Insight

Solving Key Challenges for Multi-Vendor Security Environments

A guide to overcoming security burnout and bolstering your defenses with Insight and Microsoft Sentinel

Security under stress

42% of respondents in Cisco's 2020 CISO Benchmark Survey say they are suffering from cybersecurity fatigue (defined as virtually giving up on proactively defending against malicious actors).

Of those suffering, **93% receive more than 5,000 alerts every day,** indicating that complexity appears to be one of the main causes of security burnout.[1]

To manage a complex threat environment, most organizations are leveraging several security solutions. But managing and orchestrating alerts from several disparate sources is not only challenging — it also exposes organizations to more risk.

An overabundance of alerts means there may be simply too many to address, impacting the team's awareness and visibility, and potentially exposing the business to bigger, more damaging threats down the road.

According to Fady Younes, cybersecurity director at Cisco, "Failure to integrate multiple security solutions can also leave gaps in coverage, or create a situation where the IT team doesn't properly understand what protection a particular solution is providing or how it works, impacting visibility and awareness into the true security state of the network."[2]

Knowing which risks and alerts to prioritize becomes less clear in these environments.

Not all alerts are of the same severity, and the best security strategies tailor security controls and allocate resources based on risk level.

In diverse, multicloud environments, disaster recovery becomes incredibly complex, necessitating a proactive vs. reactive security culture.

> *"Dealing with integration issues and a high volume of security alerts can distract security engineers from tackling other challenges they face…"*
>
> — Fady Younes, Cybersecurity Director, Middle East & Africa at Cisco

SIEM and SOAR

Security teams have two main objectives: to know what's going on in their IT environments, and to respond to that information. Security Information and Event Management (SIEM) and Security Orchestration, Automation, and Response (SOAR) solutions exist to help achieve these goals.

SIEM tools gather and aggregate event data from various sources within an IT environment, then analyze and rank events in order of priority or criticality. Security teams carry the responsibility of threat hunting and response, as well as tuning and remediation of the SIEM platform.

SOAR tools provide advanced analytics and automation that builds on the capabilities of SIEM tools, for more autonomous threat response. SOAR tools leverage as much real-time data as possible and are sensitive to the proficiency of managers — these tools are more or less effective based on how they're used.

90% of security pros

say SOAR is very or extremely important to their organization's overall security posture.

Key use cases for SOAR:

65%	SIEM triage
62%	Phishing attacks
62%	Threat intelligence

Outcomes from SOAR deployments:

- Faster incident resolution
- Improved staff efficiency
- Reduced overall costs[3]

The case for Microsoft Sentinel

Microsoft Sentinel™ combines the power of a SIEM and a SOAR into one solution. If you've already invested in Microsoft® Sentinel, you're on the path to stronger security.

The Sentinel platform can help you:

Identify threats before they impact your business.

Respond quickly and with more accuracy.

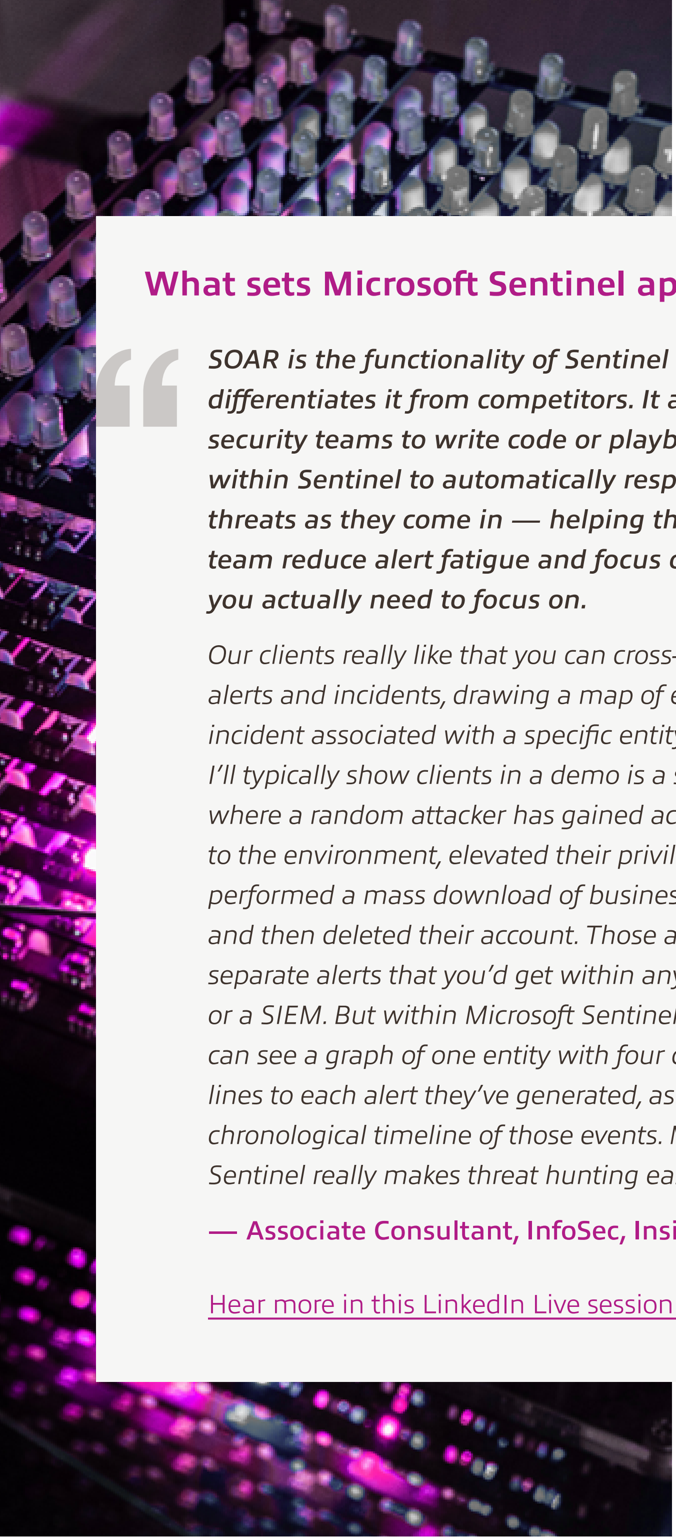
Simplify security across hybrid, multicloud, server-less, and other modern environments.

