*Netcracker Technology Recognized as the*

# 2021

## Company of the Year

Asia-Pacific OSS BSS Industry
*Excellence in Best Practices*

**Netcracker**

An NEC Company

# Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Netcracker Technology excels in many of the criteria in the Asia-Pacific operations support system/business support system (OSS/BSS) space.

## AWARD CRITERIA

| Visionary Innovation & Performance | Customer Impact |
|---|---|
| Addressing Unmet Needs | Price/Performance Value |
| Visionary Scenarios Through Mega Trends | Customer Purchase Experience |
| Implementation of Best Practices | Customer Ownership Experience |
| Leadership Focus | Customer Service Experience |
| Financial Performance | Brand Equity |

### Addressing Unmet Needs

As consumers become more technologically savvy, competition for consumer share of wallet reorients its focus on digital services and customer experience. Communications service providers (CSP) in Asia-Pacific struggle to lead and stay relevant within digital-first platform economies. To stay in the game, CSPs need to be able to continuously offer cost-effective unique digital value propositions that also enhance customer experience. To achieve this, CSPs need the basic fundamentals to innovate, together with higher business agility and flexibility, greater levels of automation, and the ability to maintain costs at the right levels. While fifth-generation (5G) networks help to solve some challenges, they also raise the stakes for CSPs. The telecommunications industry traditionally struggles with understanding market needs, and this weakness will be emphasized further in the 5G era. A new approach is required and toward this end, OSS/BSS solutions provider Netcracker recognizes its role as an enabler in addressing this need. Founded in 1993 and headquartered in Massachusetts with more than 50 offices worldwide, the company engineers solutions to bridge and de-risk the 4G-to-5G transition while facilitating business model disruption through unique tools to help CSPs win more business from the value chain.

Netcracker offers a cloud-native and open-source approach that includes microservices-based architectures, dynamic orchestration, and seamless integration. Going a step further, it identified key innovation areas and allocated $400 million to research and development (R&D) in 2020 to perfect a

practical approach that will help customers succeed in a challenging market. The approach's three major aspects include ensuring cloud platform compatibility with hybrid cloud, public cloud, and private cloud; enhancing platform security even on public cloud; and enabling the necessary analytics with artificial intelligence (AI)/machine learning tools for CSPs to capitalize on the platform. The approach fine-tunes Netcracker's business strategy as the company has done much of the heavy lifting to innovate its product portfolio in previous years. For example, its analytics-based DevSecOps toolset, combined with agile-at-scale best practices, continuous integration (CI)/continuous testing (CT)/continuous delivery (CD) procedures, and a cloud center of excellence, helps customers to deliver cutting-edge innovative solutions faster and keep them evergreen for better long-tail monetization. Netcracker's self-optimizing OSS/BSS solution that modifies policies based on data input offers the high business agility and flexibility and levels of automation that CSPs need. The company's revenue management solution is optimized for the monetization of advanced services, including 5G, as it enables CSPs to offer more personalized digital journeys, proactive customer self-service portals, and new business models based on real-time pricing and usage. Netcracker's strategic imperative in 2020 was to fit all these innovations into CSPs' business plans.

Frost & Sullivan applauds Netcracker for seeking to meet unmet needs innovatively unlike its competitors, which focus on hard sell strategies for their best-in-class solutions.

## Visionary Scenarios through Mega Trends

> *"Netcracker's self-optimizing OSS/BSS solution that modifies policies based on data input offers the high business agility and flexibility and levels of automation that CSPs need."*
>
> *– Mei Lee Quah, Associate Director, ICT*

By aligning with industry Mega Trends, Netcracker effectively contributes to supporting critical network infrastructure locally and regionally and helps CSPs make an impact to drive change in society. The company capitalized on its support from NEC Group, which won multiple awards for innovation in 2020, and significant investments in quantum cryptography and biometrics to enhance its security framework to enable uninterrupted digital transformation for customers.

With the COVID-19 pandemic onset in 2020, Netcracker swiftly provided support to its customers to overcome pandemic-related challenges. Unlike its competitors in the region, Netcracker relied on NEC's strengths and synergies to help CSPs recover and turn the crisis into an opportunity for greater change. With its future-ready innovative solutions, Netcracker supported CSPs in becoming a one-stop shop for solutions that consider COVID-19 requirements. Extending cloud native OSS/BSS solutions with capabilities such as pre-onboarding screening, facial recognition, behavioral analytics, video analytics, voice recognition, augmented reality, and internet of things (IoT) solutions enabled the fast setup of zero-touch COVID-19-fit environments. Netcracker used technology not only to realign network resources, but also achieve social distancing through functions that can detect high-risk areas and initiate remote billing collection management solutions for those areas during an outbreak. As part of the smart city initiative, it provided pre-screening solutions, condition detection, cloud-based real-time management for congestion, and social distancing. Netcracker's blockchain support also helped CSPs and their partners to recover from supply chains disruptions while offering growth opportunities in the

form of new business models. Overall, Netcracker combines its alignment to Mega Trends with its dedication to making CSPs hyperautomated.

