

**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION
COMMISSION**

**In the Matter of the Petition of Sprint)
Communications Company L.P. for Arbitration)
of Interconnection Rates, Terms, Conditions) **Docket No. UT-003006**
and Related Arrangements with U S WEST)
Communications, Inc.)**

Rebuttal Testimony of Dr. William E. Taylor

**Senior Vice President
National Economic Research Associates, Inc.**

on behalf of

U S WEST Communications, Inc.

May 10, 2000

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1 I. IDENTIFICATION OF WITNESS

2 Q1 PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND
3 CURRENT POSITION.

4 A1 My name is William E. Taylor. I am Senior Vice President of National
5 Economic Research Associates, Inc. (“NERA”), head of its Communications
6 Practice, and head of its Cambridge office located at One Main Street,
7 Cambridge, Massachusetts 02142.

8 Q1 HAVE YOU TESTIFIED PREVIOUSLY IN THIS PROCEEDING?

9 A1 Yes. I filed direct testimony (including a statement of my qualifications) in
10 this proceeding on April 26, 2000.

11 II. PURPOSE OF TESTIMONY

12 Q1 WHAT IS THE PURPOSE OF YOUR TESTIMONY?

13 A1 I have been asked by U S WEST Communications, Inc. (“U S WEST”) to
14 respond to economic assertions in the testimony of Sprint witness David E.
15 Stahly regarding inter-carrier compensation for Internet-bound traffic.

1 **III. SUMMARY OF TESTIMONY**

2 **Q1 PLEASE SUMMARIZE YOUR TESTIMONY.**

3 A1 I respond to four economic points raised by Mr. Stahly (for Sprint) regarding
4 inter-carrier compensation for ISP-bound traffic. First, while the FCC's
5 *Declaratory Ruling*¹ takes no position on whether inter-carrier compensation
6 for ISP-bound traffic should be in the form of reciprocal compensation, it
7 does opine that minute-of-use pricing is unlikely to be an efficient mechanism
8 for cost recovery. The recent vacation and remand of the FCC's *Declaratory*
9 *Ruling* provides a fresh opportunity for this Commission to consider
10 alternative compensation mechanisms for ISP-bound traffic and, in particular,
11 one based on firm economic principles.

12 Second, while the facilities involved in terminating an ISP-bound call may
13 be similar in some respects to those used to terminate a voice call, the *costs* of
14 the calls are not likely to be the same. ISP-bound traffic differs from ordinary
15 voice traffic in its average holding time, the features and functions involved
16 in the call, the fact that only terminating traffic is involved, and possible
17 differences in the load distribution of the traffic. Further, there is no reason

¹ FCC, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-98 and 99-68, Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68 ("*Declaratory Ruling*"), released February 26, 1999.

1 to believe that the cost of delivering ISP traffic is the same as the cost of
2 originating and terminating the local traffic that underlies current reciprocal
3 compensation rates.

4 Third, cost causation requires that inter-carrier compensation take the form
5 of shared cost recovery from the ISP rather than reciprocal compensation
6 where the originating carrier compensates the terminating carrier. Each LEC
7 that carries the call is equally entitled to recovery of its costs, and if the ESP
8 exemption prevents full cost recovery, then sharing the subsidy equally
9 among the participating LECs is competitively neutral and relatively efficient.

10
11 Fourth, it is appropriate to distinguish between ISP-bound traffic and
12 ordinary interconnection for local traffic rather than setting prices based on
13 incremental costs averaged over these two different types of traffic.

14 Economic efficiency is increased by calculating costs and prices separately
15 for these types of traffic, and the ESP exemption restricts pricing of ISP-
16 bound traffic in ways that do not apply to ordinary voice traffic.

17 **IV. INTER-CARRIER COMPENSATION FOR ISP-BOUND CALLS**

18 **Q1 HOW IS YOUR TESTIMONY ORGANIZED?**

19 **A1** Mr. Stahly addresses four issues regarding inter-carrier compensation:

- 1 1. whether the Washington Utilities and Transportation Commission
2 (“Commission”) has the authority to regulate rate structure and rates for inter-
3 carrier compensation for Internet-bound traffic,
- 4 2. whether the costs incurred by the LEC that serves the ISP require that some form
5 of reciprocal compensation be paid,
- 6 3. whether reciprocal compensation is the best form of inter-carrier compensation
7 until the FCC imposes a final rule, and
- 8 4. whether a separate class of service should be created for ISP-bound traffic.

