

An aerial night view of a city, likely Bratislava, Slovakia. The city is illuminated with warm yellow lights, and a river flows through it. In the background, a large hill features a brightly lit castle. To the right, a power plant with three cooling towers is visible. The sky is dark blue, and a small airplane is seen in the distance.

OPSWAT.

We Protect the World's Critical Infrastructure

The Impact of Artificial Intelligence on Cybersecurity

Alper Şahin
Regional Director

What is critical infrastructure?



Chemical



Commercial



Communications



Manufacturing



Dams



Defense



Emergency



Energy



Financial



Agriculture



Government



Health



Information



Nuclear



Transportation



Water

GAP IN ZERO-DAY DETECTION

File-Based Threats Remain Top Attack Vector

127%

increase in multi-stage malware complexity

1 in 14

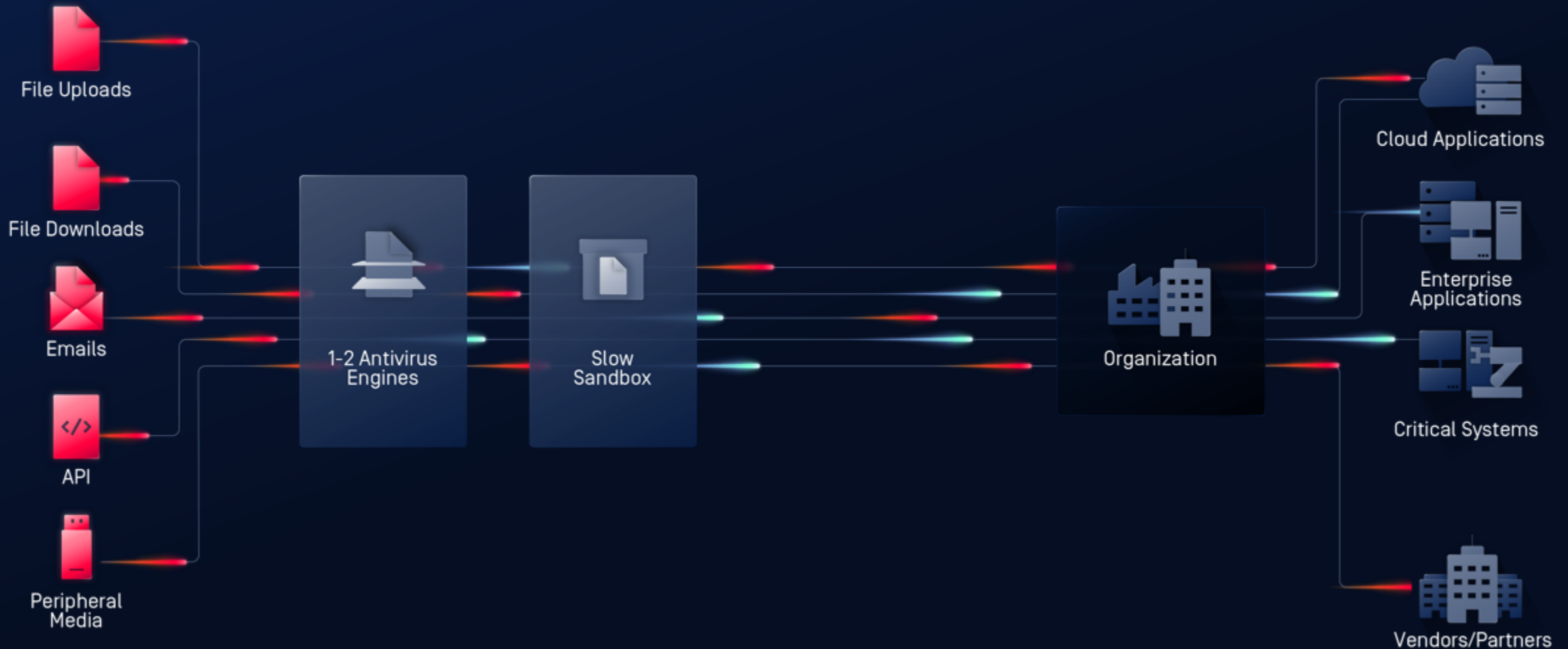
files that are initially deemed 'safe' by public feeds are later confirmed malicious

