BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE COMPLAINT OF ORBITCOM, INC. AGAINST MCI COMMUNICATIONS SERVICES, INC. D/B/A VERIZON BUSINESS SERVICES AND TELECONNECT LONG DISTANCE SERVICES & SYSTEMS COMPANY D/B/A TELECOM*USA FOR UNPAID ACCESS CHARGES	TC08-135 **PRE-FILED SUPPLEMENTAL TESTIMONY OF LESLIE FREET**

CORRECTED SUPPLEMENTAL TESTIMONY OF LESLIE FREET

ON BEHALF OF
MCI COMMUNICATIONS SERVICES, INC.
D/B/A VERIZON BUSINESS SERVICES AND
TELECONNECT LONG DISTANCE SERVICES & SYSTEMS COMPANY
D/B/A TELECOM*USA

(CERTAIN EXHIBITS TO THIS TESTIMONY HAVE BEEN FILED AS CONFIDENTIAL, BUT NONE OF THE TESTIMONY IS CONFIDENTIAL)

October 13, 2009

LIST OF EXHIBITS

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Leslie Freet. I am the Group Manager of the Tulsa Carrier Cost Management department of Verizon Business. My business address is 6929 N. Lakewood Ave, Tulsa Oklahoma, 74177.

Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS PROCEEDING ON BEHALF OF VERIZON BUSINESS?

A. Yes, I did.

Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?

A. In my earlier testimony, I described Verizon's prior, unsuccessful efforts to obtain call detail records from OrbitCom so that we could audit and validate its bills for switched access service. I also explained why Verizon needed to be able to review actual call records, in particular, usage data contained in EMI (or Electronic Message Interface) formatted records. This is information that Qwest initially sends to OrbitCom. Qwest is the local exchange provider whose network OrbitCom uses to provide service to OrbitCom's end user customers. OrbitCom purportedly uses that information when creating bills that it issues to interexchange carriers. After the Commission granted Verizon's motion to compel OrbitCom to produce certain calling detail, including ANI information, in a usable format, OrbitCom generated some call detail records for a 5-day period. Since receiving those records, Verizon has been able to perform certain analyses

that further our understanding of OrbitCom's access bills. My supplemental testimony addresses Verizon's findings and the results of those analyses.

Q. WHAT ARE EMI RECORDS?

A. Electronic Message Interface, or EMI, is an industry standard developed by the Ordering and Billing Forum and published by the Alliance for Telecommunications Industry Solutions ("ATIS"). The ATIS documentation explains that EMI is a "guideline" that "provides a unique but common method for exchange of telecommunications message information between Sending and Billing Companies for billing and tracking analysis." "Category 11" EMI records are used by an exchange carrier to report access minutes of use originating from or terminating to the local network. A local exchange network operator like Qwest provides this information to a UNE-P provider, such as OrbitCom, on a daily basis. Data files containing Category 11 records are also referred to sometimes as "Daily Usage Feed" records. *See, e.g.*, Qwest Local Services Platform Agreement, Attachment 2, Section 2.3, which is included in Exhibit LF-30. Category 11 EMI records are quite detailed, containing 210 fields of information. *See* Exhibit LF-31 at 4.

Q. WHY WAS IT IMPORTANT TO BE ABLE TO EXAMINE ORBITCOM'S EMI RECORDS?

A. EMI records are generated by telephone company switches that process and route telephone calls. In this case, the EMI records are initially generated in Qwest's

network and provided to OrbitCom. The EMI records contain a tremendous amount of call detail, but for purposes of resolving this billing dispute, EMI records provide us with three key pieces of valuable information.

- First, the records indicate the originating and terminating 10-digit telephone numbers (or "ANIs") for most calls that traverse a particular switch. This information is needed to determine the correct jurisdiction of the call (whether interstate or intrastate) so that the local exchange carrier (OrbitCom) can apply the appropriate jurisdictional rates.
- Second, because EMI records contain the full 10-digit telephone number of the calling and called parties, they are also useful for another purpose. The EMI records that Qwest provides to OrbitCom contain information that uniquely pertains to calls that are placed by or made to OrbitCom's end users. Thus, the local 10-digit ANIs contained in the original EMI records are associated with OrbitCom customers. Obtaining information in EMI format enabled Verizon to compare the call records provided by OrbitCom with Verizon's own internal network records of calls delivered to or originated by those same telephone numbers.
- Third, the Category 11 EMI record of each call includes a field that indicates if that call was routed through the Qwest tandem switch, or not. Examination of that information in the EMI formatted records enabled Verizon to determine the number of calls billed by OrbitCom that were actually "tandem routed." Accordingly, this information is useful in resolving Verizon's objection that OrbitCom has been imposing tandem

switching charges on many calls that were not, in fact, routed through a tandem switch.

Q. PLEASE SUMMARIZE THE RESULTS OF VERIZON'S ANALYSIS.

A. Verizon compared the call records furnished by OrbitCom with Verizon's own internal network records for the same five days. We found that Verizon's call records included many more long distance calls originated by or terminated to OrbitCom end users than appeared in the records produced by OrbitCom. By matching Verizon's internal network records with the associated records produced by OrbitCom, we were able to isolate the long distance calls that were not reflected in OrbitCom's records. When we evaluated those calls, we determined that a substantial majority of the "missing" calls were interstate. By looking at all the calls appearing in Verizon's records that were placed by or terminated to OrbitCom's end users on those five days in June 2009, we found that substantially more of the traffic was interstate than is reflected on OrbitCom's invoices to Verizon. Verizon also looked at calls placed to or from ANIs associated with OrbitCom end users during an earlier billing period, and found that more than 70% of the traffic was interstate, in contrast to the "5% PIU" that OrbitCom billed Verizon at that time. Finally, an examination of the tandem/DEOT "Routing Method" indicator in the EMI formatted files provided by OrbitCom confirmed that less than 2 percent of those calls were "tandem routed." This reinforced Verizon's position that it was improper for OrbitCom to assess "tandem

switching" charges on 98% of the traffic for which no tandem switching was provided.

Q. WHAT INFORMATION DID ORBITCOM PROVIDE VERIZON?

A. After the Commission granted Verizon's motion to compel, OrbitCom provided us two sets of data. Initially, OrbitCom provided call detail information, in Excel format, for three weekdays, June 24, 25, and 29, 2009, and for two weekend days, June 27 and 28. The information appears to have been internally-generated from OrbitCom's CABs billing system. (For convenience, I will refer to these as "OrbitCom's CDRs.") CONFIDENTIAL Exhibit LF-32 contains a summary of the number of calls and amount of usage reflected in those CDRs. A few days later, OrbitCom informed Verizon that it had found a programmer who could "separate the Verizon/MCI records out of the daily usage files for the dates that we provided you with CDR's out of our CABS billing system." On September 1, OrbitCom sent us this second set of records which, it said, "were taken out of the daily usage files." Because this second set of data was provided in EMI format, I will refer to them as the "EMI formatted records." CONFIDENTIAL Exhibit LF-33 contains a summary of the number of calls and amount of usage reflected in those EMI formatted records.

