# TIS FACTORY ACCEPTANCE TEST –DOCUMENT # 660373-P-273200-00016 – TNEXT

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## 1. Contents

## 2. Revisions:

Version 1 – The first non-published version of this document

Version 2 – The first non-published version of this document

Version 3 – Simplified FAT to address the features used by the Users of the devices.

Version 4 – Added Post-FAT comments from the City.

Version 5 – Added Post-Fat comments from SNC

Version 6 – Added final Post-Fat comments from Sept 7th2021 review. Also added new tests for the ETEL and the YARD-HFI as all 3 devices will be utilized during the test.

## 3. Abstract

This document contains the Specifications, Test descriptions, and Process for execution of the Site Integration Tests [SIT].

## 4. Scope

This SIT relates to the devices that are specified in the delivery of the solution, specific to the MTELS. Mitel's 6910s, Mitel 6920's, the Emergency devices ETELS, ETEL/ITELs, as well as the Yard HFI units and the SIP to Analog converters TA7102s. The Mitel MiVB Head-end is also involved in the SIT, hence will take part of the tests

The ETELS, ETEL/ITELs, and the HFIs Integration tests will be done on site asas part of the Site Acceptance Test [SAT] and will also be subject to the Site Integration Tests [SIT]. The reason is that testing of these devices lends itself valuable if in its deployed environment.

**Not in Scope:** All test not invoking Integration of the solution.

## 5. Coverage

To aid in understanding of the test plans this section deals with what will be covered in the SIT,

- All tests which engages a defined integration with an ancillary system.

## 6. Definitions

| Abbreviation | Meaning |
|---|---|
| ADA | Americans with Disabilities Act |
| AODA | Accessibility for Ontarians with Disabilities Act |
| CESID | Customer Emergency Services ID |
| | |
| CO | Central Office |
| COR | Class of Restriction |
| DID | Direct Inward Dialing |
| DHCP | Dynamic Host Configuration Protocol |
| EMC | Electromagnetic Compatibility |
| EMI | Electromagnetic Interference |
| ETEL | Emergency Telephone |
| Abbreviation | Meaning |
| ITEL | Information Telephone |
| FAT | Factory Acceptance Test |

| | |
|---|---|
| FTP | File Transfer Protocol |
| HFI | Handsfree Information Telephone |
| HTTP | HyperText Transfer Protocol |
| IEEE | Institute of Electrical and Electronics Engineers |
| IP | Internet Protocol |
| MiVB™ | Mitel MiVoice Business Software |
| MWI | Message Waiting Indicator |
| NEMA | National Electrical Manufacturers Association |
| OCT | OC Transpo |
| OTLE | Ottawa Trillium Line Expansion |
| PABX | Private Area Branch Exchange |
| POE | Power Over Ethernet |
| PSAP | Public Safety Answering Point |
| PTZ | Pan Tilt Zoom |
| QoS | Quality of Service |
| RFP | Request for Proposal |
| RPO | Recovery Point Objective |

| | |
|---|---|
| RTO | Recovery Time Objective |
| RTCP | RTP Control Protocol |
| RTP | Real-Time Transport Protocol |
| Abbreviation | Meaning |
| SAT | Site Acceptance Testing |
| SCADA | Supervisory Control and Data Acquisition |
| SDP | Session Description Protocol |
| SIP | Session Initiation Protocol |
| SMDR | Station Message Detail Recording |
| TCP | Transmission Control Protocol |
| TOCC | Transit Operations Control Centre |
| UDP | User Datagram Protocol |
| VM | Voice Mail |

## 7. References

- 660373-4SYS-003-4CEG-0015

  TRILLIUM LINE EXTENSION PROJECT TECHNICAL SPECIFICATION TELEPHONY SYSTEM

- Multitude of Mitel Corporation documents too numerous to mention.

## 8. Overview

The Factory Acceptance Test plan [FAT] has been defined to demonstrate the features described in the Customer document 660373-4SYS-003-4CEG-0015. It identifies the test approach and strategy to be used, including reporting and verification of results. The Site Acceptance Tests [SAT] are designed to cover test cases that are not tested during the Factory Acceptance Test [FAT] due to circumstances and/or conditions that could only be tested on site, or simply that the test result usefulness is found on-site, not in a lab. [SAT] is treated in another document

These test cases outline step- by-step procedures and expected outcomes for declaration of a result.

The test cases will be used to demonstrate compliance.

## 9. Proposed Approach

Test cases will be performed by Mitel representatives, and witnessed by TNEXT personnel. The test cases will be provided to the test participants on a hardcopy Excel spreadsheet. Results and comments will be documented as testing progresses. The test case results will be dated and signed by the TNEXT witness to document completeness and accuracy of results.

A meeting will be held on the first morning to review the process and the test cases to be executed. Questions regarding the process or the tests to be performed will be addressed at this meeting. If deemed necessary or advantageous, a meeting may be held at any time to review the test cases to be executed and address any issues or concerns prior to testing.

Test cases will be sequenced or combined to ensure the most efficient use of equipment and resources.

## 10. Proposed Strategy

The Factory Acceptance Testing will be executed at Mitel's Location while the Site Acceptance Tests will be performed at the Customer's location. Most SAT will be done and verified with both the City of Ottawa and SNC. We will not be doing the SATs twice. Testing will be done on CUSTOMER's equipment on site. At the start, the SATs will be done using the lab environment as prescribed by the City of Ottawa. Telephony features, Conferencing features, Auto Attendant features, Voicemail features, Tenanting features, Emergency Services Support features, System Administration and System Diagnostic Tools that are to be tested that were not tested

during the [FAT] will be tested during the [SAT]. Additional testing that relates to the site will also be executed.The Customer may at their discretion chose features that were tested during the FAT and perform the test again during the SAT.

## 11. Information about the FAT execution

### Training:

No specific training required to perform the FAT. The person executing the FAT has 42 years of training in Architecting, designing, Integrating, testing, and Selling in the telecommunication field.

No specific training are required by the audience other than them having the knowledge of the requirements they set-out to be tested.

**FAT executed by:**

Jean-V. Renaud
Solutions Architect – Healthcare & Public Security
42 years of experience in Systems and Integrations of:

- Telecommunication (Analog, IP, SIP, Virtual, Cloud)
- Unified Communication
- Enterprise 911, E-911,
- NG-9-1-1, PSAPs
- Security Alarms Systems & Integration
- Video Surveillance & Integration
- Intercom
- Access, & integration
- Gate Controls
- Healthcare Systems & Integration
- Refer to Jean-V. Renaud on Linked-in for more info.

### Safety

No special safety requirements needed to perform the tests other than those mandated (on-premise) to the employees of Mitel

### Demo Center

The tests are performed in the Demo Center located at Mitel Kanata, 4000 innovation Drive, Kanata Ontario.

The Mitel Demo Centers found and many cities across the world provide access to the latest versions of all Mitel Solutions available on the market. This ensures access to the features and functionality offered by every different products/solutions for the purpose of demonstration. In the case of this FAT, we utilize the Mitel MiVB SW, the IP phones, the TA-7102, and also the ETEL/ETEL-ITEL/YARD-HFI integrated as a SIP device to the network.

