SECTION 4
ACCEPTANCE TESTING

PROJECT 25 SYSTEM UPGRADE   **13 MAY 2015**

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SECTION 4

ACCEPTANCE TESTING

Preliminary acceptance test procedures for the proposed equipment components/modules follow.

4.1 WIDE AREA TRUNKING – FDMA-ONLY SITES

4.1.1 Talkgroup Call

1. DESCRIPTION

The Talkgroup is the primary level of organization for communications on a trunked radio system. Radios with Talkgroup call capability will be able to communicate with other members of the same Talkgroup. This provides the effect of a private channel down to the Talkgroup level.
This test will demonstrate that a Talkgroup transmission initiated by a radio user will only be heard by system users, which have, the same Talkgroup selected. As with other types of calls, Talkgroup calls can take place from anywhere in the system.

SETUP

RADIO-1 - SITE 1 - TALKGROUP 1
RADIO-2 - SITE 2 - TALKGROUP 1
RADIO-3 - SITE 1 - TALKGROUP 2
RADIO-4 - SITE 2 - TALKGROUP 2

VERSION #1.040

2. TEST

Step 1. Initiate a Wide Area Call with RADIO-1 in TALKGROUP 1.

Step 2. Observe that only RADIO-2 will be able to monitor and respond to the call.

Step 3. Initiate a Wide Area Call with RADIO-3 in TALKGROUP 2.

Step 4. Observe that only RADIO-4 will be able to monitor and respond the call.

Pass_____ Fail_____

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4.1.2　Secure Operation

1. DESCRIPTION

Digital encryption is used to scramble a transmission so only properly equipped and configured radios can monitor the conversation. A "Key" is used to encrypt the transmit audio. Only radios with the same "Key" can decrypt the audio and listen to it.

SETUP

RADIO-1 - TALKGROUP 1 (SECURE TX MODE)
RADIO-2 - TALKGROUP 1 (SECURE TX MODE)
RADIO-3 - TALKGROUP 1 (SECURE MODE and no, or incorrect key)
RADIO-4 - TALKGROUP 1 (Clear TX Mode)

Note: The identical secure mode must be programmed into RADIO-1, RADIO-2, RADIO-4 and that RADIO-3 has no secure code loaded or has a unique secure code from the other testing radios.

VERSION #1.020

2. TEST

Step 1.　Initiate a secure wide area call with RADIO-1 on TALKGROUP 1. Keep this call in progress until instructed to end the call.

Step 2.　Observe that RADIO-2 will be able to monitor the call.

Step 3.　Observe that RADIO-3 does not receive the call.

Step 4.　Observe that RADIO-4 will also receive the call even with the secure switch set to the non-secure mode of operation.

Step 5.　End the call from RADIO-1.

Step 6.　Respond with RADIO-2 and verify that RADIO-1 receives the response audio but RADIO-3 cannot.

Pass_____ Fail_____

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4.1.3   Continuous Assignment Updating

1. DESCRIPTION

When a talkgroup is assigned a voice channel, the site controller continues to transmit the channel assignment on the control channel for the duration of the talkgroup call. Radios coming into use on the system are automatically sent to voice channels with conversations in progress involving their selected talkgroups.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
RADIO-3 - TALKGROUP 1

VERSION #1.010

2. TEST

Step 1.   Turn OFF RADIO-1.

Step 2.   Initiate a Talkgroup Call using RADIO-2 and verify RADIO-3 hears the audio.

Step 3.   While the Talkgroup Call is in progress, turn ON RADIO-1.

Step 4.   Observe RADIO-1, which was just brought back into service, joins the Talkgroup Call already in progress.

Step 5.   End the talkgroup call.

Step 6.   Switch RADIO-1 to another talkgroup.

Step 7.   Initiate a Talkgroup Call from RADIO-2 to RADIO-3.

Step 8.   While the Talkgroup Call is in progress, set RADIO-1 back to TALKGROUP 1.

Step 9.   Observe that RADIO-1 joins the Talkgroup Call already in progress.

Pass_____ Fail_____

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4.1.4   Recent User Priority

1. DESCRIPTION

A recent user of the channel has priority over other users of equal priority of being assigned a channel when a busy queue exists. The maximum number of consecutive times that a user may be elevated to recent user priority is two.

