

# Illumio Insights in Action

The incident response playbook for threat hunters, security operations teams, and forensic investigators



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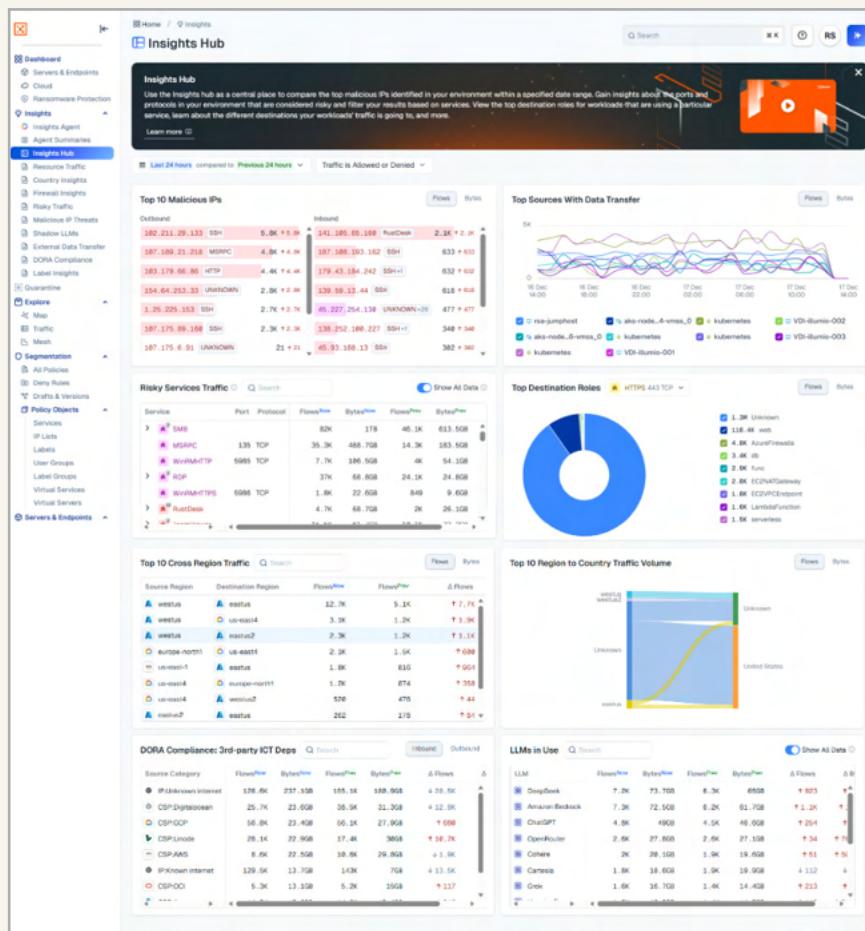
## INTRODUCTION

# Turning weak signals into action: why security practitioners rely on Illumio Insight

News headlines aside, the most serious cyber threats aren't loud. They hide in normal traffic, using trusted tools and everyday protocols to slip past your defenses. For security analysts, incident responders, and threat hunters, the challenge is clear: spotting the risks of lateral movement, persistence, and data exfiltration before it's too late.

Illumio Insights turns suspicion and weak signals into clear evidence that security teams can act on right away. It answers the most critical questions: Which workloads are at risk? How could attackers move through the environment? Where should they be contained? Armed with these answers, security teams can contain breaches quickly before they escalate, stopping intrusions from turning into cyber disasters.

This guide explores five real-world use cases. It shows how Insights empowers teams to investigate, confirm, and act with confidence. With this clarity, security practitioners can contain threats quickly and protect critical data across hybrid, multi-cloud environments.



**Figure 1:** The Illumio Insights Hub: The central place for cyber threat investigation and analysis



## USE CASE 1

# Suspecting a threat actor

**Objective:** You suspect a threat actor is targeting your environment. You need to validate that suspicion by detecting behaviors tied to lateral movement, persistence, and privilege abuse.

Security practitioners know that threat actors rarely reveal themselves directly. They leave faint trails.

The breadcrumb could be a sudden spike in SMB connections. Or maybe it's an odd service, such as RustDesk, running where it shouldn't. It might even be unexpected zone-to-zone traffic.

For an analyst, the question isn't just "Is something happening?" It's "Does this activity map to a real adversary's playbook?"

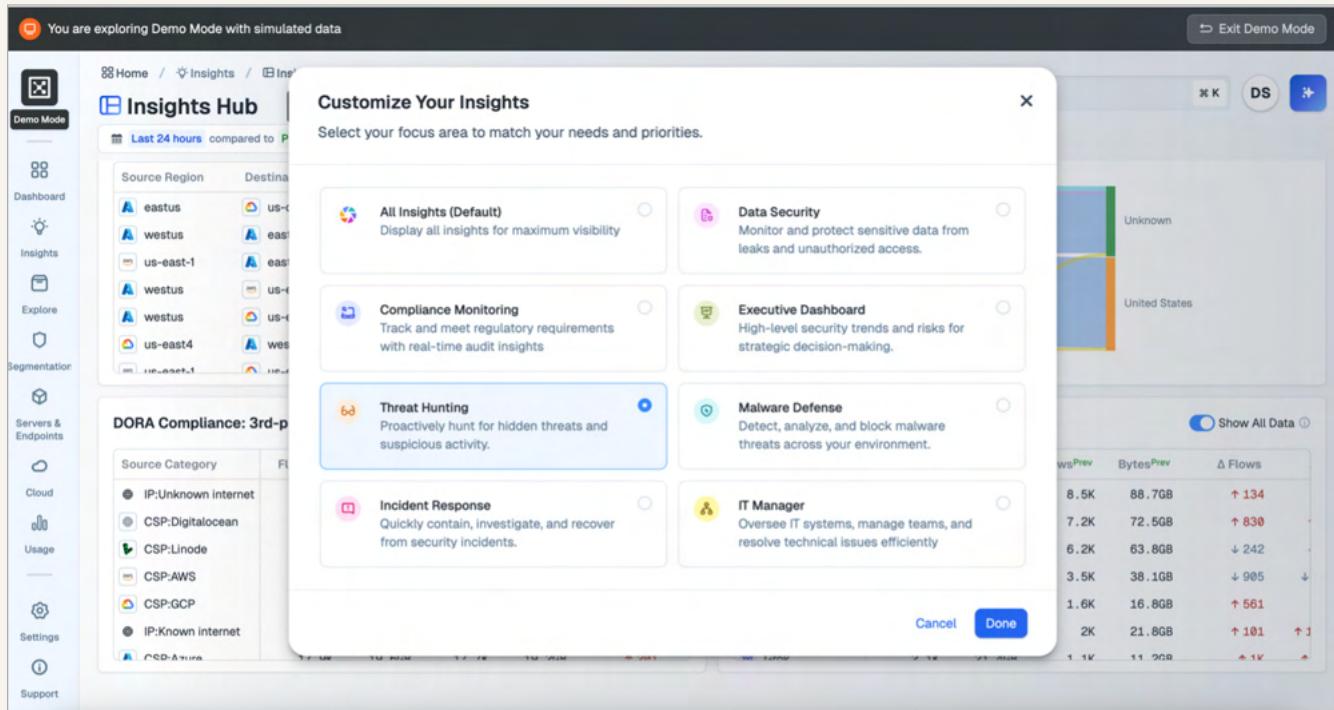
Illumio Insights help security teams pivot from suspicion into evidence. By aligning indicators with known Tactics, Techniques, and Procedures (TTPs), you can confirm whether the unusual traffic is lateral movement, isolate the workloads involved, and determine the blast radius. Instead of guesswork, you can move with confidence from detection to instant breach containment.

## Threat hunting in Insights using Agent

With Illumio Insights, even the quietest threats can't hide for long. Now you can customize and automate your insights using the Threat Hunter persona in Insights Agent.

Insights Agent acts as an AI-powered investigation assistant that helps security teams turn weak signals into fast, confident action. It continuously analyzes traffic, behaviors, and risk indicators across hybrid and multi-cloud environments, highlighting where attackers could move, which workloads are exposed, and how threats might spread. By aligning activity to known attacker techniques and prioritizing what matters most, Insights Agent guides analysts from suspicion to evidence — accelerating detection, simplifying investigation, and enabling rapid containment before threats escalate or data is lost.





**Figure 2:** Insights Agent offers customized security capabilities tailored to individual roles and responsibilities.

Agent Persona	Attention Level	Summary	Tags	Comments
Threat Hunting	MEDIUM	Network records reveal several coordinated threat patterns: - <b>External SSH Brute-Force &amp; Scanning</b> : 203.55.221.79 and 45.78.206.79 generated thousands of bytes...	TAO010 Exfiltration, TAO011 Command and Control, TAO008 Lateral Movement	0
Threat Hunting	MEDIUM	The security telemetry highlights three converging threat patterns: - <b>Bulk outbound transfers from critical compute resources</b> - Five workloads, including...	TAO011 Command and Control, TAO010 Exfiltration	0
Threat Hunting	MEDIUM	Recent flow analysis highlights two converging concerns: - <b>Large outbound transfers from key AWS instances</b> - Virtual Machines <b>HR-Dev-Web1</b> (42.7...	TAO010 Exfiltration, TAO011 Command and Control	0
Threat Hunting	MEDIUM	Recent flow records reveal two prominent anomalies: - <b>Bulk data egress from Virtual Machine CRM-Prod-DB1</b> (i-024e242c8dcc9cb2f). The host transmitted **15.6...	TAO008 Lateral Movement, TAO010 Exfiltration	2
Threat Hunting	MEDIUM	Network telemetry reveals multiple high-volume and potentially malicious data movements: - <b>Virtual Machine Receiving-Host</b> sent 233 080 040 215B...	TAO010 Exfiltration, TAO008 Lateral Movement	0
Threat Hunting	MEDIUM	Recent network telemetry highlights two converging concerns: - <b>Large outbound and cross-region data movement</b> from <b>Virtual Machine ticketing-web01-dev</b> (47.3 GB...	TAO010 Exfiltration, TAO008 Lateral Movement	1
		Recent network records highlight three independent but...	TAO011 Command and Control	

**Figure 3:** View a summary of active threats, including the needed attention level, and drill down to view more security details.

