between Ameritech Michigan and ACI can and will satisfy the "arm's length" standard; whether it is plausible that ACI has acquired its facilities from Ameritech Michigan without preferential access to "goods, services, facilities and information"; and finally, how ACI's "arm's length" obligation applies to Ameritech Information Industry Services ("AIIS"), a division of Ameritech Services, Inc., jointly owned by the Ameritech Operating Companies that will provide interconnection services to AT&T on behalf of Ameritech Michigan.

95. The fundamental lack of independence in the operations of the Ameritech operating companies and ACI was recently acknowledged by Ameritech Illinois. Recently Ameritech Illinois filed for "clarification" that expenditures by Ameritech affiliates other than Ameritech Illinois should count against the $3 billion/five year commitment to invest in "infrastructure" that Ameritech Illinois made in securing alternative regulation in Dockets 92-0448/93-0239. Petition for Clarification of Investment Obligation under the Alternative Regulation Plan ("Petition for Clarification" or "Petition") filed September 20, 1996. In its Petition, Ameritech sought "clarification" that its "commitment was made, and should be construed to be, relative to the Ameritech family of companies." Petition, p. 2 (emphasis supplied). Ameritech's 1996 report under the Alt Reg Order in fact showed nearly $200 million in unspecified "infrastructure expenditures" on the part of Ameritech Cellular, Ameritech Services, Inc., Ameritech New Media Enterprises and other entities. Ameritech in its Petition suggested that the "corporate family" viewpoint

> is particularly appropriate given the changes in the regulatory and legal environment that have occurred since adoption of the [Alt Reg] order....Infrastructure which Ameritech Illinois had originally assumed would be part of its network has now been shifted to separate subsidiaries such as New Media Enterprises (broadband video distribution facilities), and Ameritech Communications Inc. of Illinois...Petition for Clarification, p. 2. (emphasis supplied)

96. The implication is inescapable that Ameritech Corp. is and has been "calling the shots" -- explicitly with respect to the extent to which Ameritech versus ACI will invest in "infrastructure," i.e., communications facilities. Substantial questions are raised over whether Ameritech and ACI are operating "independently" in any meaningful sense. And the very existence of a Chicago and Detroit Ameritech/ACI SONET ring with switching facilities -- ventures apparently "paid for" through unsecured corporate advances -- gives rise to fundamental questions under the Act. Has Ameritech acted in a nondiscriminatory manner in the creation of these facilities or are they to be accepted as a fait accompli, without regard to whether they satisfy the FCC's regulations? Is Ameritech prepared to act without discrimination to make equivalent "services, facilities, and information" available to others? What role should this Commission play in ensuring that Ameritech Michigan's monopoly ratepayers are not disadvantaged as Ameritech shifts infrastructure investment to the separate affiliate, and in ensuring that competitors of the affiliate are not the object of discrimination by Ameritech Michigan? These questions have not been fully addressed in Michigan. All are vitally connected to the issue of interLATA relief for Ameritech, however.

VI. SUMMARY OF THE ACTIONS AT&T PROPOSES TO THE COMMISSION.

97. Under the Federal Act, the FCC is required to consult with state commissions to verify Ameritech's compliance with the checklist requirements. In this proceeding, each of the AT&T witnesses has identified deficiencies in Ameritech's checklist compliance showing and recommends actions. In addition to those recommendations, I also have a number of recommendations that could help address a number of the issues raised in my testimony. Before this Commission reaches a decision regarding Ameritech's satisfaction of the checklist requirements, at a minimum, this Commission should require Ameritech to make a showing as to how it will satisfy the requirements and recommendations of AT&T's witnesses, including the following requirements:

98. For **certainty** of checklist availability, the Commission should at a minimum require that Ameritech:

- Provide a set of rates, terms and conditions for services offered to new entrants to which Ameritech commits regardless of the results of any legal challenges Ameritech may have pending before state or federal courts, unless some aspect of the courts' findings render the agreed upon terms unlawful.
- Describe the procedure that will be used when the parties and Staff believe that Ameritech's contracts or tariffs are not in compliance with

pertinent Commission orders, to preclude delay in implementation that would occur under the Commission's customary complaint and enforcement procedures.