9 My testimony is organized around the same four issues.

10 **A. Jurisdictional Issues**

11 **Q1 MR. STAHLY ASSERTS [AT PAGE 9] THAT THIS COMMISSION’S**
12 **PAST DECISIONS WITH RESPECT TO ITS JURISDICTION OVER**
13 **THE PAYMENT OF RECIPROCAL COMPENSATION FOR ISP-**
14 **BOUND TRAFFIC ARE THOROUGHLY GROUNDED IN THE FCC’S**
15 **DECLARATORY RULING. REGARDLESS OF THE COMMISSION’S**
16 **PAST DECISIONS, IS MR. STAHLY CORRECT IN HIS**
17 **CHARACTERIZATION OF THE FCC’S ORDERS?**

18 **A1** Not entirely. The FCC’s *Declaratory Ruling* contains some additional advice
19 concerning the jurisdictional nature of ISP-bound traffic. First, the FCC finds
20 that the reciprocal compensation requirements of the Telecommunications
21 Act of 1996 and its Rules (to implement various provisions of that Act) do
22 not require the payment of reciprocal compensation for ISP-bound traffic,

1 because that traffic

2 . . . is *non-local interstate* traffic. Thus, the reciprocal compensation requirements
3 of section 251(b)(5) of the Act and Section 51, Subpart H (Reciprocal
4 Compensation for Transport and Termination of Local Telecommunications
5 Traffic) of the Commission’s rules do not govern inter-carrier compensation for this
6 traffic.²

7 Thus, the FCC finds no reason in its rules why this or any state regulatory
8 Commission should be predisposed towards *reciprocal compensation* as a
9 form of inter-carrier compensation for the costs of carrying ISP-bound traffic.

10 Second, the FCC carefully states (*Declaratory Ruling* at ¶9) that “when a
11 call is completed by two (or more) interconnecting carriers, the carriers are
12 compensated for carrying that traffic through either reciprocal compensation
13 or access charges,” using the paradigm adopted for local traffic and interstate
14 access traffic respectively, but that “the

1 ² *Declaratory Ruling*, at ¶26, footnote 87. Emphasis added.

1 Commission currently has no rule addressing the specific issue of inter-carrier
2 compensation for ISP-bound traffic.” (*Declaratory Ruling* at ¶26). Thus, in
3 the FCC’s view, a state commission must decide both the mechanism for
4 inter-carrier compensation and the rate, if a rate is applied.

5 Q1 **AT PAGE 10, MR. STAHLY INTERPRETS THE RECENT D.C.**
6 **CIRCUIT COURT DECISION³ TO VACATE THE FCC’S**
7 **DECLARATORY RULING AS STRENGTHENING “SPRINT’S**
8 **ARGUMENT THAT RECIPROCAL COMPENSATION IS DUE FOR**
9 **TERMINATION OF ISP-BOUND TRAFFIC.” IS THAT A CORRECT**
10 **READING OF THE COURT’S DECISION?**

11 A1 I am not a lawyer and the Court’s decision will speak for itself. However, the
12 Commission should be aware that the decision does *not* reach the
13 unequivocal conclusion that Mr. Stahly claims. In fact, the *opposite* of that
14 conclusion may reasonably be inferred from the following passage from the
15 decision:

16 We do not reach the objections of the incumbent LECs that Section 251(b)(5)
17 preempts state commission authority to compel payments to the competitor LECs;
18 at present we have no adequately explained classification of these communications,
19 and in the interim our vacatur of the Commission’s ruling leaves the incumbents
20 free to seek relief from state-authorized compensation that they believe to be
21 wrongfully imposed.

³ *Bell Atlantic Telephone Companies v. Federal Communications Commission and United States of America*, Case No. 99-1094, slip op. (D.C. Cir. March 24, 2000).