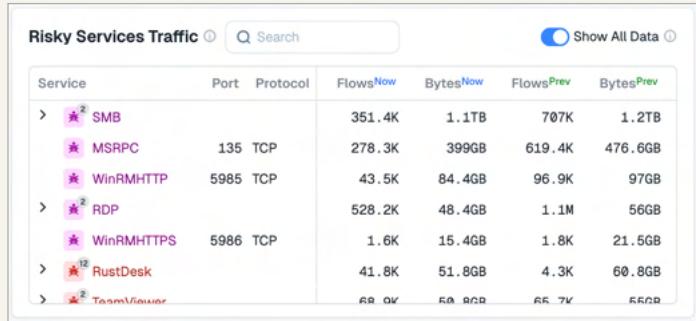


# How to investigate and scope a suspected threat

The following actions can help you investigate suspicious activity, identify impacted systems, and decide when to act:

## Map any adversary TTPs:

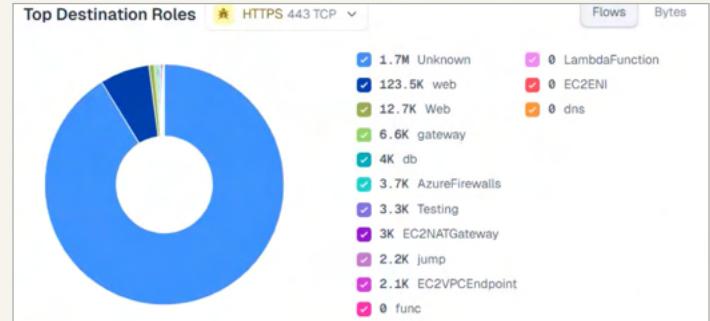
In **Risky Services Traffic**, filter for Server Messaging Block (SMB) and other protocols commonly used for lateral movement, including unexpected Remote Desktop Protocol (RDP) sessions or remote access tools like RustDesk.



**Figure 4:** A workflow analysis of potentially risky services and ports

## Determine if roles or workloads are being targeted:

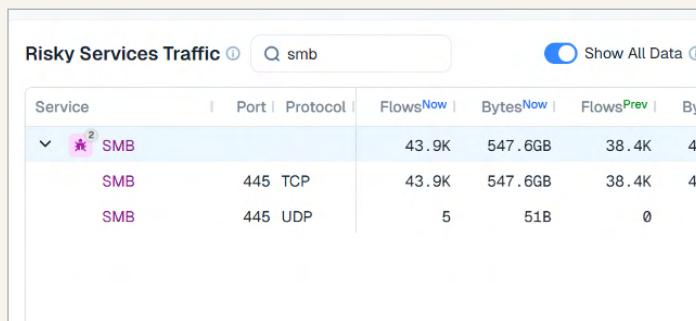
Use **Top Destination Roles** to determine which system categories are receiving the most traffic and whether those targets align with normal behavior.



**Figure 5:** The Top Destination Roles view shows which systems are receiving the most traffic.

## Analyze your SMB activity:

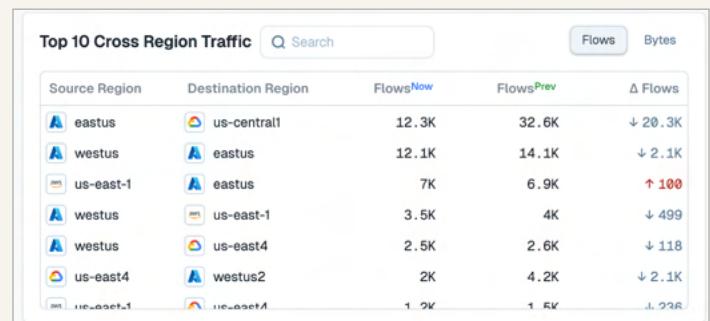
In **Risky Traffic**, filter by **SMB** and look for abnormal patterns such as unusually high connections or bytes that are being transferred.



**Figure 6:** Risky Services traffic filtered by SMB in the last 24 hours

## Pinpoint affected workloads:

Check **Top 10 Cross Region Traffic** to determine any systems generating or receiving anomalous traffic.



**Figure 7:** Top 10 Cross Region Traffic showing traffic flow patterns



## USE CASE 2

# Investigating risky traffic before it escalates

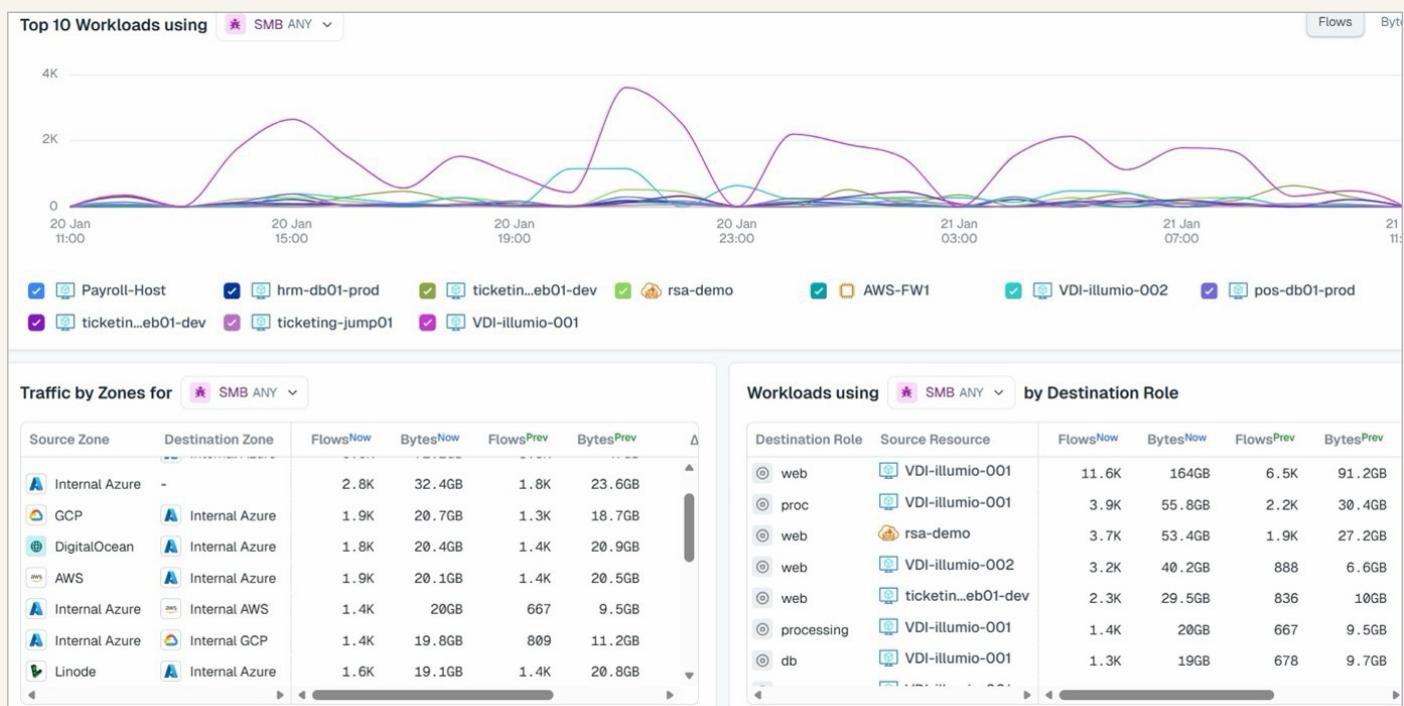
**Objective:** You need to investigate potentially dangerous traffic. These include risky protocols, connections to malicious IPs, or anomalous patterns that could signal early compromise.

Analysts know risky traffic isn't always malicious, but it's never safe to ignore. Whether it's old protocols like Telnet or SMBv1, remote management tools appearing in unexpected zones, or connections that spike late at night — each one deserves scrutiny. These anomalies are often precursors to privilege escalation or data staging.

With Illumio Insights, teams can hunt from the top down: begin with high-risk protocols, drill into which workloads are talking, and zero in on traffic flows where you need more information. This process turns risky traffic from being just background noise to actionable information.

Here's how to use Insights to turn suspicious connections into clear, actionable intelligence:

1. **Filter by risky protocols:** In **Risky Services Traffic**, select legacy or insecure services such as Telnet, FTP, SMB, or RDP.



**Figure 8:** The Risky Services Traffic dashboard



2. **Identify roles and workloads at risk:** Review **Workloads by Destination Role** for exposure.

