Exhibit No.:
Issues: Multiple jurisdictional, contractual, and policy related issues (See table of contents)
Witness: Russ Wiseman
Type of Exhibit: Direct Testimony
Sponsoring Party: Halo Wireless Inc.
Case Nos.: TC-2012-0331 and TO-2012-0035

BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

Halo Wireless, Inc.,	§	
	§	
Complainant,	§	Case No. TC-2012-0331
	§	
v.	§	
	§	
Craw-Kan Telephone Cooperative, Inc., et al.,	§	
	§	
Respondents.	§	
		consolidated with

Alma Communications Company d/b/a Alma Telephone Company, et al.	§	
	§	
	§	Case No. IC-2012-0035
Complainants,	§	
	§	
vs.	§	
Halo Wireless, Inc. and Southwestern Bell Telephone Company, d/b/a AT&T Missouri,	§	
Respondents.	§	

PRE-FILED DIRECT TESTIMONY OF RUSS WISEMAN ON BEHALF OF HALO WIRELESS, INC.

June 4, 2012

AFFIDAVIT OF RUSS WISEMAN

STATE OF TEXAS §
§
COUNTY OF DALLAS §

I, Russ Wiseman, of lawful age, being duly sworn, depose and state:

1. My name is Russ Wiseman. I am the President and Chief Operating Officer for Halo Wireless, Inc.

2. Attached hereto and made a part hereof for all purposes are my Direct Testimony and true and correct copies of the exhibits thereto.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.

Russ Wiseman

RUSS WISEMAN

SUBSCRIBED and SWORN TO before me, on this the 4th day of June, 2012.

Cathy D. Pohoreske

NOTARY PUBLIC IN AND FOR
THE STATE OF TEXAS

Commission Expires: 11-19-2012

CATHY D. POHORESKE NOTARY PUBLIC STATE OF TEXAS EXPIRES NOV. 19, 2012

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PRE-FILED DIRECT TESTIMONY OF RUSS WISEMAN
ON BEHALF OF HALO WIRELESS, INC.

INTRODUCTION

Q: Please state your name, title and business address.

A: My name is Russ Wiseman. I am the President and Chief Operating Officer for Halo Wireless, Inc. ("Halo"). My business address is 2351 W. Northwest Highway, Suite 1204, Dallas, TX 75220. I am responsible for all operations at Halo, including sales, marketing, network and system operations, and inter carrier relations.

Q: Please state your educational background and experience.

A: I received an MBA in International Finance from Fordham University Graduate School of Business, New York, N.Y. in 1991. Before then I obtained a Bachelor of Electrical Engineering from Manhattan College School of Engineering, New York, N.Y., in 1986.

My prior work experience, from most recent (prior to being engaged by Halo): From 2003 to 2010 I was the principal in RA Wiseman & Associates. I performed management consulting, specializing in strategic business and market planning, product and service development, and complex program management in technology-based industries. This included engagements with wireless, cable and other ventures, with particular emphasis on implementing business plans for providers and companies that integrate Internet, voice communications and video services or applications with other business operations. Between 2000 and 2002 I worked for Nucentrix Broadband Networks as the Senior Vice President – Internet Operations. As part of those responsibilities, I helped the company develop and implement its wireless broadband services using MMDS in small to medium sized markets. From 1999 to 2000 I was Executive Vice President/Chief Operating Officer for Flashnet Communications, Inc., prior to their ultimate sale to Prodigy and then AT&T. From 1997 to 1999 I was Chief Marketing Officer/VP Strategic Planning for PrimeCo Personal Communications, where I managed a strategic planning, corporate marketing and pre paid services staff of 60 people responsible for strategic planning, corporate development, product development, product management, pricing strategy, promotions planning, market research and planning and competitor analysis. From 1992 through 1997 I was Managing Consultant/Practice Leader - Communications and Multimedia Practice - U.S. Consulting for PA Consulting Group, and was charged with bringing communications industry breadth and depth to the company. Domestic and international engagements focused on strategic business and market planning, product and service development, and complex program management.

From 1986 through 1992 I worked for Verizon Communications, first as Engineer - Central Office Design & Engineering, where I designed and implemented fiber optic/SONET

and digital switching networks in the NYC and Mid State regions. Beginning in 1990, I was Staff Director, Corporate Planning. My duties included identifying, analyzing and recommending major business initiatives in communications, software and services industries. I was involved in M&A assessments for the purchase and sale of applications software and IT services businesses, including the assessment and ultimate sale of NYNEX Mobile to Bell Atlantic Mobile.

Q: Are you an attorney?

A: No.

Q: Do you have personal knowledge of the facts you will relate?

A: Yes.

Q: On whose behalf are you appearing?

A: I am appearing for Halo Wireless, Inc. ("Halo").

Q: What is the purpose of this Testimony?

A: I will respond to the positions taken by the opposing parties (the "Opposing Parties") in their respective pleadings filed in Case No. TC-2012-0331 (the "Blocking Proceeding") and Case No. IC-2012-0035 (the "ICA Rejection Proceeding" and collectively with the Blocking Proceeding, the "MOPSC Proceedings"). I will also provide additional testimony relevant to the facts in this case that is intended to inform the Commission and assist it in ruling on the matters before it in the MO PSC Proceedings, including specifically the impropriety of the blocking requests identified in the Blocking Proceeding, AT&T's counterclaims in the Blocking Proceeding seeking access charges and termination of the Interconnection Agreement ("ICA") between AT&T and Halo based on alleged breaches of the ICA, and the improper request by the Complainants in the Rejection proceeding to reject the ICA between Halo and AT&T.

Q: In determining the merits of the MOPSC Proceedings, what are you asking of this Commission?

A: What Halo is asking this Commission to do is to look past the baseless allegations, gross distortions, and abject hyperbole of the Opposing Parties, and focus on the facts in this case. The facts here are that Halo interpreted and applied telecommunications laws and rules in a novel, but legal way, in order to bring real tangible value to Missouri consumers. We believe we are achieving this goal, but in a way that impairs the Opposing Parties' ability to obtain access charges that are not lawfully due. The effect of Halo's participation in the Missouri broadband communications market is to enhance service and lower cost for a great number of consumers. The Opposing Parties would prefer to retain excess, subsidy laden profits than achieve these results. We did not breach the AT&T interconnection agreements. We did not "disguise" the true nature of Halo's traffic with any intent to "deceive" AT&T or the other Opposing Parties, and we do not believe allowing AT&T to discontinue performance under the ICA or allowing blocking of Halo' traffic under Missouri's ERE Rules is an appropriate and fair remedy for the grievances the Opposing Parties have brought before this Commission.

Halo's business model does not start with, or conform to, traditional interpretations of what constitutes a CMRS service. Halo is not a traditional CMRS provider. Halo has applied and interpreted existing rules in different, but legal, ways, all with two primary goals: (1) to enable the growth of low cost, high value IP communication services for all Americans, and (2) to bring advanced broadband services to under-served and un-served communities.

Halo has attempted to achieve a legitimate competitive market advantage through the use of an innovative business strategy, backed by millions of dollars in capital investment, and NO ASSURANCE OF A RETURN ON THIS INVESTMENT. On the other hand, AT&T is

guaranteed to make a profit from Halo's services, through the payment of termination charges, transit fees, and certain facility charges, all of which have implicit, and very healthy, profit margins built into AT&T's rates and charges, and that CONSUME ALMOST HALF OF EVERY DOLLAR IN REVENUE HALO GENERATES. HALO, ON THE OTHER HAND, WAS NOT, AND IS NOT, ASSURED OF A PROFIT, OR A RETURN ON THE INVESTMENT IT HAS MADE TO CREATE ITS BUSINESS.

Threatened by the outcomes Halo's model enables, AT&T and the various LECs across the country have decided that they can discredit Halo in the minds of regulators by trying to force-fit both Halo and Transcom into old, legacy models that predate modern communications capabilities and open competition by carriers and non-carriers. This is the path of least resistance for over-burdened regulators trying to deal with a highly complex, dynamic industry. I can only assume because they are not entirely confident in prevailing based on this strategy alone, the ILECs have decided to go one step further and engage in a systematic and shameless smear campaign, the goal of which is to sully Halo's image and integrity in the eyes of regulators by making a number of false allegations, such as the claim that we are disguising call detail records to "make traffic appear local," and associating Halo with other bad actors in the industry. I only hope that this Commission is not misled by these tactics, and see them for what they are: a clear attempt to prevent forces the ILECs cannot control from achieving "undesirable outcomes" like increasing access line erosion, moving minutes off the PSTN and, yes, even accelerating the demise of access charges.

The fact of the matter is that Halo is a wireless carrier. Halo communicates with its high volume end user customer over wireless transmitting and receiving facilities in each MTA. From a Halo perspective the high volume customer is simply a "communications intensive business

customer" – much like any large enterprise operating a PBX – that is originating traffic from wireless CPE. The traffic is then delivered to AT&T, exactly as required, and as specified, in the Amendment clauses contained in each and every AT&T ICA. Halo's high volume end user uses wireless mobile stations within radio coverage of each tower site. Halo's network is architectured in such a way that only traffic destined to a terminating carrier in an MTA is processed by the base station in that MTA. Thus, Halo contends all high volume customer traffic is IntraMTA wireless reciprocal compensation traffic that is terminated by AT&T or transited to another terminating carrier. In other words, Halo contends that traffic at issue is not subject to access charges and Halo is not in breach of the ICA. Accordingly, AT&T is not entitled to access charges or termination of the ICA. Moreover, whether or not such traffic is subject to access charges, Halo maintains that it is not required to provide *any* compensation to the Non-AT&T Opposing Parties unless and until they comply with the FCC requirements, which they have not done. In any event, Halo asserts that the Non-AT&T Opposing Parties are not entitled to a ruling rejecting the ICA between AT&T and Halo because they are not parties to same. Finally, Halo contends that the ERE rules are not applicable in this case or alternatively, blocking under the ERE rules should be denied because the traffic at issue is not subject to access charges, Halo has not failed to provide caller information and has not placed traffic on any "LEC-to-LEC network", as discussed below. In short, Halo requests that the all of the relief requested by the Opposing Parties should be denied.

BACKGROUND

HALO'S BUSINESS MODEL

Q: Can you explain the basic intent and mission of Halo?

A: Halo was founded with the intent of providing broadband services to un-served and under-served markets around the United States. The principals behind Halo have recognized for quite some time, at least six years from what I can tell from presentations I have seen, that wireless could be a solution to the market imperative of providing broadband services to under served and un-served communities throughout the United States. People involved with Halo well before my time considered, developed, and attempted to execute various strategies to achieve this goal, including applying for federal broadband stimulus grants and partnering with local LECs as business and channel partners. However, various obstacles conspired against these efforts.

The primary impediment in making this happen was capital. It is very expensive to build wireless broadband networks. And getting a return on investment, especially in relatively low density markets, is difficult at best and highly uncertain. Capital funding has been the primary impediment to wireless broadband deployment since its technological inception. While federal stimulus programs have attempted to over come this impediment, it remains the primary barrier to wide-scale, sustainable deployments. Halo's owners and management spent several years trying to raise the money necessary for deployment. In fact, at one time, they propositioned RLECs, unsuccessfully, to serve as business partners.

Halo faced other impediments, namely access to spectrum in sufficient amounts and with the right physical characteristics to support wireless broadband services, availability of viable

wireless broadband network and consumer device solutions, and interconnection agreements with a broad base of ILECs for the exchange of traffic.

Q: How did Halo overcome these obstacles?

A: One of these obstacles, access to spectrum, was resolved with the FCC's opening of the 3650-3700 Mhz band for commercial use in late 2007. From 2008 through the better part of 2009, with the intent of providing interconnected mobile voice, as well as broadband data services, Halo attempted to secure interconnection agreements with the RBOCs, notably AT&T, Qwest, and Verizon. During the same time, the 802.16 WiMAX standard evolved to include support for mobile services, considered by Halo at the time as a key competitive market entry requirement. And several vendors emerged during this time with what was considered then as viable wireless broadband technology platforms.

However, the major challenge of being able to fund, and sustain, a viable retail broadband service provider business remained. While a few wireless operators have proven it possible to establish wireless broadband operations on a relatively small scale, the economics of this business naturally impede the breadth of market impact they can have, not to mention how long they can survive. A different business model was needed if wireless broadband was going to happen on any kind of scale.

Q: Can you explain how Halo's business model was developed?

It was around this time, in 2008, when regulatory counsel for Halo saw a potential solution. Transcom Enhanced Services, Inc. ("Transcom"), which we freely admit has overlapping ownership with Halo, was competing as a provider of wholesale IP voice termination services, with a particular focus on serving smaller, emerging service providers, and providers of VoIP services. As network footprint is a key competitive variable for companies in

this space, Transcom was naturally looking for ways to expand its traffic termination capability. Doing so makes Transcom's VoIP provider customers stronger and more viable as competitive alternatives to traditional landline phone services. And it obviously makes Transcom a more attractive partner to those providers. Regulatory counsel for Halo and Transcom saw the potential to combine the forces that were making the wireless broadband business more viable, with the rules and precedents related to both Enhanced Service Providers ("ESPs"), which Transcom was confirmed to be in several court decisions in 2003, 2005, 2006, and 2007, and Commercial Mobile Radio Service Providers ("CMRS"), which Halo intended to be.

In short, the basic idea was for Halo to offer ESPs, along with other communications-intensive business end users that have their own private IP networks and need the ability to connect to the PSTN on a "local" basis, a telecommunications exchange service that used the same wireless network that would also deliver broadband services to consumers and small businesses. In so doing, Halo would have a major source of revenue that could effectively subsidize the build out, operation, and delivery of rural broadband. The revenue would allow Halo to do so in a financially sustainable way, without the need for government subsidies, without customer worry of Halo going broke, and on a scale that could put a real dent in the nation's goal of getting broadband to rural communities.

Q: What were the keys to this strategy?

A: First, it would be necessary for Halo to enter into interconnection agreements ("ICAs") with major carriers for the exchange of telecommunications traffic. Given its intention to offer common carrier, interconnected commercial mobile services, it was natural for Halo to seek CMRS ICAs in this regard. The key was that such agreements also needed to allow the termination of traffic from Halo's ESP customers. Halo believed the ICAs it adopted and

amended with AT&T supported this because ESPs are "end users." And, based on regulatory and court precedents, status as an ESP conveys that as purchasers of telecommunications services they originate and terminate traffic; can terminate a call, and then originate further communications as part of their enhanced services offerings; are not subject to access charges; and are not interexchange carriers ("IXCs"). Halo's ESP customers would be originating traffic on the Halo network using wireless equipment and services that we contend meet the statutory definition of CMRS. Therefore, our ESP customer's "end user" status would make the traffic they originate "wireless originated," consistent with the AT&T ICA terms. Our position today is that if it was determined that any equipment or services didn't meet the CMRS requirements we would immediately undertake to address any deficiency so that our services came into compliance. But, any such action, assuming it was deemed necessary, would not change our position that traffic from our ESP customers is non-access. The ICAs Halo executed with AT&T contains an addendum that specifically states that traffic needs to "originate through wireless transmitting and receiving facilities before Carrier delivers traffic to AT&T for termination." AT&T might have had, or currently has, a different, perhaps conventional idea of what this provision means. But we contend Halo is doing exactly what this provision requires, and was intended to address, when it was written.

Second, Halo next needed to determine where base stations needed to be located in order to provide telecommunications exchange access services. Applying the service boundaries of CMRS providers, Metropolitan Trading Areas ("MTAs"), as opposed to traditional LEC service boundaries like states and Local Access and Transport Areas ("LATAs"), it was determined that at least one base station needed to be located in each MTA where service would be originated or

terminated. With AT&T ICAs in 21 states spanning 28 MTAs, we set about locating towers in these 28 MTAs.

Finally, from a network architecture and back office stand point, Halo's service and related billing and traffic management systems had to be designed to ensure that only calls originated by ESP customers in an MTA were routed for termination in that same MTA. This was an important step in ensuring that Halo was fully compliant with IntraMTA and InterMTA compensation rules, as they were understood to apply to the very non-traditional Halo business model. In other words, it was a deliberate effort to make sure that the terminating carriers were properly compensated. Also, Halo's system had to be designed to support more than one high volume customer. While it is true that Transcom is Halo's only paying customer today, this was not the goal and is still not the goal. Inserting a Charge Number into the call records of Transcom-originated traffic, which I will discuss further below, was intended to establish Transcom as the financially responsible party for the traffic. As other customers were added, Halo would be able to distinguish between Transcom's traffic, and other customer's traffic, as both would be flowing over the same Halo trunk groups.

Q: After identifying this business model, what was Halo's next step?

A: Halo then set about executing its business model in 2009, focusing on securing those ICAs I mentioned earlier, designing and architecting its network, and selecting a WiMAX technology vendor and deployment agent. Once interconnection with AT&T was secured, the primary focus turned to identifying a wireless broadband platform that could efficiently support the services Halo wanted to provide to both high volume and low volume end users. Many platforms were examined, and many were rejected for one reason and one reason alone, and that was the lack of FCC-certified customer premises equipment ("CPE") in the 3650 band. In fact,

Halo had initially selected the platform supplied by Alvarion, Inc. However, when it became clear to Halo that Alvarion did not have an FCC-certified CPE device, it was forced to abandon this choice and seek another solution.

Halo then selected the platform from Airspan Networks. This decision was based on two factors. The first was that Airspan claimed to have a commercially ready USB consumer CPE form factor. This form factor has obvious benefits for a company desiring to provide mobile broadband services to consumer customers. The second advantage Airspan brought to the table was a commercially ready 802.16(e) solution. Without getting into too much technical detail, the WiMAX standards for wireless broadband at the time were delineated at 802.16(d) for fixed wireless networks, and 802.16(e) for mobile networks. In 2009, there were many commercially available 802.16(d) solutions in the market place. But 802.16(e) solutions were just beginning to come to market. So Airspan's fully mobile solution was ideal for Halo's business model, and a contract was signed with an Airspan reseller in early 2009.

These efforts came to fruition in the spring of 2010, and the company began the process of executing leases on its base station sites. This process entailed working with tower owners, such as American Tower and SBA Communications, to identify towers that met about a dozen Halo criteria.

Q: Why did Halo choose the tower site locations that it did?

