

Generic SIP TestPlan Wireless Server “KWSxxxx” in a “Standard SIP” Setup




	Document type: Generic Interop Test Plan	To be maintained.	Doc. no: XXXX XXXX-PA	Author/Released by: gak/---
	Document name: SIP TestPlan		Doc ed: 0p01	Date: 2009-05-29

Table of contents

Table of contents	2
Hardware identification	4
Test summary	5
1. Subscription	6
Subscription without access code	6
Subscription with access code	6
Subscription with incorrect access code	6
Multi- Subscription	6
2. Registration.....	7
Registration	7
Registration of handset off/on	7
Registration to server off/on	7
3. Authentication	8
Authentication	8
4. Basic Features Test Cases.....	9
DTMF Timer Inter-Digit	9
Place call from Kirk handset to a variety of terminating devices (overlap dialing) case 1	9
Place call from Kirk handset to a variety of terminating devices (overlap dialing) case 2	10
Place call from Kirk handset to a variety of terminating devices (overlap dialing) case 3	10
Place call from Kirk handset to a variety of terminating devices (overlap dialing) case 4	11
Receive call from a variety of calling devices to a Kirk DECT handset case 1	12
Receive call from a variety of calling devices to a Kirk DECT handset case 2	12
Receive call from a variety of calling devices to a Kirk DECT handset case 3	12
Receive call from a variety of calling devices to a Kirk DECT handset case 4	13
Place call while On Hook (en-block dialing) case 1	14
Place call while On Hook (en-block dialing) case 2	14
Place call while On Hook (en-block dialing) case 3	14
Place call while On Hook (en-block dialing) case 4	15
Place call to a busy user case 1	15
Place call to an unreachable number	15
Place call to a busy user case 2	16
Place call to a busy user case 3	16
Place a call and leave range of system case 1	17
Place a call and leave range of system case 2	17
Place a call and leave range of system case 3	18
Place a call and leave range of system case 4	18
Place max simultaneous calls	19
Place call -redial	19
Place call – speed dial	20
Missed Call Notification	20
Callback	21
Volume	21
Headset	22
Ring selection	22
Verify Diffserv Code Point support	22
Verify Date and Time Update support	23
Forward case 1	23
Forward case 2	23
Extended forward	24
Mute handset	24
Park call	25
5. Call Hold and Music on Hold.....	26
Call Hold without Music on Hold case 1	26
Call Hold without Music on Hold case 2	27
Call Hold with Music on Hold case 1	28

	Document type:	To be maintained.	Doc. no:	Author/Released by:
	Generic Interop Test Plan		XXXX XXXX-PA	gak/---
	Document name:		Doc ed:	Date:
	SIP TestPlan		0p01	2009-05-29
				Page of pages:
				2 of 55

	Call Hold with Music on Hold case 2	29
6.	Call Transfer	30
A)	Call Transfer Blind	30
	Call Transfer Blind case 1	30
	Call Transfer Blind to busy user	31
	Call Transfer Blind to unknown number	31
	Call Transfer Blind case 2	32
	Call Transfer Blind case 3	32
B)	Call Transfer Attended	33
	Call Transfer Attended case 1	33
	Call Transfer Attended case 2	34
	Call Transfer Attended to busy user	35
	Call Transfer Attended to unknown number	35
	Call Transfer Attended case 3	36
	Call Transfer Attended case 4	36
C)	Call Transfer Semi – Attended	37
	Call Transfer Semi-Attended case 1	37
	Call Transfer Semi-Attended case 2	37
	Call Transfer Semi-Attended case 3	38
7.	DTMF	39
	DTMF Transmission case 1	39
	DTMF Transmission case 2	39
8.	Message Waiting Indication (MWI)– Voice mail	40
	MWI case 1	40
	MWI case 2	41
	MWI case 3	42
9.	Early Media and 100rel (PRACK)	43
	Outgoing call with Early Media	43
	Outgoing call with Early Media and 100rel Extension	43
10.	CODEC Negotiation	44
A)	G.711 u-law, a-law	44
	Codec Support – common case 1	44
	Codec Support – common case 2	44
	Codec Support - negotiated	45
	Codec Support – common case 3	45
	Codec Support – common case 4	46
	Codec Support – common case 5	46
B)	G.729	47
	Codec Support – common case 1	47
	Codec Support - negotiated	47
	Codec Support – common case 2	48
	Codec Support – common case 3	48
	Codec Support – common case 4	49
11.	Instant Messaging	50
	Instant Messaging	50
12.	Forking	51
	Forking case 1	51
	Forking case 2	51
13.	DNS SRV	52
	DNS SRV lookup	52
	DNS SRV lookup (primary SIP server is OK)	52
	DNS SRV lookup (primary SIP server is failing)	53
	Load Balancing	53
	Fully Qualified Domain Name (FQDN) Contact	54
14.	Conferencing	55
	Conference – ad hoc	55


	Document type: Generic Interop Test Plan	To be maintained.	Doc. no: XXXX XXXX-PA	Author/Released by: gak/---
	Document name: SIP TestPlan		Doc ed: 0p01	Date: 2009-05-29
				Page of pages: 3 of 55

Hardware identification

WS 1	Type	
	HW PCS:	
	Firmware PCS:	
	Boot Code PCS:	
	BMC SW PCS:	
WS 2	Type	
	HW PCS:	
	Firmware PCS:	
	Boot Code PCS:	
	BMC SW PCS:	
Call Handler 1	Type:	
	HW Version:	
	SW Version:	
Call Handler 2	Type	
	Sip Express Router	
	HW Version:	
	SW Version:	

Example:

TEST ACTIVITY.
WS 1: Wireless Server 6000. WS 2: RFP 12 IP as Radio Sync Master. WS 3: N/A WS 4: N/A
A, B, C, D, E, F, G, H, I, J, K, L, M, N: Kirk DECT handsets. 4040 14096000 PCS06Rc 5020: 14141201 PCS 06Lb & 14141201 PCS 06Ha
S and T: Softphones. S: Twinkle/1.2
V and X = Polycom IP Phones. X: PolycomSoundPointIP-SPIP_330-UA/2.2.1.0029 V: PolycomSoundPointIP-SPIP_560-UA/3.0.1.0037
Y= PSTN Phone.
Z=Mobile Phone.

	Document type:	To be maintained.	Doc. no:	Author/Released by:
	Generic Interop Test Plan		XXXX XXXX-PA	gak/---
	Document name:	SIP TestPlan	Doc ed:	Date:
			0p01	2009-05-29
				Page of pages:
				4 of 55

Test summary


Test cases:

Executed	
Passed	
Failed	
Not applicable	
Not supported	
Not tested	

Please mention the Failed, Not applicable, Not Supported, Not Tested tests.

Test information:

Completion Date	
Completed By (Name)	
Completed By (Company)	
Comments	

	Document type: Generic Interop Test Plan	To be maintained.	Doc. no: XXXX XXXX-PA	Author/Released by: gak/---
	Document name: SIP TestPlan		Doc ed: 0p01 Date: 2009-05-29	Page of pages: 5 of 55

1. Subscription

ID	1.0
Name	Subscription without access code
Priority	
Description	Make a subscription without access code
Test steps	Step 1: Create some users on the KWS server without a access code Step 2: Verify that subscription against the KWS server is successful.(check GUI)
Result	
Notes	

ID	1.1
Name	Subscription with access code
Priority	
Description	Make a subscription with correct 4 digit access code
Test steps	Step 1: Create some users on the KWS server with a 4 digit access code Step 2: Verify that subscription against the KWS server is successful.(check GUI)
Result	
Notes	

ID	1.2
Name	Subscription with incorrect access code
Priority	
Description	Make a subscription with incorrect access code
Test steps	Step 1: Create some users on the KWS server with a access code Step 2: Try to subscribe the handset with a incorrect access code <ul style="list-style-type: none"> • Subscription should fail
Result	
Notes	

ID	1.3
Name	Multi- Subscription
Priority	
Description	Make subscriptions on 10 different systems
Test steps	Step 1: Create a user on 10 different KWS servers Step 2: Verify that subscription is successful on all 10 servers Step 3: Verify that manual login/change of active systems is successful.
Result	
Notes	Test is aiming to prove working of subscription to different systems, therefore 10 should be considered as a relative figure (top position)

2. Registration

ID	2.0
Name	Registration
Priority	
Description	Verifies the interoperability with the SIP server for authenticating REGISTER requests
Test steps	Step 1: Create some users Step 2: Verify that registration against the SIP server is working.(check GUI) Step 3: Verify that the user is re-registered before the registration expires.(wait until registration is expired and check that another registration is send)
Result	
Notes	

ID	2.1
Name	Registration of handset off/on
Priority	
Description	Verifies the capability of KIRK handset to automatically re-register
Test steps	Step 1: Create some users Step 2: Verify that registration against the SIP server is working.(check GUI) Step 3: Power Cycle handset <ul style="list-style-type: none"> • Verify that handset automatically Logs is successfully
Result	
Notes	

