



AN OVERVIEW OF OUR ENGINEERING SERVICES

Telecommunications Systems Modeling and Data Analysis

Engineering Services

Modeling Telecommunications Systems and Performing Complex Data Analysis

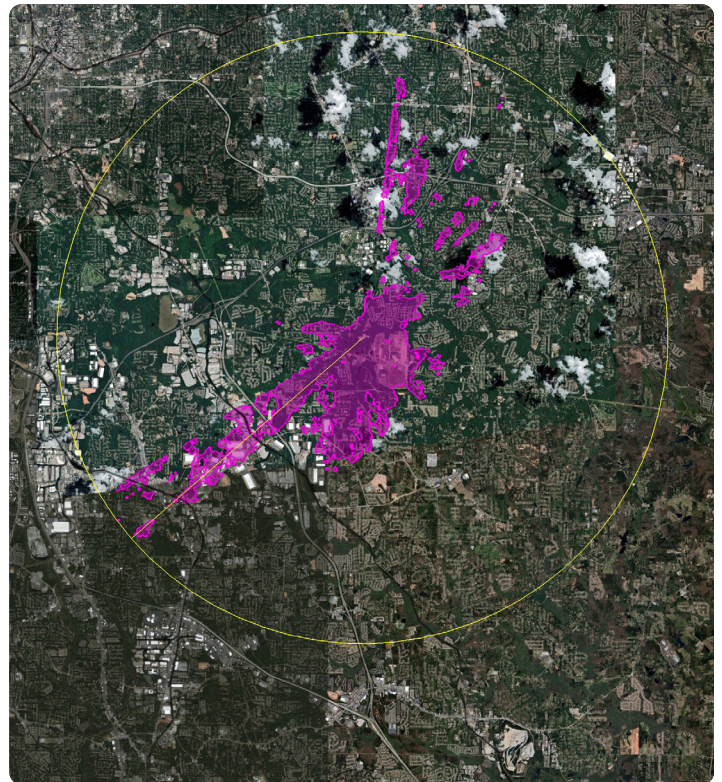
Companies operating in the telecommunications space, including satellite, terrestrial, and wireline providers, are faced with ever increasing complexity in understanding the operating environment and successfully advocating before government officials or within international bodies to protect their interests. It is vital that companies understand the technical ramifications of marketplace developments as well as be able to simplify complex engineering concepts in advocacy before policymakers at every level.

The DLA Piper engineering services team has the capability to help you manage and analyze these types of issues. Our team includes engineers with decades of government and internal company experience as well as attorneys who manage both complicated technical matters and intricate legal and policy arguments that are necessary to protect a company's interests. Several members of our team have served in senior roles in or led technical advisory committees of organizations including the International Telecommunications Satellite Organization (ITSO), National Oceanic and Atmospheric Administration (NOAA), the National Telecommunications and Information Administration (NTIA), and the Federal Communications Commission (FCC). We have also worked extensively with the International Telecommunication Union (ITU) and have actively participated in World Radiocommunication Conferences that affect the shared use of radio spectrum for both terrestrial and satellite-based services.

We understand that businesses require access to engineering insights that will guide their government advocacy efforts and ensure that new uses of the electromagnetic spectrum will not adversely affect the company. The DLA Piper engineering services team provides technical advice and support for myriad spectrum allocation decisions – both in the US and

internationally – helping businesses understand and explain critical technical information to policymakers and within the company. We utilize state of the art technical tools – developed entirely in-house – to model the spectrum environment and allow for statistical-based modeling of any interference scenario. With our mix of engineering and legal resources, we provide not only expert engineering analysis but also legal advice and advocacy that integrates technical arguments.

We frequently provide data analysis to clients – especially of government technical and licensing data – to assist entities understand competitive risks and/or synthesize voluminous amounts of technical data into meaningful and actionable material. This data analysis is not limited to telecommunications data – the DLA Piper engineering services team can help a company understand and distill any type of complicated technical information.



After simulating the signal (wanted or interfering) along the path, the results can be visualized and exported to shareable formats (eg, KML).

Engineering Services



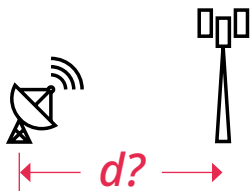
Spectrum Sharing

Engineering studies needed to resolve spectrum sharing issues, including between commercial parties and the government



Homologation

Obtaining approval for devices requires international relationships and technical experience to navigate the national regulations



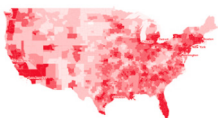
Earth Station Siting

Engineering analysis needed to place ground receivers (earth stations) without interfering with other uses



ESIMs

Engineering analysis needed for earth stations in motion (ESIM) onboard aircraft, vessels, and vehicles communicating with satellites



Interactive Mapping

Mine big data to create an interactive display of information about radio spectrum capacity, coverages, and ownership



ITU Advocacy

Engineering analysis and sharing studies to change the radio regulations in support of more favorable license conditions

Representative Experience

- Reviewed and interpreted broadcast television interference modeling to support the US broadcast television incentive auction
- Created simulation data to model interference between unlicensed and licensed systems in the 6 GHz spectrum band
- Analyzed FCC licensing data to support competitive market showings in merger applications and to help advocacy concerning spectrum screen and limits
- Utilized FCC licensing information to generate company-specific spectrum holdings by spectrum band
- Simulated the time-varying EMI environment between large NGSO satellite constellations and GSO-to-NGSO interference, including EPFD analysis
- Negotiated international and domestic coordination agreements for satellite networks and systems and their associated earth stations
- Prepared the technical elements necessary for license or market access applications for satellite networks and systems
- Actively participated in ITU-R study groups in support of new or modified spectrum allocation proposals under consideration at ITU World Radio Conferences
- Simulated the interference environment between satellite earth stations and terrestrial systems sharing the same frequency bands
- Developed automated data mining of publicly available websites or databases that contain telecommunication information in support of competitive analysis

About us

DLA Piper is a global law firm with lawyers located in more than 40 countries throughout the Americas, Europe, the Middle East, Africa, and Asia Pacific, positioning us to help companies with their legal needs around the world.

For more information

To learn more about DLA Piper, visit dlapiper.com or contact:



Eric DeSilva

Partner

T +1 202 799 4112

eric.desilva@us.dlapiper.com



Stacey Weber

Associate

T +1 202 799 4314

stacey.weber@us.dlapiper.com



Mike Lewis

Senior Engineering Advisor

T +1 202 799 4042

michael.a.lewis@us.dlapiper.com



Tural Aliyev

Engineering Advisor

T +44 121 281 3744

tural.aliyev@dlapiper.com



Zachary Rosenbaum

Senior Engineering Advisor

T +1 202 799 4413

zach.rosenbaum@us.dlapiper.com



Theo Bougouin

Engineering Advisor

T +44 744 338 6674

theo.bougouin@dlapiper.com



Emma Marion

Associate

T +1 202 799 4526

emma.marion@us.dlapiper.com



Phillip Post

Telecom Engineer

T +1 202 799 4783

phillip.post@us.dlapiper.com

dlapiper.com