of which is the Open Systems Interconnect (OSI) Common Management Information Services Element (CMISE) Common Management Information Protocol (CMIP) network management protocol. Electronic bonding allows a CLEC access to the same computer systems in the same real-time fashion as ILEC employees. Electronic bonding solutions are the most sophisticated and useful because, in certain applications, they can allow new entrants to approximate the same real-time access to the ILEC's functions as the ILEC itself enjoys. From the customer's perspective, interactions with a CLEC that has electronically bonded to the ILEC are indistinguishable from interactions with the ILEC. Furthermore, because electronic bonding links the CLEC's existing OSS system to that of the ILEC, the CLEC does not need to develop a new OSS to interface with the ILEC for a given function.

16. Less sophisticated automated access arrangements involve the transfer of data between computer systems in batches. These "batch transfer" solutions work much like electronic mail, but are much more rigorously structured in terms of format, syntax and vocabulary. File transfer protocol, perhaps the classic batch interface, transmits large amounts of data at scheduled and infrequent intervals.

17. Because NYT and the various CLECs agree that manual OSS solutions are not appropriate, the question then becomes: what automated OSS arrangements are satisfactory? The short answer is that each ILEC should adopt the automated interfaces and data formats adopted and approved by the relevant national standard-setting bodies or industry forums. The three principal groups are: the Ordering and Billing Forum (OBF) of the Carrier Liaison Committee; the T1 Committee; and the Electronic Communications Implementation Committee (ECIC). All three are sponsored by the Alliance for Telecommunications Industry Solutions

(ATIS) and accredited by the American National Standards Institute (ANSI). ILECs must adopt standardized systems for two reasons.

18. First, for CLECs that hope to compete in markets presently controlled by different ILECs, it is absolutely critical that interfaces are uniform. The costs of developing systems and software and of training necessary to use any particular ILEC's interface are substantial. This is why most ILECs try to unify their own systems, even across state lines. NYNEX, for example, generally has territory-wide OSS systems. A nationwide CLEC like MCI must be able to realize similar economies of scale. We can only do so, however, if the several large ILECs conform to nationally standardized interfaces and formats.

19. Second, the industry forums are well positioned to resolve which interfaces and formats are reasonably necessary and practical for each particular OSS function or sub-function. Different functions and services may create different OSS needs. While electronic bonding solutions -- with their real-time accessibility -- are essential for any function that is conducted while the carrier's service representative is actually speaking with the end-user (such as all pre-ordering functions), some sorts of batch transfer solutions might adequately serve competitive needs for other functions.

20. For both of these reasons, I agree with the FCC that "[i]deally, each incumbent LEC would provide access to support systems through a nationally standardized gateway." Local Competition Order ¶ 527. Consistent with this view, MCI is investing its development funds for OSS in the technical interface solutions developed through the industry forums. The FCC chose to rely on the carriers to agree to nationally standardized interfaces voluntarily. Regardless of the wisdom of that decision for purposes of implementing section 251

of the Act, I believe that the likelihood that the large ILECs and CLECs will reach voluntary consensus on nationally uniform interfaces will be sorely tested if the ILECs are allowed to offer in-region long distance services before such solutions are adopted. Because the time and additional capital investment required for CLECs to develop non-standard OSS interfaces represents a considerable barrier to entry, regulatory incentives toward standardization are critical.

21. While the industry forums have made substantial progress, they have not yet established standards for all OSS functions. In particular, they have not finalized interfaces and standards for the information exchanges that typically occur before a CLEC actually places an order with an ILEC. Although this process can and should be completed promptly, one still has to ask what an ILEC should be expected to do in the interim in order to satisfy section 271. Part of the answer is that the ILEC should not adopt a non-standard solution and refuse to conform to the standard when adopted. To the extent that standard-setting forums have not yet adopted standards for all functions, the ILEC should be expected to adopt the least costly interim solution that would give requesting carriers the same level of access to the ILEC's OSS functions as the ILEC itself enjoys. It is not reasonable for individual large ILECs to implement any interim solutions that would require CLECs to commit substantial resources of their own to access the ILEC's solution when equally adequate interim solutions can be devised that would prove less costly to the ILEC's would-be local competitors.

22. In short, an ILEC's OSS interfaces should be deemed satisfactory only if these conditions are satisfied: (1) Wherever there exists an existing industry standard, the ILEC must have adopted and implemented it; and (2) wherever an industry standard does not yet exist,

the ILEC must (a) enter into a binding contractual commitment (backed up by adequate contractual guarantees and regulatory penalties) to comply with industry standards as soon as possible (pursuant to a specified implementation schedule) and (b) offer and implement an interim solution that gives requesting carriers the same level of access that the ILEC's operational groups have to its systems, and that is as consistent as possible with expected industry standards.

