Handset ringing another 2 sec after Answer call with another handset

(KX-TGP series)

No. 04-002

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Ver.1.0

Panasonic Corporation

Abstract about this document

This document describe about handset ringing another 2 sec after answer call with another handset .

Revision history

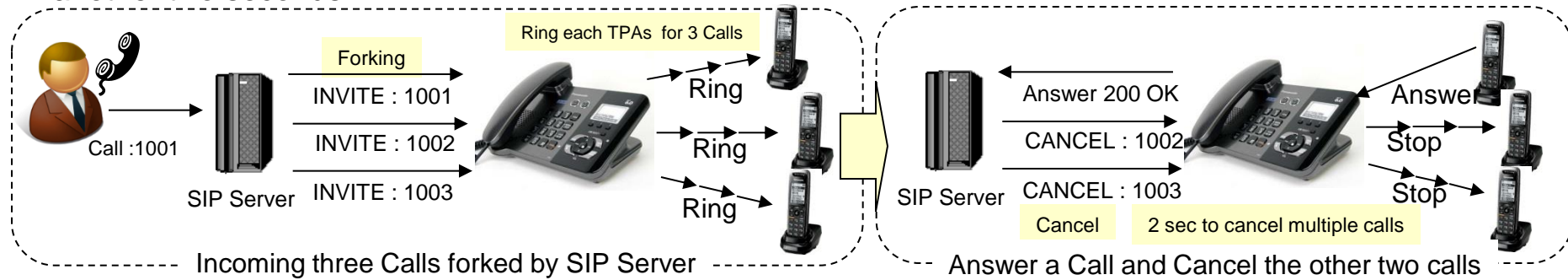| Date	Version	Revision	Firmware version
Mar. 3, 2011	Ver. 1.0	Initial Release	All versions

Summary

Description :

Incoming call rings into the TGP and rings all three TPA50's. One of the TPA50 users answers the incoming call. The other two TPA50's do not stop ringing immediately. They give off one more audible ring tone and then stop.
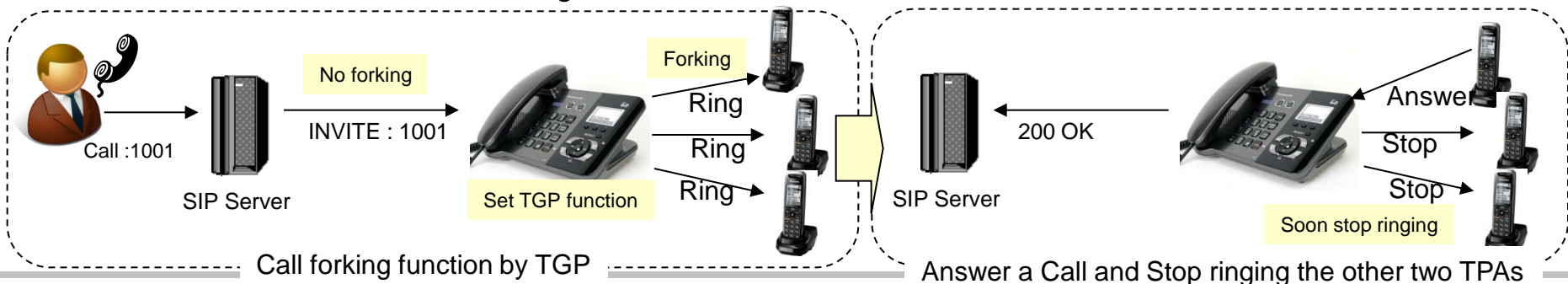
Cause :

There are three "INVITE" calls incoming into the one TGP from Carrier since forking function to group is set for incoming call. When user answer a call by using one of the TPA50, then Carrier send "CANCEL" request for another two calls and TGP need to send cancel request to the other two TPA50s. There are approx two seconds to finish call when cancelling multiple calls so that the other two TPA50's ring another two seconds.

Ring each TPAs for 3 Calls	
Forking	
INVITE : 1001 — Ring	Answer 200 OK — **Answer**
INVITE : 1002 — Ring	CANCEL : 1002 — **Stop**
INVITE : 1003 — Ring	CANCEL : 1003 — **Stop**
Call :1001 SIP Server	SIP Server Cancel 2 sec to cancel multiple calls
Incoming three Calls forked by SIP Server	Answer a Call and Cancel the other two calls

Solution :

To avoid this situation, please disable forking function for incoming call on SIP server side. And please use TGP function to flexible number assignment.

