System Description and Risk Analysis

Cyrill Krhenbhl — Silvan Egli — Lukas Bischofberger

. . .

Page limit: 30 pages.

Contents

1	tem Characterization								
	1.1	System Overview							
	1.2	System Functionality							
	1.3	Security Design							
	1.4	Components							
	1.5	Backdoors							
	1.6	Additional Material							
2		k Analysis and Security Measures Assets							
	2.1	Assets							
	2.2	Threat Sources							
	2.3	Risks Definitions							
		tusks Demittions							
	2.4	Risk Evaluation							
	2.4								
	2.4	Risk Evaluation							
	2.4	Risk Evaluation							

1 System Characterization

1.1 System Overview

Describe the system's mission, the system boundaries, and the overall system architecture, including the main subsystems and their relationships. This description should provide a high-level overview of the system, e.g., suitable for managers, that complements the more technical description that follows.

1.2 System Functionality

Describe the system's functions.

1.3 Security Design

Describe the system's security design, including key and session management and security of data at rest and in transit.

1.4 Components

List all system components and their interfaces, subdivided, for example, into categories such as platforms, applications, data records, etc. For each component, state its relevant properties.

1.5 Backdoors

Describe the implemented backdoors.

Hide this subsection in the version handed over to the reviewing team by setting the flag showbackdoors at the top of this document to false.

1.6 Additional Material

You may have additional sections according to your needs.

2 Risk Analysis and Security Measures

2.1 Assets

Describe the relevant assets and their required security properties. For example, data objects, access restrictions, configurations, etc.

2.2 Threat Sources

Name and describe potential threat sources including their motivation.

2.3 Risks Definitions

Define likelihood, impact and risk level using the following three tables.

Likelihood		
Likelihood	Description	
High		
Medium		
Low		

Impact		
Impact	Description	
High	• • •	
Medium		
Low		

Risk Level				
Likelihood Impact			t	
	Low	Medium	High	
High	Low	Medium	High	
Medium	Low	Medium	Medium	
Low	Low	Low	Low	

2.4 Risk Evaluation

List all potential threats and the corresponding countermeasures. Estimate the risk based on the information about the threat, the threat sources and the corresponding countermeasure. Adhere to the risk definitions you have given above.

2.4.1 Evaluation Asset X

Evaluate the likelihood, impact and the resulting risk, after implementation of the corresponding countermeasures. For each threat, clearly name the threat source and the threat action.

No.	Threat	Countermeasure(s)	$_{\rm L}$	Ι	Risk
1			Low	Low	Low
2			Medium	High	Medium

2.4.2 Evaluation Asset y

No.	Threat	Countermeasure(s)	L	I	Risk
1			Low	Low	Low
2			Medium	High	Medium

2.4.3 Detailed Description of Selected Countermeasures

Optionally explain the details of the countermeasures mentioned above.

2.4.4 Risk Acceptance

List all medium and high risks, according to the evaluation above. For each risk, propose additional countermeasures that could be implemented to further reduce the risks.

No. of threat	Proposed additional countermeasure including expected impact