23. Because OSS interfaces, like other software packages and operating protocols (e.g., WordPerfect and Microsoft Windows) are periodically updated and improved, conformance with industry standards requires adoption of the most advanced available specifications for a given standardized interface. For example, that would mean ILECs should presently be using the long-available EDI version 6.0 for ordering functions and should shortly transition to EDI version 7.0, recently approved by the Telecommunications Industry Forum and endorsed by the OBF.

24. The pro-competitive conditions I have set forth above are not unduly onerous to the ILECs. In fact, NYT has expressed its commitment to implementing industry standards for OSS as they currently exist and as they are developed in the future. Unfortunately, however. NYT 's actions have not matched its promises thus far.

25. As I will describe in detail below, NYT currently uses several systems for OSS functions that are unique and proprietary to NYT. Such proprietary systems create significant industry variations, creating challenges for training CLEC representatives to service customers across multiple service areas. Imagine training personnel on numerous different systems just to perform simple number reservations or provide next available service due dates to a wide range of customers. Industry standard, system-to-system interfaces, as well as

pre-provision of lists of non-customer specific data needed prior to ordering, are critical for CLECs to properly serve their customers. Without such interfaces, CLECs will be severely limited in their ability to compete in the local market.

Operational Readiness

26. The adoption and implementation of an appropriate OSS interface, configured to appropriate specifications, is a necessary condition for the development of local competition, but it is far from sufficient. The interface merely governs the communication between the ILEC and CLECs. The theoretical capacity for rapid and efficient communication between the carriers is of minimal utility if either the ILEC lacks the internal systems necessary satisfactorily to effect the functions a particular interface is designed to support, or if the ILEC has not provided the CLEC with the software and training needed to make efficient and effective use of the OSS access provided. Therefore, before an ILEC can establish that it will be able to provide unbundled network elements or resale services in a competitively acceptable manner, it must demonstrate both that its OSS interfaces are linked to downstream systems that can provide the necessary functionalities in a prompt and trouble-free fashion and that it provides adequate training and support to competing local carriers. I will discuss these two points in order.

27. Once the ILEC has devised, tested, and implemented its interfaces, it must design, develop, and test business processes adequate to carry out the relevant inter-carrier business functions. Because this is a critical point that NYT substantially downplays, I would like to elaborate.

28. OSS is not just about inter-carrier interfaces. To the contrary, as mentioned earlier, local exchange carriers must, and do, have advanced OSS capabilities to run

their internal operations that have nothing do with the particular LEC's relationship to other carriers. Some of these processes will work essentially the same way whether the function at issue is performed for an end-user or a CLEC. For example, when a customer orders new service from a reseller that requires a line to be turned up, the reseller should basically stand in the shoes of the ILEC: if the interfaces between the two carriers work as they should, the fact that the pre-ordering and ordering processes are mediated through a new carrier (the CLEC) should not change the manner in which the ultimate provisioning function occurs. That is, the provisioning function itself should look much the same regardless whether the end-user takes that service directly from the ILEC or from a reseller of the ILEC's service.

29. But there are other ways in which the new CLEC-ILEC dynamic does impose new requirements on the ILEC's downstream systems. For example, when a CLEC resells an existing service to an existing ILEC customer, the processing of that order requires a communication between the ILEC's ordering and billing systems that the ILEC does not otherwise engage in for itself. In other words, the entire process of migrating an existing line with existing vertical services is one that the ILEC did not perform in a pre-resale world. Similarly, when a CLEC orders unbundled elements, the new challenge for the ILEC is not only to receive and understand that order (this is where the ordering interfaces come in), but also to carry out that order. Before the 1996 Act, the ILECs did not have OSS systems in place to effectuate the unbundling of, say, local switching.

30. Assuming that an ILEC has deployed an appropriate interface and has adequately tested downstream systems that can accommodate all foreseeable demand in a nondiscriminatory fashion, it remains independently critical that the CLEC is able to use the

ILEC's interfaces effectively. One may be tempted to assume that this is the CLEC's own problem, and that the ILEC has no responsibility to train or support the new entrants. From the perspective of system development, that is a mistaken view. The ILECs in general, and certainly the BOCs, drive the process. They select the interface, tailor its specifications and vocabulary, and control the timing of its implementation. Moreover, as the staff of the Wisconsin Public Service Commission has explained, because a CLEC will have to rewrite its own OSS interfaces whenever an ILEC modifies its interfaces, "a company with significant market share [like the BOCs] can extend that market share" merely by revising its OSS specifications.[3] This is true even where an ILEC nominally adopts an interface approved by an industry forum because most industry-standard interfaces are loosely defined to allow individual carriers flexibility in tailoring their own specifications. Consequently, just as the market requires the manufacturer of a complicated software package to provide initial and ongoing customer support, regulators must ensure that the ILECs provide CLECs with adequate training and assistance -- including complete and intelligible manuals, pull-down on-screen menus, and telephone help lines where necessary.