Reduce costs over legacy SIEM solutions for threat investigation, licensing, storage, infrastructure, management, and deployment.

The tool is built upon Microsoft's deep experience in security and the latest artificial intelligence capabilities, and works harmoniously with other Microsoft products. It's quick to set up and easy to scale.

One hub, many data points

Multi-vendor solution environments become less complex to manage with Microsoft Sentinel. Sentinel's ability to pull data sources from the entire ecosystem of multi-vendor security solutions gives organizations visibility and control to simplify threat hunting, reduce alert fatigue, and capture a true picture of your security posture.



What sets Microsoft Sentinel apart?

> "***SOAR is the functionality of Sentinel that differentiates it from competitors. It allows security teams to write code or playbooks within Sentinel to automatically respond to threats as they come in — helping the SOC team reduce alert fatigue and focus on things you actually need to focus on.***
>
> *Our clients really like that you can cross-correlate alerts and incidents, drawing a map of each incident associated with a specific entity. What I'll typically show clients in a demo is a scenario where a random attacker has gained access to the environment, elevated their privileges, performed a mass download of business data, and then deleted their account. Those are four separate alerts that you'd get within any SOAR or a SIEM. But within Microsoft Sentinel, you can see a graph of one entity with four different lines to each alert they've generated, as well as a chronological timeline of those events. Microsoft Sentinel really makes threat hunting easier."*
>
> **— Associate Consultant, InfoSec, Insight**

Hear more in this LinkedIn Live session. →

Best practices for implementation

Getting started with Microsoft Sentinel is relatively simple. Prior to implementation, we advise establishing clear governance and policies. Considerations include compliance standards, cost requirements, plans for storage, disaster recovery, security team staffing, and incident response plans.

Day 1:

Enable Microsoft Sentinel.

Connect data sources.

Start building queries to investigate the data.

Like many other SIEM tools, Syslog and CEF serve as ingestion points. You may use any Linux® distro preferred, including Microsoft's own Linux distro, and install CEF and Syslog forwarders to forward logs to Microsoft Sentinel for ingestion.

Microsoft has built Sentinel to accommodate generic formatting logs in common event format as well, so that even logs from legacy or specialized devices can be integrated and analyzed.

Secure across the board.

Microsoft Sentinel is most effective when part of a broader, programmatic approach to cybersecurity. Make sure your organization is employing best practices across the entire cybersecurity spectrum: Identify, Protect, Detect, Respond, and Recover.