2025 OPSWAT THREAT LANDSCAPE REPORT

Data Flow to Organizations



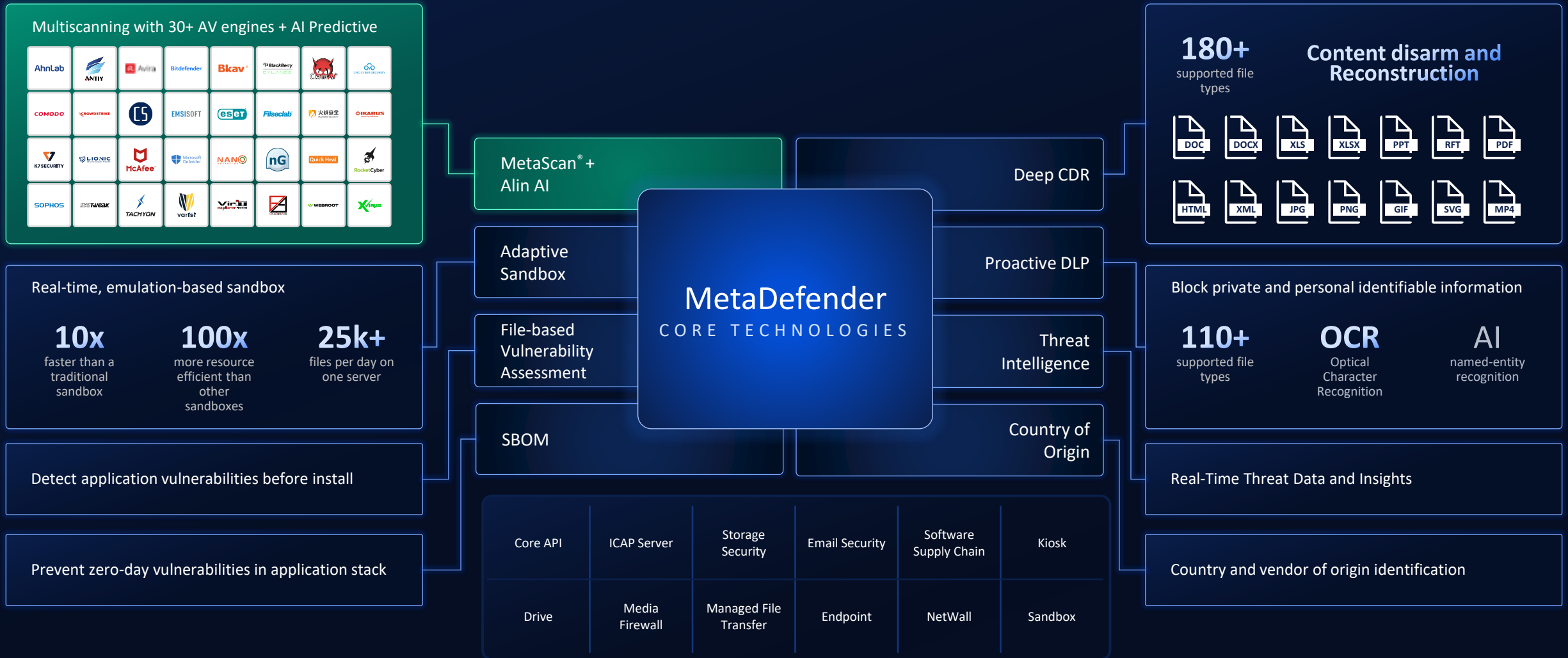
Data Flow to Organizations



Data Flow to Organizations



2027 Strategy



PREDICTIVE ALIN AI

The Why: 4 Challenges

From Deflection to Detection

1. Needless Scanning of Clean Files

Not all files need to go through multiscanning

2. Zero-Day Detection Gaps

Signatures can only catch threats they have already seen.

3. Sandbox Delays

Deep analysis powerful, but too slow to apply to everything inline.

