



# Netcracker: Digital BSS



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## Netcracker: strategy overview

Netcracker, a wholly owned subsidiary of NEC since 2008, is a leading provider of software solutions primarily to communication service providers (CSPs) and some other industry verticals. NEC has consolidated most of its telecoms software business under Netcracker and continues to run the Netcracker business independently with its own management team and unique brand positioning.

Netcracker 2020 is the company's new portfolio of offerings that includes BSS, OSS and SDN/NFV solutions. With Netcracker 2020, the company is addressing industry changes by focusing on three strategic objectives:

- shift development to a microservices- and DevOps-based approach
- shift to cloud-based delivery models and focus on the growing importance of digital marketplaces
- increase the lifetime of new products by ensuring that they can integrate with a broad set of adjunct solutions.

Netcracker 2020 supports SaaS delivery models with deployment options on both public and private cloud, including multi- and hybrid-cloud. This profile is focused on the Digital BSS solutions and customer engagement components of the Netcracker 2020 solution portfolio.

Figure 1: Key data

<b>Company details</b>	Netcracker is a leading provider of OSS and BSS solutions, headquartered in Waltham, MA – USA.
<b>Revenue</b>	NEC reported total revenue of USD28 billion in 2019. Netcracker's revenue is reported under various NEC segments.
<b>Key customers (Digital BSS)</b>	Altice, América Móvil, BT, Cincinnati Bell, Cox, Deutsche Telekom, Liberty Global, O2 UK, Rakuten, Shaw, Telefónica, T-Mobile, Verizon, Vivo and Vodafone.
<b>Partnerships</b>	Alitostar, AWS, Fortinet, Google Cloud, Intel, Juniper Networks, Microsoft Azure, Red Hat, VMware.
<b>Professional services, products and solutions</b>	Netcracker's flagship solution Netcracker 2020 includes Digital OSS, Digital BSS, Customer Engagement, a catalogue-based professional services portfolio, a cloud platform and an advanced analytics platform.

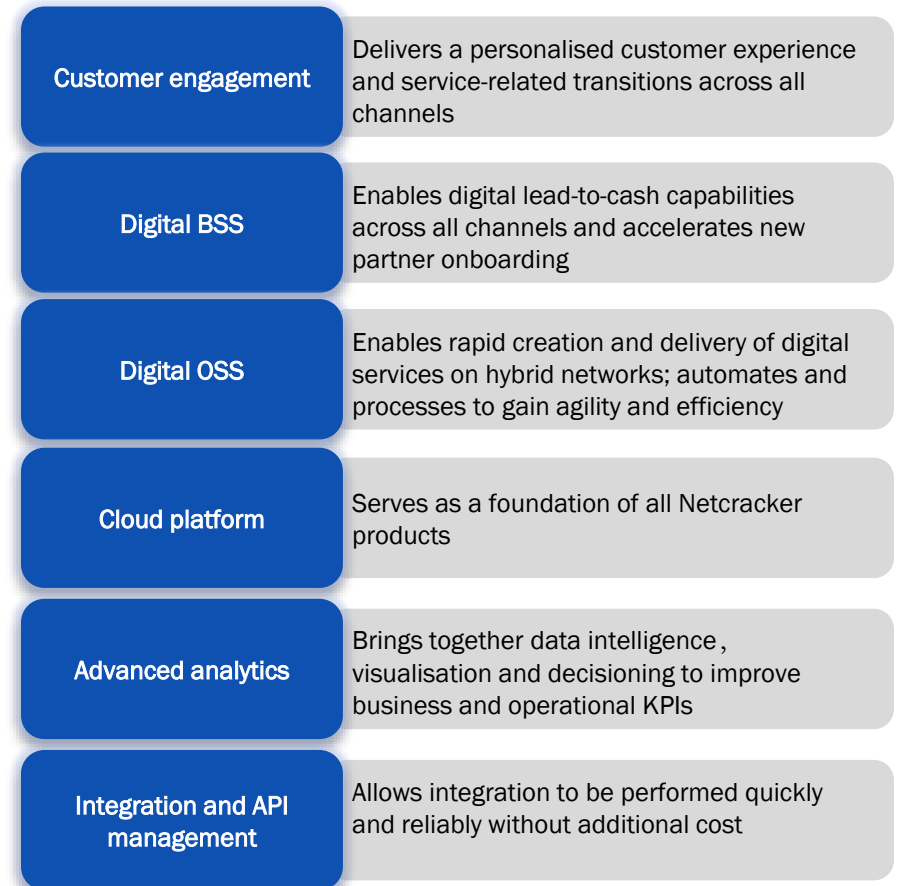
Source: Analysys Mason

## Netcracker 2020 strategy

The Netcracker 2020 portfolio is a digital portfolio of products and services that has been redesigned and enhanced for the 5G digital era. The portfolio is delivered through a microservices-based cloud-native architecture model. In order to effectively address a rapidly evolving market, the company has focused on the following four key BSS functions in Netcracker 2020.

