Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of)	
)	
Amendment to Parts 1, 2, 87 and 101 of the)	
Commission's Rules to License Fixed Services at)	WT Docket No. 99-327
24 GHz.)	
)	

ORDER ON RECONSIDERATION

Adopted: May 2, 2001 **Released:** May 17, 2001

By the Commission:

I. INTRODUCTION AND EXECUTIVE SUMMARY

1. This *Order on Reconsideration* addresses petitions for reconsideration and related pleadings regarding certain of our decisions in the *Report and Order* in this proceeding.¹ In this *Order on Reconsideration*, we affirm our decision to license the 24.25-24.45 GHz and 25.05-25.25 GHz bands (24 GHz band) by Economic Area (EA).²

II. BACKGROUND

2. In 1983, the Commission adopted rules for the Digital Electronic Message Service (DEMS). DEMS systems are common carrier point-to-multipoint microwave networks designed to communicate information between a fixed (nodal) station and a number of fixed user terminals.³ This service was intended to accommodate operation of high-speed, two-way, point-to-multipoint terrestrial microwave transmission systems.⁴ On March 14, 1997, the Commission adopted a *Reallocation Order* requiring the

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¹ Amendment to Parts 1, 2, 87 and 101 of the Commission's Rules to License Services at 24 GHz, WT Docket No. 99-327, *Report and Order*, 15 FCC Rcd 16934 (2000) (*Report and Order*).

² The Commerce Department organizes the 50 States and the District of Columbia into 172 EAs. Additionally, there are three EA-like areas, Guam and Northern Mariana Islands, Puerto Rico and the U.S. Virgin Islands, and American Samoa. In addition, a license will be issued for the Gulf of Mexico, for a total of 176 EAs.

³ See Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules to Allocate Spectrum at 18 GHz for, and to Establish other Rules and Policies Pertaining to, the Use of Radio in Digital Termination Systems and in Point-to-Point Microwave Radio Systems for the Provision of Digital Electronic Message Services, and for other Common Carrier, Private Radio, and Broadcast Auxiliary Services; and to Establish Rules and Policies for the Private Radio Use of Digital Termination Systems at 10.6 GHz, 54 Rad. Reg. 2d 1091 (1983).

⁴ See id.

relocation of DEMS operations from the 18 GHz band to the 24 GHz band.⁵ These actions were taken in an effort to protect two government earth stations, alleviate sharing issues between 18 GHz non-government satellite services and DEMS licensees, and to ensure the viability of DEMS.⁶ On November 10, 1999, we released a *Notice of Proposed Rulemaking (NPRM)* proposing licensing and service rules to govern both incumbents and new licensees in the 24 GHz band.⁷ Therein, we proposed to apply the Part 101 service rules, as modified to reflect the particular characteristics and circumstances of the band, to both these new licensees and to the relocated incumbents.⁸ We also proposed to use the Part 1 competitive bidding rules for future licensing in this band.⁹

- 3. On August 1, 2000, we released the *Report and Order*. In the *Report and Order*, we determined that the 24 GHz band would be made available for licensing throughout the United States by EA. We rejected licensing the 24 GHz band by service areas smaller than EAs because "smaller alternative service areas are unlikely to permit the efficiencies necessary to justify the large costs of providing fixed wireless service." Instead, we adopted rules to license the 24 GHz band by EA because EAs not only offer economies of scale, but also serve the needs of a wider range of entities, including both large and small service providers. Based on our experience with the 39 GHz auction, we concluded that licensing by EA would not preclude small businesses from participating in the 24 GHz auction. We noted that we licensed the 39 GHz band by EA and we stressed the importance of parity in the broadband services. In the broadband services.
- 4. Also, we adopted rules to assist small entities to participate in the 24 GHz auction and seek financial backing. Specifically, we adopted a three-tiered approach to bidding credits, under which very small businesses receive a 35 percent bidding credit, small businesses a 25 percent bidding credit, and entrepreneurs a 15 percent bidding credit. To foster the rapid delivery of service to rural areas, we adopted flexible partitioning and disaggregation/aggregation rules in which we would permit incumbents and new licensees to partition their service areas along any area defined by the parties. The rules also

⁵ The *Reallocation Order* provides a complete background of the events preceding the DEMS relocation from 18 GHz band to the 24 GHz band. *See* Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service from the 18 GHz Band to the 24 GHz Band and To Allocate the 24 GHz Band For Fixed Service, *Order*, 12 FCC Rcd 3471-3475 ¶¶ 2-10 (1997) (*Reallocation Order*).

