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NENA Recommended ALEC Service Initiation Standards



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ALEC Service Initiation Standards

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TECHNICAL REFERENCE

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This document has been developed by the **NENA** ALEC/Private Switch Technical Committee. The **NENA** executive board has recommended this document for industry acceptance. Recommendations for change to this document may be submitted to:

National Emergency Number Association

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Acknowledgements:

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1 Executive Overview

1.1 Purpose and Scope of Document

The purpose of the Service Initiation Guidelines is to provide guidance for 9-1-1 service initiation, as well as define the needs of the ALECs, ILECs and 9-1-1 Administrators. When an ALEC enters into a new service area, they may not know the appropriate contacts in order to obtain the required information for a successful 9-1-1 implementation. On the same note, 9-1-1 administrators/entities need notification of ALECs who will be serving customers in their jurisdiction.

This document will cover what is needed from all players – ALECs, ILECs and 9-1-1 Administrators to successfully implement 9-1-1. This is not an all-encompassing document and other NENA standards should be referenced.

1.2 Reason to Implement

With the passage of the Telecommunications Act of 1996 came the first major overhaul of the telecommunications laws in almost sixty-two years. The goal of the telecom act is to let any telecommunications business compete in any market against each other. Since the passage of this law, we have all experienced change in the way we work, live and learn. We will continue to see change affecting telephone service, cable programming, video service, and broadcast services, to mention a few.

The information contained within these guidelines is meant to document specific components that have been found to be vital to an ALECs service initiation, as well as to the success of 9-1-1. The best way to achieve the desired results is for the ALECs, ILECs and 9-1-1 Administrators to work together.

1.3 Terms/Definitions

(As defined in NENA 01-002 *NENA Master Glossary of 9-1-1 Terminology*)

1.4 Effective Date

This standards document is effective as of February 2003.

1.5 Reason For Issue

This document is issued to serve as a NENA standard and guide meant to document specific components that have been found to be vital to an ALEC's service initiation, as well as to the success of 9-1-1.

1.6 Reason For Reissue

NENA reserves the right to modify this document. Whenever it is reissued, the reason(s) will be provided in this paragraph.

1.7 Date Compliance

All systems that are associated with the 9-1-1 process shall be designed and engineered to ensure that no detrimental, or other noticeable impact of any kind, will occur as a result of a date/time change up to 30 years subsequent to the manufacture of the system. This shall include embedded applications, computer based or any other type application.

To ensure true compliance the manufacturer shall upon request provide verifiable test results to an industry acceptable test plan such as Telcordia GR-2945 or equivalent.

2. SERVICE INITIATION GUIDELINES

2.1 Service Initiation

ALECs are encouraged to inform all 9-1-1 Administrators when they are initiating or changing their service plan. The first step in creating a service plan is deciding where to market. Once an ALEC knows what areas they will be serving, they should contact the 9-1-1 Administrator.

Samples of Introduction Letters can be found as References 3.2 and 3.3

2.11 Frequently Asked Questions

- Who is the 9-1-1 Administrator?
- How does a ALEC find out this information?
- What is the 9-1-1 fee structure?
- Does an agreement need to be executed?
- How does the 9-1-1 Administrator know who the ALECs are?

2.12 Resources

- Obtain a list of the 9-1-1 Administrators from the state 9-1-1 agency, if one exists.
- Review trade organizations' membership directories for contact information.
- Contact the state NENA chapter or other 9-1-1 organizations.
- Check with the state Public Utility Commission for a list of the ALECs.
- Visit the National Emergency Number Association web site at: www.NENA9-1-1.org

2.2 Interconnection Meeting

An Interconnection meeting between the ALEC, ILEC providing the 9-1-1 service system and the 9-1-1 Administrator is imperative to the success of the 9-1-1 system. The components identified in Reference 3.4 at the minimum, should be agenda items at the Interconnection meeting.

Once an interconnection agreement is executed between the ILEC and ALEC, the ALEC should provide "proof of the certification" to the 9-1-1 Entity/Administrator.

It is recommended that the NENA Service Initiation Guidelines be distributed to all parties. Contact information for the ILEC, ALEC, 9-1-1 Administrator and/or PSAP(s) should be distributed.

The network component of E9-1-1 is a minimum of two trunks per Selective Routing tandem, which are used for the sole purpose of sending 9-1-1 calls with the full 7 or 10 digit calling number from the ALEC End Office (EO) directly to the 9-1-1 SR (Selective Routing) tandem. The ILEC or host telephone company will determine the appropriate SR E9-1-1 tandem for connectivity to the ALEC EO.

2.21 Additional References

- *The Network Reliability Council Report to the Nation 1993* at www.fcc.gov/oet/nrc
- *NENA 06-001 NENA Recommended Standards for Local Service Providers Interconnection Information Sharing* document, which is posted on the NENA web page at www.nena9-1-1.org.
- Specific documentation relative to the ILEC or 9-1-1 service provider.

2.3 Timeline/Checklist

The ALEC may find it helpful to create a timeline or checklist to ensure that all of the necessary components are covered in the interconnection/service initiation process. You may choose to delete some of the identified tasks and/or add more that apply to your project. The sample timeline/checklist is provided as Reference 3.5

It is recommended that you add a column titled "DATA SOURCE" to keep up with who is to provide (internal and external) the information for a particular implementation step.

2.31 Flow Charts

Flow charts are very helpful to all the participating parties. The 9-1-1 Administrator should provide an E9-1-1 Call Flow chart showing the flow of their 9-1-1 system. This should cover everything from when the caller dials 9-1-1 to the delivery of the call to the PSAP. The ALEC should provide an Interconnection Diagram showing how they will interconnect to the ILEC and existing 9-1-1 system.

The trunks that are provisioned should coincide with the diagram provided as a result of the interconnection meeting.

Examples of flow charts and interconnection diagrams can be found as Reference 3.6.

2.4 9-1-1 Agreements

It seems that most areas across the United States do not require the ALEC to enter into a 9-1-1 agreement. Although agreements create more paperwork for all parties, they also outline responsibilities.

It is the recommendation of the Service Initiation Study Group that all 9-1-1 Administrators require an E9-1-1 Service Agreement to be executed with all ALECs who offer service within their jurisdiction. ALECs may not be required to file tariffs in all states, and even in states where tariffs are required, the 9-1-1 language included in the tariff is generally very brief. Since the 9-1-1 service requirements are not included in tariffs, it is critical

that specific criteria be established in a Service Agreement to ensure a standard level of E9-1-1 service across all telecommunications companies.

The E9-1-1 Service Agreement should address the following service requirements:

2.41 ALEC Responsibilities Consistent with Tariff Requirements for LECs

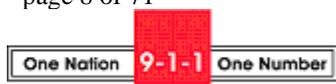
- Network requirements – minimum number of 9-1-1 trunks required, traffic study requirement if any, network monitoring and repair requirements, network diversity and default routing requirements, and network integration to the E9-1-1 network.
- Network description and/or diagrams – End Offices and areas served. See References 3.7, 3.8 and 3.9.
- Requirements for 9-1-1 database maintenance – timelines, requirement to coordinate with 9-1-1 jurisdiction's ALI Database Management System Provider, and database error resolution.
- 9-1-1 Testing Requirements
- NENA registration requirements – for NENA Company ID and requirements for the display of Company ID in the ALI data stream at the PSAPs.
- 24 x 7 emergency contact number
- Contact information – list of employee contact names, responsibilities, telephone and pager numbers, and addresses. Include escalation procedures.
- 9-1-1 fee or excise tax and any surcharge requirements.
- Operator Service Requirements for overflow and 0- emergency calls

2.42 9-1-1 Administrator/PSAP Responsibilities

- PSAP call answering responsibilities
- PSAP network requirements – minimum number of 9-1-1 trunks required.
- MSAG Coordination requirements.
- Contact information – list of employee contact names, responsibilities, telephone and pager numbers, and addresses. Include escalation procedures.
- 24x7 contact information for the 9-1-1 Administrator and/or PSAP(s).
- Any applicable standards or service requirements.
- Assignment of default routing ESNs
- 10-digit number into PSAP for 0- emergency calls with no voice contact
- Surcharge remittance procedures
- Overflow routing (i.e. to reorder, to Operator, to 10-digit number)

2.43 Other Requirements

- E9-1-1 Tariffs – if a tariff for the ALEC exists, incorporate the tariff language by reference into the E9-1-1 Service Agreement.
- Indemnification/Liability Language – as determined by legal authority of 9-1-1 jurisdiction.
- Term of Agreement and Termination language.



2.5 Model Service Agreements

References 3.8, 3.9 and 3.10 identify Model E9-1-1 Service Agreements for ALECs that may be used as a reference in creating an E9-1-1 Service Agreement for your jurisdiction. Samples provided by:

- King County, Washington,
- State of Texas,
- Metropolitan 911 Board, Minneapolis/St. Paul, Minnesota

2.6 Database Responsibilities

The BIG question is who maintains the 9-1-1 database? All parties will have a hand in the database therefore it should be able to be facilitated with ease.

All participants share in the ownership of the 9-1-1 system.

The 9-1-1 system is only as good as the quality of the data.

Understand the logic of relational data and know how to maintain the integrity of 9-1-1 data.

2.61 Who are the Players?

2.611 9-1-1 Service Provider

The 9-1-1 Service Provider as designated by the 9-1-1 administrator is the 9-1-1 system integrator.

2.612 Database System Integrator

The Database System Integrator is responsible for the ALL database. The Database System Integrator could be a database vendor or a third party acting on behalf of the 9-1-1 Service Provider, the host telephone company or whoever the 9-1-1 Administrator chooses.

For example: Qwest (formerly USWest) and BellSouth subcontract with Intrado Corporation to perform the database system integrator functions. Southwestern Bell Telephone performs the functions of the database system integrator themselves. And in some instances, like Houston, Texas, the 9-1-1 district chose a database vendor (other than the 9-1-1 Service Provider or host telephone company) to perform this function.

2.613 Other Telephone Companies in a 9-1-1 Service Area

All other telephone companies in a 9-1-1 Service Area must integrate into the existing 9-1-1 system. They each provide their customer telephone service records to the database system integrator in an agreed upon 9-1-1 format. Review the NENA *Recommended Formats & Protocols for Data Exchange*, which is posted on the NENA web page.

2.614 Database Coordinator

Most 9-1-1 Administrators employ a **Database Coordinator** to oversee the integrity of the data that is maintained by the PSAP(s) and the telephone companies. The Coordinator facilitates necessary communications and resolution of data.

2.615 9-1-1 PSAP Coordinator

The **9-1-1 PSAP Coordinator** is responsible for the ongoing database maintenance activities for the communities in their jurisdiction and the 9-1-1 calls answered by their PSAP.

2.616 Each City/Community/Township

Each **city/community/township** is encouraged to be proactive and take the initiative to notify the 9-1-1 Administrator or Database Coordinator of new addresses. There should be a single point of contact for each city to provide answers to address discrepancies.

2.62 Maps

A good database allows the 9-1-1 Administrator to produce accurate maps, which are a very crucial component of a successful 9-1-1 system. These maps facilitate the interconnection and day-to-day business process. The 9-1-1 Administrator should be able to provide jurisdictional, ESN, and other necessary maps to the ALECs and ILECs. ILECs should share the rate center maps with the ALECs and 9-1-1 Administrators as needed and ALECs can include coverage maps depicting their service area.

2.63 MSAGs

In order for a local exchange telephone company to plan and provision 9-1-1 Service for a given geographic area, they need to utilize the Master Street Address Guide (MSAG). The MSAG provides a mechanism to accurately process subscriber records in the Automatic Location Information Data Management System (ALI/DMS) of the local 9-1-1 service provider. Without the MSAG, the service provider may encounter undue delays in processing ALI records if they do not comply with the MSAG based on the “logic” of the MSAG. The Service Address is a key element of the service order and must conform to the nuances of the MSAG, such as street suffixes, prefixes, and any other abbreviations contained within the MSAG.

Prior to initiating service, the local exchange carrier should perform call through testing to verify that their network is properly configured. The test records used to perform the test calls are built using MSAG valid addresses for a particular exchange or rate center. The records will move through the service order flow and ensure that the serving telephone company has the ability to process customer records that are MSAG compliant.

All participants in an Enhanced 9-1-1 service area need to understand the relationship of the various data files designed to maintain the integrity of the ALI database.

2.64 Q&A

2.641 Who “owns” the MSAG?

The 9-1-1 Administrator creates the MSAG content and maintains it in conjunction with the ALI provider.

2.642 Who needs a copy of the MSAG?

All service providers need access to the MSAG for the areas that they serve to allow them to build test records and manage accurate service order input. NENA recommends that access to the MSAG for operational needs be provided to all parties

3 REFERENCES

3.1 General References

- 06-001 NENA Information Sharing Guidelines
- 02-010 NENA Recommended Formats & Protocols For ALI Data Exchange, ALI Response & GIS Mapping
- 02-011 NENA Recommended Data Standards For Local Exchange Carriers, ALI Service Providers & 9-1-1 Jurisdictions

3.2 Sample Introduction Letter 1

This letter is to inform you that _ALEC_ Telecommunications, Inc. will begin facility-based local exchange service in the _____ metropolitan area in January of 2000. _____ Telecommunications, Inc. is a wholly-owned subsidiary of _____ Communications, Inc., a national local communications company, serving residential and business customers, long distance carriers, facility-based competitive access providers, mobile communications companies, local telephone companies, and other customers with broadband local communications needs. _ALEC_ has received certification to do business in the State of _____ to compete with the incumbent local exchange company(ies).

ALEC will offer service to small and medium-sized businesses and will provide 9-1-1 dialed emergency service through our Central Office switch facility located at _____. _ALEC_ has launched a joint, comprehensive effort with Name of ILEC to ensure the highest quality delivery of E9-1-1 services to our customers in the _____ area. The _ALEC_ switch will direct 911 calls into the Name of ILEC network as appropriate for the specific area being served. _ALEC_ Automatic Location Identification (ALI) customer records will be passed to Name of 9-1-1 Database Provider for processing and will be included in the ALI database.

ALEC call-through testing between our test location and the PSAP location(s) is tentatively scheduled for January of 2000. I will be responsible for coordinating all testing activities between your agency and Name of ILEC.

With that in mind, enclosed is a map that details the geographic coverage of the rate center, and the _ALEC_ Service Plan which identifies the NPA-NXX that will be used in that rate center. Also enclosed is a general description of the 911 Cutover Tests, a Disaster Recovery and Service Restoration Plan, a Default Routing Designation, and an _ALEC_ Escalation and Contact List. Items that require input from your office are the Default Routing designations and the 911 Escalation and Contact list for your agency. Please provide the information requested and forward to my office at:

By virtue of this letter, _ALEC_ wants to insure that you are apprised of our plans to begin local service in the _____ area. We plan to implement a state of the art E911 network that complies with all state/local requirements, and statutes including those governing the collection and remittance of all 911 surcharges. Your assistance in providing any relevant information or documentation for _ALEC_ to meet this objective will be greatly appreciated.

