You have access to one of today’s most valuable resources in the wireless industry— RF spectrum. The increasing demand for its use means you need a trustworthy partner who offers definitive management of the opportunities before you. Choose Comsearch for success.
In today's expansive wireless community, RF spectrum is a limited resource. Companies are challenged to make the best use of what they have or risk losing the chance to compete in today's wireless world. Demand for bandwidth sufficient to support converging telephony, data and video technologies multiplies daily. With this demand, the potential for numerous, profitable opportunities becomes increasingly apparent for those ready and able to recognize its value.

Competing businesses must make financial decisions involving spectrum rights purchases and optimal use of this acquired spectrum, placing greater emphasis on accurate spectrum valuation, interference control and spectrum management.

Our spectrum management solutions focus on key areas, including strategic consultation, frequency planning and administration, spectrum sharing and microwave relocation, monitoring and interference measurements, and RF radiation and site management services.

Over a quarter century of industry experience positions Comsearch as the leading spectrum management solutions provider in the market. To expand our lead, we continue to implement state-of-the-art, web-based products that deliver enhanced frequency planning capabilities to today's wireless community.

Spectrum Management Solutions

Spectrum Sharing

We developed the interference criteria and coordination methodology, as well as the industry's leading software package to address the spectrum sharing issues between PCS and terrestrial Fixed Service systems in the 1.9 GHz band. We performed sharing analyses for all of the major PCS providers to facilitate PCS deployment and provided engineering expertise for the relocation of thousands of microwave links.
Because we understand what is at stake when managing your spectrum, Comsearch offers high-level consulting services to lead your efforts. Around the globe, radio spectrum is an increasingly valuable commodity to be purchased, traded and secured. Due to the scale of the financial investment, purchasing spectrum utilization rights requires the unmatched strategic insight Comsearch offers.

We use precise reporting to pinpoint available spectrum, assess current usage of spectrum and highlight regulatory requirements. We evaluate your system’s interference impact and identify incumbent facilities that may need relocation. We’ll also provide crucial information on the spectrum’s value and offer complete management solutions to help guide your decisions.

Our active involvement in spectrum management policy puts us at the forefront of worldwide spectrum decision-making. As a result, we help clients strike the balance between maximizing business opportunities and maintaining regulatory compliance. Our areas of expertise in strategic consulting encompass:

- Spectrum Allocation Assessments
- Spectrum Valuation Assessments
- Frequency Management
- Spectrum Policy Support

Successful Frequency Planning

Comsearch is the premier provider of frequency planning services to the microwave and satellite communications industry. We have gained extensive experience by successfully engineering and coordinating over 120,000 telecommunications facilities. With a client base that includes virtually every major operator, vendor, integrator and reseller, we utilize a wide-ranging knowledge base to meet your project requirements. Our comprehensive frequency planning services include:

- System Design
- Path and Site Surveys
- Interference Analysis
- Coordination and Negotiation
- Regulatory Support

Interference Analysis

We performed interference analysis for all of the major satellite service providers to study the impact of earth station operation on government radiolocation and NASA systems in the extended Ku-band.
Leading Frequency Administration

We continually develop, update and maintain the industry’s most accurate and complete engineering database of the thousands of frequency applications filed each year. This vast collection of data, coupled with proven methods for administering spectrum and our experience working with regulatory agencies, uniquely qualifies us to address the technical, regulatory and filing issues that are critical to our clients.

Comsearch is an international partner with a global perspective. While our experience with frequency administration and regulatory compliance in the U.S. continues to grow, it also serves us well in the international arena.

As part of our frequency administration responsibilities, we help clients protect their proposed, applied for and licensed frequencies from potential interference. We analyze and respond to other operators’ coordination notices and filings, as well as answer additional technical or procedural inquiries on our clients’ behalf. Our experts submit required letters and associated documentation to ensure full compliance, letting you manage your business—not the regulatory process.

Our long history working with the FCC has given us crucial insight and experience with the structure, processes and staff of the Commission. This information has led us to develop user-friendly regulatory software and services to help improve necessary FCC interactions, including:

- FCC Application Filing Services
- Technical Support for FCC Filings
- Monitor and Review of Rules and Regulations
- Industry Standards Development and Representation
- Expert Testimony

Broadband Engineering

Working for a broadband wireless CLEC, we completed the design and frequency engineering for over 2,000 customer access links in 43 markets across the U.S.

