

# 3D Network Planning Solution to Slash Costs of 5G Build-out



HERE Technologies, Shields and Infosys have announced that they are collaborating on a powerful and cost-effective way to perform 5G network design and deployment. The new solution, to be demonstrated at [MWC](#) this week, is designed to help enterprises including mobile network operators (MNOs) save both time and money when performing 5G radio frequency planning. The companies estimate that it would enable enterprises to reduce the time to identify real-estate acquisition for 5G small cells as well as cut the cost of radio-frequency design by more than 40%.

The solution is an innovative blend of technologies. It embeds machine learning software and a service delivery framework from Infosys; expertise in RF and C-RAN (cloud radio access network) design from Shields; and large, precise, scalable 3D datasets derived

from terrestrial Lidar and other remote-sensed content from HERE.

## Physical site-surveys

The expertise of [HERE](#) in extracting features and 3D derivative objects such as poles, trees, terrain models, and buildings lends a new level of precision to RF planning for 5G mmWave networks that far surpasses the accuracy of conventional GIS data.

That means greater efficiency in the mmWave RF planning process. More accurate network planning takes the guesswork out of transmitter selection and placement. It also enables MNOs to cut costs by significantly reducing the number and length of physical site-surveys. With network design tasks taking just a few days, MNOs can more quickly perform upgrades, install new equipment, add capacity or respond to environment changes.

## Simplifying 5G RF engineering

Michiel Verberg, senior manager, Strategic Partners, HERE Technologies, said: "The combined HERE, Infosys and Shields solution will enable centralization and streamlining of many of the traditionally labor and time-intensive tasks associated with 5G cell site selection via the 3D digital site survey. It's a cost-effective means to simplify 5G RF engineering and network planning processes. This accelerates time to service not only for MNOs but enterprises looking to build out 5G in factories, ports and other sites. We are excited by the prospect of continuing to collaborate with these talented partners as we design the next generation of small cell mobile networks on behalf of our clients all over the world."

Gerrit van Dijken, chief technology officer at [Shields](#), commented: "I'm very proud of what the team has achieved. I believe the solution solves a number of problems for the RF planning process as the industry moves into mmWave network roll-out and will be of great value to our operator customers. I'm looking forward to the continued partnership with HERE and Infosys to bring this solution to market."

Nitesh Bansal, SVP and Global Head Engineering Services, [Infosys](#), said: "With our focus on helping accelerate 5G network deployment, Infosys and our partners – HERE Technologies and Shields – are introducing new services for 5G radio frequency planning. Infosys is continuously working to build and innovate new solutions to reduce time to market for 5G wireless introduction and make it 'ready to use' for enterprises everywhere."