1 That is, the Court has vacated the entirety of the FCC's *Declaratory Ruling*,
2 including the sections that Mr. Stahly could have held up as support for his
3 view that state commissions are authorized to set inter-carrier compensation
4 rates for ISP-bound traffic in arbitration proceedings. With the entire issue
5 now remanded back to the FCC, there is now an interim period in which
6 further rulemaking will be pursued for the compensation of ISP-bound calls.
7 As I stated in my direct testimony [at page 11], this presents two
8 opportunities afresh to this Commission:

9 1.to explore alternative compensation mechanisms *generally* for ISP-bound traffic, not
10 just the two that the Commission has had to choose between in the past, and

11 2.to consider what compensation mechanism is appropriate on the basis of *economic*
12 principles (e.g., cost causation) that clearly distinguish the two separate issues of (1)
13 how cost is *generated* and (2) how cost should be *recovered* in an efficient and
14 sustainable manner.

15 **Q1 HAS ANY STATE REGULATORY COMMISSION RECENTLY**
16 **ACTED ON THAT OPPORTUNITY TO VIEW AFRESH THE**
17 **APPROPRIATE FORM OF INTER-CARRIER COMPENSATION FOR**
18 **ISP-BOUND TRAFFIC?**

19 **A1** Yes. On May 3, 2000, the Colorado Public Utilities Commission ruled in a
20 similar arbitration proceeding between U S WEST and Sprint that reciprocal
21 compensation is *not* the appropriate form of inter-carrier compensation for

1 ISP-bound traffic.⁴ The Colorado Commission specifically used economic
2 principles to reach that decision and opined that, in light of the access charge
3 exemption, bill and keep would be the only appropriate compensation
4 arrangement.⁵ In reaching this decision, the Colorado Commission
5 specifically changed its previous policy regarding reciprocal compensation
6 for two reasons: (1) its past rulings pertained to interpretations of intent in
7 *existing* interconnection agreements among parties in which ISP traffic had
8 not been distinguished from local traffic in general, and (2) it had for the first
9 time in the U S WEST-Sprint arbitration, a thorough record of economic
10 analysis of inter-carrier compensation mechanisms.⁶

11 **Q1 DID THE COLORADO COMMISSION DETERMINE THAT IT HAD**
12 **THE AUTHORITY TO ORDER THE PAYMENT OF RECIPROCAL**
13 **COMPENSATION FOR ISP-BOUND TRAFFIC?**

14 **A1** Yes. In Finding of Fact §I.B(1)(a) , the Colorado Commission determined
15 that it had “the authority to set a compensation rate for ISP-bound traffic.”
16 However, in its analysis of the economic and policy implications of inter-

⁴ Colorado PUC, *In the Matter of the Petition of Sprint Communications Company, L.P. for Arbitration Pursuant to U.S. Code §252(B) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with*

U S WEST Communications, Inc., Initial Commission Decision (“*Colorado Decision*”), May 3, 2000.

The *Colorado Decision* is attached to my rebuttal testimony as exhibit WET-1.

⁵ *Colorado Decision*, §I.C(1).

⁶ *Colorado Decision*, §I.C(a).

1 carrier compensation, the Colorado Commission chose not to require
2 reciprocal compensation (at a non-zero price) for ISP-bound traffic because it
3 found that the interstate access paradigm for inter-carrier compensation was
4 “more reasonable” than the local call paradigm proposed by Sprint.⁷
5 Specifically, it determined that “the originator of the Internet-bound call
6 [acts] primarily as a customer of the ISP, not as a customer of U S WEST” so
7 that, from an economic perspective, it makes more sense to treat the call as
8 interstate rather than local. The Colorado Commission went further,
9 however, and found that even if the traffic were determined to be local, it
10 would not impose non-zero reciprocal compensation charges because they
11 would “bestow upon Sprint an unwarranted property right” and give rise to
12 competitive distortions in the local exchange markets.⁸

13 **B. Costs of Local Voice and ISP-Bound Traffic are Not Similar**

14 Q1 **MR. STAHLY ASSERTS (AT PAGE 11) THAT THE “COST OF**
15 **TERMINATING A CALL TO AN ISP ON A LOCAL NETWORK IS**
16 **VERY SIMILAR, IF NOT IDENTICAL TO TERMINATING A CALL**
17 **TO A LOCAL CUSTOMER OR TO AN INTEREXCHANGE**
18 **CARRIER.” DO YOU AGREE?**

1 ⁷ *Colorado Decision*, §I.C(g).

