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# Foundational IoT Messaging Protocol, MQTT, Becomes International OASIS Standard

BlackBerry, Cisco, IBM, Kaazing, LogMeIn, M2Mi, MachineShop, PTC, Red Hat, Software AG, TIBCO, and Others Ratify Enhanced Version of Widely Adopted IoT Standard

*13 November 2014* The first version of the Message Queuing Telemetry Transport (MQTT) to be advanced within the OASIS open standards process has now been ratified as an international standard. MQTT 3.1.1 defines an extremely lightweight publish/subscribe messaging transport protocol. Because it requires significantly less bandwidth and is so easy to implement, MQTT is already broadly used in Machine-to-Machine (M2M) and Internet of Things (IoT) applications where resources such as battery power and bandwidth are at a premium.

OASIS' standardization of MQTT makes the specification more explicit and ubiquitous, enabling almost any networked device, operating system, or programming language to communicate seamlessly and consistently. Compared with HTTPS, MQTT enables 93 times higher mobile throughput using 11 times less battery to send and 170 times less battery to receive.

"MQTT 3.1.1 represents a huge leap forward for the specification," said Richard Coppen of IBM, who co-chairs the new OASIS MQTT Technical Committee, along with Raphael Cohn. "The new standard defines a protocol for M2M/IoT while providing a strong focus on compatibility with existing MQTT implementations."

"MQTT 3.1.1 allows even more efficient communication between the client and broker," added Cohn. "We've addressed some of the most compelling IoT data flow challenges and expanded connectivity to different types of networks and remote devices."

Already, MQTT is well known and widely implemented. Hospitals use the protocol to communicate with pacemakers and other medical devices. In the military, MQTT safeguards troops by enhancing battlefield communications. Oil and gas companies use MQTT to monitor thousands of miles of oil pipelines. Smart cars rely on MQTT as a fundamental enabler for telematics, infotainment, and mobile applications. The list of applications continues to grow.

At OASIS, MQTT Technical Committee members are now discussing and prioritizing future enhancements to the standard. New participants in the work are welcome.

## Support for MQTT 3.1.1

[IBM](#) [1]

"We are delighted MQTT 3.1.1 has been approved as an OASIS standard", said Michael Curry, VP Product Management, WebSphere Foundation, IBM. "This represents a significant step forward for both our customers and partners, allowing inter-operable Internet of Things solutions to be built with confidence on an open

standard foundational transport. IBM remains committed to the use of open standards within its product portfolio."

#### [M2Mi](#) [2]

"M2Mi strongly believes that standardized protocols to exchange data are important for the success of the connected economy. The OASIS MQTT standard provides this critical foundation for better communication, messaging and cybersecurity," said Geoff Brown, CEO, Machine-to-Machine Intelligence (M2Mi) Corporation. "As one of the founding members of the OASIS MQTT Technical Committee, we are pleased that MQTT is now a ratified standard, and we look forward to working with the industry to enable widespread adoption."

#### [MachineShop](#) [3]

"MachineShop is pleased to be part of the OASIS standardization effort for MQTT, illustrating our commitment to helping shape the future of technology surrounding the opportunities of IoT and IT/OT convergence," said Greg Jones, CTO, MachineShop. "Adoption of the MQTT protocol offers companies the flexibility to integrate disparate data sources and deliver actionable information to inform business decisions. Our support of MQTT assures our customers that they can interface with the greatest number of connected devices, embedded systems and other critical sources of data in the most efficient way possible."

#### [Software AG](#) [4]

"Software AG is very pleased to have participated in the OASIS standardisation of MQTT 3.1.1. With leading research estimating over 50 billion connected devices by 2020, MQTT is well positioned to standardise connectivity for the Internet of Things / M2M and accelerate innovation. Software AG is excited to be in a position to provide enterprises connectivity, integration and analytics solutions for the vast amount of generated data," said Eddie McDaid, SVP, IBO & Big Data, Software AG.

### **Additional information**

#### [OASIS MQTT Technical Committee](#) [5]

#### [MQTT 3.1.1 OASIS Standard](#) [6]

### **About OASIS:**

OASIS is a non-profit, international consortium that drives the development, convergence and adoption of open standards for the global information society. OASIS promotes industry consensus and produces worldwide standards for M2M, IoT, cloud computing, security, privacy, content technologies, business transactions, emergency management, and other applications. OASIS open standards offer the potential to lower cost, stimulate innovation, grow global markets, and protect the right of free choice of technology. OASIS members broadly represent the marketplace of public and private sector technology leaders, users and influencers. The consortium has more than 5,000 participants representing over 600 organizations and individual members in 100 countries.

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### **Links:**

- [1] <http://www.ibm.com/>
- [2] <http://www.m2mi.com/>
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- [4] <http://www.softwareag.com/>
- [5] <https://www.oasis-open.org/committees/mqtt/>
- [6] <https://www.oasis-open.org/standards#mqttv3.1.1>