A: Because it wanted to provide broadband services to un-served and under-served rural communities, and bring more competitive choices for broadband service to people living and working in these areas. Halo has been accused, in other states, of having no intention of serving rural communities. Aside from being totally baseless, that accusation also defies any sort of reason or logic, for why would we have incurred the cost and operational complexity of locating

base stations in remote, rural locations if our true intention was to simply use these towers as wireless “gateways” for high volume customers? It would have been far cheaper and simpler for us to locate base stations in or near major metropolitan areas. Bandwidth is cheaper there, with far greater choice in backhaul providers. Traveling to and from the tower sites, for network maintenance and repair purposes, common with wireless base station equipment subject to weather and other acts of God, is both cheaper and quicker. There are far more tower sites to choose from, lowering tower rental expense. I could go on. But the point is the same. We made it far more expensive and difficult for ourselves by selecting the tower locations we selected. Our actions clearly establish an intent to serve rural communities, a fact subsequently affirmed by the amount of time, money and effort expended on low volume consumer marketing efforts.

The primary attributes we looked for in choosing the tower site locations were the extent of existing broadband services competition, the population size, the population density, the local market topography (for RF propagation), and the availability of back haul capacity to serve the tower sites. In the end, some locations selected were a bit smaller, and some a bit larger, but we were able to meet our goal of finding suitable towers in locations that would allow us to meet the twin goals of serving low volume rural consumers and small businesses in under-served communities and serving high volume business intensive ESP customers.

The last point I’d like to make here is in response to the assertion that the markets Halo selected for its towers are not under-served. If there are more than two providers of broadband service in a town, does that make the market fully competitive, and thus “adequately served”? I would say no, or at least, not necessarily, because in almost every instance there is a cozy duopoly of cable companies and incumbent LECs with very high market share, and then a small number of new entrants trying to entice consumers to switch. Consumers, being rational beings,

are reluctant to switch to someone new or that they've never heard of before. They want to see staying power. They need to see presence, through advertising and word of mouth referrals. All of this takes time and money, something in short supply for any new entrant with limited cash flow and capital. Even when there are a number of alternative providers, the broadband market does not demonstrate the characteristics of a fully competitive market (e.g., constantly improving service, declining prices, more balanced market share among the providers). Halo believes, even in locations where there are a number of new entrants competing with the incumbent providers, that it can change these dynamics in favor of new entrants because its business model allows it to internally subsidize service delivery to "low volume" consumers through the services delivered to its "high volume" customers. Put another way, Halo could charge a lower price to the consumer customer because it did not have to recover all of its common costs from them.

Q: Can you describe the functions of Halo's base stations?

Halo's base stations are the wireless access points where it collects and delivers voice and data traffic from end-user customers who purchase wireless services from Halo. These wireless customers also purchase or lease wireless CPE that, when sufficiently proximate to a base station, allows them to communicate wirelessly with that base station. The end user customer can then originate telecommunications within the MTA. In other words, the base stations enable customers to connect to the Halo network in locations of their choosing (again, within the coverage area of the base station), and move about within our coverage area, should they choose to do so. This location flexibility is not achieved with hard-wired solutions.

Under the Halo configuration, and with respect to voice services, only calls coming from customers connected to a base station in an MTA, and where the called numbers are also associated with a rate center within the same MTA, will be routed over the AT&T

interconnection trunks for transport and termination in the same MTA. The service architecture supporting Transcom is designed so that any communication addressed to a different MTA would fail, *e.g.*, not complete.

Halo also has a "consumer" product that allows calls received by Halo from customers connecting to a base station within an MTA destined to a called party in a different MTA to be completed. There is yet another "consumer" product whereby calls to and from Halo customers not accessing the Halo network at a base station access point (*e.g.*, customers accessing their voice services over another broadband Internet connection) can be completed. This latter product is essentially an "over the top" nomadic VoIP offering. Calls related to the "nomadic" offering, however, *are not* routed over the AT&T interconnection trunks. Rather, those calls are handled by Halo's IXC service provider, and that IXC provider pays all access charges that are due. In other words, when a LEC receives a Halo call for termination in an MTA, the call will (a) have been originated by an end user customer's wireless equipment communicating with the base station in that same MTA, and (b) by design and default, be intraMTA as defined by the FCC's rules and its decision that the originating point for CMRS traffic is the base station serving the CMRS customer.

Q: How do you respond to the argument made by the ILECs in other states that Halo's wireless network serves no useful engineering purpose?

A: The ILECs in other states have recently argued that Halo's wireless network only serves as a "transport" link for traffic exchanged between Halo and Transcom, that the wireless network serves no useful "engineering purpose," and that it could be replaced by a Cat 5 cable. They also make a big deal about the location of Transcom's wireless station, and the fact that it's "only" 150 feet or so from Halo's base station antennas, as if there's some magic minimum distance that

must be exceeded before a wireless system is legitimately wireless, and this 150' distance does not meet the magic threshold. Of course, as we all know, there is no such magic distance.

First, the wireless network is required in order for Halo to be a wireless service provider, and its services to be considered CMRS. Again, I would point out that if Halo were conceived as a "scam" or "scheme," we could have either not deployed these wireless systems, and merely claimed to have done so, or we could have used that Cat 5 cable and not the wireless system. Neither were done, though if you buy our opponents' argument, we could have improved the quality of service by some unsubstantiated amount, to say nothing of saving over $1.3M in upfront capital expense, and over half a million dollars annually in recurring expense. Like the tower site issue, if Halo were set up to defraud, every decision made seems to have lessened the "ill gotten gains" the company "schemed" to realize. In essence, to accept the our opponents' story line, you have to believe that the people smart enough to conceive of such a creative and sophisticated business model somehow became quite dumb when it came time to execute the "fraudulent scheme" and profit from it.

Second, as I touched on earlier, the wireless link offers customers, including Transcom, the ability to locate their CPE anywhere within the RF footprint of the tower, which in many instances, is an area of approximately 75 square miles, and move it about this area however they choose. If the wireless CPE were replaced by a Cat 5 cable, as our opponents have suggested, then Halo would be dictating to customers, as a common carrier, where and how they needed to access the Halo network. This is neither very customer friendly, nor consistent with the basic premise of CMRS services. Like the ado that is made about the relatively low number of Halo retail customers, we're being evaluated against some ill-defined, improper, irrelevant, and totally

fictional standard of what the ILECs assert “should reasonably be” at a discrete point in time, as opposed to what is proper and legal.

Allow me to give an example. When I use WiFi service at a Starbucks, I’m probably only 30’ from the WiFi access point in the store. Does this mean I should take a 30’ Cat 5 cable and connect it up to the WiFi router? If not, why not? There’s most likely a spare Ethernet port or two for me to use. I don’t do this because it’s not convenient for me to do so, it’s not how Starbucks wants customers to access their network, and if Starbucks desires to allow more than just me to use their network, they prefer (demand actually) I use wireless access because more users can access the network this way. In essence, our opponents are looking at a situation where I’m the only customer in the Starbucks café, and saying, hey, you don’t really need to connect wirelessly. You can replace the wireless with a Cat 5 cable. That wireless system you’re using “serves no engineering purpose.” At this point, who among us wouldn’t toss our double mocha latte’s at the engineer who suggested this and advise him to go back to the lab?

Lastly, you might ask, why then was Transcom’s CPE located at the tower? The answer is because it was convenient for them to do so, and it offered Halo certain airlink capacity efficiencies beneficial to serving both high volume and low volume customers off the same network. We made design and execution decisions based on where we were going, not where we were forced to stop due to ILEC litigation. What was legal, not what we could get away with. What was customer friendly, not what was minimally required to meet some “engineering” goal or incumbent Diktat. If it would satisfy this Commission, we will be happy to ask Transcom to relocate their CPE. All we’d need to do is decide what the magic distance is.

Q: After the ICAs were entered into and the tower sites deployed, what marketing efforts did Halo undertake?

A: Halo's marketing efforts included hiring a dedicated marketing agency to oversee and direct sales and marketing efforts, establishing a sales call center operation to handle tele-sales and customer service functions, developing and deploying sophisticated service provisioning applications to enable automated and rapid account activations, hiring direct sales staff to conduct "door-to-door" sales campaigns in selected markets, and exerting great pressure on our WiMAX equipment supplier to deliver CPE devices desired most by customers, and most fitting Halo's mobile service intentions. In all, Halo spent roughly $300,000 on consumer marketing efforts from the third quarter of 2010 through the fourth quarter of 2011.

Q: Did Halo have any agents or representatives working on retail marketing?

A: Yes. Halo has employed a Dallas-based marketing and PR agency since pre-launch to design, implement and manage our consumer-centric sales and marketing efforts. We have also hired independent direct sales people to perform local sales activities in towns where our base stations are located.

Q: Have you personally been involved in these retail marketing efforts?

A: Yes. In addition to overseeing all our strategic marketing decisions, programs, and plans, I have personally spent time knocking on doors as part of our sales efforts, primarily to gain a deeper understanding of our target customers' broadband service requirements and expectations, disappointments and frustrations, and enablers and barriers to adoption.

Q: Does Halo have any retail customers in Missouri, and if not, why not?

A: Halo has deployed base stations in 28 MTAs in 21 states across the United States. We have not yet started retail consumer marketing in Missouri, and we do not presently have retail

consumer customers in Missouri. However, this is not because we lack the intent or interest in serving retail consumers in Missouri. The business plan and operating budget prepared in 2010 contemplated launching retail sales and marketing efforts in each MTA throughout 2011 as cash flow ramped up from our high volume offerings. In other words, we needed to allow high volume service cash flow to ramp up following launch of these services to generate the cash required to fund retail marketing efforts. Regrettably, we were in the early stages of retail marketing in 2011, having spent several hundred thousand dollars on retail sales and marketing, when the ILEC litigation started siphoning the excess cash flow destined for these programs.

Halo does have approximately 35 individual retail customers in other states and MTAs. In order to maximize the return on marketing dollars spent, and build the largest base of consumer customers possible, the decision was made to offer the Halo service initially as a "Beta" or free trial service, with the intention of ultimately converting these customers to paid customers over time. I will point out that we have one less retail customer now that AT&T disconnected Halo's trunks in Tennessee, rendering our retail voice service useless in Tennessee, as our Tennessee customers can no longer receive inbound calls. In any event, the current retail customer level is lower than we had hoped to obtain given the time and money spent to acquire these customers.

Q: Why is the current retail customer level lower than Halo had hoped or anticipated?

A: When we launched services in the summer of 2009, Airspan surprised us by giving us two bits of bad news. The first bit of news was that the USB device it presented to us, described as being "commercially available, and that we purchased 100 units of, was not yet certified by the FCC. This meant that we could not offer it for sale to consumers. The second bit of bad news was that the OEM supplier for a second CPE device, typically referred to as an Indoor Unit

(IDU), had ceased supplying the device and there were no alternative suppliers. Thus, the two primary CPE devices we intended to supply customers with were not available. This forced us to rely on Airspan's MiMAX PRO CPE for initial customer applications, including our High Volume service.

Airspan ultimately found an alternate supplier of the IDU, and that is the device offered to the present group of individual consumer customers. Having secured a suitable consumer mobile device, we began consumer marketing efforts during the fourth quarter of 2010 using this device, and experimented with several marketing strategies, including print, direct mail and online advertising. The goal in early 2010 was to find the most efficient way to acquire customers, while we waited for the primary device, the USB dongle, to be FCC certified. During this time, hundreds of thousands of dollars was spent on marketing efforts. While our programs did not yield large numbers of absolute customers, it is important for this Commission to keep several important factors in mind.

The first is that Halo had just launched its high volume services and was ramping up its revenue and cash flows. We intended to fund the consumer product with the cash flows resulting from the high volume product, so funds to support consumer marketing efforts were limited in the early months. Second, Halo was a new brand with no established equity with consumers. It takes time and money to build the awareness and trust necessary to convince consumers to buy services from a newly established brand. Third, Halo operated 28 tower sites in 28 different MTAs, creating a high demand for marketing investment. We needed to strike a balance between actively marketing services everywhere we were, while at the same time not diluting our investment to such a degree that we failed to get the return on these investments we required. I

will not say that we got this balance right. But that is the mode we were in at the time the attacks started by the ILECs.

Lastly, and back to the USB, we were consciously limiting our consumer marketing efforts in the late 2010/early 2011 timeframe waiting for Airspan to inform us that the FCC had certified the much more desirable USB dongle. Throughout 2010 and 2011, we were promised that FCC certification was "just around the corner." We modulated and controlled our consumer marketing efforts based on these promises. The FCC has, within the past two months, finally certified Airspan's USB dongle. Sadly, the money and management time that could now be going to marketing and sales of this compelling device now that it is available is being consumed by this fight with the ILECs.

Q: Are your current retail customers paying for service?

A: No, but the plan is for them to become paying customers, and for Halo to earn a profit.

Q: Why are you not charging these customers today?

A: Very simple. At the time we were investing in retail sales and marketing, we were trying to build a base of customers as quickly and with as little marketing capital as possible. In effect, we were using a similar, though not the same, strategy as a Facebook or Yahoo. Offer a service for free to build a base, then work to convert that base to paying customers, in some form or fashion, as you demonstrate the value of your service. As any new service provider can attest, the lack of a brand name is a major impediment to consumer adoption. You can attempt to overcome the lack of a brand identity in many ways. One way is to commit large amounts of marketing capital to build your brand and market your service. As a competitor of Halo's, Clearwire has clearly demonstrated most recently that this is a strategy that only very deep pocketed companies can employ, and even then, the results can be disappointing. Clearwire's pull back from retail

marketing demonstrated that billion dollar balance sheets are not adequate to play this game. Our strategy simply recognizes that a monthly fee is a barrier to adoption. By making our price zero, we are trying to maximize the take rate, as the consumer is generally more willing to take a risk and try your product or service, while maximizing the return on our relatively modest marketing budget by yielding the largest base of customers possible.

Q: Does Halo provide any value or benefit to the consumers in Missouri?

A: AT&T has argued before other Commissions that Halo and Transcom offer no value to communications customers in the states in which both companies conduct business. AT&T has argued that the removal of Halo and Transcom from the marketplace would not be felt by, or known to, Missouri communications customers. They seem to base this argument on the fact that neither Halo nor Transcom have a direct relationship with such consumers. Again, I must point out the obvious flaws in this line of thinking.

First, since when does the lack of a direct customer relationship in the delivery of a "finished" good or service matter when determining the relevance, importance, or value contribution of an upstream or component supplier for that good or service? Simply put, it does not matter. Do Apple iPad customers know that Broadcom supplies certain chipsets? Does this lack of awareness by them change Broadcom's importance, relevance, or value contribution to the iPad? I'm not suggesting that there aren't alternative suppliers for the parts Broadcom supplies for the iPad. I'm simply saying that if you took their chips out, the iPad isn't going to be very useful to the end customer, and they don't need a direct relationship with Broadcom to derive the value or feel the loss of Broadcom's contribution to the device.

Second, the mere fact that major providers of communications services voluntarily choose to purchase Transcom's services, and incorporate them into the delivery of service to

their consumer customers, means Transcom provides a valuable service, not only to the service providers, but by extension, to the service providers' end consumers. Thus, if Transcom, and Halo as one of Transcom's service vendors, are removed from the marketplace, this means that the preferred provider of service to these service providers is taken away, forcing these providers to employ their "second best" choice, assuming they have such a choice. If a "second best" choice exists, likely it is more expensive, and/or offers lesser quality, than what Transcom and Halo, taken together, previously offered.

Taking this to its logical conclusion, this means that the price and/or quality of service Transcom's customers can deliver to their Missouri consumers will move in the wrong direction, or, their profit and market share will suffer. As far as I can tell, these are not desirable outcomes and in the public good, as price rises or competitors to incumbents are incrementally weakened. Not being able to precisely quantify these effects do not make them magically disappear.

I will leave it to this Commission to determine the net economic impact of the revenue gains and losses in this dynamic situation. But certainly this Commission understands that looking only at the alleged revenue "lost" by the ILECs, without taking into account the economic and market "gains" of what Halo and Transcom provide, is to ignore half the picture, a very important half to a functioning competitive market, and undermine the very goal of this Commission, which is to protect and serve the public good.

Q: How do you respond to the insinuation that Halo and its related entities have inappropriate relationships?

A: Much has been made of the fact that Halo has contracted with related companies for a range of required services, including network services, NOC services, accounting and regulatory services, payroll services, technical consulting services, and management services. Our

opponents have never argued that Halo does not require these services to operate. And they have not brought forth any evidence that Halo is over paying for these services, and in effect, siphoning money from Halo to these related companies. The fact of the matter is Halo is paying at or below market rates for services required to operate the business. This is good, smart business management. There are many aspects of Halo's operation that we are performing with in-house resources, and other services for which we have contracted with third party companies. But leaving that aside, the bottom line is Halo pays less than 10% of its revenue for the many services provided by these affiliated entities, and the majority of this is pass-through charges and salary and benefit related costs, which would certainly be higher were Halo to contract directly for these services or perform them on its own.

When seen in this light, the assertion or inference that these related entity relationships are somehow mischievous, fiscally irresponsible, or part of some "money laundering" plot, wilts like a weed in the blazing sun.

HALO'S SERVICE

Q: Is Halo's consumer product centered on "voice" service?

A: Not really. It was designed to be a wireless broadband product that also has interconnected voice capability.

Q: What service areas have you targeted?

A: Halo has specifically targeted rural areas for its coverage areas.

Q: What market is targeted by Halo's "consumer-oriented" service offerings?

A: Consumers and small business in rural towns, where their choice of broadband provider and the services offered are limited, and/or where the consumers are typically forced to pay

higher prices. By selecting small towns underserved by incumbent operators for the deployment of these base stations, Halo can leverage common infrastructure to provide wireless broadband voice and data services on a scale, and at a price other operators simply cannot because they must derive a return on investment from only one market, where we serve two. I will point out that our detractors have claimed that Halo does not serve, and has no intention of serving, "retail" wireless customers. If this were true, I can tell you as an operator it would make no sense to deploy base stations in rural locations. These sites are generally remote, hard to get to, and backhaul services are limited and expensive, to name just a few challenges. If we had no intention of serving the people in these communities, we undoubtedly increased operational complexity and increased operating costs in a material way by deploying where we did.

