Invited Talk

IoT Protocols War & the Way Forward

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Abstract

IoT (Internet of Things) is expected to usher in an era of closely connected world through advanced connectivity of devices, systems and services. IoT goes beyond M2M (Machine to Machine) communication and covers a wide variety of protocols, domains and applications. It is estimated that more than 50 billion devices will be connected to the Internet of Things by 2020. The Internet of Things promises a technological revolution, but for it to work well, all the devices need to speak the same language. But, currently the ecosystem is fragmented with too many protocols.

The talk focuses on the various protocols that are currently dominating the IoT landscape. There are protocols like MQTT used for collecting device data and communicating it to servers, XMPP used for connecting devices to People, AMQP which is a queuing system designed to connect servers to each other, CoAP which is a specialized web transfer protocol for use in constrained nodes and networks, 6lowPAN which is protocol for using IPv6 over low power and lossy networks, HTTP as RESTful API, Zigbee Standards, AllJoyn Framework, Bluetooth, WiFi, UPnP, DNP3 etc. Some of these have already gained traction, while some of them are fast picking up in the IoT landscape.

Speaker Biographies

Virendra Gupta is Senior Vice President and BL Head 2012 Lab Business Line in Huawei Technologies India Pvt. Ltd., Huawei's largest overseas R&D center focused on developing and delivering telecom core platforms and end-to-end telecom solutions and services for global market. As 2012 Labs BL Head, Virendra has complete management responsibility for the Business Line to ensure high quality, on time delivery of deliverables to customers in line with R&D centers objectives. Currently, as part of 2012 Labs BL, he has responsibility for development of core components and platforms in Network Management, Embedded OS Middleware, Telecom Network Protocols, Linux/OS, In Memory Database, Licensing, Telecom Application Server/Distributed Computing Platform, DPI/BI, Security, IP domain and Multimedia Content Delivery domain. Apart from this, 2012 Labs BL also engages in Mechanical/Electrical Design activity for Huawei Products. Virendra has over 24 years of rich experience in the telecom industry of which more than 12 years has been with Huawei.

Jayaraghavendran is a Senior System Architect with 2012 Lab Business Line and has a rich experience of more than 10 years with Huawei. His primary expertise includes telecom network protocol analysis & design and has been extensively involved in design and development of various protocol suites in Huawei.