4. Alert Overload

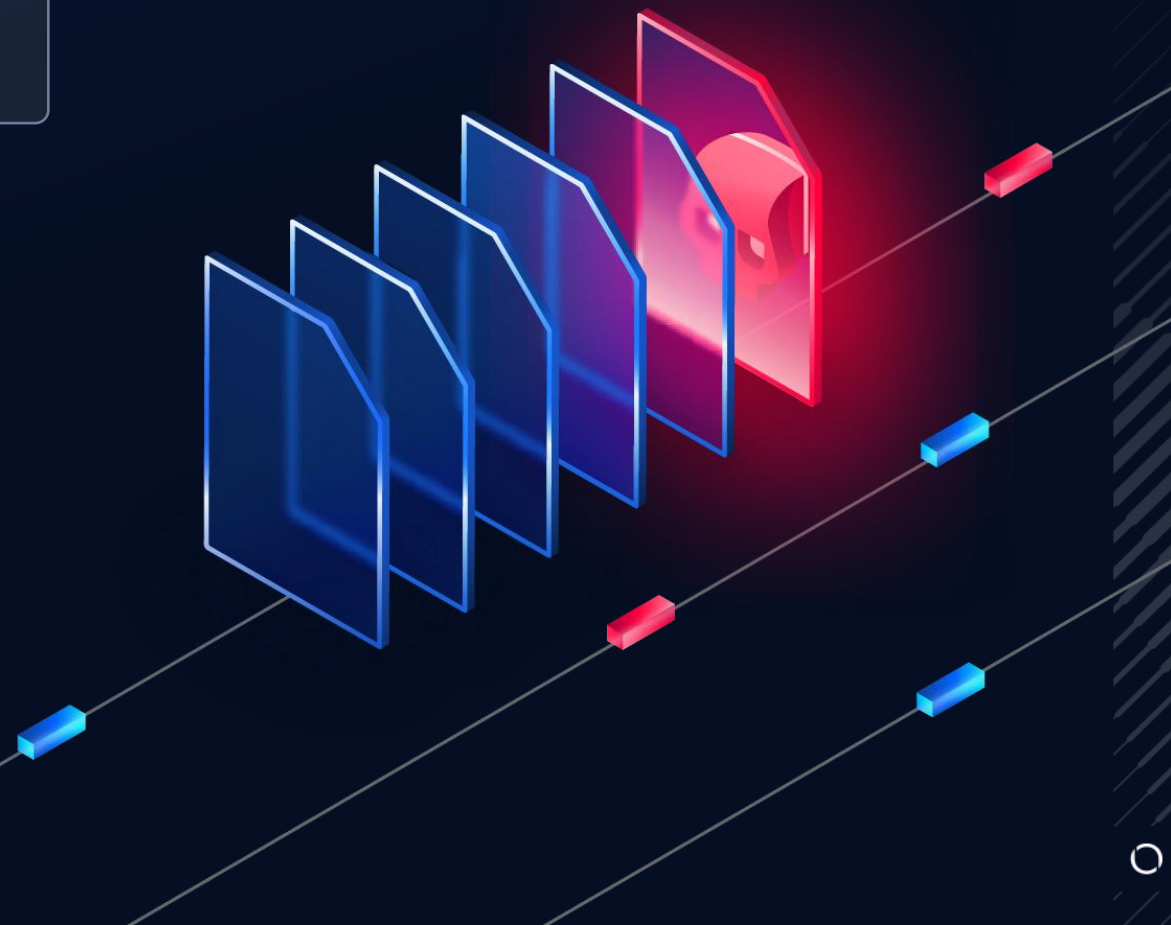
False positives bury real threats and drain SOC capacity.

The What

Alin AI is a **prediction engine** that identifies a file as safe or a threat - pre-execution (before sandbox).

Alin AI:

- Does not use known signatures like other AV engines in multiscanning.
- Targets unknown threats by predicting file behavior.
- Learns file behaviors from OPSWAT's adaptive sandbox with built-in threat intelligence.



PREDICTIVE ALIN AI

How Machine Learning Works

What's Driving the Need for Predictive Alin AI?

Traditional Software

A programmer writes explicit rules.

VS.

Machine Learning

The system learns rules from examples.

What That Means for Alin AI

It was trained on malicious & clean files, so it can recognize threats in files it has never seen before & give it a verdict confidence score.

Analyzing a File Without Running It

Static Analysis Without Execution

Object extraction for attack vectors

- ✓ It breaks the file apart to identify hidden components, scripts, or embedded objects that could be used in an attack.



