

ATTACHMENT F

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Rulemaking on the Commission's
Own Motion to Govern Open Access to Bottleneck
Services and Establish a Framework for Network
Architecture Development of Dominant Carrier
Networks

R. 93-04-003

OSS/NRC Phase

In the Matter of the Investigation on the Commission's
Own Motion into Open Access and Network
Architecture Development of Dominant Carrier
Networks

I. 93-04-002

OPENING COMMENTS OF PACIFIC BELL (U 1001 C) IN THE
OSS/NRC/CHANGEOVER PHASE OF OANAD

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Dated: December 15, 1997

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today. Assuming the capability is there leads to unrealistically low estimates of the work time required for technicians to install service.

Submitting a joint Declaration Concerning Service Order Process Flow are Ms. Jacqueline W. Richardson, Ms. Beth Lawson, and Mr. Nathan Sparks. All three are Southwestern employees who are developing the OSS systems which will be used to process UNE and resale service orders from CLECs. Their declaration is appended as Attachment D. In it, they criticize as overly optimistic the AT&T/MCI assumption that all service orders for UNEs and resale services will "flow through" the OSS systems without human intervention 98% of the time. They point out that the mature ordering systems used today to transfer customers between IXCs for interLATA service achieve substantially less than 98% flow through. Their conclusion is validated by data from AT&T's internal cost studies. These cost studies show that AT&T's OSS systems used to handle orders from their retail customers have not achieved anything close to the 98% flow-through rate assumed in the AT&T/MCI Model. Relevant pages from AT&T's internal cost studies are appended hereto as proprietary Attachment E.

Submitting a joint report on behalf of both Pacific and GTE are Dr. Timothy J. Tardiff and Dr. Gregory Duncan of NERA. Drs. Tardiff and Duncan are economists specializing in telecommunications. Their report is attached as Attachment F. In their report, they respond to Dr. Selwyn's paper. They find that Dr. Selwyn's position -- that Pacific should already have developed, installed and provided the next generation of OSS systems to AT&T and MCI free of charge -- is inconsistent with mainstream economic thinking.

**JOINT DECLARATION OF
JACQUELINE W. RICHARDSON,
BETH LAWSON
& NATHAN SPARKS
FOR PACIFIC BELL**

December 15, 1997

**DECLARATION CONCERNING
SERVICE ORDER PROCESS FLOW**

The undersigned, having been sworn on their respective oaths, state as follows:

1. My name is Jacqueline (Jackie) W. Richardson, and I am employed by Southwestern Bell Telephone Company as Director - Interconnection. In that position, I am responsible for Product Management functions associated with providing competitive local exchange carriers ("CLECs") with access to Southwestern Bell Telephone Company's ("SWBT's") Operations Support Systems ("OSS").

2. My name is Beth Lawson, and I am employed by SWBT as Area Manager - Access Services. In that position, I am responsible for Regulatory Support for the OSS Mechanization and Support Group, and have been a member of the product management group headed by Declarant Richardson. I support Negotiations and Regulatory for Pre-ordering and Ordering processes. I also support the Project Planning Tracking for the OSS Mechanization and Support Group. Prior to my current assignment, I also was Project Management, Regulatory and Negotiations and Implementation support for wholesale billing (*i.e.*, resold telecommunications services, unbundled network elements).

3. My name is Nathan Sparks, and I am employed by SWBT as Area Manager - Product Management Interconnection Policy. I am responsible for development and external communication of policies that pertain to CLEC access to OSS functionality. I am a member of the OSS product team.

4. We understand that AT&T and MCI, in a non-recurring cost model ("Model"), have taken a flow-through rate achieved by SWBT using a single electronic interface with existing mechanized OSS to perform certain pre-ordering and ordering activities for certain retail telecommunications services, and is asserting that the same flow-through rate will be achieved for OSS to be used by CLECs, even though a different interface is being deployed by Pacific Bell to perform those activities. Specifically, we understand that one assumption made in the Model

is that, given the 99% flow-through rate achieved by SWBT's service representatives using its residential EASE system, a 98% flow-through can be achieved with any electronic interface used to perform pre-ordering and ordering activities for any telecommunications service offered for resale ("Resold Services") or any unbundled network element ("UNE").

