

Solution overview



WithSecure™ Elements Exposure Management

Exposure remediation through the attacker's lens



WITH®
secure

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Disclaimer: This document gives a high-level overview of the key security components in WithSecure™ Elements Exposure Management.

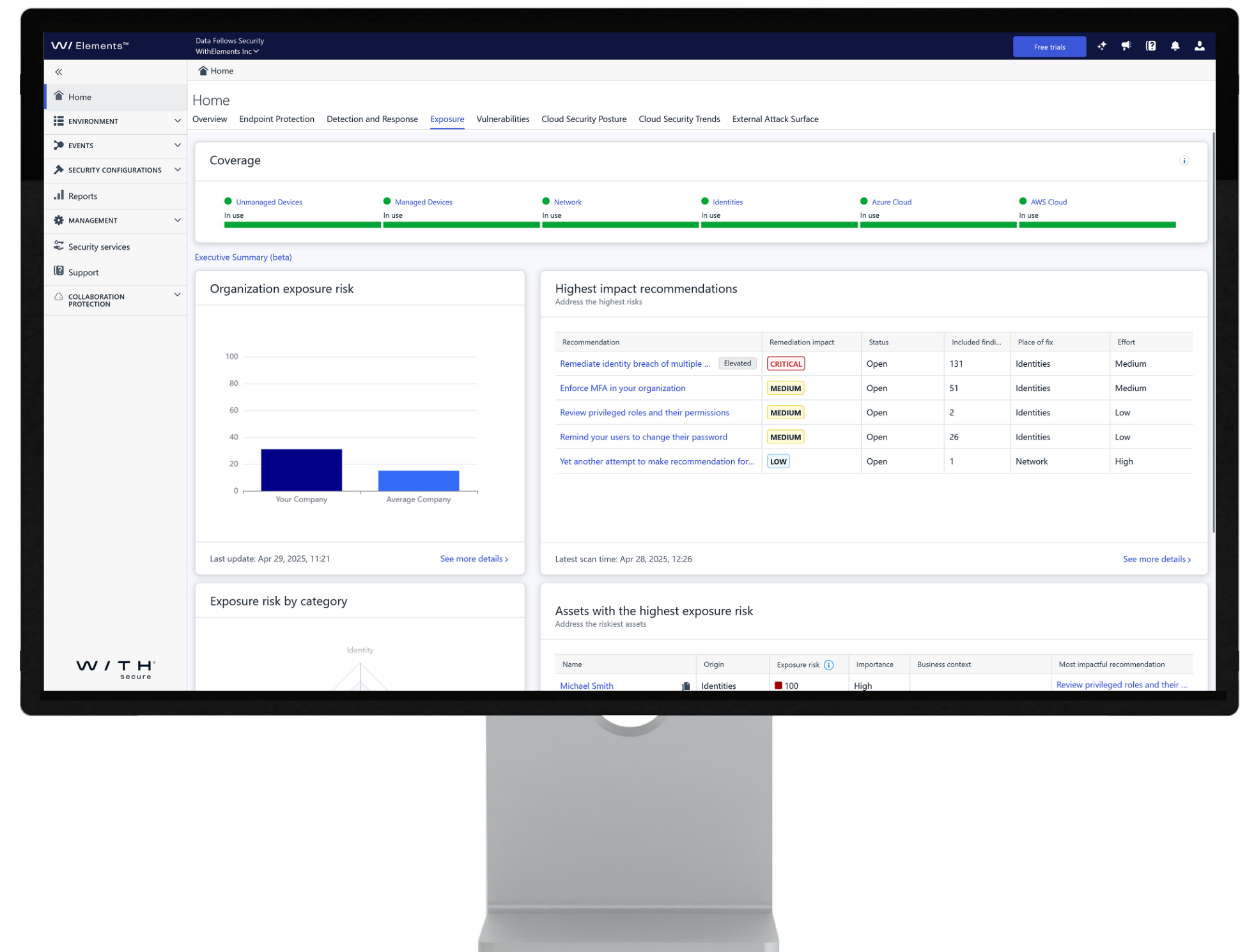
Details are omitted in order to prevent targeted attacks against our solutions. WithSecure™ is constantly improving its services.

WithSecure™ reserves the right to modify features or functionality of the Software in accordance to its product life cycle practices.

Introduction

WithSecure™ Elements Exposure Management (XM) is a continuous and proactive solution that predicts and prevents breaches against your company's assets and business operations. Elements XM provides visibility into your attack surface and its recommendations enable the efficient remediation of your highest-impact exposures from a unified view. Get one solution for 360° digital exposure management and visibility across your external attack surface and internal security posture, to proactively prevent cyber-attacks.

The shift from reactive to proactive cybersecurity has long been a priority for security professionals, but satisfactory solutions have been in short supply. In today's digital age, businesses face an ever-evolving threat landscape, with new vulnerabilities emerging constantly, especially with the development of Artificial Intelligence (AI) enabling new types of cyber attacks. Organizations have increasingly hybrid environments with unclear borders. The challenge is not only to protect the systems and data within these borders but also safeguard business continuity against external threats, like digital supply chain compromises.



The innovative and AI-powered WithSecure™ Elements Exposure Management (XM) addresses these challenges by providing comprehensive exposure management capabilities. WithSecure™ is the thought-leading Exposure Management provider for European small and medium-sized enterprises and Managed Service Providers – and for organizations that want cyber security done the European Way. Elements XM provides tooling and processes that evaluate how accessible and exposed an organization's digital assets are, and how easy it is to exploit them. The solution offers continuous recommendations by simulating attack paths, identifying critical vulnerabilities, and offering risk focused outputs to proactively strengthen defenses.

