Advisory Commission on
State Emergency Communications

July 17, 1998

Office of the Secretary
Federal Communications Commission
1919 M. Street, N.W., Room 222
Washington, D.C. 20554

RE: In the Matter of Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; CC Docket No. 98-67

Dear Commission Secretary:

Enclosed are an original and twelve (12) copies of Initial Comments on behalf of the Texas Advisory Commission on State Emergency Communications ("TX-ACSEC"). Please distribute the filing as appropriate, and file mark the extra copy and return it in the enclosed self-addressed, stamped envelope.

Thank you for your attention to this matter

Sincerely,

Richard A. Muscat
Director, Regulatory/Legal Affairs
State Bar No. 14841550

ke
Enclosure

cc: Carmell Weathers
International Transcription Services, Inc.

333 Guadalupe Street
Suite 2-212
Austin, Texas 78701-3942
512-305-6911 V/TDD
512-305-6937 FAX

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Telecommunications Relay Services	)	CC Docket No. 98-67
And Speech-to-Speech Services for	)	
Individuals with Hearing and Speech	)	
Disabilities	)	

To: The Federal Communications Commission

INITIAL COMMENTS OF THE TEXAS ADVISORY COMMISSION ON STATE EMERGENCY COMMUNICATIONS

I.

Summary

Telecommunications Relay Services (TRS) users should be provided as close to an equitable level of service as technically feasible to that which they would receive had they chosen to dial the digits 9-l -1 directly. In order to reduce the time to process an emergency call through TRS, the processing of those emergency relay calls should, to the extent possible, be through an automated process. At minimum, until an automated database process is implemented, TRS providers should be required to use a regularly updated contact directory, indexed by city and county, with a section for major roadways and interstates and mile markers. TRS centers should be required under the Commission's rules to pass a caller's Automatic Number Identification (ANI) to an emergency services operator. To the extent necessary, the FCC should require telephone companies to share database information (ANI/ALI) with TRS providers without proprietary restrictions. Where a relay call has been identified by the caller as an emergency call or

where the Communications Assistant (CA) has reason to suspect connecting to emergency Public Safety Answering Point (PSAP) operators is appropriate, any TRS or other confidentiality regulations or restrictions should no longer apply, and instead an emergency status be invoked by the "implied consent" of the caller to ensure the call is processed efficiently.

II.

Access to Emergency Services through Relay Services

The lack of consistency among TRS providers, regarding the handling of emergency calls, raises concern and may jeopardize the public's safety, especially in this changing telecommunications environment. The Commission's request for comments on these issues is most timely and appropriate.1 While processing an emergency call through TRS may take longer than a direct TTY call to the 9-l - 1 emergency facility, TRS users should be provided as close to an equitable level of service as technically feasible to that which they would receive had they chosen to dial the digits 9-1-1 directly.2 As stated in the initial comments of the Public Utility

1 At paragraphs 40-42 of the Notice of Proposed Rulemaking (NPRM), the Commission discusses access to emergency services and seeks comment on issues including: (1) whether TRS centers should be required under the Commission's rules to pass a caller's ANI to an emergency services operator, and (2) how "emergency calls" should be defined. The Commission also requests that commenters who propose that the Commission adopt minimum standards in this area should propose specific rule language in their proposals.

2 It has been recognized that although the Department of Justice regulations under Title II of the ADA requires state and local government entities to make emergency services directly accessible to TTY users, many individuals with hearing and speech disabilities may choose to contact emergency services via a TRS center. Further, it has been recognized that CA's handle these types of calls in a variety of ways, including a manual look-up in a paper or database directory for the lo-digit emergency number or going through the additional step of processing the call by utilizing operator services to obtain the lo-digit number information through the operator services provider's paper or database directory look-up tables. The latter procedure of going through the additional step of "operators services" should perhaps be discouraged absent some strong case-

Commission of Texas (TX-PUC), "[i]n order to reduce the time to process an emergency call, emergency relay calls should be as 'automatic' to the extent possible."[3] This should, at minimum, include automated access to ***regularly updated and accurate*** look-up tables for IO-digit emergency numbers, which PSAPs have for operators to send "0" emergency calls to the lo-digit number for the most appropriate PSAP.[4] At a bare minimum until an automated database process is implemented, TRS providers should be required to use a regularly updated contact directory, indexed by city and county, with a section for major roadways and interstates and mile markers. An automated process, to the extent possible, should perhaps also ultimately include the automated routing of those emergency calls directly to 9-l-l systems instead of to 1 O-digit emergency numbers.

TRS centers should be required under the Commission's rules to pass a caller's ANI to an emergency services operator. This would include a

---

specific justifications as to why it is appropriate or a showing that there are "technical upgrades to the way operator services providers handle emergency calls."