5. The 99% flow-through rate achieved by SWBT's service representatives using residential EASE ordering system does not support the proposition that OSS handling of all retail telecommunications services or UNEs – to the extent an OSS capability exists at all – can achieve the same flow-through rate. The purpose of this Declaration is to explain the factual context in which SWBT achieved the 99% flow-through rate; to explain the limitations of that context; to describe SWBT OSS used for pre-ordering and ordering Resold Services and UNEs; and to evaluate the "flow-through/fall-out" expectations of CLEC orders for Resold Services and UNEs in light of SWBT's experience with CLECs' flow-through rates to date, as well as SWBT's experience with flow-through rates for access services ordered by interexchange carriers ("IXCs").

6. This Declaration is also intended to respond to and correct misstatements concerning SWBT OSS capabilities supported by AT&T and others that SWBT (and, by inference, therefore Pacific Bell) will achieve 98% flow-through rate for all CLEC-placed orders. AT&T has asserted this alleged 98% flow-through expectation by incorrect references and inferences drawn from testimony attributed to Declarant Richardson and other SWBT employees. To the extent such references and inferences are made, they and any conclusion based on them are incorrect.

7. The phrase "flow-through" is often defined and used in different ways depending upon the context. SWBT generally defines OSS flow-through as the mechanized transcription of service requests into the service provider's order format such that it facilitates automated processing. As used herein, "flow-through rate" specifically refers to the mechanized transcription of service order requests from an electronic order interface (e.g., EASE, LEX, EDI)

into SWBT's internal service order format (SORD), and does not refer to or include provisioning or billing activities. The opposite of the "flow-through rate" is the "fall-out rate," *e.g.*, the number that requires human intervention to correct a service order and allow it to be electronically processed. Together, the "flow-through rate" and the "fall-out rate" equals 100%.

The "99% Flow-Through Rate" Has Been Achieved Only in Limited Circumstances

8. The 99% flow-through rate has been achieved by SWBT representatives using its residential EASE system. EASE consists of both residential EASE (introduced in 1990) and business EASE (introduced in 1992), and is an on-line system that was developed as a service order negotiation interface for SWBT's own retail service representatives for certain residence and business customers and services. EASE handles pre-ordering and ordering activities. Retail pre-ordering activities involve address validation, customer service records, services and features availability, telephone number assignment, due date availability, dispatch requirements, and Primary Interexchange Carrier (PIC) availability. Ordering consists of the actual transmittal of the service request with the accurate customer information necessary to create/issue the service order into SORD.

9. EASE is limited to pre-ordering and ordering the simplest retail telecommunications services. EASE cannot be used for all telecommunications services or with all residential and business accounts due to the complexity or wide variation of configurations. For example, residential EASE can only be used for pre-ordering and ordering activities for a residential account having up to five (5) local access lines. Business EASE is limited to pre-ordering and ordering activities for a business account with up to thirty (30) local access lines, Plexar I[®] (a Centrex[®] product), and DigiLine[®] (an ISDN service). In addition, EASE cannot be used if a business customer wants to purchase any of the following:

Plexar II[®]

Centrex
 ISDN (with the exception of DigiLine)
 Advanced Intelligent Network ("AIN") based telecommunications services
 Private Line Services
 Off-Premise Extension
 Preferential Hunting
 Re-arrange Hunting

Also, EASE cannot be used to change the classification of local service, *i.e.*, business to residence; residence to business. In each of these types of instances and for other similar complex services, manual processing by SWBT representatives is required to place the service order into SORD. This is true regardless of whether such order is placed for a SWBT retail customer or by a CLEC. The residential EASE flow-through rate of 99% thus does not address the flow-through rate for any pre-ordering or ordering of those orders which EASE cannot process, including the aforementioned large residential accounts, business service orders. In addition, this rate does not include new migration capabilities for Resold Services (*e.g.*, any customer or account migrations from SWBT to a CLEC, or from a CLEC to SWBT). It also does not include any UNEs. Lastly, the residential EASE flow-through rate also does not include or address provisioning activities, which do involve additional OSS edits and processing.

