PRESS RELEASE

Rogers achieves BEST in Test in the P3 Mobile Benchmark Canada

P3's results show Rogers ahead of competition in Voice and Data services.

Aachen/Toronto, September 19, 2019 – P3, the international leader in benchmarking mobile networks, has named Rogers as the "BEST in test" operator in Canada winning the P3 Mobile Benchmark. P3 frequently tests mobile networks in more than 120 countries in the world, the P3 methodology is globally acknowledged as the de-facto industry standard. In Canada, P3 tested and measured Bell, Freedom, Rogers, Telus and Videotron's network performance using smartphones for voice and data services in metropolitan and rural areas. Rogers is the overall winner with best rated in Voice and Data, Bell comes in second, followed by Telus. The three leading operators put a strong focus on customer experience.

"Our unique testing and scoring methodology focuses on the customer's network experience and covers a wide range of mobile services, including popular applications for streaming, social media and voice. We see Rogers ahead of the competition overall. This is particularly remarkable in a large country as Canada and shows that the operator is continuously investing in its network," says Hakan Ekmen, CEO of P3 Telecommunication.

The P3 Mobile Benchmark Canada measurements were conducted between May 6 and July 15, 2019. Covering 61 percent of Canada's population, it included drivetests, walktests and railway tests. The drivetests took part in cities and towns as well as on connecting roads, measuring a distance of 6,000 kilometres. The walktests covered the major cities of Vancouver, Calgary, Edmonton, Toronto, Ottawa, and Montreal.

Rogers is the overall winner with strong results in both Voice and Data

With a score of 857 out of a maximum of 1,000 points, Rogers did best overall, leading in the Voice and Data category. Its closest competitor Bell is 20 points behind with a total score of 837 points. Telus is third and achieved a total score of 826 points. Videotron and Freedom follow at some distance with a total score of 515 and 416 points. In terms of Voice, Rogers achieved the highest score with 347 points. In this area, the closest competitor Bell achieved a score of 335 points. In terms of Data, Rogers' result is also ahead of Bell with a score of 510 points compared to 502 points.

Testing methodology

P3 measures smartphone voice and data performance based on extensive drive-tests – from major metropolitan areas to smaller cities, roads and railways. These are complemented by walk-tests in big cities with a special focus on busy areas, on public transport and in frequently visited buildings, like shopping malls, train stations etc.

Voice services are tested by assessing smartphone-to-smartphone calls, including background data traffic in parallel. This scenario is a typical example of modern customer-usage patterns and helps stretch network capability to its limits. The success of the call set-

up and termination is evaluated as well as the voice quality over the bi-directional audio channel.

Data services are tested by browsing the most popular web pages, by transferring files, and by playing HD (1080p) YouTube videos (two videos on demand and one live stream), using YouTube's adaptive bitrate feature to adapt the resolution to the available network conditions. File transfer performance is evaluated on access success rate, stability and the data-transfer rate. For the YouTube tests interruptions are also reported. Further, an OTTapplication is used to assess the availability of social media downloading a personal Facebook feed and uploading a photo.

About P3 score

The independent methodology of P3 assures a fair, transparent and neutral evaluation of the networks under test. P3 evaluates more than 200 mobile networks in more than 120 countries worldwide with their unique scoring method. The methodology is acknowledged as the de-facto industry-standard and provides a unique measure for management and supervisory boards to compare their networks with others, and for customers to make better decisions for their subscriptions.

About P3

P3 is a leading international consulting, engineering and testing services company with a rapidly growing team of more than 4,000 consultants and engineers working to develop and implement innovative solutions to today's complex technology challenges. P3 posts a turnover of more than 350 million Euro. Offering a broad portfolio of services and proprietary tools to the automotive, aerospace, telecommunications and energy industries, P3 adds tangible value that helps clients succeed at every stage, from innovation to implementation. In the telecommunications sector, P3 communications provides independent technical and management consulting services including network planning, end-to-end optimization, security, QoS and QoE testing, international benchmarking, device testing and acceptance services. P3 addresses all industries with connectivity needs reckoning among their clients' network operators, equipment vendors, device manufacturers, public safety organisations and regulatory authorities around the world. For more information, please visit www.p3-group.com.

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