

Appendix G



Chico Police Department SMS 9-1-1 Text via IP Interface Test Results

April 2, 2014

Test Cases

1. Verify PSAP procedures in place when non-test SMS 9-1-1 text is delivered
2. Verify test 9-1-1 SMS text is delivered to correct PSAP and rebid capability
3. Verify action if PSAP does not respond to test 9-1-1 SMS text
4. Verify 2 simultaneous SMS 9-1-1 text can be handled by one call taker
5. Verify bounce back message delivered when third 9-1-1 SMS text is sent
6. Verify text conversation is still up if cell phone is powered down and powered up
7. Verify texter receives bounce back if standing inside Chico PD jurisdiction but Cell tower centroid is in different PSAP jurisdiction
8. Verify 9-1-1 SMS text will be delivered to Chico PD if texter is standing outside Chico PD jurisdiction but the cell tower centroid is within Chico PD jurisdiction
9. Verify 9-1-1 SMS texter receives a bounce back when added to deny list (Not available with Intrado solution)
10. Verify 9-1-1 SMS texter receives a bounce back when PSAP has provisioned a Time of Day. (Not available with Intrado solution)
11. Verify ability for second call taker to take over SMS text session
12. Verify bounce back is received when both trunks are busy
13. Verify transfer capability from Chico PD to Chico PD (Not available at this time)
14. Verify results when texter send more than 160 characters and verify results when sending symbols not supported in TTY
15. Verify SMS text-to-9-1-1 sessions are being recorded in ECaTS

TEST #1	Non test Text is sent to Chico PD
Objective/Description	This test verifies that when Chico PD receives a non-test text they will manually send canned bounce back response Text (when service is not available)
Resources	Texter in field and centroid within Chico PD jurisdiction. Call taker to receive text INTRADO to monitor text session
Test Setup	<ol style="list-style-type: none"> 1. Verify Texter is ready 2. Send test SMS 9-1-1 Text to verify bounce back (from Verizon Wireless) 3. Verify TCC is provisioned and ready 4. Verify the target PSAP is available. 5. Verizon Wireless/INTRADO turn on 9-1-1 texting for Chico PD
Procedure	<ol style="list-style-type: none"> 1. Text message "I have a flat tire" 2. Call taker should recognized this is not part of our testing (because the text does not start with this "is a test") and reply back with the canned bounce back message (should be same message they would see from Verizon Wireless) 3. PSAP to end text session.
Verification	<ol style="list-style-type: none"> 1. Verify bounce back received from Verizon Wireless on initial test 2. Once service is activated verify canned bounce back is sent by PSAP. 3. Verify release text received by Texter.
Text time	Send to receive: 32 seconds
Notes	<p>Test text sent from 530-370-XXXX 10:09:12</p> <p>No canned bounce back message in place so didn't complete test</p>

TEST #2	Texter send 9-1-1 SMS text and routes to Chico PD
Objective/Description	This test verifies Text can be delivered to Chico PD and rebid for location is functioning.
Resources	Texter in field and centroid within Chico PD jurisdiction. Verizon cell phone with location agent activated Call taker to receive text INTRADO to monitor text session
Test Setup	1. Verify Texter is ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available.
Procedure	1. Send a SMS text (starts with this is a test) to 911 to initiate a dialog. 2. Respond to the incoming RFA at the PSAP and send a few messages back and forth between the PSAP and texter. 3. After 20 seconds rebid for location. 4. PSAP ends text session.
Verification	1. Verify the RFA is received by the PSAP configured for this test case. 2. Verify the transcript is received by the PSAP when the dialog connected, and location information is properly displayed and call back number displayed. 3. Verify all messages sent by the PSAP are sent to the mobile handset. 4. Verify all messages sent by the mobile are received by the PSAP. 5. verify lat/long changes from centroid to actual location of texter 6. Verify release text received by Texter.
Text time	Send to receive: 40 seconds
Notes	<p>Test text was sent from 530-270-XXXX at 10:10:29 Texter: Text.... #2 Chico PD received text at 10:11:09 "Approximate Cell Sector location provided by network: latitude, longitude = 39.715930. - 121.793810" Chico PD replied: "Hi, this is XXXXX" Texter replied back : "Got it thanks" Chico PD replied : "ok"</p> <p>Chico PD released the call at 10:13:16</p>