Most commonly, organizations are siloing exposure activities such as penetration testing, threat intelligence management, and vulnerability scanning. These siloed views provide little or no awareness of the whole situation regarding the effective risks the organization has. However, Elements XM combines data from your external attack surface, identity management systems (Entra ID), devices, network, and cloud services (Azure, AWS). The solution enriches this data with real-time threat intelligence and business context for a holistic security approach. The AI-powered recommendations include guidance for technical teams on how to take the most impactful actions to quickly improve security posture. Visual attack paths make security risks easy to understand for business decision-makers.

Our additional WithSecure™ Elevate service allows a specific recommendation to be sent to us for further analysis. This consultation from our experts ensures the validity and priority of the elevated item, providing further guidance.

What is an Attack Surface?

“The set of points on the boundary of a system, a system element, or an environment where an attacker can try to enter, cause an effect on, or extract data from, that system, system element, or environment”*.

What is an Identity?

Identity is a digital presence that can be a user, a group of users, or an entire organization. One person can also have multiple digital identities. Identities may represent humans or machines and can operate in on-premises, hybrid, regular, or privileged environments.

In the context of WithSecure Elements solutions, an identity consists of a collection of data associated with the entity, safeguarded by the Elements solution. This data may include Personally Identifiable Information (PII), access rights and privileges, roles and groups the entity belongs to, assets associated with the identity, online behavior and activity, contacts, and more. Our current implementation of Identities within Elements XM uses Entra ID as its foundation.

What are Attack Paths?

An attack path simulates the potential routes and actions an attacker might take within an organization's environment, with a focus on gaining access

to the most business-critical assets. The reasoning engine of Elements XM is designed to prioritize the most accessible and likely actions by attackers, focusing on the primary attack paths, to ensure effective risk assessment and response activities.

* NIST (National Institute of Standards and Technology). “attack surface” definition (Sources: NIST SP 800-172 from GAO-19-128).

https://csrc.nist.gov/glossary/term/attack_surface (Accessed 22.8.2024)

1. Maximize your cyber resilience with minimum effort

Discover and act on your digital exposures before cyber criminals do. Elements XM offers continuous recommendations on how to improve security posture based on asset exposure scores that utilize business context, attack path modelling, and dynamic threat intelligence as their key inputs.

Discover

Discover your digital perimeter and identify the most critical assets and identities. See an overview of your attack surface from a single user interface, including assets like devices, cloud (AWS, Azure) and networks, as well as your external attack surface and identities (Entra ID). Get a 360° view of your organization's cyber risks, to identify its dangerous exposures without gaps in visibility.

Prioritize

Our findings on which exposures to prioritize in remediation are based on attack path simulation that integrates data from WithSecure's threat intelligence and your business context. You can have peace of mind against new attacks by having the latest threat intelligence data as an integrated part of exposure management, and know the solution is tailored to

your individual business needs thanks to business context information. Ensure your most critical assets are being kept safe by using continuous exposure management, where our AI-powered recommendation engine combines related findings together and gives actionable recommendations on what to remediate next based on impact.

Act

Implement prioritized remediation actions to reduce your attack surface and decrease your business risk level, using our actionable guidance. Start working on protecting your attack surface by getting AI-powered recommendations to prioritize the most harmful exposures, or, if you're short of time, make quick fixes to exposures that have the highest impact, using minimal effort. Use WithSecure's Software Updater to apply missing patches instantly*. Communicate about the remediation process within the portal for smooth collaboration among your security team. The additional WithSecure™ Elevate service allows a specific recommendation to be sent to us for further analysis and validation. Repeat the process of discovering, prioritizing and acting on your exposures for continuously improving your organization's security posture.



* Requires a license for WithSecure™ Elements Endpoint Protection (part of WithSecure™ Elements Endpoint Security).

2. Why WithSecure™ Elements Exposure Management?



European Exposure Management

Thought-leading European Exposure Management with local threat intelligence, compliance, and privacy – as well as our over 30 years of real-world attack experience.



Visualized attack path modeling

AI-powered attack path modeling, where our reasoning engine and attack paths are built on heuristic scoring through the lens of the attacker.



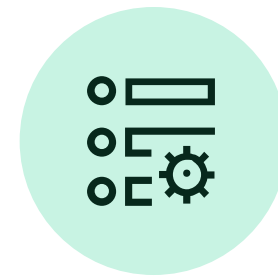
Tackle identity-based risks

Covers identities as assets that are easily phished and stolen. Identities can be used as powerful choke points in breaking attack paths.



Designed for midsize businesses

Optimized for minimum effective security and designed to offer democratized cyber security for midsize organizations – providing ease of use with limited resources.



AI-powered recommendations

Creates actionable recommendations on what to remediate based on exposure risk scores that utilize our unique attack path modeling approach as their key component.



Unified security user experience

Part of the WithSecure™ Elements Cloud that offers a unified user experience from a single pane-of-glass, complemented by Co-Security Services such as WithSecure™ Elevate.

3. Benefits

Discover your Attack Surface

Know what makes up your attack surface by getting an overview of your environment including assets, external attack surface and identities, from a single user interface. Integrate data across your managed devices (workstations, servers), cloud services (AWS, Azure), identity (Entra ID), network (network equipment, unmanaged devices), and external attack surface (internet discovery, internet detections). See your environment through a single pane of glass.

