



EXPERiUS Basic IOT Test Plan for SIP Clients

GENBAND Prime:

Email:

Phone:

Base Version:

Issue:

Date:

Vendor:

Product Under Test:

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3.0

1.5

January 10 2014

Yealink

T46G



GENBAND™

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Document History

Date	Base Version	Issue	GENBAND Prime	Remarks
September 18 2013	3.0	1.0	James Burnie	Initial Issue
October 29 2013	3.0	1.1	James Burnie	First update with Yealink results
December 19 2013	3.0	1.2	James Burnie	Updated SW release information and basic phone configuration per information supplied by Yealink
January 3 2014	3.0	1.3	James Burnie	Correction to A2 SW release reported in Record of Execution
January 9 2014	3.0	1.4	James Burnie	Final Issue candidate
January 10 2014	3.0	1.5	James Burnie	Final Issue



Document Navigation and Recording Results

- This document makes extensive use of links and link buttons for navigation and is best viewed using electronic media
- The Contents page provides links to all key subject matter in this document
- The Test Case Summary pages provide additional links to individual test case descriptions and status/results
- Link buttons appear at the RH bottom corner of most pages and have the following functions
- All test case data/results should be recorded by inserting comments in appropriate areas of the test plan, including Record of Execution, Test Case Summary and Test Results, for each test case using a PDF editor. GENBAND expects each IOT customer to return a copy of this document containing sufficient result information to enable preparation of a meaningful IOT Activity Report
- GENBAND will complete the IOT Activity Results Summary section once results have been returned



Return to most relevant higher level of links in context



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Scope

- This test plan defines a service focused set of test cases to verify basic interoperability between SIP Clients and GENBAND's EXPERiUS technology. It is intended to be used in conjunction with a customer-specific IOT information package
- All calls are originate and terminate using SIP Clients registered within the same EXPERiUS Application Server
- GENBAND Media Application Server (MAS) technology is used to support Conferencing, Announcements and Voice Mail functions
- The majority of test cases are oriented towards the SIP Client vendor/user and generally do not require GENBAND intervention for execution or result assessment beyond the initial IOT lab setup. However, for some test scenarios, testers may need, and should request, GENBAND assistance
- Client level service activation and control is achieved via SIP Client functionality and/or Vertical Service Codes
- Client DTMF capability is examined in the context of successful interaction with Voice Mail, MeetMe Conference and Last Call Return test cases
- The Client's ability to return a BUSY condition is examined in the context of the Call Forward Busy variant tests



IOT Activity Results Summary

Result Storage Location

All results for this activity, including this document, the EXPERiUS SIP Profile created for Yealink, plus the SIP traces provided by Yealink for individual test cases, are stored in GENBAND archives at <https://portal.genband.com/sites/Dev/SRL/SV/IOT%20SV/Docs/Projects/A2-SA/Yealink/Results>

GENBAND Comments

- Test results per sections [Record of Execution](#), [Test Case Summary](#) and [Test Results](#) were provided by Yealink
- During GENBAND's IOT activity results scrutiny process, an issue was noted with this phone in conjunction with the Ad Hoc conference feature in EXPERiUS SA. Note that this issue was only applicable to EXPERiUS SA and was resolved with Yealink FW release 28.71.186.101. The latter FW release was regressed in EXPERiUS SA per test cases A2IOT007, A2IOT011 and A2IOT012 and found to resolve the Ad Hoc issue with no identified impact on other functionality.
- QUANTiX release 8.1.2.0 was used throughout this activity

Test Execution Summary

Total TC	Pass	Fail	Not Executed	Issues	Remarks
25	22	0	3	1	<u>Issues</u> <ul style="list-style-type: none">• TC A2IOT011: Sessions for T46G terminals running Yealink FW release 28.71.186.2 failed to release from the EXPERiUS SA Ad Hoc Conference Server. The root cause was found to be that BYE messages from the terminals were not sent to the SIP Proxy destination (QUANTiX) for EXPERiUS SA Ad Hoc Conference scenarios. This issue was resolved with Yealink FW release 28.71.186.101. <u>Not Executed</u> <ul style="list-style-type: none">• TC A2IOT014: GENBAND lab issue prevented execution of this test case• TC A2IOT024: Yealink model under test does not support the stated test scenario• TC A2IOT025: Yealink model under test does not support the stated test scenario



Record of Execution

Test Case	Test Prime	Product Under Test (Model and Version)	Product SW/FW Release	EXPERiUS Release	Execution Complete Date
A2IOT001	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT002	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT003	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT004	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT005	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT006	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT007	ZhiGang Cai	SIP-T46G	28.71.186.2 28.71.186.101	10.1 10.2	Oct 28, 2013 Dec 1, 2013
A2IOT008	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT009	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013



Record of Execution

Test Case	Test Prime	Product Under Test (Model and Version)	Product SW/FW Release	EXPERiUS Release	Execution Complete Date
A2IOT010	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT011	ZhiGang Cai	SIP-T46G	28.71.186.2 28.71.186.101	10.1 10.2	Oct 28, 2013 Dec 1, 2013
A2IOT012	ZhiGang Cai	SIP-T46G	28.71.186.2 28.71.186.101	10.1 10.2	Oct 28, 2013 Dec 1, 2013
A2IOT013	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT014					Not Executed
A2IOT015	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT016	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT017	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT018	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013

Record of Execution

Test Case	Test Prime	Product Under Test (Model and Version)	Product SW/FW Release	EXPERiUS Release	Execution Complete Date
A2IOT019	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT020	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT021	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT022	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT023	ZhiGang Cai	SIP-T46G	28.71.186.2	10.1	Oct 28, 2013
A2IOT024					Not Executed
A2IOT025					Not Executed



