



NetCracker Mobile Industry Solution

The Mobile Transformation Challenge

Music. Gaming. Real-time video. Email. Texting. Over the last 10 to 15 years, the mobile phone has evolved from a brick-sized device used for voice services into an essential communications and entertainment tool for business and consumer users. Today's mobile services — which are far more sophisticated than the simple voice service of the past — are opening the door for mobile operators to move up the value chain and capture more wallet share from customers.

However, sophisticated services have created network and operational complexity. Mobile operators are unique in that they introduce new networks faster than any other segment in the communications industry. In just 20 years, they have replaced analog with 1G, 2G, 2.5G, and 3G networks — effectively introducing a higher level of performance and capacity every 5–7 years.

To take advantage of these new opportunities, mobile operators must transform their OSS to handle increasingly sophisticated and diverse services and devices. Transformation projects are complex, but the rewards are substantial — increased revenues, reduced operations costs, and stronger customer relations.

New Opportunities for Mobile Operators

4G — the next generation network — will allow users to access voice, data, and multimedia services anytime, anywhere, and at higher data rates than with previous generations. 4G is being developed to support the quality of service and rate requirements demanded by multimedia applications, including HDTV, MMS, and Digital Video Broadcasting.

Globally, mobile operators spend tens of billions of dollars annually on network infrastructure, with investment in 4G expected to push that amount even higher over the next several years. Research firm IDC anticipates that, by 2012, mobile operators will spend an additional \$1.1 billion on systems that will transform their OSS and enable them to rapidly deploy complex services and service bundles.* Creative use of these service delivery platforms will allow operators to distinguish themselves in an increasingly crowded market.

Complex services — especially rich-media content services like mobile TV — represent a significant opportunity for mobile operators to improve customer loyalty and increase the revenue that can be derived from each customer. To realize the benefits of content services, mobile operators need to define the business model that will be used to deliver content services, establish

relationships with content providers, and transform their business to support the delivery and management of complex new services.



“NetCracker’s OSS solution is a critical component of our network simplification and transformation project. The enhanced resource management and workflow capabilities have enabled us to accelerate service delivery and improve customer service through increased automation.”

Eddie VanCompernelle, Vice President IT Network Systems, **Sprint**

The Mobile Challenge

The main challenge mobile operators face going forward centers on rapidly creating, deploying, and managing complex, user-controlled services that contain media-rich content. Network upgrades, regional expansion, and mergers and acquisitions have strained mobile operators’ OSS and hindered their ability to keep up with rapid business growth. Operators face unprecedented pressure to develop and deploy innovative new services rapidly while simultaneously reducing their operations costs — and this mandate requires a flexible, next-generation OSS environment.

* *Worldwide Service Delivery Platform 2007–2012 Forecast and Analysis*, IDC#209343, November 2007

The greatest need is the end-to-end business transformation. While Service Providers have moved rapidly to roll out next-generation networks (IP and 3G), they have not deployed next-generation OSS — and are therefore failing to maximize the potential of their network investment.



“Deployment of the NetCracker solution allows us to consolidate the management of the MTS network in one system, which leads to optimization of the company’s operational processes.”

Andrey Ushatskiy, Technical & IT Director, **MTS, Russia**

Leading-edge Service Providers have embarked on business transformation projects to achieve the following:

Systems Consolidation: Mobile operators must manage a wide range of business, operations, and IT systems acquired through the mergers and acquisitions that have created today’s largest mobile operators. In addition, many operators have separate infrastructures for each of their services. The resulting systems silos are difficult and expensive to maintain, and the lack of integration precludes end-to-end service views.

Integration With Legacy Systems: New systems that mobile operators introduce must minimize the need for customized integration and allow legacy systems to be phased out gradually without impacting existing services or customers.

QoS Management: Mobile operators must focus on the quality of the customer experience to ensure customer loyalty and reduce churn. QoS becomes particularly important for high bandwidth services such as video. Where content services are being provided, the customer experience must be managed end-to-end — from third-party content to user device.

End-User Device Management: Mobile devices — not just phones — are proliferating. And they may not be provided by the mobile operator. Operators must activate and manage these devices, as well as the applications running on them, in a manner that is transparent to the user.

Backhaul Management: Expenses associated with mobile backhaul can account for up to 35% of a mobile operator’s network operating expenses. Operators can minimize these costs by investing in systems that provide automated visibility into the backhaul network to ensure end-to-end connectivity and management.

