

Robust Crypto Client

Universally usable for mobile and extreme usage conditions with data up to German national SECRET (GEHEIM)



The SINA Workstation H R RW14 is a rugged and powerful notebook designed for working flexibly with sensitive data even at the highest classification levels.

The multi-session-capable crypto client communicates VPN tunnel secured with server or terminal server areas and can be used flexibly both online and offline. According to the requirements of the deployment scenario, different classified sessions can be combined and used in parallel, taking into account the session type.

The SINA Workstation H R RW14 is a crypto client that was developed in cooperation with the German Federal Office for Information Security (BSI) for processing, storage and transmission of classified information up to and including German national SECRET (GEHEIM). The international approvals NATO SECRET and SECRET UE/EU SECRET are also sought. The focus is on national and international military and governmental high-security networks with tactical mobile system components.

The operational experience with the SINA Workstation H R RW11 in the German Mission Network and evaluation results in military command information system of the German Federal Armed Forces led to a forced further development of the SINA Clients. The aim was to offer a client for mobile and extreme use with the SINA Workstation H R RW14, which was specially developed for the characteristically high requirements of such scenarios.

Faster, higher performance, longer lasting

Compared to its predecessor model SINA Workstation H R RW11, the new ruggedized notebook platform of the SINA Workstation H R RW14 offers a number of product improvements. Equipped with an Intel® Core™ Xeon® E-2176M CPU, it enables noticeably higher application performance, especially when sessions are running in parallel. The addition of a second battery has doubled the runtime.

The SINA Workstation H R RW14 is also available in two versions with regard to emission protection. You can choose between a Zone 1 and SDIP 27 Level A system.

IT security concept

The SINA Workstation H R RW14 is based on a holistic IT security concept. This includes in particular:

- A ruggedized, security-evaluated SINA OS system platform
- Smartcard-based authentication
- Hardware-based cryptography by SINA CORE
- Session-specific crypto file system partitions as well as
- Hardware, firmware and software that are dimensioned and configured in accordance with approval standards.

Secure system start and operation

The software of all SINA Workstations E/H is started coreboot-protected. All initial configuration data and security associations of the SINA Workstation are stored in a protected area of the SINA Smart-card. When a SINA Workstation is started, the security associations to SINA Management and the communication-relevant SINA L3 Boxes are set up as IPsec VPN tunnels. If required, additional security associations or configuration data are reloaded by SINA Management. This makes the SINA Workstation easy to configure, install and exchange hardware.

For extreme usage conditions

The SINA Workstation H R RW14 is based on a ruggedized notebook designed in particular for extreme conditions. All interfaces and slots are separately protected. The housing offers a high level of protection especially against shock, vibration, dust and moisture. In addition, this SINA client can be operated in extreme temperatures. Moisture protection is ensured even with non-sealed covers or with connected peripherals. The hardware platform meets the demanding requirements of the MIL-STD 810G and the MIL-STD 461F.

Central Management

The SINA Workstation is configured and controlled centrally by SINA Management. An integrated public key infrastructure (PKI) with associated user management supports essential administrative processes involving SINA Smartcards or SINA Smart-card Tokens. This includes, in particular, their personalization, the generation or updating of keys and cryptographic parameters as well as the administration of the associated PINs and PUKs.

SINA products can be kept up to date via remote software updates initiated by SINA Management. This reduces the support overhead in the long term and they can be distributed quickly in the customer networks in the event of a security or bug fix. In addition, this means that users have access to all newly developed features at any time.

Benefits

- VSA-compliant access to classified data up to German national GEHEIM, under evaluation for NATO SECRET and SECRET UE/EU SECRET
- Post-quantum cryptography
- Ruggedized hardware (IP65, MIL-STD)
- Multi Level Data Separation
- Emission-protected mobile device for Zone 1 and SDIP 27 Level A
- Tamper-protection, hard-disk encryption and administrable interface control



Interfaces protected from the elements
(rear view of variant SDIP 27 Level A (top), Zone 1 (bottom))

The Remote Configuration Update allows configurations for SINA L3 boxes, users, SINA clients as well as series clients to be changed without having to update the smartcards concerned.

Remote Administration and Installation (RAS) is also supported.

Satellite communication

Professional applications via commercial Satcom IP services such as BGAN place high technical requirements on the crypto devices used. In tests by the German Federal Armed Forces, it has been proven that the SINA Workstation H supports applications such as video conferencing even with double-hop satellite connections.

Approval-related construction classes



SINA Workstation H R RW14

Performance data	
Approval	German national SECRET (GEHEIM) Under evaluation for NATO SECRET, SECRET UE/EU SECRET
Boot integrity protection	coreboot
Software version	3.6.1
Manipulation protection	SINA CORE
Emission protection	Zone 1 and SDIP 27 Level A
Authentication token	SINA Security Token

Technical data

General data	
Size (W × H × D)	392 × 302 × 43 mm
Weight	5.5 kg
Service compartment	Battery and battery pack
Performance data	
CPU	The Intel® Core™ Xeon® E-2176M is a mobile 6-core high-end processor for professional notebooks.
Working memory	64 GB ECC
Boot medium	1 TB SSD hard disk
Power supply	100–240 V AC
Monitor	
Display	15.6" Widescreen LCD with LED Backlight
Resolution	1920 × 1080 Pixel, Full-HD
Interfaces	
USB 3.1	4× USB 3.1, 3× Audio 3.5 mm jack (Zone 1)
USB 2.0	4× USB 2.0 als D-Sub, Audio (SDIP 27 Level A)
Audio	HD sound, stereo speaker, access for headset
Hardware cryptomodule	SINA CORE 2 compact
Smartcard reader	1× SINA Security Token and 1× PKI Bw, both integrated
Network	1 GB LWL, LC
Keyboard	Integrated, German
Mouse	Integrated touchpad
Monitor	1× Display Port
Periphery	
External Headset	EPOS Sennheiser Headset SC260 for Zone 1/SDIP 27 Level A
External USB Webcam	Logitech C920e, for Zone 1/SDIP 27 Level A
Additional monitor	27" for Zone 1/SDIP 27 Level A
Temperature ranges	
Operation	-20 °C to +50 °C
Transport and storage	-40 °C to +70 °C
Environmental properties	
Dust, dirt and dampness protection	IP 65
Hardening	MIL-STD 810G, MIL-STD 461F

Sources

Public authority customers can acquire the SINA Workstation H R RW14 via the framework contract with the Procurement Office of the German Federal Ministry of the Interior, or through SINA supplemental contract with the German Federal Armed Forces. secunet would also be pleased to serve all other national and international customers.

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