## 12. Features in Scope

## Telephony Features:

2.4.1.1 E911-Support
2.4.1.2 ANI/DNIS/ISDN Number Delivery
2.4.1.3 Add Held
2.4.1.4 Auto-Hold
2.4.1.5 Automatic Route Selection
2.4.1.6 Callback
2.4.1.7 Call Duration Display
2.4.1.8 Call Forward
2.4.1.9 Call Forward – Cancel All
2.4.1.10 Call History
2.4.1.11 Calling Line Identification
2.4.1.12 Call Park
2.4.1.13 Call Pickup
2.4.1.14 Call Rerouting
2.4.1.15 Called Party Features Override
2.4.1.16 Camp-on (Call Waiting)
2.4.1.17 Conference
2.4.1.18 Conference Split
2.4.1.19 Date and Time
2.4.1.20 Day/Night Service Control
2.4.1.21 Dial Tone
2.4.1.22 Dial Tone –Outgoing Calls
2.4.1.23 Direct Inward Dialing(DID)
2.4.1.24 DID Service
2.4.1.25 Direct Outward Dialing (DOD)
2.4.1.26 Direct Page
2.4.1.27 Direct Transfer to Voicemail
2.4.1.28 Direct Voice Call
2.4.1.29 Display Caller ID on all Lines
2.4.1.30 Display of Name and Number
2.4.1.31 Do Not Disturb
2.4.1.32 DTMF Keypad Support
2.4.1.33 Emergency Services
2.4.1.34 Feature Keys
2.4.1.35 Group Listen

2.4.1.36 Groups – Key System and Multicall
2.4.1.37 Handset Receiver Volume Control
2.4.1.38 Hands Free Operation
2.4.1.39 Hold
2.4.1.40 Hot Desking
2.4.1.41 Language Change
2.4.1.42 Night Service
2.4.1.43 Night Service - Scheduled
2.4.1.44 Override
2.4.1.45 Phonebook
2.4.1.46 Phone Lock
2.4.1.47 Prevent Call to SIP Devices if in Use
2.4.1.48 Record-A-Call
2.4.1.49 Redial
2.4.1.50 Redial –Saved Number
2.4.1.51 Ringer Control
2.4.1.52 Ringing-Discriminating
2.4.1.53 Station-To-Station Dialing
2.4.1.54 Voice Mail
2.4.1.55 Voice Mail Interfaces

## 13. Conferencing Features:

2.5.1 Ad-hoc Conferencing
2.5.2 Conferencing limits

## 14. Voicemail Features:

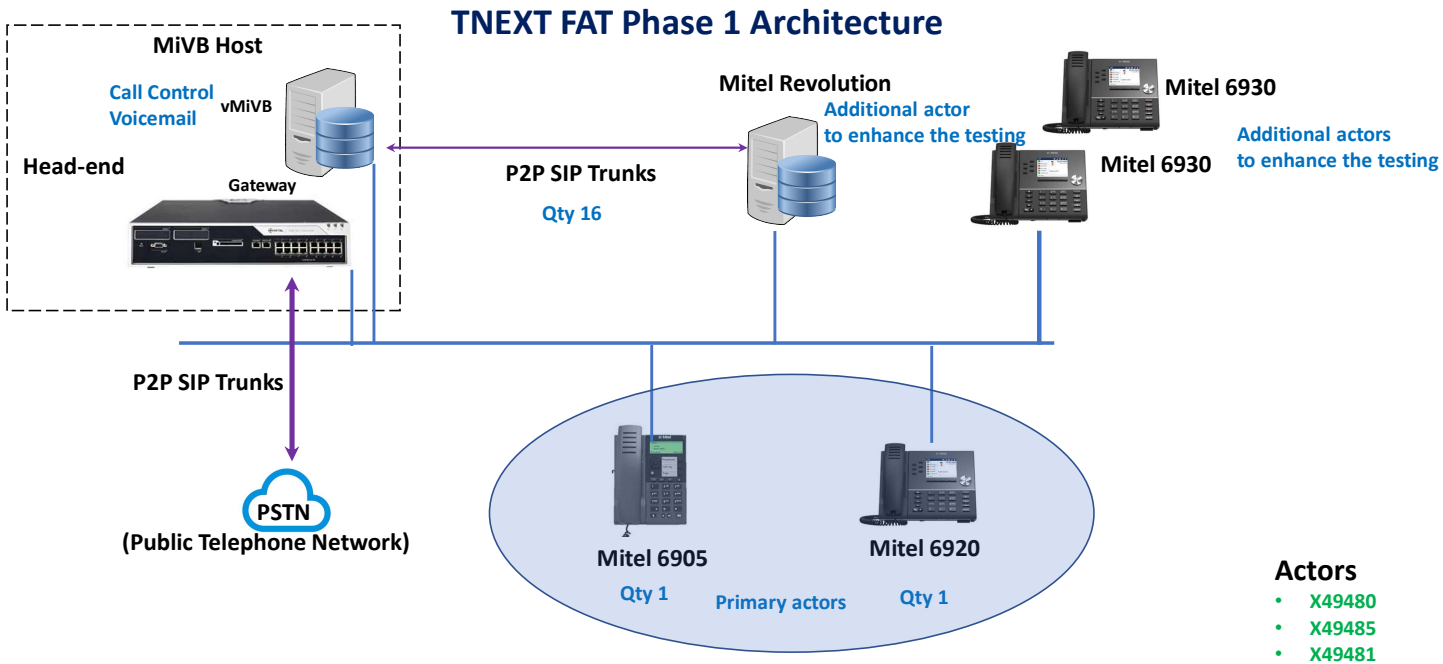
2.7.1.1 Personal Greetings/Name
2.7.1.2 Message Prologue
2.7.1.3 Temporary Greeting
2.7.1.4 Password Protected Mailboxes
2.7.1.5 Message Envelope
2.7.1.6 Message Length
2.7.1.7 Saved Messages
2.7.1.8 Message Review

2.7.1.9 Message Erase
2.7.1.10 Message Reply
2.7.1.11 Message Forward
2.7.1.12 Message Rewind/Hold/Fast/Forward
2.7.1.13 Message Keep/Skip
2.7.1.14 Multi-Level Auto Attendant
2.7.1.15 Urgent Messages
2.7.1.16 Private Messages
2.7.1.17 Certified Messages
2.7.1.18 Message Record/Send Actions
2.7.1.19 Message Addressing
2.7.1.20 Forward Voice Mail to E-Mail
2.7.1.21 Memo
2.7.1.22 Message Notification
2.7.1.23 Outside Message Notification Calls
2.7.1.24 Distribution List, Broadcast Message
2.7.1.25 New mailbox Tutorial
2.7.1.26 Mailbox Types: Extension, Message-Only, Information-Only, Aministrator
2.7.1.27 Record a Call
2.7.1.28 Softkey Integration
2.7.1.29 Dual Mailboxes
2.7.1.30 Personal Contacts
2.7.1.31 Distribution Lists

## 15. Test Architectures

Below are the 2 test architectures/Lab set-ups for the FAT Phase 1 and FAT Phase 2. The Principal Actors are the Mitel 6905, the Mitel 6920 telephony devices, and the P6947 ETEL/ITEL, all other actors are utilized for the execution of certain tests. Following are key data about the equipment being tested:

Mitel 6905 – Refer to Document 660373-P-273200-0001for specific data. No serial number provided
Mitel 6920 – Refer to Document 660373-P-273200-0003 for specific data. No serial number provided
Mitel TA-7102 - Refer to Document 660373-P-273200-0002 for specific data. No serial number provided
Mitel Virtual MiVB and Gateway - Version 9.0 SP1. All device firmware is relevant to 9.0 SP1 as it is auto-updated.