ID	2.2
Name	Registration to server off/on
Priority	
Description	Verifies the capability of KIRK handset to automatically re-register
Test steps	Step 1: Create some users Step 2: Verify that registration against the SIP server is working.(check GUI) Step 3: Power Cycle Base/Server <ul style="list-style-type: none"> • Verify that handset automatically Logs is successfully
Result	
Notes	

3. Authentication

ID	3.0
Name	Authentication
Priority	
Description	Verifies the DUT's interoperability with the SIP server for authenticating REGISTER request
Test steps	Step 1: Enable authentication for users in both SIP server and KWS Server. Step 2: Verify that the system is able to register when authentication is required.
Result	
Notes	

4. Basic Features Test Cases

ID	4.0
Name	DTMF Timer Inter-Digit
Priority	
Description	Specifies the duration (in milliseconds) the server waits to detect the end of dual tone multifrequency(DTMF) digits.
Test steps	Step 1: User A Off Hook <ul style="list-style-type: none"> User A should hear dial tone Step 2: Press the first digit Step 3: Press the second digit after 6 seconds to check that inter digit timer is working <ul style="list-style-type: none"> User A should hear Busy Tone
Result	
Notes	

ID	4.1
Name	Place call from Kirk handset to a variety of terminating devices (overlap dialing) case 1
Priority	
Description	Originate a call from user A to each device shown in Table 4-1, column 1. The call is answered and then terminated by the calling party.
Test steps	Step 1:User A Off Hook <ul style="list-style-type: none"> User A should hear dial tone Step 2: Call the Terminating Device <ul style="list-style-type: none"> Ring Back Tone at User A – Terminating Device Ringing + CLIP Step 3: Terminating Device Off Hook <ul style="list-style-type: none"> Audio Rx/Tx Step 4: User A On Hook <ul style="list-style-type: none"> Call released at User A and Terminating Device
Notes	Log results into Table 4-1

ID	4.2
Name	Place call from Kirk handset to a variety of terminating devices (overlap dialing) case 2
Priority	
Description	Originate a call from user A to each device shown in Table 4-1, column 1. The call is answered and then terminated by the called party.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A should hear dial tone <p>Step 2: Call the Terminating Device</p> <ul style="list-style-type: none"> • Ring Back Tone at User A – Terminating Device Ringing + CLIP <p>Step 3: Terminating Device Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: Terminating Device On Hook</p> <ul style="list-style-type: none"> • Call released at User A and Terminating Device
Notes	Log results into Table 4-1

ID	4.3
Name	Place call from Kirk handset to a variety of terminating devices (overlap dialing) case 3
Priority	
Description	Originate a call from user A to each device shown in Table 4-1, column 1. Do not answer the call. Disconnect the call from user A.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A should hear dial tone <p>Step 2: Call the Terminating Device</p> <ul style="list-style-type: none"> • Ring Back Tone at User A – Terminating Device Ringing + CLIP <p>Step 3: User A On Hook</p> <ul style="list-style-type: none"> • Ring stop at Terminating Device • Call released at User A <p>Step 4: Verify that the call is terminated correctly – sending CANCEL and receiving 478 request terminated</p>
Notes	Log results into Table 4-1

ID	4.4
Name	Place call from Kirk handset to a variety of terminating devices (overlap dialing) case 4
Priority	
Description	Originate a call from user A to each device shown in Table 4-1, column 1. Do not answer the call. Disconnect the call from the Terminating Device.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A should hear dial tone <p>Step 2: Call the Terminating Device</p> <ul style="list-style-type: none"> • Ring Back Tone at User A – Terminating Device Ringing + CLIP <p>Step 3: Terminating Device rejects the call</p> <ul style="list-style-type: none"> • Ring stop at Terminating Device • Call released at User A <p>Step 4: Verify that the call is terminated correctly – sending CANCEL and receiving 478 request terminated</p>
Notes	Log results into Table 4-1

Table 4-1: Results from Test Steps 4.1 & 4.2 & 4.3 & 4.4

Terminating Device or Application	Test Step 4.1 (User A Hangs Up after answer)	Test Step 4.2 (Terminating Device Hangs Up after answer)	Test Step 4.3 (User A Hangs Up before answer)	Test Step 4.4 (Terminating Device Hangs Up before answer)
<i>Kirk DECT handset</i>				
<i>Polycom IP Phone</i>				
<i>PSTN Phone</i>				
<i>Mobile Phone</i>				
<i>Soft Phone</i>				

ID	4.5
Name	Receive call from a variety of calling devices to a Kirk DECT handset case 1
Priority	
Description	Place a call from each device shows in Table 4-2, column 1 to a Kirk DECT handset (User A). The call is answered and then terminated from the calling device.
Test steps	Step 1: From originating device , call User A <ul style="list-style-type: none"> • User A Ringing + CLIP Step 2: User A Off Hook <ul style="list-style-type: none"> • Audio Rx/Tx Step 3: Originating Device Hangs Up <ul style="list-style-type: none"> • Call released at User A and Originating Device
Notes	Log results into Table 4-2

ID	4.6
Name	Receive call from a variety of calling devices to a Kirk DECT handset case 2
Priority	
Description	Place a call from each device shows in Table 4-2, column 1 to a Kirk DECT handset (User A). The call is answered and then terminated from the called party (User A).
Test steps	Step 1: From Originating Device , call User A <ul style="list-style-type: none"> • User A Ringing + CLIP Step 2: User A Off Hook <ul style="list-style-type: none"> • Audio Rx/Tx Step 3: User A On Hook <ul style="list-style-type: none"> • Call released at User A and Originating Device
Notes	Log results into Table 4-2

ID	4.7
Name	Receive call from a variety of calling devices to a Kirk DECT handset case 3
Priority	
Description	Place a call from each device shows in Table 4-2, column 1 to a Kirk DECT handset (User A). Do not answer the call. Disconnect the call form the Originating Device.
Test steps	Step 1: From Originating Device , call User A <ul style="list-style-type: none"> • User A Ringing + CLIP Step 2: Originating Device Hangs Up <ul style="list-style-type: none"> • Ring stop at User A • Call released at Originating Device Step 3: Verify that the call is terminated correctly – sending CANCEL and receiving 478 request terminated
Notes	Log results into Table 4-2

ID	4.8
Name	Receive call from a variety of calling devices to a Kirk DECT handset case 4
Priority	
Description	Place a call from each device shows in Table 4-2, column 1 to a Kirk DECT handset (User A). Do not answer the call. Disconnect the call form the called party (User A).
Test steps	Step 1: From Originating Device, call User A <ul style="list-style-type: none"> • User A Ringing + CLIP Step 2: User A rejects the call <ul style="list-style-type: none"> • Ring stop at User A • Call released at Originating Device Step 3: Verify that the call is terminated correctly – sending CANCEL and receiving 478 request terminated
Notes	Log results into Table 4-2

Table 4-2: Results from Test Steps 4.5 & 4.6 & 4.7 & 4.8

Originating Device or Application	Test Step 4.5 (Originating Device Hangs Up after answer)	Test Step 4.6 (User A Hangs Up after answer)	Test Step 4.7 (Originating Device Hangs Up before answer)	Test Step 4.8 (User A Hangs Up before answer)
<i>Polycom IP Phone</i>				
<i>PSTN Phone</i>				
<i>Mobile Phone</i>				
<i>Soft Phone</i>				

ID	4.9
Name	Place call while On Hook (en-block dialing) case 1
Priority	
Description	Place a call from User A to User B while User A is on hook. The call is answered and then terminated from User A.
Test steps	Step 1: User A On Hook enters User B number Step 2: User A Off Hook <ul style="list-style-type: none"> • Ring Back tone at User A - User B ringing + CLIP Step 3: User B Off Hook <ul style="list-style-type: none"> • Audio Rx/Tx Step 4: User A Hangs Up <ul style="list-style-type: none"> • Call released at User A and User B
Result	
Notes	

ID	4.10
Name	Place call while On Hook (en-block dialing) case 2
Priority	
Description	Place a call from User A to User B while User A is on hook. The call is answered and then terminated from User B.
Test steps	Step 1: User A On Hook enters User B number Step 2: User A Off Hook <ul style="list-style-type: none"> • Ring Back tone at User A - User B ringing + CLIP Step 3: User B Off Hook <ul style="list-style-type: none"> • Audio Rx/Tx Step 4: User B Hangs Up <ul style="list-style-type: none"> • Call released at User A and User B
Result	
Notes	

ID	4.11
Name	Place call while On Hook (en-block dialing) case 3
Priority	
Description	Place a call from User A to User B while User A is on hook. Do not answer the call. Disconnect the call from User A.
Test steps	Step 1: User A On Hook enters User B number Step 2: User A Off Hook <ul style="list-style-type: none"> • Ring Back tone at User A - User B ringing + CLIP Step 3: User A Hangs Up before answer <ul style="list-style-type: none"> • Ring stop at User B • Call released at User A Step 4: Verify that the call is terminated correctly – sending CANCEL and receiving 478 request terminated
Result	
Notes	

