UNIVERSITY OF SANTIAGO DE COMPOSTELA

ESCOLA TÉCNICA SUPERIOR DE ENXEÑARÍA

Improvements in IDS: adding functionality to Wazuh

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STATE:

That the present report entitled *Improvements in IDS: adding functionality to Wazuh* written by **Andrés Santiago Gómez Vidal** in order to obtain the ECTS corresponding to the final degree project of the Computer Engineering degree was conducted under our direction in the department of Computer Science and Artificial Intelligence of the University of Santiago de Compostela.

For the purpose to be duly recorded, this document was signed in Santiago de Compostela on February TODO, 2019:

The director, The codirector, The student,

(Purificación Cariñena Amigo) (Andrés Tarascó Acuña) (Andrés Gómez Vidal)

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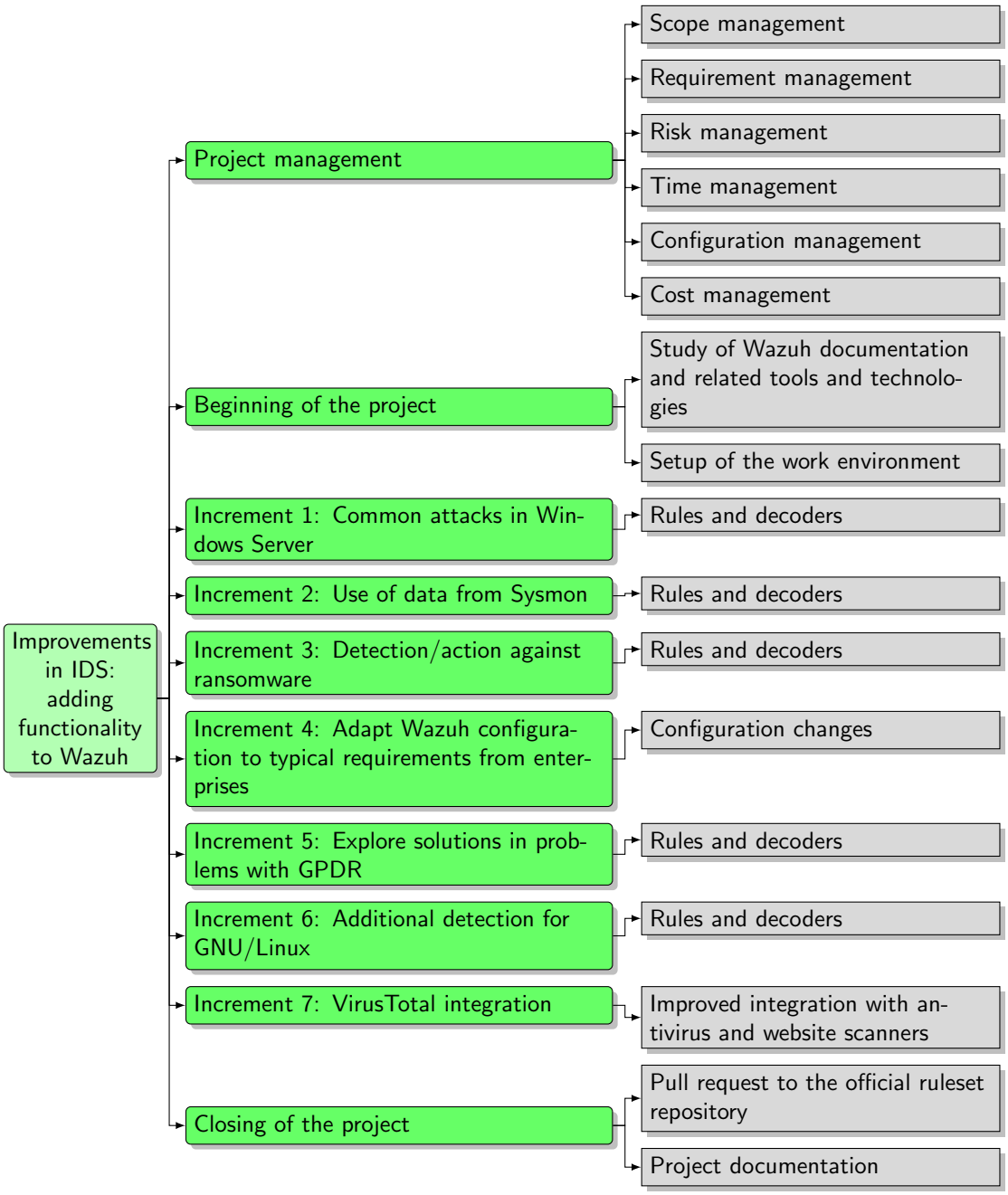
Chapter 1