Note: Timing is critical for this test, it is recommended that the test be read through and understood before attempting to complete.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 2
RADIO-2 - SITE - SITE 1
RADIO-3 - TALKGROUP 3
RADIO-3 - SITE - SITE 1

VERSION #1.030

2. TEST

Step 1.   Ensure that the priority level for all talkgroups is the same. Simulate a busy system by disabling all channels at SITE 1 with the exception of the control channel and one voice channel.

Step 2.   Press and hold the PTT switch of RADIO-1.

Step 3.   Press the PTT switch on RADIO-2. Verify that the radio receives a busy tone.

Step 4.   Press the PTT switch on RADIO-3. Verify that the radio receives a busy tone.

Step 5.   Release the PTT switch on RADIO-1.

Step 6.   As soon as RADIO-2 receives its callback tone, press and hold its PTT switch.

Step 7.   Within 2 seconds of callback, re-key RADIO-1. Verify that RADIO-1 receives a busy tone. Release the PTT switch on RADIO-1.

Step 8.   Release the PTT switch on RADIO-2. Verify that RADIO-1 receives a callback tone before RADIO-3.

Step 9.   Repeat Steps 2-8 for RADIO-1 and RADIO-2. Verify that the priority of RADIO-1 is once more elevated in the busy queue.

Step 10. Repeat Steps 2-8 for RADIO-1 and RADIO-2 once more. Verify that in Step 9 that RADIO-3 receives the callback tone since RADIO-1 cannot be elevated in the busy queue more than two consecutive times.

Pass____ Fail____

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4.1.5   Call Alert

1. DESCRIPTION

Call Alert is a tone page that allows a user to selectively alert another radio unit. The initiating radio will receive notification from the trunked system as to whether or not the page was received by the target radio. Units receiving a Call Alert will sound an alert tone. As with other types of calls, Call Alerts can take place from anywhere in the system.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 2
RADIO-3 - TALKGROUP 3

VERSION #1.010

2. TEST

Step 1.   Using RADIO-1, press the page button.

Step 2.   Enter the unit ID of RADIO-2 with the keypad, or scroll to the location where this ID is stored

Step 3.   Press the PTT to initiate the call alert. Verify that the RADIO-1 user receives audible indication that the Call Alert was sent.

Step 4.   Verify that RADIO-2 user receives an audible indication of an incoming Call Alert was sent but RADIO-3 does not.

Step 5.   Verify RADIO-1 gets an audible indication that the Call Alert was successfully received at the target radio.

Step 6.   Turn off RADIO-2. Send a Call Alert from RADIO-1 to RADIO-2.

Step 7.   Verify that the RADIO-1 user receives audible indication that the Call Alert was sent.

Step 8.   Verify RADIO-1 receives a "No Acknowledgement" indication that the Call Alert was not received at the target radio.

Pass_____ Fail_____

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4.1.6   Emergency Alarm and Call with Top of Queue

1. DESCRIPTION

Users in life threatening situations can use the Emergency button on the radio to immediately send a signal to the dispatcher and be assigned the next available voice channel. An Emergency Call can be set to either Top of Queue or Ruthless Preemption operation. During an emergency call the Emergency ID will appear on the display of the subscribers. To demonstrate this, an Emergency Alarm and Call will be initiated from a subscriber which will be received by a subscriber on the same talkgroup, affiliated at any site of any zone in the system.

NOTE: If the subscriber does not have the Display option, the Emergency ID will not be displayed.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - Any Site
RADIO-3 - TALKGROUP 2
RADIO-3 - SITE - SITE 1
RADIO-4 - TALKGROUP 3
RADIO-4 - SITE - SITE 1

All radios and talkgroups should start with default priorities. Default is 10.

VERSION #1.010

2. TEST

Step 1.   Verify the emergency type for TALKGROUP 1's template is set up as Top of Queue.

Step 2.   Simulate a busy system by disabling all channels at SITE 1 with the exception of the control channel and one voice channel.

Step 3.   Press the PTT to initiate a call with RADIO-3 and hold the PTT switch until instructed to release.

Step 4.   Key RADIO-4 and verify the radio receives a busy tone. Release the PTT switch on RADIO-4.

Step 5.   Using RADIO-1 send an Emergency Call by depressing the emergency switch and then the PTT switch.

Step 6.   Observe that RADIO-1 cannot transmit due to the voice channel being busy.

Step 7.   Release the PTT switch on RADIO-3.

