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BEFORE THE ARIZONA CORPORATION COMMISSION

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Commissioner

MARC SPITZER
Commissioner

Arizona Corporation Commission
DOCKETED

OCT 09 2001

DOCKETED BY

IN THE MATTER OF U S WEST COMMUNICATIONS, INC.'S COMPLIANCE WITH § 271 OF THE TELECOMMUNICATIONS ACT OF 1996	)	**Docket No. T-00000A-97-0238**

WORLDCOM'S COMMENTS ON THE STAFF'S SEPTEMBER 14 FINAL REPORT ON UNBUNDLED LOOPS

WorldCom, Inc., on behalf of its regulated subsidiaries, ("WorldCom") submits these comments to the Arizona Staff's final report on Qwest's compliance with Checklist Item: No. 4 – Unbundled Loops, filed with the Commission on September 14, 2001. WorldCom also concurs in issues raised by AT&T and other competitive local exchange carriers ("CLECs") throughout these workshops. Therefore, WorldCom continues to support those positions.

DISPUTED ISSUE NO. 1: Whether fiber loops or OCn loops should be on an Individual Cases Basis (ICB), or as a standard product with rates and intervals. Also, should Qwest revise its loop intervals set forth in Qwest Exhibit C? (Loop-2(b))

WorldCom notes that the Staff report has deferred discussion of ICB to the Workshops on General Terms and Conditions and the Wholesale Pricing Docket. WorldCom will continue to address its concerns on the first part of this issue in those forums.

However, WorldCom continues to maintain that the preferred approach is standard intervals. In a negotiated interconnection agreement ("ICA") with Pacific Bell ("PacBell"), effective September 25, 2001, MCImetro ("MCIm")[1] has provisions for standard intervals for dark fiber. Additionally, in the same ICA, OC loops and dedicated transport are provided at the same intervals as for a regular loop and dedicated transport. They are not treated as a separate product, but as just one "flavor" of loop/transport. WorldCom would recommend that a similar approach and that standard intervals be required of Qwest. WorldCom would recommend the following language that is similar to that found in Section 12 of the UNE APPENDIX to the Pacific Bell-MCImetro Interconnection Agreement:

> *Qwest shall provide to CLEC information regarding the location, availability and performance of Unused Transmission Media within five (5) business days for a records based answer and ten (10) business days for a field based answer, after receiving a request from CLEC ("Request"). Within such time period, Qwest shall send to CLEC written confirmation of availability of the Unused Transmission Media ("Confirmation"). From the time of the Request to ninety (90) days after the confirmation, Qwest shall reserve such requested Unused Transmission Media for CLEC's use and may not allow any other party to use such media, including Qwest.*

[1] MCImetro Access and Transmission Services, LLC is one of WorldCom's subsidiaries, and provides telephone services in California.

Qwest shall make unused transmission Media available to CLEC within twenty (20) business days after it received written confirmation from CLEC that the Unused Transmission Media previously deemed available by Qwest is wanted for use by CLEC. This includes identification of appropriate connection points (e.g. Light Guide Interconnection (LGX) or splice points) to enable CLEC to connect or splice CLEC provided transmission media (e.g. optical fiber) or equipment to the Unused Transmission Media. [2]

DISPUTED ISSUE NO. 4: Should Qwest be permitted to recover loop conditioning costs for loops under 18,000 feet? (Loop 8(b).

WorldCom recognizes that this issue again disagrees with the Staff's position on this issue for the reasons outlined in its June 19, 2001 brief (see p. 9). It also understands that the actual costs and charges associated with conditioning have been deferred to the Wholesale Pricing Docket. WorldCom would like, however, to point out that other ILECs such as SBC and the then-Bell Atlantic ("BA") (now Verizon) provide loop conditioning for loops up to 12kft at no charge. Those agreements with those ILECs were negotiated provisions and not arbitrated. Further, BA/Verizon offers conditioning at no charge for loops from 12kft to 18kft.

