



Call Completion Function and Configuration Description

Version: <1.1>

Release date: <2018-05-08>



Contents

Contents	1
1 Introduction	2
1.1 Overview	2
1.2 Applicable Models.....	2
2 Function Description	3
3 Configuration Description	4
4 Operation Description	6
4.1 Peer Telephone Set Is Busy (Call Waiting Disabled).....	6
4.2 Peer Telephone Set Rejects Call (Reject Response Code 486).....	7

1 Introduction

1.1 Overview

When the called party of a call is busy or rejects the call, the local telephone set prompts the user to call back manually or cancel the call.

1.2 Applicable Models

This document applies to Fanvil X3S and X4. The X5S and X6 models do not support the call completion function.

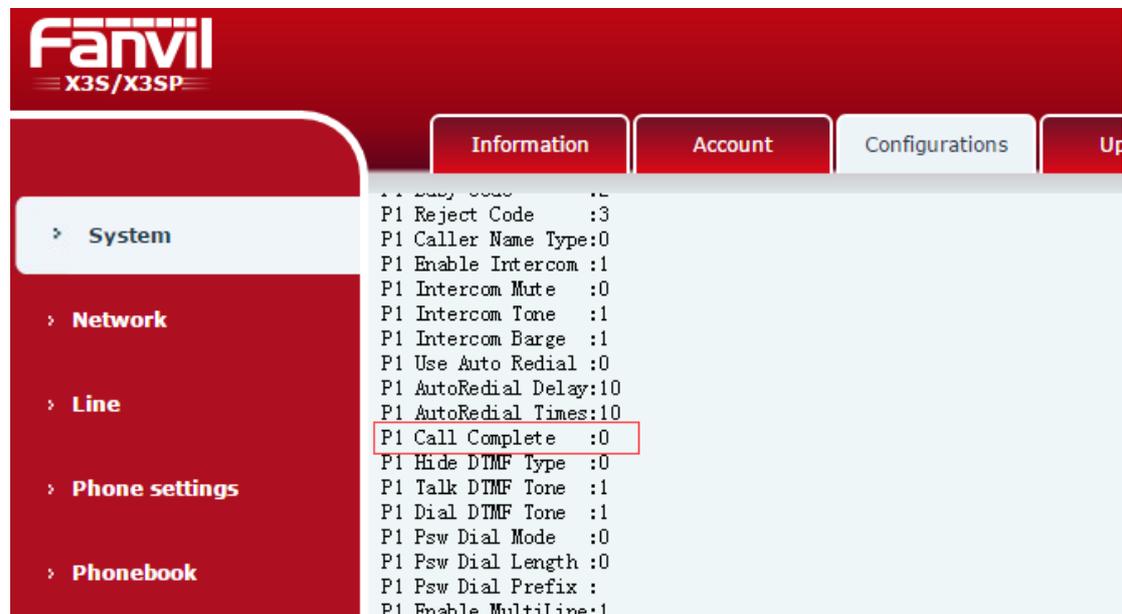
2 Function Description

If the call completion function is enabled, signaling auto redial is enabled. If the called party is busy or rejects the call (reject response code 486), the telephone set displays the messages "Call completion. Wait xxx" and "Call completion. Call xxx" and determines whether the peer telephone set is in the standby state (the peer telephone set is in the terminated state if it sends NOTIFY). The user then determines whether to manually call back or cancel the call.

If the call completion function is disabled, the telephone set does not display the "Call completion. Wait xxx" or "Call completion. Call xxx" message.