TEST #3	Texter sends SMS to 911, INTRADO TCC receives and provides routing instruction, Route to PSAP – Chico PD does not respond to text
Objective/ Description	This test verifies that TCC responds to an initial text that is not responded to by the PSAP with a canned message.
Resources	Texter in field within Chico PD jurisdiction. Call taker to receive text INTRADO to monitor text session Timer to time send receive time
Test Setup	1. Mobile phone activated and ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available.
Procedure	1. Send a SMS to 911 to initiate a text session. 2. PSAP does not respond to initial text 3. After 30 seconds TCC send canned message to Texter. If PSAP and Texter converse a couple of times and the PSAP goes silent for 30 seconds, will a canned message be sent to Texter?
Verification	1. Verify the RFA is received by the PSAP configured for this test case. 2. Verify the transcript is received by the PSAP when the dialog connected 3. Verify PSAP non response message received by Texter
Text time	Send to receive: 21 seconds
Notes	Test text was sent from 530-270-XXXX at 10:15:20 Texter: "Test 2" Chico PD did receive text and did not respond to it Texter received a bounce back message at 10:16:11

Case #4	Two simultaneous SMS Text 911 from different users, Routed to Chico PD
Objective/Description	This test verifies that TCC can process the scenario of initiating two dialogs from different texters with the delivery of the messages to Chico PD .
Resources	2 SMS Texters 1 9-1-1 Call Taker 2 timers
Test Setup	1. Two mobile phones activated and ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available.
Procedure	1. Initiate two dialogs by sending a SMS to 911 from two different mobile handsets simultaneously. 2. Respond to the two incoming RFAs at the PSAP and send a few messages back and forth between the PSAP and texter . 3. PSAP ends text session.
Verification	1. Verify that both RFAs are received by the PSAP configured for this test case. 2. Verify the transcript for each dialog is received by the PSAP 3. Verify all messages sent by the PSAP are sent to the texter. 4. Verify all messages sent by the texter are received by the PSAP.
Text time	Text session 1 send to receive: 916-513-0012 18.13 Text session 2 send to receive: 530-370-XXXX 26.40
Notes	First two attempts were released by the PSAP, test was compromised – not synchronized. Test text was sent from 530-XXX-XXX at 10:25:44 Texter: “this is another test call ” Approximate Cell Sector location provided by network : latitude, longitude = 39.726650, -121.805490 Texts exchanged between PSAP and Texter Text test was sent from 530-370-XXXX at 10:25:50 Texter: “Test #4 take 3” Approximate Cell Sector location provided by network : latitude, longitude = 39.715930, -121.793810 Texts exchanged between PSAP and Texter Text sessions were released by Chico PD

Case #5	Three simultaneous SMS Text to 911 from different texters, INTRADO TCC receives and provides routing instruction, 2 text Route to Chico PD, 1 text receives a Bounce Back Message
Objective/Description	This test verifies that TCC can process the scenario of initiating two dialogs from different texters with the delivery of the messages to Chico PD, and the third texter should receive a bounce back message. Chico PD provisioned with session limit of 2.
Resources	3 SMS Texters 2 9-1-1 Call Taker
Test Setup	1. Three Verizon Wireless mobile phones 2. Verify TCC is provisioned and ready with <u>queue limit</u> 3. Verify the target PSAP is available.
Procedure	1. Initiate three dialogs by sending a SMS to 911 from three different mobile handsets simultaneously. 2. Respond to the two incoming RFAs at the PSAP and send a few messages back and forth between the PSAP and mobile handsets. 3. PSAP ends Text session.
Verification	1. Verify that both RFAs are received by the PSAP configured for this test case. 2. Verify the transcript for each dialog is received by the PSAP. 3. Verify all messages sent by the PSAP are sent to the texter. 4. Verify all messages sent by the texter are received by the PSAP. 5. Verify third texter received a bounce back message
Text time	Send to receive:
Notes	<p>Did not test --- already worked at Butte County Sheriff --- didn't want to test because would have had to have some call takers log off</p> <p>Per Intrado, based on a algorithm (which includes how many calltakers are logged in and how many texts have not been answered (ie. are in queue) – will double check with Intrado the day of the test</p>

Test #6	Text Conversation when device powered down powered back up
Objective/Description	This test verifies the text conversation continues even if the mobile phone is powered down and turned back on within 5 minutes.
Resources	Texter in field and centroid within Chico PD jurisdiction 9-1-1 Call taker Timer
Test Setup	1. Mobile phone activated and ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available.
Procedure	1. Send SMS to 911 to initiate a dialog 2. Respond to the incoming RFA at the PSAP and send a few messages back and forth between the PSAP and mobile 3. Texter powers down mobile phone. 4. PSAP to send another text while phone is powered down. 5. Texter powers on phone after waiting 5 minutes 6. PSAP verifies original SMS conversation is up. 7. Texter sends SMS to continue same text session 8. Respond to the incoming RFA at the PSAP and send a few messages back and forth between the PSAP and texter . 9. PSAP ends text session
Verification	1. PSAP and texter verifies status of SMS conversation was continuous, verify no automatic message was delivered by PSAP or INTRADO because of time between text messages.
Text time	Send to receive: 26.75 seconds
Notes	<p>Test text sent from 530-370-XXXX at 10:29:52 Chico PD received at 10:30:18 Texter and PSAP exchanged a few texts</p> <p>Powered down phone at 10:31</p> <p>Powered back up at 10:36</p> <p>Sent another text to dispatch, they received and released the call</p> <p>At Chico PD it was like a seamless session...</p>