Q: Does Halo plan to sell phones and devices?

A: Yes, as the device ecosystem supporting WiMAX technologies, especially in the 3650 band, continues to mature.

Q: Has Halo finished identifying and securing sources for all of the devices it plans to sell?

A: Not yet.

Q: Has Halo finished building out its nationwide network?

A: I would say that the radio network we have in place today is minimally adequate to operate our current business. If and when consumer marketing is reinitiated, following confirmation of Halo's Bankruptcy reorganization, we would consider incremental expansion as needed to meet the needs of our customers, with this incremental investment primarily focused on expanding the radio coverage area of existing towns we serve, and launching service in new

towns. We have not done either as yet as the incremental capital we expected to generate from operations, and managements attention, has been drained by these legal fights with the ILECs.

Q: Why does Halo need a nationwide network?

A: In wireless services, coverage is king. Coverage is what customers of wireless services expect. The more coverage you have as an operator, the easier it is to compete, build and sustain a profitable customer base, and deliver the value customers of wireless services expect.

Q: Does Halo provide "commercial mobile services," "unlicensed wireless services," and/or "common carrier wireless exchange access services"?

A: I am not a lawyer, but on the advice of counsel and the service definitions in § 332(c)(7)(C) of the Telecommunications Act, Halo takes the position that its services are "licensed" under these provisions. My non-legal understanding is that Halo provides commercial mobile radio services. It is also my understanding that if and when Halo carries a call to or from an IXC providing "telephone toll service," Halo would be providing "common carrier wireless exchange access service," as I believe that term is used in § 332(c)(7). If one accepts the FCC's holding that ESPs are exchange access customers, then Halo is authorized to provide exchange access to ESPs. On the advice of counsel, our position is that our 3650 authority is a "licensed" service. If this position proves incorrect, then our understanding would be that our services would be considered "unlicensed wireless services" on the basis that we offer "telecommunications services using duly authorized devices which do not require individual licenses." Regardless, we still assert it is CMRS.

Q: Does Halo provide "telephone toll service"?

A: Again, I am not a lawyer. Our counsel has advised me that § 153(48) of the Telecommunications Act defines "telephone toll service" as "telephone service between stations

in different exchange areas for which there is made a separate charge not included in contracts with subscribers for exchange service." I have also been advised that for CMRS purposes, the MTA is the relevant "exchange." We understood the precedent to mean that all of the communications in Missouri enter Halo's network as the result of an "end user's" "wireless station" *originating* a communication with a Halo base station in a specific MTA. All of these communications are delivered for termination to a "station" in the same MTA as Halo's originating end user's wireless station. But, even if there is not an "origination," Halo still receives the communication from its customer in the MTA. Thus, Halo does not transport communications between MTAs for any traffic that uses interconnection. Therefore, none of the traffic in issue is "between exchanges." Based on these facts, Halo asserts that its services do not fall within the definition of "telephone toll service."

Halo is not acting as an IXC for the calls in issue because Halo is not providing "telephone toll" as a part of any such call. None of the calls in issue fit the limited circumstances under which a CMRS provider is deemed to be providing telephone toll service and thus potentially subject to access charges.[1]

THE BLOCKING PROCEEDING AND AT&T'S COUNTERLCAIMS

THE ERE RULES DO NOT APPLY

Q: Halo has contended that the ERE Rules cannot be read to apply to Halo or Halo's traffic, and they cannot be used to authorize blocking even if the terms can be read to facially apply. Could you please explain?

A: Yes. There are a host of reasons. The main reason is that the definitions and requirements in the ERE Rules simply cannot be read to apply to Halo or Halo's traffic. I will go through the

[1] On the advice of counsel, Halo relies on: *Local Competition Order* ¶ 1043 and note 2485.

definitions and specific other provisions in the ERE Rules in a moment and demonstrate from a factual perspective why this is so. But first I want to lay out for the record Halo's position that that federal law preempts any attempt to block Halo's traffic – even that which is deemed to be purely interstate, and even if the ERE Rules can be said to facially apply. The essence of our position is that blocking of even "intrastate" traffic will frustrate Halo's *federal* right to interconnection. The FCC has allowed states to in some instances set prices related to interconnection and traffic exchange, but to my knowledge it has never delegated or ceded its plenary power and authority over CMRS provider's federal right to interconnect. The FCC grants interconnection rights to a wireless provider as part of the Radio Station Authorization when it accepts a carrier's "Regulatory Status" as "common carrier" when the carrier has indicated "yes" to "Interconnected" status. This is precisely what Halo's RSA says. As such, we contend that any order by this Commission to authorize blocking would clearly constitute assertion at the state level of the power to deny Halo's *federal* interconnection right.

Q: Please explain why Halo contends that federal law preempts any state-level order that would purport to authorize blocking.

A: First let me as that I am not a lawyer, and that this is a legal question. So I will attempt to provide my layman's answers to this question. I have been advised by counsel that CMRS carriers like Halo have separate, pre-existing, independent and additional ***federal*** interconnection rights under the Communications Act that long predate the 1996 amendments which inserted §§ 251 and 252. From the beginning, and continuing to this day, the FCC has consistently and zealously guarded its "plenary" jurisdiction over wireless providers' interconnection with the rest

of the public switched network.[2] In other words, the FCC's pre-1996 decisions relating to CMRS interconnection, and in particular the FCC's prior decisions pre-empting state authority over major aspects of CMRS-LEC interconnection remain in effect even after the 1996 amendments, because to my knowledge the 1996 amendments did not expressly or by implication repeal any of them.

Long before the 1996 amendments the FCC found that what are now called "CMRS"[3] carriers have a *federal* entitlement to reasonable and non-discriminatory interconnection with local exchange carriers. In 1949 the FCC allowed "radio common carriers" ("RCCs" and now "CMRS") to use radio frequency to provide Interconnected common carrier services that competed with the telephone companies. In 1976 and again in 1980, the FCC reaffirmed RCC's

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[2] Declaratory Ruling, *In the Matter of The Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services*, Report No. CL-379, FCC 87-163, ¶¶ 12, 17, 2 FCC Rcd 2910, 2911-2912 (rel. May 18, 1987). (emphasis added)

> 12. Based on our review of the jurisdictional issues, we find that the physical plant used in interconnection of cellular carriers to landline carriers is within our plenary jurisdiction because the identical plant serves both intrastate and interstate cellular services. The charges for interconnection, however, are severable between the jurisdictions because the underlying costs of interconnection are segregable. Charges for switching of interconnected calls are also subject to dual jurisdiction. Further, we find that the Commission has plenary jurisdiction over NXX codes, as well as jurisdiction to require interconnection negotiations to be conducted "in good faith."
>
> …
>
> 17. In light of the above, we find that the Commission has plenary jurisdiction, based on Sections 2(a) and 201 of the Act, over the physical plant used in the interconnection of cellular carriers. Section 201 provides the Commission with express authority over "physical connections with other carriers." Cellular physical plant is inseparable and thus Section 2(b) does not limit our jurisdiction in this area. Like telephone terminal equipment, the interconnected trunk lines and equipment of a cellular system are used to make both interstate and intrastate calls. Moreover, it would not be feasible to require one set of trunk lines and equipment for intrastate calls and another for interstate calls. We further believe that any state regulation in this area would substantially affect the development of interstate communications; without a nationwide policy governing the reasonable interconnection of cellular systems, many of those systems may be barred from the interstate public telephone network. A nationwide policy will also help prevent increased costs and diminished signal quality among cellular systems, as we will explain below.

[3] The moniker "CMRS" is a creature of the 1993 amendments to the Communications Act that inserted § 332. The FCC previously called wireless providers that offered service on a "common carrier" basis "Radio Common Carriers" or "RCCs."

federal rights to interconnection.[4] In 1983, the FCC refused to let LECs treat RCCs as "end users" or IXCs. Instead, the FCC expressly required LECs to recognize CMRS "co-carriage" rights as a "peer" rather than a "customer."[5] In 1986, the FCC reaffirmed that CMRS carriers are not ILEC "customers", but are instead co-carriers.[6] Although many decisions appear to be limited to or involve only "cellular" service, the FCC has repeatedly noted that the same interconnection rules apply to all CMRS, and not just "cellular."[7]

The FCC's pre-1996 decisions rested on its § 201 authority, later bolstered by additional authority granted in 1993 amendments to the Communications Act, creating what is now § 332.[8]

Section 332 of the Communications Act and 47 C.F.R. § 20.11 each provide a pre-existing, separate and independent *federal* interconnection right for CMRS carriers. Section 201,

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[4] See, Interconnection Between Wireline Telephone Carriers and Radio Common Carriers Engaged in the Provision of Domestic Public Land Mobile Radio Service Under Part 21 of the Commission's Rules (Domestic Public Land Mobile Radio Service), 63 FCC 2d 87, 88; 1977 WL 38679 (F.C.C.) (1977); Interconnection Between Wireline Telephone Carriers and Radio Common Carriers Engaged in the Provision of Domestic Public Land Mobile Radio Service under Part 22 of the Commission's Rules (Memorandum of Understanding), 80 FCC 2d 352, 1980 WL 121568 (F.C.C.) (1980). These decisions expressly recognized that CMRS providers are co-carriers, not customers; that they have a right to and need for "peer-to-peer" interconnection with what are now called ILECs.

[5] *See* Memorandum Opinion and Order, *In the Matter of The Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services*, FCC 86-85, ¶ 12, 59 Rad. Reg. 2d (P & F) 1275 (rel. March 5, 1986):

> 12. We believe that the Commission's interconnection requirements respecting paging, conventional mobile service, and cellular are well established. *See Allocation of Frequencies in 150.8 - 162 Mc/S Band (Guardband)*, 12 FCC 2d 841 (1968), *recon. denied*, 14 FCC 2d 269, *aff'd sub nom., Radio Relay Corp.* v. FCC, 409 F. 2d 269 (2nd Cir., 1969); *Cellular Communications Systems*, 86 FCC 2d 469, 495-496 (1981) (*Cellular Report and Order*); *Cellular Communications Systems*, 89 FCC 2d 58, 80-82 (1982) (*Cellular Reconsideration*); and *Cellular Communications Systems*, 90 FCC 2d 571, 576-577 (1982) (*Cellular Further Reconsideration*). Part 22 licensees are common carriers generally engaged in the provision of local exchange telecommunications in conjunction with the local telephone companies and are therefore "co-carriers" with the telephone companies. They are entitled to reasonable interconnection for the services they provide.

[6] In the Matter of The Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services, ¶ 12, FCC 86-85 LEXSEE 59 Rad. Reg. 2d (P&F) 1275 (rel. Mar. 5, 1986) ("FCC Policy Statement").

[7] See e.g., The Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services, 59 RR 2d 1275, 1284-85 n.3 (1986). See also Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Service, GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411, 1497-98 (1994).

[8] Omnibus Budget Reconciliation Act of 1993, PL 103-66, 107 Stat. 312 (August 10, 1993). *See generally*, Second Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act and Regulatory Treatment of Mobile Services*, GN Docket No. 93-252, 9 FCC Rcd 1411 (1994) ("*CMRS Second Report and Order*").

incorporated by reference into § 332(c)(1)(B), imposes a *federal* interconnection obligation and right. So sections 201 and 332 of the Act and FCC rule 20.11 operate in tandem with, but are still independent of, §§ 251 and 252 and the FCC's Part 51 rules, which implement the 1996 amendments. I am not aware of any instance where the FCC has ever delegated or ceded its plenary power over 332/20.11 *interconnection*[9] to the states.

To the contrary, we contend the FCC preempted the states from regulating the kinds of interconnection to which CMRS providers are entitled in 1994.[10] And thus we believe that no state can overturn the FCC's plenary power by saying that Halo is not entitled to "any kind" of interconnection merely because it allegedly violated some *state* rule.

Q: Does Halo have another reason for why the Commission cannot allow blocking?

A: Yes. The ILECs are not proposing to block only traffic that is deemed or found to be solely intrastate. They plan to block *all* traffic – whether intrastate or interstate. Halo asserts that even if a state commission can somehow overturn Halo's federal interconnection right and allow blocking of "intrastate" traffic, no state commission has the power to "authorize" any carrier to block interstate traffic.[11] It is my understanding that only the FCC can do this. Halo asserts that before any carrier can "block" interstate traffic, all of the ILECs involved here would have to seek FCC approval under the "Discontinuance, Reduction, Outage and Impairment" rules beginning at 47 C.F.R. § 63.60.

[9] Any assertion that "interconnection" is merely physical linking, and does not also include traffic exchange for purposes of 332/20.11 is incorrect. Unlike § 251 and Part 51, "interconnection" means *both* physical interconnection *and* traffic exchange. Counsel advises that the FCC so held in the *Connect America* order in ¶ 840 and note 1606.

[10] Second Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act and Regulatory Treatment of Commercial Mobile Radio Service*, GN Docket No. 93-252, 9 FCC Rcd 1411 (1994) ("Second CMRS Report and Order").

[11] The Commission would do well to read the FCC's observation that the ERE Rules only apply to "intrastate traffic" in *Connect America* order note 1277, and the FCC's clear reiteration in ¶ 734 that it would not "condone, let alone expressly permit, call blocking" in the sentence containing the footnote reference to the ERE rules. The FCC went on to say that the FCC "has a longstanding prohibition on call blocking." To put it bluntly, the FCC has held that blocking violates § 201 and this this Commission cannot purport to authorize action that would violate § 201. That is completely outside of the Missouri PSC's purview.

Halo was forced to bring this complaint, but we have not waived our federal rights by doing so. Our position, supported by the above references, is that the Commission does not have the power to apply state rules that would have the effect of frustrating Halo's federal right to interconnect. Thus, the Commission cannot authorize blocking of interstate traffic.

Q: Please turn to your discussion of the ERE rules.

A: Let me start out by pointing to a few facts that the ILECs completely overlook. First, Halo is not "placing" the traffic in issue "on" or "over" the "LEC-LEC network." Halo routes the traffic to AT&T over interconnection trunks. Halo is interconnected to AT&T via "Type 2" arrangements. These are not "Feature Group A," "Feature Group B," "Feature Group C" or "Feature Group D" arrangements. They are interconnection trunks. **AT&T** has unilaterally chosen how to route the traffic it is transiting to the other ILECs. Halo did not ask AT&T to take this action, and we clearly have no control over AT&T. If AT&T has indeed placed the traffic on the "LEC-to-LEC network"[12] this is AT&T's choice, and Halo cannot be held responsible.

Q: Why is that important?

A: It brings me to one of the significant definitional problems that arise from the ILECs' attempt to shoehorn Halo and Halo's traffic into rules and regimes that do not and cannot apply: Halo is not "placing" this traffic on the "LEC-to-LEC network." Given this, I have been advised by counsel that this means the ERE rules cannot apply.

Q: Is there another problem?

A: Yes. From a factual perspective, the traffic in issue does not "originate via the use of Feature Group C protocol as defined in 29.020(13)." My understanding is that this is a requirement in order for the ERE rules to apply. *See* 29.010(1). I have not seen where any ILEC

[12] Halo believes that whatever mechanism or "network" AT&T has chosen to use, it is not the "LEC-to-LEC network" as defined in the ERE rules.

has assert that this factual requirement – origination via FGC – is met for *any* call in issue in this case. Further, if one accepts the ILECs' theory,[13] Halo is not the "originating carrier": according to them, all traffic originates on other carriers' networks and *transits*[14] Halo's network. Therefore, under their own theory, Halo is not the "originating carrier" under the plain meaning of the definition in 29.020(29), for two separate reasons.

Q: Is there another problem?

A: Yes, and it is a very basic one: I have been advised by counsel that all of these rules cannot apply to Halo because Halo is not a "Telecommunications Company" as defined in 29.020(34). This definition refers to section 386.020(51) RSMo Supp, and we understand it to exclude any entity that is offering service under an FCC license. Clearly Halo has such a license. My understanding is that the Commission drafted this definition for the very purpose of excluding CMRS from coverage, in response to comments by T-Mobile, Nextel and Cingular. *See* Orders of Rulemaking, Missouri Register, June 15, 2005, Vol. 30, No. 12, p. 1381. We do not see how it can now claim that FCC licensees are actually covered by the definition. This is yet another reason why Halo cannot be the, or a, "originating carrier" under the ERE rules, and why the rules cannot be read to authorize blocking under the rules.

Q: Is there another problem?

A: Halo is not a "traffic aggregator" under 29.020(38) because Halo is not a telecommunications company, does not have an "end office" as defined in 29.020(10), Halo is not the one that chose to "place" any traffic on the "LEC-to-LEC network" and Halo is not

[13] Halo completely disagrees with the ILECs' theories, but they are the ones that claim the ERE rules apply and allow blocking. I am merely observing that if their factual premises are correct then the ERE rules cannot apply.
[14] The FCC's *Connect America* order in ¶ 2006 characterized Halo as providing a "transiting" service. Therefore, at best Halo falls into the definition of a "transiting carrier" under 29.020(39) and the traffic is "transiting traffic" under 29.020(40). However, even these definitions cannot apply, because Halo is not a "telecommunications company" under the ERE rules, and is completely outside of the coverage of the rules.

performing any functions or handling any traffic on behalf of another "telecommunications company."

Q: Is there another problem?

A: Yes. The blocking is premised on allegations that Halo has not paid compensation to the non-AT&T ILECs. They fail to explain, however, how the traffic is "compensable traffic" as defined in 29.020(8). The non-AT&T ILECs assert that the traffic is "access traffic" but to date none of them have ever explained with any specificity how it is that they are providing "switched access service" to Halo, or which specific access service (by way of a discrete "Feature Group") it is. They do not explain how traffic that allegedly traverses the "LEC-to-LEC network" using "Feature Group C protocol" is chargeable to Halo under their access tariffs when Halo is not using or receiving Feature Group C, and is not eligible to receive Feature Group C switched access. Finally, they do not explain how, under their own theory, Halo is not the originating carrier– and is thus a transiting provider – but Halo is somehow responsible for terminating access charges as if Halo is the originating carrier under the ERE Rules. Given that Halo is not an IXC,[15] does not provide telephone toll, has not subscribed to exchange access, has not received exchange access, their access tariffs cannot apply, and there is no interconnection agreement. Thus, until interim or permanent interconnection agreements are in place, we do not believe they are entitled to financial compensation for the traffic in issue. While Halo would like to secure such agreements, and begin paying for traffic termination under lawful and appropriate

[15] Rule 240.020(15) defines "IXC traffic" as "traffic that traverses an interexchange carrier point of presence." Point of presence" is in turn defined in 240.020(31) and "means the physical location within a LATA where an interexchange carrier processes long distance telephone calls to and from the public switched network. A POP is connected to the public switched network through the use of feature groups A, B, and D protocols. Equipment located in a POP does not use feature group C protocol." Halo is not an IXC. Halo is not connected through any feature group. Halo therefore does not have a POP. Once again the rules simply cannot apply because the seminal definitions cannot be stretched to cover Halo's specific situation.

terms, this has not been possible due to the intransigence of the ILECs on the access charge question.

