

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
E911 Requirements for IP-Enabled Service) WC Docket No. 05-196
Providers)
)

AMENDED COMPLIANCE REPORT OF LINGO, INC.

Lingo, Inc. ("Lingo"), an indirect wholly owned subsidiary of Primus Telecommunications Group, Incorporated, hereby submits this Amended Compliance Report. This report updates the "Compliance Report of Lingo, Inc.," filed November 28, 2005 ("November Compliance Report")¹ in accordance with the Federal Communications Commission's ("Commission") June 3, 2005 order establishing enhanced 911 requirements for IP-enabled service providers (the "VoIP Order"),² and the subsequent outline of information called for by the Enforcement Bureau in this filing (the "Bureau's Outline").³

I. HOW LINGO SELECTED ITS E911 SOLUTION.

Lingo is a small, privately-held company that provides voice over internet protocol ("VoIP") services to business and residential customers⁴ and falls within the scope of the E911 requirements of the VoIP Order. Lingo does not have its own nationwide footprint, nor is it a certificated local telecommunications company with access to the appropriate selective routers that would enable it to provision E911 services

¹ For convenience, we reiterate much of what was contained in the November Compliance Report.

² *IP-Enabled Services and 911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245, 10273 ¶50 (2005); 47 C.F.R. § 9.5(f).

³ Public Notice, "Enforcement Bureau Outlines Requirements of November 28, 2005 Interconnected Voice Over Internet Protocol 911 Compliance Letters," DA 05-2945 (rel. November 7, 2005) ("EB Outline").

⁴ Lingo's affiliate is Primus Telecommunications, Inc., another provider of a VoIP service which separately filed its November Compliance Report with the Commission. While each company and the services they offer are distinct, the two companies share IT resources with respect to their VoIP offerings and utilize the same E911 Provider.

on its own. Lingo relies only upon the revenues from its customer base and funding from its affiliates for financial stability, and therefore does not have the resources, capital or time to create and deploy its own dedicated E911 network with a nationwide footprint within the timeframe mandated by the Commission. As such, in its efforts to comply with the Commission's VoIP Order, Lingo had no choice but to contract with a third party to provide the required E911 services by November 28, 2005.

During the summer of 2005, Lingo contacted several third parties offering E911 solutions for VoIP providers. After meaningful discussions with various providers concerning their proposed E911 solutions, Lingo contracted with Intrado, Inc. ("Intrado") in September 2005, to provide its E911 solution, a company that has tremendous experience with 911 issues. At that time, Lingo was unaware of any third-party provider that was offering an E911 solution that would cover the entire United States (including Alaska and Hawaii), the territories and possessions, by November 28, 2005, and selected what it viewed was the best provider.⁵

II. THE E911 SOLUTION CURRENTLY AVAILABLE TO LINGO BY ITS THIRD PARTY PROVIDER.

The solution that Lingo is purchasing from Intrado is intended to give Lingo a full end-to-end solution for providing E911 services. This solution consists of an interface that allows Lingo to submit the location where the service is being used ("Registered Location"), which Intrado verifies and geo-codes (as more particularly described below) so that it can be accurately transmitted to a PSAP in the event of a 911 call. Intrado then transmits the information that would allow an automatic display of the customer's

⁵ Lingo notes that it remains unaware of any third-party provider that is offering a VoIP E911 solution with any certainty that will cover the continental United States within the near future.

telephone number and the address/location of the VoIP telephone (“ALI”) to the public safety answering point (“PSAP”) in the event of a 911 call.

While the verification, coding and loading of the appropriate Registered Location is integral to the E911 process, Lingo itself did not have the ability to determine what level of E911 service (or variant thereof) a customer would have at any Registered Location. As such, Lingo itself had no visibility into whether an individual at a Registered Location would actually be able to receive E911 services, notwithstanding the appropriate verifications. Very recently, Intrado gave Lingo software which is intended to allow Lingo to determine what level of E911 service is available to a customer at any particular Registered Location on a real time basis. Lingo’s experience with those products is detailed below.

