Exhibit \_\_\_ (RW-3T)
Docket No. UT-031472
Witness: Robert Williamson

## BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON EXCHANGE CARRIER ASSOCIATION, et. al.,

Petitioners,

v.

LOCALDIAL CORPORATION, an Oregon Corporation,

Respondents.

**DOCKET NO. UT-031472** 

## RESPONSE TESTIMONY OF

**Robert Williamson** 

STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

March 29, 2004

1	Q.	Please state your name and business address.
2	A.	My name is Robert Williamson, and my business address is 1300 South
3		Evergreen Park Drive Southwest, P.O. Box 47250, Olympia, Washington, 98504.
4		My business e-mail address is <u>bwilliam@wutc.wa.gov</u> .
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6	Q.	Did you file direct testimony in this case?
7	A.	Yes I did.
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9	Q.	What is the purpose of your response testimony?
10	A.	Mr. Montgomery, in his direct testimony on behalf of LocalDial, has argued
11		incorrectly that the LocalDial's "IP-In-The-Middle" service should be classified
12		as an information service. In Part I of my testimony I clarify, from a technical
13		perspective, why he is incorrect. In Part II of my testimony I explain why Mr.
14		Montgomery is also incorrect when he reasons that the use of the Internet to
15		transport some calls changes the regulatory status of LocalDial's service from
16		interexchange telecommunications to an information service.
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1 2 3 4		<ul> <li>I. LocalDial's "IP-in-the-middle" phone-to-phone IP telephony service is different in significant ways from the information services Mr.</li> <li>Montgomery mentions in his testimony.</li> </ul>
5	Q.	Mr. Montgomery testifies that the LocalDial service "satisfies the current
6		definition of enhanced or information services under the FCC and Federal
7		law." What are the current definitions of enhanced or information services, on
8		the one hand, and basic or telecommunications service on the other?
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10	A.	The FCC's Notice of Proposed Rulemaking on IP-Enabled Services, released this
11		month, provides a convenient summary of the definitions and how they have
12		evolved.
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14		Basic vs. enhanced service: "In the Computer Inquiry line of decisions, the FCC

specified that a 'basic' service is a service offering transmission capacity for the delivery of information without net change in form or content.¹ Providers of

Notice of Proposed Rulemaking, *In the Matter of IP Enabled Services*, FCC 04-28, FCC WC Docket No. 04-36, ¶ 25 (citing Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities, Docket No. 16979, Notice of Inquiry, 7 FCC 2d 11 (1966) (Computer I NOI); Regulatory and Policy Problems Presented by the Interdependence of Computer and Communications Services and Facilities, Docket No. 16979, Final Decision and Order, 28 FCC 2d 267 (1971) (Computer I Final Decision); Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), Docket No. 20828, Tentative Decision and Further Notice of Inquiry and Rule Making, 72 FCC 2d 358 (1979) (Computer II Tentative Decision); Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry, Docket No. 20828, Final Decision, 77 FCC 2d 384 (1980) (Computer II Decision); Amendment of Section 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), CC Docket No. 85-229, Report and Order, 104 FCC 2d 958 (1986) (Computer III)).

'basic' services are subject to common carrier regulation under Title II of the
[Communications Act of 1934]. <sup>2</sup> By contrast, an 'enhanced' service contains a
basic service component but also employs computer processing applications that
act on the format, content, code, protocol, or similar aspects of the subscriber's
transmitted information, provide the subscriber additional, different, or
structured information, or involve subscriber interaction with stored
information." <sup>3</sup>

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9 **Telecommunications**: "In 1996, the *Telecommunications Act* codified, with minor 10 modifications, the Commission's distinction between regulated 'basic' and largely unregulated 'enhanced' services. The 1996 Act defined 11 12 'telecommunications' to mean 'the transmission, between or among points 13 specified between the user, of information, of the users choosing, without change 14 in the format or content of the information as sent and received.<sup>4</sup> The Act then defined 'telecommunications service' to mean 'the offering of 15 16 telecommunications for a fee directly to the public, or to such classes of users as 17 to be effectively available to the public, regardless of facilities used."5

<sup>•</sup> 

Id. (citing Computer II Final Decision, 77 FCC at 428, ¶ 114).

