

ISO/IEC 24767-1:2008-09 (E)

Information technology_ - Home network security_ - Part_1: Security requirements

CONTENTS

- FOREWORD.....4
- 1 Scope.....5
- 2 Terms, definitions and abbreviations5
 - 2.1 Terms and definitions5
 - 2.2 Abbreviations6
- 3 Conformance.....6
- 4 Security requirements for home electronic systems and networks.....6
 - 4.1 General6
 - 4.2 Home electronic system security7
 - 4.3 Issues related to HES security but out of scope of this standard..... 11
- 5 Challenges 12
 - 5.1 General 12
 - 5.2 Always-on challenge 12
 - 5.3 Power line challenge 12
 - 5.4 Wireless challenge 13
 - 5.5 Complex assortment devices challenge 13
 - 5.6 Many and diverse user needs 13
 - 5.7 Many and diverse applications..... 13
- 6 Security models..... 14
 - 6.1 Introduction 14
 - 6.2 Owner supported single home HES (OSS)..... 14
 - 6.3 Externally supported single home HES (ESS)..... 14
 - 6.4 Externally supported multiple homes HES (ESM) 14
- 7 Threat analysis..... 15
 - 7.1 General 15
 - 7.2 Unauthorized access 15
 - 7.3 Malicious software and configuration 16
 - 7.4 Denial of service 17
 - 7.5 Unintended modification of data during communication 17
 - 7.6 User errors 17
 - 7.7 System failures 17
 - 7.8 Security service providers 17
- 8 Security requirements..... 17
 - 8.1 General 17
 - 8.2 Access control..... 18
 - 8.3 Data and message authentication..... 19
 - 8.4 Remote access control 19
 - 8.5 Protection of communications..... 19
 - 8.6 Firewalls..... 20
 - 8.7 Virus protection 20
 - 8.8 Protection against denial of service attacks 20
 - 8.9 Auditing..... 21
 - 8.10 Recovery..... 21
- 9 Requirements on security solutions 21

9.1	General	21
9.2	Different levels of security services for different applications in a home.....	21
9.3	Convenience	22
Annex A (informative) Comparison between office IT systems and home electronic system security requirements		23
Bibliography.....		24
Figure 1 – A concept model of home networks		10
Figure 2 – Different considerations in different home environments		11
Table 1 – Security threats and corresponding defences		18