

November 28, 2005

VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
The Portals
445 12th Street, S.W.
Washington, D.C. 20554

Re: **VoIP E911 Compliance Report (November 28, 2005)**
Nuvio Corporation; WC Docket No. 05-196

Dear Ms. Dortch:

Nuvio Corporation (“Nuvio”), through its undersigned counsel and pursuant to Commission Rule 9.5(f), as adopted by the Commission’s *VoIP E911 Order*¹ concerning the enhanced 911 (“E911”) service requirements and conditions applicable to interconnected Voice over Internet Protocol (“VoIP”) service providers, submits this Compliance Report (“Report”) to advise the Commission of the status of Nuvio’s efforts to comply with the Commission’s VoIP E911 Rules.²

Nuvio, headquartered in Overland Park, Kansas, develops, licenses, and markets VoIP services to business, educational, consumer and government customers through a growing network of private-label partners. The largest portion of Nuvio’s current customers is business users. In addition to consumer NuvioVoice products, Nuvio also has nPBX, a complete IP-based Centrex application for businesses that replaces existing telephony infrastructure. Also, Nuvio’s VoIP service is portable; so long as a Nuvio customer has access to broadband Internet access, the customer can use the service anywhere in the United States or the world.

¹ *IP-Enabled Services, E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking 20 FCC Red. 10245 (2005) (“*VoIP E911 Order*”).

² Pursuant to the Commission’s prior Public Notices, Nuvio has filed four status reports concerning the Company’s efforts to notify its customers of the limitations associated with the Company’s VoIP 911 service, and to obtain affirmative acknowledgments from those subscribers stating that they fully understand those limitations. These reports were filed in the above-referenced docket on August 10, September 1, September 22, and October 25, 2005.

November 28, 2005

Page 2

As required by the Commission's rules, and consistent with the Public Notice issued by the Enforcement Bureau on November 7, 2005³ (the "Public Notice"), this Report details Nuvio's efforts to provide E911 service to customers in compliance with Commission Rules 9.5(b) and (c), and to comply with the registered location requirements of Commission Rule 9.5(d). Pursuant to the information requested by the Enforcement Bureau in the Public Notice, the Company provides as follows:

- 1) **A quantification, on a percentage basis, of the number of subscribers to whom the Company is able to provide 911 service in compliance with the rules established in the *VoIP 911 Order*.**

Nuvio does not have E911 service available as of the date of this filing. Upon installation of the E911 solution provided by Intrado, Inc. ("Intrado"), which is expected to occur in mid-December, 2005, Nuvio expects to be able to provide VoIP E911 service in compliance with the *VoIP E911 Order* to approximately 30% of the Company's interconnected VoIP subscribers, based on Intrado's VoIP E911 service footprint. However, this estimate could be higher depending on how many Master Street Address Guide ("MSAG") validated addresses Nuvio is able to provide to Intrado and the cooperation of the various carriers Nuvio uses to provide service. At this time, the 30% estimate is the best approximation Nuvio can provide the Commission.

For customers that do not have access to a 911 service that complies with the *VoIP E911 Order*, Nuvio, through Intrado, plans to offer an interim 911 service. Nuvio's contract with Intrado calls for 10-digit routing of all 911 calls to the appropriate PSAP until such time as a VoIP E911 solution is deployed to Nuvio's customer's base. As Intrado expands its dedicated E911 infrastructure to more areas, customers using the 10-digit routing method will be automatically transitioned to the Intrado 911 solution that complies with the *VoIP E911 Order*. Nuvio is working to have both the VoIP E911 service and the Intrado interim 10-digit routing solution in place as soon as possible.

- 2) **A detailed statement as to whether the Company is transmitting, as specified in Paragraph 42 of the *VoIP 911 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."**

By mid-December, 2005, Nuvio expects to transmit 911 calls to the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority utilizing the selective router, the trunk lines between the selective router and the PSAP, and such other

³ *Enforcement Bureau Outlines Requirements of November 28, 2005 Interconnected Voice Over Internet Protocol 911 Compliance Letters*, WC Docket Nos. 04-36 and 05-196, Public Notice, DA 05-2945 (rel. Nov. 7, 2005).

