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

In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Michigan	)))))))))	CC Docket No. 97-1

Volume 2.3:
Affidavit of Daniel J. Kocher
on Behalf of Ameritech Michigan

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of Application of Ameritech Michigan for Authority to Provide In-Region InterLATA Services in Michigan	CC Docket No.

AFFIDAVIT OF DANIEL J. KOCHER
ON BEHALF OF AMERITECH MICHIGAN

STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

I, Daniel J. Kocher, being first duly swore upon oath, do hereby depose and state as follows:

1. I am Director - Planning and Implementation for Ameritech. I have oversight responsibilities for planning the implementation of applicable legal and regulatory requirements, including the Telecommunications Act of 1996 (the "Act"), in the network and related systems of Ameritech Michigan and the four other Ameritech Bell Operating Companies. Specifically, I have been directing detailed planning efforts to implement aspects of the Act and the Commission's Rules dealing with provisioning and maintenance of telecommunications services provided by Ameritech Michigan to telecommunications providers, resellers and the Ameritech affiliate ("ACI") seeking authorization to provide in-region interLATA service. The scope of my responsibilities include exchange access services, resold

telecommunications services, network interconnection, collocation and access to unbundled network elements. I have testified on technical interconnection matters in hearings conducted under the auspices of the Illinois Commerce Commission ("ICC"), Michigan Public Service Commission ("MPSC") and the Public Service Commission of Wisconsin ("PSCW").

2. I hold a Bachelor of Science degree in Electrical Engineering and Computer Science from the University of Illinois. For the past 26 years, I have held a variety of assignments in the engineering, marketing and regulatory departments of the Illinois Bell Telephone Company (now d/b/a Ameritech Illinois), the AT&T General Departments and Ameritech. Since 1973 I have been directly involved with network interconnection from an operational viewpoint. I have participated on teams implementing the ENFIA (Exchange Network Facilities for Interexchange Access) Tariffs, the FCC's Computer II and Computer III decisions, ONA, Expanded Switched and Special Access Interconnection (Collocation) and Ameritech's Customers First Plan.

3. In this affidavit, I will address the issue of whether it is technically practical for Ameritech Michigan to utilize its position as an incumbent local exchange carrier ("ILEC") providing a public switched network in Michigan to discriminate against other carriers in the provision of exchange access, resold services, facilities interconnecting networks or unbundled network elements, or

provide preferential service to itself or ACI. I will address this issue as it relates to the provisioning and maintenance of exchange access services, network interconnection, collocation, access to unbundled network elements and resold telecommunications services provided over Ameritech Michigan's public switched network. Mr. Mickens, Mr. Rogers and Mr. Mayer discuss in their affidavits the processes that Ameritech Michigan uses for the pre-ordering, ordering, provisioning, maintenance and repair, and billing of interconnection, collocation, network elements and resold services provided to ACI and other requesting carriers, and the reporting requirements that will enable carriers, the Commission and the MPSC to satisfy themselves that Ameritech Michigan is not engaging in any improper discrimination.

4. Based upon the facts that I describe below regarding Ameritech Michigan's public switched network and its plans for serving ACI and unaffiliated carriers, it is beyond question that, from a technical perspective, Ameritech Michigan cannot reasonably engage in a concerted plan to discriminate in favor of itself or ACI, or against other service providers. Furthermore, if it did attempt to engage in such discrimination, that discrimination would be easily detected.

5. Ameritech Michigan will generally not be able to discriminate in favor of ACI or against unaffiliated carriers, because Ameritech Michigan will provide ACI

and unaffiliated carriers with the same exchange access, network interconnection, collocation, unbundled network elements and resold services. Furthermore, these services and elements will be provided by Ameritech Michigan to ACI and other carriers using existing network facilities, systems and databases, and where applicable, the same service parameters, intervals, standards, procedures, and practices that Ameritech Michigan uses to serve retail customers.

6. Discrimination regarding these services and network elements is not practical because they are provided utilizing the facilities, switches and systems that were specifically designed to automatically provide nondiscriminatory service. Generally, Ameritech Michigan's network does not identify or segregate traffic or services of individual carriers. Rather, all categories of traffic -- local, intraLATA toll and interLATA -- arrive on Ameritech Michigan's public switched network in random order, are carried on trunks and loops intermingled with traffic from many carriers, and users are switched by local and tandem switches pursuant to standard software and routing tables. Under such circumstances, the prospect of conducting a program of concerted discrimination that is effective and remains undetected is wholly implausible.

