WIRELESS SERVICE PROVIDER (WSP)

INTERCONNECTION

TO

MTS ALLSTREAM INC.

PROVINCE-WIDE ENHANCED 9-1-1 SERVICE

Implementation Support Document

(Provided to WSPs for the understanding and in pursuit of activities pursuant to the establishment of Wireless E9-1-1 Service.)

January 11, 2012

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DOCUMENT HISTORY

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April 8, 2005	Sections 5.3, 5.4 and 5.5 Typo changes corrected
May 30, 2005	Name change to MTS Allstream Inc Section 3.2.1 Web site access information has been added to this section Editorial changes made in various paragraphs
June 7, 2005	Sections 2.1, 2.1.1, 3.1, 3.2.1, 4.0, 4.1, 6.0, 7.4, 8.7 and Appendix 1 Grammar corrections completed Section 6.5 Acknowledgement File Format added
January 13, 2006	Section 5.4.1 Add note under sub-heading "Location Details"
December 04, 2007	replace MTS Province-Wide with Province-Wide in Title Page replaced 9-1-1 switch term with ANI/ALI Controller term Trademark Information Replaced CML Emergency Services with PLANTCML Section 1.0 Introduction Definition of an Administrative District has been added. Notification that Wireless E9-1-1 Service is only supported in areas that have existing landline 9-1-1 service. Section 1.0 (b) Statement that a browser with SSL encryption is required to transfer data between the WSP and the ALI database has been added to this section. Email notification statement relating to file processing has been added. Section 2.01 Wireless Phase 1 Basic requirements for providing Wireless Phase 1 service has been added to this section. Section 2.1 MTS Province Wide Service Overview Identified that street ranges must be added to the 9-1-1 database prior to the WSP records being sent Section 2.1 Table 1 Wireless E9-1-1 Features Modified wording on existing features and added Trunk Default Routing, Bureau Forced Disconnect and Selective Transfer features. Section 2.3.5 ANI/ALI Controller Signaling Removed Table 2 – not required for this document Replaced wireless switch with MSC Section 2.3.6 E9-1-1 Hardware Removed Section 2.3.6 -not required for this document Section 6.5 Acknowledgment File Format Transaction Record Data not applicable to wireless records has been removed. Section 7.2 Mapping Information Wording to identify the administrative district must approve addressing or mapping changes has been modified. Section 8.2 Default Routing Assignment Wording pertaining to NXX default routing has been removed. This is not applicable due to Wireless Number Portability. Section 8.5 Call Trace

Wording relating to MTS Repair Service Bureau being contacted for call traces has been removed.

Section 8.6 Service Address Information Correction
Removed WSP/PSAP error reporting procedures

Section 8.7 Database Reconciliation
Added information relating to WSP procedures for requesting a 9-1-1 Database reconciliation

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Section 2.0 Added Phase II commentary.
Section 3.0 Added Phase II commentary.
Section 5.1 Added status file type.
Section 6.0 New format for Error file and Status Report.

January 29, 2010

Section 5.4 Added Class of Service G and H to table 3.
Appendix 3 updated

February 16, 2010

Section 5,4 Revert Class of Service to type "8" in table 3.

November 3, 2011

Updated contact information

January 11, 2012

Updated section 2.3.2 Facility Considerations
Corrected section 5.0 ESRD File requirements – maximum number of files per day

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1.0 Introduction

The purpose of this document is to assist the Wireless Service Provider (WSP) with their interconnection to the MTS Allstream Inc. (MTS) Province-Wide Enhanced 9-1-1 Service (E9-1-1).

The basic interface requirements are specified in a disclosure document (MID-0007: Provincial-Wide Enhanced 9-1-1 Service Network to Network Interfaces between the WSP and MTS Allstream Inc.

E9-1-1 service provides for the transport of 9-1-1 dialed calls from cellular phones located in a municipality subscribing to E9-1-1 service to the appropriate Primary Public Safety Answer Point (PPSAP) and from the PPSAP to a Secondary Public Safety Answer Point (SPSAP) or to an Emergency Response Agency (Fire, Police or Ambulance). The administrative districts (municipalities) and their various emergency response agencies are responsible for answering and responding to the emergency calls. The WSP may request Wireless E9-1-1 Service only in areas that have previously subscribed to and implemented the landline E9-1-1 service. A list of municipalities subscribing to or in the process of implementing the service is available from the MTS Carrier Services Group (CSG) upon request.

Note: Enhanced 9-1-1 service is not mandatory in Manitoba. Landline E9-1-1 service has been implemented in geographical areas called administrative districts. Each Administrative district is responsible for the creation and maintenance of their Master Street Address Guide (MSAG). An administrative district may be a rural municipality, city, town, village, community, provincial or federal park, or a First Nations Community. For the purposes of this document the terms administrative district and municipality may be interchanged.

Requirements for interconnection to MTS E9-1-1 service include:

a) Appropriate trunk-side connections between the WSP Mobility switching Center and the MTS ECS-1000™ Selective Router/Controller (hereinafter referred to as the ANI/ALI Controller). The connections must be dedicated, employ default routing for contingency purposes and conform to MTS specific P.01 grade of service to maintain the integrity of the universal E9-1-1 service. The transport facility may be provided by MTS subject to applicable tariffs.

b) A Browser capable of Secure Socket Layer (SSL) encryption is required to enable data transfer between the WSP and the E9-1-1 Automatic Location Identification (ALI) Database Management System. This access will be used by the WSP to deliver customer and cell site location data record(s) and to receive error files. An email address may be provided to MTS for customer notification when files have finished processing.

c) Subscription to MTS Wireless E9-1-1 service.

d) Common Channel Signaling (SS7) is required on dedicated 9-1-1 trunks from the WSP for call setup and call take down as well as the transport of Call Back Number and Cell Site location information for Wireless Phase 1 E911 service

e) For Wireless Phase II E911 service, appropriate IP connection between the WSP's Mobile Position Controller (MPC) to the ILEC's Point of Interconnection to the ALI database platform would be required to allow for the transfer of X,Y co-ordinate information for the mobile 911 caller.

f) Signing of the MTS E9-1-1- Interconnection Agreement.

This document and its processes are required for WSP interconnection to MTS's E9-1-1 service. The WSP should contact the MTS Carrier Services Group (CSG) coordinator to notify that they will provide E9-1-1 service to their respective customers. See Appendix 3 for contact information.

This document is subject to change without notice. Please contact the MTS CSG coordinator for the most recent version.

2.0 MTS Province-Wide E9-1-1 Service Description

2.0.1 Wireless Phase 1

Phase 1 Wireless service requires delivery to the public safety answering point (PSAP) of the 9-1-1 voice call, the Call Back Number (CBN) associated with the handset, and identification of the cell site and/or sector from which the call originated.

2.0.2 Wireless Phase 2

In addition to Phase 1 Wireless service data delivered to the PSAP, a location measurement of the handset will also be determined based on a latitude and longitude calculation (LAT/LONG data) including an indicator for uncertainty (in meters) and confidence factor as a percentage.

