



## Blue Danube Systems Delivers Industry First Beam-Based Traffic Sensing Solution for Commercial Deployment

*Company Expands Software Offerings with BeamMaster™, a Cloud-Based Machine Learning Platform for Beam-Based Traffic Sensing and Deployment in Wireless Networks*

**Santa Clara, Calif. – October 16, 2019** – [Blue Danube Systems](#), a provider of mobile wireless access solutions that significantly and cost-effectively increases network capacity, announced today the availability of BeamMaster™, a cloud-based platform with advanced RAN optimization and management functions to help mobile operators maximize their network resources and deliver the best user experience. Building on top of Blue Danube's BeamPlanner™, the industry's first beam-based optimization platform, BeamMaster expands the platform's capabilities to account for real-time user traffic detection and hotspot pattern recognition. The combined solution precisely detects a single user or a cluster of users within one degree of accuracy, enabling operators to identify and dynamically serve traffic hotspots.

BeamMaster applies advanced Machine Learning (ML) algorithms to the data generated from real time 3D beam scans provided by Blue Danube's Massive MIMO antenna along with the data derived from the operator's network-level big data. The ML powered analytics engine continuously evaluates site traffic and network Key Performance Indicators (KPI) to aid the design, planning and optimization of the Radio Access Network (RAN) deployment.

Leveraging the various modules of BeamMaster, operators can significantly reduce both time and cost at every stage of the RAN deployment cycle - from site selection, RF planning, network deployment, to performance management. Commercial deployments of BeamMaster have resulted in reduction of traditional RAN deployment time by as much as three times.

The BeamMaster suite includes:

- BeamPlanner, a comprehensive simulation platform to identify the most critical sites and assign effective beam patterns based on site and user analytics.
- BeamTracking™, a module for operators to gain insights of its network environment by automatically identifying hotspots in the desired coverage area.
- BeamCompass™, an intuitive and precise method to determine and maintain active antenna's mechanical settings without expensive truck rolls.
- BeamTraining™, an ML assisted module leveraging operator's KPI data that quickly converges to best beam patterns and continuously updates them for optimal performance.
- BeamRegistry™, a single pane of glass dashboard for a hands-off automated network management. BeamRegistry's open APIs enable operators to integrate seamlessly into existing network management framework.

"Blue Danube's innovative software-based beam optimization solutions precisely address the challenge of RAN management cost," said Julian Bright, senior analyst at Ovum.



“BeamMaster’s advanced traffic sensing techniques ensure that operators and their customers derive the maximum benefit from 5G by helping deliver cost and performance gains, whilst also opening up new use cases.”

“Processing massive amount of data using computational efficient algorithms for effective decision making is an important research area in information processing,” said Waheed Bajwa, Professor of Electrical and Computer Engineering at Rutgers University and Director of Rutgers INSPIRE Lab. “I am excited to see this type of research making its way into commercial applications and contributing to the mobile and cellular networking industry.”

“We are passionate about leveraging the latest advances in machine learning to solving some of the key challenges in the RAN space,” said Mihai Banu, CTO of Blue Danube. “BeamMaster is a great example of harnessing innovations in computing to realize an intelligent and self-optimizing 5G network.”

Blue Danube is participating at Mobile World Congress in Los Angeles, California, October 22-24. Blue Danube can be found in South Hall, Booth 1051.

### **About Blue Danube Systems**

Blue Danube Systems designs next generation wireless solutions for mobile networks and other applications. Our Coherent Massive MIMO solution brings 5G beamforming to today’s networks dramatically increasing network capacity and end user experience. Together with cloud-based software suite utilizing machine learning techniques, our technology enables up to a 10X capacity increase in cellular networks with today’s smartphones. Blue Danube Systems is a privately held start-up backed by Sequoia Capital and Silver Lake along with other investors including AT&T. For more information, please visit [www.bluedanube.com](http://www.bluedanube.com)

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