The information that OrbitCom provided was not a complete response to Verizon Data Request 048. Verizon operates two different long distance networks and the two networks are assigned different Carrier Identification Codes ("CICs"), 0555

and 0222. Because Verizon desired to validate OrbitCom's invoices for both of its networks, Verizon Data Request 048 requested call detail information "separately for BAN 8080SD0555 and BAN 8080SD0222." *See* Verizon's Corrected Motion to Compel, August 20, 2009, at 4. Verizon Data Request 048 was the focus of Verizon's motion to compel, which the Commission granted, so Verizon expected to receive data for both CIC 0555 and CIC 0222 when OrbitCom complied with the Commission's order. Nevertheless, the two sets of call records provided by OrbitCom in August (OrbitCom's CDRs) and September (OrbitCom's EMI formatted records) contained information only for traffic billed to Verizon's network assigned CIC 0555, and none for Verizon's network assigned CIC 0222.[1] More than 30% of the access traffic for which OrbitCom billed Verizon in South Dakota in June 2009 was carried over CIC 0222. *See, e.g.*, Rebuttal Testimony of Michael Powers, Exhibit MP 2-19.[2] Accordingly, the call detail records that OrbitCom provided to Verizon in August and September, and that we were able to review, did not include a substantial amount of OrbitCom's end users' long distance traffic that was carried by Verizon on those five days.[3]

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[1] The lack of any CDR or EMI files for CIC 0222 in the data OrbitCom initially provided is a separate problem from the problems I discuss below about individual calls that are missing from the data that OrbitCom did provide. The calls that Verizon has identified as missing are all CIC 0555 calls.

[2] Exhibit MP 02-19 includes detailed usage information about different types of traffic carried over Verizon's two interexchange networks. Verizon considers this information confidential and proprietary. Although Mr. Powers did not label Exhibit MP 02-19 "Confidential," Verizon respectfully requests that the Commission treat the usage data contained therein as confidential.

[3] On Friday, October 2, 2009, at 4:43 p.m. Central Daylight Time, after I had substantially completed drafting this supplemental testimony to be filed on Monday, October 5, OrbitCom sent to Verizon's attorney two e-mail messages which purported to contain CDR records and EMI files for CIC 0222 for five days in June 2009. Neither I nor any other member of my team has had an opportunity to review this newly-provided information. Accordingly, none of that information is addressed in this testimony.

Q. WERE THE TWO SETS OF CALL RECORDS (THE ORBITCOM CDRs AND THE ORBITCOM EMI FORMATTED RECORDS) PROVIDED BY ORBITCOM IDENTICAL?

A. In general, the two sets of call records provided by OrbitCom were fairly consistent although, as OrbitCom acknowledged, "the number of records will not match exactly." This is apparently in part because OrbitCom's billing system performs a separate sorting of the raw switch data before rating calls and creating bills. While there were some differences in the total number of calls and amount of usage in the two sets of data, the primary difference related to the manner in which the two systems classify the jurisdiction of toll-free traffic (such as 800 calls). However, those differences do not appear to be material to the parties' billing disputes.

Q. PLEASE DESCRIBE THE KINDS OF RECORDS THAT VERIZON MAINTAINS ON AN ONGOING BASIS AND THE TYPES OF COMPARISONS AND ANALYSES THAT VERIZON CONDUCTED ONCE IT RECEIVED THE ORBITCOM EMI FORMATTED RECORDS.

A. Verizon extracts call detail records from all of the switches in its long distance network on a daily basis, catalogues and stores the data, and uses the information for billing, cost management and network management purposes. Among other information, Verizon's internal records contain the telephone numbers of the calling and called parties for each long distance call. After we obtained from OrbitCom's sample of EMI formatted records the ANIs (telephone numbers) that

are unique to OrbitCom's end users, Verizon was able to identify and isolate call detail records of traffic on Verizon's long distance network associated with those same ANIs.[4]

Using that information, we reviewed our internal records of the long distance calls originated by or terminated to the ANIs contained in OrbitCom's EMI formatted files during the five days covered by its EMI formatted records. We then attempted to match our records with those provided by OrbitCom. Verizon pulled long distance call records for the same dates reflected in OrbitCom's files (June 24, 25, 27, 28 and 29) to perform this analysis. Because OrbitCom provided call records only for Verizon's 0555 CIC, this comparison only considered traffic carried on the 0555 network, as well.

Verizon sought to match the two companies' calling records using several criteria:

- Originating ANI + Terminating ANI + Connect Time + Call Duration
- Originating ANI + Connect Time + Call Duration
- Terminating ANI + Connect Time + Call Duration

When comparing records, Verizon used broad search parameters in order to capture as many calls as possible. Connect Times and Call Duration were

[4] Verizon previously explained why it was necessary to review EMI records in order to be able to distinguish OrbitCom's end user traffic from other traffic associated with Qwest's end users and that of other CLECs that rely on Qwest's network. Because OrbitCom is a UNE-P provider, all of the telephone numbers associated with its end users are assigned in industry data bases and routing guides to Qwest's end offices, and are identified as residing in Qwest's switches. An interexchange carrier, such as Verizon, has no means of distinguishing between a telephone number assigned to Qwest for its own end users, and a telephone number assigned to OrbitCom for use by its own end users or to any other UNE-P provider whose customers are served through the same Qwest local end office. *See* Verizon's Corrected Motion to Compel at 5-6.

matched with a variance of plus or minus 5 seconds to allow for some slight variations, such as differences in call seizure time. For example, if the OrbitCom formatted EMI record indicated that a long distance call was initiated by an OrbitCom end user at 11:05.25 a.m., we examined our records to see whether a call was originated by the same ANI and delivered to the Verizon long distance network between 11:05.20 and 11:05.30 a.m. Likewise, if our records showed that Verizon delivered a long distance call to an OrbitCom end user at 2:40.10 p.m., we looked to see whether OrbitCom's EMI formatted files included a call to the same ANI between 2:40.05 and 2:40.15 p.m. Once we identified all of the long distance calls on the Verizon network associated with ANIs assigned to OrbitCom's end users, Verizon determined the jurisdiction of the traffic following standard industry protocols. CONFIDENTIAL Exhibit LF-34 contains a summary of the number of calls, the amount of usage and the jurisdictional split of calls that we identified as a result of our examination of Verizon's internal records.

In addition, now that Verizon finally had information about the ANIs assigned to OrbitCom's end users, we reviewed our long distance records from an earlier period in time (specifically, certain days in April and May 2008) to determine the jurisdiction of traffic originated by or terminated to those same ANIs at that time. This is information we had long sought in order to be able to evaluate the manner in which OrbitCom had jurisdictionalized traffic and the validity of its charges for purportedly "intrastate" calls on invoices issued during the time when Verizon

began disputing the charges. The results of this analysis are included in CONFIDENTIAL Exhibit LF-35, and are described below.

Q. WHEN VERIZON COMPARED ITS OWN SWITCH RECORDS WITH ORBITCOM'S EMI FORMATTED FILES, WHAT DID YOU DISCOVER?

A. When we compared OrbitCom's EMI formatted files with Verizon's own network records, the first thing we found is that the quantity of records did not match. When we looked at all of the call records of both companies for the five-day period, we found in Verizon's records numerous long distance calls that were placed by OrbitCom end users that were not reflected in the EMI formatted files provided to us by OrbitCom. We also found in Verizon's records many long distance calls that were terminated to OrbitCom end users that were not reflected in the EMI formatted files provided to us by OrbitCom.

