



... a new **dect**
wireless technology

The DECT forum is excited to announce **DECT NR+**, an entirely new wireless technology emerging from the DECT lineage that started almost 30 years ago. This new radio is not an adaptation of DECT, but a completely new OFDM-based RF technology standard aimed squarely at serving the needs of non-cellular professional stand-alone wireless networks. It heralds the chance at last, to deliver the widest range of local voice, data and IoT services – with one technology!

Recently approved by ITU-R WP5D as '**DECT 2020 NR**', an IMT 2020 technology, it is the world's first non-cellular 5G technology standard. As with the original DECT, the technology standard was developed by ETSI bringing together industry experts in pro-audio, IoT and RF technology with the support of the DECT Forum membership.

Although a completely new technology, 'NR+' will share the regulations associated with DECT, allowing it to co-exist with DECT in the license-free 1.9 GHz band that is available in most parts of the world. It also builds on the well-proven advantages of DECT that have made the technology a favourite of developers of networked voice & data systems that require very high reliability and outstanding quality of service.

NR+ will not replace DECT but will be a partner technology bringing new capabilities, such as Ultra-Reliable Low-Latency Communication (URLLC) and Massive IoT or Massive Machine Communication (MMC). NR+ will open up unprecedented opportunities for professional service providers, and will help meet some of big challenges facing innovators – and governments worldwide as we approach the mid-21st century:

Smart Cities: an evolutionary step forward from Smart Homes and Smart Buildings, Smart Cities will be one of the World's frontiers in the battle to combat Climate Change, by reducing carbon emissions using an array of applications such as traffic management, finding parking spaces, optimizing refuse collection and street lighting, smart energy storage etc. All of these applications require literally millions of remote sensor & control (IoT) nodes connected through a network to cloud-based control centres. Such network complexity is only feasible and practicable with wireless mesh networking covering metropolitan and rural areas – coverage that until now was the domain of the cellular network. NR+ has been designed to incorporate highly reliable high-performance wireless mesh networking, that will make deployment of such massive machine communication not only possible but economically attractive.



Industrial IoT (Industry 4.0): One of the key technologies that will enable the new industrial revolution (Industry 4.0) is Ultra-Reliable Low Latency wireless IoT solutions for industry, that will be able to orchestrate fast-moving unmanned vehicles and operations across huge factory floors and warehouses. Bringing together DECT's historic ability to send and receive messages with microsecond-synchronism with NR+'s lower latency and IoT capabilities, opens up great opportunities for NR+ in this industrial sector



Pro-audio / PMSE market: NR+ has been designed to deliver the higher performance and lower latency required for microphones used by touring bands, recording studios, theatres and for broadcasting (including electronic news gathering). NR+ will have improved indoor performance, able to deal with a wider range of venue constraints and challenges. The use of NR+ for performance microphones will facilitate the ever-increasing demand for wireless microphones in all live & recorded entertainment as well as media streaming sectors.



Intercom: already deployed with DECT, Intercoms will benefit from higher user densities and the ability to deploy in other IMT2020 frequencies since special touring events (sporting, rock tours & music festivals etc.) need to be deployed world-wide.

Unified & Enterprise Communication: already deployed with DECT, in the post-Covid world, large business communication installations will require even more over-the-air communication as work habits change to more flexible work arrangements. NR+ will deliver even higher density of users and better indoor performance.