CLEC Access to SWBT OSS Will Involve More Complex Processes and Higher Fall-out Rates, Even When Mature Mechanized Systems Are In Place

Electronic Access

10. SWBT makes the same EASE available to CLECs and its service representatives in the same manner and for the same services as it is available to SWBT's service representatives. Thus, identical service orders (*i.e.*, same data, same format) submitted by a CLEC service representative and a SWBT service representative will be processed identically, and achieve the same flow-through same rate.

11. For pre-ordering activities for Resold Services, EASE is just one of three on-line,

real-time processing choices provided by SWBT to a CLEC. SWBT also provides two other electronic means of interfacing with SWBT's OSS -- "Datagate" and "Verigate." Datagate is a SWBT-provided gateway which provides an application-to-application electronic interface for those CLECs that prefer to use their own graphical user interface ("GUI"). In contrast, Verigate is a front-end GUI provided from SWBT's "Toolbar" platform that provides CLECs access to Datagate. A chart depicting these alternatives is set forth in Attachment A.

12. SWBT service representatives ordering retail services use only EASE where that system is capable of handling those services. The 99% flow-through rate does not address or include Datagate or Verigate usage or flow-through rates.

13. For ordering activities for Resold Services, CLECs may also use EDI or LEX instead of EASE. EDI is an off-line, batch application that allows a CLEC's local service requests ("LSRs") for Resold Services and certain UNEs to be electronically transmitted in a format which conforms to the Ordering and Billing Forum/Telecommunications Interface Forum (OBF/TCIF) national guidelines. LEX, also an off-line batch application, uses a GUI developed by SWBT that allows CLECs to electronically create and transmit LSRs for Resold Services and such UNEs to SWBT. A chart depicting these alternatives is set forth in Attachment B.

14. Not all UNEs can be ordered using EDI or LEX in that the OBF/TCIF has not completed all of the standards for the LSR. Some examples of those UNEs with no electronic request capabilities are:

- Analog Line Switch Port with Centrex[®] features
- BRI Switch Port with Centrex[®] features
- PRI Switch Port
- DS1 End User Trunk Port
- Analog Trunk Switch Port

15. With the electronic orders from EDI or LEX for Resold Services or UNEs, the CLEC request must pass through SWBT's "Local Access Service Request" ("LASR"), which electronically performs over 600 edits to validate the request's format and information.

Currently, if a particular request is rejected by LASR, it is electronically sent back to the CLEC. Once the LSR passes through LASR, the LSR is forwarded either to a SWBT local service center ("LSC") service representative who manually enters the request into either EASE or SORD, or to a mechanized order generator ("MOG") that formats the order into SORD.

16. Although currently limited to certain Resold Services, MOGs are planned for CLEC LSRs for additional Resold Services and for UNEs whenever manual involvement by an LSC service representative for those UNEs can be practically eliminated.

17. The 99% flow-through rate for residential EASE does not address or include EDI or LEX usage or flow-through rates.

Manual Processing

18. Manual processing is also required for all orders which do not flow through electronic interfaces, either because the Resold Service or UNE desired has no electronic system availability or because the CLEC chooses to send the order by facsimile or mail to SWBT. Manual processing always requires a SWBT representative to manually process the CLEC request and enter that request into EASE or directly into SORD through keyboard access/input.

19. Orders either faxed or mailed require manual validation of information before being input into either EASE or SORD. Manual order entry also occurs with those orders electronically transmitted by a CLEC that SWBT would process manually for its own retail service (e.g., complex business services such as Plexar II[®] and Private Line Services). The validation is currently resulting in a 20% fall-out rate, requiring a call-back to the CLEC's service representative or a send-back of the request.

Flow-Through Experience with CLECs To Date Indicates that 98% Flow-Through Will Not Be Achievable In the Near Term

EASE

20. Currently, the average fall-out rate for inputting into the same EASE system is as follows:

SWBT service representatives ordering SWBT retail residential service: 1%
 SWBT service representatives ordering SWBT retail business service: 10%
 SWBT LSC service representatives ordering Resold Service: 5%
 CLEC service representatives ordering Resold Services: 30-50%.