7. To be successful, any such discrimination plan would require a significant reconfiguration of Ameritech Michigan's network and related systems,

including modifying or replacing a substantial portion of the generic software that drives its switches and systems. Such software changes would require the involvement of non-affiliated switching equipment manufacturers. Any such scheme would also require the coordinated participation of hundreds of Ameritech Michigan technicians. This kind of concerted discrimination is not only impractical, but assuming for the sake of argument it was attempted, would be obvious.

8. Ameritech Michigan's network is best described in terms of the attributes of its four major components. These four major components are Switching, Interoffice Transport, Local Distribution and Signaling, as depicted in Attachment 1 to my affidavit. In connection with my description of Ameritech's switching components, I also describe the steps we have taken to be operationally ready to provide unbundled switching network elements. As I noted above, operational readiness of all other checklist items is discussed by Messrs. Mayer, Rogers and Mickens.

9. Individually, none of these components constitutes a network. Collectively they make up Ameritech Michigan's public switched network, and are used to provide virtually all of the company's telecommunications services to consumers and other carriers. I will discuss the configuration of each of these components separately and will show that large scale discrimination in each

component is not feasible to implement and would be easily detectable in any event. Since discrimination in each component of the network is not feasible, discrimination in the combined network is also infeasible and, if attempted, would be easily detected. I will then address the infeasibility of discriminating in the provisioning of presubscribed interexchange carrier ("PIC") assignments and the maintenance and repair of services.

SWITCHING SYSTEMS

10. Ameritech Michigan employs 383 computer controlled switches manufactured by unaffiliated entities to provide both local and tandem switching and other switch based functions on its network. These switching systems include 25 AT&T 1AESSs, 33 AT&T 5ESSs, 20 Nortel (Northern Telecom) DMS 10s, 78 Nortel DMS100s or 100/200s, 21 Siemens EWSDs and 267 remote switching systems (RSSs) which subtend larger "host" platforms. In addition, Ameritech Michigan operates a number of tandem switching systems, including local tandems, access tandems and operator services tandems whose purpose is to connect switches to each other.

11. ACI has deployed two state-of-the-art Nortel DMS 250 tandem switches, one located in Detroit, Michigan and the other in Chicago, Illinois. Unlike end office switches or local tandems, these switches are equipped to interconnect with the local exchange carrier networks, including those of incumbent LECs,

new entrants and cellular carriers. They also handle originating and terminating interLATA transport for ACI's long distance services. Both of these switches are equipped to exchange traffic using the equal access protocols, contain advanced call management capabilities and are fully SS7 compatible. They also are equipped with advanced call routing and recording software, capable of supporting a variety of services and features, including: virtual network services; volume, distance, duration and capacity based rate structures; Wide Area Telephone Services, both inbound 800 and outbound; and international calls. Finally, each is equipped to support Advanced Intelligent Network ("AIN") based services utilizing ACI's own SS7 network and databases. These switching resources provide ACI with a robust service platform capable not only of providing improved versions of existing service concepts, but of customizing and expanding services to end users in a new and innovative manner.

12. Ameritech Michigan's computer controlled switches are designed to operate under stored program control utilizing "generic" software provided by the switch manufacturers. That is to say, when a customer dials a call, the call is handled by the switch under control of a software program that handles all like traffic in the same manner. For example, when a customer picks up his/her handset, the switch knows the customer is initiating a request for dial tone. The switch responds by causing the dial tone to be applied and prepares to

receive digits. This is accomplished by a software routine that regularly scans for off-hook conditions. These software routines are designed to handle all like traffic in a similar manner and to provide all comparable features and capabilities of the switch on a generic basis. They cannot easily be modified to differentiate based upon the identity of the customer or carrier involved. Any attempt by Ameritech to modify this core software would violate the manufacturer's warranty and would immediately be detectable by the switch vendor during routine switch servicing or during the next software upgrade. Such modifications could also jeopardize overall network reliability.

13. As I stated, the generic software that controls Ameritech Michigan's switches is developed and provided by the switch manufacturer and is proprietary to and controlled by that manufacturer. The software is designed to provide equal access and nondiscriminatory service to all traffic as required by existing legal and regulatory requirements. For example, AT&T (now Lucent Technologies) manufactured the switches that serve well over half of Ameritech Michigan's customers. Lucent does not provide within its generic software the ability for Ameritech Michigan or any other LEC to discriminate in the routing of local or tandem traffic or in the provision of any central office feature or service. To undertake such discrimination, Ameritech Michigan would have to obtain the assistance of Lucent in an extensive re-writing of its switch software. In

addition, due to the multiplicity of switch vendors in the Ameritech region, Nortel and Siemens would have to be included in the effort as well.