CONFIDENTIAL Exhibit LF-36 contains a summary of the results of this comparative analysis. The "total" column indicates the number of calls that were found in Verizon's internal records for CIC 0555 on the five days in June and that were originated by or terminated to a 10-digit ANI that was identified in the EMI formatted records as an OrbitCom customer. The exhibit indicates, for each day, the number of those calls for which there was a match, that is, the same call appeared in both Verizon's internal records and OrbitCom's EMI formatted files. A match was determined based on the several criteria I described above (designated as "MO," "MOT" and MT"). The exhibit also quantifies the number

of calls for which we could find "No Match" (designated "NM") in the OrbitCom records. The percentages of calls for which we could find either a match or no match are also calculated and shown on the chart. As can be seen from the chart, there were a large number of calls that appear in Verizon's call records that were not reflected in the EMI formatted records provided by OrbitCom. On each business day, the percentage of originating calls for which we could not find a match in OrbitCom's files exceeded 40%, and no match could be found in the OrbitCom EMI formatted records for 60% of the terminating calls.

What this means is that when Verizon compared the calls in OrbitCom's EMI formatted files with the calls identified in Verizon's (CIC 055) network records on the same five days in June, we found numerous long distance calls that were placed by or terminated to OrbitCom end users that were not reflected in the EMI formatted files provided to us by OrbitCom. Specifically, during that five-day period, Verizon's network records contained 70 percent more long distance calls than were included in the EMI formatted records provided by OrbitCom. The actual number of calls is confidential, but these can be easily calculated by looking at the number of "total calls" shown at the bottom of CONFIDENTIAL Exhibits LF-33 and LF-34.

As I have stated, CONFIDENTIAL Exhibits LF-34 and LF-35 contain summaries of the analyses that Verizon performed to compare our network records with the call records recently provided by OrbitCom. The analyses involved an evaluation

of more than 100,000 call records, and the list of calls for which there was "No Match" contains more than 30,000 entries. Verizon is providing the voluminous supporting call data in electronic format in CONFIDENTIAL Exhibit LF-37.

Q. WHAT DID YOU LEARN ABOUT THE JURISDICTION OF THE CALLS THAT WERE NOT INCLUDED IN ORBITCOM'S EMI FORMATTED FILES?

A. Once Verizon identified all of the calls that appear in its switch records but do not appear in the OrbitCom EMI formatted records, we reviewed each of the calls to determine its jurisdiction. Based on that review, we determined that an overwhelming majority of such calls – in fact, more than 90% -- were *interstate*. *See* CONFIDENTIAL Exhibit LF-38. When we examined all of the calls originated by or terminated to OrbitCom end users that were handled by Verizon's 0555 CIC during the five-day period, the actual jurisdictional split was materially different than the jurisdictional split reflected in the EMI formatted records provided by OrbitCom.

Specifically, for the traffic whose jurisdiction could be determined (based on ANIs contained in the call data records), 53.32% of the originating minutes of use during those five days were found to be interstate, and 67.3% of the terminating minutes of use were interstate. *See* CONFIDENTIAL Exhibit LF-34. These figures are much higher than the percentages of interstate usage that OrbitCom applied in the invoices it issued to Verizon's 0555 CIC for the June 2009 billing

period. Had it used these figures instead, the amount of intrastate usage would have been much lower, and OrbitCom would have assessed its higher intrastate charges on a much smaller volume of traffic, thereby reducing the amount it billed Verizon.

Q. ONCE VERIZON WAS PROVIDED DETAILS ABOUT THE ANIs ASSOCIATED WITH ORBITCOM'S END USER CUSTOMERS, DID YOU USE THAT INFORMATION TO REVIEW TRAFFIC BETWEEN THE TWO COMPANIES IN PRIOR BILLING PERIODS?

A. Yes. Once Verizon was provided information indicating the ANIs associated with OrbitCom's end users, we reviewed our network records to determine the volume and jurisdiction of calls placed to or by those telephone numbers in earlier months when Verizon began disputing OrbitCom's switched access charges. Specifically, Verizon evaluated all of the calls to or from OrbitCom end user ANIs that were routed over Verizon's 0555 network on four days in four different weeks in 2008: April 29, May 6, May 13 and May 20. The results of that analysis are shown in CONFIDENTIAL Exhibit LF-35. Verizon's analysis showed that on those days, the percentage of originating interstate traffic, based on minutes of use, ranged between 58.1% and 93.1%, and averaged 72%. The volume of terminating traffic on the same days was smaller, and interstate usage averaged about 27% over those days. The jurisdiction of all traffic (originating and terminating combined) was 60.7% over those four days.

Q. WHY ARE THE RESULTS OF VERIZON'S TRAFFIC ANALYSIS IMPORTANT?

A. During a 13-month period between July 2007 and July 2008 (which included the days on which Verizon conducted the traffic analysis I just described), OrbitCom arbitrarily classified 95% of the access traffic as "intrastate" and assessed its intrastate rates on 95% of the traffic included in the invoices it issued to Verizon. Conversely, during that period, only 5% of the traffic was deemed by OrbitCom to be "interstate," for which OrbitCom billed its much lower interstate rates to Verizon. *See* my direct testimony, at page 30. Despite Verizon's repeated requests, OrbitCom never provided any information demonstrating that its billings based on that jurisdictional split were correct. Only now that Verizon has been provided information about the ANIs assigned to OrbitCom's end users have we been able to estimate the traffic that was exchanged between the two companies during that earlier period using actual call records. Our analysis of those call records shows that the jurisdictional split on the days that we examined was vastly different, by orders of magnitude, from that reflected on OrbitCom's invoices during the same time.

Q. HAS ORBITCOM PROVIDED ANY EXPLANATION FOR WHY IT DID NOT HAVE ANY CDRs OR EMI RECORDS TO SUPPORT ITS BILLINGS DURING THE PERIOD BETWEEN JULY 2007 AND JULY 2008?

A. Yes. Initially, OrbitCom told Verizon that it did not maintain call detail records and that the third party billing vendor it used until recently "purged [the records] from their system." *See* my initial direct testimony at 13, and Exhibit LF-9. More recently, in response to Verizon's Data Requests 070, 071 and 072, OrbitCom acknowledged that it did not instruct its billing agent to retain any call detail records, and that it did not retain any such records itself. This was so even though, since February 2008, Verizon has repeatedly requested OrbitCom to provide us with CDR information to enable us to audit and verify its bills to Verizon. OrbitCom apparently allowed those records to be destroyed even though they were crucial to resolving ongoing billing disputes between our two companies, as well as relevant to the formal complaint that OrbitCom filed with this Commission in November 2008. Without the CDRs or EMI records for the months July 2007 through July 2008 (let alone for any earlier or subsequent months), the only way Verizon could determine the jurisdiction of calls made during that earlier period of time was to use the information about ANIs associated with OrbitCom end users contained in the records provided by OrbitCom in response to Verizon Data Request 048 (following the Commission's decision granting Verizon's motion to compel) and analyze Verizon's internal call detail for the long distance calls to and from those ANIs in those prior months.

The results of Verizon's analysis of several days of traffic during that time period are shown in CONFIDENTIAL Exhibit LF-35.

Q. WHAT DID THE EMI FORMATTED RECORDS PRODUCED BY ORBITCOM DEMONSTRATE ABOUT THE AMOUNT OF CALLS THAT WERE "TANDEM SWITCHED"?

A. The OrbitCom EMI formatted records confirmed that only a tiny fraction of the calls were "tandem switched." The Category 11 EMI records that OrbitCom receives from Qwest include an indicator, called the "Routing Method," that indicates whether the call was routed through a tandem switch, or not. This information appears in Position 51 of a Category 11 record. *See* Exhibit LF-31 at 4. As explained in the ATIS document describing the EMI industry standard, the "Routing Method" is "a one-position numeric field that defines whether a FG-B, FG-C or FG-D call was direct or tandem routed. This field should always be populated on originating and terminating records. The values are: 0 = Direct routing 1 = Tandem routing." *See* Exhibit LF-37 at 7.