Q: Let's move away from definitions and look at the rules themselves. Are there problems there as well?

A: Yes there are. Let's start with 29.030. It is my understanding that this rule applies to telecommunications companies. Halo is not a telecommunications company as it is used in this rule, it is a wireless, company, and thus this rule cannot apply. The Commission expressly held in its order promulgating the ERE rules that this particular rule "do(es) not apply to the manner in which wireless carriers send and receive transiting calls to terminating carriers."[16] The prohibition against placement of "interLATA traffic" on the "LEC-to-LEC network" in 29.030(2) does not apply for this same reason. It is also Halo's position that it does not apply because, under the ILECs' theory, Halo is not an "originating" carrier, and Halo is not the one choosing to "place" traffic on the "LEC-to-LEC network", assuming that is in fact occurring. It is also my understanding that 29.030(3) does not apply because Halo is not connected via Feature Group A, B or D, and that 29.030(4) does not apply because Halo is not a traffic aggregator.

I'd like to now turn to Section 29.040. As mentioned above, Halo is not a telecommunications company under these terms. Under the ILECs' theory, Halo is not the originating carrier. Despite their allegations of signaling improprieties, the ILECs do not contend that Halo has changed, deleted, or stripped CPN. What they seem to be complaining about is that

[16] COMMENT: T-Mobile, Nextel, and Cingular (Joint Wireless Carriers) object that this section unfairly limits the way wireless calls are routed. Joint Wireless Carriers state that the Corninission should make clear that the rules do not apply to the manner in which wireless carriers send and receive transiting calls to terminating carriers.
RESPONSE: We have deleted wireless carriers from the definition of a telecommunications company as stated in 4 CSR 240-29 .020(34) . Therefore, we see no reason to change this section.
Orders of Rulemaking, Missouri Register, June 15, 2005, Vol. 30, No. 12, p. 1382

AT&T has removed calling party identifying information when it transits the traffic.[17] Halo cannot be blamed or held accountable for AT&T's actions or violation of any rules, if such violations are occurring. Thus, I don't see how Halo could be deemed to be violating 29.040(1). If and to the extent Halo is a transiting provider for purposes of 29.040(2), Halo has complied, because once again Halo has not altered any CPN information. To my knowledge, no ILEC has made a "request" that Halo provide any of the information in 29.040(4)(A), (B) or (C). Halo is not a traffic aggregator for purposes of 29.040(5). And despite their allegations of signaling improprieties, I am not aware that any ILEC has asserted that Halo has violated 29.040(6). Thus, taken together, we do not see a violation of 29.040.

Q: Do you believe that Sections 29.050 or 29.060 are implicated by this proceeding?

A: I have not seen any mention of these two rules.

Q: Please turn to 29.080 and provide your thoughts.

A: In my reading of this rule, it seems to be directed at a purported authorization to terminating carriers – here the ILECs – to use certain records to bill "originating carriers." I am not aware of any allegation that Halo has violated 29.080 in any respect. I must point out, however, another example of why these rules lead to irrational results when they are applied to our situation. 29.080(2) says that terminating carriers can "identify the originating carrier" based on the OCN. The rule then implies that the OCN is identified by reference to the association of

[17] To be even more specific, the ILECs are still mad that AT&T does not include the original CPN in the tandem records that are provided to the ILECs that they then use for billing. They have lost this argument several times (*see e.g.*, Order Clarifying Rule, *In the Matter of the Request of Southwestern Bell Telephone, L.P., d/b/a AT&T Missouri, for a Waiver of Certain Requirements of 4 CSR 240-29.040(4)*, Case No. TE-2006-0053 (May 26, 2006)), but once again complain, although this time they are blaming Halo for their problems even though Halo is signaling CPN to AT&T and AT&T is inserting Halo's billing number rather than the CPN in the tandem records – just like the Commission said it expected.

The above-cited case is also illuminating because it announces the rules of construction that must be applied in this case. The ILECs are sure to claim that the Commission's "intent" was to address and control the traffic in issue, even if the actual words of the rule – and particularly the definitions – plainly mean that the traffic in issue is not subject to the rule. The rule definitions and terms are clear and unambiguous, and they clearly exclude the traffic and Halo. The mandatory rules of construction applicable to Commission rules require that the Commission hold that the ERE rules do not apply and therefore cannot be used to justify blocking.

the calling telephone number to the OCN of the code holder for that block. To my knowledge, none of the traffic in issue in this case has a Halo assigned NPA/NXX/X in the CPN parameter; indeed the ILECs' entire theory is that Halo is *not* the originating carrier based on the telephone numbers they see in the signaling. Yet they are billing Halo rather than the OCN/Code owner, even though 29.080(2) strongly implies that they are supposed to bill the OCN/Code owner based on the calling number.[18]

I believe, however, that the non-AT&T ILECs have been identifying Halo as the responsible party because AT&T has given them tandem records that identify Halo as the originating carrier. Specifically, it is my understanding that AT&T strips the CPN contained in signaling and inserts a billing number it has associated with Halo. And then AT&T and the ILECs accuse Halo of engaging in signaling improprieties based on Halo's former practice of placing its customer's billing number in the Charge Number parameter while preserving the CPN contents, a practice it ended in December. The ILECs seem to want it both ways, we are the originating carrier from certain points of view (those directed at the payment of access charges), but we're not the originating carrier, and are not allowed to act like one, from other points of view. In short, the ILECs arguments on this point, and in using the ERE rules to support blocking, are inherently inconsistent and strained. In my view, this is because Halo is a different

[18] Halo does not believe that telecommunications traffic can be jurisdictionalized or rated based on a telephone numbers – a proposition this Commission expressly agreed with regarding wireless traffic. The discussion accompanying the promulgation of the ERE rules specifically addressed this issue:

> The Commission agrees with the comment of Joint Wireless Carriers that the addition of an Operating Company Number (OCN) will not determine the jurisdictional rate of wireless telephone calls . We also agree that Calling Party Number (CPN) cannot in all instances be used to determine the proper jurisdiction of wireless calls. We caution all terminating carriers that any attempt to use an OCN or CPN to determine the proper jurisdiction of wireless telephone calls on the LEC-to-LEC network is not permissible under our local interconnection rules. We recognize this limitation contrasts with processes historically employed on the Interexchange Carrier network in which CPN is used to determine the jurisdiction of wireless calls. Again, we caution that our rules will not permit such practices on the LEC-to-LEC network.

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model from what they're accustomed to, so they default to incoherent logic and application of rules, rather than consider different possibilities and outcomes.

Q: Do you believe that Section 29.090 applies to this situation?

A: No, I do not. As mentioned above, Halo is not a telecommunications company. Halo has not received a "correct invoice" as required by these rules (*cf* 29.090(2)). Halo has disputed all invoices in any event.

Q: What about 29.100?

A: I do not believe this section applies, for all the reasons I mentioned above. Halo disputed the invoices it has received, and we do not believe we had a duty to follow any of the other requirements in this rule.

Q: Please discuss 29.120 and 29.130.

A: My reading of these Sections leads me to believe that these are rules the ILECs principally rely on for their efforts to block Halo's traffic. But as shown above, Halo's traffic cannot be legitimately said to be subject to the ERE rules since Halo is not an "originating carrier", not subject to these rules, and even if the rules somehow apply, we contend that federal law prohibits use of the blocking "remedy" in any event.

Q: But didn't Halo invoke the procedures in 29.120(5) and 29.130(9)?

A: Yes, but we did so under protest and with a total reservation of rights. We contended in our petition that the ERE rules cannot and do not apply, and that even if they do apply, they are, preempted and cannot serve to deprive Halo of its federal rights. We maintain these positions.

NATURE OF HALO TRAFFIC

Q: How do you respond to the Opposing Parties' claims that the traffic at issue is not originated wirelessly, and instead all of Halo's traffic is "landline originated" traffic subject to access charges?

A: It is undisputed that Halo operates the wireless facilities I described in my testimony above and that Halo communicates with its High Volume end user customer, Transcom, over wireless transmitting and receiving facilities in each MTA. Based on the advice of counsel, it is my understanding that the mobile stations used by Halo's end user customers – including Transcom – are not "telecommunications equipment" as defined in section 153(45) of the Act because the customers are not carriers. Although Halo has and uses telecommunications equipment, its customers do not. All of the communications at issue from Halo's customers, including Transcom, originate from end user wireless CPE (as defined in the Act, 47 U.S.C. § 153(14) that is located in the same MTA as the terminating location.

The Opposing Parties' assertion that the traffic at issue is not "wireless originated" is obviously based on their refusal to accept that Transcom is an ESP end user and originator of traffic and that the traffic at issue is not subject to access. However, on four separate occasions, courts of competent jurisdiction have ruled that Transcom is an ESP (the "ESP Rulings"). I am not a lawyer, and I am relying on regulatory counsel here, but my layman's interpretation is that ESP status conveys four important attributes that are at the heart of classifying Halo's traffic: (1) ESPs are "end users," (2) ESPs purchase telephone exchange services, (3) ESP traffic is not access traffic, and (4) ESPs are end users that originate and terminate traffic. In other words, since ESPs are not carriers or IXCs, their traffic cannot be treated as if an IXC is involved.

Further, when a company like Halo provides Telephone Exchange Service to an ESP, it is not providing a "transit" service since Halo is not switching calls between two carriers.[19]

The ILECs say that Halo is arguing that Transcom's involvement creates a "re-origination." That is a mischaracterization. Our argument is that Transcom – like all ESPs – is a communications-intensive business end user that takes communications from Transcom's customer, processes the communication, and then "initiates a further communication." Halo did not just cook up this concept. It is taken directly from the D.C. Circuit's description of ESPs and their regulatory status in the *Bell Atlantic* decision, which I will explain further below.

The Opposing Parties are claiming that Halo is merely "re-originating" traffic and that the "true" end points are elsewhere on the PSTN, thus making the traffic subject to access charges. In making this argument, however, AT&T is advancing the exact position that the D.C. Circuit rejected in *Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000). On advice of counsel, in that case, the D.C. Circuit held it did not matter that a call received by an ISP is instantaneously followed by the origination of a "further communication" that will then "continue to the ultimate destination" elsewhere. The Court held that "the mere fact that the ISP originates further telecommunications does not imply that the original telecommunication does not 'terminate' at the ISP." In other words, the D.C. Circuit clearly recognizes – and functionally held – that an ESP is an "origination" and "termination" endpoint for inter-carrier compensation purposes (as opposed to *jurisdictional* purposes, which does use the "end-to-end" test).

The traffic at issue here that is ultimately being terminated by AT&T first is received by Transcom where there is a "termination." Transcom then "originates" a "further communication" in the MTA on the Halo wireless network. In the same way that ISP-bound traffic *from* the PSTN

[19] I will explain the impact of the FCC order and new rules below, by accepting the FCC's characterizations and applying them to our context. I am admittedly disagreeing with the FCC here. But the ILECs are as well; they just won't admit it.

is immune from access charges (because it is not "carved out by section 251(g) and is covered by section 251(b)(5)), the call *to* the PSTN was also immune under the rules as they existed prior to December 29, 2011.[20] Enhanced services were defined long before there was a public Internet. ESPs do far more than just hook up "modems" and receive calls. They provide a wide set of services and many of them involve calls to the PSTN.[21] The FCC observed in the first decision that created what is now known as the "ESP Exemption" that ESP use of the PSTN resembles that of the "leaky PBXs" that existed then and continue to exist today, albeit using much different technology. Even though the call started somewhere else, as a matter of law a Leaky PBX is still deemed to "originate" the call that then terminates on the PSTN.[22] As noted, the FCC has expressly recognized the bidirectional nature of ESP traffic, when it observed that ESPs "may use incumbent LEC facilities to originate and terminate interstate calls." Halo's and Transcom's position is simply the direct product of Congress' choice to codify the ESP Exemption, and neither the FCC nor state commissions may overrule the statute.

[20] The ILECs incessantly assert that the ESP Exemption only applies "only" for calls "from" an ESP customer "to" the ESP. This is flatly untrue. ESPs "may use incumbent LEC facilities to originate and terminate interstate calls[.]" *See* NPRM, *In the Matter of Access Charge Reform*, 11 FCC Rcd 21354, 21478 (FCC 1996). The FCC itself has consistently recognized that ESPs – as end users – "originate" traffic even when they received the call from some other end-point. That is the purpose of the FCC's finding that ESPs systems operate much like traditional "leaky PBXs."

[21] *See*, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, *In the Matter of Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing Usage of the Public Switched Network by Information Service and Internet Access Providers*, CC Docket Nos. 96-262, 96-263, 94-1, 91-213, FCC 96-488, 11 FCC Rcd 21354, 21478, ¶ 284, n. 378 (rel. Dec. 24, 1996); Order, *Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, CC Docket No. 87-215, FCC 88-151, 3 FCC Rcd 2631, 2632-2633. ¶13 (rel. April 27 1988); Memorandum Opinion and Order, *MTS and WATS Market Structure*, Docket No. 78-72, FCC 83-356, ¶¶ 78, 83, 97 FCC 2d 682, 711-22 (rel. Aug. 22, 1983).

[22] *See*, Memorandum Opinion and Order, *MTS and WATS Market Structure*, Docket No. 78-72, FCC 83-356, ¶¶ 78, 83, 97 FCC 2d 682, 711-22 (rel. Aug. 22, 1983) [discussing "leaky PBX and ESP resemblance]; Second Supplemental NOI and PRM, *In the Matter of MTS and WATS Market Structure*, FCC 80-198, CC Docket No. 78-72, ¶ 63, 77 F.C.C.2d 224; 1980 FCC LEXIS 181 (rel. Apr. 1980) [discussing "leaky PBX"].

The FCC recently amended its intercarrier compensation rules on a prospective basis. They brought all traffic back into § 251(b)(5), which means that there is no longer any traffic "carved out" by § 251(g). Then the FCC adopted special treatment for VoIP traffic. If a call "originates from and/or terminates to an end-user customer of a service that requires Internet protocol compatible customer premises equipment" and if the call traverses interconnection with an LEC using "TDM format" for termination, then the call will be rated as either "non-toll" (with traditional reciprocal compensation being applied because it is "non-access") or it is "access reciprocal compensation" and the terminating LEC's interstate access rate is applied, regardless of whether the call is technically "intrastate" (however that is determined). As a consequence, according to the FCC, the "ESP Exemption" is no longer relevant when VoIP is involved – although the ESP Exemption still applies to ESP traffic that does not ""originate[] from and/or terminate[] to an end-user customer of a service that requires Internet protocol compatible customer premises equipment." *See* FCC order ¶ 945 and note 1905. Further, the FCC held in paragraph 957 (wrongly, we believe, but that is for the Tenth Circuit to decide) that ESPs are and always have been "Exchange Access" customers rather than "Telephone Exchange Service" customers. What this means in the Halo-Transcom context is that Halo is providing "exchange access" to Transcom rather than the telephone exchange service we believed it was based on precedent. But this characterization does not mean Halo cannot provide this service. CMRS has always had authorization to provide exchange access service as well as telephone exchange service. Nor does it materially impact the compensation result under the new rules since all traffic – including exchange access – has now been brought into § 251(b)(5) and is now "reciprocal compensation."

The FCC's rule changes have an enormous impact on the issues in this case, at least for traffic on and after December 29, 2011. For traffic before that date one must apply the old rules, and for traffic after that date one must apply the new rules. Further, although Halo disagrees with many of the things the FCC did and said – and has appealed the order to the Tenth Circuit – for so long as it is in effect the FCC's order clarifies many aspects of the issues in this case.

For example, Halo's regulatory counsel has advised me that the FCC apparently disagrees with the D.C. Circuit's holding that ESPs constitute an end point for reciprocal compensation purposes, and when an ESP "originates a further communication" it is a separate communication. Counsel has also advised that it appears the FCC has also – apparently without discussion – decided that it now disagrees with its prior holdings that end user CPE like a PBX "originates" a second leg when a call comes in to the PBX and the PBX then uses its "leaky PBX" capability to seize a local line to complete the communication to another end point on the PSTN. Halo relied on all of this precedent in formulating its business plan for high volume service, and I do not believe we should be faulted or penalized for doing so.

We have analyzed the FCC order, however, and each of its subsequent clarifications and reconsiderations to determine how to characterize our service and the intercarrier compensation implications. Suffice it to say that the ILECs' position is just as wrong post FCC order as it was pre FCC order.

Q: Can you please explain?

A: First, I have to reiterate a few seminal facts. All of the equipment used by Transcom and Halo is IP-based. With the exception of the SIP-to-TDM conversion done to comply with AT&T's and the ILECs' insistence on originating and terminating traffic in TDM format, our network is IP. The Transcom CPE (the mobile station) is IP. So if you look at the service

configuration and still accept that Transcom is an end user, then we contend that the traffic is subject to the FCC's new special VoIP rules, and is all still "non-access." The only question is what sub-category of "non-access" it falls into: bill and keep, intraMTA, transit, or non-intraMTA non-access, with the price determined by the state according to the FCC's pricing rules.

Alternatively, if you (inappropriately, in our view) look "through" Transcom to see how a call started, we have every reason to believe that a very high percentage of the traffic Transcom sends to Halo originates from upstream end users using IP-based CPE. Thus, it too is subject to the FCC's new special VoIP rules. When you look at it this way, then Transcom is an "intermediate provider" and Halo is Transcom's "wholesale carrier partner." In that case, any traffic found to be "toll" because it does not originate and terminate in the local area (either the MTA or the legacy local calling areas set by this Commission) would be priced at the interstate access rate that applies to VoIP "access reciprocal compensation."