14. The generic switch software also controls the collection of all of the digits and the routing of the calls. The software used for routing of traffic in the switch is established by the manufacturers during switch design. Again, any attempt by Ameritech to modify the fundamental switch software to handle traffic of certain carriers differently would be detected by the switch manufacturers during software reloads.

15. Since Ameritech Michigan's switches do not currently have the technical capability to identify and treat differently exchange access, toll or local traffic of specific providers, Ameritech Michigan cannot reasonably discriminate in the provision of local or tandem switching functions regarding that traffic. For the same reasons, Ameritech Michigan is not technically able to discriminate regarding unbundled local or tandem switching, switching services provided in support of resold local exchange services and vertical features and other capabilities of its local and tandem switches, such as dial tone and telephone numbers.

16. Even if such differentiation among carriers were practicable, which it is not, any resulting degradation or enhancement would be immediately detected, not

only by the switch manufacturer but by the interconnecting carriers themselves. Carriers routinely deploy automatic test equipment and performance monitoring devices to provide general quality assurance functions. Any attempt to discriminate would be detected during routine testing. Moreover, such discrimination would also be identified in the parity reports described by Mr. Mickens.

OPERATIONAL READINESS TO PROVIDE UNBUNDLED SWITCHING

17. Unbundled local switching ("ULS") and unbundled tandem switching ("UTS") network elements are described paragraphs 78-89 of Mr. Dunny's affidavit. Although Ameritech has not received an order requesting these network elements, as I describe below, we are currently prepared to furnish unbundled local switching if and when such a request is made.

18. Ameritech developed its existing local and tandem switching network element offerings by building upon the unbundled port offerings originally included in Ameritech's Customers First Plan. The line-side and trunk-side ports offered in that Plan provided the capability for calls from end user customers of a competitive local exchange carrier to enter and egress Ameritech's switching matrix. This capability included line to line, line to trunk, trunk to line and, where feasible, trunk to trunk connections. The capability to add vertical features such as Call Waiting, Caller ID and Call Forwarding was also

provided. Therefore, since May 1995, Ameritech, from an operational perspective, has been capable of furnishing such unbundled switching capabilities. Additionally, Ameritech has developed the procedures and systems for the ordering, provisioning, maintenance and repair, and billing of that unbundled port offering. As I describe below, by building upon the original unbundled port offering, Ameritech has been able to successfully conform that product to the Act's and Commission's new unbundled switching requirements.

19. As part of the original product development process for unbundled ports, switch translations for the unbundled port service were initially tested in Ameritech's Services Integration Laboratory in Hoffman Estates, Illinois. These tests verified the functionality associated with the port offerings and their ability to fully operate in the end office switch types of all three manufacturers used by Ameritech. In addition to verifying the ability of these products to co-exist with other products and services housed within each switch, they were tested for their ability to make and receive different types of calls from different line types. Testing also was used to verify the correct performance of normal network functions such as call origination, call set up, answer supervision, and call disconnect. Finally, each switch was tested to assure that it properly recorded the appropriate billing details associated with each call made from an unbundled port.

20. These tests assisted the product teams in developing detailed methods and procedures for all aspects of the unbundled port offering. Service order processes were modified to accept orders for unbundled ports, methods and procedures were developed for writing service orders, and service representatives in the AIIS service center were given training on their use. Methods and procedures were also developed for downstream work centers such as the Recent Change Memory Administration Center ("RCMAC") and the Centralized Translations Group ("CTG"). Changes were implemented in Ameritech's Customer Information System ("ACIS") to facilitate billing for unbundled ports. Likewise, procedures were created in Ameritech's maintenance and repair centers to receive and process trouble reports should they occur.

21. Once the methods and procedures had been defined and the operations support systems modified to support the unbundled ports offering, the product team initiated a series of tests to confirm operational readiness. Ameritech employs two types of testing. The first type is "Silo" testing, which is conducted within the operations support systems or sub-systems to verify that a modification has been implemented and is working properly. It presumes that upstream systems have provided the appropriate data in the appropriate format at the appropriate time and verifies that the system properly performs the functions specified and forwards data to downstream systems as planned.

