

# ISO/IEC 27559:2022-11 (E)

## Information security, cybersecurity and privacy protection - Privacy enhancing data de-identification framework

---

Contents	Page
Foreword .....	v
Introduction .....	vi
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Symbols and abbreviated terms .....	3
5 Overview .....	3
6 Context assessment .....	4
6.1 General .....	4
6.2 Threat modelling .....	4
6.2.1 General .....	4
6.2.2 Security and privacy practices .....	5
6.2.3 Motives and capacity to re-identify .....	5
6.3 Transparency and impact assessment .....	6
6.3.1 General .....	6
6.3.2 Transparency of actions and stakeholder engagement .....	6
6.3.3 Privacy-related harms .....	6
7 Data assessment .....	7
7.1 General .....	7
7.2 Data features .....	7
7.2.1 General .....	7
7.2.2 Data principals .....	7
7.2.3 Data type .....	7
7.2.4 Attribute types .....	8
7.2.5 Dataset properties .....	8
7.3 Attack modelling .....	8
7.3.1 General .....	8
7.3.2 Maximum or average risk .....	9
7.3.3 Population or sample-based attack .....	9
7.3.4 Data privacy models .....	9
8 Identifiability assessment and mitigation .....	10
8.1 General .....	10
8.2 Assessing identifiability .....	10
8.2.1 General .....	10
8.2.2 Quantifying identifiability .....	10
8.2.3 Adversarial testing .....	11
8.3 Mitigation .....	12
8.3.1 General .....	12
8.3.2 Reconfiguring the environment .....	12
8.3.3 Transforming the data .....	12
8.3.4 Re-evaluation .....	13

<b>9</b>	<b>De-identification governance .....</b>	<b>13</b>
9.1	General .....	13
9.2	Before data are made available .....	13
9.2.1	General .....	13
9.2.2	Assigning roles and responsibilities .....	13
9.2.3	Establishing principles, policies and procedures .....	14
9.2.4	Identifying and managing a data disclosure .....	14
9.2.5	Communicating with stakeholders .....	15
9.3	After data are made available .....	15
9.3.1	General .....	15
9.3.2	Monitoring the data environment .....	15
9.4	Mitigation in case of incident .....	15
	<b>Annex A (informative) Example identifiers .....</b>	<b>17</b>
	<b>Annex B (informative) Example threshold identifiability benchmarks .....</b>	<b>19</b>
	<b>Bibliography .....</b>	<b>21</b>