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Netcracker and Telenet discuss digital
transformation impacts on managing CSP
customer growth and service evolution

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Digital transformation: managing CSP customer growth and service evolution

As a leading provider of quad-play telco services in Belgium, Telenet – which serves more than 2.5 million customers in Flanders and Brussels – is progressing well in its digital transformation program, which it undertook to better serve its customers, anticipate customers' needs and innovate towards future services.

Part of this multi-phased program involves upgrading its IT landscape, including Business Support Systems (BSS) and Customer Support Systems, and integrating all customers onto a single platform. To make matters more challenging, **Telenet** wanted to migrate the 600,000 customers it gained through its acquisition of mobile provider **BASE** in 2015. With so many moving parts and business goals, Telenet needed a partner that it could learn from and rely on for such a critical endeavour.

Ultimately, Telenet selected **Netcracker** to work side by side on this long-term program. We talked to Micha Berger, CTO of Telenet, and Mitat Kizilelma, vice president of Strategic Accounts at Netcracker, on the scope of Telenet's digital transformation, what challenges they faced, how Netcracker has helped the operator become ready for network and service enhancements – among them 5G, new products and digital offers – and how the coronavirus pandemic has impacted their business and customer relationships.

VanillaPlus: Can you tell us about your acquisition of BASE, which added mobile services to your portfolio as well as customers?

Micha Berger, Telenet: Telenet had previously operated as an MVNO (mobile virtual network operator), and we had more than a million customers, but understanding that data consumption is only growing, we had the ambition to become a full mobile operator. We even bought spectrum at some point, but we never really built out a full mobile radio network. So, after we reached the tipping point of a million mobile customers, we thought it made sense to 'buy instead of rent.' We wanted to become more aggressive in terms of bundles we could offer and have the ability to scale, and to reach those goals it made more sense for us to go all in and become a mobile operator ourselves.

After the BASE acquisition, and as part of our plan, we clearly understood that our IT platforms were mainly designed for either fixed or mobile offers and were unable to expand to support this huge influx of new mobile and fixed customer and their connectivity demand. We needed to invest more in IT to support converged services, which led to a dilemma: Do we develop on our legacy fixed platform or our legacy mobile platform, or do we build something new from scratch to support fixed-mobile convergence and future proof ourselves and support our customers in a more digital way?

After doing the math and looking at our company ambitions, it made much more sense to start from scratch, but of course that was easier said than done.

What were the challenges involved in this ▶

Micha Berger
CTO
Telenet

Mitat Kizilelma
vice president of Strategic Accounts
Netcracker

program to upgrade your IT systems, and what were the key areas you focused on?

Berger: After the BASE acquisition, we had multiple IT stacks: the BASE mobile stack, Telenet's converged stack and a B2B (business-to-business) stack. The idea was to combine all functionality together into a single stack. It didn't make financial sense to keep old stacks active due to support costs and the effort involved in maintaining them. Instead, we wanted to create further synergy by building a single stack.

We planned to decommission a key part of our IT stacks and build one IT stack to support residential and business customers with fixed and mobile product combinations. We also aspired to offer value-added services such as security, SDN-related products, OTT (over the top) services and much more.

To do this, we planned for a converged stack from Netcracker that included a real-time charging platform, full stack BSS, flexible and powerful digital layers, which are all supported and linked to each other by a set of APIs (application program interfaces).

Can you tell us about Netcracker's relationship with Telenet and how it's changed over the years as Telenet's business has grown and evolved?

Mitat Kizilelma, Netcracker: In many ways, Telenet is a great example of one of our customers in terms of our close working relationship, evolution of the products and services we are delivering to them and the overall strategy to support their digital transformation. When we started working with Telenet in 2017, they were a cable broadband operator similar to other customers we've worked with over the past 30 years or so. They had been offering cable and fixed voice services to residential customers since the mid-1990s, but over the years gained assets through acquisition and buildout – including the 2015 acquisition of BASE – to become a dominant quad-play provider in Europe.

