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**BEFORE THE ARIZONA CORPORATION COMMISSION**

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Commissioner  
**WILLIAM A. MUNDELL**  
Commissioner

Arizona Corporation Commission

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**IN THE MATTER OF U S WEST  
COMMUNICATIONS, INC.'S  
COMPLIANCE WITH SECTION 271 OF THE ) DOCKET NO. T-00000B-97-238  
TELECOMMUNICATIONS ACT OF 1996 )  
)  
)**

**MCI WORLDCOM'S STATEMENT OF POSITION**  
**ADDRESSING OSS REQUIREMENTS**

In accordance with the Memorandum issued by David A. Motycka, Acting Assistant Director, Utilities Division, dated August 25, 1999, MCI WorldCom, Inc. ("MCIW") on behalf of its regulated subsidiaries submits its statement of position on Operational Support Systems ("OSS") requirements. Previously MCIW submitted its responses to the questions posed by the Commission in its procedural order issued June 8, 1999. MCIW incorporates those responses to the questions posed in the June 8, 1999 procedural order to the extent relevant here. MCIW will repeat some of the information that is relevant to this statement of position when addressing OSS requirements below.

**INTRODUCTION**

U S WEST Communications, Inc. which is an incumbent local exchange carrier ("ILEC") and a Bell operating company ("BOC") under the federal Telecommunications Act of 1996 ("federal Act") must provide nondiscriminatory access to OSS that includes the systems, information, and personnel that support network elements or services offered

for resale. This access is integral to the ability of competitors to enter and compete with the incumbent. Access to OSS must sufficiently support each of the three entry strategies established by the federal Act: interconnection, UNEs, and resale. OSS access must not favor one entry strategy over another.<sup>1</sup> (MI, para. 133.)

Sufficient and completed national standards exist for the exchange of information and the provision of basic local exchange services between U S WEST and competitive local exchange carriers (“CLECs”). These OSS requirements address all functions MCIW currently requires to compete in the local market. However, while the existing national standards are a good start, MCIW supports the continuing efforts of the standards setting organizations. MCIW has attached to this statement of position as Attachment 1 a presentation entitled *Summary of Industry Guidelines for Operations Support Systems Functions* as updated by the Ordering and Billing Forum (“OBF”) on May 14, 1999. As stated in Attachment 1, the development of national standards for OSS is an evolutionary process. The existing national standards will likely be improved and expanded as new services are created. The telecommunications industry, including the ILECs and the CLECs, has established national standards that designate the interfaces the ILECs and CLECs should adopt to allow standardized access to the ILECs’ OSS functions, which are the OSS requirements MCIW will address here. (For a description of the standards setting bodies, see attachment 2.)

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<sup>1</sup>In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Michigan, CC Docket 97-137 (August 19, 1997) (“Ameritech Michigan Order”), ¶ 133, hereinafter referred to in the text as “MI, para. \_\_\_

## OSS REQUIREMENTS

### FCC Requirements

The guidelines for OSS for BOCs have been established in the Federal Communications Commission's ("FCC") local competition order and in its various 271 decisions. In LA II<sup>2</sup>, the FCC stated that it "ha[d] provided clear guidance on the standards and legal obligations for the provision of OSS. We do not believe there is serious dispute about most of these standards." (LA II, para. 91.)

As stated in the Introduction, U S WEST must provide nondiscriminatory access to OSS (which includes the systems, information, and personnel that support network elements or services offered for resale). This access is integral to the ability of competitors to enter and compete with the incumbent. Access to OSS must sufficiently support each of the three entry strategies established by the act: interconnection, UNEs, and resale. OSS access must not favor one entry strategy over another.<sup>3</sup> (MI, para. 133.)

It is necessary to consider all of the automated and manual processes that a BOC has undertaken to provide access to OSS functions. This necessarily includes: point of interface for the competing carrier's OSS to interconnect with the BOC; any electronic or manual processing link between that interface and the BOC's internal OSS (including all necessary back office systems and personnel); and all of the internal OSS (or "legacy

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<sup>2</sup> *In the Matter of Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLata Services in Louisiana*, CC Docket No. 98-121, *Memorandum Opinion and Order* (Released Oct. 13, 1998) ("Second BellSouth Louisiana Order"), hereinafter referred to in the text as "LA II, para. \_\_\_\_".

<sup>3</sup> *In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Michigan*, CC Docket 97-137 (August 19, 1997) ("Ameritech Michigan Order"), ¶ 133, hereinafter referred to in the text as "MI, para. \_\_\_\_".

systems") that a BOC uses in providing network elements and resale services to a competing carrier. (MI, para 134.)

Generally speaking, there must be a 2-part inquiry. First, it must be determined whether the BOC has deployed the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions and whether the BOC is adequately assisting competitors to understand how to implement and use all of the OSS functions available to them. Second, it must be determined whether the OSS functions that the BOC has deployed are operationally ready, as a practical matter. (LA II, para. 85; MI para. 131.)

Under the first part, the BOC must demonstrate that it has developed sufficient electronic and manual interfaces to allow competing carriers to access all of the necessary OSS functions. For those functions that the BOC accesses electronically, it must provide equivalent electronic access for competing carriers. A BOC must provide competing carriers with the specifications necessary to modify or design their systems in a manner that will enable them to communicate with the BOC's legacy systems and any interfaces utilized by the BOC for such access. The BOC must provide competing carriers with all of the information necessary to format and process their electronic requests so that these requests flow through the interfaces, the transmission links, and into the legacy systems as quickly and efficiently as possible. The BOC must disclose any internal "business rules," including information concerning the ordering codes that the BOC uses that competitors need to place orders through the system efficiently. The BOC must ensure that its OSSs are designed to accommodate both current and projected demand. (MI, para 137.) Under the second part, it must be determined whether the OSS functions provided

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by the BOC are actually handling current demand and will be able to handle reasonably foreseeable demand volumes. Actual commercial usage is the most probative evidence. Carrier-to-carrier testing, independent third-party testing, and internal testing can also provide valuable evidence, but are less reliable indicators of actual performance than commercial readiness. (MI, para. 138, LA II, para. 86.)

