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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

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Introduction

Hybrid Key Establishments are constructions that combine a traditional key establishment method, such as elliptic curve Diffie Hellman [1], with a quantum-safe key encapsulation mechanism, such as Module-Lattice-based Key Encapsulation Mechanism (ML-KEM) [11], into a single key establishment method. Hybrid key establishments are a migration technique to move to quantum-safe technology in advance of establishing full security assurance in the underlying post-quantum cryptographic scheme.