For each order that falls out, manual intervention by SWBT is required to correct the error or perform the edit. As experience demonstrates, SWBT's residential EASE flow-through rate cannot automatically be applied to CLEC's service representatives using EASE (nor to its use of the vastly different EDI and LEX). Although SWBT provides a CLEC with identical access to EASE (residential and business) and has also provided the tools and offered training on EASE for the Resold Services, many factors outside the control of SWBT contribute to whether a CLEC can achieve similar results, including the experience and training of a CLEC's own service representatives in the use of EASE. Moreover, the 99% residential EASE flow-through rate does not include customer migrations, which are more complicated service order types, especially when a migration is only partial (e.g., a customer only transfers part of an account and its services to the CLEC).

EDI and LEX

21. EDI and LEX and their respective interfaces and flow-through capabilities are new developments. Since UNEs are a new product category, different and more complex than Resold Services, SWBT has no flow-through capability for any UNE order into SORD. All UNE orders received from the CLEC (whether by EDI, LEX, facsimile, or mail) are manually input by the SWBT LSC service representatives.

22. There is limited data available for fall-out rates for EDI ordering in that its only use

is occurring with a single CLEC in a test environment limited to only business Resold Services. The edits in LASR are currently electronically rejecting 18% of such submitted service orders due to errors in the orders. Of those orders that pass through LASR's edits, a 20% fall-out rate is being experienced, which can then require manual intervention by SWBT personnel.

23. Since LEX has only become generally available beginning November 3, 1997, SWBT has no representative data available for a fall-out rate for LEX due to the small volume of activity.

24. The EDI fall-out rates are occurring even though SWBT has created over 600 edits for EDI (as well as LEX) that will electronically review the LSR and electronically return it to the CLEC if the edits find errors in the order. Additional SORD edits and provisioning system edits also validate the LSR data. These editing processes will improve but will not completely eliminate order processing time by SWBT LSC representatives.

25. Some UNE and complex Resold Services will not be available for EDI or LEX input due to the complexity and customization required.

