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Pioneer Cellular Employs NetView 360 5G Design Services to Carry Out Innovative 5G Fixed Wireless Evaluation

Pioneer Cellular has engaged ClearSky to evaluate 5G design options for two Oklahoma cities. ClearSky's NetView 360™ service enables the 3D modelling of various design options to determine the optimal strategy for future 5G deployments throughout their service area.

ORLANDO, Florida – October 21, 2019 – ClearSky Technologies, Inc., a global provider of network analytics and design services for 5G, 4G and 3G networks, announces the completion of a visionary 5G fixed wireless design project with Pioneer Cellular. The project used the NetView 360™ service to analyze multiple options for delivering high-speed Internet using 5G technology to residential customers, considering both business and technical factors.

The NetView 360 analysis was performed, analyzing two different strategies for 5G deployment and contrasted these deployment alternatives to installing a fiber optic network. NetView 360 makes possible these type of analysis projects by including a combination of technical, financial and business factors. For each design scenario, deliverables included the number of 5G sites required, resulting network capacity, projected data throughput, and total cost of a deployment.

The Pioneer project was conducted using millimeter wave spectrum, so the effect of foliage was significant. At higher frequency bands (3.5 GHz and above), the effect of all obstructions, including trees and other vegetation, must be considered in a full 3D model or coverage predictions will be highly inaccurate. NetView 360 uses patented methodology to model obstructions at 0.3-meter resolution in 3D, including tree canopies and walls within every



building. As a case in point, the Pioneer project showed the foliage density in one of the test cities was different from the other and profoundly affected the two designs, highlighting the importance of using actual obstruction or "clutter" data in 3 dimensions for 5G analysis.

"The NetView 360 team's prior experience with 5G design provided invaluable guidance throughout the entire project," said Jeff Wittrock, Department Manager of RF Network Services for Pioneer. "Without question, what we learned from this engagement will help us make important strategic decisions about future 5G deployment, and allow us to provide the best possible service to our customers."

"As technology advances and operators' needs evolve, we are committed to ensuring that NetView 360 delivers 5G design solutions that provides the greatest possible



benefit to our customers and their subscribers," said Ron Willett, ClearSky president. "The Pioneer team had the vision to evaluate multiple design strategies to ensure they get the maximum benefit at minimum cost out of their 5G deployments."

About ClearSky Technologies

For more than a decade, ClearSky Technologies, Inc. has been an innovation leader in providing network Infrastructure as a Service to mobile network operators. The company's powerful array of products and services includes network baseline, optimization and design, traffic and policy management, and hosted messaging services. Headquartered in Orlando, ClearSky has provided services to wireless operators of all sizes across five continents. For more information, visit www.clearskytechnologies.com.

About Pioneer Cellular

Cellular Network Partnership d/b/a Pioneer Cellular is a Partnership Group comprised of Pioneer, your local broadband provider, - KanOkla Telephone Association, South Central Communications of Kansas, and Hinton Cellular Company in Hinton, Oklahoma. Launching cellular service in 1988, the group serves customers in 45 counties in Oklahoma and 8 counties in southern Kansas and provides nationwide coverage through roaming alliances with national carriers. Pioneer Cellular provides advanced mobile data services and applications such as Video, Picture, Text Messaging and High-Speed Web Browsing. For more information about Pioneer Cellular, dial 800.641.2732 or visit GoPioneer.com.