Each system or sub-system modification is tested by that system's development team.

22. The second type of test is integrated testing. It verifies the ability of the network as a whole to successfully handle the request for unbundled ports in an end-to-end fashion. During integrated testing, a series of ordering scenarios are prepared to exercise the entire system from order input through provisioning to completion and billing. Once the test service is actually established, the repair functions are verified. The next step is to verify that the product is billed according to specifications. The final phase verifies that the service is capable of being disconnected correctly. Upon completion of the final phase, the test is determined to be complete. Should the test fail at any point along the way, the point of failure is identified, the problem analyzed and corrected, and the entire test is started over. Thus, each function is tested both separately and collectively to verify performance of the total system. The unbundled port product was tested in this fashion during 1995. Both silo and integrated testing continue as the underlying systems are modified or enhanced.

23. Our development and testing experience with unbundled ports greatly facilitated our adaptation of that product into the unbundled switching network elements required by the Telecommunication Act of 1996 and as further defined in the Commission's First Report and Order in Docket 96-98. As

described in the product descriptions contained in Mr. Dunny's affidavit, Ameritech's existing unbundled switching offering incorporates several improvements to the original unbundled ports offering. The products' current capabilities now include: the ability to electronically order line-side and trunk-side ports, the ability to electronically activate, modify or deactivate vertical features associated with those ports, the ability to provide electronically daily usage feeds, and the ability to associate custom routing parameters with ports so as to direct calls on the ordering carrier's network as that carrier desires.

24. The basic ability to provide electronic access to the pre-ordering, ordering, and provisioning functions is provided using the same EDI and ASR interfaces developed to provide these functions for resold services and network interconnection. These existing electronic interfaces were modified to support unbundled switching. Once an order for unbundled switching has been received electronically, the handling of the service order by downstream systems closely mirrors the processes already developed for handling unbundled ports under the Customer First Plan.

25. The EDI interface is also employed to activate, modify or deactivate vertical features associated with a given line-side port or group of line-side ports. Vertical features can be activated at the time a port is ordered or at some later time at the carrier's discretion. Once received and verified, electronic orders

are sent to the downstream operations support systems supporting the desired function. For instance, an order activating Call Waiting is routed to the MARCH system which supports the RCMAC activity described earlier. Repair and billing records are then updated to reflect this change and the ordering carrier is provided electronic confirmation that the requested work has been completed.

26. The fact that a procedure already existed for providing daily usage feeds for resold services also facilitated the development of a daily usage feed capability for unbundled local switching. The daily usage feed provides the carrier with a copy of the Automated Message Accounting ("AMA") records created by the switch for calls requiring usage recording. All call detail recordings are transmitted to Ameritech's data processing centers by our end office switches. Call details are then sorted by carrier and the call information associated with a given carrier's unbundled switching is transmitted to each carrier requesting this service. This is similar to the process employed today for resold services.

27. The custom routing feature provides to carriers purchasing unbundled switching network elements, so far as the technical capabilities of the switch permit, the ability to control the routing of calls originated by unbundled switching line-side ports or incoming calls on unbundled switching trunk side ports. The customized routing function is described in paragraph 86 of Mr.

Dunny's affidavit. The carrier ordering custom routing can direct all calls from its end user customers to trunk-side ports associated with one or more trunk groups. The type and quantity of trunks and trunk groups to be established are determined by the carrier purchasing this network element. The appropriate routing can be determined by either the class of call or the destination digits as dialed by the end user. Once established, the routing tables associated with a given carrier's unbundled local or unbundled tandem switching network elements can be modified as the carrier grows or its network evolves.

28. Both unbundled local switching and unbundled tandem switching have been tested in Ameritech's Services Integration Lab. The product teams have modified existing methods and procedures and operations support systems to provide unbundled switching. Both the silo testing and integrated testing processes, originally begun as part of the Customers First Plan, continue to be used to verify that these new or modified procedures work and that ongoing system modifications perform as expected. Ameritech has expended considerable resources to provide unbundled switching, and it currently has the operational capabilities of receiving orders and furnishing the necessary provisioning, maintenance and repair, and billing.