The Access Experience Demonstrates That a 2% Fall-Out Rate Is Unrealistic

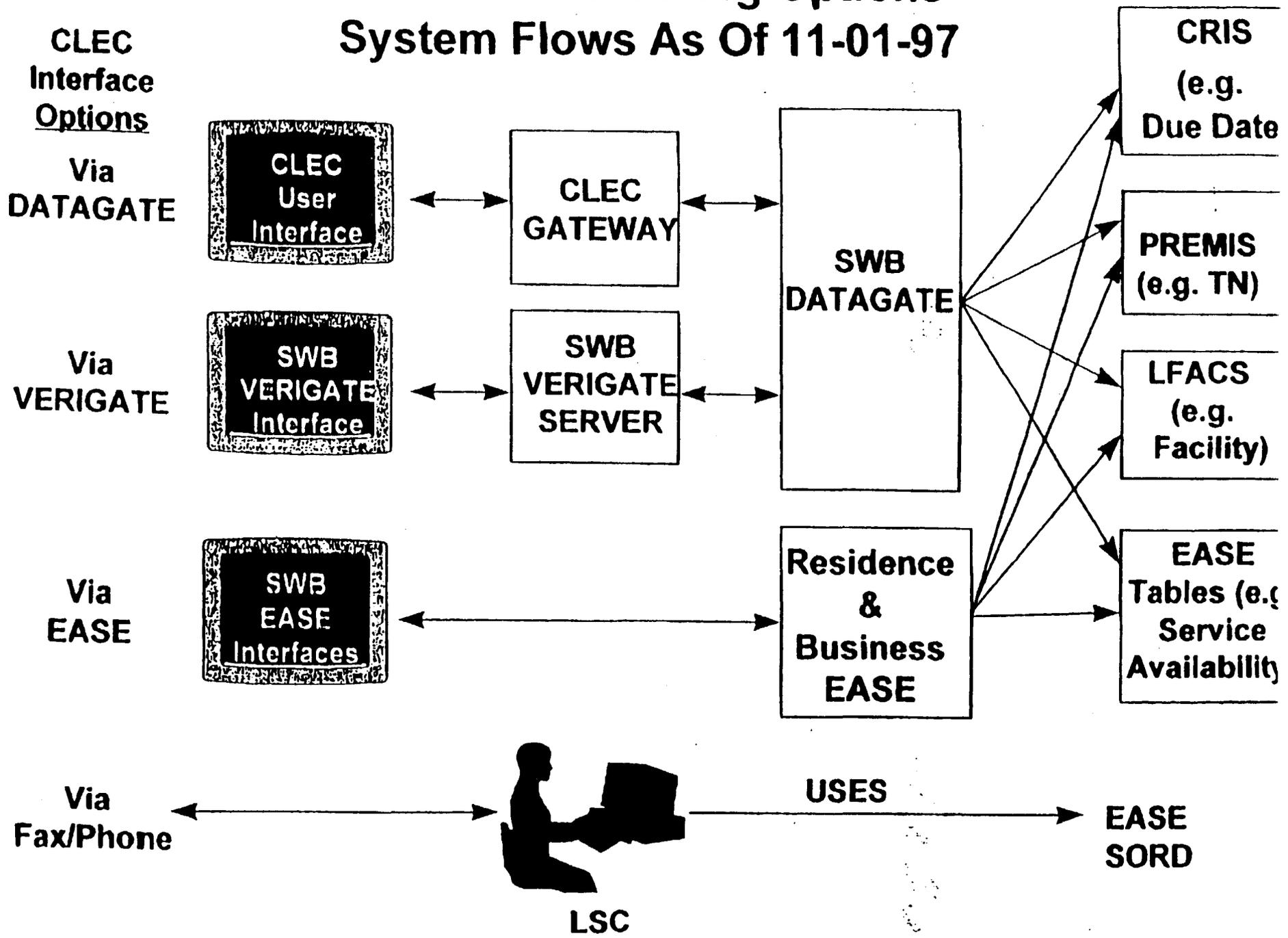
26. The OSS systems SWBT uses to allow IXCs to order access services has been in existence since divestiture in 1984. These fully mechanized and fully developed systems contain numerous edits designed to catch and correct errors without the need for human intervention by SWBT personnel. Even with these mature systems, there is still a 30-50% fall-out rate for access service requests ("ASRs") prepared by the IXCs. Access service orders are less complex than many of the orders for Resold Services or UNEs. Given this experience, it is unrealistic to expect that the fall-out rate for Resold Services and UNEs will reach the low 1% fall-out rate that SWBT experiences with residential EASE, or the 2% fall-out rate the Model assumes. With time and experience, SWBT expects that CLEC representatives will improve ordering results, but will not achieve such a 98% flow-through rate in the foreseeable future.

Conclusion

27. References to 99% flow through capability by Ms. Richardson (and as repeated by AT&T in other AT&T documents) were intended to describe residential EASE flow-through rates for SWBT representatives ordering SWBT retail services, and then only as to the transcription from residential EASE into SORD. As described above, most of the UNEs are more complex than residential service, and the OSS used for processing UNE orders will be more complex and sophisticated both now and in the long term. The residential EASE fall-out rate should not be used to predict fall-out rate for other activities and, based upon SWBT's experience to date as described above, any such use or expectation is incorrect. SWBT does expect electronic interface flow-through capabilities to be expanded and for fall-out rates to decrease over time. What the resulting outcome may be is open to conjecture at this point; however, given the long history of IXC access ordering processes described above, it would be improbable that a 1% or 2% fall-out rate is likely to be achievable for ordering Resold Services

