

DELIVER NEXT-GENERATION CONNECTIVITY

## BRINGING YOU THE 4C EXPERIENCE: CONNECTIVITY

### BUSINESS CHALLENGE

Connectivity is the foundation of today's digital, on-demand lifestyle. Everyone is connected to everyone else via multiple devices, across locations, everywhere in the world. As service providers upgrade to the next generation of networks including 3G, 4G, LTE, and FTTx-based access, they need to rapidly monetize their investments in the infrastructure. The growing demand for content-rich services that require high bandwidth, streamlined provisioning, and reliable quality is forcing service providers to address the complexity of managing multi-vendor, multi-technology networks on an end-to-end basis. They will have to maximize connectivity resources, accurately predict capacity requirements, streamline time to market for new offerings, and provision services efficiently and accurately. This requires extensive functional-

ity for performance monitoring and statistical analysis, capacity demand forecasting, and trend-based network planning. To maximize the value of existing resources and optimize OpEx and TCO, service providers also need an end-to-end picture of their network and IT infrastructures and their ability to manage them from a single platform. To maximize capacity utilization

and operational efficiency, a service provider's system must be able to manage network and IT capacity and (re)configure network and IT resources in complex multi-vendor, multi-service environments. Furthermore, to ensure competitive customer experience, providers need to ensure end-to-end service quality delivered against committed SLAs. For that, they need a clear customer-to-service-to-resource view that allows them to proactively manage service degradations and take preemptive measures in situations where network faults threaten to impact end users.

Finally, the proliferation of end-user devices (including CPE) is driving service providers to develop the ability to quickly configure and manage devices – at work and at home – in accordance with customers' needs.

All of these factors necessitate a comprehensive Connectivity Management solution that helps service providers deliver next-generation services to their customers over any device, anywhere, anytime.

*“Deutsche Telekom selected the NetCracker solution as the basis for our migration to NGN because it meets all of our key requirements, including adherence to TMF standards, as well as its unique ability to provide a single view of our networks, automate our processes, and boost productivity and customer satisfaction. In addition, we selected NetCracker because of its extensive worldwide experience with complex transformational projects and its experience enabling operators to deliver innovative IP-based services. We are relying on NetCracker’s solution and services capabilities to ensure the smooth migration from legacy systems to an automated and efficient environment that will enable us to realize the goal of delivering a new level of innovation, interaction, and customer service.”*

Juergen Hardt,  
Senior Vice President, Next Generation OSS, **Deutsche Telekom**

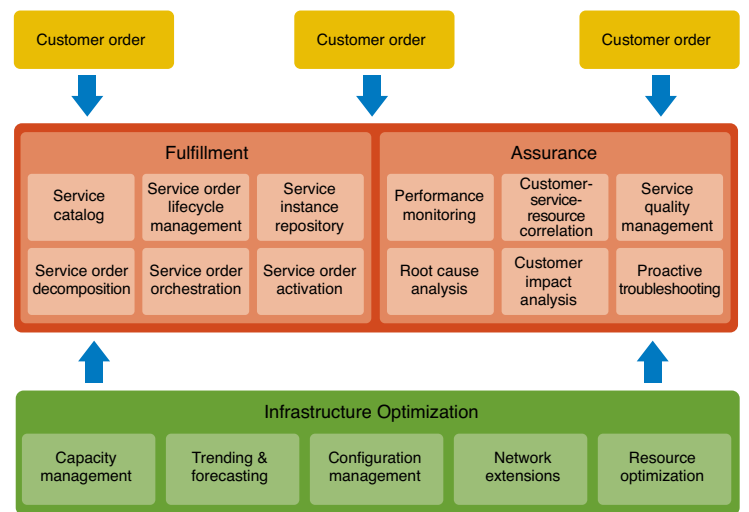


# DETAILS

NetCracker's Connectivity Management solution delivers a full set of capabilities to rapidly monetize the next generation of network deployment. Innovative fulfillment, end-to-end assurance, and infrastructure optimization capability ensures that high-capacity broadband networks such as 3G, 4G, LTE, and FTTH are rolled out rapidly and optimally managed.

The solution also enables device management and optimization of end-user CPE whether in enterprises or at home. It includes remote monitoring, firmware and software updates, as well as remote diagnostics.

The solution includes Fulfillment, Assurance, and Infrastructure Optimization:



## FULFILLMENT

Fulfillment enables end-to-end service delivery process and automates provisioning of multi-vendor services:

- Service Instance repository with service-to-customer connection details
- Centralized Service Catalog with service component descriptions and product-to-service/service-to-resource correlations
- Service order lifecycle management
- Service order decomposition, design, and instantiation
- Order orchestration and jeopardy management
- Activation and testing of physical and logical service components

## ASSURANCE

Assurance provides customer-to-service-to-resource correlation, facilitates service quality management for multi-vendor services and devices, and enables proactive service degradation management:

- SLA-based service and network performance monitoring
- Historical trending and forecasting
- Customer and service impact analysis
- Root cause analysis and proactive problem resolution
- CPE interconnectivity assurance
- Over-the-air device performance monitoring and management

## INFRASTRUCTURE OPTIMIZATION

Infrastructure Optimization covers a full spectrum of functionality required to manage network and IT resources and enables the optimization of resource usage and efficiency:

- Historical and mathematical analysis of infrastructure utilization
- Capacity demand forecast, and trend-based infrastructure planning
- Collaborative infrastructure design
- Network extension management
- On-demand resource modifications, reconfigurations, and rollbacks
- Documentation of physical and logical infrastructure

# BUSINESS BENEFITS

NetCracker's Connectivity Management solution helps CSPs to:

- Optimize OpEx and TCO for network and IT infrastructure
- Forecast capacity stretches and rapidly deploy next-generation networks
- Reduce time to market and time to cash for multi-vendor, content-rich services
- Ensure end-to-end service delivery quality