2.1 MTS PROVINCE WIDE SERVICE OVERVIEW

When a WSP end customer dials 9-1-1, the call will be transported on dedicated 9-1-1 trunks to the ANI/ALI Controller. A pseudo phone number (ESRD) and a pseudo address is created for each cell tower sector to enable correct call routing. 9-1-1 calls will be routed from the ANI/ALI Controller to the appropriate PPSAP based on the pseudo address. The E9-1-1 service provides the 9-1-1 call taker with the customer's cell phone number, pseudo cell tower sector number, cell tower address, community name, municipality name, province, Wireless Service Provider ID, landline Emergency Service Zone Number (ESN) location measurements of the caller's handset (for Wireless E911 Phase 2 call) and specific ERA information applicable to the emergency service zone. The call taker will determine what public service is required (police, fire or ambulance) and transfer the call to a Secondary Public Safety Answer Point (SPSAP) or dispatch the appropriate emergency response agency.

In order to operate and maintain the Wireless E9-1-1 service, MTS will require that the WSP update the E9-1-1 ALI Database Management System with the Emergency Service Routing Digits (ESRDs) and applicable pseudo cell tower addresses. The pseudo addresses used for call routing must be approved by the administrative district (i.e. municipality) prior to input in the 9-1-1 database management system. New street ranges must be added in the E9-1-1 ALI Database prior to the WSP records being sent.

Note: An existing landline Emergency Service Zone number (ESN) will be assigned to each cell sector coverage area. A call routing table that links the ESRD to an emergency service zone is created in the E9-1-1 Selective Router. This enables call routing to the appropriate PPSAP.

2.1.1 Network Overview

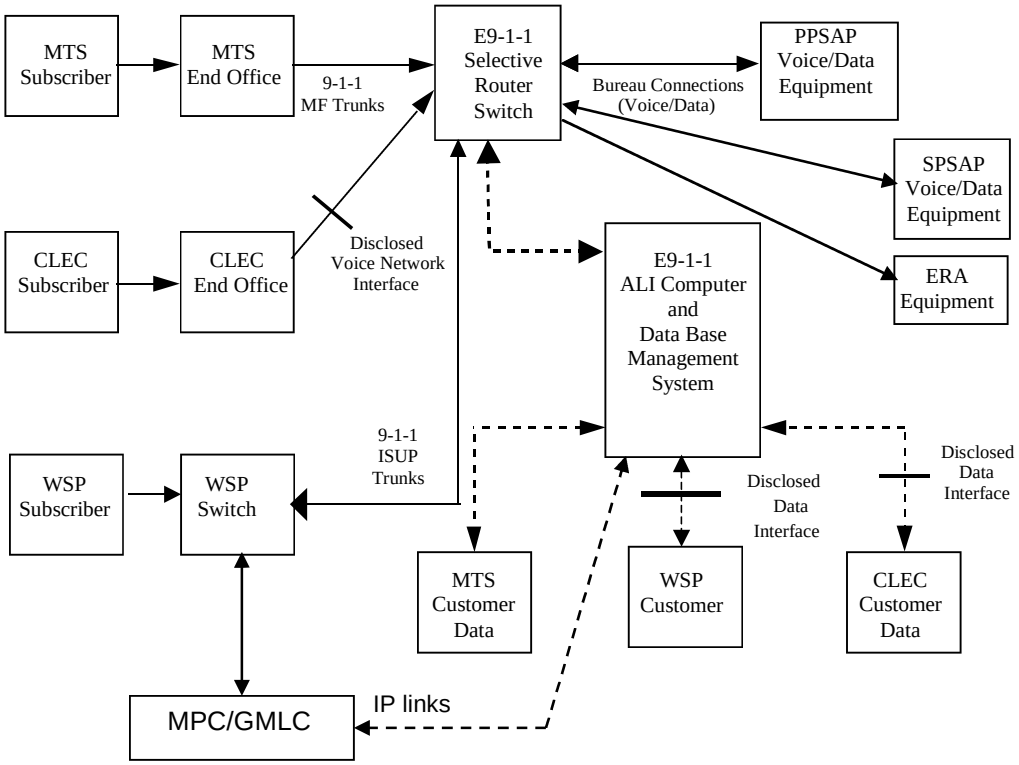
MTS Provincial-Wide E9-1-1 service utilizes an integrated voice and data network. The voice component is comprised of interconnecting ISUP trunks between the Mobile Switching Centre (MSC) and the ANI/ALI Controller. The data component is comprised of SS7 A links between the WSP and the SS7 Gateways. The SS7 Gateways link to the ANI/ALI Controller and provide ISUP trunk signaling. A Selective Router is linked to the ANI/ALI Controller and enables call routing to the various PPSAPS. The E9-1-1 ALI Database updates the Selective Router tables to ensure correct call routing. WSP records are placed on a secure 9-1-1 web site via the Internet. Once the WSP records are placed on the 9-1-1 web site, the records are verified for format prior to being transferred to the 9-1-1 database for processing. Upon completion of processing the records, an error file is placed on the web site with applicable error records, if any. The ANI/ALI Controller delivers the voice and data to the PPSAP; the 9-1-1 call taker then transfers the caller to the SPSAP or to an emergency response agency for response.

The proper operation of Wireless E9-1-1 service is dependent on a number of activities that must occur prior to the 9-1-1 call taking place. These activities include:

- Establishment of the SS7 A links and interconnecting ISUP trunks between the MSC and the ANI/ALI Controller.
- Collection of cell sector information from the WSP to be populated in the centralized E9-1-1 ALI Database
- Updating of the Selective Router tables by the E9-1-1 ALI Database to ensure the routing of a 9-1-1 call is to the correct PPSAP
- Establishment of two IP connections between the MPCs in the WSP network to the ALI database platform/system via the ILEC POI for Wireless E911 Phase II Stage 1 calls

The following diagram depicts the Wireless E9-1-1 service arrangements with the various network components:

Figure 1 - Trunk-Side Interconnection to MTS E9-1-1 Network



2.2 FEATURES OFFERED BY MTS PROVINCE-WIDE E9-1-1 SERVICE

TABLE 1 - WIRELESS E9-1-1 FEATURES

E9-1-1 Feature	Description
Selective Routing of Incoming 9-1-1 Calls	This features allows a call to be routed to a specific PPSAP based on the ESN associated with the Emergency Service Routing Digit (ESRD).
Callback	Callback capability allows the 9-1-1 call taker to call back a 9-1-1 caller in the event the call is prematurely disconnected.
Call Conference	The Call Conference feature allows the PPSAP the ability to conference a secondary PPSAP, emergency agency or public works by activating a Direct Access (DA) soft key associated with that specific agency.
Selective Transfer	The Selective Transfer feature provides the 9-1-1 call taker with the ability to transfer to a predetermined set of emergency responders via a Selective Transfer Agency (STA) window. For example, the call taker can now invoke a transfer to an emergency responder by depressing the entity displayed in the STA window. The ANI/ALI Controller will route the caller to the specific responder associated with the call. All 9-1-1 features are transferred with the call if the agency is a secondary PPSAP connected to the E9-1-1 Selective Router Switch.
Automatic Number Identification (ANI) Delivery	The ANI/ALI Controller receives the cellular caller's sector ID (ESRD) and the cellular caller's telephone number (ANI) (if available from the cell switch). It then queries the ALI database for additional cell site location information for display to the PPSAP positions. ANI is not the same as Caller ID.
Automatic Location Identification (ALI) Delivery	The ESRD, cell sector pseudo address, wireless carrier name, tower sector and the mobile callback number are displayed, but the callback number may not be in the same field as a wireline callback number. Due to terrain and wireless network traffic load, the tower serving the caller may not be the tower closest to the caller.Where available by the WSP the delivery of the location data of the caller and that for the handset based on a laditute and longitude measurement may also be provided.
Call Transfer	The Call Transfer feature provides the call taker with the ability to transfer 9-1-1 callers to a secondary PSAP, an emergency responder or to an entity via the telephone network.
Bureau Forced Disconnect	Should the originator fail to return the phone to the "on-hook" state, this feature allows the PPSAP call-taker to force the disconnection of a 9-1-1 call. When the PPSAP call-taker goes "on-hook", the E9-1-1 Selective Router Switch sends a disconnect signal to the end office, and times for a corresponding disconnect signal from that office in accordance with standard trunk parameters.
Trunk Default Routing	The Trunk Default Routing feature allows default routing of a 9-1-1 caller to a Primary PSAP on a call that has an invalid or missing ANI. Trunk Default Routing is to be negotiated between the Wireless Service Provider and the PSAP.