If you need any additional information or if you have any questions concerning the information provided, I may be reached at NPA-NXX-XXXX.

3.3 Sample Introduction Letter 2

ALEC, a facilities-based telephone company, will soon begin offering local telephone service in the XXX area. Along with local service comes the obligation to process 911 Emergency calls dialed by our subscribers.

This is an obligation _ALEC_ takes very seriously. We verify the addresses against the regional Master Street Address Guide (MSAG) perform an edit to detect any discrepancies, and transmit it into the proper 9-1-1 database. Our Customer Service Department is in charge of this process and currently performs this function in several other markets in the U.S. Please advise me of any requirements that 911 ENTITY may have, i.e., 911 Service Agreement, 911 Surcharge information, 911 Call Through testing procedures, etc.

The proper delivery of 911 calls is a high priority to us. _ALEC_ feels the integrity of this system is vital to our public interest. _ALEC_ looks forward to working with you and your staff in successfully implementing E-911 Service in the XXXXX area. If you need any additional information, I can be reached at NPA-NXX-XXXX.

Archival

3.4 Interconnection Meeting Components

<u>TOPIC</u>	<u>RESPONSIBLE PARTY</u>
<i>Service Area</i> – where will the ALEC be providing service? Exchanges and rate centers should be provided. This is usually defined on a Service Plan form (Exhibit 1, data gathering form, etc.)	ALEC
<i>NPA/NXX Forecast</i> – a forecast should be provided to allow for proper growth in the architecture of the 9-1-1 network	ALEC
<i>Rate Center Reference Information</i> – Local-calling plans, and maps showing rate center boundaries and sharing of other information is important.	ILEC
<i>Interconnection Diagrams</i> – diagrams show meet points, trunk routing, as well as central offices and 9-1-1 tandems that are a part of the interconnection	ALEC
<i>CLLI Codes</i> – These are needed for proper routing and ordering of the 9-1-1 trunks. It is also helpful to show these on the Interconnection Diagrams.	ILEC and ALEC
<i>Call Flow Charts</i> – These show the flow of a 9-1-1 call from its inception at the caller’s location to delivery to the PSAP. Usually shows retrieval of ANI and ALI.	9-1-1 Administrator
<i>Network Services</i> – what services are provided through the 9-1-1 Service Provider. Charges should be clearly outlined – most 9-1-1 legislation covers payment of all network service charges.	ILEC, ALEC, Database Provider

3.5 Timeline/Checklist

(Name of LEC or ALEC)

9-1-1 IMPLEMENTATION STEPS

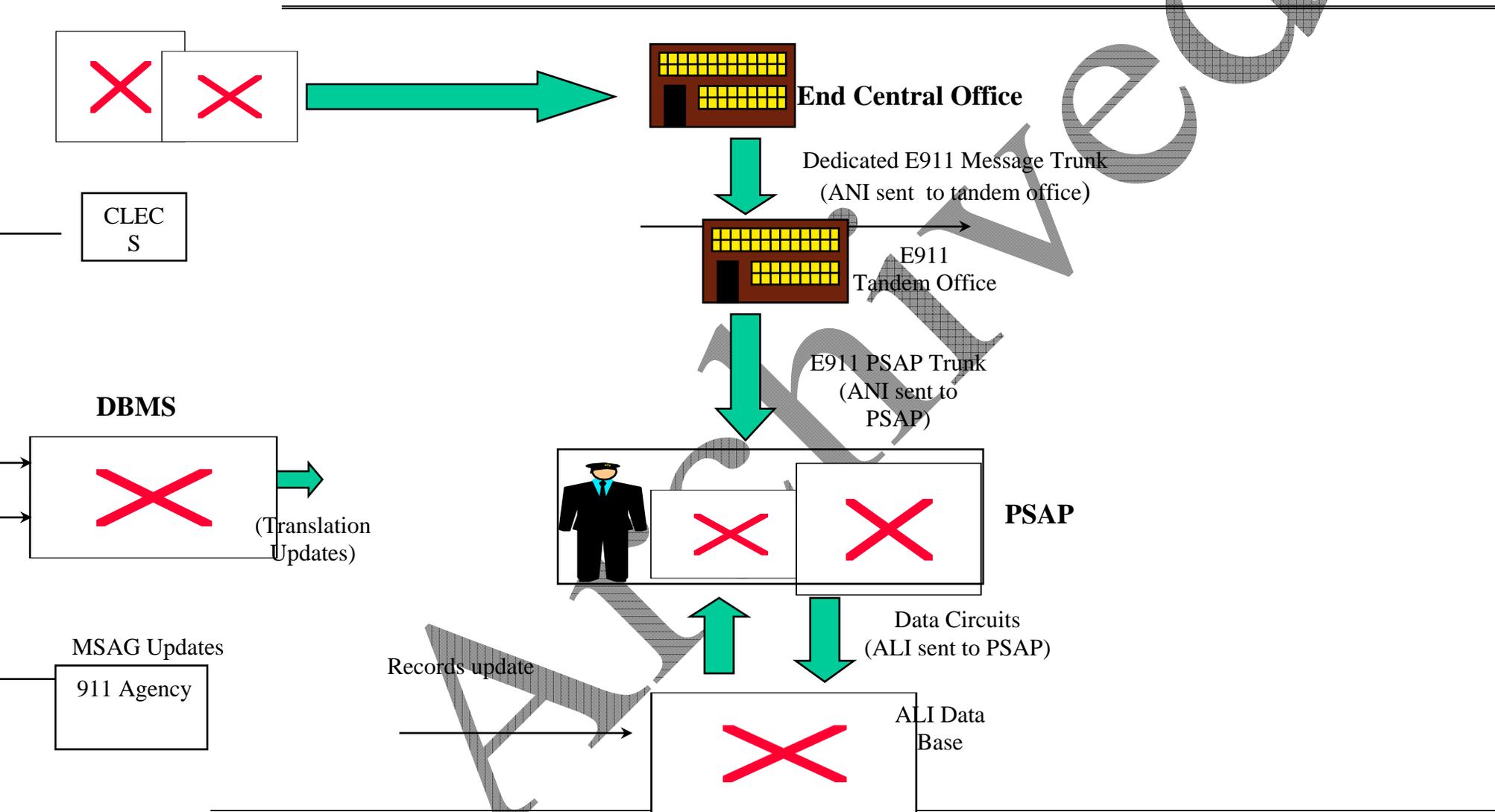
NENA COUNTY, USA

Task Name	Duration	Start	Finish	% Complete	Notes
ALEC Switch Locations	1 day				
Identify Access node rate center/footprint	1 day				
Obtain Access node maps	1 day				
Identify ACI ALEC NPA/NXX codes	1 day				
Identify County Names	1 day				
Identify 911 network	1 day				
Identify County Contacts	1 day				
Identify County Coordinator	1 day				
Notify County Coordinator	1 day				
Notify State 911 Program (if required)	1 day				
Obtain County Maps	1 day				
Obtain NENA Company ID	1 day				
Host Telco	1 day				
Establish Host Telco Contact	13 days				
Request MSAG for each County	1 day				
Establish MSAG update procedure	1 day				
Establish database update procedure	1 day				
Identify Inter-company Discrepancy form	1 day				
Establish database update schedule	1 day				
Identify data exchange format	1 day				
Identify dialup numbers	1 day				
Identify transmission protocol	1 day				
Test data transmission	1 day				
Identify Error correction contacts	1 day				
Identify Error correction procedure	1 day				
Obtain host error codes and definitions if necessary	1 day				
Identify primary route point					
Service Orders	1 day				
Establish Service order feed	1 day				
Test service order feed					
E-911 System Database	1 day				
Create customer and MSAG databases					

Timeline/Checklist (cont.)

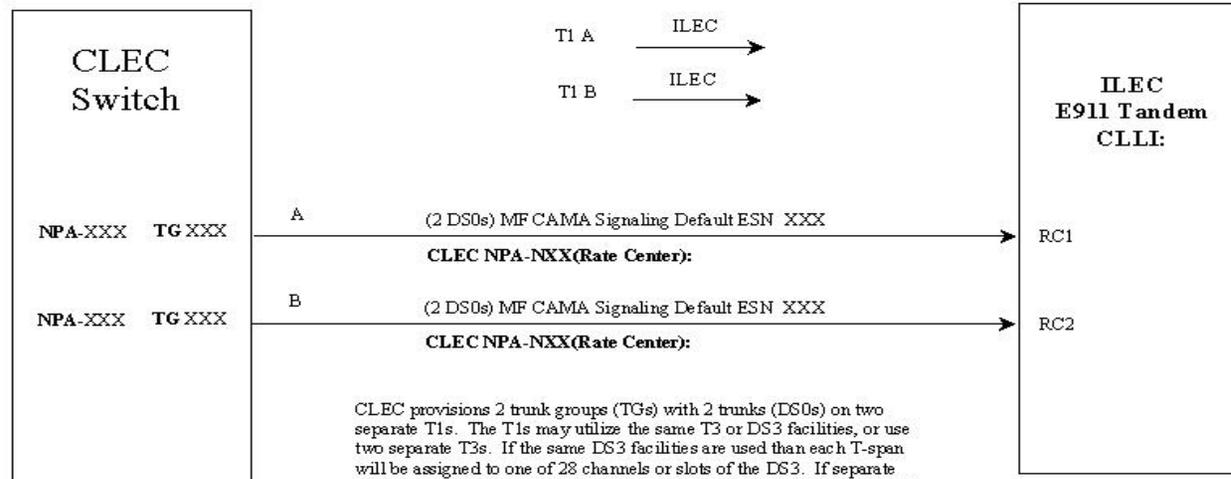
Task Name	Duration	Start	Finish	% Complete	Notes
Support Organization	1 day				
Assign MSAG support responsibility	1 day				
Assign error corrections responsibility	1 day				
Assign 911 Administrator responsibility					
Network Diagrams	1 day				
Identify routing method to be used	1 day				
Identify default routing path	1 day				
Identify 911 trunk quantity/locations	1 day				
Verify order of trunk cards	1 day				
Verify order of trunk circuits	1 day				
Install and test trunks	1 day				
Verify 911 call default routing	1 day				
Verify operator services overflow	1 day				
Circuit layout documentation received					
Business issues	1 day				
Prepare & file 911 Tariffs w/PSC	1 day				
Prepare & obtain signatures of Non-Disclosure Agreements, if applicable	1 day				
Prepare & obtain authorization of 911 Service Agreements	1 day				
Establish Customer billing if appropriate	1 day				
Provide Trouble reporting procedure to county	1 day				
Provide Internal notification and PR	57 days				
Establish 911 surcharge	1 day				
Establish network critical dates					

3.6 E911 Call Flow Example



3.7 EXAMPLE – INTERCONNECTION DIAGRAM #1

E9-1-1 Trunking Interconnection
Option 2
 Facility Diversity

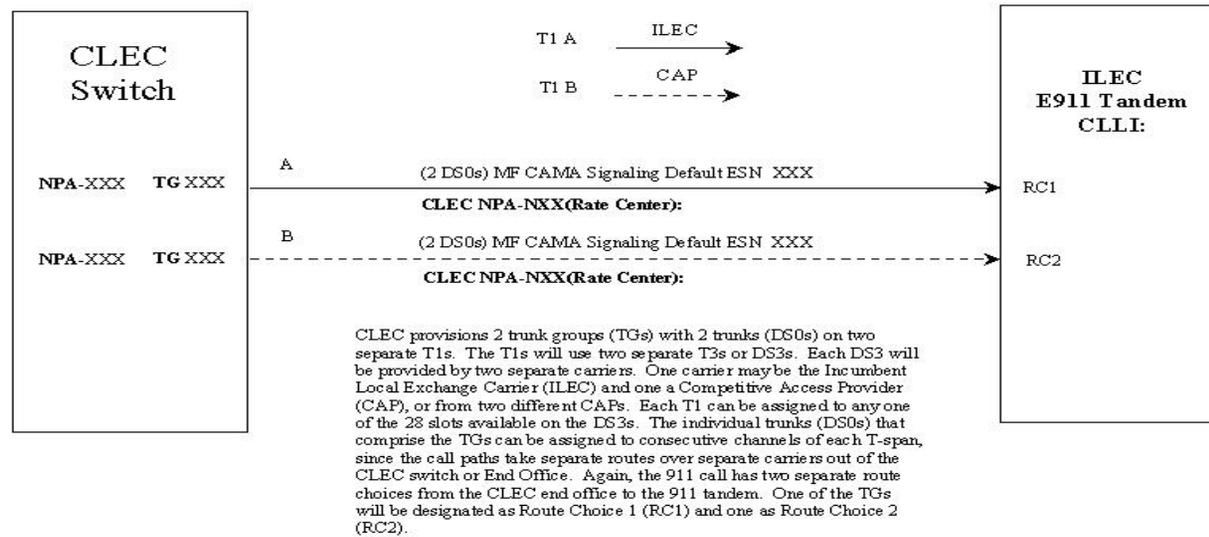


CLEC provisions 2 trunk groups (TGs) with 2 trunks (DS0s) on two separate T1s. The T1s may utilize the same T3 or DS3 facilities, or use two separate T3s. If the same DS3 facilities are used than each T-span will be assigned to one of 28 channels or slots of the DS3. If separate DS3s are utilized, than each T1 can be assigned to any one of the 28 slots available on the DS3s. The individual trunks (DS0s) that comprise the TGs can be assigned to consecutive channels of each T-span, since the call paths take separate facility routes out of the CLEC switch or End Office. In this scenario the 911 call has two separate route choices from the CLEC end office to the 911 tandem. One of the TGs will be designated as Route Choice 1 (RC1) and one as Route Choice 2 (RC2).

The MF trunking shown above may be SS7 in some areas. CLEC=ALEC

3.7 EXAMPLE – INTERCONNECTION DIAGRAM #2

E9-1-1 Trunking Interconnection
Option 3
 Physical Path (Carrier) Diversity



The MF trunking shown above may be §87 in some areas. CLEC=ALEC

3.8 Sample Service Agreements/Plan King County Washington

BETWEEN KING COUNTY
AND _____

This agreement is made and entered into by and between King County, a governmental entity organized under the Laws of the State of Washington (hereinafter "County"), and _____, a corporation organized under the Laws of the State of _____ (hereinafter "_____").