Feature extraction for behavior analysis

- ✓ It analyzes the structure of the file
- ✓ Understands how it is likely to behave, without executing it.

Examples of What It Examines

- **File headers:** the file's ID card
- **Section entropy:** how packed or scrambled each section is
- **Import tables:** the system functions the file plans to use

Scanning Performance Per Filetype

Windows PE

.exe · .dll · .sys

1,375,294

TOTAL SCANS

SCAN TIMES (MS)

P90 **22 ms**
P95 **25 ms**
P99 **33 ms**

FALSE POSITIVE RATE

0.00%

0 FP 92,448 neg

Linux ELF

.so · .o · binary

15,622

TOTAL SCANS

SCAN TIMES (MS)

P90 **10 ms**
P95 **20 ms**
P99 **40 ms**

FALSE POSITIVE RATE

0.35%

7 FP 2,024 neg

MacOS

.dylib · .app · binary

1,743

TOTAL SCANS

SCAN TIMES (MS)

P90 **10 ms**
P95 **12 ms**
P99 **20 ms**

FALSE POSITIVE RATE

1.40%

19 FP 1,356 neg

PDF

.pdf

47,802

TOTAL SCANS

SCAN TIMES (MS)

P90 **2 ms**
P95 **45 ms**
P99 **141 ms**

FALSE POSITIVE RATE

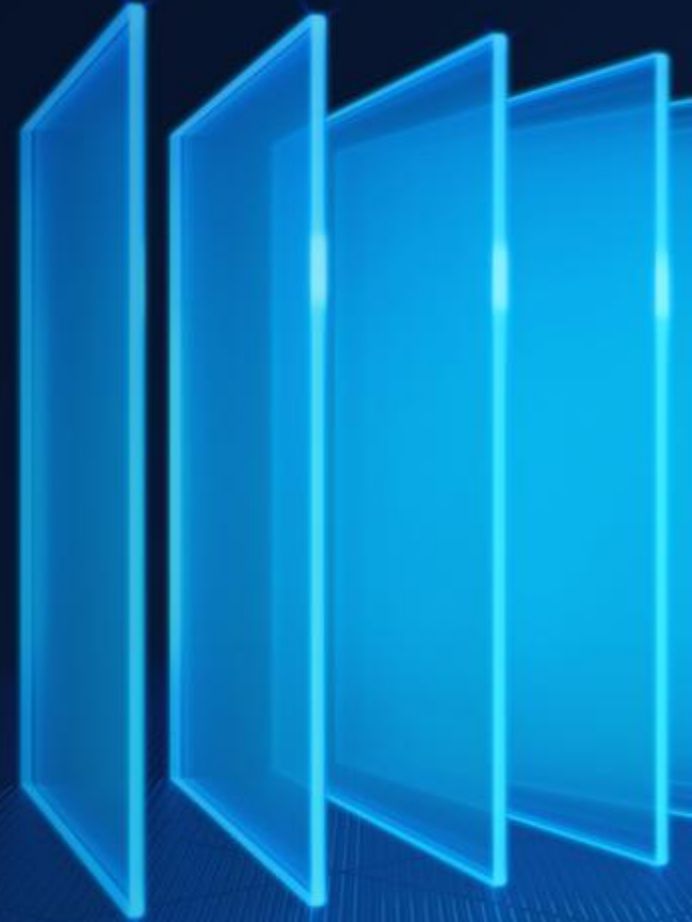
0.00%

0 FP 38,943 neg

OPSWAT.

#1 Market Leader

Multiscanning & Deep CDR Technology



GAP IN ZERO-DAY DETECTION

Real Unknown File-Based Threats



SoupDealer Malware Evades Sandboxes, AVs, and EDR/XDR in Real-World Attacks



New Stealthy .NET Malware Concealing Malicious Payloads in Bitmap Resources



Ukraine Warns of Weaponized XLL Files. Delivering CABINETRAT Malware via Zip Archives

AZERBAIJAN Focus

1

Being Trusted Advisor

Support government and defense, finance, energy and other top verticals to

2

Investing Cyber Security Skills Development

OPSWAT Academy launch to build experts to protect critical infrastructure.

3

Strong Presence

4 focus headcount to support AZ customers and strong channel partners like R.I.S.K.



OUR VISION

We secure our way of life.



OPSWAT.