Security Technical and Organizational Measures (TOM) Appendix for SITA Advanced Data Services service schedule

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APPENDIX 2 FOR ANNEX A OF DATA PROTECTION AGREEMENT

1. Purpose

The Security Measures Appendix's purpose is to list all the technical and organizational measures (TOMs) implemented by SITA to secure any personal data processed as defined in the Data Processing Agreement (DPA) to which this appendix is attached.

The security measures defined in section 3 implement the requirements of Article 32 of the EU General Data Protection Regulation (GDPR) and its protection objectives in concrete terms.

The detailed measures apply to the Service.

Evidence of the measures implemented and maintained by SITA may be requested by the Customer.

Relevant references to the respective ISO 27002:2022 controls are attached to each of the measures.

2. Definitions and Explanations

2.1. Explanation of GDPR principles (Art. 5)

Lawfulness, fairness, and transparency: the organization must identify valid grounds to process data, handle it in ways that people would reasonably expect and to inform people about their personal data being processed.

Purpose limitation: the organization must be clear about personal data processing purpose and specify it in privacy information for individuals. Valid ground must be obtained (e.g., consent) in case of new purpose.

Data minimization: the organization must ensure the processed personal data is adequate, relevant and limited to only what is necessary.

Accuracy: the organization must ensure the held personal data is accurate and take responsible steps to correct or erase the data as soon as possible if an inconsistence or error is discovered.

Storage limitation: the organization must not keep personal data for longer than needed and must justify how long is personal data kept, with clear retention periods. Held personal data should be reviewed, erased, or anonymized when no longer needed.

Integrity and confidentiality (security): the organization must ensure to have appropriate security measures in place to protect the held personal data.

Accountability: the organization must take responsibility for what it does with personal data and how it complies with other principles. Measures and records should be available to demonstrate compliance.

2.2. Definitions specific to this Appendix:

CAB: means Change Advisory Board which is the managerial instance supporting the assessment, prioritization, authorization, and scheduling of changes.

CCTV: means Closed-Circuit Television which is also known as video surveillance, is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors.

CI/CD: means Continuous Integration and Continuous Development which is a modern software development practice in which incremental code changes are made frequently and reliably. Automated build-and-test steps

triggered by CI ensure that code changes being merged into the repository are reliable. The code is then delivered quickly and seamlessly as a part of the CD process. The CI/CD pipeline refers to the automation that enables incremental code changes from developers' desktops to be delivered quickly and reliably to production.

Encryption means a computing process that encodes plaintext/cleartext (unencrypted, human-readable data) into ciphertext (encrypted data) that is accessible only by authorized users with the right cryptographic key.

HTTPS: means Hypertext Transfer Protocol Secure which is an internet communication protocol that protects the integrity and confidentiality of data between the user's computer and a website.

ITSM: means IT Service Management tool which is a software solution that helps organisations manage the lifecycle of IT services: provision, tracking changes, managing incidents and requests.

SAST, DAST and/or SCA: means tools for a secure code review, being a specialized task involving manual and/or automated review of an application's source code to identify security-related vulnerabilities. Static Application Security Testing (SAST) aims at identifying common flaws before compiling a release. Dynamic Application Security Testing (DAST) aims at examining a running build and detect issues such as misconfiguration and error handling. Software Composition Analysis (SCA) is an automated process that identifies vulnerabilities in software libraries and open-source components licenses in a codebase. This analysis is performed to evaluate security, license compliance, and code quality.

Service: means SITA Advanced Data Services.

SIEM: means Security Information and Event Management which supports threat detection, compliance and security incident management through the collection and analysis (both near real time and historical) of logs, allowing to raise alerts based on security events.

SoD: means Segregation of Duties which is the concept of having more than one person required to complete a task. It is an administrative control used by organisations to prevent fraud, sabotage, theft, misuse of information, and other security compromises.

TLS: means Transport Layer Security which is a cryptographic protocol that provides end-to-end security of data sent between applications over a network.

Transparent Data Encryption: means encryption of database at file level to secure data at rest.

VPN: means Virtual Private Network which provides a secure, often encrypted connection between two private networks over a public network. A site-to-site VPN is designed to securely connect two geographically distributed sites. A remote access VPN is designed to link remote users securely to a corporate network.

3. Security Technical and Operational Measures (TOM)

3.1. Global SITA security measures

SITA has implemented security measures that apply to the organization as a whole, and hence to all of SITA's products and services.

