CENGN

CYBERNETIQ DEMONSTRATES INTEROPERABILITY WITH INDUSTRY AND OPEN SOURCE FIREWALLS

CybernetIQ is a high-growth Canadian software development team focused on the creation of innovative products to help organizations protect their networks and infrastructure. In this CENGN project, CybernetIQ tested the functionality of their cybersecurity platform and its integration with firewalls from Cisco, Juniper Networks, and the open source community.

CybernetIQ is an Ottawa-based company offering cybersecurity solutions that empower IT teams to maintain a secure and safe infrastructure. The CybernetIQ team is comprised of leading cybersecurity experts who have a shared passion to provide organizations with the tools to identify and eradicate threats quickly and effectively. The company is currently developing multiple innovative security solutions for enterprise infrastructure, but their flagship product is the Control Layer Assessment Workstation (CLAW).

SOLVING A PAIN POINT IN CYBERSECURITY

CybernetIQ was founded by Joe Cummins who is a leader and subject matter expert in the cybersecurity field. Known for sharing his knowledge at security conferences around the world, Joe formed CybernetIQ to solve a major pain point that network operators face – obtaining complete network visibility of potential cybersecurity threats.

In order to achieve complete situational awareness of the network, operators are often required to manually combine network data from several sources of the network. As networks continue to grow in size so does the complexity of managing the integration of network data from several sources. CLAW permits operators to view the entire network from a security standpoint in real-time.

CONTROL LAYER ASSESSMENT WORKSTATION (CLAW)

CLAW is a platform that collects data from the entire network and displays the information in an intuitive and accessible way, permitting network operators and analysts to eliminate threats as they arise.

The platform is a radar for cyber vulnerabilities and areas of attack, with a design to identify weaknesses within a network. CLAW emphasizes user-friendliness with an interface that aggregates data flowing through your network. When a threat is detected, operators can quickly respond by pushing configurations to firewalls to block certain IPs or ports.

CYBERNETIQ SECURITY PLATFORM

CLAW FEATURES

- 3D cybersecurity – a Security Orchestration, Analytics, and Response (SOAR) platform combining data from multiple sources into a unified visualization platform
- 360-degree visibility across the entire infrastructure
- Single interface to view and modify the network environment

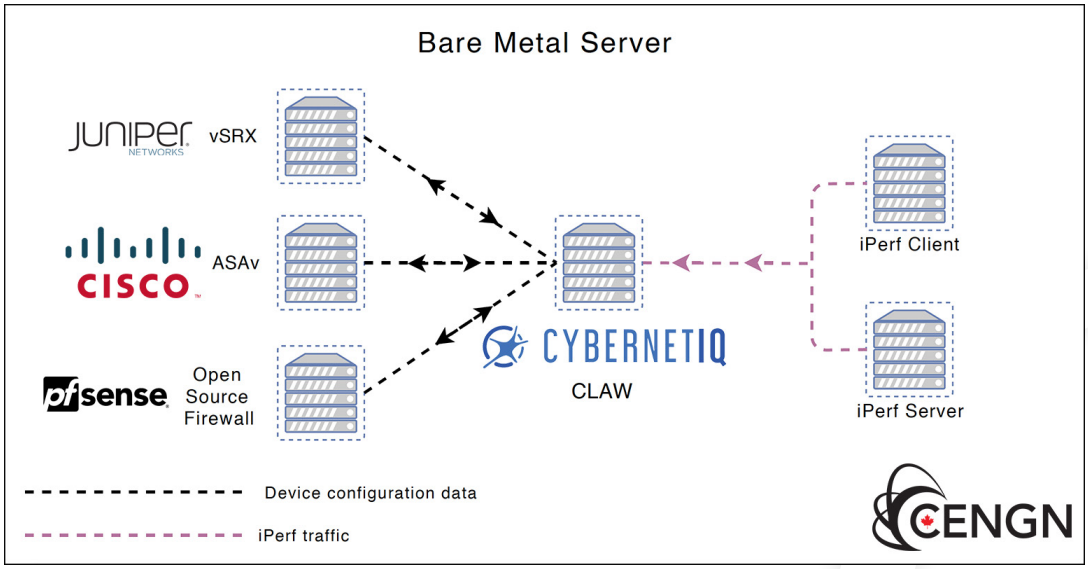
CENGN MEMBERS

Bell · Cisco · EXFO · Huawei · Invest Ottawa | Investir Ottawa · Juniper Networks · Mitel Powering connections · Nokia · ribbon · Rogers · Telus · Wind

PROJECT DETAILS

In the CENGN project, CybernetIQ set out to validate CLAW with three firewalls: Juniper Networks vSRX, Cisco ASAv, and the open source pfSense. The interoperability of CLAW was tested and successfully demonstrated that the platform is adaptable with each firewall.

During testing, CLAW would inject new configurations into the firewalls and ingest IP traffic mirrored from devices on the network in real-time from the iPerf client and server. By testing in a fully controlled commercial-grade environment for the first time, CybernetIQ was also able to identify areas where the platform can be improved. CybernetIQ now has the knowledge from the test results on what specifically needs to be addressed so they can take CLAW to market with confidence.



THE CENGN ADVANTAGE

Through this project, CybernetIQ was provided no-cost access to the networking testbed at CENGN. Otherwise, the startup would have had to expend significant resources creating an in-house testbed. Using a cloud service provider was not an option for CybernetIQ due to the sensitive nature of cybersecurity testing. It's possible the project could have been disrupted as excessive traffic was generated from iPerf, an open source network performance tool, and likely would have been flagged as malicious attempts to compromise other servers.

CENGN offers a dedicated project slice on our infrastructure along with technical expertise from our customer solutions team to ensure our customers have the ability and resources to carry out the project successfully. In addition to our infrastructure services and technical expertise, CENGN was able to utilize our member-base to provide licenses to CybernetIQ for the Juniper Networks vSRX and Cisco ASAv.

CONCLUSION

With the completion of this project, CybernetIQ has demonstrated the adaptability and flexibility of CLAW. The platform is interoperable with virtual firewalls from Juniper Networks, Cisco, and the open source community. With these results, CybernetIQ now plans to expand its development, support, and sales staff as it enters its growth strategy.

CENGN
CENTRE OF EXCELLENCE IN NEXT GENERATION NETWORKS

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