



Controlware
Security Day



Zscaler – Sicher, flexibel, intelligent

Wie Zscaler Unternehmen in der digitalen Welt mit
Hilfe der KI schützt

Mike Schumak

Partner Consulting Sales Engineer

controlware

16.09.2025, Congress Park Hanau

Zscaler - Sicher, flexibel,
intelligent:

Wie wir Unternehmen in
der digitalen Welt mit
Hilfe der KI schützen

Mike Schumak, Partner Consulting Sales Engineer

Agenda

1. AI in the Zero Trust Industry
2. AI in Foundational Zscaler Platforms
3. AI in Advanced Zscaler Platforms
4. TikTok Perspective on Zero Trust AI
5. AI in Extensions from Core Zscaler Platforms

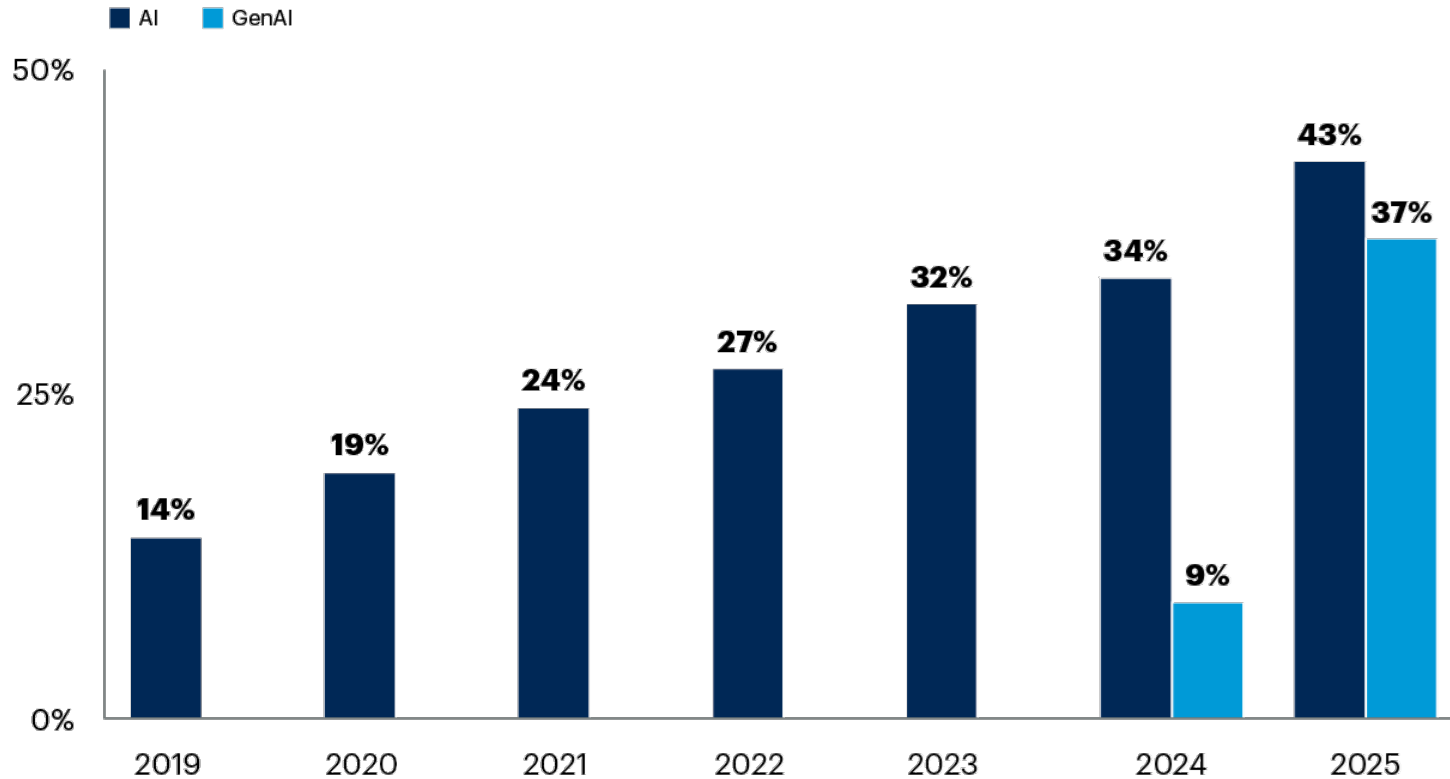
AI in the Zero Trust Industry

How pervasive is **AI**
in your organization?

Rise of AI in the Industry

Deployment of Artificial Intelligence

Percentage of respondents



n = 2,882 (2019), 1,063 (2020), 1,825 (2021), 2,363 (2022), 2,186 (2023), 2,443 (2024), 3,143 (2025)

Q: What are your enterprise's plans in terms of the following digital technologies and trends?

Source: Gartner CIO and Technology Executive Agenda Surveys, 2019 through 2025

822902_C

Gartner®

Active AI projects by organizations around the globe, training their own models, and procuring their own data.

Gartner: "Geopolitics Is Shaping Generative AI (and Vice Versa). 13 December 20 24

Is AI **GOOD**
or
BAD ?

it depends ...

What impact does AI have on the retail industry ?

PuroMarketing

Market analyst firm PuroMarketing conducted a study on the impact of AI in retail, finding:

15% to 20% reduced operating cost
by automating tasks, improving staff efficiency,
optimizing product distribution

30% increased inventory accuracy
avoiding overstocking and stockouts

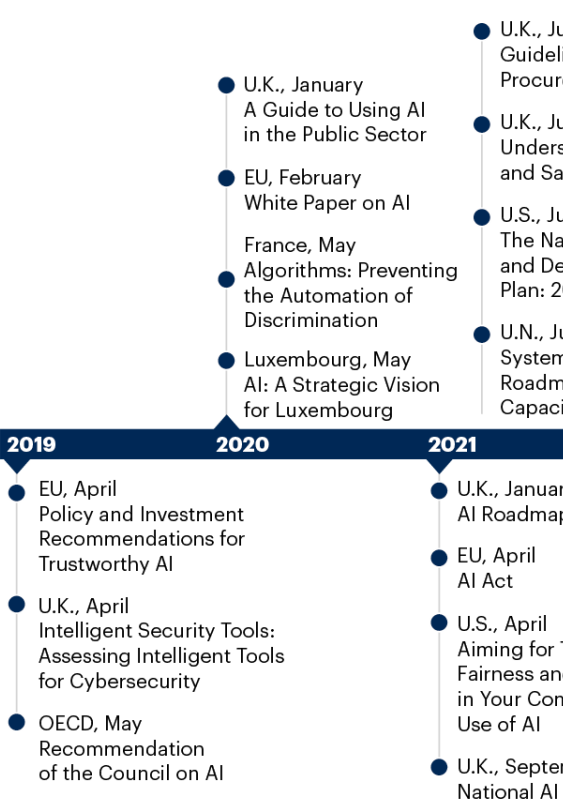
10% to 15% sales growth
personalization to push offers

PuroMarketing: <https://www.puromarketing.com/145/214545/datos-revelan-impacto-inteligencia-artificial-eficiencia-sector-retail>. October 20 24

99.3% of Zscaler
revenue comes from
AI-powered
products.

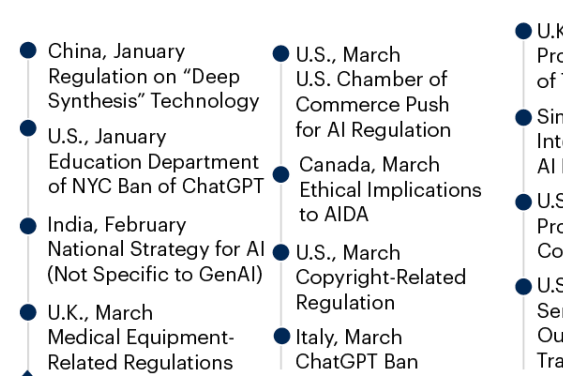
AI Regulations Around the World

AI-Related Regulations Worldwide, 2019 to 2022



Source: Gartner
AIDA = Artificial Intelligence and Data Act; MeitY = Ministry of Electronics and Information Technology;
LLMs = large language models; AGI = artificial general intelligence
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AI-Related Regulations Worldwide 2023



Source: Gartner
AIDA = Artificial Intelligence and Data Act; MeitY = Ministry of Electronics and Information Technology;
LLMs = large language models; AGI = artificial general intelligence
822902_C

AI-Related Regulations Worldwide, 2024 to 2027



Source: Gartner
ESMA = European Securities and Markets Authority; EDPS = European Data Protection Supervisor
822902_C
for using AI model/LLMs and fairness
EU, March AI Act, Adding AGI to "High Risk" Category
Bangladesh, April New National AI Policy published



**Zscaler does NOT use
customer data to train
global AI models.**

Best Practices for Evaluating AI - powered Product Risk

Keep things in context:

How much PII is collected and exploited by Google with every search by your workers?

How much more confidential data is exposed with every ChatGPT?

When it comes to AI- powered security services:

- 1. Protect your data** . Any time your data is used for AI model training, there is a risk that other customers will see part of your confidential data. Transforming your data to de- identify or otherwise anonymize your data is usually the control you look for to mitigate this risk.
- 2. Don't get hung up on AI governance frameworks made for consumer AI** . Most enterprise security powered by AI does not collect PII or personal data. And most of them take anonymized data and aggregate or share the insights. Nowhere near the risk of doing this with consumer AI which works with PII.
- 3. Generative AI models using LLMs are more risky** . In general, any data processed by an LLM is incorporated and “learned” by the LLM, making it potentially available in responses to other requests. Chatbots are an easy example of this.

Does a Zero Trust AI approach really make a difference ?