We quickly saw Telenet's ambition to grow, and with those changes to their offerings and increase in subscribers – both residential and business – it required a very close, trusted relationship to ensure Telenet's IT infrastructure was up to the task.

As part of Telenet's major transformation program, how did you prioritise critical functions to guarantee uninterrupted service?

Berger: This was actually a full-stack transformation for Telenet but with a focus on the BSS and Customer ▶

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> **Micha Berger**
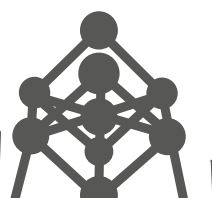
Support System, including a real-time online charging system (OCS) and a single product catalogue that can be easily accessed from other systems. This also involved building a set of APIs that can access BSS processes from external systems.

Replacing the IT stack was challenging but necessary to simplify our processes, which had previously grown very naturally into different directions. This transformation project was a way for us to revisit our legacy systems processes and determine if our business flows were efficient and still valid. We tried very hard not to reinvent the wheel and instead put existing knowledge to work along with out-of-the-box processes coming from the Netcracker platform.

Once we made the decision to do a full-stack swap and combine both fixed and mobile residential and B2B customers, we had to decide how to begin the migration. We wanted to first migrate postpaid mobile-only customers to the new stack since that was going to be easiest and would benefit the business most. The former BASE customers were migrated to the new platform about 9 months ago. We can say that both the migration and the operational experience of being live for 9 months has gone quite smoothly without major incidents. We are proud of the teamwork involved and the outcome of this phase.

Now that we're comfortable with the results, our next phase involves migrating prepaid mobile customers. Then we'll move to our SOHO and fleet mobile customers, and within 12-18 months we'll migrate our quad-play customers. We're doing this in phases to ensure minimal disruption to our business.

When Telenet gained new mobile customers through its acquisition of BASE, what did that mean to their existing BSS deployment, and what was Netcracker's involvement in their transformation program?

Mitat Kizilelma: Telenet went from being an MVNO to running their own mobile network. This does not happen overnight and requires major changes on the BSS side.

I believe Netcracker has played an integral role in Telenet's evolution to becoming a quad-play provider and the BSS transformation those changes ▶

Micha Berger
CTO
Telenet

necessitated. Our new Netcracker 2020 portfolio is really geared for operators like Telenet that are offering a wide range of technologies and products and services over a variety of network infrastructure. Due to Telenet's rapid growth, both organically and through acquisition, and their evolution towards 5G and other next-generation technologies, they wanted to consolidate their various IT stacks onto a single platform and selected us for this project.

Our cloud-native Digital BSS platform encompasses everything Telenet needs for its different lines of business and for both residential and business customers and current and future business models. This includes our Customer Engagement layer, which helps deliver a digital-first experience to customers across all channels. It's an incredibly robust solution that allows operators to deliver a consistent customer experience, increase revenue through targeted upsell and cross-sell opportunities and automates customer interaction.

To meet Telenet's program requirements, we delivered a number of our solutions from the Netcracker 2020 portfolio, such as Customer and Revenue Management, which included Customer Information and Order Management, Customer Care & Problem Management, Retention and Loyalty Management, Contract & SLA Management, Call Center Desktop, Product Management and Lead Management.

On the billing side, Netcracker provided an Online Charging System (OCS) to handle real-time transaction management of both prepaid and postpaid customers, Converged Billing, Customer Billing Management, Collections Management and Voucher Management. The BSS solutions include embedded analytics, which will help Telenet shorten time-to-market for new products and services, increase revenue from converged and third-party services, generate new revenue across both digital and physical channels and improve customer retention and loyalty.

Given Telenet's focus on delivering converged and third-party services, what have been the key elements you've put in place to gain the most business benefits, such as shorten time-to-market for these services, boost revenue and improve customer retention and loyalty?