1 ⁸ *Colorado Decision*, §I.C(j).

1 A1 No. I agree that the facilities used to transport and terminate an ISP-bound
2 call are similar *in some respects* to those used to transport and terminate other
3 types of calls. However, as I stated in my direct testimony (at pages 30-32),
4 there are characteristics of ISP-bound traffic which make the *cost* of transport
5 and delivery (as measured by TELRIC) different for ISP-bound calls. The
6 major differences are

- 7 ▪ *Call Duration.* Because ISP-bound calls have a much longer average duration
8 than voice calls, the per-minute cost of call setup is much lower for ISP-bound
9 calls than for an average voice call.
- 10 ▪ *Call Direction.* Transport and termination costs involve only terminating traffic.
11 Some features and functions impose capacity costs only at the originating end
12 and would not be included in a study of cost to Sprint of delivering Internet-
13 bound traffic to ISPs.
- 14 ▪ *Load Distribution.* The proportion of ISP-bound traffic that arrives at the busy
15 hour of the switch may differ from that of ordinary voice traffic. If the load
16 distribution of ISP-bound traffic is flatter than that of voice traffic, then an
17 incremental minute of ISP-bound traffic would cause a smaller increase in the
18 capacity requirements of the switch than an incremental minute of voice traffic.
- 19 ▪ *Traffic Sensitivity.* The fact that ISPs frequently demand non-blocking service
20 means that the switch that services them is engineered for 1-to-1 concentration,
21 rather than the 6 or 8-to-1 concentration typical of switches serving ordinary
22 voice traffic. As a result, certain components of the switch capacity that would
23 ordinarily vary with use become non-traffic sensitive with 1-to-1 concentration.
24 Costs that do not vary with usage are not considered in setting the price for
25 transport and termination.⁹

26 Thus, even though some of the facilities used to switch and transport ISP-

1 ⁹ Section 252(d)(2) of the Telecommunications Act of 1996 requires that prices for the “transmission and routing
2 of telephone exchange service and exchange access ... be determine[d] on the basis of a reasonable
3 approximation of the *additional costs* of terminating such calls.” [emphasis added]

1 bound and voice traffic may be similar, the TELRIC of ISP-bound traffic can
2 differ significantly from the TELRIC of average local exchange traffic, which
3 determines the current reciprocal compensation rate for exchanging local
4 traffic.

5 **Q1 MR. STAHLY ASSERTS THAT CLECS' COSTS WILL LIKELY BE**
6 **HIGHER THAN THE ILEC'S COSTS DUE TO SCALE ECONOMIES**
7 **(AT PAGE 13-14). ON THAT BASIS, HE FINDS IT "REASONABLE**
8 **TO USE THE ILEC'S RECIPROCAL COMPENSATION RATE AS**
9 **THE REASONABLE PROXY RATE FOR A CLEC TO ADOPT." (AT**
10 **PAGE 15) DO YOU AGREE?**

11 **A1** The premise of Mr. Stahly's argument may, at best, be partially correct but
12 the conclusion is definitely not correct. It is possible for a TELRIC study of
13 transport and termination for a CLEC to yield higher costs than a similar
14 study of transport and termination costs for an ILEC when only the latter's
15 economies of scale are the difference between the two carriers.¹⁰ However,
16 the ILEC's network is configured also to fulfill certain franchise obligations
17 like being the carrier of last resort. Unlike the CLEC, the ILEC must stand

1 ¹⁰ While the FCC is silent as to the details of a TELRIC study for a CLEC, I would find it reasonable to use the
2 total volume of ISP-bound traffic originating on the ILEC's network and being delivered to ISPs from the
3 CLECs' networks as the appropriate increment of demand. This demand increment would roughly
4 correspond to the FCC's instructions to use the total volume of market demand as the demand increment
5 in calculating TELRIC for an ILEC.