For those OSS functions that are analogous to OSS functions that the BOC provides to itself in connection with retail service offerings, the BOC must provide competitors with access that is equal in terms of quality, accuracy, and timeliness. The OSS functions associated with pre-ordering, ordering and provisioning for resale services, repair and maintenance for both resale and UNEs, and daily customer usage for billing all have retail analogues. (MI, para. 139, 140; LA II, para. 87.)

For those OSS functions that have no retail analogue, such as the ordering and provisioning of UNEs, the BOC must demonstrate that the access it provides offers an efficient competitor a meaningful opportunity to compete. LA II provides a good example of how these guidelines are applied in actually evaluating the OSS offered by a BOC. (MI, para. 141; LA II, para. 87.)

As the FCC has noted, the best evidence of whether OSS functions are operationally ready is “actual commercial usage.” (LA II, para. 86.) However, as this Commission knows, there is extremely limited competitive local exchange service within U S WEST’s service territory in Arizona. In the absence of commercial usage, the FCC then considers: carrier-to-carrier testing, independent third-party testing, and internal testing. (LA II, para. 86.) In this case, for most (if not all) of U S WEST’s OSS, there is no actual commercial usage, nor has there been any carrier-to-carrier testing. Thus, U S

WEST is left to rely on either third-party testing or internal testing to satisfy this obligation. However, this Commission should note that the FCC has never approved the results of an OSS test that was administered internally by the BOC. Therefore, it is clear that a third-party test is required.

The FCC has stated clear directives on what a competent OSS test plan should contain. First, the test must show that U S WEST's OSS can handle commercial volumes of orders. In denying BellSouth's second § 271 application in Louisiana, the FCC stated:

BellSouth's internal testing results do not address whether the ordering functionality for UNEs is nondiscriminatory. In particular, BellSouth fails to provide any end to end testing of its interfaces for UNEs. Given the low volume of actual commercial usage, it is crucial to have testing results that provide reliable and predictable results of how BellSouth's systems would respond to actual commercial usage. (LA II, para. 141.)

In order to fulfill this FCC directive, any testing must use volumes that closely approximate anticipated commercial usage of its OSS.

Second, the FCC has noted the importance of third-party participation in OSS testing. The FCC has determined that "as a general matter, third-party review of a BOC's OSS functions is relevant, although not required, to determine whether its systems are operationally ready." (MI, para. 216.) The FCC noted that "an independent evaluation of OSS functions from an objective third-party may provide additional support demonstrating the operational readiness of those OSS functions that have otherwise only undergone internal testing by the incumbent." (MI, para. 216.) The FCC has cautioned that "[t]he persuasiveness of a third-party review is dependent, however, on the conditions and scope of the review itself." (MI, para. 216.) The FCC emphasized that "third-party reviews should encompass the entire obligation of the incumbent LEC to

provide nondiscriminatory access, and, where applicable, should consider the ability of actual competing carriers in the market to conduct business utilizing the incumbent's OSS access." (MI, para. 216.) The review should be conducted by an independent, technically skilled third party, which would develop the test, conduct it, monitor the results, oversee corrections and retest, and report on the test.

Third, a third-party test must adequately test the full range of OSS functionality it must make available to its competitors. As noted earlier, the FCC has established a two-part test regarding the operational readiness of the incumbent's OSS stated as follows: (a) "whether the BOC has deployed the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions" and, (b) "whether the BOC is adequately assisting competing carriers to understand how to implement and use all of the OSS functions available to them." (MI, para. 136.) As to the former, testing must encompass end-to-end testing of all of the basic OSS functions, including pre-ordering, ordering, provisioning, maintenance and repair, and billing, as well as all of the key elements of these functions, like local number portability ("LNP"), 911, and directory listings. As to the latter, the issue of whether US WEST is adequately assisting competing carriers should be examined by testing how the BOC manages and internally supports its relationship with carriers. Key elements of the relationship include interface development, network design and interconnection planning, instructions for interface use, assistance with system administration issues and change management procedures." (MI, para. 137.)

BellSouth claimed that testing the capacity of its OSS is a sufficient test of OSS functionality in its second application, but the FCC rejected it. In its comments on the BellSouth application, the Department of Justice (“DOJ”) noted:

System capacity, while important, is but one of the components essential to adequate wholesale support processes. While system capacity tests are significant, they are insufficient to demonstrate adequate performance of the end-to-end process.<sup>4</sup>

Fourth, CLEC input is critical to the success of any OSS testing. Input from all industry participants is necessary on any test plan that may be used to determine the adequacy of U S WEST OSS.

Fifth, the RBOC Test Plan must prove that the methods that the RBOC proposes for collocation and combining UNEs are viable at commercial volumes. A test plan without this critical element is fatally flawed and will, standing alone, be grounds for the FCC to deny any future 271 application. Again the FCC provides pertinent guidance:

[An RBOC] must prove the efficacy of its collocation arrangement [as a method for combining UNEs] in order to demonstrate that, as a legal and practical matter, BellSouth can ‘provide ... unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service’ and in a manner that allows competitors to accommodate both current and projected demand for unbundled network elements and combinations of unbundled network elements. BellSouth’s refusal to heed the requirement, explicitly stated in the *BellSouth South Carolina Order*, that BellSouth provide such proof through either commercial usage or testing is grounds for denial of BellSouth’s section 271 application.<sup>5</sup>

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<sup>4</sup> *In the Matter of Second Application By BellSouth Corporation* (CC Docket No. 98-121), *Evaluation of the Department of Justice* (August 19, 1998), at 36.