Q: If you look at Transcom as an "intermediate provider" is Halo's service still "CMRS" and can Halo still support the service using its § 252 interconnection arrangement with AT&T?

A: We believe so, although the intraMTA rule may or may not apply. We contend that it does for purposes of determining whether a call is "toll" or "non-toll" and therefore "non-access" or "access reciprocal compensation," but the FCC appears to have rejected this argument based on the premises set out in its order. We believe those premises – which appear to have been based on presentations by TDS Telecommunications Corporation ("TDS") and others, and in fact used the same "numbers-based assumptions" they use here – are incorrect. We believe that the FCC's order is actually inconsistent. The FCC expressly says that numbers are not reliable

indicators of the jurisdiction of a call. *See e.g.* ¶¶ 960[23] and 962.[24] Yet – perhaps without realizing it – they used TDS' "numbers-based" analysis to form a conclusion on where calls originate in Halo's particular situation.

The FCC held in paragraph 972 that "we make clear that a carrier that otherwise has a section 251(c)(2) interconnection arrangement with an incumbent LEC is free to deliver toll VoIP-PSTN traffic through that arrangement," so we believe that Halo can still support this traffic. The only question is how the traffic is treated for intercarrier compensation purposes. We believe there are several different possibilities:

- a call can be "non-toll" and therefore "non-access."
- a call can be "local" under "wireline" rules or under the MTA rule, and therefore "non-access.
- a call can be "transit" (which is how the FCC actually characterized Halo's traffic) and therefore "non-access" (since the FCC also defined "transit" as "non-access" in paragraph 1311.
- a call can be "access reciprocal compensation" because it is not "non-toll" and not "transit" but since it is all "IP" it is subject to only interstate access rates.
- a call can be treated as "jointly provided access" as between Halo and all of the LECs involved in termination. CMRS has always been able to provide exchange access[25] and therefore can be a joint provider of access along with the ILECs. If

[23]"Because telephone numbers and other call detail information do not always reliably establish the geographic end-points of a call …"

[24]"Contrary to some proposals, however, we do not require the use of particular call detail information to dispositively distinguish toll VoIP-PSTN traffic from other VoIP-PSTN traffic, given the recognized limitations of such information.1981 For example, the Commission has recognized that telephone numbers do not always reflect the actual geographic end points of a call. Further, although our phantom traffic rules are designed to ensure the transmission of accurate information that can help enable proper billing of intercarrier compensation, standing alone, those rules do not ensure the transmission of sufficient information to determine the jurisdiction of calls in all instances. Rather, consistent with the tariffing regime for access charges discussed above, carriers today supplement call detail information as appropriate with the use of jurisdictional factors or the like when the jurisdiction of traffic cannot otherwise be determined. We find this approach appropriate here, as well."

[25] Section 47 U.S.C. § 332(c)(7)(7)(C)(i) expressly authorizes wireless providers to offer exchange access by defining "personal wireless service" as including "wireless exchange access services."). 47 C.F.R. § 20.15(c) recognizes that CMRS carriers provide exchange access, but it is mandatorily detariffed. *See also* Declaratory Ruling, *In the Matter of Petitions of Sprint PCS and AT&T Corp. For Declaratory Ruling Regarding CMRS Access Charges*, WT Docket No. 01-316, FCC 02-203, ¶¶ 7-15 (rel. Jul. 2002) ("*CMRS Access Charge Declaratory Ruling*"); Notice of Proposed Rulemaking, *Equal Access and Interconnection Obligations Pertaining to Commercial Mobile Radio Services*, CC Docket No. 94-54, 9 FCC Rcd 5408, 5447 (1994) ("*CMRS Equal Access NPRM*"); *see also* Declaratory Ruling, *The Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services*, Report No. CL-379, 2 FCC Rcd 2910, 2915 (1987) ("*Cellular Interconnection Order*").

> ESPs are exchange access customers like the FCC has now said, then Transcom's traffic may fall into this category. Since this is all IP-based traffic, then the "access" all the carriers involved are jointly providing would be priced and billed at the interstate rate.

The one result we believe is clearly not allowed under the new rules is imposition of intrastate access charges on either Halo or Transcom.

Q. Let's talk more about the relationship between Transcom and Halo, and Transcom's status as an ESP. First, what is Halo's relationship with Transcom?

A. One of customer and vendor, with each party serving in both roles, but for different services. As a vendor to Transcom (Transcom as customer to Halo), Halo provides certain telecommunications services to Transcom, with Halo serving as a provider of common carrier CMRS services. Transcom purchases these CMRS services – which we call "high volume" services – in the form of a "wireless telephone exchange service"[26] or alternatively as a wireless exchange access service. As a customer of Transcom, Halo purchases certain core IP services, such as soft-switch capacity, media gateway ports, and IP bandwidth.

It is true that Halo and Transcom share certain management staff, and there is some common ownership. We have never denied this. But there is also non over lapping management and ownership. The two companies do not have common boards. The companies operate at arms length with well documented contractual agreements between them. And as of April of 2011, they are located in different offices. Again, Halo's opposition continues to assert that Halo and Transcom are effectively "one company," largely on the basis of some common ownership and

[26] I am advised that "telephone exchange service" is defined in Communications Act § 153(47):

> (47) TELEPHONE EXCHANGE SERVICE.--The term "telephone exchange service" means (A) service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange, and which is covered by the exchange service charge, or (B) comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service.

shared management, and the fact that Transcom currently represents 100% of Halo's revenue. But the former is neither unusual nor improper, and the latter is a temporary situation, that was brought about primarily by the actions of the LECs themselves. Halo is frozen in time to its start up period because of litigation. To evaluate the company, discern its strategy and intentions, and furthermore to attempt to impugn its management, on this basis is flawed, inappropriate, and unfair.

Q. Are you familiar with the court decisions rendered by Judges Hale and Felsenthal regarding Transcom's status as an ESP?

A. I have reviewed them and mentioned them briefly in my testimony above.

Q. What do you understand are the implications and ramifications of these decisions on Halo and Transcom with respect to the service Halo sells to Transcom?

A. Based on advice of counsel, my understanding of these decisions is that they establish Transcom as an ESP, and that as such, Transcom is to Halo, an "end user" purchaser of Halo's common carrier telecommunication services. Furthermore, my understanding from these decisions and counsel is that when ESPs purchase services from a common carrier like Halo, access charges are not due on their traffic. The bankruptcy court – like many other federal courts found that ESPs purchase "telephone exchange service."

Going into further detail on this, it is our understanding that Transcom's operations have been reviewed by a federal court with jurisdiction to determine if Transcom is an ESP, and that on several occasions these courts affirmed that Transcom is indeed an ESP. Specifically, in *In re Transcom Enhanced Services, LLC* (the "Hale Opinion"), (which is attached as Exhibit 1 to the Pre-Filed Testimony of Robert Johnson in this matter), the court held that Transcom does not provide telecommunications, and is an ESP. The Hale Opinion concluded that "a service that

routinely changes either the form or the content of the transmission would fall outside of the definition of 'telecommunications' and therefore would not constitute a 'telecommunications service.'" See Johnson, Exhibit 1, pg. 6. On the basis that Transcom's operations necessarily result in a change in content and often a net change in form, the Hale Opinion concluded that Transcom is an ESP. The Hale Opinion further posited that Transcom has never held itself out as a common carrier and there is no legal compulsion that Transcom operate or hold out as a common carrier.

Our understanding of the Hale Opinion is that AT&T and SBC contended that Transcom's service was similar to the service addressed by the FCC in the "IP-in-the-Middle" decision. However, our understanding of the Hale Opinion is that it rejected that argument and held that the service provided by Transcom is "distinguishable from AT&T's specific service in a number of material ways," and it goes on to list some of the distinctions.

Our understanding is that the Hale Opinion went on to hold that Transcom's service "fits squarely within the definitions of 'enhanced service' and 'information service' . . . and falls outside of the definition of 'telecommunications service' because [Transcom's] system routinely makes non-trivial changes to user-supplied information (content) during the entirety of every communication." Our understanding of the Hale Opinion is that it further held that Transcom's service "is not a 'telecommunications service' subject to access charges, but rather is an information service and an enhanced service that must pay end user charges."

I have been advised by counsel that the Hale Opinion was later vacated on grounds of mootness, but Judge Hale entered similar findings and rulings in the final Confirmation Order of Transcom's bankruptcy proceedings (which is attached as Exhibit 2 to the Pre-Filed Testimony of Robert Johnson in this matter). See Johnson, Exhibit 2, paragraph 4. Also, we understand that

Judge Hale entered summary judgment in Transcom's favor in an adversary proceeding, and that summary judgment reiterated all of the findings made in the Hale Opinion (which is attached as Exhibit 3 to the Pre-Filed Testimony of Robert Johnson in this matter). In addition, we understand that Transcom started its operations by purchasing the assets of a company called DataVon out of DataVon's bankruptcy, and the bankruptcy judge in that matter, Judge Felsenthal, made similar findings about the service provided by DataVon that Transcom was purchasing (which is attached as Exhibit 4 to the Pre-Filed Testimony of Robert Johnson in this matter).

Q. Has Transcom made any representations to Halo regarding its status as an ESP and treatment as an "end user" based on these decisions?

A. Transcom has represented to Halo that since the issuance of the Hale and Felsenthal decisions, there has been no change in any of the relevant facts regarding its operations or services, which were determined to constitute enhanced/information services in those decisions. Transcom has further represented to Halo that its current business operations depend on these decisions confirming its status as an ESP and treatment as an "end user" under applicable FCC rules.

Q: Does Halo rely on Transcom's representations that it is an ESP and is treated as an "end user"?

A: Transcom has supplied Halo's counsel with four separate federal court opinions directly holding that it is an ESP.[27] Based on the advice of counsel, Halo relies on Transcom's

[27] I will use "ESP" as a short-hand reference, since that is the terminology used in the four decisions. My understanding is that the statutory definition is "information service" provider and the reference to an "ISP" is largely synonymous with "ESP." The FCC has not always been consistent in its terminology, however. Sometimes it uses "ESP" in the broadest sense and "ISP" to refer to the most familiar ESP subset of "Internet Service Providers." *See* Declaratory Ruling, CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-98 and 99-68, note 2, 14 FCC Rcd 3689, 3690

representations and the decisions of Judges Hale and Felsenthal. Halo's counsel's interpretation of these decisions is that Transcom is not an IXC and is instead an "end user." Halo's counsel's interpretation is that these decisions established that Transcom is not subject to "exchange access,"[28] but is instead allowed to buy "telephone exchange service."[29] Counsel has advised me that under the FCC's rules, as well as the federal statute, only IXCs must buy "exchange access" and if the customer is an "end user" then the applicable service definition is "telephone exchange service."

From a Halo perspective, and in reliance on the Hale and Felsenthal decisions, and the advice of Halo counsel, we believe that we are providing "telephone exchange service" to an "end user" that is entirely within an "exchange" (here the MTA) insofar as interconnection is involved. We also believe that the end user customer (Transcom) purchasing telephone exchange service in the form of Halo's high volume service is an ESP. Halo's counsel has advised me that the courts have recognized that an ESP is "simply a communications-intensive business end user" even though the ESP may receive calls that started on other networks. Counsel has also

(FCC 1999), *rev'd Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000).("For purposes of this Declaratory Ruling, we refer to providers of enhanced services and providers of information services as ESPs, a category which includes Internet service providers, which we refer to here as ISPs"). Other times it uses "ISP" in the global sense of all "information service providers" and therefore largely synonymous with "ESP." First Report and Order, *In the Matter of Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing End User Common Line Charges*, CC Docket Nos. 91-213, 94-1, 95-72, 96-262, FCC 97-158, ¶ 50, 12 FCC Rcd 15982, 16003 (rel. May 1997)("50. Finally, we adopt in this Order our earlier tentative conclusion that incumbent LECs may not assess interstate access charges on information service providers (ISPs).") I am using "ESP" in the most global sense.

[28] *See* Communications Act § 153(16):

> EXCHANGE ACCESS.--The term "exchange access" means the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of telephone toll services.

[29] The FCC has now apparently said all of the federal courts decisions that ESPs procure telephone exchange service were wrong. We cannot be faulted for relying on those decisions. All we can do now is implement the new FCC interpretation going forward pending the appeals that have been taken to the Tenth Circuit.

advised that the ESP status is preserved when "upon receiving a call" the ESP proceeds to "originate further communications."[30]

Halo is relying on these four opinions, and I believe this reliance is reasonable. We do not think those decisions are wrong – to the contrary we agree with them. But it does not seem fair to me to condemn either Halo or Transcom for relying on decisions by two federal judges even if a state commission may later decide to overrule these courts. I certainly do not think it would be reasonable or fair to infer or find some kind of fraudulent or illicit activity. Neither Halo nor Transcom should be made to suffer any penalty or condemnation as a consequence of relying on four court decisions that are directly on point and specifically involved Transcom. Nor should either party suffer for relying on clear precedent by both the FCC and the D.C. Circuit when the business plan was devised. The FCC now seems to think its prior decisions were wrong, the D.C. Circuit was wrong about ESP's originating traffic and several federal courts were wrong about ESPs being telephone exchange service customers rather than exchange access customers, but we should not be criticized, penalized and eviscerated for believing what the courts and FCC said and held. Regardless, we now have new rules, and so this arrangement must be considered in light of them. If the ILECs like the FCC order so much then they should be held to the FCC's characterization of our traffic as "transit" and therefore "non-access." Halo should be allowed to seek amendments to the AT&T ICA (or obtain a replacement) given the changes of law that occurred on December 29, 2011, and bring the terms in the ICA within the new rules. As to the other ILECs, the FCC's new default rules will apply until Halo and the ILECs enter into ICAs.

[30] On the advice of counsel, Halo relies on: *Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1, 5-9 (D.C. Cir, 2000).

Q: Is Transcom licensed by the FCC?

A: Not to my knowledge. I have been advised by counsel that judicial precedents have established Transcom as an ESP, and with all ESPs, there is no written "authorization" required to provide such services. It is my understanding that the FCC does not "license" ESPs. Instead, counsel has advised me that the FCC "authorized" ESPs to freely enter and exit the market. Counsel has also advised me that the FCC prohibited states from regulating or supervising ESPs under common carrier or any other economic regulation, except to the extent the ESP is *also* a **carrier** and its ESP activities are **wholly** intrastate.[31] The FCC has very carefully avoided deciding whether VoIP is a telecommunications service or an information service, and it once again refused to decide the question for historical purposes in its recent order. The FCC appears to believe the question is irrelevant going forward with regard to VoIP given its decision to bring all traffic within § 251(b)(5). I note that the FCC did, however, expressly state that it is maintaining the "ESP Exemption" for all traffic other than VoIP in note 1905.

Q: Can you explain further how Transcom is also an "end user" of Halo's CMRS services?

A: As I said above, our interpretation of Transcom's ESP status is that this establishes Transcom as an "end user," and not a carrier. Halo's "high volume" customer whose traffic is at issue is Transcom. I have been advised by counsel that Transcom and AT&T were directly involved in litigation, and the court twice held – over AT&T's strong opposition – that Transcom is an ESP and end user, is not a carrier, and access charges do not apply to Transcom's traffic. My understanding is that this specific set of rulings was incorporated into the Confirmation

[31] On the advice of counsel, Halo relies on: *California v. FCC*, 905 F.2d 1217, 1239 (9th Cir. 1990) (affirming FCC preemption of state regulation over non-carrier ESPs); *California v. FCC*, 39 F.3d 919 (9th Cir. 1994) (*California III*), *cert. denied*, 514 U.S. 1050 (1995) (affirming FCC preemption of state regulations relating to common carriers' ESP activities unless they are "purely" intrastate).

Order in Transcom's bankruptcy case. I further understand that AT&T was a party and is bound by these holdings. Thus, AT&T is barred from raising any claim that Transcom is anything other than an ESP and end user qualified to purchase telephone exchange service from carriers, and cannot now collaterally attack the bankruptcy court rulings.

We still maintain that Halo has an end user customer (Transcom) that is using wireless equipment in the MTA to originate calls. When the call starts somewhere else before it gets to Transcom, Transcom adds its enhanced functions and then originates a communication (or, in the words of the D.C. Circuit in *Bell Atlantic* "originates a further communication") to Halo through its end user wireless station. The communication is initiated using Transcom's wireless CPE, which is connected using our 3650 spectrum to Halo's "wireless transmitting and receiving facilities." Transcom is indeed originating the call. Counsel advises that notwithstanding the FCC's recent holding that overturns all prior precedent on this question this was a straightforward application of the "contamination" doctrine.[32]

Once it is clear that, under our reasonable reading of the precedent, Transcom is Halo's telephone exchange service end user customer, then all of the ILECs' contentions relating to the situation before the FCC's new rules simply fail. End users originate calls. The calls at issue are "end user" calls, so AT&T's assertions are flatly incorrect and the claim is based on the premise that Halo's customers are not "end users" purchasing telephone exchange service in the MTA and do not originate calls, contrary to federal court holdings like *Bell Atlantic* and the FCC's

[32] Counsel advises that the "contamination doctrine" is explained in Memorandum Opinion and Order, *In The Matter Of Independent Data Communications Manufacturers Association, Inc., Petition for Declaratory Ruling That AT&T's InterSpan Frame Relay Service Is a Basic Service*; DA 95-2190, ¶¶ 17-18, 10 FCC Rcd. 13,717 ¶ 17-18 (October 18, 1995), citing to Memorandum Opinion and Order, *Petitions for Waiver of Section 64.702 of the Commission's Rules and Regulations to Provide Certain Types of Protocol conversion Within Their Basic Network*, FCC 84-561 (Nov. 28, 1984) and Phase II, Report and Order, *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry*), 2 FCC Rcd 3072, 3080 (1987).

own precedent addressing leaky PBXs and comparing ESPs service arrangement under the ESP Exemption to a "leaky PBX."

We acknowledge that the FCC seems to have reversed course from prior precedent and apparently now believes ESPs are exchange access customers and do not originate calls. I note that this still does not resolve the "end user" question: merely because ESPs now use exchange access does not mean they are common carriers or provide telecommunications service. The FCC has chosen to not expressly clarify the law on this interesting issue, but it did not change the definition of "end user," which basically says if an entity is not a carrier then it is an end user for access purposes.