WHEREAS, _____ provides emergency telephone service and its customers have the exclusive use of the telephone number "911" for universal emergency service (E911 Service), and;

WHEREAS, _____ offers telephone service within the geographic boundaries of King County and 911 calls from its customers will be routed to Public Safety Answering Points (PSAPs) within the County E911 System;

NOW THEREFORE, County and _____ agree as follows:

1.0 DEFINITIONS.

1.1 Automatic Location Identification (ALI). A feature by which the name and address associated with the calling party's telephone number is forwarded to the PSAP for display.

1.2 Automatic Number Identification (ANI). A feature by which the calling party's telephone number is forwarded to the PSAP for display.

1.3 Company Identifier. A National Emergency Number Association (NENA) approved 3-5 character identity chosen by the telephone service provider that distinguishes the entity providing the dial tone to the subscriber. The Company Identifier is maintained by NENA in a nationally accessible database.

1.4 Default Routing. A feature activated when an incoming 911 call cannot be selectively routed due to an ANI failure, garbled digits, or other causes. Such incoming calls are routed from the E911 Tandem to a default PSAP designated by the County.

1.5 Diverse Routing. A method of deploying end office facilities using separate systems to provide E911 Service in case of facility or central office equipment failure.

1.6 Emergency Service Numbers (ESNs). Numbers used to route 911 calls to primary and secondary PSAP locations, as well as to identify unique combinations of police, fire, and emergency medical services agencies responsible for providing emergency service in a geographic area.

1.7 End Office. A central office which receives originating 911 calls.

1.8 E911 Service. A communication service whereby one or more Public Safety Answering Point (PSAP) locations, designated by King County, may receive telephone calls dialed to the telephone number 911. E911 Service includes network facilities necessary for the answering, transferring, and forced disconnect of emergency 911 calls originated by persons within the geographic area of King County.

1.9 E911 Tandem. A central office which provides tandem switching of 911 calls. It controls switching of ANI information to the PSAP and also provides the Selective Routing feature and certain maintenance functions for each PSAP. The E911 Tandem for the County is located in Seattle and is operated by US West Communications, Inc. (US West).

1.10 Master Street Address Guide (MSAG). A database of street names and address ranges within their associated communities defining ESN boundaries for 911 purposes.

1.11 National Emergency Number Association (NENA). An association which is nationally recognized by 911 professionals as the national 911 association. This association establishes a variety of 911 standards which are recognized throughout the 911 industry, including standards for 911 data exchange.

1.12 P.01 Grade of Service. Trunk facility provisioning to ensure that during the average busy hour, no more than 1% of calls into the E911 System will encounter a busy condition.

1.13 Public Safety Answering Point (PSAP). An answering location designated by local governments for 911 calls originating in a given area. PSAPs are designated as primary or secondary, which refers to the order in which calls are directed for answering. Primary PSAPs receive 911 calls directly from the public; secondary PSAPs receive 911 calls only on a transfer basis from primary PSAPs.

1.14 Selective Routing. A feature that permits a 911 call to be routed to the designated PSAP based upon the identified telephone number of the calling party.

1.15 Subscriber. The retail purchaser of telephone service from _____ as telephone service is defined in RCW 82.04.065(3).

2.0 RESPONSIBILITIES.

- 2.1 Subscribers of _____ who call 911 forfeit the privacy afforded by non-listed and non-published service to the extent that the telephone number, address, and name associated with the calling party's location may be furnished in connection with a call to 911.
- 2.2 _____ shall process subscriber address changes within one business day from time of receipt. Such address information shall be provided to US West as the 911 ALI database provider for the County, and shall be transmitted in the NENA data format standard which is currently utilized by US West at the direction of the County.
- 2.3 When the County and/or the PSAPs have identified an ALI database error or a Selective Routing error related to a _____ subscriber, _____ will work with US West and the County to resolve the error within five (5) business days of receipt.
- 2.4 _____ shall maintain a complete back-up of all subscriber record files at all times.
- 2.5 _____ shall provide a minimum of two (2) dedicated 911 circuits from each of its End Offices, and ensure that sufficient facilities are provided to maintain a minimum of a P.01 Grade of Service from each End Office to the E911 Tandem.
- 2.6 _____ shall provide quarterly traffic studies in a format approved by the County to aid the County in evaluating that sufficient facilities are being provided to meet a minimum of a P.01 Grade of Service.
- 2.7 Where _____ facilities permit, _____ shall install route diversification and redundancy of all facility routes from its End Offices to the E911 Tandem.
- 2.8 _____ shall provide the County with a list of all End Offices which provide service within the geographical area of King County. For each End Office, a list of the geographical areas served by that End Office shall be provided.
- 2.9 For each geographical area within King County in which _____ provides telephone service, an ESN shall be assigned by the County which shall direct the Default Routing of 911 calls to the appropriate PSAP which serves that geographical area. At the discretion of the County, when a small number of customers are served by _____ in a particular geographic area, more than one geographic area may be served by a default ESN.
- 2.10 _____ shall provide monitoring of 911 circuits to discover errors, defects, and malfunctions in the 911 circuits between its End Offices and the E911 Tandem in accordance with WAC 480-120-530; Emergency Services.
- 2.11 E911 Service network repair and maintenance shall be done in accordance with the Washington State Quality of Service Rules as outlined in WAC480-120-520; Major Outage and Service Interruptions.

2.12 _____ shall register with NENA to obtain a Company Identifier which shall be included in _____'s ALI database for display at the PSAP.

2.13 _____ shall provide the County with a current list of employee contact names, responsibilities, telephone numbers, pager numbers, and addresses to be utilized for the coordination of the E911 Service described herein. Such list shall be provided to the County at the time of the signing of this agreement, and updated lists shall be provided as necessary.

2.14 _____ shall provide the County with a local telephone number or an 800 telephone number which is accessible on a twenty-four (24) hour day, seven (7) day week, fifty-two (52) weeks per year basis for the PSAPs and the County to contact in the event that security assistance is required on a 911 call or in an emergency situation, i.e. interrupt or verify services.

2.15 _____ shall remit the 911 excise tax on switched access lines to King County as authorized by King County Ordinance No. 11589.

2.16 Year 2000 Compliance. An information system is "Year 2000 Compliant" when the system is able to accurately process date data--including, but not limited to, calculating, comparing, and sequencing--from, into, and between the twentieth and twenty-first centuries, including leap year calculations.

_____ represents and warrants that the computer equipment, software and systems, individually and in combination, as provided by _____ under this Agreement, shall be Year 2000 Compliant, when used in accordance with the documentation supplied by _____. _____ further represents and warrants that any upgrades, modifications, customizations or new versions of the computer equipment, software and systems, individually and in combination, shall be Year 2000 Compliant, when used in accordance with the documentation supplied by _____.

3.0 COUNTY RESPONSIBILITIES.

3.1 The PSAPs within the County's E911 System shall answer 911 calls on a twenty-four (24) hour day, seven (7) day week, fifty-two (52) weeks per year basis.

3.2 The County shall continue to verify the accuracy of the routing information contained in the MSAG and to coordinate the maintenance of the MSAG with US West as the E911 database provider.

3.3 The County shall ensure that there are a sufficient number of 911 circuits between the E911 Tandem and the PSAPs and provide customer premises equipment at the PSAPs with a capacity adequate to handle the number of incoming 911 circuits necessary to provide a P.01 Grade of Service.

3.4 E911 Service is intended for emergency use only, and each County PSAP shall subscribe to local exchange service for administrative purposes, for placing outgoing calls, and for receiving other calls.

3.5 On each 911 call, the PSAPs shall attempt, where feasible, to determine the location of the incident with the caller to allow for the dispatching of emergency services.

3.6 If a County PSAP receives a 911 call and determines that the location of the caller is outside its service area, the PSAP shall attempt to relay or transfer the 911 call to the appropriate PSAP.

3.7 The County shall provide _____ with a current list of employee contact names, responsibilities, telephone numbers, pager numbers, and addresses to be utilized for the coordination of the E911 Service described herein. Such list shall be provided to _____ at the time of the signing of this agreement, and updated lists shall be provided as necessary.

4.0 E911 TARIFFS.

The County and _____ incorporate by reference the terms, conditions and rates now contained, or as later modified, in the _____ E911 Tariff for the State of Washington. If any term, condition, or rate in this Agreement conflicts with a term, condition, or rate in the E911 Tariff, the E911 Tariff shall prevail.

5.0 INDEMNIFICATION.

Each party shall indemnify and hold harmless the other party, in connection with claims, losses, damages, liabilities, and law suits to the extent they arise from, or are alleged to arise from, each party's negligent acts in connection with a party's performance under this Agreement, or a party's use of, or operation of, the service provided under this Agreement. This indemnity extends solely to claims and lawsuits for personal injury, death, or destruction of tangible property. **IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES TO THE OTHER PARTY.**

6.0 TERM.

The term of this E911 Service Agreement shall be for a period of five (5) years, commencing on the date of the latest signature on this agreement, unless terminated earlier under provisions of paragraph 7 "Termination".

7.0 TERMINATION.

In the event that either party defaults in the performance of any obligation under this Agreement, the non-defaulting party will promptly notify the defaulting party. If such default is not cured and corrected within thirty (30) days (or such time as may be reasonable if so specified in the notice) of written notice thereof, then the non-defaulting party may immediately terminate this Agreement.

8.0 ENTIRE AGREEMENT.

This Agreement represents the entire agreement between the parties, is a final, complete exclusive statement of the terms thereof, and supersedes and terminates any prior agreement, understanding, or representation between the parties, whether written or oral.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the last date signed below.

KING COUNTY

Signature

Signature

Name (Typed or Printed)

Name (Typed or Printed)

Title

Title

Date

Date

Approved as to Form Only:
King County Deputy Prosecuting Attorney

Signature

Name (Typed or Printed)

Date

This 9-1-1 Emergency Service Agreement (“Agreement”) establishes the rates, terms, and conditions for 9-1-1 emergency service interconnection by XXXXXXXX Telecommunications (“Company”) with the **9-1-1 Entity** (“the 9-1-1 Entity”) (collectively “Parties”).

WHEREAS, the Texas Legislature and the United States Congress have authorized the provision of telecommunications service in the local marketplace by service suppliers other than the holders of certificates of convenience and necessity (“CCN”); and,

WHEREAS a CCN holder is the incumbent local exchange company that holds a certificate of convenience and necessity granted by the Public Utility Commission of Texas (“PUC”) on September 1, 1995, for each service area(s) within the territory of the 9-1-1 Entity; and,

WHEREAS, Company is a holder of either a certificate of operating authority or a service provider certificate of operating authority that has received certificate number 60078 from the PUC and, therefore, a service supplier and a service provider of local telecommunications service (“service supplier”) pursuant to Chapter 771 or Chapter 772 of the Texas Health and Safety Code, §§ 771.001 *et seq.*, 772.001 *et seq.*, or other applicable law pertaining to home rule cities (collectively “the Applicable Laws”), as amended, that must provide 9-1-1 emergency service to that portion of the Company’s service area located within the territory of the 9-1-1 Entity; and,

WHEREAS, the 9-1-1 Entity is a political subdivision of the State of Texas established pursuant to the Applicable Laws and must interconnect service suppliers into the 9-1-1 emergency service area served by the 9-1-1 Entity; and,

WHEREAS, this 9-1-1 emergency service interconnection must protect, maintain, and further the high quality, standards-based 9-1-1 emergency service and not inappropriately and unreasonably increase the costs of 9-1-1 emergency service to the 9-1-1 Entity;

NOW, THEREFORE, in consideration of the listed mutual promises and benefits, the Parties agree as follows:

1. Company must comply with all provisions of the Applicable Laws and any requirements implementing or interpreting the Applicable Laws promulgated by the 9-1-1 Entity pursuant to the authority vested in the 9-1-1 Entity.
2. Company shall submit for the 9-1-1 Entity’s approval a plan for the Company’s provision of 9-1-1 emergency service within the territory covered by the 9-1-1 Entity. The plan is provided as Attachment No. 1. The plan shall consist of an explanation with sufficient specificity for the 9-1-1 Entity to determine Company’s compliance with the requirements of this Agreement. Company may submit the plan, or any part of the plan, that it considers trade secret, confidential, and/or proprietary or that would give another service

supplier a competitive advantage, under seal. The 9-1-1 Entity shall keep the plan or any part of the plan confidential to the extent permitted by law. Upon receiving a request for Company's plan or any part of Company's plan that Company submitted under seal, the 9-1-1 Entity shall request an Attorney General Open Records Decision pursuant to the Texas Open Records Act, Ch. 552, Tex. Gov. Code [Texas Public Information Act, Tex. Gov't Code Ann. § 552.001 *et seq.* (Vernon 1994 and Vernon Supp. 1997)] as amended, and shall notify Company concurrently with its request for the Attorney General Open Records Decision. The 9-1-1 Entity shall not release any information that is subject to a confidentiality agreement executed between the Parties until the Attorney General issues an Attorney General Open Records Decision resolving the request for Company's plan or any part of the plan. The 9-1-1 Entity is not required to request an open records decision ruling regarding information for which there has been an open records ruling that such identical information is public information.

3. Company's interconnection arrangements for 9-1-1 emergency service shall meet the minimum standards in :

- a. PUC Substantive Rule 26.433, as amended. The current copy is provided as Attachment No. 2 for the convenience of the Parties; the Applicable Laws addressing, including, or interpreting standards or features for 9-1-1 emergency service applicable to Company;
- c. and any requirements promulgated in the future by the 9-1-1 Entity pursuant to the authority vested in the 9-1-1 Entity by the Applicable Laws and the applicable provisions of this Agreement.

Where possible, Company may exceed the above standards.

4. Company shall provide to the 9-1-1 Entity an equal or, where possible, a greater level of service and functionality from the Company switch to the 9-1-1 tandem, also known as the 9-1-1 selective router, as is currently provided by the incumbent local exchange company. Incumbent local exchange company is a local exchange company that has a certificate of convenience and necessity on September 1, 1995.

The 9-1-1 Entity may amend its 9-1-1 emergency service requirements from time to time. Unless a shorter time period is necessary to protect the public safety, the 9-1-1 Entity shall permit Company one hundred eighty (180) days to comply with the 9-1-1 Entity's amendments. Where a shorter time period is necessary to protect the public safety, the 9-1-1 Entity shall permit Company the greatest length of time possible, without jeopardizing the public safety, and where possible the Parties shall negotiate the shorter time period.