2.3 NETWORK INTERFACE

In order to ensure that the cellular subscribers have access to all of the features of the E9-1-1 service offering, it is imperative that the correct interface requirements are observed. This necessitates that proper trunk design and signaling are used for trunks that connect the cellular switch to the E9-1-1 Selective Router. Alternate emergency trunk routing should be provided where available to ensure service continuity.

2.3.1 Wireless E9-1-1 service Trunk Requirements

In order to provide the additional call related information from the cellular 9-1-1 caller to the Emergency call taker position in the PPSAP, SS7 signaling is used for the transport of such information in addition to its normal functions of call setup and call takedown. The ISUP trunk itself will serve as a media for voice communication only.

The ISUP trunk, outgoing from the WSP cellular switch, should conform to Telcordia's TR317 SS7 protocol specification for an incoming E9-1-1 trunk to a 9-1-1 Selective Router Switch. Additional SS7 parameters required to transport cell site identification and location information should conform to NENA TID SS7 Connectivity Guidelines for MSC to Selective Router Connectivity Table 3-2 Option D2.

2.3.2 Facility Considerations - Number of Trunks

The number of trunks required to provide E9-1-1 service, needs to be determined in consultation with the MTS CSG Department to ensure landline E9-1-1 calls are not being impacted by wireless call traffic (see appendix 3)

In all cases, 9-1-1 trunks must:

- Be applied on diverse routing for contingency purposes
- Conform to P.01 grade of service to maintain the integrity of the MTS E9-1-1 service. P.01 Grade of Service relates to the grade of service that will ensure a probability of less than one call out of one hundred calls will encounter a busy signal on the first dialing attempt during the busy hour of the average busy day. The norm is to be based on MTS' specific E9-1-1 service tariff.

Table 2 - Facility Guidelines

Lines			Quantity
1	to	1,600	2
1,601	to	6,900	3
6,901	to	15,400	4
15,401	to	26,600	5
26,601	to	40,000	6
40,001	to	54,700	7
54,701	to	70,900	8
70,901	to	88,200	9
88,201	to	107,000	10

Note: Network Diversity is recommended to prevent a single point of failure from causing a total loss of service.

Consideration for the number of 9-1-1 trunks required should also be based on the following factors:

- Actual traffic being carried
- Number of answering positions in the Primary PSAP
- Agreement between the WSP, the Primary PSAP and MTS Allstream Inc.

2.3.3 Network Requirement Checklist

Correct operation of 9-1-1 trunk circuits in some WSP cellular switches is dependent upon the software package. It is recommended that all Wireless Service Providers provide an assessment of the following to facilitate E9-1-1 network provisioning:

- 9-1-1 trunk facilities capable of SS7 signaling
- 9-1-1 trunk quantities
- diversity
- municipality boundary conflict
- call overflow arrangement
- default routing
- alternate routing
- IP network connection between provider's MPC and ALI database via the ILEC POI
- Provider's SS7 connectivity between WSP's MSC and their MPC (Not our responsibility, connectivity between MSC and MPC is internal to the WSP's network)

2.3.4 MTS E9-1-1 Signaling Protocol (For Wireless ISUP trunk interconnection)

The interface specification for the SS7 signaling trunks are the same as those defined in Schedule 1 Part 5, Inter-carrier Interface Specification, "Feature Group D" Access Using Common Channel Signaling System Number Seven (SS7), dated April 6, 1993, as filed by Bell Canada under Tariff Notice 4774.

The following ISUP signaling (IAM) parameters are used for wireless trunk-side E9-1-1 interconnection:

IAM Parameter Description	IAM Parameter Use
Generic Digits	**ESRD Number**
Calling Party Number	**Call Back Number**
Called Party Number	**Must be 911**

2.3.5 ANI/ALI Controller Signaling

SS7 signaling should be used on digital facilities to send 911 calls from the MSC to the MTS ANI/ALI Controller.

2.3.6 IP Facilities between ALI to MPC

To carry lat/long data via ELIR/ELIA transactions between the ALI and MPC via the ILEC POI as well as heart beat messages to keep the link up and in service.

3.0 E9-1-1 ALI Database Management System Overview

3.1 E9-1-1 ALI Database Management System Overview

Emergency service zones are created for two reasons; for call routing to the correct PSAP and to provide call takers with the correct emergency responder information for the applicable area. A different emergency service zone number (ESN) is created for each distinct group of emergency responders. The wireless providers will use the same ESNs as the wire-line providers. This information along with each emergency responder's coverage area is provided to the MTS Allstream Inc. 9-1-1 Database Group by the municipalities.

For Wireless Phase 1 and Wireless Phase 2, service a pseudo phone number is assigned to each cell tower sector by the Wireless Service Provider. A fictitious street name is also assigned to each cell tower sector. In Manitoba the term "Cellular Services St" will be used as the fictitious street name. The community and administrative district (municipality) names are also required to complete the actual cell tower address. The house number of the "Cellular Services" street will be identical to the Emergency Service Zone number assigned to that cell sector. Additional Phase 1 location information such as sector size and direction of the sector may also be added. It is recommended to enter the cell tower "real" address in the customer name field to assist 9-1-1 call takers when dispatching. The pseudo addressing information which includes the ESN assignment needs to be approved by the administrative district and the MTS Allstream 9-1-1 Database Group. Once approved, the MTS Allstream 9-1-1 Database Group will enter the fictitious addresses into the 9-1-1 database. When this is completed, the WSP can then transfer their cell tower sector pseudo numbers to the 9-1-1 web site where they will be loaded into the 9-1-1 database. The 9-1-1 Database Management System will then update the 9-1-1 Selective Router with the pseudo telephone number and appropriate ESN to enable routing to the appropriate PPSAP.

3.2 WSP Record Update of E9-1-1 ALI Database Management System

3.2.1 Access Arrangement

To communicate with the E9-1-1 ALI Database Management System, Internet access to a secure 9-1-1 Web site is required. An e-mail address may be provided to allow for notification when transaction files have been processed. The MTS 9-1-1 System Administrator will provide the WSP with a user login name and password to access the 9-1-1 website.

3.2.2 ESRD Record Update Process

ESRD Record files from the WSP to the E9-1-1 ALI Database Management System will be transferred to a secure 9-1-1 web site for processing. Error Return files from the E9-1-1 ALI Database Management System to the WSP will reside on the secure 9-1-1- web site for review and downloading if required.

4.0 WSP ESRD Record Information to E9-1-1 ALI Database Management System

The MTS E9-1-1 Database Group receives all WSP cell tower sector pseudo information and the applicable ESN assignment from the WSP. The MTS 9-1-1 Database Group will enter the new pseudo addresses into the 9-1-1 Database.