31. The process of ensuring that the business processes linked to a given OSS interface work as planned is itself lengthy and requires careful planning and testing. After our systems are developed and deployed, it is necessary to conduct "integration" testing -- full end-to-end trials designed to make sure that the systems can communicate properly with each other to accomplish the intended results in the designed manner. After integration testing has been successfully completed, it is time to put the systems into actual competitive use, supporting "live"

[3] Memorandum Re: Matters Relating to Satisfaction of Conditions for Offering InterLATA Service, Docket No. 6720-TI-120, at 11 (Wisc. PSC, Feb. 6, 1997).

customer transactions. Even once this stage of actual implementation is reached, however, operational readiness is not necessarily accomplished. It is almost inevitable that the early stages of actual use will reveal design and operating "bugs" that will require additional trouble-shooting and system modification.

32. Experience proves the critical point that a successfully tested OSS system is not the same thing as an operationally and commercially satisfactory system. The access arena shows why. For example, Bell Atlantic has been re-engineering many of its OSS systems since 1995. In November 1996, it implemented the second phase of the new release of its Subscription System, which processes PIC changes. Bell Atlantic assured MCI and other interexchange carriers that its new version had satisfied thorough internal testing before being introduced for commercial use. Nonetheless, the new system has been disastrous in actual operation. For example, it has failed to process numerous properly inputted PIC change orders, has delayed the processing of many others for a week or longer, and has returned incorrect responses to MCI orders that, among other things, incorrectly report existing subscriber accounts as nonexistent or closed. Furthermore, Bell Atlantic's OSS lacked controls to identify the processing problem quickly. As a result, weeks passed before MCI was even notified that Bell Atlantic was not properly effectuating customer PIC changes. Needless to say, these system failures have caused substantial customer confusion and dissatisfaction. They have also imposed losses on MCI that could amount to millions of dollars in lost revenue. Bell Atlantic has acknowledged that these problems are directly due to errors in its OSS systems. However, it remains uncertain whether all errors have been corrected yet.

33. As the foregoing discussion should make clear, from an OSS perspective,

paper promises are not enough to ensure effective real-world application. Because deploying "operationally ready" OSS is a substantial and time-consuming undertaking, there is a real difference between saying a system is ready and actually using it to provide services in a commercially satisfactory way. In light of the innumerable potential glitches and pitfalls that must be eliminated prior to commercial availability, one cannot know how well things can be provided until they are supported by a full and varied track record of having been provided. In short, OSS must be in real competitive use (not just business trials), subject to auditing and monitoring of key performance indicators and/or operation performance indicators before OSS can be deemed to be operationally and competitively satisfactory.

34. The fact that a system can handle a few, or even a few dozen orders, per day does not mean that it will withstand the rigors of full commercial implementation. One useful benchmark is in the long-distance market. There, for example, NYT can handle literally thousands of PIC change orders per day. Those orders are processed seamlessly and directly, and without manual intervention. Unless and until NYNEX's systems can process a similar volume of local service orders, its OSS cannot be deemed "operationally ready."

II. Summary of Problems With NYT's OSS

35. Given this background, for reasons I will explain in detail, I believe NYT's application is patently inadequate from an OSS perspective. NYT is far from offering non-discriminatory unbundled access to OSS functions, providing access to such functions, or ensuring that other checklist items can be provided in a timely, reliable, nondiscriminatory fashion, and in volumes adequate to meet demand. In my view, NYT's application falls short both because it employs inappropriate interfaces and because it does not demonstrate that the

interfaces and supporting systems are operationally ready. Although NYT has repeatedly promised access to OSS functions on a parity basis -- and its draft FCC application and the Miller affidavit restate those promises -- it has thus far failed to deliver.

36. At the present time and for the foreseeable future, all orders for resale and unbundled network elements involve some degree of manual processing by NYT. As I will elaborate below, for resale service, NYT must manually input MCI customer information into its Service Order Processor (SOP) after it is received by NYT's Graphical User Interface (GUI). Although orders for unbundled network elements can be placed directly through the GUI interface, the ultimate provisioning function is done manually. Moreover, NYT does not provide 24 hour per day, seven day per week (24 x 7) access, even manually, to some vital OSS functions. Unless and until such provisioning and access is up and running, NYT is not offering OSS functions to MCI on a basis equal to what NYT itself is using. In a competitive environment, this is unacceptable.