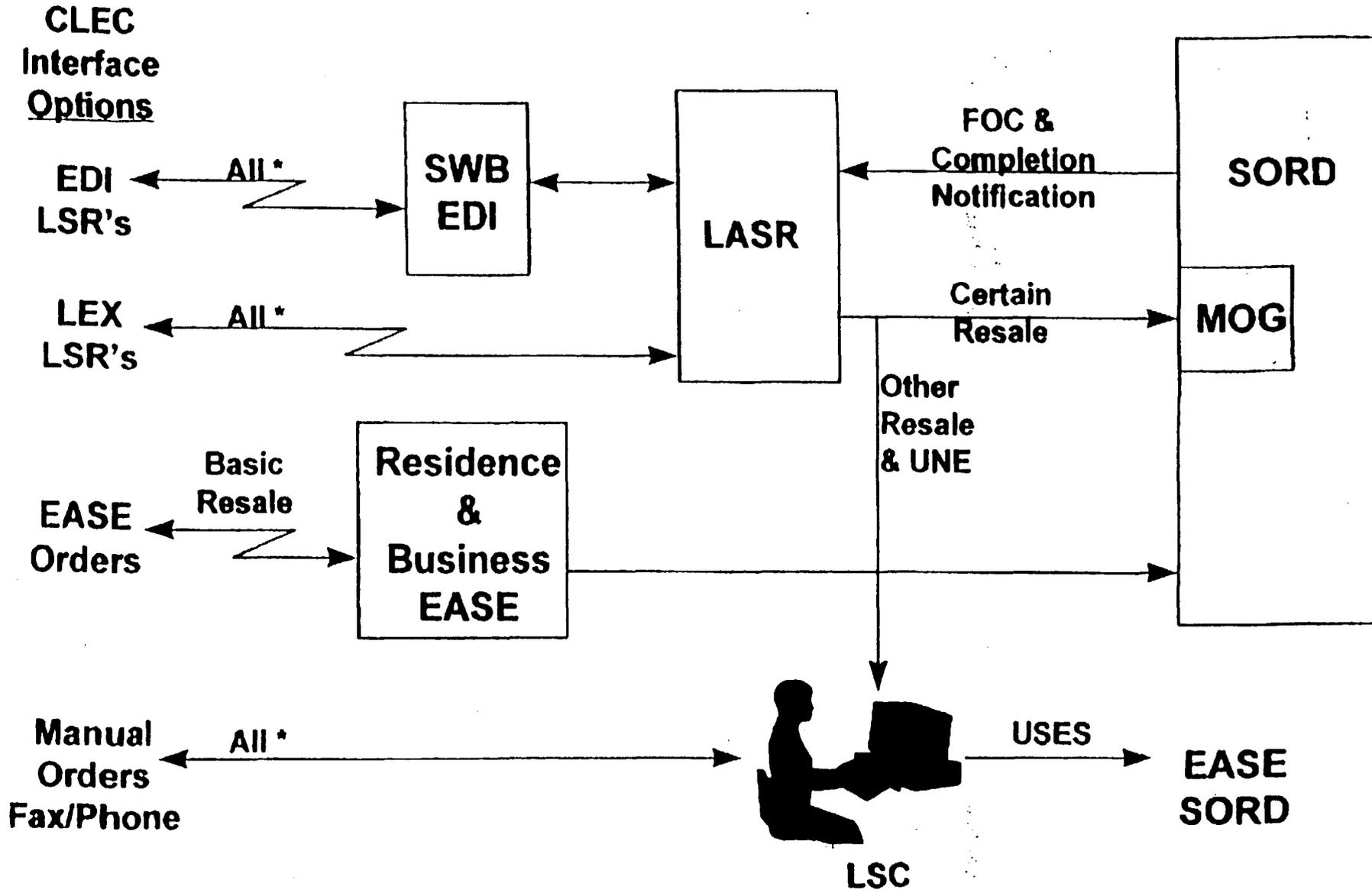
or UNEs in the foreseeable future, and certainly not by the end of 1998.

CLEC Pre Ordering Options System Flows As Of 11-01-97



CLEC Ordering Options

System Flows As Of 11-01-97

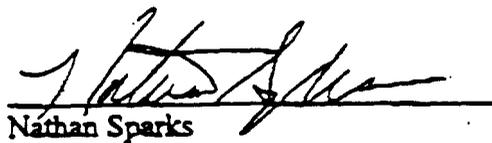


* NOTE: Denotes all types of orders Resale & UNE

We declare that the foregoing is true and correct to the best of our knowledge. Dated this
15th
18th day of December, 1997.


