

The Application of Quantum Communication Technology used in Electric Power Information & Communication System Confidential Transmission

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Abstract—Electric power information system is related with the safe operation of power grid. To ensure the data of electric power information will not be eavesdropped or deciphered, we need a strict way of encryption. With the improvement of computing capacity, traditional encryption algorithms are at high risk of crack. Quantum communication technology is an absolute security encryption mode, which can significantly improve the safety of electric power information system. For the particularity of electric power production and management data by analysing the principle of quantum communication technology, we have put forward implementation plan of electric power information system data encryption scheme and quantum communication network.

Keyword—Electric Power, Security Challenge, Encryption Algorithm, Quantum Communication, Security Encryption Principle



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