Further, in the previously mentioned recent MCIm/PacBell ICA, Pacific *negotiated* provisions agreeing to provide conditioning up to 12k ft.[3] At a minimum, Qwest should follow the lead of the other ILECs and not impose charges for up to 12kft.[4]

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[2] See the Pacific Bell – MCImetro Access and Transmission Services, LLC Interconnection Agreement ("PacBell/MCIm ICA"), filed with the California Public Utilities Commission, effective September 25, 2001, APPENDIX UNE.

[3] See PacBell/MCIm ICA, effective September 25, 2001, Appendix, DSL. Above 12kft, Pacific would condition for a charge.

[4] See Attachment A, excerpts from the Transcript of *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements,* Case 98-C-1357, Panel Testimony Of Bell Atlantic-New York on Costs And Rates For ADSL/HDSL-Compatible Loops And Digital-Designed Loops, October 1, 1999, pp. 44-45.

DISPUTED ISSUE NO. 6: Should Qwest's Spectrum Management positions be adopted? (Loop 9a, 9b, and 9c)

WorldCom contends that the Staff's position in paragraph 197 is no longer a settled issue, as implied by Qwest and agreed to by the Staff in this particular comment. On September 14, 2001, the fifth Network Reliability and Interoperability Council (NRIC V) proposed a new recommendation. It has now entered the public domain via FCC ex parte presentations.[5] Among other things, this recommendation calls for the rescission of the FCC requirement to disclose PSD Mask information upon loop order/provisioning. In making the recommendations, the NRIC V, FG3 recommendation states, as Background:

> *In the interest of wireline spectrum management and spectral compatibility, the FCC issues its Line Sharing Order, which required that certain information be shared between loop owners and those providing services on unbundled or shared copper loops. When the Line Sharing Order was adopted, the requirements for information exchange (a product of the NPRM process) seemed complete, fast and fair. Since that time, implementation of these rules have proven them to be incomplete, slowing the deployment of DSL services and causing both loop owners and service providers to incur undue expense. The recommendations NRIC FG3 propose herein provide foundational understandings, a streamlined approach to the sharing of spectrum management information and a process to be followed prior to escalating to interference dispute. As an alternative to the current rules and practices, NRIC FG3 believes that these recommendations will benefit DSL consumers. (Citations omitted.)*

While it is true that the Federal Communications Commission has yet to act on the recommendation, the latest findings of a technical group responsible for setting industry standards should be given overriding weight. The group came to its new recommendations after careful analysis of the quickly evolving technical scene. The new recommendation recognizes, in part,

[5] See Attachment B, FCC Docket No. 98-147, Ex Parte Presentation, CC Docket No. 96-98, Ex Parte Presentation, CC Docket No. 99-216, Ex Parte Presentation, filed September 14, 2001.

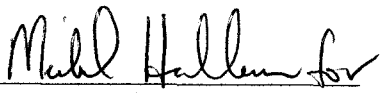
that the policies that supported the original Line Sharing Order, upon which Qwest currently bases its position, has been proven incomplete and unnecessarily costly.

CONCLUSION

WorldCom requests that the Staff direct Qwest to modify its SGAT consistent with these filed comments.

Respectfully submitted this 9th day of October, 2001.

LEWIS AND ROCA LLP



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Betty J. Griffin

Attachment A

sure requires replacement of all deteriorated components of the splice case to ensure weather-tight integrity.

Loads found in the small amount of the plant in BA-NY that is buried introduces another factor not normally encountered in the other two situations, that of hiring a contractor to dig to expose the buried load coil and splice. While working conditions are not as difficult as in the underground, any buried splice must be restored to ensure that the whole assembly is watertight. The case and load must ultimately be reburied and the area restored.

None of the above situations is quite as simple as portrayed by Mr. Donovan. Moreover, the fact that the deloading is done at multiple locations has little if any impact on the time expended at any one location, as each site is unique.

Q. What charges is BA-NY proposing to recover load coil removal costs?

A. A non-recurring Removal of Load Coil Charge recovers the costs associated with such removal. It should be noted that this charge does *not* recover any costs associated with load coil reconnection if the loop is subsequently surrendered by the CLEC and is used by BA-NY as a POTS loop.

