Initial Risk Assessment

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1 Table of Contents

2 SuC Description

The definition of the system under consideration (SuC) can be taken from the system description (*S PPRAMS/50 System Description/System Description*)

3 Threat Catalogue

The following threat catalogue is used in this version of the specifications: [SP-SEC-ThreatCat]

A future version of this specification can include an updated threat catalogue harmonizing various existing threat catalogues (BSI, ANSSI, MITRE,...).

4 Risk Impact Assessment Method

The initial risk assessment is based on the impact assessment method. That method evaluates the worst case impact if an attack is successful. The impact is assessed based on different criteria. These criteria are:

- Confidentiality
- Integrity
- Availability
- Non Repudiation
- Authenticity

Each assessment criteria is evaluated based on different categories of impact. Based on the impact, the level (low - very high) is defined. In the evaluation always the maximum value of the evaluated categories is chosen.

The definitions are listed in the following table.

Category / Protection class	Financial Impact:	Privacy violations:	Violation of laws, regulations and rules:	Disruption of business activity:	Loss of reputation:	Health damage / safety impact:
Definition	Loss of revenue, damages, additional personnel costs or investments, material damage, etc.	Handling personal data of customers, employees and suppliers on the basis of the applicable data protection laws and the guidelines applicable thereto. It is strongly recommended to coordinate the assessment with the relevant data protection organisation.	For example: Group guidelines, company agreements, service regulations, legal ordinances, customs regulations, etc.	Delayed implementation, late delivery, additional expenditure, inadequate service, etc.	Negative reporting, loss of reputation, loss of confidence among customers and business partners, etc.	Individuals may suffer minor injuries if the system fails.

| Low | No or only minor financial damage. Financial thresholds are defined by the CISO or the CEO. | An impairment of the right of self-determination with regard to information has no effect on the right of personality of the person concerned. e.g. generally accessible data, address data within the scope of an employment contract or other contractual relationship, personnel number. | The risk occurrence comprises a single issue with politically/legally relevant sub-aspects. Note: The following aspects may be relevant for the assessment: contractual agreements or EU-GDPR right to personal self-determination and integrity. | Increased constraints on operations with acceptable impact on capabilities/processes. Note: The following aspect may be relevant in the assessment: - End customer service provision - public supply | Country-wide and supra-regional (neighboring countries) critical reporting of sub-areas/individuals of the company. Note: The following aspects may be relevant when assessing reputation: Employee reputation, employer reputation, strategic target achievement at risk, loss of customers or market share / political trust. | If the system fails, individuals may suffer serious injuries. As a rule, inpatient hospitalization is required. |

Middle	Tolerable financial damage. The financial thresholds are defined by the CISO or the CEO.	An impairment of the right to informational self-determination has a minor impact on the personal rights of the data subject. e.g. generally accessible data, address data within the scope of an employment contract or other contractual relationship, personnel number.	The occurrence of risk comprises a single issue that leads to a contractual, legal or political audit with probable consequences (e.g., penalties). Note: The following aspects may be relevant for the assessment: contractual agreements or EU-GDPR right to personal self-determination and integrity.	Increased constraints on operations with acceptable impact on capabilities/processes. Note: The following aspect may be relevant in the assessment: - End customer service provision - public supply	Country-wide and supra-regional (neighboring countries) critical reporting of sub-areas/individuals of the company. Note: The following aspects may be relevant when assessing reputation: Employee reputation, employer reputation, strategic target achievement at risk, loss of customers or market share / political trust.	If the system fails, individuals may suffer serious injuries. As a rule, inpatient hospitalization is required.

High	High financial damage. Financial thresholds are defined by the CISO or the CEO.	An impairment of the right to informational self-determination has a significant impact on the personal rights of the person concerned or is a criminal offense. e.g. customer or employee profiles, qualification or scoring data, wage or salary data, bank data, health data, political and religious convictions, video surveillance and recording, telecommunication service data at the provider.	The occurrence of risk comprises a situation/series of situations that have contractual, legal or political consequences for parts of the management. Note: The following aspects may be relevant for the assessment: contractual agreements or EU-GDPR right to personal self-determination and integrity.	Extensive constraints in operative operations with high impact on capabilities/ processes or critical facilities. Note: The following aspect may be relevant in the assessment: - End-user service delivery - public supply	National/international critical reporting. The reputation of the operator is at risk, market shares and new business are at risk. Note: The following aspects may be relevant when assessing reputation: Employee reputation, employer reputation, strategic goal achievement at risk, customer or market share loss / political trust.	If the system fails, many people can suffer serious injuries. As a rule, inpatient hospitalization is required. Individuals may also be killed by the failure of the system.

Very High	Existence-threatening damage. The financial threshold values are defined by the CISO or the CEO.	There is a high need for protection and, moreover, the processing of personal data is an existential business purpose of the company. An impairment of the right to informational self-determination can threaten the existence of the company. For example, personal data that is subject to professional secrecy or bank or credit card accounts at the call centre.	The occurrence of risk comprises a series of circumstances that lead to critical contractual, legal and political consequences for the entire management. Note: The following aspects may be relevant for the assessment: contractual agreements or EU-GDPR right to personal self-determination and integrity.	Large-scale cessation of operations. Capabilities/processes have been interrupted or are operating below the legal thresholds for critical facilities. Note: The following aspect may be relevant in the assessment: - End customer service provision - Public supply	International negative reporting, image of the company damaged for the long term with all stakeholders. Note: The following aspects may be relevant when assessing reputation: Employee reputation, employer reputation, strategic goal achievement at risk, loss of customers or market share / political trust.	If the system fails, many people can be killed.

5 Initial Risk Assessment

The following initial risk assessment is documented based on the definitions in chapter 2 and 4.

Requ / System Name	Secure Component	SCS-STS	SCS-PKI	SCS-UAS	SCS-LOG	SCS-BKP	SCS-IAM	SCS-NAC	SCS-DNS
System ID	1	2	3	4	5	6	7	8	9
Function	Safety related function in CCS according to SuC description	Provide Time for synchronised time	Certificate Management	Single sign on, authentification	collecting and evaluating logs	back up of software and configs, centrally	Identity and access management	Network authentication	Domain name system
relevant for safety	yes	yes	no	no	no	no	no	no	no
Confidentiality	not relevant	not relevant	very high	very high	very high	not relevant	high	low	low
Integrity	very high	high	very high	very high	very high	very high	very high	very high	very high
Availability	high	middle	middle	high	high	very high	very high	very high	very high
Non-Rep	middle	middle	middle	middle	middle	middle	very high	high	high
Authenticity	very high	middle	nr	high	high	high	very high	very high	very high

Requ / System Name	Secure Component	SCS-STS	SCS-PKI	SCS-UAS	SCS-LOG	SCS-BKP	SCS-IAM	SCS-NAC	SCS-DNS
Explanation	If a secure component is successfully manipulated harmful action with multiple dead and extensive impact on nature and environment, financial loss and reputation can be achieved.	Time drift can be used for attacks. Still permanent availability is not required as internal clocks manage minimal time drift.	root is critical	stores all user information. comprimising gives access to all systems using UAE	single source of truth for security status. loosing the data or manipulation makes monitoring "blind"	loss of software and config in central storage is catastrophy, if roll-back or new set-up (after incident) is required.	single source of access rights for human users and allowed assets	single source for network access	single source for network identifiers
Comment		relevant to safety based on safety definition							

The results are used as input to the detailed risk assessment and lay the basis for the zoning of the SuC.