Nexign enables MegaFon to reduce TTM by 2-5 times

MegaFon

Country: Russia, Tajikistan
Nexign solution: Nexign Digital BSS
Duration of deployment: 2015-2020

Summary

To broaden its offerings beyond classic telecom services, MegaFon needed to transform its billing system. Together with Nexign, they have driven a unique project to seamlessly migrate all eight operator's subsidiaries and the whole subscriber base to a unified BSS platform. With Nexign's solution, MegaFon has also established a partner ecosystem and a microservices fabric. As a result, the operator launched over 100 new business projects and slashed time to market (TTM) for different product categories by 2-5 times.

Customer profile

MegaFon PJSC is a pan-Russian provider of digital opportunities and a leader in the Russian and global telecommunications market, offering mobile and fixed services, mobile and broadband internet access, digital TV and OTT services, innovative digital products and services across Information and Communication Technologies (ICT), the Internet of Things, Big Data analytics and processing, cloud solutions, cyber security, financial services, digital advertising and marketing, e-commerce, and converged IT solutions in system integration. The company and its subsidiaries provide services in all regions of Russia, as well as in the Republic of Abkhazia, South Ossetia, and Tajikistan. By the end of Q2 2020, the number of MegaFon's subscribers in Russia reached 75,4 million with the number of mobile data users hitting 34,9 million.

Challenge

Initially, MegaFon has been evolving as a group of companies that have become its subsidiaries following the company's restructuration in 2009. Apart from establishing unified management standards, strong single brand and corporate culture, MegaFon needed to unify the subsidiaries' IT infrastructure to take its business to the next level and facilitate digital transformation. With billing system being the backbone of the IT infrastructure, the fact that subsidiaries were utilizing seven separate solutions with different logic and custom code led to an array of issues. Such variety of BSS systems did not allow to fully unify the company's business processes. It also hindered launching new offerings, made integration of partner services more complicated and required substantial investments to support these systems.

In 2015, the executive leadership team decided to bring the whole company to a unified billing system and set the following strategic goals:

- Support digital and business transformation.
- Improve the quality of customer service.
- Centralize and accelerate launch of new business projects.
- Create an ecosystem that will facilitate faster integration of the external partners.
- Optimize total cost of ownership (TCO) for the billing system by 20-30%.

"In fact, we pursued several really ambitious goals at once, even though it is typical for the companies of our size. We needed to deploy new functionality to improve our competitive edge, while receiving predictable and fully manageable TCO. We took a journey towards business transformation choosing Nexign as a partner."

Igor Glebov,
Business Development Director at MegaFon PJSC

Solution

"This project is unique in many ways. Together with MegaFon, we ran complex transformation of its systems. With modernizing the BSS platform, the company also had to undergo serious organizational and procedural changes."

Mikhail Matyushin,
Chief Technology Officer at Nexign

One of the project's core tasks was creating a cross-functional team with common goals. It was fairly challenging given that around 1,500 MegaFon employees were involved. The project's success relied on the mutual involvement and engagement of both MegaFon and Nexign teams. Also, it was required to simultaneously migrate subscribers to the new platform and support legacy billing solutions until they are fully replaced — this only added to the challenge. Thanks to coming up with an accurate plan together with the operator, migration of B2C subscribers ran nearly unnoticed for the customers: additional tariff schemes were added to the new billing system at once, while the existing ones were migrated gradually.

"We applied an individual approach in the B2X segment. It was critical, because over the years, our customers accumulated a variety of parameters for product applications that were created in accordance with individual needs of customers in different regions — especially the companies with geographically-dispersed structures. For the government and enterprise sector, it was also important to follow SLA — otherwise, we could have simply lost these customers."

Andrey Knyazev,
Director of BSS at MegaFon PJSC

The COVID-19 outbreak also affected the situation: migration of healthcare organizations was postponed for the final stage of the project and was led especially carefully.

The project lasted for five years and was completed in the middle of 2020 despite all the roadblocks caused by the pandemic, the ensuing lockdown and shift to remote work.

Middle Layer and microservices fabrics

The transformation of the billing service substantially decreased TTM for the new products. However, with such a high pace of modernization in the telecommunications market, MegaFon needed to further speed up its transformation.

"BSS allowed us to launch and configure new products much faster. But if there was a need for adjustments in the partner solutions, we were hampered by vendors. To overcome this challenge, we created a layer of microservices above the billing, so new projects could be promptly created and tested by our own developers or external suppliers."

Igor Glebov,
Business Development Director at MegaFon PJSC

Thanks to introducing this extra layer, the TTM for a new functionality was slashed from several quarters to 2-3 weeks. As an added value, MegaFon is now able to quickly solve tasks related to piloting and testing without making changes to the core of the billing.