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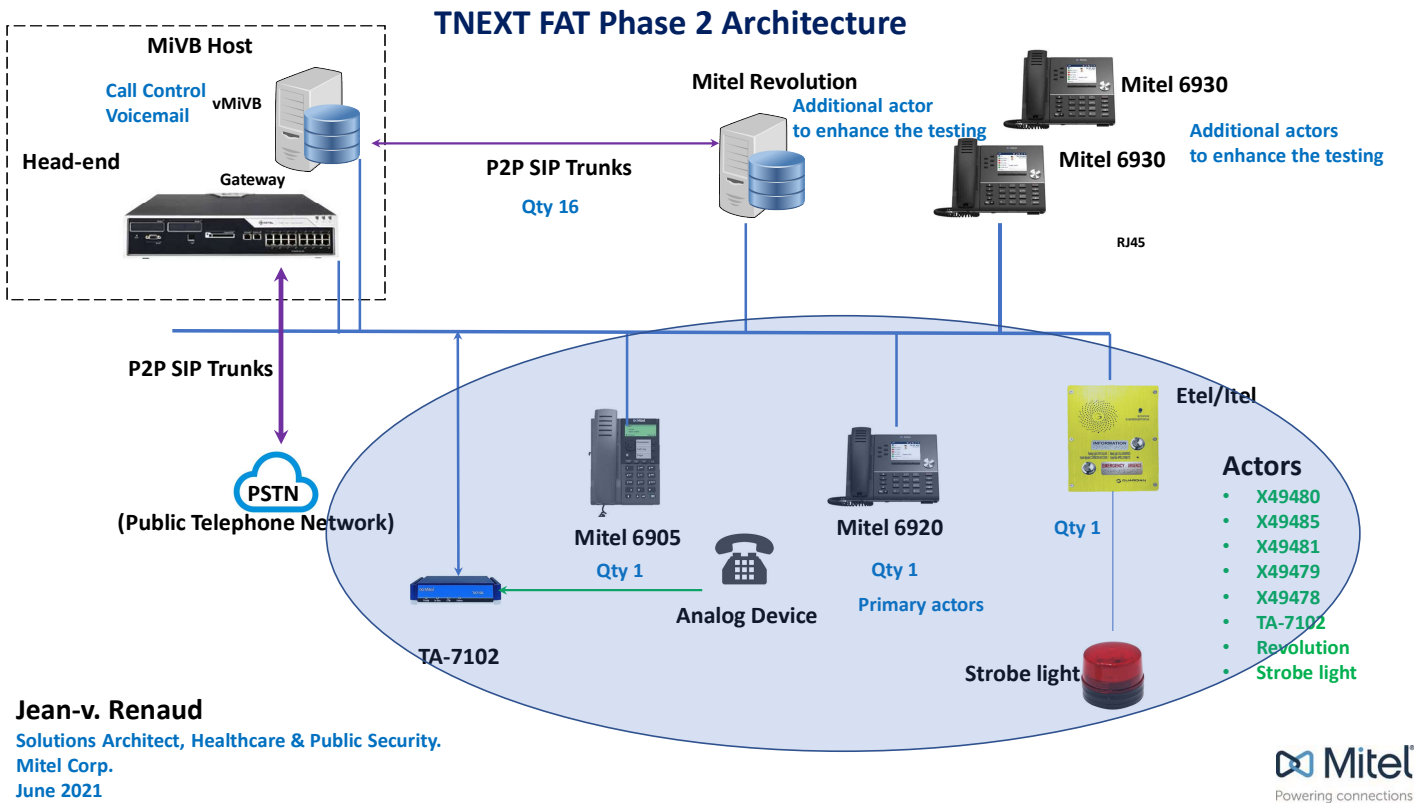
June 2021

Mitel
Powering connections

## 16. Phase 1 Test Status:

All FAT **Test Cases # 1** to **Test Case #40** have been tested and met compliance except the following Test Cases that have been moved to the SAT Process and are to be executed as part of that test process. These tests have been removed from the FAT document and will be added to the SAT document.

- Test 1 section 3,4 - Test Case 4 - Test Case 16 section 3,4 - Test Case 31 - Test 37 section 4,5,6,7,8,9 - Test 39




## 17. Phase 2 Test Status:

All FAT **Test Cases # 42** to **Test Case #45** are to be executed as party of the 2nd wave of FAT tests.

## 18. Telephony Features

### TEST CASE 1: E911 Support, Emergency Services –

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*E911 Support - Displays indicate the extension and the location of the person who dialed 911. Notifications of 911 calls are audible, continuous, and distinct from regular ringing patterns when the set is idle and on hook. If the user is already on a call, a new call tone alerts the user to the alarm condition. The alarm overrides sets having DND enabled.*<br>*Emergency Services - Allows an Emergency Services number to be dialed, which sends a Customer Emergency Services ID (CESID) from the system to the Public Safety Answering Point (PSAP). The CESID is used as a key in the Automatic Location Information (ALI) database to retrieve a database record indicating the precise location of the caller.* | | | | | | | |
| **Description:** Execute an E911 or emergency call | | | | | | | |
| **Participants**: Phone A, Phone B | | | | | | | |
| **Dependencies**: None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Establish an E911 or emergency call from phone A | From phone A dial 911 or emergency number | Extension is able to display E911 notifications. | | YES | | |
| 2 | Watch for alert on Phone B | E911 call is displayed on phone B | | | | | |

## TEST CASE 2: ANI/DNIS/ISDN, Calling Line ID, Display of Name and Number

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Automatic Number Identification and Dialed Number Identification Service identify numbers that are transmitted on an incoming trunk*<br>*Calling Line ID - The phone number of the calling party is transmitted to the Telephony server can be sent to devices within the system.*<br>*Display or Name and Number - Displays name and number and offers the ability to switch between Displays* | | | | | | | |
| **Description:** Place an incoming call to the Mitel Solution Centre | | | | | | | |
| **Participants**: Phone A and a mobile phone | | | | | | | |
| **Dependencies**: None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Initiate a call from the mobile phone to the Mitel Solution Centre | From a mobile phone dial 1-NXX-NNX-XXXX | ANI/DNIS is delivered to phone A and is displayed while ringing and when answered | | YES | | |
| 2 | Phone A will ring | Notice ANI/DNIS on display | | | | | |
| 3 | Answer the call | Lift handset to answer call | | | | | |
| 4 | Discussion point on CLID | CLID is on analog trunk | | | | | |
| | | | | | | | |

## TEST CASE 3: **Add Held, Station to Station Dialing**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Allows you to move a call on Hold to another line, form a conference with a call on hold, or add a call on hold to an existing conference*<br>*Station to Station Dialing - Allows you to dial any other station directly* | | | | | | | |
| **Description:** Add a call that is on hold to an existing call | | | | | | | |
| **Participants**: Phone A, Phone B, Phone C | | | | | | | |
| **Dependencies**: None. | | | | | | | |
| **Initial conditions**: Call is setup between phone A and phone B | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Phone A will add Phone C to an existing call | Phone A will put phone B on hold. This also verifies 2.4.1.74 | All three phones are now in a conference. Also shows station to station dialing | | YES | | |
| 2 | Add phone C to the existing call | Phone A will call Phone C | | | | | |
| 3 | Phone C will ring | Phone C will answer the call. Phone A will select “Add Held” and select line where Phone B is on hold. | | | YES | | |

## TEST CASE 5: Auto-Hold and Hold

**Requirement:**
*Automatically places an active call on hold when you press a line key to originate or receive another call*
*Allows you to temporarily suspend a phone call. While the call is on hold, you can use the other phone features. The call can be retrieved either at the original answer point or at another extension.*

**Description:** Place a call on hold using auto hold

**Participants**: PersonA, PersonB

**Dependencies**: None

**Initial conditions**: Call is setup between phone A and phone B

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | While on a call with phone B, phone A will place another outgoing call | Select a secondary line to place an outgoing call | Call in progress is automatically placed on hold when originating (or receiving ) another call. | | YES | | |
| 2 | Phone B is automatically placed on hold | | | | | | |
| 3 | Place a call on hold using the Hold key | Place a call from Phone A to Phone B. Once the call is established press the res Hold key. | Call can also be placed on hold using the red Hold Key | | YES | | |

