eBook:

5 Attributes of a Modern Security Program

Insight | Cloud + Data Centre Transformation

eBook: 5 Attributes of a Modern Security Program

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A brief orientation

As data continues to grow exponentially, there is also a rise in those looking to gain from malicious attacks. Now more than ever, it is critical for organisations to evaluate their security strategy.

In just the first half of 2020, there were **518** breaches reported[1], under the Office of the Australian Information Commissioner (OAIC) scheme.

Malicious or criminal attacks accounted for **61% of all breach notifications**[1], as the leading cause of data breaches.

Whilst Human error accounted for 34% of all reported data breaches.[1]

At times like these, it's helpful to take a step back. What should a security program aim to do? What goals are realistic, and what simply aren't? How should security investments be made and measured?

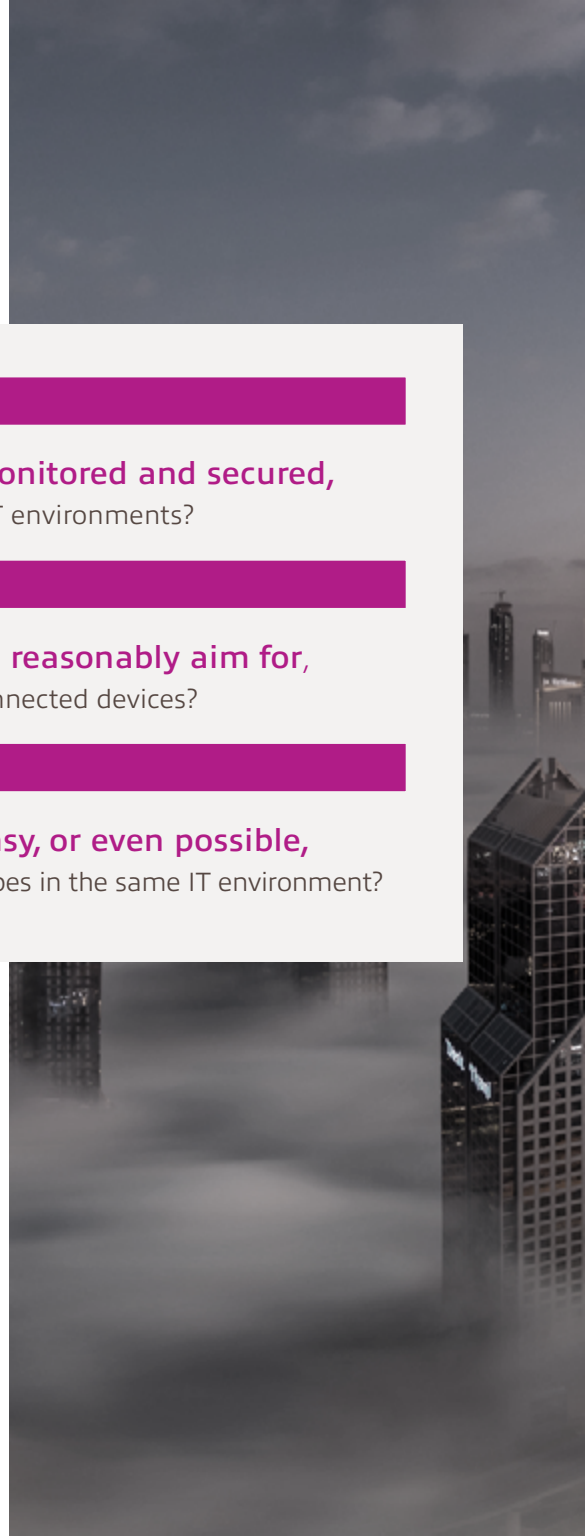
We believe there are five key attributes to a successful and modernised security program, for any type or size of business. Let's explore them one by one.

[1] Notifiable Data Breaches Report: January-June 2020 published by the Office of the Australian Information Commissioner (OAIC) under the Notifiable Data Breaches (NBD) scheme, on 31 Jul 2020

CHAPTER 1

Full visibility

IT environments are expanding. We're seeing growth in data volumes, device counts, platforms, and traffic. Each expansion introduces new threat vectors and additional challenges in terms of visibility.



Fact:	Implication:
Worldwide data creation will **grow from 33 ZB in 2018 to 175 ZB by 2025**.[2]	**How will all of this data be monitored and secured,** particularly as it moves throughout IT environments?
There will be more than 64 billion Internet of Things (IoT) devices by 2025, up from about 10 billion in 2018.[3]	**What level of visibility can we reasonably aim for,** considering this level of growth in connected devices?
87% of companies adopted or began adopting a multicloud (using more than one public cloud provider) approach last year.[4]	**How do you make visibility easy, or even possible,** with multiple platforms of different types in the same IT environment?