3 TX-PUC Initial Comments at p. 10.

4 The procedure of emergency calls going through operator services providers, instead of 9-l-l directly, may be becoming much more problematic as local telecommunications competition now has those operators potentially in other states and has those operators having to deal with "consolidated" rate centers in some areas. Rate center consolidation can complicate the NPA/NXX based call transfer decision by operators because it increases the area in which a single NXX may be used. The implementation of Local Number Portability further disassociates NXXs from specific areas and further increases the difficulty of that NPA/NXX transfer decision by operators. The NENA technical committee has an Operator Services Sub-committee that has a draft recommendation for dealing with emergency calls through operator services. A version of that draft recommendation is attached. The draft recommendation includes technical solutions (some of which may necessitate CLEC switches being equipped with certain software) and 9-l-l training for operators. The draft NENA recommendation also provides for having a central national database for archiving local 1 O-digit emergency numbers in a NENA administered database. While the NENA draft recommendation works its way through the NENA standards process, the Texas Advisory Commission on State Emergency Communications (TX-ACSEC) is working with the TX-PUC in TX-PUC Project No. 19203 to establish a regularly updated spreadsheet of lo-digit emergency numbers for Texas.

mechanism to deliver the caller's AN1 information to the emergency service provider, even where the TRS user disconnects before emergency personnel are connected (for the functional equivalence for 9- 1 - 1 "call-backs"). Then, in places where Automatic Location Identification (ALI) is available, the AN1 can be used by the emergency operators to obtain ALI. To the extent necessary, the FCC should require telephone companies to share database information (ANI/ALI) with TRS providers without proprietary restrictions. The FCC may wish to require the use of an existing and/or future database to match the TRS caller's ANI with the appropriate emergency service number (ESN) in his or her area; and automatically call to the appropriate ESN.5 The FCC should also encourage TRS to continuously seek technological developments and implement enhancements, as they become available. In the rapidly changing telecommunications environment, solutions should not be limited in the future to what is available today.

TX-ACSEC also encourages the FCC to require, where a relay call has been identified by the caller as an emergency call or where the CA has reason to suspect connection to emergency PSAP operators is appropriate, that any TRS or other confidentiality regulations or restrictions no longer apply, and instead an emergency status be invoked by the "implied consent" of the caller to ensure the call is processed efficiently. The FCC also seeks to define an "emergency" for these circumstances. What constitutes an "emergency" will vary from individual situation to individual situation, and has often been defined as a threat to life or property; however,

5 There has been some concern expressed, however, that matching the ANI with the ESN is not a reasonable solution in the long-term due to geographic Local Number Portability issues.

the CA should make that decision based on the callers request or reason to suspect that the caller should be connected for emergency assistance.

III.

Proposed Rule Language

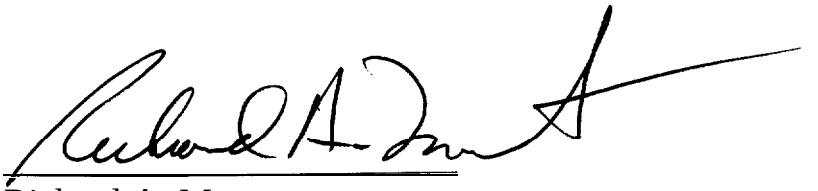
1. TRS providers shall use a regularly updated and accurate lookup table or directory for purposes of handling emergency calls through TRS.
2. TRS providers shall not use the additional step of obtaining that lookup table or directory information from operators services in the absence of specific justifications as to why such is appropriate.
3. To the extent technically feasible, TRS providers shall use automated processes, including an automated database process for obtaining appropriate lo-digit emergency numbers and processing those calls automatically to 9- 1 - 1 systems instead of to 1 O-digit emergency numbers.
4. TRS providers shall pass a caller's ANI to the emergency service operators to enable the functional equivalence for 9-l -1 call-backs. Where a relay call has been identified by the caller as an emergency call or where the CA has reason to suspect connecting to emergency PSAP operators is appropriate, any TRS or other confidentiality regulations or restrictions on passing ANT or obtaining ALI no longer apply, and instead an emergency status is invoked by the "implied consent" of the caller to ensure the emergency call is processed efficiently.

IV.

CONCLUSION

Working toward improving the handling and processing of emergency calls through TRS is important. TX-ACSEC encourages the FCC to carefully consider the issues relating to emergency calls through the TRS system. TRS centers, nevertheless, should provide appropriate public education programs and encourage TRS users to call " 9-1-1" in emergencies.

Respectfully submitted,



Richard A. Muscat
Director of Regulatory/Legal Affairs
Advisory Commission on State Emergency Communications
333 Guadalupe, Suite 2-2 12
Austin, Texas 7870 l-3942
(5 12) 305-69 11 (voice)
(5 12) 305-6937 (fax)
richard.muscat@acsec.state.tx.us

July 17, 1998

ATTACHMENT

Draft recommendation, not to be used at this time.

Operator Services Sub-committee:

Members;

	Voice	Fax	E-mail
Dave Connel	972-221-0911	972-420-0709	dconnel@denco.org
John Gamer	901-276-4911	90 I-276-2333	shelb9 1 1@memphisonline.com
Judy Graham	303-566-5885	303-705-1874	judy.graham@twtele.com
Ann Green	205-241-3704	205-241-3715	agreen@deltacom.com
Val Sapp	205-321-2109	205-321-4002	valerie.sapp1@bridge.bellsouth.com
A. Willie Sigua*	973-889-2742	973-889-28 10	william.sigua@wcom.com

Issues directed by the NENA ALEC Committee members to Operator Services Sub-Committee.