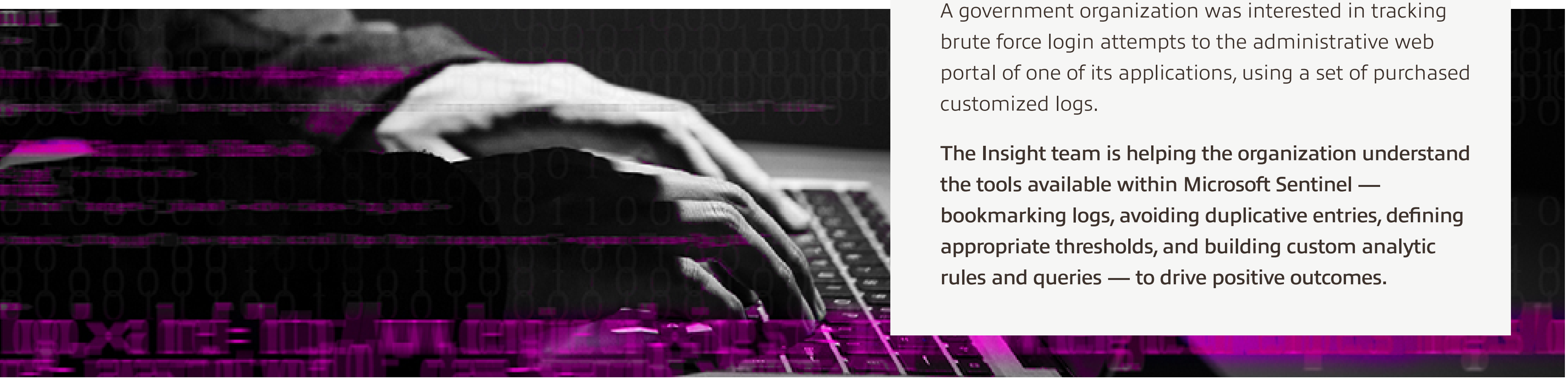
Learn more about the NIST Cybersecurity Framework. →

CLIENT STORY

Throw another log on.

A government organization was interested in tracking brute force login attempts to the administrative web portal of one of its applications, using a set of purchased customized logs.

The Insight team is helping the organization understand the tools available within Microsoft Sentinel — bookmarking logs, avoiding duplicative entries, defining appropriate thresholds, and building custom analytic rules and queries — to drive positive outcomes.



Day 2+:

The flexibility and dynamism of the platform will become evident at this point. Here are several ways you can drastically maximize Microsoft Sentinel's benefits for your organization's specific needs and risk profile.

1.

Check your log forwarders.

If you don't pay close attention to the health of your log forwarder and the capacity of your VAR log directory, things can quickly break down and log ingestion will cease. When Insight consultants perform Microsoft Sentinel deployment, we use Linux distros with a partition for the VAR log mount point that's separate from the OS. This way, if the directory fills up, it doesn't impact the OS as much.

2.

Look at your ingestion rates.

Estimating how many logs you may ingest right at the beginning is difficult — but after a month or two, you'll have enough historical data to support better decision-making around an appropriate data ingestion rate. This will help you attain a better cost output.

3.

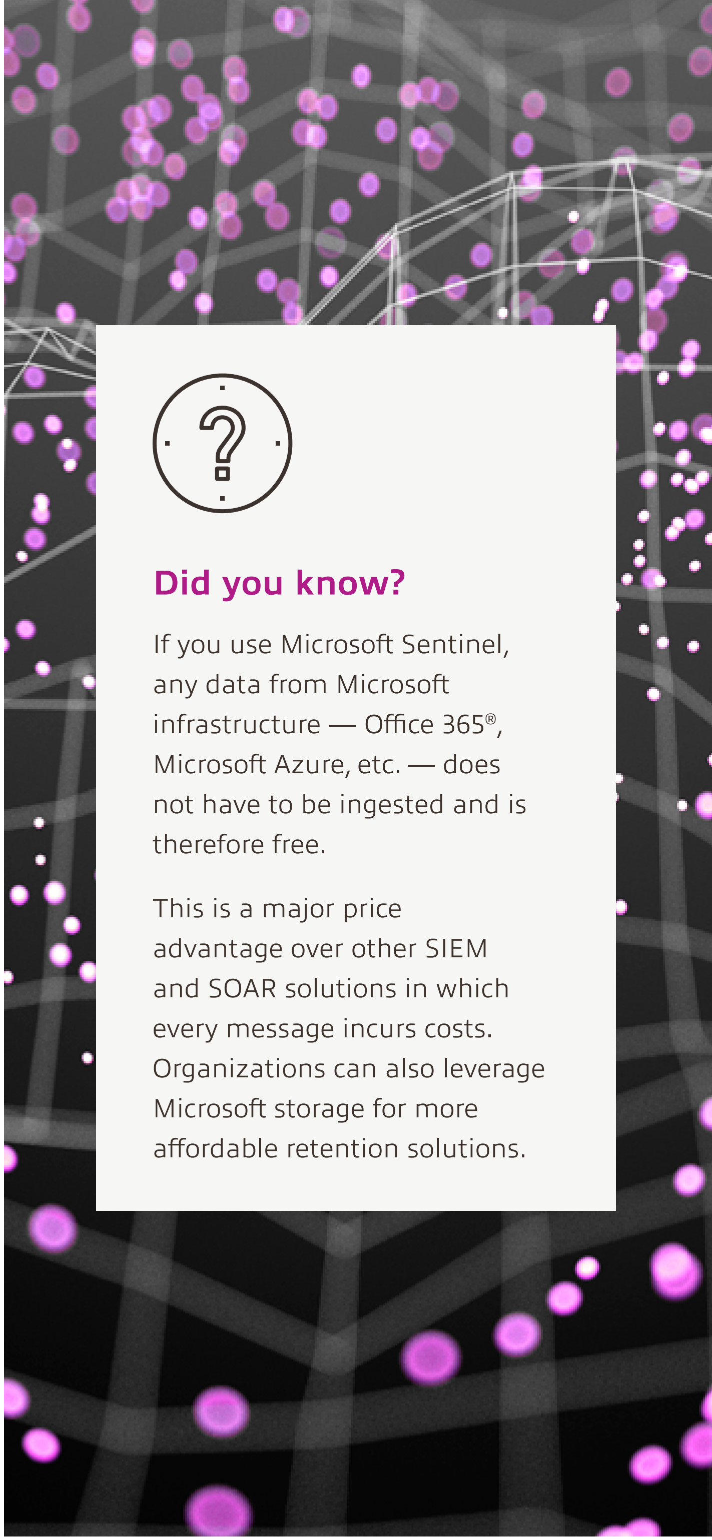
Minimize false positives.

