

# TELCOTREND AND TELENOR PARTNERSHIP: FROM MODERN FRONTEND DEVELOPMENT TO LONGTERM COOPERATION





## TELENOR ON THE TRESHOLD OF A TECHNOLOGICAL LEVEL- UP

Telenor's request was for a modern web-based front-end application (MIRA: modern integrated application), aimed at customer service and internal process management staff, as part of the migration of their CRM system (Siebel). In 2012, all three domestic mobile brands, including Telenor, implemented Oracle's Siebel system as part of the modernization of customer relationship management projects at mobile companies. It is a standardized CRM system, which at the time was one of the most popular in the world. But the implementation of a CRM is never really complete, with changing industry needs and technology evolving, there is a need for continuous upgrading, so by 2019 the main focus of the technical strategy was to phase out Siebel and upgrade the customer relationship management system.

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The framework for the program was architecture consolidation a tight schedule and migration without significant business downtime. Telcotrend was tasked to deliver a front-end framework in which:

- a flexible authorization system that allows a wide range of users to access the back-end systems - i.e. the ability to integrate not just one, but multiple back-end systems
- the interfaces and interface components effectively support both data management and customer service processes - i.e., serving completely different user needs
- the components of the system ensure data protection and compliance with other security rules - i.e., enterprise-level integration into the architecture and deployment of related non-functional elements

For a Telenor, this CRM system replacement provided the basis for the modernization of its IT architecture. The complexity of the project and the deadline for the project portfolio posed a major challenge. Therefore, the delivery of the application to be built by Telcotrend indirectly had a strong impact on the company's development roadmap.

## THE EXPERIENCE OF TELCOTREND, THE FIRST MOVER ADVANTAGE

Among Telcotrend's diverse industry expertise, telecommunications is particularly noteworthy: our team has extensive development experience in both front-end development and the telecommunications sector: during the project, it was a great advantage that Magyar Telekom, Vodafone, Deutsche Telekom, Telfort and VIP Serbia were also Telcotrend clients, and that we have not only development, but also analytical, consulting and project management expertise in this area.



### SUCCESS BEYOND THE METHODOLOGY

In many areas of life, luck seems to be behind success:

*Being in the right place at the right time*

In the case of software development, a project is in **good hands** when **conscious planning** coordinates teamwork:

**To know where we want to go and in how long.**

In Telenor's case, the development of Telcotrend was a key element of a strategic CRM roll-out program, so it was particularly important to choose a methodology that could deliver the solution as quickly as possible: we worked according to the agile methodology, including the Scrum framework, which was the approach that best supported the success of the project:

## **WHERE WE WANT TO GET TO**

The Scrum framework also allows for user-centric needs assessment, incremental planning, fact-based progress monitoring and flexible adaptation. The industry-standard Confluence and JIRA software were made available to Telcotrend developed to track emerging needs and planes iterations in a continuous and transparent way.

 Confluence       Jira Software

Development can sometimes be an extreme sport, and meeting deadlines is especially important in the competitive market of mobile operators. The development sprints of the Scrum methodology provide the perfect foundation for effective time management and development roadmaps.

## **RACE AGAINST TIME**

## **A WAY OF WORKING BEYOND THE DEVELOPMENT METHODOLOGY IS ALSO NEEDED.**

The agile methodology provides a framework for collaboration, but in any development project it is important to fine-tune project management to the needs of the client. In such an environment, it is not only the methodological routine and experience, but also the adaption to the specific business environment that makes a development team really effective.

Therefore, the Telcotrend Scrum team (3 front-end developers, 1 UX/UI developer, 1 tester and 1 Scrum Master) was the core of a larger SWAT team: In close collaboration with Telenor experts we developed a way of working in which each area delegated an authorized participant: project management, business stakeholders, integration and back-end, QA and testing, and infrastructure and operations.

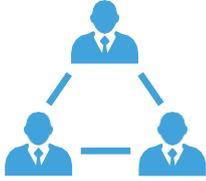
This ensured effective teamwork when quick were needed. This was background to successful development, beyond the methodology.

## **RESULTS BY DEADLINE**

Within the program, the front-end sub-project started on May 16, 2019 and went live in mid-September, with continuous deliveries for testing (at the end of the two-week Sprints) completed on schedule. The technical framework for this was provided by a jointly developed CI/CD process, within which the development was delivered as a cloud-native application. So, although Telenor installs it on its own server park, the application itself can easily be hosted in a cloud infrastructure.

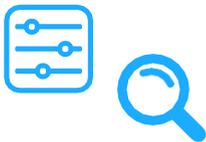


After an accurate assessment and prioritization of needs, working effectively with the SWAT team, Telcotrend delivered a functionality that provided a solid basis for upgrading the system:



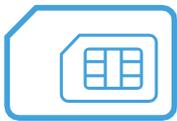
## **FULL CUSTOMER HIERARCHY MANAGEMENT**

in addition to creating a different, complex customer structure, it was important to separate and manipulate the different levels of hierarchy (customer, invoicing identifier, subscription), defined by rights group



## **COMPLEX SEARCH INTERFACE:**

a fast and ergonomic search interface with many aspects in the hierarchy mentioned above



## **SIM CARD ACTIVATION:**

the previous multi-application process has been moved to a single interface, allowing administrators to activate the SIM cards purchased by customers in shops. As a result, the handling time for hundreds of activation processes per day has been reduced by more than 20%.