FORRESTER®

According to Forrester research, Zero Trust AI, on average, delivers the following benefits:

65% reduced risk
of exposure to breach costs

75% efficiency increase
in IT and security operational efficiency

6.5 hours saved
per end-user per year

Forrester: The Total Economic Impact
of Zscaler Internet Access. May 20 25

Take Aways

1

AI can be good , but taking some precautions is prudent.

2

When analyzing AI risk to your company, **start by focusing on how to protect your data** . What data is being used and how personal or confidential is that data?

3

To date, **much of the AI risk comes in how data models are trained** .
If confidential and personal data is used in modeling, spend time focusing on how your data is protected.

AI in Foundational Zscaler Platforms

Automated Domain Categorization and Assessment

ZIA – automated categorization and classification

AI automates the process of keeping up the changing Internet landscape. Policies are by category and risk score, so they do not need change as new domains come and old domains go.

No configuration necessary.



Welcome to Site Review

With the URL Lookup tool you can find out how Zscaler categorizes a site (URL or IP Address) in its URL Filtering Database. Note that URL lookup results may vary from those seen in your environment due to possible custom categories that your admin might have configured.

Step 2. Request Review

URL	CLOUD APPLICATION	CURRENT CATEGORIES	SUGGESTED CATEGORIES <small>See definition of URL categories here</small>
drlisa.ai	-	Generative AI and ML Applications	Select Categories



1.1 Billion
total websites

175,000
new websites everyday

145,000
websites retired everyday

Zulu Risk Analyzer
zulu.zscaler.com
Risk assessment

Zulu URL Risk Analyzer

URL Information

<https://www.drlisa.ai/>

User-Agent
Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/42.0.2311.135 Safari/537.36

Status
Completed

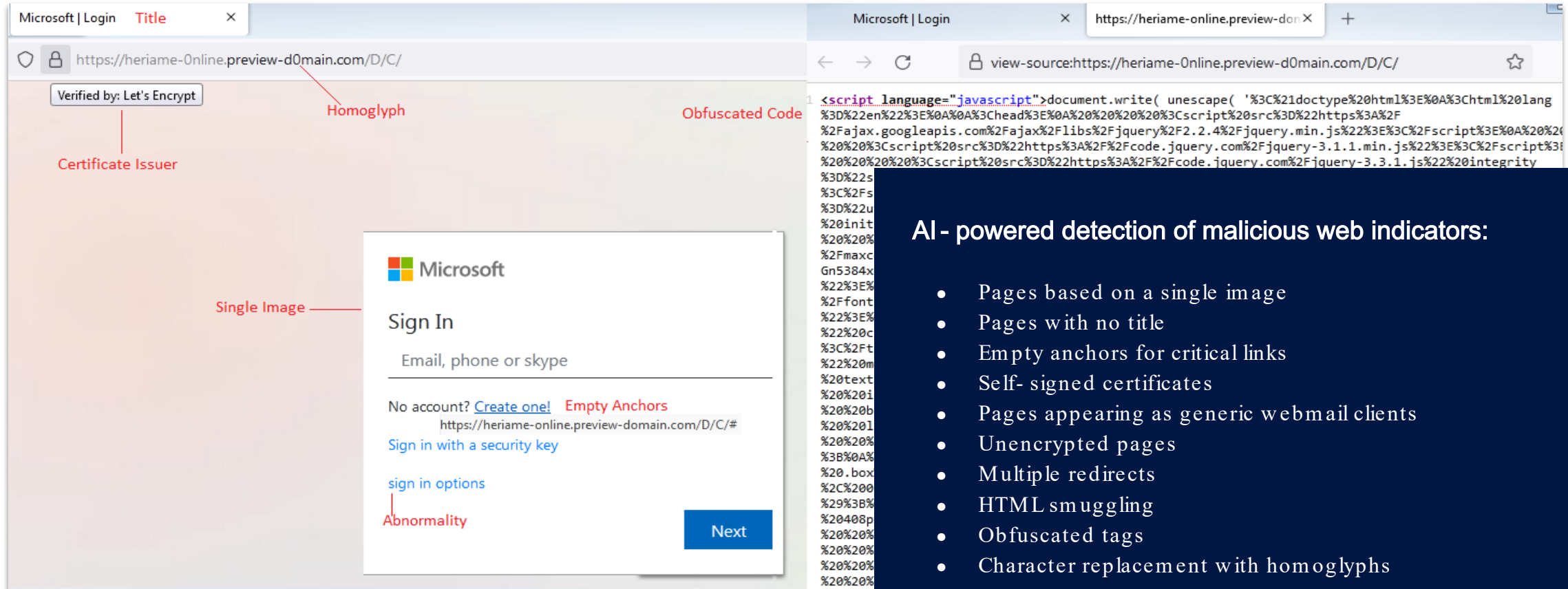
Test Results

Benign

5/100

[Send Us Feedback](#)

AI - powered Page Inspection for Phishing

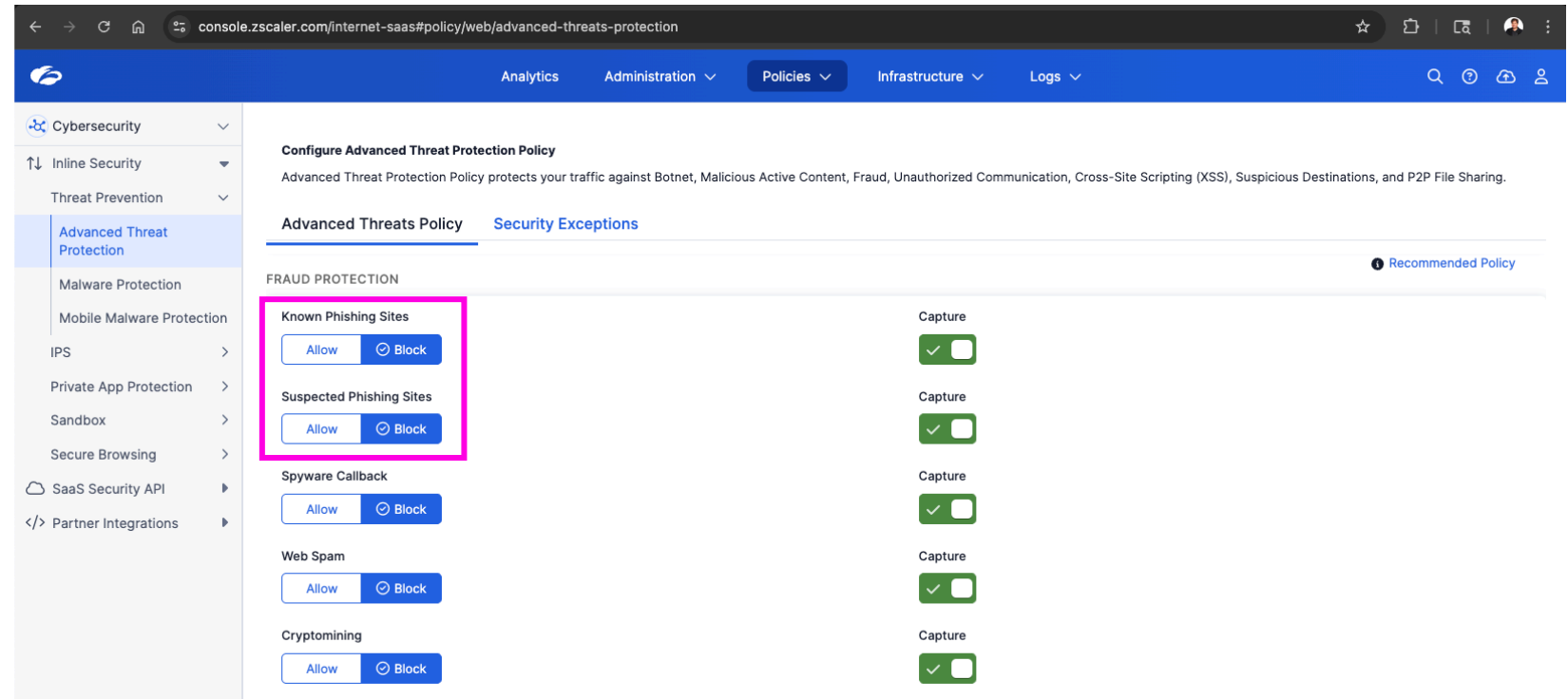


Advanced Protection from Phishing

ZIA – PhishCatch

Not only signatures or a TI feed, but an AI- powered process inspects each page, looking for malicious web indicators, just like a human. It compares images and sign- in pages for top- phished domains to authentic objects. It checks for homoglyphs and obfuscated code.

Make sure you have enabled both phishing controls in Advanced Threat Policy.