<sup>&</sup>lt;sup>3</sup> *Id.* (citing 47 C.F.R. § 64.702; see also Computer II Decision, 77 FCC 2d at 420-21, ¶ 97).

<sup>&</sup>lt;sup>4</sup> *Id.* at ¶ 26 (citing 47 U.S.C. § 153(43)).

<sup>&</sup>lt;sup>5</sup> *Id.* (citing 47 U.S.C. § 153(46)).

service."6

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Q.

*Id.* at ¶ 27 (citing 47 U.S.C. § 153(20)).

Id. at footnote 94.

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throughout the rest of my response testimony.

processing, retrieving, utilizing, or making available information via

telecommunications, and includes electronic publishing, but does not include

any use of any such capability for the management, control, or operation of a

The FCC notes that "the 'information service' category includes all

services that the Commission previously considered to be 'enhanced services'."7

telecommunications, information services, and the different types IP Telephony

The FCC's 1998 Stevens Report to Congress differentiates

Services. I quote the Stevens Report in detail in my initial testimony and

Mr. Montgomery states on page 6, line 19 of his direct testimony that

No, I do not agree with Mr. Montgomery. LocalDial provides a

Telecommunications Service, not an Information Service.

LocalDial's phone-to-phone Service is an Information Service. Do you agree?

telecommunications network or the management of a telecommunications

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1	In the Stevens Report, the FCC stated: "We first note that
2	'telecommunications' is defined as a form of 'transmission.'"8

[W]hen an IP telephony service provider deploys a gateway within the network to enable phone-to-phone service, it creates a virtual transmission path between points on the public switched telephone network over a packet-switched IP network. These providers typically purchase dial-up or dedicated circuits from carriers and use those circuits to originate or terminate Internet-based calls. From a functional standpoint, users of these services obtain only voice transmission, rather than information services such as access to stored files. The provider does not offer a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information. Thus, the record currently before us suggests this type of IP telephony lacks the characteristics that would render them "information services" within the meaning of the statute, and instead bear the characteristics of "telecommunications services."

Despite the FCC's conclusion that the process involved in creating a virtual transmission path between points in the PSTN does not amount to providing end-users with an Information Service, Mr. Montgomery makes a number of assertions based on the premise that it does. He states that the "VoIP gateway acts on the content and format of the customer's voice signal and inherently involves generating, storing, retrieving and converting information that is not part of the original voice signal."

Similarly:

1.) On page 36, Mr. Montgomery claims that "VoIP suppression and

In the Matter of Federal-State Joint Board On Universal Service, CC Docket No. 9645, 13 FCC RD 11501, release Number 98-67 released April 10, 1998,  $\P$  86.

<sup>&</sup>lt;sup>9</sup> *Id.* at ¶89.

1	compression functions in gateway devices detect and delete periods of
2	silence in the conversation and other non-voice sounds and that the
3	gateway creates false information and then inserts data into the stream of
4	packets. He asserts that by doing so, the gateway is providing an
5	information service.
6	2.) On page 38 he further argues that the error corrections that must be
7	performed with VoIP during the two-way voice conversation also
8	constitute information service.
9	3.) On page 39 he states that the process of adding protocol-required
10	information at the beginning of each packet also constitutes an
11	information service.
12	None of the functions Mr. Montgomery identifies, however, provide a "net
13	conversion" in protocol or change to the customer voice transmission. The user
14	does not receive the enhanced functionality that is the hallmark of an enhanced
15	or information service. The FCC states that one of the characteristics
16	distinguishing an information service from a telecommunications service is the
17	occurrence of <i>net</i> conversion between the two ends of the common carrier
18	transmission, of the "format, content, code, protocol" or similar aspects of the

message.	10
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In the Stevens Report, the FCC concluded that "[f]rom a functional standpoint, users of these [phone-to-phone IP] services obtain only voice transmission, rather than information services such as access to stored files."

