NETCRACKER 2020: A BUSINESS-ORIENTED INTEGRATED BSS/OSS SUITE

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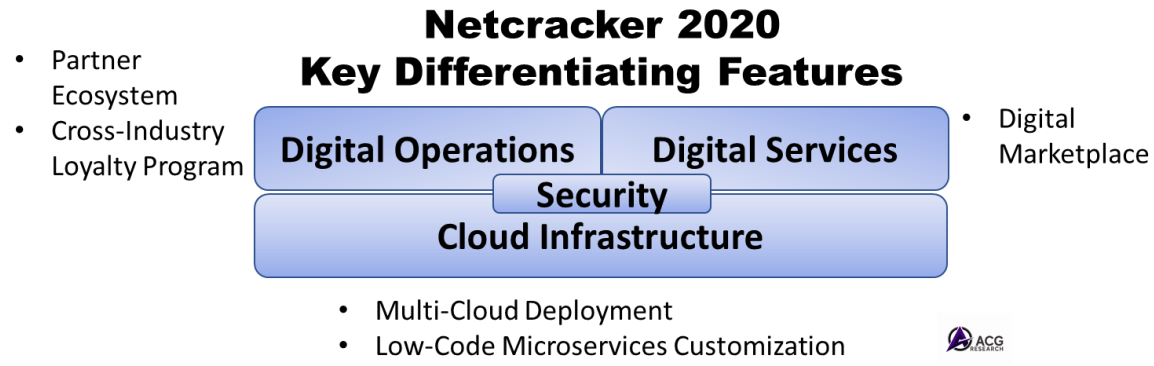
Netcracker, an NEC company, has long distinguished itself by offering a suite of OSS and BSS systems for Communications Service Providers (CSPs) that take a very business-oriented approach. Its Netcracker 12 suite brought a strong integrated story to its overall offerings. Now, Netcracker 2020 completes the vision of operations for a full Digital Service Provider and extends it in several key directions. Here, I cover what I consider the major new differentiating features that distinguishes the recently announced Netcracker 2020 offering from its competitors.



Digital Operations for CSP Customers, Employees, and Partners

Netcracker 12 provided a fully integrated BSS/OSS suite with a digital customer engagement layer. The engagement layer provided significant digital customer interaction as well as channel management and marketing management while BSS supported the key features for customer business support. The OSS/orchestration layer focused on supporting network and resource provisioning, including cutting-edge SDN/NFV management, using software virtualization and containerization technology adapted to the specific needs of communications service providers (CSPs).

Netcracker 2020 extends this into two major areas: feature/functionality for supporting a digital partner ecosystem and a cross-industry customer loyalty program.

- Digital partner ecosystem – With CSP revenue growth expected to come mainly from B2B2X value chains, the importance of fast onboarding of new and changed services into the product catalog, marketing, provisioning, and support by a CSP has become much more important. Netcracker 2020 extends the capabilities of the overall suite with the ability of ecosystem partners themselves to add or change products and services to the CSPs operations. This removes this work from the CSP, distributing it to the suppliers.
- Cross-industry customer loyalty program - For those CSPs (such as Rakuten, for whom this was first created) who offer products and services beyond communications, Netcracker 2020 supports a customer loyalty program flexible enough to be extended to any product or service.

This could also be useful for those CSPs who want to offer such a program to partner resellers who wish to bundle additional products with the CSP-provided services.

MyTake: The cross-industry customer loyalty program looks like an interesting feature, but is useful for a limited market, at least at the current time. The digital partner ecosystem onboarding features are extremely valuable to CSPs who want to expand into the B2B2X markets. The considerable time lag for new CSP offers that comes from the labor-intensive onboarding of new partners, adding new offers to existing partners, and updating the many existing offers is currently a major impediment for many CSPs. This attacks the heart of the problem and should bring significant value to CSPs.

Digital Services for Customers and Ecosystem Partners

Netcracker has always provided strong support for billing and customer care for new digital services. Netcracker 2020 adds a full digital marketplace for CSPs and their partners. It provides an integrated product catalog, but it further integrates, via automated processes, with the digital partner ecosystem functionality for smooth partner onboarding and offer changes, while integration with the BSS functionality provides billing and customer care support.