November 28, 2005

Page 3

elements of the Wireline E911 Network as are necessary in those areas where selective routers are utilized for 30% of its interconnected VoIP service customers. Nuvio will continue to work with Intrado to expand its E911 service to include areas where Intrado offer such functionality. Please find attached as Exhibit A a map that illustrates both current and future areas where Intrado will offer VoIP E911 services.

3) If the Company is not transmitting all 911 calls to the correct answering point in areas where Selective Routers are utilized, a detailed explanation of why not.

Nuvio will be routing calls to the correct answering point where selective routers are utilized for 30% of customers in mid-December. Nuvio is also working with Intrado to route emergency calls for the remaining 70% of its customers to the correct answering point in areas where selective routers are utilized through the PSTN using 10-digit telephone numbers provided by the PSAP to Intrado.

Nuvio entered into a contract with Intrado in October, 2005. At that time, Nuvio expected to route 911 calls in Internet protocol to Intrado, and expected that this capability would be available no later than November 28. However, approximately three weeks ago, Intrado informed Nuvio that Nuvio must interconnect with Intrado using point-to-point data circuits between the two companies' data centers. Nuvio then did not receive from Intrado the information necessary to provision these data circuits until last week. Apparently, the delay was due to the need for Intrado to determine the appropriate data center for interconnection with Nuvio. Nuvio immediately ordered the necessary facilities and is currently waiting for provisioning. Standard industry practice is to provision private lines within 60 days. Nuvio is working with its carrier to compress this schedule to allow interconnection to occur in early December.

By mid-December, 2005, approximately 30% of Nuvio's interconnected VoIP service customers will have their 911 calls routed to the correct answering point. As detailed in response to question 1, the 30% figure is Nuvio's best estimate. Nuvio has to manually compare registered location information to MSAG information on a carrier-by-carrier basis. Nuvio has to do this for thousands of customers and there is currently no automated way to complete this task for its existing customer base.

4) The number of Selective Routers to which the Company has interconnected, directly or indirectly, as of November 28, 2005.

As explained in response to question 2, Nuvio relies on Intrado to provide its VoIP E911 solution. Nuvio does not interconnect directly with any selective routers; instead, Intrado provides a complete E911 solution. As of the date of this filing, Intrado has reported to Nuvio that Intrado is interconnected to 154 Selective Routers, either directly or indirectly.

November 28, 2005

Page 4

- 5) **A detailed statement as to whether the Company 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.**

Based on information received from Intrado, Nuvio believes that Intrado will transmit 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 within the service areas of the 154 Selective Routers referenced above, once Intrado's solution is implemented in mid-December. In all other areas, this information will not be transmitted initially.

- 6) **The percentage of how many answering points within the Company's service area are capable of receiving and processing ANI and Registered Location information that the provider transmits.**

Nuvio does not have access to the information necessary to respond to this question. As explained in response to question 5, Nuvio's service area is entire United States, and potentially the entire world, as the service is available from any location where a customer can obtain broadband Internet access. Pursuant to correspondence with Intrado, Nuvio understands that 93% of the U.S. population is currently served by PSAPs operating off an E911 Selective Router. Please find attached as Exhibit B a map provided by Intrado that illustrates the PSAPs within the United States that are not served by a Selective Router. However, Nuvio is unable to determine how many answering points served by Selective Routers are capable of receiving and processing ANI and Registered Location information.

Intrado is currently aware of four States and a Commonwealth that have native Selective Routing functionality but will only provide Automatic Number Identification ("ANI")-only service (not Registered Location information) to the PSAP. In New Jersey, Intrado has gained permission from the State to deploy a voice-only service that enables the call taker to receive ANI from the VoIP 911 caller, but the State ALI system is not capable of full dynamic ALI updates and will require an upgrade. Ohio and Hawaii have not granted permission to Intrado to deploy a voice-only solution, and these States' ALI systems are not capable of full dynamic ALI update. Further, Puerto Rico has not granted permission to Intrado to deploy a voice-only solution, and the ALI systems are not capable of full dynamic ALI update.

- 7) **The percentage of subscribers whose ANI and Registered Location are being transmitted to answering points that are capable of receiving and processing this information**

Nuvio lacks information regarding the percentage of PSAPs able to receive and process ANI and Registered Location information. However, through Nuvio's discussions with Intrado, it is Nuvio's belief that the Company will be transmitting ANI and Registered Location information by mid-December, 2005, through its third party vendor, to entities able to utilize this information for approximately 30% of its customers.