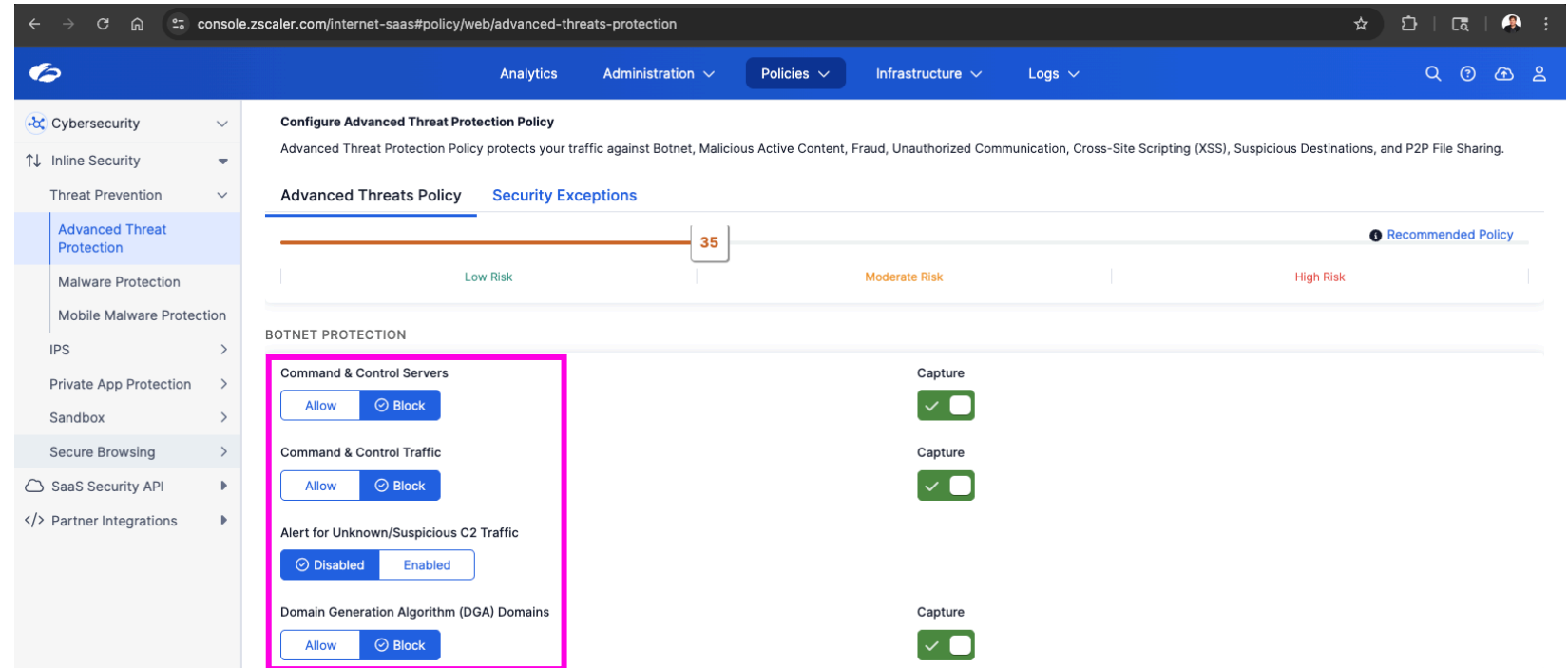
[Policies](#) / [Cybersecurity](#) / [Inline Security](#) / [Threat Prevention](#) / [Advanced Threat Prevention](#)

Advanced Protection Against Command & Control Comms

ZIA – Advanced Botnet Security

Callback traffic is intended to elude security controls. A simple list of known C2 sites is no longer sufficient. Zscaler uses AI to monitor traffic behavior, looking for anomalous flows with malicious indicators. AI is needed to correlate anomalies with weak indicators. Domain Generation Algorithms can be used for evasion. The algorithms let malware know how to reach their constantly moving Command server at any given time. AI helps decipher to algorithm and pinpoint those malicious communications amongst the noise of other traffic.

Make sure you have enabled all the Botnet controls in Advanced Threat Policy.



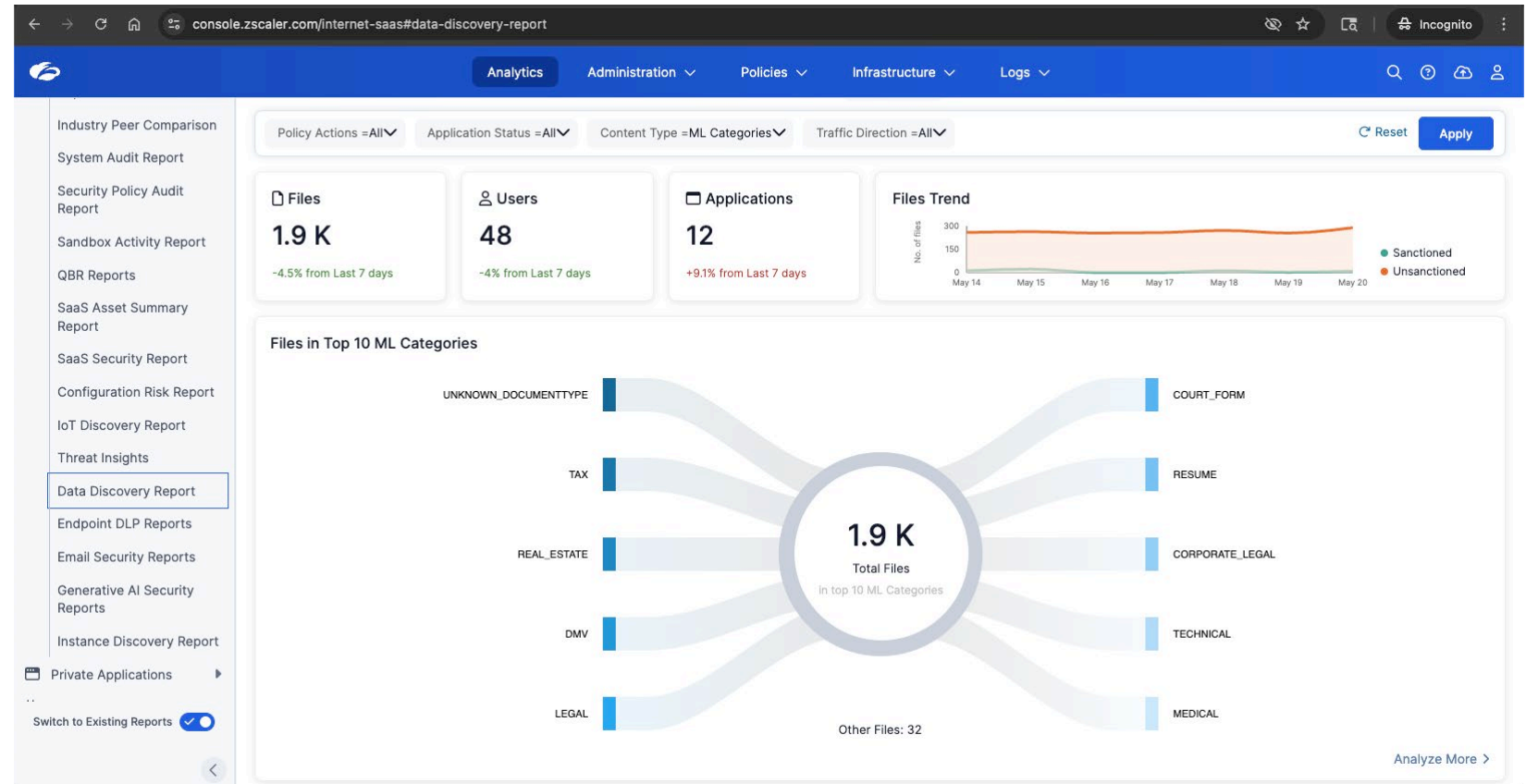
[Policies](#) / [Cybersecurity](#) / [Inline Security](#) / [Threat Prevention](#) / [Advanced Threat Prevention](#)

AI - Powered Data Discovery and Classification

ZIA – Automatic Discovery & Classification

ML Categories grew from 15 to 200 this past year, but here are showing Top 10 . Out- of- the- box, as Data Protection processes scan files, an AI- powered process maps files to these ML categories. No dictionaries or engines need to be configured for this automatic discovery and classification. Click Analyze More to see which applications are transporting these files to which users.

No configuration necessary.



[Analytics / Switch to Existing Reports / Analytics / Data Discovery Report](#)

Take Aways

1

Advanced **AI - powered capabilities** are available to all **Zscaler customers** , helping to reduce operational effort and improve security.

2

Many of these features require no configuration or are enabled by default but **check your configuration to make sure you are taking advantage** of these capabilities.

