

Generative AI Watch: Netcracker's GenAI Framework Focuses on Telco Skills and Data Security

September 11, 2023



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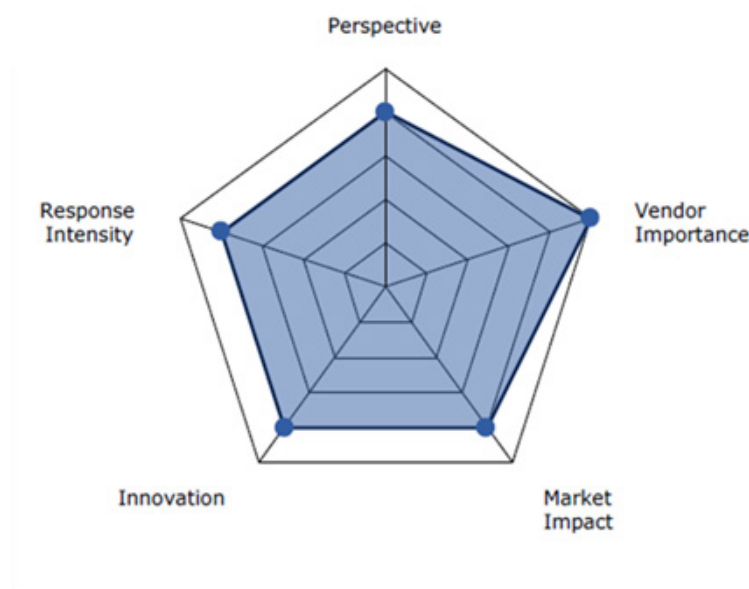
INTELLIGENCE REPORT

REPORT SUMMARY:

Netcracker's GenAI framework is an impressive early effort to apply GenAI to telecoms operations. Over 40 packaged use cases and experience deploying them in customer systems makes Netcracker an early leader in telco GenAI.

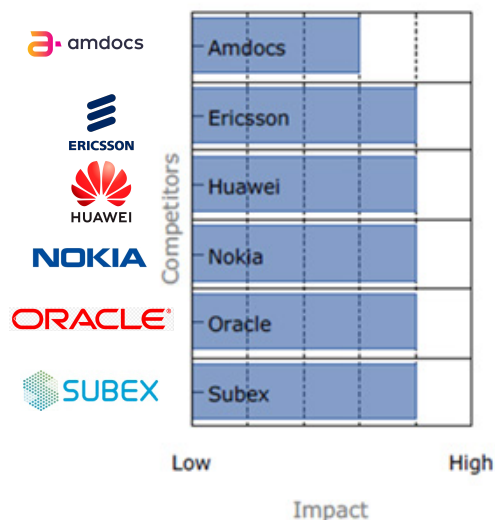
QUICK TAKE

EVENT RATING



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COMPETITIVE IMPACT



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EVENT SUMMARY

September 11, 2023 - Netcracker launched its new GenAI Telco Solution, which brings the value of transformative generative AI (GenAI) technology to the telecom industry. With the new solution, communication service providers (CSPs) can harness their valuable telecom data and knowledge in a secure and controlled way to bring benefits to customers, partners, and their own businesses. This includes support for specialized telco-centric scenarios such as care assistant, agent partner, sales assistant, catalog assistant, and digital operations technician.

ANALYTICAL PERSPECTIVE

The Netcracker GenAI Telco Solution aims to enhance the productivity of CSPs across various facets of their operations. It is an impressive early effort to apply GenAI to telecoms operations.

Any GenAI framework for CSPs must address, at a minimum, the following requirements:

- **Data Security:** CSPs will not accept a solution that risks leaking customer data or proprietary information into a public repository. Data protection will be top of mind at every telco.
- **Non-Technical Users:** AI engineers are scarce and expensive. To reach broad adoption, the solution must enable non-technical employees to deploy and modify new use cases. Out-of-the-box templates and workflows help them do this, as do low- and no-code interfaces.
- **Foundation Model Flexibility:** The competition among large language models (LLMs) is intense and dynamic. Different CSPs will likely prefer different models. Any GenAI solution, therefore, must be able to work with a variety of models.
- **Telecoms-Specific Processes and Use Cases:** Many foundation models are unlikely to contain a full, accurate library of telecoms processes and certainly will not contain any customizations carried out by a given operator. Telco GenAI solutions must be structured according to telecoms processes and data structures.

