



Central Office for Computing, Basel-Stadt

Web applications enjoy special protection

The Central Office for Computing, Basel-Stadt (ZID) provides important services for all offices and departments within the canton. The focus is on the maintenance of central databases and horizontal applications, the operation of the administrative data centre, as well as the upkeep and maintenance of the cantonal communication network. In addition, ZID provides its customers with a large number of web-based applications for everyday working. And because the requirements for security and availability are correspondingly extremely high, ZID is using Airlock WAF to protect such web applications.

As a horizontal service provider, ZID covers a wide range of tasks: for example, it operates the cantonal Basel-Stadt data network (DANEBS) for the canton, the city and two municipalities, a telephony network in which the university also participates, mail systems and web services, as well as a security competence centre. ZID offers its services primarily to the more than 100 offices in the seven departments, as well as various administrative institutions.

There are a total of around 280 buildings, with about 8,000 terminals connected and around 10,000 telephones, excluding hospitals. ZID, which is affiliated with the Finance Department, has around 100 employees. In addition to the high level of readiness to deliver, decisive factors in the success of ZID are above all high levels of reliability and above-average quality. After all, when it comes to IT security, there are no compromises.

Security in eGovernment

DANEBS, the administration's data communications infrastructure, is essentially based on fibre optic cables and TCP / IP technology. The network is protected by firewalls. Together with the mail backbone and the network-related directory services, the operation of the network, the associated firewall infrastructure and the security zones come together to form the network-based services operated by the Infrastructure Department, which is run under the management of Hans-Peter Bieger.

In 2002, a special architectural model was defined for eGovernment applications. In order to meet the desired security standard, not only firewalls, but also the use of reverse proxy, were planned in the outermost periphery. The proxy servers upstream of the web servers process

all inbound connections from the Internet and either completely answer the corresponding requests themselves or forward these requests to the downstream web server.

Airlock WAF replaces open source

"Because the existing firewall infrastructure was quite outdated, we completely overhauled and restructured it as part of the e-government project," explains Hans-Peter Bieger. "After we had worked out an extensive functional specification, tendering identified Siemens AG as the partner company with which this project would be implemented. When it came to reverse proxy, our technology partner Airlock WAF was the ideal solution." After a thorough examination of the various offers, ZID initially decided on an open source product, primarily for reasons of cost.

"After about a year, it became clear that we could not operate the open source solution in line with our expectations, and that crucial functionalities were missing," recalls Hans-Peter Bieger. At that point, the decision was made in favour of Airlock WAF. As the cost factor still poses a certain obstacle, ZID and Ergon have agreed on an innovative leasing model that is comparable in cost to an open source solution.

Supporting role in many sub-projects

The replacement of the open source solution with Airlock WAF took place smoothly and without any problems. A good year later, a new large-scale project was launched, in which Airlock WAF once again took on a very central role. In the first sub-project, "Intranet for Extranet", an authentication platform for extranet networks was

constructed in accordance with the strict security policies of the canton administration. Administrative organisations, such as hospitals or the Basel transport operator BVB, therefore gained access to the administration's intranet.

The second sub-project aimed to introduce remote access for the administration. Protected by Airlock WAF, it is now very easy to access various applications via the official and publicly-accessible homepage, using a personal login. Both sub-projects were implemented by the Ergon partner ISPIN.

"The next two sub-projects are currently in the implementation and/or planning phase. On the one hand, it is about expanding access to the intranet for additional

user groups outside the administrative network. On the other hand, we plan to implement alternative authentication procedures, which we are currently examining."

The applications protected by Airlock WAF at ZID have been continuously monitored since their introduction. In order to be approved, users must be successfully authenticated via authorised connections. Multi-level filters automatically detect and block unauthorised access or manipulation attempts. Or, in other words: Airlock WAF provides the Basel-Stadt cantonal administration with the most advanced and effective mechanisms for ensuring the security and availability of its web applications.

About Ergon Informatik AG and Airlock Suite

Ergon Informatik AG, established in 1984, is a leading manufacturer of customised software solutions and software products. The basis for our success: 235 highly qualified IT specialists, whose excellent know-how enables them to anticipate new technological trends and to devise innovative solutions that ensure a competitive advantage. Ergon primarily implements large projects in the B2B field.

The Airlock Suite combines filtering and authentication in a fully coordinated comprehensive solution, and sets new benchmarks in terms of usability and services. The Airlock security product has been on the market since 2002, and is currently in use by over 300 customers worldwide.

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