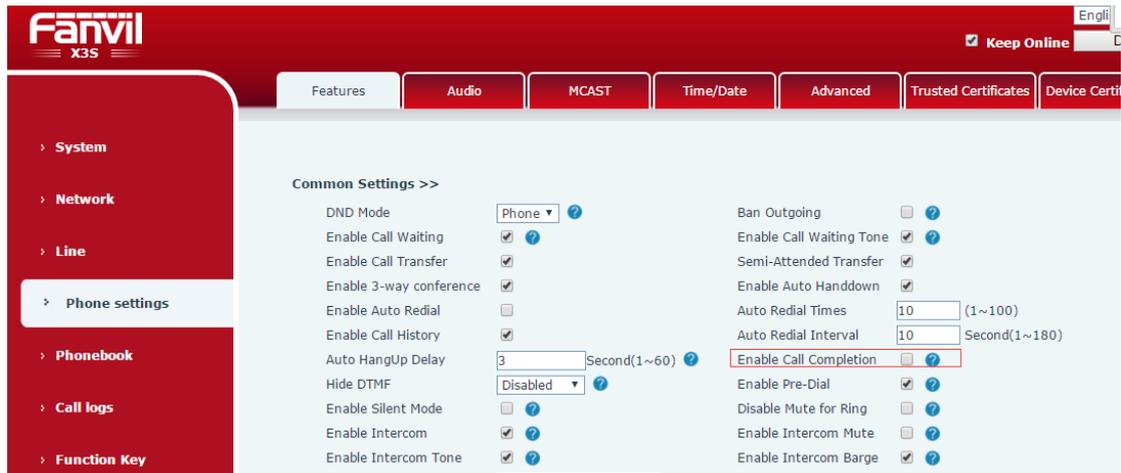
3 Configuration Description

1. The call completion function is configured in the <TELE CONFIG MODULE> module of the configuration file.



Parameter	Description
P1 Call Complete	Call completion function. If the value is 1, when the peer telephone set switches from the busy state to the idle state, the local telephone set prompts the user to call back manually or cancel the call. If the value is 0, the call completion function is disabled. (The X5 and X6 series telephone sets do not support the call completion function, and therefore the default value is 0 in their configuration files. In the configuration files of the X3 and X4 series telephone sets, the default value is 0, indicating that the call completion function is disabled.)

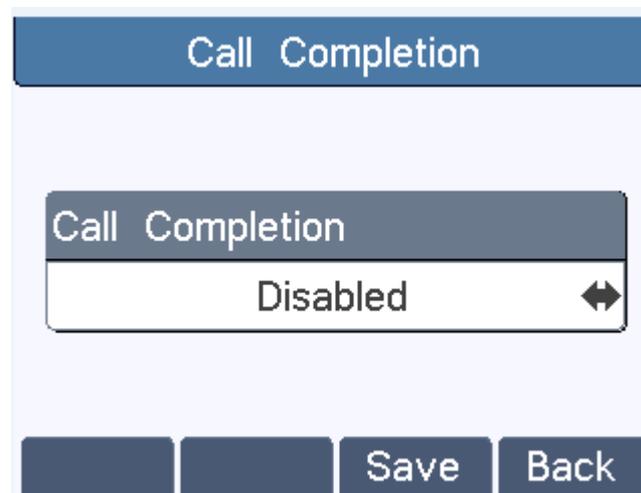
2. To enable or disable the call completion function on the webpage, choose Phone Settings > Features > Common Settings, select or deselect Enable Call Completion to enable or disable the function.



3. To enable or disable the call completion function on the LCD, choose Menu > Features > Call Completion,



click Enter and then select Enabled or Disabled to enable or disable the function.

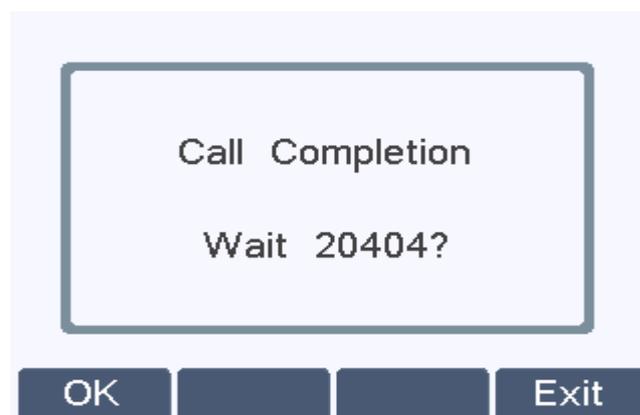


4 Operation Description

4.1 Peer Telephone Set Is Busy (Call Waiting Disabled)

1. On the webpage of the test telephone set, choose Phone Settings > Features > Common Settings and select Enable Call Completion. Alternatively, choose Menu > Features > Call Completion on the LCD of the test telephone set, select Enabled, and click Save. Disable call waiting for the peer telephone set B.