1 prepared to serve customers that differ in their locational and cost-to-serve
2 characteristics. This factor can offset any advantage that accrues from scale
3 economies.

4 I do agree with Mr. Stahly that, were the ILEC truly to have the lower cost,
5 then it would be proper to use the ILEC's lower cost to set the compensation
6 rate (assuming, of course, that reciprocal compensation was determined to be
7 the form of inter-carrier compensation). To do otherwise, i.e., to set the
8 compensation rate at the TELRIC of a higher-cost company would reduce
9 economic efficiency. However, I disagree that the "ILEC's reciprocal
10 compensation rate" is a reasonable proxy for the cost of transport and
11 delivery of ISP-bound traffic. The ILEC's TELRIC for transport and delivery
12 of ISP-bound traffic would be a valid basis for setting a reciprocal
13 compensation rate for this traffic, but *not* the ILEC's TELRIC for originating
14 and terminating local exchange traffic.

15 Q1 **MR. STAHLY ASSERTS (AT PAGE 11) THAT THE FCC BELIEVES**
16 **THAT COSTS ARE INCURRED TO DELIVER TRAFFIC TO AN ISP**
17 **AND SHOULD BE SUBJECT TO SOME FORM OF COMPENSATION.**
18 **DO YOU AGREE?**

19 A1 Yes, I agree both that the FCC believes it and that prudent economics requires

1 it.¹¹ However, that principle applies equally to the LEC that originates the
2 ISP-bound traffic as to the LEC that terminates it. Moreover, in the
3 paragraph cited by Mr. Stahly, the FCC says a great deal more than the simple
4 principle that costs ought to be recovered:

5 For the [ISP] traffic at issue here, we tentatively conclude that a negotiation
6 process, driven by market forces, is more likely to lead to efficient outcomes than
7 are rates set by regulation. In addition, setting a rate by regulation appears unwise
8 because the actual amounts, need for, and direction of inter-carrier compensation
9 might reasonably vary depending on the underlying commercial relationships with
10 the end user, and who ultimately pays for transmission between its location and the
11 ISP [fn. 89: When an end user effectively purchases a telecommunications-based
12 service from more than one service provider, it can pay for the costs of the
13 underlying telecommunications either directly to the telecommunications service
14 provider, or indirectly through the other service provider, which in turn pays the
15 telecommunications provider. Both sets of arrangements exist today.]
16 (*Declaratory Ruling* at ¶29).

17 This passage clearly recognizes that payments from the originating carrier to
18 the terminating carrier may not be appropriate [“direction of inter-carrier
19 compensation might reasonably vary...”]. My direct testimony shows that
20 when the ISP or IXC sets the price and collects the money from the end user,
21 money should flow the other way, from the terminating carrier to the
22 originating carrier.

23 In addition, immediately after the passage cited by Mr. Stahly, the FCC

1 ¹¹ In fact, in my direct testimony (at page 29), I noted specifically that a CLEC like Sprint is fully entitled to be
2 compensated for its cost of delivering Internet-bound traffic to ISPs. The real question is whether it
3 should be entirely up to the ILEC like U S WEST to provide that compensation. As I explained in my
4 direct testimony, with the principle of cost causation properly applied, the answer is “no.”

1 goes on to say that per-minute reciprocal compensation is not cost-causative:

2 We believe that efficient rates for inter-carrier compensation for ISP-bound traffic
3 are not likely to be based entirely on minute-of-use pricing structures. In particular,
4 pure minute-of-use pricing structures are not likely to reflect accurately how costs
5 are incurred for delivering ISP-bound traffic.

6 Hence, one cannot infer from the passages Mr. Stahly cites that the FCC
7 believes that the LEC that delivers the ISP-bound call has any more right to
8 have its costs compensated than the LEC whose subscriber originates the ISP-
9 bound call.