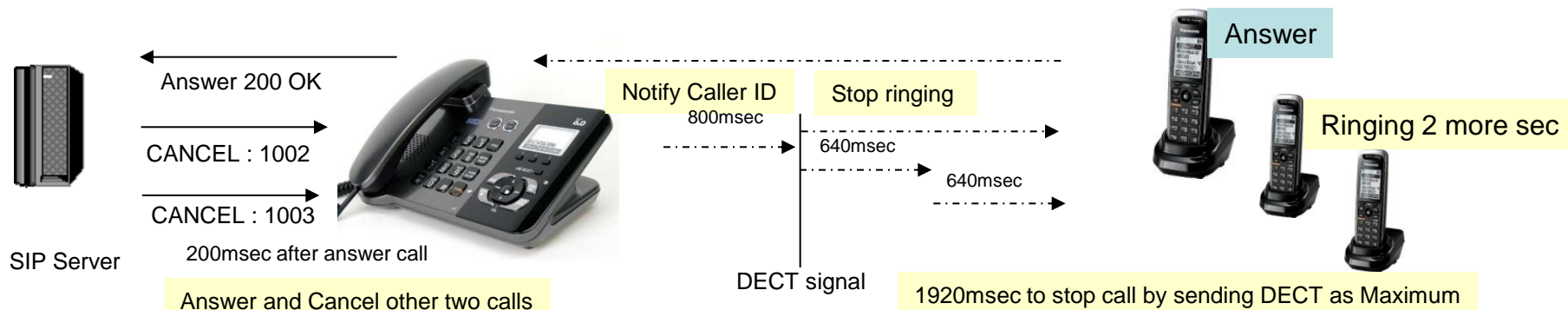|	
No forking	**Forking**
INVITE : 1001	Ring
Call :1001 SIP Server	200 OK — **Answer**
Set TGP function	**Stop**
	SIP Server **Stop** Soon stop ringing
Call forking function by TGP	Answer a Call and Stop ringing the other two TPAs

Detailed Description of Cause.

Receiving multiple forked calls.

If turn on the forking function on to the SIP Server side for a group incoming call, there are multiple calls ("INVITE") incoming into one TGP for each extensions. Then TGP send multiple ring request and call information to each TPAs by DECT signal and it takes 1440msec (640msec for ringing and 800msec for notify caller ID) per each line for sending signal (total 4320msec for three lines).

Forking

INVITE : 1001

INVITE : 1002

INVITE : 1003

Call :1001

SIP Server

Ringing

640msec
(Ext 1001) 640msec
(Ext 1002) 640msec
(Ext 1003)

DECT signal

Notify Caller ID

800msec
(Ext 1001) 800msec
(Ext 1002) 800msec
(Ext 1003)

Note : it takes 1600msec for notifying caller ID at first time.
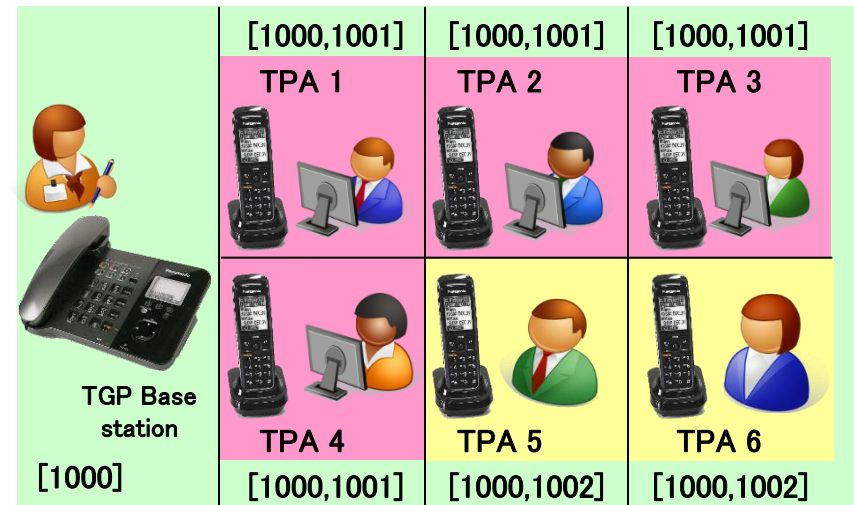
After Answer a call.

After answer a call by one of the TPAs, TGP send "200 OK" to SIP Server. Then SIP server send TGP "CANCEL" request to cancel another two calls and it takes 200msec. After that, TGP send call finishing request to the other remaining TPAs and it takes 640msec to finishing it for each lines. Also TGP can send stop ringing request in between each request. So, if there are three calls incoming, it may continue ringing another 1920msec (800msec to notify caller ID and 1280msec to finish another two lines) as maximum.

Answer

Answer 200 OK

CANCEL : 1002

CANCEL : 1003

SIP Server

200msec after answer call

Answer and Cancel other two calls

Notify Caller ID
800msec

Stop ringing
640msec
640msec

DECT signal

Ringing 2 more sec

1920msec to stop call by sending DECT as Maximum

How to setup TGP to share call.

Set flexible Number Assignment.

Please turn off forking on SIP server side and set flexible number assignment onto TGP as a group number set. [Telephone] -> [Multi Number Settings] menu in TGP web portal.

<table>
<tr><td colspan="3">[1000,1001]</td></tr>
<tr><td>TPA 1</td><td>TPA 2</td><td>TPA 3</td></tr>
</table>

TGP Base station

[1000]

TPA 4	TPA 5	TPA 6
[1000,1001]	[1000,1002]	[1000,1002]

Grouping Handset / Handset select for receiving call

Line No.	Phone Number	Handset No. 1	2	3	4	5	6	Base
1	1000	✓	✓	✓	✓	✓	✓	✓
2	1001	✓	✓	✓	✓			
3	1002					✓	✓	

✓ Eight numbers(VoIP accounts) can be independently assigned to a base station and each handsets.

By using flexible number assignment, one incoming call will be forked to each TPA by TGP. So that no multiple incoming call and TGP doesn't need to handle and wait multiple line cancel call.

No forking

Call :1001

INVITE : 1001

SIP Server

Set TGP function

Forking

Ring

Ring

Ring

Call forking function by TGP

200 OK

SIP Server

Answer

Stop

Stop

Soon stop ringing

Answer a Call and Stop ringing the other two TPAs