EXPERiUS IOT Lab Configuration for Basic SIP Client Interoperability tests

Characteristics

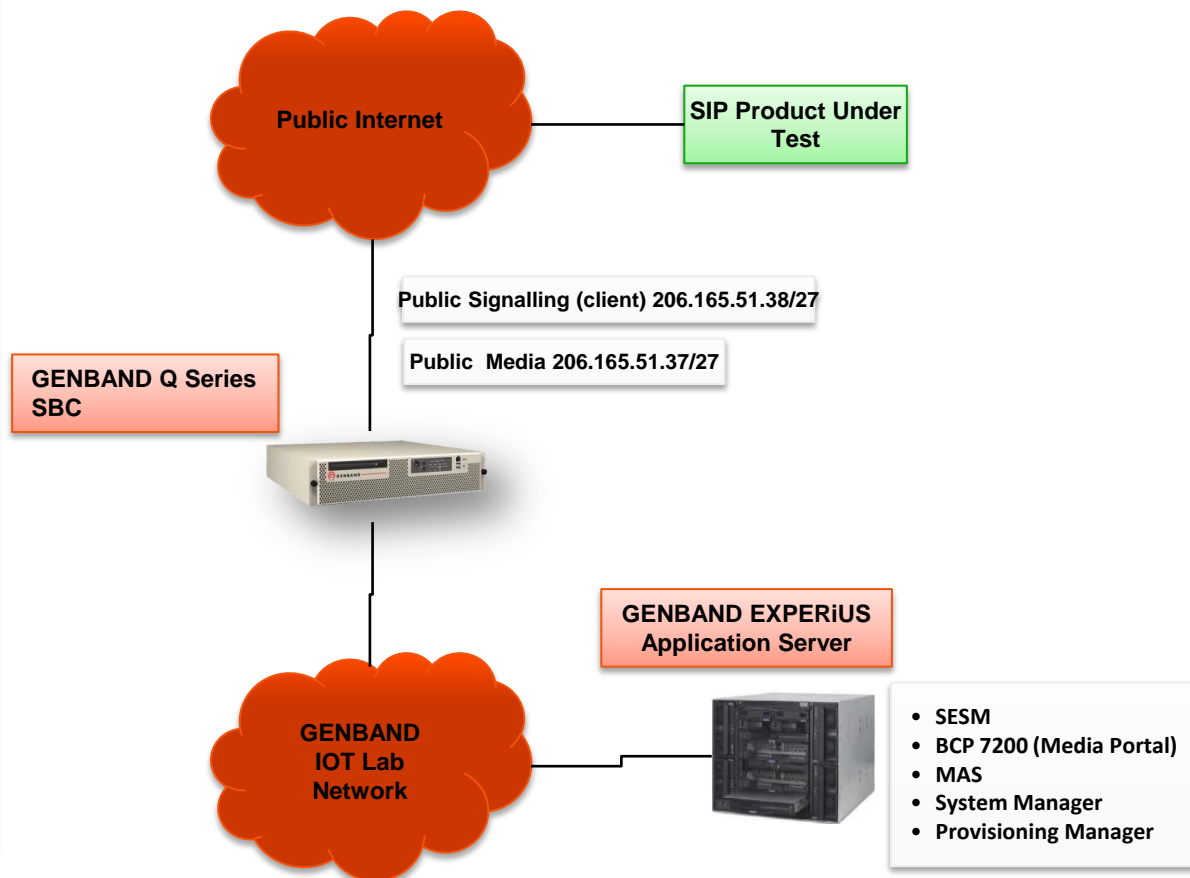
- All switched connections are managed by the EXPERiUS Application Server
- SIP Clients under test are registered in same domain

Available Services

- Ad Hoc Conferencing
- MeetMe Conferencing
- Anonymous Call Rejection
- Call Forwarding
- Network Call Waiting
- Calling Line Identification Restriction
- Do Not Disturb
- Last Call Return
- Voice Mail

Configuration Details

- [Configuration Information for Product Under Test](#)
- [SIP Profile](#)
- [SIP Authorized Methods](#)



Configuring the T46G Phone

1. Reset Phone to Factory Defaults:

- In the phone screen, press menu->settings->advanced settings->input "admin" as default password->Reset to factory.

2. Connect to Phone's WEB Interface

- Determine IP address of phone by pressing the "OK" button once the Factory Reset/Restart is complete
- Input Phone's IP address to WEB Browser.
- Login with userid=admin and password=admin (factory defaults)

3. Configure the SIP account:

- In Account->Basic , input your SIP account information then press Confirm. Verify that the account status is Registered.

4. Configure Conferencing and Message Waiting:

- Account->Advanced->Conference Type: Network
- Account->Advanced->Conference URI: Conference
- Account->Advanced->Subscription for MWI: Enable



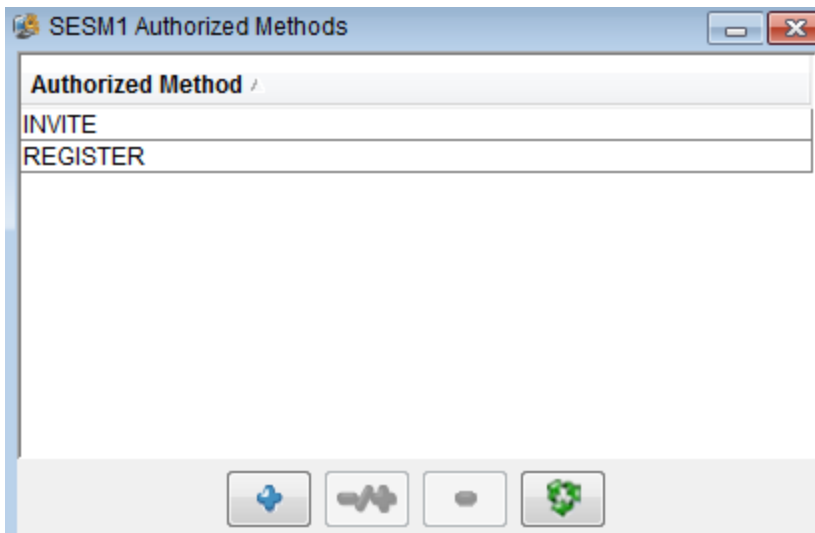
SIP Profile

- SIP Profiles are used to facilitate interoperability between various SIP clients and GENBAND Application Server
- The SIP Profile name is derived from the User Agent information contained in the client's SIP invite
- GENBAND will create a unique SIP Profile for each vendor's client as part of the initial provisioning for a given IOT activity based on system defaults.
- Changes to initial values will be made as required during the IOT activity to accommodate specific client needs
- The final SIP profile used for a given client will be captured and stored with the IOT activity results



SIP Authorized Methods

- REGISTER and INVITE requests will be challenged for Authentication Credentials



SIP Registration

- REGISTRATION requests from SIP clients will be challenged by EXPERiUS; SIP clients must respond accordingly based on GENBAND supplied authentication credentials
- Authentication challenges will be conveyed to the SIP clients in “407 authentication required” response messages
- Registration success indications will be returned to the SIP clients as “200 OK” response messages



Vertical Service Code Summary

Functionality	Vertical Service Code
Ad_Hoc_Conferencing_Disable	*61
Ad_Hoc_Conferencing_Enable	*60
Anonymous_Call_Rejection_Disable	*83
Anonymous_Call_Rejection_Enable	*82
Call_Forward_All_Disable	*71
Call_Forward_Conditional_Disable	*75
Call_Forward_Conditional_Enable	*74
Call_Forward_Immediate_Disable	*73
Call_Forward_Immediate_Enable	*72
Call_Forward_To_Voicemail_Disable	*77
Call_Forward_To_Voicemail_Enable	*76
Call_Forward_Variants_Busy_Disable	*94
Call_Forward_Variants_Busy_Enable	*93
Call_Forward_Variants_No_Answer_Disable	*96
Call_Forward_Variants_No_Answer_Enable	*95
Call_Return_CLI_Erase	*90
Call_Return_CLI_Notification	*91
Call_Return_Disable	*89
Call_Return_Enable	*88
Call_Return_Immediate	*92
Calling_Line_ID_Restriction_Disable	*81