<sup>5</sup> *Second BellSouth Louisiana Order*, ¶ 166. Here, the FCC sends a clear message to U S WEST – and this Commission – that refusal to heed explicitly stated requirements in previous FCC Section 271 Orders is grounds for denial of any U S WEST Section 271 application.

## OSS EVALUATION PROCESS

To determine if the OSS access that U S WEST provides to CLECs is adequate and nondiscriminatory, MCIW recommends that the Commission identify the interfaces, functionalities, systems, methods, and practices used by U S WEST to compare to those provided to CLECs by U S WEST. MCIW recommends that the following process should be followed:

### *i. Step 1: Identify and Define Functionalities.*

Before any testing can commence, there must be an understanding of “what should be tested.” To be able to do that, the OSS functionalities that must be provided by U S WEST to CLECs for meaningful competition to exist in Arizona should be identified and clearly defined. This step will create a clear definition for the independent tester of what actually should be tested. MCIW recommends that both the OSS functionalities U S WEST provides to itself and to CLECs should be tested.

An example of why this step is so critical may be helpful. Various U S WEST OSS status reports claim that “flow-through” of various types of CLEC orders has been deployed for some time. However, U S WEST freely admits that the definition of the term “flow-through” that it uses is at odds with the definition of flow-through that the FCC and most of the telecommunications industry employs. The FCC has defined flow-through as involving “orders that [U S WEST] processes electronically through its gateway and accepts into its back office systems without manual intervention (*i.e.*,

without additional human intervention once the order is submitted into the system).”<sup>6</sup> U S WEST, however, persists in maintaining, contrary to the FCC’s definition, that CLEC orders which undergo human intervention in the form of a “cursory review” (which include each and every CLEC order) are “flow-through” orders. Under the FCC’s definition, however, U S WEST has failed to deploy any flow-through capabilities.

Additionally, it is impossible to develop a test plan for a function if it is not clear what the function includes. This first step of clearly defining OSS functionalities will provide the foundation upon which the testing of U S WEST’s interfaces can be designed.

In addition to identifying the necessary OSS functionalities, MCIW recommends, as discussed later in these comments, that performance measures for those functionalities be identified. Once the functionalities are sufficiently identified, performance measures will provide the objective and quantitative indicators to allow the Commission and third-party tester to assess the quality of the functions that U S WEST provides to CLECs. Absent those performance measures, the Commission and tester will have difficulties in deciding “how good is good enough”.

***ii. Step 2: Evaluate what the ILEC Provides to Itself***

Once the necessary functionality is clearly identified and defined, the next step is to evaluate what OSS access U S WEST provides to itself. In order to test this standard, it is necessary to understand the manner in which U S WEST provides the identified OSS functionality to itself. Without this understanding, it is impossible to determine if the

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<sup>6</sup> In the Matter of Performance Measurements and Reporting Requirements for Operational Support Systems, Interconnection, and Operator Services and Directory Assistance, FCC Docket No. 98-56,

functionality that U S WEST provides to CLECs is equivalent to what U S WEST provides to itself. Simply put, you must know what U S WEST provides to itself before you can conclude that what U S WEST provides to CLECs is at parity with what U S WEST provides to itself. Any test plan, therefore, must include an investigation and evaluation of the manner in which U S WEST provides OSS functionality to itself.

Apart from the previously mentioned quantitative and objective analysis of performance results, some qualitative investigation of the functions that U S WEST provides itself will also be required. For example, when a U S WEST customer service representative retrieves and reviews a customer service record (“CSR”), what type of information is contained in that record? As another example, how many steps are required for a U S WEST customer service representative to place an order for an additional feature? These activities do not easily lend themselves to quantitative assessment. Nevertheless, such processes designed by U S WEST for CLECs may be discriminatory. The testing and investigation, therefore, must not be limited to only what can easily be measured.

***iii. Step 3: Evaluate What the ILEC Provides to CLECs***

The third testing step, once the tester has determined what U S WEST provides itself, is to investigate and evaluate the OSS functions that U S WEST provides to CLECs. The investigation should evaluate the OSS functions that U S WEST provides to CLECs and that relate to the interconnection, unbundled network elements and combinations thereof, resold services and collocation items that CLECs will require of U S WEST. The investigation should include preordering, ordering, provisioning,

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Notice of Proposed Rulemaking (Released April 17, 1998) at ¶ 72; see also, In the Matter of In-Region,

maintenance, repair and billing OSS functions for the above items. The investigation should make use of test scenarios for the transactions that CLECs will typically require from U S WEST.

**iv. Step 4: Compare for parity the functions provided to the ILEC and to the CLECs**

Only after both the OSS functions that U S WEST provides to itself and the OSS functions that the U S WEST provides to CLECs have been evaluated and understood can a comparison of the two be made. Where performance results have been generated, the comparison should include statistical testing. For functions or activities where performance results cannot be produced, it will be necessary to draw conclusions through more qualitative means such as inspection or relative conclusions of “better” or “worse”. In any event, the comparisons should be designed to answer the question of whether U S WEST is providing CLECs with equivalent access to its OSS functions.

**iv. Step 5: Evaluate OSS capacity**

It is not enough that U S WEST is providing access to its interfaces. An ILEC “must demonstrate that it is presently ready to furnish [access to operations support systems] in the quantities that competitors may reasonably demand and at an acceptable level of quality”.(MI para. 110.) The test performed as part the evaluation, therefore, should also include an investigation of the capacity of U S WEST’s systems and processes to handle CLECs’ needs for OSS functionality. The capacity investigation should include an evaluation of both the manual and mechanized processes that U S WEST uses to provide CLECs with OSS access, and must not be limited to only the

mechanized processes used in OSS access. The FCC defines OSS to include collectively, the “systems, databases and personnel...that are used by the incumbent LEC to support telecommunications services and network elements”.(MI para. 29.) That definition would necessarily include any manual process that the ILEC employs in providing OSS access to CLECs. The capacity of the manual processes must therefore be considered in any investigation of ILEC overall OSS capacity.(MI paras. 194, 196.)