Jacqueline W. Richardson


Beth Lawson


Nathan Sparks

G

ATTACHMENT G

Reporter

BEFORE THE
NORTH CAROLINA
UTILITIES COMMISSION

DIRECT TESTIMONY OF
RICK BISSELL

ON BEHALF OF
AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.
AND
MCI TELECOMMUNICATIONS CORPORATION

Docket NO. P100, SUB 133d

DECEMBER 15, 1997

1 in the way that's consistent with the Hatfield Model to
2 which Mr. Wood testified.

3 And in closing I'd like to reinforce why we're
4 here, to facilitate the development of competition in
5 the local market. And to this end we've developed a
6 complete model that is open for scrutiny, sufficiently
7 documented, user adjustable, and does what is required
8 under the Federal Telecom Act of '96. And we advocate
9 that it be used as a tool to determine the appropriate
10 costs for collocation to help bring competition to the
11 State of North Carolina.

12 Thank you.

13 MS. McMILLIN: Mr. Bissell and Mr. Natelli are
14 available for cross.

15 CHAIRMAN PITTMAN: Mr. Trathen?

16 MR. TRATHEN: No questions.

17 CHAIRMAN PITTMAN: Ms. Long?

18 MS. LONG: No questions.

19 CHAIRMAN PITTMAN: Ms. Edmondson?

20 MS. EDMONDSON: I just wanted to ask a couple
21 of Mr. Bissell.

22 CROSS-EXAMINATION BY MS. EDMONDSON:

23 Q. Mr. Bissell, has this particular model been
24 propounded in any other jurisdictions?

1 A. (By Mr. Bissell) I would accept for the same
2 reason.

3 Q. And would you accept subject to check that in only
4 twelve (12) of those eighty-nine (89) offices is there
5 more than one CLEC collocating?

6 A. (By Mr. Bissell) I would accept for the same
7 reason.

8 Q. And would you also accept that there are no cases
9 where there are four CLECs collocating?

10 A. (By Mr. Bissell) Four one hundred square feet
11 (100') or four hundred square feet (400')?

12 Q. No, sir, four -- four CLECs or CLPs, there are no
13 Central Offices in any of GTE's territories where there
14 are four CLECs or CLPs collocating in any amount of
15 space?

16 A. (By Mr. Bissell) At this point, perhaps.

17 Q. Now, the collocation model, Mr. Bissell, does not
18 assume the use of cosmic frames, isn't that correct?

19 Just assumes ordinary main distribution
20 frames?

21 A. (By Mr. Bissell) Yes, cosmic frames were used
22 beginning around five or ten years ago. And the -- the
23 late -- ILECs are no longer putting in cosmic frames,
24 that I know of.

1 Q. So, the collocation model does not assume the use
2 of cosmic frames?

3 A. (By Mr. Bissell) No, it doesn't.

4 Cosmic frames leads to additional -- it -- it
5 doubles the investment because of fiber cables and
6 additional hardwares.

7 Q. Let me also ask you, Mr. Bissell, you talked about
8 the Americans with Disabilities Act and you based -- you
9 said that the RS Means data included any construction
10 costs that would comply with that Act, is that what I
11 heard your testimony to be?

12 A. (By Mr. Bissell) What I said was that RS Means is
13 -- is the results of inputs from ILEC actual buildings
14 built and that no buildings would be allowed to be built
15 without complying. That's what my answer was, I think.

16 Q. But you would agree with me that the RS Means data
17 on which the model may be based would not factor any --
18 any new Statute into account, would it, if there was a
19 Statute down the road that required a building
20 modification, that would not be factored into the model,
21 isn't that fair to say?

22 A. (By Mr. Bissell) No, the RS Means is based on
23 actual inputs in the past, roughly five years, yes.

24 Q. So, there -- if there was a new statute like the