Introdución

Chapter 2

Planning

2.1 Initial WBS



2.2 Initial planning

2.3 Final planning

Chapter 3

Requirements

Chapter 4

Design

Chapter 5

Conclusions and additions

5.1 Risk management

5.1.1 Risk metrics

Chances of the risk happening	Probability
≥80%	High
Between 30% and 80%	Medium
≤30%	Low

Table 5.1: Probability classification of risks

Resource in Place / Effort / Cost	Impact
≥20%	High
Between 10% and 20%	Medium
≤10%	Low

Table 5.2: Impact classification of risks

Exposition		Probability		
		High	**Medium**	**Low**
Impact	**High**	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

Table 5.3: Method of calculation of Exposition based of Probability and Impact

5.1.2 Risk types

5.1.3 Risk identification

Table 5.4: Project risks

Identifier	Name
R-001	Optimist planning, "best case" (instead of a realistic "expected case")
R-002	Bad requirement specification
R-003	Design errors
R-004	Lack of key information from sources
R-005	Lack of feedback or support from the security consultants of Tarlogic
R-006	The learning curve of some technologies is larger than expected
R-007	The unexplained parts of the project take more time than expected
R-008	Cannot access source material
R-009	Unexpected changes in any of the APIs used in the project
R-010	Loss of work
R-011	Wrong management of the project's configuration
R-012	A delay in one task leads to cascading delays in the dependent tasks
R-013	Unnecesary work
R-014	The quality of the product is not enough
R-015	Sickness or overwork
R-016	Performance issues

5.1.4 Risk analysis

Identifier	**R-000**
Name	Bla
Description	Bla bla bla bla bla bla bla bla bla bla bla bla bla Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla Bla bla bla bla bla bla bla bla bla bla bla bla bla
Probability	Low , Medium , High
Impact	Low , Medium , High
Exposition	Low , Medium , High
Indicator	Bla bla bla bla bla bla bla bla bla bla bla bla bla

Identifier	**R-001**
Name	Optimist planning, “best case” (instead of a realistic “expected case”)
Description	An optimistict planning at the start of the project does not take into account problems or delays, and so it does not allocate time for them, leading to cascading delays if they happen.
Probability	Medium
Impact	High
Exposition	High
Indicator	There are 3 consecutive delays, after the beginning of the project.

Identifier	**R-002**
Name	Bad requirement specification
Description	The requirements specified at the beginning of the project are not specific enough, are not needed or there are new requirements after the beginning of the project.
Probability	High
Impact	High
Exposition	High
Indicator	There are 3 changes in the requirements specification.

Identifier	**R-003**
Name	Design errors
Description	A design is not enough or is incorrect, needing a re-design and probably changes in the next steps it was used.
Probability	Low
Impact	Medium
Exposition	Medium
Indicator	There are 3 designs that need rework.

Identifier	**R-001**
Name	
Description	
Probability	
Impact	
Exposition	
Indicator	

Identifier	**R-001**
Name	
Description	
Probability	
Impact	
Exposition	
Indicator	

Identifier	**R-001**
Name	
Description	
Probability	
Impact	
Exposition	
Indicator	

5.1.5 Risk planning

5.1.6 Risk supervision

Appendix A

Manuais técnicos

Manuais técnicos: en función do tipo de Traballo e metodoloxía empregada, o contido poderase dividir en varios documentos. En todo caso, neles incluirase toda a información precisa para aquelas persoas que se vaian a encargar do desenvolvemento e/ou modificación do Sistema (por exemplo código fonte, recursos necesarios, operacións necesarias para modificacións e probas, posibles problemas, etc.). O código fonte poderase entregar en soporte informático en formatos PDF ou postscript.

Appendix B

Manuais de usuario

Manuais de usuario: incluirán toda a información precisa para aquelas persoas que utilicen o Sistema: instalación, utilización, configuración, mensaxes de erro, etc. A documentación do usuario debe ser autocontida, é dicir, para o seu entendemento o usuario final non debe precisar da lectura de outro manual técnico.

Appendix C

Licenza

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