BA-NY will not impose the Load Coil Removal charge if load coils must be removed from loops less than 18,000 feet long, since load coils are generally not required for such loops under the design criteria applied by BA-NY.[20] Since the number of load coils on a loop depends, under BA-NY's design criteria, upon its length[21], the charge is loop-length-sensitive. Longer loops have more load coils, and thus generate greater load coil removal costs.

Q. Covad/Rhythms Links affiant Murray finds "implausible" BA-NY's assumption, in its original cost study, that 69% of load coil removals occur in an underground environment, while only 31% occur in an aerial environment. (Murray Aff. ¶¶ 80-82) What was the basis of that assumption?

A. The weightings were derived directly from data developed in Phase 1 of Case 95-C-0657, as explained in the Workpaper included in Part B of the Exhibit to this testimony.

---

[20] *See* Bellcore, "Telecommunications Transmission Engineering", ST-TEC-000063 (3d ed. 1990). BA-NY's load coil placements conform to these criteria, which are consistent with general industry standards.

[21] Three load coils are generally used on loops more than 18,000 feet in length. A fourth coil is used on lengths more than 24,000 feet in length.

Attachment B

FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

September 14, 2001

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W. TW-A325
Washington, D.C. 20554

RE: **CC Docket No. 98-147, Ex Parte Presentation**
CC Docket No. 96-98 , Ex Parte Presentation
CC Docket No. 99-216, Ex Parte Presentation

Dear Ms. Salas:

On September 14, 2001, Paul L Marrangoni of the Federal Communications Commission's Office of Engineering and Technology participated in a conference call of Focus Group 3 (FG 3) of the fifth Network Reliability and Interoperability Council (NRIC V). The members of FG 3 in attendance were: David Rosenstein (Covad), Pete Youngberg (Sprint), Paul Donaldson (WorldCom), Kevin Schneider (Adtran), Gene Edmond (SBC), Gary Tennyson (Bell South), Jamal Boudhauia (Qwest), John Unruh (Lucent), Brad Beard (AT&T), Jim Carlo (Texas Instruments) and the Chair of FG 3, Ed Eckert (Catena Networks). Members of the Commission's Common Carrier Bureau, Elizabeth Yockus, and Aaron Goldberger, also participated in the conference call.

The central focus of the conference call was to confirm concurrence for Recommendation # 7, titled: "Exchange of spectrum management information between loop owners, service providers and equipment vendors" (copy attached). All of the Focus Group 3 participants in the conference call voiced their acceptance of the Recommendation and indicated that it should be sent to the full NRIC Council's review and adoption. Ed Eckert indicated that he had received affirmations for the Recommendation from the Focus Group 3 members that did not participate in the conference call.

In accordance with section 1.1206(b)(2) of the Commission's rules, 47 C.F.R. § 1.1206(b)(1), the original and 5 copies of this letter and attachment are being filed with for inclusion in the public record of the listed proceedings.

Sincerely,

Paul L. Marrangoni
Office of Engineering and Technology
Federal Communications Commission

NRIC V FG3 Recommendation # 7:
Exchange of spectrum management information between loop owners, service providers and equipment vendors

I. Background:

In the interest of wireline spectrum management and spectral compatibility, the FCC issued its Line Sharing Order[1], which required that certain information be shared between loop owners and those providing services on unbundled or shared copper loops[2]. When the Line Sharing Order was adopted, the requirements for information exchange (a product of the NPRM process) seemed complete, fast and fair. Since that time, implementation of these rules have proven them to be incomplete, slowing the deployment of DSL services and causing both loop owners and service providers to incur undue expense. The recommendations NRIC V FG3 propose herein provide foundational understandings, a streamlined approach to the sharing of spectrum management information and a process to be followed prior to escalating to interference dispute. As an alternative to the current rules and practices, NRIC V FG3 believes that these recommendations will benefit DSL consumers.