10 **C. Reciprocal Compensation is Not an Efficient Mechanism for**
11 **Inter-Carrier Compensation**

12 Q1 **MR. STAHLY ASSERTS THAT INTER-CARRIER COMPENSATION**
13 **FOR ISP-BOUND TRAFFIC SHOULD MIRROR THE**
14 **ARRANGEMENT FOR LOCAL TRAFFIC BECAUSE “THIS IS THE**
15 **ONLY MECHANISM TO ENSURE THAT CARRIERS ARE**
16 **COMPENSATED FOR COSTS INCURRED IN TERMINATING OR**
17 **DELIVERING TRAFFIC.” (AT PAGE 19) DO YOU AGREE?**

18 A1 No. As I pointed out in my direct testimony, the cost causation principle
19 leads to a regime in which the ILEC and CLEC share the revenues earned by
20 the CLEC from the lines and local exchange usage that it sells to the ISP
21 along the lines of meet-point billing. This form of revenue sharing may not

1 be sufficient for the ILEC and CLEC that jointly provide access service to
2 fully recover their costs, but the degree to which they each under-recover
3 those costs (or, equivalently, subsidize Internet service) will be the same
4 proportion of their respective costs and, hence, competitively neutral. If that
5 alternative is not selected, a reasonable interim form of compensation would
6 be bill and keep or, in effect, exchange of ISP-bound traffic between the
7 ILEC and the CLEC at no charge to each other.

8 Q1 **MR. STAHLY ASSERTS (AT PAGE 20) THAT THE FCC**
9 ***DECLARATORY RULING* “STRONGLY SUGGESTS THAT THE FCC**
10 **BELIEVES NOT ONLY THAT ISP-BOUND TRAFFIC SHOULD BE**
11 **SUBJECT TO INTER-CARRIER COMPENSATION, BUT THAT THE**
12 **FORM OF COMPENSATION MAY BE ANALOGOUS TO THE**
13 **COMPENSATION FOR OTHER LOCAL TRAFFIC.” IS THAT A**
14 **FAIR READING OF THE ORDER?**

15 A1 No. Mr. Stahly quotes (at page 19) a passage of the *Declaratory Ruling* to
16 the effect that *if* the FCC’s inter-carrier compensation paradigm for local
17 traffic were applied to ISP-bound traffic, reciprocal compensation would be
18 due for that traffic. However, the FCC carefully says at least twice [at ¶¶19
19 and 26] that there are *two* regimes for inter-carrier compensation—local and
20 interstate—and that there is currently no rule that applies either to the case of

1 reciprocal compensation for ISP-bound traffic. It would be equally correct to
2 say that *if* the FCC's inter-carrier compensation paradigm for interstate traffic
3 were applied to ISP-bound traffic, meet point-based sharing of revenue from
4 the ISP would compensate the ILEC and CLEC for carrying the traffic.

5 **Q1 AT PAGES 19-21, MR. STAHLY CONCLUDES THAT THE**
6 **ORIGINATING CARRIER SHOULD COMPENSATE THE ISP-**
7 **SERVING CARRIER FOR COMPLETING A DIAL-UP INTERNET**
8 **CALL BECAUSE THE LATTER CARRIER INCURS A COST AND**
9 **"PRINCIPLES OF ECONOMIC EFFICIENCY" DICTATE THAT THE**
10 **CARRIERS MUST BE COMPENSATED FOR SUCH TRAFFIC." IS**
11 **THAT ANALYSIS CORRECT?**

12 **A1** No. The economic efficiency principle Mr. Stahly cites implies only that
13 *both* carriers should recover the incremental costs caused by the incremental
14 ISP-bound call. It does not imply that the originating carrier should
15 reimburse the carrier that delivers Internet-bound traffic to ISPs. In my direct
16 testimony, I showed that economic efficiency requires that the *cost-*
17 *causer*—the end user acting as a customer of the ISP—must face the full cost
18 of carrying the call. Thus, the FCC's interstate inter-carrier compensation
19 paradigm—where the IXC bills the end user and collects the money to
20 compensate all carriers who participate in the call—is the appropriate

1 paradigm for inter-carrier compensation for ISP-bound traffic. Like the IXC,
2 the ISP collects the money from the end user and the end user faces a price
3 determined essentially by the ISP. In this paradigm, the ISP and IXC act as
4 the agent for their respective end user customers, setting the price and terms
5 and conditions of service, collecting the money and paying the costs of all
6 carriers that participate in the call.

