Implementation of CIS v8 Benchmarks on Multiple Operating Systems

Born and raised in B2B connectivity, we combine innovation, expertise, and incredible talent into (mobile) connectivity solutions that will grow both businesses and society. 0G to 5G. Citymesh is the European leader and expert in the construction of private 4G & 5G networks and WiFi as a Service, with +50 MPNs deployed.

Context of the internship

Company Overview:

Our company is committed to maintaining the highest cybersecurity and system integrity standards. As part of this commitment, we aim to implement the latest CIS (Center for Internet Security) v8 benchmarks across various operating systems, including Windows, MacOS, and Debian. These benchmarks provide a globally recognized set of best practices for securing IT systems.

Project Overview:

The intern will implement CIS v8 benchmarks across multiple operating systems to enhance the security posture of our IT infrastructure. This project will involve assessing current system configurations, implementing recommended settings, and ensuring compliance with CIS v8 guidelines. The intern will also document the process and create automated solutions to streamline future implementations.

Goal:

This internship aims to implement CIS v8 successfully benchmarks on Windows, MacOS, and Debian operating systems, ensuring the systems meet the latest security standards. By the end of the internship, the intern will have contributed to a more secure IT environment while gaining experience in systems hardening, security compliance, and automation.

Key Responsibilities:

- Analyze current system configurations on Windows, MacOS, and Debian.
- Research and implement CIS v8 benchmarks on each operating system.
- Develop scripts or automated tools to streamline the application of security configurations.
- Test system stability and security post-implementation to ensure compliance without impacting performance.
- Collaborate with the IT team to document all implemented changes and create guidelines for future updates.

Expected Output:

By the end of the internship, the intern is expected to:

- Successfully implemented CIS v8 benchmarks on all targeted operating systems (Windows, MacOS, Debian).
- Deliver automated scripts or tools for efficiently applying and maintaining CIS benchmarks.
- Document the entire process, providing step-by-step guides for future use.
- Ensure all systems fully comply with CIS v8 guidelines without compromising functionality.

Our approach

We strive to provide comprehensive coaching and furnish students with supplementary resources and training as required. Our interns benefit from the constant support of a dedicated mentor who can readily offer assistance. Joining us means being part of a vibrant and youthful team, working in a cutting-edge technological environment.

Mentor: Laurens Puystjens

Student profile

Background and Education:

- Undergraduate or graduate student pursuing a degree in Computer Science, Information Security, Network Engineering, or a related field.
- Strong academic record with coursework in networking, cybersecurity, and programming.

Technical Skills:

- Proficiency in programming languages such as Python, Java, or C/C++.
- Familiarity with networking concepts, including TCP/IP, routing, and wireless protocols.
- Basic understanding of cybersecurity principles and threats.
- Knowledge of machine learning and data analysis (preferred but optional).

Skills and Qualities:

- Strong problem-solving and analytical skills.
- Attention to detail and a systematic approach to tasks.
- Ability to work independently and as part of a team.
- Good communication skills to convey technical concepts effectively.
- Eagerness to learn and adapt to new technologies and challenges.
- Commitment to ethical behavior, as this role involves monitoring network activity and data.

Interested?

Contact Jens Buysse (jens.buysse@citymesh.com and celine.vileyn@citymesh.com) with your CV. We have other internships available as well! Don't hesitate to contact us.

connecting opportunities

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