Understand your Attack Paths

Attack paths expose various internal assets to cyber-attacks. Typically, an attacker would try to use these attack paths to reach critical company assets – for example, as part of a ransomware attack. Elements XM integrates data from your internal and external organizational environment that makes up your attack surface. It then enriches this data with intelligence about your business context and the latest threat intelligence to model potential attack paths into your organization. As the latest threat intelligence data is an integrated part of exposure management, you can have peace of mind knowing that you're protected against the latest attacks. The use of business context information enables the

tailoring of our attack path modeling and recommendations to your individual business needs.

Elements Exposure Management detects detrimental attack paths that lead to crucial assets before attackers can exploit those paths. By identifying the choke points that can stop attacks on their tracks, Elements XM enables you to massively improve the protection of your company assets and data while minimizing the needed remediation effort. In other words, Elements Exposure Management focuses on breaking most of the dangerous attack paths into your organization first.

Remediate in a Prioritized Way

Ensure your most critical assets cannot be exploited and keep them safe by using AI-enabled continuous exposure management. Elements Exposure Management empowers your people with the right tools and means to remediate successfully. Start working on protecting your attack surface by getting AI-powered recommendations to prioritize the most harmful exposures, or, if you're short of time, make quick fixes to exposures that have the highest impact using minimal effort. You can also use WithSecure's Software Updater to apply missing software patches instantly, with a press of a button and without jumping between solutions*.

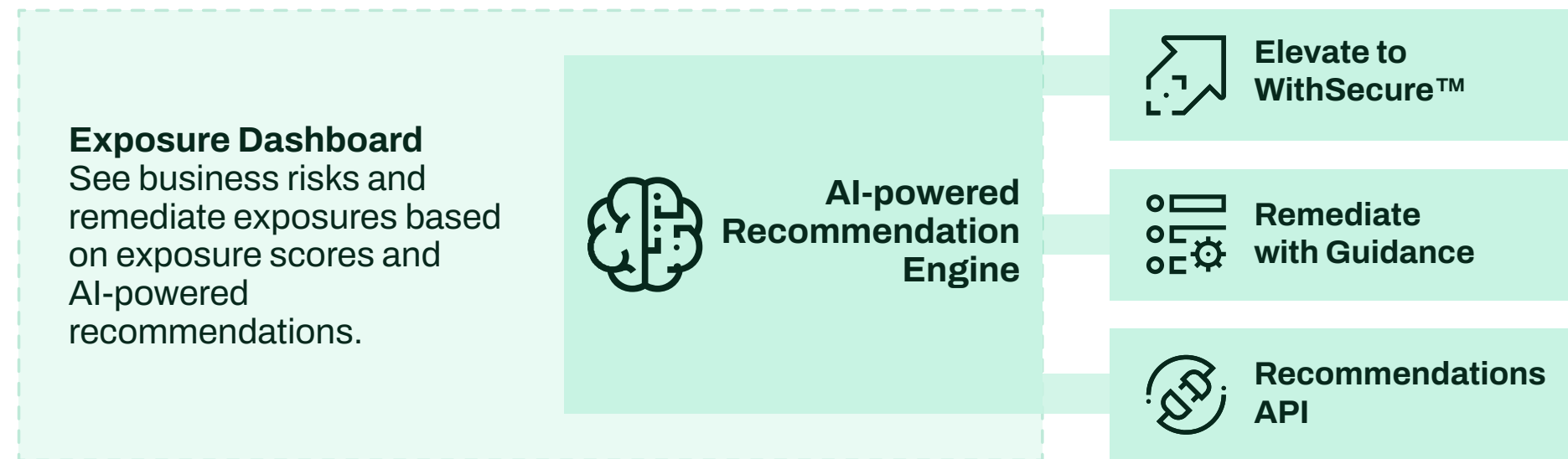
Our recommendation engine functions like a red team, a group of people pretending to be the cyber attacker, by looking for potential attack paths into your organization. While traditional red teaming is an occasional exercise, our Elements Exposure Management enables AI-run “virtual red-teaming” continuously. Elements XM helps you to recognize the critical weak points in your attack surface, like assets or identities, that can function as acceleration points in an attack path – and reversely from a defender's point of view as choke points in effectively breaking attack paths. Your security administrator can easily remediate the choke points of attack paths by using AI-powered recommendations, thereby minimizing the risk of cyber-attacks that succeed in causing compromise to critical company assets.

*Requires a license for WithSecure™ Elements Endpoint Protection (part of WithSecure™ Elements Endpoint Security) that includes the Software Updater functionality.

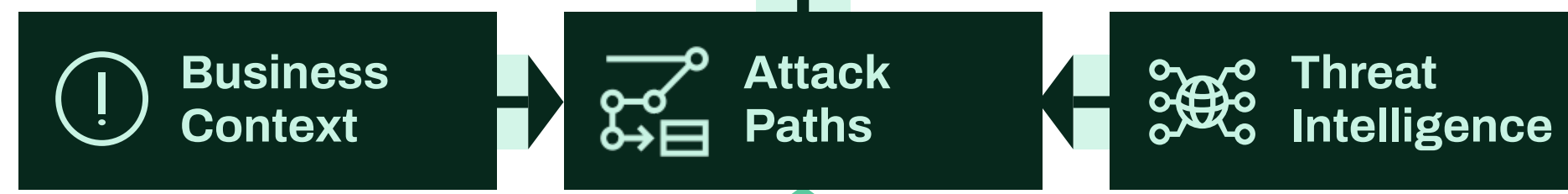
4. How it works

Get a 360° view of cyber risks. See your complete attack surface and remediate the highest-impact vulnerabilities, misconfigurations and other exposures that pose the most risk of intrusion to your organization. Safeguard the attack paths to your business-critical assets.