5. Company proposes to commence local service in its authorized service area on February 1, 2000 ("Service Establishment Date"). Before cutover on the Service Establishment Date, both Company and the 9-1-1 Entity will test the Company's 9-1-1 emergency service as set forth in Attachment No. 3. The Company and the 9-1-1 Entity shall mutually agree upon the testing requirements and procedures. Final approval as to the adequacy of installation of 9-1-1 emergency service shall rest with the 9-1-1 Entity. The 9-1-1 Entity shall not withhold written final approval upon Company's satisfactory provision of the 9-1-1 emergency service required by this Agreement. Satisfactory provision shall be the working provision of the 9-1-1 emergency service required by the Agreement and provided by Company to interconnection with the incumbent local exchange company CCN holder but not including the incumbent local exchange company CCN holder's 9-1-1 emergency service. The 9-1-1 Entity shall provide Company with final approval in writing within three (3) working days of testing.

6. Unless a shorter time period is necessary to protect the public safety, Company shall notify the 9-1-1 Entity of any changes or expansion in its facilities, service area(s), or other changes affecting the routing or completion of all calls which are affected by or which affect the provision of 9-1-1 emergency service, no later than forty-five (45) days in advance of such change or expansion. Such notice shall include a reference to this section of this Agreement, specifying the responsibility of the 9-1-1 Entity to respond within twenty (20) days. The 9-1-1 Entity shall notify Company, no later than twenty (20) days following receipt of Company's notice, if the 9-1-1 Entity has concerns with Company's proposed changes or expansion and shall provide specificity regarding such concerns. Changes to the plan shall be deemed approved on the proposed implementation date if the 9-1-1 Entity does not comply with this twenty (20) day response requirement. If the 9-1-1 Entity notifies Company that the proposed changes or expansion raise concerns, the 9-1-1 Entity shall work in good faith with Company to resolve such concerns as soon as possible; in no event shall the 9-1-1 Entity notify Company of its decision later than five (5) days before the proposed implementation date. Any proposed changes in the plan shall not affect approval for Company's current plan to which the 9-1-1 Entity had granted prior approval. Company shall provide to the 9-1-1 Entity within twenty (20) days the revisions to the plan, in the form of a modified Attachment No. 1, upon the 9-1-1 Entity's approval of the changes or expansion. Where a shorter time period is necessary to protect the public safety, the 9-1-1 Entity shall permit Company the greatest length of time possible, without jeopardizing the public safety, and where possible the Parties shall negotiate a shorter time period.

7. Unless negotiated and agreed to by the Parties in advance, Company shall use the 9-1-1 tandem, also known as the 9-1-1 selective router, designated and approved by the 9-1-1 Entity and shall not directly trunk to any Public Safety Answering Point ("PSAP"), as reflected on Attachment No. 1, illustrating Company's 9-1-1 tandem arrangements. Unless Company uses a 9-1-1 tandem negotiated and agreed to by the Parties in advance, the tandem designated and approved by the 9-1-1 Entity shall provide 9-1-1 emergency service required by the 9-1-1 Entity pursuant to this agreement.

8. Company shall bill, collect, and remit the appropriate 9-1-1 emergency service fee to the Commission on State Emergency Communications ("CSEC"), as provided in the Applicable Laws and reflected in Attachment No. 4.

Company shall remit the appropriate fees monthly, no later than the last day of the month payment is due. The initial payment is due no later than the 30th day after the last day of the calendar month in which the fees were collected. Remittances shall be made by direct deposit to the CSEC's bank or by check, mailed to the Commission on State Emergency Communications. A report shall also be sent by U.S. mail by Company or Company's designated agent, to the Commission on State Emergency Communications. That report, to be made monthly, shall state the number of subscriber lines, designating the number of both residential and business lines, for which fees have been collected and are being transmitted. At all times Company shall be responsible for the accuracy of the report. From time to time, CSEC may change the 9-1-1 emergency service fee. Such changes shall be communicated to Company for changes in Company's collection and remittance of 9-1-1 emergency service fee, according to the provisions of the Applicable Laws. CSEC shall notify Company of any change Company must make in Company's collection and remittance of 9-1-1 emergency service fee with sufficient advance time, but not to exceed 91 days before the date the change takes effect, to permit Company's billing system to comply timely with the change. Furthermore, also pursuant to the Applicable Laws, Company may retain an administrative fee equal to one percent (1%) of the fees Company collects.

9. All Company Network Service Charges billed to the 9-1-1 Entity for 9-1-1 emergency service by Company shall comply with all applicable federal and state laws and rules, including PUC Substantive Rule 23.97. The Company's Schedule of Network Service Charges to be billed the 9-1-1 Entity shall be provided with this Agreement as Attachment No. 5. Subject to the Parties' negotiation and agreement, Company may revise Company's Schedule of Network Service Charges from time to time in order to recover the reasonable costs that Company incurs for 9-1-1 emergency service. Unless the Parties agree to a different remittance schedule, the 9-1-1 Entity shall remit the Network Service Charges monthly or quarterly in accordance with the remittance schedule in paragraph 8. The 9-1-1 Entity shall make payment as directed by state law.

10. Company and the 9-1-1 Entity agree that it is in the public interest for interim number portability to be as seamless and transparent as possible to persons seeking emergency assistance by calling the number 9-1-1 and to PSAP personnel answering those 9-1-1 emergency service calls. Company shall cooperate and coordinate with the 9-1-1 Entity to the fullest extent possible regarding the implementation and effect of interim number portability on the 9-1-1 emergency service and shall assist the 9-1-1 Entity with educating PSAP personnel. The Parties agree that the 9-1-1 Entity shall bear the cost of any PSAP modifications and Company shall bear its costs of implementing the above-described interim number portability solution.

11. Company shall coordinate and cooperate to the fullest extent possible with the 9-1-1 Entity regarding all 9-1-1 database activities necessary to provide accurate, efficient, seamless, and transparent 9-1-1 emergency service. Company agrees to comply with current National Emergency Number Association standards and any current 9-1-1 Entity requirement addressing 9-1-1 database activities or future requirements promulgated pursuant to the terms of this Agreement.

12. The Parties also agree to work in good faith with each other to resolve any disagreements and negotiations prior to the 9-1-1 Entity or Company taking any formal action. Formal action shall consist of the following, in the order stated: first, alternative dispute resolution by a mutually agreed third-party; second, an administrative proceeding, including arbitration, if authorized by statute; and third, a judicial proceeding.

13. All notices required by or relating to this Agreement shall be deemed to have been made upon receipt and confirmation via facsimile mail and by deposit of the original facsimile mail in the U.S. mail. All notices required by or relating to this Agreement shall be addressed to the respective Parties as follows:

Facsimile:
Address:
Contact:

Facsimile:
Address:
Contact:

14. Company's Disaster Recovery Plan, as required by PUC Substantive Rule 23.97, is found on Attachment No. 6. The plan shall consist of an explanation with sufficient specificity for the 9-1-1 Entity to determine Company's compliance with the requirements of this Agreement but shall not require the Company to reveal any information that the Company considers trade secret, confidential, and/or proprietary or that would give another service supplier a competitive advantage. Company's plan shall be a stand-alone plan that addresses solely Company's 9-1-1 disaster recovery procedures. 9-1-1 Entity shall not withhold approval of Company's plan because 9-1-1 Entity asserts that Company's plan does not include the disaster recovery plan of the incumbent local exchange company CCN holder. Company may submit the plan, or any part of the plan, that it considers trade secret, confidential, and/or proprietary or that would give another service supplier a competitive advantage, under seal. The 9-1-1 Entity shall keep the plan, or any part of the plan, confidential to the extent permitted by law. Upon receiving a request for Company's plan or any part of Company's plan that Company submitted under seal, the 9-1-1 Entity shall request an Attorney General Open Records Decision pursuant to the Texas Open Records Act, Ch. 552, Tex. Gov. Code [Texas Public Information Act, Tex. Gov't Code Ann. § 552.001 *et seq.* (Vernon 1994 and Vernon Supp. 1997)], as amended, and shall notify Company concurrently with its request for the Attorney General Open Records Decision. The 9-1-1 Entity shall not release any information that is subject to a confidentiality agreement executed between the Parties until the Attorney General issues an Attorney General Open Records Decision resolving the request for Company's plan or any part of the plan. The 9-1-1 Entity is not required to request an open records decision ruling regarding information for which there has been an open records ruling that such identical information is public information.

15. Pursuant to Applicable Laws and all other applicable federal and state laws, Company, Company's officers, and Company's employees are not liable for any claim, damage, or loss arising from Company's direct provision of 9-1-1 emergency service unless the act or omission proximately causing the claim, damage, or loss constitutes, gross negligence, recklessness, or intentional misconduct. Nothing in this provision limits the right of Company, Company officers, and Company employees to appeal the judgement of a court of competent jurisdiction.

16. In a Company service area covered by a single NXX and multiple PSAPs, the 9-1-1 Entity shall designate one of the PSAPs as the default PSAP that will be used by Company as the default route in the occurrence of a failure condition or emergency calls to Operator Services. If more than one 9-1-1 Entity is involved, the 9-1-1 Entity that is party to this contract will work with any other 9-1-1 Entity in Company's service area to establish a single default PSAP. The 9-1-1 Entity shall require that such designated PSAP be assigned a 10-digit number and that the 10-digit number be provided to the Company for use in the occurrence of a failure condition or emergency calls to Operator Services. NXX is the three-digit switch entity indicator which is defined by the "D," "E," and "F" digits of a 10-digit telephone number within the North American Numbering Plan. The designated default information is contained in Attachment No. 7.

17. The Company and 9-1-1 Entity will exchange and periodically update, at least yearly, a contact and escalation list. The contact and escalation list are found in Attachments No. 8a and 8b.

18. The 9-1-1 Entity shall not impose, or fail to impose, on Company any requirement, service, feature, standard, or rate that is not required of the incumbent local exchange company CCN holder.

This Agreement, together with all attachments, sets forth the entire understanding of the Parties. No representation, promise, or statement of intention has been made by either Party which is not embodied herein.

Executed in duplicate originals as of the dates set forth below the parties' respective signature.

9-1-1 Administrator

ALEC

Name

Name

Title

Title

Date

Date

3.10 Sample 911 Plan Metropolitan 911 Board Minneapolis/St.Paul Minnesota

(*Company Name, Address, Date*)
911 PLAN

ABC Telecom of Minnesota, Inc. (Hereinafter referred to as *the Company*) submits the following plan for providing 911 service to customers in Minnesota. *The Company* is located at 222 Second Ave., Suite 2200, Minneapolis, MN. The 911 contact for *the Company* is _____ located at 222 Second Ave., Suite 2200 Minneapolis, MN 55202. *The Company* has obtained permission to offer facilities based local telephone service in the Telephone customers in this service area receive 911 service from the metro area 911 system, served by the 911 tandem selective router(s) operated by _____ (911 Service Provider), the 911 system integrator, as designated in the county 911 plan(s).

In order to develop this plan, representatives of *the Company* have conferred with the parties listed in Attachment B. *The Company* certifies that the plan is consistent with the Minnesota rules for 911, and the following:

1. *The Company* has complied with the Minnesota Code of administrative Rules, chapter 1215 and has entered into a contract with the state of Minnesota and the Metropolitan 911 Board in accordance with chapter 1215. The contract is consistent with the 911 Plan attached herein. Any changes or modifications to *the Company's* 911 Plan will be filed by amendment with the State of Minnesota, the Metropolitan 911 Board, and the Minnesota Public Utilities Commission. *The Company* 911 Plan shall be updated and amended, at least annually, and no later than June 1 of each calendar year.
2. *The Company* has integrated into the 911 tandem network as specified in the County 911 plan to achieve tandem-based choking and as described in Attachment C.
3. *The Company* has provided adequate diversity for their portion of the 911 network and default routing capability consistent with the County 911 Plan. Attachment D describes *the Company's* diversity, default routing, and plan for ongoing diversity maintenance.
4. *The Company* has cooperated with the 911 PSAP and the 911 system integrator in developing a 911 contingency plan. This contingency plan is described in detail in Attachment E.
5. *The Company* has made arrangements with Company A and Company B to maintain circuit routing profiles and to expedite service restoration. Circuit routing profiles trouble reporting procedures, and a service restoration plan are described in Attachment F.
6. *The Company* will continue to share customer information and data consistent with current national standards for sharing information related to providing emergency telephone service. A description of information sharing requirements and arrangements is included in Attachment G.

7. *The Company* has entered into a non-disclosure agreement with _____ the ALI database provider.
8. *The Company* has made arrangements with _____ (the 911 Service Provider) to provide updates to the ALI database provider as specified in the County 911 Plan and in a format required by the ALI database provider.
9. *The Company* has made arrangements with _____ (the 911 Service Provider) to ensure that *the Company's* identity is shown on the ALI record and displayed at the PSAP as required by the County 911 Plan. *The Company's* service provider ID, as assigned by the NENA is: ABC
10. *The Company* provides for operator-assisted emergency calls. Operator services are provided by _____. *The Company* has obtained and provided to their operator services provider, the 24-hour emergency numbers for the PSAPs in *the Company's* service area.

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ATTACHMENT A
Company Service Area Description

1. Provide a geographic representation (map) of the proposed services area.

See map at the end of this section, Attachment A-1.

2. List the counties involved in the proposed service area.

Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington.

3. List the exchanges of the Company.

The Company serves the exchange area of the seven (7) county Minneapolis-St. Paul Metropolitan area, served by its switch located at 511 Eleventh Avenue South Minneapolis, MN. This exchange is defined by the geographic area served by _____ ILEC that is within the Minneapolis/St. Paul metropolitan, flat rate calling area and within the boundaries of seven counties listed above.

4. Define the Incumbent Local Exchange Carrier exchanges that are in the Company's service area.

The Company offers service in the exchanges served by _____ ILEC that are part of the Minneapolis/St. Paul metropolitan, flat rate calling area and are wholly within the boundaries of the seven counties listed above.

5. Define the NXX assignments that are used by the Company in the proposed service area.

The Company has four (4) assigned NXX codes, 651-XXX, 612-XXX, 763-XXX, and 952-XXX. 651-XXX serves *the Company's* customers in the 651 NPA, 612-XXX serves *the Company's* customers in the 612 NPA, 763-XXX serves *the Company's* customers in the 763 NPA, 952-XXX serves *the Company's* customers in the 952 NPA.

6. Define the number and location of end office switches, used by the Company that will be integrated to the 911 network. Provide the common name and CLLI code and switch type for each switch in the Company's network. Note any host/remote arrangements.

The Company provides service using a single Class 5 switch located at 511 Eleventh Avenue South, Suite 340, Minneapolis, MN 55415. CLLI code: MPLSMNXXXXX. Switch type: SWITCH TYPE 000. This switch is integrated into the 911 network. The switch is connected to the _____ (911 Service Provider) central offices listed in Attachment A-2.

7. Define the number of 911 trunks and number of 911 trunk groups that are installed in the Company's system and the process for ongoing review of the number of trunks to meet P.01 Grade of Service.