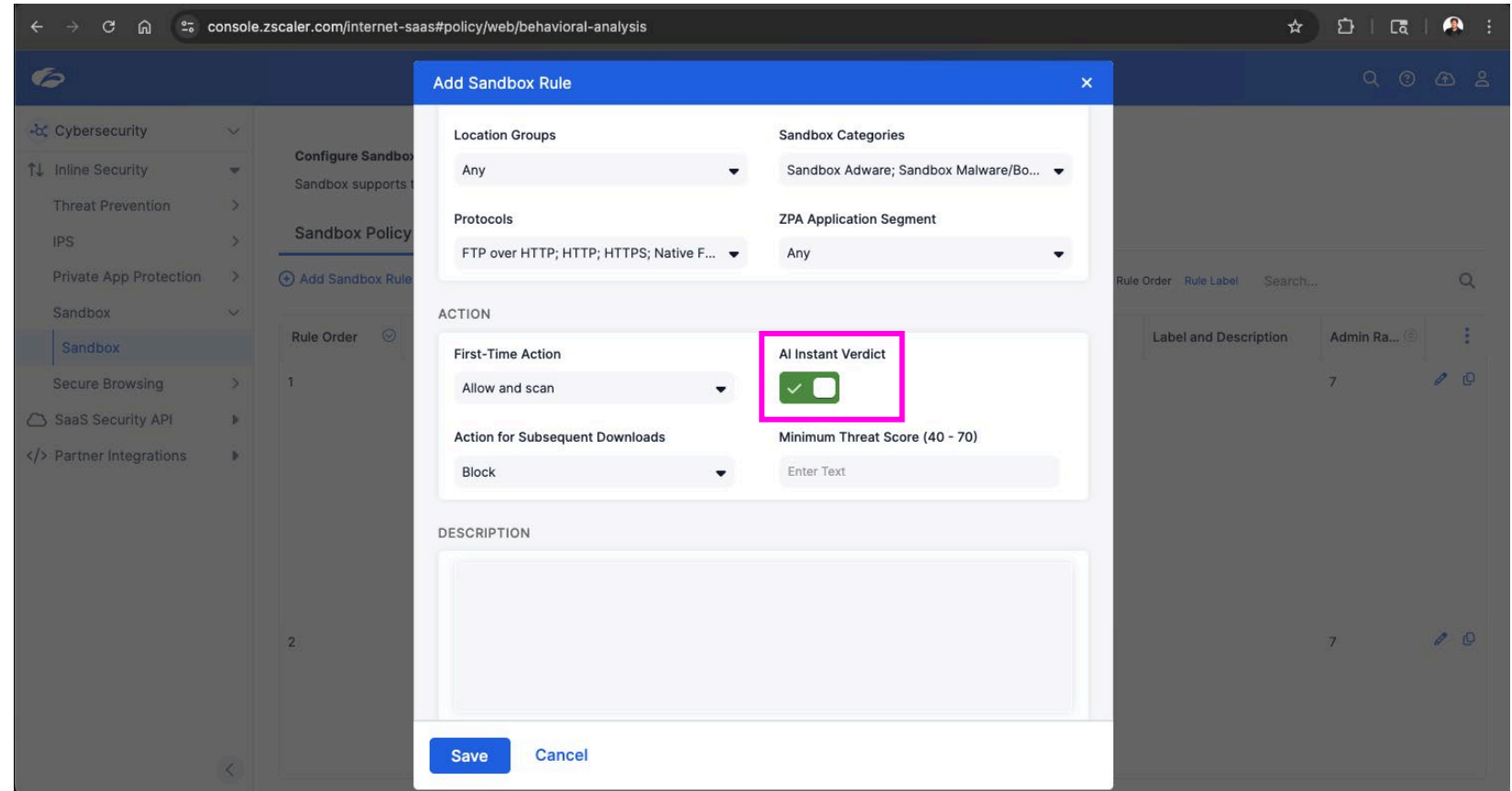
AI in Advanced Zscaler Platforms

Instant Sandbox Results – Great User Experience

ZIA – AI Instant Verdict

Sandbox analysis is great, but it may take a couple of minutes and that wait is not welcome to most users. AI Instant Verdict can predict some malicious files before going through full dynamic analysis. Machine Learning looks for patterns in static file characteristics common with previously convicted malicious files. When files match the malicious pattern with high confidence, they are blocked immediately – no waiting.

AI Instant Verdict controls are found when you add sandbox rules. Flip the switch and modify the risk threshold if desired. Sandbox Advanced license is needed.



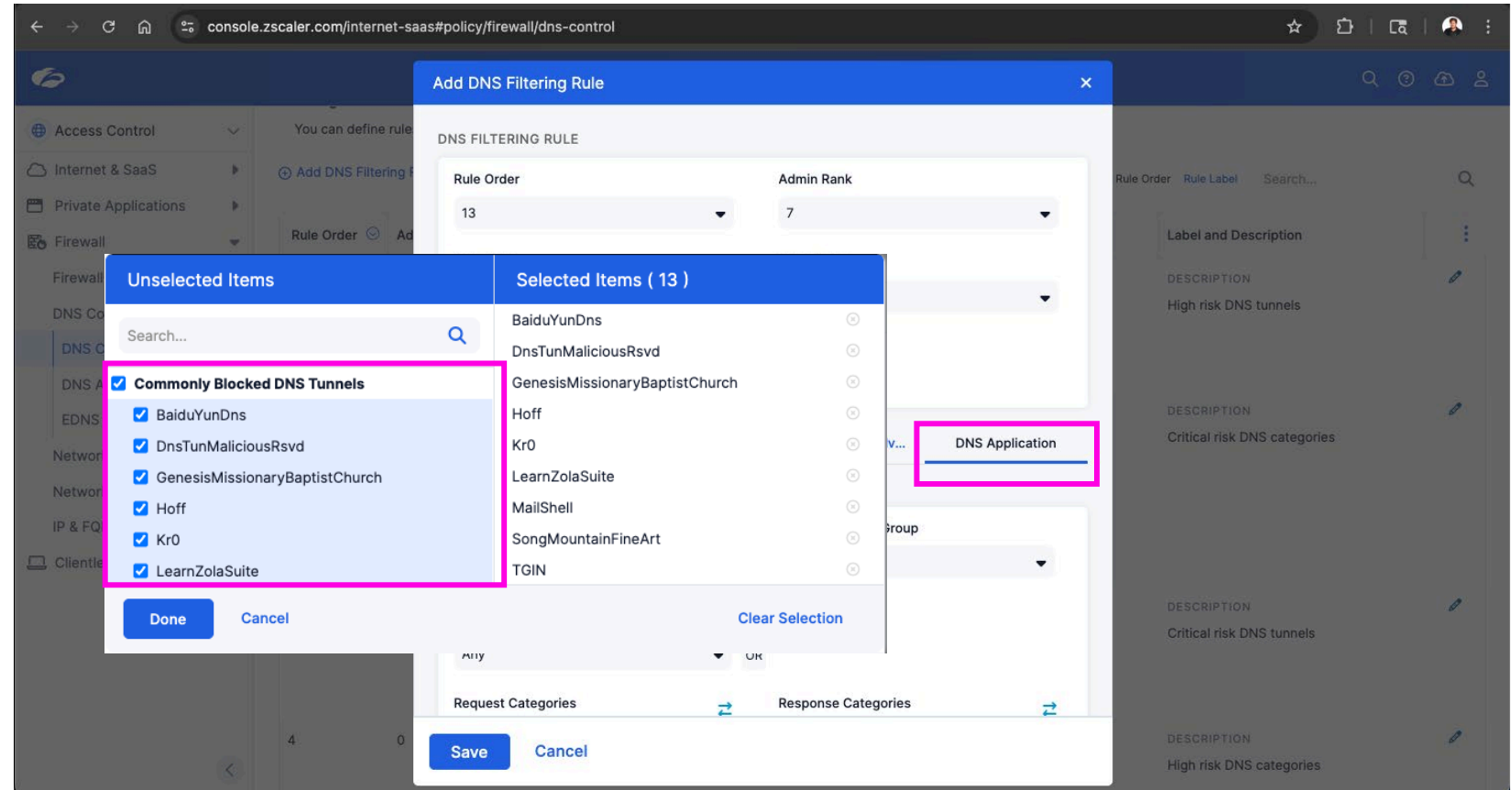
Policies / Cybersecurity / Inline Security / Sandbox /
Advanced Policy Settings / Add Sandbox Rule

Prevent Malicious DNS Tunneling

ZIA – DNS Tunneling

DNS traffic is assumed to be good in most networks and typically bypassed at the firewall. Tunnels can be set up in DNS to transfer data, such as is often used for security software updates. But it is not uncommon for bad actors to use DNS tunnel for C2 communications. Zscaler can monitor DNS for tunneling and use AI to determine whether the tunnel is malicious.

DNS tunneling settings are found where you add DNS filtering rules. Select criteria in DNS Tunnels & Network Apps. DNS Advanced capabilities come with the Firewall Advanced license.



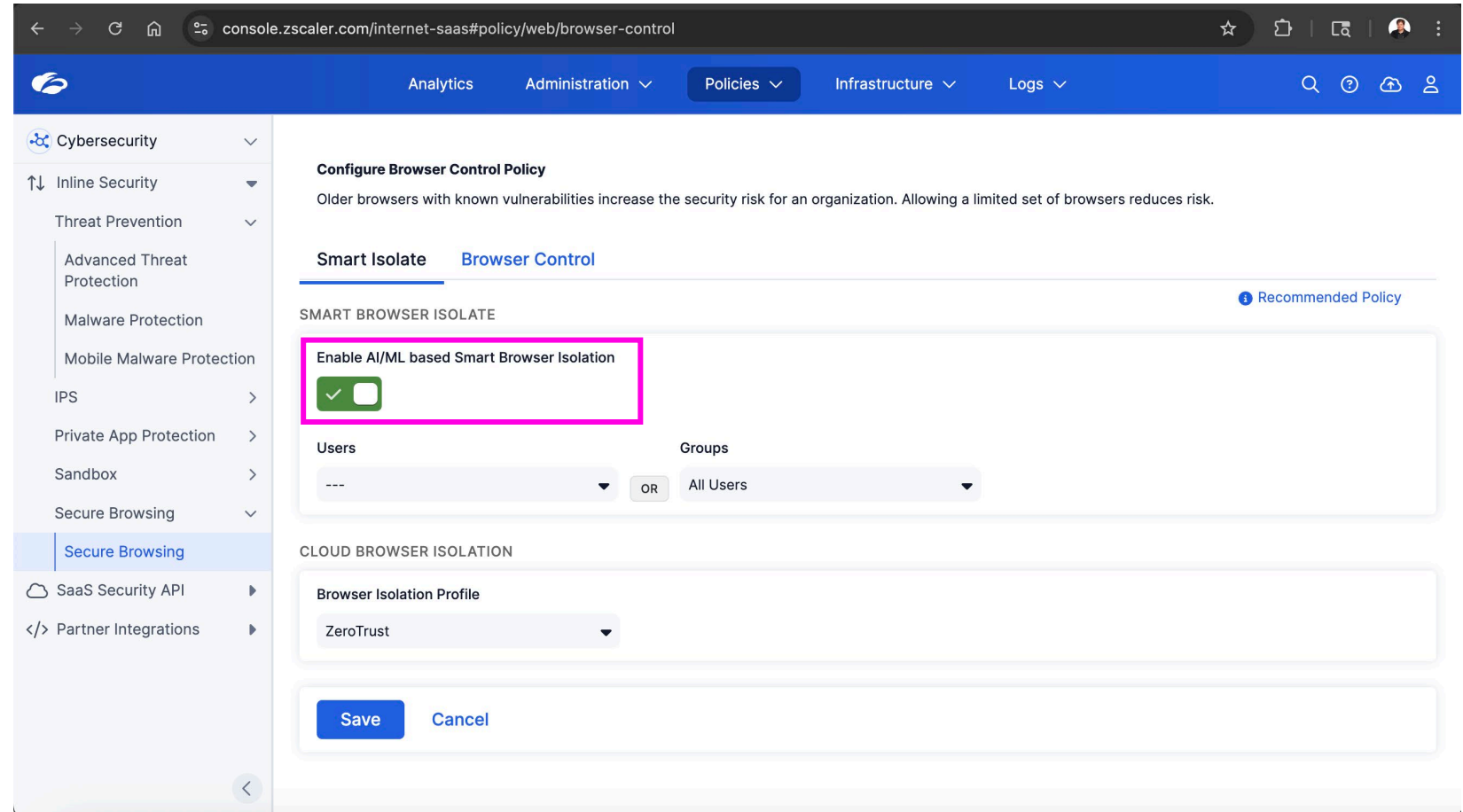
Policies / Access Control / Firewall / DNS Control /
Add DNS Filtering Rule / DNS Application

Browser Isolation Only When Risk is High

ZIA – Smart Browser Isolation

Browser isolation is great, but it may seem that you have to deliberately configure which categories or domains will be rendered in isolation. Not so. Zscaler can be configured so only high risk domains are rendered in isolation. This is important as domain risk may change over time, as well as the constantly changing catalog of domains that come and go.