Many out-of-the-box rules that report on administrative functions using behavior analytics can generate false positives. Microsoft has published a Sentinel feature called Watchlist to help reduce these false positives, the resulting noise, and alert fatigue. Watchlist lets you bake queries (or CSVs of different attributes) into analytics rules that examine a watchlist, or key identifier pair, and does not alert on specific activities.

4.

Use a centralized tenant.

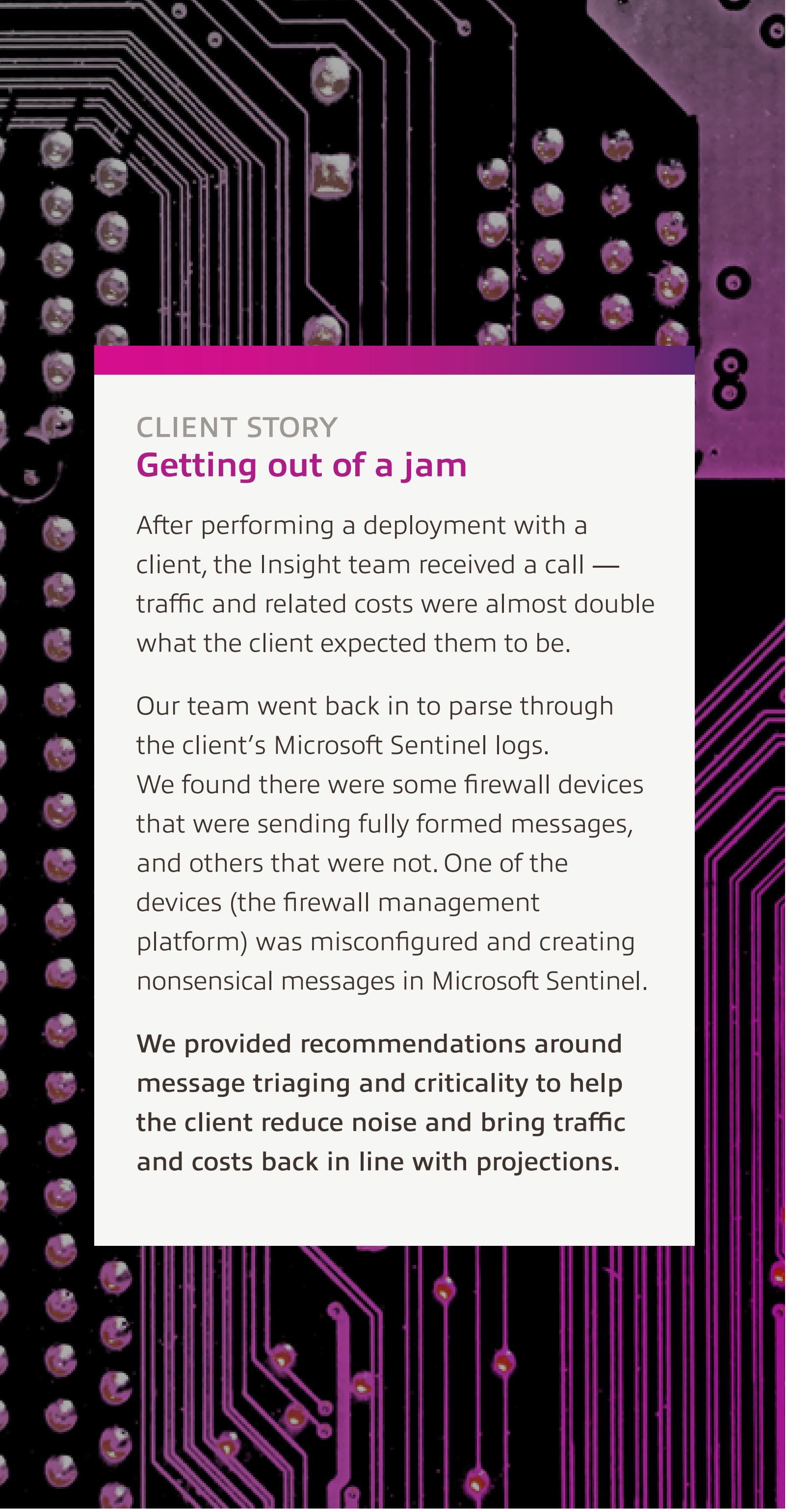
If you're monitoring different Azure® tenants, you need to create different Microsoft Sentinel installs and log analytics workspaces in each of those tenants. By using Azure Lighthouse to monitor these workspaces in a centralized tenant, you can tune analytic rules, get to the source of truth, and deploy rules to all tenants. This will help you establish a consistent baseline for thresholds, running frequency, and other settings.