ISSUE 1.

Recommended approach for "0-" calls to Operator that requires advance to PSAP trunk into 9-1-1 network with ANI.

- *Direct sofiare solution*
- *Operator Service training requirements.*

The current ILEC Operator Services network supports the local serving area of the wire centers it serves. Dependent on switch platform and feature enhancements (e.g. DMS TOPS), OPERATOR **SERVICES have** dedicated 9-l-l trunk to the local SR (Selective Router). This allows an Operator to re-direct or transfer an emergency call that was dialed as a 0- call into the Local SR (9-l-l Tandem) serving the caller's area and forward the ANI with the call. See Figure 1 of diagrams. This network configuration does not give the ALEC equal delivery of 9-I- 1 call due to distance, ports, facilities and cost.

The standard we'd like to recommend as a long term solution is as follows:

Caller dials 0-, call travels from EO to OS provider over dedicated operator trunks. When operator recognizes the call to be an emergency, he/she routes it back over the dedicated "emergency" trunk within the same facility (operator trunks) back to the originating EO by a programmable soft key. The EO switch recognizes the call as an emergency and translates the call to the ES trunk to the 9-1-1 Tandem. The EO switch would require to load a feature package for "release to pivot trunk" when developed and released by vendors.

Both ILEC and ALEC will be able to configure their network accordingly, please see figure 4 and the note on "Release to Pivot Trunk".

The typical MF trunks that operator services uses are *recommended to support or back-up SS7 9-l-l connection to the SR. The serving STPs may go out of service or the End-office is error cycling (i.e. global title error), 9-l-l calls undeliverable. The final route may be to Operator or manually routed to Operator when the SS7 Network is out of service. These MF trunks must be able to delivery IO digits to the SR. The NPD pointer in the SR will be removed or phase out by the vendors when 10 digit MF/SS7 signaling is globally deployed.

Where SS7/AIN is deployed, where the 9-l-l calls may not route through *a* SR but the AIN intelligence (from a digital EO) directly routes the call to the PSAP, a backup network (MF) is also recommended for the same reason.

Operator 0- calls that can not be terminated to a local SR 9-1-l trunks (out of service facilities or SR is out of service) must be transferred to the listed 10 digit emergency number for that local area. This 10 digit emergency number must cover a broader serving area. A mutual aid, like fire, must be established within Rate Center/RCC boundary where a broad area coverage of an emergency service number can be used by an operator to address "somewhere around" scenario. The dispatcher of the default RC or RCC emergency number must be able to transfer these **calls to** the correct service area within the RC or RCC.

The OS (IWS) switch can add a feature enhancement that allows it to access an external database to retrieve the name, address and local IO digit emergency on the Telco's customer's database. Please refer to example of operator service procedure in handling a 0- call to a 10 digit emergency number below.

This enhancement must also be a standard tool for operator services to hand off a call by operating an OGT-Key to the SR or an OGT-KEY to the 10 digit emergency number. The external database access will be a greater asset as LNP calls are handled by OS.

* Bellcore recommended MF trunks used as backup, not necessarily the operator MF network, concurrence of sub-committee. OS system will be using SS7 signaling in the near future. Safety agency using this MF platform as a backup to their SS7 network will need to look at the Bellcore recommended MF network, GR-2956-CORE.

Direct Software Solution is currently driven by Bellcore with each vendor, "Release to Pivot Trunk", see note figure 4 of diagram.

Operator Service 9-l-l Training requirements should be a required certification. This includes **internal database information extraction for 9-1- 1 purpose, Operator console operation (IWS) features for 9-l-l use, voice response or interaction to emergency caller/PSAP and stress management. The last two training items can be the same type of material the Public Safety Agency (dispatcher) receives, slim down or tailored for OS.

**EXAMPLE OF OPERATOR SERVICE PROCEDURE IN HANDLING AN EMERGENCY CALL(Actual provider's OS procedure).

1. Customer arrives at operator position requesting an emergency agency (police, fire, Ambulance, poison control etc.).
2. Operator keys: [EMERG] key or bill code 98(emergency screen appears to the operator).
3. Operator will see listings for various agencies or (NPA)-555-1212 OF THE ORIGINATING ANI.

   A. If carrier provided emergency agency numbers the operator will:
      a. Highlight emergency number listed.
      b. Key [PROC]
      c. Call will automatically ring

   B. If carrier has not provided emergency agency numbers the operator will:
      a. Highlight the first directory assistance number listed
      b. Key [PROC]
      c. Call Will automatically ring directory assistance for the NPA of the originating ANI.
      d. As the listing is given by directory assistance, the operator will key the emergency number into the operator screen.

e. Key [DETERM] to disconnect the directory operator
f. Key [PROC] to ring the emergency number provided by directory assistance.

4. Operator will stay on line with the customer for the duration of the call.

5. As the customer is speaking to the emergency agency, the operator fills out the emergency memo form.

ISSUE 2.

