Enhance Your Security Posture and Cyberdefense with SeqOps

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Introduction

With the rapid technological advancement and digital transformation across industries and sectors, the need for cybersecurity has become highly pertinent for individuals, businesses, and governments. Statistics from IMF, FBI, and Statista affirm that cybercriminal acts cost the world $9.5 trillion in 2024 and will exceed $10.5 trillion by 2025. Cyber threats are evolving, and the threat landscape is becoming more challenging and complex with advancements in generative AI and other technologies. Organisations must establish proactive measures to secure their endpoints, sensitive data, and other digital assets.

This whitepaper explores the invaluable role of SeqOps in optimising an organisation's security posture and boosting cyber defence through a holistic data-first strategy.

The Importance of Data-First Security Strategy

Data is the lifeblood of any organisation. It is crucial to driving innovation and decision-making. However, data proliferation has also contributed to the risk of data breaches and cyber threats. A report published by Forbes revealed about 3200 data breaches publicly reported in 2023. That is about a 78% increase from what was reported in 2022. Not only that, the global average cost of data breach has also reached $4.45 million. The above statistics underscore the dire need for formidable security measures.

At the heart of any formidable cybersecurity strategy is data encryption. It does not matter whether your organisation's data is in motion, at rest, or in use; it has to be encrypted to forestall the impact of exploitation and unauthorised access. Before you embark on data encryption, your organisation needs to perform a thorough data inventory to decipher your data status, forms, and existing encryption controls. This process includes discovery, assessment, and remediation, which forms the fundamentals of a data-first security strategy. Before we explore these three baselines, what is a data-first approach?

What is a data-first approach in cybersecurity?

A data-first security model is a proactive strategy that prioritises data protection at its very core. It covers safeguarding data from its creation through storage to transmission and disposal and establishing relevant security provisions and controls.

Malicious threats are evolving and becoming more complex each year. Conversely, no two organisations are the same, meaning no solution exists to address all cybersecurity issues. Nevertheless, these three baselines are germane for any successful data-first cybersecurity strategy.

Discovery-Assessment-Remediation

Discovery- This has to do with the identification and cataloguing of all the sensitive data in your systems and networks. It is crucial to figure out your data, where it is, who has access to it, and how it is used.

Assessment- Having discovered your data, you must assess your security posture. This includes evaluating the current security measures you have put in place to secure your data. It also covers identifying your risks and vulnerabilities and understanding the potential impact of unauthorised access or a data breach.

Remediation- After performing a security risk assessment, the next step is establishing a formidable action plan to mitigate those risks. The action steps include updating your policies and procedures, establishing additional security measures, improving employee training, or leveraging new technologies to fortify your defence line.

Benefits of Implementing Cybersecurity

Protect Your Most Important Data

Data is your most valuable asset and an essential asset for your customers. In recent times, digital applications have blurred the privacy lines. A phishing attack can steal sensitive data and compromise your team or customer's privacy.

Investing in cybersecurity can guarantee adequate protection against internal threats, whether malicious or accidental intent or external threats.

Boost Your Business Reputation

You don't want to be the next compromised company in the news. A data breach hits the reputation of any business as it weakens the bond between the organisation and customers. Having a formidable security system and working with a cybersecurity ally like SeqOps can help you avoid these sudden setbacks.

Improve Your Productivity

Cybercriminals are constantly unleashing new strategies to breach data and compromise networks. When a virus affects networks, workflows, and functioning, productivity drops. Aside from viruses, when the performance and scalability of your systems are not being assessed constantly, it can also cause performance bottlenecks and downtime.

You can boost your productivity by scanning your systems for vulnerabilities and testing the performance of your apps and systems under different loads and conditions to increase overall productivity.

Improve Your Compliance Status

Regulatory bodies are saddled with the responsibility of securing individuals and organisations.

For instance, under the EU-GDPR, it is a must for businesses to prioritise cybersecurity. A cybersecurity plan puts your business ahead of others and ensures you comply with local and global regulations.

SeqOps: Your Strategic Cybersecurity Partner

SeqOps is not just another security company in the crowd; we are a strategic partner dedicated to empowering your businesses to navigate the evolving and complex threat landscape with resilience and confidence. By projecting trust, strength, and innovation, we aim to establish ourselves as your trusted ally and strategic partner.