Did you know?

If you use Microsoft Sentinel, any data from Microsoft infrastructure — Office 365®, Microsoft Azure, etc. — does not have to be ingested and is therefore free.

This is a major price advantage over other SIEM and SOAR solutions in which every message incurs costs. Organizations can also leverage Microsoft storage for more affordable retention solutions.



CLIENT STORY

Getting out of a jam

After performing a deployment with a client, the Insight team received a call — traffic and related costs were almost double what the client expected them to be.

Our team went back in to parse through the client's Microsoft Sentinel logs. We found there were some firewall devices that were sending fully formed messages, and others that were not. One of the devices (the firewall management platform) was misconfigured and creating nonsensical messages in Microsoft Sentinel.

We provided recommendations around message triaging and criticality to help the client reduce noise and bring traffic and costs back in line with projections.

5.

Perform out-of-the-box detuning.

Microsoft Sentinel offers the distinct benefit of integrating fluidly with your Microsoft ecosystem. Our consultants regularly advise clients to use Microsoft Defender for Identity (MDI) for on-premises Active Directory® (AD), for example. However, when you plug MDI into Sentinel, the default setting will automatically forward all alerts coming out of MDI. You'll likely want to go into the plugin connector and detune it so that you aren't being alerted on non-urgent information and only receive alerts within a specified severity range.

Also examine the severities of existing analytic rules and escalate, deescalate, or remove them, based on your needs. Many out-of-the-box analytic rules run on a set frequency that may be too often to manage. We advise using analytic rules running every 15 or 30 minutes for high-severity alerts, and running them just once a day for low-severity or informational alerts that don't carry much business impact. Ultimately, detuning will help you minimize alert fatigue and noise.

6.

Evaluate for parity.

What were you using to secure your IT environment prior to Microsoft Sentinel? What are the similarities and differences? Our consultants suggest looking side by side at your old system and the Microsoft Sentinel environment and comparing visual output, dashboards, alerts, log sources, and other key attributes to ensure you're getting parity. No data source should be left behind. This also helps you ensure that you fully understand the new scope of day-to-day tasks, care and feeding, and staffing requirements for supporting the new platform.

7.

Consider Microsoft's guidance.

Microsoft has published recommendations for regular activities to perform to ensure Sentinel is giving you the best security possible. Review them for suggestions on daily, weekly, and monthly tasks, integrations to set up, and processes for managing and responding to incidents. Learn more here.

Opportunities for automation

One of the strengths of the Microsoft Sentinel platform is its automation capabilities. Take advantage of automation to achieve optimal efficiency and security.