⁶ *Id*.

⁷ NPRM, 14 FCC Rcd at 19263.

⁸ *Id.* at 19265 ¶ 1.

⁹ *Id.* at 19286-87 ¶ 46.

 $^{^{10}}$ Report and Order, 15 FCC Rcd at 16942 ¶ 15.

¹¹ Report and Order, 15 FCC Rcd at 16942-16943 ¶ 15.

¹² Report and Order, 15 FCC Rcd at 16943 ¶15.

¹³ Report and Order, 15 FCC Rcd at 16943 ¶ 16.

 $^{^{14}}$ Report and Order, 15 FCC Rcd at 16967 \P 78.

 $^{^{15}}$ Report and Order, 15 FCC Rcd at 16956 \P 48.

permit the parties to aggregate or disaggregate any spectrum without restriction.¹⁶ We noted that this approach is intended to encourage spectrum efficiency and afford all parties an opportunity to respond to market demands for services and/or spectrum in unserved or underserved areas.¹⁷ We adopted a ten-year license term, with a renewal based on substantial service.¹⁸ We defined substantial service as "a service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal during its past license term." We decided to license the 24 GHz band in five blocks of 40 MHz channel pairs.²⁰

- 5. We received two petitions for reconsideration of the *Report and Order* submitted by the Office of Advocacy of the Small Business Administration (SBA)²¹ and the Rural Telecommunications Group (RTG).²² Both SBA and RTG object to licensing the 24 GHz band by EA and both urge that we instead license the 24 GHz band by Metropolitan Statistical Areas (MSAs) and Rural Service Areas (RSAs), thus licensing rural areas separately from urban areas. We received one opposition to the petitions for reconsideration submitted by Teligent, Inc. (Teligent).²³ Teligent disagrees with SBA and RTG and supports our decision in the *Report and Order* to license the 24 GHz band by EA.
- 6. The petitioners oppose the use of EAs to license the 24 GHz band for the following reasons. First, they believe that EAs are too large, and therefore unaffordable, for either small businesses or rural telephone companies to participate at the 24 GHz auction. Second, they maintain that the Commission's reliance on post-auction partitioning and disaggregation to satisfy the needs of small businesses and rural telephone companies is misplaced and unworkable. Third, they maintain that licensing by EA would guarantee that rural regions of the country would not see the benefits of 24 GHz service because licensees would be able to meet the substantial service standard by serving the urban area within the EA.
- 7. SBA maintains that licensing the 24 GHz band by EA "may discourage small businesses from participating in the 24 GHz auction," while "licensing by small areas would tend to increase participation by small and rural businesses, including businesses owned by women and minorities." ²⁵

¹⁶ *Id*.

¹⁷ Report and Order, 15 FCC Rcd at 16955 ¶ 47.

¹⁸ Report and Order, 15 FCC Rcd at 16952 ¶ 41.

¹⁹ 47 CFR § 101.527(a)(1).

 $^{^{20}}$ Report and Order, 15 FCC Rcd at 16944-45 $\P 20.$

²¹ Small Business Administration, Office of Advocacy, Petition for Reconsideration (filed Sept. 1, 2000) (SBA Petition).

²² Rural Telecommunications Group, Petition for Reconsideration (filed Aug. 31, 2000) (RTG Petition) and Reply in Response to Opposition to the Petition for Reconsideration of the Rural Telecommunications Group (filed Sept. 12, 2000) (RTG Reply).

²³ Teligent, Inc., Opposition to Petitions for Reconsideration of Teligent, Inc. (filed Nov. 30, 2000) (Teligent Opposition).

²⁴ SBA Petition at 2.

²⁵ *Id*.