Develop recommended standard when 9-1 -I calls are over-owed to Operator Service.

Operator Service should not be used as an overflow route due to the choke designed 9-I-i Network. In the event of the failure of the private 9-1- I network or scheduled out of service 9-l -1 Tandem for sofiare upgrade, calls can be directed to Operator Services and use the public network, ten digit local number. Should a community elect to use Operator Service as an over flow route, the following guide line is recommended.

Recommended 9-l-l overflow calls to **Operator** must be made only when a mechanized 9-l-l transfer of calls to the Selective Router (no Operator intervention) is made (switch transfer to an ATC type 9-l-l trunks), see fig 2 of diagrams. A timeout (four rings), will queue the operator to intercept the call **and** forward the emergency call to the 10 digit emergency number (9-1- 1 network, switch failure), A traffic study must be kept to maintain the grade of service (normal gateway of 9-l-I traffic) to prevent unnecessary overflow to operator.

This recommendation is not available in the TOPS nor OSPS platform (mechanized 911 call switch transfer to the SR). The design of the OS switch is to terminate to an operator, not act as an ATC type switch. The normal switch progression of a 91 I call into a TOPS office is operator. The operator will identify the call as a 911 call and operate an OGT-Key to transfer the call to the SR, see figure 2 of diagrams.

This scenario presents a major problem with an out of area OS. If the local safety agency request an overflow route to the OS, then the ALEC will need to translate a 9-l-l overflow call to an established local serving OS trunk. If the SR is out of service, local OS will not be able to pull ALEC customer specific information from the database but will need to speak with the person for address information, name, type of emergency and most important, who the local safety agency is. This present a bigger problem if the person is handicapped (deaf, mute) or could not speak due to emergency situation. To forward this call to their own OS (ALEC) is self defeating because their OS do not have direct trunk **to** the SR. Transferring this 91 1 call back to the EO via "release to pivot trunk" will create a loop because all the primary and secondary trunks for 911 are either busy *or* out of service. There is no other mien to reach the SR other then the local OS or building another path.

If local OS service is elected for 911 overflow call by ALEC, the ALEC may be able to use this **miens** (failed SR transfer) if the local operator transfer the call via OGT-Key (operator to operator transfer) back to the EO. The ALEC EO will then treat the call as 0-call, see figure 3 of diagram, Time delay may then be an issue.

The second option (not a good option) for an ALEC is to treat this 91 1 call as a 0-, 10 digit call transfer to the local safety agency, figure 3.

Issue 3.

What is the best solution in obtaining a safety agency (not just PSAPs) 10 digit telephone numbers for the ALECs/LECs? How do the ILECs get these historically?

Historically, the ILECs obtained these numbers when the safety agency contract them to be the provider of service for 9-1-I delivery. Typically, a local account representative of the ILEC for 9-l-l will receive any request changes or updates from the safety agency on an on going process,

The growth factor of multiple phone service providers in a local community has impact and undermined the importance of providing this emergency numbers to each provider. The mind set of the safety agency in dealing with only their contracted provider adds to the break-down. Cooperative agency do run into administrative issues, dissemination of information to various dial tone providers.

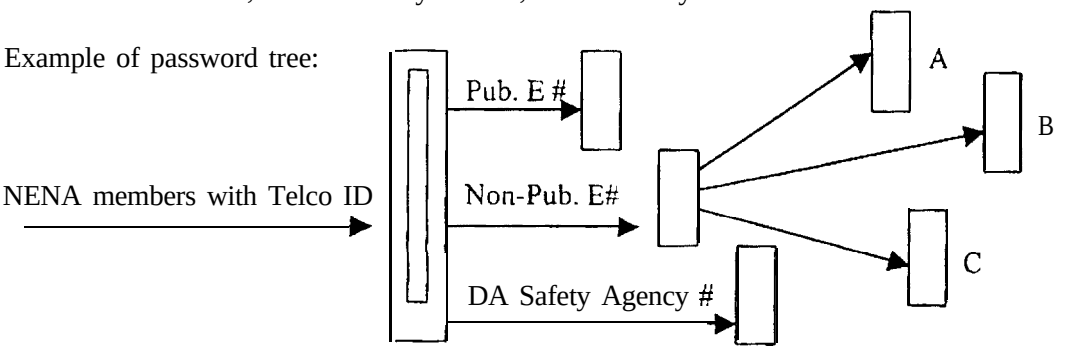
Long term solution:

Create and develop a central national database for the archiving local IO digit Emergency Numbers, NENA-administered database.

There are factors that will prohibit or limit the participation of safety agency if a security firewall is not established. Access to data must be password protected with multiple layers or data paths, data dependent. A partition in the NENA web-page for published (White Pages) emergency number, another for a non-published emergency number and another for DA listing of Police, Fire, EMT and Poison Center.

All access to each data path must be limited to NENA members who subscribe to the Telco NENA ID. This will give Telco's full compliance of safety agency request of company ID delivered to their screen. Second, each path must have each own password access. Access to the NON-PUBLISHED emergency numbers will need further protection (password) per agency. The safety agency will give a Telco the clearance in accessing it's data, written. Cost per each data path or combination there of, established by NENA, cost recovery.