**v. Step 6: Evaluate OSS training and documentation**

When the FCC investigates whether access to an ILEC’s OSS is available as both a legal and practical matter, one of the factors it will consider is the documentation and information that the ILEC provides to allow the CLEC to develop its half of the OSS interface. Specifically the FCC requires that BOCs provide competing carriers:

- the specifications necessary to instruct them on how to modify or design their systems in a manner that will enable them to communicate with the BOC's legacy systems and any interfaces utilized by the BOC for such access;
- all of the information necessary to format and process CLECs’ electronic requests so that these requests flow through the interfaces, the transmission links, and into the BOCs’ legacy systems as quickly and efficiently as possible; and
- any internal "business rules", including information concerning the ordering codes that a BOC uses that CLECs need to place orders through the system efficiently. (MI para. 137.)

The evaluation of the U S WEST’s interface should include a determination of the adequacy of the information U S WEST provides to CLECs. A failure to provide the

required information, or the provision of inadequate information, could render U S WEST's OSS unavailable as a practical matter. Not having the information needed for a CLEC to develop its side of the interface would result in U S WEST's interface being just as unavailable as if there were no interface at all. The above mentioned information is necessary to allow CLECs to efficiently and effectively interconnect with U S WEST interfaces and OSSs, and as such, the adequacy of that information should be evaluated as part of this test.

***vii. Establish change management and software certification processes.***

Often problems with interface performance operation can be avoided with adequate notice to the CLEC of changes in the ILEC systems and documentation or through testing of software versions before initiation. CLECs should be involved early on in the introduction of any change or new software that will affect their ability to conduct preordering, ordering, provisioning and other OSS functions. Third-party tester KPMG found that a software certification process was absent from BA-NY's processes and developed one, it also tested BA-NY's existing change management process and found that it was not being followed. These discoveries led to two new measurements, still being developed, that will monitor compliance with these processes.

**DOJ Recommendations**

The Commission should carefully consider the analyses of the DOJ provided in the various 271 proceedings brought before the FCC. Those analyses interpret the federal Act and various FCC decisions. The DOJ analyses can be found on the Internet at:  
Bell South 271 applications (SC, LA, LA-II):

<http://www.usdoj.gov/atr/public/comments/sec271/bellsouth/bellsouth-meta.htm>

Ameritech 271 application (MI):

<http://www.usdoj.gov/atr/public/comments/sec271/ameritech/ameritech.htm>

SBC 271 application (OK):

<http://www.usdoj.gov/atr/public/comments/sec271/sbc/sbc.htm>

### **U S WEST'S Internal Measurements and Performance Standards**

The reporting of performance data has many benefits as recognized by the FCC.

The FCC summarized those benefits when it stated:

We also believe performance measurements and reporting requirements will provide an important incentive for incumbent LECs to comply with the statutory nondiscrimination and just and reasonable requirements because competing carriers will have access to information detailing an incumbent LEC's performance. Because this access to information increases the risk of detecting statutory violations, incumbents will have an additional incentive to meet the statutory requirements. In a competitive environment, market forces will tend to ensure that wholesalers provide quality service to their buyers. Here, where competition is largely absent, performance measurements and reporting requirements may increase incumbent LECs' incentive to comply with their statutory obligations.

Performance monitoring reports should also reduce the need for regulatory oversight by encouraging self-policing among carriers. In the first instance, incumbent LECs can review the performance reports and correct any deficiencies in their performance that they detect. Additionally, competing carriers can review the performance reports and assess whether they indicate possible statutory violations. Competing carriers can then use this information as a basis for discussion with the incumbents to resolve performance disputes. Should resort to the complaint process become necessary, the information contained in these performance monitoring reports can facilitate timely and fair resolution of the complaints.<sup>7</sup>

The Commission should look to U S WEST's own internal measures and performance standards to ascertain if CLECs are receiving non-discriminatory access to

U S WEST's OSS and back office systems. U S WEST is providing monthly reports under the terms of MCIW subsidiaries' interconnection agreements entitled "U S WEST Communications CLEC Report for     (CLEC name)     - AZ". These reports are provided as confidential information under the terms of the various interconnection agreements. The reports purportedly provide measures of Resale activities, LIS Trunks, Unbundled Loop, Interim Number Portability, Collocation, Billing, Systems, Center Access, and Network Performance. However, the reports frequently state "not applicable" or "under development" in the data columns for U S WEST or reflect that the data is "blocked out" for U S WEST and the aggregated CLECs.

The parties should review these confidential reports to determine if the present reporting is adequate to determine the quality of service U S WEST provides to itself. In the event the reports are inadequate, as contended by MCIW, the parties should also address, at a minimum, what additional measures are required and what actual information or data should be provided by U S WEST for items marked "not applicable", "under development" or that is blocked out, in order to determine if CLECs are receiving nondiscriminatory access to U S WEST's OSS.

### **Carrier-to-Carrier Performance Standards Issues**

Carrier-to-carrier performance standards are an important ingredient in determining whether U S WEST is meeting its nondiscrimination and adequate service obligations for OSS. Without clear, well-defined performance measures and standards the determination of whether U S WEST is meeting its nondiscrimination obligations must rely upon anecdotes, and hyperbole. Performance standards bring needed

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<sup>7</sup> *Performance Measurements NPRM*, ¶¶ 15 – 16.

objectivity to the review process and allow all parties to have the same understanding of what constitutes acceptable performance.