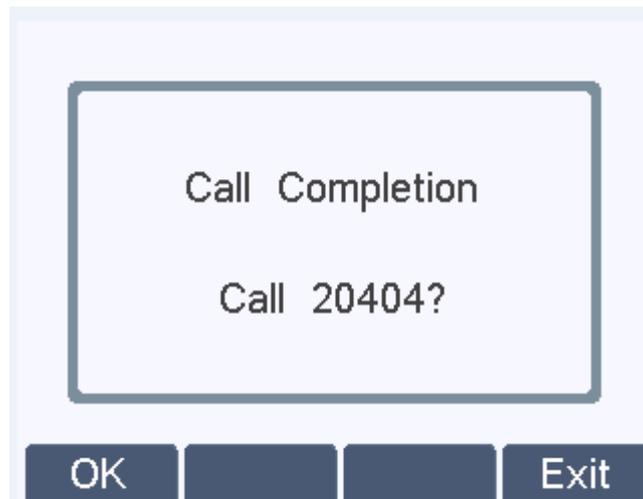
2. B is in a call with C. The test telephone set calls B in hands-free, handle, or headset mode. The test telephone set displays the message "Call Completion. Wait xxx", as shown in the following figure.



3. In the dialog box prompting "Call Completion. Wait xxx":

(1) If you click Exit, the test telephone set exits the screen prompting "Call Completion. Wait xxx" and returns to the standby screen. When B ends the call or is idle, the test telephone set does not display the message "Call Completion. Call xxx".

(2) If you click OK, the test telephone set exits the screen prompting "Call Completion. Wait xxx" and returns to the standby screen. When B ends the call or is idle, the test telephone set displays the message "Call Completion. Call xxx" (xxx indicates the phone number of B) in about 30s, as shown in the following figure.



Click Exit. The test telephone set does not call B and returns to the standby screen.

Click OK and capture SIP packets. It is found that the peer telephone set sends NOTIFY, indicating that it is in the terminated state. At this time, the test telephone set can call B again and set up a normal call.

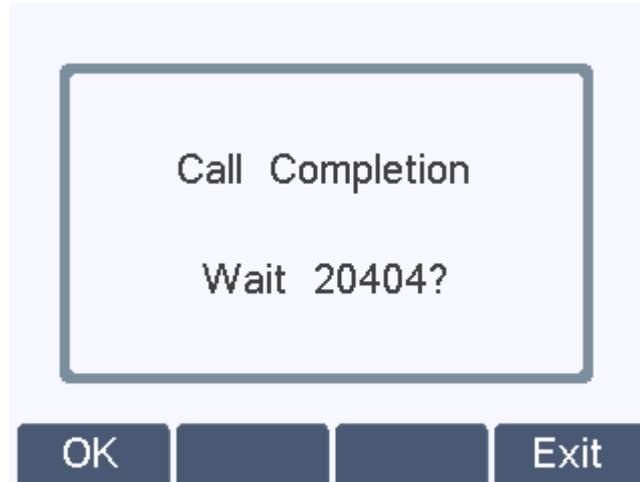
7240	2018-05-07	16:14:46.299665	172.16.1.2	172.16.30.31	SIP	421 Status: 200 OK
7241	2018-05-07	16:14:46.300227	172.16.1.2	172.16.30.31	SIP	688 Request: SUBSCRIBE sip:20404@172.16.30.31:5060, in-dialog
7242	2018-05-07	16:14:46.307681	172.16.30.31	172.16.1.2	SIP	506 Status: 200 OK
7243	2018-05-07	16:14:46.319732	172.16.1.2	172.16.30.55	SIP	428 Status: 200 OK
7245	2018-05-07	16:14:46.404126	172.16.30.31	172.16.1.2	SIP	797 Request: NOTIFY sip:20401@172.16.1.2
7249	2018-05-07	16:14:46.420403	172.16.1.2	172.16.30.55	SIP	887 Request: NOTIFY sip:20401@172.16.30.55:5060
7250	2018-05-07	16:14:46.428863	172.16.30.55	172.16.1.2	SIP	498 Status: 200 OK
7251	2018-05-07	16:14:46.440036	172.16.1.2	172.16.30.31	SIP	420 Status: 200 OK
7264	2018-05-07	16:14:46.845814	172.16.6.65	172.16.1.2	SIP	534 Request: REGISTER sip:172.16.1.2:5060 (1 binding)
7265	2018-05-07	16:14:46.846379	172.16.1.2	172.16.6.65	SIP	348 Status: 100 Trying
7266	2018-05-07	16:14:46.847302	172.16.1.2	172.16.6.65	SIP	428 Status: 200 OK (1 binding)
7443	2018-05-07	16:14:55.599633	172.16.30.244	224.0.1.75	SIP	563 Request: SUBSCRIBE sip:MAC00a859da005c@224.0.1.75
7705	2018-05-07	16:14:57.362528	172.16.30.27	224.0.1.75	SIP	620 Request: SUBSCRIBE sip:MAC00a834682579@224.0.1.75
7708	2018-05-07	16:14:57.440970	172.16.6.65	172.16.1.2	SIP	535 Request: SUBSCRIBE sip:78779888@172.16.1.2
7709	2018-05-07	16:14:57.441560	172.16.1.2	172.16.6.65	SIP	370 Status: 100 Trying
7710	2018-05-07	16:14:57.442068	172.16.1.2	172.16.6.65	SIP	401 Status: 404 Not Found
7759	2018-05-07	16:15:00.128254	172.16.30.55	172.16.1.2	SIP/SDP	1060 Request: INVITE sip:20404@172.16.1.2;user=phone
7760	2018-05-07	16:15:00.128825	172.16.1.2	172.16.30.55	SIP	372 Status: 100 Trying
7761	2018-05-07	16:15:00.130012	172.16.1.2	172.16.30.31	SIP/SDP	1172 Request: INVITE sip:20404@172.16.30.31:5060
7762	2018-05-07	16:15:00.155878	172.16.30.31	172.16.1.2	SIP	534 Status: 100 Trying
7764	2018-05-07	16:15:00.440666	172.16.30.31	172.16.1.2	SIP	666 Status: 180 Ringing

```

User Datagram Protocol, Src Port: 5060, Dst Port: 5060
Session Initiation Protocol (NOTIFY)
  Request-Line: NOTIFY sip:20401@172.16.1.2 SIP/2.0
  Message Header
  Message Body
    <?xml version="1.0"?> <dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="2" state="full" entity="sip:20404@172.16.1.2:5060">\n
    <dialog>\n
    <state>terminated</state>\n
    </dialog>\n
    </dialog-info>\n
  