According to SBA, EAs "might be larger than many small businesses wish to serve, and too large for them to bid for successfully," whereas "[l]icensing by MSAs and RSAs would permit businesses to compete for geographic licenses that cover precisely the communities they wish to serve." SBA argues that if small businesses must rely on partitioning and disaggregation to acquire licenses, the negotiation process may raise the cost of licenses.

8. In addition to opposing the use of EA-based service areas and recommending the use of MSA-based and RSA-based service areas, RTG recommends other alternatives to the use of EAs. In the event we reject the use of MSA-based and RSA-based service areas, RTG recommends that we license the 24 GHz band by Component Economic Areas (CEAs) or that we license at least two of the five blocks based on MSAs and RSAs. ²⁸

III. DISCUSSION

A. Participation at auction.

1. Small businesses

9. SBA maintains that if the Commission offered licenses based on smaller geographic areas, small businesses would be able to enter the market at the auction stage and the value of the RSA or MSA license would reflect the bidding competition.²⁹ SBA's petition does not allege, however, that the 24 GHz band has characteristics that would make it particularly unsuitable for licensing by EAs. SBA also fails to present specific evidence to support its assertions that licensing the 24 GHz band by EA "may" discourage small businesses from participating at auction. We believe the level of small business participation in the auction of the 39 GHz band, which was also based upon EAs, demonstrates that small businesses can and will successfully compete in the 24 GHz auction. In the 39 GHz auction, small and very small businesses successfully bid for 849 licenses, or almost 40 percent of the licenses sold. Small businesses also successfully bid for 21 of the 46 licenses in the largest EAs (defined for this purpose as the top 25 percent of the EAs, as ranked by population). Third, many of the licenses were affordable to small and very small businesses. Although the average cost of a 39 GHz license was \$189,000, 13 percent of the licenses were acquired for less than \$5000, 31 percent were acquired for less than \$10,000, and 53 percent were acquired for less than \$25,000.30 Thus, based on our experience with the 39 GHz auction and the fact that bidding credits will be made available to small businesses, we conclude that licensing the 24 GHz band by EAs will not, on that basis alone, discourage small businesses from participating at the 24 GHz auction.

²⁷ *Id*. at 2.

²⁶ *Id.* at 1.

²⁸ RTG Petition at 8.

²⁹ SBA Petition at 2.

³⁰ See http://www.fcc.gov/wtb/auctions for results of the 39 GHz Band Auction; *Public Notice*, "39 GHz Band Auction Closes," Report No. AUC-3D-E (Auction No. 30), DA 00-1035 (rel. May 10, 2000); Press Release, "39 GHz Auction Raises \$410,649,085.00," May 8, 2000.

2. Rural telephone companies

10. RTG does not present evidence to substantiate its assertions that rural telephone companies will be discouraged from participating in the 24 GHz auction if the band is licensed by EA. Our experience with the 39 GHz auction shows that rural telephone companies were successful at auction. All six qualified bidders that identified themselves in their short-form applications as rural telephone companies were successful in winning licenses, for a total of 52 licenses. We therefore conclude that licensing the 24 GHz band by EA will not discourage rural telephone companies from participating at auction.

B. Service to Rural Areas

11. RTG maintains that licensing the 24 GHz band by EA "demonstrates a bias toward a 'national' business plan"³¹ in which "'national' auction participants will use the 24 GHz spectrum to deploy high speed data and Internet access to businesses and Multi-Dwelling Units ('MDUs') in dense urban areas"³² According to RTG, this "bias" is misplaced because "a fixed service such as 24 GHz does not presuppose a national strategy when it can propagate for a few miles."³³ RTG argues that "[w]ithout smaller geographic license areas, the Commission is virtually guaranteeing that rural regions of the country will not see the benefits of 24 GHz service."³⁴ In contrast, RTG asserts that the Commission should license the 24 GHz band by MSAs and RSAs, thus ensuring that "rural telephone companies have an opportunity to participate in the acquisition and deployment of 24 GHz spectrum"³⁵ and "spur rural build-out."³⁶ RTG agrees with SBA that a benefit of licensing the 24 GHz band by MSAs and RSAs is allowing "the marketplace, through the auction process,"³⁷ to accurately determine the value of each area precisely because the metropolitan areas would be de-linked from the rural areas.

