Questionnaire on Software vulnerability commit message requirements

Dear Software Security Engineer,

Hello! Thank you very much for participating in this questionnaire survey. This questionnaire aims to understand the needs and expectations of software security engineers for software vulnerability commit messages, so as to help us improve and optimize the writing of software vulnerability commit messages. Your answers will be very helpful to us. This questionnaire will take about 5-10 minutes to complete. Please fill it out according to your actual situation and real thoughts. Thank you again for your support and cooperation!

I. Personal Information

1、What is the scale of your company? [Single-choice question]
○ Small companies (with less than 100 employees)
○ Medium-sized companies (100-500 employees)
○ Large companies (500-1,000 employees)
○ Super-large companies (with over 1,000 employees)

2、What are your years of experience in the field of software security? [Single-choice question]
○ Less than 1 year
○ 1 - 3 year
○ 3 - 5 year
○ 5 - 10 year
○ More than 10 years

3、What are your main job responsibilities? [Single-choice question]
○ Vulnerability mining and analysis
○ Vulnerability repair and development
○ Safety testing and evaluation
○ Security architecture design
○ Others_____

Ii. Usage of commit Messages for Software Vulnerabilities

4、Do you often read and write commit messages related to software vulnerabilities in your daily work? [Single-choice question]
○ Yes
○ No

5、What do you think of the current software vulnerability commit message in terms of content integrity? [Single-choice question]
○ It's very complete and can meet my needs
○ It's basically complete, but sometimes some information is missing

○ It is not complete enough and often requires further reference to other materials
○ It's completely incomplete and cannot meet my needs

6、 What do you pay the most attention to when reading the software vulnerability commit message? [Multiple Choice Question]
○ Summary
○ Testing）
○ Security Recommendations
○ References
○ Vulnerability Severity
○ Exploitability
○ Patch Compatibility
○ Impact
○ Documentation Updates
○ Patch Side Effects
○ Fix
○ Deployment Instructions
○ Acknowledgments
○ Background
○ Compliance and Regulations
○ Timeline
○ Others_____

Iii. Requirements for commit message Content regarding Software Vulnerabilities

7、 Which of the following factors do you think must be included in a software vulnerability commit message? [Multiple Choice Question]
○ Summary
○ Testing
○ Security Recommendations
○ References
○ Vulnerability Severity
○ Exploitability
○ Patch Compatibility
○ Impact
○ Documentation Updates
○ Patch Side Effects
○ Fix
○ Deployment Instructions
○ Acknowledgments
○ Background
○ Compliance and Regulations
○ Timeline
○ Others_____

8、For each factor, what are your requirements for the level of detail of the following content? Please evaluate each factor based on your needs. 1 point indicates average, 2 points indicates moderate, and 3 points indicates strong.

	1	2	3
Summary	O	O	O
Testing	O	O	O
Security Recommendations	O	O	O
References	O	O	O
Vulnerability Severity	O	O	O
Exploitability	O	O	O
Patch Compatibility	O	O	O
Impact	O	O	O
Documentation Updates	O	O	O
Patch Side Effects	O	O	O
Fix	O	O	O
Deployment Instructions	O	O	O
Acknowledgments	O	O	O
Background	O	O	O
Compliance and Regulations	O	O	O
Timeline	O	O	O

9、Which factors do you think are overemphasized or underemphasized in the current commit message? Please evaluate each factor based on your needs. 1 point indicates insufficient emphasis, 2 points indicates appropriate emphasis, and 3 points indicates excessive emphasis.

	1	2	3
Summary	O	O	O
Testing	O	O	O
Security Recommendations	O	O	O
References	O	O	O
Vulnerability Severity	O	O	O
Exploitability	O	O	O
Patch Compatibility	O	O	O
Impact	O	O	O
Documentation Updates	O	O	O
Patch Side Effects	O	O	O
Fix	O	O	O

Deployment Instructions	○	○	○
Acknowledgments	○	○	○
Background	○	○	○
Compliance and Regulations	○	○	○
Timeline	○	○	○

Iv. Format and Style of commit Messages for Software Vulnerabilities

10、 Do you think the format of the software vulnerability commit message is important? [Single-choice question]
○ Very important
○ Important
○ General
○ Not very important
○ Completely unimportant

11、 Does your team have a format specification for commit messages regarding software vulnerabilities? [Single-choice question]
○ Yes, and I strictly abide by it
○ Yes, but I don't quite abide by it
○ No

12、Which style of commit message do you prefer? [Single-choice question]
○ Concise and clear, getting straight to the point
○ Detailed and comprehensive, containing as much information as possible
○ Others_____

V. Views on Generation Tools

13、 Have you ever used a tool to generate commit messages for software vulnerabilities? [Single-choice question]
○ Yes
○ No

14、If you have used them, what do you think of the quality of the commit messages generated by these tools? [Single-choice question]
○ Very good. It can meet my needs
○ It's basically okay, but further revisions are needed
○ It's not very good and requires a lot of modifications before it can be used
○ Completely unusable

15、How do you think the tools for generating software vulnerability commit messages should be improved? [Multiple Choice Question]
○ Improve the accuracy of the generated content

- ○ Enhance the completeness of the generated content
- ○ Improve the user interface and interaction experience
- ○ Increase the generation speed
- ○ Increase support for different languages
- ○ Provide more template and format options
- ○ Others_____

Vi. Other Suggestions

16、Do you have any other suggestions or expectations regarding the software vulnerability commit message? Please describe briefly.

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Thank you very much for taking the time to participate in this questionnaire survey! Your opinions are of great significance to us and will help us better meet the needs of software security engineers and improve the quality of software vulnerability commit messages.