```

4.2 Peer Telephone Set Rejects Call (Reject Response Code 486)

1. The call completion function is enabled for the test telephone set. The reject response code is set to 486 (busy here) for the peer telephone set.
2. The test telephone set calls B in hands-free, handle, or headset mode. B rejects the call. The test telephone set displays the message "Call Completion. Wait xxx" (xxx is the phone number of B), as shown in the following figure.



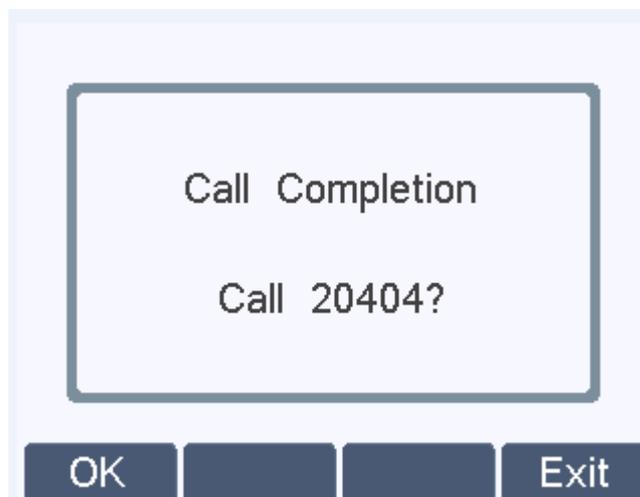
3. In the dialog box prompting "Call Completion. Wait xxx" (xxx is the phone number of B):

(1) If you click Exit, the test telephone set exits the screen prompting "Call Completion. Wait xxx" and returns to the standby screen. When B ends the call or is idle, the test telephone set does not display the message "Call Completion. Call xxx".

(2) If you click OK, there are two cases:

a) If B is already in a call, the test telephone set calls B, and B rejects the call, the test telephone set exits the screen prompting "Call Completion. Wait xxx" and returns to the standby screen. When B ends the call, the test telephone set displays the message "Call Completion. Call xxx" (xxx indicates the phone number of B) in about 30s.

b) If B is idle, the test telephone set calls B, and B rejects the call and returns to the idle state, the test telephone set exits the screen prompting "Call Completion. Wait xxx" and soon displays the message "Call Completion. Call xxx" (xxx indicates the phone number of B), as shown in the following figure.



Click Exit. The test telephone set does not call B and returns to the standby screen.

Click OK and capture SIP packets. It is found that the peer telephone set sends NOTIFY, indicating that it is in the terminated state. At this time, the test telephone set can call B again and

set up a normal call.

