

ISO/TR 18307:2001-12 (E)

Health informatics - Interoperability and compatibility in messaging and communication standards - Key characteristics

| Contents | | Page |
|-----------------|--|-------------|
| Foreword | | v |
| 1 | Scope | 1 |
| 2 | References | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Abbreviated terms | 21 |
| 5 | Trust Constituency | 23 |
| 6 | Principles and objectives | 24 |
| 6.1 | Ensured Trust | 24 |
| 6.2 | Trust Constituency | 25 |
| 6.3 | Health record rights | 25 |
| 6.4 | Health record obligations | 26 |
| 6.5 | Health record composition | 26 |
| 6.6 | Healthcare parties and their accountable actions | 27 |
| 6.7 | Healthcare agents and their accountable actions | 27 |
| 6.8 | Scope of accountability, Unit of accountability | 27 |
| 6.9 | Authentication | 28 |
| 6.10 | Auditability | 28 |
| 6.11 | Chain of trust | 28 |
| 6.12 | Faithfulness, permanence, persistence and indelibility | 28 |
| 6.13 | Data definition, Data registry | 28 |
| 6.14 | Data integrity | 29 |
| 6.15 | Completeness and continuity | 29 |
| 7 | Key characteristics (KC) | 29 |
| 7.1 | Identifiable information | 29 |
| 7.2 | Architectural basis | 30 |
| 7.3 | Master files | 33 |
| 7.4 | Master registries | 37 |
| 7.5 | Electronic records | 40 |
| 7.6 | Record chronology, continuity, completeness | 42 |
| 7.7 | Authentication, non-repudiation services | 43 |
| 7.8 | Digital signature, Public key infrastructure | 44 |
| 7.9 | Audit | 44 |
| 7.10 | Permanence, persistence, indelibility | 45 |
| 7.11 | On-Line Transaction Processing (OLTP) | 45 |
| 7.12 | On-Line Analytical Processing (OLAP) | 46 |
| 7.13 | Fault tolerance | 46 |
| 7.14 | Data synchrony | 46 |
| 7.15 | Time synchrony | 47 |
| 7.16 | Trusted end-to-end information flows | 47 |
| 7.17 | Disclosure, Export | 49 |
| 7.18 | Prospective services | 50 |
| 7.19 | Work flow | 52 |
| 7.20 | Concurrent status, Records | 53 |
| 7.21 | Retrospective status, Records | 54 |

| | | |
|------|---|----|
| 7.22 | Personal healthcare professional services | 54 |
| 7.23 | Data integrity | 55 |
| 7.24 | Protocols: Care plans, Critical paths | 56 |
| 7.25 | Problem lists | 56 |
| 7.26 | Decision support | 56 |
| 7.27 | Surveillance, Metrics and Analysis | 57 |
| 7.28 | Communications infrastructure | 58 |
| 7.29 | Multiple person linkage | 58 |
| 7.30 | Healthcare professional -- Subject of care linkage | 59 |
| 7.31 | Localization, Local authority | 59 |
| 7.32 | User environments | 60 |
| 7.33 | Version management | 60 |
| 7.34 | Inter-application interoperability | 60 |
| 7.35 | Change scale (Scalability) | 62 |
| 7.36 | Validation | 62 |
| 8 | Principles and objectives enabled by key characteristics | 63 |
| | Annex A Exercise to validate the key characteristics set out in this technical report | 69 |
| | Annex B RM-ODP viewpoints | 89 |
| | Annex C RM-ODP enterprise viewpoint | 90 |
| | Annex D RC-ODP architecture -- Enterprise language | 91 |
| | Bibliography | 92 |