The copper loop plant was designed, and is maintained, to provide voice-grade services (POTS). The economics for DSL assume that DSL can be deployed on this loop plant as a by-product of it being so maintained. The American National Standard "Spectrum Management for loop transmission systems" T1.417, is based on statistical modeling of the crosstalk coupling characteristics of this loop plant, and establishes limits on the power (and frequencies) which a DSL transceiver can inject on the loop. These power limits[3] have been established such that DSL service providers can determine their own service deployment guidelines with an expectation that the interference on the loop is below a specified level. As a result, interference disputes should be rare events.

NRIC V FG3 recognizes that all parties involved in the deployment of DSL equipment in the public network must adhere to spectrum management guidelines for the provisioning of DSL loops to be successful in providing the maximum benefit to end users. We believe it is in the best interest of the industry to require that each service provider take responsibility for ensuring that its equipment is deployed according to the aforementioned spectrum management guidelines.

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[1] *Deployment of Wireline Services Offering Telecommunications Capability and Implementation of Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order in CC Docket No. 98-147, Fourth Report and Order in CC Docket No. 96-98, 14 FCC Rcd 20912 (Released December 9, 1999) ("Line Sharing Order").

[2] *See* Line Sharing Order, paragraph 204.

3 These power (or more accurately, Power Spectral Density) limits are not restricted to Power Spectral Density masks, they also include formula or calculation based criteria.

II. Recommendations:

A. As a consequence of these NRIC V FG3 Recommendations, the exchange of spectrum management and spectral compatibility related information (other than EWL as specified in section II.B.2 of this recommendation) is not required at the time the loop is provisioned [4]. Previous FCC action in Paragraph 204 of the Line Sharing Order requiring initial disclosure of spectrum management information is no longer valid. NRIC V FG3 therefore recommends that rules 51.231 (a)(3), (b) and (c) be rescinded.

B. NRIC V FG3 recommends that the loop providers' spectrum management responsibilities shall be:

1. Ensuring that the loop plant is maintained to an acceptable level to provide analog voice-grade service. Specific parameters will be included in an update to this recommendation[5].

2. Upon request, providing the service provider with loop information that can be used to derive Equivalent Working Length (EWL) such that the service provider may determine conformance to T1.417[6], and;

3. After all of the requirements have been met for escalating to an "interference dispute"(see section II.D. of this recommendation), identifying all service providers that it reasonably concludes might have an impact on the dispute as well as the circuit IDs and Connecting Facility Assignments of those services. This will allow the service providers to then start a process among themselves to resolve the conflict.

---

[4] However, service providers are encouraged to disclose whether or not the service being provisioned is compatible with known disturbers, so the loop provider knows to choose facilities that avoid known disturbers if possible.

[5] NRIC V FG3 has sent a liaison request to Committee T1's Technical Subcommittees T1A1 and T1E1 requesting assistance in specifying parameters to define loops acceptable for voice grade service. T1.TR-60 has been discussed and may form the basis for such requirements. It is intended that specific parameters will be included in an update to this recommendation.

[6] Several automated methods for obtaining such information may be available; one example is obtaining a loop makeup from a database (e.g. LFACS). NRIC V FG3 is currently considering another possibility, where EWL could be inferred from capacitive loop length measurements. In addition, future DSL transceivers may have the ability to infer EWL based on characteristics of the received signal. Where an automated method to obtain the information exists, it should be used in lieu of manual compilation. It is the expectation that future revisions of T1.417 will more readily accommodate these automated measurements.

C. To enable adherence to spectrum management guidelines, it will be necessary for DSL equipment vendors, loop providers and service providers to exchange spectral management information at times (as specified in this recommendation) other than provisioning. This information shall be provided in a timely manner when requested, and any charges for costs associated with providing this information shall be fair and reasonable. NRIC V FG3 recommends the following requirements regarding compliance and exchange of spectrum management information:

1. Compliance to T1.417: On a going forward basis, service providers shall deploy DSL equipment in a manner that complies with the requirements of the American National Standard, "Spectrum Management for Loop Transmission Systems" T1.417. In the event of escalation to a spectral interference dispute, all involved service providers shall make relevant spectral management compliance information available to all parties involved in the dispute as follows:

a) In cases where compliance is claimed using a SM Class, the specific SM Class information shall be provided.

b) In cases where compliance is claimed using technology specific guidelines, technology specific designations (e.g. TS xxx, per T1.417) shall be provided.

c) In cases where the analytical Method in Annex A of T1.417 has been used, the transmit PSD, analytical method calculations, and resulting maximum EWL of the specific technology shall be provided.

d) In all cases, EWL derivation(s) for the loop and all other data needed to demonstrate compliance to T1.417 shall be provided.

e) In all cases, all service providers shall identify those systems not covered by the requirements of T1.417 that they reasonably conclude might have an impact on the interference issue.

f) In all cases, all service providers should cooperate in an attempt to resolve all interference disputes in a timely manner.

