

[Effective peer-to-peer design for supporting range query in Internet of Things applications](#)

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Description

The Internet of Things (IoT) refers to the internetworking of diverse devices in an ad-hoc manner to support pervasive applications. IoT devices often generate a wealth of data that ought to be accessible and managed in a distributed manner. Such operational model requires architecture that supports contextual and information centric retrieval of data, and efficient data storage. In this paper, we argue that peer-to-peer (P2P) overlays are well suited for IoT systems. However, existing P2P systems do not efficiently handle queries of data within a range, which is a popular access pattern in IoT applications. Moreover, many of the IoT devices are constrained in their computational resources and consequently the data management model has to cope with such limitation. Existing P2P solutions do not factor the heterogeneity of the involved nodes and assume abundant storage space. This paper opts to fill the technical ...