Verizon reviewed the EMI formatted records provided by OrbitCom to determine whether or not the calls billed by OrbitCom were "tandem routed." This is an easy, straight-forward analysis, because it only requires one to look and see if a "1" appears in the file, or not. Our analysis of all the EMI formatted records produced by OrbitCom showed that 98.34 percent of the calls were direct routed, and only 1.66 percent were "tandem routed." The results of our analysis are

shown in CONFIDENTIAL Exhibit LF-39. Because the basis for the EMI records were generated in Qwest's switches, and because Qwest knows how each call was routed over its own network and which switches were used, there is no basis on which one could reasonably quarrel with Qwest's report on how the calls appearing on the EMI formatted records were actually routed. Accordingly, this is the best factual information available that demonstrates whether access traffic was routed through a Qwest tandem switch or was routed between Verizon's long distance network and Qwest's local exchange network over direct end office trunks ("DEOTs").

Q. DID VERIZON PERFORM A SEPARATE ANALYSIS OF ITS INTERNAL CALL RECORDS TO DETERMINE THE AMOUNT OF CALLS TO AND FROM ORBITCOM END USERS THAT WERE ROUTED OVER DEOTs VERSUS THROUGH QWEST'S TANDEM?

A. Yes. Verizon reviewed its own network records for the same five days in June and analyzed calls that were originated by or terminated to ANIs that were identified as OrbitCom end users in OrbitCom's EMI formatted files. Verizon's internal records enable us to identify whether long distance calls were routed to or from the local exchange network via DEOTs or through the access tandem switch. CONFIDENTIAL Exhibit LF-40 includes the results of that analysis. As shown therein, Verizon's internal network data is consistent with the Tandem/DEOT "Routing Method" indicator for the calls appearing in the OrbitCom formatted EMI records. That analysis confirms that more than 97% of the total long

distance calls to and from OrbitCom end users were DEOT-routed, and fewer than 3% were routed through the tandem.

Q. WHAT IS THE SIGNIFICANCE OF THIS FINDING?

A. OrbitCom has argued that it "is entitled to charge and be paid for tandem switching." Powers Direct Testimony at 10 (line 13). In my initial testimony, at pages 42 – 50, I explained why it is not. Now that Verizon has confirmed, through the Tandem/DEOT "Routing Method" indicator generated by Qwest's network, that nearly all of the access traffic billed to Verizon by OrbitCom is not routed through Qwest's tandem switches, it is even more apparent that OrbitCom's assessment of charges for "tandem switching" are improper.[5]

Q. DOES VERIZON CONNECT TO QWEST'S LOCAL NETWORK IN SOUTH DAKOTA USING DEOTS?

A. Yes. In recent correspondence, OrbitCom asserted that "regardless of the existence of a DEOT," it claims it is entitled to charge for tandem switching. I will not address the theoretical legal bases of this claim. However, I will comment on OrbitCom's factual argument that Verizon does not have DEOTs that connect its long distance network with Qwest's local exchange network in South Dakota. As I have pointed out, OrbitCom's claim is contradicted by the

[5] As an aside, I would point out that the intrastate switched access tariff of the defendants' CLEC affiliate, MCImetro, clearly sets forth the circumstances in which the company may impose "tandem switching" charges: "The Company will bill the Tandem Connect rate when the ILEC's Category 11 Daily Usage Feed Records indicate that the call was routed through the ILEC's tandem." *See* MCImetro Access Transmission Services LLC d/b/a Verizon Access Transmission Services South Dakota Tariff No. 2, Section 5.2.3.1.2, which is included in Exhibit MP 2-16. In other words, MCImetro may bill for tandem switching when the Category 11 records received from Qwest indicate that the call was routed through Qwest's tandem; in all other cases, MCImetro does not bill for tandem switching.

information about direct and tandem routed traffic that Qwest includes in the "Routing Method" indicator of the Category 11 EMI records that it produces. In addition, OrbitCom's claim also rests on a general misunderstanding of network routing arrangements.

During discovery, Verizon provided a list of circuits that have been installed to connect its long distance network with central office switches in Qwest's network. Mr. Powers has stated that a DEOT "refers to a specific circuit that carries an IXC's traffic from the local central office switch to the IXC's switch, *bypassing the tandem switch.*" Powers' Rebuttal Testimony at 23(lines 3-5) (emphasis added). In South Dakota, Verizon has ordered DEOTs from Qwest that are used to carry long distance calls between Verizon's long distance network and Qwest's local exchange network through which OrbitCom's end users receive and place long distance calls. When these facilities are used to transport traffic between the two carriers' networks, the calls "bypass" the tandem switch. As explained above, information in the EMI formatted records produced by OrbitCom indicate that this occurs on more than 98% of the traffic transported between Verizon's network and OrbitCom's end users.

OrbitCom's financial officer, Mr. Powers, has suggested that the facilities Verizon identified in discovery are not actually DEOTs (rebuttal testimony at 26), but he is mistaken. Mr. Powers's argument is based on the fact that some of the DEOT circuits identified by Verizon share the same identification code (called a

"TSC"). That fact is of no significance in determining whether the traffic routed over those circuits is tandem-switched. Many of the Qwest end offices in South Dakota are "remotes." Remote end offices home to a "host" end office, where the switching intelligence resides. These "hosts" are identified in LERG, which is the standard industry routing guide. When Verizon wants to carry remote end office traffic on a DEOT, Verizon installs a trunk group to the host end office. By ordering a trunk group (DEOT) to a particular host switch, Verizon is thereby able to pass and receive traffic on a "direct trunk" basis to and from all of the various remotes operated from that host. DEOTs that are connected to a host end office are used to carry traffic both for that host and all remote offices that are homed to that host, as reflected in the LERG files. The TSC codes identify the DEOT trunk groups that are built to the "host" end office. Host and remote end offices are not tandem switches. Accordingly, traffic that is directly routed to a host office over DEOTs in the manner I have described, and then routed from the host to the remote, is not switched by a "tandem" switch in the local exchange carrier's network. LF-41 contains several call diagrams that depict how traffic is routed through a local exchange network and to and from interexchange carrier networks. Two diagrams, labeled "Direct, Host-Remote Routed Call Diagram" and "Direct End Office Routed Call Diagram," together depict the routing arrangement used for calls between Verizon's long distance network and the local exchange network when DEOTs are utilized.

To further demonstrate this point, I have attached as CONFIDENTIAL Exhibit LF-42 summary invoice data that Verizon received from Qwest in September 2009. The first example shows that, for one end office, "Tandem Switching" charges constituted only 5 percent of the total billed amount. This is consistent with our network data, which I described above, that shows that about 97% of the overall traffic is routed over DEOTs. The second example in CONFIDENTIAL Exhibit LF-42 provides data for a host – remote scenario in which a DEOT is used to serve the end offices. In that situation, Qwest billed Verizon for local switching and transport between the remote and end office, and did not assess any charges for "tandem switching." Qwest's billing confirms that the existence of a remote-host switching architecture has nothing to do with whether or not calls are also routed through tandem switches. A third example in CONFIDENTIAL Exhibit LF-42 does indicate situations in which "tandem switching" charges may be assessed in a remote-host situation. The Category 11 records initially generated by Qwest provide the best, most reliable indicator of whether a call is routed through a tandem, or is routed directly to an end office to or from an interexchange carrier's network.