12. Teligent states that RTG fails to recognize that providing service to rural areas is only one aspect of the Commission's many public interest obligations.³⁸ According to Teligent, for us to accept RTG's proposition, we must "conclude that only rural carriers will provide service in rural areas."³⁹ But, Teligent argues, "[e]very licensee has the incentive to provide service whenever profits can be derived"⁴⁰ and that "[p]etitioners have no reason to doubt that carriers that acquire EA licenses containing rural areas

⁴⁰ *Id*.

 ³¹ RTG Petition at 3.
32 Id. at 4.
33 Id.
34 Id. at 2.
35 Id. at 7.
36 Id.
37 Id.
38 Teligent Opposition at 5.
39 Id. at 6.

will provide service to those areas."⁴¹ Teligent asserts that "[i]f, however, another carrier can offer service more efficiently to a particular area, then the licensee can be expected to act in an economically rational manner and partition the license to the operator that can make more valuable use of the spectrum."⁴²

- 13. RTG argues that licensing the 24 GHz band by EA would "virtually guarantee that rural regions of the country will not see the benefits of 24 GHz service." ATG believes that auction winners will concentrate on service to urban areas and ignore the rural portions of their service area.⁴⁴ To the contrary, we believe that the use of EAs is fully consistent with the provision of service to rural areas. Moreover, RTG's argument fails to account for the fact that in many urban areas, incumbents are licensed within the Standard Metropolitan Statistical Areas (SMSAs). Our licensing records reflect that one incumbent DEMS licensee holds 102 licenses in 74 SMSAs. 45 Since the auction winners will be required to protect the incumbent licensees in a substantial number of EAs, applicants in this auction will necessarily be bidding for the right to operate in those portions of the EA located outside the urban SMSA. Indeed, the incumbent DEMS licensees cannot provide service to rural areas because the SMSAs do not include rural areas. EAs, in contrast, include both rural and urban areas. While RTG "seriously doubts that Teligent's investors will look kindly upon a Teligent foray into the nation's less-populated, less-profitable rural hinterlands," Teligent represents that "carriers that acquire EA licenses containing rural areas will provide service to those areas."46 Moreover, to the extent RTG's argument is based on the premise that rural telephone companies have a special interest in serving rural areas, 47 the rural telephone companies' success in the 39 GHz auction demonstrates that they are not being precluded from doing so by EA-based licensing.
- 14. We recognize that Section 309(j)(4)(B) stresses the need for the Commission to encourage the rapid deployment of services to rural areas and to promulgate performance requirements that ensure prompt delivery of service to rural areas.⁴⁸ In addition, we note that the statute includes "rural telephone companies" among the wide variety of applicants to which the Commission is to disseminate licenses.⁴⁹ We continue to believe, however, that licensing the 24 GHz band by EAs strikes the best balance among our various policy objectives for the 24 GHz band. RTG does not address our conclusion that "smaller alternative service areas are unlikely to permit the efficiencies necessary to justify the large cost of providing fixed wireless service." The importance of large service areas is emphasized by the fact that

⁴¹ *Id*.

⁴² *Id.* at 6-7.

⁴³ RTG Petition at 2.

⁴⁴ *Id.* at 4.

⁴⁵ A map showing the location of the incumbent DEMS licensee is attached as an exhibit.

⁴⁶ Teligent Opposition at 6.

⁴⁷ See RTG Petition at 4.

⁴⁸ 47 U.S.C. § 309(j)(4)(B).

⁴⁹ See 47 U.S.C. § 309(j)(3)(B).

 $^{^{50}}$ Report and Order, 15 FCC Rcd at 16943 ¶ 15.

all but one of the small and very small businesses that won more than one license in the 39 GHz auction have combined EA licenses to create larger service areas. We believe that by adopting EA licenses for the 24 GHz band, we have achieved a means of providing service to rural areas while ensuring that the 24 GHz spectrum is put to the highest and best use. Although we decline to adopt such smaller service areas for 24 GHz, we recognize that there can be circumstances in which smaller service areas can assist us in fulfilling our statutory commitment to ensure prompt delivery of service to rural areas and disseminate licenses to a wide variety of applicants, including rural telcos. In the future, if we conclude that smaller service areas will promote service to rural areas and are otherwise in the public interest, we will use smaller service areas.