Voice suppression and compression, error detection and correction, as well as protocol related addressing and the addition of protocol related information are functions of all modern telecommunications networks and are commonly used by the PSTN today in transport (T1, SONET, etc.) and digital switching (5ESS, DMS, etc.). The FCC has explicitly clarified that certain internetworking protocol conversion capabilities—those conversions taking place "that result in no net conversion between users"—are frequently required in the provisioning of telecommunications service.<sup>12</sup> The FCC declared that phone-to-phone IP telephony services seem to "lack the characteristics that would render them 'information services' within the meaning of the statute."<sup>13</sup>

LocalDial's IP-in-the-middle VoIP does not meet the definition of an information service.

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Notice of Proposed Rule Making, *In the Matter of IP Enabled Services*, FCC 04-28, FCC WC Docket No. 04-36, footnote 94 (*citing* 47 CFR 64.702).

In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 9645, 13 FCC RD 11501, release Number 98-67 released April 10, 1998, ¶ 89.

<sup>12</sup> Computer III Decision, 2 FCC Rcd. at 3082.

In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 9645, 13 FCC RD 11501, release Number 98-67 released April 10, 1998, ¶ 83, 101.

- 2 O. Does LocalDial's verification process of comparing the originating telephone
- 3 number to the customer telephone number information stored in LocalDial's
- database constitute an information service? 4
- No it clearly does not. The FCC bases its definition of Information Services on 5 A.
- what the end user receives. LocalDial uses the customer verification for its own 6
- 7 purposes. The user receives nothing more than pure transmission. The user
- 8 does not manipulate data or interact with stored data or files. Again, the nature
- of the service offered to the customer determines its classification. "If the 'user' 9
- 10 can receive nothing more than pure transmission, the service is a
- Telecommunications service."14 11

- O. At pages 17, 18 and 41 of his direct testimony, Mr. Montgomery discusses how
- 14 a credit card user's information interacts with a database when a card is run
- 15 through a slide machine. He also discusses how a bank's credit card center
- 16 may be many exchange boundaries away from the customer's Point Of Sale
- 17 (POS) slide machine. He compares LocalDial's service to the above and posits
- 18 that since switched access charges don't apply to the bank and database they
- 19 shouldn't apply to LocalDial either. Do you agree?

*Id.* at ¶ 59.

Again I do not agree. The POS slide machine is a very specialized piece of
Customer Premises Equipment (CPE). The three most common types of
equipment that merchants use to determine that a credit card will pay charges
are: 1) authenticator tone phones that are used by merchants with only a few
transactions a month, 2) magstripe card swipe terminals and, 3) virtual
terminals on the Internet. All three use Electronic Data Capture (EDC) software.
The EDC software attaches to an "acquirer," an organization that collects credit
card requests, then passes the merchant ID, the valid card number, expiration
date, credit card limit, and card usage. The acquirer checks the bank database for
validity of the transaction and either forwards an acceptance or failure of the
transaction. If the transaction is accepted many systems will also make payment
on account, track sales by customer, add new items at the POS, dynamically
update inventory, or perform other similar functions.

The user, the merchant, receives more than transmission. As explained above, the nature of the service offered to the user determines its classification. In the case of the merchant and POS, the user, through the specialized slide machine, actually accesses and interacts with stored data or files on the acquirer's computer system and as such receives an information service. In contrast, the LocalDial user receives only the ability to transmit the sound of his voice to another customer on the PSTN and, as such, receives telecommunications only.

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2	Q.	On page 18 of his direct testimony, Mr. Montgomery points out that Internet
3		Service Providers (ISPs) pay no access charges because they, like all
4		information service providers, are allowed by the FCC to establish local access
5		numbers by purchasing access to the PSTN in the same manner as end users.