7 **D. Economic Efficiency Requires Separate Treatment for ISP-**
8 **Bound Traffic**

9 Q1 **MR. STAHLY ASSERTS (AT PAGE 16) THAT THERE IS NO NEED**
10 **TO CREATE “A SEPARATE CLASS OF SERVICE” FOR ISP-BOUND**
11 **TRAFFIC. DO YOU AGREE?**

12 A1 No. Mr. Stahly supports this assertion with the explanation that (1) ISP-
13 bound traffic cannot be separated from other types of local traffic, (2) other
14 local traffic can also generate disproportionately large ratios of originating
15 and terminating traffic, and (3) CLECs’ networks are incomplete and
16 measuring the costs they incur to deliver Internet-bound traffic to ISPs would
17 be difficult. For these reasons, he concludes (at page 16) that “there would be
18 little, if any, benefit gained from trying to separate out dial-up Internet traffic
19 as a separate class.”

20 On the contrary, any efficient mechanism for inter-carrier compensation

1 requires knowledge of the incremental cost of transport and delivery to ISPs
2 of Internet-bound traffic and the ability to set rates to reflect that cost. As
3 discussed above, the TELRIC of transport and delivery of ISP-bound traffic
4 clearly differs from the TELRIC of originating and terminating local
5 exchange traffic that was used to determine the reciprocal compensation
6 rate.¹²

7 **Q1 WOULD COMBINING ISP-BOUND TRAFFIC AND ORDINARY**
8 **VOICE TRAFFIC FOR COSTING AND PRICING PURPOSES BE**
9 **CONSISTENT WITH ECONOMIC EFFICIENCY?**

10 **A1** No. To ignore the difference in costs would create economic inefficiencies
11 (because price would differ from cost) and (as discussed in my direct
12 testimony) would distort the local exchange market in several important
13 ways. First, competition for the residential local exchange customers who
14 generate dial-up ISP-bound traffic would be distorted because serving those
15 customers would expose the LEC to reciprocal compensation payments in
16 excess of cost. Second, competition among LECs to serve ISPs would be
17 distorted because reciprocal compensation payments in excess of cost would
18 only be paid if the ISP were served by any carrier other than the ILEC that

1 ¹² The Colorado Commission explicitly recognized that (1) it is necessary to differentiate ISP-bound traffic from
2 local voice traffic and (2) U S WEST has a technique that is “reasonably designed to measure ISP traffic.”
3 *Colorado Decision*, §I.C(m).

1 serves most residential customers. Third, the payment of reciprocal
2 compensation in excess of cost would effectively subsidize dial-up Internet
3 access and distort consumers' rate of substitution between slow speed dial-up
4 Internet access and the newer direct access, high bandwidth technologies like
5 DSL and cable. Finally, differences between prices and cost would create
6 incentives to generate traffic solely for the purpose of receiving reciprocal
7 compensation.

8 **Q1 HAS THE FCC EVER ESTIMATED COSTS OR SET PRICES FOR**
9 **PARTICULAR SUBSETS OR SUB-ELEMENTS OF DEMAND?**

10 A1 Yes. The FCC took factors like these into account in its *Local Competition*
11 *Order* to determine that interconnection rates should differ for paging
12 companies, citing the different network and traffic
13 characteristics—technologies, network configuration, call duration, whether
14 the call was voice or data—that could give rise to different costs for paging
15 providers and wireline ILECs as well as the incentive effects that charging a
16 price different from cost would bring about.¹³ Thus, it is certainly appropriate
17 for a TELRIC study to examine the incremental costs associated with sub-

1 ¹³ FCC, *In the Matter of Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-
2 98, First Report and Order (“*Local Competition Order*”), released August 19, 1996, at ¶¶1092-1093:
3 “Using incumbent LEC’s costs for termination of traffic as a proxy for paging providers’ costs, when the
4 LECs’ costs are likely higher than paging providers’ costs, might create uneconomic incentives for paging
5 providers to generate traffic simply in order to receive termination compensation.”