Workloads using <span style="color: red;">*</span> SMB ANY		by Destination Role				
Source IP	Destination Role	FlowsNow	FlowsPrev	BytesNow	BytesPrev	Δ Flows
192.168.1.6	db	69	0	1GB	0	↑ 69
192.168.1.6	web	64	0	697.3MB	0	↑ 64
192.168.1.6	user	44	0	472.7MB	0	↑ 44
192.168.1.5	proc	24	0	264.4MB	0	↑ 24
192.168.2.19	Unknown	863	518	10.1GB	6.3GB	↑ 345
192.168.2.19	web	34	0	166.5MB	0	↑ 34
176.113.115.137	user	20	0	125.9MB	0	↑ 20

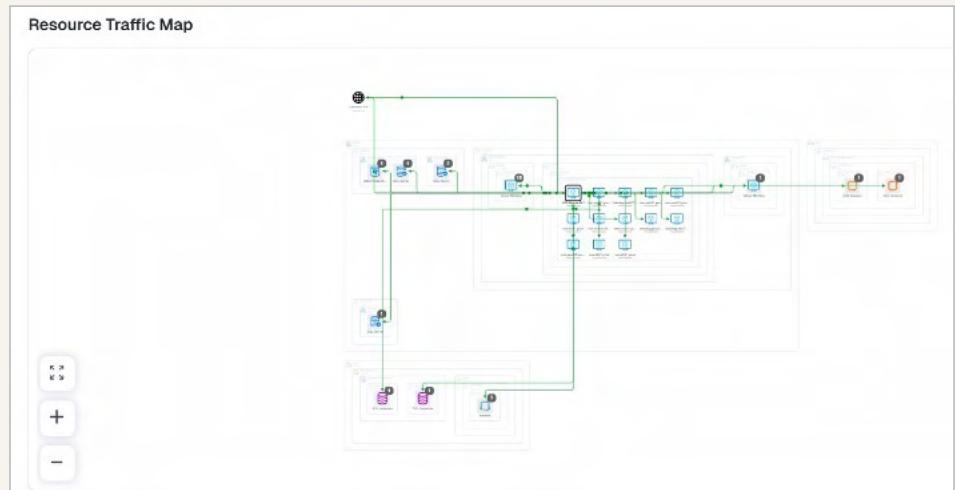
**Figure 9:** Workloads filtered by SMB traffic sorted by destination source IP and roles

3. **Check exposure: In Traffic by Zones**, determine whether risky traffic crosses boundaries, such as leaking externally to the internet, or if large amounts of data are leaving the network.

Traffic by Zones for <span style="color: red;">*</span> SMB ANY		FlowsNow	BytesNow	FlowsPrev	BytesPrev	Δ
Internal Azure	Internal Azure	672.6K	8.6TB	790K	10.1TB	
-	Internal Azure	94.9K	1TB	113.4K	1.2TB	
Internal Azure	-	45.5K	566.7GB	44.1K	539.6GB	
DigitalOcean	Internal Azure	31K	405.5GB	29.1K	375.3GB	
AWS	Internal Azure	33.1K	402.2GB	30.9K	377GB	
GCP	Internal Azure	31.1K	393GB	31.9K	397GB	
Linode	Internal Azure	26.1K	341.5GB	28.8K	368.7GB	

**Figure 10:** SMB traffic by source and destination zones

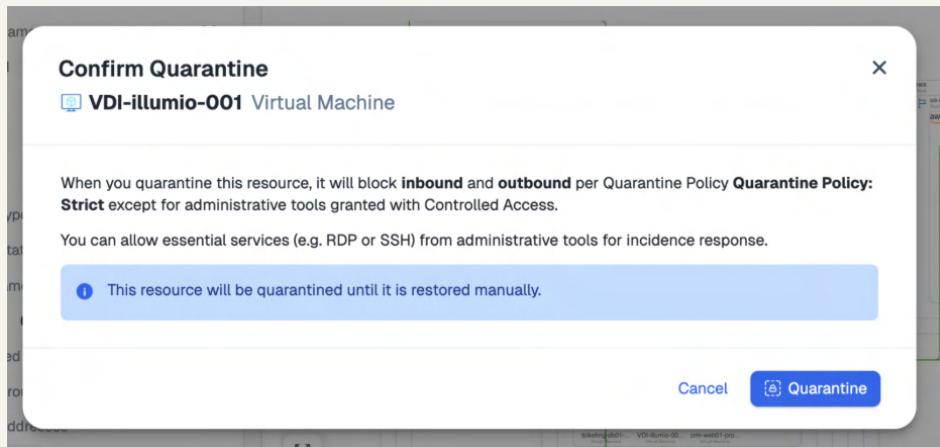
4. **If a resource is suspect:** Click the workflow and open the **Resource Traffic Map** to see potential lateral movement.



**Figure 11:** The Resource Traffic Map showing lateral movement paths



5. **Quarantine:** If a resource needs to be isolated, click the **Quarantine** button (currently available only with Azure) and confirm the quarantine.



**Figure 12:** Confirm the compromised workload to be quarantined.

6. Navigate to **Quarantine** on the left panel to see a list of all quarantined resources to take further action.

Name	Resource State	Quarantine Time	Quarantined By	Account Id	Region	Labels	
web-vm2	Virtual Machine	QUARANTINED	08/23/2025, 15:52:08	joy.scott+tpm_prod@illumio.com	6ce15ab6-8bcb-4...	eastus	web, strict-c, ComputeVirtualM
VDI-illumio-001	Virtual Machine	QUARANTINED	01/27/2026, 21:18:56	aditya.krishnan+cs_prod_tpm_tenant@illumio.com	6ce15ab6-8bcb-4...	westus	user, strict-c, ComputeVirtualM
dev-001	Virtual Machine	QUARANTINE IN PROGRESS	08/23/2025, 20:45:43	joy.scott+tpm_prod@illumio.com	6ce15ab6-8bcb-4...	eastus	devhost, strict-c, ComputeVirtualM

**Figure 13:** The Quarantine Dashboard



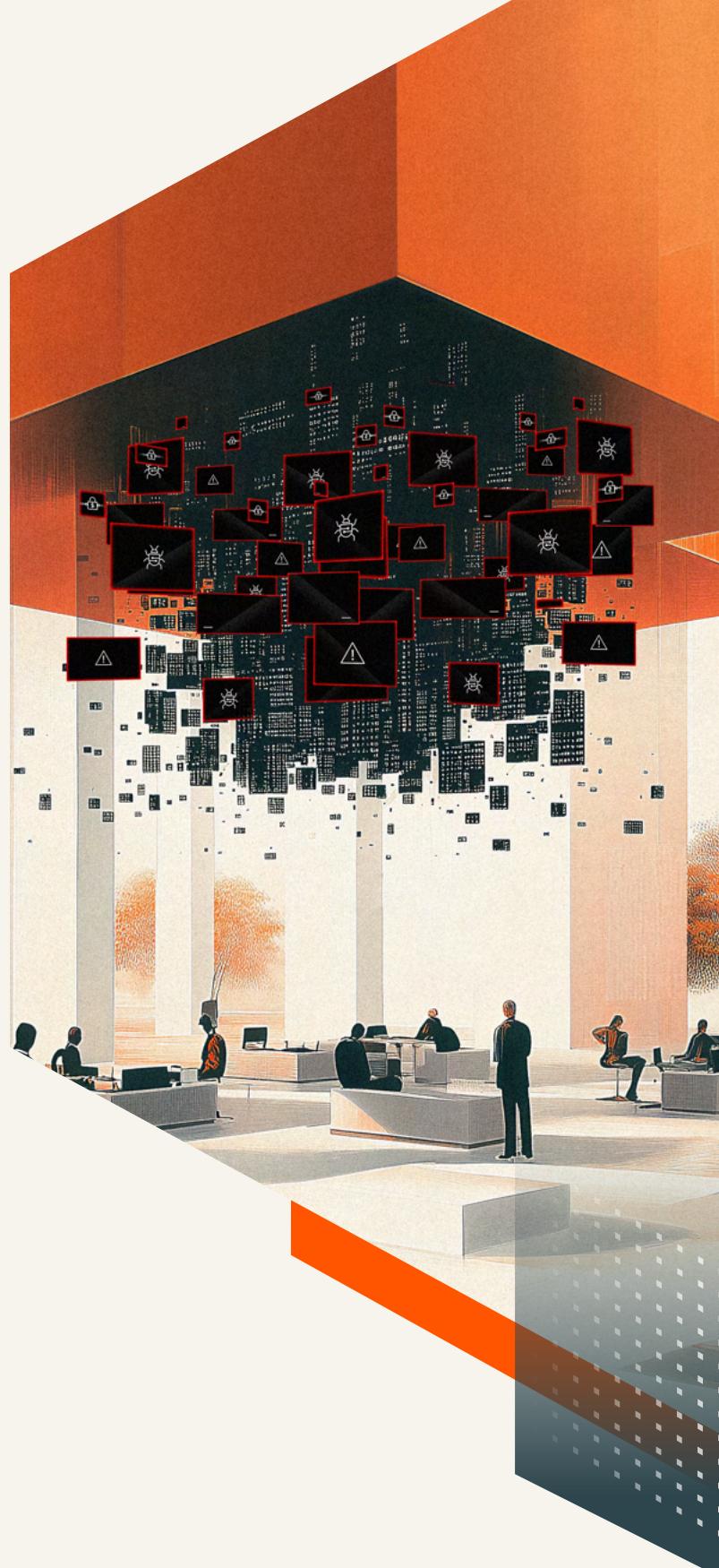
## USE CASE 3

# Stopping malicious access fast

**Objective:** You're concerned about inbound access from known malicious IPs or domains and need to scope and stop threats quickly.

Attackers don't just probe once. They persist. Frontline security often sees repeated attacks from the same malicious IPs trying to blend into normal traffic. The challenge is to separate noise from true malicious access and quickly identify where those IPs are connecting inside your environment.

Illumio Insights makes this triage fast. It surfaces known-bad IPs, maps flows to workloads, and overlays geography through the Global Threat Map. This shows analysts which connections matter and allows them to cut off malicious access before it escalates.



# Cutting off malicious access in Insights

Here's how to use Insights to cut through false positives, confirm malicious access, and contain threats before attackers can gain a foothold:

## 1. Surface malicious connections:

In Insights Hub, select **Malicious IP Threats** to display known-bad IPs and domains.