37. In addition, many of the interfaces NYT purports or promises to employ are plainly unsatisfactory to meet competitive needs because (a) the interfaces do not provide the type of interactivity that meets real competitive demands; and/or (b) they impose excessive demands on CLECs to adapt their own systems to interfaces that may prove entirely unique to NYT. Even where NYT's interfaces may be viewed as adequate, they often cannot be deemed operationally ready. Mr. Miller's affidavit describing the state of NYT's OSS development is woefully short on the details of implementing the systems he describes.

38. Ensuring that an OSS system is fully operational requires a great deal of coordination between NYT and CLECs. Because CLECs such as MCI depend on the incumbent

LEC for access to its OSS functions, technical training and support is critical. As I will describe in detail below, NYT has not provided this support adequately thus far. NYT has not yet done full implementation testing of many important components of its OSS.

39. In his affidavit, Mr. Miller does not seriously dispute these facts. He offers a general description of NYT's OSS functions, along with some blanket assertions that the systems are available for use by the CLECs. He offers very little in the way of specifics, and does not answer some vital questions, such as the following: When, if ever, will NYT commit to offering true electronic bonding for certain OSS functions such as pre-ordering? How many CLECs are actually using the systems described in his affidavit and with what degrees of success? How long have competitors been using these systems? How does the response time for CLECs differ from that provided to NYT itself? In order to prove that its OSS system is ready for commercial use, NYT must demonstrate that it is actually being used at commercially reasonable levels. Mr. Miller has not even attempted to claim this in his affidavit. In order to test the adequacy of NYT's OSS, several additional questions must be asked of Mr. Miller: how many CLECs actually use the system? How many orders for resale and unbundled network elements have been processed through the system? What is the capacity of the system? What is the reliability of the system? Is the system available on a 24 x 7 basis? Are there adequate escalation and trouble handling procedures in case problems arise? Do the OSS systems have the capacity to handle future increased demand in a timely manner and has NYT submitted plans demonstrating how it can increase the capacity of its systems to meet such demand? NYT provided none of this information in its submission. In fact, NYT does not even attempt to claim that its OSS can handle reasonably expected commercial volumes of transactions. NYT states only that it expects

the order rate for resold lines will "increase throughout the year" and that it "is continuing to evaluate and address capacity issues." Miller Aff. ¶¶ 30, 31.

CLEC Electronic Access to NYT OSS Functions

40. In his affidavit, Mr. Miller states that NYT offers CLECs two basic mechanisms for electronic access to NYT OSS functions: an electronic gateway known as Direct Customer Access System ("DCAS"), and separate interfaces utilizing a Network Data Mover ("NDM") system. Miller Aff. ¶ 6. Based on my personal experience and the experience of other MCI employees, it is clear that the electronic access methods to NYT functions are not operationally ready to handle reasonable commercial transaction volumes. NYT does not dispute this; it merely asserts that the appropriate interfaces and methods are under development. See, e.g., Miller Aff. ¶ 15. Moreover, NYT concedes that its own systems are outdated. Mr. Miller states that "[m]ost NYNEX New York retail representatives are provided with OSS access via a '3270 emulation,' or 'dumb terminal' interface - an older technology requiring a higher level of expertise and specialized training." Miller Aff. ¶ 33. Measuring NYNEX's current OSS offerings against antiquated benchmarks is irrelevant to the question whether its OSS offerings are sufficient in today's new environment. Significantly, however, even NYT's "dumb" terminals provide faster response times than the systems being offered to CLECs.

41. Mr. Miller describes DCAS as an "electronic gateway which offers a secure means for providing LECs with access to OSS functionality." Miller Aff. ¶ 7. DCAS offers one or more of three electronic formats to provide LEC access to NYT OSS systems: Electronic Interface Format (EIF), Web Graphical User Interface (Web GUI), or Electronic Data Interchange (EDI). Several of the statements in Mr. Miller's affidavit concerning the availability,

efficiency, and universal nature of these formats are extremely misleading, if not downright incorrect. I will address each of them in turn.

Electronic Interface Format

42. Mr. Miller describes NYT's implementation of EIF as using File Transfer Protocol to transfer entire files electronically between NYT and the CLEC. Miller Aff. ¶ 7. This is merely a batch transfer-type system which is wholly inadequate for certain OSS functions, such as pre-ordering. As I will describe more fully below, effective pre-ordering requires real-time access to NYT computers while the customer is on the line.