Example of password tree:



Data Integrity

The maintenance of data integrity is simplified for ail, safety agency and Telco's by having a national centralized depository of emergency numbers. Safety agency would update via internet or call the NENA Administrator. The safety agencies controls what numbers are listed. This will remove the multiple calls and lessen work load, a win, win for everyone.

Relay Service:

We also recommend to use similar or include the Relay Service contact numbers on this platform.

Short term solution:

Add the following to current survey sent to PSAPs by NENA:

A brief explanation of a I O-digit "back door" number and the urgency of the situation when this number is used, e.g. caller used 0-, Selective Router is down, etc.

*Long term solution offered by the Network Committee is to use a national NPA of 911 use by the operator to direct calls to the local serving Safety Agency. This was submitted to INC the last quarter of '97.

ISSUE 4.

The effect of LNP and unknown NXXs for the operators (re: routing to the correct PSAP).

- *one Location routing Number(LRN) per switch.*

A LEC would normally send all 0- calls iuto their operator platform. Keeping this in mind, when local number portability rolls into the picture, a ported number would first need to be translated into the switch for call propagation to complete. Having the LNP number in translation, work orders would have been issued and recorded in the database. A good assumption of OS would be to treat this number as their own and forward the call to the SR (default routing of unknown NXX) or use the external database information and route the call to the 10 digit emergency numbers.

Therefore, the external database that a IWS (OS) access is an integral solution to a "unknown " NXX. A trail is left by the LEC. Whether it's a donor or a recipient, a record will be in the company's database. This record would be in before the lock and unlock of 9-1-1 records are completed.

If there is a complete failure of the OS external database information (no record found), the operator can direct the call to the Rate Center default emergency number, first phase of LNP. When LNP goes beyond Rate Center boundaries, it further loads the critical issue of the external database inter-face of the operator, correct and up to date.

Long Term:

Use the National Centralized 10 digit emergency numbers as a resource for an OS to query community and match the entry with the emergency number, forward the call. The programmer of the NENA administered National Emergency Number would need to build in the matching communities to emergency numbers. Community to Emergency number rational would be supplied by the safety agency.

ISSUE 5.

Advertising of rational?

Document should be circulated to numerous safety agencies, Telcos and OS venders. Document should use NENA letterhead or one of our committee members who is representing a safety agency. NENA can also post it on the web site.

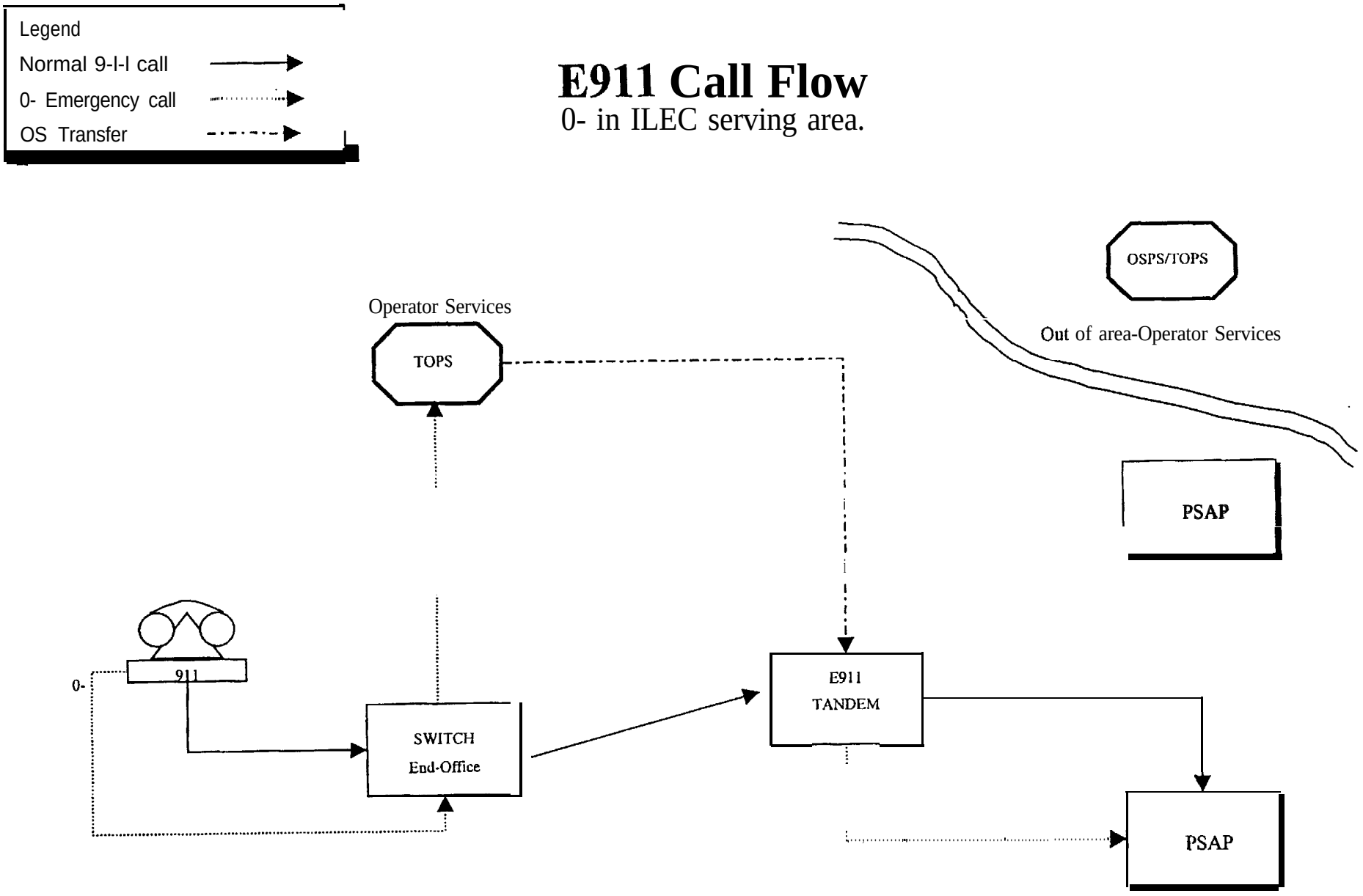
ISSUE 6.