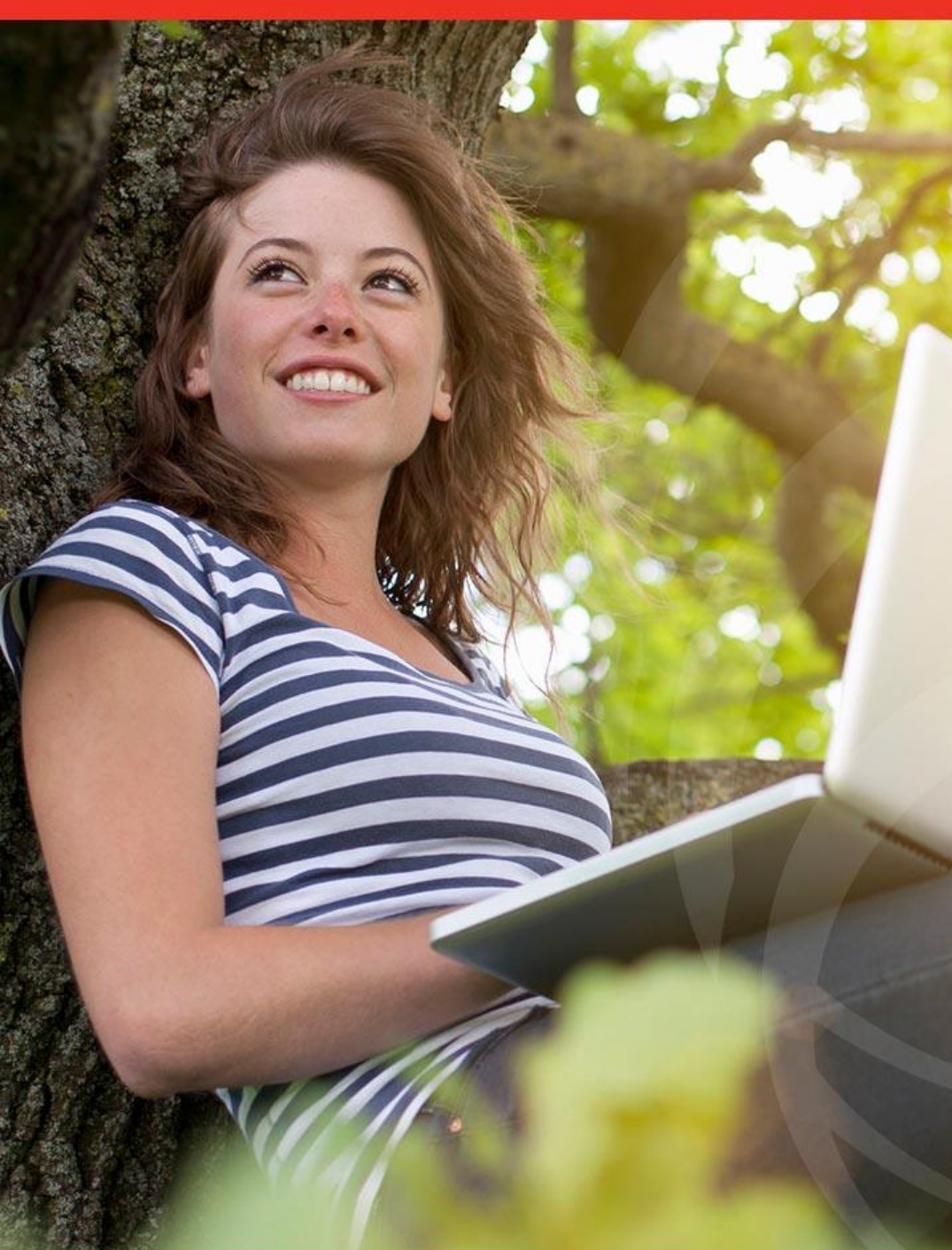
Vertical Service Code Summary

Functionality	Vertical Service Code
Calling_Line_ID_Restriction_Enable	*80
Calling_Line_ID_Restriction_per_Call	*79
Do_Not_Disturb_Disable	*87
Do_Not_Disturb_Enable	*86
Network_Call_Waiting_Disable	*65
Network_Call_Waiting_Disable_per_Call	*66
Network_Call_Waiting_Enable	*64
Number_Of_Rings	*97
Voicemail_Retrieve	*78

Telephony Treatments

- For simplicity, all available telephony treatments in the EXPERiUS IOT lab have been divided into two groups:
 - Treatments for Starcode (Vertical Service Code) outcomes
 - Treatments for other telephony outcomes
- All “non-routed” Vertical Service Code outcomes will receive a confirmation tone (three short beeps); routed VSC outcomes should reach the intended destination
- All other treated telephony outcomes, including misdialed Vertical Service Codes, will receive an announcement stating that the number cannot be reached as dialed followed by dial tone





Test Case Summary



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Test Case Summary

TCID	Subject	Test Name	Status
A2IOT001	Registration	A2IOT001 - SIP Client Registration to EXPERiUS System in ...	Pass
A2IOT002	Simple Calls	A2IOT002 - Basic Call between two Registered SIP Clients ...	Pass
A2IOT003	Announcements	A2IOT003 - SIP Client Routes to Announcement for Defined ...	Pass
A2IOT004	Call Forward Conditional	A2IOT004 - Call Forwarding for Busy and No Answer Conditions	Pass
A2IOT005	Call Forward Immediate	A2IOT005 - Call Forward Immediate – All Incoming Calls to...	Pass
A2IOT006	Call Mute	A2IOT006 - Call Mute	Pass
A2IOT007	Call Waiting	A2IOT007 - Call Waiting for Registered SIP Clients	Pass
A2IOT008	Call Waiting	A2IOT008 - Registered SIP Client Disables Call Waiting Se...	Pass
A2IOT009	Calling Line ID Blocking	A2IOT009 - Registered SIP Client uses Calling Line ID Res...	Pass

Test Case Summary

TCID	Subject	Test Name	Status
A2IOT010	Anonymous Call Rejection	A2IOT010 - Registered SIP Client Uses Anonymous Call Reje...	Pass
A2IOT011	Conference	A2IOT011 - AdHoc Conference - Client Initiated MAS based ...	Pass
A2IOT012	Conference	A2IOT012 - MeetMe Conference - Multiple Registered SIP Cl...	Pass
A2IOT013	Do Not Disturb	A2IOT013 - Calls to Registered SIP Client with Do Not Dis...	Pass
A2IOT014	Last Call Return	A2IOT014 - Receive Identity of Last Client that Called an...	Not Executed
A2IOT015	Last Call Return	A2IOT015 - Return Call to Last Client that Called without...	Pass
A2IOT016	Music on Hold	A2IOT016 - Music on Hold Service Provides Audio to SIP Cl...	Pass
A2IOT017	Voice Mail	A2IOT017 - SIP Client Terminates on Voice Mail and Leaves...	Pass
A2IOT018	Voice Mail	A2IOT018 - Message Waiting Indication Provided to SIP Cli...	Pass

Test Case Summary

TCID	Subject	Test Name	Status
A2IOT019	Voice Mail	A2IOT019 - SIP Client Retrieves Message from Voice Mail S...	Pass
A2IOT020	Client Stability	A2IOT020 – IDLE Client SIP Re-registration	Pass
A2IOT021	Client Stability	A2IOT021 – Long Duration Call with Re-registration	Pass
A2IOT022	CODEC Selection	A2IOT022 – CODEC Support – Default Client Configuration	Pass
A2IOT023	CODEC Selection	A2IOT023 – CODEC Support – All Mutually Supported CODECS	Pass
A2IOT024	CODEC Selection	A2IOT024 – CODEC Support – Mid Call CODEC Change	Not Executed
A2IOT025	T.38 Facsimile	A2IOT025 - T.38 FAX Call Between 2 FAX Capable SIP Clients	Not Executed



The background of the slide is a photograph of a young child with blonde hair, wearing a yellow sweater, sitting at a table and interacting with a tablet. The child's hands are visible, touching the screen. In the background, a person wearing a red and black plaid shirt is partially visible. A semi-transparent white circle is overlaid on the upper part of the image. A red horizontal bar spans the width of the slide, positioned below the title. A small orange square icon with a white left-pointing arrow is located in the bottom right corner.

