

LAW OFFICES  
**BLOOSTON, MORDKOFKY, DICKENS, DUFFY & PRENDERGAST, LLP**

SUITE 300  
2120 L STREET, NW  
WASHINGTON, DC 20037

HAROLD MORDKOFKY  
BENJAMIN H. DICKENS, JR.  
JOHN A. PRENDERGAST  
GERARD J. DUFFY  
RICHARD D. RUBINO  
MARY J. SISAK  
D. CARY MITCHELL  
SALVATORE TAILLEFER, JR.

ARTHUR BLOOSTON  
1914 – 1999

(202) 659-0830  
FACSIMILE: (202) 828-5568

February 18, 2010

AFFILIATED SOUTH AMERICAN OFFICES

ESTUDIO JAUREGUI & ASSOCIATES  
BUENOS AIRES, ARGENTINA

ROBERT M. JACKSON  
OF COUNSEL

PERRY W. WOOFER  
LEGISLATIVE CONSULTANT

EUGENE MALISZEWSKYJ  
DIRECTOR OF ENGINEERING

**WRITER'S CONTACT INFORMATION**

(202) 828-5520  
[halmor@bloostonlaw.com](mailto:halmor@bloostonlaw.com)

Marlene H. Dortch, Secretary  
Federal Communications Commission  
Washington, DC 20554

Re: *Ex Parte* Presentation  
ET Docket 03-201  
ET Dockets 04-186, 02-380

Dear Ms. Dortch:

Pursuant to Section 1.1206 (b) of the Commission's Rules, this is to notify the Commission that on February 17, 2010, Chris Whiteley, Director of Business Development of xG Technology, Inc. (xG®) and I met with Joshua Cinelli and Jamila Bess Johnson of Commissioner Copps' office to provide an overview of xG and its breakthrough technology, xMax®. We discussed the development and current status xG's mobile VOIP products and their potential for providing low-cost mobile VOIP and other broadband services, especially in rural America.

We also discussed the Commission's rulemaking proceedings in ET Docket 03-201 and how the adoption of a "spectrum etiquette" would adversely affect the rollout of the xMax technology.

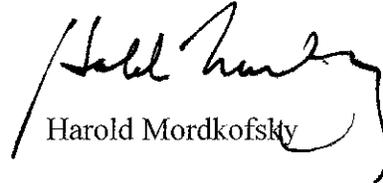
These discussions are summarized in the attachment hereto.

We also briefly discussed the Commission's TV "white spaces" proceedings and how the xMax technology could be adapted to operate within the proposed technical framework.

One copy of this notice, including the attachment, is being filed electronically in the ECFS for each of the referenced dockets.

Please refer any inquiries to undersigned counsel.

Sincerely yours,



Harold Mordkofsky

cc: Joshua Cinelli, Office of Commissioner Copps  
Jamila Bess Johnson, Office of Commissioner Copps  
Julius Knapp, Office of Engineering and Technology

LAW OFFICES  
**BLOOSTON, MORDKOFKY, DICKENS, DUFFY & PRENDERGAST, LLP**

SUITE 300  
2120 L STREET, NW  
WASHINGTON, DC 20037

HAROLD MORDKOFKY  
BENJAMIN H. DICKENS, JR.  
JOHN A. PRENDERGAST  
GERARD J. DUFFY  
RICHARD D. RUBINO  
MARY J. SISAK  
D. CARY MITCHELL  
SALVATORE TAILLEFER, JR.

ARTHUR BLOOSTON  
1914 – 1999

(202) 659-0830  
FACSIMILE: (202) 828-5568

February 17, 2010

AFFILIATED SOUTH AMERICAN OFFICES

ESTUDIO JAUREGUI & ASSOCIATES  
BUENOS AIRES, ARGENTINA

ROBERT M. JACKSON  
OF COUNSEL

PERRY W. WOOFER  
LEGISLATIVE CONSULTANT

EUGENE MALISZEWSKYJ  
DIRECTOR OF ENGINEERING

**WRITER'S CONTACT INFORMATION**

(202) 828-5520  
[halmor@bloostonlaw.com](mailto:halmor@bloostonlaw.com)

**PRESENTATION OF XG TECHNOLOGY, INC. TO COMMISSIONER COPPS' OFFICE**

Harold Mordkofsky  
(202) 828-5520  
[halmor@bloostonlaw.com](mailto:halmor@bloostonlaw.com)

## Overview of xG Technology, Inc.

Chairman Genachowski recently observed that the nation's airwaves are being asked to carry an ever increasing amount of traffic and that it will be necessary in the future to make better use of the frequency spectrum. To date, cell phone deployment has required the use of licensed spectrum that has cost carriers hundreds of millions of dollars and more in order to function.

Today, however, advances in technology have produced communication devices that are capable of handling cell phone conversations using free, unlicensed spectrum. Foregoing the high cost to access the airwaves, these devices save money by placing calls across the Internet instead of relying upon the traditional telephone networks. Not only do such devices represent a savings breakthrough for consumers, but, importantly, add capacity to the nation's overloaded cellular infrastructure.