Case #7	Texter initiates 9-1-1 text standing inside Chico PD Jurisdiction but the centroid of the cell tower is in different PSAP's jurisdiction
Objective/ Description	This test verifies that the 9-1-1 SMS texter will receive a bounce back message when centroid is outside PSAP's jurisdiction.
Resources	1. SMS 9-1-1Texter inside Chico PD jurisdiction but centroid outside Chico PD jurisdiction 1. 9-1-1 Call Taker
Test Setup	1. One mobile phone activated and ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available.
Procedure	1. Initiate an SMS 9-1-1 text.
Verification	1. Verify that a bounce back message was received
Text time	Send to receive:
Notes	Did not test, Centroid not identified

Case #8	Texter initiates 9-1-1 text standing outside Chico PD jurisdiction but the centroid of the cell tower is in Chico PD jurisdiction
Objective/Description	This test verifies that the 9-1-1 SMS text will be delivered to Chico PD.
Resources	1. SMS 9-1-1Texter outside Chico PD jurisdiction but centroid inside Chico PD jurisdiction. 1. 9-1-1 Call Taker
Test Setup	1. One mobile phone activated and ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available.
Procedure	1. Initiate an SMS 9-1-1 text. 2. PSAP respond back to texter 3. Exchange a few text 4. PSAP end text session
Verification	1. Verify that 9-1-1 SMS text is received by Chico PD 2. Verify the transcript for each dialog is received by the PSAP 3. Verify all messages sent by the PSAP are sent to the texter. 4. Verify all messages sent by the texter are received by the PSAP.
Text time	Send to receive:
Notes	Did not test, Centroid not identified

Case #9	Add number to Deny List
Objective/ Description	This test verifies when a number is added to the deny list they will receive a bounce back message
Resources	SMS 9-1-1 texter from 916-207-XXXX 9-1-1 Call taker
Test Setup	<ol style="list-style-type: none"> 1. One mobile phone activated and ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available. 4. Log into the GEM911 Admin tool
Procedure	<ol style="list-style-type: none"> 1. Texter 916-207-XXXX to send text to PSAP 2. PSAP sends text back to texter and ends session 3. Add 916-207-XXXX to the deny list 4. Initiate an SMS 9-1-1 text from 916-207-XXXX
Verification	<ol style="list-style-type: none"> 1. Verify first text from 916-207-XXXX was received by PSAP 2. Verify that 9-1-1 SMS texter receives a bounce back message after 916-207-XXXX is added to the deny list.
Text time	Send to receive:
Notes	<p>Date/Time: Tester:</p> <p>No Deny list with this solution</p> <p>TEST NOT PERFORMED</p>

Case #10	Time of Day Setting
Objective/Description	This test verifies when a time of day rule is added to the PSAP PRF subscriber will receive a bounce back message
Resources	SMS 9-1-1 texter from 916-207-XXXX 9-1-1 Call taker
Test Setup	1. One mobile phone activated and ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available.
Procedure	1. Setup PSAP for Time of Day Rule through the GEM9-1-1 Admin Tool - close PSAP for Monday , 1/6/14 from current time until midnight. 2. Initiate an SMS 9-1-1 text
Verification	1. Verify that 9-1-1 SMS texter receives a bounce back message
Text time	Send to receive:
Results	[] Pass [] Fail
Notes	Date/Time: Tester: No Time of Day setting with this solution TEST NOT PERFORMED

CASE #11	Verify ability for second call taker to take over SMS text session
Objective/Description	This test verifies that a second call taker at Chico PD can take over a text session from initial call taker
Resources	Texter in field and centroid within Chico PD jurisdiction Call taker to receive text Second call taker available to take over text INTRADO to monitor text session
Test Setup	1. Verify Texter is ready 2. Verify the target PSAP is available.
Procedure	1. Send SMS Text message to 9-1-1 2. Chico PD to reply to Texter 3. Exchange a few texts 4. Have second call taker at Chico PD take over text session from another call taker position 5. Have second call taker exchange a few texts 6. Have Chico PD end text session
Verification	1. Verify text was received by first call taker 2. Verify second call taker is able to takeover text session 3. Verify second call taker can see the entire text session 3. Verify release message received by Texter.
Text time	Send to receive:
Notes	<p>Not available at this time</p> <p>Call taker cannot take over session until next code release (in-PSAP transfer). Call taker can view another call takers session now.</p> <p>TEST NOT PERFORMED</p>