Make sure that you have Browser Isolation profiles configured, then simply enable Smart Isolate by user or group. Cyber Browser Isolation Advanced license is needed.



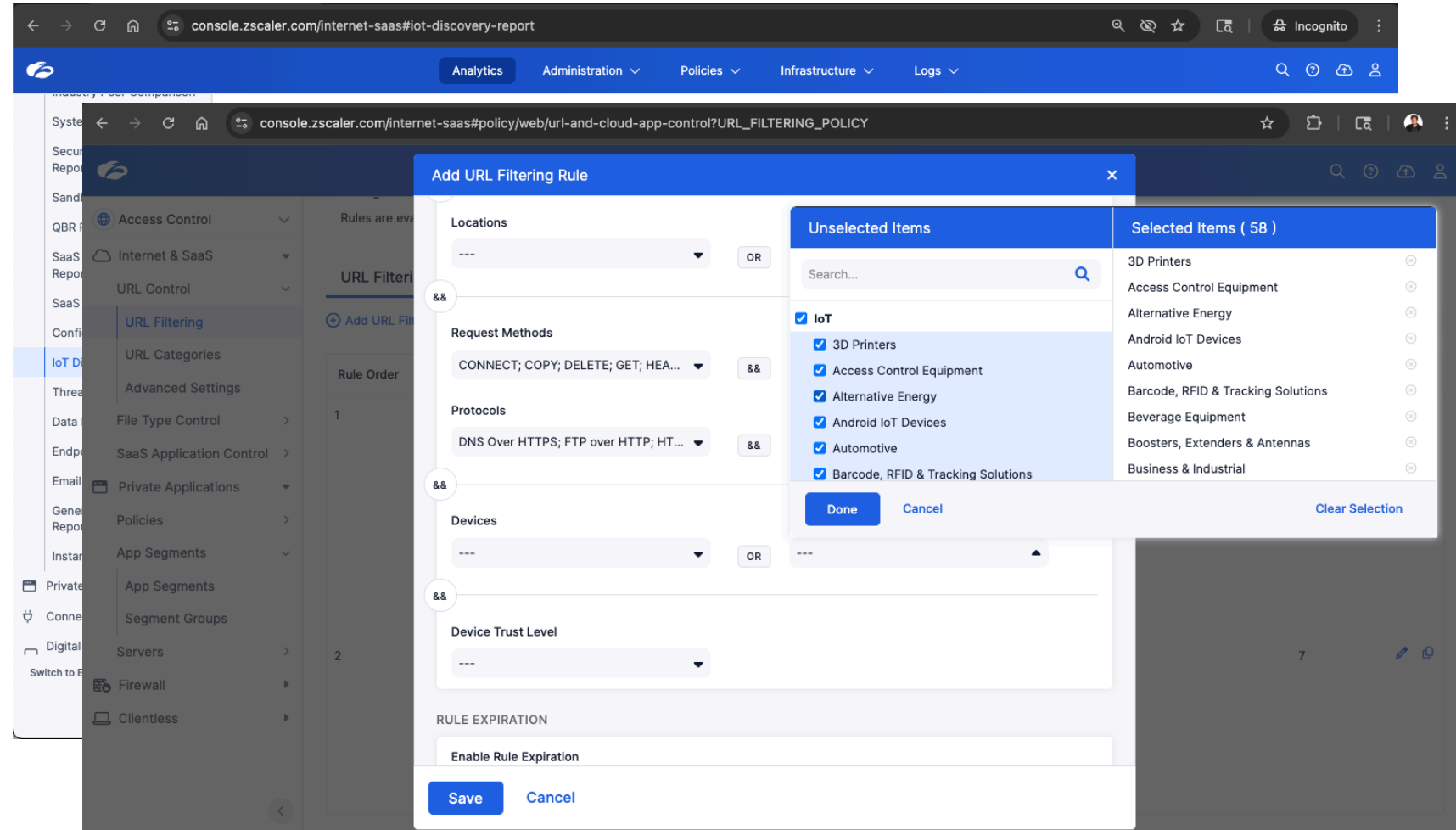
[Policies](#) / [Cybersecurity](#) / [Inline Security](#) / [Secure Browsing](#)

IoT Device Fingerprinting

ZIA – IoT Device Groups & Report

ZIA uses AI to discover IoT devices and organize them into their functional groups. You can now set URL Filtering policies with IoT devices as a Device Group setting, giving you granular control over groups of IoT in your network.

Enable IoT Discovery and Policy Control (2 buttons) in Location definitions (Infrastructure / Locations / Legacy Locations). As discovery automatically occurs, the IoT Discovery Report and IoT items under Device Groups will appear.



[Analytics](#) / [Switch to Existing Reports](#) / [Internet & SaaS](#) / [Analytics](#) / [IoT Discovery Report](#)

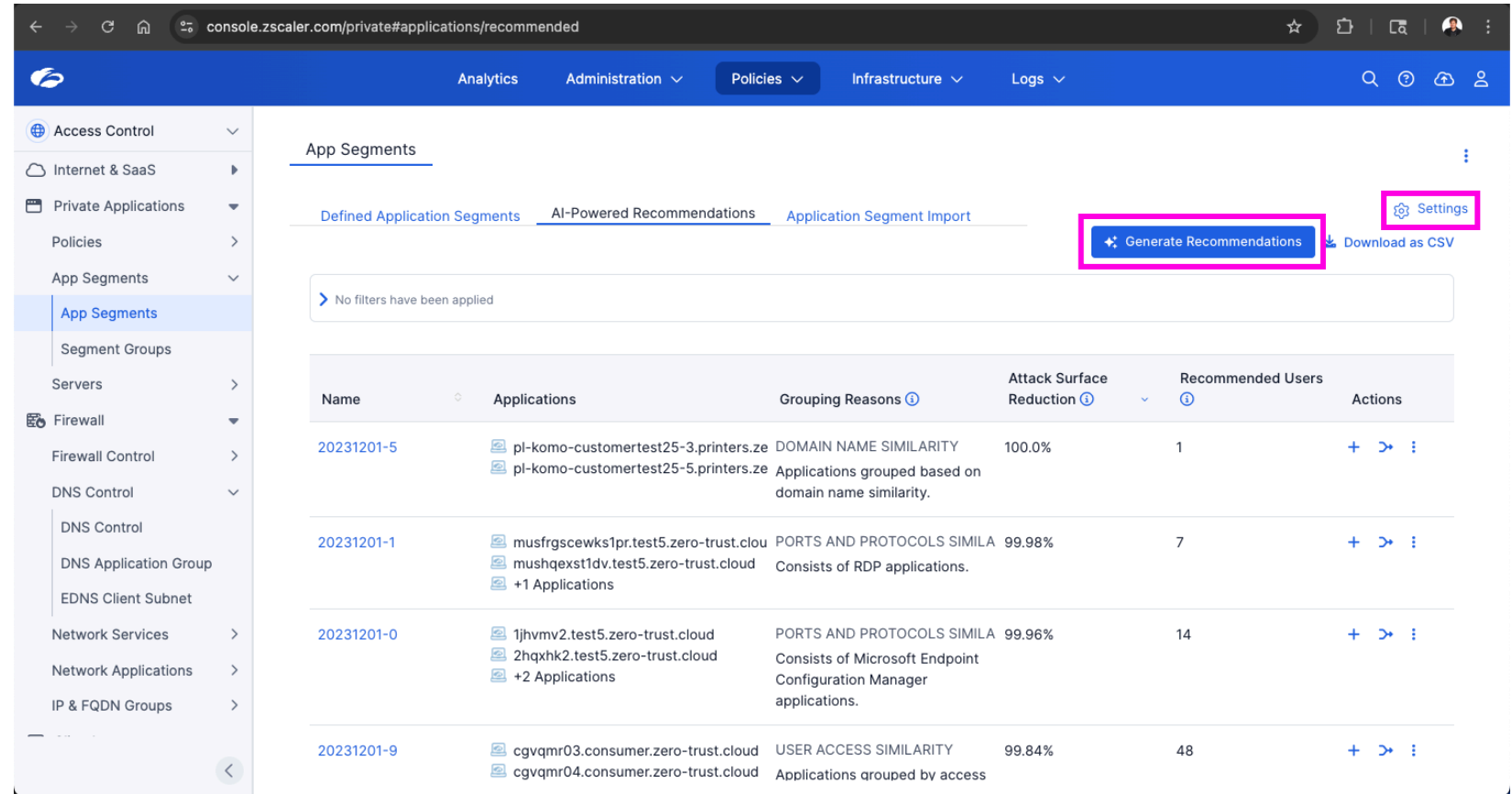
[Policies](#) / [Access Control](#) / [Internet & SaaS](#) / [URL Filtering](#) / [Add Filtering Rule](#) / [Device Group](#)

Recommended App Segment Definitions and Policies

ZPA – Recommendations for App Segments

Defining an App Segment is easy, but many organizations have 10 0 0 s or 10 0 0 0 s private services or resources. AI- Powered Recommendations learns from your traffic and recommends App Segment definitions as well as user access policies. This service also calculates the attack surface reduction with the recommended policy.