The screenshot shows a SIP log window with a table of messages and a detailed view of a specific message. The table lists messages with columns for No., Time, Source, Destination, Protocol, Length, and Info. The detailed view shows the message structure, including the Request-Line, Message Header, and Message Body (XML).

No.	Time	Source	Destination	Protocol	Length	Info
141	2018-05-07 16:21:27.081388	172.16.1.2	172.16.30.55	SIP	586	Status: 180 Ringing
206	2018-05-07 16:21:29.592105	172.16.30.31	172.16.1.2	SIP	643	Status: 486 Busy Here
207	2018-05-07 16:21:29.608172	172.16.1.2	172.16.30.55	SIP	563	Status: 486 Busy Here
208	2018-05-07 16:21:29.612317	172.16.30.55	172.16.1.2	SIP	413	Request: ACK sip:20404@172.16.1.2:5060
209	2018-05-07 16:21:29.628000	172.16.1.2	172.16.30.31	SIP	531	Request: ACK sip:20404@172.16.30.31:5060
443	2018-05-07 16:21:36.280603	172.16.30.55	172.16.1.2	SIP	577	Request: SUBSCRIBE sip:20404@172.16.1.2
444	2018-05-07 16:21:36.281156	172.16.1.2	172.16.30.55	SIP	388	Status: 100 Trying
445	2018-05-07 16:21:36.281910	172.16.1.2	172.16.30.31	SIP	700	Request: SUBSCRIBE sip:20404@172.16.30.31:5060
446	2018-05-07 16:21:36.290735	172.16.1.2	172.16.1.2	SIP	508	Status: 200 OK
447	2018-05-07 16:21:36.301123	172.16.1.2	172.16.30.55	SIP	430	Status: 200 OK
448	2018-05-07 16:21:36.390365	172.16.30.31	172.16.1.2	SIP	793	Request: NOTIFY sip:20401@172.16.1.2
449	2018-05-07 16:21:36.401820	172.16.1.2	172.16.30.55	SIP	883	Request: NOTIFY sip:20401@172.16.30.55:5060
453	2018-05-07 16:21:36.522913	172.16.30.55	172.16.1.2	SIP	502	Status: 200 OK
456	2018-05-07 16:21:36.529461	172.16.30.55	172.16.1.2	SIP	599	Request: SUBSCRIBE sip:20404@172.16.1.2, in-dialog
457	2018-05-07 16:21:36.541773	172.16.1.2	172.16.30.31	SIP	424	Status: 200 OK
458	2018-05-07 16:21:36.542340	172.16.1.2	172.16.30.31	SIP	689	Request: SUBSCRIBE sip:20404@172.16.30.31:5060, in-dialog
459	2018-05-07 16:21:36.551340	172.16.30.31	172.16.1.2	SIP	507	Status: 200 OK
460	2018-05-07 16:21:36.562054	172.16.1.2	172.16.30.55	SIP	429	Status: 200 OK
464	2018-05-07 16:21:36.650403	172.16.30.31	172.16.1.2	SIP	800	Request: NOTIFY sip:20401@172.16.1.2
466	2018-05-07 16:21:36.662521	172.16.1.2	172.16.30.55	SIP	890	Request: NOTIFY sip:20401@172.16.30.55:5060
467	2018-05-07 16:21:36.671098	172.16.30.55	172.16.1.2	SIP	501	Status: 200 OK
469	2018-05-07 16:21:36.682130	172.16.1.2	172.16.30.31	SIP	423	Status: 200 OK
613	2018-05-07 16:21:44.901901	172.16.30.99	224.0.1.75	SIP	600	Request: SUBSCRIBE sip:MAC00a859d9008e@224.0.1.75
700	2018-05-07 16:21:48.510564	172.16.30.55	172.16.1.2	SIP/SDP	1055	Request: INVITE sip:20404@172.16.1.2;user=phone
701	2018-05-07 16:21:48.511160	172.16.1.2	172.16.30.55	SIP	367	Status: 100 Trying

Request-Line: NOTIFY sip:20401@172.16.1.2 SIP/2.0

Message Header

Message Body

```
<?xml version="1.0"?> <dialog-info xmlns="urn:ietf:params:xml:ns:dialog-info" version="1" state="full" entity="sip:20404@172.16.1.2:5060">\n<dialog>\n<state>terminated</state>\n</dialog>\n</dialog-info>\n
```