INTEROFFICE FACILITIES

29. The second major component of the network, Interoffice Facilities, connects the switching systems of Ameritech Michigan that I described previously. Generically, these interoffice facilities are connected to switches to form what are called "trunk circuits." There are many categories of trunk circuits, including local trunks, operator trunks, toll trunks and Feature Group D trunks. A collection of trunks between the same two offices and having the same attributes is called a trunk group. Trunk groups may be used to carry traffic in only one direction or be designated as a two-way trunk group. Ameritech Michigan uses over two hundred thousand trunks in its network today.

30. These standard local, toll and Feature Group D Trunks are used to create Ameritech Michigan's interoffice network configuration. Attachment 2 to my affidavit illustrates two highly stylized network architectures. Figure 1 illustrates a direct trunking arrangement that connects 7 offices together. As can be seen, a total of 21 trunk groups would be required to connect these offices together.

31. Figure 2 in Attachment 2 introduces a tandem switch into this model architecture. As I pointed out earlier, a tandem switch is a switch which is used to connect switches to each other. Figure 2 shows that the addition of the

tandem switch reduces the number of trunk groups from 21 direct trunk groups to just 7 tandem trunk groups. The 7 trunk groups will tend to be larger and more efficient than the 21 trunk groups collectively. However, switching costs have increased since an additional switch, the tandem, has been added.

32. Attachment 3 to my affidavit shows a more typical design of a network which incorporates both tandem and direct trunking and shows high usage, intermediate and final trunk groups. This is more typical of the network architecture deployed by Ameritech Michigan. The high usage versus intermediate or final trunk routing demonstrates the principle of alternate routing, where multiple trunk groups can be employed to carry the peak traffic volume. If a single trunk route is employed between two switches, the number of trunks required is determined by the peak traffic between those switches.

33. Attachments 2 and 3 clearly demonstrate that trunk groups in Ameritech Michigan's public switched network concentrate traffic of the same type from many customers and carriers between offices. For this reason, traffic on a trunk group arrives on a random basis and is freely intermixed with other traffic of the same type. These trunk groups do not have the capability to identify and treat differently traffic of the same type of one provider versus traffic of another.

34. Sufficient trunks must be provided to meet the call blocking objectives established for that route. A typical call blocking objective might be to block less than one call out of one hundred attempts during peak activity. Depending on the volume of traffic, the call carrying capacity between two offices may well be substantially underutilized during the rest of the day. A high usage trunk group is designed to carry a substantial portion, but not all, of the traffic between two switches. Attachment 3 illustrates a relatively simple routing configuration. In attempting to route calls to the final destination, the high usage trunk group, labeled trunk group A, is the first choice of the originating switch, End Office #1. If trunk group A is fully occupied, then calls are routed to tandem #2 via trunk group B. Tandem #2 can then complete the call using trunk group F. If both the high usage and intermediate trunks are fully occupied, then the third choice for the end office is trunk group C, which connects to tandem #1. Tandem #1 could then complete the call via trunk group D, its first choice for the call, or via trunk group E to tandem #2 and on to trunk group F, the final route for this call. In this example, there are 4 different routes available to complete the call. In more complex networks, there are even more.

35. As can be seen from Attachment 3, not only is traffic of many of the interconnected carriers and customers intermixed on the same interoffice facility, but the facility chosen at any time may change depending on traffic

levels and facilities available at the time. The same local, toll and Feature Group D Trunks that Ameritech Michigan uses to carry interoffice traffic for its retail and interexchange carrier customers will be used to carry traffic of ACI or unaffiliated carriers between offices in Ameritech Michigan's public switched network, or between Ameritech Michigan's offices and the offices of ACI or an unaffiliated carrier. Thus, ACI's traffic will be intermixed on these trunk facilities on the same basis as end user customers' and unaffiliated carriers' traffic. For that reason, if service is degraded for one carrier, it is degraded for all. And for the same reason, if there is blocking between two offices, all traffic will be able to take advantage of alternate routing arrangements on the same non-discriminatory basis.

36. Thus, it is wrong to assume that the interoffice transmission facilities used by Ameritech Michigan to connect its switches to each other could somehow, on a call by call basis, be tampered with to degrade only calls of unaffiliated carriers or to improve the quality of calls handled for itself or ACI. One minute a transmission facility may carry a call for ACI, the next minute a call for AT&T and a minute later one for MCI. Further, these transmission facilities lack the capability to separately identify traffic of any individual carrier. Degrading interoffice service for one carrier would degrade service for all.

