

# SIP - Response codes

Wednesday, February 10, 2016 8:01 AM

## 1xx—Provisional Responses[\[edit\]](#)

### 100 Trying

Extended search being performed may take a significant time so a forking proxy must send a 100 Trying response. [\[1\]:\\$21.1.1](#)

- Response to INVITE
- Shuts off any retransmission timers

### 180 Ringing

Destination user agent received INVITE, and is alerting user of call. [\[1\]:\\$21.1.2](#)

- Sends ringing to the client

### 181 Call is Being Forwarded

Servers can optionally send this response to indicate a call is being forwarded. [\[1\]:\\$21.1.3](#)

### 182 Queued

Indicates that the destination was temporarily unavailable, so the server has queued the call until the destination is available. A server may send multiple 182 responses to update progress of the queue. [\[1\]:\\$21.1.4](#)

### 183 Session in Progress

This response may be used to send extra information for a call which is still being set up. [\[1\]:\\$21.1.5](#)

- PSTN will provide the ringback
- Like 180 Ringing, but you are not being asked to play ringing, it is being done internally or externally (PSTN)

### 199 Early Dialog Terminated

Can be used by User Agent Server to indicate to upstream SIP entities (including the User Agent Client (UAC)) that an early dialog has been terminated. [\[4\]](#)

## 2xx—Successful Responses[\[edit\]](#)

### 200 OK

Indicates the request was successful. [\[1\]:\\$21.2.1](#)

- ANSWER message on a call
- Acknowledgment for diff types of messages

### 202 Accepted

Indicates that the request has been accepted for processing, but the processing has not been completed. [\[5\]:\\$7.3.1](#) [\[6\] Deprecated.](#) [\[7\]:\\$8.3.1](#) [\[3\]](#)

- Reply to REFER (call transfer)

### 204 No Notification

Indicates the request was successful, but the corresponding response will not be received. [\[8\]](#)

## 3xx—Redirection Responses[\[edit\]](#)

### 300 Multiple Choices

The address resolved to one of several options for the user or client to choose between, which are listed in the message body or the message's Contact fields. [\[1\]:\\$21.3.1](#)

### 301 Moved Permanently

The original Request-URI is no longer valid, the new address is given in the Contact header field, and the client should update any records of the original Request-URI with the new value. [\[1\]:\\$21.3.2](#)

- Phone will return this if messages are being sent to/from the wrong SeSM

### 302 Moved Temporarily

The client should try at the address in the Contact field. If an Expires field is present, the client may cache the result for that period of time. [\[1\]:\\$21.3.3](#)

- Used for call forwarding
- Should see a diversion field (who you are forwarding the call to)

### 305 Use Proxy

The Contact field details a proxy that must be used to access the requested destination. [\[1\]:\\$21.3.4](#)

### 380 Alternative Service

The call failed, but alternatives are detailed in the message body. [\[1\]:§21.3.5](#)

## 4xx—Client Failure Responses [\[edit\]](#)

### 400 Responses are related to the client response and not the AS

#### 400 Bad Request

The request could not be understood due to malformed syntax. [\[1\]:§21.4.1](#)

- Get this on PSTN if there are message on PSTN that the PSTN does not support
- Response to PRACK (when not supported)

#### 401 Unauthorized

The request requires user authentication. This response is issued by UASs and registrars. [\[1\]:§21.4.2](#)

#### 402 Payment Required

Reserved for future use. [\[1\]:§21.4.3](#)

#### 403 Forbidden

The server understood the request, but is refusing to fulfil it. [\[1\]:§21.4.4](#)

- Scanners that are trying to reach the system (if there is no response)
- If trunk is not setup correctly
- Basically says: You are not allowed to do what you want to do
  - Sometimes you can clear lockout in PROV
- typically this will happen for registered subscriber if something is wrong with Via, contact, or from header contents
  - Check source IP and port of message
  - it is more effective to look at successful REGISTER messages and compare to the failing invite

#### 404 Not Found

The server has definitive information that the user does not exist at the domain specified in the Request-URI. This status is also returned if the domain in the Request-URI does not match any of the domains handled by the recipient of the request. [\[1\]:§21.4.5](#)

- Call to a number that doesn't exist (no translation)
- Wrong call permissions

#### 405 Method Not Allowed

The method specified in the Request-Line is understood, but not allowed for the address identified by the Request-URI. [\[1\]:§21.4.6](#)

#### 406 Not Acceptable

The resource identified by the request is only capable of generating response entities that have content characteristics but not acceptable according to the Accept header field sent in the request. [\[1\]:§21.4.7](#)

