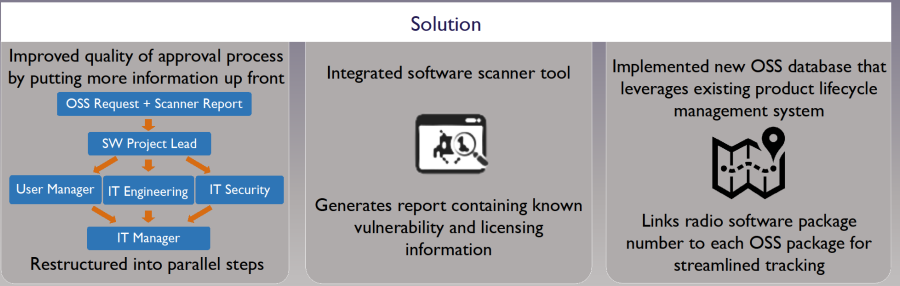
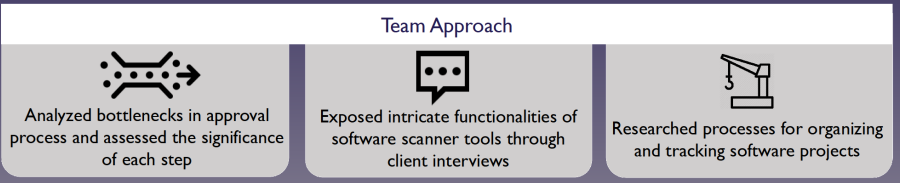
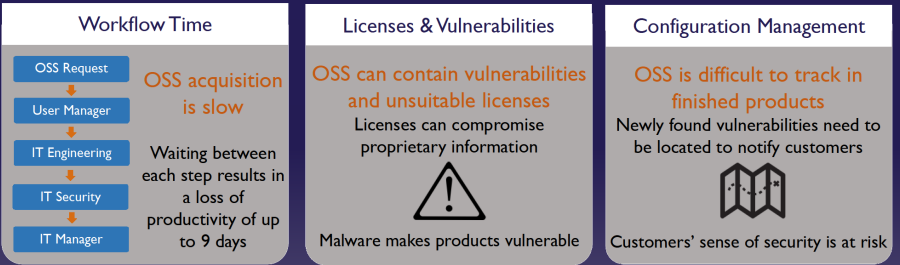


Thales Defense & Securities, Inc. is a US federal defense contractor located in Clarksburg, MD that specializes in handheld communication devices. Currently, over 200,000 of their radios are used by troops deployed overseas. Thales engineers' use of Open Source Software (OSS) stems from its widespread availability, minimal development time, and minimum costs. Using OSS, however, presents three major problems for the company.



Value

<p>44%</p> <p>Workflow Time Savings</p>	<p>\$5 Million/case</p> <p>Avoided Litigation Costs</p>	<p>\$50,000/patch</p> <p>Avoided Software Patch Costs</p>	<p>Priceless</p> <p>Enhanced Sense of Security for Customers</p>
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Special thanks to:
 Doug Bishop - Project Sponsor
 Steve Kutchi - Project Champion
 Dr. James Purtillo - Faculty Advisor
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**THE QUEST - THALES PROJECT
IT NETWORK SECURITY METRICS**

QUEST STUDENT TEAM: THE DEFENDERS

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Project Champion: Steve Kutchi, Engineering Lab Manager			
Faculty Advisor: Dr. James Purtilo			

PROJECT SUMMARY

Thales Defense & Security, Inc. is a U.S. defense contractor that serves defense, federal, and commercial markets. A world leader in military tactical radio solutions, their main engineering facility in Clarksburg, MD is home to numerous high-tech labs and equipment used for research and development of cutting edge products. The Defenders have been tasked with providing recommendations to the Thales software engineering and IT departments. Software engineering focuses on embedded real time coding and signal processing algorithms for their radios, while one of IT's primary goals is to maintain security on the Thales computer network. Thales currently utilizes a linear workflow process for vetting, installing, and updating open source software (OSS) packages. Not only does the linearity create time and cost inefficiencies, but there is also no formal method for securely checking possible vulnerability and licensing issues with the OSS packages. Furthermore, Thales cannot track which products contain which software, which presents security concerns for customers when new vulnerabilities are found. Therefore, we developed a faster workflow that also takes into account OSS licensing and code vulnerabilities. In addition, we recommended a system that can track the whereabouts of OSS. Our process not only saves time and money for Thales but will also ensure the reliability and functionality of their products.

CONTRIBUTIONS AND RECOMMENDATIONS

By maintaining close and continuous contact with the senior engineers and IT department manager, our team was able to adapt and develop a solution that closely fits Thales' needs. We discussed our solution with the Thales staff regularly to determine the feasibility of our improved process within their current system and to see how we could leverage systems they already have in place. Our new software scanning tool that analyzes licensing and vulnerabilities streamlines the process and eliminates the human error factor. Furthermore, it aligns well with the restructuring of the process into parallel steps which saves 44% of workflow time. The scanning tool saves up to \$50,000 every time it prevents a new vulnerability needing to be patched, and it avoids the cost of licensing infringement which could force Thales to reveal their proprietary information. In addition, integrating a configuration management database to easily locate code will increase the value of Thales as a reliable defense company as it enhances their customers' sense of security.