Berger: Without a doubt, the single product catalogue and out-of-the-box solutions have given us the greatest business benefits. We've been able to shorten time-to-market since we are not dealing with complex customisations. The single product catalogue allows our business to easily configure new

products in one system and then get those definitions propagated to the complete landscape. This includes order intake, billing and even our online marketing and sales journeys. Our business recently launched a new mobile product and was able to do this with a smaller team and shorter time-to-market than was possible with our legacy systems. I'm confident this will further improve when we get to know the platform even better.

Another area that provided us with tangible results is the OCS. We are in fact using OCS for real-time transaction management of our postpaid customers. Customers get access to accurate real-time balance management and experience extremely low latency and zero provisioning delays when requesting new services or changing service plans via multiple channels in real time.

In addition, we have shifted to Agile ways of working and Agile at scale, which has resulted in improved time-to-market as well as optimised internal processes that allow us to make decisions quickly and become much more flexible. Also, without the new IT landscape, our complicated legacy solutions would slow down the Agile teams to the extent that many of the benefits would be drastically limited.

How has the partnership with Netcracker helped Telenet to deliver a comprehensive and innovative product offering for your customers?

Berger: When we chose Netcracker, it was due to their very deep experience with operators similar to us. We wanted to learn from that experience and make sure we were not duplicating efforts or reinventing the wheel. Netcracker challenged us when we were thinking we should deviate from using out-of-the-box solutions but were equally supportive when we really had to deviate due to local legislation, for example. We were also using their Blueprint methodology to create an optimal environment for our customers and to reach our business goals.

I'll admit there was a bit of a learning curve on both sides, but we had a vision and were looking for a partner that shared this vision but also who would share the risk with us and take a leap of faith. Once we started the transformation program, we could see we would be able to tackle any challenges due to having the right expertise on both sides. ▶

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> Mitat Kizilelma

> **This future-proof architecture will support 5G services as well as other IT services such as security, B2B services and services we haven't even thought of yet.**
> Micha Berger

In the end, it was a win-win situation for everyone. We learned a lot from Netcracker, and Netcracker took the knowledge from our project to other customers. We are fortunate to have a positive atmosphere and relationship where everyone grows and learns.

What do you see as the critical use cases for 5G, and how are you preparing your IT infrastructure to support an upgraded network and new services?

Berger: The IT stack we are building is not just to support our existing product offerings; rather it is more to support and allow innovation for services we do not have today and what would serve our business in the future. This was key in our selection of Netcracker, because we were looking for an IT partner with the expertise and capabilities to support us in our vision.

This future-proof architecture will support 5G services as well as other IT services such as security, B2B services and services we haven't even thought of yet. We'll be able to develop new services and port them to the IT stack quickly and get them digitally to our customers without delay.

We're making a very big investment in 5G to enable Telenet to build new products for the future based on this new technology. This could be mobile broadband solutions that offer gigabits per second of speed; it could be IoT offers for businesses or verticals like manufacturing; or it could be VPN, network slicing and gaming services to name just a few. Essentially anything that will require low latency and guaranteed speeds are areas we are looking at very seriously.

During these recent uncertain times, how has the impact of COVID-19 changed your business processes and impacted your relationship with your customers? And what are you doing to ensure uninterrupted service and being able to address the questions and concerns from customers in this difficult period?

Berger: We as an industry have proven that we are a critical lifeline element for our customers, especially during these challenging times. Connectivity is always important, but when you are locked down in your house connectivity is deemed to be one of the most critical services to maintain your quality of life and allow you to be entertained, work and study. We knew this before the pandemic, but now we understand even

better this responsibility we carry on our shoulders.

Our network was built for exactly this type of extreme situation and includes redundancy, increased capacity and the ability to scale and deliver more bandwidth to customers as needed.