## TEST CASE 6: **Callback**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Allows you to request that the system notify you when a busy line becomes idle or when an unanswered station goes off-hook and on-hook* | | | | | | | |
| **Description:** Execute a Call Back to a busy or idle phone | | | | | | | |
| **Participants**: PersonA, PersonB | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Person A will call Phone B which is either busy or idle | Place a call from Phone A to Phone B | Phone A placed a Call Back on Phone B | | YES | | |
| 2 | Do not answer at Phone B | Press the Call Back feature key on Phone A and terminate the call | | | | | |
| 3 | Phone B will now activate the Call Back | Phone B goes off hook and back on hook. Phone A rings to complete the Call Back | | | YES | | |

## TEST CASE 7: **Call Duration Display**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Displays the call duration for incoming and outgoing calls, in one minute increments (starting at 0:00)* | | | | | | | |
| **Description:** Place a call, internal or external. Watch display for call duration | | | | | | | |
| **Participants**: PersonA, PersonB | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Initiate an internal or external call | From Phone A call Phone B | Display on set shows call duration | | YES | | |
| 2 | Watch display | Notice call time incrementing | | | | | |

## TEST CASE 8: **Call Forward, Call Forward – Cancel All**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Call Forward - Allows you to redirect incoming calls to an alternate number*<br>*Call Forward – Cancel All - Allows you to cancel all types of Call Forward* | | | | | | | |
| **Description:** Activate and deactivate Call Forward | | | | | | | |
| **Participants**: Person A, Person B | | | | | | | |
| **Dependencies:** Call Forwarding is pre-programmed on the phone. The settings key is the blue key on the Mitel phone | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Activate Call Forward on Phone A | Press the settings key. From the menu select Call Forward to Phone C then Activate | Calls to Phone A are forwarded to Phone C | | YES | | |
| 2 | This will activate Call FWD to Phone C. Test Call FWD at phone A | Have Person B call Person A. | | | | | |
| 3 | Notice which phone is ringing | Answer call at Phone C | | | | | |
| 4 | Deactivate Call FWD | Dial *70 Call Forward – Cancel All | Call Forward is cancelled | | | | |

## TEST CASE 9: **Call History**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Call History keeps track of the names (if available) and phone numbers of missed calls, unanswered outgoing calls or external answered incoming or outgoing calls. It allows the user to view and quickly place a callback.* | | | | | | | |
| **Description:** View Call History | | | | | | | |
| **Participants**: PersonA, | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Browse Call History on Phone A | Press the Settings key, then Select Call History | User can see various types of calls using Call History | | YES | | |
| 2 | Browse different types of calls that are recorded in the Call History | Select different types of calls: All, Made, Missed and Answered | | | | | |

## TEST CASE 10: **Call Park, Call Pick Up**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Allows extension users and attendants to park calls and automatically initiate a page to announce the call to the requested party. Formerly, only the attendant could park calls (with no automatic paging) for extensions to retrieve*<br>*Allows you to answer an incoming call that is ringing at another station* | | | | | | | |
| **Description:** Call handling using the Call Park and Call Pick Up Features | | | | | | | |
| **Participants**: PersonA, PersonB | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Setup a call | Establish a call from Phone A to Phone B | Call was Parked in the system and was retrieved from another phone. | | YES | | |
| 2 | Park the call | Press the Call Park feature key and park the call at xxxxx | | | | | |
| 3 | Call is now Parked and can be retrieved from another phone | Retrieve the Parked call from Phone C. Lift the handset and dial the Park retrieve code followed by the slot number where the call was parked. | | | | | |
| 4 | Pick up a call ringing at another phone | From Phone A call Phone B. From Phone C lift the handset and press the Call Pickup feature key | Call ringing at one set was picked up from another set. | | YES | | |

## TEST CASE 11: **Call Rerouting**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Redirects calls to alternate answering points or devices under specified conditions. May be used to redirect calls always (in Day, Night 1, and/or Night 2 mode) or under busy, no answer, or Do Not Disturb conditions* | | | | | | | |
| **Description:** Show System wide Call Rerouting based on Day, Night 1 and Night 2 Service | | | | | | | |
| **Participants**: PersonA, Person B | | | | | | | |
| **Dependencies:** Call Rerouting tables have been completed | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Have Call Rerouting control call without user intervention | Place a call from Phone A to Phone B that has Call Rerouting programmed to go to Voicemail | Call to Phone B reroutes to voicemail without user intervention i.e. such as Call FWD | | YES | | |
| 2 | Have Phone B go unanswered | Call will be automatically rerouted to voicemail after timer expires. | | | | | |

## TEST CASE 12: **Called Party Features Override**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Allows calls from an extension to override any call redirection features, such as call forwarding, that are enabled on the destination extension. If this feature is activated before a call is made to an extension and the call is unanswered, the call remains ringing on the extension as call forwarding, that are enabled on the destination extension. If this feature is activated before a call is made to an extension and the call is unanswered, the call remains ringing on the extension* | | | | | | | |
| **Description:** Use the Called Party Features Override feature to override any call redirection features at an extension | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: Have Call Forwarding enabled on Phone B | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Place a call to an extension that has Call FWD enabled | From Phone A Lift handset and dial the "Call Termination Party Features - Override" feature access code. #84<br>Then dial the extension number for phone B | The call does not follow the programmed Call FWD that is enabled at the set. | | YES | | |
| 2 | Observe the routing of the call | The call rings Phone B and does NOT follow the Call FWD | | | | | |

## TEST CASE 13: **Camp On (Call Waiting)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Allows you to notify a busy party that you are waiting. An attendant may also put a call through to a busy station to indicate that a call is waiting. Upon hearing the Call Waiting tone, the busy party can either respond or finish the current call* | | | | | | | |
| **Description:** Use the Camp On feature on a phone that is currently on call | | | | | | | |
| **Participants**: Person A, Person B, Person C | | | | | | | |
| **Dependencies:** Call Rerouting or Call FWD on the destination phone must be disabled. | | | | | | | |
| **Initial conditions**: Existing call established between Person A and Person B | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Will place a call to a busy extension and Cam On to notify the user that another call is waiting | With Phone A already on an existing call, place another call to phone A from Phone B | As long as the busy party does not have Call Rerouting or Call FWD enabled upon hearing the Call Waiting tone, the busy party can either respond or finish the current call. | | YES | | |
| 2 | User on Phone B will get a busy signal. | While hearing the busy signal, select the "I Will Wait" Prompt on the set | | | | | |
| 3 | User can ignore the waiting call, terminate the existing call and take the call waiting or place the existing call on hold then take the waiting call | User on Phone A will hear a call waiting tone and will be prompted on the phone for options on how to handle the waiting call. | | | | | |

## TEST CASE 14: **Conference, Conference Split and Voice Conference**

**Requirement:**

*Conference - Allows you to connect three or more calls into a single phone conversation. While you are in a Conference, you can use any of the features that would normally be available during a two-party call. Covers 2.5.1*

*Conference Split - Allows you to separate a 3-party conference so that two of the parties can speak privately, while the other is placed on Consultation Hold.*

*Voice Conference - To initiate a conference, users dial the direct number allocated to the conference bridge, type in the PIN if required.*

**Description:** Setup a 3 party conference. Split the parties in a conference

**Participants**: Person A, Person B, Person C

**Dependencies:** None

**Initial conditions**: Call is setup between phone A and phone B

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Adding a 3rd party to an existing call | Have Person A press the Transfer/Conference key then dial Phone C | Phone A establishes a 3 party conference. | | YES | | |
| 2 | Phone C will ring | Have Phone C answer the call | | | | | |
| 3 | 2 party call is now established between Phone A and Phone C with Phone B on hold | Person A presses the Trans/Conf key to complete the conference | Phone A split the conference and can now talk to each party individually. | | | | |
| 4 | Now Split the conference | Phone A now Presses the “Split” softkey to split the conference | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5 | Join Voice Conference (Meet Me Conference) from phone A and phone B | From phone A and B, dial bridge at xxxxx, dial conference code xxxxx#dial the PIN 1234# | Phone A and B are now in the conference | | | | |