Test Case Details

A2IOT001 - SIP Client Registration to EXPERiUS System in Specific Domain

Objective

- Verify that target SIP clients are able to register within the EXPERiUS SIP Registrar

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail

Procedure

1. Select a valid user for A within the target EXPERiUS Application Server and domain
2. Select a valid user for B within the same EXPERiUS Application Server and domain as A
3. Configure A and B appropriately such that they are able to register in the target EXPERiUS Application Server, domain and location with the chosen SIP users
4. Verify both A and B register successfully according to the context of their particular User Interface

Expected Results

1. Successful outcomes for all verification steps



A2IOT002 - Basic Call between two Registered SIP Clients in Same Domain

Objective

- Verify successful calls between target SIP clients registered in the same EXPERiUS Application Server and domain

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail

Procedure

1. Register A and B in the same EXPERiUS Application Server, domain and location
2. Place call from A to B
3. Verify B is alerted of call from A
4. Answer Call at B
5. Verify two way media between A and B
6. A and B terminate the call
7. Verify A and B disconnect successfully according to their respective user interfaces
8. Place a call from B to A
9. Verify A is alerted of call from B
10. Answer call at A
11. Verify two way media between B and A
12. A and B terminate the call
13. Verify B and A disconnect according to their respective user interfaces

Expected Results

1. Successful outcomes for all verification steps



A2IOT003 - SIP Client Routes to Announcement for Defined Treatment Reason

Objective

- Verify that the target SIP Client is able to connect to MAS announcements for a specified treatment condition (s) as defined within the Client's domain

Configuration and Setup

A: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain and location within the same EXPERiUS Application Server

Procedure

1. A calls an invalid alias or userid
2. Verify that A reaches an announcement according to the treatment mappings established for A's domain

Expected Results

1. Successful outcomes for all verification steps



A2IOT004 - Call Forwarding for Busy and No Answer Conditions

Objective

- Verify that calls to a registered SIP Client will forward according to the SIP Client's user's Call Forwarding Conditional Service

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

C: SIP Endpoint under test

D: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. SIP Endpoints under test having native functionality equivalent or similar to the EXPERiUS service/functionality being tested must have that native functionality DISABLED in order to avoid conflicts while testing the EXPERiUS service. If the vendor opts to execute the recommended optional additional test coverage, then the native functionality must be re-enabled for that portion of the testing.
3. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
4. All SIP Endpoints are registered in the same domain and location within the same EXPERiUS Application Server
5. Call Forward Conditional service is assigned to Client A's user
6. Vertical Service Codes are assigned within the user's domain to activate and deactivate Call Forward Conditional

Procedure

1. Activate Call Forward Conditional at A towards C using the appropriate Vertical Service Code
2. Place a call from B to A; A does not answer
3. Verify that the call from B forwards to C after a number of ring cycles
4. Answer the Call from Client B at Client C
5. Verify 2 way media between B and C
6. Hang up the call at both B and C
7. Create a condition at A such that calls to it return a “486 BUSY HERE” response. Note that this step usually requires A to be off hook with Call Waiting disabled and will require use of a packet trace tool, such as Wireshark, to confirm the “486 BUSY HERE” condition. If necessary, contact GENBAND for further guidance on this step.
8. Place a call from B to A
9. Verify that the call from B forwards to C immediately
10. Answer the call at C
11. Verify 2 way media between B and C

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A2IOT004 - Call Forwarding for Busy and No Answer Conditions

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Expected Results

1. Successful outcomes for all verification steps

Recommended Optional Additional Test Coverage

If the product under test has native functionality equivalent to the EXPERiUS service/feature targeted in this test case, the tester should re-execute applicable portions of this test case using that functionality instead of the EXPERiUS service/feature. Note that in some cases, it may be necessary to disable the EXPERiUS service/feature via a n appropriate Vertical Service Code.. GENBAND will assist with any instances where a change in EXPERiUS provisioning is necessary to accomplish this.



A2IOT005 - Call Forward Immediate – All Incoming Calls to Registered SIP Client Forward to Specific Destination

Objective

- Verify that calls to target SIP Clients registered in EXPERiUS will forward according to the SIP Client's user's Call Forward Immediate service

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

C: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. SIP Endpoints under test having native functionality equivalent or similar to the EXPERiUS service/functionality being tested must have that native functionality DISABLED in order to avoid conflicts while testing the EXPERiUS service. If the vendor opts to execute the recommended optional additional test coverage, then the native functionality must be re-enabled for that portion of the testing.
3. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
4. All SIP Endpoints are registered in the same domain and location within the same EXPERiUS Application Server
5. Call Forward Immediate is assigned to Client A's user
6. Vertical Service Codes are assigned within the user's domain to activate and deactivate Call Forward Immediate

Procedure

1. Disable all Call Forward features for A using the “Call Forward All Disable” Vertical Service code
2. Activate Call Forward Immediate at A using the “Call Forward Immediate Vertical Service Code”; specify C as the “forwarded to” destination
3. Place a call from B to A
4. Verify that the call from B forwards immediately to C
5. Answer the Call from B at C
6. Verify 2 way media between B and C
7. Hang up the call at both B and C
8. Verify all clients disconnect

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A2IOT005 - Call Forward Immediate – All Incoming Calls to Registered SIP Client Forward to Specific Destination

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Expected Results

1. Successful outcomes for all verification steps

Recommended Optional Test Coverage

If the product under test has native functionality equivalent to the EXPERiUS service/feature targeted in this test case, the tester should re-execute applicable portions of this test case using that functionality instead of the EXPERiUS service/feature. Note that in some cases, it may be necessary to disable the EXPERiUS service/feature via the appropriate Vertical Service Code prior to doing so. GENBAND will assist with any instances where a change in EXPERiUS provisioning is necessary.