## Is LocalDial an ISP?

No, LocalDial's service does not fit the description of an ISP. An ISP is, for regulatory purposes, a type of information service provider, like providers of voice mail service or the service that is used by POS slide machines (sometimes called "transaction services"). An ISP "service ... provides more than a simple transmission path; it offers users the 'capability for ... acquiring, storing, transforming, processing, retrieving, utilizing, or making available information through telecommunications'." "The service that Internet access providers offer to members of the public is Internet Access. That service gives users a variety of advanced capabilities. Users can exploit those capabilities through applications they install on their own computers." "16

Again, LocalDial provides only voice transmission to its customers.

Customers' computers are not connected to the Internet and no advanced capabilities are provided by LocalDial's service. LocalDial is not an ISP.

*Id.* at ¶ 79.

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*Id.* at ¶ 78.

<u> </u>	Q.	Mr. Montgomery seems to imply that because LocalDial uses a local access
3		number for customers to connect to LocalDial's service, access charges should
1		not apply. Do you agree?

5 A. I do not agree. Accessing a long distance service using an access number was common prior to "Equal Access" and is still in use today. "Feature Group  $A^{\prime\prime 17}$ 6 7 access allows an IXC's customers to access their long distance service by dialing a 8 separate telephone number, sometimes an 800 number, before dialing the desired 9 long distance number they wish to call. Feature Group A - like access does not 10 change the way access charges are paid. Since the first call is originated by the user to connect to the long distance service via a "toll free" number, no measured 11 12 charges apply (the call is covered by the subscriber's flat monthly local service 13 rate). Charges do apply, however, for the completed toll call between the 14 originating user and the terminating telephone number like any long distance 15 traffic.

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Q. Mr. Montgomery states that LocalDial's service is a VoIP overlay on a network of telecommunications facilities and as such "uses" telecommunications

Feature Group A offers access to the local exchange carrier's network through a subscriber-type line connection rather than a trunk. Without equal access the IX carrier had to require its customers to dial a local number, then reach the local facilities, then dial an identification number, then dial long distance numbers of called party required. Newton's Telecom Dictionary, 19th Edition.

1		instead of providing telecommunications. He further states "the VoIP
2		technology used by LocalDial amounts to a pure information service." Do you
3		agree?
4	A.	The FCC has classified Information Service Providers as "users" of common
5		carrier services and not as common carriers themselves. But, as I have now said
6		numerous times, I disagree that the LocalDial's service is an information service
7		to which this regulatory theory would apply. At the risk of repeating myself, the
8		FCC takes a functional approach by looking at what the user receives when
9		deciding whether a service provides Telecommunications or Information Service.
10		"This functional approach is consistent with Congress's direction that the
11		classification of a provider should not depend on the type of facilities used. A
12		Telecommunications service is a Telecommunications service regardless of the
13		whether it is provided using wireless, cable, satellite, or some other
14		infrastructure. Its classification depends on the nature of the service being
15		offered to customers."18 "As discussed above, users of certain forms of phone-to-
16		phone IP telephony appear to pay fees for the sole purpose of obtaining
17		transmission of information without change in form or content. Indeed, from an

1	end-user perspective, these types of phone-to-phone IP Telephony service
2	providers seem virtually identical to traditional circuit-switched carriers."19
3	It matters not whether an IP Telephony provider owns its own facilit

It matters not whether an IP Telephony provider owns its own facilities or leases them from other providers. What is important in classifying the service as telecommunications or information services is the service provided to the end user. The service that LocalDial provides to it customers is pure transmission and as such provides telecommunications.

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II. Whether LocalDial passes calls over the Internet does not make a difference in the regulatory status of LocalDial's service; nonetheless, Mr. Montgomery overstates the extent to which LocalDial uses the Internet.

