

Case Study | MTG

Remote Access for VS-NfD

MTG Marinetechnik GmbH provides secure home and telework stations with the ECOS SecureBootStick® SX/ZX

- **Operator:** MTG Marinetechnik GmbH
- **Sector:** Consulting & planning
- **Challenge:** Home office and teleworking in the classified sector
- **Solution:** Launch of the ECOS SecureBootStick® SX/ZX



INDEPENDENT
NAVAL CONSULTANTS

BSI-approved remote access solution at **MTG Marinetechnik GmbH**



Mr. Alberts
System Administrator
MTG Marinetechnik GmbH

»Employees are happy that they no longer have to take the 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.«

Highly secure remote access to sensitive data with the ECOS SecureBootStick SX/ZX

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-approved systems released for the VS-NfD classification level are eligible. With the ECOS SecureBootStick®, 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.

About MTG Marinetechnik GmbH

MTG Marinetechnik GmbH covers a wide range of tasks relating to the planning and the 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 ship-building, 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.

»There was an increasing desire for more home and teleworking within the company,« explains Mr. Alberts, System Administrator at MTG Marine-



ECOS SecureBootStick ZX

BSI-approved remote access solution



Approved for VS-NfD, EU and NATO RESTRICTED Easy to manage, highly secure and cost-efficient



technik 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.«

BSI approval as 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 SecureBootStick 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 connecting the ECOS SecureBootStick SX. A removable smartcard secures all processes and acts as component in a multi-factor authentication process. The integration of genuscreen into the infrastructure and the connection of the Secure Boot Sticks were also pleasingly simple. The close cooperation between the two manufacturers is obviously paying off.

High 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 the positive evaluation, about 40 Secure Boot Sticks are now in use, about 2/3 of which are the ECOS SecureBootStick ZX-variant, which was introduced in early 2021



and uses a smartcard in ID-1 format for multi-factor authentication.

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. For example, the smartcard must be kept separately from the SBS 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 SecureBootStick SX and can thus work without 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 that 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.«

Case Study - Scenario

Operator

MTG Marinetechnik GmbH

Sector

Consulting & planning

Challenge

Enabling more home office and teleworking in the classified sector

Solution

Introduction of the ECOS SecureBootStick SX/ZX for high-security remote access as an alternative to dedicated VPN laptops

About MTG

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.

ECOS Technology GmbH
Sant' Ambrogio-Ring 13 a-b
55276 Oppenheim Germany

+49 6133 939 200
info@ecos.de

www.ecos.de