November 28, 2005

Page 5

- 8) **If the Company 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.**

Please refer to Nuvio's response to questions 5 and 6 above.

- 9) **To the extent the Company has not achieved full 911 compliance with the requirements of the *VoIP 911 Order* in all areas of the country by November 28, 2005, the Company should describe in detail, either in narrative form or by map, the areas of the country, on an MSA basis, where it is in full compliance and those in which it is not.**

Nuvio's third-party vendor, Intrado, is working on nationwide native VoIP E911 delivery in accordance with the *VoIP E911 Order*. The initial PSAP deployments are targeted in major metropolitan areas throughout the U.S. based on Intrado's customer subscriber base priorities. Exhibit A, "Major Market Deployment Map," which corresponds with MSAs, identifies regions that have connectivity to at least one Selective Router, ALI steering capabilities, ANI and the ability to populate ALI. According to the map provided by Intrado, there will be a phased deployment with some areas E911 capable by November 28, 2005, others by March 31, 2006 and additional areas by June 30, 2006. However, this estimate is predicated on Intrado's estimate that full E911 coverage will be in place by June 2006 for at least one Selective Router per county (where Selective Routers are utilized). Intrado has not advised Nuvio which counties have more than one Selective Router, so it is impossible for Nuvio to determine whether full coverage will be reached by June 2006, or whether certain customers may still be without E911 service in counties with two or more Selective Routers where Intrado has not interconnected with all available Selective Routers in those areas.

- 10) **If not in full compliance, the Company's plans for coming into full compliance with the requirements of the *Order*, including its anticipated timeframe for such compliance.**

As noted above, Nuvio's plan for compliance necessarily relies on the ability of Intrado to meet its deployment targets. Intrado's projected timeframes for full compliance includes factors outside of Intrado's control. Specifically, Intrado's timeframes may or may not be met based on the level of cooperation of PSAPs, RBOCs and state and local agencies involved in the deployment of E911 services. Further, access to pseudo-ANI, testing and deploying solutions reliant on pseudo-ANI depend on the activities by this Commission and the entities appointed to be responsible for assigning these resources. Intrado cannot predict with certainty as to when it will have a fully compliant E911 solution in place for all of Nuvio's customers but based on the information currently available to Nuvio from Intrado and included in this filing as Exhibit A, much of the country will have a VoIP E911 solution in place subject to the limitations identified in response to question 9.

November 28, 2005

Page 6

Moreover, Nuvio plans to initiate other interim solutions. For its business customers, Nuvio plans to obtain a 911-capable number from one of its telecommunications vendors and associate the business address with that number. Businesses will only be permitted to have one registered address. Accordingly, a 911 call by a Nuvio business customer will be routed to the appropriate telecommunications vendor, which will be able to associate the ANI with the registered 911 address. Nuvio is also planning to set up media gateways to provide an E911 solution. Under this plan, Nuvio would order circuits from the ILEC or RBOC, establish connectivity, and order telephone numbers. This service is dependent upon the RBOC or ILEC allowing different registered addresses for a single circuit. In the past RBOCs and ILECs have refused to allow such registration, but Nuvio believes they will cooperate. Nuvio would associate each telephone number with at least one address of record for a customer to facilitate E911. This solution is limited to customers that are located within historic geographic confines established by the RBOC, ILEC, and PSAP. This solution also requires a significant degree of manual processing, and changes to registered addresses could take up to 10 days to process.

11) A detailed description of all actions the Company has taken to obtain each existing subscriber's current Registered Location and each new subscriber's initial Registered Location (including, but not 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 Company has obtained the Registered Location).

At the time a customer signs up for service, they must sign a contract for service that includes a shipping address. Nuvio believes it has address information for over 90% of its customers. In order to utilize address information for Intrado's VoIP E911 solution, the address must be MSAG-validated. Nuvio had to wait for Intrado to make their MSAG-validation software available to Nuvio prior to collecting Registered Location information from its customers. Any addresses collected in advance of installing the software may have resulted in Nuvio having to go back to the customers for additional address information if the MSAG-validation software rejected the address information. This is a fairly common occurrence as MSAG addresses and postal addresses frequently do not match. Intrado did not provide the requisite MSAG validation software to Nuvio until November 26, 2005, despite repeated attempts by Nuvio to obtain such software after signing the contract with Intrado in October.