AI- Powered Recommendations are found in the tab next to where your defined App Segments are. Click **Generate Recommendations** to get started. Private Access Segmentation license is needed.



The screenshot shows the Zscaler console interface. The left sidebar contains a navigation menu with categories like Access Control, Internet & SaaS, Private Applications, Policies, App Segments, Segment Groups, Servers, Firewall, Firewall Control, DNS Control, DNS Application Group, EDNS Client Subnet, Network Services, Network Applications, and IP & FQDN Groups. The 'App Segments' section is expanded, and the 'App Segments' sub-item is selected. The main content area shows the 'App Segments' page with three tabs: 'Defined Application Segments', 'AI-Powered Recommendations' (which is active), and 'Application Segment Import'. A red box highlights the 'Generate Recommendations' button in the top right corner. Below the tabs, there is a search bar with the text 'No filters have been applied'. A table displays the recommended app segments with columns for Name, Applications, Grouping Reasons, Attack Surface Reduction, Recommended Users, and Actions. The table contains four rows of data.

Name	Applications	Grouping Reasons	Attack Surface Reduction	Recommended Users	Actions
20231201-5	pl-komo-customertest25-3.printers.ze pl-komo-customertest25-5.printers.ze	DOMAIN NAME SIMILARITY Applications grouped based on domain name similarity.	100.0%	1	+ > ⋮
20231201-1	musfrgscwks1pr.test5.zero-trust.cloud mushqexst1dv.test5.zero-trust.cloud +1 Applications	PORTS AND PROTOCOLS SIMILARITY Consists of RDP applications.	99.98%	7	+ > ⋮
20231201-0	1jhvmv2.test5.zero-trust.cloud 2hqxhk2.test5.zero-trust.cloud +2 Applications	PORTS AND PROTOCOLS SIMILARITY Consists of Microsoft Endpoint Configuration Manager applications.	99.96%	14	+ > ⋮
20231201-9	cgvqmr03.consumer.zero-trust.cloud cgvqmr04.consumer.zero-trust.cloud	USER ACCESS SIMILARITY Applications grouped by access	99.84%	48	+ > ⋮

Policies / Access Control / Private Applications / App Segments / AI- Powered Recommendations

ZDX – Root Cause Analysis

Root cause analysis is automatically calculated for low ZDX scores. Simply navigate through users and apps to your desired ZDX score and the analysis automatically launches. ZDX Advanced Plus license is needed.

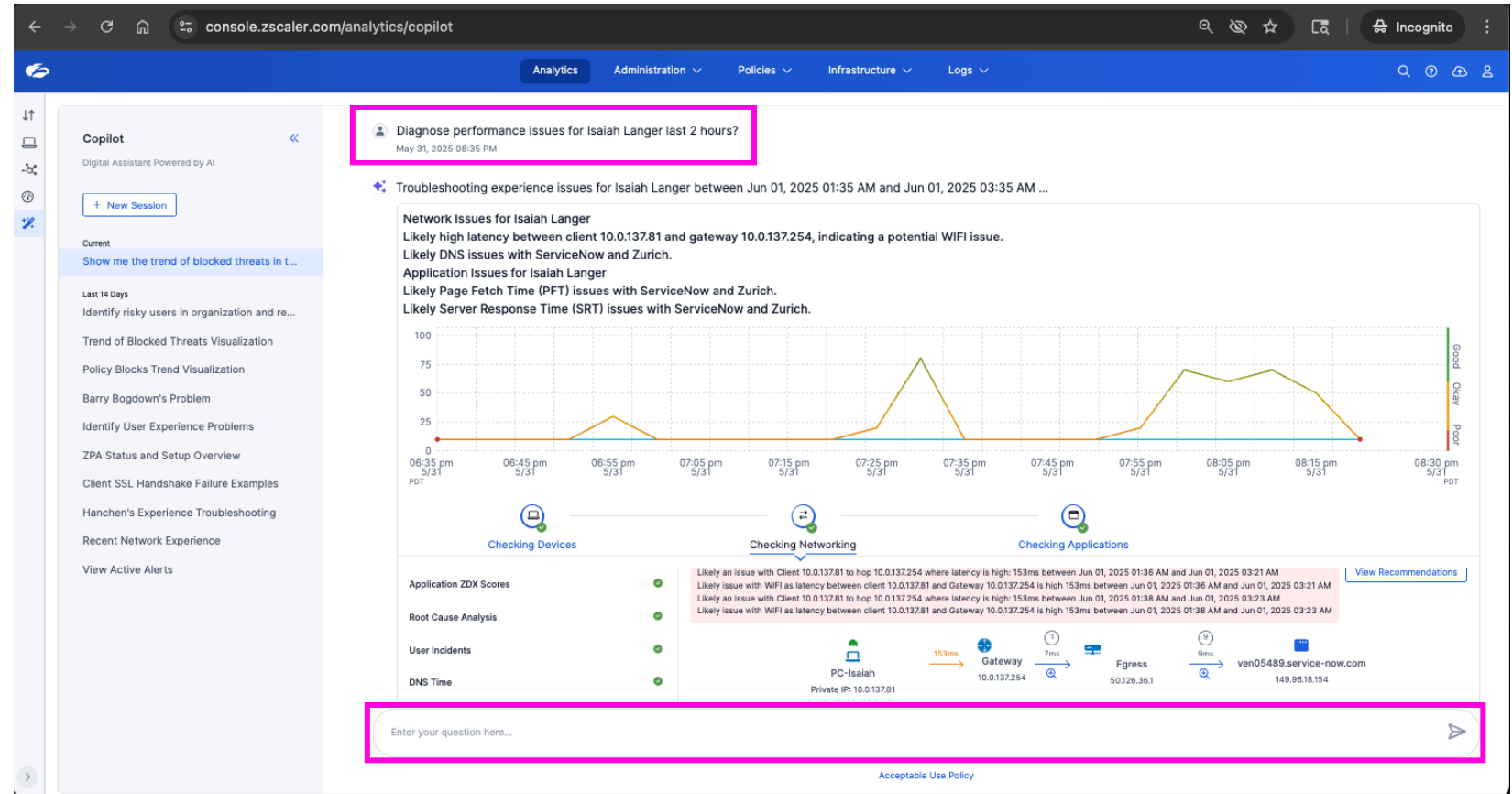


Copilot for ZDX

ZDX – Copilot

Zscaler Copilot works like you would expect – ask questions in natural language and Zscaler Copilot will interpret and pull information to answer your question. Ask simple questions such as what is a user's ZDX score for the past two hours, or ask complex questions, such as troubleshoot this user's performance and Copilot will interrogate Zscaler, using all Zscaler ZDX capabilities available, to compose a complete response.

Copilot is one of the tabs on Analytics. Just start asking questions, or choose one of the suggested questions to get started. ZDX Advanced Plus license is needed.



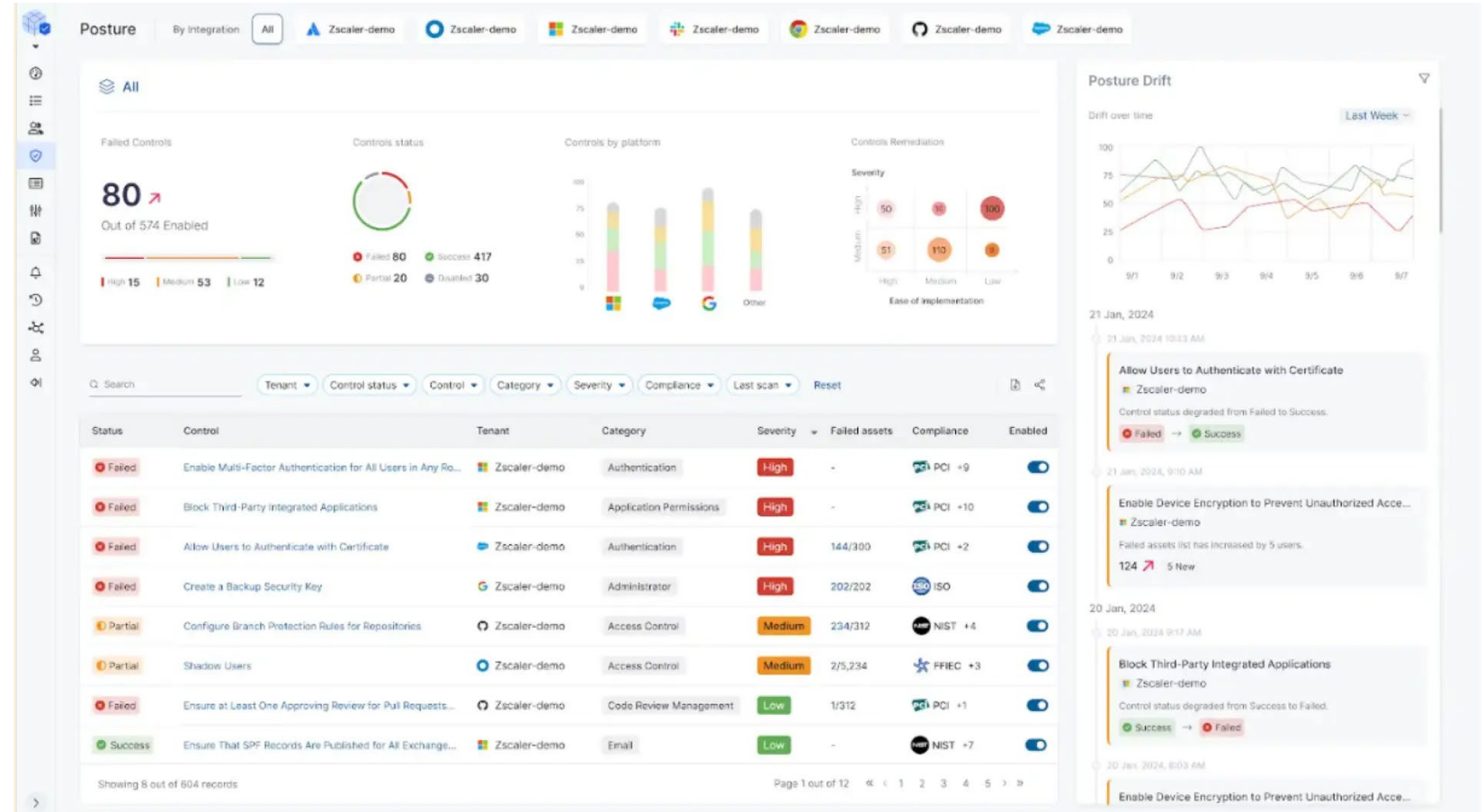
Analytics / Copilot

Keep SaaS Configurations Safe

ZIA – SaaS Posture Management

SaaS Security Posture Management (SSPM) ensures that your SaaS application configurations do not drift. This includes AI analysis of controls to maintain compliance, to keep remediation steps current, and to regularly evaluate CVE risk 3rd- party access. Some of this is visible in the SaaS Security Report, but there is also an Advanced Posture Management console with expert capabilities.