C. Post-auction partitioning and disaggregation

15. Both SBA and RTG maintain that our partitioning and disaggregation/aggregation rules do not work as intended. SBA states that our reliance on "post-auction partitioning and disaggregation to lower capital costs and overcome barriers" fails to recognize that the negotiation process involved in doing so may actually raise costs. RTG maintains that our partitioning and disaggregation/aggregation rules do not serve as an incentive for license holders to "carve out" portions of their licenses for rural carriers and that RTG members have been repeatedly rebuffed in their attempts to obtain spectrum through partitioning or disaggregation. Although Teligent supports our disaggregation/aggregation rules, it asserts that "while it may be true that transaction costs are associated with disaggregating spectrum," the Commission should "make every effort to minimize such costs." Moreover, Teligent maintains, "there is no reason to believe that the transaction costs for disaggregation would be any higher than the transaction costs associated with aggregating spectrum" if the Commission adopts smaller license territories. Teligent states that "[w]hile petitioners continue to broadly assert that disaggregation policies are not working for them, in the absence of any record evidence, the Commission must consider this highly improbable."

16. We believe that it is more appropriate to address SBA's and RTG's concerns in the context of the Secondary Market proceeding, initiated by our *Notice of Proposed Rulemaking* seeking comment on possible changes to our rules and policies allowing greater flexibility through "spectrum leasing." None of the arguments SBA and RTG make relate specifically to the 24 GHz band. We concur with Teligent that the petitioners have not offered any new evidence to justify a change to our partitioning and disaggregation rules here. To the extent we may modify our policies in the Secondary Markets

⁵¹ SBA Petition at 2.

⁵² RTG Petition at 6.

⁵³ Teligent Opposition at 7-8.

⁵⁴ *Id*.

⁵⁵ *Id*. at 7.

⁵⁶ In the Matter of Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, *Notice of Proposed Rulemaking*, FCC 00-402 (released November 27, 2000). See also In the Matter of Principles for Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets, *Policy Statement*, FCC 00-401 (released December 1, 2000).

⁵⁷ Teligent Opposition at 7.

proceeding in order to improve the transferability of spectrum, those policies would apply to the 24 GHz band. Additionally, as discussed in paragraph 14 above, we will continue to explore the use of smaller service areas and other options to ensure that we will fulfill our statutory commitment to rural areas notwithstanding the availability of partitioning or disaggregation.

D. Substantial service standard

17. RTG argues that if we affirm our decision to license the 24 GHz band by EA, then the Commission should require licensees to provide "service to one-third of the population within five years and two-thirds of the population within ten years," as opposed to using the substantial service standard currently applicable to 24 GHz licensees. RTG maintains that rural areas will not be served because our substantial service standard is meaningless, allowing EA license winners to "meet the requirement by serving a portion of the urban area." In addition, RTG urges the Commission "should adopt a fill-in policy;" for instance, when the license is being renewed, any party can "apply for and provide service to any area in which the original licensee is not providing service."

18. Teligent supports the use of the substantial service requirement that we adopted because "[t]he Commission can be confident that substantial service will be provided everywhere there is an efficient market for such services, either by the auction winner or by another operator who values that spectrum more highly." According to Teligent "[t]his is a fundamental principle of the Commission's market-based spectrum policy that cannot be abandoned lightly and without evidence to the contrary."

19. In this proceeding we have already considered, and rejected, using minimum coverage requirements to establish substantial service. We noted in the *Report and Order* that RTG "preferred a minimum coverage requirement to ensure the deployment of services in the 24 GHz band to rural areas if the Commission used EA-based service areas for this band." RTG has not presented any new information on this issue, RTG has merely reiterated its comments to the NPRM. In the *Report and Order*, we concluded: "Based on the record in this proceeding, we believe that the substantial service standard, in lieu of specific coverage requirements, best serves the public interest. In addition to being consistent with the approach used in other wireless services, we believe that this standard is sufficiently flexible to foster expeditious development and deployment of systems and will ultimately create competition among service providers in this band." We affirm this conclusion for the reason stated in our *Report and Order*.

⁵⁸ *Id.* at 7.

