Runecast Case Study

Company
Hochschule Stralsund
(Stralsund University)

Website
www.hochschule-stralsund.de

Industry
Higher Education

Location
Stralsund, Germany

Employees
~300

Overview
Stralsund University of Applied Sciences is an innovative campus university with future-oriented study programs offering 2,400 students optimal conditions for successful studies and a promising start to their careers in the fields of electrical engineering, computer science, mechanical engineering and business.

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Runecast enables a radical transformation to efficiency for **Stralsund University** IT Team

Summary

Stralsund University of Applied Sciences is a young and innovative campus university with a technical and economic profile. Future-oriented study programs, strong cooperation with companies and an excellent faculty-student ratio offer 2,400 students optimal conditions for successful studies and a promising start to their careers. The university attracts attention with excellent research and contemporary teaching in the fields of electrical engineering, computer science, mechanical engineering and business.

The university takes pride in the close relationships that it fosters with students via, among other methods, a highly accessible faculty – resulting in better practical outcomes rather than merely theoretical experience. Students jumpstart into a professional career right after graduation, enabled by mandatory company internships throughout their studies.

The Stralsund IT department supports this legacy through dedicated service to a highly functional University Computing Center. Numbering approximately five professionals, the team covers a wide range of tasks that range from the storage network and virtualization to desktop virtualization and tech support for servers.

The IT team works closely with both staff and students, regularly discussing solutions for the daily challenges encountered. This has led to a more progressive and interactive approach to IT operations management (ITOM).

For this case study, we spoke with Jan Petrischkeit, Network and System Administrator for Hochschule Stralsund University.

Challenge

The university was running 300-400 VMs with 6 hosts and 1 vCenter doing the work, as well as a smaller side system that was more for lab use, which they also used for running legacy systems. Their VMware vCenter and Horizon run strictly on premises, with the exception of students using Microsoft cloud services.

Mr. Petrischkeit was the primary specialist for VMware, so he needed a reliable and simple-to-use tool to assist him – proactively – in the areas of troubleshooting and security.

"General security questions posed challenges for the team," according to Mr. Petrischkeit, "with standards and best practices changing from version to version and 1000s of pages of documentation with each new release, so it was not humanly possible to keep up with it all in a proactive manner."

The team had budget for IT tools but not for new human resources, which led them to look for a software solution for their needs. Responding to issues only after something would fail was still limited only to what was visible from (reactive) human observation. And system failure was not an option for a team in charge of enabling the successful futures of its students.

Security audits were another trouble spot, consisting of external IT consultants coming in sporadically to ask a lot of questions about the school's IT security in general – which was not going to help to maintain security on a daily basis. Additionally, those external audits could consume an entire day for the team every one or two months.

The team was not fully confident that all of their BIOS, driver and firmware levels were compatible and up to date on their VMware servers. In some cases, they updated firmware and ran into problems, then needed to downgrade it again to fix the issue, and finally still needed to deal with VMware support.

The team knew that their setup was not meeting best practices, nor was it likely secure enough, but they simply did not physically have the time to do more. "There were hardly enough hours in the day for what we needed to do, and so issues took more time to be resolved than what we would have liked," said Mr. Petrischkeit.

In some cases, the team would require reactive, external support that caused unexpected expenses, plus the cost of the time that it took from the team to provide guidance to the external contractors.

Solution

Runecast landed on Mr. Petrischkeit's radar a few years before and, after testing it for a couple weeks, the team determined that it not only met their requirements but also provided the best value among other available solutions, which were not nearly as comprehensive and holistic in terms of scope and capabilities.

He then showed it to the Acting Chancellor (a Professor of Informatics on staff) who quickly approved it for the university.

Runecast

Helps to answer the difficult question of 'How do you measure security?'

"The platform itself continues to grow in its capabilities"

"Runecast provides better sleep for VMware administrators"

Deployment took only an hour, and according to Mr. Petrischkeit, "It was incredibly fast and easy to deploy. We installed Runecast, ran a scan and said, 'Wow, this works!' And there were many issues that we weren't even aware of – from the human perspective, it's like 'yes this works', but there were many issues that Runecast discovered (and helped us to avoid). So we realized that we would not be secure without Runecast scanning the environment continuously."

Runecast immediately showed the team several high-priority (red/critical) configuration issues in their environment and many more medium-level and low priority issues of which they had previously been unaware – enough that proactive remediation of these issues initially took many working hours.

After dealing with the initial set of findings, ongoing time investment is minimal. Now Mr. Petrischkeit invests, proactively, one to two hours per week at most to remediate any issues – including for security – before they can lead to downtime or breaches.

Benefits

Mr. Petrischkeit stated that Runecast has enabled "a radical transformation to efficiency."

Most surprising to Mr. Petrischkeit about Runecast were the number of VMware KB articles for hardening the infrastructure against which it provides automatic checks. Runecast continues to regularly discover configuration issues, such as enablement of IPv6, where Runecast alerted the team before something detrimental could occur.

Mr. Petrischkeit defined an IT 'incident' as a problem that someone notices, pointing out that some incidents also occur without being noticed – and this is another area where Runecast covers the gaps.

"Most of our recurring problems now stem from VMs created by other users and not created from templates," said Mr. Petrischkeit. "But the ongoing benefits of running Runecast are clear. It helps to answer the difficult question of 'How do you measure security?' by showing you how to reduce an immeasurable amount of potential risk."

Also important to an organization where if something happens to their VMware infrastructure their entire IT system will be down, Runecast greatly helps the team's mitigation of configuration issues that could otherwise result in system outages.

Runecast

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"The benefits of Runecast continue to grow," said Mr. Petrischkeit, "because new features get added over time – such as auto-remediation capabilities – so it's not only updating the built-in checks and guidelines but the platform itself continues to grow in its capabilities."

When asked his advice to other organizations considering Runecast, Mr. Petrischkeit concluded that, "Overall, Runecast provides better sleep for VMware administrators. Just look at the vast amount of information from VMware itself regarding securing and configuring your infrastructure. Runecast takes that completely off your shoulders."

Costs Saved with Runecast Analyzer

- Frees up time to look proactively for configuration and security issues

- No longer needing external support (estimated at roughly €1K/day, minimum 2-3 days per year)

- No longer wasting the team's time in guiding external support

- Incalculable cost of man hours previously spent on reactive troubleshooting

- Incalculable cost to potential reputational damage in case of service interruption

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