OneNR+ Stack

DSR OneNR+ is a DECT NR+ software stack that enables secure, scalable, and standards-based wireless connectivity for next-generation IoT networks. Built on the world's first non-cellular 5G technology with a license-exempt global spectrum, OneNR+ delivers ultra-low latency, long-range, massive device scalability, and IPv6 networking without the complexity or cost of cellular infrastructure.

Mass-Scale IoT

Designed for networks ranging from hundreds to millions of connected devices with native IPv6 support and scalable mesh networking.

Platform Flexibility

A hardware-agnostic design enables migration between hardware platforms with minimal effort.

Open Licensing

Royalty-free licensing model with an adopter-driven community that accelerates innovation while reducing development costs.

Built-in Security

Standards-based communications foundation with strong authentication, encryption, secure onboarding, and support for long-term device management.

Key Capabilities

- Multi-band DECT NR+ operation
- Self-organizing, self-healing mesh
- Scalable to hundreds of thousands of nodes
- IPv6 transport for other protocols (e.g., Matter, KNX, etc.)
- Multiple NR+ profiles support for a variety of use cases
- Ultra-low latency (<1ms)
- MAC hardware abstraction layer for simplified porting
- Scales from constrained end nodes to high-performance multi-core units
- Monolithic and split stack architectures
- Includes a PC-based simulator platform
- Cloud integration for device connectivity, remote diagnostics, and enhanced fleet management

Accelerating Product Development

Network simulation platform for rapid development and validation

Hardware integration support, protocol expertise, and firmware customization

Professional engineering services for faster time-to-market with long-term maintenance and support

dsr-iot.com | dsr-corporation.com

Built for Modern Connected Products

DSR OneNR+ provides manufacturers and solution providers with a complete wireless software foundation for deploying secure, large-scale IoT, industrial and Pro Audio low latency products. The stack combines standards compliance, hardware flexibility, and an extensible architecture that shortens development cycles while preserving long-term product flexibility.

Profiles Roadmap Includes:

Industrial IoT
Reliable wireless communications for factories, refineries, warehouses, logistics, and process automation.

Smart Buildings
Scalable building automation supporting HVAC, lighting, access control, sensors, and environmental monitoring across thousands of endpoints.

Smart Metering & Utilities
Secure large-scale mesh networks for energy, water, and utility infrastructure.

Smart Cities
Infrastructure monitoring, public services, and city-wide sensing applications requiring reliable long-range connectivity.

Professional Audio
Ultra-low latency wireless connectivity suitable for demanding live audio and broadcast environments.

dsr-iot.com | dsr-corporation.com | contact@dsr-corporation.com

DSR

About DSR

For more than 25 years DSR has helped technology companies bring connected products to market through embedded software, wireless protocol stacks, gateways, firmware, edge AI and connectivity platforms. Our expertise span Bluetooth®, Zigbee, Wi-Fi, Matter, Thread, Z-Wave, cellular, and now DECT NR+, enabling customers to build secure, interoperable, and scalable IoT solutions with confidence.

Why DSR

- 25+ years of wireless software development
- Deep embedded systems expertise
- Protocol stacks specialists
- Engineering partnership from concept to production
- Trusted by leading semiconductor and IoT companies

DSR is a member of

dect forum

ETSI

csa connectivity standards alliance

Bluetooth® SPECIAL INTEREST GROUP

THREAD