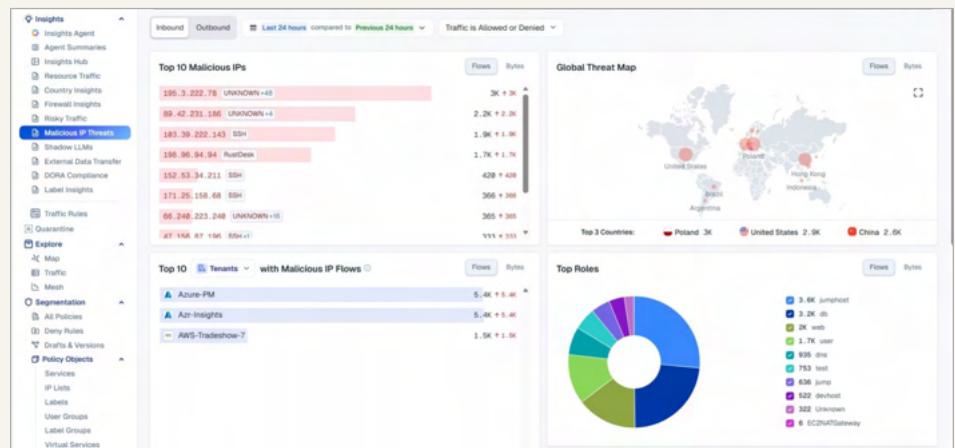


Figure 14: The Malicious IP Threats dashboard

## 2. Prioritize indicators of compromise (IOCs):

Review the **Top 10 Malicious IPs** and **Top 10 services used in malicious IP communications** to focus on the most relevant threats.

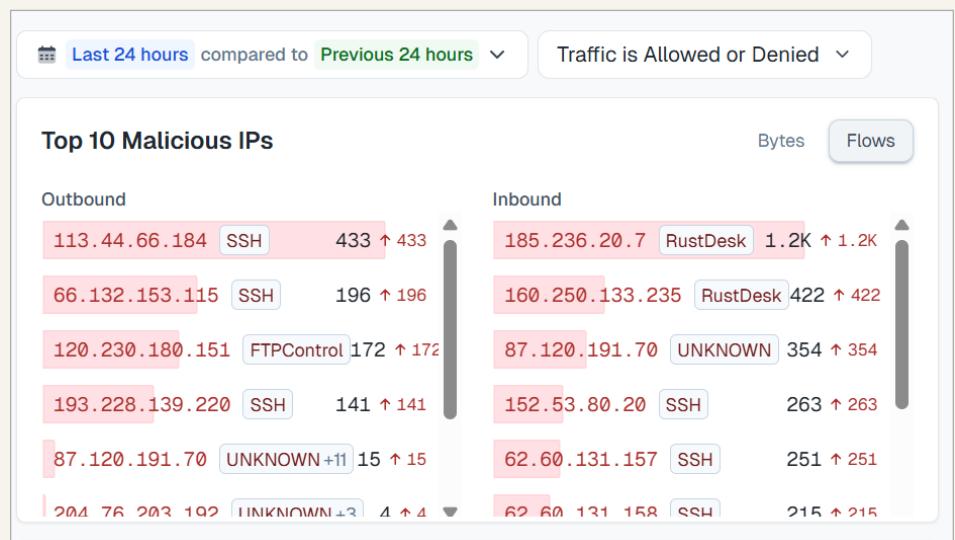


Figure 15: The Top 10 Malicious IPs showing inbound and outbound traffic

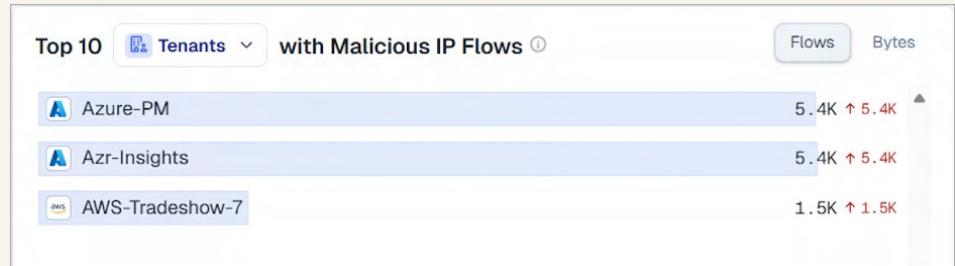
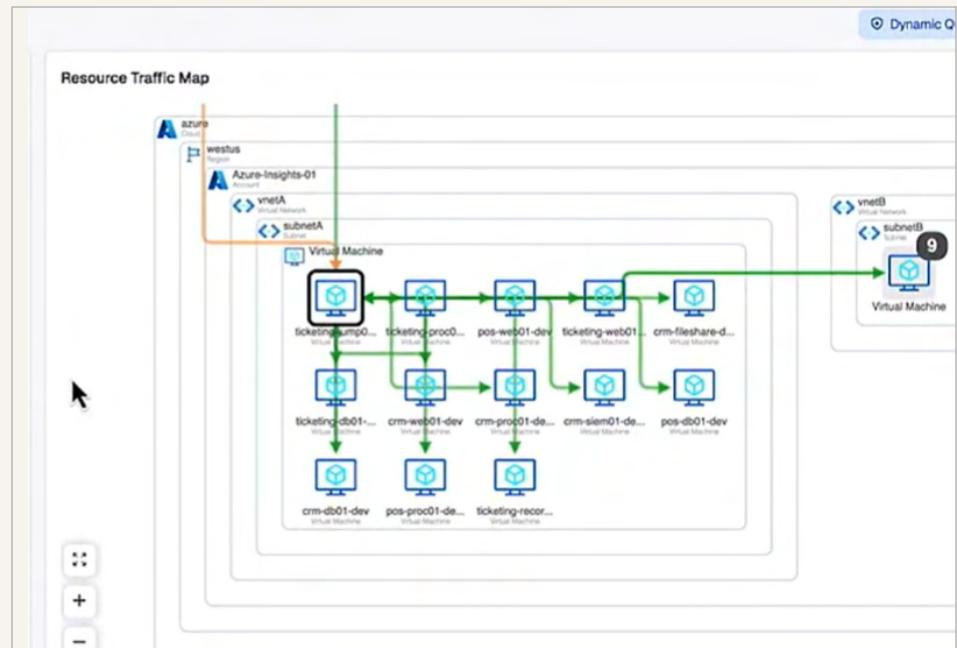


Figure 16: The Top 10 Services with Malicious IP Flows

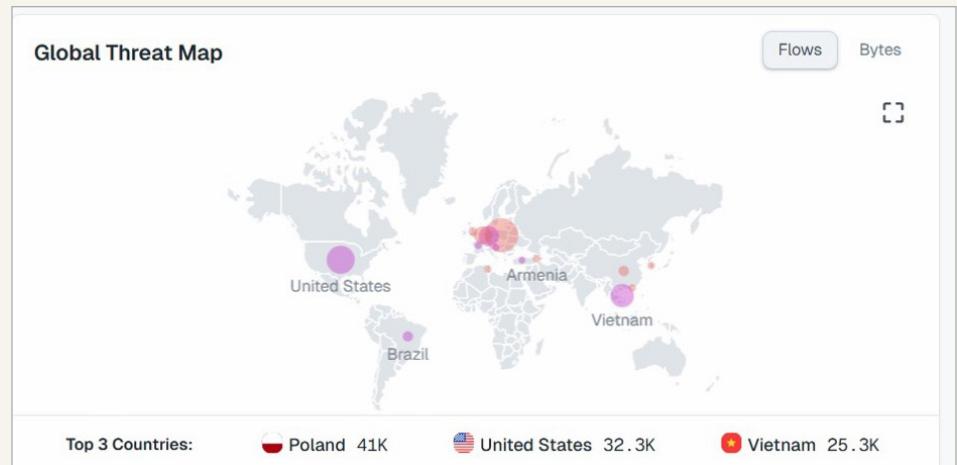


3. **Scope affected workloads:** In the **Resource Traffic Map**, visualize workloads communicating with malicious IPs.



**Figure 17:** The Resource Traffic Map showing workloads communicating with malicious IPs

4. **Add geographic context:** Use the **Global Threat Map** to view regions where malicious connections originate.



**Figure 18:** Global Threat Map showing which countries are originating malicious IPs



5. **Inspect detailed flows: In Traffic Query Results**, analyze source IPs, zones, ports, services destinations for anomalous traffic.

Source IP	Source Resource	Source Zone	Port	Service	Protocol	Destination External Label	Destination IP	Destination Resource	Destin...
195.3.222.78	-	Unknown	8009	AJPA	TCP	-	10.68.1.52	DNSS2	
82.23.183.172	-	Unknown	19999	Unknown	TCP	-	10.68.1.88	CRM-Prod-DB1	
89.42.231.186	-	Unknown	6836	Unknown	TCP	-	10.68.1.88	CRM-Prod-DB1	
82.23.183.172	-	Unknown	19999	Unknown	TCP	-	10.68.1.52	DNSS2	
195.3.222.78	-	Unknown	8009	AJPA	TCP	-	192.168.55.5	ga-azr-u-east1-02	
195.3.222.78	-	Unknown	8009	AJPA	TCP	-	10.68.1.88	CRM-Prod-DB1	
195.3.222.78	-	Unknown	3800	Unknown	TCP	-	192.168.55.5	ga-azr-u-east1-02	
129.148.36.95	-	OCI	22	SSH	TCP	-	10.5.0.4	rsa-jumphost	
195.3.222.78	-	Unknown	3800	Unknown	TCP	-	192.168.55.5	ga-azr-u-east1-02	
45.153.34.149	-	Unknown	22	SSH	TCP	-	10.68.1.173	CRM-Prod-Web2	
66.248.223.248	-	Unknown	5900	VNC	TCP	-	10.0.0.4	shared-d-jumpbox	
66.248.223.248	-	Unknown	5900	VNC	TCP	-	10.0.0.4	FlowLogTest	
66.248.223.248	-	Unknown	5900	VNC	TCP	-	10.0.0.4	FlowLogTest	
195.3.222.78	-	Unknown	8009	AJPA	TCP	-	10.68.1.173	CRM-Prod-Web2	
129.148.36.95	-	OCI	22	SSH	TCP	-	10.5.0.4	rsa-jumphost	
66.248.223.248	-	Unknown	5900	VNC	TCP	-	192.168.100.66	payroll-web-02	
66.248.223.248	-	Unknown	5900	VNC	TCP	-	172.18.0.4	psatest	
66.248.223.248	-	Unknown	5900	VNC	TCP	-	192.168.55.4	ga-azr-useast-01	
89.42.231.186	-	Unknown	6837	Unknown	TCP	-	10.58.2.101	Ticketin-Dev-Web5	

Figure 19: The Traffic Query Results panel

6. **Map potential spread:** Select the **Communications Map** to see if compromised workloads are talking laterally.