Here are a couple of ways you can automate with Sentinel:

Retention

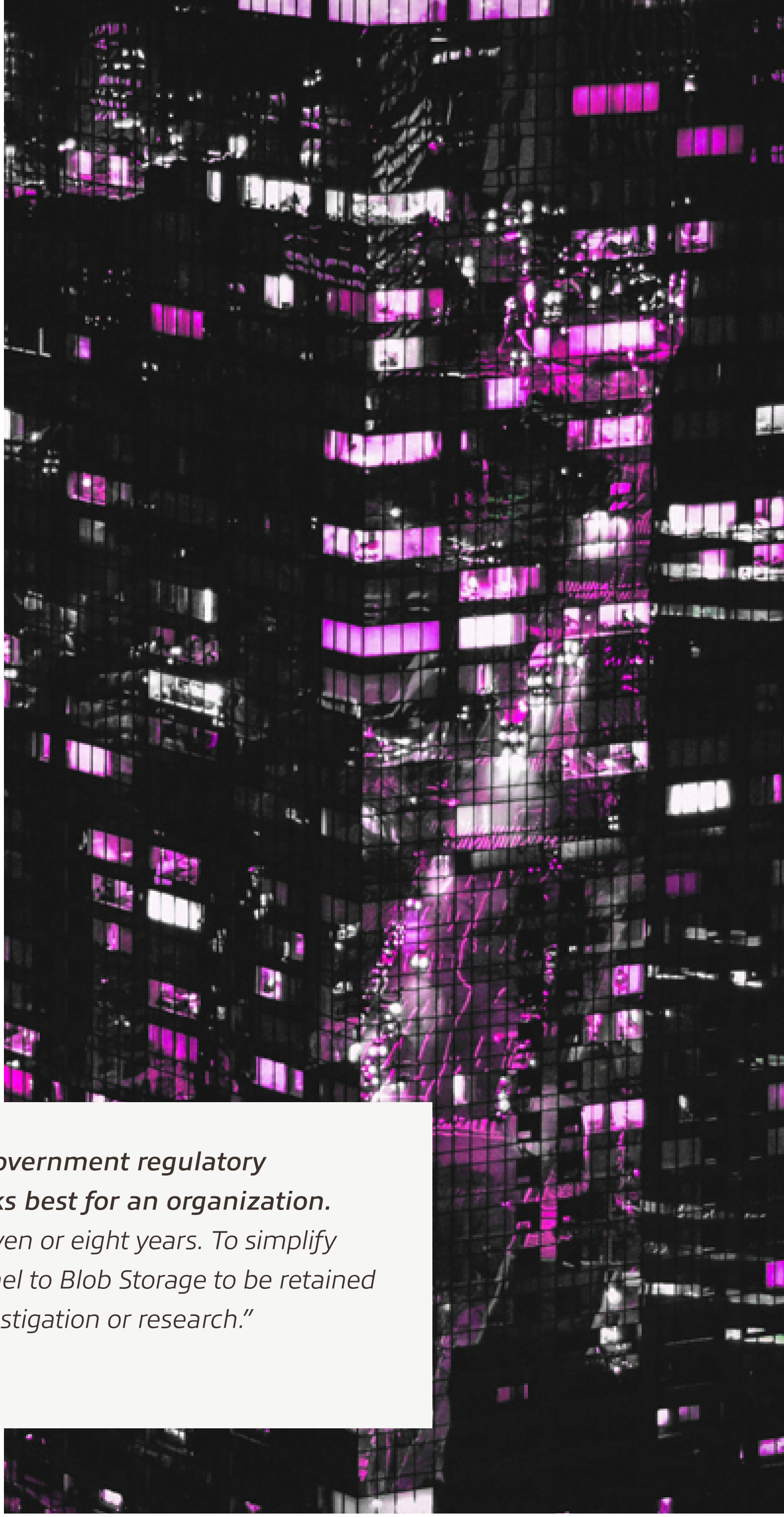
Every organization has different needs surrounding data retention, based on industry and legal and compliance requirements. Microsoft Sentinel offers the ability to automate storage for set periods of time — making it incredibly easy for your team to tick that box without having to set reminders or worry about capacity.

Playbooks

For more intricate automations, playbooks are an excellent option. Playbooks within Microsoft Sentinel can be set up for a range of tasks, such as:

- Blocking a user after a failed login alert
- Creating a ServiceNow® incident that feeds into your ticketing system
- Modifying the CMDB in ServiceNow upon changes to blocked devices on the network

Microsoft-owned GitHub hosts many playbooks and ideas for customizations, as well as vendor-specific automations within Microsoft Sentinel to explore.