After the new street addresses have been entered into the E9-1-1 ALI Database Management System, the WSP can send their ESRD cell tower records in the format defined in this document. As the ESRD cell sector records are added to the E9-1-1 Database the Selective router is updated to ensure correct PSAP routing.

Once the WSP cell site/sector identification and service location information have been loaded in the MTS E9-1-1 Database, it is essential that all WSP updates (insertions, deletions and changes) be transmitted to the E9-1-1 ALI Database Management System on a regular basis, in order to avoid potential problems.

The WSP is responsible to build and maintain their ESRD Record Information database. The WSP must subsequently send update files containing new transactions as required.

The E9-1-1 ALI Database Management System will create an error file identifying problems in the individual ESRD records. It is the WSP responsibility to make corrections and retransmit the corrections to the E9-1-1 ALI Database Management System.

Section 5 provides details of the file and record formats and the file transfer procedures.

Each WSP is responsible to maintain an up-to-date soft copy of their entire ESRD record data file as well as the files transmitted to the E9-1-1 ALI Database Management System. MTS may request this information at any time in the event of a communication failure, a problem with the E9-1-1 ALI Database Management System or under other special circumstances.

4.1 OVERVIEW OF THE WSP FILE PROCESS

The following depicts the MTS process flow for WSP ESRD Records:

The WSP sends new cell sector addressing information with the applicable ESN assignment to the MTS 9-1-1 Database Manager.

It is incumbent on the Wireless Service Provider to ensure that the assigned emergency service zone for each cell tower sector is acceptable to both the Primary

Public Safety Answering Point and the administrative district where the cell tower resides.

The MTS E9-1-1 Database Group enters the new pseudo addresses in the 9-1-1 Database Management System as requested.

The WSP creates a file containing the tower sector's ESRD and ALI information in the format defined in this document.

The WSP uploads this file to the MTS 9-1-1 web site where an automated system parses the file for proper file format and if the file format is correct, the automated system submits the file to the 9-1-1 database for processing. If the file format is incorrect, the file will be rejected and an email notification will be sent to the WSP.

Records with errors are placed in an error file in the WSP directory in the secure MTS 9-1-1 web site.

An email notification can be initiated to identify to the WSP when the error file is available for review. The WSP will then access the secure web site, review the error file, make the required changes and upload the corrections on the next sequential WSP file.

5.0 ESRD File Requirements

This section defines the type of data required, the file formats and the file naming conventions to be used by the WSP when transmitting ESRD record information to the E9-1-1 ALI Database Management System.

ESRD Information records must only contain standard ASCII characters in the range 32 through 90, inclusive. Records containing characters outside that range will cause the file to be rejected.

MTS will accept no more than ten file transfers from each interconnected WSP on each business day. If the WSP wishes to send more than ten files per day, approval by the MTS Allstream Inc. 9-1-1 System Administrator is required.

Maximum file size is limited to 1 megabyte in size. This equates to approximately 2000 transaction records.

5.1 FILE NAMING CONVENTION

Customer record data files shall be named according to the following convention:

The filename shall be 11 characters with a 3 character file extension in the format **COMPA000001.XXX** where:

COMPA The 5-digit WSP ID code of the WSP as defined by MTS;

000001 Cycle Counter sequence number;
Range from **000001** to **999999**. When **999999** are reached, the number rolls over to **000001**. Cycle Counter shall be right justified with leading zeroes.

XXX File extension indicating the type of files content;

DAT Data files from WSP to E9-1-1 ALI Database Management System Interface

STA Status report files from the E9-1-1 ALI Database Management System Interface to the WSP. This report will show summary of the number of customer records which were processed correctly or rejected.

ERR Error files from the E9-1-1 ALI Database Management System Interface to WSP Any customer records which have failed processing will be listed in this file. In the event that there are no records rejected, the content of the ERR file will be identical to the content of the STA file

Example: **COMPA000001.DAT**
The first file sent by WSP **"COMPA"** to MTS for processing. The associated error file produced by the E9-1-1 ALI Database Management System is named **COMPA000001.ERR and the associated status report is named COMPA000001.STA**

5.2 RECORD TYPES

There are three record types used in the DAT file used in the E9-1-1 ALI Database Management System. The transaction data record is for the actual customer information and the other two types are header and trailer records used for administrative purposes

All WSP DAT files shall contain a header record, followed by one or more customer transaction data record(s), followed by a trailer record.

Acknowledgement will consists of two file types, an "ERR" error file and a "STA" status report file. If all DAT file records were accepted, the ERR file is returned as a duplicate of the STA status file. Otherwise, the DAT file records which are in error will be found in the ERR error file.

5.3 HEADER RECORD

TABLE 3 - HEADER RECORD

Field Name	Positions	Length (Bytes)	Type	Required	Value
Header Indicator	1 - 5	5	AN	Y	"UHL" (the quotes are part of the data)
Extract Date	6 - 11	6	N	N	Extract Date in MMDDYY format.
Company Name	12 - 61	50	AN	Y	Literal Company Name, Contact and Telephone Number.
Cycle Counter	62 - 67	6	N	Y	Begins with 000001 for the first file sent and increments by 1 each time.
Reserved	68 - 71	4	AN	N	Not used.
Reserved	72 - 73	2	AN	N	Not used.
Reserved	74 - 93	20	AN	N	Not used.
Reserved	94 - 96	3	N	N	Not used
Reserved	97	1	N	N	Not used
8 Digit Extract Date	98 - 105	8	N	Y	8 Digit Extract Date in MMDDYYYY format.
Comments	106 - 135	30	AN	N	File structure error explanation (see Appendix 2)
Reserved	136 - 511	376	AN	N	Not used.
End of Record	512	1	AN	Y	* (ASCII 42)

Notes:

1. The **Required** column contains Y for Yes (required) and N for No (not required—space fill).

2. All fields are left justified with trailing spaces except for the **Cycle Counter**, which is right justified with leading zeros.

5.4 TRANSACTION DATA RECORD

TABLE 4 - TRANSACTION DATA RECORD

Field Name	Positions	Length (Bytes)	Type	Required	Value
Function Code	1	1	A	Y	The code indicating the transaction type of this record. Valid entries are: C = Change D = Delete I = Insert
NPA	2 - 4	3	N	Y	The three-digit default area code. (i.e.204)
Calling Number	5 - 11	7	N	Y	The seven-digit pseudo number of the Calling Number.(511-xxxx)
House Number	12 - 21	10	AN	Y	ESN number. (See Note 3)
House Suffix Number	22 - 25	4	AN	N	(Not applicable)
Prefix Directional	26 - 27	2	A	N	(Not applicable)
Street Name	28 - 87	60	AN	Y	CELLULAR SERVICES
Street Suffix	88 - 91	4	A	Y	ST
Post Directional	92 - 93	2	A	N	<blank>
Community Name	94 - 125	32	A	Y	Insert the community name where the cell tower resides
Province/State	126 - 127	2	A	Y	The alphabetic province abbreviation. E.g. MB
Location	128 - 187	60	AN	N	The WSP may identify the direction and size of sector in degrees (e.g. N 300-45) in the Building ID field. ***See LOCATION DETAILS BELOW**
Customer Name	188 - 219	32	AN	Y	Cell Tower Address (House Number and Street Name) with hyphen and WSP Company Name (See Note 4).
Class of Service	220	1	AN	Y	Valid entries are: 8 – Cellular Service
Type of Service	221	1	N	Y	Valid entries are 6 – Cellular, Mobile and Radio Phone
Exchange ID	222 - 225	4	AN	N	Not used
ESN	226 - 230	5	AN	N	Not used.
Main NPA	230 - 232	3	N	Y	The three-digit area code of the Main Number associated with the Calling Number. (E.g. 204)
Main Number	234 - 240	7	N	Y	The seven-digit telephone number of the Main Number associated with the Calling Number. (I.e. 511-XXXX)
Order Number	241 - 250	10	AN	N	The service order number for the activity establishing this record.
Extract Date	251 - 256	6	N	Y	The date on which the record was created in MMDDYY format.