- **Product management.** Supports complex bundles and creation of various offerings based on 5G network parameters. Also embraces a configuration-based approach with open interfaces to interact with partner offerings.
- **Customer management.** Includes development of a persona-based customer profile and support for digital identity management. Prioritises simplified digital onboarding and ordering processes with support for personalised cross-industry loyalty programs and omni-channel engagement.
- **Revenue management.** Enables real-time charging for any event or attribute with support for in-slice and cross-slice charging scenarios. Can manage large data volumes and support ultra-low latency services through a distributed charging architecture.
- **Partner management.** Allows for seamless onboarding of multiple partner types. Also supports a number of partnership models such as wholesale, distributors, resellers and sponsors. Provides partners with advanced self services capabilities that provides greater transparency and control.

**Figure 2: The fundamental components of Netcracker 2020**  
[Source: Analysys Mason and Netcracker]



Source: Analysys Mason



## Netcracker: Digital BSS and customer engagement analysis

NEC's ownership of Netcracker has been a net positive thus far for Netcracker as it gives the company access to leading-edge CSPs while also allowing it to strengthen its offerings by relying on the portfolios from NEC's Telecom Carrier and Systems business unit. Netcracker's acquisition of Convergys' Information Management business was key in propelling the company to become an important vendor in the BSS space. The company has extensive managed services expertise and a good delivery record for large-scale transformations across CSPs of all tiers. The majority of Netcracker's customer engagement deals are as part of a full stack BSS transformation where the company is highly competitive. It has a limited number of standalone customer engagement transformation deals.

The company was one of the early adopters of a cloud-native-compliant framework in this segment and today has a fully containerised architecture framework. 5G monetisation is an important focus area and the Netcracker 2020 portfolio includes a convergent charging engine for 5G charging use cases. Other key capabilities include common unified product catalog, advance partner lifecycle management framework and support for digital marketplaces.

**Figure 3: Key strengths and weaknesses**

Strength	Description
Comprehensive portfolio	Netcracker 2020 covers nearly the full breadth of CSPs' OSS, BSS and professional services needs, enabling Netcracker to take on large transformation projects.
5G focus	Multiple CSP customers across tiers and regions positions the company well for the opportunity around 5G-related investments.
Cloud-native and modular	Microservices-based and containerised architecture framework that can be deployed on public or private cloud. Also supports SaaS and DevOps delivery models.

Weakness	Description
Increasing competition	Faces strong competition from NEPs and ISVs in monetisation and from cloud-based companies in customer engagement.
Professional services	Netcracker's focus on offering professional services for only its own offerings may limit opportunities.

