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Digital Enhanced Cordless Telecommunications (DECT);
New Generation DECT;
Part 3: Extended wideband speech services

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Digital Enhanced Cordless Telecommunications (DECT).

The present document is based on EN 300 175 parts 1 [1] to 8 [8] and EN 300 444 [12]. General attachment requirements and speech attachment requirements are based on EN 301 406 [11] (replacing TBR 006 [i.2]) and EN 300 176-2 [10] (previously covered by TBR 010 [i.3]). Further details of the DECT system may be found in TR 101 178 [i.1].

The present document has been developed in accordance to the rules of documenting a profile specification as described in ISO/IEC 9646-6 [i.14].

The information in the present document is believed to be correct at the time of publication. However, DECT standardization is a rapidly changing area, and it is possible that some of the information contained in the present document may become outdated or incomplete within relatively short time-scales.

The present document is part 3 of a multi-part deliverable covering the New Generation DECT as identified below:

Part 1: "Wideband speech";

Part 2: "Support of transparent IP packet data";

Part 3: "Extended wideband speech services";

Part 4: "Light Data Services: Software Update Over The Air (SUOTA), Content Downloading and HTTP based applications";

Part 5: "Additional feature set nr.1 for extended wideband speech services".

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1 Scope

The present document specifies a set of functionalities of the New Generation DECT.

The New Generation DECT provides the following basic new functionalities:

- Wideband speech service (part 1 [21] of this multi-part deliverable).
- Packet-mode data service supporting Internet Protocol with efficient spectrum usage and high data rates (part 2 [i.4] of this multi-part deliverable).
- Extended wideband speech services (the present document).
- Light Data Services: Software Update Over The Air (SUOTA), Content Downloading and HTTP based applications (part 4 [i.5] of this multipart deliverable).
- Additional feature set nr.1 for Extended wideband speech services.

Additional functionalities of the New Generation DECT may be defined in the future in further parts of this multi-part deliverable, or in different documents.

All New Generation DECT devices will offer at least one or several of these services.

The present document describes the part 3: Extended wideband speech services:

- For the description of the wideband speech service, see TS 102 527-1 [21].
- For the description of the support of transparent IP packet data, see TS 102 527-2 [i.4].
- For the description of the Light Data Services: Software Update Over The Air (SUOTA), Content Downloading and HTTP based applications, see TS 102 527-4 [i.5].
- The description of the additional feature set nr.1 for Extended wideband speech services will be published as TS 102 527-5 [i.13].

Part 3 ("Extended wideband speech services") is defined as an extension of part 1 ("Wideband speech" [21]), which means that all devices compliant to the present document will also implement at least all mandatory features and may implement the optional features defined in part 1. In addition to that, the present document defines additional mandatory or optional features.

Part 1 [21], and therefore part 3, are also defined as extensions of the "Generic Access Profile (GAP)" [12]. All DECT devices offering Wideband speech services (part 1 or part 1 plus part 3) are also compliant with the "Generic Access Profile (GAP)" [12], and offer the DECT standard 32 kbit/s voice service according to GAP [12].

All DECT devices claiming to be compliant with this Application Profile will offer at least the basic services defined as mandatory. In addition to that, optional features can be implemented to offer additional DECT services.

The aim of the present document is to guarantee a sufficient level of interoperability and to provide an easy route for development of DECT wideband speech applications, with the features of the present document being a common fall-back option available in all compliant to this profile equipment.

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2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

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2.1 Normative references

The following referenced documents are necessary for the application of the present document.

[1] ETSI EN 300 175-1 (V2.5.1): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 1: Overview".

[2] ETSI EN 300 175-2 (V2.5.1): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical layer (PHL)".

[3] ETSI EN 300 175-3 (V2.5.1): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) layer".

[4] ETSI EN 300 175-4 (V2.5.1): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) layer".

[5] ETSI EN 300 175-5 (V2.5.1): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer".

[6] ETSI EN 300 175-6 (V2.5.1): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 6: Identities and addressing".

[7] ETSI EN 300 175-7 (V2.5.1): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 7: Security features".

[8] ETSI EN 300 175-8 (V2.5.1): "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 8: Speech and audio coding and transmission".

[9] Void.

[10] ETSI EN 300 176-2: "Digital Enhanced Cordless Telecommunications (DECT); Test specification; Part 2: Audio and speech".

[11] ETSI EN 301 406: "Digital Enhanced Cordless Telecommunications (DECT); Harmonized EN for Digital Enhanced Cordless Telecommunications (DECT) covering the essential requirements under article 3.2 of the R&TTE Directive; Generic radio".

[12] ETSI EN 300 444 (V2.4.1): "Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP)".

[13] Void.

[14] Void.

[15] Recommendation ITU-T G.726 (1990): "40, 32, 24, 16 kbit/s Adaptive Differential Pulse Code Modulation (ADPCM)".

[16] Recommendation ITU-T G.711 (1988): "Pulse code modulation (PCM) of voice frequencies".

[17] Recommendation ITU-T G.722 (1988): "7 kHz audio-coding within 64 kbit/s".

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