## TEST CASE 15: **Dial Tone, Dial Tone – Outgoing Calls**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Users normally hear continuous dial tone when they lift the handset. They hear discriminating (also called interrupted), or transfer dial tone under certain conditions*<br>*The system can provide a pseudo-CO dial tone to prevent possible confusion to station users.* | | | | | | | |
| **Description:** Listen to Dial Tone | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Users hear Dial Tone for internal calls | Lift the handset, place the earpiece of the handset against your ear. Listen to the Dial Tone. Act surprised | User hears dial tone for internal and outgoing calls | | YES | | |
| 2 | Users hear Dial Tone for internal calls | Lift the handset, place the earpiece of the handset against your ear. Dial "9" Listen to the Dial Tone. Act surprised again | | | | | |

## TEST CASE 16: **Direct Inward Dialing (DID), DID Service SOME TESTS HAVE BEEN MOVED to SAT**

**Requirement:**

*Direct Inward Dialing (DID) - Permits incoming calls on designated trunks to directly access predefined stations (or other answering points) on the system Offers a Direct Inward Dialing solution, alternative to DID Ranges for CPN Substitution and user-based System Speed Calls. This feature provides the ability to reallocate DID numbers to their answering points from ESM. Incoming calls can be routed to specified destinations based on the mapping of DID numbers to their destinations, without using the interim Speed Call System. The feature provides a single consolidated provisioning interface: the DID Service form, but the configured data is stored in the Call Recognition Service form*

**Description:** Direct calls to a specific user using DID's

**Participants**: Person A, Person B

**Dependencies:** None

**Initial conditions**: None

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Place a call to Phone A using a DID | From phone B dial 9-1-nxx-nnx-xxxx | Reached the user directly through their DID number | | YES | | |
| 2 | Call rings phone A without going through Attendant or Auto Attendant | Answer the call at phone A | | | | | |

## TEST CASE 17: **Direct Page**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *Direct Page - Allows you to page another phone over its built-in speaker* | | | | | | | |
| **Description:** Place a direct page to a set | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Place a Direct Page to a set | Lift the handset, press the Direct Page key, dial the extension number, xxxxx | User was able to place a Direct Page to ext xxxxx | | YES | | |
| 2 | User will hear a tone, then can page. | Wait for the confirmation tone and then place the page. | | | | | |

## TEST CASE 18: **Direct Transfer to Voicemail**

**Requirement:**

*Direct Transfer to Voicemail - Transfers an active call directly to the requested party's voice mailbox instead of waiting for the system to transfer it there after ringing the party's phone. Use this feature when you know that the party is unavailable or when the caller only wishes to leave them a voice message.*

**Description:** Transfer a caller directly to another user's Voice mailbox

**Participants**: Person A

**Dependencies:** None

**Initial conditions**: Call is setup between phone B and phone C

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Transfer caller directly to voice mailbox | User at Phone A Press the Message Key, then dial xxxxx where xxxxx is the extension number of Phone A | Caller was transferred directly to Phone A's voice mailbox | | YES | | |
| 2 | Caller can now leave a message | | | | | | |

## TEST CASE 19: **Direct Voice Call**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *Direct Voice Call - Allows you to establish a two-way Hands Free call at the called party set whether or not Hands Free Answerback or Auto-Answer is enabled* | | | | | | | |
| **Description:** Place a direct voice call to a set | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Place a Direct Voice Call to a set | Lift the handset, dial the Direct Voice Call FAC, (*88) and dial the extension number, xxxxx. Speak to the called party | User was able to place a Direct Voice Call to ext xxxxx | | YES | | |
| 2 | Called party can now reply handsfree | Called party speaks towards the handsfree microphone. | | | | | |

## TEST CASE 20: **Display Caller ID on All Lines**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *Display Caller ID on All Lines- Provides Caller ID on other lines when idle (shows any ringing lines), and when the user is talking (priority based on key position)* | | | | | | | |
| **Description:** Show Caller ID on All Lines | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Show caller ID on multiple Lines | Place call to phone A, note Caller ID. Place second call to phone A from phone C. Caller ID is shown for waiting caller | | | YES | | |
| 2 | | | | | | | |

## TEST CASE 21: **Do Not Disturb, Override**

**Requirement:**

*Do Not Disturb - Allows you to place your set in an apparent busy condition without affecting the outgoing functionality. If people call your set while DND is activated, they hear a special busy tone*

*Override - Allows you to enter a conversation at a busy station or ring a station with Do Not Disturb activated. Before you enter the conversation, all parties receive a warning tone.*

**Description:** Place a call to a user who has DND activated. Override DND

**Participants**: Person A, Person B

**Dependencies:** None

**Initial conditions**: None

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Have the Person A activate DND on phone A. | On phone A press the DND feature key to activate DND. Key will light up. | Phone A is unable to receive calls. | | YES | | |
| 2 | Place a call to Person A | From phone B, dial phone A at xxxx | | | | | |
| 3 | Observe call routing | Caller will receive a busy tone OR will be routed to voicemail | | | | | |
| 4 | Override DND at the destination phone | From Phone B, dial phone A at xxxxx. Wait for the busy tone due to DND, press the Override key | Phone B is able to Override DND at phone A | | YES | | |

## TEST CASE 22: **Feature Keys**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *Feature Keys - Allows you to activate features without dialing feature access codes* | | | | | | | |
| **Description:** Program a feature key | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Use the Settings key to program feature keys. | On Phone A, Press the Settings key, select "Settings", select "Programmable Keys", select a blank key, select the Feature to be associated with the key, Edit Label and or Number as required, select "Save" | Person A was able to program a feature key on the set. | | YES | | |

## TEST CASE 23: **Group Listen, Hands Free Operation**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Group Listen - Allows you to carry on a conversation using the handset or headset while allowing others nearby to listen to the person at the far end over the Hands Free speaker.*<br>*Hands Free Operation - Allows you to use your phone without lifting the handset* | | | | | | | |
| **Description:** Demonstrate Group Listen | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: Call is setup between phone A and phone B | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Caller will allow others nearby to listen to a call | While on a call using the handset, Person A will press the Group Listen feature key. | Others nearby are able to listen to the conversation. | | YES | | |
| 2 | Cancel the Group Listen | Press the Group Listen Key | Others nearby can no longer hear the conversation | | YES | | |
| 3 | Switch the call to Hands Free | Press the “Speaker” Key on the set the hang up the handset. Call continues in Hands Free mode | Others nearby can now actively participate in the call | | YES | | |

## TEST CASE 24: **Groups - Key System and Multicall**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *Allows multiple phones to share the same extension number. Incoming calls ring at all of the idle stations, and the stations stop ringing when one group member answers the call* | | | | | | | |
| **Description:** Demonstrate Key System and Multicall Lines | | | | | | | |
| **Participants**: Person A, Person B | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Place a call to a Key System Line | From Phone C dial xxxxx. Answer the call at phone A.<br>Hang up the call | All appearances will ring. Answer the call on any line. All Lines are busy | | YES | | |
| 2 | Place a call to a Multicall Line | From Phone C dial xxxxx<br>All appearances will ring. Answer the call at phone A.<br>From Phone B dial xxxxx | All appearances will ring. Answer the call on any line. All other lines are still available for another call | | YES | | |

## TEST CASE 25: **Handset Receiver Volume Control, Ringer Control**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Handset Receiver Volume Control - Allows multiple phones to share the same extension number. Incoming calls ring at all of the idle stations, and the stations stop ringing when one group member answers the call*<br>*Ringer Control - Allows you to adjust the volume and pitch of the phone ringer* | | | | | | | |
| **Description:** Adjust handset volume. Adjust ringer volume and pitch | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Adjusting the handset volume | Go off hook on phone A, press the volume up and down keys. Notice the adjustment bar on the display set. | The volume of handset adjusts up and down | | YES | | |
| 2 | Adjusting the ringer volume and pitch. | On phone A press the “SuperKey” feature key. Select “No” until you get to “Ringer Adjust”. Select “Ring Adjust” Select “Ring Pitch” to adjust the pitch or select “No” then “Ringer Vol” to adjust the volume. | Using the Superkey you can adjust the ringer pitch and or volume | | YES | | |