LOCAL DISTRIBUTION FACILITIES

37. Ameritech Michigan has established one or more wire centers in each of the exchanges it serves. Within a wire center, a main distribution frame (MDF) is installed to cross-connect the local switch to local distribution facilities or loops that connect end user customers to the network. In a typical end office configuration, the local cables enter the office through a cable vault and are terminated on special connecting blocks which protect the office's personnel and equipment from over voltage situations such as lightning strikes. It should be noted that some of Ameritech Michigan's central offices use a COSMIC main frame system in which equipment terminations and cable pairs appear on alternate horizontal rows and protection equipment is located in a separate area of the office.

38. From these wire centers, copper (and more recently, fiber optic) cables extend out to the business districts and residential neighborhoods served by that exchange. Attachment 4 to my affidavit depicts this type of local distribution layout. As local distribution facilities leave the central office they are typically carried on large cables that contain up to 2700 cable pairs, and gradually are distributed through the service areas on increasingly smaller cables. Most of the facilities eventually terminate at end user premises, where they are connected to a network interface device ("NID") on the end user customer's premises. Some of the copper wires have been equipped with subscriber

digital loop carrier ("SDLC") systems which combine or "multiplex" up to 96 communications paths from several different end users over a high speed digital facility to the central office.

39. Increasingly, Ameritech Michigan employs fiber optic-based subscriber loop carrier systems providing 2,000 or more voice grade transmission paths between a remote terminal and a central office. The current capacity of fiber optic transmission systems employing state of the art electronics is 129,000 circuits per fiber pair. As a general rule, SDLC or fiber systems are utilized when loop lengths greater than 2 miles are encountered and the existing copper cables have insufficient capacity for forecasted demand.

40. Sometimes, the cables leaving the wire center, which are called feeder cables, go directly to the buildings they serve. Other times, they go to apparatus designed to increase their utilization by cross-connecting them to other cables. These other cables, called local distribution cables, are fanned out through streets, alleys and backyards to reach individual homes and businesses in the area. A short piece of cable, called a drop, connects the local distribution cable to the NID on the end user's premises. The drop can be either strung on a pole or buried underground.

41. The important point illustrated in Attachment 4 is that local loops are normally concentrated on large cables in Ameritech Michigan's distribution and feeder systems. Cable pairs used to serve one end user customer are freely intermixed with cable pairs used to serve another. The same cable pair may be used one day to serve a retail customer of Ameritech Michigan and a day later used to provide an unbundled loop to AT&T, if it wins that customer. Further, the same cable pair is used to carry any traffic originating from or terminating to the end user access line involved, regardless of the carrier involved. At any point in time a cable pair may be carrying a local call through Ameritech Michigan's network, or an interLATA call to ACI, or an intraLATA toll call carried by MCI, AT&T or some other long distance carrier. As is the case with interoffice facilities, there is no ability for the local loop to handle a competitor's call differently than a call of Ameritech Michigan or ACI.

42. Ameritech Michigan will serve ACI and unaffiliated carriers using the same local distribution systems that it uses to provide service to its retail customers. Thus, ACI will use local loop facilities utilizing the same distribution and feeder systems as its competitors. Like those of its competitors, ACI's loops will be provided through cables and equipment that are connected with other cables capable of handling large numbers of loops on a single cable and will not be separately identified. When requested, both unaffiliated carriers and

ACI also will be provided access to Next Generation Digital Loop Carrier ("NGDLC") systems under the same rates, terms and conditions. Since cable pairs or transmission paths within Ameritech Michigan's distribution system are similar, ACI and unaffiliated carriers will receive the same local loop transmission quality as Ameritech Michigan's retail customers.

43. Not only will Ameritech Michigan use the existing loop and feeder distribution system to serve its retail customers, ACI and unaffiliated carriers, but specific loops in those systems are assigned by automated systems that do not recognize the identity of the requesting carrier or customer. These systems are: Dual Standard Operating Environment/Facility Assignment and Control System (DSF/FACS), Service Order Analysis and Control (SOAC), Loop Facility Assignment and Control System (LFACS) and Computer System for Mainframe Operations (COSMOS). They automatically assign loop facilities on a nondiscriminatory basis such as the time of receipt of the request and the transmission characteristics needed to provide the requested service.

44. The systems that assign and repair loops are automated, complex, interconnected and interrelated. Once an order has entered these systems, it is automatically handed off from one system to the other whenever possible. It is virtually impossible and impractical to attempt any type of discrimination or manipulation of the assignment process. In addition, any attempt to alter