FCC order effective 2/6/98 – 98-220 – Operator Services.

Bellsouth's Reverse Directory Services may resolve the issue of obtaining the name and address of the calling party. This platform uses the same functionality as release to pivot trunk, uses the DA listing of Police, Fire, EMS and Poison Center. The serving Safety Agency listing may not be granular enough to serve the emergency call. We have made test calls to DA to obtain the 10 digit emergency number from community listing and was given "9-1-1" as the emergency number. The built in matrix may not work in some situation.

E911 Call Flow

0- in ILEC serving area.

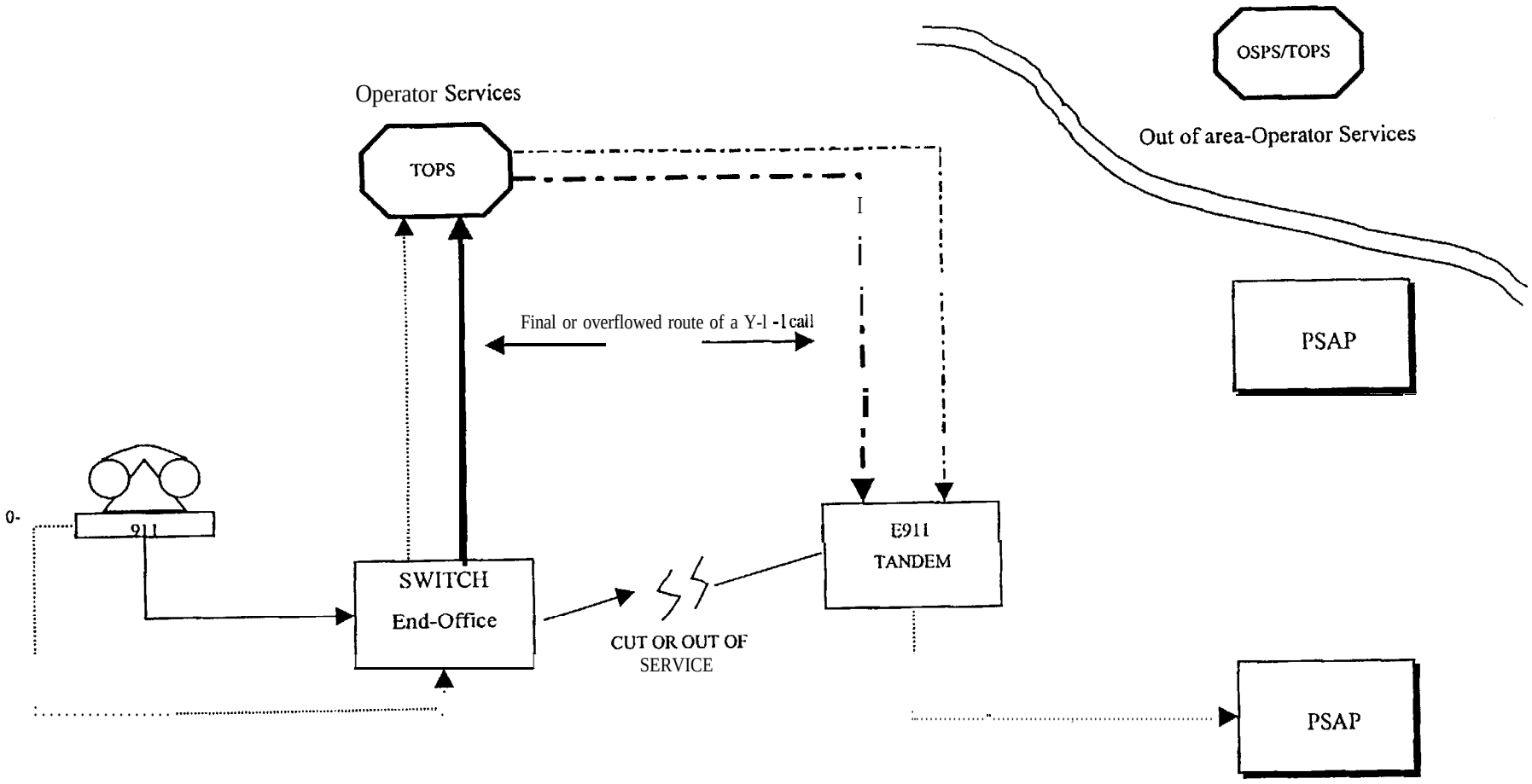