CLECs require essential facilities and services from a monopoly supplier who is also the CLEC's largest competitor – U S WEST. The FCC recognized the CLEC's precarious situation when it stated, “[i]ndeed, the [CLEC] has nothing that the [ILEC] needs to compete with the [CLEC], and has little to offer the [ILEC] in a negotiation.”<sup>8</sup> Left unchecked, monopolists like U S WEST will strive to protect their monopoly and maximize profits – often at the expense of the public interest and competition. The FCC recognized that a monopoly would act to protect its monopoly when it stated:

Because an incumbent LEC currently serves virtually all subscribers in its local serving area, an incumbent LEC has little economic incentive to assist new entrants in their efforts to secure a greater share of that market. An incumbent LEC also has the ability to act on its incentive to discourage entry and robust competition by not interconnecting its network with the new entrant's network or by insisting on supracompetitive prices or other unreasonable conditions for terminating calls from the entrant's customers to the incumbent LEC's subscribers.<sup>9</sup>

To check the anti-competitive tendencies of the ILECs, Congress included provisions in the federal Act to ensure that ILECs did not favor their retail operations over CLECs in the provision of services and facilities. Those provisions took the form of nondiscrimination obligations for interconnection,<sup>10</sup> access to unbundled network elements<sup>11</sup> and resold services.<sup>12</sup>

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<sup>8</sup> *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, FCC 96-325 (rel. Aug. 8, 1996) (emphasis added) (“First Report & Order”). FCC’s First Report and Order; ¶ 134.

<sup>9</sup> First Report & Order; ¶ 10

<sup>10</sup> 47 U.S.C. § 251 (c)(2).

<sup>11</sup> 47 U.S.C. § 251 (c)(3).

<sup>12</sup> 47 U.S.C. § 251 (c)(4).

However, the imposition of the nondiscrimination obligation alone is insufficient to ensure that U S WEST meets its obligations. It is also necessary to define for all of the interested parties what it means to be providing nondiscriminatory service and to establish the mechanisms that would allow objective determinations of whether U S WEST is meeting its obligations. The Commission must also determine what are U S WEST's comparable retail services or elements for interconnection and unbundled network elements.

In the Arizona Consolidated Arbitration Proceeding, this Commission continues to address performance measures, standards and reporting. The parties have recently filed pleadings addressing both the agreements the parties have reached as well as describing where disagreements remain regarding performance measures, standards and reporting.

Performance standards should include well-defined measurements, statistically valid testing, reporting requirements and remedies for noncompliance that will help control any ILEC thoughts of subjecting CLECs to any competitive mischief. Properly developed measurement and reporting mechanisms can deter anticompetitive ILEC activity, and make such actions readily apparent and will allow for quicker resolution. MCIW, jointly with other parties, has filed comments addressing performance standards that it will repeat here. Moreover, the Commission has taken official notice of the portion of the consolidated arbitration docket addressing performance standards in this proceeding.

The business rules for implementing these measurements should be completed for third-party testing. The testing should determine whether these measurements are being

implemented as agreed to by CLECs. The test should focus on the comparative performance issues without skewing either CLEC or ILEC results. Business rules should be established before hand, with CLEC participation to ensure that the third-party tester is able to replicate the data reports.

In addition to nondiscriminatory service, U S WEST should be providing service to CLECs that is also adequate. Adequate service and nondiscriminatory service are not necessarily the same thing. Service can be adequate but discriminatory, or nondiscriminatory but inadequate. If U S WEST provided primary exchange service to CLECs for resale to CLEC customers within five days 90% of the time which is considered adequate and provided the same service to its customers within five days 95% of the time, then U S WEST would be providing primary exchange service to CLECs that is at the same time adequate but discriminatory. Additionally, if U S WEST provided primary exchange service to CLECs for resale to CLEC customers within five days 60% of the time and provided the same service to its customers within five days 60% of the time, then U S WEST would be providing primary exchange service to CLECs that is at the same time inadequate but nondiscriminatory. Any service quality rules need to ensure that U S WEST provides services to CLECs that is both nondiscriminatory and adequate.

The notion of nondiscrimination would necessarily require a comparison of the manner in which U S WEST provides services and facilities to CLECs to the manner in which it provides those same services to itself or to its affiliates providing local service.

**Statistical methods should be used to determine if U S WEST is meeting its nondiscrimination obligations.**

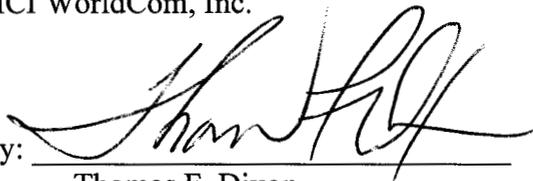
When U S WEST produces performance data for the services and facilities that it provides to CLECs and for the services and facilities that it provides to itself, it will be necessary to determine if the two sets of data indicates that discrimination is present. If there are differences in the data, it is important to know whether the differences are a result of random chance or as a result of systematic differences in the manner that U S WEST provides services and facilities to a CLEC. Any rule needs to consider whether it is appropriate to apply statistical methodologies when analyzing the two sets of data and determine which methodology is appropriate.

**U S WEST OSS DEFICIENCIES**

Because MCIW's technical expert, Carol Beaupre, is unavailable to provide current input on U S WEST's OSS interfaces, MCIW cannot comment on deficiencies at this time, but will do so upon Ms Beaupre's return.