But under the FCC's new rules, "origination" is only relevant to whether a CMRS provider's traffic is "intraMTA" and therefore bill and keep. CMRS can provide and support other traffic types. The task at hand is identifying what the Halo traffic is under the new rules and then determining the appropriate compensation result.

Halo and Transcom are related companies. But Halo must still operate under the rules applicable to common carriers. We cannot interfere with or discriminate based on what our end user customer is doing on its side before our end user customer ***originates*** (further or otherwise) an end user call in an MTA.[33] We believe all that matters is whether our traffic comes to us from an end user employing a CMRS-based wireless facility in the same MTA.

[33] An ILEC that is selling a private line to the end user customer might have reason to inquire whether the user is employing a "leaky PBX" in order to determine if the "leaky PBX surcharge" applies, but we are not a LEC.

Q: If we assume that Judges Hale and Felsenthal were correct, and if all of the traffic that traverses interconnection is originated by an end user in the MTA, what is your understanding of the "intercarrier compensation" for the end-user originated calls from Halo that the telephone companies terminate?

A: My understanding is that the calls are "non-access" for purposes of the FCC's new rules even if they are not "intraMTA." To the extent they are not "non-access" they are "access reciprocal compensation." In that case we believe the interstate rates must be applied as 100% of the traffic would be IP-to-PSTN, for the reasons I discussed above. We continue to assert that Transcom was "exempt" from access charges under the old rules like Judges Hale and Felsenthal held. Since Transcom connects to Halo using IP-based equipment, then the traffic is either "non-access" or "access reciprocal compensation," but only subject to interstate prices under the new rules.

Q: The Opposing Parties assert that Halo is not sending AT&T "wireless" originated traffic, and instead is sending "wireline" originated traffic, and that this difference results in a breach of the ICA between the parties, and a difference in termination charges between what Halo has been paying and what the Opposing Parties think they are owed. How do you respond to these assertions?

As I noted in my testimony above, it is undisputed that Halo operates wireless facilities and that Halo communicates with its High Volume end user customer over wireless transmitting and receiving facilities in each MTA. However, the Opposing Parties wrongly assert that the traffic in question is nevertheless not "wireless originated" for purposes of call rating and determining what compensation is due. The Opposing Parties' assertions are founded on traditional interpretations and applications of the terms "wireless" and "originated," and a

dismissal of Federal decisions regarding the nature and rights of Halo's high volume customer. From their assertions, it is clear that to them "wireless" means "cellular," and "originated" applies to calls from either individual cell phone subscribers, or from individual landline phone subscribers. Nice neat buckets. These are undoubtedly two very prominent service and customer type scenarios, notwithstanding that the lines between these two are blurring rapidly, a trend AT&T's own expert witnesses have recognized.

AT&T's witnesses have also admitted in various proceedings similar to the present MPSC Proceedings that they have no real way of accurately identifying whether a particular call actually "originated" from a "wireline" customer of an LEC using a traditional phone. The entirety of their case is based on a review of the calling number in the CPN parameter, identifying the rate center the number is associated with and the type of number ("wireline" or "wireless"), and then the specific company that has the individual number. They then *assume* that the call "originated" in the rate center, from CPE consistent with the number "type" and on the network of the company that has the number. The problem is that none of these assumptions are necessarily valid.

Q: So I take it you do not agree with the Opposing Parties' assertions that calling party and called numbers are reliable ways to determine where calls actually began, and are appropriate parameters to determine call jurisdiction for call rating purposes?

A: No I do not. And neither does anyone else in the industry except apparently AT&T and the ILECs fighting Halo.,The FCC and everyone else in the industry recognize the limitations of this approach. In the face of years of industry and regulatory acceptance of the limitations of numbers for call rating, it is disingenuous, and just plain silly, for the Opposing Parties to argue before this Commission that numbers should now be used for this purpose. It is even more

ridiculous to base the arguments for their use in call rating essentially on the notion that it's the only way they know how, despite the known flaws, with the implied inherent error growing every day. To apply it today, arguing it's the "industry" standard, when the "industry" is really only the ILECs, is a direct attempt to obtain access revenues from calls where access does not apply.

Q: On what basis do you draw these conclusions, and how does Halo suggest the deficiencies in numbers based rating being addressed?

A: Let's start with the FCC's position on numbers based rating. In its *Connect America* order, the FCC says in paragraphs 934, 960, and 962 that they still believe numbers are unreliable for this purpose. The ILECs have attempted to turn this position on its head by saying, well, the FCC didn't say they can't be used. No, to my knowledge, the FCC hasn't taken such a position. But in my view, common sense suggests they don't need to. The industry knows full well that advanced communications technologies, both IP and wireless, are rendering it impossible to rely on CPN to determine where a call began or the network owner or type of network that was used to initiate the call. Allow me to provide a few examples.

Carriers like T-Mobile offer services today that allow their wireless users to originate calls using wireless base stations connected to wired broadband networks. Are calls using these devices wireless or wireline originated? Is this "non-access" traffic or is it "access reciprocal compensation"? Is it transit?

Verizon Wireless offers Home Phone Connect, a service that allows VZW customers to port their home numbers to VZW and use traditional landline phones to make calls over their wireless network. Is this a mobile wireless service? Fixed wireless? Wireline? Is this non-access" traffic or is it "access reciprocal compensation"? Is it transit? Would calls from a ported landline

number be viewed by a terminating LEC as a wireless call or a wireline call? We suspect the latter as the CPN would be a landline telephone number. But these calls would all traverse the VZW wireless network.

VZW just introduced a wireless broadband product called "Home Fusion" that is "designed for use in rural and remote homes that can't get DSL or cable."[34] "The service requires the installation of a cylindrical antenna, about the size of a 5-gallon bucket, on an outside wall." "Verizon cites the same speeds for HomeFusion as for LTE data sticks: 5 to 12 megabits per second for downloads, and 2 to 5 megabits for uploads." This is similar in capability to Halo's consumer broadband product, except VZW's product is quite a bit more expensive. I am sure that users can connect some form of soft phone client and make interconnected VoIP calls – just like they can with Halo's product. Does AT&T intend to claim that VZW cannot use interconnection to originate or terminate calls to users employing this product? Is this a mobile wireless service? Fixed wireless? Wireline? Is this "non-access" traffic or is it "access reciprocal compensation"?

In the myopic world of the ILECs, these scenarios are fanciful, unlikely and irrelevant. However, their cellular counterparts know differently. The entire telecommunications industry knows differently. And most importantly, consumers know differently. Voice is now, and will further become, an IP "application," where telephone numbers "move" seamlessly across devices and networks, just like music content in the "cloud" can be accessed on any device, anywhere, at any time. Voice is really no different.

[34] *See* "*Verizon launches faster-than-wired wireless broadband for homes; starts at $60/mo*," Washington Post Online, Taken from Associated Press, March 5, 2012, available at http://www.washingtonpost.com/national/verizon-launches-faster-than-wired-wireless-broadband-for-homes-starts-at-60mo/2012/03/06/gIQADvYvtR_story.html.

Because of these convergence trends, the FCC has supported, and now requires, traffic factors to allocate between different traffic types precisely because of the fact that numbers have been disassociated from networks and location and thus are not reliable.[35]

From Halo's perspective, we designed our business plan to operate according to the rules of CMRS carriers, where traffic is originated by end users, using wireless stations capable of movement, at towers located in MTAs. We are prepared to operate under the FCC's new regime (for so long as it is in effect pending appellate review) but we must be given a chance to bring our arrangements and operations into compliance, and the full set of FCC rules must be implemented. The ILECs cannot be allowed to cherry pick the rules they like, and ignore or dismiss those they don't. The idea that billing for the entire industry is determined on the basis of the originating and terminating telephone numbers of the called and calling parties is not true for the CMRS industry, and it is quickly dissolving in the entire telecom space in the face of converged wireless-wireline and IP-based services. The "practice" is for carriers to use traffic factors instead of call-by-call rating, since numbers-based rating is no longer feasible in today's advanced network and service environment where the starting and ending "locations" of calls is hard to consistently, accurately and efficiently determine and the "number" consistently yields an

[35] *See, e.g.* FCC Order ¶ 934 ("…In addition, given the recognized concerns with the use of telephone numbers and other call detail information to establish the geographic end-points of a call, we decline to mandate their use in that regard, as proposed by some commenters. …"); ¶ 960 ("…Because telephone numbers and other call detail information do not always reliably establish the geographic end-points of a call, we do not mandate their use. …"); ¶ 962 ("Contrary to some proposals, however, we do not require the use of particular call detail information to dispositively distinguish toll VoIP-PSTN traffic from other VoIP-PSTN traffic, given the recognized limitations of such information. For example, the Commission has recognized that telephone numbers do not always reflect the actual geographic end points of a call. Further, although our phantom traffic rules are designed to ensure the transmission of accurate information that can help enable proper billing of intercarrier compensation, standing alone, those rules do not ensure the transmission of sufficient information to determine the jurisdiction of calls in all instances. Rather, consistent with the tariffing regime for access charges discussed above, carriers today supplement call detail information as appropriate with the use of jurisdictional factors or the like when the jurisdiction of traffic cannot otherwise be determined. We find this approach appropriate here, as well.")

incorrect answer. The FCC's new regime calls for factors and we are willing to develop and supply them.[36]

The inter-carrier compensation regime is not and cannot be founded on the assumption that you can definitively determine the starting point of a call, the type of call, or the initial network based on "the number." I would further observe that reliance on the number as the exclusive rating determinant is subject to the very outcomes the LECs want to avoid: gaming and arbitrage. It was not that long ago that state commissions all over the country had to resolve the inter-carrier compensation issues related to "arbitrage" using Virtual NXXs. The states largely adopted the ILEC position in those cases and ruled that the telephone numbers **do not** control rating. The ILECs insist on using numbers when it means they can claim access, but they have refused to use numbers when it meant they do not get access. The Commission cannot be so arbitrary.

If the ILECs are using the calling party number to identify the "originating network," our position is this is not a reliable way to determine the starting location of a call, or the carrier network that the call started on. Consequently, it seems to me that any inter-carrier compensation regime founded on the assumption that you can definitively determine the starting point of a call is fundamentally flawed and subject to the very outcomes the LECs want to avoid: gaming and arbitrage. The fact of the matter is, wireline and wireless networks and services are converging, rapidly, and in ways that blur the traditional, once clear distinctions of wireless and wireline.

For a converged IP service provider, such as Halo, the starting network or the type of number used simply does not matter. And even if it did, there is no way for us to definitively determine where a call started, for the same reasons as mentioned above. Trying to maintain this

[36] I hope and trust that the PSC is also willing to implement the FCC's new rules because those rules also require the ILECs to negotiate in good faith to establish IP-based interconnection, and Halo is preparing to seek IP-based interconnection from AT&T and many of the ILECs involved.

distinction is fighting a losing battle, and swimming against the strong tide of market, technical and regulatory evolution occurring in the telecommunications industry.

Thus, the Opposing Parties are asking this Commission to assume away how the industry actually operates today, how current technology can be used and is used, and most important, the way that users are actually employing this technology to communicate. The calling number simply cannot be used as an indicator of what is actually happening today and in particular where the call started, or the network that supported call initiation.

Q: So do you admit that some of the communications in issue might have actually started on other networks?

A: Most of the calls probably did start on other networks before they came to Transcom for processing.[37] It would not surprise me if some of them started on the PSTN. Judge Hale expressly discussed the PSTN-originated traffic Transcom processed and held that Transcom is still both an ESP and an end user. We understand, however, that a large proportion of Transcom's calls started at IP-based end-points. Halo is not in a position to determine where or on what network the call started, and we have not asked our customer. In any event, our contention is that this simply did not matter from a Halo perspective prior to the new rules. Counsel advises me that ESPs have always received calls that started somewhere else. The ESP takes the call, adds its enhanced functions and then – when necessary – secures termination from a carrier vendor by buying telephone exchange service.[38]

[37] This is why Transcom might be an "intermediate provider" under the FCC's new definition at 47 C.F.R. § 64.1600(f).

[38] The ILECs incessantly assert that the ESP Exemption only applies "only" for calls "from" an ESP customer "to" the ESP. Counsel advises this is flatly untrue. ESPs "may use incumbent LEC facilities to originate and terminate interstate calls[.]" *See* NPRM, *In the Matter of Access Charge Reform*, 11 FCC Rcd 21354, 21478 (FCC 1996). The FCC itself has consistently recognized that ESPs – as end users – "originate" traffic even when they received the call from some other end-point. That is the purpose of the FCC's finding that ESPs systems operate much like traditional "leaky PBXs."

Based on advice of counsel, our understanding and interpretation of Judges Hale's and Felsenthal's decisions regarding whether Transcom is an ESP is that they recognize that Transcom receives communications from its customers that started on other networks, including from LEC networks. The courts found that Transcom then processes the communication, changes the content and sometimes changes the form. Transcom then secures telephone exchange service from a carrier to arrange for final termination. My understanding is that the question in those cases was whether this meant Transcom can buy telephone exchange service or must purchase exchange access. Again, our view based on the advice of counsel is that all four decisions hold that Transcom was exempt from exchange access and is an end user qualified to purchase telephone exchange service. As mentioned above, under the FCC's new rules, one of the possible traffic classifications for Transcom's traffic processed by Halo is that it is "access reciprocal compensation." However, if this is the traffic classification, since it is IP, the "access" rate must be the interstate rate.

Halo does recognize that the actual starting point is relevant to an "end-to-end" test for jurisdiction. However, based on the advice of counsel, we believe this simply does not matter from a Halo perspective since the call is still subject to reciprocal compensation, particularly under the new rules. Counsel advises that the federal courts have on several occasions directly held that the "end-to-end" theory is relevant to jurisdiction, but it "is not dispositive" of the inter-carrier compensation that applies. Our contention, based on a careful consideration of the relevant regulations, is that the "jurisdiction" of a call is a separate question from whether "reciprocal compensation" or "access charges" are due on that call.[39]

[39] On the advice of counsel, Halo relies on: *Bell Atlantic*, 206 F.3d at 5-6, 8, and Order on Remand and R&O and Order and FNPRM, *High Cost Universal Service Reform, Federal-State Joint Board on Universal Service, Lifeline and Link Up, Universal Service Contribution Methodology, Numbering. Resource Optimization, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Developing a Unified Intercarrier*

The ILECs have pointed to certain language in paragraph 1066 of the FCC's recent rulemaking that was directed at Halo, and the FCC's discussion of "re-origination." I already spoke to this before, but I'd like to again point out that this language seems to assume that Halo is serving a carrier, not an ESP. TDS told the FCC that Transcom was a carrier, and the FCC obviously assumed – while expressly not ruling – that the situation was as TDS asserted. That position flies in the face of the fact that the FCC expressly refused to rule on whether VoIP is a telecommunications service. Transcom can only be a carrier if it is providing a telecommunications service. This is one of the many imponderables in the FCC's order. While we acknowledge that they held that this traffic does not originate on Halo's network "for purposes of the intraMTA rule" that does not mean it does not "originate" from Transcom for other purposes, including the provision in the ICA in issue in this case.

"Transit" occurs when one carrier switches traffic *between two other carriers*. Indeed, that is precisely the definition the FCC provided in paragraph 1311 of the recent rulemaking.[40] We disagree that Halo can be said to be providing "transit" when it has an *end user* as the customer on side and a carrier on the other side. Any other construction necessarily leads to the conclusion that the FCC has decided that the D.C. Circuit was wrong in *Bell Atlantic*. But this is

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Compensation Regime, Intercarrier Compensation for ISP-Bound Traffic, IP-Enabled Services, ¶ 22, 24 FCC Rcd 6475, 6485-86 (2008) (emphasis added):

> "22. Our result today is consistent with the D.C. Circuit's opinion in *Bell Atlantic*, which concluded that the jurisdictional nature of traffic is not dispositive of whether reciprocal compensation is owed under section 251(b)(5). It is also consistent with the D.C. Circuit's *WorldCom* decision, in which the court rejected the Commission's view *that section 251(g)* excluded ISP-bound traffic from the scope of *section 251(b)(5)*, but made no other findings.

[40] "1311. Transit. Currently, transiting occurs when two carriers that are not directly interconnected exchange non-access traffic by routing the traffic through an intermediary carrier's network. Thus, although transit is the functional equivalent of tandem switching and transport, today transit refers to non-access traffic, whereas tandem switching and transport apply to access traffic. As all traffic is unified under section 251(b)(5), the tandem switching and transport components of switched access charges will come to resemble transit services in the reciprocal compensation context where the terminating carrier does not own the tandem switch. In the Order, we adopt a bill-and-keep methodology for tandem switched transport in the access context and for transport in the reciprocal compensation context. The Commission has not addressed whether transit services must be provided pursuant to section 251 of the Act; however, some state commissions and courts have addressed this issue." (emphasis added)

how the FCC characterized the traffic, and until the Tenth Circuit reverses we must take the FCC's discussion into account. Once again, however, that must mean access charges cannot apply, because the FCC held in paragraph 1311 that transit is "non-access" traffic.

Halo agrees that a call handed off from a Halo *carrier customer* would not be deemed to originate on Halo's network.[41] But Transcom is not a carrier, it is an ESP, and I will discuss in more detail below, an end user purchaser of telecommunications services. ESPs always have "originated further communications," but for compensation purposes (as opposed to jurisdictional purposes), the ESP is still an end-point and a call originator. Again, once one looks at this from an "end user" customer perspective, the call classification result is obvious. The FCC and judicial case law is clear that an end user PBX "originates" a call even if the communication initially came in to the PBX from another location on the PSTN and then goes back out and terminates on the PSTN.[42]

So, Halo has an end-user customer—Transcom. Although this end user customer receives calls from other places, for inter-carrier compensation purposes, we reasonably believed that the calls still originate on Halo's network. That customer connects wirelessly to Halo. Transcom "originates" communications "wirelessly" to Halo, and all such calls are terminated within the same MTA where Transcom originated them (the system is set up to make sure that all calls are "intraMTA"). This arrangement matches up exactly with the requirement in the recital in the AT&T ICA that AT&T cites for its claim Halo is not acting consistently with the current

[41] *See* § 252(d)(2)(A)(i), which imposes the "additional cost" mandate on "calls that originate on the network facilities of the other carrier."