ID	4.12
Name	Place call while On Hook (en-block dialing) case 4
Priority	
Description	Place a call from User A to User B while User A is on hook. Do not answer the call. Disconnect the call from User B.
Test steps	<p>Step 1: User A On Hook enters User B number</p> <p>Step 2: User A Off Hook</p> <ul style="list-style-type: none"> • Ring Back tone at User A - User B ringing + CLIP <p>Step 2: User B rejects the call</p> <ul style="list-style-type: none"> • Ring stop at User B • Call released at User A <p>Step 3: Verify that the call is terminated correctly – sending CANCEL and receiving 478 request terminated</p>
Result	
Notes	

ID	4.13
Name	Place call to a busy user case 1
Priority	
Description	Place a call from User A to User B while User B is Off Hook.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A should hear dial tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> • User A should get Busy Signal <p>Step 3: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A
Result	
Notes	

ID	4.14
Name	Place call to an unreachable number
Priority	
Description	Place a call from User A to a unreachable number.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A should hear dial tone <p>Step 2: Call a unreachable number</p> <ul style="list-style-type: none"> • User A should get Busy Signal <p>Step 3: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A
Result	
Notes	

ID	4.15
Name	Place call to a busy user case 2
Priority	
Description	Place a call from User B to User C. Do not answer the call. Place a call from User A to User B.
Test steps	Step 1: User B Off Hook <ul style="list-style-type: none"> User B should hear dial tone Step 2: Call User C <ul style="list-style-type: none"> Ring Back tone at User B - User C ringing + CLIP Step 3: User A Off Hook <ul style="list-style-type: none"> User A should hear dial tone Step 4: Call User B <ul style="list-style-type: none"> User A should get Busy Signal Step 5: User A On Hook <ul style="list-style-type: none"> Call released at User A
Result	
Notes	

ID	4.16
Name	Place call to a busy user case 3
Priority	
Description	Place a call from User B to User C. User C answer the call. Place a call from User A to User B.
Test steps	Step 1: User B Off Hook <ul style="list-style-type: none"> User B should hear dial tone Step 2: Call User C <ul style="list-style-type: none"> Ring Back tone at User B - User C ringing + CLIP Step 3: User C Off Hook <ul style="list-style-type: none"> Audio Rx/Tx (User B-User C) Step 4: User A Off Hook <ul style="list-style-type: none"> User A should hear dial tone Step 5: Call User B <ul style="list-style-type: none"> User A should get Busy Signal Step 6: User A On Hook <ul style="list-style-type: none"> Call released at User A
Result	
Notes	

ID	4.17
Name	Place a call and leave range of system case 1
Priority	
Description	Place a call from User A to User B. User A leaves range during alerting.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A should hear Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> Ring Back tone at User A – User B ringing + CLIP <p>Step 3: User A leave range during alerting</p> <ul style="list-style-type: none"> Call released <p>Step 4: Verify that the call is terminated correctly – sending CANCEL and receiving 487 Request terminated.</p> <p>Step 5: Verify that both incoming and outgoing call still are possible after re-entering the system range</p>
Result	
Notes	

ID	4.18
Name	Place a call and leave range of system case 2
Priority	
Description	Place a call from User A to User B. User B leaves range during alerting.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A should hear Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> Ring Back tone at User A – User B ringing + CLIP <p>Step 3: User B leave range during alerting</p> <ul style="list-style-type: none"> Call released <p>Step 4: Verify that the call is terminated correctly – sending 480 temporarily unavailable</p> <p>Step 5: Verify that both incoming and outgoing call still are possible after re-entering the system range</p>
Result	
Notes	

ID	4.19
Name	Place a call and leave range of system case 3
Priority	
Description	Place a call from User A to User B. Answer the call. User A leaves range while connected.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A should hear Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> Ring Back tone at User A – User B ringing + CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: User A leaves range while connected</p> <ul style="list-style-type: none"> Call released <p>Step 5: Verify that the call is terminated correctly – sending BYE</p> <p>Step 6: Verify that both incoming and outgoing call still are possible after re-entering into the system range</p>
Result	
Notes	

ID	4.20
Name	Place a call and leave range of system case 4
Priority	
Description	Place a call from User A to User B. Answer the call. User B leaves range while connected.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A should hear Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> Ring Back tone at User A – User B ringing + CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: User B leaves range while connected</p> <ul style="list-style-type: none"> Call released <p>Step 5: Verify that the call is terminated correctly – sending BYE</p> <p>Step 6: Verify that both incoming and outgoing call still are possible after re-entering into the system range</p>
Result	
Notes	

ID	4.21
Name	Place max simultaneous calls
Priority	
Description	Verify the maximum number of simultaneous calls
Test steps	<p>Step 1: Make call from User A to User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing + CLIP <p>Step 2: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 3: Make call from User C to User D</p> <ul style="list-style-type: none"> • Ring Back tone at User C – User D ringing + CLIP <p>Step 4: User D Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 5: Make call from User E to User F</p> <ul style="list-style-type: none"> • Ring Back tone at User E – User F ringing + CLIP <p>Step 6: User F Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 7: Make call from User G to User H</p> <ul style="list-style-type: none"> • Ring Back tone at User G – User H ringing + CLIP <p>Step 8: User H Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 9: Make call from User I to User J</p> <ul style="list-style-type: none"> • Ring Back tone at User I – User J ringing + CLIP <p>Step 10: User J Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 11: Make call from User K to User L</p> <ul style="list-style-type: none"> • Ring Back tone at User K – User L ringing + CLIP <p>Step 12: User L Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 13: Make call from User M to User N</p> <ul style="list-style-type: none"> • No Channel Available • Verify that appropriate text is displayed
Result	
Notes	

ID	4.22
Name	Place call -redial
Priority	
Description	Verify successful call placement using re-dial
Test steps	<p>Step 1: Make call from User A to User B using re-dial function</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing + CLIP <p>Step 2: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 3: User B On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User B
Result	
Notes	

ID	4.23
Name	Place call – speed dial
Priority	
Description	Verify successful call placement using programmed speed dial
Test steps	<p>Step 1: On User A device, program a speed dial number for User B</p> <p>Step 2: From User A, place call to User B using the speed dial function</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing + CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: User B On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User B
Result	
Notes	

ID	4.24
Name	Missed Call Notification
Priority	
Description	Verify that device notifies the user about missed calls
Test steps	<p>Step 1: From User A place a call to User B, and do not answer the incoming call.</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing + CLIP <p>Step 2: Abandon the call after 1 ring.</p> <ul style="list-style-type: none"> • Ring stop at User B • Call released at User A <p>Step 3: Verify that the User B device displays a notification that a call was missed</p> <p>Step 4: Browse the call list and view the missed call</p> <p>Step 5: Verify that the notification is removed once the call list has been browsed</p>
Result	
Notes	

ID	4.25
Name	Callback
Priority	
Description	Verify successful connection of a call using the missed-call callback feature on the device
Test steps	<p>Step 1: From User A place a call to User B, and do not answer the incoming call.</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing + CLIP <p>Step 2: Terminate the call attempt from User A</p> <ul style="list-style-type: none"> • Ring stop at User B • Call released at User A <p>Step 3: Browse the “missed calls” list on User B’s device and use the callback feature from the list to return the call to User A.</p> <ul style="list-style-type: none"> • Ring Back tone at User B – User A ringing + CLIP <p>Step 4: User A Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 5: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User B
Result	
Notes	

ID	4.26
Name	Volume
Priority	
Description	Verify the device’s volume adjustment function
Test steps	<p>Step 1: From User A place a call to User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing + CLIP <p>Step 2: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 3: Maintain audio between both user devices while adjusting the volume on the User A’s device</p> <p>Step 4: Verify that the volume is adjusted appropriately; note any negative characteristics of the audio present at lower-than-normal or higher-than-normal volumes.</p>
Result	
Notes	

ID	4.27
Name	Headset
Priority	
Description	Verify the device's support for external headsets
Test steps	<p>Step 1: Connect a headset to the User A device's headset jack</p> <p>Step 2: From User A place a call to User B</p> <ul style="list-style-type: none"> The Ring Back tone at User A is heard in the headset – User B ringing + CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx Verify that the incoming audio is heard through the headset From User B's device, verify that the headset microphone audio quality is acceptable (note below the audio characteristics if quality is poor)
Result	
Notes	