During development, we paid particular attention to intuitive UX design design and responsive interface, as well as to making the management of parallel sessions and the display of the status of long-running processes user-friendly and transparent.

However, there is no better proof of the success of the project than the fact that Telcotrend, after its initial success, has developed a long-term partnership with Telenor and is still playing a key role in many of their future developments.

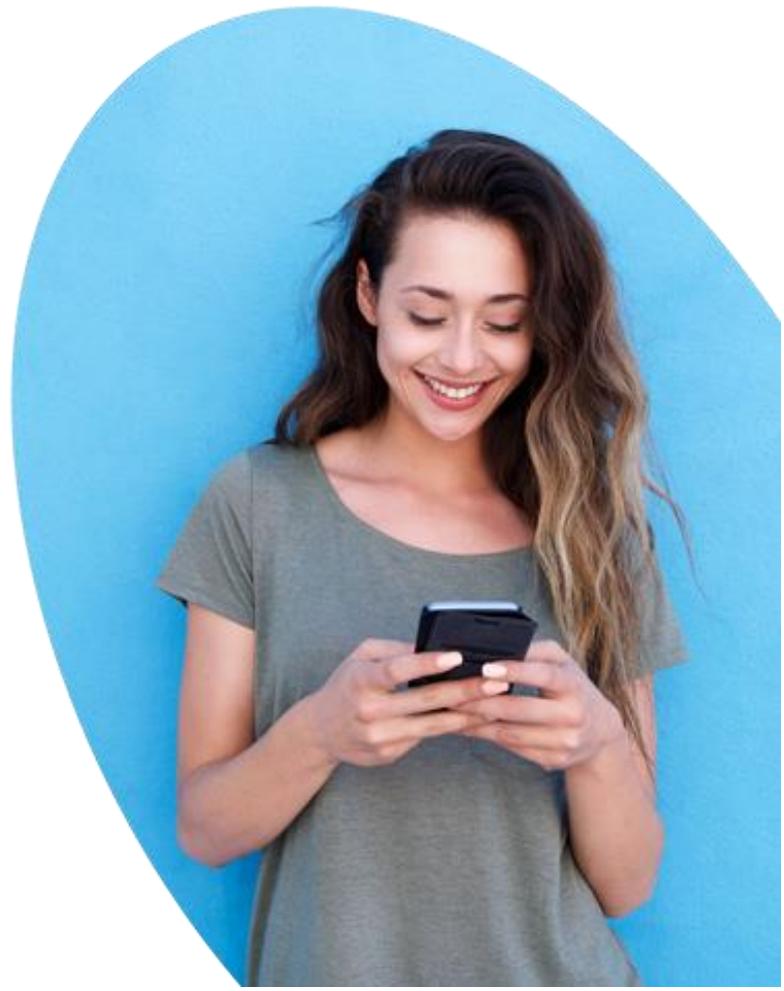
## THE COMPANY PHILOSOPHY OF TELCOTREND: WE DEVELOP FOR THE LONG TERM

The system has been expanded many times over, and no longer only provides the aforementioned functionality, but also provides data from multiple back-office systems for users working in customer management, either in the back-office or directly with customers.

A Telcotrend 2019, in addition to developing and supporting the MIRA system, Telcotrend has also been responsible for strategic developments that have played a major role in Telenor's technological development, including a self-care microsite (Hypergroup Management) for residential bill players and a backend system for managing and storing marketing consent.

The aforementioned self-care microsite is a standalone application where customers can organize their subscriptions into a so-called hypergroup, which gives them access to discounted tariffs. What we are proud of is that the previously developed MIRA architecture was fully capable of performing this task, so the implementation was completed within 1 month from the definition of the need and was presented as a key element of Telenor's Christmas 2019 marketing campaign.

And a year later, in 2020, the back-end system for managing marketing contributions will be a completely new element. Here, we tried to create a microservice-based backend system for Telenor with the latest technology and approach, but also controllable with real-time events or batch files. The completed solution can not only support the Hungarian corporate entity, but can also be used in a regional-multi-subsi-dary-architecture.



Telcotrend's company philosophy is not only to assess the needs of today, but to deliver software solutions that serve the needs of the future, anticipating the long-term competitiveness and market stability of our customers: our industry experience, our ability to adapt quickly and our business analysis team allow us to "develop for the long term". It is thanks to this corporate philosophy that we have maintained a valuable partnership with Telenor ever since.

*We are proud of the fast projects we deliver on time, but we are even prouder that our clients see us as a partner and plan for the long term.*



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