A2IOT006 - Call Mute

Objective

- Verify that target SIP Clients registered in EXPERiUS having a MUTE feature are able to MUTE calls

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain and location within the same EXPERiUS Application Server

Procedure

1. A calls B; B answers
2. Verify 2 way media between A and B
3. B activates MUTE feature
4. Verify that A receives no media from B
5. Verify that B receives media from A
6. B deactivates MUTE
7. Verify 2 way media between A and B
8. A and B both activate their MUTE feature
9. Verify that A receives no media from B
10. Verify that B receives no media from A
11. A and B deactivate their MUTE feature
12. Verify 2 way media between A and B

Expected Results

1. Successful outcomes for all verification steps



A2IOT007 - Call Waiting for Registered SIP Clients

Objective

- Verify Call Waiting functions for a target SIP Clients

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

C: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERIUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain and location within the same EXPERIUS Application Server

Procedure

1. Disable all Call Forward features for A using the “Call Forward All Disable” Vertical Service code
2. Enable Network Call Waiting for A using the “Network Call Waiting Enable” Vertical Service Code
3. Enable Call Waiting (if applicable) locally within A
4. Establish and maintain a call between A and B
5. C calls A
6. Verify A receives notification of the incoming call, including caller identity if A is equipped with a display
7. A answers the call from C
8. Verify B goes on HOLD while A and C are connected
9. A and C end their call and B remains off hook
10. Verify that A receives ringing (notification that B is still on HOLD)
11. A answers the incoming call
12. Verify A and B resume their call with 2 way media
13. A and B disconnect

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A2IOT007 - Call Waiting for Registered SIP Clients

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Expected Results

1. Successful outcomes for all verification steps



A2IOT008 - Registered SIP Client Disables Call Waiting Service on Per Call Basis

Objective

- Verify that Call Waiting can be disabled for target SIP Clients on a per call basis

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

C: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERIUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain and location within the same EXPERIUS Application Server
4. A is configured to route BUSY calls to voicemail

Procedure

1. Enable Network Call Waiting for A using the “Network Call Waiting Enable” Vertical Service Code
2. A calls B using this format: *+ Vertical Service Code to Disable Network Call Waiting per call + SIP URI or alias for B
Example, if the alias for B is 5972002 and the Network Call Waiting Disable Per Call Vertical Service Code is 66, then A would dial *665972002 as one continuous string
3. A hears confirmation tone and is then routed to B
4. B answers the call; A and B engage in conversation
5. C calls A
6. Verify A is NOT notified of the call from C
7. Verify C reaches A’s Voice Mail
8. A and B disconnect
9. A calls B without dialing the Network Call Waiting Per Call Disable Vertical Service Code (e.g.. 5972002)
10. B answers the call; A and B engage in conversation
11. C calls A

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A2IOT008 - Registered SIP Client Disables Call Waiting Service on Per Call Basis

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13. Verify A receives notification of the incoming call, including caller identity if A is equipped with a display
14. A answers the call from C
15. Verify B goes on HOLD while A and C are connected
16. A and C end their call and B remains off hook
17. Verify B remains on HOLD to A
18. A RESUMES call with B
19. Verify 2 way media between A and B
20. A and B disconnect

Expected Results

1. Successful outcomes for all verification steps



A2IOT009 - Registered SIP Client uses Calling Line ID Restriction Service to Block Display Information to other Clients

Objective

- Verify that Calling Line ID information for the target SIP Client is NOT presented when Calling Line ID Blocking is active

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. SIP Endpoints under test having native functionality equivalent or similar to the EXPERIUS service/functionality being tested must have that native functionality DISABLED in order to avoid conflicts while testing the EXPERIUS service. If the vendor opts to execute the recommended optional additional test coverage, then the native functionality must be re-enabled for that portion of the testing.
3. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERIUS Application Server address and domain, Meet Me Conference access and Voice Mail
4. All SIP Endpoints are registered in the same domain and location within the same EXPERIUS Application Server
5. All SIP Endpoints have the ability to display Calling Line Identity Information
6. Vertical Service Codes to ENABLE and DISABLE Calling Line ID Restriction are assigned and available to A

Procedure

1. A calls B
2. Verify B receives Calling Line Identity information for A
3. A terminates the call
4. A activates Calling Line Id Restriction via the “Calling Line ID Restriction Enable” Vertical Service Code
5. A calls B
6. Verify B does NOT receive any Calling Line Identity information for A
7. A terminates the call

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A2IOT009 - Registered SIP Client uses Calling Line ID Restriction Service to Block Display Information to other Clients

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Expected Results

- Successful outcomes for all verification steps

Recommended Optional Test Coverage

If the product under test has native functionality equivalent to the EXPERiUS service/feature targeted in this test case, the tester should re-execute applicable portions of this test case using that functionality instead of the EXPERiUS service/feature. Note that in some cases, it may be necessary to disable the EXPERiUS service/feature via the appropriate Vertical Service Code prior to doing so. GENBAND will assist with any instances where a change in EXPERiUS provisioning is necessary.



A2IOT010 - Registered SIP Client Uses Anonymous Call Rejection to Block Incoming Calls Having No Calling Line Identification

Objective

- Verify that anonymous calls to target SIP Clients having Anonymous Call Rejection ENABLED do NOT complete to those clients

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. SIP Endpoints under test having native functionality equivalent or similar to the EXPERiUS service/functionality being tested must have that native functionality DISABLED in order to avoid conflicts while testing the EXPERiUS service. If the vendor opts to execute the recommended optional additional test coverage, then the native functionality must be re-enabled for that portion of the testing.
3. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
4. All SIP Endpoints are registered in the same domain and location within the same EXPERiUS Application Server
5. All SIP Endpoints have the ability to display Calling Line Identity Information

Procedure

1. Disable Anonymous Call Rejection at A using the “Anonymous Call Rejection Disable” Vertical Service Code
2. Enable Calling Line ID Restriction at B using the “Calling Line ID Restriction Enable” Vertical Service Code
3. B calls A
4. Verify that A is alerted of an incoming “anonymous” call
5. A answers; B and A engage in conversation
6. A and B disconnect
7. A turns Anonymous Call Rejection ON using the “Anonymous Call Rejection Enable” Vertical Service Code
8. B calls A
9. Verify the call does NOT reach A

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A2IOT010 - Registered SIP Client Uses Anonymous Call Rejection to Block Incoming Calls Having No Calling Line Identification

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Expected Results

1. Successful outcomes for all verification steps

Recommended Optional Test Coverage

If the product under test has native functionality equivalent to the EXPERiUS service/feature targeted in this test case, the tester should re-execute applicable portions of this test case using that functionality instead of the EXPERiUS service/feature. Note that in some cases, it may be necessary to disable the EXPERiUS service/feature via the appropriate Vertical Service Code prior to doing so. GENBAND will assist with any instances where a change in EXPERiUS provisioning is necessary.