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14 Mr. Montgomery seems to say that LocalDial routes all of its calls "over O. Internet backbone circuits that carry all types of Internet traffic." Is that true? 15 I don't believe so. Mr. Carden (LocalDial CEO) stated in his deposition that for 16 Α. 17 calls that stay within a market (e.g., Seattle and the surrounding geographical 18 area for which LocalDial routes calls through its Seattle node), the IP portion of 19 the call passes between routers via a local area network (LAN) connected by 20 Ethernet cables--not over the Internet.<sup>20</sup> He stated that sometime in October of

2003, LocalDial began updating its network by routing traffic between markets

<sup>&</sup>lt;sup>19</sup> *Id.* at ¶ 101.

<sup>&</sup>lt;sup>20</sup> Carden Dep., August 12, 2003, pages 38 and 39.

1	(i.e., between cities where LocalDial has an Internet gateway) over the Internet.
2	He explained that LocalDial defines its different markets as locations throughout
3	the country where it has located equipment to serve a major city and
4	surrounding areas. At the time of the deposition LocalDial had markets in
5	Seattle, Portland, Los Angeles, Salt Lake City, and Atlanta. <sup>21</sup> Although LocalDial
6	has updated its wide area network (WAN) to use the Internet to route voice
7	traffic between markets, the internal LAN that completes calls within each
8	market (e.g. the portion of Washington for which LocalDial routes calls through
9	the Seattle node), continues to route voice traffic using Ethernet cables never
10	entering the Internet. <sup>22</sup>

Because LocalDial has chosen to route calls made by Southwest

Washington customers (those located south of Centralia/Chehalis to the Oregon
border) through its Portland facility, a call from Vancouver or Longview to

Seattle would be passed via the LocalDial inter-market WAN over the Internet
from the LocalDial Portland market to the Seattle market.

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Q. From a regulatory standpoint, does it matter if some of the LocalDial intrastate telephone calls are passed between markets via the Internet?

<sup>&</sup>lt;sup>21</sup> Carden Dep., February 9, 2004, pages 12, 13, 14.

<sup>22</sup> *Id.* at p. 15.

A	•	No it does not. Whether the calls are passed over a LAN (internal to a node) or a
		WAN connected to other markets via the Internet, there is no net change to
		protocol or change to the customer voice transmission. LocalDial's network
		creates a "virtual transmission path" between points on the PSTN over a packet-
		switched IP network. Although internet service providers are classified as
		information service providers, it is not because they provide their customers with
		transmission over the Internet, it is because they provide their customers with
		the ability to access and interact with stored information such as a website or e-
		mail stored on an Internet server.

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- Q. Mr. Montgomery mentions, "domain name addressing." What is domain name addressing?
- The Domain Naming System (DNS) is a distributed database that allows domain 13 A. names to be resolved to IP addresses. With the DNS, a domain name such as 14 15 www.wutc.wa.gov, can be resolved to an IP address that is used for all 16 communication on the Internet. The domain name would be contained within a 17 Universal Resource Locator (URL), such as <a href="http://www.wutc.wa.org">http://www.wutc.wa.org</a>, which is then resolved to the IP address. All activity on the Internet, or other IP networks, 18 requires the use IP of addresses (e.g. 192.47.36.65). The administrators of the 19 20 ARPAnet created domain names because they found that it was easier to

1		remember letter names (domain names) than IP addresses. Today there more
2		than 100 million domain names around the world. The most common domain
3		names end in .com, .gov, .edu, .org, .mil, etc. Computer-to-computer VoIP may
4		use the DNS because it does not use NANP telephone numbers for routing. In
5		the early versions of Internet Telephony the only way users could reach each
6		other was by using the DNS or directly inputting IP addresses.
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8	Q.	Does LocalDial Use The DNS in its service?
9	A.	LocalDial would not use the DNS with its service. LocalDial assigns IP addresses
10		that it uses in its nodes and wouldn't require the use of domain names for
11		switching within its internal Local Area Network (LAN) or over their Wide Area
12		Network (WAN). Neither Mr. Carden nor Mr. Crawford mentions its use in
13		their depositions. LocalDial, like all phone-to-phone VoIP systems, uses NANP
14		telephone numbers for routing.
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16	Q.	Is it true, as Mr. Montgomery states, that the FCC has "never ruled that a

service with the characteristics of LocalDial's service is not an Information

Service?"