43. In my opinion, NYT's EIF system is not a proven order entry and provisioning system. Since November 1996, there have been several major changes in the EIF specifications provided by NYT. Despite a great deal of effort on MCI's part, MCI has had great difficulty in even obtaining connectivity on a test basis to NYT's EIF system. Thus, the system is not ready for use by CLECs today in any commercially viable sense.

44. More fundamentally, Mr. Miller misleadingly claims that EIF is a "universal" data format which happens to be used by NYT retail operations to access certain OSS functions. Miller Aff. ¶ 7. The clear implication of Mr. Miller's statement is that the EIF used by NYT is some sort of industry standard. This is emphatically not the case: EIF is a messaging format that is unique to NYNEX. Mr. Miller tacitly concedes this when he states that "our [NYNEX's] EIF is currently before the Electronic Communications Implementation Committee (ECIC) (a working committee of the Telecommunications Industry Forum (TCIF) within the Alliance for Telecommunications Industry Solutions (ATIS) as the basis for an industry national standard for a LEC/Incumbent Local Exchange Carrier (ILEC) interface." Miller Aff. ¶ 7

(emphasis added).

45. The crucial -- although conveniently unstated -- point here is that NYNEX's EIF format is not an industry standard, and is unlikely ever to be accepted as one. A subcommittee of the ECIC recently evaluated NYNEX's EIF in a proceeding designed to consider the merits of several data format and transport alternatives submitted to it through the industry-wide forum process. On March 7, 1997, the ECIC released its findings, and NYNEX's EIF finished dead last. This rejection of NYNEX's EIF by a group of neutral professionals is compelling testimony to its inadequacy.

46. Mr. Miller also states that NYT's EIF is "compliant" with T1M1 data format "attributes," a standard "recommended by a committee organized under ATIS," when used to support access to repair and maintenance functions. Miller Aff. ¶ 7. This reference is grossly misleading. Practically any data format is compliant with some T1M1 "attributes," but the plain fact is that NYNEX's EIF has not been endorsed or approved by the T1M1 committee.

Web-Based Graphical User Interface

47. NYT offers a GUI interface based on World Wide Web protocol technology for certain OSS functions. Miller Aff. ¶ 7. This "Web GUI" interface provides a means of communication between CLEC computers and NYT's system. NYT's Web GUI interface is riddled with both design and implementation problems, just a few of which I will describe more fully below. In my opinion, the Web GUI interface is not an effective OSS solution for New York, either immediately or for the long term.

48. NYT's Web GUI is a mechanized system that NYT has designed to provide pre-ordering, order entry, and trouble handling for resale and some unbundled network

elements. Based on World Wide Web protocols, the GUI interface theoretically allows a CLEC to place service orders from CLEC premises directly to NYT. This is far from a true electronic link, however. Once a request is transmitted via the Web GUI interface to NYT for processing, the information must be converted into the NYT proprietary EIF messaging interface described above. Thus, for service orders, the Web GUI is essentially an electronic mail message to NYT, which then must manually input the information into its own order entry system in order to process the order. This is neither efficient nor an industry standard.

49. Moreover, World Wide Web protocol-based applications using hypertext, like NYT's GUI, do not provide for obtaining data in a real-time, on-line manner for sales and service representatives who have customers waiting on the phone, as would be the case for all pre-ordering tasks during a sales or service call with residential and small business customers. The GUI system requires navigation through numerous screens or windows to obtain responses to simple inquiries. It also does not provide the data requested or necessary error messages dynamically and directly back to the user without manual steps through additional screens and wait time at final response review screen. Thus, the GUI is emphatically not a real-time on-line system. Even in comparison to an admittedly outdated mainframe on-line system like NYT provides its retail service representatives, NYT's Web GUI interface is deficient. An efficient real-time system is vital to MCI, which will be able to compete effectively only if it can communicate directly and quickly with NYT's systems to provide information to its customers while they are on the phone ordering service or reporting a problem. Because the GUI is not a real-time application, significant delays often occur in the return of data requested from the GUI.

50. Mr. Miller significantly overstates the convenience of NYT's Web GUI

system. Although the Web GUI is accessible through Web browser software, Mr. Miller ignores the numerous steps a CLEC must take in order actually to use the Web GUI system. For example, each individual employee user -- not each company -- must establish an account and obtain a security card in order to access NYT's Web GUI system. NYT charges $62.00 for each individual user to obtain these credentials. This per-person charge effectively penalizes CLECs with larger sales and customer service operations and is therefore discriminatory. Because of the numerous steps involved and NYT's excessive bureaucracy, it takes literally weeks for NYT to enable a single user to access the GUI system. When the time comes for large numbers of MCI service representatives to have access to the GUI system, NYT will not be able to process the requests for authorization with any degree of promptness. Moreover, NYT offers little to no support to CLECs in setting up and using the Web GUI system. NYT's own published instructions contain many errors. NYT has published help desk telephone numbers, but calls to the help desk frequently go unanswered. When calls to the help desk are answered, the representatives on the line have been singularly unhelpful in addressing specific problems. In addition, the Web GUI response times are extremely slow. The system requires multiple screens and commands to enter simple requests and receive simple responses. MCI has experienced situations where the response time for a single query via the GUI exceeded fifteen minutes.