The Netcracker GenAI Telco Solution sits between the CSP's data stores and its LLM of choice, embedding all necessary data, workflow information, and interaction history into its GenAI queries. The solution addresses each of the concerns GlobalData notes above:

- Netcracker's solution obfuscates all data before passing it to the public model. It does so in the conviction that replacing all data with dummy data and then reconverting those values when the answer is returned should provide a higher level of protection than simple anonymization.
- Netcracker's solution includes a natural-language interface as well as 40+ "assist scenarios" - Netcracker's term for its integrated templates and workflows.
- Since all of the carrier's data and workflows remain in the carrier's environment, no training of the public model is necessary. The solution thus works with any foundation model.
- Netcracker's assist scenarios are informed by its broad telecoms experience as well by its familiarity with telecoms data sources. Its services personnel should also be able to assess any modifications in the query engine.

Netcracker claims that this framework can help expedite OSS/BSS integration, reduce call center costs by 50%, boost productivity by 35%, and minimize network performance issues by 60%. It comprises two main components: Telco GenAI Knowledge Management enables the creation and modification of assist scenarios and executes simulations, while the GenAI Trust Gateway manages the GenAI prompt process until the proper result is achieved.

Netcracker is beginning with the following areas in its GenAI framework:

- **Customer Care:** The GenAI Telco Solution automates tasks such as responding to customer queries, addressing customer issues, and providing support. This automation frees up human resources to concentrate on more intricate tasks like customer relationship management.
- **Sales:** It identifies potential customers, assesses leads, and facilitates deal closures. This contributes to the efficiency and effectiveness of sales teams.
- **Business Operations:** The solution optimizes processes like inventory management, supply chain management, and financial planning, leading to cost savings and enhanced operational efficiency.
- **Network Operations:** Automation of network monitoring, fault detection, and performance optimization improves network reliability and performance.

Netcracker is already integrating this framework into its existing deployments in customer environments. Competitors are also launching their GenAI solutions, however. For instance, Amdocs has introduced its amAlz suite of cloud-native solutions for managing and streamlining service providers' IT and business operations. Like Netcracker's solution, amAlz contains templated workflows addressing CSP use cases.

COMPETITIVE STRENGTHS

- Netcracker's GenAI framework is flexible and can be integrated with a wider range of existing systems. It is currently being integrated into production systems at several of the vendor's customers, providing early practical experience.
- Netcracker's security architecture sends no CSP data to any public database, whether in inquiries or for training. This should help smooth its approval by CSP CISOs.
- Netcracker has partnered with the top three hyperscalers, GenAI companies, and software vendors to pre-integrate its offerings and help it to accelerate the development and deployment of GenAI solutions.

COMPETITIVE CONCERNS

- While Netcracker's data obfuscation promises not to insert protected data directly into a public model, it still faces AI's well-documented ability to find patterns and correlations in huge data stores. While obfuscation provides strong protection, Netcracker and its customers should continue to monitor and improve the effectiveness of its security measures.
- GenAI faces an uncertain regulatory and perceptual environment. Netcracker and its competitors face the prospect of accommodating different regional approaches and/or facing a major public failure of GenAI that causes CSPs to withdraw from the technology.

RESPONSE & RECOMMENDATIONS

- **Amdocs:** The other huge telco IT vendor has also introduced a GenAI platform: Amdocs amAlz. Amdocs should counter Netcracker by demonstrating its own model agnosticism, ease of deployment, data security measures, and preloaded use cases and workflows.
- **Ericsson and Nokia:** Ericsson and Nokia are still working on growing their software and services businesses. Whether via partnership, acquisition, or internal development, they will need to develop similar GenAI solutions to maintain that momentum.