Migrating Data to New Core Systems for a Telecommunications Operator

Customer:
O2 Czech Republic, a.s.

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Initial situation and project objectives

O2, the largest operator in the Czech Republic, if we count its legal predecessors, has been on the market for several decades. Over the years, its product portfolio has gone through several significant transformations, its ownership structure and thus its company strategy has changed, and thanks to its acquisitions, it has merged with many companies both big and small whose IS infrastructures have subsequently been integrated into the O2 infrastructure. For these many reasons, the Czech operator has gradually come to the point where IS complexity has become a serious obstacle to competitiveness and the ability to flexibly respond to market demands.

"Implementing any new developments was very complex; launching new products was just as complicated. It took us half a year to deploy anything new," describes Michal Dvořák, CIO at O2. *"We didn't know what would happen if we touched any system. The systems themselves were complicated, and absolutely nothing could be deployed easily."*
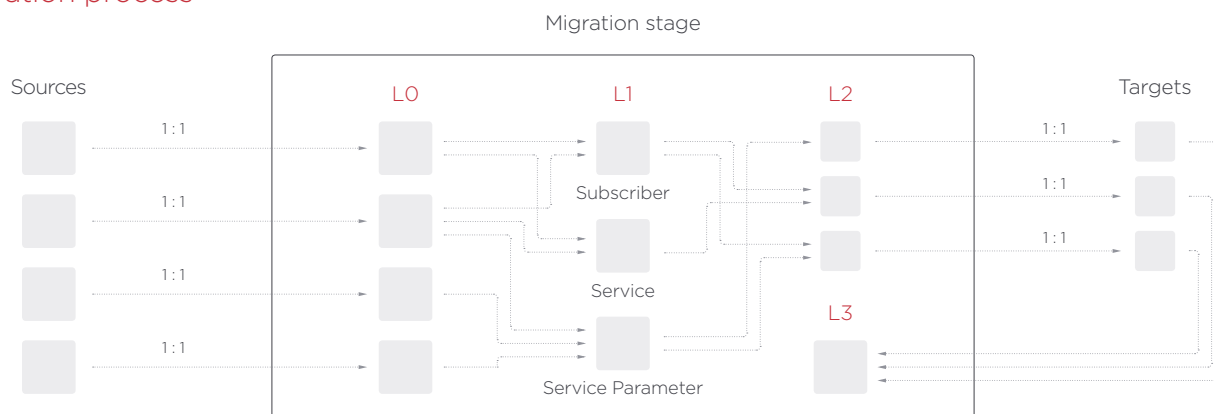
For these reasons, in the spring of 2014 O2 launched an extensive project called Simple Online Company (SOC).

"It's the largest program in corporate history; there has never been anything so gigantic here," says Michal Dvořák.

O2 is building completely new IT from the ground up, which will finally be put into operation in 2017. At the same time, it is maintaining, developing, and operating the current complicated legacy systems so that the company can continue to function. The new systems are going live one at a time according to individual customer groups and product groups. Gradually, extensive data migrations and shutdowns of technologies that are no longer needed are also underway.

In 2015, the first part of the solution was completed, namely functionality for customers with prepaid cards. This part of the solution consisted of two main components: a new IN/OCS (Intelligent Network/Online Charging System) from Oracle and a new internally developed CRM system. The change was further affected by more than 60 surrounding systems and applications. Everyone with prepaid O2 Czech Republic and O2 Slovakia cards as well as customers of virtual operators in the O2 network were migrated to the new environment.

Migration process

PROFINIT
AHEAD THROUGH KNOWLEDGE

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Profinit's role

Profinit prepared the comprehensive plan including the minute-by-minute cutover plan for this first wave of the SOC project. We ensured its progress and the coordination of all 60 affected systems, we prepared and implemented data migrations from ten discarded or modified applications to seven newly running systems.

The data migrations included not only the physical movement of data from source systems to target systems but also the extensive transformation of data demanded by the differences in logic between the original and new environments, changes resulting from the significant simplification of the product portfolio, and the cancellation or introduction of dozens of tariffs, packages, and other services.

Given that live customer data was migrated as customers continued to use O2's services uninterrupted, data quality was critical for a successful launch. It wasn't possible to count on being able to resolve any potential problems until in the new environment. Profinit, therefore, first created a separate logic layer in which the data from all source systems was transformed and consolidated into a coherent form. Before being uploaded to the target system, the data was thoroughly and systematically cleaned. The transformation and consolidation phase alone took more than 9 hours, during which 150 GB of data was processed. Several dozen test migration waves were run, and a total of more than 15,000 test scenarios were used.

Such a large migration required approximately 10 months of preparation. The preparation of the cutover alone took 6 months. The main part of the cutover went on for 55 hours straight, for which the eight-member team from Profinit coordinated approximately 110 staff from 11 other service providers as well as O2 employees. 75,000 rows of code, 4.5 MB of source code, and configurations were written. In total, over 5.25 million customers were successfully migrated in four waves, along with all associated services and products.

Our cooperation with O2 has successfully continued through further phases of the SOC project. Thanks to the quality of the first wave, Profinit also ensures in further phases overall governance for all teams and phases of the SOC project.

About Profinit

Profinit provides comprehensive IT services, from process design and optimisation, business and IT architecture, to the final delivery of IT solutions. We achieve success by using cutting-edge technology and innovations and employing the best experts. Profinit has long been involved in system migration, and our approach and expertise have been verified through our many projects for a variety of customers. We also offer migration as a service. We are pleased to have been able to demonstrate the quality of our services through the O2 migration project which was unique on the Czech market in its scope and complexity.

Profinit's work on the project through the eyes of the customer

The project management and board at O2 have assessed the entire first wave of the SOC migration as a great success. The budget and key milestones were met, there have been no problems regarding the operations of services, and the service constraints during the migration itself only occurred within the planned range.

"It was the most extensive IT project ever in the history of our company, thanks to which we have simplified the architecture, saved the old systems and, above all, made it possible for our business colleagues to reduce TTM. Although Profinit didn't provide any of the source or target systems, they successfully managed both the technical and organisational aspects of the data migration, which are always the riskiest parts of a project of this type."

Michal Dvořák | O2 Czech Republic a.s. | CIO

Assessment of the project's success

| ✔ Minimal impact on customers | ✔ Quick stabilisation of the new environment | ✔ Short interruption of systems and services during the cutover (9 hours) | ✔ Enormous volume of data processed in a short time (approx. 150 GB, 5.25 million customers) | ✔ Significant improvement in data quality after moving to new systems | ✔ Met planned deadlines and budget |

Profinit has many years of experience supplying high added value business and IT solutions to banks, insurance companies, telecommunications operators, and national and local governments.