ID	4.28
Name	Ring selection
Priority	
Description	Verify the device's ability to change the ring type
Test steps	<p>Step 1: Change the default ring type of the User A's device.</p> <p>Step 2: From User B, place a call to User A and do not answer the incoming call.</p> <p>Step 3: Verify that the new ring type is played on the User A device.</p> <p>Step 4: Abandon the call attempt.</p> <p>Step 5: Change the ring selection on the User A device back to the default ring type.</p> <p>Step 6: From User B, place a call to User A and do not answer the incoming call.</p> <p>Step 7: Verify that the default ring type is played on the User A device.</p>
Result	
Notes	

ID	4.29
Name	Verify Diffserv Code Point support
Priority	
Description	Verify the ability to set Diffserv Code Point from KWS Server
Test steps	<p>Step 1: Change the Diffserv value on the KWS (can set to either 64 or 184)</p> <p>Step 2: Verify via packet capture that the setting has been made (check the Differentiated Services Field, and verify that the binary # translates correctly. Note 64 = 1000000 and 184 = 10111000)</p>
Result	
Notes	

ID	4.30
Name	Verify Date and Time Update support
Priority	
Description	Verify setting of Date and Time Update on KWS Server
Test steps	<ol style="list-style-type: none"> 1. Configure KWS to point to the Time server over the Internet 2. Verify the Time and Date on the KWS has changed to match the time of the Time server
Result	
Notes	

ID	4.31
Name	Forward case 1
Priority	
Description	Verify successful forwarding of incoming calls. Configure User X device to forward all calls to User B. From User A places a call to User X. Verify that the call is immediately forwarded to User B.
Test steps	<p>Step 1: Configure User X to forward all calls to User B</p> <p>Step 2: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 3: Call User X</p> <ul style="list-style-type: none"> • The call is immediately forwarded to User B • Ring Back tone at User A – User B ringing + CLIP <p>Step 4: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 5: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User B
Result	
Notes	

ID	4.32
Name	Forward case 2
Priority	
Description	Verify successful forwarding of incoming calls. Configure User B device to forward all calls to User C. From User A places call to User B. Verify that the call is immediately forwarded to User C.
Test steps	<p>Step 1: Configure User B to forward all calls to User C</p> <p>Step 2: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 3: Call User B</p> <ul style="list-style-type: none"> • The call is immediately forwarded to User C • Ring Back tone at User A – User C ringing + CLIP <p>Step 4: User C Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 5: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User C
Result	
Notes	


ID	4.33
Name	Extended forward
Priority	
Description	Verify extended call forwarding options – busy forwarding, no-answer forwarding. For User X device configure “no-answer” and “busy” call forwarding. No-answer forwarding should route to User B, and busy forwarding should route to User A.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X ringing + CLIP • Do not answer the incoming call • Verify that the call is forwarded to User B • Ring Back tone at User A – User B ringing + CLIP form User A <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User A and User B <p>Step 4: User A puts User B on hold</p> <ul style="list-style-type: none"> • No voice path between the User B and User A • User A gets dial tone, and User B gets some tone <p>Step 5: User A dials User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X ringing + CLIP • Do not answer the incoming call • Verify that the re-order is played (indicating that the forward attempt was made to User A device)
Result	
Notes	

ID	4.34
Name	Mute handset
Priority	
Description	Verify device's mute function
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: Press the Mute button on User A device</p> <ul style="list-style-type: none"> • Verify that incoming audio is still heard on User A but outgoing audio is muted <p>Step 5: Un-mute the call on the User A device</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 6: Press the Mute button on User X device</p> <ul style="list-style-type: none"> • Verify that incoming audio is still heard on User X but outgoing audio is muted <p>Step 7: Un-mute the call on the User X device</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 8: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User X
Result	
Notes	

ID	4.35
Name	Park call
Priority	
Description	Verify successful park and retrieval of connected call
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A gets Dial Tone <p>Step 2 : Call User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing + CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: From User A park the call and note which park number the call may be retrieved</p> <p>Step 5: Form User C call the noted park number and verify that the parked call may be retrieved successfully</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User B and User C
Result	
Notes	

5. Call Hold and Music on Hold

ID	5.0
Name	Call Hold without Music on Hold case 1
Priority	
Description	Ensure Music-on-Hold (MOH) is disabled on the PBX. Verify successful hold and resume of connected call between User A and each terminating device shown in Table 5-1, column 1
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call Terminating device</p> <ul style="list-style-type: none"> • Ring Back tone at User A – Terminating device ringing + CLIP <p>Step 3: Terminating device Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: From Terminating device, place User A on hold</p> <ul style="list-style-type: none"> • No voice path between the Terminating device and User A • Verify that Terminating device gets dial tone, and User A gets some tone • Verify that the SDP in the send re-INVITE from Terminating device has an a-line containing either sendonly or inactive • Verify that the SDP in the received 200 OK to Terminating device has an a-line containing either recvnonly or inactive <p>Step 5: From Terminating Device, resume the held call</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 6: From User A, place Terminating device on hold</p> <ul style="list-style-type: none"> • No voice path between the Terminating device and User A • Verify that User A gets dial tone, and Terminating device gets some tone • Verify that the SDP in the send re-INVITE from User A has an a-line containing either sendonly or inactive • Verify that the SDP in the received 200 OK to User A has an a-line containing either recvnonly or inactive <p>Step 7: From User A, resume the held call</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 8: Repeat the Hold/Retrieve process from User A and Terminating device</p> <p>Step 9: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and Terminating device
Notes	Log results into Table 5-1


	Document type: To be maintained.	Doc. no: XXXX XXXX-PA	Author/Released by: gak/---
	Document name: SIP TestPlan	Doc ed: 0p01	Date: 2009-05-29
			Page of pages: 26 of 55

ID	5.1
Name	Call Hold without Music on Hold case 2
Priority	
Description	Ensure Music-on-Hold (MOH) is disabled on the PBX. Verify successful hold and resume of connected call between each Originating device shown in Table 5-1, column 1 and User A
Test steps	<p>Step 1: Originating device Off Hook</p> <ul style="list-style-type: none"> • Originating device hears Dial Tone <p>Step 2: Call User A</p> <ul style="list-style-type: none"> • Ring Back tone at Originating device – User A ringing + CLIP <p>Step 3: User A Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: From User A, place Originating device on hold</p> <ul style="list-style-type: none"> • No voice path between the Originating device and User A • Verify that User A gets dial tone, and Originating device gets some tone • Verify that the SDP in the send re-INVITE from User A has an a-line containing either sendonly or inactive • Verify that the SDP in the received 200 OK to User A has an a-line containing either recvnly or inactive <p>Step 5: From User A, resume the held call</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 6: From Originating device, place User A on hold</p> <ul style="list-style-type: none"> • No voice path between the Originating device and User A • Verify that Originating device gets dial tone, and User A gets some tone • Verify that the SDP in the send re-INVITE from Originating device has an a-line containing either sendonly or inactive • Verify that the SDP in the received 200 OK to Originating device has an a-line containing either recvnly or inactive <p>Step 7: From Originating device, resume the held call</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 6: Repeat the Hold/Retrieve process from User A and Originating device</p> <p>Step 7: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and Originating device
Notes	Log results into Table 5-1

Table 5-1:Results from Test Steps 5.0 & 5.1

Originating / Terminating Device	Test Step 5.0	Test Step 5.1
<i>Kirk DECT handset</i>		
<i>Polycom IP Phone</i>		
<i>PSTN Phone</i>		

ID	5.2
Name	Call Hold with Music on Hold case 1
Priority	
Description	Ensure Music-on-Hold (MOH) is enabled on the PBX. Verify successful hold and resume of connected call between User A and each terminating device shown in Table 5-2, column 1
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call Terminating device</p> <ul style="list-style-type: none"> • Ring Back tone at User A – Terminating device ringing + CLIP <p>Step 3: Terminating device Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: From Terminating device, place User A on hold</p> <ul style="list-style-type: none"> • No voice path between the Terminating device and User A • Verify that Terminating device gets dial tone, and User A gets Music-on-Hold • Verify that the SDP in the send re-INVITE from Terminating device has an a-line containing either sendonly or inactive • Verify that the SDP in the received 200 OK to Terminating device has an a-line containing either recvonly or inactive <p>Step 5: From Terminating Device, resume the held call</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 6: From User A, place Terminating device on hold</p> <ul style="list-style-type: none"> • No voice path between the Terminating device and User A • Verify that User A gets dial tone, and Terminating device gets Music-on-Hold • Verify that the SDP in the send re-INVITE from User A has an a-line containing either sendonly or inactive • Verify that the SDP in the received 200 OK to User A has an a-line containing either recvonly or inactive <p>Step 7: From User A, resume the held call</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 8: Repeat the Hold/Retrieve process from User A and Terminating device</p> <p>Step 9: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and Terminating device
Notes	Log results into Table 5-2

	Document type: To be maintained.	Doc. no: XXXX XXXX-PA	Author/Released by: gak/---
	Document name: SIP TestPlan	Doc ed: 0p01	Date: 2009-05-29 Page of pages: 28 of 55