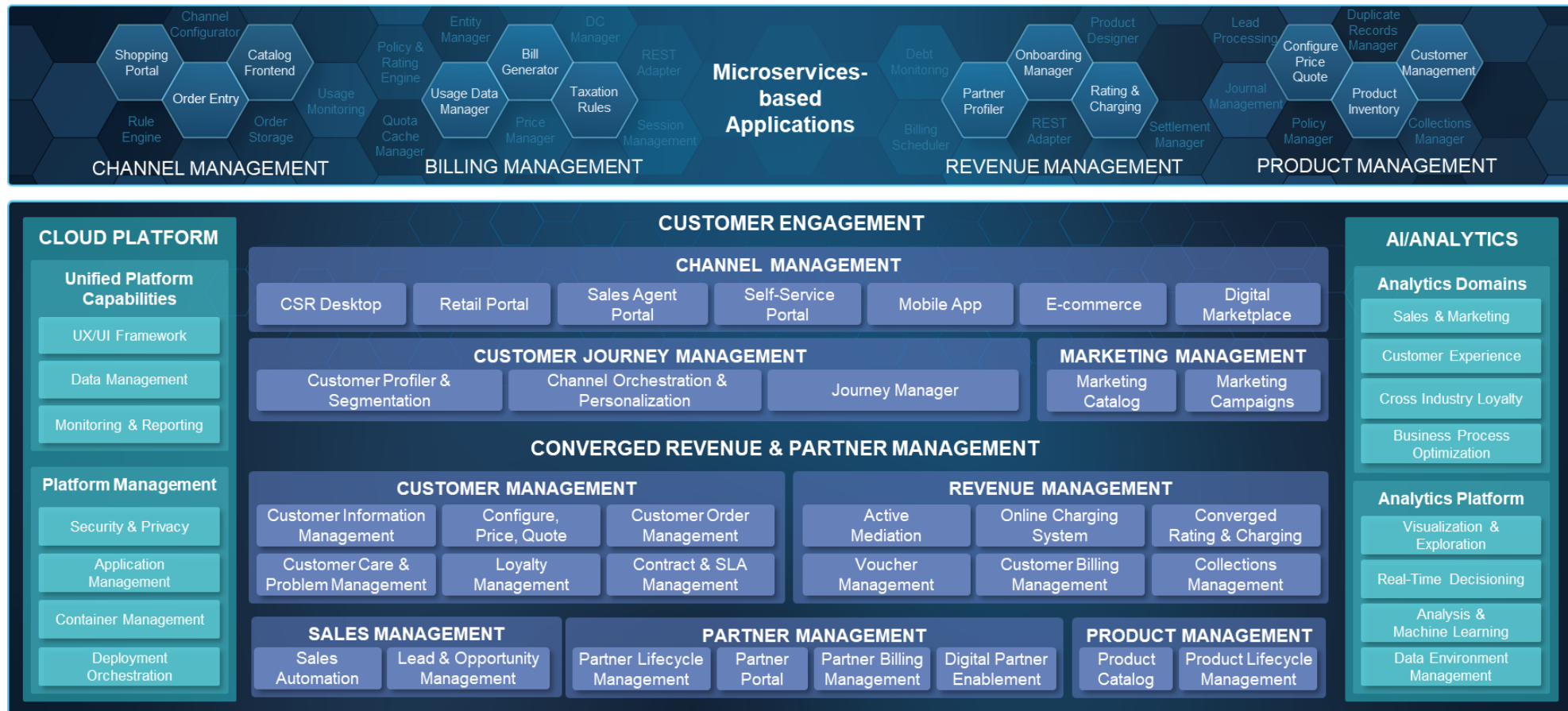
Source: Analysys Mason



Appendix

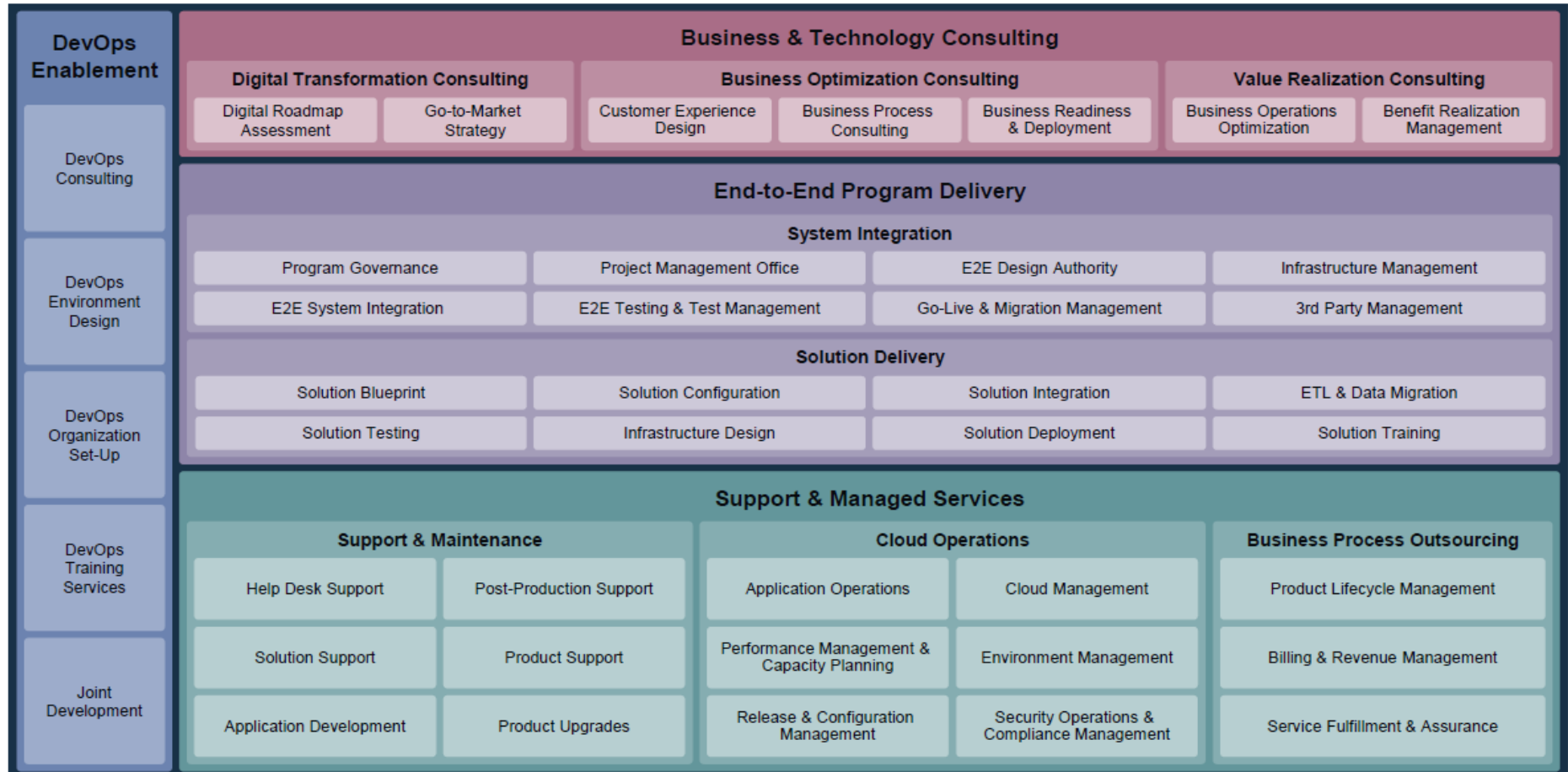
# Solution overview

Figure 4: Netcracker's Customer Engagement and BSS overview, [Source: Netcracker, 2020]



# Overview of Netcracker 2020 services portfolio

Figure 5: High level overview of Netcracker 2020 services portfolio [Source: Netcracker, 2020]



## Product summary

Figure 6: Netcracker 2020's products

Product	Analysys Mason segment	Description
Netcracker Customer engagement	Customer engagement	Netcracker Customer Engagement includes channel management, customer journey management and marketing management. The solution is designed to help CSPs enhance omnichannel customer journeys for a digital-first experience.
Netcracker Digital BSS	Monetisation platform	Netcracker Digital BSS solutions and services help CSPs launch and monetise 5G, IoT and cloud services, expand partner ecosystems and access to new revenue streams.
Netcracker Cloud platform		Netcracker Cloud platform provides comprehensive container and application management capabilities to achieve interoperability with CSPs' IT infrastructure and multi-cloud platforms.
Netcracker Advanced Analytics		Netcracker Advanced Analytics includes Analytics Domains and Analytics Platform. The solution provides a single, unified data intelligence platform that enables CSPs to proactively target dedicated business processes, solutions or services.
Netcracker Integration & API Management		The solution provides standards-based tools for integration management, orchestration and visibility into BSS/ODD integrations.



## Significant customers

Figure 7a: Netcracker's customers