NOTE: TOPS (Nortel) IWS position is capable of transferring 0- call back into the 9-l-l network via direct trunk connection, OSPS (Lucent) position may not be able to, could not verify if they have added feature to their product. Because of cost restriction, ALEC with an out of area TOPS do not have direct trunks to the local SR.

4-21-98 A.W. Sigua 973-889-2742

E911 Call Flow

0- in ILEC serving area.

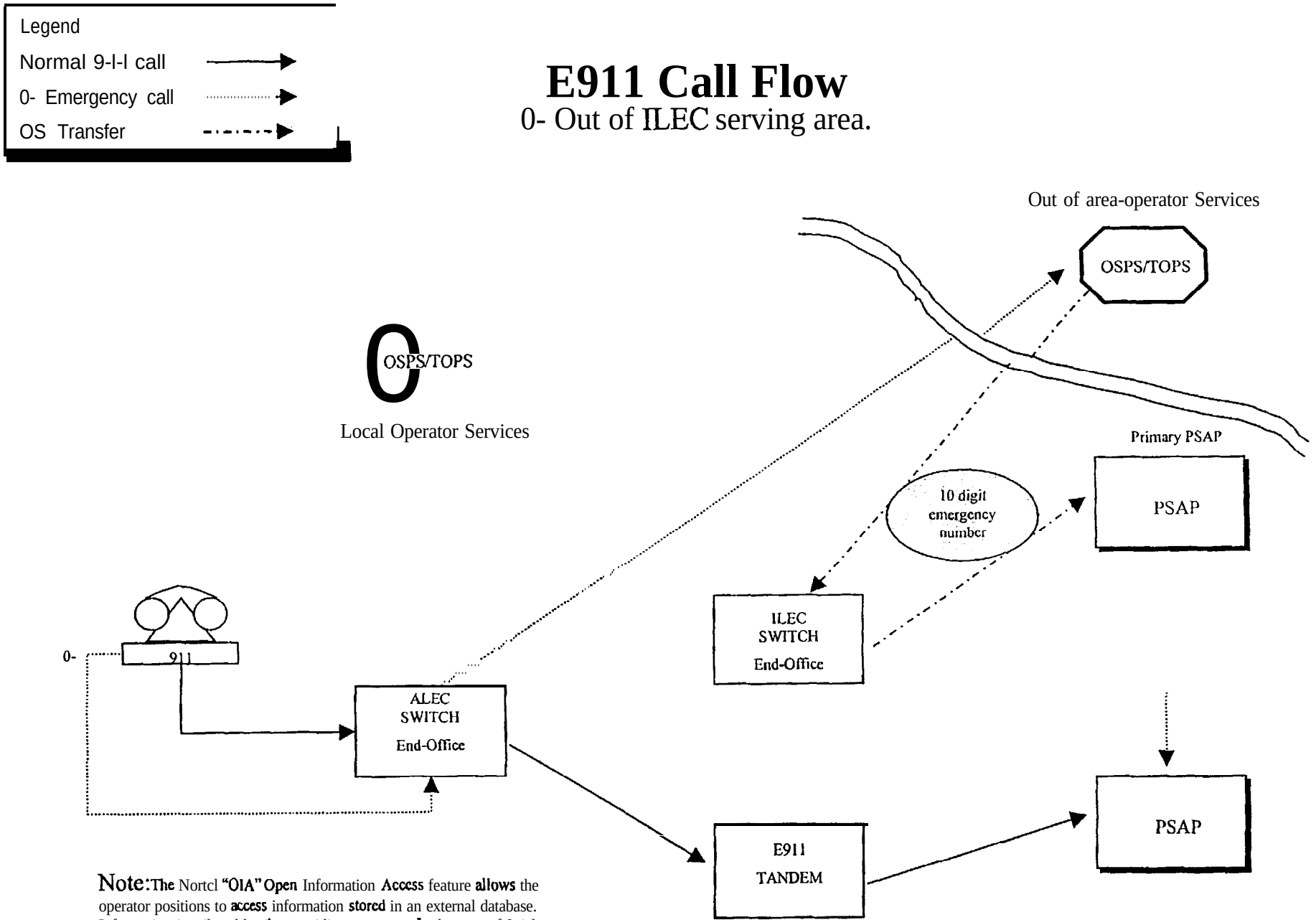


NOTE: Operator receives 0- calls. Inquires the caller, did you try 9-l-l. Replies, did not go through, busy. Operator will verify route to the Selective Router, transfer the call. If the 9-1-l Tandem is out of service, the operator will use the 10 digit emergency number. This is an ILEC scenario.