A. ENSURING THE CUSTOMER’S ADDRESS & CALL BACK NUMBER CAN BE DELIVERED TO THE APPROPRIATE PSAP.

The Validation and Update Interface (“VUI”) provided by Intrado operates as a real time provisioning interface by which the actual location (*i.e.*, X, Y longitude and latitude coordinates) for a customer’s Registered Location (or “geo-coding”) can be verified. Lingo first sends the Registered Location through the VUI and Intrado is able to verify the customer’s address and confirm the X, Y coordinates of that Registered Location. Then, Intrado completes a Master Street Address Guide (“MSAG”) validation, and checks to ensure that the customer is a Lingo customer. After this process is completed, the geo-coded address is stored in Intrado’s server. When a 911 call is made, Intrado will then transmit this information, including the ALI, to the appropriate PSAP.

For new customers, this three-step validation process will be incorporated into the sign-up process to ensure the Registered Location is properly verified in real time. With

respect to Lingo's existing customer base, Lingo has given Intrado the Registered Location information and Intrado is currently in the process of completing this three-step verification process, and the parties are working through any resulting errors due to address failures, or other address-related issues that may arise.

B. DETERMINING THE CUSTOMER'S LEVEL OF E911 SERVICE.

On or about November 16, 2005, Intrado informed Lingo that it had developed a new Level of Service or "LOS" software module that would allow Lingo to query the Registered Location of a customer with Intrado to determine the level of E911 service available to that customer. The LOS software has now been tested, we have created the necessary interface and back office systems to support the software, and Lingo has been running the software. This has allowed Lingo to incorporate the LoS tool in its order process, and before a customer can sign up for service, Lingo has been able to determine if the customer will have E911 capability. Lingo has not been taking any orders for new service until it is able to verify a customer has E911 service at his or her Registered Location.⁶ Going forward, in light of the competitive circumstances it now faces with respect to other VoIP providers who apparently are continuing to market and provide service to new customers in areas without E911 service after November 28, 2005, Lingo may soon begin again to market, take orders for, and provide service to new customers nationwide.

III. LINGO'S COMPLIANCE WITH THE VOIP ORDER.

A. LINGO'S 911 SOLUTION. As of November 21, 2005, Intrado has advised Lingo that it will be able to provide E911 service in compliance with the rules established

⁶ Lingo is also able to determine the level of service existing customers have, assuming said customer's Registered Location has been validated by Intrado.

in the VoIP 911 Order to approximately 32% of Lingo's customers based on the Residential Locations provided by the customers.⁷

1. 911 Routing Information/Connectivity to Wireline E911 Network: The Enforcement Bureau has called for a detailed statement as to whether the provider is transmitting, as specified in Paragraph 42 of the VoIP Order, "all 911 calls to the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority utilizing the Selective Router, the trunk line(s) between the Selective Router and the PSAP, and such other elements of the Wireline E911 Network as are necessary in those areas where Selective Routers are utilized."⁸ If the provider is not transmitting all 911 calls to the correct answering point in areas where Selective Routers are utilized, this statement should include a detailed explanation why not. In addition, the provider should quantify the number of Selective Routers to which it has interconnected, directly or indirectly, as of November 28, 2005.

Lingo's Response: In response to this question, Intrado has supplied us with the following information: "Currently through the assistance of our Network providers, our VSP customers will have access to 154 E9-1-1 Selective Routers by November 28th, 2005 . . ."

As Lingo is wholly relying on Intrado for the E911 solution, it is limited by Intrado's roll out of the product. Additionally, in the case of Lingo, approximately 20% of its traffic is inbound international traffic. As such, to the extent that these customers have revised their Registered Location information to reflect the international location in

⁷ This is dependent upon the successful migration of Registered Locations to Intrado, which includes the validation process described in Section II(A).

⁸ VoIP Order, 20 FCC Rcd at 10269-70, ¶ 42 (footnote omitted).

which they are using the product, then any 911 calls placed from these phones would not be transmitted to a location where Selective Routers are utilized. Another reason that 911 calls may not be transmitted to the correct answering point in areas where Selective Routers are utilized, is if a customer did not revise their Registered Location information to reflect the correct location in which they are using the product.