Customer	Country	Scope
América Móvil	Latin America	Netcracker's CPQ is a key element of América Móvil's BSS transformation across 13 countries
BT	UK	Netcracker's BSS solution supports revenue management for all of BT's lines of business
Charter	USA	Charter has established a long-term extension of its BSS and professional services relationship with Netcracker as part of a large-scale standardisation program.
Cincinnati Bell	USA	Provide consolidated invoicing and a single point of contact for all functional and contract management needs.
Grupo Gtd	Chile	Next-generation BSS/OSS and virtualization capabilities to enable its large-scale IT consolidation, transformation and network virtualization program. As the foundational platform, Netcracker will help consolidate systems, standardize operations and deliver innovative services over cloud-based and virtualized infrastructure to support rapid growth.
Rakuten	Japan	Netcracker's Digital BSS solution enables a disruptive go-to-market strategy for Rakuten's mobile network launch.
Telefónica	UK	Telefónica UK has integrated Netcracker's revenue management and customer management capabilities into its customer-facing environment and has also brought Netcracker's OSS capabilities within its IT and Network.
Telefónica	Latin America	Multi-country BSS transformation program includes next-gen CRM, billing and service management to enable Telefónica to provide a cutting-edge customer experience.
Telenet	Belgium	Netcracker has delivered CRM, Online Charging System and Revenue Management capabilities to provide Telenet with a convergent platform to deliver a digital-first, omnichannel customer experience.