The NetCracker Solution

NetCracker Technology enables mobile operators to deliver rapidly and manage effectively next-generation, converged services. NetCracker is the global leader in managing and delivering transformation projects for mobile, fixed, and cable Service Providers. It has the largest number of Tier 1 transformation deployments worldwide — including successful implementations at France Telecom group, Sprint, MTS, UMC, and Bité. Leveraging the knowledge gained from these high-profile deployments, makes NetCracker a valuable partner in Service Provider initiatives.

NetCracker’s Telecom Operations and Management Solutions (TOMS) Suite enables mobile operators to speed the deployment of new services and manage the entire customer experience. Its extensive portfolio of TOMS-based products, all pre-integrated with NetCracker Framework, provides flexibility and scalability and allows rapid and seamless integration with existing systems. The NetCracker solution for mobile operators is configured to meet their specific needs.

The following products are particularly relevant to the Service Provider challenges outlined above:

Service Information Management provides a quick and efficient way of viewing, accessing, and managing multi-technology, multi-vendor services and service components.

Service Inventory stores information about the configuration of all installed services and thereby enables changes to be made to existing services without time-consuming reconfigurations.

Resource Inventory stores network configuration information and capacity management rules for equipment, locations, topology, and logical resources.

Service Order Management enables CSPs to automate the provisioning of multi-vendor, next-generation products and services, provides functionality for service order decomposition, streamlines the execution of the order provisioning flow, and facilitates service order lifecycle management.

Service Activation enables automated service activation, completes the end-to-end service delivery process, and provides a unified approach to service activation regardless of specific vendor-dependent techniques.

Discovery & Reconciliation improves data integrity by comparing data collected from network management and other systems with data stored in the NetCracker Service Inventory and Resource Inventory.

Mobile Backhaul allows changes and upgrades to be planned, designed, and developed for various network technologies and provides a wide range of capabilities that envelop all stages of the network rollout process, including collaborative configurations in both change and design versions, powerful trend analysis and reporting, generic forecasting capabilities, as well as advanced GUI design tools with version highlighting.

NetCracker's Value Proposition

Today's communications world is highly complex, demanding the rapid delivery of custom services over a



“NetCracker's ability to manage Network and IT resources from a single platform, their highly successful OSS transformation projects, and their new focus on creating a services ecosystem have made them market leaders.”

Elisabeth Rainge, Director of Network Software, IDC

wide range of Network and IT infrastructures.

NetCracker brings order to this complexity through flexible and powerful software solutions, combined with industry-specific expertise and professional services in areas such as process automation, data migration, and OSS consolidation.

NetCracker's innovative solutions transform the Service Layer by linking customer services with the Network Layer. This holistic approach allows the systematic analysis of end-user problems, whether they are related to a service or the network. The result is faster service delivery at reduced cost, the ability to provide any service over any network, and increased customer satisfaction.

NetCracker's unique approach to the market includes:

Customer Focus: NetCracker has a strong focus on its customers and works closely and collaboratively with them to ensure success.

Holistic View: NetCracker takes an end-to-end, business-centric view of customer needs, as opposed to a technology-specific or single-process view.

Broad and Mature Product Suite: NetCracker's powerful, feature-rich products are deployed by Tier 1 mobile, fixed, and cable carriers worldwide. They address mission-critical areas of fulfillment and assurance from order to activation.

Flexible and Scalable Solutions: NetCracker's flexible solutions allow operators to introduce new services quickly and to model, provision, and manage any network device. The scalable architecture enables Service Providers to keep pace with future business demands.

Leading Technology: NetCracker products are built on an open, n-tier architecture based on J2EE standards. On each tier, powerful applications ensure scalability and smooth integration.

Solution Approach: NetCracker works with its customers to understand their unique business challenges and to identify the most appropriate solution and implementation strategy. NetCracker's Global Solution Delivery teams configure and deploy the software to meet customer needs and provide training to ensure successful adoption.

NetCracker delivers value to mobile operators by combining its innovative fulfillment, provisioning, and service management products with a solutions approach. NetCracker leverages its best practices and domain expertise to build automated and reusable service components, creating an end-to-end capability for fulfillment and service management.

By transforming their operations environments into flexible, scalable, and agile engines, mobile operators can accelerate the order-to-cash cycle and create the foundation for delivering and managing compelling new revenue-generating services.

With NetCracker as a transformation partner, mobile operators can increase revenues, reduce operations costs, and build stronger customer relationships.

Global Leader in Business Transformations

Proven operations solutions:

- Largest number of business transformations
- Best record for successful implementations
- Broadest, most innovative software and services offering
- Single platform to manage Network and IT
- Unmatched products, services, and expertise

Unsurpassed innovation in fulfillment and provisioning