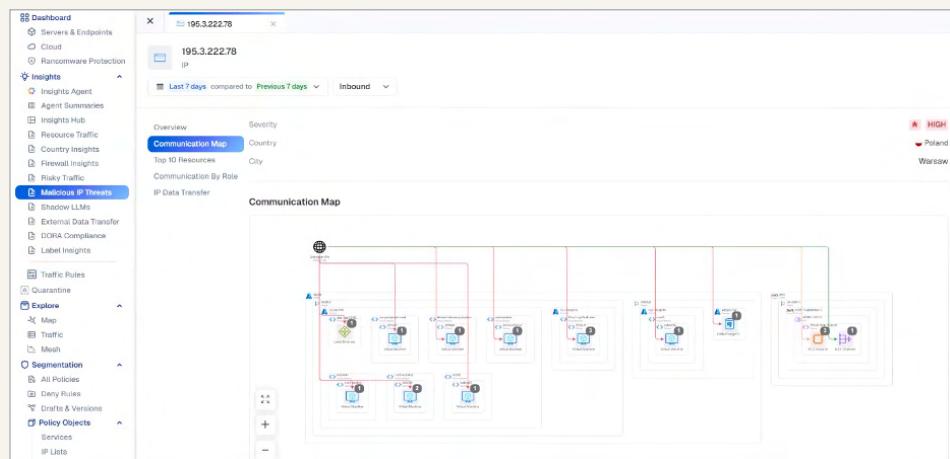
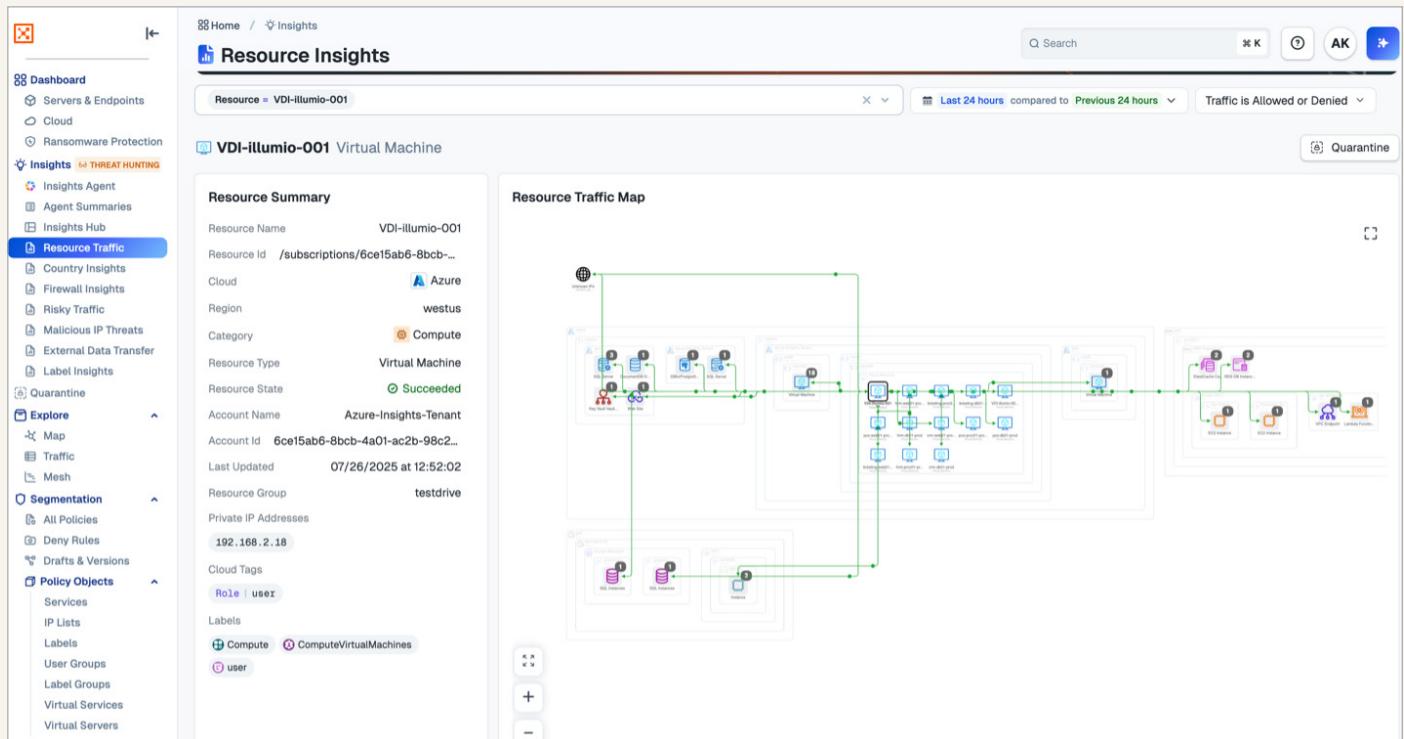


Figure 20: The Communications Map showing communication between workloads

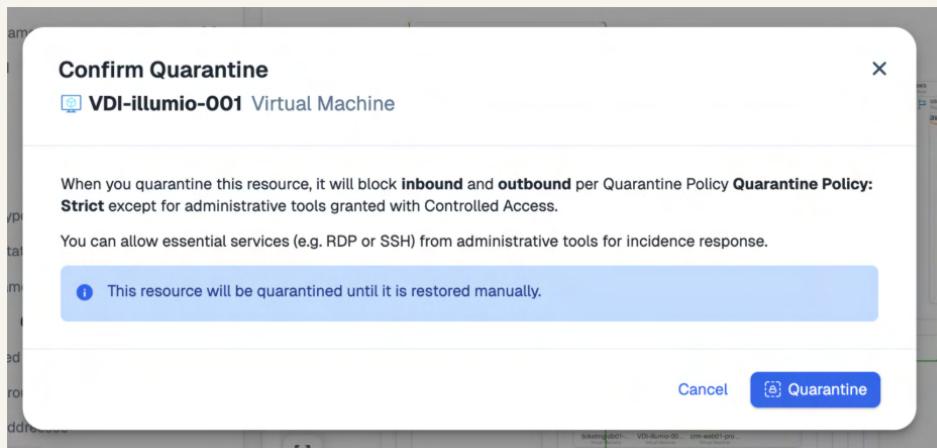


7. **Contain quickly:** If malicious access is confirmed, select the compromised workloads workflow and quarantine.
8. **If a resource is suspect:** Click the workflow, which will take you to the **Resource Traffic Map** to see potential lateral movement.



**Figure 21:** The Resource Traffic Map showing lateral movement paths

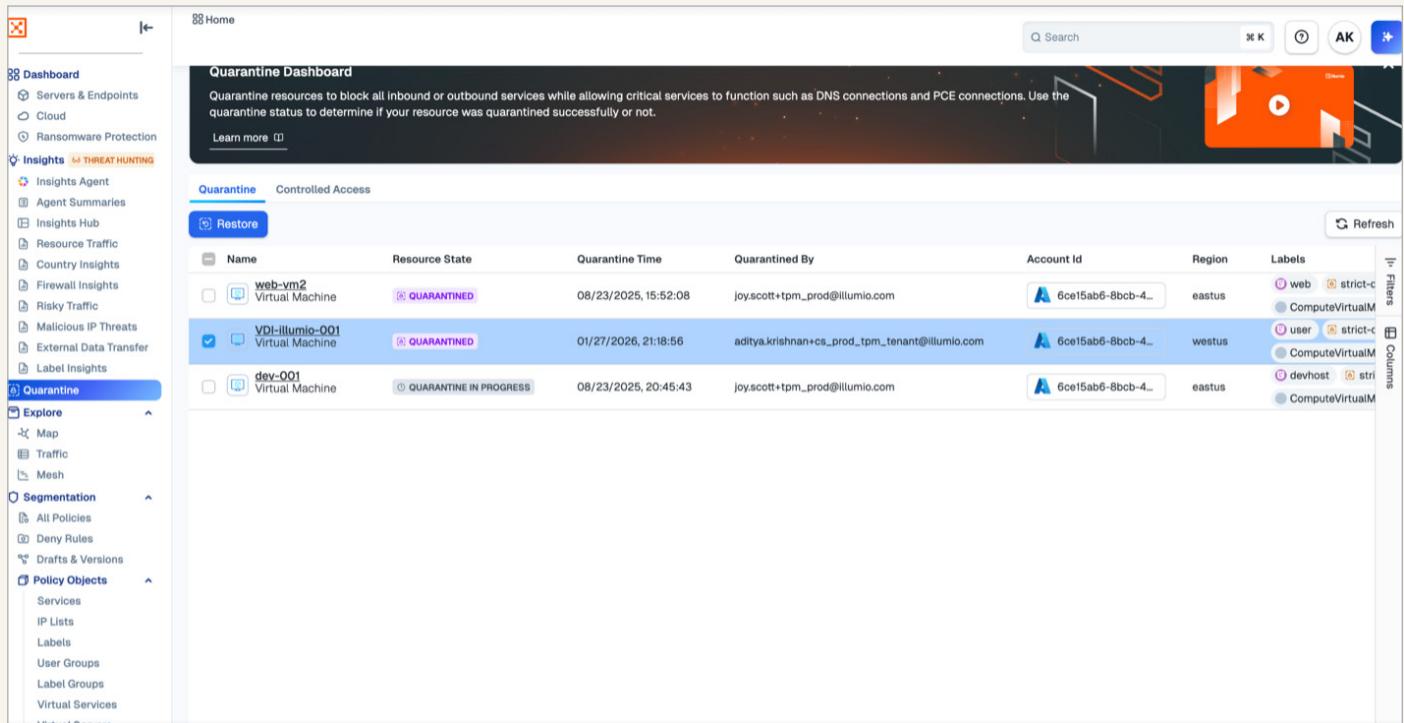
9. **Quarantine:** If a resource needs to be isolated, click the **Quarantine** button (currently available only with Azure) and confirm the quarantine.