Essentials configuration is available on the SaaS Security Posture Management page, including a link to the expert system console. SaaS Security license is needed.



Policies / Data Protection / Policy / SaaS Security / SaaS Security Posture Management

Take Aways

1

Optional licenses often come as bundles and **many customers have access to advanced AI - powered capabilities and may not be aware** they have access. Check today to make sure you are not missing out.

2

If you are interested in an advanced AI- powered capability you are not currently licensed for, **ask you Zscaler sales executive** for a trial of that license.

Real world benefits

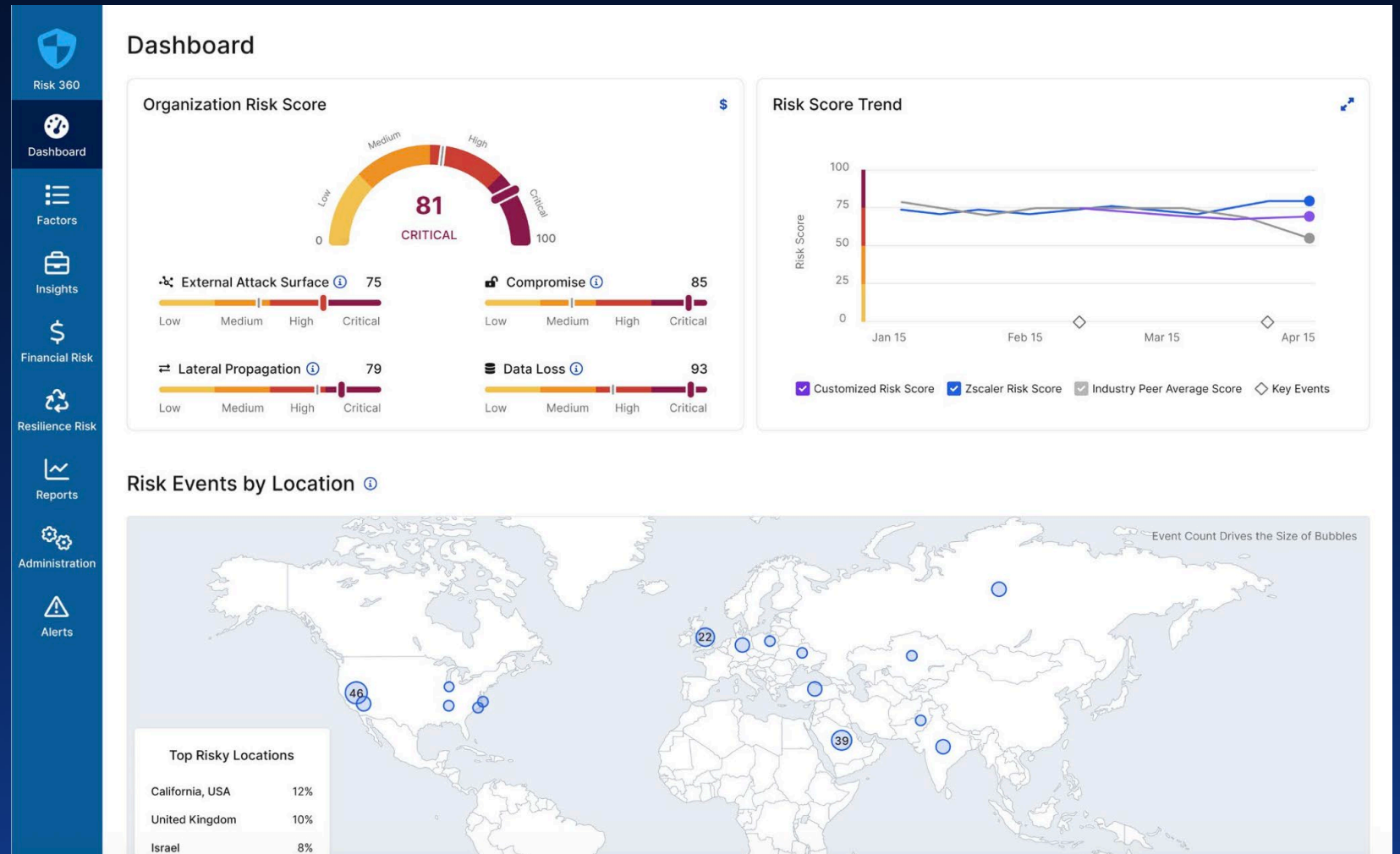
- **Cloud- native security** replacing VPNs/ firewalls
- **Zero Trust** reduces attack surface
- **80% bandwidth savings** , faster performance
- **Blocks 99.9% threats** (AI/ ML- powered)
- **50% fewer breaches** , 60 % cost reduction (customer- reported)

AI in Extensions from Core Zscaler Platforms

Risk360

Is your organization
safe or not?

Configurations,
external attack surface,
compromises, data
loss – measure risk
over time and compare
industry average.



Inventory

✦ Discovered Apps

1,011

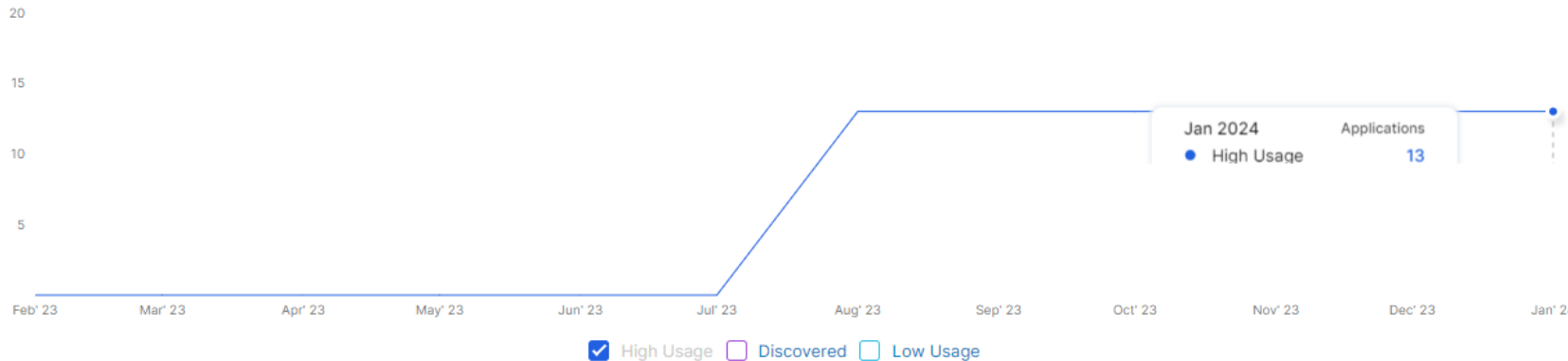
🔗 Overlapping Apps

32

💰 Cost Savings

\$ 44,736*

Discovered Applications Trend



Top 10 Discovered Applications

View All

+ Connect App

Application	Capability	Active Users (last...	Engagement Index...	Growth Trend	Data Source	Spend	Action
dCloud	Cloud Stor ... + 2	5	100%	0%	ZIA	\$ 54,579,096	
Zoho	CRM Analyt ... + 2	14	71.43%	↓ 16.67%	ZIA	\$ 156,000	