ID	5.3
Name	Call Hold with Music on Hold case 2
Priority	
Description	Ensure Music-on-Hold (MOH) is enabled on the PBX. Verify successful hold and resume of connected call between each Originating device shown in Table 5-2, column 1 and User A
Test steps	<p>Step 1: Originating device Off Hook</p> <ul style="list-style-type: none"> • Originating device hears Dial Tone <p>Step 2: Call User A</p> <ul style="list-style-type: none"> • Ring Back tone at Originating device – User A ringing + CLIP <p>Step 3: User A Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: From User A, place Originating device on hold</p> <ul style="list-style-type: none"> • No voice path between the Originating device and User A • Verify that User A gets dial tone, and Originating device gets Music-on-Hold • Verify that the SDP in the send re-INVITE from User A has an a-line containing either sendonly or inactive • Verify that the SDP in the received 200 OK to User A has an a-line containing either recvnly or inactive <p>Step 5: From User A, resume the held call</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 6: From Originating device, place User A on hold</p> <ul style="list-style-type: none"> • No voice path between the Originating device and User A • Verify that Originating device gets dial tone, and User A gets Music-on-Hold • Verify that the SDP in the send re-INVITE from Originating device has an a-line containing either sendonly or inactive • Verify that the SDP in the received 200 OK to Originating device has an a-line containing either recvnly or inactive <p>Step 7: From Originating device, resume the held call</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 6: Repeat the Hold/Retrieve process from User A and Originating device</p> <p>Step 7: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and Originating device
Notes	Log results into Table 5-2

Table 5-2: Results from Test Steps 5.2 & 5.3

Originating / Terminating Device	Test Step 5.2	Test Step 5.3
<i>Kirk DECT handset</i>		
<i>Polycom IP Phone</i>		
<i>PSTN Phone</i>		

6. Call Transfer

A) Call Transfer Blind

ID	6.0
Name	Call Transfer Blind case 1
Priority	
Description	Originate a call from User A to User B. Answer the call. From the User B blind transfer the call to User C by selecting the hold button (R button) on the handset.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none">• User A hears Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none">• Ring Back tone at User A – User B ringing +CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none">• Audio Rx/Tx <p>Step 4: From User B, place User A on hold</p> <ul style="list-style-type: none">• User B gets dial tone + User A is on Hold <p>Step 5: User B dials User C and Hangs Up immediately after</p> <ul style="list-style-type: none">• User C is ringing + CLIP from User A <p>Step 6: User C Off Hook</p> <ul style="list-style-type: none">• Audio Rx/Tx• Verify that either the transferor (User B) or transferee (User A) sends a BYE request to terminate dialog (between User A and User B).• Verify that the Refer_to Header in the REFER request has no Replaces parameter. <p>Step 7: Release the call between User A and User C</p> <ul style="list-style-type: none">• Verify that either the transferee or the Transfer target (User C) sends a BYE request to terminate dialog (between User A and User C)
Result	
Notes	

ID	6.1
Name	Call Transfer Blind to busy user
Priority	
Description	User C is in conversation with User D. Originate a call from User A to User B. Answer the call. From the User B blind transfer the call to User C by selecting the hold button (R button) on the handset
Test steps	<p>Step 1: Initiate a conversation between User C and User D</p> <p>Step 2: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 3: Call User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing +CLIP <p>Step 4: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 5: From User B, place User A on hold</p> <ul style="list-style-type: none"> • User B gets dial tone + User A is on Hold <p>Step 6: User B dials User C and Hangs Up immediately after</p> <ul style="list-style-type: none"> • User A get busy tone • Verify that either the transferor (User B) or transferee (User A) sends a bye request from the transferee. • If proxy: Verify that either the transferor or transferee sends a BYE request from the transferee.
Result	
Notes	


ID	6.2
Name	Call Transfer Blind to unknown number
Priority	
Description	Originate a call from User A to User B. Answer the call. From the User B blind transfer the call to an unknown number by pressing the hold button (R button) from the handset.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing +CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: From User B, place User A on hold</p> <ul style="list-style-type: none"> • User B gets dial tone + User A is on Hold <p>Step 5: User B dials an unknown number and Hangs Up immediately after</p> <ul style="list-style-type: none"> • User A get error tone • Verify that either the transferor (User B) or transferee (User A) sends a bye request to terminate the dialog (between User A and User B).
Result	
Notes	

ID	6.3
Name	Call Transfer Blind case 2
Priority	
Description	Originate a call from User A to User X. Answer the call. From the User X blind transfer the call to User C
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A hears Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> Ring Back tone at User A – User X ringing +CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: From User X, place User A on hold</p> <ul style="list-style-type: none"> User X gets dial tone + User A is on Hold <p>Step 5: User X dials User C number and Hangs Up immediately after</p> <ul style="list-style-type: none"> User C is ringing + CLIP from User A <p>Step 6: User C Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 7: Release the call between User A and User C</p> <ul style="list-style-type: none"> Call released successfully
Result	
Notes	

ID	6.4
Name	Call Transfer Blind case 3
Priority	
Description	Originate a call from User A to User X. Answer the call. From the User X blind transfer the call to User Y
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A hears Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> Ring Back tone at User A – User X ringing +CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: From User X, place User A on hold</p> <ul style="list-style-type: none"> User X gets dial tone + User A is on Hold <p>Step 5: User X dials User Y number and Hangs Up immediately after</p> <ul style="list-style-type: none"> User Y is ringing + CLIP from User A <p>Step 6: User Y Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 7: Release the call between User Y and User C</p> <ul style="list-style-type: none"> Call terminated successfully
Result	
Notes	

B) Call Transfer Attended

ID	6.5
Name	Call Transfer Attended case 1
Priority	
Description	Originate a call from User A to User B. Answer the call. Place a second call from User B to User C. Answer the call. From User B, toggle between User A and User C, than hang up to complete the transfer
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A hears Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> Ring Back tone at User A – User B Ringing + CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> Audio Rx/TX <p>Step 4: From User B, place User A on hold</p> <ul style="list-style-type: none"> User B gets Dial Tone + User A is on hold <p>Step 5: Call User C</p> <ul style="list-style-type: none"> User C Ringing + CLIP from User B <p>Step 6: User C Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx between User B and User C <p>Step 7: Toggle between User A and User C</p> <ul style="list-style-type: none"> Audio Rx/Tx between User B and User A <p>Step 8: Toggle between User A and User C</p> <ul style="list-style-type: none"> Audio Rx/Tx between User B and User C <p>Step 9: User B On Hook (call transfer)</p> <ul style="list-style-type: none"> Audio Rx/Tx between User A and User C+ User C CLIP from User A <p>Step 10: Release the call between User A and User C</p> <ul style="list-style-type: none"> Call terminated successfully
Result	
Notes	

	Document type:	To be maintained.	Doc. no:	Author/Released by:
	Generic Interop Test Plan		XXXX XXXX-PA	gak/---
	Document name:	SIP TestPlan	Doc ed:	Date:
			0p01	2009-05-29
				Page of pages:
				33 of 55

	6.6
Name	Call Transfer Attended case 2
Priority	
Description	Originate a call from User A to User B. Answer the call. Place a second call from User B to User C. Answer the call. From User B, transfer User A to User C
Test steps	<p>Step 1: User A of Hook</p> <ul style="list-style-type: none"> User A hears Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> Ring Back tone at User A – User B ringing +CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: From User B, place User A on hold</p> <ul style="list-style-type: none"> User B gets Dial Tone + User A is on Hold <p>Step 5: Call User C</p> <ul style="list-style-type: none"> Ring Back tone at User B – User C ringing +CLIP from User B <p>Step 6: User C Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 7: User B On Hook (call transfer)</p> <ul style="list-style-type: none"> Audio Rx/Tx + User C CLIP from User A <p>Step 8: User A On Hook</p> <ul style="list-style-type: none"> Call released successfully <p>Step 9: Check signalling for Transferor (User B)</p> <ul style="list-style-type: none"> Verify that the transferor (User B) sends a REFER request with a correct Replaces parameter in the Refer-To header. Verify that the Refer-To header in the REFER request has a correct destination URI. Verify that the call between transferor (User B) and transferee (User A) is correctly terminated – BYE. Verify that the call between transferor (User B) and transfer target (User C) is correctly terminated – BYE <p>Step 10: Check signalling for transferee (User A)</p> <ul style="list-style-type: none"> If Proxy: Verify that the transferee receives a REFER request with a correct Replaces parameter in the Refer-To header. If Proxy: Verify that the Refer-To header in the REFER request has a correct destination URI. If Proxy: Verify that the call between transferor and transferee is correctly terminated – BYE. If Proxy: Verify that the INVITE send from transferee to transfer target has a correct Replaces header. If Proxy: Verify that the INVITE send from transferee to transfer target has a correct Referred-By header. <p>Step 11: Check signalling for Transfer Target (User C)</p> <ul style="list-style-type: none"> If Proxy: Verify that the call between transferor and transfer target is terminated correctly – BYE. If Proxy: Verify that the INVITE send from transferee to transfer target has a correct Replaces header. If Proxy: Verify that the INVITE send from transferee to transfer target has a correct Referred-By header.
Result	
Notes	