Yet, having full visibility is critical. When an IT environment provides quality visibility and activities are being monitored, many benefits can be realised.

For one, attack attempts can be thwarted, and potential damage, mitigated. A successful attack typically begins by exploiting one vulnerability, and then penetrates throughout multiple systems, from that single starting point. If a breach is detected earlier, the extent of the loss can be better controlled. In 2019, the average time to identify a breach was 206 days.[2] Imagine the number of records, systems, and users a cyberattacker could reach over the course of more than six months — it's uncomfortable to think about.

Visibility, paired with monitoring and/or threat intelligence tools, also contributes largely to the effectiveness of prevention efforts. User behavior tends to be patterned, moving in logical and repetitive ways. Unusual activities or movements can signal the presence of malicious actors, helping IT security managers prevent attacks and make access or policy changes that can address security gaps previously unnoticed.

[2] Gantz, J., Reinsel, D., and Rydning, J. (November 2018). Data Age 2025: The Digitisation of the World. IDG.
[3] https://www.businessinsider.com/internet-of-things-report?IR=T
[4] The State of IT Modernisation 2020. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

CHAPTER 2

Comprehensive governance

Many may think of frameworks like COBIT or ITIL when thinking of governance. At a high level, governance is about the ways in which IT decisions are made to be in alignment with business objectives or needs. Governance should also address ownership and accountability — who is responsible, and who the stakeholders are.

Governance is critical for security, as it helps organisations to:

- Define and align around security objectives
- Select and validate security solutions
- Organise training, guidelines, and other user security programming
- Bring security into conversations about platform adoption, networking architecture, and other components of IT strategy
- Improve security posture through defined roles and processes

39% of survey respondents indiciated they paused IT modernisation initiatives in 2019 due to data privacy and/or security concerns.

57% of survey respondents also saw upgrading security infrastructure and processes to address newer technology requirements as a top obstacle to modernising IT operations.

Learn more through the IDC Research Whitepaper, 'The State of IT Modernisation 2020'.

One difficult aspect of devising effective governance is, in fact, the increased use of the cloud. Organisations may have had working governance frameworks in place for years, which only addressed the data centre and its clearly defined perimeter.

According to the RightScale 2019 State of the Cloud report from Flexera,

94% of organisations now use cloud,

with public cloud adoption at 91%

and private cloud adoption at 72%.[5]

Extending traditional governance to the cloud is essential, yet not formulaic, and does require investments of time and resources.

This has repercussions for cloud security, or the perception of it, at least. The IDG survey found that managing public cloud security is the number-one challenge when optimising cloud experience and outcomes, closely followed by governance and process challenges.[4]

By establishing comprehensive governance, inclusive of all platforms, roles, stakeholders, etc., an organisation can ensure their security operations stay robust, relevant, and supported.

[5] RightScale 2019 State of the Cloud Report by Flexera

CHAPTER 3

Strategic identity and access management

Everyone and every system that lacks malicious intent does, or should, have an identity and specific access privileges. As IT environments sprawl, and endpoints proliferate, identity and access management is becoming a central topic of security conversations.

Most organisations have Active Directory® and have used various third-party services. This results in multiple identities, systems, and solutions — and a lot of complication, particularly when manual efforts are required to manage it all.

Some considerations to make with identity and access management, where security is concerned:

Think about the data.

How sensitive is it? Who really needs access to it? When, and for how long? What is the initial point of contact, and is this the best option? Organisations may need to pursue a data classification initiative, as a first step.

Think about your users.

Have you established user types? When did you last review permissions? How are you verifying identities and granting access? From defense in depth to zero trust, there are many viable models.

Think about authentication.

Passwords are falling out of favor, fast. What alternatives have you considered? Would mechanisms such as biometrics work for your organisation? How might you transition from your current authentication approach to a more secure one in the near future?

For identity and access management to be strategic and successful, organisations should maintain all identities in a single repository, consider implementing a Cloud Access Security Broker (CASB) solution, and implement a layered security approach.

Find additional recommendations in "Mastering Identity and Access Management," a whitepaper byInsight Cloud + Data Centre Transformation's security team.

CHAPTER 4

Automation and streamlined workflows

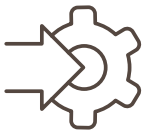
Security has no mulligans. Vulnerabilities or gaps may be exploited at any time. Human errors that lead to successful attacks are not a forgivable matter. In security, mistakes are costly. Ironically, avoiding such costs can also be quite costly, depending on the approach you take.

What do we mean? Security Operations Centers (SOCs) need to be modernised, inclusive of tool sets, technologies, processes/methodologies, and resources. In "The State of IT Modernisation 2020" survey, 57% of respondents said that upgrading security infrastructure and processes was a top obstacle to pursuit of modernising the IT operating environment.[4] But, where in-house resources are scarce, organisations need to find external partners that can bring automation and other expertise that is critically needed.