**Figure 22:** Confirm the compromised workload to be quarantined.



10. Navigate to **Quarantine** on the left panel to see a list of all quarantined resources to take further action.



The screenshot shows the Illumio Quarantine Dashboard. The left sidebar contains a navigation menu with sections like Dashboard, Insights, Threat Hunting, Quarantine (selected), Explore, Segmentation, and Policy Objects. The main content area is titled 'Quarantine Dashboard' and includes a sub-section 'Quarantine Controlled Access'. It displays a table of resources with the following data:

Name	Resource State	Quarantine Time	Quarantined By	Account Id	Region	Labels
web-vm2	Virtual Machine	08/23/2025, 15:52:08	joy.scott+tpm_prod@illumio.com	A 6ce15ab6-8bcb-4...	eastus	web, strict-c...
VDI-illumio-001	Virtual Machine	01/27/2026, 21:18:56	aditya.krishnan+cs_prod_tpm_tenant@illumio.com	A 6ce15ab6-8bcb-4...	westus	user, strict-c...
dev-001	Virtual Machine	08/23/2025, 20:45:43	joy.scott+tpm_prod@illumio.com	A 6ce15ab6-8bcb-4...	eastus	devhost, strict...

**Figure 23:** The Quarantine Dashboard



## USE CASE 4

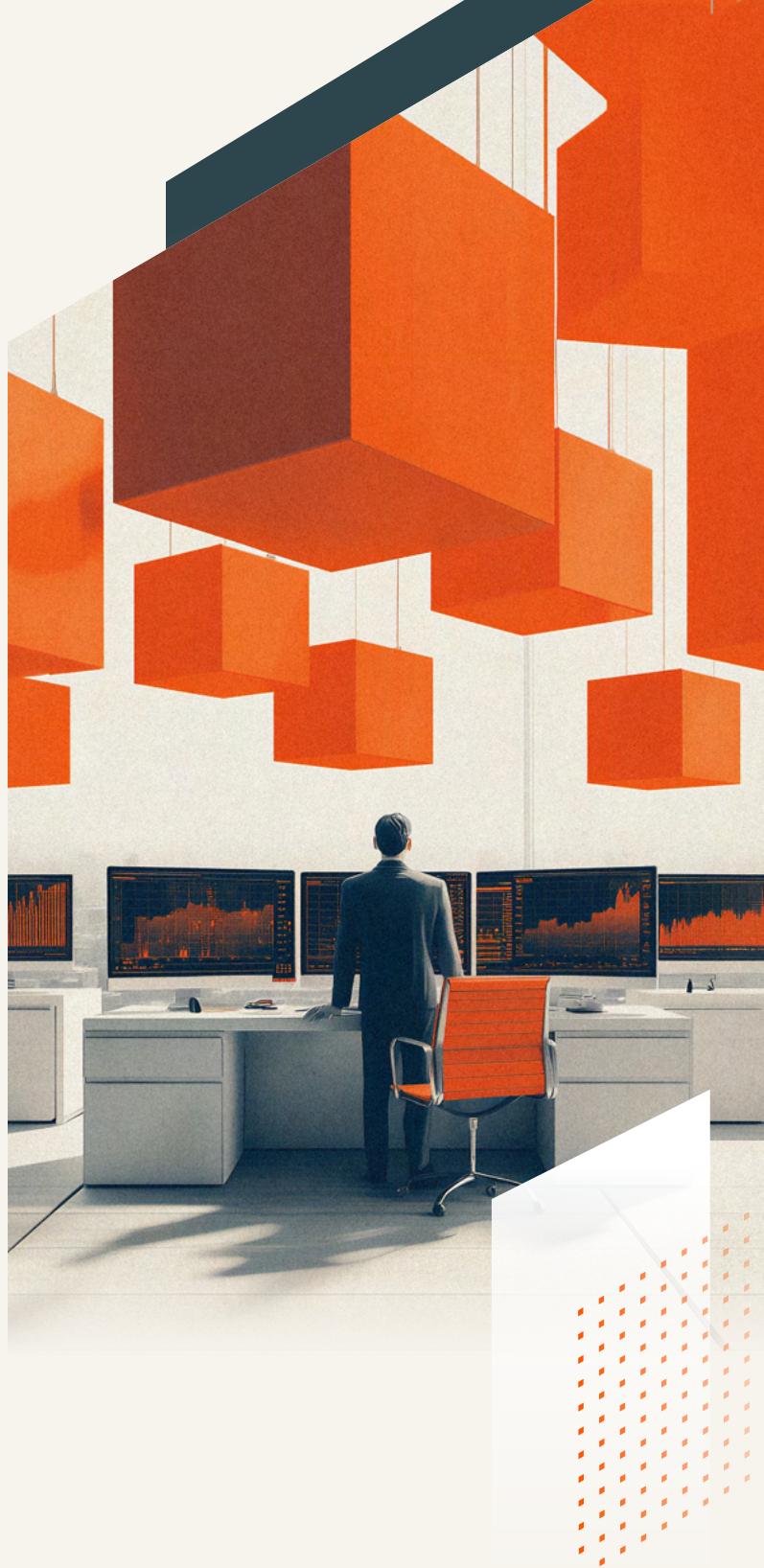
# Catching data exfiltration in motion

**Objective: You suspect potential data exfiltration and need to investigate large transfers, outbound destinations, and responsible workloads.**

Data exfiltration is the attacker's payday. Analysts know it rarely looks like a single giant data dump. It often trickles over time, hidden inside normal data flows. The red flags include:

- Large byte counts showing unusual workloads
- Data headed to geographies with no business need
- Outbound transfers to AI/LLM services that are not sanctioned by policy

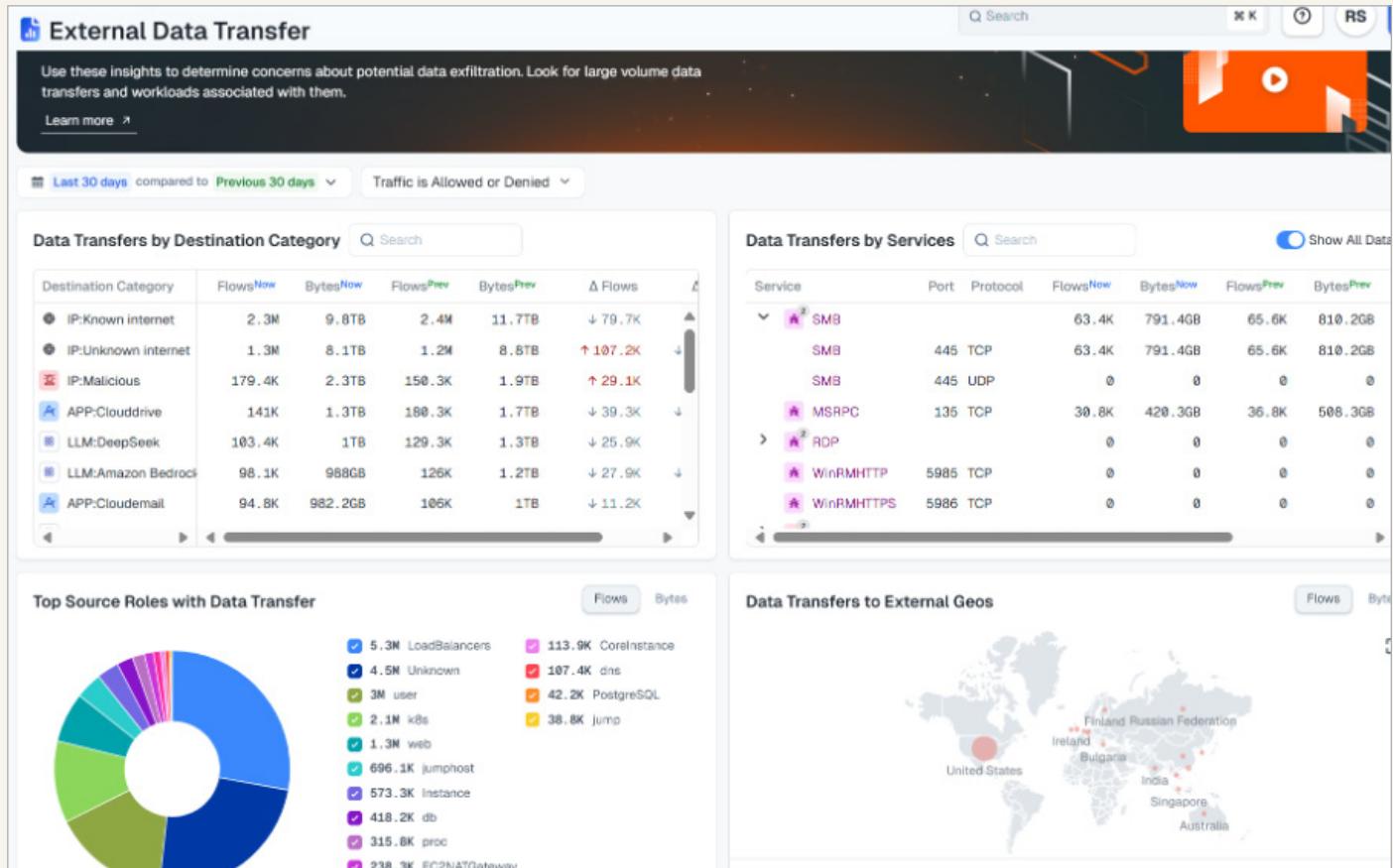
Illumio Insights brings exfil attempts into focus. It combines byte and flow counts, drilling into source workloads and analyzing destination categories and locations. This context helps analysts confirm and cut off leaks before the data walks out the door.