⁵⁹ RTG Petition at 6-7.

 $^{^{60}}$ Id

⁶¹ Teligent Opposition at 7.

⁶² Id

 $^{^{63}}$ Report and Order, 15 FCC Rcd at 16951 ¶ 37.

⁶⁴ *Id*.

E. Other alternative service areas

1. CEAs

- 20. RTG strongly recommends that we use MSA-based and RSA-based service areas for the 24 GHz band. As an alternative, RTG suggests licensing the 24 GHz band by CEAs. RTG states that "[w]hile not as desirable as MSAs and RSAs because there is no metropolitan/rural de-linkage, the Commission could license 24 GHz in Component Economic Areas (CEAs) rather than EAs . . . Although CEAs are still much larger than RTG would prefer, their use would be a marked improvement over EAs and would allow additional opportunities for rural telephone companies and other small carriers to offer localized 24 GHz service."
- 21. Again, with respect to this issue as well, RTG has reiterated, virtually verbatim, its comments to the NPRM and has not presented any new information. Consequently, we affirm our decision in the *Report and Order* that service areas smaller than EAs are "unlikely to provide the efficiencies necessary to justify the large cost of providing fixed wireless service."

2. Licensing at least two blocks by MSA and RSA

- 22. Another alternative RTG offers is to license at least two of the five frequency blocks by MSA and RSA.⁶⁷ RTG states that if we do "not reconsider the *Report and Order* and allow at least two of the five license blocks to be auctioned on a smaller geographic basis, the Commission will have effectively slammed the door on any rural participation in the upcoming 24 GHz auction." Based upon the record, we disagree.
- 23. In this connection, we are not persuaded by RTG's assertion that the use of EAs unjustly favors "national" business plans. ⁶⁹ While we agree with the concept that our rules should be as "business plan neutral" as possible, we view licensing by 176 economic areas as accommodating the widest possible variety of business plans. Significantly, RTG has not challenged our finding that small license areas are unlikely to provide the efficiencies necessary to justify the large cost of providing fixed wireless service. Licensing two blocks by RSAs and MSAs could increase the transactional costs of businesses to obtain the spectrum they need to carry out their business plans. The fact that EA licensees in the 39 GHz band have been aggregating, as opposed to disaggregating, spectrum indicates that there are important efficiencies inherent in larger service areas. Moreover, although there are transactional costs inherent in partitioning and disaggregating spectrum, on the other hand, there are also countervailing transactional costs inherent in aggregating different service areas. If an applicant's business plan requires the acquisition of spectrum in multiple markets, the use of smaller markets increases the chances that the applicant will be unable to execute its business plan. We are also concerned the use of smaller geographic areas could result in an increased number of unsold licenses, which in turn could cause a delay in the delivery of service to some areas. Ultimately, we conclude that licensing the 24 GHz

1a. at 6.

⁶⁵ RTG Petition at 8.

 $^{^{66}}$ Report and Order, 15 FCC Rcd at 16942 \P 15.

⁶⁷ RTG Petition at 3.

⁶⁸ *Id.* at 8.

⁶⁹ RTG Petition at 3-5.

spectrum by 176 economic areas represents an appropriate balance to promote multiple business models and buildout plans.

IV. CONCLUSION AND ORDERING CLAUSES

- 24. Accordingly, IT IS ORDERED that pursuant to Section 4(i) and 405 of the Communications Act of 1934, 47 U.S.C. § 154(i), 405, and Section 1.429 of the Commission's Rules, 47 C.F.R. § 1.429, the Petitions for Reconsideration filed by Office of Advocacy of the Small Business Administration and the Rural Telecommunications Group ARE DENIED.
- 25. IT IS FURTHER ORDERED pursuant to Section 4(i) of the Communications Act of 1934, 47 U.S.C. § 154(i), that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this *Order on Reconsideration* to the Chief Counsel for Advocacy of the Small Business Administration.
 - 26. IT IS FURTHER ORDERED that this proceeding IS TERMINATED.
- 27. For further information contact Nancy M. Zaczek of the Wireless Telecommunications Bureau, Public Safety and Private Wireless Division, at 202.418.7590 or by e-mail to nzaczek@fcc.gov.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas Secretary