An example of one company working to make such devices available is xG® Technology, Inc. xG has deployed and is operating a prototype test mobile VoIP network in Ft. Lauderdale, Florida that cost less than half of what spectrum alone costs traditional cellular service providers. Coined xMax®, the mobile VOIP network provides excellent call quality at highway speeds. It is operating in an urban-suburban area of approximately 100,000 people. Even with low economies of scale, the xMax pilot network sells for less than \$6.50 per capita. In contrast, Verizon recently spent \$4.7 billion to obtain nationwide licensed spectrum. This works out to \$15.30 per capita just for spectrum. Not included are Verizon's costs of towers, base stations and other costs associated with deploying the system. In real terms, the xG network can be deployed for only a fraction of the cost of a traditional cellular system. By making efficient use of unlicensed spectrum, future cell phone service can be offered for a fraction of current rates while, at the same time, minimizing the need for additional spectrum.

xG Technology, Inc. recognized several years ago that mobile VoIP and mobile broadband would be the technologies of the future, and designed an Internet-based system from the ground up with that in mind. Recent advances in chip technology and speed now make it possible to design systems that efficiently share the same RF spectrum. The xMax system addressed the numerous technical hurdles involved with VoIP in order to produce a network that delivers high quality calling at very low cost.

xMax is a mobile VoIP and data system operating in the unlicensed 900MHz band (902-928MHz) under Part 15 of the Commission's Rules. It is an end-to-end Internet Protocol (IP) system infrastructure that will include a line of base stations, mobile switching centers (MSC), handsets, and modems and will represent the first commercially available, fully mobile VoIP network.

By focusing on reducing the cost of the cellular network itself, xG Technology believes that mobile VoIP can provide significant savings to consumers and still be profitable for carriers throughout the nation, especially in rural America where perhaps the need most exists. While the xMax technology can be deployed on both licensed and unlicensed spectrum, xG's current suite of products utilizes the latter. This translates to lower costs that can be passed on to the consumer.

xMax is the product of xG Technology's extensive research and development activity, a \$100 million international effort that involves companies in the U.S., Europe and Asia. xG's patent portfolio, which now includes 50 U.S. and more than 100 international patents and pending patent applications, is being developed with the goal of bringing lower-cost broadband technologies to consumers.

For more information, please visit [www.xgtechnology.com](http://www.xgtechnology.com) and [www.xmax.com](http://www.xmax.com).

## ADDENDUM TO PRESENTATION

In Docket 03-201, the Commission is proposing to adopt a “spectrum etiquette” (basically, a duty cycle) for use of the unlicensed 902-928 MHz band under Part 15 of the FCC’s rules – the band in which xG’s wireless VOIP products will operate.

In general, the supporters of the spectrum etiquette proposal are those using the band for intermittent transmissions of data where continuous operation is not an issue; and those opposing the proposal have interests in applications involving use of the band for voice transmissions or wireless Internet service.

xG is concerned that adoption of the spectrum etiquette proposal, in its present form, will have an adverse effect on the deployment of its xMax technology.

xMax employs what can best be described as frequency agility. In the 902-928 MHz band in which xMax operates, the band is divided into 18 discrete channels. When potential interference is detected on a channel on which the xMax device is operating, due to the presence of another low-power device in close proximity operating in the 902-928 MHz band, the xMax device is capable, in milliseconds, of jumping to one of the other 18 channels, hence the term “frequency agility.” The likelihood of encountering other devices operating on all 18 channels in a mobile environment at the same time is probably close to zero statistically. Thus, xMax has been designed to greatly minimize, if not eliminate entirely, the prospect of causing interference to other users of the 902-928 MHz band. There is accordingly no need for a duty cycle, insofar as xMax is concerned, to allow other users access to the unlicensed 900 MHz band, despite the fact that xMax is designed to operate continuously.

While adoption of the spectrum etiquette proposal would not be fatal to the deployment of the xMax technology, it would require extensive redesign and development with the attendant additional costs, further delays in deploying the technology and reduction in system capacity. Accordingly, xG supports the comments put forth by Motorola, Inc.<sup>1</sup> and others in the Docket 03-201 proceedings, in opposing adoption of the spectrum etiquette proposal, for the following reasons:

- The current regulatory framework has led to a proliferation of new technologies that have provided valuable communication services, including wireless broadband services in rural areas at economical costs, and will continue to do so unless precluded by adoption of a duty cycle requirement.
- The Commission has traditionally established minimal regulation in unlicensed bands, noting that by allowing manufacturers flexibility in designing their products, such manufacturers have developed their own effective sharing schemes.
- Spectrum etiquette will do little if anything to prevent interference in the 902-928 MHz band since it is so heavily populated by ISM and other devices that operate at higher power and have the greatest potential to cause interference but would not be required to adhere to the proposed spectrum etiquette rules.

---

<sup>1</sup> See Comments of Motorola, ET Docket No. 03-201 (filed October 15, 2007).

- While the Commission's Part 15 rules are intended to promote innovation and design flexibility among unlicensed devices, the proposed spectrum etiquette rules will stifle innovation and the development of new technologies that do not require the use of already scarce spectrum and do not require the allocation of additional spectrum.

In conclusion, xG believes that the current regulatory framework has worked well in encouraging the development of new technologies, such as xMax, and in the absence of a pressing need to change that framework (which apparently has not been demonstrated by the proponents of spectrum etiquette), the Commission should maintain the current rules for operation in the 902-928 MHz band and decline to adopt the rulemaking proposal in Docket 03-21.