Step 8.   Observe that RADIO-1 receives the call back before RADIO-4 and is able to proceed with the call. Also observe that the display on RADIO-2 denotes an emergency and the unit ID or alias of RADIO-1.

Step 9.   Dekey RADIO-1 and end the Emergency Call by holding down the Emergency button on RADIO-1 until an alert tone sounds. Verify RADIO-1 returns to normal operation and that RADIO-4 receives a callback.

Step 10.   Return the system to normal operation by enabling all the channels at SITE 1.

Pass_____ Fail_____

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4.2   SITE TRUNKING – FDMA-ONLY SITES

4.2.1   Site Trunking Indication

1. DESCRIPTION

When a remote site loses its link or does not have a link to the Zone Controller, the affected site will enter "Site Trunking" mode of operation. Radios locked onto this site will be serviced locally within this site's coverage area.

NOTE: If the subscriber does not have the Display option, the "Site Trunking" indication will not be displayed.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 2
RADIO-2 - SITE - SITE 1
Lock the subscribers to SITE 1 if more than one site exists on the system.

VERSION #1.010

2. TEST

Step 1.   Place SITE 1 into the Site Trunking mode.

Step 2.   Verify that RADIO-1 and RADIO-2 are displaying the "Site Trunking" indication.

Step 3.   Return the site to Wide Area Trunking unless the next test requires Site Trunking.

Pass_____ Fail_____

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4.2.2   Talkgroup Call

1. DESCRIPTION

When a site goes into Site Trunking, radios with Talkgroup Call capability will be able to communicate with other members of the same talkgroup at that same site. Members of the same talkgroup at other sites will not be able to monitor those conversations.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - SITE 1
RADIO-3 - TALKGROUP 1
RADIO-3 - SITE - SITE 2
RADIO-4 - TALKGROUP 1
RADIO-4 - SITE - SITE 2

Note: All Radios should be "Site Locked"

VERSION #1.010

2. TEST

Step 1.   Place SITE 1 into the Site Trunking mode.

Step 2.   Initiate a Talkgroup Call with RADIO-1 on TALKGROUP 1 at SITE 1.

Step 3.   Observe that only RADIO-2 will be able to monitor and respond to the call. Note that RADIO-3 and RADIO-4 are not able this monitor the call since the site is not in wide area operation.

Step 4.   Initiate a Talkgroup Call with RADIO-3 on TALKGROUP 1 at SITE 2.

Step 5.   Observe that only RADIO-4 will be able to monitor and respond to the call.

Pass_____ Fail_____

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4.2.3   Call Alert

1. DESCRIPTION

Call Alert is a tone page that allows a user to selectively alert another radio unit. When a site is in Site Trunking, Radios at the site will only be able to Call Alert other radios at the same site. The initiating radio will receive notification from the trunked system as to whether or not the page was received by the target radio.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 2
RADIO-2 - SITE - SITE 1

Note: All Radios should be "Site Locked"

VERSION #1.010

2. TEST

Step 1.   Place SITE 1 into the Site Trunking mode.

Step 2.   Using RADIO-1, press the page button.

Step 3.   Enter the Unit ID of RADIO-2 with the keypad, or scroll to the location where this ID is stored.

Step 4.   Press the PTT to initiate the Call Alert.

Step 5.   Verify that RADIO-2 received the Call Alert.

Step 6.   Exit the Call Alert mode and return to normal talkgroup mode.

Step 7.   Return the site to Wide Area Trunking unless the next test requires Site Trunking.

Pass____ Fail____

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4.2.4   Emergency Call and Alarm

1. DESCRIPTION

Emergency Alarms and Calls can be initiated by subscribers when the registered site is in Site Trunking. With all subscribers registered on a Site Trunking site, a subscriber will initiate an Emergency Alarm by pressing the Emergency button. By pressing the PTT, an Emergency Call will be issued and the ID of the initiator will be displayed with an Emergency indication by the other subscribers on the same talkgroup.

Note that for site trunking, Emergency Call operation is always Top of Queue.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - SITE 1
RADIO-3 - TALKGROUP 2
RADIO-3 - SITE - SITE 1
RADIO-4 - TALKGROUP 3
RADIO-4 - SITE - SITE 1

Note: All Radios should be "Site Locked"

VERSION #1.010

2. TEST

Step 1.   Place SITE 1 into the Site Trunking mode.