## Significant customers (contd..)

Figure 7b: Netcracker's customers

Customer	Country	Scope
T-Mobile	USA	Netcracker's Digital BSS supports wholesale, MVNO and IoT lines of business for T-Mobile USA
Verizon	USA	Netcracker's Digital BSS solution supports revenue management for all of Verizon's postpaid subscribers in a public cloud environment
Viasat	America	Standardization and consolidation of Viasat Broadband Services' billing operations onto a single, global billing platform. Netcracker's Digital BSS solution helped Viasat Broadband Services standardise and consolidate its billing operations onto a single, global billing platform.
Vivo	Brazil	Vivo, the Telefonica Group's Brazilian subsidiary, selected Netcracker's BSS program to drive large-scale B2B transformation in order to delivery a better customer experience and rapidly create and deliver new enterprise services.
Vodafone	Hungary	Netcracker's full-stack BSS platform enables Vodafone Hungary to optimise and personalise its customer experience and provide much faster time-to-market for its service offerings.
Vodafone	Oman	Vodafone Oman has selected Netcracker's end-to-end Digital BSS solution to enable a disruptive, digital-first go-to-market strategy with the launch of a new mobile network.

## About the authors



**John Abraham** (Principal Analyst) leads our digital transformation research, including three research programmes: *Customer Engagement*, *Monetisation Platforms* and *Digital Experience*. His areas of focus include customer journeys and experience, the impact of 5G on BSS systems, telecoms enterprise opportunities, cost transformation, ecosystems and value chains, and micro-services-based architecture models. John has over a decade of experience in the telecoms industry. At Analysys Mason, he has worked on a range of telecoms projects for operators in Africa, Europe, India and the Middle East. Before joining Analysys Mason, he worked for Subex, a BSS vendor, and before that for Dell in India. John holds a bachelor's degree in computer science from Anna University (India) and an MBA from Bradford University School of Management (UK).