2. Transmission of ANI and Registered Location Information: The Enforcement Bureau has called for a detailed statement as to whether the provider is transmitting via the Wireline E911 Network the 911 caller's ANI and Registered Location to all answering points that are capable of receiving and processing this information. This information should include: (i) a quantification, on a percentage basis, of how many answering points within the provider's service area are capable of receiving and processing ANI and Registered Location information that the provider transmits; (ii) a quantification of the number of subscribers, on a percentage basis, whose ANI and Registered Location are being transmitted to answering points that are capable of receiving and processing this information; and (iii) if the provider is not transmitting the 911 caller's ANI and Registered Location to all answering points that are capable of receiving and processing this information, a detailed explanation why not.

Lingo's Response: With respect to the requirement for a quantification, on a percentage basis, of how many answering points within the provider's service area are capable of receiving and processing ANI and Registered Location information that the provider transmits, and a quantification of the number of subscribers, on a percentage basis, whose ANI and Registered Location are being transmitted to answering points that are capable of receiving and processing this information, Intrado has given Lingo a map,

which Lingo submitted separately as Exhibit 1 to its November Compliance Report under a request for confidentiality (incorporated by reference herein) The map demonstrates the areas in which Lingo's customers will have access to E911 services.

As the map demonstrates, Lingo's E911 provider will not be able to transmit all 911 callers' ANI and Registered Location to all answering points that are capable of receiving and processing this information. This is due to a variety of circumstances, and Exhibit 2 to Lingo's November Compliance Report (incorporated by reference herein) reflects Intrado's progress with respect to the ultimate goal of transmitting all of the caller's ANI and Registered Location information to answering points that are capable of receiving this information. Additionally, there are some specific cases where Intrado has stated that it can only transmit the ANI information:

There are unique deployment circumstances in areas of the US and Puerto Rico that operate off [of] E9-1-1 Selective Routers, but will not meet the full FCC mandate. . . Intrado is currently aware of four (4) States and a Territory within [Lingo's] serving area that will have native Selective Routing functionality but will only provide Automatic Number Identification (ANI) only service to the PSAP. The following information explains the circumstances within these areas:

New Jersey - In the State of New Jersey Intrado has gained permission from the State to deploy a voice only service which includes the call taker receiving ANI on the VoIP 911 caller. The State ALI system is not capable of full dynamic ALI updates and will require an upgrade. New Jersey represents 3% of the total US population.

Ohio - To date, Ohio has not granted permission to Intrado to deploy a voice only solution. The State ALI system is not capable of full dynamic ALI update. Ohio represents 4% of the total US population.

Hawaii - To date, Hawaii has not granted permission to Intrado to deploy a voice only solution. The ALI systems are not capable of full dynamic ALI update. Hawaii represents 5% of the total US population.

Puerto Rico - To date, Puerto Rico has not granted permission to [Intrado] to deploy a voice only solution. The ALI systems are not capable of full dynamic ALI update. Puerto Rico represents 3% of the total US population.⁹

3. 911 Coverage: The Enforcement Bureau has stated that to the extent a provider has not achieved full 911 compliance with the requirements of the VoIP Order in all areas of the country by November 28, 2005, the provider should: 1) describe in detail, either in narrative form or by map, the areas of the country, on a MSA basis, where it is in full compliance and those in which it is not; and 2) describe in detail its plans for coming into full compliance with the requirements of the order, including its anticipated timeframe for such compliance.

Lingo's Response: Intrado has delivered written assurances that it is working on providing Lingo with a nationwide native VoIP E911 service in accordance with the VoIP Order. Further, Lingo has been advised that the initial PSAP deployments of Intrado are targeted in major metropolitan areas through the United States, consistent with Lingo's subscriber base priorities. See Exhibit 1 to Lingo's November Compliance Report (confidential map reflecting the progress for Lingo customers) and Exhibit 2 to Lingo's November Compliance Report (Intrado's current progress with respect to the roll out of nationwide E911 service).

