SMART SEGMENTATION

Reduce your attack surface, control lateral movement; harden and protect your high-value digital assets, strengthen defenses in your datacenter, secure your applications in the cloud and more with Elemental's adaptive and dynamic micro-segmentation.

Elemental offers the most comprehensive and integrated software platform to provide for smart, easy to implement and manage micro-segmentation!

Elemental Security Platform (ESP) is a cyber security compliance automation and enforcement solution that provides adaptive security micro-segmentation on any network regardless of size, complexity, or architecture, on premises or in the cloud.

Finance   Sales   Financial Reporting Data

Elemental security enforcement point   SAP

What is micro-segmentation?

Micro-segmentation is the process of creating logical boundaries among endpoint systems to better control the deployment and enforcement of security policies centered around individual applications, OS processes, ports, or workloads, in addition to the traditional segmentation that creates perimeters based on network collision domains, IP ranges or VLANs. This allows for a more granular and agile security approach.

Why does your network need it?

Micro-segmentation has significant advantages over the traditional network segmentation. As networks continue to become more diverse, dynamic, borderless, and virtualized, the old security architecture can no longer cope with modern attack techniques that often target low-profile hosts within a network segment and then move laterally to compromise other high-value hosts. It also enables a narrower target (fewer endpoints) for security compliance enforcement, hence a reduced scope and cost for audits.

Smart micro-segmentation for a better cyber security compliance enforcement and risk management!
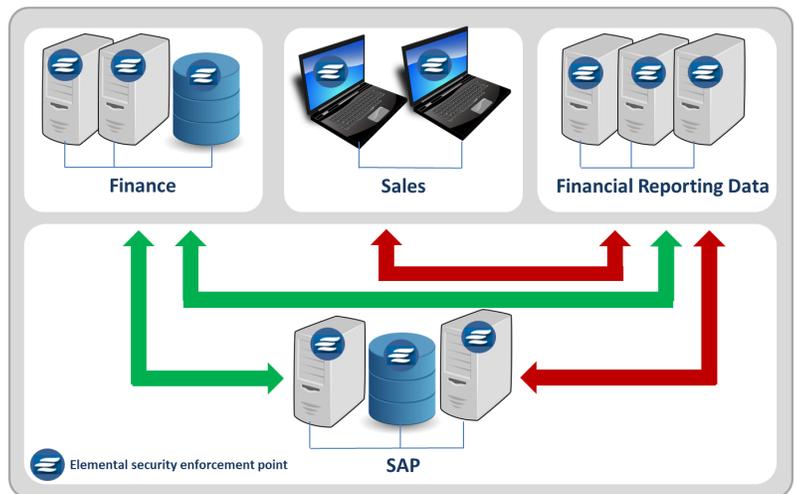
Benefits of micro-segmentation

- Control lateral movement
- Decrease complexity of firewall rules
- Increase network visibility through targeted monitoring
- Contain suspicious activities
- Eliminate blind spots in a private network
- Detect and remediate misconfigured OS environments and application security settings
- Measure and enforce compliance with approved data flow paths
- Reduce the scope of security and regulatory compliance audits (SOX, PCI, HIPAA, FISMA, NIST 800-171)
- Enable rapid breach containment and targeted forensic analysis
- Increase cyber security agility in response to change in environment
- Reduce cost and complexity of network security
- Provide for better IT governance

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Adaptive cyber security with micro-segmentation

Adaptive segmentation

ESP's **adaptive segmentation** enables the creation of logical boundaries or security groups around endpoints on the network. As hosts activities and attributes change, they transition from one security group to another, automatically receiving proper security policies for their current status. This allows for adaptive micro-segmentation leading to more agile security.

Better network visibility

ESP **continuously monitors** each host's hardware and software inventory, configuration, installed or missing security updates, trust relationships, risk and compliance scores, network traffic, and many other critical attributes. Information gathered from the hosts is used to automatically assign hosts to predefined or user defined security groups.

Unparalleled granularity

The power of micro-segmentation comes from its granularity, and ESP offers high levels of **segment granularity** going beyond the traditional way of segmenting the network using OSI layer 2/3/4 subnets or VLANs. With ESP, any endpoint can have its own security boundary and set of security policies following multiple attributes at different abstraction layers like: OS configuration and processes, application parameters, communication ports, traffic flows, geography, organizational chart or people based, environment, etc.

Security policy management automation

ESP centralizes the creation, deployment, monitoring, and enforcement of all security controls across the entire network. This allows for better strategic planning , less time and effort needed to implement and monitor security policies. As ESP detects change in the hosts' risk exposure, configuration, activities, or environment, it automatically adjusts deployed security policies to maintain the desired level of security posture and compliance.

Simplicity of design and maintenance

ESP is designed to achieve maximum efficiency with minimum maintenance. ESP comes with dozens of pre-defined security groups and a large library of enforceable technical controls organized in ready-to-deploy policy templates. Easy customization and automation features allow a single administrator to create, deploy, monitor, and update all security policies across the network, on premises or in the cloud.

Powerful security controls to protect micro-segments

Automatic threat detection and containment

Lateral movement is hard to detect and control, yet it can lead to serious security breaches. ESP can quickly detect change in the network environment, change of host activities, and change in host risk levels. Security administrators can specify conditions under which the hosts should lose their trusted status and become part of *"quarantine"* or security policy violation groups. Likewise, emergency threat containment policies can be set up in advance to be automatically deployed to all endpoints in violation groups. Lateral movement of potential threat actors can be minimized or stopped completely within minutes of detection of suspicious activities. Port activity can be shut down just as quickly to prevent data exfiltration.

The Bottom Line

Smart micro-segmentation gives network security administrators, application builders as well as compliance and risk managers, an efficient way to design a more agile and affordable security solution to better defend against ever-evolving security threats and security compliance requirements. ESP provides a powerful, scalable, and flexible solution to meet security challenges in demanding computing environments.

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