails to send a request because of an internal socket error.	Consult the next level of support.



Table 8 Fault Codes for the CSCF ISC Interface

Code	Method	Text	Possible Cause	Recommended Action
504	—	DNS Query Timed Out	The CSCF generates this response if a DNS server (name server) does not respond to a DNS query. This could for instance happen if the DNS server does not recognize the domain name in the query; or if the DNS server is not reachable.	If the DNS server does not respond to DNS queries, do the following: 1. Check the connection between the DNS client and the DNS server, as described in <i>Managed Object Model (MOM)</i> . 2. Check if the DNS server is up running. 3. Restart the DNS server.
505	—	Version Not Supported: SIP/x.y	The CSCF generates this response if a SIP request is received and the request line of the message indicates another SIP version than "2.0".	If using the wrong SIP version, do the following: 1. Check terminal.
513	—	Message Too Large (more than <x> bytes)	The CSCF generates this response if the received SIP request is larger than the configurable allowed maximum SIP message size in the CSCF.	If the received SIP request is larger than the maximum allowed SIP message size, do the following: 1. Check the CSCF configuration parameters <i>CscfMaxSipMessageSizeUdp</i> and <i>CscfMaxSipMessageSizeTcp</i> in <i>Managed Object Model (MOM)</i> .

Note: All error responses with status code 503 are to be mapped to status code 500 when received by the CSCF and before forwarding upstream. Depending on configuration, the CSCF may forward the 503 response unchanged (only on terminating CSCF).

2.2.4 CSCF I4 and I5 Interface

For more information about the CSCF I4 and I5 interface, see *CSCF I4 and I5 Interface*.

Table 9 Fault Codes for the CSCF I4 and I5 Interface

Code	Method	Text	Possible Cause	Recommended Action
305	—	Use Proxy	The EATF generates this response when the emergency session related to an access transfer request is not found and redundant EATF is configured. The EATF includes the redundant EATFs, configured in parameter eatfRedundantEatfEntry, in the Contact header of the 305 response.	—
403	—	Forbidden	EATF generates this response if the following happens: <ul style="list-style-type: none"> EATF has received an access transfer request which is not corresponded to any existing sessions. EATF has received a request which does not include an emergency service URN. 	To avoid the 403 response when the corresponding session is not found for an access transfer request, redundant EATFs can be configured as described in the information for code 305.
403	—	Forbidden	EATF has received a PS Fallback request when the PS Fallback timer is not running, that is, PS Fallback is not possible.	This is probably caused by the value of the configuration parameter, eatfPsFallbackTimer. It might be set to 0 or a value which is too low.
403	—	Forbidden	The C-MSISDN is configured as the session key and the C-MSISDN is not found in the request.	This is probably caused by the value of the configuration parameter, eatfSessionIdentifier. It might be set to 2 when C-MSISDN is not meant to be the session identifier.
405	—	Method Not Allowed	The EATF generates this response for the SIP request methods it does not support.	—



Table 9 Fault Codes for the CSCF I4 and I5 Interface

Code	Method	Text	Possible Cause	Recommended Action
481	—	Call/Transaction Does Not Exist	<p>EATF generates this response if a SIP request is received:</p> <ul style="list-style-type: none"> • For a session that the EATF does not have any stored session data. • For a CANCEL request and no matching transaction is found in the EATF. 	—
487	—	Request Terminated	EATF generates this response for an access transfer request when a PS Fallback request is received while processing the same access transfer request.	—
488	—	Not Acceptable Here	EATF generates this response for an access transfer request when the access transfer request failed the Dynamic Payload Types Mapping check.	—
500	—	Message Sent On Invalid Port	EATF generates this response if a request or response is received on an EATF interface which is not defined.	Validate all the configuration of the EATF port.
503	—	Service Unavailable	EATF generates this response, if the processor load or memory consumption is above the configured limit in the EATF.	If this message occurs frequently, consult the next level of support.