Since installing the MSAG validation software, Nuvio has received updated address information from 11% of its customers. Nuvio expects to have MSAG-validated addresses for approximately 30% of its customers by mid-December. Nuvio has completed upgrades to its website as of November 25, 2005, in advance of installing the Intrado-provided software, that allows customers to provide and update their Registered Location Information with the Company. This system is also used for billing, notification and affirmative acknowledgement procedures, and other account status information. Further, the Company has implemented a signup procedure that captures customer location information, processes the information through the MSAG validation software and then is used as Registered Location information by the Company and its vendors.

As part of the Intrado solution, Nuvio will have access to Intrado's validation and update interface that enables near real-time delivery of the Nuvio new user address information or user submitted address update information. Nuvio will be integrating Intrado's address validation system into its existing provisioning processes to ensure seamless delivery of acquired registration location information to the Intrado system.

- 12) A detailed description of the method(s) the Company has offered its subscribers to update their Registered Locations. This information should include a statement as to whether the Company 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.**

As noted above, the Company has updated its website and has provided customers with the ability to update their Registered Location information from any location where they have access to an Internet connection.

The E911 solution from Intrado provides Nuvio interconnected VoIP service customers with a real-time provisioning interface to provision and register subscriber location data to Intrado to ensure the proper address and call back number is delivered to the appropriate PSAP at the time of an E911 call. Through Nuvio's use of the Intrado provide interface, Intrado will geocode customer provided addresses as well as compare the addresses to the Master Street Address Guide (MSAG) at the time of provisioning. Nuvio's customers can utilize our web portal or our service center by phone to enable the update to Intrado once the system is in place.

At the time of the E911 call, Intrado uses Nuvio's provisioned information to associate the customer provided Registered Location assigned during provisioning with the wireline PSAP boundaries maintained by Intrado to determine appropriate PSAP for delivery of the MSAG valid address and call back number of the caller.

- 13) A detailed description of any technical solutions the Company is implementing or has implemented to ensure that subscribers have access to 911 service whenever they use their service nomadically.**

Nuvio will not have a nomadic solution in place if the customer takes the VoIP service to a location in some markets within the top 20 MSAs and virtually any location outside of the top 20 MSAs in the continental United States. Nuvio's capability to provide nomadic VoIP E911 service is limited to Intrado's service footprint. Nuvio is unaware of any third party provider that is offering a solution that will cover the entire continental United States, let alone Alaska, Hawaii, the territories and possessions. As noted above, Nuvio subscribers have the ability to update their Registered Location information with the Company. If they provide a new Registered Location within Nuvio's VoIP E911 footprint, they will access to E911 functionality in compliance with the *VoIP E911 Order*. All of Nuvio's available resources are being utilized in

establishing a VoIP E911 solution and an interim 911 solution for its interconnected VoIP service customers. The Company will explore a variety of alternatives once it has completed the initial deployment of the VoIP E911 and interim solutions for existing customers that register an address that is outside of the Company's VoIP E911 footprint.

In general, Nuvio's third party vendor is able to route VoIP emergency calls from its VoIP network to the Intrado Network or alternative third party network for delivery to the appropriate Selective Router (so long as Intrado has connectivity to such Selective Router) and then on to the geographically appropriate PSAP via the native 9-1-1 infrastructure. The E911 services provide a "native" 9-1-1 solution for routing VoIP 9-1-1 calls from both in-region and out-of-region telephone numbers to the geographically appropriate PSAP. Intrado enables full support of nomadic usage of VoIP provided the user updates their address information upon arrival into a new location. Through Intrado's address validation and update interface the E911 solution will permit 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 approximately 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.

14) A description of any automatic detection mechanism that enables the Company to identify when a customer may have moved his or her interconnected VoIP service to a new location and ensure that the customer continues to receive 911 service even when using the interconnected VoIP service nomadically.