B. OBTAINING INITIAL REGISTERED LOCATION INFORMATION. The Enforcement Bureau has called for a detailed description of all actions the provider has taken to obtain each existing subscriber's current Registered Location and each new subscriber's initial Registered Location. This information should include, but is not

⁹ On December 2, 2005, Lingo received a letter from Intrado indicating that governmental entities in the following states are imposing additional testing requirements that will further delay product roll-out: Arizona, Connecticut, Delaware, Maine, Massachusetts, Tennessee, and Vermont.

limited to, relevant dates and methods of contact with subscribers and a quantification, on a percentage basis, of the number of subscribers from whom the provider has obtained the Registered Location.

Lingo's Response: As of the date of the November Compliance Report, Lingo had obtained Registered Location information from 100% of its subscriber base. By way of background, Lingo has been offering Emergency Calling Services with its VoIP product since its launch in 2004 and collecting from customers the Registered Location information. Even before the VoIP Order was issued, customers were advised as part of the sign-up process of the importance of updating their Registered Location, and cautioned to update their Registered Location in the event they moved or traveled.¹⁰ As part of Lingo's efforts to obtain 911 advisory acknowledgements as required by the VoIP Order, Lingo's sign-up process was further developed to highlight the importance of the customer's physical address, alerting customers that it was their obligation to keep this address current, and advising them of the means by which they may update this address.¹¹ Lingo's 911 advisory acknowledgments again alerted customers to the importance of keeping this address current,¹² and the information packet sent to existing customers in July 2005 also highlighted this similar information.¹³

C. OBTAINING UPDATED REGISTERED LOCATION INFORMATION. The Enforcement Bureau has requested a detailed description of the method(s) the provider

¹⁰ See Exhibit B of Lingo's Subscriber Notification and Compliance Report filed on August 10, 2005 ("Initial Report").

¹¹ See Exhibit D of Initial Report.

¹² See Exhibit E of Initial Report (on-line advisory); and Exhibit O (text of IVR advisory).

¹³ See Exhibit F of Initial Report.

has offered its subscribers to update their Registered Locations. This information should include a statement as to whether the provider is offering its subscribers at least one option for updating their Registered Location that permits them to use the same equipment that they use to access their interconnected VoIP service.

Lingo's Response: Lingo provides three (3) methods for subscribers to update their Registered Location, all of which have been available since the launch of Lingo:

- (i) The subscriber can log into his/her online Account Management and change the Registered Location;¹⁴
- (ii) The subscriber can call Lingo's Customer Care department using a toll or toll free number and provide the new address;
- (iii) The subscriber can e-mail Lingo Customer Care and provide the new address.

Option (ii) above permits customers to use the same equipment they use to access their interconnected VoIP service to change their Registered Location.

D. TECHNICAL SOLUTION FOR NOMADIC SUBSCRIBERS. The Enforcement Bureau has requested a detailed description of any technical solutions the provider is implementing or has implemented to ensure that subscribers have access to 911 service whenever they use their service nomadically.

Intrado has reported the following to Lingo with respect to nomadic subscribers:

VSPs [like Lingo] utilizing Intrado's V9-1-1™ Mobility Services are able to route VoIP emergency calls from their VoIP network to the Intrado Network or alternative 3rd party network for delivery to the appropriate Selective Router and then on to the geographically appropriate Public Safety Answering Point (PSAP) via the native 9-1-1 infrastructure. The Services utilized provide a "native" 9-1-1 solution for routing VoIP 9-1-1 calls from both in-region and out-of-region telephone numbers (TNs) to the most geographically appropriate PSAP. The V9-1-1 solution enables full support of nomadic usage of VoIP provided the user updates their address information upon arrival into a new location. Through the

¹⁴ This information appears on the Profile Page, and there are pages within account management that are dedicated to explaining 911 service, the important of providing the correct address and links to the Profile page to update the address.