99. To ensure **reliability** in the full availability of checklist items, the Commission should require Ameritech to provide operational experience that will:

- Demonstrate with specificity that the systems employed by Ameritech in the areas of provisioning, pre-ordering, ordering, repair and installation are actually operating at parity with regard to its own and competitors needs, for various customer categories and by various work areas.
- Demonstrate that the operating systems employed by Ameritech have the capacity to serve the actual and anticipated demands of Ameritech itself as well as those of competing local carriers. If local service systems have less capacity than interexchange systems in place, Ameritech should provide a detailed description of the manner in which it proposes to increase capacity to an equal level.
- Document that Ameritech's Operational Support Systems have been fully tested and judged to work properly and interface correctly with competitors' systems.
- Demonstrate that Ameritech's systems are processing customer requests for a change of local carrier as efficiently as they process customer requests for a change of interLATA carrier.

- Demonstrate, based on actual experience, that service quality trends are not declining with the advent of local competition.

100. To address the **changes in the local telecommunications environment**, the Commission should require Ameritech to demonstrate what Ameritech has done to insure that Ameritech employees function as "honest brokers" when they are obliged to provide non-discriminatory treatment of competitors, their systems and their customers. For example, Ameritech should show that Ameritech's Code of Conduct, training and compensation plans recognize this obligation.

101. Further, Ameritech should be required to demonstrate that carrier access charges paid by competitors are set at Ameritech's actual costs.

102. Ameritech should be required to demonstrate that Ameritech's affiliate, Ameritech Communications, Inc. is not receiving, directly on indirectly, preferential treatment as compared to other new entrants regarding prices, terms, conditions and access to services, systems, network planning information, and customer information. This can be shown by providing a description of the current state of operations of ACI, where, if at all, ACI connects to Ameritech's network, what services ACI provides, what access to assets and information ACI has, where ACI's employees come from, and what steps Ameritech is taking to assure that ACI is not in a preferential position compared to other new entrants on access to networks and customer information, and how Ameritech will comply with the

Joint Marketing and other requirements of §272(g).

This concludes my statement.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own motion, to consider Ameritech Michigan's compliance with the competitive checklist in Section 271 of the Telecommunications Act of 1996	)))))	Case No. U-11104

AFFIDAVIT OF TIMOTHY M. CONNOLLY
ON BEHALF OF AT&T COMMUNICATIONS OF MICHIGAN, INC.

STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

I, Timothy M. Connolly, being first duly sworn upon oath, do hereby depose and state as follows:

1. My name is Timothy M. Connolly. My business address is 50 Fremont Street, Suite 320, San Francisco, California, 94105.

2. I am employed by the DMR Group, Inc. I am a management consultant specializing in information systems and technology projects involving the telecommunications industry.

3. I have worked in the telecommunications industry for over twenty-five years and have spent nearly all of those years in developing, managing, planning and evaluating information systems and technologies for telecommunications carriers in the United States and around the world. I worked for AT&T for fourteen years (until 1991) in its headquarters organizations and in its domestic and international subsidiaries providing technical advice, management assistance and assessments regarding information systems and the use of

information systems in customer operations. I worked for Illinois Bell Telephone Company prior to 1984 in its customer billing and services staff departments.

4. I have a Bachelor degree in Finance from Creighton University in Omaha, Nebraska and a degree in Management from the University of Illinois at Chicago. I have done postgraduate work in economics at Rutgers University, Newark NJ and in operations planning at the Wharton School, University of Pennsylvania in Philadelphia.

5. I have provided management and technical consulting services to exchange and interexchange telecommunications carriers in the United States, Canada, Europe and Asia in a variety of projects as an independent contractor and as an employee. I have worked in technical and administrative assignments in the areas of customer support systems, operations support systems, billing and customer service systems and other technology matters. I have provided consultant services to carriers endeavoring to enter new competitive markets and advised those clients in the technological characteristics of information systems that would support entry in those new markets, here in the US and abroad. Specific examples of the systems-oriented work I have done in the past five years is attached to my testimony.