County ID	257 - 260	4	AN	N	Not used. See Extended County ID field
Company ID	261 - 265	5	AN	Y	The 5-digit WSP ID code of the WSP as defined by MTS.
Source ID	266	1	AN	N	A code that indicates whether the data is part of an initial data load/re-load or part of a daily update process. Valid entries are: <space> = Daily update C = Load
Postal Zone	267 - 275	9	AN	N	Not used
Reserved	276 - 286	11	AN	N	Not used.
Reserved	287 - 289	3	AN	N	Not used.
Comments	290 - 319	30	AN	N	Not used
X Coordinate	320 - 328	9	N	N	Not used
Y Coordinate	329 - 337	9	N	N	Not used
Z Coordinate	338 - 342	5	N	N	Not used
Cell ID	343 - 348	6	AN	N	Not used
Sector ID	349	1	AN	N	Not used
Reserved	350 - 355	6	AN		Not used
Alternate Number	356 - 365	10	N	N	The Alternate Number or Remote Call Forwarded Number associated with this Calling Number.
8 Digit Extract Date	366 - 373	8	N	Y	8 Digit Extract Date in MMDDYYYY format.
Administrative District	374 - 401	28	AN	Y	Administrative District (Country Name) for the Community
Reserved	402 - 511	110	AN	N	
End of Record	512	1	AN	Y	* (ASCII 42)

**** The ½ is entered as 3 bytes. E.g. 1/2**

Notes:

1. The **Required** column contains Y for Yes (required) and N for No (not required—space fill). Data information is mandatory for all required fields.
2. All fields are left justified with trailing spaces.
3. Left Justified with last four characters being truncated.
4. i.e. 191 Pioneer Ave. – MTS Mobility
5. The WSP should enter their cell sector data in the following manner:

Telephone Number: 204-511-XXXX
House Number Field: enter the pseudo house number that relates to the applicable ESN of the coverage area. (i.e. 201)
Street Name field: enter the pseudo street name that relates to all Cellular calls (i.e. Cellular Services)
Street Suffix Field: enter the pseudo street name suffix (i.e. St.)
Building field: enter the BLDG mnemonic followed by the sector directional and the degrees related to the sector coverage radius.
(North = 1 or 360, East = 90, South = 180, West = 270) See “Location Details” below:
Community Name field: enter the nearest community name where the cell tower is located.

Customer Name field: enter the house number and street name of the cell tower site followed by the WSP company name. Enter a hyphen to differentiate between the two entries.
County Name field: to display the administrative district name where the cell tower exists (i.e. City of Winnipeg, Rural Municipality of Cornwallis etc.).

Example:

Telephone Number field:	204-511-3010
House Number field:	201
Street Name field:	Cellular Services
Street Suffix field:	St.
Building field:	BLDG S: 155-215
Community Name field:	Winnipeg
Extended County Name field:	City of Winnipeg
Customer Name field:	191 Pioneer Ave. - WSP name

***Location Details**

If BLDG is used; the BLDG data field has a maximum of 25 characters.

The "Location Field" data is to be populated with the Unit Indicator Mnemonic starting at character position 128 with a (space) and then the appropriate data.

Example 1: BLDG NW

Example 2: BLDG NW: 270-360

Note: All "Location" field data must be entered in upper case. If the mnemonic BLDG is not entered prior to the sector data, the record will be returned in the error file with no function code.

5.4.1 Transaction Types

The **Function Code** field defines the three possible transaction types.

C = Change

The Change transaction type is used to modify the data for a WSP ESRD record that already exists in the E9-1-1 Data System.

D = Delete

The Delete transaction type is used to delete a WSP ESRD record associated with a given cell site/sector. A Delete transaction will only be processed if the WSP ID and the ESRD number match the existing date. To cancel or undo a Delete which has previously accepted and processed by the E9-1-1 Data System, an Insert transaction record for the respective ESRD number must be sent.

I = Insert

The Insert transaction type is used to create a new ESRD record for a given cell site/sector. To cancel or undo an Insert transaction which has been previously accepted and processed by the E9-1-1 Data System, a Delete Transaction record for the respective ESRD record must be sent.

5.5 TRAILER RECORD

The NENA trailer record is the last record in the NENA Service Order file. All fields are left-justified, with trailing spaces, except for the record count. This field will be right-justified with leading zeros.

TABLE 5 - TRAILER RECORD

Field Name	Positions	Length (Bytes)	Type	Required	Value
Trailer Indicator	1-5	5	AN	Y	"UTL" (the quotes are part of the data)
Extract Date	6-11	6	N	N	Extract date in MMDDYY format.
Company Name	12-61	50	AN	Y	Literal Company Name.
Record Count	62-70	9	N	Y	Total count of WSP Data Records (not including header and trailer) included in this file.
Expanded Extract Date	71-78	8	N	Y	8 Digit Extract Date in MMDDYYYY format.
Reserved	79-511	433	AN	N	Not used.
End of Record	512	1	AN	Y	* (ASCII 42)

Notes:

Ì The **Required** column contains Y for Yes (required) and N for No (not required—space fill).

6.0 Error and Status Files

This section defines WSP file and transaction data errors for the WSP customer record information.

6.1 DAT FILE STRUCTURE ERRORS

Prior to processing the transaction records in a received data file, the E9-1-1 ALI Database Management System validates the following elements:

- Valid header, transaction and trailer formats
- File name to comply with the format given in section 5.1;
- The 512th character must be an asterisk character in every file line of the header, transaction and trailer files.
- WSP ID in the transaction data record(s) matching the LEC ID in the file name;
- Cycle Counter in header record matching the file name sequence number as expected by the E9-1-1 ALI Database Management System;
- Record Count in trailer record matching the record count of the transaction file as counted by the E9-1-1 ALI Database Management System.
- Transaction file does not exceed the one megabyte file size (2000 records)
- ASCII characters are within decimal code 32 to 90.
- Valid function code on all transaction records.

If one or more elements fail the validation process, the E9-1-1 ALI Database Management System will not process the file. An email notification will be sent to the email address provided by the WSP.

Typical format error messages may indicate the following:

- file name error
- end of record error
- LEC ID mismatch
- cycle counter mismatch
- record count mismatch
- ASCII character out of bounds
- invalid function code

The WSP is expected to correct the errors and to resubmit the file using the same file name.

6.2 TRANSACTION DATA RECORD ERRORS

If the file structure has passed the validation process, the E9-1-1 ALI Database Management System will attempt to process the ESRD transaction data record(s) by validating each field against a set of defined criteria.

The E9-1-1 Database supplies an error (ERR) file for all transaction customer records which are rejected. If ALL customer records from the input DAT file are accepted, this file is returned as a duplicate of the STA status file.

