

Information System Security

Security Audit

Details

- ▶ **The objective of this lab is to present a risk analysis for each vulnerabilities you find last week on the web application.**
- ▶ **On a scale from 1 to 4, the level of security needs for this web application are evaluated to :**
 - Availability : 3
 - Integrity : 3
 - Confidentiality : 3
 - Proof : 3
- ▶ **The maximum severity (significance of the impacts) for your risk analysis can not exceed 3 (major).**

Details

- Find a scenario of threat for each attack (describe who attack what, exploiting what vulnerability and getting what information)
- Evaluate the ease of operation of each scenario of threat (on a scale from 1 to 4) :

Level	1	2	3	4
Ease of operation	Difficult	High	Moderate	Easy

- Evaluate the severity (significance of the impacts) for the web administrator of each scenario

Level	1	2	3	4
Severity	Minor	Moderate	Major	Catastrophic

Details

► Ease of operation :

- Difficult : exploitation of unpublished vulnerabilities requiring expertise in information systems security and the development of specific and targeted tools
- High : exploitation of public vulnerabilities requiring skills in security of information systems and the development of simple tools
- Moderate : exploitation requiring simple techniques and publicly available tools
- Easy : trivial exploitation, without any special tools

Details

- Deduce from the ease of operation of your scenario of threat and the severity associated the risk level for each risk :

The diagram illustrates a risk matrix. A vertical arrow on the left points downwards, labeled 'Severity'. A horizontal arrow at the top points to the right, labeled 'Ease of operation'. The matrix consists of four rows and four columns. The rows are labeled 'Minor', 'Moderate', 'Major', and 'Catastrophic' from top to bottom. The columns are labeled 'Difficult', 'High', 'Moderate', and 'Easy' from left to right. The cells contain risk levels: 'Low' (green), 'Medium' (yellow), 'High' (orange), and 'Critical' (red).

		Ease of operation			
		Difficult	High	Moderate	Easy
Severity	Minor	Low	Low	Medium	High
	Moderate	Low	Medium	Medium	High
	Major	Medium	High	High	Critical
	Catastrophic	Medium	High	Critical	Critical

Details

- For each risk, give technical or organizational countermeasures (recommendations) to reduce the risk level
- Evaluate the residual risk (evaluate the ease of operation and severity of each scenario after your recommendations)
- Show me the initial risk and residual risk in 2 tables for each scenario :