Dated: September 3, 1999

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# Summary of Industry Guidelines for Operations Support Systems Functions

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*Developed by the ATIS-Sponsored Ordering & Billing Forum*

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Updated: May 14, 1999

**Attachment 1**

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# Overview

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- **Overview of the Alliance for Telecommunications Industry Solutions (ATIS).**
- **Overview of the Ordering and Billing Forum (OBF).**
  - » **Mission**
  - » **History**
  - » **Structure**
  - » **Process**
- **Role of OBF in Addressing Issues for Access to Operations Support Systems (“OSS”) for Local Competition.**
- **Specific OBF Committee Involvement.**
- **Summary of OBF Work.**



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## **ATIS Mission**

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- **Timely resolution of national and international telecommunications issues;**
- **Initiate and maintain flexible, open industry forums to address technical and operational issues;**
- **Information source to its members; and**
- **Promote industry progress with minimal regulatory intervention.**

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## ATIS Scope

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- **Sponsors 9 Committees/Forums.**
- **2500+ participants/500 companies.**
- **Membership: North American (U.S., Mexico & Canada) and World Zone 1 Caribbean telecommunications service providers, resellers of those services, enhanced service providers and manufacturers.**



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# OBF Mission

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- **To provide a forum for customers and providers in the telecommunication industry to identify, discuss and resolve national issues which affect ordering, billing, provisioning and exchange of information about access service, other connectivity and related matters.**



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## OBFI History

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- **Established in 1985 for ordering and billing of access services.**
- **Mission and scope expanded by consensus to include local competition issues in May 1995.**
- **First local competition issues introduced at that time.**
- **Throughout its history, OBFI has resolved over 1300 issues.**



# Seven OBF Standing Committees

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## Structure of the OBF:

- **Billing (BLG) Committee**
- **Directory Services Committee (DSC)**
- **Ordering and Provisioning (O&P) Committee**
- **Message Processing (MSG) Committee**
- **Subscription (SUB) Committee**
- **Telecommunications Services Ordering Request (TOR)**
- **SMS/800 Number Administration Committee (Not addressing local competition issues)**



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# OBF Process

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- **Participation: 500+ representing 90+ companies**
- **Meeting Frequency: quarterly in week-long General Session; Interim meetings scheduled to meet work load**
  - » Activity virtually on-going
- **Nature of Outputs: design of or changes to business processes which include:**
  - » Specific interface guidelines
  - » Informational requirements

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# Issues

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- **Introduced and championed by forum participants**
  - » Business problem explained
  - » Supporting details provided
  - » Desired resolution described
- **Criteria for Issue Acceptance**
  - » National in Scope
  - » More than one interest group impacted
  - » No solution exists
- **Issues prioritized, scheduled on published agendas, worked in open committee meetings, and documented in notes**
- **Resolutions reached through consensus process**



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## **Issue Resolution Process**

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- **Two stages of closure, Initial and Final, provide the industry ample safeguards and periods for review, input and alteration of a resolution**
- **An issue usually takes multiple meetings from the time it is first discussed to reach final resolution**
- **Amount of work has been massive**
- **Most OBF participants have other responsibilities at their companies**

## **Resolution Implementation Expectations**

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- **Based on history, implementation is recommended at the first step of closure called “Initial Closure”**
  - » Not possible with referred issues
- **Implementation is voluntary but there is an expectation of good faith participation in reaching resolutions**
- **Companies need to contact other companies to confirm and coordinate implementation of the resolutions**



# **OBF Committees' Involvement In Local Competition OSS**

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## **Process**

## **OBF Committee Involved**

**Pre-Ordering**

**O&P/TOR**

**Ordering/Provisioning**

**O&P/TOR/SUB/DSC**

**Billing**

**BLG/MSG**

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## Other ATIS Forum Involvement

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- **Network Interconnection and Interoperability Forum (NIIF) - repair and maintenance**
- **Telecommunication Industry Forum (TCIF) Electronic Data Interchange (EDI) Committee - data modeling**
- **TCIF's Electronic Communication Implementation Committee (ECIC) - communications platforms**



# Inter-Forum Liaison Created for Ordering OSSs

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- **OBF Committees are responsible for the business process flows, interface guidelines, and informational requirements**
  - » Create Local Service Ordering Guideline (LSOG) and Local Service Request (LSR) forms
  - » LSR Version 4 due for release February 1999
- **The EDI Committee is responsible for some data modeling**
  - » LSR Version 4 (March, 1999) will be included in EDI Version 10 (June 1, 1999)
- **The ECIC suggests communications platforms to the OBF (e.g., TCP/IP, SSL3, OSI)**

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## The Joint OBF/TCIF Process

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- Liaisons attend each others' meetings while issues are being discussed
- OBF works an issue to closure and produces industry support interface specifications that include field identifiers, data elements, usage rules, etc.
- OBF then refers it to the EDI Committee
- Questions may flow back and forth
- EDI models the data, prepares a guideline.
- The guideline is balloted (i.e., voted on by TCIF member companies) and approved

# **Modification and Adaptation of Existing Business Processes**

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- **Work to support local competition in other areas has been accomplished by modifying existing processes**
- **Much guideline work completed is stand alone and requires no other group's input before it can be used**
- **Where other non-OBF groups are needed, those relationships exist and are being utilized to facilitate the needed updates**



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# Summary of OBF Work

- **Pre-Ordering**
- **Ordering**
- **Provisioning**
- **Billing**

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# Summary of Work: Pre-Ordering

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- **Under discussion since May 1996**
  - » Work on ordering began first (deemed a higher priority)
- **Customer Service Information issue is now complete**
  - » Reviewed requested data elements to determine which are required vs. requested, priority for implementation, etc.
  - » Created specifications for companies desiring to exchange data via fielded format
  - » CSI issues were included in LSOG Version 4
- **Transition Information/Loss Alert/Pre-Order Service Configuration requirements were included in LSOG Version 4**



# Summary of Work: Pre-Ordering

<u>Requirement</u>	<u>OBFL Status</u>	<u>Date Closed</u>	<u>LSR Version</u>	<u>EDI Release</u>
Customer Service Information	Final Closure	04-24-98	4	10
Telephone Number Inquiry & Reservation	Final Closure	11-07-97	3	10
Feature/Service Availability	Final Closure	11-07-97	3	10
Scheduling Availability & Reservation	Final Closure	11-07-97	3	10
Address Validation	Final Closure	11-07-97	3	10
Block of DID Numbers Inquiry & Reservation	Final Closure	11-07-97	3	10
UNE Service Provider Inquiry	No Impact	2-12-99	N/A	N/A
Transition Information/Loss	Initial Closure	11-06-98	4	10
Alert/Service Configuration				

Note: LSOG v4 effective March 16, 1999. Anticipated Date for EDI Version 10: June 1999.