Step 2.   Simulate a busy system by disabling all channels at SITE 1 with the exception of the control channel and one voice channel.

Step 3.   Press the PTT on RADIO-3 and hold the PTT switch until instructed to release.

Step 4.   Key RADIO-4 and observe that the radio receives a busy.

Step 5.   Using RADIO-1, initiate an emergency alarm followed by an emergency call.

Step 6.   Observe that RADIO-1 cannot transmit due to the voice channel being busy.

Step 7.   Release the PTT switch on RADIO-3.

Step 8.   Observe that RADIO-1 can now proceed with the call and RADIO-2 receives the call. Also observe that the display on RADIO-2 denotes an emergency and the ID or Alias of the unit sending the emergency.

Step 9.   End the emergency call and verify that RADIO-4 gets a callback.

Step 10.   Restore all channels to service and return the site to Wide Area Trunking unless the next test requires Site Trunking.

Pass_____ Fail_____

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4.2.5   Busy Queuing and Callback

1. DESCRIPTION

If no voice channel resources are available, radios requesting channels for new conversations are placed in the busy queue. Users of the same priority will move through the queue in a FIFO (first in, first out) sequence; however, users of higher priority will be inserted ahead of lower priority users in the queue. When a voice channel becomes available, the radio at the top of the busy queue gets a channel assignment and generates a callback tone. The callback alerts the user that a channel assignment was made and transmitting is now possible on the selected talkgroup.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 2
RADIO-2 - SITE - SITE 1
RADIO-3 - TALKGROUP 3
RADIO-3 - SITE - SITE 1
RADIO-4 - TALKGROUP 1
RADIO-4 - SITE - SITE 1

Note: All radios are "Site Locked."

VERSION #1.020

2. TEST

Step 1.   Simulate a busy system by disabling all channels at SITE 1 with the exception of the control channel and one voice channel.

Step 2.   Initiate a Talkgroup Call with RADIO-1 and observe that RADIO-4 receives the call. Keep this call in progress until instructed to end the call.

Step 3.   Key RADIO-2 and observe that the radio receives a busy.

Step 4.   Key RADIO-3 and observe that the radio receives a busy.

Step 5.   End the Talkgroup Call established in Step 2.

Step 6.   Observe that RADIO-2 receives a callback prior to RADIO-3 receiving a callback.

Step 7.   Return the site to Wide Area Trunking unless the next test requires Site Trunking

Pass____ Fail____

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4.2.6　Wide Area Recovery

1. DESCRIPTION

A site in Site Trunking will transition to Wide Area Trunking when all failures have been cleared. All subscribers should transition from Site Trunking to Wide Area Trunking and continue to process calls.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - SITE 1
RADIO-3 - TALKGROUP 1
RADIO-3 - SITE - SITE 2
RADIO-4 - TALKGROUP 1
RADIO-4 - SITE - SITE 2
CONSOLE-1 - TALKGROUP 1

Note: All Radios should be "Site Locked"

VERSION #1.020

2. TEST

Step 1.　Set the status of SITE 1 to Wide Area and clear any system errors that may have placed SITE 1 into Site Trunking.

Step 2.　Verify that the status of SITE 1 has transitioned into Wide Area Trunking.

Step 3.　Verify that RADIO-1 and RADIO-2 no longer display Site Trunking.

Step 4.　Verify Wide Area communications between RADIO-1, RADIO-2, RADIO-3, RADIO-4 and CONSOLE-1.

Pass____　Fail____

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4.3   SYSTEM RELIABILITY FEATURES

4.3.1   Base Station Identification

1. DESCRIPTION

This test will demonstrate that the repeater(s) programmed for Base Station Identification (BSI) operation at every site broadcasts the FCC BSI at predefined intervals (usually 30 minutes). To accomplish this, a service monitor will be set up to monitor the BSI channel of a random site and note that the Base Station Identification is heard.

SETUP

A service monitor will be required to perform this test.

Note: A properly configured subscriber can be used to monitor the frequency for the BSI tones in place of a service monitor.

VERSION #1.030

2. TEST

Step 1.   Choose one site to test for Base Station Identification (BSI).

Step 2.   Setup the service monitor or subscriber to receive the frequency of the BSI channel for the particular site.

Step 3.   Monitor the service monitor until the Base Station Identification is broadcast. Verify that the BSI tones are heard on the monitored frequency.

