

First Ave

First Avenue Networks: Licensed To Lease in a Big Way

President and CEO Dean Johnson Explains **How Service Providers Across the United States Can Utilize First Avenue's Licensed Spectrum** — All Made Easier and Less Costly by Recent FCC Decisions



Dean Johnson, First Avenue Network's CEO.

First Avenue Networks acquired the assets of Advanced Radio Telecom (ART) when that company emerged from bankruptcy in December of 2001. ART was a large service provider utilizing fixed wireless technology in network buildouts across the United States.

Today, First Avenue holds more than 750 Federal Communications Commission (FCC)-issued licenses for 39 GHz spectrum, covering virtually the entire United States. First Avenue averages over 350 MHz of carrier-class spectrum in the top 50 markets and over 1 billion channel POPs (points of presence).

BWB asked Dean Johnson, First Avenue's president and CEO, to describe the company's new service offerings and approach to leasing its spectrum holdings. He describes how regulatory changes have sped up the leasing process, and added greater flexibility, for those considering a fixed wireless connectivity solution.

BWB: Please describe your role at First Avenue Networks and a little background about yourself.

Johnson: In June 2001, I became the president and CEO of First Avenue Networks. After working on Wall Street, I led the start up of a microwave telecom services company in 1991. Since then, I have worked and consulted to both suppliers as well as services companies in the microwave telecom industry.

BWB: What's the difference in the operations of First Avenue Networks, compared with the bygone days of Advanced Radio Telecom?

Johnson: Our business model is different. Advanced Radio Telecom believed that enormous bandwidth — sold directly to small commercial customers and provisioned on its own wireless facilities — could be successful. By contrast, First Avenue Networks' approach seeks to offer a market-based solution in cooperation with, rather than as competition to, existing telecom companies.

Put another way, we serve demand already identified by established telecommunications providers as opposed to trying to reinterpret demand and compete with those carriers. We seek to work with and through operators, offering easy, affordable access to licensed spectrum to enable them better to meet the needs of their customers.

BWB: The FCC has recently opened commercial operations in the 70-90 GHz frequency bands. What's your view on the success of more licensed spectrum in the millimeter wave bands?

Johnson: Any frequency news is good news as it further demonstrates the utility of fixed wireless.

However, from a commercial perspective, existing high-capacity spectrum is nowhere near capacity. I believe that total bandwidth demand needs to grow before 70-90 GHz is commercially viable.

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Processor-to-processor speeds are exciting, but the question of commercial applications for this bandwidth, at a time when 90 percent of that utility can be obtained elsewhere in the RF spectrum with turnkey solutions, is tough to answer.

BWB: Is it true that First Avenue Networks can lease spectrum on a pinpoint basis, and do it quickly with a minimum of paperwork? What can a WISP expect in utilizing First Avenue's spectrum assets?

Johnson: Yes. We lease spectrum in increments as small as the amount required to connect two transmit/receive sites. Further-

more, leasing our spectrum is easier than renting a car. The lessee need only specify the sites' locations and the radio characteristics for a point-to-point lease. If spectrum is required for a wider area, our customers can expect to have the bandwidth, geography and lease duration tailored specifically to their needs. The time between calling us to the spectrum being available is measured in days and, virtually without exception, spectrum is available before facilities are erected.

WISPs have many of the same challenges as LECs and mobile operators. Today, most service providers are evaluating how they can decrease capital expenditures by integrating high-capacity, carrier-class, fixed wireless into their networks. Service providers can expect a rapid, flexible and reliable solution from First Avenue Networks.

BWB: For service providers, what are the advantages of using First Avenue Networks' spectrum compared with electing to deploy

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unlicensed wireless gear? Is First Avenue's service used primarily for backhaul applications or for last-mile service delivery (or for both)?

Johnson: Licensed spectrum is of critical importance to high-value telecommunications traffic. By having recourse to the enforcement powers of the Federal Communications Commission, interference is eliminated. In other words, the service provider is in complete control of the reliability of the data stream. With affordable access to First Avenue's licensed spectrum, the service provider gains the benefits of licensed spectrum by enjoying the flexibility, cost efficiency and deployment ease previously associated with unlicensed spectrum. The service provider is not faced with a difficult choice when selecting spectrum.

To date, we have seen, roughly, an even distribution of activity between last-mile and mobile backhaul applications. We believe that the mobile backhaul market will develop slightly faster and be slightly larger than last mile, but they are close.

BWB: What capacity can First Avenue Networks offer to large service providers? What capacity is available for WISPs looking to scale their business?

Johnson: We serve large and small customers by offering affordable spectrum products. Large operators, especially in mobile backhaul applications, want to have access to a single channel over a significant area for a meaningful period. This single-channel approach speeds network planning and engineering, increases purchasing volumes and simplifies operations. With those needs in mind, we offer a regional spectrum product called Express Net. Customer can tailor their exact channelization, area and timeframe needs.

Smaller operators, such as WISPs, would like to have quick access to affordable spectrum to meet their customers' capacity requirements or for use in their own network. Leasing spectrum by the link best suits their growth needs. Our Express Link product was created to allow them to scale their facilities inexpensively.

BWB: You've talked to telecommunications operators across all sectors of the market. What are they saying?

Johnson: We discussed spectrum needs and market trends with over 300 telecommunications operators during the past 24 months. What we heard most often was that they want to better control network costs and reduce capital expenditures. Many mobile, fiber network and wireless operators told us that they would utilize fixed broadband wireless when all of the pieces came together in a fully formed, reliable and affordable whole. We have seen early indications that operators are responding to a fundamental cost reduction in the fixed wireless value chain.

BWB: What are the major trends in the fixed wireless market? What business challenges are executives trying to solve?

Johnson: The overriding trend in the fixed wireless market is that the pieces are finally coming together. We've seen a trend toward equipment innovation and lower pricing, along with improved integration efforts. The

ability to economically use licensed spectrum was always the barrier to widespread adoption. Not any more. Economically priced licensed spectrum balances all of the component costs and makes licensed fixed wireless much more accessible.

BWB: Have you seen a growing interest in fixed wireless since the secondary spectrum leasing market opened up?

Johnson: Yes. Easy and affordable access to licensed spectrum completes the fixed wireless business case and generates genuine interest from a wider audience. The FCC's secondary market ruling clarified and reduced the cost of complying with the leasing regulations. Transactions that used to total over \$10,000 in fees and required three contracts have been reduced to negligible costs and a one-page standard form.

BWB: Access to spectrum has not been the only hindrance to widespread adoption of fixed wireless, what else has changed?

Johnson: Improved and lower-cost equipment, along with easier integration, has also changed the landscape. Together with the ability to lease spectrum easily and economically, these three elements strike an unprecedented balance. Service providers told us they needed a coherent "whole." They now have one. This has the potential to create the movement we have all been waiting for in the fixed wireless broadband market.

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