

SecuriCDS® ZoneGuard A new Information Exchange Paradigm

Bringing secure two-way filtered data exchange tailor-made to meet your business information needs

Do you have a need to share or provide information between two networks but fear that other critical or dangerous data might inadvertently be exchanged as well?



Today's solutions for controlling information flow such as next generation firewalls or application security gateways do not offer the explicit control and monitoring of data flows that is required in high security environments. Some of these existing solutions use per-packet forwarding despite the risk of protocol flaws and others let data packets through before making the decision to approve or disapprove them. Finally, some are like a "Swiss army knife" as they can be configured in safe and unsafe ways a like.

Enabling new information sharing policies

SecuriCDS ZoneGuard is a future proof solution for

data sharing. ZoneGuard gives you explicit, precise and unparalleled control over the implementation of your information sharing policy. You can decide exactly what information to share, and be certain that absolutely nothing else inadvertently is shared due to e.g. protocol or implementation flaws.

This will increase your operational efficiency by reducing or eliminating costs for implementation, audits and risk. It will increase business efficiency by enabling information sharing within your organisation and its business partners.



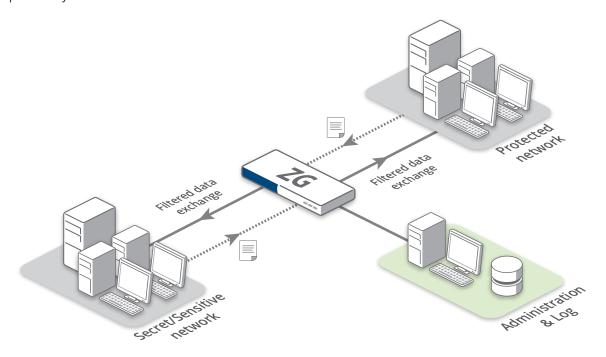
About Advenica

Advenica is a leading European provider of cybersecurity. Advenica develops, manufactures and sells advanced cybersecurity solutions that prevent intrusions, theft and data leakage at information exchanges and therefore enables interaction between and within nations, organisations and systems with high security requirements. Cybersecurity made easy. Read more at www.advenica.com.

How does ZoneGuard work?

Many existing solutions are vulnerable to protocol or implementation errors. If there is flaw in the definition RFC of a protocol, all firewalls filtering of said protocol are potentially vulnerable to that flaw.

ZoneGuard's ability to directly translate any custom information policy to its technical implementation provides unparalleled control and accountability of any critical information flow.



Data flow

Each dataflow is handled by two proxy services and one policy. One proxy service receives the data and forwards it in a strictly defined format to the policy engine. A policy is a pre-defined set of business dependent processes that state what type, format and specific content can be shared or exchanged. When the policy engine has approved the data content and structure according to the policy, the data will be forwarded to the other side proxy for subsequent processing and forwarding to its final destination. Each ZoneGuard can run several data flows at once subject to a valid capacity license.

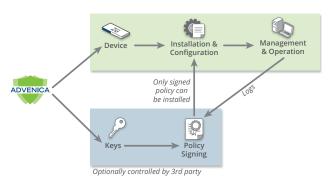
Full message inspection

Data is always controlled using full message inspection. Unlike per-packet based technologies like e.g. NxGFW, ZoneGuard always verifies the entire message before deciding to approve or not. With ZoneGuard there is no risk that partial message data will be allowed to pass.



3rd party control

Advenica can deliver the ZoneGuard device itself and its ZoneGuard policy signing key to different organisations. This enables third party control of information sharing, as seen in the figure below. The system is designed to even handle use cases when an internal or external organisation is monitoring or approving information security – regardless of reason. It can be for medical records sharing under personal integrity control or for approved database access in law enforcement or for security agency approval within national security. The ZoneGuard system allows precise control of data sharing and monitoring of its operation.