#### 407 Proxy Authentication Required

The request requires user authentication. This response is issued by proxies. [\[1\]:§21.4.8](#)

- Wants credentials

#### 408 Request Timeout

Couldn't find the user in time. The server could not produce a response within a suitable amount of time, for example, if it could not determine the location of the user in time. The client MAY repeat the request without modifications at any later time. [\[1\]:§21.4.9](#)

- When we send a message and we don't get a response after many retransmissions
- When retransmission timeouts are done
- ON CLIENT SIDE
- Generated by SBC
- Will tear down a call in response to this

#### 409 Conflict

User already registered. [\[9\]:§7.4.10](#) Deprecated by omission from later RFCs [\[1\]](#) and by non-registration with the IANA. [\[3\]](#)

#### 410 Gone

The user existed once, but is not available here any more.[\[1\]:\\$21.4.10](#)

#### **411 Length Required**

The server will not accept the request without a valid Content-Length.[\[9\]:\\$7.4.12](#) Deprecated by omission from later RFCs[\[1\]](#) and by non-registration with the IANA.[\[3\]](#)

#### **412 Conditional Request Failed**

The given precondition has not been met.[\[10\]](#)

#### **413 Request Entity Too Large**

Request body too large.[\[1\]:\\$21.4.11](#)

#### **414 Request-URI Too Long**

The server is refusing to service the request because the Request-URI is longer than the server is willing to interpret.[\[1\]:\\$21.4.12](#)

#### **415 Unsupported Media Type**

Request body in a format not supported.[\[1\]:\\$21.4.13](#)

#### **416 Unsupported URI Scheme**

Request-URI is unknown to the server.[\[1\]:\\$21.4.14](#)

#### **417 Unknown Resource-Priority**

There was a resource-priority option tag, but no Resource-Priority header.[\[11\]](#)

#### **420 Bad Extension**

Bad SIP Protocol Extension used, not understood by the server.[\[1\]:\\$21.4.15](#)

#### **421 Extension Required**

The server needs a specific extension not listed in the Supported header.[\[1\]:\\$21.4.16](#)

#### **422 Session Interval Too Small**

The received request contains a Session-Expires header field with a duration below the minimum timer.[\[12\]](#)

#### **423 Interval Too Brief**

Expiration time of the resource is too short.[\[1\]:\\$21.4.17](#)

#### **424 Bad Location Information**

The request's location content was malformed or otherwise unsatisfactory.[\[13\]](#)

#### **428 Use Identity Header**

The server policy requires an Identity header, and one has not been provided.[\[14\]:p11](#)

#### **429 Provide Referrer Identity**

The server did not receive a valid Referred-By token on the request.[\[15\]](#)

#### **430 Flow Failed**

A specific flow to a user agent has failed, although other flows may succeed. This response is intended for use between proxy devices, and should not be seen by an endpoint (and if it is seen by one, should be treated as a [400 Bad Request](#) response).[\[16\]:\\$11.5](#)

#### **433 Anonymity Disallowed**

The request has been rejected because it was anonymous.[\[17\]](#)

#### **436 Bad Identity-Info**

The request has an Identity-Info header, and the URI scheme in that header cannot be dereferenced.[\[14\]:p11](#)

#### **437 Unsupported Certificate**

The server was unable to validate a certificate for the domain that signed the request.[\[14\]:p11](#)

#### **438 Invalid Identity Header**

The server obtained a valid certificate that the request claimed was used to sign the request, but was unable to verify that signature.[\[14\]:p12](#)

#### **439 First Hop Lacks Outbound Support**

The first outbound [proxy](#) the user is attempting to register through does not support the "outbound" feature of [RFC 5626](#), although the [registrar](#) does.[\[16\]:\\$11.6](#)

#### **470 Consent Needed**

The source of the request did not have the permission of the recipient to make such a request.[\[18\]](#)

#### **480 Temporarily Unavailable**

Callee currently unavailable.[\[1\]:\\$21.4.18](#)

- 480 sent when there is nowhere to route the call to
- If DND is set, return would be 486
- usually means that a client isn't logged in and has no routes to route a call when they aren't

logged in (like to voicemail)

#### **481 Call/Transaction Does Not Exist**

Server received a request that does not match any dialog or transaction.[\[1\]:§21.4.19](#)

- Information is wrong (call has already been torn down)
- Failed transfer

#### **482 Loop Detected.**

Server has detected a loop.[\[1\]:§21.4.20](#)

- **Call loops**

#### **483 Too Many Hops**

Max-Forwards header has reached the value '0'.[\[1\]:§21.4.21](#)