Number of Trunks and Trunk Groups - *The Company* has installed a total of twenty-eight (28) trunks and twenty-eight (28) trunk groups. The trunks and trunk groups are provisioned in equal quantities over two (2) diverse T1 facilities. These T1's will be on two (2) independent self-healing Sonet Rings. Please see the actual detail of this network in Attachment D, D-1, D-2, and D-3.

The first ring is built to the primary E911 Tandem in Minneapolis and the second ring is built to the St. Paul E911 Tandem. Each ring is self-healing so that the inability to complete the call on one path will automatically result in the call being routed on the alternate diverse path of the ring. Please see the actual detail of this network in Attachment D, D-1, D-2, and D-3.

The Company will install one (1) T1 facility on a self-healing Sonet ring to the primary E911 Tandem, MPLSMNKT2ED, located at 200 South 5th Street, Minneapolis, MN 55402. The T1 is the primary transport facility to the primary E911 Tandem. It will bear fourteen (14) trunks for the fourteen (14) trunk groups to the E911 Tandem. This ring is a unidirectional self-healing Fujitsu Sonet Ring. Please see the actual detail of this network in Attachment D, D-1, D-2, and D-3.

The Company will install one (1) T1 facility on a self-healing Sonet ring to the secondary E911 Tandem, STPLMNK1ED, located at 70 West 4th Street, St. Paul MN 55402. The T1 is the secondary transport facility to the secondary E911 Tandem. It will bear fourteen (14) trunks for the fourteen (14) trunk groups to the E911 Tandem. This ring is a bi-directional self-healing Lucent Sonet Ring. Please see the actual detail of this network in Attachment D, D-1, D-2, and D-3.

On-going P.01 Review Process- *The Company* conducts a weekly review of switched network performance. This review looks at call blocking on all interconnection trunk groups and all 911 trunk groups. The 911 trunks are evaluated for call blocking as part of this process. If these blocking reports indicate that the Grade of Service for a particular trunk group is in jeopardy of falling below the P.01 standard, the trunk group will be augmented.

As an additional precaution to assure that 911 trunk groups maintain a P.01 Grade of Service, *the Company's* 911 group reviews the weekly traffic reports and issues orders to augment these trunk groups as required to provide for a minimum of P.01 Grade of Service. *The Company* will conduct traffic studies the 911 network at the request of the system integrator. Traffic studies on *the Company's* network will be conducted at least annually and the results will be provided to the system integrator and the Metropolitan 911 Board.

As a final measure to assure a P.01 Grade of Service on the 911 trunk groups, *the Company* will continue to participate in quarterly joint planning meetings with _____ (911 Service Provider). In these meetings the call-through performance of the interconnection trunk groups, including 911 trunk groups, are evaluated to forecast the need for additional trunks for the next twelve (12) months. In preparation for these meetings, *the Company* will continue to compile information on call volumes, busy hour, and call blocking. *The Company* integrates this information with its sales projections for the study period and determines interconnection trunk requirements for the next twelve (12) month period. As a result of these meetings, both companies will plan for

growth on the switch interconnection trunk groups, including 911 trunk groups. A sample report from this study can be found in Appendix C.

8. Define the tandem to which *the Company* intends to integrate 911 service.

The Company integrates 911 service on its network into the 911 network operated by _____ (911 Service Provider) in the Minneapolis/St. Paul metropolitan area. *The Company* integrates its 911 service into the two (2) E911 Tandems serving the metropolitan area. *The Company* provides primary facility routes for 911 trunks to the primary E911 Tandem, MPLSMNDT2ED, located at 200 South 5th Street *The Company* provides secondary 911 facility routes to the secondary E911 Tandem, STPLSMNK1ED, located at 70 West 4th Street.

The Company's integration into the 911 network accomplishes the following:

- 1) Deploys network interconnection to the 911 E911 Tandems
- 2) Provides 911 calling capabilities for its customers
- 3) Provides signaling and information necessary to permit 911 calls originated on its network to process through the E911 Tandem to the proper PSAP.

The Company's integration to the 911 network does not extend to that portion of the 911 network past the E911 Tandem to the PSAPs.

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ATTACHMENT B
Company has conferred with the following parties:

_____ (name) Executive Director
Representing the Metropolitan 911 Board, for service in the seven (7) county metro area of Minneapolis/ St. Paul.

_____ (name) Director of 911 Services
Representing the Metropolitan 911 Board, for service in the seven (7) county metro area of Minneapolis/ St. Paul.

_____ (name) 911 Coordinator
Representing the Metropolitan 911 Board, for service in the seven (7) county metro area of Minneapolis/ St. Paul.

_____ (name)
Representing the 911 system integrator, from the Incumbent Local Exchange Company (ILEC) Qwest.

_____ (name), 911 Service Manager, Network
Representing the 911 system integrator

_____ (name), 911 Database Service Manager
Representing the 911 system integrator

_____ (name),
Representing the ILEC.

_____ (name),
Representing the ILEC.

_____ (name),, State 911 Manager
Representing the State of Minnesota.

ATTACHMENT C
Company Network Diagram

The Company has installed a total of twenty-eight (28) trunk groups. They contain one (1) trunk member in each trunk group. Each trunk group is routed over a T1 facility on a self-healing Sonet ring with backup capabilities to the _____ (911 Service Provider) E911 Tandems. Fourteen (14) trunk groups are routed to the primary E911 Tandem in Minneapolis (MPLSMNNDT2ED) over a T1 facility.

Fourteen (14) trunk groups are routed to the secondary E911 Tandem in St. Paul (STPLMKNK1ED), on a self-healing Sonet ring with back up capabilities. The trunk groups are monitored for all trunks busy conditions. If all 911 trunks to the primary E911 Tandem in Minneapolis and the Secondary E911 Tandem in St. Paul are busy for a given default Public Safety Answering Point (PSAP) and area code, subscribers will receive fast busy tone. *The Company* complies with all E911 service requirements of the State of Minnesota and conducts traffic studies as requested by the system integrator.

All subscribers have appropriate Line Screening to ensure their 911 call is routed to the proper 911 trunk group. The Line Screening is assigned according to the subscribers' address. *The Company* will route 911 calls to the primary E911 Tandem as the first choice and route advance to the secondary E911 Tandem as the second route choice. 911 calls will be default routed to the defined default PSAP for that trunk group in an error condition as defined in the metro area PSAP County 911 plan. Each default PSAP/NPA Area will have separate 911 translations built in *the Company's* Central Office (SWITCH TYPE) to route their call to the exact 911 trunk groups.

The Company representatives will continue to identify, at the time of sale the community in which the customer resides. This information is used to determine the correct default PSAP, based on the Community to Default PSAP table supplied to *the Company* by the Metropolitan 911 Board and to ensure the 911 call is sent to the proper trunk group. *The Company* representatives are required to use a 911 form that must be filled out and sent in with the sales order This 911 Sales form is mandatory and the order will be rejected without the completed form. The form requires all the telephone numbers and the physical address including the following: building, floor, suite, county, and the community name. This information is loaded into our system and the address is validated against the Master Street Address Guide (MSAG). If the address is invalid, the order is sent back to sales for correction.

The Company follows the procedures, guidelines, and including Metropolitan 911 Board Service Standards, that are established by the counties, Metropolitan 911 Board and the State of Minnesota. As directed by these procedures and guidelines, *the Company* followed these procedures and guidelines to connect to the E911 Tandem pair, and *the Company* also followed these procedures and guidelines to install fourteen (14) 911 trunk groups to the primary E911 Tandem (MPLSMNNDT2ED) and fourteen (14) 911 trunk groups to the secondary E911 Tandem (STPLMNMK1ED). Both E911 Tandems operate in concert with the Automatic Location Information (ALI)/SR database to perform selective routing functions.

The Company does business in the metropolitan area of Minneapolis and St. Paul and in the counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. *The Company* complies with the standards as established by the Metropolitan 911 Board. The Network Service Standards with which *the Company* complies with are set out in Attachments C-1 and C-2.

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ATTACHMENT D
Diversity, Diversity Maintenance and Default Routing Plan

This section of the E911 Plan describes the diversity built into *The Company's* E911 network, the methods by which diversity will be maintained, and the default routing plan.

Network Diversity

ABC has installed two (2) T1's on two (2) separate self-healing Sonet rings that connect to the E911 Tandems in Minneapolis and St. Paul. One (1) T1 is on a self-healing unidirectional Fujitsu Sonet ring that is dedicated to the Minneapolis E911 Tandem. The other T1 is on a self-healing bi-directional Lucent Sonet ring that is dedicated to the St. Paul E911 Tandem. Both Sonet rings provide automatic back up capabilities for each 911 Call. Automatic back up capability is also referred to as Automatic Protection Switching. In the unidirectional self-healing Sonet ring, the traffic flows in one (1) direction for the working path in the Sonet ring, while traffic on the protection path flows in the other direction in the Sonet ring. The Sonet multiplexer continuously monitors traffic on each path. If a fiber failure or signal degradation is detected on the working fiber path, traffic is automatically diverted to the back up fiber path (also known as the protect path).

In the bi-directional self-healing Sonet ring, 50% of the traffic flows in one (1) direction on the Sonet ring, and the other 50% of the traffic flows in the other direction on the Sonet ring. Paths on both the directions are also protected by back up paths. The Sonet multiplexer continuously monitors traffic on each path. If a fiber failure or signal degradation is detected on any one (1) of the two (2) paths on the Sonet ring, then 100% of the traffic is automatically diverted to the other fiber path on the Sonet ring. Please see Network diagrams – Attachments D-1, D-2, D-3, and D-6.

Carrier Diversity

Each 911 trunk group between *the Company's* switch and the _____ (911 Service Provider)-selective call routers are assigned to carriers in such a way that all the trunks are mirrored on primary and secondary carriers. The two (2) carriers are transported over separate routes described above and in Attachment D-1.

Diversity Maintenance

Diversity is maintained and upgraded to utilize the highest level of diversity available in the network. *The Company* maintains the diversity achieved at the time of circuit installation or network realignment. When the existing network configuration changes, *the Company* will continue to maintain or upgrade the diversity on circuits to achieve the highest level of diversity available in the network. *The Company* will continue to conduct and document an annual audit to confirm optimum diversity. The audit will cover a review of all 911 circuit layouts utilized in connecting *the Company's* circuits to the system integrator's 911 tandems to ensure diversity. Any and all changes resulting from said audit will be documented. The system integrator and the Metropolitan 911 Board will be notified of any changes resulting from the annual audit.

Automatic Trunk Testing

All trunks on the (SWITCH TYPE) including the 911 trunks are tested on a weekly basis. The results of this test are printed and reviewed by the on-site technician and appropriate action, if required, will be taken immediately with 911 trunks as highest priority. All of the equipment involved with the 911 trunks are labeled in red so that they are not inadvertently moved or taken out of service.

Trunking and Routing Diversity

911 Emergency calls from *the Company's* subscribers are received at *the Company's* switch in Minneapolis and routed to the appropriate 911 trunk group between the switch and the primary _____ (911 Service Provider) router in Minneapolis. This routing is done by virtue of a line class code associated with the calling subscriber telephone number which allows *the Company* switch to direct the call to a trunk group dedicated to calls for the appropriate Public Safety Answering Point (PSAP) per the callers location.

In addition, the line class code also allows the selection of a trunk group, which is further restricted to subscribers of a specific NPA. All classes of service will be treated in a similar manner.

The Company utilizes default routing in the event of an ANI failure. All subscribers have appropriate Line Screening to ensure that the E911 call is routed to the proper 911 trunk group and will be default routed to the defined default PSAP for that trunk group in an error condition as defined in the metro area PSAP County E911 Plan. The call will be routed to the primary E911 Tandem trunk group as a first choice. Both trunk groups have designated default PSAP routing in the event of an ANI failure.

The Company utilizes default routing in the event of a No Record Found Condition. All Subscribers have appropriate Line Screening to ensure their 911 call is routed to the proper 911 trunk group and will be routed to the defined default PSAP for that trunk group. The call will be routed to the primary trunk group as first choice and routed to the secondary trunk group as second choice. Both trunk groups have designated default PSAP routing in the event of a failure.

The Company utilizes default routing in the event of an ALI/SR database failure. All subscribers have appropriate Line Screening to ensure their E911 call is routed to the proper E911 trunk group and will be default routed to the defined default PSAP for that trunk group. ABC has installed a total of twenty-eight (28) trunk groups. Fourteen trunk groups are routed to the primary E911 Tandem in Minneapolis (MPLSMNNDT2ED), and fourteen (14) trunk groups are routed to the alternated tandem in St. Paul (STPLMNMK1ED). Call routing will be handled as follows: First choice-PLSMNNDT2ED; second choice-STPLMNMK1ED. If the primary tandem fails, calls will automatically be routed to the secondary tandem. If an E911 Tandem fails, the only effect of this failure will be a reduction in the total 911 network capacity that is available. Please note that the trunk groups that are routed to the secondary E911 Tandem are configured to mirror the default 911 arrangement of the classes that are routed to the primary E911 Tandem.

All subscribers will have appropriate line screening to ensure their 911 call is routed to the proper 911 trunk group. *The Company* will route 911 calls to the primary 911 Tandem as the first choice and route advance to the secondary 911 Tandem as the second choice. 911 calls will be default routed to the defined default PSAP for that trunk group in an error condition as defined in the metro area PSAP County 911 Plan. Each default PSAP/NPA Area will have separate 911 translations built in *the Company's* Central Office (DMS-500) to route their call to the exact 911 trunk groups.

The Company representatives will continue to identify, at the time of sale, the county in which the customer resides. This information is used to determine the correct default PSAP, based on the Community to Default PSAP table supplied to *the Company* by the Metropolitan 911 Board and to ensure the 911 call is sent to the proper trunk groups.

The Company representatives are required to use a 911 form that must be filled out and sent in with the sales order. This 911 Sales form is mandatory and the order will be rejected without the completed form. The form requires all of the telephone numbers and the physical address including the following: building, floor, suite, county, and the community name. This information is loaded into our system and the address is validated against the Master Street Address Guide (MSAG). If the address is invalid, the order is sent back to sales for correction. As shown in Attachment D-2, the E911 call is first routed to the primary 911 trunk group going to the primary E911 Tandem in Minneapolis. If the primary 911 trunk group is congested or out of service, then secondary routing is invoked to the secondary E911 Tandem in St. Paul, as shown in Attachment D-3. If this attempt also fails, then the (SWITCH TYPE) will provide 'All Trunks Busy' tone to the customer. The two E911 trunk groups in the switch are physically diversely located on the (SWITCH TYPE) switch.