A2IOT011 - AdHoc Conference - Client Initiated MAS based Conference for Multiple Registered SIP Clients

Objective

- Verify the ability of target SIP Clients to successfully establish a 3 way conference call using the EXPERiUS AdHoc Conference feature in conjunction with the MAS

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

C: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. SIP Endpoints under test having native functionality equivalent or similar to the EXPERiUS service/functionality being tested must have that native functionality DISABLED in order to avoid conflicts while testing the EXPERiUS service. If the vendor opts to execute the recommended optional additional test coverage, then the native functionality must be re-enabled for that portion of the testing.
3. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
4. All SIP Endpoints are registered in the same domain and location within the same EXPERiUS Application Server

Procedure

1. Enable “server based” conferencing within A
2. A calls B
3. B answers; A and B remain off hook
4. Verify 2 way media between A and B
5. A initiates a second call to C
6. Verify C is alerted and B is put on HOLD
7. Answer call at C; A and C remain off hook
8. Verify 2 way media between A and C
9. A “joins” all parties together
10. Verify 2 way media between all 3 parties
11. Verify that the MAS is hosting the conference – contact the GENBAND IOT Prime for assistance with this step
12. A, B and C terminate the call
13. Verify A, B and C disconnect

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A2IOT011 - AdHoc Conference - Client Initiated MAS based Conference for Multiple Registered SIP Clients

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Expected Results

1. Successful outcomes for all verification steps

Recommended Optional Test Coverage

If the product under test has native functionality equivalent to the EXPERiUS service/feature targeted in this test case, the tester should re-execute applicable portions of this test case using that functionality instead of the EXPERiUS service/feature. Note that in some cases, it may be necessary to disable the EXPERiUS service/feature via the appropriate Vertical Service Code prior to doing so. GENBAND will assist with any instances where a change in EXPERiUS provisioning is necessary.



A2IOT012 - MeetMe Conference - Multiple Registered SIP Clients Join MAS Based Meet Me Conference

Objective

- Verify that multiple target SIP Clients can join an A2/MAS based Meet Me Conference session hosted by one of the participating clients

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

C: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERIUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain and location within the same EXPERIUS Application Server
4. A has Meet Me Conferencing configured with an access code, conference pass code and chairperson access code; refer to the IOT information package for specific details

Procedure

1. A calls the Meet Me Conference server DN
2. Verify A receives the Meet Me Conference welcome message
3. A enters the conference pass code
4. A then presses * and enters the chairperson access code
5. Verify A successfully joins the Meet Me Conference session and receives notification “you are the first person to join the conference”
6. B calls the Meet Me Conference access code
7. Verify B receives the Meet Me Conference welcome message
8. B enters the conference pass code
9. Verify B successfully joins the Meet Me Conference session
10. C calls the Meet Me Conference access code
11. Verify C receives the Meet Me Conference welcome message
12. C enters the conference pass code
13. Verify C successfully joins the Meet Me Conference session
14. Verify A, B and C are all able to communicate with 2 way speech path

Expected Results

1. Successful outcomes for all verification steps



A2IOT013 - Calls to Registered SIP Client with Do Not Disturb Service Active

Objective

- Verify Do Not Disturb functions correctly for target SIP Clients registered in EXPERiUS

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. SIP Endpoints under test having native functionality equivalent or similar to the EXPERiUS service/functionality being tested must have that native functionality DISABLED in order to avoid conflicts while testing the EXPERiUS service. If the vendor opts to execute the recommended optional additional test coverage, then the native functionality must be re-enabled for that portion of the testing.
3. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
4. All SIP Endpoints are registered in the same domain and location within the same EXPERiUS Application Server

Procedure

1. Disable Do Not Disturb at A using the “Don Not Disturb Disable” Vertical Service Code
2. B calls A
3. Verify A receives alerting from B
4. A answers call from B
5. A and B engage in 2 way conversation and disconnect
6. A activates the Do Not Disturb service via the “Do Not Disturb Enable” Vertical Service Code
7. B calls A
8. Verify A is NOT alerted of the call from B
9. Verify B receives either recorded announcement or Voice Mail
10. Deactivate Do Not Disturb at A using the “Do Not Disturb Disable” Vertical Service Code

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A2IOT013 - Calls to Registered SIP Client with Do Not Disturb Service Active

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Expected Results

1. Successful outcomes for all verification steps

Recommended Optional Test Coverage

If the product under test has native functionality equivalent to the EXPERiUS service/feature targeted in this test case, the tester should re-execute applicable portions of this test case using that functionality instead of the EXPERiUS service/feature. Note that in some cases, it may be necessary to disable the EXPERiUS service/feature via an appropriate Vertical Service Code prior to doing so. GENBAND will assist with any instances where a change in EXPERiUS provisioning is necessary.

A2IOT014 - Receive Identity of Last Client that Called and Return Call

Objective

- Verify Last Call Return for target SIP Clients registered in EXPERIUS

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERIUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain and location within the same EXPERIUS Application Server
4. Vertical Service Codes (VSC) controlling Last Call Return are assigned and active for A. Note that activation and deactivation of Call Return by Vertical Service Code also requires a PIN that is dialed as part of the VSC string (e.g. *891234 where *89 is the VSC to deactivate Call Return and 1234 is the VSC PIN). Also note that if Call Return is deactivated, it is still possible to invoke Call Return to the last number that dialed the client prior to service deactivation; use the VSC for “Call Return CLI Erase” to clear the last caller’s identity from memory.

Procedure

1. Activate Last Call Return at A by dialing the “Call Return Enable” Vertical Service Code + PIN (1234) – see Configuration and Setup notes above
2. Deactivate Calling Line Identity Restriction at B by dialing the “Calling Line ID Restriction Disable” Vertical Service Code
3. B calls A
4. A receives alerting from B but does not answer
5. A dials the Vertical Service Code for Call Return with CLI Notification
6. Verify A receives B’s Calling Line Identification information and also an offer to return the call by pressing a specific digit
7. Press the digit for Call Return provided in the Call Return announcement
8. Verify that B is alerted
9. B answers the call
10. Verify 2 way communication between A and B
11. A and B hang up
12. Verify A and B disconnect

Expected Results

1. Successful outcomes for all verification steps



A2IOT015 - Return Call to Last Client that Called without First Learning Client Identity

Objective

- Verify Last Call Return for target SIP Clients registered in EXPERIUS

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERIUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain and location within the same EXPERIUS Application Server
4. Vertical Service Codes (VSC) controlling Last Call Return are assigned and active for A. Note that activation and deactivation of Call Return by Vertical Service Code also requires a PIN that is dialed as part of the VSC string (e.g. *891234 where *89 is the VSC to deactivate Call Return and 1234 is the VSC PIN). Also note that if Call Return is deactivated, it is still possible to invoke Call Return to the last number that dialed the client prior to service deactivation; use the VSC for “Call Return CLI Erase” to clear the last caller’s identity from memory.

