Agile Methods Security by Software Development Companies in Nigeria

Interview Guide

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Introduction

The aim of this research is to help practitioners make better use of agile methods to create secure applications by building a conceptual framework to be adopted in the software industry. The study will examine practitioner perceptions of the impact of security on software quality and productivity in some selected companies in Nigeria. The study will further explore how security influences the development of high quality agile software.

I would like to ask you some questions about your experience of security engineering while using agile software development methods. Additionally, I would like to know your perception of security integration into normal agile processes. I will be interviewing a cross section of practitioners ranging from technical (software developers, security specialists, systems analyst, business analyst) to non-technical (decision maker/managers, project managers) to understand different business context.

Security Engineering while Using Agile Methods

1. Please can you describe your job role?

    a. How important is cybersecurity to your role?

    b. What project(s) are you working on currently that involves security tasks

    c. Have you ever had any incidence of security breach from within/outside your organization?

2. Please describe how security issues influence the way you manage projects?

3. When you are planning a new software project, how do you take into account security features?

4. Please describe how you do security requirements gathering?

    a. (Probing) How are security requirements discussed and disseminated within your organization?

    b. How is security involved at the requirements gathering stage?

    c. Who else is involved in the security conversation at the requirements gathering stage for a new feature?

5. How do you consider security issues during the design stage of software development? (Probing) – Software, Hardware, Network, Storage?

6. Please describe what informs the company's decisions when selecting or developing appropriate secure software design methods, tools, and techniques?

    a. (Probing) Do you have an organizational security policy, standard or guideline for software design and software architectures?

    b. How do you ensure adherence to security technical strategies in software design?

7. Please describe the collaboration practices that you use in your organization to handle security?

    a. (Probing) Who is responsible for handling security audits in your current company?

8. Please describe the software testing methods adopted in your organization?

    a. (Probing) How do you manage security vulnerability testing activities within your organization?

    b. Does your organization use security tools for the following;

        i. Vulnerability checks

        ii. Software testing

9. What strategies do you use for conducting security risk and business impact assessments?

    a. How do you ensure technologies are securely used?

10. How do you build security into deployment processes?

    a. (Probing) How does security impacts the CI/CD pipeline processes?

    b. Do Security Deployment tools fit into your deployment processes?

11. Would you say your organization has a security culture?

    a. (Probing) Please can you describe how the security culture is built or developed in your organization?

12. How do you ensure adherence to regulatory policies in your company such the Nigeria Data Protection Regulation (NDPR)?

13. (Open-Ended) Does your company face any security resource constraints during software development?

    a. How do you deal with budgetary constraints in the face of technological requirements?

    b.   How often do you give security trainings to your staff?

    c.   If you are to advice the government, what other areas of cybersecurity do you think needs urgent attention?

Closing Question

1. Is there anything else you think is relevant that has been missed?

Personal Details

1. What is your name?
2. What is your educational level and professional background?
3. What is your current job title?
4. How many people are in the current projects you are handling?
5. How long have you been working at the current company?
6. How long have you been working in the software industry?