ID	6.7
Name	Call Transfer Attended to busy user
Priority	
Description	User C is in conversation with User D. Originate a call from User A to User B. Answer the call. From the User B transfer the call to User C by selecting the hold button (R button) on the handset
Test steps	<p>Step 1: Initiate a conversation between User C and User D</p> <p>Step 2: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 3: Call User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing +CLIP <p>Step 4: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 5: From User B, place User A on hold</p> <ul style="list-style-type: none"> • User B gets dial tone + User A is on Hold <p>Step 6: User B dials User C</p> <ul style="list-style-type: none"> • User B get busy tone <p>Step 7: User B resume the call with User A</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User A and User B <p>Step 8: Release the call between User A and User B</p> <ul style="list-style-type: none"> • Call terminated successfully
Result	
Notes	

ID	6.8
Name	Call Transfer Attended to unknown number
Priority	
Description	Originate a call from User A to User B. Answer the call. From the User B transfer the call to an unknown number by pressing the hold button (R button).
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B ringing +CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: From User B, place User A on hold</p> <ul style="list-style-type: none"> • User B gets dial tone + User A is on Hold <p>Step 5: User B dials an unknown number and Hangs Up immediately after</p> <ul style="list-style-type: none"> • User B get error tone <p>Step 6: User B resume the call with User A</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User A and User B <p>Step 7: Release the call between User A and User B</p> <ul style="list-style-type: none"> • Call terminated successfully
Result	
Notes	


ID	6.9
Name	Call Transfer Attended case 3
Priority	
Description	Originate a call from User A to User X. Answer the call. From the User X transfer the call to User C
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: From User X, place User A on Hold</p> <ul style="list-style-type: none"> • User X gets Dial Tone + User A is on Hold <p>Step 5: User X dials User C</p> <ul style="list-style-type: none"> • User C Ringing + CLIP from User X <p>Step 6: User C Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User X and User C <p>Step 7: User X On Hook (call transfer)</p> <ul style="list-style-type: none"> • User C CLIP from User A + Audio Rx/Tx <p>Step 8: Release the call between User A and User C</p> <ul style="list-style-type: none"> • Call terminated successfully
Result	
Notes	

ID	6.10
Name	Call Transfer Attended case 4
Priority	
Description	Originate a call from User A to User X. Answer the call. From the User X transfer the call to User Y
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: From User X, place User A on Hold</p> <ul style="list-style-type: none"> • User X gets Dial Tone + User A is on Hold <p>Step 5: User X dials User Y</p> <ul style="list-style-type: none"> • User Y Ringing + CLIP from User X <p>Step 6: User Y Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User X and User Y <p>Step 7: User X On Hook (call transfer)</p> <ul style="list-style-type: none"> • User Y CLIP from User A + Audio Rx/Tx <p>Step 8: Release the call between User A and User Y</p> <ul style="list-style-type: none"> • Call terminated successfully
Result	
Notes	

C) Call Transfer Semi – Attended

ID	6.11
Name	Call Transfer Semi-Attended case 1
Priority	
Description	Originate a call from User A to User X. Answer the call. From the User X transfer the call to User C
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A hears Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: From User X, place User A on Hold</p> <ul style="list-style-type: none"> User X gets Dial Tone + User A is on Hold <p>Step 5: User X dials User C</p> <ul style="list-style-type: none"> User C Ringing + CLIP from User X <p>Step 6: User X On Hook (call transfer)</p> <ul style="list-style-type: none"> User C still ringing <p>Step 7: User C Off Hook</p> <ul style="list-style-type: none"> User C CLIP from User A + Audio Rx/Tx <p>Step 8 : Release the call between User A and User C</p> <ul style="list-style-type: none"> Call terminated successfully
Result	
Notes	

ID	6.12
Name	Call Transfer Semi-Attended case 2
Priority	
Description	Originate a call from User A to User X. Answer the call. From the User X transfer the call to User Y
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A hears Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: From User X, place User A on Hold</p> <ul style="list-style-type: none"> User X gets Dial Tone + User A is on Hold <p>Step 5: User X dials User Y</p> <ul style="list-style-type: none"> User Y Ringing + CLIP from User X <p>Step 6: User X On Hook (call transfer)</p> <ul style="list-style-type: none"> User Y still ringing <p>Step 7: User Y Off Hook</p> <ul style="list-style-type: none"> User Y CLIP from User A + Audio Rx/Tx <p>Step 8 : Release the call between User A and User Y</p> <ul style="list-style-type: none"> Call terminated successfully
Result	
Notes	


	Document type:	To be maintained.	Doc. no:	XXXX XXXX-PA		Author/Released by:	gak/---
	Document name:	SIP TestPlan	Doc ed:	Date:	0p01	2009-05-29	Page of pages:

ID	6.13
Name	Call Transfer Semi-Attended case 3
Priority	
Description	Originate a call from User A to User B. Answer the call. Place a second call from User B to User C and hang up before answer.
Test steps	<p>Step 1: User A of Hook</p> <ul style="list-style-type: none"> User A hears Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> Ring Back tone at User A – User B ringing +CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: From User B, place User A on hold</p> <ul style="list-style-type: none"> User B gets Dial Tone + User A is on Hold <p>Step 5: User B dials User C</p> <ul style="list-style-type: none"> Ring Back tone at User B – User C ringing +CLIP from User B <p>Step 6: User B On Hook (call transfer)</p> <ul style="list-style-type: none"> User C still ringing <p>Step 7: User C Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx + User C CLIP from User A <p>Step 8: Release the call between User A and User C</p> <ul style="list-style-type: none"> Call terminated successfully <p>Step 9: Check signalling for Transferor (User B)</p> <ul style="list-style-type: none"> Verify that the REFER request from transferor (User B) is sent after 200 Ok is received from transfer target (User C) Verify that the transferor (User B) sends a REFER request with a correct Replaces parameter in the Refer-To header Verify that the Refer-To header in the REFER request has a correct destination URI. Verify that the call between transferor (User B) and transferee (User A) is correctly terminated – BYE. Verify that the call between transferor (User B) and transfer target (User C) is correctly terminated – BYE. <p>Step 10: Check signalling for Transferee (User A)</p> <ul style="list-style-type: none"> If Proxy: Verify that the REFER request from transferor is not received before transferee sends 200 Ok. If Proxy: Verify that the transferee receives a REFER request with a correct Replaces parameter in the Refer-To header. If Proxy: Verify that the Refer-To header in the REFER request has a correct destination URI If Proxy: Verify that the call between transferor and transferee is correctly terminated – BYE. If Proxy: Verify that the INVITE send from transferee to transfer target has a correct Replaces header. If Proxy: Verify that the INVITE send from transferee to transfer target has a correct Referred-By header <p>Step 11: Check signalling for Transfer Target (User C)</p> <ul style="list-style-type: none"> If Proxy: Verify that the call between transferor and transfer target is terminated correctly – BYE. If Proxy: Verify that the INVITE send from transferee to transfer target has a correct Replaces header If Proxy: Verify that the INVITE send from transferee to transfer target has a correct Referred-By header
Result	

7. DTMF


ID	7.0
Name	DTMF Transmission case 1
Priority	
Description	Enable DTMF through RTP (and disable DTMF through SIP INFO, to avoid double signaling)
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A gets Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: Press digit 0-9 and *, # from User A</p> <ul style="list-style-type: none"> Verify that the pressed digits are sent <p>Step 5: Press digit 0-9 and *, # from User X</p> <ul style="list-style-type: none"> Verify that the pressed digits are received <p>Step 6: Verify that the SDP offer has these lines where XX is a number: m=audio xxxxx RTP/AVP ZZ XX a=rtpmap:XX telephone-event/8000</p> <p>Step 7: Verify that the SDP answer has these lines where XX is the same number as above: m=audio xxxxx RTP/AVP ZZ XX a=rtpmap:XX telephone-event/8000</p> <p>Step 8: : Release the call between User A and User X</p> <ul style="list-style-type: none"> Call terminated successfully
Result	
Notes	

ID	7.1
Name	DTMF Transmission case 2
Priority	
Description	Enable DTMF with SIP INFO (and disable DTMF with RTP, to avoid double signaling)
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A gets Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: Press digit 0-9 and *, # from User A</p> <ul style="list-style-type: none"> Verify that the pressed digits are sent <p>Step 5: Press digit 0-9 and *, # from User X</p> <ul style="list-style-type: none"> Verify that the pressed digits are received <p>Step 6: Verify that the digits are sent in INFO requests and not RTP.</p> <p>Step 7: : Release the call between User A and User X</p> <ul style="list-style-type: none"> Call terminated successfully
Result	
Notes	