The E911 trunk group to the primary E911 Tandem in Minneapolis is located on the DTC module DTC-1 which resides on the peripheral Shelf-1 on the peripheral Bay-1 of the switch. Please see Attachment D-2.

The E911 trunk group to the secondary E911 Tandem in St. Paul is located on the DTC module DTC-3 which resides on the peripheral Shelf-1 on the peripheral Bay-3 of the switch. Please see Attachment D-3.

ATTACHMENT E
911 Contingency Plan Outline

1. ANI Failure

Include a reference that *the Company* will utilize default routing in the case of this type of failure. Default routing is based on the incoming trunk group at the 911 tandem. Define how trunk group selection from *the Company's* switch is accomplished.

The Company will utilize default routing, as described in Attachment D of this plan, in the event of an ANI failure. All subscribers have appropriate Line Screening to ensure their 911 call will be routed to the proper 911 trunk group. The E911 Tandem will route calls in the event of an ANI failure to the appropriate default PSAP based on the incoming trunk group over which ABC sent the 911 call. The call will be routed by ABC to the primary E911 Tandem trunk group as first choice. Both trunk groups have designated default PSAP routing in the event of an ANI failure.

2. No Record Found Condition

Include a reference that *the Company* will utilize default routing in the case of this type of failure. Default routing is based on the incoming trunk group at the 911 tandem. Define how many trunks group selection from *the Company's* switch is accomplished.

The Company will utilize default routing as described in Attachment D of this plan. In the event of a No Record Found Condition, all Subscribers have appropriate Line Screening to ensure their 911 call will be routed to the proper 911 trunk group. The 911 Tandem will route calls in the event of a No Record Found condition to the appropriate default PSAP, based on the incoming trunk group over which ABC sent the 911 call. The call will be routed to the primary 911 Tandem trunk group as the first choice. Both trunk groups have designated default PSAP routing in the event of a failure.

3. SR/ALI Database

Include a reference that *the Company* will utilize default routing in the case of this type of failure. Default routing is based on the incoming trunk group at the 911 tandem. Define how trunk group selection from *the Company's* switch is accomplished.

The Company will utilize default routing in the event of a SR/ALI Database Failure. All subscribers will have appropriate Line Screening to ensure their 911 call is routed to the proper 911 trunk group and will be routed to the defined default PSAP for that trunk group. *The Company* has installed a total of twenty-eight (28) trunk groups. Fourteen (14) trunk groups are routed to the primary E911 Tandem in Minneapolis (MPLSMNNDT2ED), and fourteen (14) trunk groups are routed to the alternate tandem in St. Paul (STPLMNMK1ED). These trunk groups are routed to the appropriate PSAP in accordance with the metro area county plans on file with the State of Minnesota. At the E911 Tandem, in the event of an SR/ALI database failure, default routing will be done on the incoming trunk group over which ABC sent the call. *The Company's* Network Operations Center (NOC), which is staffed 7 days a week, 24 hours a day, will work with the system integrator to ensure the circuits are restored to service as soon as possible.

The 911 trunking receives top priority over all other troubles being worked on to ensure restoration is obtained as soon as possible. Our NOC will call _____ (911 Service Provider) Repair Group at 1-800- XXX-0911 or XXX-XXX-XXXX to work with them and escalate internally and with _____ (911 Service Provider) to ensure the circuits are restored as soon as possible. In the event of a complete SR/ALI Database Failure which effects both E911 Tandems, and the system integrator does not wish to utilize the default PSAP routing as established for each trunk group, *the Company* will work with the system integrator and the Default PSAPs and help in any way *the Company* possibly can. If requested, *the Company* will invoke condition 4 routing after their approval of the system integrator and the default PSAP.

4. Circuit Failure

Define what will happen when a circuit carrying 911 calls from *the Company's* switch to the 911 tandem fails. Mention how the use of circuit diversity will allow for the continuity of service.

In the event of a circuit failure, a 911 call will automatically be routed to the E911 Tandem over the secondary trunk group. Each trunk group is provisioned using diversely routed facilities riding on a self-healing Sonet ring network to prevent any single source of a circuit failure from interrupting service over the 911 network.

5. 911 Tandem Failure

Define what will happen in the event that one of the 911 tandems that selectively route *the Company's* 911 traffic fails. Mention how the use of circuit diversity will allow for the continuity of service. Mention how the system integrator can contact *the Company* to initiate actions to have *the Company* busy out trunks should that be necessary.

The Company has made arrangements to integrate 911 service on its network into the 911 network operated by - _____ (911 Service Provider) in the Minneapolis/St. Paul metropolitan area. *The Company* has integrated its 911 service into the two (2) E911 Tandems serving the metropolitan area. By integrating service to these tandems, *the Company* provides primary facility routes for 911 trunks to the E911 tandem located at 200 South 5th Street and designated by the CLLI code MPLSMNNDT2ED as the Primary tandem. *The Company* provides secondary 911 facility routes to the E911 tandem located at 70 West 4th Street St. Paul, MN 55102 and designated by the CILLI code STPLMNMK1ED as the secondary tandem. *The Company* can be contacted by the system integrator to busy out trunks or testing by calling 612-XXX-XXXX from 6am to midnight and 1-888-XXX-XXXX from midnight to 6am, or by contacting the Network Operations Center (NOC) manager at 612-XXX-XXXX.

Call routing is handled as follows: First choice- MPLSMNNDT2ED; Second choice- STPLMNMK1ED. If the primary tandem fails then all trunks to the primary tandem will be busied out so that calls go directly to the secondary E911 Tandem (calls will automatically be routed to the secondary tandem). If the secondary tandem fails, the only effect of this failure will be a reduction in the total 911 network capacity that is available. The trunk groups to the secondary E911 Tandem will be configured to mirror the default 911 arrangement of the primary E911 Tandem.

6. Power Failure

Describe the level of power failure backup or alternate power source for *the Company's* switch or associated fiber and transmission equipment.

The Company maintains a four (4) hour battery back up for the switch. In addition to the battery back up *the Company* has access to the building's power generator in the event of a power failure. The battery back up and the generator are tested each month.

7. Switching Center Isolation

Define what will happen in the event one of *the Company's* switching centers becomes isolated (e.g. all inbound/outbound traffic is denied). Mention *the Company's* Plan and timeframes to contact the system integrator and how PSAPs will be notified. Describe *the Company's* plan for informing its customers of the event. What forms of media contact are planned? Mention possible alternative methods to obtain emergency services that would be evaluated depending on the nature of the event, such as use of cellular phones, pay phones, assistance from neighbors who are not *the Company's* customers, and physically contacting local authorities.

In the event that *the Company's* switching center becomes isolated (e.g., all inbound/outbound traffic is denied), *the Company* will notify the system integrator, default PSAPs, and the media to alert *the Company's* customers of the situation. *The Company* will then inform its customers, through the media, what actions to take. The emergency release information will inform *the Company's* customers what avenues to take to obtain 911 services. These avenues will include the use of cellular phone, pay phones, neighbors who are not *the Company's* customers, and physically contacting the customers local authorities to obtain emergency services.

Due to the large geographic area serviced by *the Company*, numerous and varying forms of the media will be used to reach *the Company's* customers. A list of the various media to inform by *the Company* of this situation is attached.

8. Conditional Routing

Define how conditional routing will be established to route 911 calls to the ten digit telephone number for each default PSAP in the event that a failure results in the isolation of *the Company's* 911 facilities only. Mention that conditional routing procedures will only be invoked with the concurrence of the system integrator and the default PSAPs.

Conditional routing procedures will only be invoked with the concurrence of the system integrator and the default PSAPs.

Condition 1 – _____ (911 Service Provider) will handle all PSAP trunk group busy overflows to the ten (10)-digit PSAP administrative number.

Condition 4 – *the Company* will contact the system integrator and the default PSAPs if *the Company* switch is isolated. If *the Company's* switch is isolated from *the Company's* 911 network but is able to access the public switched telephone network, then Condition 4 routing may be an alternative. Conditional routing procedures will only be invoked with the concurrence of the system integrator and the default PSAPs

The Company will route all calls to the Condition 4 telephone numbers listed below, over the public telephone network. Upon restoration of the network, *the Company* will route all calls normally over the 911 network. In order to maintain the confidentiality, the Condition 4 Alternate Routing numbers to the Trunk Line are not listed below.

Default PSAP

Numbers need Updated

Admin

Condition 1

CLEC Condition 4

Alternate Routing #

To the 911 Trunk Line

The confidential ten (10) digit numbers for the default PSAPs are on file with the ABC Telecom, Inc. operations group.

24 HOUR CONTACT NUMBER TO REACH *THE COMPANY*

612-XXX-XXXX from 6am to Midnight Monday through Friday

888-XXX-XXXX from Midnight to 6am Monday through Friday and Weekends

Note: the twenty-four (24) by seven (7) PSAP contact number is required so that the 911 system integrator can obtain PSAP authorization if Condition 4 Alternate Routing is required. Condition 4 Alternate Routing is programmed to reroute 911 calls to the 911-trunk ten (10)-digit telephone number of the designated PSAP. The numbers published in this document are confidential. You are asked to retain this information confidentially in order to protect the integrity of our 911 system.

9. Emergency Contacts and Escalation

1. <NAME>

NOC Manager

Office XXX-XXX-XXXX

Pager XXX-XXX-XXXX

Cell XXX-XXX-XXXX

Home XXX-XXX-XXXX

2. <NAME>

Network Operations Manager, Minneapolis

Office XXX-XXX-XXXX

Pager XXX-XXX-XXXX

Cell XXX-XXX-XXXX

Home XXX-XXX-XXXX

3. <NAME>

Director of Switch Operations
Office XXX-XXX-XXXX
Pager XXX-XXX-XXXX
Cell XXX-XXX-XXXX
Home XXX-XXX-XXXX

4. <NAME>

Vice President of Operations and Network Technology
Office XXX-XXX-XXXX
Pager XXX-XXX-XXXX
Cell XXX-XXX-XXXX

5. <NAME>

Chief Operating Officer
Office XXX-XXX-XXXX
Pager XXX-XXX-XXXX
Cell XXX-XXX-XXXX

6. <NAME>

E911 Administrator
Office XXX-XXX-XXXX
Pager XXX-XXX-XXXX
Cell XXX-XXX-XXXX
Home XXX-XXX-XXXX

7. <NAME>

Manager Translations/E911
Office XXX-XXX-XXXX
Pager XXX-XXX-XXXX
Cell XXX-XXX-XXXX
Home XXX-XXX-XXXX

8. <NAME>

Director of Engineering Group
Office XXX-XXX-XXXX
Pager XXX-XXX-XXXX
Cell XXX-XXX-XXXX
Home XXX-XXX-XXXX

10. Media Contacts

Define the media contacts *the Company* will use in the event of a situation requiring notification of the public.

In the event that *the Company* will need to notify our customers of a service outage, *the Company* will notify the following media contacts *The Company* will ensure the local media understands the problem and will keep them informed with updates as to the progress so they can relay the information to the public. *The Company* will work with the metro area PSAPs, Metropolitan 911 Board, and the State of Minnesota to ensure that *the Company* follows all procedures and standards.

(Select appropriate contacts from the supplied list)

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ATTACHMENT F
Company Circuit Routing Profiles and Service Restoration Plan

This Section of the 911 Plan should:

1. Provide circuit routes of 911 trunks. Describe pertinent trunking arrangement including connection to primary and secondary 911 tandems.

The Company has installed a total of twenty eight (28) trunk groups. The trunks and trunk groups are provisioned in equal quantities over two (2) T1 facilities. The two (2) separate trunk groups of fourteen (14) trunks each are provisioned on two (2) separate shelves which are on two (2) separate bays of the switch. Also, the two T1's on which these trunk groups ride on are provisioned on two physically diverse and separate self-healing Sonet rings.

One (1) T1 is on the self-healing unidirectional Fujitsu Sonet Ring that is dedicated to the primary E911 Tandem in Minneapolis, and the other T1 is on the self-healing bi-directional Lucent Sonet ring that is dedicated to the secondary E911 Tandem in St. Paul. Both Sonet rings mentioned here provide automatic back up capability for each E911 Trunk. Please see Attachments C-1, D-1, D-2, D-3, and D-4.

2. Provide twenty-four (24) by seven (7) contact numbers for Public Safety Answering Point (PSAP) trouble reporting and coordination.

If any problems are encountered with *the Company's* 911 service, the customer, PSAP or system integrator can call the Network Operations Center (NOC) at 612-XXX-XXXX Monday through Friday from 6am and midnight, and the Nortel Network Surveillance center at 888-XXX-XXXX Monday through Friday from midnight to 6am, and twenty-four (24) by seven (7) on Saturday and Sunday. Escalations can be directed to the NOC manager at 612-XXX-XXXX.

3. Provide procedures for 911 trouble reporting, trouble escalation, and trouble coordination with the 911 system integrator. D, D-1, D-2, and D-3.

The Company will continue to maintain appropriate repair service procedures as noted in the 911 Network Service Standards that are outlined in Attachment C-2. *The Company* will receive trouble reports at calling the Network Operations Center (NOC) at 612-XXX-XXXX Monday through Friday from 6am and midnight, and the Nortel Network Surveillance center at 888-XXX-XXXX Monday through Friday from midnight to 6am, and twenty-four (24) by seven (7) on Saturday and Sunday. Escalations can be directed to the NOC manager at 612-XXX-XXXX. Repair service will begin within two (2) hours of receipt of a trouble report. Repair service includes testing and diagnostic service from a remote/on-site location, dispatch of *the Company's* personnel. When testing and diagnostic service detects a problem that requires technician service at *the Company's* facility, a technician will be dispatched immediately.

The system integrator will be notified within fifteen (15) minutes of *the Company's* identification of the failure. *The Company* will establish resolution time frames with the system integrator in consultation with the appropriate PSAP(s). If the failure persists, *the Company* will provide hourly updates to the system integrator. The system integrator, PSAP, or customer can request the repair center to escalate the problem.

The Company's escalation process instructs the repair center personnel to call a NOC Manager, Switch Manager, then Switch Operations Director, the Vice President of Operations, and, finally, *the Company's* Chief Operating Officer. Escalation processes will be established with all service and data providers, and these processes will be invoked as required to solve problems.

4. Describe the process for proactive notification to the PSAP(s) in the event that *the Company* detects service outages.

The Company will notify the system integrator within fifteen (15) minutes after identifying a failure related to the 911 system not in *the Company's* facilities. Upon such notification, the system integrator will notify the affected PSAP(s). If a failure persists, *the Company* will request trouble escalation from the system integrator if *the Company* so chooses.

5. Provide narrative and contact numbers for how *the Company* will handle "Call Trace", address verification, busy line verification and busy line interrupt methods, and procedures that have been written and communicated to appropriate company personnel.