Q. BASED UPON YOUR ANALYSIS OF THE CDRS AND EMI FORMATTED RECORDS WHICH ORBITCOM PROVIDED, WAS VERIZON OVERCHARGED BY ORBITCOM FOR SWITCHED ACCESS SERVICES?

A. Yes. Based on an evaluation of all of the traffic to and from OrbitCom end users, as reflected in Verizon's internal call detail records, the actual jurisdiction of the traffic for which OrbitCom has billed Verizon is materially different than that reflected in OrbitCom's invoices. OrbitCom has classified too much of the traffic as "intrastate" and imposed its higher intrastate access charges on calls that are, in fact, interstate. To the extent it has done so, it has overcharged Verizon. In addition, OrbitCom has improperly assessed charges for "tandem switching" on calls for which no tandem switching service was provided.

Q. HOW MUCH OF ORBITCOM'S BILLS IS VERIZON DISPUTING?

A, Through the August 2009 invoice dates, Verizon is disputing $796,229.01 in intrastate charges that OrbitCom has improperly billed Verizon. Verizon has paid $142,834.05 of this amount. Accordingly, Verizon is entitled to a refund or credit in that amount.

Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?

A. Yes, it does.

EXHIBIT

LF - 30

QWEST LOCAL SERVICES PLATFORM™ AGREEMENT

This Qwest Local Services Platform™ ("QLSP™") Agreement, together with the Attachments and Rate Sheets, incorporated herein by reference, ("Agreement") is between Qwest Corporation ("Qwest") and CLEC ("CLEC") (each identified for purposes of this Agreement in the signature blocks below, and referred to separately as a "Party" or collectively as the "Parties"). The undersigned Parties have read and agree to the terms and conditions set forth in the Agreement.

QWEST CORPORATION:	CLEC:
By:	By:
[Name]: Lisa C Christensen	[Name]: Brad VanLeur
[Title]: Director - Interconnection Agmts	[Title]: President
Date: 1/12/07	Date: 12/14/2006

NOTICE INFORMATION: All written notices required under the Agreement shall be sent to the following:

To Qwest Corp.:	To CLEC:
1801 California Street, Suite 2420	Orb.Com, Inc
Denver, CO 80202	1701 N. Louise, Sioux Falls, SD 57107
Phone #: 303-965-3029	Phone #: 605-977-6900
Facsimile #: 303-965-3527	Facsimile #: 605-373 3555
E-mail:	E-mail: bvanleur@sdtv.com
Attention: Manager-Interconnection	Attention: Brad VanLeur

With copy to: Qwest Communications
1801 California Street, 10th Floor
Denver, Colorado 80202
Facsimile #: 1-303-383-6661
Attention: Corporate Counsel, Wholesale

CLEC

APPLICABLE STATES:

Qwest agrees to offer and CLEC intends to purchase Service in the states indicated below by CLEC's signatory initialing on the applicable blanks:

X Arizona
X Colorado
X Idaho
X Iowa
X Minnesota
X Montana
X Nebraska
X New Mexico
X North Dakota
X Oregon
X South Dakota
X Utah
X Washington
X Wyoming

1.6.2.1 CLEC may request a conversion from Centrex 21, Centrex-Plus or Centron service to QLSP Business or QLSP Residential.

1.6.2.2 Qwest will provide access to Customer Management System (CMS) with QLSP-Centrex at the rates set forth in the Rate Sheet.

1.6.3. **QLSP ISDN BRI** is available to CLEC for CLEC's End User Customers and is the combination of a Digital Line Side Port (supporting BRI ISDN), and Shared Transport provided under this Agreement with a Basic Rate ISDN capable Loop provided in accordance with CLEC's ICAs, except as otherwise provided for in this Agreement.

1.6.4. **QLSP PAL** is available to CLEC only for CLEC's Payphone Service Providers (PSPs) and is the combination of an analog Line Side Port and Shared Transport provided under this Agreement with an analog - 2 wire voice grade Loop provided in accordance with CLEC's ICAs, except as otherwise provided for in this Agreement.

1.6.5. **QLSP PBX** is available to CLEC for CLEC's business End User Customers.

1.6.5.1 PBX analog non-DID trunks are combinations of an analog Line Side Port and Shared Transport provided under this Agreement with an analog - 2 wire voice grade Loop provided in accordance with CLEC's ICAs, except as otherwise provided for in this Agreement.

1.6.5.2 PBX with analog 1-way DID trunks are combinations of a DID trunk Port and Shared Transport provided under this Agreement with an Analog - 2 wire voice grade Loop provided in accordance with CLEC's ICAs, except as otherwise provided for in this Agreement.

1.6.5.3. PBX with analog 2- way DID trunks are combinations of a DID trunk Port and Shared Transport provided under this Agreement with an Analog – 4 wire voice grade Loop provided in accordance with CLEC's ICAs, except as otherwise provided for in this Agreement.

1.6.6. **QLSP Residential** is available to CLEC for CLEC's residential End User Customers and is the combination of an analog Line Side Port and Shared Transport provided under this Agreement with an analog - 2 wire voice grade Loop provided in accordance with CLEC's ICAs, except as otherwise provided for in this Agreement. QLSP Residential may only be ordered and provisioned for residential End User application. The definition of residential service is the same as in Qwest's retail tariffs as applied to Qwest's End User Customers.

1.6.6.1 In order for CLEC to receive QLSP Residential rates via the monthly Residential End User Credit provided in the Rate Sheet, CLEC must identify residential end users by working telephone number (WTN) utilizing the LSR process as described in the Qwest wholesale website.

2.0 Additional Terms and Conditions and Service Features

2.1 Qwest does not warrant the availability of facilities at any serving wire center. QLSP Services will not be available if facilities are not available. Qwest represents and warrants that it will not otherwise restrict facilities eligible to provide QLSP Service and that any and all facilities that would otherwise be available for retail service to a Qwest End User Customer will be considered eligible for use by CLEC for QLSP Service to serve that same End User Customer.

2.2 **Loop Start ("LPS") to Ground Start ("GST") and GST to LST Changes ("LPS/GST Change")** are available with QLSP Services. POTS Services, e.g. a QLSP Centrex 21 line, can functionally and operationally be provisioned as either LPS or GST. Unless specifically requested otherwise, Qwest provisions POTS Services as LPS. GST is generally provisioned for Private Branch Exchange ("PBX") type Services. LPS/GST Changes allow the CLEC to request a facility served by LPS to be changed to GST or vice versa. Additional information and ordering requirements are detailed on the Qwest Wholesale website.

2.2.1 The Subsequent Order Charge provided in the QLSP Rate Sheet and the Qwest retail Tariff Nonrecurring Charge for LPS/GST Changes, less an 18% wholesale discount, will be added to service orders requesting LPS/GST Changes.

2.3 This Agreement is not intended to change or amend existing intercarrier compensation arrangements between CLEC and Qwest. Nothing in this Agreement will alter or affect CLEC's right to receive any applicable universal service subsidy or other similar payments.

2.3.1 Qwest will provide to CLEC usage information within Qwest's control with respect to calls originated by or terminated to CLEC QLSP End User Customers in the form of the actual information that is comparable to the information Qwest uses to bill its own End User Customers. Qwest will provide CLEC with the daily usage feed billing information.