Procedure

1. Activate Last Call Return at A by dialing the “Call Return Enable” Vertical Service Code + PIN (1234) – see Configuration and Setup notes above
2. Deactivate Calling Line Identity Restriction at B by dialing the “Calling Line ID Restriction Disable” Vertical Service Code
3. B calls A
4. A does not answer
5. A dials the Vertical Service Code for Call Return Immediate
6. Verify A does NOT audibly receive B’s Calling Line Identification information
7. Verify that B is alerted
8. B answers the call
9. Verify 2 way communication between A and B
10. A and B hang up
11. Verify A and B disconnect

Expected Results

1. Successful outcomes for all verification steps



A2IOT016 - Music on Hold Service Provides Audio to SIP Client on Hold

Objective

- Verify that the Music On Hold service functions for the target SIP Clients

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain within the same EXPERiUS Application Server
4. The Music On Hold service is fully configured within the EXPERiUS Application Server and MAS
5. The Music On Hold service is assigned to A and B

Procedure

1. A calls B
2. B answers
3. A puts B on HOLD
4. Verify that B goes on HOLD and that B hears the media being presented by the Music On Hold service
5. A takes B off HOLD
6. Verify that B is reconnected to A and no longer hears the media from the Music On Hold service
7. A and B hang up
8. Verify that A and B disconnect

Expected Results

1. Successful outcomes for all verification steps



A2IOT017 - SIP Client Terminates on Voice Mail and Leaves Message

Objective

- Verify that target SIP Clients can leave Voice Mail messages for other target SIP clients having Voice Mail accounts

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERIUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain within the same EXPERIUS Application Server
4. A has a valid Voice Mail Account

Procedure

1. B calls A
2. A does not answer
3. Verify the call forwards to Voice Mail
4. Verify that B is able to leave a message for A
5. B disconnects after leaving the message

Expected Results

1. Successful outcomes for all verification steps



A2IOT018 - Message Waiting Indication Provided to SIP Client as Part of Voice Mail Service

Objective

- Verify that target SIP Clients, registered in EXPERiUS and having Voice Mail accounts, receive Message Waiting Indication from the Voice Mail service

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain within the same EXPERiUS Application Server

Procedure

1. B calls A
2. A does not answer
3. Verify the call forwards to Voice Mail according to A's call forwarding criteria
4. B leaves a message for A and disconnects
5. Verify A receives a Message Waiting Indication from the Voice mail system

Expected Results

1. Successful outcomes for all verification steps



A2IOT019 - SIP Client Retrieves Message from Voice Mail Service

Objective

- Verify that target SIP Clients, registered in EXPERiUS and having Voice Mail accounts, can retrieve messages from the Voice Mail System. Also verify cancellation of Message Waiting Indication

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain within the same EXPERiUS Application Server

Procedure

1. B calls A
2. A does not answer
3. Verify the call forwards to Voice Mail according to A's call forwarding criteria
4. B leaves a message for A and disconnects
5. Verify A receives a Message Waiting Indication from the Voice mail system
6. A dials either the message retrieval access code for its Voice Mail account or the Vertical Service Code for Voice Mail retrieval
7. A enters the appropriate account information
8. Verify A and is presented with the voice mail from B
9. A deletes the Voice Mail and hangs up
10. Verify that the Message Waiting Indicator for A turns off

Expected Results

1. Successful outcomes for all verification steps



A2IOT020 – IDLE Client SIP Re-registration

Objective

- Verify that target SIP clients are able to re-register with the EXPERiUS SIP Registrar, while IDLE and logged in, within the boundaries of the Registrar's registration expiry parameters

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term "SIP Endpoint under test" shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. Connect Wireshark, or similar packet trace tool, appropriately to the test environment for the purpose of capturing messaging to and from A and B
4. All SIP Endpoints are registered in the same domain within the same EXPERiUS Application Server

Procedure

1. Start the packet trace tool
2. Select a valid user for A and B within the target EXPERiUS Application Server and domain
3. Configure A and B such that they are able to register in the target EXPERiUS Application Server, domain and location with the chosen SIP user
4. Verify successful registration for both clients according to their user interface
5. Verify successful registration according to the packet trace information (look for the "200 OK" messages associated with each client's registration request)
6. Note the expiry time presented to the clients in the "200 OK" messages as part of the "Contact" statement within each such message (e.g. Contact: <sip: <userid@ip address>; **expires=231**)
7. Allow A and B to remain IDLE for about 15 minutes following initial registration; ensure packet trace is running
8. Analyze the packet trace information at the end of the 15 minute period
9. Verify that both clients continue to send "REGISTER" messages to the Outbound Proxy (SBC) and receive "200 OK" messages from the SBC such that registration expiry does not occur. In this case, expect the "REGISTER" and "200 OK" messages for each client to occur within time intervals less than the value for "expires=" in the "200 Register Successful" message.

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A2IOT020 – IDLE Client SIP Re-registration

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Procedure

10. Place a call from A to B
11. Verify that B is alerted
12. B answers the call
13. Verify 2 way media exchange between A and B
14. A hangs up
15. Verify that the call terminates successfully
16. Verify that both A and B are still registered according to their respective user interfaces

Expected Results

1. Successful outcomes for all verification steps



A2IOT021 – Long Duration Call with Re-registration

Objective

- Verify that target SIP clients are able to remain connected with 2 way media and multiple re-registrations for 1 hour

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. Connect Wireshark, or similar packet trace tool, appropriately to the test environment for the purpose of capturing messaging to and from A and B
4. All SIP Endpoints are registered in the same domain within the same EXPERiUS Application Server

Procedure

1. Start the packet trace tool
2. Select a valid user for A and B within the target EXPERiUS Application Server and domain
3. Configure A and B appropriately such that they are able to register in the target EXPERiUS Application Server, domain and location with the chosen SIP users
4. Place a call from A to B
5. Verify that B is alerted
6. B answers the call
7. Verify 2 way media exchange between A and B
8. Allow the call to remain connected for 1 hour
9. Verify 2 way media exchange between A and B
10. Hang up both clients
11. Verify both clients disconnect successfully
12. Stop the packet trace and analyze the messaging looking for “REGISTER” and “200 OK” messages associated with A and B
Consider use of a wireshark filter such as [sip contains REGISTER and (ip.addr == <ip address of A> or ip.addr == <ip address of B>)]
13. Verify that registrations were successfully achieved by each client within 240 seconds ongoing throughout the entire call

Expected Results

1. Successful outcomes for all verification steps



A2IOT022 – CODEC Support – Default Client Configuration

Objective

- Verify that target SIP clients are able to use their default CODEC settings to place calls successfully within EXPERiUS (i.e. verify “out of the box” CODEC configuration)

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. Connect Wireshark, or similar packet trace tool, appropriately to the test environment for the purpose of capturing messaging to and from A and B
4. All SIP Endpoints are registered in the same domain within the same EXPERiUS Application Server

Procedure

1. Determine the default CODEC configuration for the SIP Endpoint under test
2. Start packet trace tool
3. Place a call from A to B
4. Verify alerting at B
5. B answers
6. Verify 2 way speech between A and B
7. Hang up at both A and B
8. Stop the packet trace tool
9. Analyze the packet trace data collected for this call
10. Verify that the default CODECs for A and B were used to establish the RTP connection between A and B

Expected Results

1. Successful outcomes for all verification steps



A2IOT023 – CODEC Support – All Mutually Supported CODECS

Objective

- Verify that target SIP clients are able to use all CODECS mutually supported by the SIP Endpoint under test and the EXPERiUS Application Server

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. Connect Wireshark, or similar packet trace tool, appropriately to the test environment for the purpose of capturing messaging to and from A and B
4. All SIP Endpoints are registered in the same domain within the same EXPERiUS Application Server

Procedure

1. Determine the list of CODECs supported by the SIP Endpoint under test
2. Determine which of the CODECs supported by the SIP Endpoint under test are also supported by EXPERiUS
3. Execute all remaining steps, iteratively, for each mutually supported CODEC
4. Configure A and B to use the chosen CODEC mutually supported by EXPERiUS and the Sip Endpoint under test
5. Start packet trace tool
6. Place a call from A to B
7. Verify alerting at B
8. B answers
9. Verify 2 way speech between A and B
10. Hang up at both A and B
11. Stop the packet trace tool
12. Analyze the packet trace data collected for this call
13. Verify that the chosen CODEC was used to establish the RTP connection between A and B