CASE #12	Verify bounce back message received when both trunks are out of service
Objective/Description	This test verifies SMS texter will receive a bounce back message if both trunks are out of service (Chico PD text limit is set at two)
Resources	Texter in field and centroid within Chico PD jurisdiction. Call taker to receive text INTRADO to monitor text session Verizon translation team
Test Setup	1. Verify Texter is ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available 4. Verify Verizon translation team ready
Procedure	1. Verizon translation team to take both trunks out of service 2. Texter places SMS text to 9-1-1
Verification	1. Verify the bounce back message is received by the texter
Text time	Send to receive: 28.05 seconds
Notes	Chico PD receives text via NG911 trunks installed during the NG911 Grant Project. Intrado was able to take the text portion of those circuits out of service for this test Once Intrado disabled the text portion of the trunk the texter sent at text from 916-370-XXXX at 10:37:28 Texter received bounce back message at 10:37:56

CASE #13	Verify transfer capability from Chico PD to Chico PD
Objective/Description	This test will determine if a texter can be transferred PSAP to PSAP within the IP network
Resources	Texter in field and centroid within Chico PD jurisdiction. 2 mobile phones (one with location agent and one without) Call taker at Chico PD to receive text Call taker at Chico PD to receive text INTRADO to monitor text session Timer to time send receive time
Test Setup	1. Mobile phones (one with Location Agent active) and ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAPs are available.
Procedure	1. Send an SMS text to 9-1-1 to initiate a text session at Chico PD 2. PSAP sends response to initial text – and exchange a few texts. 3. Texter drives to Chico to allow initiation of rebid in Chico PD’s jurisdiction 4. Texter let’s text team know when they are in place in Chico PD’s jurisdiction with centroid in Chico PD’s Jurisdiction. 5. Chico PD call taker requests a rebid 6. Chico PD will need to call Chico PD to let them know they will be sending a text session to them 7. Chico PD sends texter a text saying they will be transferring texter to Chico PD 8. Chico PD attempts a transfer 9. Texter sends another text 10. That text should arrive at Chico PD 11. Chico PD replies to text (they exchange a few text) 12. Chico PD ends text session.
Verification	1. Verify the initial SMS text was received by Chico PD 2. Verify transfer took place 3. Verify the transcript is received by both PSAPs 4. Verify texter received all messages and verify PSAPs received all messages
Text time	Send to receive:
Notes	Per Intrado Transfer is not available in this release. Will be available next release (target May 2014) TEST NOT PERFORMED

Test Case #14	Verify results when texter sends more than 160 characters
Objective/Description	This test will indicate the results when a text is sent with over 160 characters
Resources	Texter in field and centroid within Chico PD jurisdiction. Call taker to receive text INTRADO to monitor text session Timer to time send receive time
Test set up	1. Mobile phone activated and ready 2. Verify TCC is provisioned and ready 3. Verify the target PSAP is available.
Procedures	1. Send the following text message: Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battle-field of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. Which totals 380 characters. 2. PSAP sends response to initial text. 3. Texter sends text containing following symbols embedded in the text: @ # % & 4. Chico PD call taker ends text session 5. If screen shot is available please ask call taker to print the screen
Verification	1. Verify the initial SMS text was received by the PSAP 2. Verify the transcript is received by the PSAP 3. Verify texter received the disconnect session text from PSAP
Text time	Send to receive: 19 seconds
Notes	Text sent from 530-370-XXXX 10:43:39 ...Chico PD received text split into 3 texts they received 1 of 3 first but twice then received 3 of 3 then received 2 of 3 then released and tested again and PSAP received in the correct order (1of 3) Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated can long endure. We are met on a (2of 3) great battle-field of that war. We have come to dedicate a portion of that field, as the final resting place for those who here gave their lives that (3 of 3) that nation might live. It is altogether fitting and proper that we should do this

CASE #15	Verify text session are available in ECaTS
Objective/Description	This test will determine if a PSAP using Standard TTY test sessions appear in ECaTS
Resources	ECaTS
Test Setup	None
Procedure	1. Log into ECaTS pull RAW data for 2-5-2014 for Chico PD
Verification	1. Verify SMS 9-1-1 Text to 9-1-1 was recorded 2. Verify the transcript is received by the PSAP when the dialog connected
Text time	Send to receive:
Notes	Intrado solution is not available in ECaTS at this time--- text data was available in the Viper MIS service – received summary and individual text conversations between Chico PD and the texter