	Document type: To be maintained.	Doc. no: XXXX XXXX-PA	Author/Released by: gak/---
	Document name: SIP TestPlan	Doc ed: 0p01	Date: 2009-05-29
			Page of pages: 39 of 55

8. Message Waiting Indication (MWI)– Voice mail

ID	8.0
Name	MWI case 1
Priority	
Description	Enable Voice Mail at the PBX. Make a call from User A to User B and don't answer. The call should be redirected to voice mail.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A gets Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B Ringing + CLIP <p>Step 3: User B does not answer the call and User A is eventually transferred to voice mail and hears a No Answer greeting</p> <ul style="list-style-type: none"> • User B stops ringing <p>Step 4: User A leaves a short message</p> <ul style="list-style-type: none"> • User A hears an announcement indicating that the message was sent <p>Step 4: User A On Hook</p> <ul style="list-style-type: none"> • Call released • Envelope Icon is turned on for User B • Verify that a NOTIFY request is received with voicemail status. <p>Step 5: User B call the voice mail number</p> <ul style="list-style-type: none"> • User B follows the IVR instructions to retrieve and delete all voice messages <p>Step 6: User B On Hook</p> <ul style="list-style-type: none"> • Call is released • Envelope Icon is turned off for User B • Verify that a NOTIFY request is received with voicemail status
Result	
Notes	

	Document type: To be maintained.	Doc. no: XXXX XXXX-PA	Author/Released by: gak/---
	Document name: SIP TestPlan	Doc ed: 0p01	Date: 2009-05-29
			Page of pages: 40 of 55

ID	8.1
Name	MWI case 2
Priority	
Description	Enable Voice Mail at the PBX. Make a call from User A to User X and don't answer. The call should be redirected to voice mail.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A gets Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X does not answer the call and User A is eventually transferred to voice mail and hears a No Answer greeting</p> <ul style="list-style-type: none"> • User X stops ringing <p>Step 4: User A leaves a short message</p> <ul style="list-style-type: none"> • User A hears an announcement indicating that the message was sent <p>Step 4: User A On Hook</p> <ul style="list-style-type: none"> • Call released • Envelope Icon is turned on for User X • Verify that a NOTIFY request is received with voicemail status. <p>Step 5: User X call the voice mail number</p> <ul style="list-style-type: none"> • User X follows the IVR instructions to retrieve and delete all voice messages <p>Step 6: User X On Hook</p> <ul style="list-style-type: none"> • Call is released • Envelope Icon is turned off for User X • Verify that a NOTIFY request is received with voicemail status
Result	
Notes	

ID	8.2
Name	MWI case 3
Priority	
Description	Enable Voice Mail at the PBX. Make a call from User X to User A and don't answer. The call should be redirected to voice mail.
Test steps	<p>Step 1: User X Off Hook</p> <ul style="list-style-type: none"> • User X gets Dial Tone <p>Step 2: Call User A</p> <ul style="list-style-type: none"> • Ring Back tone at User X – User A Ringing + CLIP <p>Step 3: User A does not answer the call and User X is eventually transferred to voice mail and hears a No Answer greeting</p> <ul style="list-style-type: none"> • User A stops ringing <p>Step 4: User X leaves a short message</p> <ul style="list-style-type: none"> • User X hears an announcement indicating that the message was sent <p>Step 4: User X On Hook</p> <ul style="list-style-type: none"> • Call released • Envelope Icon is turned on for User A • Verify that a NOTIFY request is received with voicemail status. <p>Step 5: User A call the voice mail number</p> <ul style="list-style-type: none"> • User A follows the IVR instructions to retrieve and delete all voice messages <p>Step 6: User A On Hook</p> <ul style="list-style-type: none"> • Call is released • Envelope Icon is turned off for User A • Verify that a NOTIFY request is received with voicemail status
Result	
Notes	

9. Early Media and 100rel (PRACK)

ID	9.0
Name	Outgoing call with Early Media
Priority	
Description	Early media is typically used by the PBX to play the ring back tone. It is either sent unreliable or reliable using the 100rel SIP extension
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A gets dial tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> Ring Back tone at User A – User B Ringing + CLIP Verify that ring back tone is generated by the PBX and not the PP Verify that SDP is received in 180 Ringing or 183 Session Progress. Verify that RTP is received before the other party answers the call <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: User A On Hook</p> <ul style="list-style-type: none"> Call released at User A and User B
Result	
Notes	

ID	9.1
Name	Outgoing call with Early Media and 100rel Extension
Priority	
Description	Early media is typically used by the PBX to play the ring back tone. It is either sent unreliable or reliable using the 100rel SIP extension. For this test ensure reliable provisional response (100rel) is enabled on the PBX
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A gets dial tone <p>Step 2: Call User V</p> <ul style="list-style-type: none"> Ring Back tone at User A – User V Ringing + CLIP Verify that the Supported header of the outgoing INVITE contains 100rel Verify that the Require header of received 180 Ringing or 183 Session Progress contains 100rel. Verify that a PRACK request is send and 200 Ok is received for the PRACK. <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx <p>Step 4: User A On Hook</p> <ul style="list-style-type: none"> Call released at User A and User B
Result	
Notes	

10. CODEC Negotiation

A) G.711 u-law, a-law

ID	10.0
Name	Codec Support – common case 1
Priority	
Description	Enable only G.711 u-law on KWS
Test steps	Step 1: User A Off Hook <ul style="list-style-type: none"> User A gets Dial Tone Step 2: Call User B <ul style="list-style-type: none"> Ring Back tone at User A – User B Ringing + CLIP Step 3: User B Off Hook <ul style="list-style-type: none"> Audio Rx/Tx Verify quality and delay Step 4: User B On Hook <ul style="list-style-type: none"> Call released at User A and User B
Result	
Notes	

ID	10.1
Name	Codec Support – common case 2
Priority	
Description	Enable only G.711 a-law on KWS
Test steps	Step 1: User A Off Hook <ul style="list-style-type: none"> User A gets Dial Tone Step 2: Call User B <ul style="list-style-type: none"> Ring Back tone at User A – User B Ringing + CLIP Step 3: User B Off Hook <ul style="list-style-type: none"> Audio Rx/Tx Verify quality and delay Step 4: User B On Hook <ul style="list-style-type: none"> Call released at User A and User B
Result	
Notes	

ID	10.2
Name	Codec Support - negotiated
Priority	
Description	Verify successful negotiation between devices configured with different default CODECs. Enable only G.711 u-law on User X device. Enable only G.711 a-law on User V device. Enable only G711 u-law and G.711 a-law on KWS
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A gets Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User A and User X • Verify quality and delay <p>Step 4: User A puts User X on hold (press R button)</p> <ul style="list-style-type: none"> • Dial Tone at User A + User X on hold <p>Step 5: User A calls User V</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User V Ringing + CLIP <p>Step 6: User V Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User A and User V • Verify quality and delay <p>Step 7: User A press R button</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User A and User X • Verify quality and delay <p>Step 8: User A press R button</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User A and User V • Verify quality and delay <p>Step 9: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A, User V and User X
Result	
Notes	

ID	10.3
Name	Codec Support – common case 3
Priority	
Description	Enable only G.711 u-law with 10 ms on User A and 10 ms on User X
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A gets Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx • Verify quality and delay • Verify in RTP that payload is 10 ms <p>Step 4: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User X
Result	
Notes	


ID	10.4
Name	Codec Support – common case 4
Priority	
Description	Enable only G.711 u-law with 20 ms on User A and 20 ms on User X
Test steps	Step 1: User A Off Hook <ul style="list-style-type: none"> • User A gets Dial Tone Step 2: Call User X <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP Step 3: User X Off Hook <ul style="list-style-type: none"> • Audio Rx/Tx • Verify quality and delay • Verify in RTP that payload is 20 ms Step 4: User A On Hook <ul style="list-style-type: none"> • Call released at User A and User X
Result	
Notes	

ID	10.5
Name	Codec Support – common case 5
Priority	
Description	Enable only G.711 u-law with 30 ms on User A and 30 ms on User X
Test steps	Step 1: User A Off Hook <ul style="list-style-type: none"> • User A gets Dial Tone Step 2: Call User X <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP Step 3: User X Off Hook <ul style="list-style-type: none"> • Audio Rx/Tx • Verify quality and delay • Verify in RTP that payload is 30 ms Step 4: User A On Hook <ul style="list-style-type: none"> • Call released at User A and User X
Result	
Notes	

B) G.729

ID	10.6
Name	Codec Support – common case 1
Priority	
Description	Enable only G.729 on KWS
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A gets Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> Ring Back tone at User A – User B Ringing + CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx Verify quality and delay <p>Step 4: User B On Hook</p> <ul style="list-style-type: none"> Call released at User A and User B
Result	
Notes	