## TEST CASE 26: **Hot Desking**

**Requirement:**

*Hot Desking Hot Desking allows a number of users to share one or more Hot Desk- enabled IP sets. To use a Hot Desk set, the user logs in using a Hot Desk DN and PIN. Once logged in, the user can:*

- *Receive incoming calls at the set*
- *Place outgoing calls*
- *Retrieve voice messages*
- *Program and use feature keys*

**Description:** Have a user Hot Desk in to a set

**Participants**: Person A, phone A

**Dependencies:** None

**Initial conditions**: User is logged out of phone A

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Person A will Hot Desk in to phone A | From the main screen on the set select “Hot Desk” then select “Login” enters users ext number 4948X. When prompted, enter the PIN 4321. | User is now logged in to phone A as ext 4948X | | YES | | |
| 2 | Notice changes to the main display User now has all of their feature keys, is able to place and receive calls and is able to see and check voicemail. | Place a call to phone A by dialing 4948X. Place an outbound call from phone A. Program a key, check voicemail | All of the users features are accessible once the user hotdesks in to a phone. | | YES | | |

## TEST CASE 27: **Language Change**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Language Change - Provided they are made available by the system administrator, this feature allows the user to change the language of their set's phone prompts and softkeys to any one of the following languages:*<br>• *English*<br>• *French* | | | | | | | |
| **Description:** Changing the language of the set prompts | | | | | | | |
| **Participants**: Person A, Person B | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Change the language for phone A | Press the blue Settings key, select "Settings" – "Languages" select "francais" to change the set to French | Phone A is now set for French prompts and feature keys | | YES | | |
| 2 | Call the set to verify change | Person B dials xxxxx to call phone A. Notice the prompts on the set. | Prompts and softkeys are now in French | | YES | | |

## TEST CASE 28: **Multi-Level Auto-Attendant**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *Multi-Level Auto-Attendant - Allows a hierarchical menu to be programmed on the auto attendant.* | | | | | | | |
| **Description:** Show menu system in the Multi-Level Auto-Attendant (MLAA) | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Dial in to the MLAA and listen to navigation options. | From phone A dial xxxxx. Chose 3 for ???. Press * to return to the main menu. Select 4 for??? | User A was able to navigate through the different levels of the MLAA. | | YES | | |
| | | | | | | | |

## TEST CASE 29: **Phonebook**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *Phonebook - Locate and call a system user based by name, extension number, department, and/or location* | | | | | | | |
| **Description:** Look up a user in the system by name, extension number, department, and/or location | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Use the Phonebook feature on a display set to lookup a user | Press the "Phonebook" feature key. Using the keypad, enter the first few letters of the last name "K-A-N-A" Select "Lookup" | User is able to find all users whose last name starts with KANA | | YES | | |
| 2 | Use the Phonebook feature on the console to lookup a user | From the main menu select "Phonebook" Type "KANA" in the name field. Press Options to search by number, department, and/or location | Console operator is able to find users based on name, number, department, and/or location | | YES | | |

## TEST CASE 30: **Phone Lock**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *Phone Lock- Phone Lock locks a set preventing access to the majority of features, with the following exceptions: unlocking the set via a user PIN, Hot Desk Login and Logout support, and Emergency Call Notification support. Phone Lock has no effect on incoming calls but restricts outgoing calls, with the following exceptions: calls to emergency trunk routes and local operators.* | | | | | | | |
| **Description:** Lock a phone to prevent access | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | User at phone A will lock their set | Press the "Phone Lock" feature key on phone A | Phone is now locked | | YES | | |
| 2 | Place a call from phone A | From phone A try dialing ext xxxxx. See if call is successful. Hang up. Try dialing 9-1-NXX-NNX-XXXX. Hang up. Dial "0" | Both internal and external calls fail. Call to console is successful. | | YES | | |
| 3 | Unlock the phone | Press the Phone Lock key, enter the PIN, 4321 to unlock the set. | Set is now unlocked. | | YES | | |

## TEST CASE 32: **Record-A-Call**

**Requirement:**

*Record-A-Call - Record-a-Call allows extension users to record a two-party call when one party is connected to a trunk. The recorded conversation is stored in the users' voice mail mailbox. You can configure this feature to automatically record incoming calls when the call is answered at the extension, record external outgoing calls that are made from a system extension to the PSTN, and record both incoming calls and external outgoing calls for the same extension*

**Description:** User recording a 2-party call to their voice mailbox

**Participants**: Person A, Person B, Person C

**Dependencies:** None

**Initial conditions**: Person A is engaged in an external 2-party call

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Person A is going to record a 2-party call | While on an external call. Press the "Red Call" feature key. Callers will hear a recording tone to indicate that the call is being recorded. Press the "Stop&Save" key to save the call | Call is now being recorded | | YES | | |
| 2 | Listen to the recording | Person A dials xxxxx to access their voice mailbox. Press 7 to listen to the recoding | User is able to play back the recording. | | YES | | |

## TEST CASE 33: **Redial, Redial – Saved Number**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:**<br>*Redial - Automatically dials the last manually dialed number*<br>*Redial – Saved Number - Allows you to save a number for future dialing. The number remains saved until a replacement number is saved* | | | | | | | |
| **Description:** Use Redial to dial the last number dialed. Use Redial – Saved Number to redial a user saved number | | | | | | | |
| **Participants**: Person A | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | User redials last number dialed | From phone A, lift the handset and press the Redial key | Last number is redialed | | YES | | |
| 2 | User redials saved number | From phone A dial 9-1-NXX-NNX-XXXX. Hang up. Lift the handset and dial the Save Last Number feature access code. *00 Hang up. Lift the handset and dial the Repeat Last Number Saved feature access code. *09 | Saved Number was redialed | | YES | | |

## TEST CASE 34: **Ringing – Discriminating**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Requirement:<br>*: Ringing - Allows you to distinguish between incoming internal calls, incoming trunk calls, tie line calls, and Callbacks by using different ringing patterns (cadences)* | | | | | | | |
| Description: Receive different call types to demonstrate different ring types based on type of call | | | | | | | |
| Participants: Person A, Person B | | | | | | | |
| Dependencies: None | | | | | | | |
| Initial conditions: None | | | | | | | |
| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
| 1 | Place different call types to phone A | From phone B dial phone A at xxxxx. From the console, dial phone A at xxxxx. From a cell phone dial the DID for Phone A | User is able to distinguish between station calls and external or attendant calls | | YES | | |
| 2 | Place a Callback | From Phone A dial phone B at xxxxx and place a Callback.<br>Go on hook and off hook at phone B. Callback is initiated to Phone A | User is able to tell if a call is a Callback. | | YES | | |

## TEST CASE 35: **Transfer**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Requirement:<br>*: Transfer - Allows you to move a call from one phone to another.* | | | | | | | |
| Description: Transfer a call to another station | | | | | | | |
| Participants: Person A, Person B, Person C | | | | | | | |
| Dependencies: None | | | | | | | |
| Initial conditions: None | | | | | | | |
| Step | Description | Actions | Outcome | Comments | Compliant?<br>Yes \|No \|Partial | Witness | Date |
| 1 | Transfer user A to phone C | From phone B dial phone A at xxxxx. Person A answers call. Person B presses the Trans/Conf key the dials xxxxx at phone C and hangs up | Person A was transferred to phone C | | YES | | |