SUBJECT OF STATEMENT

6. The purpose of my statement is to respond to Ameritech's claims that it has put in place electronic interfaces for all operations support systems ("OSS") functions that are presently available and operational for competitive local exchange carriers ("CLECs") seeking to resell Ameritech's local exchange services and unbundled network element ("UNE") offerings.

7. Based on my review and analysis of Ameritech's proposed OSS interfaces and my experience with the development of operations support systems in the telecommunications industry, I conclude that the interfaces are not yet operational and, at present, fall far short of providing a reasonable degree of operational support for AT&T's entrance into the local service market.

OPERATIONS SUPPORT SYSTEMS

8. Operations support systems are the computer-based systems and data bases that telecommunications carriers use to provide essential customer and business support functions. These systems support a variety of carrier interactions with customers, including those related to (1) pre-ordering activities such as determining the customer's existing service, address verification, determining the availability of new services and features that might meet the customer's needs, telephone number assignment, and establishing a due date for service; (2) ordering services; (3) provisioning of service; (4) repair and maintenance; and (5) billing for service.

9. The accuracy, timeliness and completeness of the information used and maintained by operations support systems are critical to a carrier's efforts to satisfy its customers. Because the timeliness and reliability of support systems is so vital to providing and maintaining quality service to end-users, the performance of these systems is extremely important. Support systems that are slow to respond or unreliable undermine a carrier's efforts to ensure customers get the services they request when they request them. Quite simply, a carrier cannot conduct its business effectively or efficiently without strong, well-designed and well-developed operations support capabilities.

10. The establishment of efficient interfaces and procedures for the exchange of information between the operations support systems of Ameritech and AT&T and other CLECs is absolutely essential for the development of competition in the provision of local services. AT&T and other CLECs entering the local market on a large scale will be highly dependent upon their ability to efficiently obtain local services and unbundled network elements from Ameritech, which will depend in turn on the efficient exchange of information between AT&T and Ameritech relating to all of the OSS functions described above. Because so much of the information required by competitors resides exclusively in Ameritech's

operations support systems, Ameritech is in a unique position to control the ability of its competitors to enter the local services market and become an effective competitor.

AMERITECH'S OPERATIONS SUPPORT SYSTEMS OFFERINGS

11. Ameritech has stated that it will provide at least nine separate OSS interfaces, each supporting a different function or combination of functions. Thus, Mr. Mickens states that Ameritech will provide a pre-ordering transactional interface (EDI), a pre-ordering batch interface (file transfer), an ordering transactional interface (EDI), an ordering batch interface (ASR), a provisioning interface, a maintenance and repair interface, a usage billing information interface (EMR), a services resale billing information interface (AEBS), and a UNE billing information interface (CABS) (Mickens Aff., pp. 17).

12. Ameritech's operations support system interfaces are not presently in a state of operational readiness. Attached as Exhibit 1 is a matrix which depicts the status of the electronic operational support systems development separately for resale and the platform. As this exhibit illustrates, none of the needed systems interfaces are currently in a state of operational readiness and only certain interfaces have begun to be tested on an integrated basis. I discuss this exhibit in further detail later in my statement.

13. The interfaces to several of Ameritech's critical pre-ordering operating support systems were still not deployed in the field or available to CLECs for testing as of mid-December 1996. Even assuming that those interfaces have now been deployed, however, those interfaces have never been made available for use or testing by AT&T to determine whether they will provide the nondiscriminatory access to Ameritech's operations support systems that is required under the FCC's orders.

14. The specifications for several of Ameritech's proposed OSS interfaces for service resale have been repeatedly revised over recent months and are still being revised or clarified by Ameritech. None of the specifications other than usage Data are yet in a final

form, making design of AT&T's systems to interact with Ameritech's systems a moving target.

15. Because of these and other problems, only a very limited amount of integration testing between Ameritech and AT&T has been conducted at this time, and those testing routines are still far from complete. Moreover, the limited testing of Ameritech's interfaces that has been conducted to date by AT&T has revealed a number of problems in system interaction.

