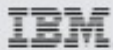


DataPower as the core of a the FDEA's joint service-oriented infrastructure



Reference study WebSphere DataPower SOA Appliances



The customer: Federal Department of Economic Affairs (FDEA)

The core areas of responsibility of the [Federal Department of Economic Affairs](#) are in particular agriculture, the veterinary sector, housing and civilian service. In these sectors, e-Government is the determining trend for the future of IT systems. Direct networking and interaction with companies, with other administrative bodies and also directly with the public is increasingly gaining in importance.



„With DataPower, the FDEA found the ideal equipment for the backbone of its SOA platform“

Oldrich Milde, IT Architecture Representative
Department of Business Architecture, FDEA

Highlights

- **Cost savings and data consistency:** the reuse of Services enables cost savings and increased data consistency to be achieved.
- **Service contracts:** the responsibilities within shared systems are separated from each other by service contracts.
- **Consistent „layering“:** consistent „layering“ enables the separation of business and technical logic.
- **Interoperability:** the solution has technical standards which guarantee the interoperability of various technologies, e.g. Java and .NET.

The challenge

Based on strategic guidelines from the IT strategy unit of the federal government (ISB), the FDEA decided in 2008 to implement an e-Government-compliant Service Oriented Architecture (SOA). An SOA-based application landscape offers numerous advantages, but also presents IT security with new challenges. Many new applications interact with external sites through new technologies such as Web services. Further challenges arise from Web applications which are outwardly open. Such a complex scenario requires protection against new types of attacks.

Up to now, the guidelines for the protection of the federal government's own network, and of access to the applications and data available there, have fallen short. In order to be able to ensure the necessary security, new technological approaches were necessary – embedded in a framework of new regulations for IT security.

The solution

The FDEA decided to confront the challenges consistently and to build up its own SOA infrastructure. This should be responsible for the entire communication between applications, their backup as well as for the access/identity management.

The operation and introduction design as well as the implementation of the solution was supported by the IBM Business Partner [ipt]. The focus of [ipt]'s activities is on leading edge technologies and service-oriented architectures.



[ipt] was mainly responsible for the development of the SOA reference architecture as well as for the setup and test of the operative DataPower platform.

[DataPower \(Appliance XI50\)](#) takes on a central role within the FDEA's SOA infrastructure. It is used as a Web service gateway for protection at the boundary of the network zones and as a lightweight ESB. As the integration of subsystems in e-Government applications occurs to a significant degree via Web services, the extremely fast and stable processing of SOAP messages by DataPower was a decisive factor for the acceptance of the new platform. Moreover, the increased flexibility was also of interest, as this enabled the publication of new Services in the Internet through simple configuration. With DataPower, public Services can be reliably secured against service-specific, as well as traditional, attacks from the Internet – a decisive improvement over previous solutions. Finally, thanks to DataPower's high security standards, completely new approaches to protecting network boundaries are opened up. Instead of complex workarounds or insecure solutions that can only be implemented with special approval, the direct connection of systems from various zones via Web service is now possible.

Thanks to support from WS-* standards, DataPower was able to integrate with other components of the SOA platform – for example a portal and an identity/access management solution.

The SOA platform with DataPower forms the backbone of current and future FDEA e-Government projects.

The advantages of WebSphere DataPower SOA Appliances

- Wirespeed performance, high degree of reliability, improved security and user-friendly management interfaces.
- Broad support from Webservice (WS-*) standards and good protection of Web services against targeted threats from the public Internet.
- Operational control possibilities at application level, instead of at network level as was the case previously.
- Excellent performance and stability in processing SOAP messages; use as very fast lightweight ESB possible.

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