#### **484 Address Incomplete**

Request-URI incomplete.[\[1\]:§21.4.22](#)

#### **485 Ambiguous**

Request-URI is ambiguous.[\[1\]:§21.4.23](#)

#### **486 Busy Here**

Callee is busy.[\[1\]:§21.4.24](#)

- If DND (do not disturb) on a client
- Shuts down that leg only (the one that has DND)

#### **487 Request Terminated**

Request has terminated by bye or cancel.[\[1\]:§21.4.25](#)

#### **488 Not Acceptable Here**

Some aspect of the session description or the Request-URI is not acceptable.[\[1\]:§21.4.26](#)

- Something in the SDP or invite that the other party didn't like
- Sometimes will lead to the teardown of a call

#### **489 Bad Event**

The server did not understand an event package specified in an Event header field.[\[5\]:§7.3.2](#)[\[7\]:§8.3.2](#)

#### **491 Request Pending**

Server has some pending request from the same dialog.[\[1\]:§21.4.27](#)

- occurs when a new SIP request is received but there is still an outstanding transaction that has to be completed prior to processing the new request.
- If an ACK has not been received yet, it will not process the message yet
- EX: If both parties hangup at the same time (race condition with BYE) therefore one side doesn't receive the ACK before receiving the BYE, and the other party gets confused and things the call doesn't exist anymore

#### **493 Undecipherable**

Request contains an encrypted MIME body, which recipient can not decrypt.[\[1\]:§21.4.28](#)

#### **494 Security Agreement Required**

The server has received a request that requires a negotiated security mechanism, and the response contains a list of suitable security mechanisms for the requester to choose between,[\[19\]:§§2.3.1–2.3.2](#) or a [digest authentication](#) challenge.[\[19\]:§2.4](#)

5xx—Server Failure Responses[\[edit\]](#) (BIGGER DEAL)

#### **500 Server Internal Error**

The server could not fulfill the request due to some unexpected condition.[\[1\]:§21.5.1](#)

#### **501 Not Implemented**

The server does not have the ability to fulfill the request, such as because it does not recognize the request method. (Compare with [405 Method Not Allowed](#), where the server recognizes the method but does not allow or support it.)[\[1\]:§21.5.2](#)

#### **502 Bad Gateway**

The server is acting as a [gateway](#) or [proxy](#), and received an invalid response from a downstream server while attempting to fulfill the request.[\[1\]:§21.5.3](#)

#### **503 Service Unavailable**

The server is undergoing maintenance or is temporarily overloaded and so cannot process the request. A "Retry-After" header field may specify when the client may reattempt its request.[\[1\]:§21.5.4](#)

- congestion control
- KACK alarms

- Call failed

#### **504 Server Time-out**

The server attempted to access another server in attempting to process the request, and did not receive a prompt response.<sup>[1]:§21.5.5</sup>

- When we send a message and we don't get a response after many retransmissions
- When retransmission timeouts are done
- ON the SERVER SIDE
- Could indicate a network event

#### **505 Version Not Supported**

The SIP protocol version in the request is not supported by the server.<sup>[1]:§21.5.6</sup>

#### **513 Message Too Large**

The request message length is longer than the server can process.<sup>[1]:§21.5.7</sup>

#### **580 Precondition Failure**

The server is unable or unwilling to meet some constraints specified in the offer.<sup>[20]</sup>

### 6xx—Global Failure Responses<sup>[edit]</sup>

#### **600 Busy Everywhere**

All possible destinations are busy. Unlike the 486 response, this response indicates the destination knows there are no alternative destinations (such as a voicemail server) able to accept the call.<sup>[1]:§21.6.1</sup>

- Will affect all legs (everything)
  - Can see many cancel messages
- Similar to 486

#### **603 Decline**

The destination does not wish to participate in the call, or cannot do so, and additionally the destination knows there are no alternative destinations (such as a voicemail server) willing to accept the call.<sup>[1]:§21.6.2</sup>

- Call was terminated, completely shut down

#### **604 Does Not Exist Anywhere**

The server has authoritative information that the requested user does not exist anywhere.<sup>[1]:§21.6.3</sup>

#### **606 Not Acceptable**

The user's agent was contacted successfully but some aspects of the session description such as the requested media, bandwidth, or addressing style were not acceptable.<sup>[1]:§21.6.4</sup>

From <[https://en.wikipedia.org/wiki/List\\_of\\_SIP\\_response\\_codes#3xx.E2.80.94Redirection\\_Responses](https://en.wikipedia.org/wiki/List_of_SIP_response_codes#3xx.E2.80.94Redirection_Responses)>