Expected Results

1. Successful outcomes for all verification steps



A2IOT024 – CODEC Support – Mid Call CODEC Change

Objective

- Verify that target SIP clients are able to successfully change CODECs while call is in progress
- **Note that this Test Case only applies to SIP Endpoints that are capable of altering CODEC based voice quality settings while a call is in progress**

Configuration and Setup

A: SIP Endpoint under test

B: SIP Endpoint under test

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. Connect Wireshark, or similar packet trace tool, appropriately to the test environment for the purpose of capturing messaging to and from A and B
4. All SIP Endpoints are registered in the same domain within the same EXPERiUS Application Server

Procedure

1. Choose a CODEC that is mutually supported by the SIP Endpoint under test and EXPERiUS
2. Configure A and B to use the chosen mutually supported CODEC
3. Start packet trace tool
4. Place a call from A to B
5. Verify alerting at B
6. B answers
7. Verify 2 way speech between A and B
8. Change the CODEC based voice quality settings on A to a different value
9. Verify that 2 way speech path is maintained during and after the voice quality setting change
10. Hang up at both A and B

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A2IOT024 – CODEC Support – Mid Call CODEC Change

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11. Stop the packet trace tool
12. Analyze the packet trace data collected for this call
13. Verify that the chosen CODEC was used to initially establish RTP between A and B
14. Verify that the new CODEC value is used for RTP between A and B in response to the mid-call CODEC change

Expected Results

1. Successful outcomes for all verification steps

A2IOT025 - T.38 FAX Call Between 2 FAX Capable SIP Clients

Objective

- Verify that target FAX capable SIP Clients can successfully transmit and receive a FAX using T.38 protocol

Configuration and Setup

A: SIP Endpoint under test registered in EXPERiUS

B: SIP Endpoint under test registered in EXPERiUS

1. Unless specified otherwise, the term “SIP Endpoint under test” shall refer to the Product under Test as defined in the [Record of Execution](#).
2. Refer to the Customer IOT Information Package for details on Vertical Service Code usage, available SIP Client userids and passwords plus lab information including the EXPERiUS Application Server address and domain, Meet Me Conference access and Voice Mail
3. All SIP Endpoints are registered in the same domain within the same EXPERiUS Application Server
4. SIP Endpoints A and B are capable of transmitting and receiving a FAX using T.38 protocol
5. SIP Endpoints A and B are configured in a suitable IP Network space to enable packet tracing

Procedure

1. Connect A and B to FAX devices that are set to auto answer incoming calls
2. Start a packet trace using a suitable tool such as Wireshark to capture the IP packets that will be transmitted/received by A and B during execution of this test scenario
3. Initiate a FAX call from A's FAX device to B's FAX device for a multiple page document
4. Verify that B's FAX device receives the call from A
5. Verify that B's FAX device answers the call from A
6. Verify that A's FAX device and B's FAX device achieve data communication
7. Verify that the 2 devices disconnect upon conclusion of the FAX transmission
8. Verify that all pages of the original document are received at B
9. Stop the packet trace
10. Analyze the packet trace
11. Verify that the packet trace indicates initial call setup using a standard voice CODEC and then invites T.38 for the FAX portion of the call.

Expected Results

1. Successful outcomes for all verification steps





Test Results



A2IOT001 Results

Test Name	A2IOT001 - SIP Client Registration to EXPERiUS System in ...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT002 Results

Test Name	A2IOT002 - Basic Call between two Registered SIP Clients ...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT003 Results

Test Name	A2IOT003 - SIP Client Routes to Announcement for Defined ...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT004 Results

Test Name	A2IOT004 - Call Forwarding for Busy and No Answer Conditions
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT005 Results

Test Name	A2IOT005 - Call Forward Immediate – All Incoming Calls to...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Network Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT006 Results

Test Name	A2IOT006 - Call Mute
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT007 Results

Test Name	A2IOT007 - Call Waiting for Registered SIP Clients
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT008 Results

Test Name	A2IOT008 - Registered SIP Client Disables Call Waiting Se...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT009 Results

Test Name	A2IOT009 - Registered SIP Client uses Calling Line ID Res...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT010 Results

Test Name	A2IOT010 - Registered SIP Client Uses Anonymous Call Reje...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT011 Results

Test Name	A2IOT011 - AdHoc Conference - Client Initiated MAS based ...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass: Yealink FW release 28.71.186.101 Fail: Yealink FW release 28.71.186.2
Issues	Sessions for T46G terminals running Yealink FW release 28.71.186.2 failed to release from the EXPERiUS SA Ad Hoc Conference Server. The root cause was found to be that BYE messages from the terminals were not sent to the SIP Proxy destination (QUANTIX) for EXPERiUS SA Ad Hoc Conference scenarios. This issue was resolved with Yealink FW release 28.71.186.101.
Execution Notes	



A2IOT012 Results

Test Name	A2IOT012 - MeetMe Conference - Multiple Registered SIP Cl...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Network Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT013 Results

Test Name	A2IOT013 - Calls to Registered SIP Client with Do Not Dis...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT014 Results

Test Name	A2IOT014 - Receive Identity of Last Client that Called an...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Network Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Not Executed
Issues	
Execution Notes	GENBAND Lab issue prevented execution of this test case



A2IOT015 Results

Test Name	A2IOT015 - Return Call to Last Client that Called without...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT016 Results

Test Name	A2IOT016 - Music on Hold Service Provides Audio to SIP Cl...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Network Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT017 Results

Test Name	A2IOT017 - SIP Client Terminates on Voice Mail and Leaves...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT018 Results

Test Name	A2IOT018 - Message Waiting Indication Provided to SIP Cli...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT019 Results

Test Name	A2IOT019 - SIP Client Retrieves Message from Voice Mail S...
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT020 Results

Test Name	A2IOT020 – IDLE Client SIP Re-registration
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT021 Results

Test Name	A2IOT021 – Long Duration Call with Re-registration
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT022 Results

Test Name	<u>A2IOT022 – CODEC Support – Default Client Configuration</u>
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Netwok Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT023 Results

Test Name	<u>A2IOT023 – CODEC Support – All Mutually Supported CODECS</u>
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Network Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Pass
Issues	
Execution Notes	



A2IOT024 Results

Test Name	<u>A2IOT024 – CODEC Support – Mid Call CODEC Change</u>
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Network Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Not Executed
Issues	
Execution Notes	Yealink model under test does not support the stated test scenario



A2IOT025 Results

Test Name	A2IOT025 - T.38 FAX Call Between 2 FAX Capable SIP Clients
Criteria	Pass: Expected Results achieved during test execution Fail: Expected Results NOT achieved during test execution
Test Executed By (Company)	Yealink Network Technology
Tester Name	ZhiGang Cai
Outcome (Pass or Fail)	Not Executed
Issues	
Execution Notes	Yealink model under test does not support the stated test scenario