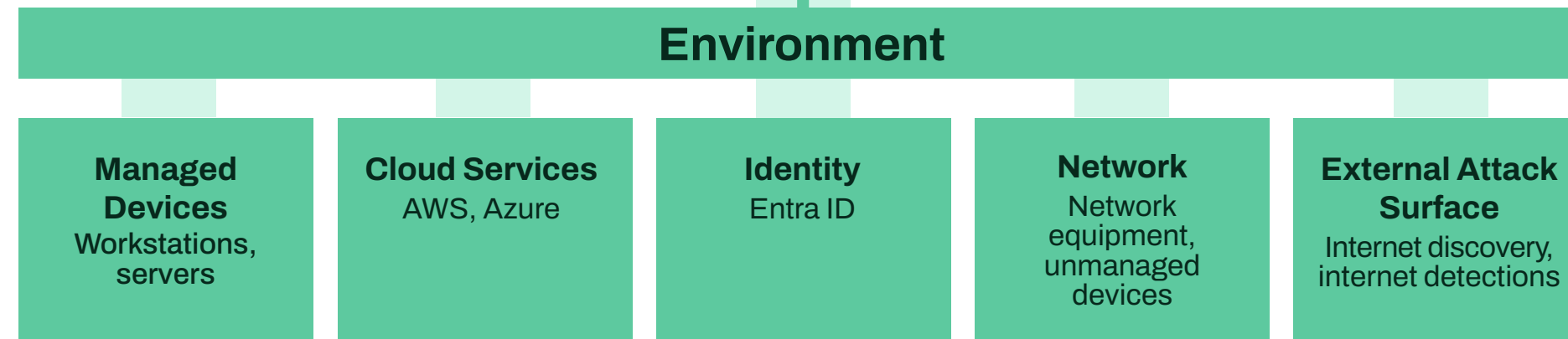
3. Act:
Remediate exposures in a prioritized way using our recommendations



2. Prioritize:
Enrichment of the data with intelligence to simulate attack paths



1. Discover:
Integrated data to see your full attack surface



1. Discover: Elements Exposure Management integrates data from your internal and external environments to form a holistic overview of your attack surface:

- External attack surface (covering internet discovery and internet detections)
- Cloud services (Azure, AWS)
- Identities (Entra ID)
- Managed Devices (workstations and servers)
- Network (network equipment like firewalls and switches, unmanaged devices)

2. Prioritize: Elements XM uses vulnerabilities, misconfigurations and other exposures in your environment to identify potential attack paths. It combines knowledge about the external attack surface with internal security posture information like asset vulnerabilities and cloud misconfigurations. This provides understanding about dangerous exposures and attack paths that lead to business-critical assets. Elements XM enriches the integrated data with up-to-date threat intelligence and your business context information, simulating attack paths based on this intelligence. The solution visualizes your attack paths and uses them to offer AI-powered recommendations that help you prioritize what to remediate next.

3. Act: The overview provided by the Exposure Dashboard helps drive prioritized remediation actions and gives you a risk-based overview of the identified weaknesses in your attack surface. The AI-powered recommendation engine recommends remediation actions to you based on groups of findings with high impact on your overall exposure. Our recommendations come with practical guidance on how to take remediation actions. We also offer the quick action of using WithSecure's Software Updater to apply missing software patches instantly, with a press of a button*. Seeing the exposure scores of your company, your different asset types and individual assets further helps you in prioritizing remediation. Additional WithSecure™ Elevate service allows a specific recommendation to be sent to us for further analysis. This consultation from our experts ensures the validity and priority of the elevated item. Leverage our Recommendations API integration to send data from Elements XM to your SIEM and ticketing systems for efficient service delivery. This data includes the AI-powered recommendations and related findings.

