

Case Study

IQuL GmbH

»Above average service gives us greater predictability and increases the reliability of our schedules - that is a very clear competitive advantage for us«

Daniel Möbs, Managing Director, IQuL GmbH



The customer

IQuL GmbH works and carries out research in the field of testing management at universities with the aim of improving the quality of teaching in both universities and schools. Its main focus is on scientific research into exams and the development and preparation of tools for structuring and controlling legally compliant teaching and testing processes. IQuL began its work on the organization and implementation of electronically supported, legally compliant final exams at universities and colleges in 2005. As a specialized service provider, IQuL not only provides the software platform, but also assumes responsibility for the complete testing management process from planning, organization and implementation up to analysis and archiving, for a number of universities and colleges in Germany, Austria and Switzerland.

The challenge

The reforms implemented as part of the Bologna Process led to extensive restructuring and new developments in national education systems across the whole of Europe. These innovations had a particularly marked effect on testing processes. In some cases, students have to pass five tests per week, which also have to be evaluated and documented by the teaching staff. Current systems were simply not powerful enough to meet the quality or quantity needs of solutions of this magnitude. Fast processes, short reaction times, precise scheduling and logical archiving are all key to ensuring that testing management runs smoothly, and can only be achieved with professional software and hardware solutions.

The solution

IQuL currently has 675 Fujitsu LIFEBOOKs S752 and U9410 laptops, individually optimized to meet their customers' needs.

It uses them to provide summative live tests on computers for up to 600 candidates in different exam halls simultaneously. It is currently the only provider in Germany, Austria and Switzerland that can do this. The software is preinstalled and the hardware is powerful enough that candidates can play even high resolution films over Wi-Fi without buffering, even if 600 of them are accessing the videos at once.

The customer

Country: Germany
Sector: IT
Founded in: 2011 (formally Codiplan GmbH; since 2005)
Employees: 22
Website: www.iqul.de

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The challenge

Flexible and reliable provision of digital, legally compliant testing management and examinations up to state level via Wi-Fi for up to 600 candidates simultaneously in universities in Germany, Austria and Switzerland.

The solution

675 Fujitsu laptops in daily use.

The benefit

- Thanks to its work with its partners, Fujitsu and Keppel Data Systems, IQuL is the only provider in Germany, Austria and Switzerland that can offer summative live testing on computers for such a large number of candidates
- Extensive conception phase to optimize the notebooks individually according to customer needs
- Particularly robust hardware, battery life of ten to twelve hours, very quick to boot up from standby and specialized transport container system fitted with a charging system for the laptop batteries

Products and services

- FUJITSU Notebook LIFEBOOK S752
- FUJITSU Notebook ESPRIMO Mobile U9410
- Maintenance

The benefit

In 2005, IQuL (then Codiplan GmbH) assumed responsibility for testing management in a number of universities using electronic display panels. This solution was ideal for standard multiple choice exams, but more comprehensive exams, such as complex written exams in the law faculties, were too sophisticated for the hardware with its on-screen keyboard. Following extensive testing of a number of options, the company chose Fujitsu and Keppel Data Systems (KDS). The solution partners impressed IQuL with their proven expertise and experience with durable, long-lasting PCs. Over the course of an extensive conception phase, the laptops were individually configured and optimized to suit the customers' needs using the Fujitsu Build-to-Order (BTO) process.

The customer particularly wanted to focus on durability and consistency between the devices, as well as an above average battery life of at least twelve hours. With 50,000 exams per semester in Germany, Austria and Switzerland, the LIFEBOOKs are on the road a lot and have to be able to withstand constant transport. They are able to survive being dropped, or even thrown to the ground, undamaged and free from errors.

Another advantage of the robust LIFEBOOKs is that they can be used very flexibly. IQuL has been helping the Botany department at the University of Veterinary Medicine Hanover, to carry out tests in the open air for many semesters. During the tests, the candidates have to be able to move around freely and carry out a number of tasks investigating plants. To ensure that every candidate has an equal chance of success, it is important that all of the laptops have the same components and can still work perfectly whatever the weather. This was achieved with individual customization from Fujitsu and ensures that no candidate is advantaged or disadvantaged in terms of the hardware.

The special image with all of the software components is installed on the devices during manufacturing. This means that no additional work is required and the laptops are ready to use immediately. The laptops are also delivered with a laser-engraved logo to provide a consistent corporate identity. Manufacturing the devices in this way means that the majority of the work is carried out at the factory, so IQuL receives laptops that are already tailored exactly to meet the requirements of the university testing environments.

As well as having a long battery life of ten to twelve hours, the laptops also boot extremely quickly from standby. This is a major advantage for exams with up to 600 candidates. To achieve this battery life, the batteries must always be charged to the right level. KDS worked with Kürten Schaltanlagen GmbH to develop special transport containers for this reason. Each of the containers holds and charges 50 LIFEBOOKs. An electronic regulator in the container controls the charging of the laptop batteries and ensures that the LIFEBOOKs are automatically connected to the power system on a staggered basis. This is absolutely essential as the power supply at the university could be overwhelmed if all of the 50 notebooks in each container were switched on at once.

Conclusion

IQuL's medium term goal is to increase its inventory from 675 to 1,000 LIFEBOOKs.

"We chose Fujitsu and KDS as our partners as they offer perfectly tailored solutions for our specific needs. In Fujitsu and KDS, we have found providers that support us at all times, providing excellent services even outside of our usual working hours to help us meet crucial deadlines that are critical to the success of IQuL."

Daniel Möbs, Managing Director of IQuL GmbH

In collaboration with



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