

# ISO/TS 18759:2022-08 (E)

## Document management - Trustworthy storage system (TSS) - Functional and technical requirements

---

Contents	Page
Foreword .....	v
Introduction .....	vi
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 TSS concepts and functional requirements .....	4
4.1 Overview .....	4
4.2 TSS concepts .....	5
4.2.1 General .....	5
4.2.2 Immutable ESI .....	5
4.2.3 Changeable ESI .....	5
4.3 ESI preservation .....	6
4.4 Immutable ESI preservation period .....	6
4.4.1 Overview .....	6
4.5 ESI deletion .....	7
4.6 TSS functional requirements .....	8
5 TSS ESI lifecycle management technical requirements .....	10
5.1 General .....	10
5.2 TSS ESI security, protection and hold restrictions requirements .....	11
5.2.1 General .....	11
5.2.2 TSS ESI security requirements .....	11
5.2.3 TSS ESI hold restriction requirements .....	12
5.2.4 TSS ESI protection requirements .....	15
5.2.5 TSS ESI deletion requirements .....	16
5.3 Changeable ESI requirements .....	16
5.4 TSS immutable ESI requirements .....	17
5.5 TSS retained ESI requirements .....	18
5.6 TSS expired-ESI requirements .....	19
5.7 Immutable ESI retention period .....	19
5.7.1 General .....	19
5.7.2 Immutable ESI retention period requirements .....	19
5.7.3 Immutable ESI permanent retention period .....	20
5.7.4 Immutable ESI fixed retention period .....	20
5.7.5 Immutable ESI hybrid retention period .....	21
5.7.6 Immutable ESI indefinite retention period .....	22
6 TSS integration and management interfaces .....	22
7 TSS integrity, auditing, security requirements .....	23
7.1 Storage security .....	23
7.2 ESI encryption .....	23
7.3 Secure delete and erasure .....	23
7.4 Immutable ESI integrity checks .....	24
7.5 Redundancy and replication .....	24
7.6 Storage migration and upgrades .....	24

<b>7.7</b>	<b>Auditability .....</b>	<b>24</b>
7.7.1	General .....	24
7.7.2	TSS audit capabilities .....	25
7.7.3	TSS audit trail .....	25
<b>8</b>	<b>TSS technical methods for trusted storage .....</b>	<b>25</b>
8.1	General .....	25
8.2	<b>Security .....</b>	<b>25</b>
8.3	Validate and detect corruption .....	26
8.4	Ransomware protection .....	26
8.5	Error correction .....	26
8.6	Monitoring, notifications and alerts .....	26
8.7	Encryption .....	27
8.8	Permissions .....	28
8.9	Integrity of storage devices and media .....	28
<b>9</b>	<b>TSS requirements and mitigating technical methods .....</b>	<b>28</b>
9.1	Migration of information between media .....	28
9.2	Technical obsolescence .....	28
9.3	Discovery requests .....	29
9.4	Addressing ad hoc deletion requests .....	29
9.5	ESI degradation .....	30
9.6	Malicious actions by employees or outside parties .....	30
9.7	ESI store errors .....	30
9.8	TSS hardware controls .....	30
9.9	Accidental or premature deletion of ESI .....	31
<b>Bibliography .....</b>	<b>32</b>	