And now during this pandemic, we are supporting our customers in ways we had not before. For example, we are taking our social responsibility very seriously by being more flexible with customers who may be experiencing financial difficulties and are having trouble paying their bills.

In addition to being more flexible in terms of payments and delaying disconnections, we are also adding connectivity for students who require access to online schooling. We've opened up 1.5 million Wi-Fi hotspots across Belgium to students and have donated laptops to those that need devices after schools shut down.

We are also offering digital remote customer support to reduce the number of on-site tech visits and reduce contamination risks.

As the Netcracker and Telenet teams have had to work remotely the past several months and can't be face-to-face onsite, what steps have you put in place to ensure Telenet receives the support it needs?

Kizilelma: This current period of uncertainty and massive disruption is being felt all around the world and within all industries, including telecommunications. As offices shut down and global travel was severely curtailed, we were naturally concerned that supporting operations in Belgium would present an unsurmountable challenge. However, we were very pleasantly surprised at our quick transition to a remote delivery model, which included some employees shifting their work hours to be aligned with the customer's sites.

In fact, during the pandemic we helped Telenet migrate former BASE residential customers to our BSS solution, including OCS. The complex solution has remained stable and is achieving high call success rates. With the initial phase complete, we are beginning the next delivery phase, which includes prepaid, SOHO and fleet customers. The virtual delivery program was a success due to close collaboration and open communication across the product, delivery and operations teams. ▶
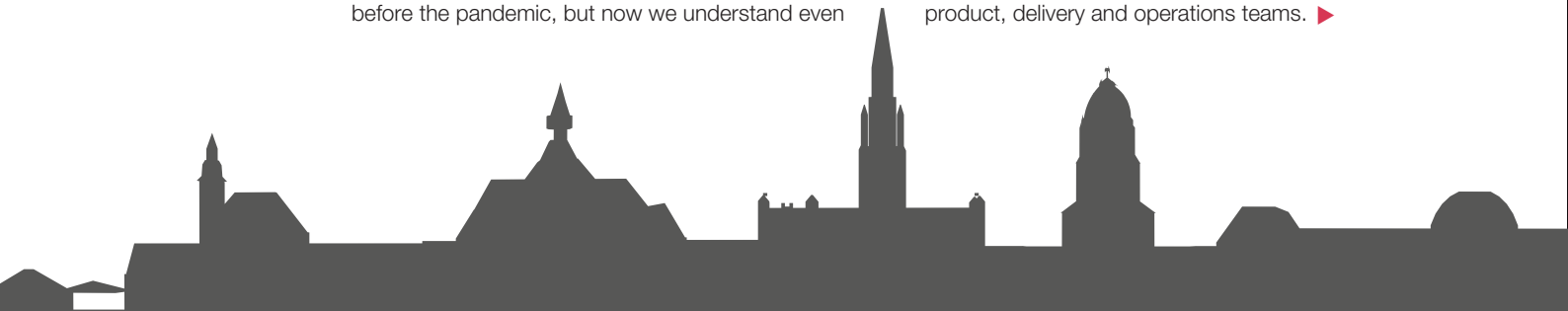
What has it been like having your teams work remotely due to the current pandemic, and has it affected your transformation program?

Berger: I've been pleasantly surprised that it has not affected the program at all. We have a large team working on this program, and most individuals have been working remotely all along. Between Netcracker and Telenet, we have teams of people in different countries, speaking different languages and coming from different vendors and partners, but once the COVID-19 pandemic shut down most face-to-face interactions, we were concerned that the program would be impacted.

We were forced to change our overall culture, so virtual meetings instead of morning standup meetings and other adjustments, but nothing has been delayed due to the pandemic. We've been able to do migrations, upgrades and patches remotely. We are monitoring processes remotely and are able to do real-time testing as needed. I'm very proud of how we were able to pivot quickly and continue moving forward even in very difficult times.

Mitat Kizilelma
vice president of Strategic Accounts
Netcracker