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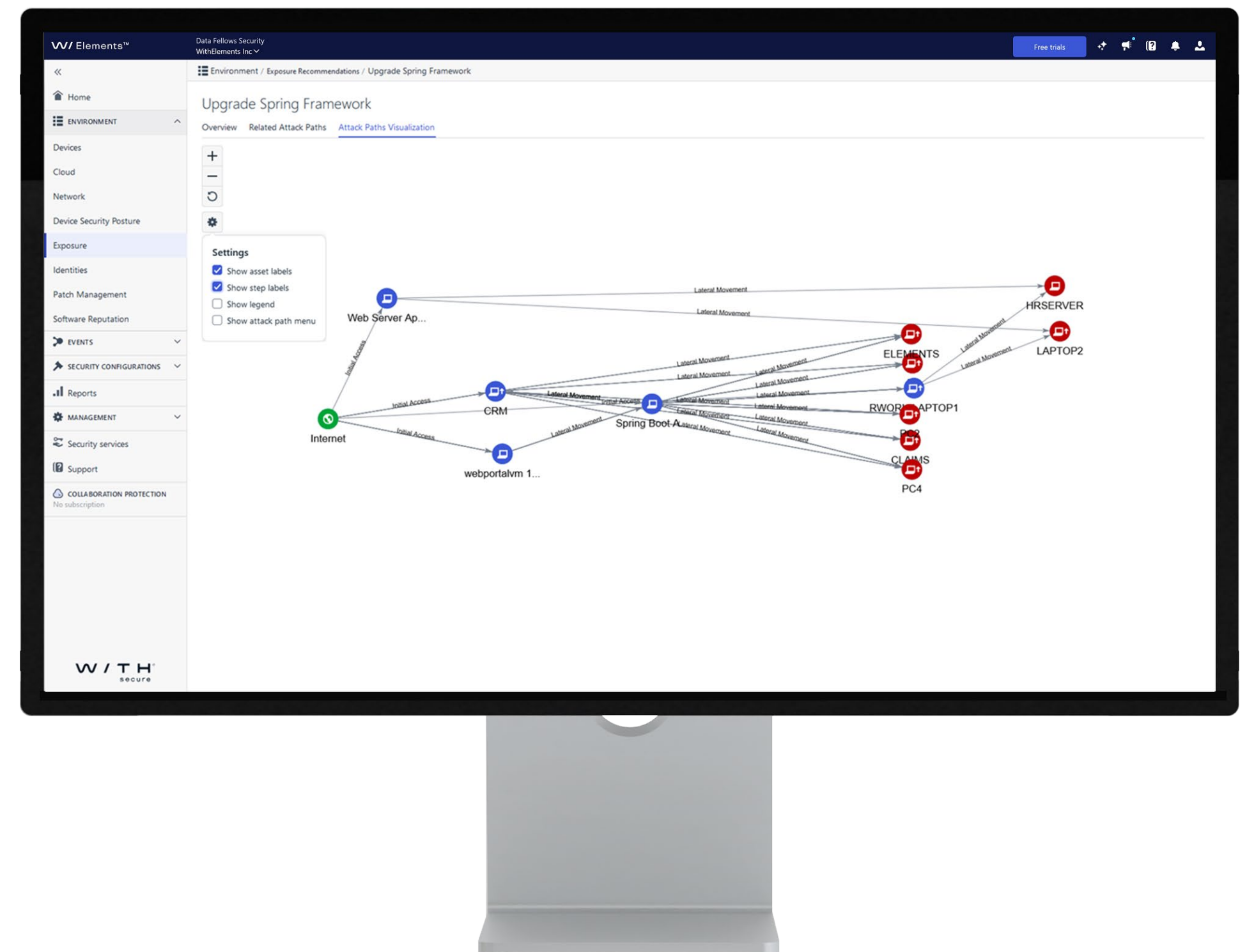
5. Continuously manage your digital exposures with our technology

Exposure Dashboard

No more alert fatigue. Keep exposure remediation simple and effective with our Elements Exposure Management dashboard, which shows you where to focus your remediation efforts from a single view. Understand your business risk and recommend actions to improve security posture. See how strong your attack surface is via the exposure summary view that gives you a risk-based overview of the identified weaknesses in your attack surface. See the business-critical assets at risk by using Exposure Scores to start prioritizing the remediation of the assets causing the severest risk of exploitation. Know the next steps to improve exposure by getting recommendations on what to fix first for quick and easy action, thanks to our AI-powered recommendation engine.

Attack Paths

Elements XM simulates the attack paths that an attacker could take to compromise a customer's estate. Instead of building attack paths that are optimized for the shortest route from the external attack surface to the business-critical assets, our reasoning engine and attack paths are built on heuristic scoring through the lens of the attacker. This means that our AI engine scans the customer's environment from an attacker's perspective, trying to find weaknesses by finding the path from one asset to the next that causes maximal damage. Our decision-making logic leans on decades of expertise on disassembling real-life attacks and on our Extended Detection and Response (XDR) detection telemetry.



This is what true AI-enabled red teaming means. Our recommendation engine functions like a red team – a group of people pretending to be the cyber attacker – by looking for potential attack paths into your organization. While traditional red teaming is an exercise that can occasionally be a useful investment for some companies, our Elements Exposure Management enables AI-run virtual red-teaming on a continuous basis.

Attack Path Visualization

Elements XM visualizes the attack paths related to a recommendation, enabling you to dive deeper into the underlying reasoning. Attack path visualization provides expanded information about the assets, steps and identities involved in the attack path, also covering the techniques used, access gained and related resources. The following are the key use cases of attack path visualization:

- **Validation:** Attack paths validate the recommendations provided by our AI-powered recommendation engine, enabling you to have informed response priorities for transparent decision-making.
- **Stakeholder Collaboration:** Facilitates communication of attack path insights to stakeholders – including customers, business decision-makers and IT administrators – thanks to easy-to-understand visuals.
- **Risk Assessment:** Provides alternative risk perspectives, enhancing your risk assessment activities.

AI-powered Recommendation Engine

WithSecure has been using multiple machine learning models to support detection and response capabilities for nearly a decade and our multi-year AI research project “Blackfin” was recognized by the AI Excellence award for collective intelligence techniques. Thanks to our AI-powered recommendation engine that finds attack paths between assets, Elements XM helps reduce your exposure risk level by giving recommendations on which exposures to address first. Our recommendations are based on exposure scores that utilize elements like our threat intelligence data feed, your individual business context information, and our cutting-edge AI-powered attack path modeling approach.

External Attack Surface Management (EASM)

Protect your domains, IPs, and public-facing assets. Exposure Management uses Internet discovery via crawling and port mapping, to collect data on public systems. You can use the data based on location, top-level domain, pay-level domain, keywords, host name, and IP address. Internet detections help you detect risk of domain takeovers and information disclosure from directory listing. We are also continuously adding new internet detections based on the current threat landscape. Moreover, our cloud scan node enables the system and web application scanning of your internet-accessible assets to discover vulnerabilities.

Exposure for Identity Risk

Use data on digital identities, whether human or non-human, and tackle identity-based risks by having your Entra ID data as an integrated part of Elements XM. This provides identity context for each exposure and includes identity-related data as an input in identifying dangerous attack paths. Cover the identity attack vectors that enable the potential escalation of identity access rights. Our exposure functionality for identity risks provides continuous assessment of identity-based risks in your environment and helps prevent the use of identity as part of attack paths. Take care of your own part in preventing supply chain breaches and improve employee security practices and security hygiene.