# Summary of Work: Ordering

First issue introduced May '95  
Resale

<u>Service</u>	<u>OBF Status</u>	<u>Date Closed</u>	<u>LSR Version</u>	<u>EDI Release</u>
Basic Exchange	Final Closure	10-24-96	1	7
ISDN	Final Closure	02-06-97	2	8
Private Lines	Final Closure	02-06-97	2	8
Frame Relay	Final Closure	02-06-97	2	8
Centrex	Final Closure	08-15-97	3	9
PBX/DID	Final Closure	12-16-97	3	9



# Summary of Work: Ordering

## Unbundled Network Elements

<u>Element</u>	<u>Status</u>	<u>Date Closed</u>	<u>LSR Version</u>	<u>EDI Release</u>
Simple Loop	Final Closure	10-24-96	1	7
Complex Loop	Final Closure	02-06-97	1	7
Line Switch Ports	Final Closure	10-24-96	1	7
Loop & Line Switch Port	Final Closure	02-06-97	2	8
Trunk Switch Ports	Final Closure	02-06-97	2	8
ISDN Switch Ports	Final Closure	02-05-99	4	9
SS7 Links & Ports	Final Closure	06-25-98	ASR v20	N/A
Footprint Planning Checklist	Final Closure	06-25-98	ASR v20	N/A
Common Transport/Network Platform	Final Closure	11-06-98	ASR v21	N/A
Local Number Portability	Final Closure	11-06-98	4	10



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## Summary of Work: Ordering

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- Interconnection Trunks completed and included in ASR Version 18, March 1997. Implemented 10-11-97
- Number Portability (both Interim and Local) has been completed by the OBF and included in EDI Version 7 and 8, respectively
- **Directory:**
  - » Revised DL Form to enhance process
  - » Working on merging DSR into LSR and DSCR into DL



# **Summary of Work: Ordering**

## **(continued)**

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- **Local Number Portability requirements are complete and are included in LSOG Version 4/EDI Release 10**
- **Unbundled Trunking elements have been defined and were included in ASR Version 20**
- **Unbundled Transport elements have been defined and were included in ASR Version 21**



# Summary of Work: Ordering Customer Account Record Exchange (CARE)

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- The Subscription Committee has established the basic foundation for an industry standard Primary Interexchange Carrier (PIC) order process involving local resale and ported telephone number activities
- First local issue accepted by July 27, 1995
- Local competition issues are reflected in Issue 10 of the CARE document and all of its subsequent revisions

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# Summary of Work: Ordering CARE

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## Topics Covered Include:

- **Responsibilities to notify Interexchange Carriers of End User moves**
  - » Local Resale Codes for Transfer Associated with NPA NXXX Territory
- **CARE Utilization By Other Interest Groups**
  - » Issue to develop CARE use between a Local Reseller and a Switch Provider for the purpose of PIC changes is in progress.
  - » Developed a reject code to disallow a PIC change via CARE when the line is involved in an AP Special Billing Arrangement. Request must come from end user to the AP.
  - » Identify PIC Changes associated with unauthorized changes in a local resale environment.



# Summary of Work: Provisioning

<u>Item</u>	<u>OBF Status</u>	<u>Date Closed</u>	<u>LSR Version</u>	<u>EDI Release</u>
Firm Order Confirmation	Final Closure	10-24-96	1	7
FOC Transition Information	Final Closure	11-7-97	3	9
Delay Notice	Final Closure	11-7-97	3	9
Completion Notice	Final Closure	11-6-98	4	10
Error ID	Open			
CLIC Acknowledgment Flows	Final Closure	11-7-97	3	N/A

NOTE: EDI Issue 10 ballot expected to be final June 1, 1999

# Summary of Work: Billing End User

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- Issues involve the exchange of message and usage between ILEC's, Competitive Local Exchange Carriers (CLECs) and IXC for the billing of end user customers
  - » First issue presented July 1995
- Issues have been related to:
  - » Industry numbering schemes and the accompanying exhaust of Revenue Accounting Office (RAO) codes
  - » Local Number Portability (LNP)
  - » Differentiation of messages (to/from CLECs vs. to/from ILECs)
  - » Identification of Local Service Providers for Resale and Unbundled Networks.
  - » Differentiation of Resale and Unbundled Traffic



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# **Summary of Work: Billing End User**

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## **Guidelines have been created for:**

- **Shared NPA-NXXs**
- **Increased field for Operating Company Number**
- **LNP To/From Ported Number**
- **Line level information exchange**
- **RAO code exhaust/RAO code assignments**
- **Rate center LNP facilities-based message processing**
- **Return codes for resellers**
- **Guidelines for Class Features (EC to CLEC)**
- **Standardizing the definition of an RAO LEC**
- **Port Indicator and Ported OCN on Returns Records (EC to IC)**

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## **Summary of Work: Billing End User**

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### **Current work and open issues include:**

- **Industry Line Level Database for Local Resale/UNE (Being worked with the NIFF and TFPC)**
- **LNP database queries**
- **Billing validation database support for Local Resale and UNE.**
- **Category 11 (access) records to support Unbundled Network Elements**
- **Common Terminology for “Type of Company”**

# Summary of Work: Billing End User

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## **Current work and open issues (continued):**

- **Local Service Provider Indicator (LSP) guidelines with Billing Committee and Committee T1S1**
- **Reseller Identification in Exchange Message**
- **Resale of Vendor-Rated N11 service**
- **1000 Block Number Pooling**
- **Synchronization of OCNs and Company Codes**