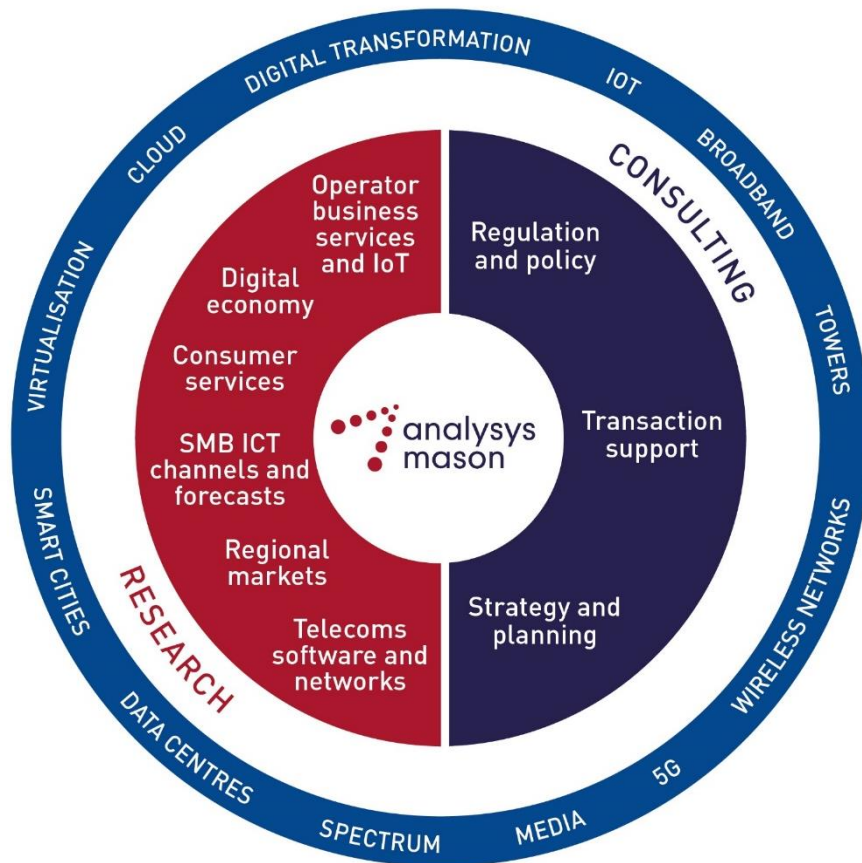


**Yushan Chen** (Research Analyst) is a member of the Telecoms Software and Networks research team in London, contributing to various research programmes, particularly *Customer Engagement*, *Monetisation Platforms* and *Digital Experience*. She holds a BCom in Finance and Business Technology Management from the University of British Columbia, and an MSc in e-Business Management from the University of Warwick.