Pass_____ Fail_____

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4.3.2   Multiple Control Channels

1. DESCRIPTION

A maximum of four channels are eligible for assignment as control channel at each site. In the event that the assigned control channel fails at any remote site, the Zone Controller automatically selects one of the other control capable channels as the active control channel for that site. A Control Channel Preference Level can be used to rank the control capable channels where 1 is the highest ranking and 4 the lowest.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-2 - TALKGROUP 1
RADIO-3 - TALKGROUP 2
RADIO-4 - TALKGROUP 2

Note: All radios should be affiliated to the site under test.

VERSION #1.010

2. TEST

Step 1.   Initiate a Talkgroup Call with RADIO-1 on TALKGROUP 1.

Step 2.   Observe that only RADIO-2 will be able to monitor and respond to the call.

Step 3.   Initiate a Talkgroup Call with RADIO-3 on TALKGROUP 2.

Step 4.   Observe that only RADIO-4 will be able to monitor and respond to the call.

Step 5.   Power off the control channel at the site under test.

Step 6.   Observe that the control channel rotates to the next available channel capable of acting as a control channel.

Step 7.   Initiate a Talkgroup Call with RADIO-1 on TALKGROUP 1.

Step 8.   Observe that only RADIO-2 will be able to monitor and respond to the call.

Step 9.   Initiate a Talkgroup Call with RADIO-3 on TALKGROUP 2.

Step 10.   Observe that only RADIO-4 will be able to monitor and respond to the call. Power up the channel previously powered off to return the system to normal operation.

Pass____ Fail____

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4.3.3   Receiver Interference Shutdown

1. DESCRIPTION

Receiver interference occurs when a repeater receives an unauthorized signal. In order to prevent a disruption of communications, the affected channel will be disabled and removed from the system's pool of available channel resources when the undesired carrier is detected for longer than the time-out period. Once the interfering carrier disappears, the channel is returned to service within approximately 5 minutes. The channel is then enabled.

Note: The default Carrier Malfunction Timeout is 50 seconds. If the default value is to be modified, the change will need to be made in the Unified Network Configurator (UNC) for the channel(s) to be modified.

SETUP

A Service Monitor or configured subscriber is needed to transmit a signal at the receive frequency of a chosen channel.

VERSION #1.010

2. TEST

Step 1.   Using a service monitor, transmit a 1 kHz tone at the receive frequency of any repeater.

Step 2.   Continue to transmit the 1 kHz tone until the controller removes the channel from service. (The Carrier Malfunction Time parameter timer is configurable, default is 50 seconds).

Step 3.   Initiate a Talkgroup Call with RADIO-1 on TALKGROUP 1.

Step 4.   Dekey (allow the channel to end the call) and initiate another Talkgroup Call with RADIO-1. Verify the affected channel is removed from the selection/assignment process by repeating talkgroup calls until the available channels have all been used.

Step 5.   From the Unified Event Manager (UEM), verify channel malfunction due to interfering carrier is indicated.

Step 6.   Remove the interfering signal. Verify the test Channel is returned to service within five minutes and that UEM indicates that the channel is now enabled.

Step 7.   Initiate a Talkgroup Call with RADIO-1 on TALKGROUP 1. Dekey (allow the channel to end the call) and initiate another Talkgroup Call with RADIO-1. Repeat the calls until the test channel has been used.

Step 8.   Verify that RADIO-2 can monitor and respond to the TALKGROUP 1 call on the channel that has returned to service.

Pass____ Fail____

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4.3.4   Transmitter Power Failure Shutdown

1. DESCRIPTION

The repeaters can detect a loss or decrease in transmitter output power of all trunked repeaters connected to it. Each trunked repeater contains an internal wattmeter element. Once the forward power has decreased past the threshold set, the repeater instructs the Zone Controller to take the channel out of service. If reflected power increases past the threshold set, the repeater will also instruct the Zone Controller to take the channel out of service.
Once the station threshold has been exceeded and the station taken out of service a 5 minute timer will start. At the timer expiration a transmitter test will start to perform a self check on the station. This self check lasts for 20 seconds. If the station passes the self check it will be placed back into service.

Note: This test should be done on a site with more than 2 channels. Failsoft will occur if the test is done on a 2 channel site.

