

Case Study

Outstanding performance thanks to a cutting-edge business intelligence and data warehouse system

One of Germany's largest Christian healthcare companies, AGAPLESION manages not only over a hundred medical institutions and more than a million patients, but also a huge amount of data. And to store, document and analyse all that data, the company is highly dependent on a functioning business intelligence (BI) and data warehouse (DWH) system. When it was time to update their existing solution, AGAPLESION decided to go with a modern innovation platform designed for them by TIMETOACT. They implemented the platform together based on IBM Cloud Pak for Data System – powerful, scalable and several times faster than its predecessor. This has opened up far-reaching possibilities for managing and evaluating data, allowing AGAPLESION not only to optimize existing applications, but also to think about completely new analytics requirements, including the integration of AI.

A new business intelligence and data warehouse system to support evolving tasks

AGAPLESION's BI and DWH solution collects data relating to patients, bed occupancy, operating theatre planning, employees and IT tickets, etc. The system must function seamlessly, as the data forms the basis of the healthcare company's planning, decision-making and balance sheets.

The existing system consisted of IBM products, some of which were already past their prime (IBM Netezza, IBM Cognos 10, IBM TM1, Cognos Controller Desktop), plus Talend Data Integration. System resources were at full capacity, which led to performance problems and made it impossible to run more complex analyses. And with maintenance and support contracts approaching their expiry date, it was time to take action.

AGAPLESION's data analytics needs had grown and developed, so the company called on TIMETOACT to implement a solution that would meet their new requirements. The two companies can now look back at a successful collaboration.

“ **Modernizing the BI and DWH system is probably AGAPLESION's biggest project in our technical area so far. We'd already worked very successfully with TIMETOACT colleagues in the past, so it made sense to call on their expertise again for this extensive project.** ”

Jan Geesen, Team Lead Business Analytics,
Controlling, AGAPLESION

The **charitable public limited company AGAPLESION** was founded in Frankfurt am Main in 2002 by Christian organizations. Its aim is to support predominantly Christian healthcare institutions in a challenging and competitive economic situation. AGAPLESION consists of more than 100 institutions across Germany, including 23 hospital locations with over 6,340 beds, 41 residential and care facilities with over 3,550 care places, three hospices, 37 medical centres, nine out-patient care services and a training academy. It also offers healthcare and nursing training at 15 locations. More than 22,000 employees provide patient-oriented nursing and care in line with approved quality standards. They look after more than a million patients each year. Sales revenue across all institutions, including holdings, comes to over 1.6 billion Euros.

AGAPLESION's sole shareholders are various traditional churches and church-run social welfare organizations (Diakoniewerke). Through these shareholders, AGAPLESION also maintains close links with the Diakonie organization, focusing its work on the well-being of patients, residents and employees.

Key requirement

The key requirement of the project was to set up a powerful, scalable BI and DWH solution – ideally with all components in a single system. The new platform needed to combine all the desired applications and functions, such as a data warehouse, software for data integration and planning, plus extensive reporting, analytics and data science options, including the use of AI.

IBM Cloud Pak for Data System as a central location for all solution components

After consulting with TIMETOACT, AGAPLESION opted for a full innovation platform based on IBM Cloud Pak for Data System. The platform includes all necessary hardware components, pre-assembled and optimized for the application, the modern container application platform RedHat OpenShift, plus the IBM software Cloud Pak for Data. Cloud Pak for Data's modular structure allowed us to begin with the Data Management module, with the Analytics and AI modules due to follow later. The individual modules are:

- ▶ IBM Netezza Performance Server (NPS) – successor of Netezza
- ▶ IBM Data Stage – IBM's data integration solution – to replace Talend
- ▶ IBM Watson Knowledge Catalog – data catalogue integrated with the platform
- ▶ IBM Cognos Analytics with Watson – the current 11.2 version
- ▶ IBM Planning Analytics with Watson – successor to the IBM TM1
- ▶ IBM SPSS – previously stand-alone, now integrated

- ▶ IBM Watson Studio/machine learning – IBM's modern platform for implementing AI
- ▶ Due to the technical platform outside OpenShift, IBM Cognos Controller was also upgraded to a new version.

“ *I find working with TIMETOACT very productive. What's really remarkable is the uncomplicated communication. Hardly a day goes by when I don't exchange a few words with the TIMETOACT team, and they always provide the necessary resources or information in the blink of an eye.*

Jan Geesen, Team Lead Business Analytics, Controlling, AGAPLESION

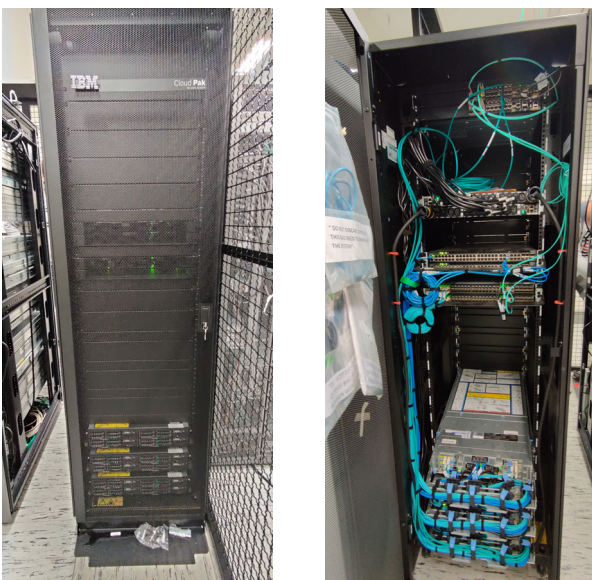
The new business intelligence and data warehousing solution provides AGAPLESION with a whole array of benefits:

Higher Performance: Software components which were previously spread across a range of systems are now installed on a central piece of hardware. All components are technically integrated, making them highly efficient, and meet top-level performance requirements.