All "Call Trace", "Verify Customer Records", and "Busy Line Interrupt" requests should be directed to ABC Network Operations Center (NOC) at 612-XXX-XXXX Monday through Friday from 6am and midnight, and the Nortel Network Surveillance center at 888-XXX-XXXX Monday through Friday from midnight to 6am, and twenty-four (24) by seven (7) on Saturday and Sunday. Escalations can be directed to the NOC manager at 612-XXX-XXXX. Busy Line Interrupt services are contracted through _____ for *the Company*. Names, addresses, and telephone numbers provided by *the Company* to the Automatic Location Identification (ALI) Database Provider, are private data and may be used only for identifying the location or identity, or both, of a person calling a 911 PSAP. The information furnished to the ALI Database Provider, or obtained through "Call Trace" activity, may not be used or disclosed by 911 system agencies, their agents, or their employees for any other purposes except under a court order.

6. Provide a narrative description of how network monitoring will be handled and to what degree monitoring on the network will occur.

The Company will continue to monitor 911 circuits that originate or terminate in *the Company's* facilities. *The Company* will continue to monitor the circuits to the individual circuit level. *The Company* provides for twenty-four (24) by seven (7) monitoring of all circuits.

7. Provide a descriptive of how the annual audit of 911 circuit diversity will be conducted.

Diversity is maintained and upgraded to utilize the highest level of diversity available in the network. *The Company* maintains the diversity achieved at the time of circuit installation or network realignment. When the existing network configuration changes, *the Company* will maintain or upgrade the diversity on circuits to achieve the highest level of diversity available in the network. *The Company* will continue to conduct and document an annual audit to confirm optimum diversity. The audit will cover a review of all 911 circuit layouts utilized in connecting *the Company's* circuits to the system integrator's 911 tandems to ensure diversity. Any and all changes resulting from said audit will be documented. The system integrator and the Metropolitan 911 Board will be notified of any changes resulting from the annual audit.

8. Describe how 911 trouble and service interruptions will be given priority restoration.

Repair service will begin within two (2) hours of receipt of a trouble report. Repair service includes testing and diagnostic service from a remote/on-site location, or in person visit(s) by *the Company's* personnel. When testing and diagnostic service detects a problem that requires technician service at *the Company's* facility, a technician will be dispatched immediately. The system integrator will be notified within fifteen (15) minutes of *the Company's* identification of the failure. *The Company* will establish resolution time frames with the system integrator in consultation with the affected PSAP(s). If the failure persists, *the Company* will provide hourly updates to the system integrator. The system integrator, PSAP, or customer can request the repair center to escalate the problem. *The Company's* escalation process instructs the repair center personnel to call *the Company's* Switch site manager, then *the Company's* Director of Switch Operations, then *the Company's* Vice President of Operations, and finally *the Company's* Chief Operating Officer. Escalation processes have been established with all service and data providers, and these processes will be invoked as required to solve problems.

9. Describe *the Company* test plan to test *the Company's* integration to the 911 system before providing live customer service. Include testing of trunk defaults, selective routing, ability to call subscriber back, correct ALI display etc.

The Company fully tested all trunks, default routing arrangements, and call set up time prior to commencement of service. Tests were coordinated with and test results were reported to the Metropolitan 911 Board. If there are any changes to *the Company's* network that add NPAs or service areas, then *the Company* will retest and report the test results to the Metropolitan 911 Board. A test plan has been developed with the 911 board. A sample copy of this test plan is attached to this document. See Attachment F-1.

ATTACHMENT F-1
Metropolitan 911 Board Area Code 911 Testing

- Identify a testing coordinator and provide that person's telephone number and pager number to the Metropolitan 911 Board staff at XXX-XXX-XXXX.
- Coordinate area code testing with the metro area 911 system integrator.
- Pre-notification is required for testing involving calls to PSAPs. Contact the Metropolitan 911 Board far enough in advance to permit the Board to notify the PSAPs at least 48 hours in advance of the proposed testing.
- The Metropolitan 911 Board will notify the PSAP(s) (dispatch centers and PSAP coordinators/managers) via fax at least 48 hours ahead of testing.
- An introductory letter or email notification and summary of the tests to be conducted should be provided by the LEC to the Metropolitan 911 Board for inclusion in the fax message.
- The time window for testing should not conflict with PSAP busy times (e.g. test between 10 am and 2 pm on weekdays).
- The Metropolitan 911 Board will provide the LEC with PSAP contact names and numbers.

- Data exchange processes between the LEC and _____ (database provider) should be tested prior to call through testing with the PSAPs. Database records for all test numbers should be built in through established database processes between the LEC and _____ (database provider) prior to actual tests with the PSAPs.
- All general trunk tests for trunk acceptance should be conducted between the LEC and (911 Service Provider) prior to testing involving the PSAPs.
- Tests involving the PSAPs should include at a minimum:

1) Call through trunk tests

- Test trunk groups for each default PSAP NPA and both tandems.
- Test trunk group route advance from primary to secondary tandem.
- If applicable, test the timeout interval for determining that a call cannot be completed on a given trunk and advancing to the next trunk.
- Make test calls (one or two should be sufficient) from test numbers built for each trunk group/Line Class Code.

For every test call verify selective routing to the correct PSAP based on the address of the test record and display of the correct ANI, including area code; and correct ALI. Have the PSAP complete a call back to the telephone number. To test that calls can complete to all PSAPs, test numbers should be built with an MSAG valid address within each PSAP's area. The Metropolitan 911 Board can assist with determining appropriate addresses. The MSAG valid addresses the Company should use are included on the following document. Please use these addresses for testing as they have already been MSAG validated.

- Test calls should be made from both the existing and the new NPA NXXs.

2) Call back tests

The LEC must confirm that all PSAPs can call back a test number for each NPA NXX being tested by the LEC. Problems with this test should be identified from the PSAP direct to the LEC test coordinator.

- Results of testing should be documented in writing with the system integrator and the Metropolitan 911 Board. The attached testing worksheets can be utilized to share the test results.
- Any re-test involving the PSAPs need to be pre-coordinated again through the Metropolitan 911 Board.

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ATTACHMENT G
Company Information Sharing

The Company's plan for 911 service will conform to the database standards adopted by the Metropolitan 911 Board. A copy of the database standards is provided at the end of this Reference 3.11 and is incorporated into *the Company's* plan.

1. Describe how data is shared/exchanged with the 911 ALI data provider.

Data is provided to the 911 ALI database provider via electronic file transfer. The file transfer takes place at the end of the business day and includes all transactions for that day. *The Company* transmits any corrected records, which are ready for RESEND at this time.

2. Describe how error correction is conducted.

Errors in data transmitted to the database provider are corrected daily using the information provided to *the Company* in a "status file" downloaded from the database provider. *The Company's* E911 Database Analyst performs error correction to the status file itself and *the Company's* database as needed, then generates a new data file, as required, and then uploads the corrected file to the database provider. If a record must be referred to an outside agency, the E911 Database Analyst will make the appropriate calls to provide the referred record to such agency and will monitor the status of the record until corrections are made in *the Company's* records and transmitted to the database provider.

3. Describe how source records are updated.

The Company uses the MSAG as its primary tool to establish and validate its source records. *The Company* also uses the MSAG to validate orders as those orders are being input into its systems. *The Company* receives an updated copy of the MSAG from _____ (911 Service Provider) once a quarter, and in between quarterly updates via the Delta MSAG process. Upon receipt of the MSAG update, *the Company* replaces its current copy of the MSAG with the copy provided. *The Company* is assured of establishing up-to-date source records in its systems because it pre-validates and validates its records against the MSAG. Errors resulting from daily 911 processing, no record found conditions, or incorrect 911 calls will be corrected both in the company's source records and in the 911 database.

4. Describe how data quality is monitored.

Data quality is monitored daily through the file transfer via electronic medium. *The Company* also performs annual verification of *the Company's* records against the ALI database to verify data quality, processing error rates, no record found rates, wrong 911 calls, and steps to improve quality of data. *The company* analyzes error rates, no record found rates, etc. in order to proactively improve data quality.

5. Describe the pre-validating process to be employed for address validation.

The Company receives a copy of the MSAG from _____ (911 Service Provider) when going into service with a switch. The MSAG thus acquired will be loaded into *the Company's* systems and serves as the base line data for address validation. *The company* will receive the MSAG updates on a quarterly basis, and in

between the quarterly updates, via the delta MSAG process. *The Company* will update the quarterly MSAG with the delta MSAG changes so that the MSAG used by *the company* is always current. When a customer order is input to *the Company's* system, the address must match an address in the MSAG as loaded. If the address does not match an MSAG address, the order is erred and a 911 E911 Database Analyst will research the customer information to determine a valid customer address and contact system integrator and database coordinator. Once the address is valid according to the MSAG, the order input is completed in the system and the order is eligible for further processing.

6. Describe *the Company's* process for complying with current NENA data standards for Local Number Portability.

The Company shall designate a 911/LNP data contact. The name, address, telephone, fax, and e-mail contact information for the Company 911/LNP Data Coordinator should be provided in this section of the 911 Plan. The point of contact to reach *the Company* is <NAME>. <NAME > can be reached at 612-XXX-XXXX, fax 612-XXX-XXXX, and e-mail name@ABC.com. *The Company will comply with current NENA data standards for LNP. The Company will perform LNP tests with the system integrator.*

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ATTACHMENT H
Operator Services

The *Company* is required to provide operator services for their customers in accordance with M.C.A.R. 7812.0550, subp. 3, which reads, “provide for operator-assisted emergency calls, including calls from speech-impaired, hearing-impaired, or non-English speaking customers”.

Please provide a description of how the Company will handle calls in which a customer dials “O” instead of 9-1-1 in an emergency. Be sure your description includes information on:

1. Verification on whether or not the Company intends to contract with a third party for operator services. Please identify the third party if applicable.
2. Verification that the caller’s telephone number will be sent to the operator. (ANI to the operator)
3. Verification that the operator will reroute the emergency call to the PSAP serving the caller’s location. This routing decision should be based on what jurisdiction the caller tells the operator they are calling from. This routing decision should not be based on the NXX of the caller, which is no longer a reliable determinant of a specific geographical area (i.e. number portability).
4. Verification that the operators will use the “Community to Serving PSAP” table, provided by the Board to the Company, to identify the correct PSAP to which the emergency call should be rerouted. If the Company contracts with a third party for operator services, the Company should verify that they will supply the third party vendor with the “Community to Serving PSAP” table.
5. Verification on whether or not the Company has the capability of rerouting emergency calls directly from the operator into the 911 network with the caller’s ANI so that the calls could be automatically routed to the correct PSAP in the same manner as if the caller had dialed 911 instead of “O”.
6. Verification that the operator service procedures will be tested in conjunction with the other 911 network tests and that the results will be reported to the Board.

The *Company* has contracted with _____ (Company Name) for the provision of operator services.

When a subscriber of *the Company* involved in a situation requiring emergency assistance dials “O” instead of “911”, the call will be routed to _____ (Company Name) operator tandem. In accordance with established procedures, the _____ (Company Name) operator will determine the most probable public safety answering point (PSAP) for the call based on the caller’s response to the operator’s question, “What city are you calling from?” Upon determination of the most probable PSAP, using the telephone number information from the Community to Serving PSAP Table supplied by *the Company*, the _____ (Company Name) operator will forward the call from the _____

(Company Name) operator tandem to the ten digit 24 hour telephone number assigned to the selected PSAP. From that point on, the call will be handled exactly like any emergency call initiated by dialing “911”.

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Attachments to E9-1-1 Service Agreement

A standard E9-1-1 Agreement is usually compiled of several attachments. You will see where many of these are mentioned above.

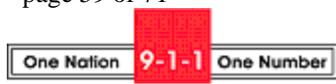
Name of Attachment	Responsible Party	Comments
9-1-1 Service Plan	<i>ALEC</i>	
Rules/Regulations	Entity	Example: <i>Texas PUC 3.97, Minnesota Statue 403</i>
Testing Procedures	Entity	<i>Are there any particular Testing procedures for company to follow? Testing should be required at the LEC and ALEC level.</i>
Fee Structure	Entity	<i>Entity needs to provide company with fee structure. Company has to incorporate into their billing system.</i>
Disaster Recovery Plan	<i>ALEC</i>	
Default Routing Designation	<i>Entity</i>	<i>Where should calls be defaulted to – ESN and 10-digit number is required</i>
Company Escalation List	<i>Company</i>	
Entity Escalation List	<i>Entity</i>	

ALEC

Sample Attachments:

ALEC TESTING CONSIDERATIONS

- ❖ The ALEC needs to identify a testing coordinator and provide that person's telephone number and pager number to _____ at XXX-XXX-XXXX.
- ❖ The ALEC needs to coordinate testing with _____ (the 911 Service Provider). The initial contact person at is _____ at XXX-XXX-XXXX.
- ❖ Pre-notification is required for testing involving calls to PSAPs. The pre-notification of PSAPs should be coordinated through _____ at XXX-XXX-XXXX.
 - The 911 Administrator will notify PSAPs (dispatch centers and PSAP coordinators/managers through a broadcast fax at least 2 days ahead of testing.
 - An introductory letter and summary of the tests to be conducted should be provided by the ALEC to the 911 Administrator for inclusion with the broadcast fax.
 - The time window for testing should not conflict with PSAP busy times (e.g. test between 10 am and 2 pm).
 - The 911 Administrator will provide the ALEC with PSAP contact names and numbers.
- ❖ Data exchange processes between the ALEC and _____ (the ALI database provider) should be tested prior to call through testing with the PSAPs. Database records for all test numbers should be built in through established database processes between the ALEC and _____ (the ALI database provider) prior to actual tests with the PSAPs.
- ❖ All general trunk tests for trunk acceptance should be conducted between the ALEC and _____ (the 911 Service Provider) prior to testing involving the PSAPs.



❖ Tests involving the PSAPs should include at a minimum:

1) *Call through trunk tests*

- ⇒ Test trunk groups for each default PSAP and both 9-1-1 tandems.
- ⇒ Test trunk group route advance from primary to secondary tandem (if applicable).
- ⇒ Test call setup time from dialing the last digit “1” of 9-1-1 until the beginning of the audible ring.
- ⇒ Test the timeout interval for determining that a call cannot be completed on a given trunk and advancing to the next trunk.
- ⇒ Make test calls from test numbers built for each trunk group/Line Class Code. For every test call verify selective routing to the correct PSAP based on the address of the test record and display of the correct ANI, including area code; and correct ALI. Have the PSAP complete a call back to the telephone number. To test that calls can complete to all PSAPs, test numbers should be built with an MSAG valid address within each PSAP’s area. The 911 Administrator can assist with determining appropriate addresses.