16. Discussions to date between AT&T and Ameritech have centered largely around the interfaces to be used for resale services. The discussions related to the purchase of unbundled network elements, and more importantly, combinations of unbundled network elements (the platform) have been only extremely preliminary in nature. In large part this is because AT&T and Ameritech cannot agree on how the platform will be provisioned operationally. That disagreement makes it very difficult to have menaingful discussions about how the ordering interfaces should be designed. Moreover, because there are no UNE-P tariffs or any AT&T/Ameritech interconnection agreements, AT&T is not yet in a position to order UNE-P unbundled network elements.

THE AVAILABILITY OF AMERITECH'S PROPOSED OSS INTERFACES

17. The testimony submitted by Ameritech in this case is ambiguous on the question of the present availability of some of Ameritech's proposed OSS interfaces.

18. In supplemental rebuttal testimony filed in Illinois on Friday, December 13, 1996, and submitted in this case on Monday, December 16, 1996, Ameritech's witness Mr. Rogers states that Ameritech's proposed interfaces for a number of pre-ordering functions, including access to customer service records, access to telephone number selection and assignment, due date selection and access to information regarding changes in service order status, are still "under development" and are only "scheduled for commercial deployment" in December 1996 (Rogers Supplemental Rebuttal Illinois Testimony, pp. 5, 15, 26). Mr.

Rogers also states that the interfaces required for the provisioning of resold service is still not complete (id. at 11).

19. Similarly, the affidavit of Ameritech's Mr. Dunny, submitted in this case on December 16, 1996, states that Ameritech's interfaces for the pre-ordering, ordering and provisioning functions "are currently being upgraded" and "will be made available on or before January 1, 1997" (Dunny Aff., pp. 31-32).

20. The affidavit of Ameritech's Mr. Mickens, on the other hand, also filed on December 16, 1996, states that all of these OSS interfaces are now deployed by Ameritech (Mickens Aff., pp. 16-17, 19-20).

OPERATIONAL READINESS

21. Operational readiness is the end state of a systems development effort. It is achieved when the systems are providing useful results according to design, and it is the culmination of a successful systems design process.

22. An interface between two systems is operationally ready when the two systems work together satisfactorily with the underlying systems on both sides of the interface to deliver the services for which the interface was designed.

23. Operationally ready systems interfaces have been tested by systems developers and users on both sides of the interface under testing criteria designed to simulate market conditions. Operational readiness cannot simply be unilaterally declared by Ameritech because Ameritech is only one of the interface users. Both users must work together to establish that the interfaces are operationally ready.

24. An "interface" is the nexus between two separate operations support systems. Specification documents, like those recently published by Ameritech, attempt to define the inputs and outputs that will allow the systems of two entities to communicate with each other. Once the inputs and outputs are defined through the specifications, the CLEC must

undertake comprehensive systems development activities in an effort to modify its own OSS capabilities to complement Ameritech's systems.

25. These systems development activities usually occur in several steps: systems analysis, specification refinement, system design, system development, system testing, integration testing, training and implementation.

26. The first step is systems analysis. In this step, the goals are analyzed so the specific processing needs can be laid out in broad measure. Determinations of the business functions that the system must address are made as well as preliminary decisions as to which are to be computerized and which will be manual processes. The analysis of the overall systems and the business needs cause questions to be raised on what data definitions apply, the conditions under which information is required or optional, and whether information must be obtained from data bases, supplied by customers, validated or accepted as is. Hundreds of questions are the norm, not the exception. These questions are ordinarily reviewed with the suppliers of the input and output transactions.

27. The systems analysis step is followed by a specification refinement activity. In this activity, the details and definitions of data elements, records and data bases are actually updated, recognizing that the initial specifications were not universally understood. Specification refinement can take several iterations before the parties find that all questions are resolved and no further definition is required.

29. The next step is the system design phase. The design effort takes into consideration the technical environment for the system, the various regional or local exceptions, the daily/weekly/monthly processing issues to be addressed and more. The system will be broken down into modules that are logical components for computer processing or manual methods and procedures development.