WithSecure™ Elevate

Elements user can request a specific recommendation to be sent to WithSecure to analyze and get WithSecure’s consultation on the validity and priority of the elevated item. Get support from our security experts for taking the next steps and understand why certain findings are important. Our team of threat hunters and security consultants will pick up the Elevate request, investigate the referred finding, recommendation or attack path and update the customer appropriately.

Luminen GenAI for Elements XM

Supercharge your Elements XM solution with Luminen GenAI's recommendations, including exposure remediation instructions delivered in local languages. Luminen is automatically included with your Elements XM license. The assistant aggregates findings, assets, and remediation instructions into a synergistic summary. Luminen can also give you personalized recommendations that use your asset names. Luminen's Security Awareness Assistant now also combines the most important XDR and XM security events into one summary, including Elements XM recommendations.

Hybrid Threat Protection

Elements XM covers hybrid threats, such as hybrid attack paths from on-premises to cloud assets or from leaked user credentials to cloud resources. This provides extensive security against attack paths involving identity and cloud threats:

- **Potentially overprivileged user identities:** Elements XM indicates which identities have extensive privileges, as highly privileged users are interesting targets for threat actors due to their wide access rights. Transparency into accounts with extensive rights allows security administrators to minimize the potential damage from data breaches and insider threats.

- **Identity-based hybrid attacks:** To model lateral movement across environments, for example from identity to devices and then cloud, our AI-powered reasoning engine recognizes which user has or could log into which device. It does this by utilizing a database of cloud-based (Entra ID) and local user identities, linking identities to their frequently used devices. This way, our engine can also simulate and visualize a data breach that could occur by using stolen identities.
- **Cloud-based hybrid attacks:** Similarly to identity-based hybrid attacks, Elements XM simulates attacks that use lateral movement from cloud environments to on-premises devices or developer machines. Elements XM cloud attack paths cover common attacker goals and current exploitation trends across cloud environments, as identified by WithSecure's threat intelligence research (like cryptojacking, data theft, and ransomware).



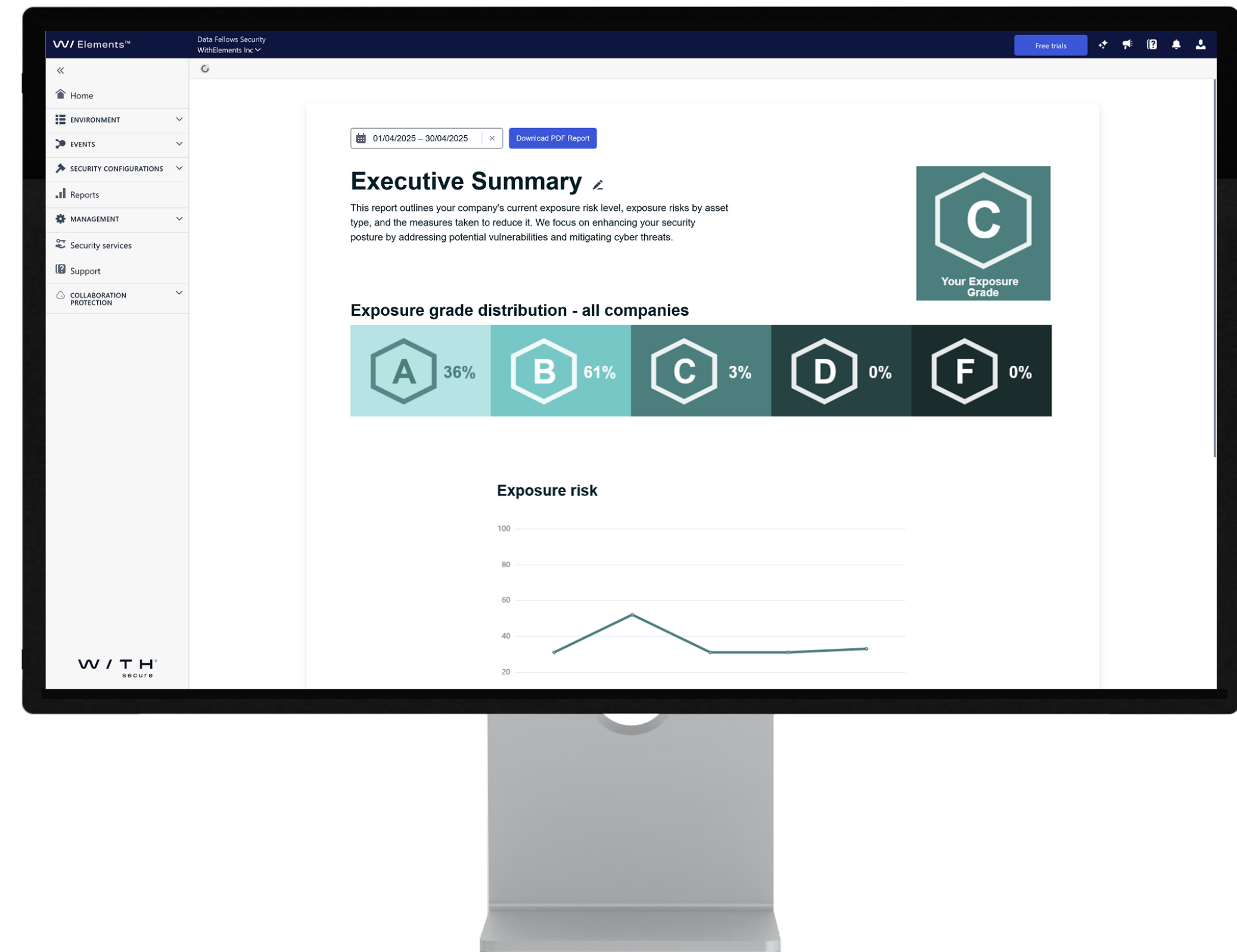
GenAI Luminen™

Use our helpful GenAI security assistant, Luminen, to get more value out of using the Elements XM solution by enhancing the efficiency of your security analysts' exposure remediation tasks.