## TEST CASE 36: **Voice Mail**

**Requirement:**
*The system guides the user through the steps required for initial configuration of mailbox, including specification of a (non-default) passcode and recording of a personal greeting and name.*
*Each mailbox user can record subscriber name and a personal greeting.*
*Each subscriber can record a personal greeting set for a specific number of days (with automatic expiration).*
*Access to subscriber mailboxes requires a password. Password length system-wide can be from three to six digits. (Default is four digits.) Callers have three chances to enter a valid password before they are disconnected.*

**Description:** Voice Mail Set Up

**Participants**: Voice Mail and Phone A

**Dependencies:** None

**Initial conditions**: None

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | New Mailbox Tutorial | Phone A dials voicemail box for the first time. Follow the tutorial to set up mailbox | Phone A sets a subscriber name, greeting and password. | | YES | | |
| 2 | Personal Meetings/ Names | | | | | | |
| 3 | Temporary Greeting | | | | | | |
| 4 | Password Protected Mailboxes | Phone A dials VM box and enters in their passcode incorrectly three times | Phone A is disconnected | | YES | | |

## TEST CASE 37: **Voice Mail SOME TESTS HAVE BEEN MOVED to SAT**

**Requirement:**

*Allows a hierarchical menu to be programmed on the auto attendant providing callers with better self-service access to the person or department they are calling*
*Personal Contacts*
*The message receives priority placement in the listener's mailbox.*
*The message cannot be forwarded to another subscriber's mailbox.*
*On internal calls, the sender is notified when the recipient has read the message.*
*Callers have the ability to pause during recording, review, re-record, and append to a message before sending it. A message can also be cancelled prior to sending.*
*Subscribers can address messages to multiple recipients and hear the recipient's name played back to confirm valid entry of mailbox numbers.*
*Subscribers have single-digit access to send a message to their own mailbox, for future reminders and memo-type messaging.*
*Using Voice Mail as a recorder, this feature allows a subscriber to record a live conversation between themselves and another party.*

**Description:** Leaving a Voice Mail Message

**Participants**: Auto Attendant, Voice Mail, Phone A, Phone B, Phone C

**Dependencies:** None

**Initial conditions**: None

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Multi-level Auto Attendant | Phone A dials into the AA, dials extension of phone C. Phone C greeting instructs the caller to leave a message or press a number to be transferred. Phone A presses a button to be transferred. | Use AA to get to the right person. Phone A reached Phone C's voicemail greeting and choses to be transferred to Phone B and leaves an urgent message. Phone B's MWI is lit. | | YES | | |
| 2 | Personal Contacts | | | | | | |
| 3 | Urgent Message | | | | | | |

## TEST CASE 38: **Voice Mail.**

**Requirement:**
*This feature allows users to forward voice messages, including Record-a- call messages, to an E-mail address. Users can choose to manually forward voice messages, or automatically forward all voice messages.*
*The subscriber is notified that they have received a message by the message light on their phone (MWI), and optionally by setting the notification type to one of the following options, which causes the voice mail system to call:*
*• The mailbox's associated extension number, for analog phone extensions or phones without a message light (prompts called party to log into their mailbox).*
*• An outside number (prompts called party to log into their mailbox).*
*• A message pager (plays an audio message indicating messages are waiting).*
*• A tone-only pager (simply hangs up after a far connection is made).*
*• a digital pager (plays DTMF digits corresponding to a system-wide callback number along with the specific mailbox number). The system administrator may change notification options. The mailbox owner may also modify them if the system administrator grants permission. In addition to the notification type, the phone number and schedule are configurable. The schedule determines whether paging occurs:*
*• around the clock, regardless of the business schedule.*
*• only during open business hours.*
*• only during closed business hours.*
*• never (disabled until the schedule is changed to one of the three previous schedule options). Finally, a mailbox may be configured to do non-MWI notification only in response to urgent messages (as opposed to all messages). By default, a busy or no answer condition detected on a notification call results in two additional retries occurring at 15-minute intervals. All notification results are posted to the system log file.*

**Description:** Message Notification

**Participants**: Auto Attendant, Operator, Phone A, Phone B and Phone C.

**Dependencies:** None

**Initial conditions**: None

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Forward Voice Mail to Email | Review the Outlook inbox associated with Phone A | Phone A will have voice mails including the record a call message in their inbox | | YES | | |

## TEST CASE 40: **Office Phones**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *The office phones shall support the following features and functions at a minimum.* *Mitel 6920 device and Mitel 6905 devices* | | | | | | | |
| **Description:** Meet Office Phone requirements | | | | | | | |
| **Participants**: none | | | | | | | |
| **Dependencies:** None | | | | | | | |
| **Initial conditions**: None | | | | | | | |
| **Reference** | **Description** | **Action** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| | 12 keys dial-pad | Visual Inspection | | | YES | | |
| | Six (6) programmable line/feature keys with soft label/status indicators | Visual Inspection | | | YES | | |
| | G711, G729 and wideband (G.722 or equivalent) voice | Document reference | | | YES | | |
| | Auto Self Discovery/DHCP | Unplug LAN cable on phone A. re-connect LAN cable to phone A. watch Phone A go through DHCP sequence | | | YES | | |
| | Echo Canceller | Document reference | | | YES | | |
| | QoS Support (802.1p/Q, DiffServ) | Document reference | | | YES | | |
| | Embedded Web services support, e.g., XML | Document reference | | | YES | | |
| | Hold key | Visual Inspection | | | YES | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Last Number Redial key | Visual Inspection | | | YES | | |
| | Release key | Visual Inspection | | | YES | | |
| | Message Waiting/Call Ringing indicator(s) | Visual Inspection | | | YES | | |
| | Full Duplex Speakerphone | From Phone A place a handsfree call to phone B | | | YES | | |
| | Speaker/Mute key | Visual Inspection | | | YES | | |
| | Volume Control keys/slide | Visual Inspection | | | YES | | |
| | High resolution, backlit, monochrome grayscale graphical display screen with four (4) associated context sensitive soft feature labels ((key, cursor, or navigator control) | Visual Inspection | | | YES | | |
| | LDAP access | Document Reference | | | YES | | |
| | Stored Call Data (Last 25 numbers dialled/Last 25 incoming call numbers/Last 25 missed calls) | From phone A access Call History. Press the Blue Settings key and select Call History. Select Missed, Answered and Made to cycle through the call types. | | | YES | | |
| | Integrated or Add-on Gigabit Ethernet switch with two (2) RJ-45 connector interface ports for 10/100/1000 Mbps LAN and desktop PC connectivity. | Visual Inspection and document reference | | | YES | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Support of IEEE 802.af POE specifications | Visual Inspection | | | YES | | |

## TEST CASE 42: **Testing Emergency Call Boxes: P6947 ETEL/ITEL will be utilized for the testing**

**Requirement:**

*Combined ETEL and ITEL*

**Description: Ensure calls from ETEL/ITEL call boxes are routing correctly**

**Participants**: ETEL/ITEL/Person A

**Dependencies**: ETEL/ITEL device is registered with the Primary controller.

**Initial conditions**: Phone is idle, ETEL/ITEL is idle, no strobe lights

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Make an Emergency call from an ETEL/ITEL Call box to Phone A | Press the EMERGENCY call button on the ETEL/ITEL call box | RED light around the call box button should be flashing to indicate "Now Calling" When Phone A answers light will be on steady. Verify audio with Phone A. OCT will then indicate Help is on the way. The call box "help is on the way" light should be lit green to indicate Help is on the way. | | SUBJECT for FAT Phase 2 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | Make an INFORMATION call from an ETEL/ITEL Call box the Phone A | Press the INFORMATION call button on the ITEL call box | Green light on call box button should be flashing to indicate “Now Calling” When Phone A answers light will be on steady. Verify audio with Phone A | | SUBJECT for FAT Phase 2 | | |