Only a subset of the fields in the ERR file correspond to fields from the WSP supplied DAT file. The last column of the table below shows this mapping. Many of the ERR file fields are either spaces or simply not applicable, and are thus identified. The "Comments" column describes many fields as "parsed". Parsed fields are simply redundant information from another field and are not applicable.

The "error code" field is explained in section 6.3. Should the "error code" be either "796" or "797", the "error field" may be populated with a mnemonic code. Only a subset of the fields in this file have a mnemonic code. Fields that do have a mnemonic code have this mnemonic listed in the first column of this table, directly after the "Field Name". By using the mnemonic code listed in the "error field", the specific field of this ERR file can be identified, along with the mapping to the input DAT file.

6.3 ERROR FILE FORMAT

Table 6 - Error File Format

Field Name	Starting position	Length	Justifi-cation	Comments	Mapping to DAT file
error code	1	3	right	See Section 6.3 for error code explanations.	Error code returned in "comments" field in pos 290-319 (30 bytes)
Space	4	1			n/a
error field	5	10	left	For 796 & 797 errors indicate first field with error, **points to field in question via MNEMONIC code as listed in first column.**	Does not map to DAT file, provides mnemonic to co-relate to field in first column.
Space	15	1			n/a
Foc **(mnemonic: FOC)**	16	1		Function of change (I,C,D)	Function code in pos 1 (1 byte)
Space	17	1			n/a
(npa) nnx-tn **(mnemonics: NPA, NNX, and TN)**	18	14		TN number in format of (777) 333-4444	Combination of NPA in pos 2-4 and Calling Number pos 5-11 (total 10 bytes)
Space	32	5		Not Applicable	n/a
House number **(mnemonic: ST. NUM)**	37	10	right	Leading spaces right justified	House Number in pos 12-21 with leading zeroes (10 bytes)
Space	47	1			n/a
House number suffix	48	4	left	Does NOT have a mnemonic code.	House Suffix Number in pos 22-25 (4 bytes)
Space	52	1			n/a
Prefix directional	53	2	left		Prefix Directional in pos 26-27 (2 bytes)
Space	55	1			n/a
street name **(mnemonic: ST.NAME)**	56	48	left	un-parsed street name as stored in the database	Street Name in pos 28-87 (60 bytes)
Space	104	1			n/a
Suffix directional	105	2	left		Post Directional in pos 92-93 (2 bytes)

Field Name	Starting position	Length	Justifi-cation	Comments	Mapping to DAT file
Space	107	1			n/a
Community **(mnemonic: COMMUNITY)**	108	32	left	un-parsed community name as stored in the database	Community Name in pos 94-125 (32 bytes)
Space	140	6		Not Applicable	n/a
Province **(mnemonic: PROVINCE)**	146	2	left	i.e. MB	Province in pos 126-127 (2 bytes)
Space	148	34		Not Applicable	n/a
class of service **(mnemonic: COS)**	182	1			Class of Service in pos 220 (1 byte)
Space	183	1			n/a
type of service **(mnemonic: TOS)**	184	1			Type of Service in pos 221 (1 byte)
Space	185	1			n/a
Exchange	186	4	left	Not Applicable	n/a, Not Used
Space	190	1			n/a
Esn	191	6	right	Not Applicable	n/a, Not Used
Space	197	1			n/a
Essid	198	2	left	Not Applicable	n/a
Space	200	3		Not Applicable	n/a
(main npa) main nnx- main tn **(mnemonics: MAIN NPA, MAIN NNX, MAIN TN)**	203	14		Main number associated with TN in form of (777) 333-4444	Main NPA in pos 231-233 and Main Number in pos 234-240 for a total of 10 bytes.
Space	217	22		Not Applicable	n/a
Telco	239	35	left	Not Applicable	n/a
Space	274	1			n/a
	275	40		Not Applicable	n/a
Space	315	1			n/a
	316	10		Not Applicable	n/a
Space	326	1			n/a

Field Name	Starting position	Length	Justifi-cation	Comments	Mapping to DAT file
modification date	327	19		Format: YYYY-MM-DD hh:mm:ss	n/a, Date when DAT file was actually processed into E911.
Space	348	1			n/a
sd_flag	347	1		Internal flag always set to "Y"	n/a
Space	346	1			n/a
Loccom	349	1		Internal flag always set to "N"	n/a
change type	350	1		Existing Database Record Function code	n/a
Space	351	1			n/a
service order code	352	1		Not Applicable	n/a
Space	353	1			n/a
Record type	354	1		Master (M) or Additional (A)	n/a
Space	355	1			n/a
secondary address flag	356	1			n/a
Space	357	3			n/a
USOC code	360	5		Not Applicable	n/a
service order number	365	14		Service order number	n/a
Space	379	1			n/a
Map coordinates	380	20			n/a
Space	400	1			n/a
Due date **(mnemonics: EXT. DATE EFF. DATE)**	401	19		EFFDATE: YYYY-MM-DD hh:mm:ss	Extract date in pos 251-256 (6 bytes) and also 8-digit Extract date in pos 366-373 (8 bytes)
Space	420	22			n/a
Community	442	28	left	Parsed Community Name	See the first instance of "Community" instead.
Space	470	5			n/a
Street name	475	40	left	Parsed Street Name	Usually blank, see first instance of Street Name instead.

Field Name	Starting position	Length	Justifi-cation	Comments	Mapping to DAT file
Space	515	15			n/a
Location	530	60	left	Location Data corresponds to input file character positions 128-187	Location in pos 128-187 (60 bytes)
Space	590	1			n/a
Indicator	591	1		Parsed from location field	n/a
Space	592	1			n/a
Indicator string	593	4	left	String description of indicator	n/a
Space	597	2			n/a
unit number	599	5	left	Parsed from location field	n/a
Space	604	2			n/a
Floor	606	5	left	Parsed from location field	n/a
Space	611	2			n/a
Lot	613	6	left	Parsed value	n/a
Space	619	2			n/a
Block	621	10	left	Parsed value	n/a
Space	631	2			n/a
Quarter Section	633	2	left	Parsed value	n/a
Space	635	2			n/a
Section	637	2	left	Parsed value	n/a
Space	639	2			n/a
Township	641	2	left	Parsed value	n/a
Space	643	2			n/a
Range	645	2	left	Parsed value	n/a
Space	647	2			n/a
Range Direction	649	1		Parsed value	n/a
Space	650	5			n/a
Building	655	25	left	Parsed from location field	n/a
Space	680	9			n/a
Street name suffix **(mnemonic: ST.NAM.SUF)**	689	11	left		Street Suffix in pos 88-91 (4 bytes)
Space	700	5			n/a
Prefix directional	705	2	left		Prefix Directional in

Field Name	Starting position	Length	Justifi-cation	Comments	Mapping to DAT file
(mnemonic: PRE.DIR.)					pos 26-27 (2 bytes)
Space	707	8			n/a
Customer Name **(mnemonic: CUSTOMER)**	715	40	left		Customer Name in pos 188-219 (32 bytes)
Space	755	10			n/a
Trailer Directional **(mnemonic: SUF. DIR)**	765	2	left		Post Directional in pos 92-93 (2 bytes)
Space	767	11			n/a
County **(mnemonic: COUNTY)**	778	28	left	Administrative District	Administrative District in post 374-401 (28 bytes)
Space	806	25		Last position is 829	n/a

6.4 TRANSACTION DATA RECORD ERRORS

This list is an explanation of the error codes as found in the "ERR" file described in Section 6.3 above.

