Customer Success Story

The Company

The Université du Québec a Montréal

The Université du Québec a Montréal (UQAM), located in Montréal and founded in 1969, is widely considered the largest French-speaking university in the world and currently encompasses a student population of roughly 43,000 along with a staff of several thousand educators, administrators and operational employees.

Guillaume Riffard and Stéphane Talbot serve in the security team for the SITEL (Service de l’Informatique et des Telecommunications) where they are directly responsible for maintaining the resiliency and security of the University’s on-site network, along with that of its many other endpoints, systems and Web applications.

In addition to working to ensure that the University’s IT assets are protected and running optimally on a daily basis, the security team is also responsible for helping UQAM support the confidentiality, integrity and availability of its substantial electronic data assets, which include the personal information of its thousands of students, employees and alumni.

Solution Summary

<table>
<thead>
<tr>
<th>CUSTOMER TYPE</th>
<th>Higher Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHALLENGE</td>
<td>Improving network security management and raising awareness of internal security challenges.</td>
</tr>
<tr>
<td>SOLUTION</td>
<td>CORE Impact® Pro, the first comprehensive penetration testing software solution for assessing organizations’ most significant IT vulnerabilities and information security threats.</td>
</tr>
</tbody>
</table>

“Impact Pro is extremely valuable to us as we can use it both to test our infrastructure and employ it as an educational resource to illustrate risk to other stakeholders within IT. We’re engaging the solution to find and address specific points of risk and to raise internal awareness of important IT security trends.”

The Challenge

Like most other universities, UQAM’s security team must balance its mandate to secure all IT assets and protect sensitive electronic data while supporting a network infrastructure that permits open use by a large number of individuals working across a wide range of academic and research fields.

The school’s security concerns are further intensified by the vast number and array of mobile devices - primarily laptop computers - which it must accommodate on an ongoing basis, but over which it has little-to-no security oversight.

As UQAM continues to grow rapidly, it’s also constantly expanding its’ network infrastructure, so the security team sought a solution that would allow them to test and validate that new equipment is properly configured and secured at the time it is deployed, and does not introduce new points of risk.

“We needed a form of proactive testing that would allow us to not only say that our new architecture was secure but also to prove it,” said Riffard. “We wanted something that we could easily use to illustrate and prove the existence of vulnerabilities to all of our IT administrators, and something that could also tell us precisely how those issues were exploitable.”

The Solution

To help address its multi-tiered security demands, continue to build out its network infrastructure and enlist a more formal method to illustrate risks internally, UQAM opted to license CORE Impact Pro to begin conducting penetration testing across its network and other IT systems and applications. In doing so, the University has been able to establish a minimum level of security that it requires across its existing network devices, and begin using those parameters as a benchmark for improving and measuring security standing over time.
As the University had limited internal penetration testing capabilities before licensing Impact Pro, the SITEL team members were able to rapidly isolate many previously unknown security issues and begin working with involved stakeholders to address those problems. And while the initial goal of UQAM’s expanded penetration testing was aimed at addressing network security issues, Riffard and Talbot said that they have also begun using the product to engage in web applications assessments, a new and important process for the school to embrace in maturing its overall security management program.

“Impact Pro helps us to find vulnerabilities and correct them rapidly, and over time our plan is to use it more systematically and employ testing to improve security across our entire organization,” said Talbot. “The product’s automation is a big part of this whole plan, as it allows us to do more with less and perform a lot of tests even if we do not add new expertise in house.”

The Result

Benchmarking Network Security

With a sizeable network including a number of devices and programs that have been in place for many years, it was long challenging for UQAM to get a fix on its current security standing to understand deficiencies and create more uniform standards for enforcement. By employing CORE Impact Pro, the SITEL team can isolate issues that may have otherwise gone unnoticed and begin seeking to remediate those problems.

Specifically, as the university continues to expand its network at a rapid pace it is using Impact Pro to test new infrastructure and eventually applications before those systems go live, ensuring that a minimum level of security is present within those systems that can be measured and improved over time.

“We use Impact Pro during the deployment of new projects and again to periodically test the security of our infrastructure,” said Talbot. “Now, whenever we launch a new server implementation, we configure it and then test it using the product to know that we’re starting from someplace where security has always been a major consideration.”

Improving Security Awareness

Like many other organizations, UQAM maintains a large, diverse IT staff with a wide range of skills and responsibilities. As such, it can be challenging to get all of those professionals on the same page in terms of understanding and addressing pervasive security issues. By using Impact Pro to exploit vulnerabilities and prove their actual risk in the face of real-world attacks, the SITEL team members are now able to provide network administrators, applications developers and other IT staffers with specific information and tangible proof of risks that must be addressed.

“In this way Impact Pro is actually helping us build a better security program; it’s a starting point to use to prove and document risks,” Riffard said. “People often have differing opinions regarding the severity of individual vulnerabilities, but now we can show that something is truly exploitable; it’s important to illustrate that sometimes an issue that initially seems a minor issue can actually lead to a serious problem.”

Testing Web Applications

Web applications have become the focus of so many attacks that it has become extremely important for organizations to attempt to lock down their online systems and content. By using Impact Pro to proactively test web applications, UQAM will be able improve its ability to identify and prioritize vulnerabilities.

Going forward the SITEL team members hope to use CORE Impact to create and enforce web applications security standards that ensure that all of the school’s outward facing online systems can stand up in the face of attacks.

“With CORE Impact we can test security from the server-side and from the web which is ideal because that’s both sides of the intrusion vector,” said Talbot. “Our plan is to use penetration testing more systematically in all of our IT projects, but web applications testing is something we’re already getting further involved with, driven by how easy it is to test applications using the product.”