Frost & Sullivan praises Netcracker for its business agility, global visibility, and end-to-end expertise across business, operations, network, and information technology (IT) automation to focus on customer success by offering the right solution at the right time while managing potential risks.

## Implementation of Best Practices

Implementing timely best practices in the telecommunications industry is traditionally a challenge for CSPs. Future revenue generation uncertainties often outweigh the benefits of achieving the best outcomes in terms of performance and customer service for CSPs. In 2020, however, there were large digital transformation projects and other standards-based collaborations across the region both in developed and developing markets. CSPs selected Netcracker for some of the larger, big-ticket projects for its best-in-class solutions with security features to keep customers, services, operations, and network data secure. Netcracker used out-of-the-box assets and best practices to ensure the desired value-driven business outcome for customer strategic initiatives is achieved. For example, within its stronghold in Japan, Netcracker undertook projects with Japanese market leaders that are among the largest in the world, such as NTT Group and Rakuten Group. These companies need strong partners to support their brand and help them lead the way with innovation.

NTT's group-wide digital transformation valued at $250 million in 2020 was among the biggest BSS transformation initiatives globally. As NTT's partner for long-term business improvements, Netcracker provided its end-to-end digital BSS solutions and NEC's system integration capabilities to support NTT across its companies with a single, standard cloud-based platform, resulting in faster time-to-market for services, increased operational efficiency support for multitenancy, and unified automation, maintenance, and configuration processes. For Rakuten, Netcracker provided an integrated and consistent experience across Rakuten's comprehensive digital service portfolio to improve customer onboarding and engagement. Rakuten has reduced its new customer onboarding timeframe from two hours to five minutes and offers an AI-driven personalized, mobile-first experience for customers. The AI-driven personalization is based on intelligent, real-time customer profiles updates and loyalty programs' dynamic adaption across platforms and interaction channels.

## Leadership Focus

Within vertical industries, including the telecommunications industry, there are few global companies that truly embody the innovation culture. However, Netcracker within NEC is known for its innovative firsts in OSS/BSS, consistently spending more than its closest competitor on R&D every year. In 2020, the company's R&D expenditure increased in dollar value by 29% year-on-year and doubled as a percentage of OSS/BSS revenue to surpass its closest competitor. The company capitalizes on its internal advantages with NEC for innovation in other related areas and multivertical and collaborative support without the need to undergo mergers and acquisitions. Netcracker's strong partner ecosystem, which consists of onboarded third-party virtual network functions (VNF), is a unique key strength. As OSS/BSS is an area where R&D is spent more on innovating products than creating new products, Netcracker's internal

strength in innovation is a competitive edge in its ability to help CSPs reduce complexity, innovate quicker, and significantly alleviate deployment and operational costs.

In an increasingly competitive digital economy where the focus is shifting to 5G to offer more innovative next-generation digital services, Netcracker helps CSPs innovate and disrupt the 5G digital economy. With Netcracker 2020, the company's digital OSS/BSS portfolio, CSPs can transform customer engagement, dynamically evolve digital and partner ecosystems, and reach new levels of automation and security to offer exceptional world-class digital-first customer experience as well as secure and flexible services. The digital OSS/BSS portfolio provides CSPs with a highly automated, multivendor microservices-based environment that is fully open, standards-compliant, and built for the cloud to address enterprise and consumers dynamic digital needs. CSPs can also develop their own enhancements or co-develop functions through a low code platform and blueprint delivery approach to support new business models and outcome-based delivery models.

## Financial Performance

> *"Netcracker capitalizes on synergies within NEC Group to help CSPs become a one-stop shop for solutions that consider COVID-19 requirements. Extending cloud native OSS/BSS solutions with capabilities such as pre-onboarding screening, facial recognition, behavioral analytics, video analytics, voice recognition, augmented reality, and IoT solutions enabled the fast setup of zero-touch COVID-19-fit environments."*
>
> *– Mei Lee Quah, Associate Director, ICT*

The COVID-19 pandemic affected countries in Asia-Pacific differently; some were more affected than others. In 2020, Netcracker was able to reduce its business risks and maintain a strong business growth momentum because its regional presence is smaller and more focused, and its stronghold in Japan contributed 25%–30% annually to its revenue prior to 2020. As such, Netcracker's financial results for OSS/BSS showed a revenue growth of 12.4% in 2020 and a CAGR of 12.1% from 2018 to 2020 despite reduced consumer spending and customer budgets across the region. Additionally, its profit margin was 22% of revenue in Asia-Pacific, amounting to $304 million in 2020. Its number of potential customers also increased to 42, with 81% of them monetized in some way in 2020. These numbers indicate that Netcracker performed exceptionally well in 2020 given the circumstances, while its close competitors struggled with revenue declines of 7.3% and 0.6%, respectively, with negative CAGRs from 2018 to 2020 at 0.9% and 6.4%.

