

Node-H Launches Air Gap Technology for Ultra-Secure 5G O-RAN Private Networks

Munich-based innovator enables mission-critical industries to update 5G SA O-RAN cells offline, eliminating internet dependency for enhanced security

Munich, 3rd February 2025 – Node-H GmbH, a leader in 5G Open RAN (O-RAN) software solutions for private networks, today announced the launch of its **Air Gap Technology**, a pioneering security feature for standalone (SA) 5G O-RAN private networks. Designed for industries requiring absolute data isolation—such as defense, manufacturing, and energy—the technology enables secure, offline software updates for all-in-one 5G cells, removing the need for internet connectivity in high-risk environments.

Unlocking Secure Industrial 5G

Legacy Operational Technology (OT) systems in factories, defense installations, and critical infrastructure often rely on air-gapped networks to avoid exposure to cyberattacks. However, modernizing these systems with 5G connectivity has historically required risky internet links for software updates. Node-H's Air Gap Technology eliminates this vulnerability by:

- Enabling **offline updates** via a single, self-contained software package.
- Maintaining physical separation between private 5G networks and external networks/public internet.
- Complementing existing zero-trust architectures and end-to-end encryption with hardware-level isolation.

"Air-gapping is no longer a barrier to 5G innovation," said Mike Cronin, CEO of Node-H. "With this release, industries can modernize legacy OT systems with private 5G connectivity—without compromising the security of networks that were never designed to interface with the outside world."

Why It Matters

- **Defense & Critical Infrastructure:** Mitigates supply chain risks by ensuring 5G cells operate independently of external networks.
- **Manufacturing:** Secures smart factories where OT systems (e.g., industrial robots, PLCs) cannot tolerate downtime or exposure.
- **Compliance:** Aligns with strict regulatory standards (e.g., NIST, BSI) for data sovereignty in sensitive sectors.

Availability

Node-H's Air Gap Technology is now integrated into its All-in-One 5G O-RAN Cell Software suite. For pricing and deployment details, visit <https://www.node-h.com> or contact sales@node-h.com.

About Node-H

Node-H GmbH is a Munich-based pioneer in 5G O-RAN software for private networks. Specializing in secure, scalable solutions for industrial and government applications, Node-H empowers organizations to deploy future-proof 5G connectivity without compromising on security.

Learn more at <https://www.node-h.com>.