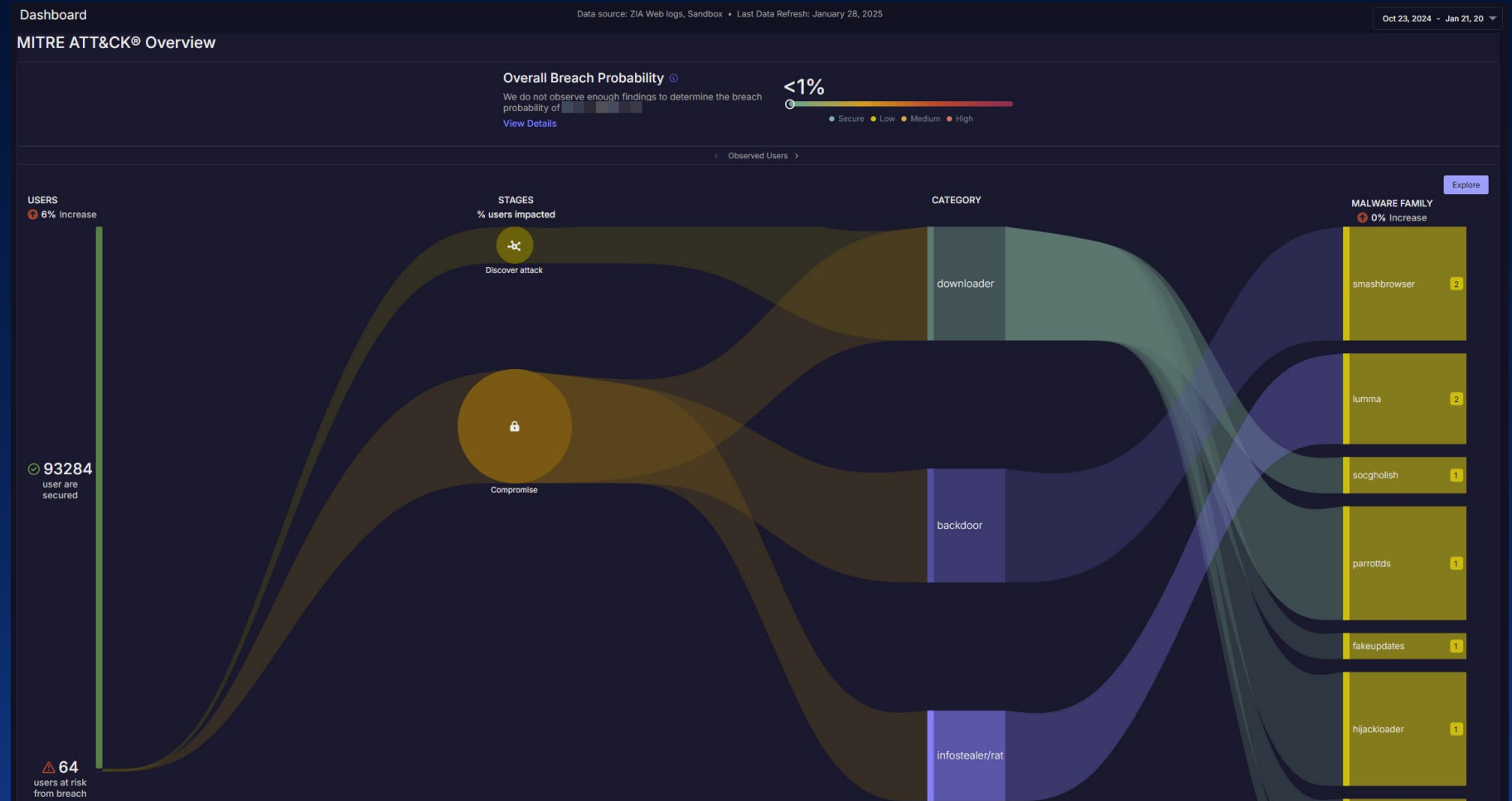
Business Insights

You pay a lot for apps and facilities, but **how well are those investments being used?** Zscaler can cross reference use of apps and locations by user, showing you how frequently resources are being used. This is especially insightful with shadow IT.

<https://www.zscaler.com/products-and-solutions/business-insights>

Breach Predictor

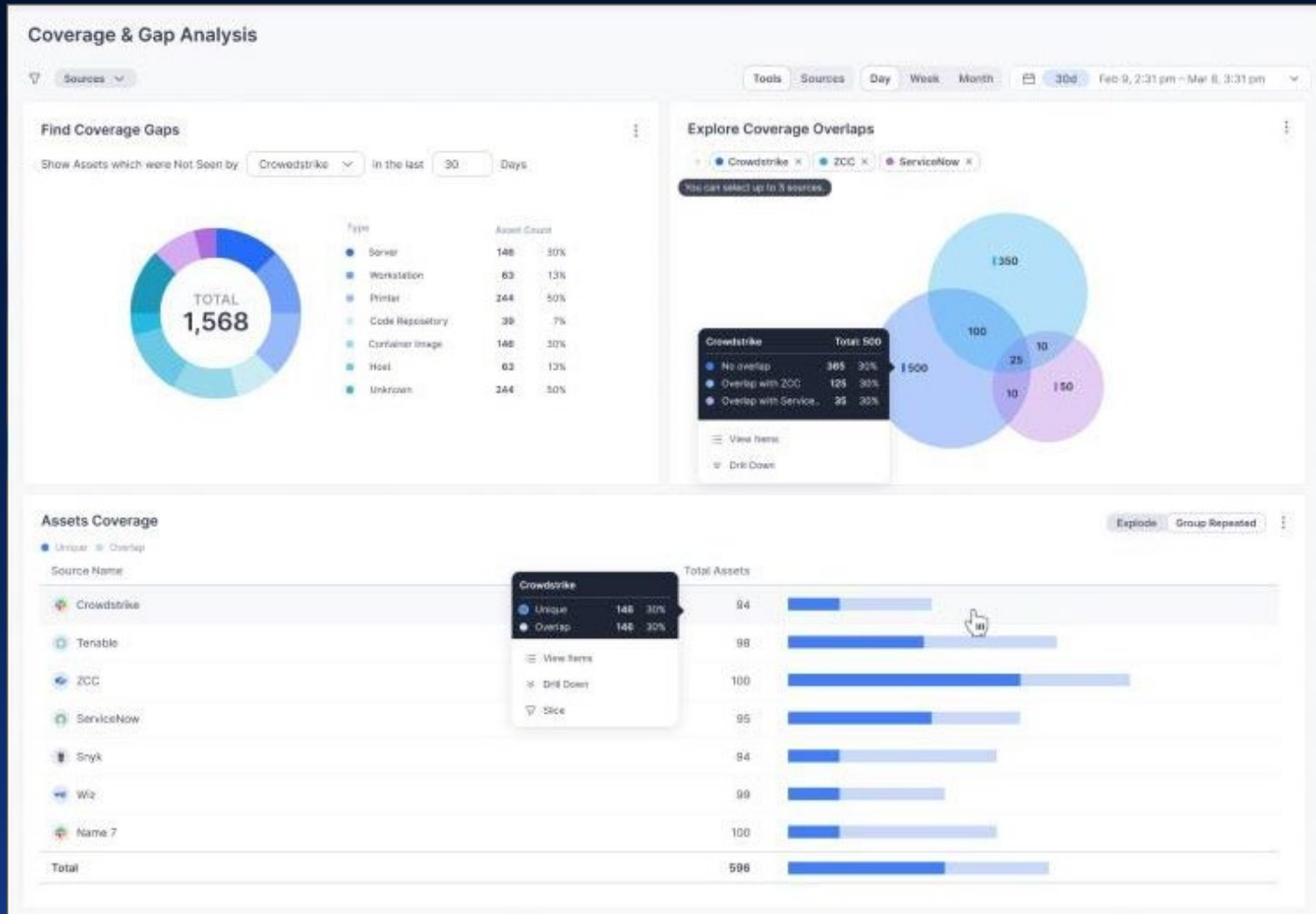
So many weak signals but which ones are worth your attention? Cut through the noise of information overflow. Breach Predictor examines weak signals, correlating, organizing, and prioritizing, pointing you to the most valuable use of your time.



<https://www.zscaler.com/products-and-solutions/breach-predictor>

Asset Exposure Management

Are all your managed assets properly protected? Not only will Zscaler generate an accurate asset inventory of all active assets, but it will quickly enrich the CMDB with data from security tools so your view of exposure is always up- to- date.



Unified Vulnerability Management

Vulnerability scanning alone only produces noise. Context beyond CVEs is needed to properly prioritize action and accurately measure risk. UVM enriches your vulnerability scans ranking them by real risk.

The screenshot displays the Zscaler Vulnerability Management (UVM) interface. The top navigation bar includes the Zscaler logo, a 'Vulnerabilities' tab, and links for 'Explore', 'Configure', and user settings. The main content area is divided into a sidebar and a main panel.

Sidebar:

- Findings:** Filtered to 'Active Critical and High Fin...'. Search term: 'apache'. Overview shows 'Findings by severity' with a bar chart indicating 2 Critical and 7 High findings.
- Findings List:** A table with columns for ID, SEVERITY, and SCORE. The selected finding is ID 274, severity High, score 7.0.

Main Panel:

Finding: The remote Apache Tomcat server is affected by a denial of service vulnerability. First Seen: Sep 14 2024, 7:53 AM (5 months ago). Status: Active. ID: 274.

Score Explanation:

Category	Value	Score Share %	Score Change
Base Score			
CVSS	7.5	+25%	+1.9
EPSS	7.2665	+5%	+0.4
Original Severity Score	6.9	+30%	+2.1
Score Adjustments			
Has Falcon EDR	True	-2.1%	-0.2
Asset Has PII	True	+4.2%	+0.4
Asset Risk	Severe	+4.2%	+0.4
Business Criticality	9	+4.2%	+0.4
Network Protection	Firewalled	-0.2%	-0.0
Vuln Mitigated by ZIA	True	-2.1%	-0.2
Threat Detected on Decoy	True	+20.9%	+2.1
ZIA Protected	True	-2.1%	-0.2
Open To Web, Host Based Firew		0%	0
Final Score			7.0 High



Deception

Bad actors can be good at evading security, but they tend to investigate and attack assets they find. Deception brings high fidelity telemetry on both attacker presence and tactics. This is valuable SOC intelligence to help hunting and remediation.

Session Take Aways

1

Zscaler acts prudently and ethically when it comes to data use in AI. **No customer data is used to train global AI models**.

2

Zscaler uses **AI to automate foundational functions** to scale with massive changes that occur on the Internet both in structure and attack horizon.

3

Risk management and security operation capabilities use **advanced AI to extend and correlate Zscaler and 3rd-party telemetry**, often in a security fabric.

Thank You



Controlware
Security Day



**Danke für Ihre Aufmerksamkeit.
Wir freuen uns über Ihr Feedback!**

**Bitte geben Sie den ausgefüllten Bogen am Empfang ab und
erhalten Sie als Dankeschön ein kleines Präsent.**