Customer Spotlight: Gupta Porting by fecher

Proven Functionality Brought Up to Date

Porting Project by fecher Lifts Asseco Poland's ERP for Hospitals from Gupta to .NET

Asseco Group, with over 32,000 employees and a presence in 60 countries amongst Europe's leading software companies, has long been the largest IT provider in healthcare in its home country of Poland. Its healthcare team supports over 75,000 users in hospitals, medical centers, clinics, and blood banks. One of its most important products is the Infomedica ERP, which was developed in Gupta over 20 years ago and is used at more than 350 sites. To leave behind the technological limitations associated with Gupta today and attract new developers to work on the product, Asseco decided in 2019 to switch to the .NET platform. A porting project by fecher helped to successfully transfer the extensive functionality built up over the years to the modern environment without any loss.

"Originally, our options were to develop the ERP for hospitals from scratch or to discontinue it and switch to a standard solution instead," recalls Mirosław Fechner, project manager in the healthcare team at Asseco Poland. The first option was too time consuming and costly and could not be financed, while the latter would have meant a significant step backwards for users in terms of the functionality that had been developed over decades. Therefore, a third possibility had to be found.

This was finally achieved through the application modernization specialist fecher.



During research on possible migration paths to .NET, Asseco came across US-based Ice Tea Group, which offered a largely automated solution for this with "The Porting Project." "When we spoke to their European representative fecher, we felt we were in good hands," says Fechner. In a proof-of-concept, fecher successfully ported a small but representative part of the application to C#. For the porting of the entire software, which consisted of over 4.6 million lines of code and 40 applications, there was a fixed-price offer with a guaranteed delivery date. In the autumn of 2020, fecher was awarded the contract.



Defining the scope

Of the project variants offered, Asseco opted for the "compilable code" porting. Here, the fecher team was to use porting tools to bring the existing code to .NET and manually modify it until it could be compiled without error messages on the new platform. As agreed, Asseco themselves were to handle the subsequent testing phase and necessary further adjustments.

"This was very convenient for us, as our software team could start familiarizing themselves with the new C# code early on," explains Fechner. In addition, not only were the screen texts and dialogs, but also all internal identifiers in the code written in Polish language. "fecher would have surely struggled with our variable and function names," the project manager smiles.

Before the project could finally start, it was agreed that the existing software should be translated one-to-one. It was therefore deliberately decided not to introduce new functionalities or even optimize the user interface as part of the porting project. "Only in this way could we be sure that any problems that would arise during the testing phase were not introduced by the additional editing steps. Furthermore, by sticking to the existing interface, we did not create any barriers for the application users. During the migration, we made efforts to introduce tooling improvements that would be beneficial from the perspective of application administrators as well as its creators."

Good coordination is everything

With the project starting in October 2020, a time of weekly project meetings via video conference between fecher and Asseco began. The project teams of both sides discussed their progress and clarified any upcoming questions in direct contact. However, most of these conferences were quite short often there was hardly anything to clarify, as the actual translation of the code proceeded without significant errors.



Mirosław Fechner, project manager in the healthcare team at Asseco Poland

For this purpose, fecher received the code of the about 40 applications modularly combined into five blocks, which were processed sequentially. Each time, it took about two months until the compilable .NET code came back. "Problems mainly arose because the previously separate applications were to be combined into a single new .NET application," Fechner reports. This agreed-upon architecture change initially required manual rework, which fecher was able to integrate into the porting tools for the later modules.

In addition, the porting revealed various errors in the source code that had been present for years but had never become noticeable. These were then adjusted in the source code and sent back through the translation process. Similarly, multiple locations that proved to be performance bottlenecks after



translation were discussed in team meetings and optimized by Asseco during the post-processing phase. It was also a significant challenge for the Asseco team.

Rollout in several phases

In addition to the approximately 4,500 screen forms and the underlying application code, more than 600 reports had to be brought into the new world. In the first attempt, Asseco had decided on the widely used reporting tool Crystal Reports as the target environment. However, the new architecture brought performance problems for the users. "While Gupta immediately displayed the first page of a report, the user now had to wait until the entire report was finished before seeing anything," as Fechner had to determine. Together with functional deficiencies, this ultimately led to the decision to use the more modern DevExpress instead, which was also supported by the porting tools. For some particularly time-critical reports, the Asseco team also decided to write them from scratch in DevExpress to get the most out of it.

After the internal testers were satisfied with the .NET version of Infomedica, delivery to the first pilot customers could begin - starting with the first module block in August 2021. "Our big advantage was that both software versions worked with the identical database," Fechner rejoices. If there should still be a problem with the ported .NET software for users, they could always switch back to the old Gupta version. "This provided comfort primarily to the IT departments of our clients."

However, delivery to the remaining customers took longer than expected. Without visible improvements or extended functionality, it was difficult to motivate users to switch. Ultimately, the argument that the new platform would provide the necessary basis for the future development of the Infomedica ERP prevailed and the old Gupta version could be discontinued.



Full speed ahead into the future

What the future of Infomedica will look like is already becoming apparent: Using the new possibilities of .NET, the proven solution will change from the previous dialog-oriented application to a business process view and then undergo corresponding functional enhancements.

"Finishing this project in the midst of the Corona period was not always easy," Fechner summarizes. From his point of view, it was worth it: "Coming from a shrinking software team struggling with the technical problems of the outdated Gupta platform, a whole new world has opened up for us." For the upcoming development under .NET, he can rely on developers from other departments, recruit new employees from the market without any problems, or assign contracts to external companies. "Now we can finally tackle the further developments that we



have been planning for years and that our customers are waiting for!"

The Porting Project: Key data

- Software solution: Infomedica ERP
- Projekt type: Compilable Code
- Target language: C#
- Target architecture: Client/Server (Winform)
- 4,6 million lines of code / SAL Items
- 40 separate applications
- 4.500 forms
- Migration of 600+ reports to devExpress
- Duration: 26 months (October 2020 December 2022)

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