> “***We have clients that want seven years of data retention for HIPAA, or one year for a government regulatory compliance or NIST, let’s say. It’s a challenge to figure out what retention scheme works best for an organization.*** *Microsoft’s Blob Storage is a good option — it lets you cost-effectively retain logs for up to seven or eight years. To simplify this, we create Azure Logic Apps that automatically move ingested logs from Microsoft Sentinel to Blob Storage to be retained for seven years. Organizations still have access to the logs if they’re needed for a security investigation or research.”*
>
> — Associate Consultant, InfoSec, Insight

Looking ahead

There are countless ways to expand and enhance Microsoft Sentinel — and the opportunities keep growing as the platform and user community mature.

BYO ML

Bring Your Own Machine Learning (BYO ML) is an area that's getting a lot of attention. This Microsoft GitHub page acts as a repository for the latest information and a growing library of sample training notebooks. Organizations are using BYO ML to spin up Databricks and bring training and analytics through a Spark environment pulling all data from Sentinel, building models for remote access or anomalous behavior, and so much more.

> “***You don't have to be a Ph.D. to be doing this.*** *A lot of the community-based training and models are a pretty good approximation that just need to be customized for your environment. Other SIEMs have something similar to this, but the idea that you can have a very data science-native experience, where you basically have a Jupiter notebook, a bunch of Python data science libraries, and you're pulling data directly from the environment where the notebook is running — that is pretty interesting to me.”*
>
> **— Principal Architect (Cybersecurity, Networking, Data Science), Insight**
>
> Hear more in this LinkedIn Live session. →

Advanced visualization

Azure Monitor Workbooks within Microsoft Sentinel offer rich data visualization. Of course, this is extremely useful for security teams. Seeing the data can make it easier to identify points of weakness and vulnerabilities, helping security teams prioritize. Visualization can also help security teams justify budgets to the C-suite with quick impact. In the future, we believe data visualization will be a key focus, with communities of users developing custom workbooks to address any security or business need.

CLIENT STORY

Can you clarify?

After a self-install, a client reached out to the Insight team for help resolving data discrepancies between various web-based applications in its Microsoft Sentinel logs.

Our team performed custom queries against the logs and applied a normalization standard within Microsoft Sentinel. This helped make cross-querying far simpler, improving the effectiveness of Sentinel and the security team that relied upon its data.

Managed services

Due to a lack of time and resources, today's organizations are only able to remediate **50%** of legitimate security threats.[1]

Many organizations are finding it difficult to attract and retain experienced security professionals who are up to date on the latest SIEM, SOAR, and Security Operations Center (SOC) tool sets. We're already seeing an overall consolidation of security talent within services organizations that can proficiently manage security environments — as well as provide critical support around ransomware readiness, security architecture, incident response, and remediation.

In many instances, time management is the central challenge. Learning about ways to increase automation or leverage machine learning to improve threat hunting may be overshadowed by the countless day-to-day demands of running a security team.

The key to amplifying your security? Managed services.

Insight offers Managed Security Services (MSS) that build on the capabilities of Microsoft Sentinel and provide 24/7 monitoring of your environment. By combining industry-hardened best practices with cutting-edge techniques for risk minimization, we help clients offload the heavy burden of caring for and enhancing a dynamic security environment. Our security practice is SOC 2 Type II-certified, PCI DSS-compliant, part of TSANet and TSIA, and bolstered by 20 years of support service delivery experience. Learn more here.

20+ years
of support services delivery

175+
support services engineers

24/7

Three
24/7/365 U.S. support centers

Managed security outcomes:

- Faster response times
- Stronger governance and compliance
- Richer context and visibility
- Improved threat detection
- Reduced security team burden

CLIENT STORY

Destination: Quiet and cost-effective

A global travel accessories company was hit hard by the health crisis, but it knew it needed to invest in its security infrastructure — the threatscape was growing in tandem with its alert fatigue.

Insight's Managed Security Services helped the company reduce noise, risk, and unexpected security costs. The CIO reported, "Insight demonstrated why Microsoft recommended them as their top partner for managed SIEM needs using Microsoft Sentinel." Read more here.