ID	10.7
Name	Codec Support - negotiated
Priority	
Description	Verify successful negotiation between devices configured with different default CODECs. Enable only G.711 u-law on User X device. Enable only G.729 on User V device. Enable only G711 u-law and G.729 on KWS
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> User A gets Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx between User A and User X (u-law) Verify quality and delay <p>Step 4: User A puts User X on hold (press R button)</p> <ul style="list-style-type: none"> Dial Tone at User A + User X on hold <p>Step 5: User A calls User V</p> <ul style="list-style-type: none"> Ring Back tone at User A – User V Ringing + CLIP <p>Step 6: User V Off Hook</p> <ul style="list-style-type: none"> Audio Rx/Tx between User A and User V (G729) Verify quality and delay <p>Step 7: User A press R button</p> <ul style="list-style-type: none"> Audio Rx/Tx between User A and User X (u-law) Verify quality and delay <p>Step 8: User A press R button</p> <ul style="list-style-type: none"> Audio Rx/Tx between User A and User V (G.729) Verify quality and delay <p>Step 9: User A On Hook</p> <p>Call released at User A, User V and User X</p>
Result	
Notes	

	Document type:	To be maintained.	Doc. no:	Author/Released by:
	Generic Interop Test Plan		XXXX XXXX-PA	gak/---
	Document name:		Doc ed:	Date:
	SIP TestPlan		0p01	2009-05-29
				Page of pages:
				47 of 55

ID	10.8
Name	Codec Support – common case 2
Priority	
Description	Enable only G.729 with 10 ms on User A and 10 ms on User X
Test steps	Step 1: User A Off Hook <ul style="list-style-type: none"> • User A gets Dial Tone Step 2: Call User X <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP Step 3: User X Off Hook <ul style="list-style-type: none"> • Audio Rx/Tx • Verify quality and delay • Verify in RTP that payload is 10 ms Step 4: User A On Hook <ul style="list-style-type: none"> • Call released at User A and User X
Result	
Notes	

ID	10.9
Name	Codec Support – common case 3
Priority	
Description	Enable only G.729 with 20 ms on User A and 20 ms on User X
Test steps	Step 1: User A Off Hook <ul style="list-style-type: none"> • User A gets Dial Tone Step 2: Call User X <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP Step 3: User X Off Hook <ul style="list-style-type: none"> • Audio Rx/Tx • Verify quality and delay • Verify in RTP that payload is 20 ms Step 4: User A On Hook <ul style="list-style-type: none"> • Call released at User A and User X
Result	
Notes	

ID	10.10
Name	Codec Support – common case 4
Priority	
Description	Enable only G.729 with 30 ms on User A and 30 ms on User X
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A gets Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X Ringing + CLIP <p>Step 3: User X Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx • Verify quality and delay • Verify in RTP that payload is 30 ms <p>Step 4: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User X
Result	
Notes	

11. Instant Messaging

ID	11.0
Name	Instant Messaging
Priority	
Description	Verifies successful receive of SIP Messages
Test steps	Step 1: Send a SIP message to User A <ul style="list-style-type: none">• Verify that the message is displayed on the PP.• Verify that national letters like æøå are handled correctly
Result	
Notes	

12. Forking


ID	12.0
Name	Forking case 1
Priority	
Description	Forking is when a proxy receives an INVITE and relays it to more user agents. This is only relevant for proxies and not for B2BUAs. Register two phones X1 and X2 under the same extension
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A gets Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X1 and User X2 Ringing + CLIP • Verify that a 180 Ringing response is received from User X1 and User X2. <p>Step 3: Off Hook the User X? from where the first 180 Ringing response is received</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User X? • Verify that a BYE request is send to User X?
Result	
Notes	

ID	12.1
Name	Forking case 2
Priority	
Description	Forking is when a proxy receives an INVITE and relays it to more user agents. This is only relevant for proxies and not for B2BUAs. Register two phones X1 and X2 under the same extension
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A gets Dial Tone <p>Step 2: Call User X</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User X1 and User X2 Ringing + CLIP • Verify that a 180 Ringing response is received from User X1 and User X2. <p>Step 3: Off Hook the User X? from where the last 180 Ringing response is received</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: User A On Hook</p> <ul style="list-style-type: none"> • Call released at User A and User X? • Verify that a BYE request is send to User X?
Result	
Notes	

13. DNS SRV

ID	13.0
Name	DNS SRV lookup
Priority	
Description	Configure the KWS to use DNS SRV. Ensure that DNS SRV is enabled in the DN Server.
Test steps	<p>Step 1: Create a user and start the trace (filter on “sip or dns)</p> <p>Step 2: Restart the KWS</p> <ul style="list-style-type: none"> • Verify in the trace that a DNS SRV lookup is performed by the system for the address _sip._udp.domainname. • Verify in the trace that the result from the DNS SRV request is used correctly. (check Answers field + other fields to see that the one with priority1 is sent first) • Verify that the REGISTER request is send to the primary SIP server
Result	
Notes	

ID	13.1
Name	DNS SRV lookup (primary SIP server is OK)
Priority	
Description	Configure the KWS to use DNS SRV. Ensure that DNS SRV is enabled in the DN Server.
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B Ringing + CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx • Verify that the INVITE request is send to the primary SIP server.
Result	
Notes	

	Document type:	To be maintained.	Doc. no:	XXXX XXXX-PA		Author/Released by:	gak/---
	Document name:	SIP TestPlan	Doc ed:	Date:	0p01	2009-05-29	Page of pages:


ID	13.2
Name	DNS SRV lookup (primary SIP server is failing)
Priority	
Description	Configure the KWS to use DNS SRV. Ensure that DNS SRV is enabled in the DN Server. Configure the DNS with one primary and one secondary SIP Server
Test steps	<p>Step 1: Make sure that the primary server is failing</p> <p>Step 2: Create some users</p> <ul style="list-style-type: none"> • Verify that the registration is OK • Verify that the REGISTER request is send to the primary SIP server and retransmitted. • Verify that the REGISTER request finally is send to the secondary SIP server after some time. <p>Step 3: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 4: Call User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B Ringing + CLIP <p>Step 5: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx • Verify that the INVITE request is send to the primary SIP server and retransmitted • Verify that the INVITE request finally is send to the secondary SIP server after some time. <p>Step 6: User A On Hook</p> <ul style="list-style-type: none"> • Verify that the call is correctly terminated – a BYE request is first send and re-transmitted to the primary SIP server and then send to the secondary SIP server • Verify that the secondary SIP server sends 200 Ok in response to the BYE request
Result	
Notes	

ID	13.3
Name	Load Balancing
Priority	
Description	Configure the DNS with two primary SIP servers with weights
Test steps	<p>Step 1: Create a user and start the trace (filter on “sip or dns)</p> <p>Step 2: Restart the KWS</p> <ul style="list-style-type: none"> • Verify that registrations are distributed between the two SIP servers with regard to the weights.
Result	
Notes	

ID	13.4
Name	Fully Qualified Domain Name (FQDN) Contact
Priority	
Description	These test will verify that the system is able to handle Contact headers containing a FQDN
Test steps	<p>Step 1: User A Off Hook</p> <ul style="list-style-type: none"> • User A hears Dial Tone <p>Step 2: Call User B</p> <ul style="list-style-type: none"> • Ring Back tone at User A – User B Ringing + CLIP <p>Step 3: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx • Verify that the 200 Ok received in response for the INVITE request has Contact header containing a FQDN. • Verify that the request URI of the ACK is the FQDN received in the Contact header • Verify that the ACK request is sent to the FQDN. <p>Step 6: User A On Hook</p> <ul style="list-style-type: none"> • Verify that the call is correctly terminated • Verify that the request URI of the BYE is the FQDN received in the Contact header • Verify that the BYE request is sent to the FQDN
Result	
Notes	

14. Conferencing

ID	14.0
Name	Conference – ad hoc
Priority	
Description	Verify successful ad hoc conference of three parties
Test steps	<p>Step 1: User X Off Hook</p> <ul style="list-style-type: none"> • User X hears Dial Ton <p>Step 2: Call User A</p> <ul style="list-style-type: none"> • Ring Back tone at User X– User A Ringing + CLIP <p>Step 3: User A Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx <p>Step 4: User X puts User A on hold (press R button)</p> <ul style="list-style-type: none"> • User X hears Dial Tone + User A on hold <p>Step 5: User X dials User B number</p> <ul style="list-style-type: none"> • Ring Back tone at User X– User B Ringing + CLIP <p>Step 6: User B Off Hook</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User X and User B <p>Step 7: User X completes the conference (from the conference button on the device)</p> <ul style="list-style-type: none"> • Audio Rx/Tx between User A, User B and User X
Result	
Notes	

	Document type: Generic Interop Test Plan	To be maintained.	Doc. no: XXXX XXXX-PA	Author/Released by: gak/---
	Document name: SIP TestPlan	Doc ed: 0p01	Date: 2009-05-29	Page of pages: 55 of 55