51. There are also a host of specific operational problems with NYT's implementation of its Web GUI system. I will describe only a few of those problems here. First, the GUI does not support a shared manager/work group function for ordering. Orders placed through the GUI can only be viewed by the customer service representative who keyed the order into the system. For example, if a customer contacts a CLEC's customer service center to place

an order or to make changes to an existing order, that customer can only be assisted by the representative who handled the original request. If one order is partially completed, a different representative cannot retrieve and continue work on that order.

52. The Automatic Number Identification (ANI) reservation provides resellers access to available telephone numbers in New York for new customers or customers wanting to change their telephone number. NYT's GUI system only allows MCI to view one available ANI. NYT's representatives, in contrast, can view three ANIs per request. This limitation impedes MCI's pre-ordering process.

53. For pre-ordering, the Web GUI system does not provide table references of USOC codes. Pull-down menus in plain English must be provided as a reference tool for MCI representatives to process order requests and trouble tickets. The system is designed such that it is unnecessarily cumbersome for processing multiple feature orders and multiple order changes within the same order. Moreover, the GUI does not allow for partial disconnects within a multiple line account and the pre-ordering section of the GUI does not allow for consecutive number reservation for multiple line accounts.

54. Even when an MCI service representative manages to access the GUI and obtain order confirmation, service dates have not been met. Without some level of confidence that orders placed through the GUI will actually be processed on time, MCI is at an extreme competitive disadvantage. Moreover, new installation due dates provided through the GUI are significantly later than those offered to NYT customers. There can sometimes be as much as a four day difference.

55. Although the Web GUI may, in time and if the various problems described

above are resolved, suffice for smaller CLECs, it is hardly a "scalable" approach to supplying pre-ordering and other capabilities to larger CLECs. The GUI does not provide "real-time" response to MCI's inquiries. Even older mainframe systems, such as those NYT uses for its retail operations, generally provide better real-time responses to inquiries than this GUI application.

56. More fundamentally, the GUI system is specific to NYNEX. Any such system does not offer a parity solution for OSS. Rather than providing true system-to-system communications on a real-time basis, the GUI requires manual intervention and translation from the GUI to MCI's internal on-line systems, resulting in dual data entry and greater likelihood for order entry errors that negatively effect customer service. Furthermore, ILEC proprietary applications such as NYT's GUI are very difficult to integrate into MCI's own applications, given incompatibilities in software and operating systems. For example, the operating system used by NYT's GUI differs from MCI's operating systems used by its sales force and other representatives. This may require MCI to purchase duplicate hardware and software in order to access both NYT's proprietary system and MCI's own system.

EDI

57 Mr. Miller also alleges that an alternative data format, known as Electronic Data Interchange ("EDI"), has been available to resellers since October 8, 1996. Miller Aff. ¶ 7. EDI allows resellers to interface directly with the NYT DCAS gateway and submit orders via electronic mail. While NYT's commitment to EDI is certainly a step in the right direction, it should be clear that NYT's EDI interfaces have not yet been tested and are not at all operational Even if those systems were operational, the EDI interfaces are planned to support only a small fraction of the products and services to which CLECs need access.

58. For example, resale services that are unavailable through NYT's EDI interface include: ISDN Basic Rate Interface, ISDN Primary Rate Interface, private lines, intraLATA frame relay, centrex services, and PBX/DID trunks. Not all directory listing services will be available via EDI. For unbundled network elements, NYNEX's EDI does not support orders for loops, line switch ports, trunk switch ports, or network interface devices.

59. Although NYT claims to have submitted its implementation of this EDI interface to TCIF for consideration as an industry standard, NYT's format has not been accepted by TCIF or any other body as an industry standard. The industry is collaborating on a standard, and it is extremely unlikely that NYT's home-grown EDI system will be adopted as the benchmark. NYT's EDI interface for ordering does not comport with the industry standards set forth at the Ordering and Billing Forum (OBF), thus making it extremely difficult for MCI to establish an application-to-application interface with NYT. Until NYT adopts the industry standards for pre-ordering and ordering, MCI will be at a significant competitive disadvantage due to the problems and restrictions associated with NYT's interfaces.

