

Chapter 6

Examining Current Standards for Cloud Computing and IoT

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ABSTRACT

The advent of Cloud computing has acted as a catalyst for the design and deployment of scalable Internet of Things business models and applications. Therefore, IoT and Cloud are nowadays two very closely affiliated future internet technologies, which go hand in hand in non-trivial IoT deployments. Furthermore, most modern IoT ecosystems are cloud-based, as will be illustrated in the chapter. This chapter briefly introduces the main cloud computing and IoT standards.

1. INTRODUCTION

This chapter will concentrate on the standards that are designed and published by standard bodies known as Standards Defining Organizations. Such associations have a wide variety of inside procedures and membership rules, which go from totally open access to closed formal representation that can now and again require

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the endorsement of national governments and worldwide planning bodies. The standards that are managed in this part are essentially in light of

Cloud segment here will connote gauges that is by all accounts most develop inside the Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) layers. While Software as a Service (SaaS) principles additionally exist, they have a tendency to be specific to their ranges of utilization, as are not amiable to more than a short general synopsis. On the opposite side, in Internet of Things (IoT) area recent adaptations at different layer of the OSI model is talked about.

This chapter starts with the discussion of the practical definition of standards, types of communities issues, their primary cloud and IoT-related outputs, and their organizing rules for participation. The target of this part is to highlight the fundamental activities that add to the investigation of the present status and elements of the IoT along with Cloud computing standards and to discuss their findings. The main contributors of this analysis of the IoT standards landscape are the ETSI Specialist Task Force (STF), IEEE, IETF, ITU, UNIFY-IoT Coordination and Support Action (CSA), IPSO Alliance, IOTI WG03, Z-Wave Alliance etc.

The Internet of Things (IoT), as a rising innovation, can possibly support advancement in numerous mechanical parts, and in addition to help address numerous societal difficulties including energy efficiency and ageing. In any case, this potential will only materialize if IoT develops as an open platform and support a variety of applications and generate open and sustainable ecosystems. As the new applications and innovations are being done, these standards play a vital role there. There standards are used to monitor their performance. Before moving further, the ideas on customary meaning of standards, with their necessities and points of interest of association capable to place them into the mainstream.

2. EXAMINING AND ROLES OF STANDARDS AND STANDARDIZATION BODIES

Standards are made for overall compatibility of various functions of IoT and Cloud globally. It assist national and global players of research and industries with relevant global Service Setting Organizations and promoting standards around IoT and cloud technologies developed in the country. There are a number of things which needs to get standardize.

- Standardization of IoT
- Protocols standards for spectrum energy communication
- Standards within and outside the cloud for communication
- International integrity standards for data traceability and data creation.

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