30. Once the system is designed, the actual systems development (i.e., programming) efforts are begun. Systems development is where programmers and data base

developers get to work coding the modules. The manual activities are also developed which require methods and procedures analysts to work with job or task designers to place the manual activities into logical sequences. These efforts also result in the design of forms, screens and reports. The merging of computerized modules and manual procedures are then followed by testing that is best accomplished through a structured manner and discipline.

31. System testing is the step that bears out the design and programming. Testing must separately validate the construction and development of the individual modules, the programs which comprise many modules, the systems that comprise many programs and, on an integrated basis, all of the components, both computerized and manual, under a variety of conditions. System testing demonstrates both that the system components perform according to the design of what should happen, but it also serves to demonstrate capacities or constraints in terms of volumes, seasonal differences, special processing periods and the like.

32. When systems are developed for the purpose of working with other systems, which is the case for AT&T's operations support systems and the interfaces which connect them to Ameritech's systems, the two complementary systems must also be tested in a joint manner to ensure that they will communicate properly with each other. This is referred to as end-to-end, or full integration testing. This is the opportunity for the entire spectrum of testing to be accomplished in an environment that is "safe" from customer consequence.

33. Testing must be accompanied by sufficient training to be certain that staff knows how to operate the system, to interact with the screens, forms. Accommodations must also be made for administrative functions -- i.e., the data bases must be backed up appropriately in the normal course of operations.

34. Once all these preliminary steps have been taken the system can move into the implementation phase. This phase is less complicated for a newly constructed system than it is for system change or replacement. The process of converting data bases from one system

to another is indicative of the types of additional complications that can arise during the implementation phase.

35. Once the implementation phase has been successfully completed, the systems are operationally ready.

36. In the case of Ameritech's proposed OSS interfaces, operational readiness is achieved only when the two systems are able to communicate with each other over the interface in an accurate, reliable and timely manner. As my description of the several steps involved in the process of developing compatible and operationally ready operations support systems and systems interface makes clear, far more is required than simply the sharing of technical interface specifications. The process of developing working operations support systems and interfaces is a complex and time-consuming process involving both the systems and data bases on the Ameritech side of the interface, the operations support systems on the AT&T side of the interface, and the interface itself which allows the systems on both sides to effectively communicate with each other.

PRESENT STATUS OF AMERITECH'S OSS INTERFACES

37. As I indicated earlier in my statement, in order to show the present status of Ameritech's OSS interfaces from AT&T's perspective, I have prepared a matrix which is attached as Exhibit 1 to my affidavit. In the left column of this matrix, I have listed the OSS interfaces proposed by Ameritech broken down by the principal OSS functions. Across the top of the chart, I have identified some of the key steps that are required in order to achieve operational readiness. The first page of the chart addresses the proposed OSS interfaces for service resale, and the second page is addressed to the OSS interfaces for the UNE platform.

INTERFACE SPECIFICATIONS

38. As shown on the first page of Exhibit 1, AT&T has received initial specifications from Ameritech for all of the OSS functions for service resale.

39. In several instances, however, AT&T has also received one, two, or even four specification revisions.

40. For example, between July 3, 1996, and November 8, 1996, Ameritech published four separate revisions to the specifications for its ordering interface for service resale. Moreover, the new specifications did not highlight changes from the previous versions, which means that AT&T was required to make line-by-line comparisons to identify the differences.

41. Further, when AT&T met with Ameritech on December 18, 1996, to discuss a series of questions and concerns that needed to be addressed, Ameritech agreed to produce a revised specification for POTS resale in early January and presumably will follow up at a later date with interface specification revisions to address other types of resold services. The resale ordering specifications, which have undergone the most scrutiny and analysis, are thus still being updated.

42. The specifications for some of Ameritech's other OSS interfaces are in a still more preliminary state. For example, Mr. Rogers states that the proposed interface for a number of essential pre-ordering functions, including access to customer service records, telephone number selection and assignment, due date selection, and access to service order status information were still "under development" as of mid-December 1996 (Rogers Supplemental Rebuttal Illinois Testimony, pp. 5, 15, 26).