SETUP

RADIO-1 - TALKGROUP 1

VERSION #1.010

2. TEST

Step 1.   Select a channel to disconnect the transmit antenna connection to the trunked repeater. (This will cause a high VSWR condition)

Step 2.   Key RADIO-1 so that the selected channel is assigned, and verify that the channel disables due to an alarm condition. Verify that this alarm is reported at the Unified Event Manager (UEM).

Step 3.   Wait 30 seconds after the failure then restore the transmit antenna connection to the trunked repeater.

Step 4.   Using the station LEDs, verify that the time it takes from the corrected connection to the station being placed back in service is within 5 minutes.

Step 5.   Verify the Unified Event Manager (UEM) also reports the station being back in service.

Pass____ Fail____

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4.3.5   Station Failure

1. DESCRIPTION

When a base station repeater at one site fails due to hardware problems, the pending call is lost and the trunking controller removes the channel from service system wide. This failure can be created by powering down one base station repeater.

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - SITE 1

VERSION #1.010

2. TEST

Step 1.   Power down a voice repeater for any voice channel at SITE 1.

Step 2.   Initiate calls using RADIO-1 to step through all available voice channels.

Step 3.   Verify that the disabled channel is not used at SITE 1.

Pass_____ Fail_____

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4.3.6   Redundant Site Controller Switching – Automatic Switchover

1. DESCRIPTION

The Site Controller subsystem uses two Site Controllers in a redundant configuration. The backup Site Controller is made active either upon the loss of communication to the active Site Controller or upon a user initiated command from the Site Control Manager.
This test will demonstrate that on the loss of the active site controller the standby controller will become active and carry on the site operations.

SETUP

RADIO-1 – TALKGROUP 1
RADIO-1 – SITE – SITE 1
RADIO-2 – TALKGROUP 1
RADIO-2 – SITE – SITE 1
RADIO-3 – TALKGROUP 1
RADIO-3 – SITE – SITE 1

All Radios should be "Site Locked".

VERSION #1.010

2. TEST

Step 1.   Verify both Site Controller are available and in the Normal state.

Step 2.   Power off the active Site Controller (or in the ESS configuration connect to the Active Site controller using CSS and perform a "reset") and verify the backup becomes the new active Site Controller (note events in the event viewer).

Step 3.   Key RADIO-1 and verify that RADIO-2 and RADIO-3 hear the audio.

Step 4.   End the call from RADIO-1.

Step 5.   Power up the Site Controller (if it was powered off). Verify the Site Controller returns to the normal state.

Pass____ Fail____

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4.3.7 Redundant Site Controller Switching – User Initiated

1. DESCRIPTION

The Site Controller subsystem uses two Site Controllers in a redundant configuration. The backup Site Controller is made active either upon the loss of the active Site Controller or upon a user initiated command from the Unified Event Manager (UEM).

SETUP

RADIO-1 - TALKGROUP 1
RADIO-1 - SITE - SITE 1 (Site Locked)
RADIO-2 - TALKGROUP 1
RADIO-2 - SITE - SITE 1 (Site Locked)
RADIO-3 - TALKGROUP 1
RADIO-3 - SITE - SITE 1 (Site Locked)

VERSION #1.010

2. TEST

Step 1.   Initiate a call using RADIO-1. Verify RADIO-2 and RADIO-3 can communicate with RADIO-1.

Step 2.   Verify both Site Controllers are enabled by viewing the site status in the UEM. Both Site Controllers should have a green, normal indication.

Step 3.   Initiate a user disabled on the active Site Controller using the UEM.

Step 4.   Verify that the backup Site Controller becomes active by viewing the status LED on the front panel of the Site Controller and the UEM.

Step 5.   Key RADIO-1 and verify that RADIO-2 and RADIO-3 hear the audio.

Step 6.   End the call from RADIO-1.

Step 7.   Enable the user disabled Site Controller and verify both are in Normal state.

Pass____ Fail____

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4.4   SIGNOFF CERTIFICATE

By their signatures below, the following witnesses certify they have observed the system Acceptance Test Procedures.

Signatures

WITNESS: _____Date: _____

Please Print Name: _____   Initials: _____

Please Print Title: _____

WITNESS: _____Date: _____

Please Print Name: _____   Initials: _____

Please Print Title: _____

WITNESS: _____Date: _____

Please Print Name: _____   Initials: _____

Please Print Title: _____

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