ISO/IEC 24392:2023-07 (E)

Cybersecurity - Security reference model for industrial internet platform (SRM-IIP)

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Abbreviated terms 3

5 Overview 4

6 IIP-specificsecuritythreatstoindustrialinternetplatforms 6
6.1 Characteristics of IIPs 6
6.2 Security threats to IIPs 8

7 Security reference model of industrial internet platform 12
7.1 General 12
7.2 Security domains of IIPs 12
7.2.1 General 12
7.2.2 Edge security domain 13
7.2.3 Cloud infrastructure security domain 13
7.2.4 Platform security domain 14
7.2.5 Application security domain 14
7.3 System life cycle 14
7.3.1 General 14
7.3.2 Development and production stage 15
7.3.3 Utilization and support stage 16
7.3.4 Retirement stage 17
7.4 Business scenarios and roles 19
7.4.1 General 19
7.4.2 Production optimization 19
7.4.3 Product customization 20
7.4.4 Multilevel security production 20
7.4.5 Transnational cooperation 21

8 Security objectives and controls for IIPs 23
8.1 Security objectives 23
8.2 Security controls 24
8.2.1 General 24
8.2.2 Physical security 24
8.2.3 Network security 25
8.2.4 Access security 25
8.2.5 Communication security 26
8.2.6 System security 26
8.2.7 Application security 27
8.2.8 Operation and maintenance security 27
8.2.9 Security management 28

Annex A (informative) Typical IIP use cases 29

Bibliography 32