43. As Exhibit 1 indicates, I do not believe that AT&T has received final specifications for any of Ameritech's proposed OSS interfaces other than for the EMR interface for the transfer of customer usage data.

44. The many changes that Ameritech has made to its OSS interface specifications over the last few months and the further changes promised, has serious consequences for AT&T's ability to compete in the local service market. Until Ameritech's interface specifications are finalized, AT&T's ability to design its operations support systems to

interface with Ameritech's systems is severely limited. Moreover, AT&T cannot obtain the assurance that it will be able to offer a high quality of service to its customers which it requires before it can actually enter the local market and begin offering service on a large-scale basis in Ameritech's service areas.

BUSINESS RULES

45. In order to communicate effectively with Ameritech's operations support systems and have its transactions processed, AT&T also requires additional information about the operation of Ameritech's systems. AT&T must also ascertain and adhere to Ameritech's unique "business rules" and procedures.

46. Ameritech's business rules are not simply a document, but are instead the amalgamation of Ameritech's practices, standards, tariff interpretations, competitive policies, methods and procedures, and unique system design parameters. These business rules, which are not generally reflected in the technical specifications, define valid relationships in the creation and processing of service orders. For example, AT&T must determine whether Ameritech's business rules allow order numbers to be duplicated, require information on the customer's PIC, and/or require a specific format for directory listings. Only when a service order is issued using this set of Ameritech-mandated business rules, all of which are within Ameritech's exclusive control, will the service order be completed in Ameritech's systems as requested and as promised to the customer by AT&T.

47. Ameritech's business rules and procedures are not always the same as those used by AT&T, and, initially, the AT&T systems only had access to AT&T's business rules -- not Ameritech's. AT&T and Ameritech may have different views on issues that relate to order numbers, PIC contents, USOC relationships, etc. If AT&T's rules are not synchronized with Ameritech's, the service requests will not be successfully processed in Ameritech's systems.

48. AT&T has been able to determine some of Ameritech's business rules, but only through a painstaking process of trial and error. In the recent service readiness testing of Ameritech's service resale ordering interface, for example, many of the orders submitted by AT&T were rejected by Ameritech's systems because they were formatted consistent with AT&T's business rules, but were unknowingly inconsistent with Ameritech's business rules. Although AT&T is learning Ameritech's business rules and, through the integration testing process, incorporating them into its processes and procedures, ironing out all the kinks is an extremely time-consuming process.

49. This process is further complicated by the fact that, contrary to Ameritech's contentions, Ameritech's OSS interface specifications do not always adhere to industry standards. For example, Ameritech insists on adhering to EDI Version 5.0 in its definition of its ordering interface when the other six Regional Bell Operating Companies ("RBOCs") and the rest of the telecommunications industry is deploying ordering interfaces at the EDI Version 6.0 level. To ensure that it could timely enter the local services market in Ameritech's service areas, therefore, AT&T was required to create additional computer systems to translate its ordering transactions to the earlier Version 5.0 standard.

50. Similarly, there are provisions in Ameritech's ESO Guideline (Version 3.0, November 8, 1996 "to be effective January 6, 1997") which identify numerous areas in which industry standards are essentially over-ridden by Ameritech-adopted conventions. For instance, contrary to all other ILEC requirements, Ameritech's specifications for 850 transactions for reseller contact name and telephone number note that, while this segment is optional in TCIF documentation, it is mandatory for Ameritech orders. Thus, failure to place an entry in this field will cause an Ameritech rejection.

51. Furthermore, there are no industry standards. There are standard guidelines developed by the Ordering and Billing Forum (OBF), by Bellcore, and the Telecommunications Industry Forum, but those standards are very loosely defined to allow

flexibility in the design of industry systems. Thus, while Ameritech claims that its specifications are consistent with industry standards, the degree of consistency has been and continues to be a significant issue. Indeed, the single most significant problem that AT&T has encountered while attempting to deploy operations support systems is that Ameritech has unique systems which compel unique OSS specifications and business rules. AT&T has been required to rely on integration testing to identify Ameritech's unique system parameters and design its complementing systems and its side of the interface to meet the Ameritech standards and business rules.