Nuvio notes that the *VoIP E911 Order* specifically states that there is no requirement that VoIP providers provide an automatic detection mechanism to enable the providers to identify when a customer may have moved to a new location.⁴ Thus, although the *Public Notice* refers to plans submitted by AT&T, MCI, and Verizon claiming that those companies are developing such automatic detection mechanisms, Nuvio has no plans at this time to implement such a capability. Nuvio is, however, reviewing the AT&T Licensing Agreement and considering other solutions that would provide the Company information concerning customer location. Nuvio believes that the proposal offered by AT&T relies upon specially designed CPE. Nuvio uses CPE manufactured by Linksys, Polycom, and Cisco as well as a multitude of software for softphone clients. Nuvio is not aware that any of these manufacturers or programs contain the necessary elements to make the Heartbeat proposal active. Further, Nuvio is not convinced that the AT&T proposal is the best way for VoIP providers to obtain registered updated location information from their customers. Although Nuvio has significant concerns regarding the AT&T Heartbeat proposal,

⁴ *VoIP E911 Order*, ¶ 46 & n.146.

November 28, 2005

Page 9

the Company is reviewing these and other technologies, and will actively work towards implementing a solution that the Company and the industry determine is in the best interest of public safety.

Respectfully submitted,

A handwritten signature in cursive script, reading "Ronald W. Del Sesto, Jr.", written in black ink.

Russell M. Blau

Ronald W. Del Sesto, Jr.

Counsel for Nuvio Corporation

cc: Byron McCoy (FCC)
Kathy Berthot (FCC)
Janice Myles (FCC)
Best Copy and Printing, Inc.

I, Barry Brautman, state that I am Vice President of Operations of Nuvio Corporation; that I am authorized to submit the forgoing *VoIP E911 Compliance Report* (“*Report*”) on behalf of Nuvio Corporation; that the *Report* was prepared under my direction and supervision; and I declare under penalty of perjury that the *Report* is true and correct to the best of my knowledge, information, and belief.

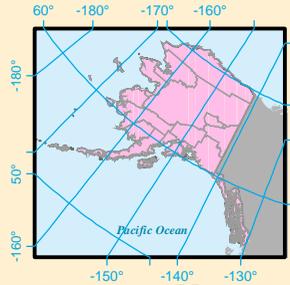
A handwritten signature in black ink, appearing to read 'Barry Brautman', is written over a solid horizontal line.

