

/ CASE STUDY /

EN ROUTE TO A SUSTAINABLE TRAFFIC POLICY WITH THE GETAC B300



/ THE CHALLENGE /

The Swiss customs authority uses high-quality rugged hardware at its authorized workshops when fitting and maintaining the special recording devices that are used for collecting the performance-related Heavy Vehicle Fee (HVF) in Switzerland and the Principality of Liechtenstein.

/ THE SOLUTION /

The Swiss customs authority is currently using 400 fully rugged B300 Getac notebooks. These fulfil a number of special requirements such as the availability of a second chip card reader and the option of connecting measurement and analysis equipment. The devices are also compatible with the software that is used by customs. In addition, special tamper-proof seals are used to rule out manipulation of any kind.

/ THE BENEFITS /

Because the notebooks are in use for up to 24 hours a day, the B300 offers a perfect combination of high performance, long battery life and absolute reliability. On account of its ruggedness, the device is ideal for deployment in harsh environments such as the authorized workshops because it can be operated in a wide range of temperatures and is protected against falls, dust and splashes of water.

/ QUOTE /

"A reliable, stable and readily available device is indispensable at the authorized workshops where the recording devices in the trucks are fitted and maintained. All of the involved parties were happy with the smooth implementation of the fully rugged Getac devices, and they have turned out to be a huge success in the handling of toll processing over the last 18 months."

Sascha Lussi, Program Manager at the Swiss customs authority



/ Getac B300 /
Fully Rugged Notebook

/ THE CHALLENGE /

The performance-related Heavy Vehicle Fee (HVF) in Switzerland and the Principality of Liechtenstein is used by the Swiss customs authority to collect a precise charge for foreign and domestic vehicles over 3.5 tons that are used for transporting goods and use the public road network. The amount charged is based on the total weight of the vehicle including the trailer, the emission level and the number of miles driven. The performance-related Heavy Vehicle Fee (HVF) is calculated using data that is recorded on a special device in the driver's cab. It is connected to the tachometer and determines the exact mileage based on the signal transmitted by the tachometer. Information about the permitted total weight and emissions class are stored in the on-board device, but information about the hitching or unhitching of a trailer must be entered by the driver. In this way, the device receives all of the data necessary for precise accounting. This data must be submitted to the Directorate General of Customs every month via chip card by post or using the internet.



Only distances driven in Switzerland and Liechtenstein are taken into account for performance-related HVF. Border crossings are registered by stationary radio beacons located at customs offices. The identification data and the current state of the recording device are read and the border crossing is registered in the log file of the recording device. In addition, an integrated GPS module in the device monitors the data recording as well as the switching process during border crossings. "Since it was introduced in 2001, the performance-related Heavy Vehicle Fee (HVF) has proven to be an intelligent solution for a more sustainable traffic policy", said Sascha Lussi, Program Manager at the Swiss customs authority. "Because a toll is due for every ton-mile driven in Switzerland, the trucks are better utilized and efficiency in the area of heavy goods traffic has clearly improved." To monitor the situation, the Swiss customs authority has more than 26 fixed installations that use radio beacons and other technologies to check the trailer declaration of domestic and foreign vehicles. Customs personnel on the border and in the interior can also carry out random mobile checks.



The hardware used, in particular, is important if the system is to run smoothly. The recording device consists of a sticker and LED on the windshield of the truck and is connected to a computer that stores and transmits data. Authorized workshops are exclusively responsible for correctly fitting the on-board devices and checking once a year that they are functioning properly. These workshops use rugged notebooks in continuous operation and rely on them remaining stable and reliable on a day-to-day basis. In the course of sustainable lifecycle management, all of the hardware is replaced every eight years.

/ THE SOLUTION /

The Swiss Customs has been using fully rugged B300 Getac notebooks in its authorized workshops for 18 months. 400 devices are currently in operation and a further 50 are being held in reserve. Mr. Lussi explains, "Because each truck is first fitted and must then visit an authorized workshop on a yearly basis for maintenance and control, there is an enormous throughput at the workshops." "In addition to general functional testing of the recording devices, the calibration and accuracy of the parameters are also checked. It is important that the notebooks are efficient and rugged because every malfunction has a noticeable effect on day-to-day business."

With the introduction of new hardware pending in 2016, the Swiss customs authority had a number of special requirements for the new notebooks. A second chip card reader was specified, for example, and the option of connecting accessories such as measurement and analysis equipment. Moreover, the notebooks should be SUSE certified and compatible with Linux Enterprise Server 12 to ensure that the special software runs smoothly on the OS.

The Swiss customs authority consulted the Swiss company Business IT during the selection process. Mr. Lussi explained, "In addition to a good price-performance ratio, our decision was based on the quality of the hardware because the devices are frequently in use for up to 24 hours on any given day. We

have an excellent local partner for wearing parts such as rechargeable batteries. They can provide us with replacement parts within a very short period of time. This is an optimum solution for us from a logistical viewpoint, because we are then in a position to replace the parts quickly ourselves without going through the distributors." Furthermore the B300 notebooks are numbered for security reasons and fitted with special seals so that potential attempts at tampering can be identified and traced.



/ THE BENEFITS /

The B300 notebooks have turned out to be the perfect choice for the Swiss Customs because the devices are stable and their failure rate is extremely low. "We are extremely pleased with our new hardware. The ruggedness of the notebooks continues to astound us because the authorized workshop environment is extremely tough. The devices are regularly dropped and now and again something heavy rolls over them. Nevertheless, the B300 continues to meet the challenge."

For use in challenging environments, the fully rugged notebook is certified in accordance with MIL-STD 810G, IP65 and MIL-461F as being resistant to falls from a height of 4 feet and can also withstand rain, humidity, vibration, knocks and extreme operating temperatures between -20 and +140°F. Furthermore, the integrated second rechargeable battery and battery life of up to 30 hours makes the B300 an absolute endurance runner. Mr. Lussi concluded: "What really impresses us about Getac is their above-average warranty service including support, maintenance and reprocessing as well as the overall excellent customer-oriented service."