Validation and Update Interface (VUI) the V9-1-1 solution will enable the near real-time provisioning (Geocoding and MSAG Validation) of the newly provisioned address and make available (assuming no errors) that user's information for delivery to the PSAP within 15 minutes of receipt.

Intrado recognizes the need for removing the user interaction and self provisioning component of the solution. To that end, Intrado is actively working and trialing a number of location determination technologies, which will be supported by Intrado and the Intrado provisioning interface.

As described in Section II above, any changes in Registered Locations will need to be sent through the VUI interface and qualified, and then stored on Intrado's server. Through the LoS system, Lingo is able to identify the type of E911 service (or variant thereof) a nomadic customer had available based on the revised Registered Location. However initially, the query for updated Registered Locations is manual, and there is a delay between the period of time when a new customer updates his or her Registered Location and when Lingo is able to determine if E911 is available. During this delay period, which will be between one day and one week, depending on the volume of activity, Lingo will not be able to tell if a new customer has moved to a location without E911 services. For these customers, Lingo has been keeping services active until the Registered Location is verified as non-E911 compatible, as Lingo does not have the technical capability to suspend service during this time. As noted above, however, because of competitive circumstances, Lingo may soon be changing its practices.

IV. UTILIZING THE AUTOMATIC DETECTION MECHANISM.

At the time of its November Compliance Report, Lingo was still in the process of reviewing the automatic detection mechanism ("ADM") offered by certain other VoIP providers. Without further information regarding the technical underpinnings of the

device and whether it would be able to be used by Lingo's customers,¹⁵ Lingo could not determine whether this was a viable option for its customer base.

V. LINGO'S MARKETING & SALES PLANS.

In its Outline, the Enforcement Bureau indicated that it expects providers to "discontinue marketing VoIP service, and accepting new customers for their service, in all areas where they are not transmitting 911 calls to the appropriate PSAP in full compliance with the Commission's rules."¹⁶ As such, Lingo took the following steps in this regard:

A. LIMITING MARKETING ACTIVITIES. In accordance with the wishes of the Enforcement Bureau, Lingo limited its marketing to only those MSAs in which Intrado had indicated there is E911 compliance.¹⁷ Although Lingo markets via the "boundaryless" internet, it has contacted its advertisers and requested that all marketing after November 28, 2005, be targeted at only those particular MSAs; to the extent the advertiser is unable to comply, Lingo had suspended or was planning to suspend the marketing with that advertiser until compliance was assured. We note, however, that the nature of E911 deployment is dynamic, and the E911 coverage within a particular MSA will vary and increase over time. In the event Lingo's initial marketing materials inadvertently reached a potential subscriber in a specific area that is not E911 compliant, when that subscriber attempted to purchase the services, they would have been notified, depending on their method of contact, either via the website or Lingo's Customer Care

¹⁵ For example, if the ADMs require users to keep their computers on while using the VoIP service, such a device may not be effective with respect to the majority of Lingo customers because they use the service without turning their computer on.

¹⁶ EB Outline, page 5.

¹⁷ Intrado has stated that these MSAs are "major markets where Intrado has connectivity to at least 1 selective router, ALI steering and the ability to populate ALI".

department, that the services were not offered in their particular area at this time. As noted above, due to competitive pressures from those VoIP providers that continue to advertise on a nationwide basis, Lingo may modify this approach soon and no longer limit its advertising.

B. SALES TO NEW CUSTOMERS. In accordance with the expectations of the Enforcement Bureau, after November 28, 2005, Lingo was not accepting any new customers for service in areas where Intrado was not transmitting 911 calls to the appropriate PSAP in full compliance with the Commission's rules. As noted above, Lingo may modify this approach soon due to competitive circumstances and may begin again making sales to new customers in nationwide. Lingo will continue to work actively with Intrado to ensure compliance as soon as possible. In the meantime, it will provide its Emergency Calling Services in such areas, which will enable E911 callers to reach emergency personnel through an administrative line at the appropriate PSAP.

Respectfully Submitted,

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