Sky’s the limit

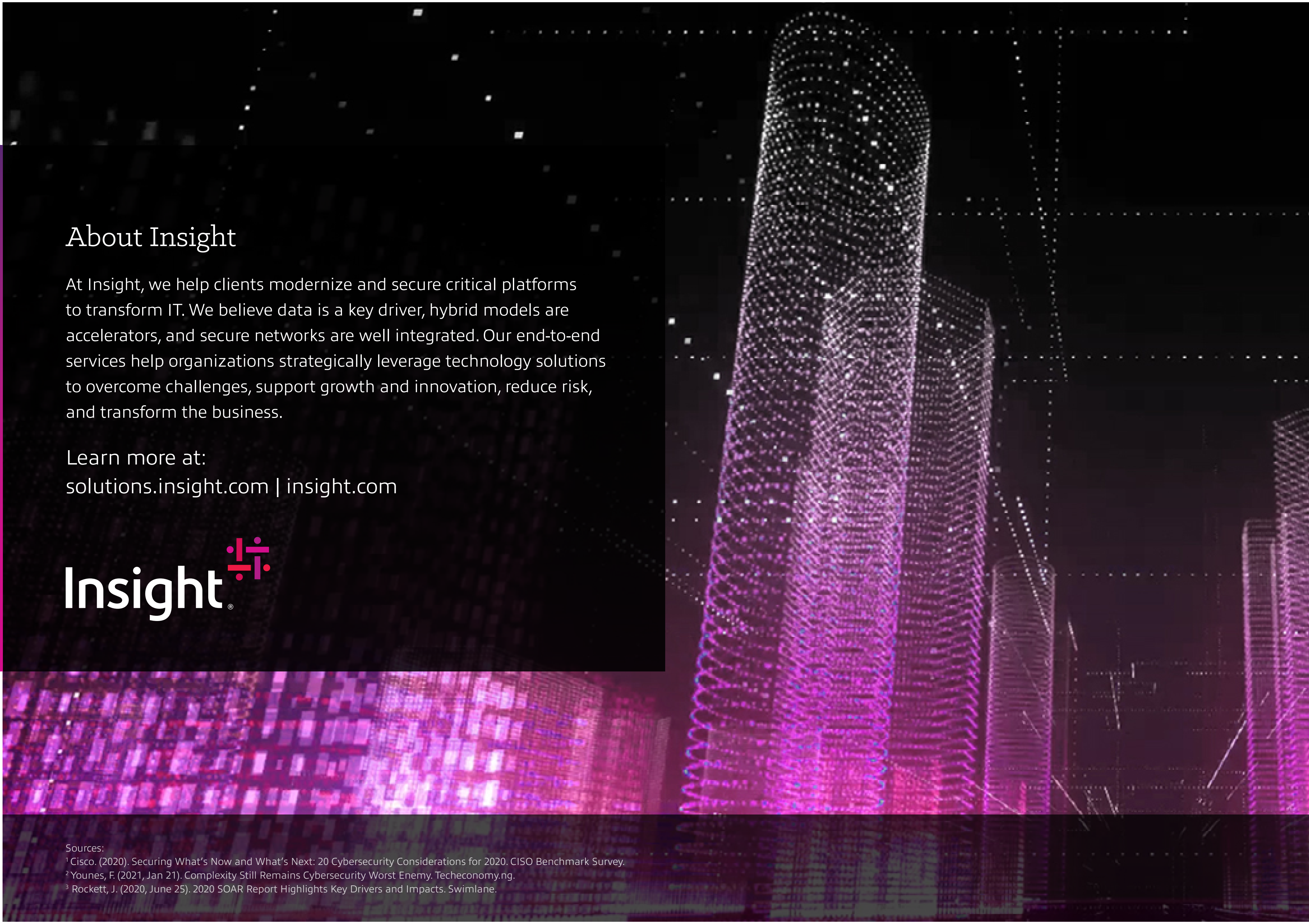
Microsoft Sentinel is easy to implement — but takes additional skill to optimize well.

Luckily, there are few limits to how far the platform can take you toward complete security — and with a trusted team such as Insight, it’s easier than ever to unearth the value of your investment. Our consultants, technicians, and architects have industry-leading expertise around Microsoft Sentinel across a wide variety of client environments.

No matter where you are along the Sentinel path, you can leverage Insight for:

- Evaluation of your current security environment
- A Microsoft Sentinel readiness assessment
- Microsoft Sentinel deployment, integration, and customization
- Managed Security Services to manage Microsoft Sentinel
- Microsoft Sentinel optimization, automations, and advanced feature tuning

Contact our team today to discuss your needs: solutions.insight.com/contact-us



About Insight

At Insight, we help clients modernize and secure critical platforms to transform IT. We believe data is a key driver, hybrid models are accelerators, and secure networks are well integrated. Our end-to-end services help organizations strategically leverage technology solutions to overcome challenges, support growth and innovation, reduce risk, and transform the business.

Learn more at:
solutions.insight.com | insight.com

Insight®

Sources:
[1] Cisco. (2020). Securing What's Now and What's Next: 20 Cybersecurity Considerations for 2020. CISO Benchmark Survey.
[2] Younes, F. (2021, Jan 21). Complexity Still Remains Cybersecurity Worst Enemy. Techeconomy.ng.
[3] Rockett, J. (2020, June 25). 2020 SOAR Report Highlights Key Drivers and Impacts. Swimlane.