SINA® Box S

VPN Gateway for Confidential Communication

Benefits:

» **Approved up to and including NATO CONFIDENTIAL and CONFIDENTIEL UE**

» **High data throughput up to approx. 1 GBit/s**

» **High availability**

» **Allows easy software updates**

» **State-of-the-art technology in complex security networks**

As a VPN gateway, the SINA Box is a key component of the central IT infrastructure in classified networks. The data exchanged between the SINA components is securely transmitted via VPN tunnels. SINA Boxes connect networks of public authorities or companies via public lines, e.g. the Internet. In addition, access to (terminal) servers by SINA clients is provided via SINA Boxes, which serve as crypto network access points.

The SINA Box S is the only IPsec-based VPN gateway with software-based cryptography which is approved by the Federal German Office for Information Security (BSI) for classification levels NATO CONFIDENTIAL and CONFIDENTIEL UE.

The SINA Box S has been a recognised standard solution and is used in the national and international security networks of public authorities such as the German Federal Foreign Office, the Command and Control Information System of the German Air Force or the European Union for many years.

The use of SINA Boxes requires IP-enabled transport networks; this also includes satellite communication lines. The available bandwidth of the satellite lines is effectively used via Sat optimisers.

IT security concept

The SINA Box S is based on a holistic IT security concept. In particular, this concept includes

- A hardened and security evaluated Linux system platform
- Smart card technology
- IPsec-based cryptography
- Hardware, firmware and software with configuration according to the approval requirements

Cryptographic keys, configuration data and security associations are protected by means of a smart card.

Secure system boot and operation

Depending on the actual conditions of the IT infrastructures and the project-specific communication requirements, it is possible to use SINA Boxes S with up to several thousand security associations.

The SINA Box software is reliably loaded from the CD-ROM when the system boots (in the CONFIDENTIAL configuration). All initial configuration data and security associations of the SINA Box are stored in a protected area of the SINA smart card. When the SINA Box is started, the security associations to the SINA Management and the SINA Boxes are set up as IPsec VPN tunnels. If necessary, additional security associations or configuration data are loaded from the SINA Management. This makes the SINA Box very comfortable in terms of configuration, installation, rollout and hardware replacements.

The SINA Boxes log data relevant for monitoring during operation. This data can be imported into network management systems where they can be processed and/or visualised as required.

High availability

It is possible to increase the availability and reliability of SINA Boxes by means of redundant configurations. An automatic switchover triggers a second SINA Box to take on the functions of the failed SINA Box.

Management

SINA Management is used for central configuration of all SINA Boxes in the network. An integrated public key infrastructure (PKI) along with the corresponding user management supports the main administrative processes with regard to SINA smart cards, in particular their personalisation, the generation or update of keys and cryptographic parameters as well as the administration of the corresponding PINs and PUKs.

Sources of Supply

You can purchase SINA directly through secunet or through authorised SINA distributors.

Models

	SINA Box LE	SINA Box 1HU (5LAN)	SINA Box 1000	SINA Box 3HU Zone 1
Symmetric cryptographic methods	AES	AES	AES	AES
Asymmetric cryptographic methods	EC-GDSA, EC-DH	EC-GDSA, EC-DH	EC-GDSA, EC-DH	EC-GDSA, EC-DH
Crypto data throughput	Approx. 10 MBit/s	Approx. 90 MBit/s	Approx. 900 MBit/s	Approx. 90 MBit/s
Network interfaces	3 x 10/100 MBit Cu	5 x 10/100 MBit Cu	5 x 10/100/1000 MBit Cu	4 x 100 MBit optical fiber 4 x GBit optical fiber or 2 x 100 MBit and 1 GBit optical fiber each
TEMPEST	—	—	—	Zone 1
Approvals	RESTRICTED	RESTRICTED	RESTRICTED	CONFIDENTIAL
	NATO RESTRICTED	NATO RESTRICTED	NATO RESTRICTED	NATO CONFIDENTIAL
	RESTREINT UE	RESTREINT UE	RESTREINT UE	CONFIDENTIEL UE

About SINA

secunet developed SINA – the Secure Inter-Network Architecture – for the German Federal Office for Information Security (BSI). The product family of crypto systems enables the secure processing, storage and transmission of classified information as well as other sensitive data – according to approval requirements.

The product portfolio covers different gateways, line encryptors, clients and management systems which have been in use in the public sector, armed forces and companies handling classified information for many years. Selected SINA components are approved for processing and transmitting classified information up to and including the classification levels NATO SECRET and SECRET UE.

More information:
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