## TEST CASE 43: **Testing reporting to SCADA when Emergency Event is triggered**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *To report EVENTS (from the Call Boxes) to SCADA systems* | | | | | | | |
| **Description: Ensure calls from ETEL/ITEL notify Scada by opening the NC relay** | | | | | | | |
| **Participants**: ETEL/ITEL/Strobe lights 1 & 2/ Person A | | | | | | | |
| **Dependencies**: SCADA is replaced by a visual device, (strobe light) representing that the EVENT is triggering an external device. | | | | | | | |
| **Initial conditions**: Call box, Phone A are idle, Strobe light is on | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Create a condition on the ETEL/ITEL Call box and ensure that SCADA is made aware.<br><br>The test will start with the strobe light "on" to demonstrate relay closure at idle.(Supervision) | Press the emergency button on the ETEL/ITEL | Strobe light 1 will go off and the call will progress and be answered | | SUBJECT for FAT Phase 2 | | |
| 2 | Create a condition on the ETEL/ITEL Call box and ensure that SCADA is made aware.<br><br>The test will start with the strobe light "on" to demonstrate relay closure at idle.(Supervision) | Press the information button on the ETEL/ITEL | Strobe light 2 will go off and the call will progress and be answered | | SUBJECT for FAT Phase 2 | | |

## TEST CASE 44: **Testing Emergency Call Boxes: P6945 ETEL will be utilized for the testing**

**Requirement:**

*ETEL*

**Description: Ensure calls from ETEL call boxes are routing correctly**

**Participants**: ETEL/Person A

**Dependencies**: ETEL, device is registered with the Primary controller

**Initial conditions**: Phone is idle, ETEL is idle, Strobe light is on

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Make an Emergency call from an ETEL Call box to Phone A | Press the EMERGENCY call button on the ETEL call box | RED light around the call box button should be lit to indicate "Now Calling" When Phone A answers light will be on steady. Verify audio with Phone A. OCT will then indicate Help is on the way. The call box "help is on the way" light should be lit green to indicate Help is on the way. | | SUBJECT for FAT Phase 2 | | |

## TEST CASE 45: **Testing reporting to SCADA when Emergency Event is triggered**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *To report EVENTS (from the Call Boxes) to SCADA systems* | | | | | | | |
| **Description: Ensure calls from ETEL notify Scada by opening the NC relay** | | | | | | | |
| **Participants**: ETEL/Strobe light 1/ Person A | | | | | | | |
| **Dependencies**: SCADA is replaced by a visual device, (strobe light) representing that the EVENT is triggering an external device. | | | | | | | |
| **Initial conditions**: Call box, Phone A are idle, Strobe light is on | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Create a condition on the ETEL/ITEL Call box and ensure that SCADA is made aware.<br><br>The test will start with the strobe light "on" to demonstrate relay closure at idle.(Supervision) | Press the emergency button on the ETEL | Strobe light 1 will go off and the call will progress and be answered | | SUBJECT for FAT Phase 2 | | |

## TEST CASE 46: **Testing Emergency Call Boxes: P6945–Yard-HFI will be utilized for the testing**

**Requirement:**

*Yard-HFI*

**Description: Ensure calls from Yard HFI call boxes are routing correctly**

**Participants**: Yard-HFI/Person A

**Dependencies**: Yard HFI device is registered with the Primary controller.

**Initial conditions**: Phone is idle, Yard-HFI is idle

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Make an Emergency call from a Yard HFI Call box to Phone A | Press the EMERGENCY call button on the Yard HFI call box | RED light around the call box button should be lit to indicate "Now Calling" When Phone A answers light will be on steady. Verify audio with Phone A. OCT will then indicate Help is on the way. The call box "help is on the way" light should be lit green to indicate Help is on the way. | | SUBJECT for FAT Phase 2 | | |

## TEST CASE 47: **Testing reporting to SCADA when Emergency Event is triggered**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Requirement:** *To report EVENTS (from the Call Boxes) to SCADA systems* | | | | | | | |
| **Description: Ensure calls from YARD HFI notify Scada by opening the NC relay** | | | | | | | |
| **Participants**: YARD-HFI/Strobe lights 1 & 2/ Person A | | | | | | | |
| **Dependencies**: SCADA is replaced by a visual device, (strobe light) representing that the EVENT is triggering an external device. | | | | | | | |
| **Initial conditions**: Call box, Phone A are idle, Strobe light is on | | | | | | | |
| **Step** | **Description** | **Actions** | **Outcome** | **Comments** | **Compliant? Yes \|No \|Partial** | **Witness** | **Date** |
| 1 | Create a condition on the YARD-HFI Call box and ensure that SCADA is made aware.<br><br>The test will start with the strobe light "on" to demonstrate relay closure at idle.(Supervision) | Press the emergency button on the YARD-HFI | Strobe light 1 will go off and the call will progress and be answered | | SUBJECT for FAT Phase 2 | | |

## TEST CASE 48: **ETEL – ETEL/ITEL- HFI re-register after disconnecting**

**Requirement:**

*Ensure reconnection of the SIP Devices after disconnecting from the network. The ETEL/ITEL will be used to demonstrate as the electronics are the same in the ETEL, ETEL/ITEL, and HFI*

**Description: Ensure the SIP device reconnects correctly.**

**Participants**: ETEL-ITEL/Person A

**Dependencies**: SCADA is replaced by a visual device, (strobe light) representing that the EVENT is triggering an external device.

**Initial conditions**: Call box, Phone A are idle, Strobe light is on

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Create a condition in the network to disconnect and re-register the ETEL /ITEL to the MiVB<br>The test will start with the strobe light “on” to demonstrate relay closure at idle.(Supervision) | Disconnect the ETEL/ITEL from the network and Press the emergency button on the ETEL /ITEL | No call progresses, strobe light is on and does not go off | | SUBJECT for FAT Phase 2 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Create a condition in the network to re-connect and re-register the ETEL /ITEL to the MiVB<br>The test will start with the strobe light “on” to demonstrate relay closure at idle.(Supervision) | Connect the ETEL/ITEL to the network, wait for re-registration and then Press the emergency button on the ETEL /ITEL | The call progresses, strobe light goes off, the call is answered | | | | |

## TEST CASE 49: **Analog line connectivity via the Mitel TA-7102**

**Requirement:**

*Ensure that an analog device can communicate with the entire voice network by integration via a SIP to Analog Integration device.*

**Description: Make telephone calls from and to the analog device while on an IP network.**

**Participants**: TA-7102/analog telephone/Person A

**Dependencies**: Insertion of the TA-7102 device in the network.

**Initial conditions**: Phone A, Analog telephone are Idle

| Step | Description | Actions | Outcome | Comments | Compliant? Yes \|No \|Partial | Witness | Date |
|---|---|---|---|---|---|---|---|
| 1 | Initiate a telephone call from Phone A to the Analog telephone | Dial the extension | Analog phone rings, answer and verify connectivity between the callers, verify fullduplex capability | | SUBJECT for FAT Phase 2 | | |
| 2 | Initiate a telephone call from the analog telephone to the Phone A | Dial the extension | Phone A rings, answer and verify connectivity between the callers, verify fullduplex capability | | SUBJECT for FAT Phase 2 | | |

| | |
|---|---|
| Tests executed by: | Jean-V. Renaud |
| Position: | Solutions Architect – Healthcare and Public Security |
| Mitel Corporation | |
| Tests executed: | September 21st 2021 |
| Witnessed by: | Jay Schooley, Members of SNC Lavalin, Members of the City of Ottawa. |
| Phase 2 Tests executed by: | Jean-V. Renaud |
| Position: | Solutions Architect – Healthcare and Public Security |
| Mitel Corporation | |
| Tests executed: | |
| Witnessed by: | |