SeqOps prioritises data-first security by offering various solutions to enhance security posture and secure digital assets.

Our Services

We offer a boutique of cybersecurity solutions tailored to help businesses, regardless of their size, deal with challenges in an ever-evolving threat landscape. From cloud security(including GCP, AWS, and Azure) to server security, from managed detection and response to pen testing, our holistic approach to cybersecurity helps clients secure their digital assets and mitigate risks.

- ### Server Security

  Securing your servers from data leaks and unauthorised access is crucial to maintaining your data's privacy, accuracy, and availability. We implement robust security measures covering network, physical, and operating system security to guarantee reliability and data integrity.

- ### Cloud Security

  Securing your cloud environments like GCP, AWS, and Azure is vital as cloud computing gains wider adoption. SeqOps offers comprehensive solutions for managing your data, securing your network, and encrypting your data to block unauthorised access and prevent data breaches while ensuring your organisation complies with industry regulations.

- -AWS Security

Amazon Web Services(AWS) cybersecurity demands a customised security solution. We leverage advanced threat detection, encryption, and access controls to secure assets and applications hosted on AWS.

- -GCP Security

SeqOps protects Google Cloud Platform (GCP) assets with unique security protocols. We implement network security, identity and access management, and data encryption to secure your GCP resources, thus helping your organisation scale operations securely with optimised control and visibility.

- -Office 365 Security

We secure your Microsoft 365 suite, which comprises your collaboration tools, email communications, and documents, by implementing data loss prevention, email security, and threat detection controls to secure your Office 365 environments.

- Penetration Testing

We conduct simulated cyber attacks to identify vulnerabilities in your applications, networks, and systems to achieve preemptive risk mitigation. Our penetration tests uncover security weaknesses that help your organisation address them before malicious actors exploit them.

- Load Testing

It is essential to assess the performance and scalability of your systems given different conditions and loads to ensure seamless user experiences. We identify performance bottlenecks, improve resource allocation, and validate your application performance to prevent user dissatisfaction and downtime risk.

- Security Review & Audit

Conducting comprehensive reviews and audits of security policies, controls, and measures is essential to improve cybersecurity posture and boost resilience. Our assessment efforts identify risks, gaps, and areas for improvement to strengthen your security posture and achieve compliance with industry regulations.

- Managed Detection & Response (MDR)

Cyber attacks and data breaches are unavoidable in this threat landscape. Still, when you proactively monitor your systems and networks for security threats, you can detect and respond to incidents in real-time. Our MDR solutions leverage advanced threat detection capabilities, automated response systems, and expert security analysts to ensure a quick and formidable incident response.

Our Process: Ensuring Holistic Security

At SeqOps, we adhere to a systematic process for comprehensive client protection.

Discovery

We conduct an in-depth assessment of your data and systems for potential exposure points and vulnerabilities.

Asset discovery is the first step to establishing a formidable strategy in managing your attack surface. This step covers identifying and cataloguing every cybersecurity asset within your digital footprints. Your digital footprints include network infrastructure, software apps, physical devices, endpoints, and data repositories.

A thorough asset discovery gives you a complete overview of your attack surface and positions you to assess your vulnerabilities proactively and establish adequate security measures.

Vulnerability Scanning

We employ advanced tools and technology to identify vulnerable points in your systems.

Vulnerability scanning is one of the critical aspects of our server and cloud security solutions. It covers systematically inspecting applications, systems, and networks to detect vulnerabilities or loopholes that threat actors can leverage to gain access or exploit. Regular scanning of endpoints for security vulnerabilities enables you to mitigate possible risks before cybercriminals exploit them proactively.

Our vulnerability scanning solutions are both ***agentless*** where we check out for risks and vulnerabilities without installing any agent or disrupting your workload processes and ***agent-based*** scanning where we install lightweight software scanner on devices we wanr to cover capable of running local scans and send report to a centralised server. cloud environments. With our advanced and innovative scanning technologies, we thoroughly scrutinize for misconfigurations, open ports and services, weak security controls, and outdated software. This has helped most of our clients take proactive responses to deal with them, thus minimizing the risk of data loss and security breaches.

Vulnerability scanning is important as it is vital in offering businesses actionable insights on their cybersecurity posture.

Detection & Management

We proactively monitor your systems for threats and manage incidents in real time.