Please refer to the following link to have access to these global security measures:

https://www.sita.aero/globalassets/docs/other/Global-Security-TOMs.pdf

This link may be updated periodically by SITA but it shall not be amended in such a way that causes material decrease in security measures applied by SITA under these TOMs.

3.2. Service specific security measures

The below security measures are implemented at SITA Advanced Data Services level.

3.2.1. Network security

The below specific network security measures are implemented for SITA Advanced Data Services service:

- Network segmentation (Virtual Network segmentation within the cloud environment),
- Ingress Controller for network traffic into container clusters,
- API Gateway for rate limiting and bot protection,
- VPN for remote support teams connecting to the cloud environment.

References	
Related ISO/IEC 27002:2022 controls	08.20. Networks security; 08.21. Security of network services; 08.22. Segregation of networks
Related GDPR principles	Integrity and confidentiality (security)

3.2.2. Operational security

The below specific operational security measures are implemented for SITA Advanced Data Services service:

- Vulnerability management (vulnerability management policy, process and procedure, vulnerability scanning (Tenable), penetration testing),
- Patch management (patch management policy, process and procedure),
- Change management (change management policy, process and procedure, use of an ITSM tool (ServiceNow), change advisory board (CAB)),
- Capacity management (capacity management policy, process and procedure)
- System operating procedures,
- Logging and monitoring (product logs collection and protection, log analysis through a SIEM for system security monitoring),
- System hardening (system hardening policy, process and procedure, hardening at asset installation, regular application of hardening baseline.

References	
Related ISO/IEC 27002:2022 controls	05.37. Documented operating procedures; 08.06. Capacity management; 08.08. Management of technical vulnerabilities; 08.15. Logging; 08.16. Monitoring activities; 08.32. Change management
Related GDPR principles	Integrity and confidentiality (security)

3.2.3. Information protection

The below specific information protection security measures are implemented for SITA Advanced Data Services service:

- Data at rest encryption (application-level encryption, database encryption, file system encryption, full disk encryption),
- Data in transit encryption (secured and accepted protocols (TLS 1.2), industry standard encryption mechanism (AES-256),
- Information deletion (data retention policy, process and procedure, data purging).

References	
Related ISO/IEC 27002:2022 controls	05.12. Classification of information; 05.14. Information transfer; 08.10. Information deletion; 08.24. Use of cryptography
Related GDPR principles	Data minimization; Accuracy; Storage limitation; Integrity and confidentiality (security)

3.2.4. Access control and authentication

The below specific access control and authentication security measures are implemented for SITA Advanced Data Services service:

- Strong authentication for APIs & SITA Privileged Users (password policy, enforcement of password complexity rules, account sessions management with account locker, log out time),
- Segregation of duties for SITA Privileged Users accessing the system remotely (SoD) (SoD policy, process and procedure, SoD matrix, account creation and access rights validation process ensuring SoD),
- Unique account per SITA Privileged User.

References	
Related ISO/IEC 27002:2022 controls	05.15. Access control; 05.17. Authentication information; 05.18. Access rights; 08.02. Privileged access rights; 08.03. Information access restriction; 08.04. Access to source code; 08.05. Secure authentication
Related GDPR principles	Integrity and confidentiality (security)

3.2.5. Application security

The below specific application security measures are implemented for SITA Advanced Data Services service:

- Secure coding (secure coding policy, process and procedure, Secure Software Development Lifecycle management, automated SAST, DAST),
- Vulnerability scanning (regular exposed assets vulnerability scanning),
- Penetration testing (regular exposed assets penetration testing),
- Secure CI/CD platform.

References	
Related ISO/IEC 27002:2022 controls	08.26. Application security requirements; 08.27. Secure system architecture and engineering principles
Related GDPR principles	Purpose limitation; Data minimization; Storage limitation

3.2.6. Service resilience

The below specific service resilience security measures are implemented for SITA Advanced Data Services service:

- Systems redundancy (to meet SLAs).

References	
Related ISO/IEC 27002:2022 controls	08.14. Redundancy of information processing facilities
Related GDPR principles	Storage limitation; Integrity and confidentiality (security)

3.2.7. Cloud security

The below specific cloud security measures are implemented for SITA Advanced Data Services service by the SITA cloud provider:

- Data Center access restriction Data Center physical access monitoring, badging system, badging systems logs collection and review, CCTV),
- Cloud redundancy capabilities (hardware redundancy, geographic redundancy),
- Cloud backup recovery testing.

References	
Related ISO/IEC 27002:2022 controls	05.23 Information security for use of cloud services; 08.14 Redundancy of information processing activities
Related GDPR principles	Integrity and confidentiality (security)