C-level & Custom Reports

Help your decision-makers make informed choices about business risks with the C-level Reports for Elements XM. C-level reporting shows the value of your exposure management activities as an Executive Summary.

Elements XM insights are also part of My Reports that allow you to create customizable reports for your entire Elements suite in use. By using My Reports, you can easily showcase the value of continuous exposure management by scheduling easy-to-understand PDF reports to be sent out on a continuous basis. The reports show your overall company exposure status, trends in your company exposure, and the impact of exposure management actions.



6. Scan your environment

WithSecure™ Elements Exposure Management combines multiple available scanning methods to ensure your full attack surface is covered. Moreover, the attack path simulation technology, which integrates the different types of scanning methodologies, constitutes a synergistic scanning method in itself.

Managed Devices and Network

External Attack Surface, Identity and Cloud Services

Local Node	Elements Agent
Discovery Scan Identify and map all assets within your network	Agent-based Scan Scan Windows workstations and servers automatically
System Scan Scan all IP (Internet Protocol) systems for vulnerabilities and misconfigurations	Device Service Data System configuration and login information
Authenticated Scan* Log into systems to gain more detailed vulnerability data like vulnerable system versions, missing patches, and misconfigurations	Patch Management System and 3rd party patch status and automated updates via Software Updater**

External Attack Surface & Cloud Scan Node	Identity Integrations	Cloud Integrations
Internet Discovery Identify your organization's internet-facing systems	Entra ID Discover potential threats associated with all identities in Entra ID	Azure Assess the security and compliance posture of your accounts
System Scan (cloud scan node) Scan all externally accessible IP (Internet Protocol) systems for vulnerabilities and misconfigurations	Account Breach Breached account information	AWS Assess the security and compliance posture of your accounts
External Assets Evaluate the security posture of your externally exposed assets		
Web Scan Scan and test custom web applications for vulnerabilities		

* Not available through a cloud scan node.

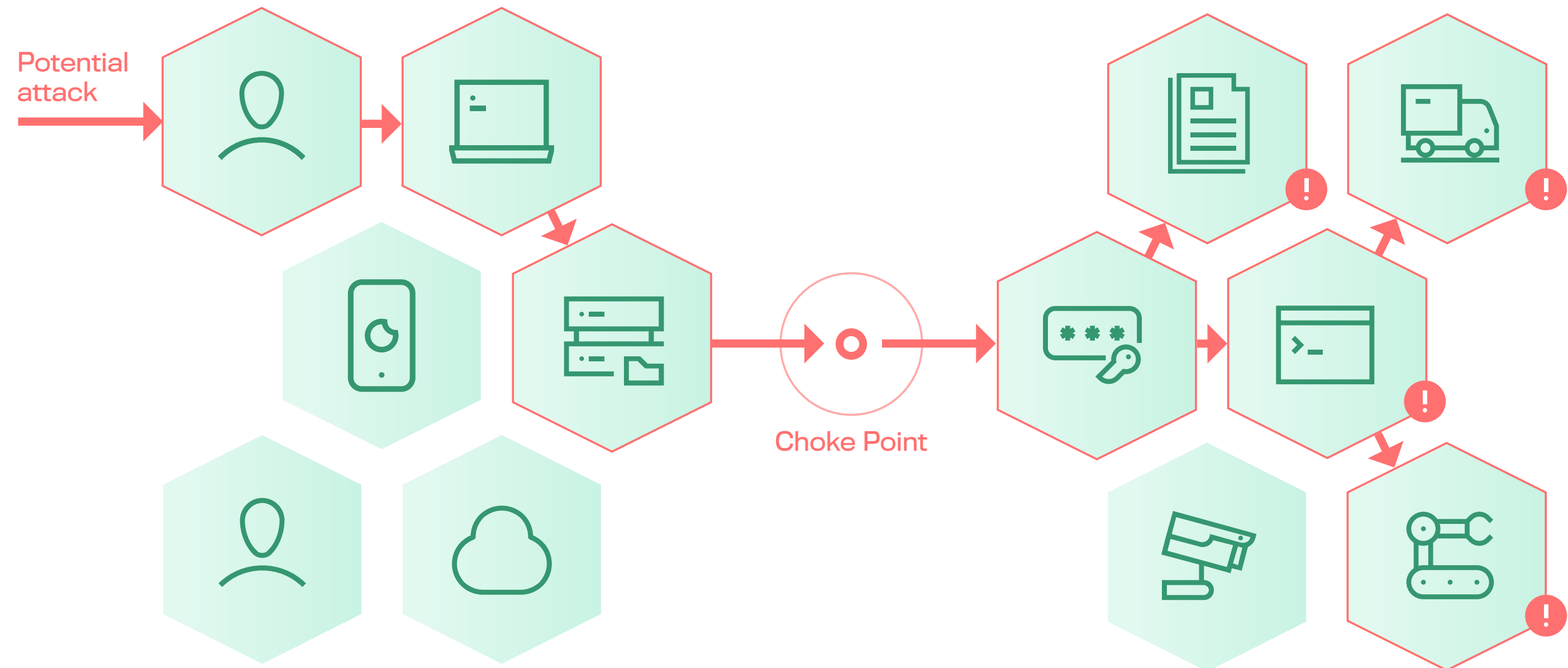
** Requires a license for WithSecure™ Elements Endpoint Protection (part of WithSecure™ Elements Endpoint Security).

