

# 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 abbreviations .....5
  - 2.1 Terms and definitions .....5
  - 2.2 Abbreviations .....6
- 3 Conformance.....6
- 4 Security requirements for home electronic systems and networks.....6
  - 4.1 General .....6
  - 4.2 Home electronic system security .....7
  - 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