Moreover, the Middle Layer created a setting for integrating new partners. The plethora of microservices consolidated on this level serves as a basis for partner and customer cooperation in the joint initiatives.

Thanks to microservices, by autumn 2020, MegaFon launched over 100 projects, such as Teleport — the product that allows to purchase and activate the SIM card right in the mobile app without having to visit telecom stores and Kopilka (Moneybox) — the service that allows to save and roll over unused traffic.

Product Catalogue

Nexign Product Catalogue works as a central configuration point for all operator's offerings. It supports the whole product lifecycle from the inception and adjustment of price and other parameters to the product's decommissioning. The catalogue provides MegaFon with the information required for coordinated functioning of the rating, service and self-service systems, billing, order management, settlement payments and many more. With the ongoing partnership, catalogue's functionalities will be further expanded.

MegaFon leveraged the following functionalities of the catalogue:

- Launch of new products.

- Flexible configuration of offerings' parameters: pricing, characteristics, terms of sales, etc.

- Creation of personalized offers.

- Integration with external systems.

- Configuration of the mutual influence between products, bundles and promotions.

- Management of a large product portfolio.

Business users especially value the catalogue's easy-to-use interface. Before, to manage their offerings, they had to seek the help of an IT specialist and modify the code itself — the process was convoluted and was delaying the product's launch.

"We are still working on the catalogue and plan to finish the works in 2021. Though the catalogue hasn't become a silver bullet for all our problems yet, we have already achieved a lot. The first and second levels – local catalogues and the product catalogue – have already been launched. Now we are in the final stages of completing the third – federative level, which will enable faster integration with partners and channels."

Sergey Nikiforets,
Director of Digital Services at MegaFon PJSC

Expected results:

- Faster launch of new products.

- Reduced risks associated with human factor and decreased number of mistakes when developing new offerings.

- Creation of a unified instrument for seamless configuration of all product lines across all channels and departments.

- Slashed costs for supporting a wide range of product lines.

- Increased accuracy of the customer billing.

- Boosted customer loyalty and slashed number of complaints due to the increased transparency of the offerings.

FastTrack project: accelerated launch

Though replacement of the old billing systems was among the operator's priorities, the implementation of changes was slow-paced in the beginning.

"By the time of each new release, the initial requirements would already become outdated. This is why we came up with the FastTrack – methodology that geared us up for faster updates. We established the pass-through processing of the requirements. First, the requirements are accumulated in MegaFon and then are prioritized with an express assessment when each requirement gets a score. Just like a bubble, the requirements are moving upward in the separate segments to reach the development stage."

Mikhail Matyushin,
Chief Technology Officer at Nexign

Thanks to FastTrack, the release model has changed significantly. If the customer needs a smaller modification of the system's core that won't affect other critical components, it can be implemented quickly – in two weeks, and with a more conservative approach it may take up to one month. Previously, releasing such adjustments required almost a year with each stage (analysis, realization and deployment) taking at least three months.

This way, the updates are released bit by bit at a higher pace, so the requirements remain relevant. New methodology also allowed rolling out canary releases on the closed segments of the system. Thus, new functionalities can be tested on a small subgroup of users and can be rolled out to the entire customer base only in case of success.

Results:

- Successfully migrated all 8 subsidiaries into one billing system with the unified billing processes. Transition of eight subsidiaries to a unified system allowed to slash costs on the billing's support and increase its efficiency.

- Unified business processes and aligned product portfolio across all subsidiaries while retaining flexible pricing policy for the regions.

- Reduced the TTM for different products by 2-5 times.

- Launched over 100 products with the microservices fabrics.

- Cleaned up irrelevant data.

- Reduced the influence of external risks including the risks of the currency fluctuation and changes of the pricing policy for different vendors by using the unified solution from the Russian provider.

- Enabled to offer equally high level of service across all regions by having merged contact centers with equal KPIs and standard request routes.

- The project was a significant contribution to MegaFon's transformation of the telecom operator into the operator of digital opportunities. The company managed to broaden its offerings beyond classic telecom services and start providing digital products and services by expanding its partner ecosystem in particular.

- In the beginning of the project, some of the subsidiaries stored a lot of duplicate and old data. At the moment, all duplicates have been cleaned up, and, in the operational contour, there is only data required for tariff modifications (for two accounting periods for roaming, and for one period for all other services). The rest of the information can be requested from the data store.

- Completed seamless migration of B2C, B2G, B2B and B2O customers to a new billing system, which allowed to avoid customer churn or decline in customer loyalty.