


Chapter 7

Analysis of Vulnerabilities in IoT and Its Solutions

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ABSTRACT

The internet of things (IoT) fulfils abundant demands of present society by facilitating the services of cutting-edge technology in terms of smart home, smart healthcare, smart city, smart vehicles, and many more, which enables present day objects in our environment to have network communication and the capability to exchange data. These wide range of applications are collected, computed, and provided by thousands of IoT elements placed in open spaces. The highly interconnected heterogeneous structure faces new types of challenges from a security and privacy concern. Previously, security platforms were not so capable of handling these complex platforms due to different communication stacks and protocols. It seems to be of the utmost importance to keep concern about security issues relating to several attacks and vulnerabilities. The main motive of this chapter is to analyze the broad overview of security vulnerabilities and its counteractions. Generally, it discusses the major security techniques and protocols adopted by the IoT and analyzes the attacks against IoT devices.

INTRODUCTION

Everyday information security brings new challenges because of its wide availability in each field starting from personal to commercial lives. Data must be protected from interception, theft and attack caused by unauthorized persons or hackers (F.Meneghello et.al, 2019). Network security is one part of information security

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