Note: Scans for Cloud Integrations are part of the WithSecure™ Elements Exposure Management for Cloud license, whereas the other scan types come as part of the WithSecure™ Elements Exposure Management for Business license.

7. Heuristic Attack Path Engine

WithSecure™ Elements Exposure Management uses patent-pending AI-based attack path simulation technologies for heuristic exposure hunting and adversarial exposure validation.

Attack paths simulate scenarios of potential compromise before they happen. Our unique, heuristic engine acts as a virtual 24/7 security tester (pen tester). It discovers and validates attack paths to target your security efforts in areas that deliver the most impactful results. In essence, it discovers the minimum number of assets to fix to break the maximum number of attack paths.



Elements XM for Cloud identifies misconfiguration risks proactively

Elements XM for Cloud assesses the configuration of resources deployed in AWS and Azure, to identify weaknesses that could be exploited by an attacker. This includes tens of different AWS and Azure resource types and around two hundred configuration checks. The rule set we use is informed by both cutting-edge research and the latest attack techniques developed by WithSecure's cloud security experts, and by the best practices outlined by AWS and Azure.

8. Technical Requirements

Supported systems

As our management portal, WithSecure Elements Security Center, is cloud-based, all you need to access it is a modern web browser and internet access. We support the latest versions of the following browsers: Microsoft Edge, Mozilla Firefox, Google Chrome and Safari.

However, depending on which environments you want to onboard as part of WithSecure Elements Exposure Management, you will need to onboard your devices (Windows, Linux; see operating system requirements on the right), cloud accounts (AWS, Azure), network assets and identities (Entra ID). Please find more information about asset onboarding in the [Exposure Management user guide](#).

Secure the environments that make up your attack surface

Our multi-environment approach covers the following assets and environments:

- External Attack Surface
- Cloud services (Azure and AWS platforms)
- Identities (Entra ID)
- Managed devices including workstations and servers
- Network including network equipment

Supported languages

English, Finnish, French, German, Italian, Japanese, Polish, Portuguese (Brazil), Spanish (Latin America), Swedish and Traditional Chinese (Taiwan).

Installation on Devices

Installation of Elements Agent requires one of the following Windows operating systems:

- For devices: Microsoft Windows 10 or 11
- For servers: Microsoft Windows Server 2016 or newer (full installation, not Server Core)

For installing scan nodes, the following operating system requirements apply:

- Windows Server 2012 R2 or newer
- Linux (Ubuntu Server and Debian (both 64-bit versions only); SSH)

Pricing model

WithSecure Elements Exposure Management for Business (covers Identity, Network, Managed Devices and EASM):

- Pricing per user with workstation
- Pricing per server in use (Windows, Linux)
- Add-on: Pricing per user without workstation (frontline workers) via WithSecure Elements Exposure Management Frontline Add-On

WithSecure Elements Exposure Management for Cloud (covers Cloud Services):

- Cloud bill tax

9. Overview of WithSecure™ Elements Cloud Platform

WithSecure™ Elements Exposure Management is available as an integral capability in the modular WithSecure™ Elements cyber security platform.


WithSecure™ Elements provides customers with complete protection in one unified platform and easy-to-use security center. The centralized platform combines powerful predictive, preventive, and responsive security capabilities into intelligent protection against threats from ransomware to targeted attacks. Our unparalleled simplicity lets customers focus on what is the most valuable to them.

Modular product packages and flexible pricing models give customers the freedom to evolve. Select the pick-and-choose software modules your business needs and complement them with our flexible Co-Security Services. WithSecure™ Elements can be part of the customer’s eco-system. It can easily be connected with their SIEM, SOAR, security management, monitoring or reporting systems.

Software Modules



Exposure Management



Extended Detection and Response


Endpoint Security

Collaboration Protection


Identity Security

Cloud Security

Co-Security Services



Elements Infinite



Managed Detection and Response

Co-Monitoring

Elevate

Incident Response

Incident Readiness

Try Elements today

**Hack your business risk. Outsmart attackers.
Ready to maximize your cyber resilience with minimum effort
by using WithSecure™ Elements Exposure Management?**

[Contact sales](#)

Who We Are

WithSecure™, formerly F-Secure Business, is Europe's cyber security partner of choice. Trusted by IT service providers, MSSPs, and businesses worldwide, we deliver outcome-based cyber security solutions that protect mid-market companies.

Committed to the European Way of data protection, WithSecure™ prioritizes privacy, data sovereignty, and regulatory compliance.

Boasting more than 35 years of industry experience, WithSecure™ has designed its portfolio to navigate the paradigm shift from reactive to proactive cyber security. In alignment with its commitment to collaborative growth, WithSecure™ offers partners flexible commercial models, ensuring mutual success across the dynamic cyber security landscape.

Central to WithSecure's cutting-edge offering is Elements Cloud, which seamlessly integrates AI-powered technologies, human expertise, and co-security services. Further, it empowers mid-market customers with modular capabilities spanning endpoint and cloud protection, threat detection and response, and exposure management.

WithSecure™ Corporation was founded in 1988, and is listed on the NASDAQ OMX Helsinki Ltd

