Higher efficiency, lower costs and effective healthcare

DevOps and Scrum at the basis of successful implementation national CIZ indication system

Over 25,000 suppliers of health care services consider it self-evident that they are able to apply for 1 million indications at the Dutch Centre of Healthcare Indications (CIZ) every year. This amounts up to a total sum of 27 billion euro. CIZ gives an indication or estimates if these claims for AWBZ care have legitimacy. With an indication of CIZ citizens know which healthcare services they are entitled to and in which form these will be offered to them. However, as from 1. January 2015 a radical shift will take place. A considerable amount of health care services will be included into the Wet maatschappelijke ondersteuning (Wmo) en Zorgverzekeringswet (Zvw). As part of this transformation tasks will be shifted to partners of CIZ: municipalities and insurance companies. This transfer will trigger substantial budget cuts as well.

The system that facilitated these processes in the past reached the end of its lifecycle in 2013. In order to be prepared sufficiently for all the upcoming changes CIZ focused its information strategy on the implementation of flexibility and scalability as well as on making its key systems and IT infrastructure future proof. In order to realize this, CIZ has developed the new IT system Portero in co-operation with Atos, replacing the old system dating from 1994. On 25. November 2013 Atos delivered a completely new information system for the evaluation of application for ABWZ health care services. Atos was responsible for the design, development and the testing of all applications. Moreover, it built an OTAP environment and supported the migration of data from 17 databases to one new uniform system.

Portero: the best sum of parts

In the Netherlands CIZ indicates and checks the applications for AWBZ healthcare services: from individual care and nursing, up to counselling and short stays. CIZ is the independent starting point in the Dutch health care chain. It estimated whether a client is entitled to extensive AWBZ health care. Every year CIZ processes approximately one million indications and allocates an amount of 27 billion euro.

CIZ was formed in 2005 as a result of a merger between 80 organizations. In the past the key processes of CIZ – the assessment and allocation of indications for ABWZ health care services - were supported by an information system dating from 1994. It was the result of the integration of 78 unique systems. The system comprised no less than 17 databases and was not able to anticipate upcoming changes in legislation. CIZ selected Atos for the development of a completely new indication system: Portero. This migration aimed to realize more efficiency at lower costs. Portero enables optimal digital process support and has the scalability in order to prepare the system for the upcoming decentralization of the ABWZ. Moreover, the system is flexible enough to adapt itself to changes in legislation.

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Within time and budget

Atos was able to implement the new indication system Portero within time and budget. During 10 months 50 employees have worked intensively to make this happen. Only a few arrangements had been made beforehand: contract negotiations were continuing, there were no specifications, there was no architecture for the software and OTAP environment. A data model and source code were lacking as well. Only the quality requirements, the budget and the date of delivery were fixed. Atos delivered a completely new information system for the evaluation of application for ABWZ health care services.

Part of going live was the extensive migration of databases, including over 15 million client files and 11 million documents. Before the new system went live the data migration of the existing system as well as technical transformation to Portero were tested several times. During this process there was a lot of attention for the testing of critical processes with partners within the health care chain, in particular the College voor Volksverzekeringen and 32 connected health care providers. All data were migrated from the old system to Portero. The system was shut down on the Thursday before the weekend when the migration was planned. On Monday morning employees were able to settle their files in Portero.

Scalable, flexible and efficient

The new software comprises over 3,000 function points and the software architecture is future proof in terms of process and organizational changes. This is possible, because the application design is based on organization model. Moreover, Portero is very scalable and flexible and sufficiently prepared for the upcoming decentralization of the AWBZ function. Flexible in order to adjust to an ever changing and very dynamic playing field, partly as a result of new legislation. Moreover, Portero meets all the requirements of the government, municipalities, 2,000 health care providers as well as 1,400 CIZ employees. It contributes to a swift, effective and efficient health care service with shorter handling times, better indications as well as substantial cost reductions. The results speak for themselves: on 31. December 2013 100,000 applications were settled in Portero and on 31. January 2014 100,000 new applications were implemented. The system has 13,000 unique users and 1,400 internal users within CIZ.

> "An effective co-operation based on a partnership with a shared focus on results. Enabled by a professional management of Atos aimed at quality, productivity and project management".
> **Manda Oplaat, CIZ**

The primary processes are based completely on the Cordys BPMS platform of CIZ. This platform enables business and IT to develop software together. It contains logically automated process steps. As a result the software is very user-friendly for CIZ employees and partners in the health care chain.

The accessibility of the system for citizens and health care providers - for the swift registration and monitoring of health care applications - was realized by means of a web application. This application has been developed with open source software Grails. Portero is connected with basic administrations (GBA and SBV-z) and the health care chain (CVZ and 32 connected health care offices). An important benefit of Portero is the secure IT infrastructure. The new system runs in a special security zone in order to guarantee the confidentiality of health care data. The quality of codes as well as security is ensured by external auditing as well. The Portero code has been certified with four stars by SIG.

Scrum & DevOps

CIZ and Atos have used the Agile/Scrum method for this project and operated from one central location in multidisciplinary teams in order to develop, deliver and manage 'operational sets' during 13 sprints of 3 weeks (DevOps).

Effective co-operation

The quality required, the budget and the deadline for delivery were fixed beforehand. The advantages of this successful approach are based on the effective co-operation that resulted in a considerable user acceptance and delivery within time and budget.

Every sprint resulted in to a well-functioning product. All results have been demonstrated to the CIZ management and end-users. During these sprints 'operational sets' have been developed, implemented and managed. In particular the timely involvement of IT management during the Scrum sprints has made a difference. Therefore, the software not only meets high quality standards but strict management requirements as well.

As a result of this effective approach CIZ is able to implement a new release every week if this is required. The implementation costs of new functionalities have been reduced with 30 per cent and the IT department of CIZ has been down-sized with almost 50 per cent.