52. The lack of clear standards has created serious problems for AT&T in the development and testing of its own complementary operations support systems. A good example of this is in the area of processing changes to previously issued purchase orders. Under the EDI standards, changes to previously issued purchase orders are made via an "860 transaction." AT&T and Ameritech have designed their systems in a manner that are both consistent with that standard yet differ from each other.

53. Ameritech's design for processing 860 transactions requires that an 860 be used to update or change the underlying purchase order (an "850 transaction") that is already in queue. Thus, when the Ameritech system receives an 860, it looks for the predecessor 850 and relies on the predecessor order to effect the changes in the purchase order transaction.

54. AT&T's existing systems were designed to take a different approach. AT&T's business customers tend to submit many changes in the ordering process. AT&T therefore designed its systems to restate the entire order when a customer requests a change prior to completion of the original order. This procedure requires the 860 to find the underlying 850 and "refresh" its contents completely. Therefore, at any time, the 860 will show <u>all</u> of the newest and most current customer requests, irrespective of the content of the original order.

55. Although both of these design approaches are technically consistent with the EDI standards, they are, in fact, very different. These differences caused problems in the

interface. AT&T sent 860s to Ameritech believing that Ameritech's systems would "refresh" the underlying 850, but instead, when Ameritech's system received the 860, its system rejected the 860 as a duplicate.

56. AT&T was unable to anticipate and design around this problem because it did not have access to the Ameritech business rules which would have allowed AT&T the opportunity to design its 860 transaction in a manner that complements Ameritech's processing. Instead, the systems design approaches were not shared until after the first 860 was sent to Ameritech -- too late for simple design changes to be made. Moreover, because this problem was not encountered until the integration testing phase, I believe other 850/860 types of translation problems may yet to be encountered.

57. More importantly, these problems cannot be anticipated in advance because Ameritech is still unwilling to share its business rules, and because the CLECs have no bargaining power or leverage in this relationship, they cannot force Ameritech to cooperate. Thus, design problems must simply be encountered, by trial and error, in the testing phase and then work-arounds must be developed -- an approach which will require AT&T to expend substantial additional time and cost in its efforts to get its operations support systems to work with Ameritech's OSS interfaces.

INTERFACE TESTING

58. To date, the only integration testing that has been done by AT&T with Ameritech's proposed OSS interfaces has been limited to the service resale ordering interface and related provisioning and billing functions. The results of those tests are described in the testimony of Mr. Rogers initially filed by Ameritech in the Illinois proceeding (Rogers Supplemental Rebuttal Illinois Testimony, pp. 19-23 & Schedule 1). As I indicated above, that testing has led to changes to both companies' procedures. As a result of those changes in the companies systems and operations, integration testing of the service resale ordering interface has not yet been completed.

59 Much of Mr. Rogers' testimony is devoted to explaining that the number of AT&T orders rejected using the electronic ordering systems in current testing was due to errors on AT&T's side of the interface. This is beside the point. The point is that, to date, only a small number of orders have passed through the Ameritech interfaces and most of those did not pass through the system without errors.

60. In 2 1/2 months of testing in Illinois (from October 6 to December 20), only a total of 211[1] AT&T orders have been processed by Ameritech. Of those 211, only 79 were completed. One half of these orders were rejected. The results of testing as of December 20, 1996 are as follows:

[1] This information used to report testing results in the testimony was taken from Ameritech testing reports. The actual number of "transactions" processed and the status of any single transaction at any particular time can be recorded in a variety of ways. Nonetheless, for purposes of consistency and convenience, I have adopted Ameritech's methodology for reporting testing results, and its results, in this testimony.