Policy control

ZoneGuard operation is controlled through policies. Each policy corresponds to a data flow. The policy defines the exact information structure and filtering/control that the data flow is processed according to. Each ZoneGuard device can run multiple policies at once subject to a valid capacity license. Any data not corresponding to a defined policy will be detected and rejected.

Signed policies only

Each ZoneGuard has its unique policy signing key. The device will only accept correctly signed policies to be installed. This means that any attempts to tamper with device operation or configuration will be detected and rejected. The key is replaceable after device delivery,

ensuring that only the correct organisation can approve policies for use.

100% traceability

Many organisations have the need to keep an audit trail for regulatory or standards purposes. ZoneGuard can provide a 100% audit trail of its operation and all data forwarded. This can reduce or eliminate costly and error prone manual processes.

Custom fit policies

Designed to meet the needs of your business information process, ZoneGuard technology offers unparalleled control by guaranteeing that only intended data will be shared. With efficiency and reliability, it eliminates expensive data security verification. Finally, its real-time transfer capacity allows your business to be more responsive in sharing vital information safely.

Management software

All tools needed to design, develop, test and approve proxy services and policies are available to customers and partners. The management software makes it easy to operate the ZoneGuard system. System protocols are standards based to allow integration into existing SNMP or SIEM solutions.

ZoneGuard SDK

ZoneGuard SDK includes all necessary software and tools to design proxy services and policies according to your specific requirements. With ZoneGuard you can be sure that your information policy is maintained and enforced even in the event of a future protocol breach!

Zero-day resistant design

There are many industries, organisations and entities – Critical Infrastructure, Healthcare, Public Sector - that can benefit from ZoneGuard. In the following table a few examples of market specific policies and universal market policies are listed.

Define dataflow policy Define transport protocol Define Schemas

Write filter Create configuration

Test

Deploy

Manage

Applications

Critical Infrastructure	Public Sector
 Allow a site operator to control process valve within 11-15% of full open setting. In case of attempt to exceed approved range – go to error state and send violation alert to security staff. 	 Allow police direct access to tax database only for data on individuals where there is a cryptographically signed warrant from the correct court.
Universal Manufest Applications	

Universal Market Applications

- Allow any pdf to be converted to a jpeg file and then imported into your system without any risk of malicious code embedded in the pdf file being imported.
- Allow Import of antivirus signature updates from McAfee if they are signed using the correct certificate.

Advenica proxy services

The Advenica ZoneGuard takes data protection to a higher level. Any ZoneGuard implementation need protocol proxies to adapt to the network environment.

Proxies main task is to translate the network protocol to a ZoneGuard internal representation.

Proxy applications include

- Media streaming over UDP such as full motion video of real-time information
- File export such as FTP and CIFS/SMB with Active Directory Integration
- Systems monitoring transfers such as syslog and SNMP
- Remote configuration options thanks to a TLS management interface

Our proxies in action

Advenica offers a standard list of proxies that include:

- Secure email transfer
- Windows file transfer (SMB)
- Windows and anti-virus updates
- FTP

We are continuously adding to our standard proxy offering so please check our website for future updates.

One size does not always fit all

We know that application specific proxies are a must. As a trusted proxy provider, we can tailor make or adapt our proxy system to fit your need and applications. Giving you the power to decide and to limit the exact information that flows in each direction between your systems.

Technical specifications

SecuriCDS ZoneGuard PE150

- Network connection speed: 10/100/1000 Mbps
- Ports: RJ45 10/100/1000 Base TX
- LED indicators for link and activity on both network interfaces
- Power consumption: 90 W
- Size: (WxDxH) 437x290x43 mm
- 19" rack mount kits available (1U)
- Weight: 4,2 kg



- Temperature
 - Operational: +5 +40°C
 - Transport: -20 +60°C
- Cooling: Built-in fan

For more information about Advenica's SecuriCDS ZoneGuard and our other solutions, visit **www.advenica.com** or contact your sales representative.