

Part 5. APIs for the Internet of Things

This final part of the book deals with securing APIs in one of the most challenging environments: the Internet of Things (IoT). IoT devices are often limited in processing power, battery life, and other physical characteristics, making it difficult to apply many of the techniques from earlier in the book. In this part, you'll see how to adapt techniques to be more suitable for such constrained devices.

Chapter 12 begins with a look at the crucial issue of securing communications between devices and APIs. You'll see how transport layer security can be adapted to device communication protocols using DTLS and pre-shared keys. Securing communications from end to end when requests and responses must pass over multiple different transport protocols is the focus of the second half of the chapter.

Chapter 13 concludes the book with a discussion of authentication and authorization techniques for IoT APIs. It discusses approaches to avoid replay attacks and other subtle security issues and concludes with a look at handling authorization when a device is offline.