Automation within the SOC delivers clear benefits:

- Faster detection, response, and remediation capabilities
- Fewer errors as a result of manual efforts
- Security resources freed up for strategic priorities
- Better user experiences and satisfaction

Some tasks are particularly well suited for automation. Take responding to alerts, for example. In a study by CRITICALSTART, 70% of respondents said they investigate more than 10 alerts each day, which each take more than 10 minutes to investigate (figures that were 45% and 64% higher than the previous year, respectively). Alert fatigue is a common complaint in such environments, leading SOC professionals to ignore alerts, pay to hire more staff to share the burden, or, even, leave their post entirely.[6]



By reducing the number of repetitive tasks performed by personnel, and automating common security processes, organisations can bolster morale, build a more strategic SOC, and more easily take a multi-layered approach to security with fewer resources.

[6] https://www.criticalstart.com/new-research-from-criticalstart-finds-that-8-out-of-10-security-analysts-report-annual-security-operations-center-turnover-is-reaching-10-to-more-than-50/

CHAPTER 5

Effective tools and skilled resources

There is only so much an organisation can do without the right tools, technologies, and resources. The operative word, here, being "right." A recent Ponemon Institute report found that companies have an average of 47 different cybersecurity solutions and technologies deployed.[7] The same report notes that more than half (53%) of IT experts don't know how well the cybersecurity tools they've deployed are working, and only 39% say they are getting full value from their security investments.

What is the issue? There are several:

- Having the time or expertise to make sound decisions regarding security products or platforms
- Understanding the skill sets required to deploy, adopt, integrate, customise, and optimise security investments
- Complex IT environments (due to rapid growth, M&A activity, etc.) with innumerable vectors of attack
- Aligning IT investments with budgets, which sometimes results in unfortunate compromises
- Acquiring point solutions that each offer limited scope and contribute to tool fatigue
- Finding and retaining key security talent

IT directors need to continuously reevaluate their risk posture and threat response capabilities, while taking advantage of the latest security offerings. By aligning closely with business and line-of-business leaders, IT organisations can also ensure the buy-in needed to develop a security-savvy organisation and minimise the occurrence of shadow IT and other risky behaviors.

How do you address these concerns and drive meaningful improvements in your security operations?

[7] https://www.businesswire.com/news/home/20190730005215/en/Ponemon-Study-53-Percent-Security-Leaders-Don%E2%80%99t

Look to trusted sources

Insight helps companies like yours assess their security environment, develop an actionable roadmap, implement the optimal solutions, and manage a best-in-class SOC that boasts all five attributes described here. Our premise is that security is not purely a technology issue but a business priority — we combine technical and consulting experience and intelligence to augment your entire security program.

One way we deliver is with Microsoft® Azure Sentinel™, a cloud-native Security Information and Event Management (SIEM) and Security Orchestration and Automated Response (SOAR) solution that collects security data across the entire hybrid enterprise and uses the power of Artificial Intelligence (AI) to rapidly identify and investigate threats.

Why Insight and Azure Sentinel?

Maximise the benefits and capabilities of your security investments

Better align security efforts with business objectives

Improve the security, visibility, and control of your entire IT environment

Accelerate and automate the hunting and detection of cyberthreats

Offload the task of monitoring your network, systems, applications, and data

Reduce risks and make security-related costs more predictable

NBA Team Adopts Azure Sentinel for a Modern Security Slam Dunk

Find out how a U.S. professional basketball team replaces a legacy SIEM system with Azure Sentinel to gain efficiencies, accelerate incident response, and increase contextual awareness across their environment.

Learn more

About Insight

More than 20 years of support services delivery

A leading Microsoft partner with
18 Gold & Silver competencies

Gold Microsoft Partner

Azure Expert MSP

An Azure Expert Managed Services Provider (MSP) and t**he largest Azure partner**

Recently named a Microsoft Security 20/20 award winner for the Azure Security Deployment Partner of the Year category

What does Microsoft say?

In a recent **press release**, Ann Johnson, corporate vice president, Cybersecurity Solutions, Microsoft Corp. said, "By combining our Microsoft security portfolio with Insight's security services, we empower our customers to modernise their security operations. Cybersecurity is complex, but it doesn't have to be complicated. Advancing our security relationship with Insight helps organisations simplify their security operations and scale as they grow."

About Azure Sentinel

- Quick and relatively easy to deploy, greenfield or via log redirection
- Flexible and scalable, allowing for dynamic adjustments for workloads or compliance
- Cost-effective, with no upfront costs or hardware requirements
- Developed and consistently enhanced by IT and security industry leaders
- Leverages the latest, cutting-edge AI and machine learning capabilities

Gain the tools and expertise you need to hit all five attributes described in this ebook. Get started with Insight and Azure Sentinel today.

Contact us

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