Order Transactions Processed	211	**Percentage**
Orders Rejected	109	51%
Orders Completed	79	38%
Orders Pending	23	11%
Orders Processed Manually	105	50%
Rejected	28	27%
Completed	55	52%
Pending	22	21%
Orders Processed Automatically	106	50%
Rejected	81	76%
Completed	24	23%
Pending	1	1%

These results demonstrate that the systems are far from being operationally ready. The Service Readiness Testing Results are attached as Exhibit TMC-02.

61. A further serious concern for AT&T revealed during the testing of the service resale ordering interface is the fact that many of the orders sent by AT&T during the integration testing process were not being processed electronically, but were "falling out" to manual processes. Of the 211 test orders processed as of December 20, 1996, 50 percent have been processed using manual procedures by Ameritech.

62. This use of manual intervention is very troublesome and unacceptable as the basis for market entry on the scale planned by AT&T. Experience shows that manual processes are incapable of handling large volumes of transactions and are likely to stress Ameritech's ability to deliver timely and efficient services.

63. Ameritech's exhibits confirm these systems deficiencies. In Mr. Rogers' Schedule 1, he identifies the number of orders processed through November 26. According to that document, of the 67 orders processed during that time period, 47 (or 68%) required manual intervention by Ameritech--that is, they were not processed relying exclusively on electronic interfaces.

Order Transactions Processed	157	**Percentage**
Orders Rejected	90	57%
Orders Processed	67	43%
Orders Processed Manually	69	44%
Rejected	22	32%
Processed	47	68%
Orders Processed Automatically	88	56%
Rejected	68	77%
Completed	20	23%

64. My understanding is that AT&T personnel involved in testing have asked repeatedly for explanations of what gives rise to the requirement for manual processes. Ameritech has not provided sufficient information (i.e., the Ameritech business rules) to reduce this manual intervention on a systematic basis. Obviously, that information would be freely shared if a "team" concept were at work here.

65. There has been no significant improvement throughout the testing process. The Service Readiness Test Results Exhibit TMC-03, from November 7, 1996 show that the processing of orders has been consistently error-prone and manually intensive:

Order Transactions Processed	109	**Percentage**
Orders Rejected	63	58%
Orders Completed	37	34%
Orders Pending	9	8%
Orders Processed Manually	55	50%
Rejected	20	36%
Completed	28	51%
Pending	7	13%
Orders Processed Automatically	54	50%
Rejected	43	80%
Completed	10	18%
Pending	1	2%

66. In sum, the systems in question are very complex: Unless there is a true commitment to work together instead of finding fault, there will be delays in making services available, the quality of competitive services will slip and local competition may in fact be prevented. It does not appear from their testimony that Ameritech has made that commitment with AT&T. If better results were experienced, it is reasonable that AT&T would have extended the testing process to validate additional types or volumes of PIC orders to increase the confidence it needs in trying to enter the local services market.

It is unknown if other CLECs have received sufficient assistance from Ameritech, increasing their ability to interact with Ameritech's systems and interfaces.

67. Moreover, even if all 211 orders had been processed flawlessly -- which did not happen -- this number stands in stark contrast to the total number of orders which could be processed by the proven operational support systems to switch long distance customers to Ameritech should Ameritech be granted interLATA authority.

INTERFACES FOR UNBUNDLED NETWORK ELEMENTS AND THE UNE PLATFORM

68. Although Ameritech has provided an initial specification for ordering and provisioning a few individual network elements such as number portability and switching, no specifications have been provided for the ordering or provisioning of the UNE platform or other UNE combinations. Ameritech has not provided specifications for the pre-ordering, repair and maintenance, or billing functions for unbundled network elements or the UNE platform.

69. To date, Ameritech has refused to provide the UNE platform as requested by AT&T. Ameritech has imposed a number of restrictions and limitations on its unbundled switching element provided as a part of the platform. For example, Ameritech has taken the position that AT&T is not entitled to bill for terminating access. Consistent with this position, Ameritech has not provided any specifications for an interface that would provide AT&T with the billing information that it would require to bill for terminating access.

70. Contrary to Mr. Mickens' statement, the ASR interface, which was designed to receive access orders from interexchange carriers, is not suitable for the large scale provisioning of unbundled network elements. That interface is a batch interface which