CLEC Access to Specific NYT OSS Functions

Pre-Ordering

60. The pre-order function involves the exchange of information between carriers prior to, and in anticipation of, the placing of an actual order. Seamless pre-ordering systems are critical to MCI's ability to compete in New York local markets. For a new entrant, the pre-ordering phase is the most critical point for determining whether a sale will be made. The pre-ordering period is the time when MCI makes its first contact with a prospective customer; failure to provide prompt, accurate information will leave many prospective MCI customers with

a fatal first impression.

61. NYT lists six key sub-functions that are common to both resale and unbundled network element orders: (1) access to customer service records (CSRs); (2) the ability to select and reserve telephone numbers while the end-user is on-line; (3) determination of features available to the end-user; (4) the ability to select an order due date and to schedule any necessary outside work while the end-user is on-line; (5) address validation; and (6) loop qualification for ISDN. Miller Aff. ¶ 9. NYT lists two additional pre-order functions that are unique to unbundled network elements: (7) channel facility assignment information; and (8) common language location identifier code validation.

62. This list is incomplete. In order for local competition to be fully viable, additional pre-order sub-functions must be electronically supported. The additional six are: (9) block of direct inward dial (DID) numbers inquiry; (10) telephone number's trouble history; (11) directory listings information (including yellow page header, directory provider, directory cut-off date, etc.); (12) DID trunk inquiry; (13) available primary interexchange carrier (PIC) inquiry; and (14) unbundled network element service provider inquiry.

63. These missing functionalities are presently being addressed at the OBF and are important. The last one, for example, is essential in an environment in which multiple service providers might be providing different pieces of a single customer's service -- where, say, carrier A furnishes the loop, carrier B furnishes the switching capability, and carrier C furnishes directory assistance services. By overlooking this functionality, NYT's pre-order OSS fails to present all information that a CLEC requires at the pre-ordering stage in order to convert an existing customer to another CLEC. Thus, only NYT has visibility into the existing unbundled network

architecture for a customer that converts between CLECs. This is discriminatory.

64. More significantly, the OSS interfaces NYT intends to employ for the various pre-order sub-functions do not satisfy fundamental competitive needs. The overwhelming business requirement for a pre-ordering interface is the ability of the ILEC system to provide real-time, up to date information, on a customer within seconds of an electronic request -- while the customer is on the line. Anything short of this key capability fails to meet customers' expectation for customer service from any service agency whether it be credit, insurance, catalog, or telephone services. NYT should provide CLECs with direct access to pre-ordering data until such time as true electronic bonding solutions become approved and available. NYT has failed to do this.

65. Mr. Miller does admit that loop qualification for ISDN, channel facility assignment, CLLI code validation, and access to "certain" CSRs require "some degree of manual processing by a NYNEX New York wholesale representative." Miller Aff. ¶ 10. Unless and until CLECs such as MCI have direct electronic access to all important OSS functions, NYT's OSS is discriminatory.

66. Mr. Miller's statement that "[t]he data made available to LECs in connection with performance of pre-order functions is obtained from the same underlying OSS and databases utilized by NYNEX New York for retail offerings" tells only a small part of the story. Miller Aff. ¶ 12. It is equally important to CLECs to have access to the same data with the same response times as NYT's own representatives. Moreover, the manner in which CLECs have access to the underlying data is also extremely important.

67. Mr. Miller states that "pre-order functionality is provided" through either

EIF or the Web GUI interface. Miller Aff. ¶ 9 (emphasis added). Mr. Miller's affidavit merely sets forth the various pre-ordering functions required, but nowhere does he state that the pre-ordering systems actually work. Moreover, he provides no figures regarding the volume of transactions that the system has handled or its future capacity, or whether the systems have even been tested. Finally, NYT provides no basis on which to conclude that its pre-order interfaces (such as they are) are operationally ready. At present, therefore, there can be no assurance that these interfaces will work satisfactorily in an actual competitive environment, because up until now they simply have not worked properly.

Ordering and Provisioning

68. Mr. Miller states that CLECs can submit service orders via its DCAS system, using EIF or the Web GUI interface. Reseller CLECs also purportedly can submit orders using the EDI interface. Miller Aff. ¶ 14. He concedes, however, that "[a]t present, most service orders require manual intervention by a NYNEX New York wholesale representative. NYNEX New York is in the process of implementing modifications to reduce the instances where manual intervention is required." Miller Aff. ¶ 14.