2.3.2. Qwest will provide CLEC with usage information necessary for CLEC to bill for InterLATA and IntraLATA Exchange Access to the toll carrier (including Qwest where it is the toll carrier) in the form of either the actual usage or a negotiated or approved surrogate for this information. These Exchange Access records will be provided as Category 11 EMI records.

2.3.3 Qwest will provide daily usage feed records for the following: all usage billable to CLEC's QLSP lines, including Busy Line Verify (BLV), Busy Line Interrupt (BLI); originating local usage; usage sensitive CLASS features; and Qwest-provided intraLATA toll.

2.3.4 Daily usage feed records will be provided as Category 01 or Category 10 EMI records. Terminating local usage records will not be provided.

2.4 QLSP includes the capability for CLEC's End User Customers to choose their long distance service (InterLATA and IntraLATA) on a 2-PIC basis.

2.4.1 CLEC will designate the Primary Interexchange Carrier (PIC) assignments on behalf of its End User Customers for InterLATA and IntraLATA Services. All CLEC initiated PIC changes will be in accordance with all Applicable Laws, rules and regulations. Qwest will not be liable for CLEC's improper PIC change requests.

EXHIBIT

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ATIS-0406000-23

EXCHANGE MESSAGE INTERFACE (EMI)

Industry Support Interface

Issue 23

ATIS-0406000-2300
July 2009

ATIS is a technical planning and standards development organization that is committed to rapidly developing and promoting technical and operations standards for the communications and related information technologies industry worldwide using a pragmatic, flexible and open approach. Over 1,100 participants from more than 350 communications companies are active in ATIS' 22 industry committees, and its Incubator Solutions Program. www.atis.org

ATIS – 0406000-2300

Exchange Message Interface (EMI)

Is an ATIS standard developed by the following committee(s) under the ATIS Ordering and Billing Functional Group:

Ordering and Billing Forum

Published by

ATIS
1200 G Street, NW, Suite 500
Washington, DC 20005

1.0 General Description

This document provides data pertaining to the Exchange Message Interface (EMI). The EMI is a guideline used for the exchange of telecommunications message information between Sending and Billing Companies. Data is provided between companies via multiple unique record layouts that contain message data, customer billing information, account summary information and tracking analysis.

1.1 Field Information

Data fields are depicted within each record layout. Each field is displayed with its appropriate position within each record. Definitions and data characteristics are defined for each field in a separate section.

The proper default for a numeric field is zeros. The proper default for an alphanumeric field is blanks unless noted otherwise in the field description.

1.2 Purpose

The EMI provides a unique but common method for exchange of telecommunications message information between Sending and Billing Companies for billing and tracking analysis.

1.3 Magnetic Tape

See Section 6

1.4 Shading Requirements

Shaded fields are not required and therefore, not applicable to the record. The field should be populated with the correct default value. The only edit performed on this field is a numeric check (if the field is defined as numeric). Use of this field to pass "local information" is discouraged. On returned records, this field may contain the default value regardless of how the sending company populated it.

Unshaded fields are required and therefore will contain information based on the field definition. Under certain circumstances, it may be appropriate to populate this field with the default value indicating "no information." For example, if state and/or local taxes do not apply to a message, the "State Tax" and/or "Local Tax" fields will contain zeros.

CARRIER ACCESS USAGE
NORTH AMERICAN ORIGINATED AND TERMINATED
MESSAGE TELEPHONE SERVICE

Record Name

11 Category | **01** Group | **01** Record Type

Pos	Field Description	Char.
1-5	Record Identification (Category, Group, Record Type)	X
6-11	Date Of Record (Year, Month, Day)	9
12	From Number Length	9
13-23	From Number (NPA, NXX, Line Number)	9
24	Overflow Digits	9
25	To Number Length	9
26-36	To Number (NPA, NXX, Line Number)	9
37	Originating / Terminating ID	9
38-40	BSA / Feature Group D Trunk Group Number	9
41	MTA Indicator	9
42-45	Carrier Identification Code	9
46	Carrier Access Method	9
47	Routing Method	9
48	Dialing Method	9
49	ANI	9
50	NCTA	9
51-54	Connect Time (Hr, Min, Sec)	9
55-60	Billable Or Reported Time (Min, Sec, 1/10)	9

Pos	Field Description	Char.
61	Method Of Recording	9
62	Return Code	X
63-64	From RAO	X
65	Local Company Information: Cust. Bill Format	9
66	Local Company Information: Conference Leg Number	9
67	Type of Access Service	9
68	Reserved	9
69	Method Of Signaling	9
70-89	Indicators	9
90-91	Operator Unit	
92-101	Recording Point Identification (AMA) / Serial Number	9
102	CABS Billing RAO	X
103-122	Indicators	9
123-132	BSA / Feature Group A Access Number (NPA, NXX, Line Number)	9
133-134	Reserved for Local Company Use	9

Pos	Field Description	Char.
135	Reserved for Local Company Use (continued)	9
136-137	Reserved	9
138-140	NECA Company Code	X
141	BSA / Feature Group D Call Event Status	9
142-145	Reserved	9
146	BSA / Feature Group ID Code	X
147-148	Library Code	X
149-150	Settlement Code	X
151-156	Conversation Time (Min, Sec, 1/10)	9
157-166	Originating LRN	9
167-170	Originating OCN	X
171	Originating LRN Source Indicator	9
172-181	Terminating LRN	9
182-185	Terminating OCN	X
186	Terminating LRN Source Indicator	9
187-190	Send To OCN	X
191-210	Reserved	9

Field Characteristic
9 = Numeric
X = Alphanumeric
S 9 = Signed Numeric
↓ = Continued on Next Column
↑ = Continued on Next Column

RECORD DESCRIPTION

11	01	01
Category	Group	Record Type

Category: 11 CARRIER ACCESS USAGE
Group: 01 NORTH AMERICAN ORIGINATED AND TERMINATED
Record Type: 01 MESSAGE TELEPHONE SERVICE

Use of Record:

This record is used to report Access Minutes of use for Message Telephone Service.
This record may also be used for interconnection (e.g. unbundled, local, wireless, etc.) services.

Headers/Trailers	CMDS	Local
20-20-09/10	Y	Y
20-21-09/10	N	Y
20-22-31/32	N	Y
20-24-09/10	N	Y

Special Considerations:

When Indicator 4 = 7 and Originating/Terminating ID = 1, the ULEC's OCN should be populated in the Originating OCN field (positions 167-170).

When Indicator 4 = 7 and Originating/Terminating ID = 2, the ULEC's OCN should be populated in the Terminating OCN field (positions 182-185).

For originating calls, the Originating OCN field in positions 167-170 should be populated with the OCN of the company that originated the call when the From Number, positions 15-24, is ported and the Originating LRN, positions 157-166 is populated.

For terminating LEC carried calls, the Originating OCN field in positions 167-170 should be populated with the OCN of the company that originated the call. Carrier Identification Code may or may not be populated.

For terminating IC-Carried calls, the Originating OCN should not be populated even when Originating LRN is populated.

To identify Cellular/Wireless originating and terminating traffic, the Type of Access Service (position 78-79) and Indicator 9 or 10 (position 90 & 91) should be populated.

The matrix below lists what fields are shaded on the 11-01-01 based on Feature Group. A value of "X" in a given column means that the field is shaded for that Feature Group.