Orchestrating Sharing and Relocation

When new services are introduced into bands already congested with incumbents, Comsearch provides guidance for spectrum sharing and relocation. The specialized services and software we have developed take the mystery out of the process. Understanding your need for cost-effective and timesaving solutions, we offer the following services:

- Initial Study
- Cell Plan Evaluation
- Prior Coordination Notices (PCN)
- Drive Test Frequency Clearing
- Cost-sharing Analysis
- Microwave Relocation

RF Measurements

We performed extensive on-site RF measurements in the U.S., Central and South America, Africa and the Middle East to record and characterize the in-band environment for a global digital audio radio satellite service provider.
As an essential element of the management process, we monitor the spectrum to characterize channel and band usage. More specific measurements are used to identify actual interference sources, verify equipment operation and maximize system performance.

Relying on decades of collective experience and engineering databases, Comsearch engineers can quickly pinpoint a source of interference and provide the most economical solutions.

Spectrum monitoring procedures and interference measurements include:
- RF Environmental Sweeps
- Electromagnetic Interference (EMI) Testing
- Terrestrial Microwave and Satellite Earth Station Interference Investigation
- Performance Testing
- System Audits
- RF Site Management Services

When Comsearch entered the wireless industry, the small number of satellite and point-to-point (PTP) microwave facilities in existence primarily supported government and corporate communications. Today, there is a staggering proliferation of RF transmitting facilities worldwide—every pager, cell phone or wireless device is transmitting radio frequencies. Increased sharing of antenna facilities results in ever-increasing levels of RF electromagnetic energy. With every exciting new technology, safety concerns and new regulations arise.

We help resolve the radiation hazard issues affecting owners, operators and tenants at a shared facility. To address concerns of the wireless industry, business community and public— as well as regulatory considerations—Comsearch has developed a comprehensive eight-step program to assist with RF site evaluation. The critical steps include:
- RF Radiation Level Analysis
- RF Radiation Measurement
- General RADHAZ Training
- Site-Specific RADHAZ Training
- RF Radiation Safety Plan
- RADHAZ Exhibit for FCC License Application
- Segregation Plan of Controlled/Uncontrolled Areas
- Lease Agreement and RF Management Consulting

**RADHAZ Studies**

To aid in planning system expansion and modification, we provided RADHAZ measurement and analytical services for the major teleport and telecommunication operators in the U.S. The assessments were also used to evaluate radiation safety prior to installation.
Comsearch’s Interactive Services are designed to help streamline and expedite your spectrum planning and management. Our clients have access to crucial, up-to-date information from our databases and can get highly targeted data to meet their needs through secure, online accessibility that is user-friendly and available from any location.

Comsearch is continually developing innovative online products. Some of our Interactive Service offerings include:

**ULS Express™**
Working closely with the FCC, we have developed a method to expedite the filing process. ULS Express represents a comprehensive, streamlined interactive filing system. By pre-populating up to 90% of your application and utilizing combined FCC and Comsearch error-checking routines, we dramatically increase the accuracy of your FCC applications. Batch filing accelerates the multiple application process, and Comsearch licensing experts are available for advice and tips — all of which lead to faster approval.

**MAS Express™**
Clients can secure interference-free MAS spectrum through our convenient, safe and intuitive web-based interactive service. MAS Express provides spectrum utilization analyses and assists with the preparation of appropriate FCC documentation. Frequencies satisfying FCC interference criteria are assigned into existing, and applied for, co-channel MAS facilities. If a frequency is unavailable, MAS Express will provide technical and administrative information to obtain short spacing agreements with other existing licensees.

**SiteLocator™**
Use SiteLocator to retrieve a list of available towers, buildings or other communication sites from our extensive databases. This service can also provide detailed technical information and a click-through feature that puts you in contact with site managers immediately. Search criteria include applicable coordinates, city and state, or postal code.

**VendorLocator™**
Through over a quarter century of experience in the wireless arena, we have compiled vast collections of information on wireless equipment vendors. This online search tool helps users pinpoint antenna or radio manufacturers, installation and construction firms or telecommunications attorneys. Complete, up-to-date information is centrally located for a quick and simple search.

**BandLocator™**
Review the most current technical and regulatory band information for the microwave, satellite, PCS, cellular, PTP, PMP and broadcast industries.

Embarking on an opportunity requiring a substantial investment shouldn’t be a painstaking experience. Comsearch experts take the worry out of network deployment and spectrum utilization demands. Trust the experience we’ve gained — through over a quarter century of leadership in the wireless industry — to deliver the best Spectrum Management Solutions and turn your problems into profits.

To discuss how our Spectrum Management Solutions will enhance your business, visit Comsearch today at www.comsearch.com or call 800.318.1234.
For over a quarter century, Comsearch has designed quality solutions to meet the changing needs of customers in the telecommunications industry. From program management through network planning, engineering, development and installation, Comsearch leverages expert services, software and data against the challenges of the wireless world.