Reduced operating effort: The applications are integrated with the fail-proof RedHat OpenShift platform, which reduces operating effort, saving time and money.

Improved documentation: All data is available in a structured format at a central location. It is also possible to create clear documentation to provide technical definitions for data and keep users up to date.

More complex analytics: The high level of performance allows the solution to exceed previous reporting capabilities and execute much more complex analyses. This also helps to optimize patient accounting and room allocation planning, for example, and therefore increase liquidity extensively. In the future, it will also be possible to implement AI systems that help doctors make prognoses about patients' health status, recognize risk factors or predict problems in real time during treatment.

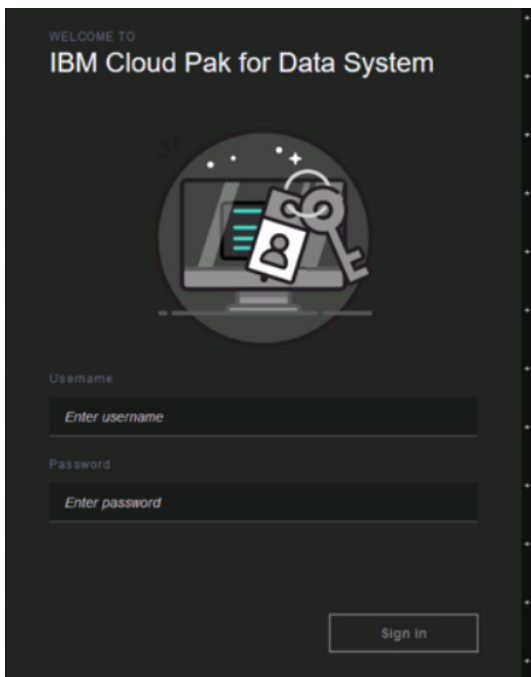


Cloud Pak for Data System hardware

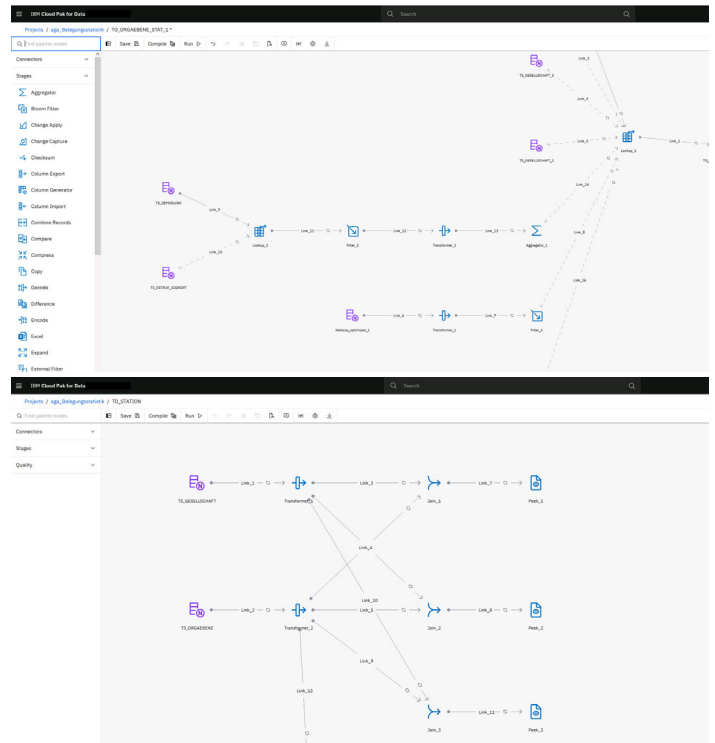
TIMETOACT enables seamless implementation and training for key users

The extensive project was divided into various sub-projects, which TIMETOACT implemented and supported from beginning to end. It was important to ensure that the existing systems would remain fully functional throughout the project, so as not to disrupt AGAPLESION's operational processes. As, among other things, the healthcare company's maintenance contracts for the old hardware had expired, it was necessary to transfer the applications to an alternative system in the interim. Service provider BlueConsult supplied and maintained the necessary hardware.

TIMETOACT's first job was to prepare existing legacy systems for the data transfer. The delivery came in mid-2021, followed by the – from the customer's point of view – seamless launch of IBM Cloud Pak for Data System as the underlying hardware for the innovation platform. On the one hand, existing solution components – in particular IBM Netezza, which included AGAPLESION's data warehouse – had to be migrated to the new system. And on the other, it was necessary to re-install, configure and test many of the extension modules. So far, TIMETOACT has finished migrating Netezza, and has completed the installation of Cloud Pak for Data, IBM Data Stage and Watson Knowledge Catalog inside Cloud Pak for Data, plus Cognos Analytics, Cognos Controller and Planning Analytics – initially on new hardware outside the platform. The system is running and stable, initial dedicated data has been migrated, and selected use cases have performed well in tests.



Login screen of IBM Cloud Pak for Data System



Examples of IBM DataStage workflows

As well as implementing and launching the solution, TIMETOACT trained key users in how to use the new platform. As one of just a few IT service providers in Europe with in-depth knowledge of both IBM Cloud Pak for Data System with all its components and extensions and the RedHat OpenShift platform, TIMETOACT is ideally placed to help with technical questions.

TIMETOACT will continue to support AGAPLESION in the future

The plan is to integrate the remaining applications, including IBM Cognos Analytics and Planning Analytics, into the platform by the end of 2022, allowing the system to reach its full analytics potential. TIMETOACT will help implement analytics use cases in the long term, and will provide AGAPLESION with comprehensive support. The IT service provider will also operate and maintain the new system as a managed service in the future.



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