[42] *See, e.g.*,*Chartways Technologies, Inc. v. AT&T, 8 FCC Rcd 5601, 5604 (1993); Directel Inc. v. American Tel. & Tel. Co.*,11 F.C.C.R. 7554 (June 26, 1996); *Gerri Murphy Realty, Inc. v. AT&T*, 16 FCC Rcd 19134 (2001); *AT&T v. Intrend Ropes and Twines, Inc.*, 944 F. Supp. 701, 710 (C.D. Ill. 1996; *American Tel. & Tel. Co. v. Jiffy Lube Int'l., Inc.*, 813 F. Supp. 1164, 1165-1170 (D. Maryland 1993); *AT&T v. New York Human Resources Administration*, 833 F. Supp. 962 (S.D.N.Y. 1993); *AT&T, v. Community Health Group*, 931 F. Supp. 719, 723 (S.D. Cal. 1995); *AT&T Corp. v. Fleming & Berkley*, 1997 U.S. App. LEXIS 33674 *6-*16 (9th Cir. Cal. Nov. 25, 1997).

agreement. We relied on the D.C. Circuit's holding in *Bell Atlantic* that ESP's originate traffic when this clause was being negotiated. Since the FCC has now effectively said the D.C. Circuit was wrong we should be allowed to obtain new terms that are consistent with the FCC's repudiation of *Bell Atlantic*.

In summary, Halo is not saying that some calls ultimately sent to AT&T for termination did not, or could not have, started on the PSTN. As I said above, we have acknowledged that this could happen. What we are saying is that a) it does not matter given our high volume customer's status as an ESP and end user, and b) any traffic analysis based on calling and called numbers is not a reliable way to determine call jurisdiction for rating purposes, and that any method relying on numbers for rating is a blatant attempt to secure access charges for calls that are not subject to such charges.

Q: Are traffic factors in use between Halo and AT&T today?

A: Yes.

Q: When were those traffic factors negotiated and adopted by the parties?

A: The traffic factors in use today with AT&T were negotiated and agreed to between the parties *after* the adoption of the ICA. Indeed, the factors adopted in the ICA were, in many instances, overridden and reduced. I am attaching the relevant post-ICA approval correspondence where this agreement was reached as Exhibit 1. It is important to note that, even though AT&T negotiated new traffic factors with Halo in mid-2010, AT&T has not attempted to negotiate new traffic factors and AT&T has not changed its billing based on any new factors that they believe should apply since mid-2010.

SIGNALING ISSUES

Q: How do you respond to the Opposing Parties' assertions that Halo is disguising call detail records in order to make it appear that Halo's traffic is local and wireless originated?

A: I believe they are referring to Halo's practice, stopped on December 29, 2011, whereby we populated Transcom's Billing Telephone Number ("BTN") in the SS7 Charge Number ("CN") address signal. My response is that Halo followed industry and regulatory standards. We passed CPN information delivered to us unaltered in any way. We populated the CN address signal with the BTN of our end user customer in the MTA when the CPN information is different from the Charge Number information. This was done to denote the "chargeable number" for the call. There was no attempt to "disguise" anything.

So the Opposing Parties' assertions that Halo "disguised" call detail records with an intent to deceive is patently absurd, and the main evidence behind my assertion that these companies are executing a deliberate smear campaign intended to cast Halo in a questionable light. The Opposing Parties assert that "inaccurate" call detail records were sent that "disguised" the true nature of the traffic, and that the "inaccurate" call detail records were sent with the sole intent of deceiving these companies. But there is no discussion or evidence of what the "inaccurate" information was, how such information could deceive them, or any evidence that any of them were deceived by our alleged "scheme." They cannot provide such evidence because there were no tactics used by Halo in its call signaling practices to deceive them, and at no time were they actually deceived by anything Halo did or did not do with call detail records or signaling information. If anything, they were "deceived" by their own adherence to tradition and

"old school" thinking, and were shocked and surprised when these traditions did not work in the new world we live in today.

Halo did not alter Calling Party or Called Party information. These are the common ways to manipulate call records to deceive carriers, because these are the data points that LECs want to use to determine jurisdiction for rating purposes. Halo inserted a Charge Number to designate the responsible billing party, consistent with industry practice. The insertion of CN did not disguise, and does not disguise, the traffic in any way. The insertion of CN did not trick AT&T's system into thinking a call was local, if for no other reason than AT&T does not do "call by call" rating, as Mr. Neinast himself acknowledges, and as Halo understood before traffic ever started to flow. AT&T relies on traffic factors to assess termination charges. Inserting a CN, or removing it, whether that number is a wireless number, or a wireline number, has zero effect on call charges. So, in short, inserting CN was not an attempt to disguise traffic, it does not make traffic "appear" local, or it does not make it "appear" wireless. If these were Halo's goals, why would we implement a tactic that could not work and would not withstand even basic scrutiny upon examination? And if insertion of CN was meant to deceive AT&T, or any other ILEC, why would Halo initiate a traffic study to eliminate the InterMTA traffic factors knowing full well that AT&T would examine call records as pat of this process and "discover" the "deception"? Halo can be accused of being bold and aggressive. But bumbling idiots we are not.

The insertion of the CN was done, again consistent with industry practice, so Halo could correctly bill services, and associate its customer calls to terminating LECs, where different terminating charges are in effect. The high volume product by design simply passes termination charges through to the customer. That, of course, makes the high volume customer the "financially responsible party." Charge Numbers exists precisely so that a carrier can signal the

number associated with the "financially responsible party" when the CPN does not signify the "financially responsible party." Beyond these overarching "common sense" arguments, allow me to go into a little more detail on some finer points on this topic.

The Opposing Parties' contentions fail once it is understood that we reasonably believed based on express FCC and D.C. Circuit precedent that this is end user telephone exchange service originating traffic, and the service being provided is functionally equivalent to an integrated services digital network ("ISDN") primary rate interface ("PRI") (hereinafter referred to as "ISDN PRI") trunk to a large communications intensive business customer. Indeed, Halo's signaling practices with regard to CN are exactly the same as those AT&T uses when it provides ISDN PRI trunk service to a business customer.

The ICA in issue does not rate traffic based on telephone numbers, but if and to the extent AT&T's systems nonetheless (and in violation of the ICA) used the calling and called numbers to rate, bill, or validate, Halo's practice resulted in proper rating and billing under our theory, which, again was reasonably based on decisions by the FCC and the courts.

Halo performs the "Class 5" functions and populates the CPN and CN parameters with the address signal information that should appear in each location. And again, Halo's practices with regard to the CN are exactly the same as AT&T's when it serves a business end user with an ISDN PBX.

Halo does not change the content or in any way "manipulate" the address signal information that is ultimately populated in the SS7 ISUP IAM CPN parameter. Halo populated the CN parameter with the Billing Telephone Number of its end user customer, Transcom. The ILECs allege improper modification of signaling information related to the CN parameter, but

the basis of this claim once again results from the assertion that Transcom is a carrier rather than an end user and runs counter to the ESP Rulings discussed above.

Halo's network is IP-based, and the network communicates internally and with customers using a combination of WiMAX and SIP. To interoperate with the SS7 world, Halo must conduct a protocol conversion from IP to SS7 and then transmit call control information using SS7 methods. AT&T's allegations fail to appreciate this fact, and are otherwise technically incoherent. They reflect a distinct misunderstanding of technology, SS7, the current market, and most important, a purposeful refusal to consider this issue through the lens of CMRS telephone exchange service provided to an end user.

From a technical perspective, "industry standard" in the United States for SS7 ISUP is American National Standards Institute ("ANSI") T1.113, which sets out the semantics and syntax for SS7-based CPN and CN parameters. The "global" standard is contained in ITU-T series Q.760-Q.769. ANSI T1.113 describes the CPN and CN parameters:

> Calling Party Number. Information sent in the forward direction to identify the calling party and consisting of the odd/even indicator, nature of address indicator, numbering plan indicator, address presentation restriction indicator, screening indicator, and address signals.
>
> Charge Number. Information sent in either direction indicating the chargeable number for the call and consisting of the odd/even indicator, nature of address indicator, numbering plan indicator, and address signals.

The various indicators and the address signals have one or more character positions within the parameter and the standards prescribe specific syntax and semantics guidelines. The situation is essentially the same for both parameters, although CN can be passed in either direction, whereas CPN is passed only in the forward direction. The CPN and CN parameters were created to serve discrete purposes and they convey different meanings consistent with the design purpose. For example, CPN was created largely to make "Caller ID" and other CLASS-

based services work. Automatic Number Identification ("ANI") and CN, on the other hand, are pertinent to billing and routing. Halo's signaling practices on the SS7 network comply with the ANSI standard with regard to the address signal content.

Halo's practices were also consistent with the Internet Engineering Task Force ("IETF") standards for Session Initiated Protocol ("SIP") and SIP to Integrated Services Digital Network ("ISDN") User Part ("ISUP") mapping. Halo populates the SS7 ISUP IAM CPN parameter with the address signal information that Halo has received from its high volume customer, Transcom. Specifically, Halo's practices are consistent with the IETF Request for Comments ("RFCs") relating to mapping of SIP headers to ISUP parameters. *See, e.g.*, G. Camarillo, A. B. Roach, J. Peterson, L. Ong, RFC 3398, *Integrated Services Digital Network (ISDN) User Part (ISUP) to Session Initiation Protocol (SIP) Mapping*,© The Internet Society (2002), available at http://tools.ietf.org/html/rfc3398.

> When a SIP INVITE arrives at a PSTN gateway, the gateway SHOULD attempt to make use of encapsulated ISUP (see [3]), if any, within the INVITE to assist in the formulation of outbound PSTN signaling, but SHOULD also heed the security considerations in Section 15. If possible, the gateway SHOULD reuse the values of each of the ISUP parameters of the encapsulated IAM as it formulates an IAM that it will send across its PSTN interface. In some cases, the gateway will be unable to make use of that ISUP - for example, if the gateway cannot understand the ISUP variant and must therefore ignore the encapsulated body. Even when there is comprehensible encapsulated ISUP, the relevant values of SIP header fields MUST 'overwrite' through the process of translation the parameter values that would have been set based on encapsulated ISUP. In other words, the updates to the critical session context parameters that are created in the SIP network take precedence, in ISUP-SIP-ISUP bridging cases, over the encapsulated ISUP. This allows many basic services, including various sorts of call forwarding and redirection, to be implemented in the SIP network.
>
> For example, if an INVITE arrives at a gateway with an encapsulated IAM with a CPN field indicating the telephone number +12025332699, but the Request-URI of the INVITE indicates 'tel:+15105550110', the gateway MUST use the telephone number in the Request-URI, rather than the one in the encapsulated IAM, when creating the IAM that the gateway will send to the PSTN. Further details of how SIP header fields are translated into ISUP parameters follow.

Halo's high volume customer will sometimes pass information that belongs in the CPN parameter that does not correctly convey that the Halo high volume customer originating the call in the MTA is the "financially responsible party." When this is the case, Halo still populated the CPN, including the address signal field with the original information supplied by the end user customer. Halo, however, also populated the CN parameter prior to December 29, 2011. The number appearing in the CN address signal field was one assigned to Halo's customer and was the Billing Account Number, or its equivalent, for the service provided in the MTA where the call is processed. In ANSI terms, that is the "chargeable number." This practice is also consistent with the developing IETF consensus and practices and capabilities that have been independently implemented by many equipment vendors in advance of actual IETF "standards."

SIP "standards" do not actually contain a formal header for "Charge Number." Vendors and providers began to include an "unregistered" "private" header around 2005. The IETF has been working on a "registered" header for this information since 2008. *See* D. York and T. Asveren, SIPPING Internet-Draft, *P-Charge-Info - A Private Header (P-Header) Extension to the Session Initiation Protocol (SIP)* (draft-york-sipping-p-charge-info-01) © The IETF Trust (2008), available at http://tools.ietf.org/html/draft-york-sipping-p-charge-info-01 (describing "'P-Charge-Info', a private SIP header (P-header) used by a number of equipment vendors and carriers to convey simple billing information.").The most recent draft was released in September, 2011. *See* D. York, T. Asveren, SIPPING Internet-Draft, *P-Charge-Info - A Private Header (P-Header) Extension to the Session Initiation Protocol (SIP)* (draft-york-sipping-p-charge-info-12), © 2011 IETF Trust, available at http://www.ietf.org/id/draft-york-sipping-p-charge-info-12.txt. Halo's practices related to populating the Halo-supplied Billing Telephone Number ("BTN") for

Transcom in the SS7 ISUP IAM CN parameter were quite consistent with the purposes for and results intended by each of the "Use Cases" described in the most recent document.

Halo notes that, with regard to its consumer product, Halo will signal the Halo number that has been assigned to the end user customer's wireless CPE in the CPN parameter. There is no need to populate the CN parameter, unless and to the extent the Halo end user has turned on call forwarding functionality. In that situation, the Halo end user's number will appear in the CN parameter and the E.164 address of the party that called the Halo customer and whose call has been forwarded to a different end-point will appear in the CPN parameter. Once again, this is perfectly consistent with both ANSI and IETF practices for SIP and SS7 call control signaling and mapping.

Halo was exactly following industry practice applicable to an exchange carrier providing telephone exchange service to an end user, and in particular a communications-intensive business end user with sophisticated CPE.

Q: Halo changed its practice on December 29, 2011 to no longer signal Transcom's CN. Why did you do so?

A: The FCC promulgated new signaling rules that, based on advice of counsel, arguably prohibited our prior practice. The FCC order also calls into question all the decisions we relied on to formulate our business plan, because those cases told us we would be providing telephone exchange service to an end user that originated calls. We still maintain that our prior practice was correct, within industry convention, and devoid of any intent or practical effect to deceive anyone. However, given the FCC's ruling, and hoping to squelch the furor over what we believe is a "red herring" issue, we changed our practice to ensure we were not violating the FCC's new rules. We did not cease this practice because we were "caught" doing something we weren't

supposed to be doing, or because we were "outed" by the ILECs for "deceptive" signaling practices. As I will discuss below, this is hogwash.

Q: How do you respond to the ubiquitous allegations that Halo's actions have been deceptive, in some way?

On the question of deception, Halo has operated publicly and transparently at all times. The company informed AT&T of its business plans when it adopted its ICAs. We told them we would be providing high-volume service to ESPs, Enterprise customers and private IP networks. We informed them that all of Halo's traffic would be intraMTA, which apparently did not create the same shock and surprise then as it appears to be creating today. When asked by federal and state regulators, we explained our strategy, and the basis for that strategy in our interpretation of the law, without delay, deception, or ambiguity. We used public spectrum, requiring public registration of base stations. We never disguised or altered call details in any way that could deceive any terminating carrier on the nature of Halo's traffic. We operate from an office building in Dallas, Texas with a clear, known, public address. The company hired management with lengthy careers of distinction in the telecommunications industry. I could go on.

I trust the Commission will see through these scurrilous allegations, not give them any weight, and instead focus on the substance of applicable law, and the possibility that Halo, while acting in a non-traditional way, just might be operating within the four corners of the law.

Q: Have the Opposing Parties accused Halo with manipulating "Calling Party Number"?

A: No. That is because Halo populates the address signal information that belongs in the CPN unchanged. Halo does not remove, alter, or manipulate this information in any way.

Q: Some ILECs in other states have alleged that Halo is changing the address signal information in the CPN parameter. Is this true?

A: Their allegation is flatly incorrect. First of all, what they are ignoring is that Halo connects to its customers using newer technology that is not SS7-based. Thus there is no "CPN" as such. The FCC's definition of "Calling Party Number" on its face is limited to SS7-based networks.[43] We do not get SS7 "CPN" so there is nothing to change and the rules they quote simply do not apply to begin with. Our IP-based systems do, however have call control methods and protocols, and there is a location for the same type information. What Halo does is look to that location, pull out the information that belongs in an SS7 CPN parameter and then our "signaling gateway" populates that very same information in the SS7 CPN parameter. Halo ***never*** populates the SS7 CPN parameter with an address signal that is different from address signal contained the equivalent IP-based information we receive from our customer. We do not change, strip, alter, modify, manipulate or do anything else to "CPN."

Q: Let's discuss "Charge Number" a little more. What is going on here?

A: My discussion above about the fact that we are an IP-based network applies here, too. But setting that aside, the FCC's rules and industry practices for the SS7 CN parameter are different than for CPN. The FCC has a different definition for "Charge Number."[44] Two things are important with respect to this definition. First, it uses different terminology ("billing number") than the ANSI standard ("chargeable number"). Second, notice that the definition refers to "delivery of the calling party's billing number in a Signaling System 7 environment *by a*

[43] On the advice of counsel, Halo relies on: 47 C.F.R. § 64.1600(e): "(e) Calling party number. The term 'Calling Party Number' refers to the subscriber line number or the directory number contained in the calling party number parameter of the call set-up message associated with an interstate call on a Signaling System 7 network."

[44] On the advice of counsel, Halo relies on: 47 C.F.R. § 64.1600(f): "The term 'charge number' refers to the delivery of the calling party's billing number in a Signaling System 7 environment by a local exchange carrier to any interconnecting carrier for billing or routing purposes, and to the subsequent delivery of such number to end users."

local exchange carrier to any interconnecting carrier …" Halo is an *exchange carrier* but it is not a *local exchange carrier*. One could fairly say the definition excludes us.[45]

Regardless, the telephone companies' contentions regarding "industry practices" are wrong to the extent they imply the practices do not allow an exchange carrier to populate an address signal in the CN where one did not exist before, or to even change it. The industry practice is to in fact do so when necessary to indicate that the end user customer's billing number ("chargeable number") is different from what might possibly be inferred from the CPN information.[46]

Q: In other states, some of the telephone companies assert that industry practices have provided that the CN address signal must always represent a number from the first "originating network." Is that true?

A: Not according to our experts. If this were true, then it seems to me that AT&T has been violating the rules because they routinely replace the original CN or insert a new CN when one of their users has turned on "call forwarding," a call is addressed to that user from a different network, and their user has forwarded the call to a number associated with yet a third network.