Name: Barry Brautman
Title: Vice President of Operations
Nuvio Corporation

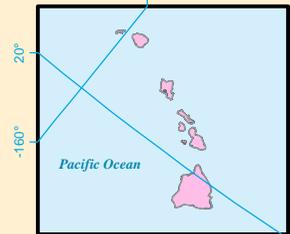
Exhibit A

Intrado Major Market Deployment Map

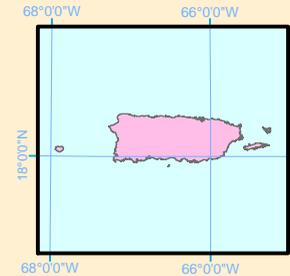
Alaska



Hawaii

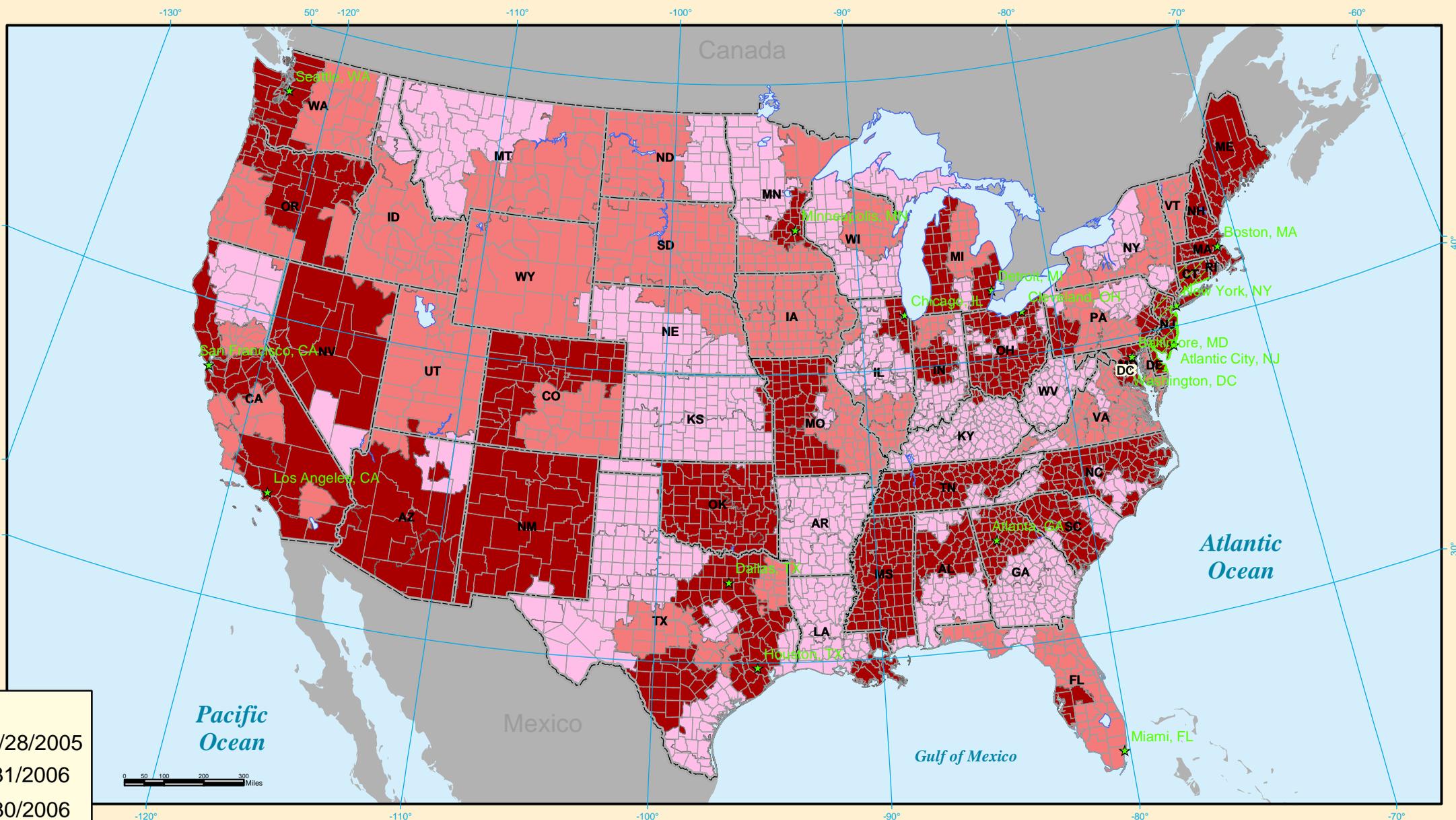


Puerto Rico



Legend

- Planned for 11/28/2005
- Planned for 3/31/2006
- Planned for 6/30/2006
- County Boundary
- or Top 20 MSAs
- Lakes



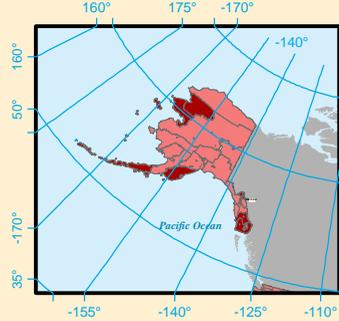
Intrado Major Market Rollout Schedule


Informed Response.™
 Intrado
 WOS GIS Operations Team
 Date: November 2005
 Data Source: Meridian, Geode, IPS, ESRI Data
 Created in ArcGIS 8 using ArcMap