4-21-98 A.W. Sigua 973-889-2742

E911 Call Flow

0- Out of ILEC serving area.



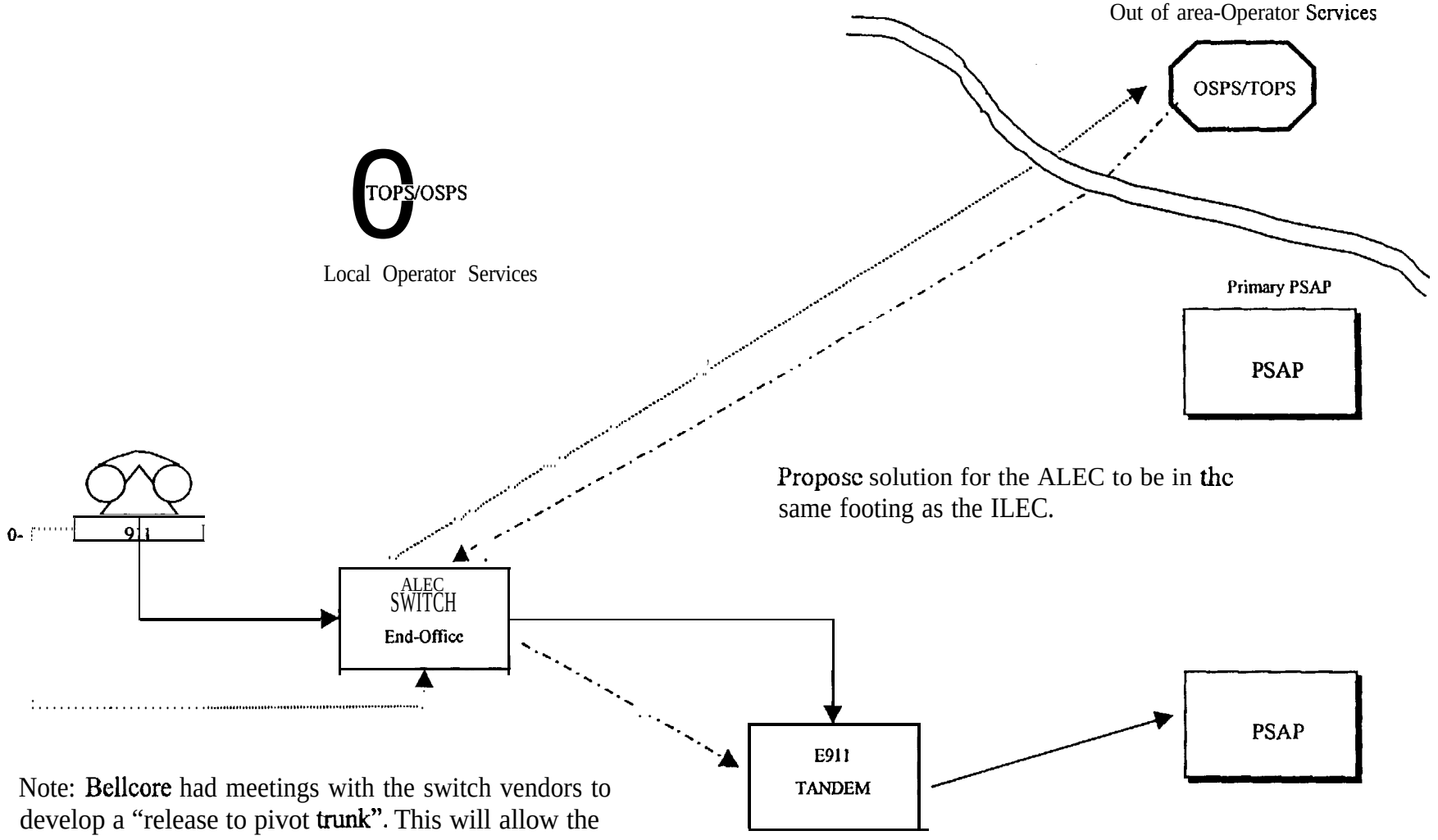
Note: The Nortcl "OIA" Open Information Access feature allows the operator positions to access information stored in an external database. Information is tailored by the providing company. In the case of 9-1-l calls, the name and address of the calling party can be obtained and the local emergency JO digit number displayed, program to forward the 0- call lo the LO digit number. The Luccnt OSPS can also interface with an external database.

4-21-98 AWS 973-889-2742

Legend
Normal 9-1-1 call
0- Emergency call
OS Transfer

E911 Call Flow

0- Out of ILEC serving area.



Propose solution for the ALEC to be in the same footing as the ILEC.

Note: Bellcore had meetings with the switch vendors to develop a "release to pivot trunk". This will allow the operator to place a 0- call back to the originator (EO) and the EO will release the connection to operator service and establish the call to the Selective Router.