Nokia today announced global commercial availability of new 5G SA industrial-grade private wireless networking solutions, providing a roadmap to fulfilling the needs of the most demanding industrial and manufacturing use cases.

With the introduction of 5G SA, Nokia gives its customers the most comprehensive end-to-end portfolio of high-performance 4.9G/LTE and 5G private wireless networking solutions in the marketplace.

Raghav Sahgal, President of Nokia Enterprise said: “With the introduction of 5G SA, we set a new standard for our enterprise customers with a world-class lineup of private wireless solutions to meet their digitalization needs, no matter their entry point or connectivity requirements.

“Private wireless connectivity is central to our customers realizing their long-term digital transformation goals. By delivering 5G SA, we’re paving the way to accelerate digitalization in the most demanding of use cases such as automotive manufacturing, where cloud, robotics and autonomous machine operations create mission-critical demands for reliable low latency and high data rate.”

Throughout development of its 5G SA private wireless solutions, Nokia has delivered in situ trials with customers and mobile operator partners since the first quarter of 2020. Nokia has more than 180 private wireless enterprise customers worldwide of which more than 30 engagements are 5G. Nokia has recently announced 5G private wireless deployments that include Deutsche Bahn , Lufthansa Technik and Toyota Production Engineering .

With Nokia's new 5G SA solutions, enterprise customers have the choice of deploying Nokia Digital Automation Cloud – a compact, plug-and-play system with automation enablers – or, they can further customize their network according to needs with Nokia Modular Private Wireless.

Nokia also announced today that Sandvik Mining and Rock Technology will deploy a Nokia 5G SA private wireless network at its test mine in Tampere, Finland.

Patrick Murphy, President, Rock Drills and Technologies, Sandvik Mining and Rock Technology said: "By deploying a Nokia 5G SA private wireless network with Nokia Digital Automation Cloud, we can showcase an entirely new range of game-changing capabilities here in our Tampere test mine.

"As we work with our customers to help them leverage technology to digitalize their operations, the introduction of 5G opens the door to new opportunities in robotics, remote and autonomous operations, full-fleet automation, analytics and enhanced safety. As such, it comprises a breakthrough in the digital transformation of mining."

Sahgal added: "We recognize that 4.9G/LTE, which handles more than 85 percent of industrial applications, will continue to be the foremost private wireless solution for some time. With this

announcement we bring the best of both worlds. We are offering customers the choice to start with 4.9G/LTE, and evolve to 5G as the ecosystem matures, or alternatively, to go ‘direct to 5G’ – validating the technology and driving OEM and industrial asset vendors to develop a thriving 5G ecosystem.”

Pablo Tomasi, Principal Analyst, Private Networks at Omdia said: “To be successful in industry verticals, such as transport and manufacturing, the cellular ecosystem must provide compelling offerings that address both current pain points and long-term disruptive trends. The private networks market will be built on the trust and results delivered by private LTE, however enterprises, vendors, and service providers must start now to understand the real potential of 5G and how to incorporate it into their strategies. By moving quickly with a 5G SA Private Network offering Nokia has now the opportunity to secure a pivotal role in driving the growth of the 5G ecosystem for enterprises.”

Through its introduction of commercially available private wireless 5G SA, Nokia is also enabling OEM and ecosystem partners to accelerate validation of 5G capabilities. This will help kickstart the development of 5G-capable industrial assets, accelerate application development, and integrate 5G into future industrial processes and systems.

In addition to working with its private wireless network ecosystem – which includes service providers, cloud partners, systems integrators, strategic consulting and industry specialists -- Nokia will also apply its vertical expertise to deliver the transformational benefits of 5G across industry-specific use cases.

With 3GPP R15 SA architecture providing the baseline for private 5G in industry, Nokia’s 5G SA private wireless will become the premier platform to enable future industry-related features and improvements. These include Ultra-Reliable Low-Latency Communication (URLLC), Time-Sensitive Networking (TSN), and many other industrial capabilities that will be delivered in future 5G 3GPP releases (R16-18).

Today’s announcement also addresses the needs of markets such as Germany, Japan and the UK which, due to local 5G spectrum availability, are fundamental to early adoption of 5G technology and its related ecosystem.

Nokia also announced enhancements to its 4.9G/LTE portfolio of solutions.

- Launch of world's first Band 87 (410MHz) radio, expanding coverage potential for nationwide private wireless across critical IoT CSP, public safety, transport and utilities.
- TD-LTE config 0 Uplink bandwidth increases, enabling improved uplink for video and machine-based private wireless applications.
- Extended support for 4.9G/LTE slicing on private wireless solutions, enabling allocation of virtual end-to-end slices for guaranteed high performance KPIs in specific use cases.

Additional resources

- Web page: From Now to Next: Nokia industrial-grade private wireless
- Web page: Industrial-grade Private Wireless

About Nokia for Industries
Nokia has deployed over 1,300 mission-critical networks with leading customers in the transport, energy, large enterprise, manufacturing, webscale and public sector segments around the globe. Leading enterprises across industries are leveraging our decades of experience building some of the biggest and most advanced IP, optical, and wireless networks on the planet. The Nokia Bell Labs Future X for industries architecture provides a framework for enterprises to accelerate their digitalization and automation journey to Industry 4.0. Nokia has also pioneered the private wireless space with many verticals, and now has over 180 large enterprise customers deploying it around the world.

About Nokia
We create the technology to connect the world. Only Nokia offers a comprehensive portfolio of network equipment, software, services and licensing opportunities across the globe. With our commitment to innovation, driven by the award-winning Nokia Bell Labs, we are a leader in the development and deployment of 5G networks.

Our communications service provider customers support more than 6.4 billion subscriptions with our radio networks, and our enterprise customers have deployed over 1,300 industrial networks worldwide.

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