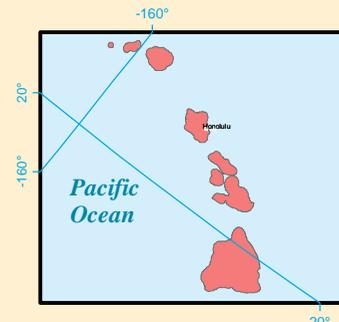
Exhibit B

Intrado Basic PSAP Map

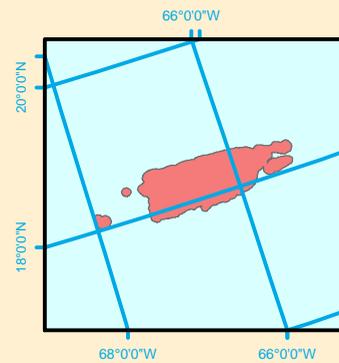
Alaska



Hawaii

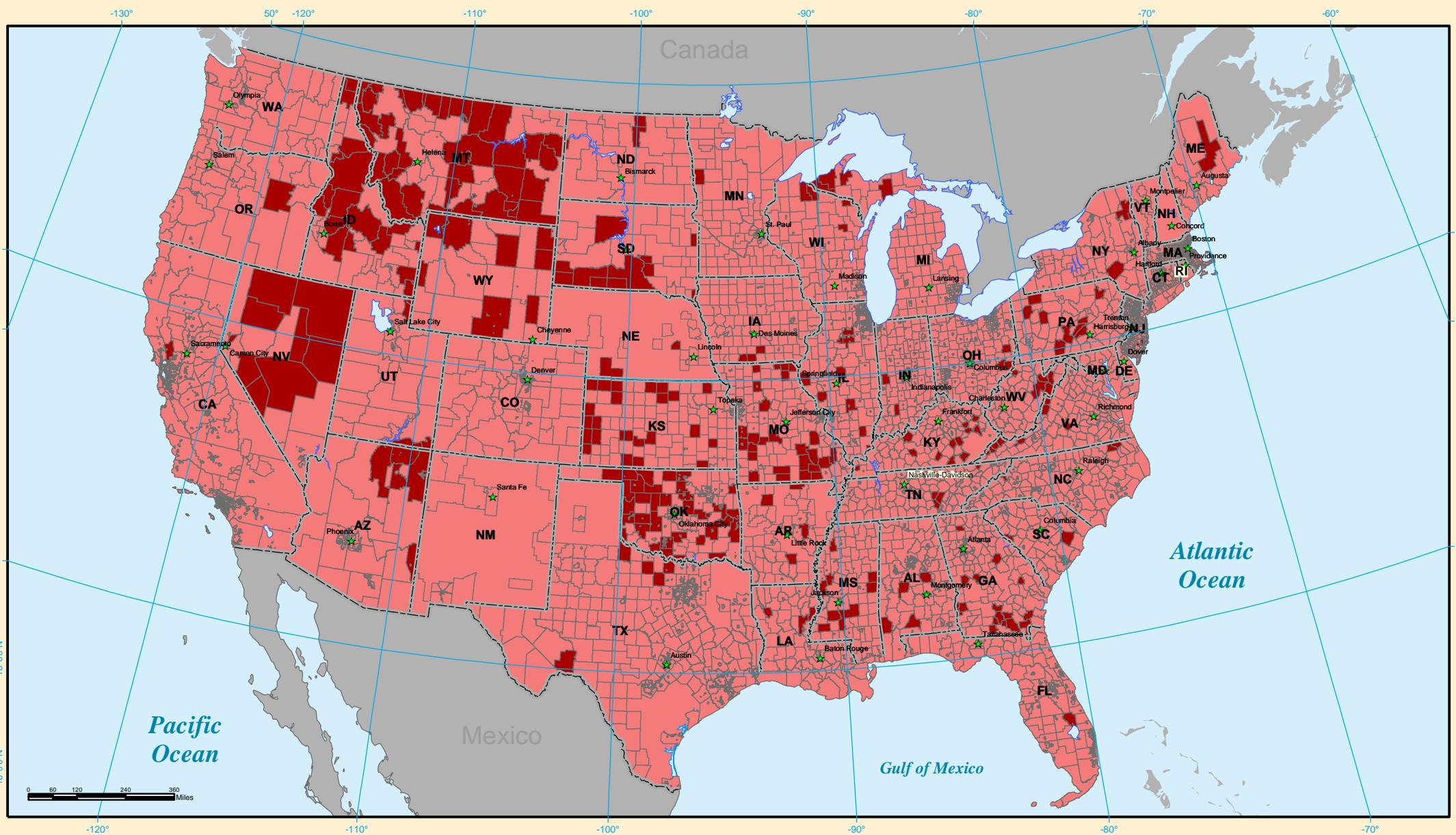


Puerto Rico



Legend

- Basic PSAPs
- Other PSAPs
- Capital Cities
- Lakes



Basic PSAPs

Albers Projection
 Central Meridian: -96
 1st Standard Parallel: 20
 2nd Standard Parallel: 60
 Latitude of Origin: 40

Intrado
 WOS GIS Operations
 November 2005
 Data Source: Geode, Meridian, ESRI Data
 Created in ArcGIS 8 using ArcMap