MyTake: Netcracker 2020's digital marketplace is an important offering for CSPs who want to expand into the new digital services from the B2B2, B2B2X, and nascent 5G markets. It provides extensive functionality for consumers and enterprises to research, configure, and buy a host of new digital services. And, when integrated with other Netcracker 2020 features such as the automated onboarding in the partner ecosystem, provides a strong offering.

Cloud Infrastructure for Everything

In the last several years, Netcracker has been bringing microservices-based cloud native architecture software to market using Agile/DevOps and CI/CD processes as well as providing tools and services to help CSPs in transitioning their IT shops to the new cloud native techniques. It also has been creating partnerships with leading cloud providers for running its OSS, BSS, and VNF/CNF software so as to be able to furnish its software in any multi-cloud combination of on-prem, private cloud and multi-cloud deployments, with automated onboarding processes. Netcracker 2020 nearly completes this process by offering multi-cloud deployments on Amazon, Google, and Microsoft clouds.

Netcracker 2020 also begins to exploit the possibilities of new ways of partnering with its customers to provide easily customizable software to fit their specific needs. In an example of the emerging cooperative development model, Netcracker 2020 offers low-code customization of certain key microservices in its BSS/OSS portfolio. Netcracker makes available the microservice, as well as tools for CSPs to configure the microservice via low-code development. The new, customized microservice is then deployed using CI/CD automated processes and becomes a part of the, now customized, BSS/OSS infrastructure.

MyTake: Hybrid multi-cloud deployments are becoming standard in CSPs and enterprises. The availability of the Netcracker suite on any, or several, of these public and private platforms, will become table stakes in the next two years. But Netcracker is already well-positioned while many other vendors are still working the problem.

Several OSS/BSS vendors are beginning to offer cooperative development capabilities to their customers. Most require that the vendor expose its microservices APIs to the CSP for their development on top of it (usually, the user interface). This has a cost of the vendor having to stabilize that microservices interface, ensuring that changes do not break the developed interface. Netcracker 2020's capabilities represent a different way of using the microservices-based cloud native architecture to bring the benefits of customized BSS/OS, without the usual cost and time penalties of customization. This could be a major differentiating feature for Netcracker if it chooses these points of customization wisely.

Security at the Heart

Netcracker 2020 puts security at the heart of its architecture, critically important for a multi-cloud, open-architecture, microservices-based software system. Providing an integrated security framework for the development and operation of the Netcracker 2020 suite components, it ensures the integrity of the software system itself, the xNFs that it orchestrates, and the remote, distributed developers and users of the software. It also provides SIEM monitoring and data anonymization for secure operations.

MyTake: All major developers of BSS/OSS and xNF orchestration systems use standard security processes and monitoring to ensure that their software as shipped is authentic. With systems that allow cooperative development, such as Netcracker 2020, this needs to be extended to include developers in multiple organizations, including those who are working remotely in a post-COVID-19 world. In addition, as networks are put more under software control, the integrity of the software, and the authentication of its users, becomes more important to the integrity of the network. Netcracker's focus on this area is highly welcomed.

Conclusion

Netcracker 2020 represents a significant advance.

It is one of the best articulated complete, integrated BSS/OSS/xNF offerings on the market. Its technology represents the latest examples of cloud native software. Its focus is on enhancing the business of the CSP, while supporting the latest network technologies should appeal to the business, operations, and technical teams. Its current weakest functional area is service assurance, as it has been traditionally.

The Netcracker 2020 integrated architecture is obviously valuable to greenfield scenarios. But Netcracker's success in positioning parts of its integrated architecture, and its history of successfully integrating its software with legacy systems, makes it also leading choice for CSPs who want to renovate selected portions of their BSS, OSS, and xNF software deployments.

About the Author

Dr. Mark H Mortensen is an acknowledged industry expert in communications software for the TMT sector, with over 40 years of experience in OSS and BSS specifications, software architecture, product marketing, and sales enablement. His work has spanned the gamut of technical work at Bell Labs, strategic product evolution at Telcordia, CMO positions at several software vendors, and as a research director at Analysys Mason. Most recently, Mark has focused on the technology and processes of digital transformation for Communications Service Providers and the growing automation and orchestration of network and business processes. He joined ACG Research in 2018 where he is responsible for Communications Software research, focusing on BSS, OSS, xNF orchestration and operations and network automation and orchestration

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