A Comparative Analysis of Service Discovery Approaches for the Internet of Things

Meriem Aziez, Saber Benharzallah & Hammadi Bennoui
Intelligent Computer Science Laboratory,
Biskra University
Biskra, Algeria
meriemlifemaker@yahoo.com, sbharz@yahoo.fr, bennoui@gmail.com

***Abstract*—The Internet of Things (IOT) has gained a significant attention in the last years. It covers multiple domains and applications such as smart home, smart healthcare, IT transportation...etc. the highly dynamic nature of the IOT environment brings to the service discovery new challenges and requirements. As a result, discovering the desirable services has become very challenging. In this paper, we aim to address the IoT service discovery problem and investigate the existing solutions to tackle this problem in many aspects, therefore we present a full comparative analysis of the most representative (or outstanding) service discovery approaches in the literature over four perspectives: (1) the IoT service description model, (2) the mechanism of IoT service discovery, (3) the adopted architecture and (4) the context awareness.**

***Index Terms*: Internet of Things, Service Discovery, IoT services.**

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