❖ Test calls should be made from test numbers that have **not** been built in the SR/ALI database for each trunk group/Line Class Code. For every test call verify default routing to the correct PSAP based on the Line Class Code (or jurisdiction) of the caller. Confirm that the ALI is “no record found.” Have the PSAP complete a call back to the telephone number. Default routing should be checked at **both** the primary and the secondary tandem.

❖ Test calls should be made from every NPA NXX.

2) *Call back tests*

The ALEC confirm that all PSAPs can call back a test number for each NXX being used by the ALEC. Problems with this test should be identified from the PSAP direct to the ALEC test coordinator.

- ⇒ The ALEC should confirm operator services (0 minus) emergency calls are handled by the Company’s Operator Services provider in such a manner to insure that calls are redirected to the appropriate PSAP based on the location of the emergency, not the prefix of the caller’s telephone number.
- ⇒ Testing of ported numbers, both in and out of the ALEC systems should be coordinated with the 9-1-1 Administrator and LEC, the 911 database providers.
- ⇒ Results of testing should be shared in writing with the system integrator and the 911 Administrator. Any re-test involving the PSAPs need to be pre-coordinated again through the 9-1-1 Administrator.

911 CUTOVER/OPERATIONAL TESTS

The test calls, except default routing, must have the calling address and telephone number in the designated 9-1-1 Database.

Test calls will be made for each Company NXX.

Carrier will notify each PSAP associated with a test call prior to be the scheduled test date

9-1-1 TRUNK TEST

1. Isolate the trunk under test
2. Place a 9-1-1 call using a number built in the 9-1-1 database
3. Tester will advise the call taker that this is a test call being made by (carrier)
4. Tester will verify the PSAP contacted
5. Tester will request the 9-1-1 Call Taker to verify the ANI and ALI received
6. Tester will request 9-1-1 Call Taker call back to the test number
7. Repeat test for all 9-1-1 trunks

DEFAULT ROUTE TESTS

ALI Failure

1. Place a 9-1-1 call using a number **not** built in the 9-1-1 database
2. Tester will advise the 9-1-1 Call Taker that this is a test call being made by (Company)
3. Tester will verify that the call was answered by the default PSAP

Trunk Failure

1. Fail all 9-1-1 trunks
2. Verify failure alarms are received locally and at the Switching Control Center
3. Activate alternate routing to default PSAP 10 digit emergency number
4. Tester will advise the 9-1-1 Call Taker that this is a test call being made by (Company)
5. Tester will verify that the call was answered by the default PSAP

Operator Services

1. Place a call to the 0 (operator) from the NXX under test
2. Identify to the operator that this is as an emergency test call to 9-1-1 and ask the operator to connect tester to the emergency agency.
3. The Operator should connect the call to the default PSAP.
4. Tester will advise the 9-1-1 Call Taker that this is a test call being made by (Company)
5. Tester will verify that the call was completed to the default PSAP.

DEFAULT ROUTING DESIGNATION

Default PSAP for:

ANI/ALI Failure

1. PSAP Name: _____
2. PSAP ESN: _____

Company 9-1-1 Trunk Group Failure

1. PSAP Name: _____
2. 10 Digit Public Switched Network Emergency # for PSAP access:

Emergency Calls to an Operator (0-)

1. Police: _____
2. 10 Digit Public Switched Network Emergency # for Police:

3. Fire: _____
4. 10 Digit Public Switched Network Emergency # for Fire:

5. EMS: _____
6. 10 Digit Public Switched Network Emergency # for EMS:

7. Sheriff: _____
8. 10 Digit Public Switched Network Emergency # for County Sheriff:

ESCALATION & CONTACT LIST

Database & Billing:

ALEC 911 Program Manager
Director, Customer Billing Services
Tax and Regulatory Analyst

Network Operations:

24hr Network Management Center (NMC)

NMC Switch Control Center Trap and Trace / Customer Address Information

Manager Office: _____
Pager: _____
Sr. Manager Office: _____
Pager: _____
Director Office: _____
Pager: _____

Operator Services:

Name of OS Company Busy Line Verify/Busy Line Interrupt

Installation Management

Director, Switch Deployment Office: _____
Sr. VP NC&D Office: _____

Location Operations Manager

Sr. Manager, Regional Ops. Office: _____
Pager: _____

911 Entity Coordination Office: _____
Pager: _____

911 Services Manager Office: _____
Pager: _____

3.11 Metropolitan 911 Board, Minneapolis/St. Paul, Database Standards

ELEMENT OF SERVICE	Description
<i>DATABASE UPDATES</i>	The system integrator will process the service order updates received from data providers within 24 hours of receipt (Monday-Saturday) if provided by electronic file transfer, or within 24 hours of receipt (Monday-Friday) if provided via fax.
1	Service order update processing to ALI database Data providers will deliver 911 service order updates to the system integrator within 18 hours of the daily close of service order activity.
2	Delivery of service order updates to System Integrator The system integrator will process the routing updates to the selective routing database within 18 hours of ALI update (Monday-Friday).
3	Routing update processing to the Selective Routing database
<i>ERROR CORRECTION</i>	No more than 10% of the service order updates of a data provider will error due to a mismatch of addresses to the Master Street Address Guide (MSAG).
1	Address error percentage The system integrator will distribute errors from 911 update processing to the appropriate data provider via electronic file transfer within 12 hours of detection (Monday - Saturday) or via fax within 12 hours of detection (Monday-Friday).
2	Error distribution to data providers Data providers will correct or appropriately refer to the 911 Coordinator errors from 911 database update processing within 48 hours of detection by the system integrator.
3	Error correction or referral to the 911 Coordinator Data providers will refer errors to the 911 Coordinator after use of data provider's resources and three attempts to reach the customer.
4	Attempts to resolve address errors before referral to 911 Coordinator The system integrator will identify the records monthly on the first business day of the month.
5	Identification of any records with specific addresses unknown

ALEC Service Initiation Standards

ELEMENT OF SERVICE		Description
MASTER STREET ADDRESS GUIDE		The system integrator will provide to the county and the data providers a copy of the MSAG at least 4 times a year on the first business day of the quarter in a mutually agreeable format.
1	Master Street Address Guide (MSAG) copies	The system integrator will process MSAG ledgers within 1 business day of receipt and return them to the 911 Coordinator within 4 days.
2	MSAG ledger turnaround time	The system integrator will distribute MSAG ledgers to data providers within 24 hours of receipt.
3	MSAG ledger distribution to data providers	
NO RECORD FOUNDS		No more than .5% of the 911 calls will receive a no record found condition.
1	No record found percentage	No record found conditions will be identified by the system integrator through the audit trail and resolved within 5 days of occurrence.
2	No record found resolution from audit trail	No record found conditions will be distributed by the system integrator to the appropriate data provider within 72 hours of occurrence.
3	No record found distribution to data providers	The system integrator will conduct an analysis at least quarterly of no record found conditions using the audit trail and 911 inquiries in order to determine causes and take corrective or preventative action.
4	Analysis of no record founds for cause	

ALEC Service Initiation Standards

ELEMENT OF SERVICE		Description
	<i>MISROUTED 911 CALLS</i>	Misrouted calls will be identified by the system integrator through the audit trail and resolved within 5 days of occurrence.
1	Misrouted 911 call resolution from audit trail	No more than .1% of the 911 calls will be misrouted.
2	Misroute percentage	The system integrator will conduct an analysis at least quarterly of misrouted 911 calls using the audit trail and 911 inquiries in order to determine causes and take corrective or preventative action.
3	Analysis of misrouted 911 calls for cause	
<i>911 INQUIRIES</i>		911 inquiries will be resolved within 5 business days of receipt by the system integrator and returned to the 911 Coordinator within 8 days.
1	911 inquiry turnaround time	911 inquiries that identify problems with a data provider's data will be distributed by the system integrator to the appropriate data provider within 24 hours of receipt.
2	911 inquiry distribution to data providers	
<i>DATABASE RECONCILIATION</i>		The system integrator will provide each data provider annually a copy of the data provider's data residing on the ALI system to allow the data provider to validate the data.
1	Copies of data provider data from the ALI system	Data providers will validate the ALI data for their subscribers annually.
2	Data validation	
<i>AUDIT TRAIL</i>		Audit trail reports will be provided by the system integrator to the PSAPs and the 911 Coordinator monthly by the fifteenth working day of the month.
3	Audit Trail Reports	

ALEC Service Initiation Standards

3.12 Metropolitan 911 Board, Minneapolis/St. Paul Minnesota Sample Network Standards

ELEMENT OF SERVICE	Description
<i>OVERALL</i>	
1 System integration	There will be a system integrator for the 911 system designated by the county in their 911 plan. The system integrator will perform coordination and oversight functions for the entire 911 system as jointly defined with the county.
<i>ROUTING</i>	
1 Selective Routing	911 calls will automatically be routed, as specified by the county plan, to the PSAP that provides dispatching services for the public safety agencies serving the area from which the 911 is placed.
2 Redundant routing equipment	There will be redundant routing equipment so that if one router malfunctions the other switching device will continue to route all calls that originate in the 911 system.
3 Default routing plan	The system shall be designed so that if the normal means of routing a call malfunctions, a default routing plan, as adopted by the county, will be used to route the call to an alternate location.
4 Default routing of 911 calls from remote central offices	If the ANI signal is not received by the 9-1-1 tandem switch, the call will be routed to the correct PSAP as listed in the default routing plan as adopted by the county.
5 Routing 911 calls from cellular and PCS telephones	The network will be capable of selectively routing cellular and PCS 911 calls to the PSAP that serves the area from which the call was placed.
6 911 calls from PBX extensions	The network and ALI database will be capable of selectively routing 911 calls from PBX extensions to the appropriate PSAP and delivering the correct ANI and ALI of the extension that placed the 911 call.

ALEC Service Initiation Standards

ELEMENT OF SERVICE		Description
<i>NETWORK</i>		
1	Call Setup time	911 calls will be completed within 8 seconds after the caller dials the last digit, 1.
2	Tone signals to the caller	The tones heard by the caller will be the same as are used in the public switch telephone network.
3	Priority for 911 calls	The 911 system will be designed so that 911 calls will be on dedicated circuits and will not have to compete with other telephone calls being placed at the same time.
4	Call hold	The 911 system shall be designed so that the call taker can place a 911 call on hold, answer another call, and then return to the first call.
5	Identify dedicated 911 facilities	All telephone equipment that is used exclusively for 911, or which is essential to the operation of the 911 system, shall be clearly labeled as a 911 component to ensure proper handling.
6	Network capacity	P.01 minimum grade of service such that not more than one call out of 100 incoming calls receive a busy signal on the first dialing attempt during a busy hour of an average week during the busy month.
7	Traffic studies	<p>Traffic studies for the entire network will be conducted at least annually with reports given to the PSAPs and the county's 911 system coordinator. If p.01 service is not being met, the system integrator will recommend the required trunking quantities.</p> <p>Carriers will conduct traffic busy studies for their respective end office 911 circuits. The system integrator will conduct usage studies on the incoming circuits to the 9-1-1 tandem as well as busy & usage studies on the 9-1-1 tandem to PSAP circuits.</p>
8	Central office isolation and alternate routing	Trunking will be arranged to minimize the likelihood of central office isolation due to cable cuts or other equipment failures. There will be an alternate means of transmitting a 911 call to a PSAP in the event of failures.

ALEC Service Initiation Standards

ELEMENT OF SERVICE	Description
<i>NETWORK (cont.)</i>	
9 Diversity	<p>Circuits will have interoffice, loop & carrier system diversity when such diversity can be achieved using existing facilities. Circuits will be divided as equally as possible across available carrier systems.</p> <p>If no diversity, an alternate means of completing the call will be provided at the option of the county.</p> <p>Diversity will be maintained or upgraded to utilize the highest level of diversity available in the network. 120 days notification will be given prior to major network changes. Carriers will conduct & document an annual audit to confirm optimum diversity.</p>
10 Monitoring of equipment and circuits	Carriers will monitor equipment and circuits used for 911. Monitoring will be conducted by the system integrator at the individual circuit level for 911 circuits of all carriers at the 9-1-1 tandem switch.
11 Effects of host-remote central offices on the 911 call delivery system	<p>Host-remote central office technology will not degrade 911 service or effect 911 in any way. There will be separate trunk groups out of the host for each remote.</p> <p>Where the umbilical is not diverse, an alternate means of completing the 911 call will be provided at the option of the county.</p>
12 Transferring 911 calls to another PSAP	A PSAP receiving a transfer from another connected PSAP will have the correct ANI & ALI. The first call taker will be able to remain connected as a third party to the call. When they go off-line, the caller will remain connected to the transfer location.
<i>REPAIR SERVICE</i>	
1 Trouble reporting	<p>A 24 hour 7 day a week trouble reporting repair center will be maintained by the system integrator and staffed by employees trained in 911 and knowledgeable in the county's 911 system.</p> <p>All carriers will be available 24 hours, 7 days a week to receive trouble reports from the system integrator.</p>

ALEC Service Initiation Standards

ELEMENT OF SERVICE	Description
2 Repair service performance standards	<p>Repair service will begin within 2 hours of receipt of a report of a malfunction. Repair service includes testing & diagnostic service from a remote location, dispatch of or on-site visit(s) of personnel. Technicians will be dispatched without delay.</p> <p>Priority effort will be given to trouble conditions which, in the opinion of the PSAP manager, require immediate attention due to the severity of the service impact.</p>
3 PSAP notification of network & ALI failures	<p>Affected PSAPs will be notified by the system integrator within 15 minutes of telco identification of the failure. If the problem persists, the system integrator will provide hourly updates to the impacted PSAP(s).</p> <p>Monthly outage summary reports will be provided by the system integrator to the county's 911 system coordinator, including an analysis of outages not corrected within 1 hour.</p>
4 Disaster recovery plan	<p>The system integrator will design, implement and maintain a disaster recovery process for the 911 network and database systems.</p>
<i>ANI</i>	
1 ANI	<p>Telephone number of the device used to place the 911 call will be displayed at the PSAP at the time the call is answered. This includes the capability to provide 10-digit call back number.</p>
<i>ALI NETWORK</i>	
2 ALI delivery time	<p>ALI information will be delivered to the PSAP within 2 seconds. Depending upon the type of CPE, the first character of the ALI is delivered in less than 2 seconds after the call is received by the equipment, or after the call is answered by a call taker.</p>
3 Redundant location information databases	<p>Location information databases and related hardware will be redundant and configured so that failure of one unit will not cause a malfunction of the 911 location information system.</p>
4 Diversity of the location information network	<p>There will be at least two paths from the ALI database to the PSAP and that these paths are physically separated to minimize the likelihood of one incident destroying both paths.</p>

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