1 elements or subsets of demand to determine whether costs differ sufficiently that
2 different prices should be charged.

3 **Q1 IN GENERAL, WHAT FACTORS DETERMINE WHEN A SUBSET OF**
4 **SERVICE OR A SUB-ELEMENT IS TREATED SEPARATELY FOR**
5 **COSTING OR PRICING PURPOSES?**

6 A1 In principle, regulators constantly balance the loss in economic efficiency
7 from averaging prices over subsets of services or elements that have different
8 costs with the gain from simplicity in the rate structure. In theory, the price
9 of each residential customer's loop should differ in order that prices reflect
10 costs, but in practice, regulators find the benefits from having a small number
11 of prices that vary by rate group outweigh the costs from reduced economic
12 efficiency. However, even limited deaveraging that permits prices to track
13 costs is likely to be more economically efficient because that deaveraging
14 reduces any implicit subsidy from lower cost-to-serve customers to higher
15 cost-to-serve customers for the underlying service.

16 Unlike sub-elements or subsets of service, ISP-bound traffic is technically
17 and economically different from other local exchange or interstate traffic.

18 One important distinction is that recovering the cost of ISP-bound traffic is
19 constrained by the FCC's long-standing ESP exemption. There is no reason
20 to distinguish all types of traffic that generate disproportionate amounts of

1 terminating traffic. Only one type of such traffic is subject to the ESP
2 exemption, and we must measure its cost and set its price correctly so that the
3 efficiency consequences of the ESP exemption do not generate an implicit
4 subsidy to Internet use or unduly distort efficiency and local exchange
5 competition among LECs.

6 **Q1 IN CONCLUSION, DO YOU BELIEVE THAT THE COMMISSION**
7 **SHOULD ESTABLISH RECIPROCAL COMPENSATION FOR ISP-**
8 **BOUND TRAFFIC?**

9 **A1** No. I have presented extensive testimony in this proceeding demonstrating
10 why, from an *economic* standpoint, reciprocal compensation is the least
11 appropriate form of compensation for ISP-bound traffic—a conclusion and its
12 underlying reasoning that were recently accepted by the Colorado
13 Commission in its decision on the U S WEST-Sprint arbitration. The
14 Colorado Commission determined that the interstate paradigm for intercarrier
15 compensation was more reasonable than the local exchange paradigm and
16 that—irrespective of jurisdictional arguments—application of non-zero
17 reciprocal compensation charges would

18 introduce a series of unwanted distortions into the market. These include: (1) cross-
19 subsidization of CLECs, ISPs, and Internet users by the ILEC's customers who do
20 not use the Internet; (2) excessive use of the Internet; (3) excessive entry into the
21 market by CLECs specializing in ISP traffic mainly for the purpose of receiving
22 compensation from the ILECs; and (4) disincentives for CLECs to offer either

1 residential service or advanced services themselves. In short, we agree with U S
2 WEST that reciprocal compensation for ISP traffic would not improve overall
3 social welfare; it would simply promote the welfare of some at the expense of
4 others.¹⁴

5 However, if this Commission should decide to establish reciprocal
6 compensation for ISP-bound traffic, then I would urge the Commission to
7 take due note of the differences in the cost to serve local voice and ISP-bound
8 traffic and to establish a symmetric compensation rate for delivery of ISP
9 traffic that differs from—specifically, is lower than—the reciprocal
10 compensation rate currently in place for the exchange of general local voice
11 traffic.¹⁵ I understand that the pending cost docket in Washington could
12 provide the opportunity to properly set that compensation rate.

13 Q1 **DOES THIS CONCLUDE YOUR TESTIMONY?**

14 A1 Yes.

1 ¹⁴ *Colorado Decision*, §I.C(j). Footnote omitted.

1 ¹⁵ This reciprocal compensation rate would be *symmetric* because U S WEST would pay Sprint the same rate for
2 delivering ISP traffic that Sprint would pay U S WEST for delivering traffic to ISPs served by U S
3 WEST.