# Summary of Work: Billing LEC to LEC

## First Issues introduced May '95

Item	OBF Status	Date Closed	CABS Version**	SECAB Version
Interconnection Meetpoint Billing	Final Closure	01-11-96	26	5
Local Usage	Final Closure	01-11-96	26	5
Interim Number Portability	Final Closure	08-29-96	28	5
Local Product & Service Offerings	Final Closure	10-24-96	28	5
Local Features	Final Closure	08-29-96	28	5
Line-Side Ports	Final Closure	08-29-96	28	5
Line-Side Loops	Final Closure	05-09-96	26	5
Resale	Final Closure	08-29-96	28	5
Interconnection	Final Closure	05-29-96	26	5
Local Number Portability	Final Closure	02-06-98	29	6
Unbundled Network Elements	Initial Closure		Unknown	7
Exchange of End User Records between ILEC and UILEC	Open			
Notification of Interconnecting Billing to the UILEC	Open			
Billing Verification Process in an Unbundled Environment	Open			
Identification of Unbundled Usage on an Access Bill (1549)	Final Closure			31

\*\*Although mapped to CABS interface document, there were other alternatives discussed & minimum requirement identified. CABS v26 implementation dates were 9-96 to 1-96. Version 27 dates were 9-97 to 12-97. Version 29 dates were 3-98 to 5-98. Version 31 dates were 4-99 to 5-99.

# In Conclusion

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- **Industry guideline development is an evolutionary process.**
- **Significant work has been done in establishing a foundation for OSS guidelines.**
- **Committees have been and are continuing to work at an accelerated pace.**
- **We are aware of our responsibility to the industry to move quickly yet be thorough.**

For further information, see

<http://www.atis.org/atis/clc/obf/obfhom.htm>

## ATTACHMENT 2

The four principal groups are: the Ordering and Billing Forum ("OBF") of the Carrier Liaison Committee, The Electronic Communications Implementation Committee ("ECIC"), the T1M1 Committee, and the EDI-Service Order Subcommittee (SOSC) of the Telecommunications Industry Forum. All four groups are sponsored by the Alliance for Telecommunications Industry Solutions. ("ATIS").

The OBF committees identify the guidelines for pre-ordering, ordering, and provisioning forms and business rules. The OBF committees are responsible for the business process flows, interface guidelines, and informational requirements. The OBF committees create the Local Service Ordering Guideline ("LSOG"), Access Service Ordering Guideline ("ASOG") and the Local Service Request ("LSR") forms. The most recent version of the LSOG is Version 4 that was published April 1999. The ASOG generally supports the ordering of access services; however, in addition, the ASOG contains business rules and elements in order to order local interconnection trunks, unbundled trunking and unbundled transport. The most recent version of the ASOG is Version 21 published April 1999. The OBF Billing Committee identifies the guidelines for the bills. The Carrier Access Billing System ("CABS") Billing Output Specifications ("BOS") contain the business rules and the elements of the bills. The latest CABS version is 31 published earlier this year. The implementation dates with this release were April 1999 through May 1999. The Small Exchange Carrier Access Billing ("SECAB") supports the billing information for smaller carriers.

The first 16 pages of the Attachment 1 generally describe the various committees and the processes used to issue industry standards. Pages 17 through 31 summarize the

OBF work and address pre-ordering, ordering, provisioning and billing. Pages 17 through 31 provide an up-to-date summary of the current national standards developed by OBF committees.

The OBF responds to the ongoing needs of the industry. Digital Subscriber Loop (“DSL”) and other products will be developed and supported by MCIW. For example, the OBF is currently addressing:

OBF Issue Number 1938 Titled: AIN Service - Advanced Intelligent Network.  
Issue Statement: The industry does not have a procedure for ordering AIN services, such as subscriber line triggers from an AIN service provider.

OBF Issue Number: 1881 Titled: Add Loop Qualification for xDSL and ISDN BRI services to Pre-Order Inquiry Practice (POINQ). Issue Statement: There is a need to determine whether facilities at a given location are available for xDSL and/or ISDN BRI services prior to ordering the associated service.

The EDI Committee is responsible for some data modeling. The EDI-SOSC identifies the interface standards for pre-order, order and provisioning. The EDI releases are associated with the LSOG and are called EDI LSOG Mechanization Specifications (“ELMS”). ELMS 4 is the current version . It includes EDI Version 10, which is the most current EDI release and is associated with LSOG 4. ELMS 4 is due for industry release before the end of July, 1999.

The ECIC and T1M1 forums identify the standards associated with the Electronic Bonding interface for Maintenance and repair. The ECIC is a working committee of the Telecommunications Industry Forum (“TCIF”) and was established to foster the implementation of electronic communications to improve customer service. The ECIC

identifies and resolves technical and operational issues for the implementation of Operations, Administration, Maintenance and Provisioning (“OAM&P”) service management functions between telecommunication jurisdictions of customers and suppliers.

ECIC's subcommittees provide Generic Implementation Guidelines (“GIGs”) for the voluntary implementation of OAM&P standards. The ECIC GIGs support the electronic interface protocol to exchange local ordering and pre-ordering information. The standard interface protocol for local ordering is the EDI over TCP/IP with Secured Socket Layer #3. The protocol standard was established in March 1997. The most current version of the supporting document of this interface is the Interactive Agent Version 2, dated December 1998.

The ECIC identified two options for the Pre-Ordering interface; EDI over TCP/IP /SSL3 and Common Object Request Broker Architecture (“CORBA”).

The T1MI Committee develops the ANSI standards for the electronic bonding interfaces. The Trouble and Maintenance interface standard is the ANSI T1.227 and ANSI T1.228 dated 1995.

CERTIFICATE OF SERVICE

I hereby certify that on this 2<sup>nd</sup> day of September, 1999, the original and ten copies of MCI WorldCom, Inc.'s Statement of Position Addressing OSS Requirements were sent via Airborne Express to the following:

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Phoenix, Arizona 85007

A true and correct copy was sent via United States First Class Mail to all parties of record:

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