We combine human expertise with advanced technology to identify and rapidly limit cyber threats' impacts by implementing threat hunting, monitoring, incident response, and management. Research by IBM has pointed out that MDR solutions can cut the time to detect or respond from the usual 277 days to a few minutes.

Reduction in time to detect and respond means a lot for your organisation. It can boost your security posture and build your organisation's resilience against potential attacks as your security configuration is improved and rogue systems are eliminated.

Reporting

We provide comprehensive reports and recommendations to address security issues and fortify defences.

We catalogue the incident details, such as the time the incident occurred and the systems affected, and we also communicate with relevant stakeholders and launch triage(assessment to determine urgency) and remediation.

Addressing the Impact of Unpatched Vulnerabilities on Cybersecurity

Unpatched vulnerabilities pose a significant cybersecurity threat, with many cyberattacks exploiting these weaknesses. Recent data from the first quarter of 2022 highlights that approximately 82% of cyberattacks against U.S. organizations targeted patchable external vulnerabilities. Notably, the financial repercussions of these attacks were substantial, with affected organizations experiencing costs that were 54% higher compared to incidents stemming from human error (source: SC Media).

Expanding the scope, broader research indicates that up to 60% of data breaches can be attributed to poor cyber hygiene, particularly the neglect of patching vulnerabilities. Despite organizations' efforts to scan for vulnerabilities, the challenge often lies in inadequate patch management solutions. Factors such as concerns about disrupting business operations and non-compliance with data security legislation contribute to delays in implementing security patches (source: Automox Operations).

These findings buttress the critical importance of proactive and comprehensive patch management as a foundational element of cybersecurity strategies. Maintaining up-to-date systems is not only about resolving known issues but also serves as a fundamental proactive measure against potential cyber threats.

Enhancing Cloud and Server Infrastructure Security with SeqOps

SeqOps, positioned as a cybersecurity partner or service provider, offers an array of strategies and tools to assist organizations in fortifying the security of their cloud and server environments:

Automated Scanning Tools

SeqOps employs automated scanning tools to systematically examine systems for known vulnerabilities, covering infrastructure as code in cloud environments, server configurations, and operational systems.

Continuous Monitoring

By implementing continuous monitoring solutions, SeqOps enables real-time detection of anomalies and signs of vulnerabilities or ongoing attacks, ensuring prompt threat identification and response.

Threat Intelligence Feeds

Threat intelligence feed integration equips SeqOps with the latest information on vulnerabilities and exploits, facilitating prioritized scanning and remediation efforts based on real-world threat data.

Penetration Testing

Regular penetration tests conducted by SeqOps simulate real-world attack scenarios to identify vulnerabilities that may evade detection by automated tools, thereby ensuring the robustness of defense mechanisms.

Configuration Management

SeqOps assists in maintaining proper configuration management to ensure compliance with best security practices, thereby minimizing potential attack surfaces resulting from misconfigurations.

Compliance Auditing

Regular compliance audits conducted by SeqOps ensure alignment of cloud and server environments with industry standards and regulations, mitigating vulnerabilities associated with non-compliance.

Employee Training and Awareness

Providing comprehensive security training to staff members reduces the risk of vulnerabilities arising from human error, a prevalent factor in many security breaches.

Patching Strategy

SeqOps aids in developing and implementing a robust patch management strategy, facilitating the timely application of updates to servers and cloud systems, thereby reducing the window of opportunity for attackers to exploit known vulnerabilities.

By integrating these strategies cohesively, SeqOps offers a comprehensive solution to identify and manage vulnerabilities in cloud and server environments, empowering clients to stay ahead of evolving cyber threats.

Partner with SeqOps and let us improve your security posture as a team.

References

Kashyap, A. (n.d.). The State Of Cybersecurity (Part One): Why Are There Still So Many Data Breaches? USA Today. Retrieved from https://www.usatoday.com/money/blueprint/business/vpn/cybersecurity-statistics/

Forbes Tech Council. (2024, March 6). The State Of Cybersecurity (Part One): Why Are There Still So Many Data Breaches? Forbes. Retrieved from https://www.forbes.com/sites/forbestechcouncil/2024/03/06/the-state-of-cybersecurity-part-one-why-are-there-still-so-many-data-breaches/?sh=e2e08243fd31

IBM. (2023). Cost of a Data Breach Report 2023. IBM. Retrieved from https://www.ibm.com/reports/data-breach