2. Spectral Compatibility Measurements and Calculations: The party, e.g., equipment vendor, responsible for verifying the spectral compliance of a particular service provider owned[7] DSL product for use in the public network shall ensure that the equipment conforms to the requirements of T1.417-2001. Appropriate laboratory measurements or calculations used to determine this conformance shall be kept on file by this party, and made available to those service providers deploying that equipment.

3. Equivalent Working Length Information: For many loop technologies, compliance to T1.417 requires knowledge of the Equivalent Working Length (EWL). The service provider is responsible for estimating EWL, either from its own data or from data obtained per II.B.2. Service providers shall keep EWL information, and associated measurements or calculations, on file. Upon escalation to an interference dispute, this information shall be made available as necessary to parties in the dispute.

[7] Spectral Compliance of end-user owned TU-R products must be covered under a future version of ANSI/TIA-968 or similar ACTA approved document for prevention of harms to the network.

D. There should be universal recognition that the DSL industry is best served if the incidence of 'Interference Dispute' is extremely rare. It should also be recognized that there will always be loops that qualify for DSL that will not support DSL. As a baseline, loops that are maintained to an acceptable level to provide analog voice-grade services[5] are deemed acceptable. In fact, the experience of those in Focus Group 3 is that most conditions resulting in DSL 'troubles' will be detected as POTS 'trouble.' NRIC V FG3 recommends that escalation into 'Interference Dispute' will require the complainant service provider to first do the following:

1. Investigate if any additional customer equipment has been added to line;

2. Verify proper DSLAM and CPE operation;

3. Ensure that the service providers own internal deployment rules have been followed;

4. Ensure that the service degradation is not due to network congestion or a transport network fault.

5. Verify that the loop can provide analog voice-grade service[5];

6. Verify that the DSL service is deployed in compliance with T1.417;

7. Make a wideband noise measurement to determine if an unacceptable level of interference exists.

III. Additional Considerations

1. The actual resolution of interference disputes is beyond the scope of this recommendation. Conditioning or rearrangement of loops (to resolve interference disputes) continues to be the subject of interconnection agreements or other regulations which should be considered unaltered by the contents of this recommendation.

2. It should be noted that the exchange of information other than the spectrum management and spectral compatibility related information specifically addressed by this recommendation is beyond its scope. Such information exchanges, especially with regard to provisioning, are the subject of interconnection agreements and should be considered unaltered by the contents of this recommendation.

3. The reader is encouraged to ensure that there is not confusion between an "interference dispute" and "repair". "Interference dispute" denotes that service providers are convening to jointly resolve an interference problem. "Repair" denotes that a loop provider is working to correct a loop that did, but now does not, meet the analog voice-grade service parameters[5]. Therefore, the time during which a complainant service provider is performing the duties enumerated in Part D of these recommendations as well as time spent in "interference dispute" among service providers should not be counted towards a loop provider's MTTR metrics.

4. Work has been done in the industry to create many NC/NCI codes for service ordering. These codes have been created with the rules of 51.231 (a)(3), (b) and (c) in mind and therefore are associated with specific spectrum management information, often including technology type, SM Class or PSD mask. In order to be consistent with the NRIC V FG3 recommendations contained herein, NC/NCI codes containing spectrum management information should not be used on a going-forward basis. Efforts to address this discontinuity are the subject of liaison work between the NC/NCI Tag and NRIC V FG3. The NC/NCI Tag is Co - chaired by Bob Mierzejwski (732) 699-5420 and Rick Gonzalez (732) 699-5842.