Frost & Sullivan believes Netcracker's focus on offering future-ready innovation within their service offerings to CSPs and customers in other verticals, including education, financial services, government, retail, transportation, and utilities, is worthy of praise. Netcracker's greater-than-average-sized deals, with some up to $250,000, reflect its clear competitive advantage. In terms of its potential to monetize customer base with 5G monetization solutions, the company's unique ability to serve multiverticals in the long term with fit-for-purpose solutions is an added advantage. Other competitors lack vertical-specific knowledge outside the telecommunications industry and the innovation culture that Netcracker practices as part of NEC.

*Price/Performance Value*

Netcracker offers a range of innovative commercial pricing models to meet customer needs of all sizes, ensuring customers always get the best price/performance for OSS/BSS. The company offers outcome-based and minimum viable product (MVP) sales models that cater to CSPs needing guaranteed outcomes in the form of exact solutions, key performance indicators, and timelines. Netcracker's consistent delivery track record results in 60%–65% of its customers being repeat customers from 2019. For smaller CSPs that require flexibility with payments and resource growth, Netcracker offers pay-as-you-grow sales model and software-as-a-service (SaaS) managed services sales model. In 2020, Netcracker extended its product portfolio to provide OSS/BSS as a service, ahead of its competitors that still only offer SaaS for selected products. The SaaS managed services sales model is specifically well suited for multiaffiliate deployments, which will become more common with 5G. Being cloud-based, the model stands to benefit from Netcracker's high success rate on cloud-native deals due to its flexibility with CSP transition to cloud. Frost & Sullivan commends Netcracker's ability to help customers simplify, automate, and prepare for 5G and beyond by offering the right combination of solutions and sales models to meet their needs.

## Conclusion

In many ways, Netcracker took the extra step in 2020 to ensure the success of its customers in traditional and new areas. Its solutions bridge and de-risk the 4G-to-5G transition while facilitating business model disruption through unique tools to help CSPs win more business from the value chain. Netcracker's digital OSS/BSS portfolio offers CSPs a highly automated, multivendor microservices-based environment that is fully open, standards-compliant, and built for the cloud to address enterprise and consumers dynamic digital needs. With its different solutions and sales models combinations that cater to various needs, Netcracker helps customers to simplify, automate, and prepare for 5G and beyond.

With its strong overall performance, Netcracker Technology earns Frost & Sullivan's 2021 Asia-Pacific Company of the Year Award.

## What You Need to Know about the Company of the Year Recognition

Frost & Sullivan's Company of the Year Award is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

### Best Practices Award Analysis

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### *Visionary Innovation & Performance*

**Addressing Unmet Needs**: Customers' unmet or under-served needs are unearthed and addressed by a robust solution development process

**Visionary Scenarios Through Mega Trends**: Long-range, macro-level scenarios are incorporated into the innovation strategy through the use of Mega Trends, thereby enabling first to market solutions and new growth opportunities

**Leadership Focus**: Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

**Best Practices Implementation**: Best-in-class implementation is characterized by processes, tools, or activities that generate a consistent and repeatable level of success

**Financial Performance**: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

#### *Customer Impact*

**Price/Performance Value**: Products or services provide the best value for the price compared to similar market offerings

**Customer Purchase Experience**: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

**Customer Ownership Experience**: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

**Customer Service Experience**: Customer service is accessible, fast, stress-free, and high quality

**Brand Equity**: Customers perceive the brand positively and exhibit high brand loyalty

# F R O S T &amp; S U L L I V A N

## About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

## The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create on-going growth opportunities and strategies for our clients is fuelled by the Innovation Generator™. Learn more.

### Key Impacts:

- **Growth Pipeline:** *Continuous flow of Growth opportunities*
- **Growth Strategies:** *Proven Best Practices*
- **Innovation Culture:** *Optimized Customer Experience*
- **ROI & Margin:** *Implementation Excellence*
- **Transformational Growth:** *Industry Leadership*



## The Innovation Generator™

Our six analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

### Analytical Perspectives:

- Mega Trend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)