



**ecos**

# **Remote Access for VS-NfD**

**MTG Marinetechnik GmbH  
ensures secure home and telework stations  
with ECOS SECURE BOOT STICK [SX/ZX]**



**INDEPENDENT  
NAVAL CONSULTANTS**

## REMOTE ACCESS IN SENSITIVE AREAS

Because of their work for the German armed forces, MTG Marinetechnik GmbH imposes special IT security requirements. For remote access to data and applications, only BSI-certified systems released for the VS-NfD classification level are eligible. With the ECOS SECURE BOOT STICK, the specialists for maritime procurement projects have found the right solution, which, at the same time, allows them to offer teleworking to more employees at lower costs.



MTG Marinetechnik GmbH takes on a wide range of tasks relating to the planning and design of naval vessels. As »Independent Naval Consultants«, the experts of the Hamburg-based company develop both comprehensive overall concepts and detailed solutions. More than 50 specialists from various fields such as shipbuilding, marine engineering, communications engineering or computer science work together in interdisciplinary teams. Originally formed with the aim of creating an independent competence center for the German Navy, MTG today also works internationally for navies of other countries.

Highest security requirements are a matter of course when handling sensitive data and information. This also affects the IT infrastructure of the consulting and planning company. For confidential meetings or the handling of particularly critical data, shielded rooms without any network access are also available.

### **Remote access initially with dedicated VPN notebooks**

MTG has been relying on VPN solutions since 2003 to enable individual employees to work more flexibly outside the office while still allowing access to data subjected to the secrecy level VS-NfD (classified information - for official use only). The use was initially limited to a relatively small circle, for example to employees on business trips abroad or the management. In the early days, remote access was technically realized with the so-called »Secure Inter-Network Architecture« and a pool of dedicated notebooks. Although handling and performance basically met the requirements, the Hamburg-based engineers was significantly less satisfied with the cost side. The special VPN notebooks had already cost around 3,500 euros per device. Added to this were annual expenses in the low three-digit range per workstation as well as a high expenditure for back-end maintenance contracts.



ECOS SECURE BOOT STICK [ZX]



GENUA GENUSCREEN

»There was an increasing desire for more home and teleworking within the company,« explains Mr. Alberts, System Administrator at MTG Marinetechnik GmbH. »But it was not feasible with the existing solution due to the high costs. At the same time, we wanted to take the opportunity to consider a more flexible, portable solution for high-security remote access that could be operated independently of the hardware.«

### Certification for VS-NfD was a basic requirement

Due to the cooperation with the German Federal Defense Forces, one aspect was high up on the agenda in the search for a suitable alternative: The solution required the official BSI certification for handling information with the classification level VS-NfD. This alone limited the possible choice to just a few providers. In order to back both work from home and on domestic or international business trips, the remote access had to flexibly support different networks such as WLAN, cable or LTE. Another requirement was to keep the system as simple to operate as possible. First, the company evaluated a solution offered by an IT manufacturer that already counts a number of public authorities and institutions among its customers. Although the user interface was particularly convincing, the decision failed due to excessive costs.

At the same time, MTG got to know ECOS Technology at a trade fair, as the slogan »Emergency Workplace for the Federal Defense Forces« aroused the company's interest. Upon closer

examination, it quickly became clear that the ECOS SECURE BOOT STICK [SX], which was in the BSI certification process at that time, would largely meet the requirements of the marine technology specialist, but with significantly lower overall costs. The solution is based on a compact USB stick which establishes a highly secure connection to a terminal server or VDI infrastructure via the BSI-certified genuscreen VPN gateway appliance from genua. Any Windows computer can use the solution, since neither the installed operating system nor the hard disk of the computer is accessed. Instead, a specially-hardened ECOS Secure Linux is booted after plugging in the ECOS SECURE BOOT STICK [SX]. A removable smartcard secures all processes and acts as component in a multi-factor authentication process.



MR. ALBERTS

The integration of genuscreen into the infrastructure and the connection of the ECOS sticks were also pleasingly simple. The close cooperation between the two manufacturers is obviously paying off.

»We are also very satisfied with the support we receive from ECOS, as the effort required after the setup phase virtually tends towards zero.«

Mr. Alberts | System Administrator  
MTG Marinetechnik GmbH

### Great interest from employees

MTG's IT staff first tested the ECOS solution internally to check compatibility with as many different notebooks and computers as possible and ensure stable, high-performance remote connections. Based on their positive evaluation, about 40 ECOS SECURE BOOT STICK have been in use since 2018.

From the very beginning there was great employee interest. Private aspects also played a role in the allocation of the sticks by the heads of department. For example, the remote solution equips employees to whom teleworking represents an added value as they have relatives to care for or a long journey to work. In order to ensure the best possible data protection beyond the functional security of the sticks, MTG Marinetechnik links the use to basic conditions. Thus, the smartcard must be kept separately from the stick and stored securely in a home safe or alternatively in a wallet. The room used for teleworking must also be lockable and protected against direct access by unauthorized persons.

### Low hardware requirements

Employees access the full desktop of their office computer with the ECOS SECURE BOOT STICK [SX] and can thus work with-

out any restrictions. The fact that the hardware requirements are very low has also proven to be a clear advantage. Even older notebooks can be used for remote work without any problems nor loss of performance. This helps avoid additional hardware investments.

»We are also very satisfied with the support we receive from ECOS, as the efforts required after the setup phase virtually tend towards zero,« reports Alberts. »Employees are happy they no longer have to take a company notebook home, especially since some colleagues in home office are well-equipped with multiple screens and can thus work much more productively and ergonomically. We were also positively surprised by the very low data consumption of the remote connection during normal work, for example with documents. This is a clear advantage, especially on business trips, when a location provides a relatively weak mobile phone or WLAN connection.«

### Benefits at a Glance:

- + Hardened ECOS Secure Linux operating system
- + 100% separation of company from private use
- + All software on one stick
- + Multi-factor authentication per smartcard or ID Card
- + Integrated firewall
- + Central management
- + Remote updating
- + Data safe for document storage
- + BSI certification for VS-NfD, EU/NATO-RESTRICTED
- + Simple connection to genua genuscreen

**ECOS TECHNOLOGY GMBH**  
Sant' Ambrogio-Ring 13 a-b  
D-55276 Oppenheim

Phone: +49 (6133) 939-200  
E-Mail: [info@ecos.de](mailto:info@ecos.de)  
Internet: [www.ecos.de](http://www.ecos.de)