002 Non-numeric character in telephone number.
This includes any spaces or alpha characters in the NPA, NNX, or TN fields of the telephone number. This is considered a data error and will be trapped by pre-parsing from the CLEC Web interface, thus the CLEC will get an email notification of this error instead of seeing this in the ERR file.

003 Non-numeric character in main telephone number .
This includes any space or alpha characters in the NPA, NNX, or TN fields of the main number. This is considered a data error and will be trapped by pre-parsing from the CLEC Web interface, thus the CLEC will get an email notification of this error instead of seeing this in the ERR file.

009 Illegal class of service.
The Class of Service must be a digit from 0 to 9 or an alpha A through F.

010 Illegal type of service.
The Type of Service must be one of the following digits: 0,1,3,4, or 6.

701 No MSAG record found.
No MSAG record was found for this address. This includes cases where the street name does not exist in the MSAG and where the street exists, but the ranges do not cover the current address.

702 Record already exists on insert.
An attempt was made to insert a telephone number that already exists. Note: '702' error not applicable with auto-correction. MTS Allstream uses auto-correction.

703 Main record not found.
An attempt was made to insert, change, or delete a subsidiary whose main telephone number does not exist in the database.

704 Record does not exist.
Telephone number record doesn't exist. An attempt was made to disconnect a telephone number record which does not exist in the database.

712 Record does not exist on change.
An attempt was made to change a telephone number record which does not exist in the database.

714 Cannot disconnect a non-existent additional address record.
An attempt was made to disconnect an additional address record that does not exist.

716 No master TN exists for additional address record.
An attempt was made to insert an additional address record but there was no corresponding master TN record.

721 Type of service is a foreign exchange.
The number belongs to a foreign exchange, i.e. the type of service is a 2 or 5.

723 Invalid NPA or NNX.

738 Attempted to change a main number to a subsidiary line.
The record in error is currently a main number with subsidiaries in the database. The attempted change would make this number into a subsidiary of another line. This would leave the original subsidiaries without a valid main number.

739 Street names do not match on disconnect.

The street name in the "disconnect" record does not match the street name in the database. If a disconnect record has a street name present, it must match the street name of the record in the database.

740 Delete attempted on a number with subsidiaries.
Delete attempted on a number with subsidiaries. A function of change "D" was attempted on a phone number which has subsidiaries. The subsidiaries must be disconnected before attempting to disconnect the main.

741 Main number is already a subsidiary line.
An attempt was made to insert a subsidiary whose main number is already a subsidiary to another line. This would leave this number without a valid main number.

767 Company IDs do not match on a change.
The TN record that you are trying to change is assigned to a different Company ID. This record needs to be disconnected by the original company. Only after the disconnect order has been successfully processed can an insert order be applied.

768 Company IDs do not match on a disconnect.
The TN record that you are trying to disconnect is assigned to a different Company ID.

781 Duplicate TN; Record owned by another company.
Record already exists. An attempt was made to insert a telephone number that already exists and is owned by another company.

782 Buffer size exceeded for TN data.
One or more fields have exceeded their buffer size resulting in a truncation of data.

789 Improper format for location field.
The location field has an improper format - the location field does not have the exact keyword.

795 Invalid FOC for an additional or duplicate record.
The FOC that was used is invalid for an additional address or duplicate record.

796 Required field not provided in service order record.

797 Invalid value contained in field.

798 TN exists, but bad record type for additional address record.
TN exists, does not have record type of "M" for additional address record. When trying to insert an additional address record, the master TN matches the TN in the additional address record, but the record type is not "M".

800 English Language Translation not Found.
The Emergency Response Agency data associated with this TN's applicable ESN was not found. This is an informational error, therefore the operation was performed despite this error occurring.

6.5 STATUS REPORT

The E9-1-1 Database also supplies a Status Report. The use of the Status Report by the WSP is optional, but made available as a confirmation of Customer records having been processed. The Status Report is supplied along with the ERR file, following the same file naming convention, save for the ".STA" file name extension. Below is an example of such a Status Report:

```
CLEC PROCESSING RESULTS:


COMPANY ID: LECID


Finish Time:      Wed Oct 28 10:43:01 2009 300

Header Records Read:                    1
Trailer Records Read:                   1
Records Read:                           15
Total Records Processed:                15

Total Errors:                           0
    Hard Errors:                        0
    Informative Errors:                 0

Records Successfully Processed:         15
    Inserts:                            9
    Changes:                            4
    Deletes:                            2
    Pilot Deletes:                      0
    To's:                               0
    From's:                             0
    Unlocks:                            0
    Migrates:                           0
```

Notes regarding the Status Report:

1) The report title "CLEC PROCESSING RESULTS" may on occasion be preceded by informational warning messages.

2) The CLEC is identified by "COMPANY ID:".

3) Finish Time is the time at which the CLEC DAT file processing was completed.

4) The number of DAT file customer records read into the system and processed. Processing will result in either the customer records being successfully entered into the E9-1-1 database, as listed under the section "Records Successfully Processed", or rejected.

5) Customer Records which are rejected by the E9-1-1 Database will be listed as "Hard Errors" under the "Total Errors:" section of the Status Report.

7.0 WSP and MTS Respective Responsibilities

7.1 MTS CARRIER SERVICES GROUP (CSG)

MTS Carrier Services Group (CSG) is the WSP single point of contact for interconnecting to the MTS E9-1-1 Emergency Service.

A WSP wishing to provide its customers with MTS E9-1-1 Emergency Service must contact MTS CSG a minimum of 3 months in advance. This is required in order to arrange the details of interconnection to MTS E9-1-1 Network along with conditions and details of Customer Record Information transfer.

MTS CSG will assume prime responsibility for the Ordering, Billing process, and Guidelines and Agreements of MTS Provincial-Wide E9-1-1 Emergency Service.

- CSG receives Network interface request from WSP
- CSG coordinates service agreement sign-off with WSP
- CSG coordinates order and negotiates related order due dates with WSP

7.2 MAPPING INFORMATION

The administrative district is responsible for validating and approving any new addressing information or mapping changes within their geographical boundaries. The administrative district must forward this information to MTS for inclusion in the E91-1 Database Management System. The WSP must use this information to validate its ESRD Record Information prior to sending it to the E9-1-1 ALI Database Management System. In addition, the WSP is responsible to collect and provide its NPA-NXX coverage and its ESRD and Cell site/sector location information, to forward them to MTS CSG.

7.3 ESRD RECORD INFORMATION

Each WSP is responsible to provide MTS with update ESRD files when necessary, as described in section 5 of this document.

MTS is responsible to process the WSP ESRD files.

7.4 ERROR CORRECTION ROUTINES

Along with the transaction DAT files, the error and status report files will reside on the MTS 9-1-1 web site, within the WSP directory. Please contact the 9-1-1 System Administrator for web site access along with a directory name and user login.

The WSP is responsible to process errors and promptly upload a subsequent transaction file to the MTS 9-1-1 web site as described in Section 5.

7.5 TROUBLE HANDLING

The WSP will provide MTS with a unique telephone number and a unique fax number, to be used by MTS and the PSAP for trouble handling. This telephone number will be readily available 7 days a week, 24 hours a day.

8.0 Operational Specifications

This section provides guidelines and pertinent information for the WSP regarding event management and trouble reporting procedures.