Source: Analysys Mason

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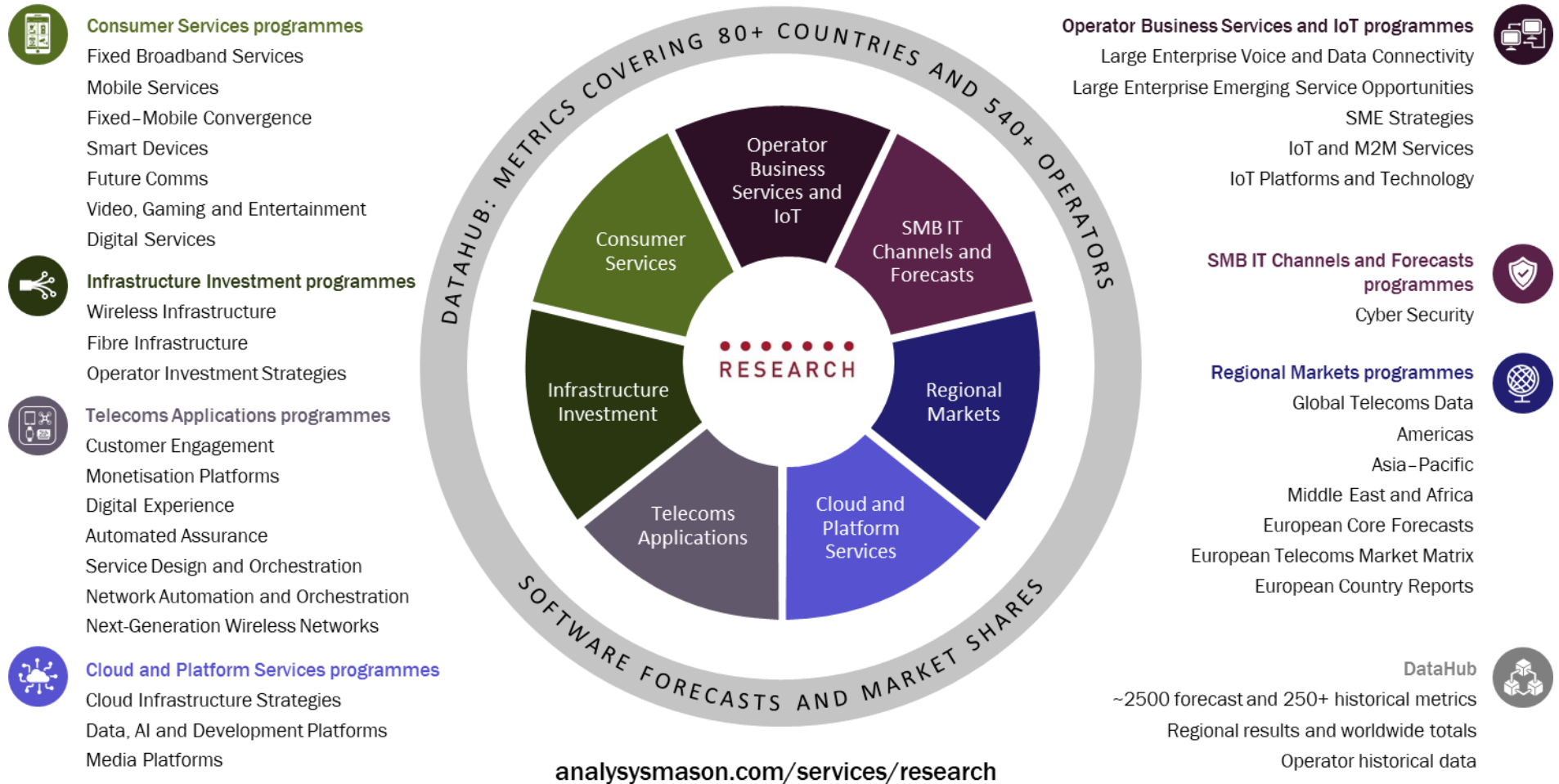
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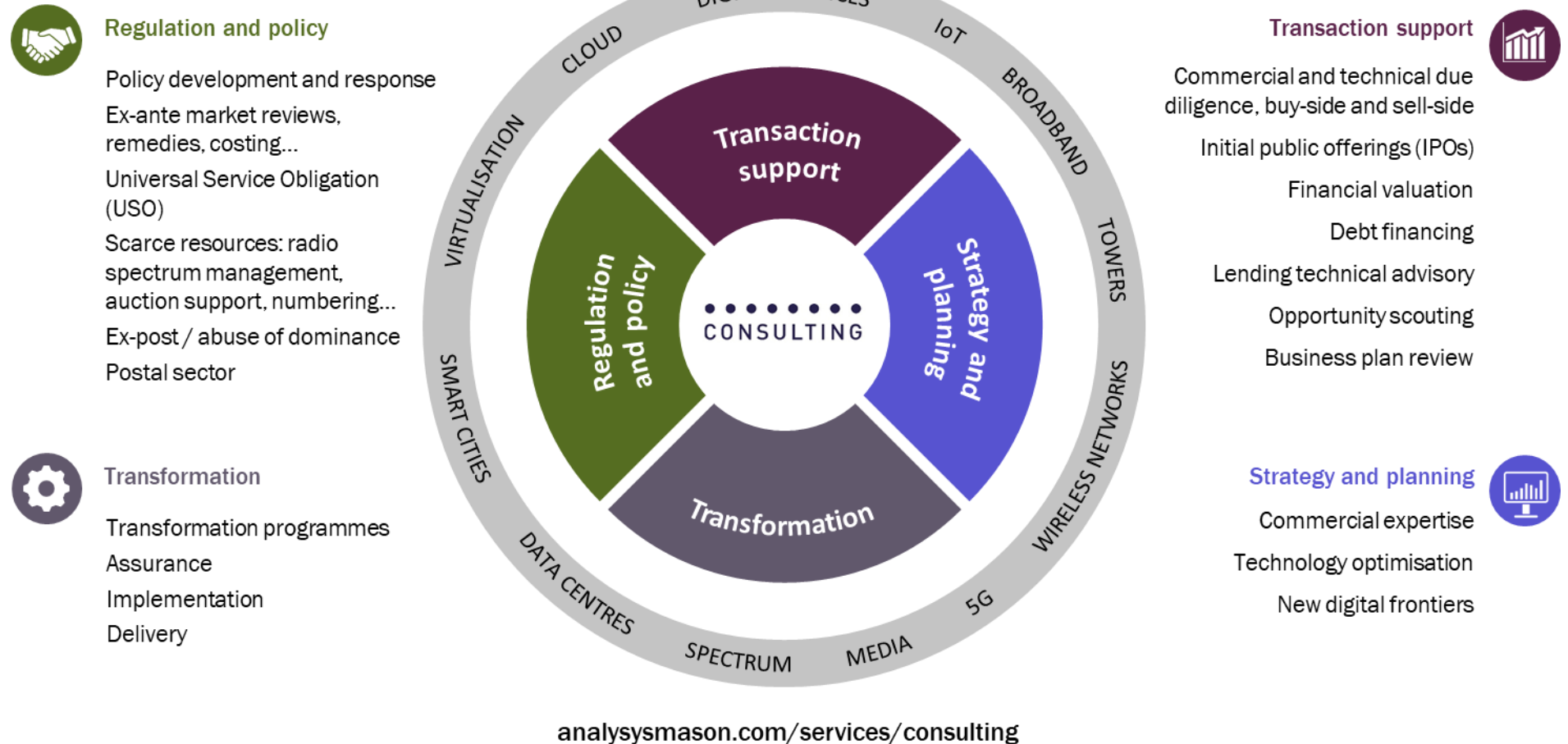
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