# Spotting data exfiltration in Insights

With Insights, even stealthy exfil attempts can't hide for long. Here's how to use Illumio Insights to uncover data exfiltration in progress:

1. Select the **External Data Transfer** dashboard.



**Figure 24:** The External Data Transfer dashboard



2. **Confirm outbound transfers:**

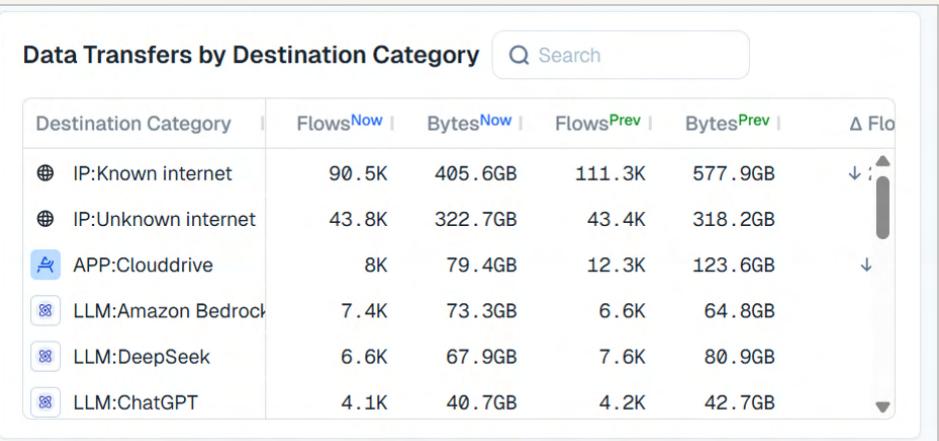
In the **External Data Transfers** dashboard, you can surface anomalous outbound activity.

3. **Identify destinations:** In **Data Transfers by Destination**

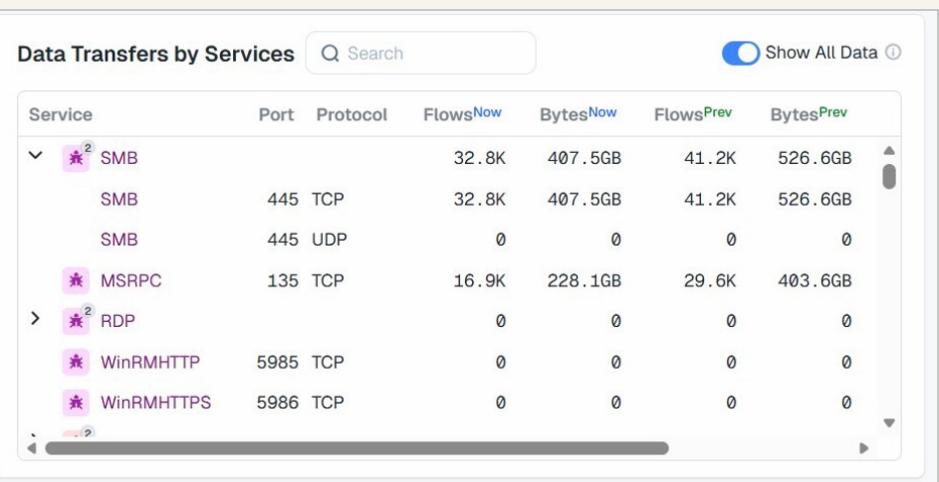
**Category**, see whether data is flowing to CSPs, AI services, or unsanctioned endpoints.

4. **Analyze transfer methods:**

In **Data Transfers by Services**, check which protocols and services are in use, such as HTTPS, SFTP, and tunneling.



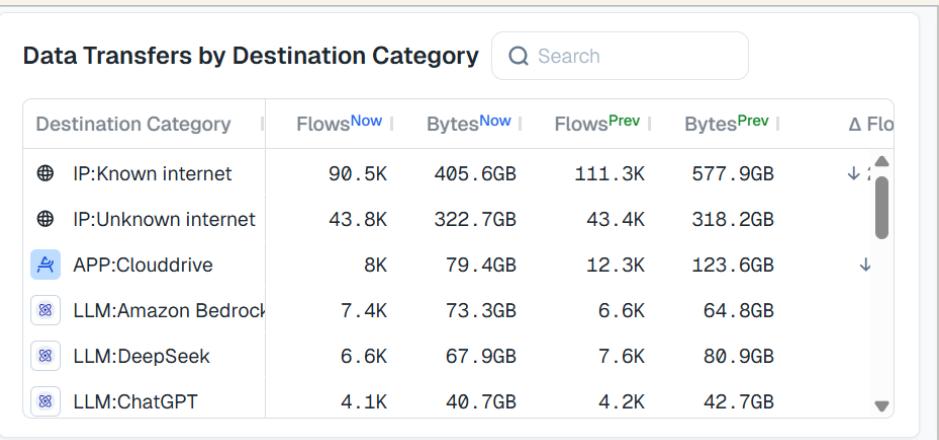
**Figure 25:** Data Transfer by Destination Category dashboard with views of flows and bytes



**Figure 26:** The data that is being transferred by services

5. **Compare volume vs. frequency:**

Contrast bytes transferred vs. number of flows to detect stealthy exfil (such as many small flows or single large bursts).



**Figure 27:** Data Transfer by Destination Category dashboard



6. **Add geographic analysis:** In **Data Transfers to External Geos** and **Traffic Activity Across Countries** check location details; hover or expand for information about the destination.

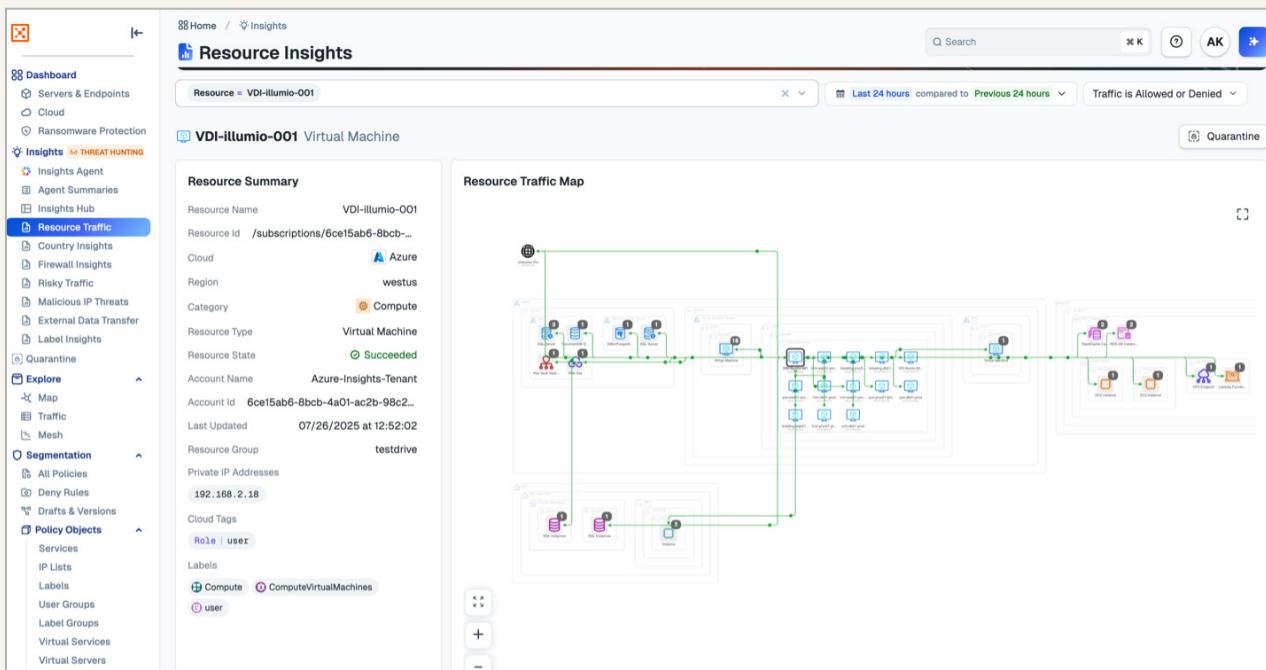


**Figure 28:** View external data transfer by country



**Figure 29:** The Traffic Activity Across Countries dashboard

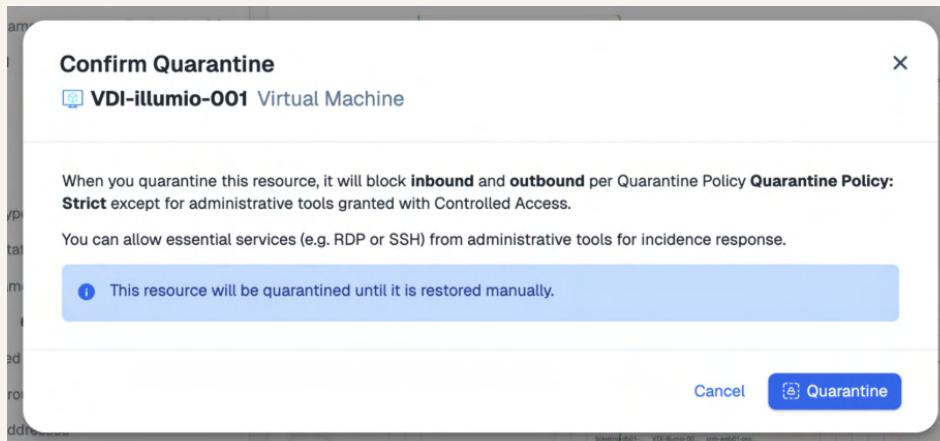
7. **If a resource is suspect:** Click the workflow, which will take you to the **Resource Traffic Map** to see potential lateral movement.