8.1 EVENT MANAGEMENT AND TROUBLE HANDLING OBJECTIVES

- Ensure access to the MTS Provincial-Wide E9-1-1 Service network for all WSP subscribers.
- Provide appropriate 9-1-1 call routing.

8.2 DEFAULT ROUTING ASSIGNMENT

When a WSP interconnects to the E9-1-1 Emergency Service, it must provide MTS with the primary PSAP to default route to for each member of its E9-1-1 trunk group.

8.3 9-1-1 CALL ROUTING PROBLEM CORRECTION

When a PPSAP or a WSP detects a 9-1-1 call routing problem, it reports the trouble to the MTS 611 Repair Service Bureau (RSB).

MTS opens a trouble ticket and analyzes the problem.

If the trouble is on the MTS network, MTS sectionalizes the trouble and fixes the cause. MTS informs the reporting party of the trouble clearance or of its status, if the repair is delayed.

If the trouble proves outside the MTS network, MTS refers the trouble to the appropriate WSP. The WSP sectionalizes the trouble and fixes the cause. The WSP informs MTS and the PPSAP, if appropriate, of the trouble clearance or of its status, if the repair is delayed.

8.4 VOICE RELATED TROUBLE

When a voice related trouble is detected, the PPSAP contacts the appropriate WSP, using the WSP ID information displayed at the 9-1-1 call taker screen, as per the PPSAP internal trouble reporting procedure.

Subscribers serviced by a WSP must refer all troubles to their serving WSP local repair bureau (611 or other, as defined by the WSP).

When advised of a voice trouble, the WSP local repair bureau is responsible for the testing of the subscriber's wireless loop, the cellular switch equipment and its 9-1-1 trunk interconnection portion (where appropriate). If the trouble proves to be on the MTS E9-1-1 Network, the trouble will be referred to the MTS 611 Repair Service Bureau.

8.5 NAME AND ADDRESS INFORMATION AND/OR CALL TRACE

When the 9-1-1 caller's information is not available and the caller cannot provide that information, the authorized 9-1-1-agency representative may contact the WSP to request a call trace based on the cell tower sector information and the Wireless 9-1-1 trunk that the call arrived on.

All 9-1-1 requests for address/location information or call traces must be treated as a priority.

8.6 SERVICE ADDRESS INFORMATION CORRECTION

When a PSAP detects a location related problem, the PSAP contacts the designated WSP to determine the cause of the problem.

If the problem involves a cell site from that WSP, the WSP fixes the ESRD Record Information record and submits the corrected record to the E9-1-1 ALI Database Management System. The WSP notifies the PSAP that the problem is resolved.

8.7 DATABASE RECONCILIATION

A WSP can request a database reconciliation file. MTS will prepare the requested reconciliation data file and place the file in the WSP directory on the 9-1-1 web site. The WSP is to contact the MTS Allstream Inc. Carrier Services Group for requests.

8.8 REPAIR SERVICE BUREAU

The MTS Allstream Inc. Repair Service Bureau:

- is the single point of contact for 9-1-1 service and/or facility problems;
- conducts a basic analysis of trouble reports;
- is responsible for follow up, escalation and turn over to the WSP and/or the PSAP
- can be contacted at 1-204-941-4400
- will create a trouble ticket under the facility circuit ID

9.0 WSP Information That Must Be Provided To MTS

TABLE 7 - WSP EXCHANGE NAME, NPA-NXX, SWITCH TYPE AND NAS

Company	Exchange	NPA	NXX	Equipment Type	NAS	Total NAS

APPENDIX 1 - GLOSSARY

Acronym	Definition	Description
ALI	Automatic Location Identification	Information regarding the location associated with the caller's telephone number
ANI	Automatic Number Identification	The telephone number of the calling party displayed at the answering point
		Not applicable.
ESN	Emergency Service Number	An ESN is a three to five digit number representing a unique combination of emergency response agencies (Police, Fire, and Emergency Medical Services) designated to serve a particular geographical area or Emergency Service Zone (ESZ). The ESN facilitates selective routing to the appropriate PSAP.
ESZ	Emergency Service Zone	A geographical area served by the same set of emergency responders.
E9-1-1 ALI DATA BASE	Street Address Database	A centralized Database of service telephone number addresses listing street names, address ranges subscribing to E9-1-1 service.
NPA	Number Plan Area	The three digit area code
NXX	Network Exchange Code	The first 3 digits of a 7-digit Telephone Number
PPSAP	Primary Public Safety Answering Point	The answering location for 9-1-1 calls originating within a specified area. The PPSAP is designated primary or secondary by software parameters. A PPSAP consists of phone lines to answer 9-1-1 calls as well as a terminal and modem to provide the address on screen
E9-1-1	Province-Wide Enhanced 9-1-1 Service	A system that provides automatic location identification (ALI), automatic number identification (ANI) and Selective routing.
ERA	Emergency Response Agency	For example: Police, Fire and Ambulance
ESRD	Emergency Service Routing Digit	A number associated with a cell/tower site/sector that is used to route 911 dialed calls to the appropriate PPSAP and subsequent emergency service providers
WSP	Wireless Service Provider	The WSP Communication Service Provider providing cellular and radio services

APPENDIX 2 - ACRONYMS

---------- A ----------	
ALI	Automatic Location Identification
ANI	Automatic Number Identification
---------- B ----------	
B01/L	Blocking of less than 1 call out of 100 during the Low Day to Day average variation
---------- C ----------	
CCS 7	Common Channel Signaling System Number Seven
CO	Central Office
CPN	Calling Party Number
---------- D ----------	
DP	Dial Pulse
---------- E ----------	
E9-1-1	Enhanced 9-1-1 Service
EO	End Office
ERA	Emergency Response Agency
ESN	Emergency Service Zone Number
ESRD	Emergency Service Routing Digit
---------- F ----------	
FGC	Feature Group C
FGD	Feature Group D
FX	Foreign Exchange
----------G ----------	
---------- H ----------	
H/W	Hardware
---------- I ----------	
IP	Internet Protocol
IAM	Initial Address Message
ISUP	Integrated Services Digital Network User Part
---------- J ----------	
---------- K ----------	
---------- L ----------	
LEC	Local Exchange Carrier
---------- M ----------	
MF	Multi Frequency
MSC	Mobile Switching Centre
---------- N ----------	
NAS	Network Access Services
NPA	Numbering Plan Area
NXX	First 3 Digits of a 7 Digit Number

---------- O ----------

ONI	Operator Number Identification
OPC	Origination Point Code

---------- P ----------

PC	Personal Computer
PSAP	Public Safety Answering Point
PPSAP	Primary Public Safety Answering Point (the center or the call-taker position)
PSTN	Public Switched Telephone Network
P.01	blocking of less than 1 call out of every 100 calls during the busiest period of the day

----------Q ----------

---------- R ----------

RM	Rural Municipality
ROH	Receiver Off-Hook
RSB	Repair Service Bureau

---------- S ----------

SO	Service Order
STA	Selective Transfer Agency
S/W	Software
SS7	Signaling System 7 /Common Channel Signaling 7 (SS7)

---------- T ----------

TCAP	Transaction Capability Application Part
TCP	Transmission Control Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol
TN	Telephone Number
TOPS	Traffic Operator Position System
TRK	Trunk
TWP	Township

---------- U ----------

---------- V ----------

VDT	Visual Display Terminal

---------- W ----------

WSP	Wireless Service Provider

---------- X ----------

---------- Y ----------

---------- Z ----------

APPENDIX 3 - CONTACT LISTS

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