Unless someone can point us to different standards that we're not familiar with, Charge Number information is not restricted to an address from only the first network. Its purpose is to designate the billing number of the carrier's end user customer. Sometimes the signaling carrier's

[45] The FCC's new rule 64.1601(a)(1) (which went into effect on November 29, 2011) may, however, apply. In pertinent part it says that "…Entities subject to this provision that use Signaling System 7 (SS7) are required to transmit the calling party number (CPN) associated with all PSTN Traffic in the SS7 ISUP (ISDN User Part) CPN field to interconnecting providers, and are required to transmit the calling party's charge number (CN) in the SS7 ISUP CN field to interconnecting providers for any PSTN Traffic where CN differs from CPN." I'm not sure how a CMRS provider can send "CN" when the applicable definition of CN expressly applies only to LECs, but I will let the lawyers debate that point.

[46] *See* ITU-T series Q.760-Q.769. ANSI T1.113 describes the CN parameter:

> Charge Number. Information sent in either direction indicating the chargeable number for the call and consisting of the odd/even indicator, nature of address indicator, numbering plan indicator, and address signals. (emphasis added)

end user customer is served by a network other than the first network, as would be the case with the call forwarding example. In our case, Transcom is our end user customer. Therefore, we did signal a number we assigned to Transcom for use as the "Billing Telephone Number" for the account in that MTA, just as would an ILEC with a large business customer running a "leaky PBX." This was fully in accord with industry practices.

Q: Would the telephone companies be able to make the same signaling claims regarding the CN address signal information if Transcom is an "end user" purchasing "telephone exchange service?"

A: No. While the technology is different the functionality we provide to Transcom is much like what telephone companies have provided to large "communications-intensive" business customers with PBXs for many years. Even AT&T has admitted that the CN parameter was designed to allow presentation of a billing number associated with a business user's PBX. Our CN signaling practices were carefully designed to be consistent with those applicable to a provider of telephone exchange service to a large and communications-intensive business end user. Since the FCC has now changed all of the rules, we are attempting to change our practices.

Q: When did Halo begin to populate Transcom's BTN in the CN address signal?

A: In February of 2011, soon after the FCC released its proposed "phantom signaling" rules.[47] The proposed rules expressly contemplated that CN would be populated with the number of the "responsible party."[48] In our case, that is Transcom. Halo was being proactive and decided to implement the proposed rules in order to prevent allegations of supporting "phantom traffic."

[47] NPRM and FNPRM, *Connect America Fund et al*., WC Docket Nos. 10-90 et al., FCC 11-13, , ¶ 631 26 FCC Rcd 4554 (Feb. 9, 2011) and published at 76 Fed. Reg. 11632 (March 2, 2011).

[48] *See* Report and Order and Further Notice of Proposed Rulemaking, *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support*, WC Docket Nos. 10–90, 07–135, 05–337, 03–109; GN Docket No. 09–51; CC Docket Nos. 01–92, 96–45; WT Docket No. 10–208; FCC 11–161, ¶ 719, __ FCC Rcd __ (rel. November 18, 2011) ("*2011*

Q: How did that work out for you?

A: The ILECs contended that conforming to the FCC's proposed phantom traffic rules resulted in phantom traffic. I have yet to fully understand that one.

Q: Has the FCC now promulgated final rules?

A: Yes. They apparently believed that the language in the proposed rule concerning "financially responsible party" caused problems.[49] So they came up with a different approach. We are not sure that the change helps to clarify anything, and we believe that even under the new rules it is proper to signal the Transcom BTN, but in the interest of trying to reduce the noise level in all these state proceedings Halo ceased populating Transcom's BTN in the CN address signal on December 29, 2011, which is the effective date of the new rules. We are doing this even though it is not clear – given the debate over whether Halo is the originating carrier or an "intermediate carrier" – which of § 64.1601(a)(1) or § 64.1601(a)(2) applies. I continue to believe we are the originating carrier and § 64.1601(a)(1) applies and we are supposed to populate the CN since it differs from the CPN. Sadly, I suspect that the very entities that complained about Halo populating this information in the CN will now complain that we have stopped.

USF/ICC Rules Order") ("719. In the USF/ICC Transformation NPRM, we also sought comment on a proposed rule that would prohibit service providers from altering or stripping relevant call information. More specifically, we proposed to require all telecommunications providers and entities providing interconnected VoIP service to pass the calling party's telephone number (or, if different, the financially responsible party's number), unaltered, to subsequent carriers in the call path. …" (emphasis added)

[49] *2011 USF/ICC Rules Order* ¶ 720. ("In response to comments in the record, we make several clarifying changes to the text of the proposed rules in this section. First, commenters objected to the use of the undefined term "financially responsible party" in the proposed rules. We agree with the concerns and clarify that providers are required to pass the billing number (e.g., CN in SS7) if different from the calling party's number. …" (footnotes omitted)

FCC RULEMAKING ORDER

Q: The ILECs have recently begun to claim that the FCC ruled against Halo on these issues, and that the FCC ruled that access charges are due on Halo's traffic. Do you agree?

A: No, I do not agree. The FCC assumed, without determining or finding, that *the ILECs' allegations that Halo's customer is a carrier were true*. Halo never claimed its customer was a carrier, and the FCC expressly did not decide the question. The FCC then found that if Halo's customer is a carrier then the traffic is not intraMTA. This was no surprise to Halo, since we had acknowledged this point all along. Our position was then, and is now, that since Transcom is not a carrier then Transcom is an end user and an end-point, and as such a call originator – just like all other ESPs that "originate further communications."

I must point out, however, that the FCC then went on to characterize Halo's traffic as "transit." It then defined transit as "non-access." *See* ¶ 1311 of the recent FCC order.[50] Thus, if one wrongly accepts the proposition that Transcom is a carrier then the ILECs still cannot claim an access entitlement for Transcom's traffic. They cite to paragraphs 1005-1006. Here is what those paragraphs say, including the footnotes:

> 1005. We first address a dispute regarding the interpretation of the intraMTA rule. Halo Wireless (Halo) asserts that it offers "Common Carrier wireless exchange services to ESP and enterprise customers" in which the customer "connects wirelessly to Halo base stations in each MTA."[2120] It further asserts that its "high volume" service is CMRS because "the customer connects to Halo's base station using wireless equipment which is capable of operation while in motion."[2121] Halo argues that, for purposes of applying the intraMTA rule, "[t]he origination point for Halo traffic is the base station to which Halo's customers connect wirelessly."[2122] On the other hand, ERTA claims that Halo's traffic is not from its own retail customers but is instead from a number of other LECs, CLECs, and CMRSproviders.[2123] NTCA further submitted an analysis of call

[50] 1311. Transit. Currently, transiting occurs when two carriers that are not directly interconnected exchange **non-access** traffic by routing the traffic through an intermediary carrier's network. Thus, although transit is the functional equivalent of tandem switching and transport, **today transit refers to non-access traffic**, whereas tandem switching and transport apply to access traffic. … (emphasis added)

records for calls received by some of its member rural LECs from Halo indicating that most of the calls either did not originate on a CMRS line or were not intraMTA, and that even if CMRS might be used "in the middle," this does not affect the categorization of the call for intercarrier compensation purposes.[2124] These parties thus assert that by characterizing access traffic as intraMTA reciprocal compensation traffic, Halo is failing to pay the requisite compensation to terminating rural LECs for a very large amount of traffic.[2125] Responding to this dispute, CTIA asserts that "it is unclear whether the intraMTA rules would even apply in thatcase."[2126]

1006. We clarify that a call is considered to be originated by a CMRS provider for purposes of the intraMTA rule only if the calling party initiating the call has done so through a CMRS provider. Where a provider is merely providing a transiting service, it is well established that a transiting carrier is not considered the originating carrier for purposes of the reciprocal compensation rules.[2127] Thus, we agree with NECA that the "re-origination" of a call over a wireless link in the middle of the call path does not convert a wireline-originated call into a CMRS-originated call for purposes of reciprocal compensation and we disagree with Halo's contrary position.[2128]

[2121] Halo Aug. 12, 2011 *Ex Parte* Letter, Attach. at 8.
[2122] *Id.* Attach. at 9.
[2123] ERTA July 8, 2011 *Ex Parte* Letter, at 3.
[2124] NTCA July 18, 2011 *Ex Parte* Letter at 7.
[2125] NTCA July 18, 2011 *Ex Parte* Letter at 1; ERTA *Ex Parte* Letter at 1, 3 (traffic from Halo includes "millions of minutes of intrastate access, interstate access, and CMRS traffic originated by customers of other companies;" one day study of Halo traffic showed traffic was originated by customers of "176 different domestic and Canadian LECs and CLECs and 63 different Wireless Companies").
[2126] CTIA *August 3 PN* Comments at 9.
[2127] *See Texcom, Inc. d/b/a Answer Indiana v. Bell Atlantic Corp*, Order on Reconsideration, 17 FCC Rcd 6275, 6276 para. 4 (2002) ("Answer Indiana's argument assumes that GTE North receives reciprocal compensation from the originating carrier, but our reciprocal compensation rules do not provide for such compensation to a transiting carrier."); *TSR Wireless, LLC v. U.S. West Communications, Inc.*, Memorandum Opinion and Order, 15 FCC Rcd 11166, [11177] n.70 (2000).
[2128] *See* NECA Sept. 23, 2011 *Ex Parte* Letter Attach. at 1; Halo Aug. 12, 2011 *Ex Parte* Letter at 9. We make no findings regarding whether any particular transiting services would in fact qualify as CMRS. *See* CTIA *August 3 PN* Comments at 9 & n.29 ("the information available does not reveal whether [Halo's] offering is a mobile service").

The meaning and result of this discussion is largely legal, and I will leave it to the lawyers to brief, including whether the discussion can be lawfully applied to traffic before

December 29, 2011 and whether the FCC was addressing the topic in an adjudicatory rather than a legislative capacity.

Paragraph 1005 describes the FCC's understanding of the parties' contentions. Paragraph 1006 then presents their analysis, such as it is. They mention Halo's August 12, 2011 *Ex Parte* Letter. I am attaching that document hereto as Exhibit 2. The FCC references pages 8 and 9. They attribute an assertion to Halo, however, that we did not make: we never used "re-origination." Instead, we have said that Transcom uses our service to "initiate a further communication." This is more than just semantics. If the FCC is saying that ESPs are not end users, they are not an end point for purposes of intercarrier compensation, are really carriers and IXCs and access is due from the ESP's exchange carrier when the ESP "initiate[s] a further communication" then the FCC's and the ILECs' quarrel is not really with Halo. Instead they are saying the D.C. Circuit's *Bell Atlantic* and *Worldcom* decisions were wrong when it resolved this very issue by holding that ESPs are not carriers, do not provide telephone toll and their traffic is not exchange access – even though they use telecommunications to "initiate a further communication."

The *ILECs* were the ones using "re-origination," not Halo. They should be the ones that explain whether that is different from "originate a further communication" and if it is the same why this issue is not already resolved against their position under the D.C. Circuit precedent. The FCC insisted in paragraph 958 that its order was consistent with *Bell Atlantic* and *Worldcom*, so I can only assume there must be some difference between "initiate a further communication" and "re-origination."

Further, it seems to me that the FCC was not really resolving the actual issue or agreeing with either side, and it was clearly not adopting the ILECs' theory that access is due. The FCC

did not expressly address the prescribed result when Halo's customer is in fact an end user. The FCC refused to resolve whether VoIP is a telecommunications service or an information service. The FCC never mentioned Transcom by name and never discussed the issue of whether Transcom is or is not a carrier.

In paragraph 1006 the FCC ended up saying that if this is a "re-origination" then Halo is "providing a transiting service." Thankfully, they provided a definition of "transit" in paragraph 1311:

> 1311. Transit. Currently, transiting occurs when two carriers that are not directly interconnected exchange **non-access traffic** by routing the traffic through an intermediary carrier's network. Thus, although transit is the functional equivalent of tandem switching and transport, today transit refers to non-access traffic, whereas tandem switching and transport apply to access traffic. As all traffic is unified under section 251(b)(5), the tandem switching and transport components of switched access charges will come to resemble transit services in the reciprocal compensation context where the terminating carrier does not own the tandem switch. …. (emphasis added).

Since the FCC characterized Halo as providing "transit" that would mean that Halo is the "intermediary carrier" referenced in paragraph 1311. The FCC made it quite clear that *transit is non-access traffic*. Even if this traffic is not "intraMTA" it is *also* not access. That is why we continue to assert that it is "non-access" traffic. Further, the prevailing rule is that a transit provider is not responsible for termination charges: the *originating carrier* is the responsible party. Therefore, even if you read paragraph 1006 the way the ILECs do, access charges cannot be applied against Halo. If the ILECs are right that Transcom is not the originating carrier, then Transcom is not responsible either.

Apparently neither side emerged unscathed. The ILECs cannot claim that the FCC rulemaking order supports their claim that Halo and Transcom are avoiding access charges – for traffic before December 29, 2011 or after that date. The ILECs need to send their bills to the carriers they claim are the actual originating carriers for this traffic.

Q: Is there a change of law provision in the ICA between Halo and AT&T?

A: Yes.

Q: Is Halo planning to initiate this provision?

A: Yes. In fact, Halo recently stated its intention to initiate the change of law provision in the ICA in its Motion to Extend the Exclusivity Period filed in the Bankruptcy proceeding.

THE REJECTION PROCEEDING

Q. The Opposing Parties in the Rejection Proceeding seek rejection of the ICA between Halo and AT&T, what is your response to this request?

A. Based on the advice of counsel, it is my understanding that the Complainants cannot seek rejection or termination of the ICA between Halo and AT&T because they are not parties to the ICA at issue and the ICA at issue has already been approved by the Commission and is now in effect. Based on the advice of counsel, it is my understanding that Section 252(e)(2)(A) of the Telecommunications Act (the "Act"), which the Complainants cite as the legal basis for their Application, relates only to the 90-day review process of section 252(e)(1), which has long since passed.[51]

On August 19, 2010, this Commission issued an order approving of a 251/252 wireless interconnection agreement (the "ICA") between Halo and Southwestern Bell Telephone Company d/b/a AT&T Missouri ("AT&T").[52] This was a public process that allowed the Complainants the opportunity to oppose the ICA and argue to the Commission why they feel it should be rejected. The Complainants failed to avail themselves of this right. The Commission's staff and regulatory law judge, however, duly considered the effect of the ICA on

[51] 47 U.S.C. § 252(e)(1)-(2).
[52] *See* Order Approving Interconnection Agreement, File No. IK-2010-0384, Missouri Public Service Commission, (Aug. 19, 2010).

third party carriers and the public interest when it was determined that the ICA should be approved.

Based on the advice of counsel, it is my understanding that Section 252(e)(2)(A) is not a vehicle for appealing the approval of an ICA, and it does not authorize the Commission to rescind the approval of an ICA it has already considered. Further, I am advised by counsel that Section 252(e)(6) does authorize aggrieved parties to challenge the approval of an ICA, but section 252(e)(6) vests exclusive jurisdiction with the federal courts, not state commissions. Thus, the Complainants' one and only opportunity to seek the rejection of the ICA at the Commission was during the section 252(e)(1) review period, before the ICA was approved, but they failed to do so. Halo asserts that the Complainants cannot now turn back the clock, ask the Commission to resurrect the review process, and request that an existing ICA be rejected. The Commission has already ruled that the ICA does not discriminate against the Complainants and that it is not inconsistent with the public interest, convenience, and necessity.

Q. In their Application to reject the ICA between Halo and AT&T, the Complainants make a number of allegations of misconduct by Halo and alleged grounds for rejection of the ICA. How do you respond?

A. The Complainants' allegations are unfounded and baseless, and Halo denies the allegations in their entirety. The ICA's transiting provisions objected to by the Complainants are standard terms commonly found in many ICAs. Based on advice of counsel, it is my understanding that transit service is entirely lawful and has not been found by any competent tribunal to be discriminatory or inconsistent with the public interest. Indirect interconnection does not disadvantage the Complainants or place them in an inferior position in any way.[53]

[53] *See* Application at ¶ 28.

Based on advice of counsel, it is also my understanding that if they so choose, the FCC's rules authorize the Complainants to request interconnection with Halo, something they have thus far refused to correctly do.[54] That is the proper procedure for addressing the Complainants' apparent concerns, not requesting that the Commission reject industry-standard transiting terms in an already-approved ICA.

The Complainants allege that Halo has breached section 3.1.3 of the ICA by not requesting interconnection with them prior to originating traffic to their networks.[55] However, based on my plain reading and lay opinion of Section 3.1.3, it is permissive and does not require that Halo always first negotiate or arbitrate an ICA prior to sending any traffic to a third party carrier. The Complainants' argument, if accepted, would mean that transit service and indirect interconnection is prohibited by the ICA because this service is only utilized with carriers for which Halo does not have an ICA. Based on my plain reading and lay opinion, this position is plainly contradicted by the fact that the ICA contains rates and terms for transit service, all of which would be meaningless if section 3.1.3 forbids transit.[56] Instead, section 3.1.3 clearly states that Halo is not required to obtain ICAs with third party carriers because it permits Halo to choose to utilize transit service so long as it indemnifies AT&T. In any event, based on the advice of counsel, because the Complainants are neither parties nor beneficiaries to the ICA, they cannot bring an action seeking its enforcement or termination.[57]

[54] *See* 47 C.F.R. § 20.11(e).

[55] *See* Application at ¶¶ 22-24.

[56] *See e.g.* Interconnection Agreement at §§ 3.1.3, 3.3.1, and Pricing Appendix § 1.0.

[57] *See id* at § 18.5 ("This Agreement shall not provide any non-party with any remedy, claim, cause of action or other right.").

The Complainants have also alleged that Halo is involved in an access avoidance scheme when it originates calls to their networks via AT&T.[58] This is patently untrue as Halo's operations are entirely lawful based on the reasons described in my testimony above. Based on the advice of counsel, it is my understanding that if the Complainants truly believe that Halo is operating outside the law, then the law provides various avenues for redress.[59] The Complainants cannot bring an application to reject an existing ICA to the Commission for any reason, and they certainly cannot do so to disguise a claim for violating the Act.

Q: Does this conclude your testimony?

A: Yes. I reserve the right to make corrections of any errors we may discover by submitting an *errata*.

[58] *See* Application at ¶ 25.

[59] *See e.g.* 47 U.S.C. § 208.