69. Mr. Miller's statement is troubling on a number of fronts. First, his admission that "most" service orders of any type require manual intervention confirms that NYT has not yet created a parity environment. Mr. Miller offers no specifics concerning those orders that can be placed electronically because it is MCI's understanding that none can. In meetings with NYT personnel, MCI employees have been given the impression that <u>all</u> -- not merely "most" -- NYT orders require some degree of manual intervention. This manual intervention must occur between two critical steps in the business process: between receipt of a CLEC order, or LSR, and

submission of the order into the provisioning queue. Although Mr. Miller claims that its SOP system executes CLEC and NYT transactions with equal priority, that sidesteps the issue: if, as is emphatically the case, CLEC orders are delayed in reaching the SOP queue in comparison to NYT's own service orders, then MCI is at a grave competitive disadvantage. Once an order actually reaches the provisioning queue, we trust that NYT's systems will handle that order on a non-discriminatory basis. The problem, however, is that the manual processing required on the front end of that transaction delays orders from even reaching NYT's provisioning queue in a timely manner. As the volume of orders increases, this surely will create a bottleneck in the process, resulting in significant backlogs for resale orders. This will not allow for a fully competitive local marketplace in New York.

70. Second, Mr. Miller states that NYT is "in the process" of implementing some unspecified "modifications" to address the shortcomings in NYT's order entry system. He does not discuss the planned modifications in any detail, nor does he offer a timeframe for the availability of these modifications. Third, NYT is unwilling to commit to eliminating the need for manual intervention. Mr. Miller states only that NYT is attempting to "reduce" such instances. This is plainly insufficient. Miller Aff. ¶ 15.

71. Mr. Miller also mentions a number of "business rules" that must be adhered to in order for the ordering process to work. Miller Aff. ¶ 13. These business rules are not fully documented or communicated to CLECs, and NYT's training for CLEC personnel has not addressed these rules.

72. One NYT business rule that imposes an unnecessary restriction on CLECs' ability to do business concerns migration-as-specified orders. In contrast to virtually all of the

other ILECs, and contrary to the industry standards approved by the OBF, NYT will not accept migration-as-specified orders. Migration-as-specified means simply telling the ILEC the services the customer wishes to purchase, and having the ILEC provide those services. NYT will not accept such orders. Instead, it requires a CLEC to list which services a customer wishes to add to those he already obtains from NYNEX, and which services the customer wishes to drop. In fact, NYT's migration-as-specified practice requires MCI to access a customer's CSR while the customer is on the line. This imposes an additional unnecessary cost on MCI, as well as an unacceptable delay in the pre-ordering process. In MCI's experience, it can take up to one minute and forty seconds to access a CSR. This far exceeds the response time NYT provides its own representatives, and therefore puts MCI at an extreme competitive disadvantage. Also, if a business customer is interested in having a CLEC take over only a part of its existing service, that customer would have no interest in reviewing with the CLEC all of the existing local services they wish to continue to receive from NYNEX. And, of course, customers with multiple lines must go through this pointless exercise for each of their lines. NYT places an unnecessary and anticompetitive burden on resale by refusing to offer migration-as-specified.

73 Another example of an anticompetitive NYT business practice is its refusal to allow CLEC customers to make changes in their orders until after NYT has first sent a rejection, query, or confirmation of the original order, a process that can take as long as 24 hours. This is a recipe for delay and customer dissatisfaction. It will lead to CLECs' paying for work a customer has made clear it does not want, simply because NYT refuses to permit prompt corrections or cancellations through the EDI interface. This limitation in NYT's system is discriminatory and should be corrected. NYNEX's own retail operations are not required to wait

for a service order before correcting or changing an order. Once again, I know of no other ILEC that imposes this anti-competitive restriction on resale.

74. Another discriminatory resale practice involves order confirmation. When NYNEX's retail operation places an order, it receives a confirmation listing all working telephone numbers from that order which will be installed on that due date. But NYT refuses to give CLECs the same order confirmation information. Given that much of the ordering information is entered manually, the possibility of error is high. Without order confirmation, it is inevitable that many CLEC customer orders will not be correctly filled. The result will be customer dissatisfaction with the CLEC. There is no reason for NYT not to provide this confirmation to the CLEC. It should acknowledge which working telephone numbers are part of a confirmed order.

75. MCI's experience in attempting to place resale orders has demonstrated that NYT's ordering system is riddled with problems. For example, although the Web GUI and EDI systems return Firm Order Confirmations (FOCs) to MCI electronically, notification that orders are completed is accomplished manually via fax. NYT has regularly failed to provide completion faxes on the dates specified by the FOCs. When MCI employees inquire regarding this problem, they are told that the manual fax system is simply overloaded. This is a critical business issue, because several customers have been converted without MCI's knowledge, resulting in billing errors and an inability to provide trouble handling to those customers. Moreover, NYT has missed the due dates on all MCI customer test accounts. If NYT cannot handle the small volume currently processed by MCI, it will be impossible for NYT to handle larger commercial volumes.