Field Name	Position	FGA	FGB	FGC	FGD
Overflow Digits	25-27	X	X	X	X
BSA/FGD Trunk Group No.	41-44	X	X	X	
Carrier Identification Code	46-49	X			
Carrier Access Method	50	X		X	
Routing Method	51	X			
Dialing Method	52	X	X	X	X
ANI	53	X		X	
NCTA	54	X	X	X	X
Customer Bill Format	75	X	X	X	X
Conference Leg Number	76-77	X	X	X	X
Method of Signaling	81	X		X	
NPA-BSA/FGA Access No.	123-125		X	X	X
NXX-BSA/FGA Access No.	126-128		X	X	X
Line No./BSA FGA Access No.	129-132		X	X	X
NECA Company Code	138-141	X			
BSA/FGD Call Event Status	142-143	X	X	X	
Settlement Code	149	X	X		
Min-Conversation Time	150-153	X	X	X	
Sec-Conversation Time	154-155	X	X	X	
1/10-Conversation Time	156	X	X	X	

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July 2009

SECTION 4

FIELD DESCRIPTIONS

Return Code 12

A two-position alphanumeric field describing the reason for returning an unbillable message code. The population of this field should be locally negotiated.

Return Code 13

A two-position alphanumeric field describing the reason for returning an unbillable message code. The population of this field should be locally negotiated.

Return Code 14

A two-position alphanumeric field describing the reason for returning an unbillable message code. The population of this field should be locally negotiated.

Returned Messages Revenue

A seven-position numeric field, in the format $$$$$¢¢, on BCC/Independent EC Trailer records. This field contains the total of the revenues associated with the messages defined in the field description of NUMBER OF RETURNED MESSAGES. The revenues for these messages should not be included in the count of other subtotaled fields in the record, to enable the result of the addition of the subtotaled fields to be equal to the GRAND TOTAL REVENUE count.

Revenue Type Indicator

A one-position numeric field used to designate the type of revenue. Values are as follows:

1 = Invoice Billing
2 = Casual User
3 = Both

Route Index Queries

A nine-position numeric field that is used in the 500 SCP Usage Service Provider record that contains number of table look ups to determine Trunk Group.

Routing Method

A one-position numeric field that defines whether a FG-B, FG-C or FG-D call was direct or tandem routed. This field should always be populated on originating and terminating records. The values are:

0 = Direct routing
1 = Tandem routing

Run Number

A three-position numeric field used by an IC to provide a unique number to identify a transmission on the header record of Invoice Summary Packs.

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Due to the volume of material, this exhibit is only being provided electronically to the service list.

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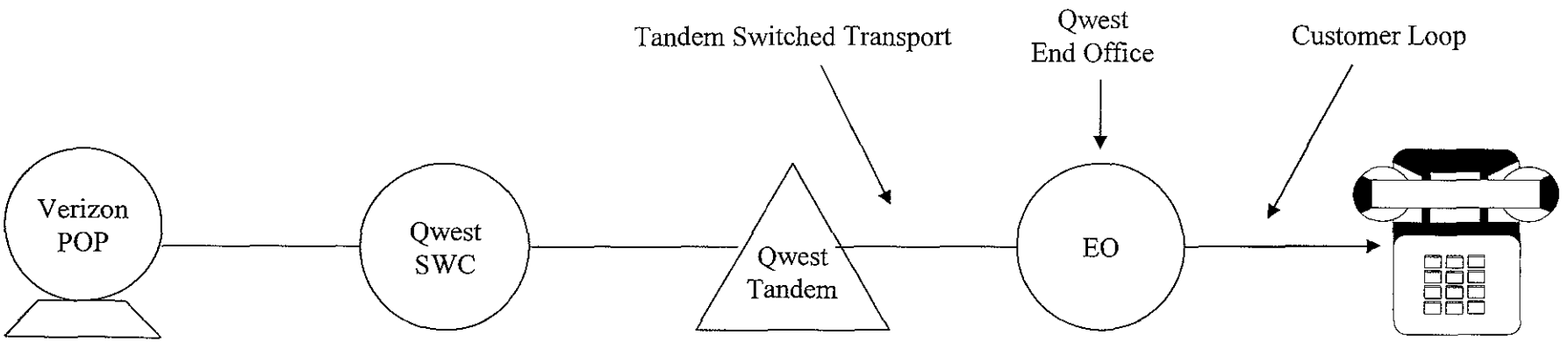
TANDEM ROUTED CALL DIAGRAM



Legend:

POP – "point of presence," the location where Verizon's and Qwest's networks interconnect in a LATA.

Qwest SWC – "serving wire center," the Qwest switching center used as the rating point for calculating transport distances. The SWC is generally co-located with the Verizon Business POP.

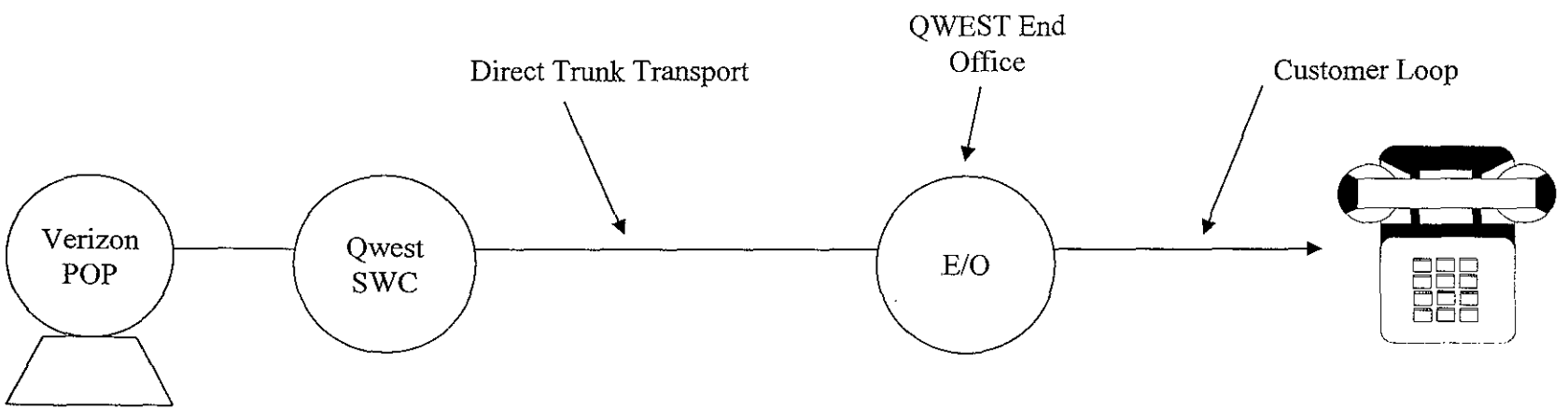
Tandem – a Qwest switch that is used to concentrate and switch calls from/to various Qwest end office switches.

Tandem Switched Transport – a path for connecting calls between Verizon's network and customers in various end offices, used in common with other Long Distance carriers' traffic.

E/O – "end office," for a given call, the Qwest end office connecting to the calling or called customer.

Customer Loop – the connection to the premises of the calling or called customer.

DIRECT END OFFICE ROUTED CALL DIAGRAM



Legend:

POP – "point of presence," the location where Verizon's and Qwest's networks interconnect in a LATA.