**Figure 30:** The Resource Traffic Map showing lateral movement paths



8. **Quarantine:** If a resource needs to be isolated, click the **Quarantine** button (currently available only with Azure) and confirm the quarantine.



**Figure 31:** Confirm compromised workloads to be quarantined

9. Navigate to **Quarantine** on the left panel to see a list of all quarantined resources to take further action.

Name	Resource State	Quarantine Time	Quarantine By	Account Id	Region	Labels
web-ym2	Virtual Machine	QUARANTINED	08/23/2025, 15:52:08	joy.scott+tpm_prod@illumio.com	6ce15ab6-8bcb-4...	eastus
VDI-illumio-001	Virtual Machine	QUARANTINED	01/27/2026, 21:18:56	aditya.krishnan+cs_prod_tpm_tenant@illumio.com	6ce15ab6-8bcb-4...	westus
dev-001	Virtual Machine	QUARANTINE IN PROGRESS	08/23/2025, 20:45:43	joy.scott+tpm_prod@illumio.com	6ce15ab6-8bcb-4...	eastus

**Figure 32:** The Quarantine Dashboard



## USE CASE 5

# Tracking unsanctioned LLM use

**Objective:** You need to identify and investigate traffic from workloads accessing AI tools that are not sanctioned or approved.

For SOC teams, unsanctioned AI usage isn't just a policy violation — it's a data leakage risk. Analysts must know whether workloads are pushing sensitive data to public LLMs like OpenAI, Anthropic, or other APIs outside approved channels. Attackers can also exploit LLM endpoints to stage data collection or mask exfiltration.

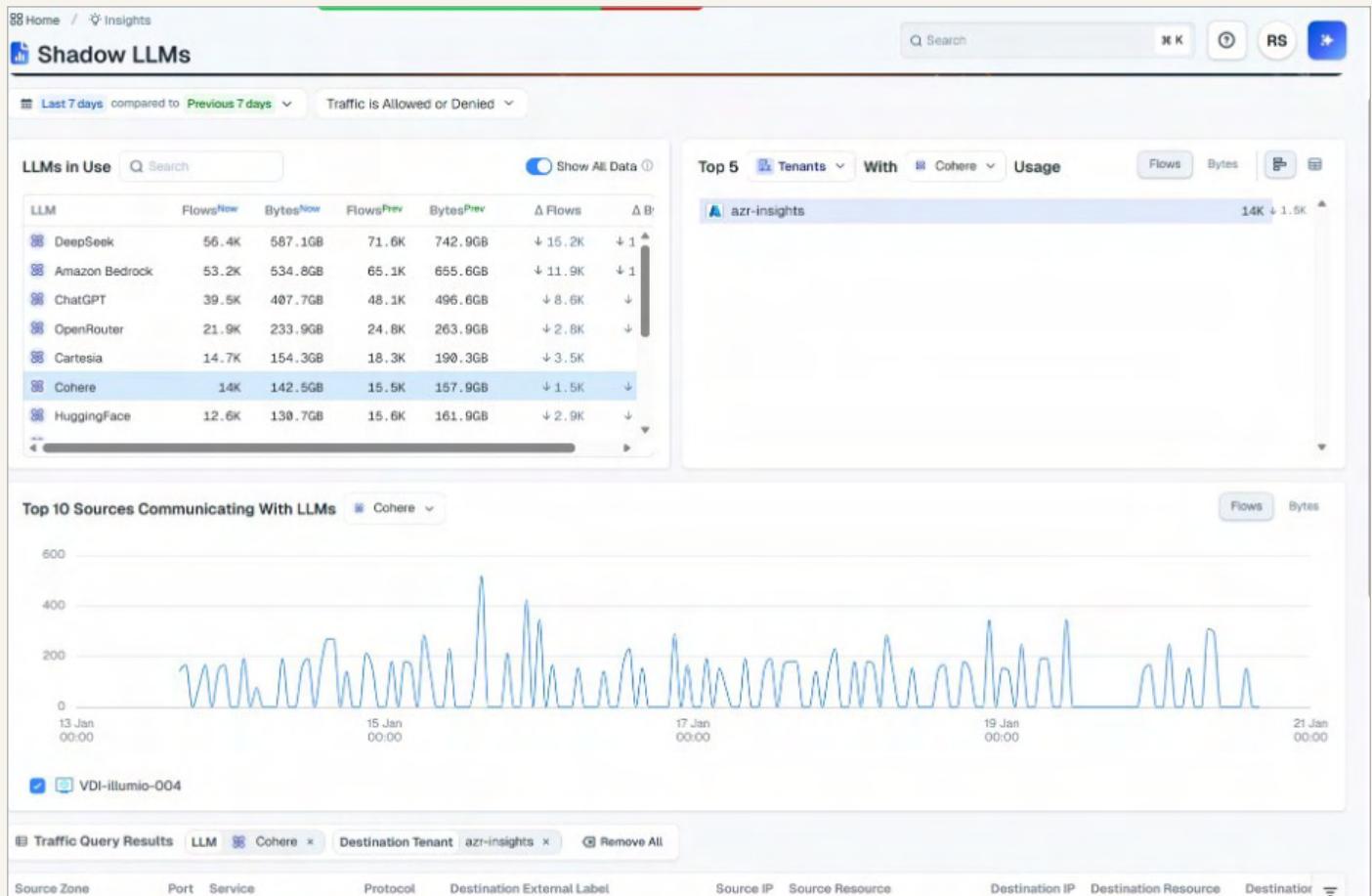
Illumio Insights helps teams spot these connections by categorizing traffic to LLM destinations, mapping flows, and determining whether workloads are sending unusual volumes of data. It's about turning a vague "shadow AI" concern into a concrete list of systems and connections that can be shut down as needed.



# Tracking AI tools in Insights

With Insights, shadow AI doesn't stay in the shadows. Here's how to use Illumio Insights to detect unsanctioned AI traffic, identify which workloads are at risk, and shut down unauthorized connections before data leaves your control:

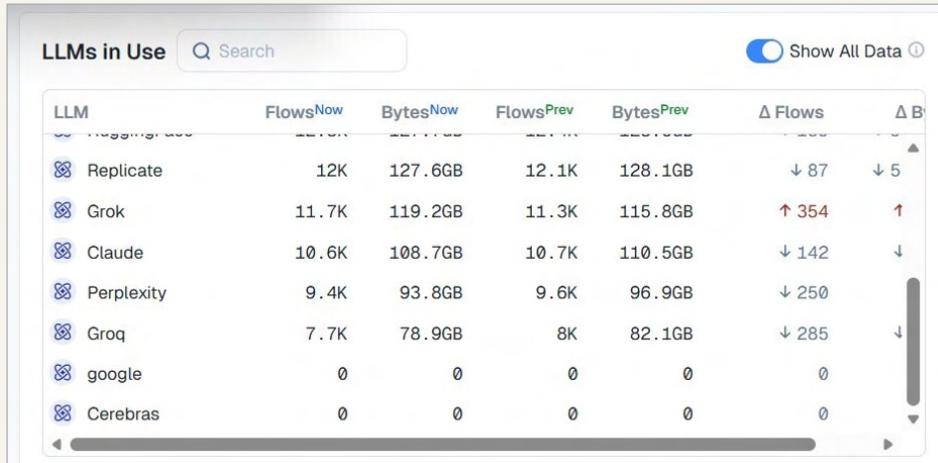
## 1. Detect LLM traffic: Select Shadow LLMs.



**Figure 33:** The Shadow LLM dashboard



2. **Scope LLM usage:** Identify connections to any unsanctioned LLM endpoints such as Grok, ChatGPT, Claude, and Gemini.



**Figure 34:** Observe unsanctioned LLMs and usage

3. **Investigate subscriptions:** In the **Top 10 Sources Communicating with LLMs**, select **Grok** for the workflows and bytes volume by date.



**Figure 35:** Sources communicating with Grok LLM

4. **Escalate for enforcement:** Confirm unsanctioned LLM use and select to quarantine.



## CONCLUSION

# Taking the next step

Modern attackers don't wait, and neither should you.

Illumio Insights turns faint signals into clear evidence and complex environments into actionable maps of risk. See every connection, understand every move, and contain every threat — faster than attackers can adapt.

From lateral movement to data exfiltration and unsanctioned AI use, Insights gives your SOC the clarity and control to contain breaches quickly before they escalate, stopping small intrusions from turning into cyber disasters.

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