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Securing the Future
Introduction to Zero Trust in Cybersecurity

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Preface

This book is a descriptive summary of **Securing the Future: Introduction to Zero Trust in Cybersecurity** with various case studies from diverse authors across the globe.

The authors of Chapter 1 elaborated foundations of cybersecurity and the introduction of the Zero Trust model is at the vanguard of this revolutionary process. The core ideas of Zero Trust, a cutting-edge cybersecurity approach that calls into question network trust and mandates constant user identity, device, and application verification, are examined. And also emphasizes the critical role that Zero Trust plays in strengthening defenses, adjusting to changing cybersecurity problems, and safeguarding the digital future as enterprises navigate a constantly changing threat landscape.

In Chapter 2, authors have discussed the Zero Trust in detail including Core principles of the zero-trust model and The Need for Zero Trust. This chapter will serve as a primer for researchers to assimilate the use of Zero Trust which is a security framework that mandates that before granting or retaining access to applications and data, all users whether inside or outside the organization's network must be verified, approved, and regularly evaluated for security configuration and posture.

The authors of Chapters 3 and 4 provide an overview of zero-trust network implementation, characteristics, types, components, benefits, analytical tools and technologies, and most recent insights. A case study demonstrates the importance of zero-trust network adoption for cloud.

The authors of Chapters 5 and 6 discuss the compliance and governance in zero trust and Case Study of Building a Zero Trust Architecture for Industrial Environment. The authors of Chapters 7 elaborated the Zero Trust awareness, The Significance of User Education and Awareness, cyberattack types that impact K–12 institutions and Implementing Zero Trust in K-12 institutions.

The authors of Chapters 8 focused on difficulties they encountered like Complex implementation, Integrating security silos and legacy systems, and many more when implementing zero trust and also discussed the Future scope.

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Contents