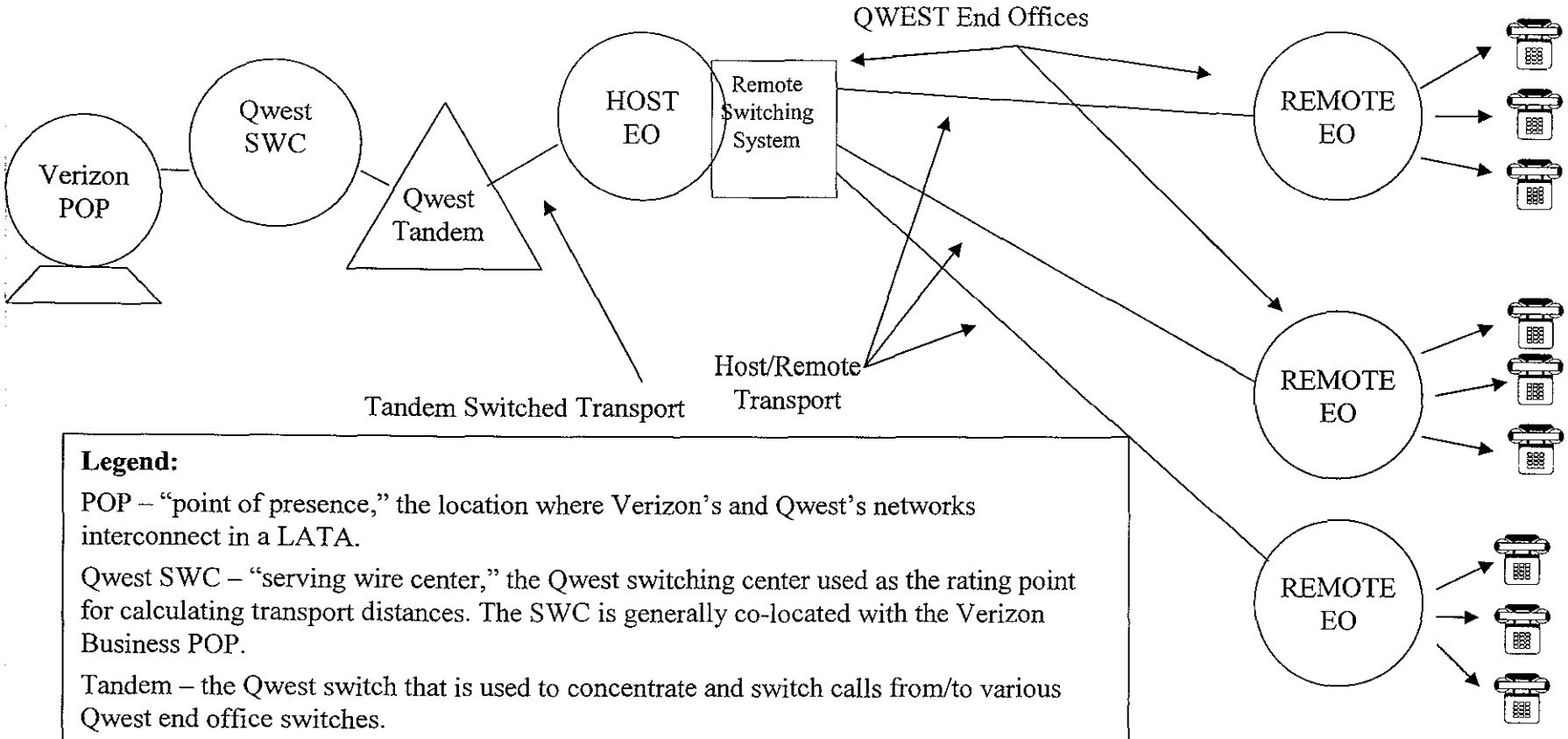
Qwest SWC – "serving wire center," the Qwest switching center used as the rating point for calculating transport distances. The SWC is generally co-located with the Verizon Business POP.

Direct Trunk Transport – a leased connection for connecting calls between Verizon's network and customers in a particular end office, dedicated to Verizon's traffic.

E/O – "end office," for a given call, the Qwest end office connecting to the calling or called customer.

Customer Loop – the connection to the premises of the calling or called customer.

TANDEM SWITCHED, HOST-REMOTE ROUTED CALL DIAGRAM



Legend:

POP – "point of presence," the location where Verizon's and Qwest's networks interconnect in a LATA.

Qwest SWC – "serving wire center," the Qwest switching center used as the rating point for calculating transport distances. The SWC is generally co-located with the Verizon Business POP.

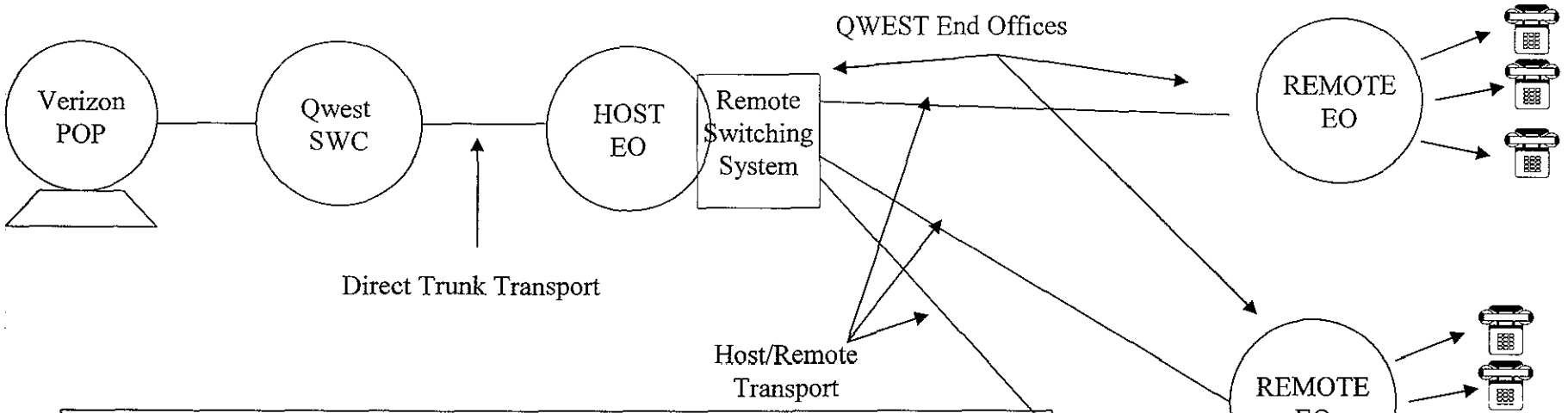
Tandem – the Qwest switch that is used to concentrate and switch calls from/to various Qwest end office switches.

Host – an "end office" with switching functionality used for customer traffic in other, "remote" exchanges.

Remote – a device for connecting customer loops in an exchange, that relies on a host switch for its switching intelligence/functionality.

Host/Remote Transport – the communications path used for all traffic between the host and the various remote switches.

DIRECT, HOST-REMOTE ROUTED CALL DIAGRAM



Legend:

POP – "point of presence," the location where Verizon's and Qwest's networks interconnect in a LATA.

Qwest SWC – "serving wire center," the Qwest switching center used as the rating point for calculating transport distances. The SWC is generally co-located with the Verizon Business POP.

Tandem – the Qwest switch that is used to concentrate and switch calls from/to various Qwest end office switches.

Host – an "end office" with switching functionality used for customer traffic in other, "remote" exchanges.

Remote – a device for connecting customer loops in an exchange, that relies on a host switch for its switching intelligence/functionality.

Host/Remote Transport – the communications path used for all traffic between the host and the various remote switches.

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