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1	A.	Although it is true that the FCC has not ruled whether similar phone-to-phone
2		services are information or telecommunications services, the FCC has made a
3		number of strongly worded statements on phone-to-phone VoIP.

In the Stevens Report<sup>23</sup> the FCC considered the proper classification of IP Telephony services under the 1996 Act.<sup>24</sup> While declining to render conclusions it did observe that phone-to-phone VoIP resembles telecommunications, as I stated in my earlier testimony.

In the Stevens Report the FCC tentatively defined the term "phone-to-phone IP Telephony." The significance of the FCC's definition is that it reflects the first time the FCC took steps to distinguish the types of IP telephony and how those services compare to "telecommunications services." The FCC explained that "[C]ongress did not limit 'telecommunications' to circuit-switched wireline transmission, but instead defined the term on the basis of essential functionality to users." Generally, it is irrelevant what technology a provider utilizes to provide "telecommunications services." For example, carriers using 39 GHz, microwave or data packet switched technologies to provide telecommunications services to the public have all been subject to the FCC's Title

Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501 (1998) (Stevens Report).

<sup>24</sup> Id. at ¶¶ 83-93.

<sup>&</sup>lt;sup>25</sup> *Id.* at ¶ 98.

13	O.	Mr. Montgomery stated at footnote 33 of his direct testimony that he is not
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11		borne equitably among those that use it in similar ways."28
10		network, or on a cable network. We maintain that the cost of the PSTN should be
9		obligations, irrespective of whether the traffic originates on the PSTN, on an IP
8		provider that sends traffic to the PSTN should be subject to similar compensation
7		Rulemaking, the FCC states: "As a matter of policy, we believe that any service
6		In March of this year, in the new IP-Enabled Services Notice Of Proposed
5		attributes of the underlying architecture."27
4		service provided to consumers, rather than one that focuses on the technical
3		suggest a functional approach [to regulation], focusing on the nature of the
2		Wireline Broadband NPRM, concluding that "the statute and our precedence
1		II regulations as common carriers. <sup>26</sup> The FCC recently reiterated the issue in the

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aware that any state commission has ruled that phone-to-phone IP telephony, similar to the service provided by LocalDial, has been regulated as

16 Telecommunications? Do you agree?

Kiser and Collins, "Regulation On The Horizon: Are Regulators Poised to Address the Status of IP Telephony?," 11 CommLaw Conspectus 19, 24 fn. 41(2003).

In re Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Universal Service Obligations of Broadband Providers; Computer III Further Remand Proceedings; Bell Operating Co. Provision of Enhanced Services; 1998 Biennial Reg. Review - Review of Computer III and ONA Safeguards and Requirements, Notice of Proposed Rulemaking, 17 FCC Rcd. 3019, para. 7 fn. 10.

Notice of Proposed Rule Making, In the Matter of IP Enabled Services, FCC 04-28, (continued) (continued) FCC WC Docket No. 04-36,  $\P$  33

- No I do not agree. As I stated in my direct testimony<sup>29</sup> the New York Public 1 A.
- Service Commission ruled in May of 2002 that US DataNet, a phone-to-phone 2
- VoIP company providing a similar service to that of LocalDial, was a provider of 3
- 4 intra-state long distance (inter-exchange) telecommunications service.<sup>30</sup>

- 6 Does this conclude your response testimony? Q.
- Yes it does. A.

<sup>29</sup> Williamson Direct at p. 18.

Order Requiring Payment of Intrastate Carrier Access Charges, Complaint of Frontier Telephone of Rochester Against US DataNet Corporation Concerning Alleged Refusal to Pay Intrastate Carrier Access Charges, State of New York Public Service Commission Case 01-C-1119 (May 31, 2002).