

FACILITATED CONFIGURATION MANAGEMENT IN  
HETEROGENEOUS INFRASTRUCTURE ENVIRONMENTS

## CONFIGURATION MANAGEMENT

### BUSINESS CHALLENGE

The technological advances of the past several years have allowed CSPs (Communications Service Providers) to evolve from traditional suppliers of separate, network-dependant services into carriers delivering converged services on top of converged networks. These advances have also made possible the merger of previously isolated business lines and the creation of complex partner schemes.

At the same time, the multitude and complexity of networks that CSPs operate and maintain are threatening the quality of service delivered to customers, and are increasing CSPs' day-to-day operating expenses, the total cost of ownership (TCO), as well the cost of regular network upgrades and extensions.

To stay competitive, CSPs must be able to launch new products quickly, modify existing offerings, and create personalized bundles. All of these require a highly scalable network configuration system that easily integrates with multi-vendor equipment, supports new services and technologies, and automates network rollout.

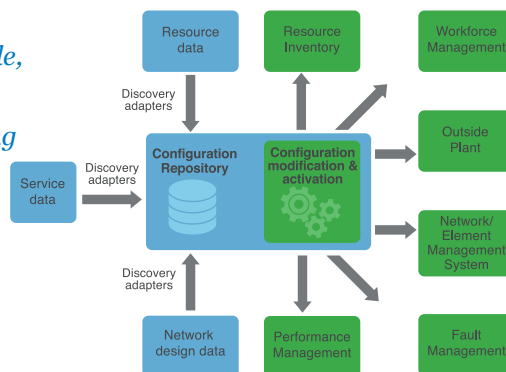
To reduce network OpEx, increase operational excellence, and optimize personnel workloads, CSPs also need the capability to

synchronize and centralize multiple network configuration data, and minimize the time and effort necessary to make configuration changes.

Also, to reduce CapEx and TCO, CSPs need the capability to increase the efficiency of resource usage while operating and growing existing networks.

*NetCracker's Configuration Management serves as a single, centralized access point for storing, viewing, and changing network configurations in complex multi-vendor, multi-service environments.*

*It enables the optimization of resource usage and efficiency, on-demand reconfigurations for seamless integration of new services, and timely roll backs or modifications to existing configurations to ensure service quality and customer satisfaction.*



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As an integral part of NetCracker's Network Management solution, it pre-integrates with Network Management

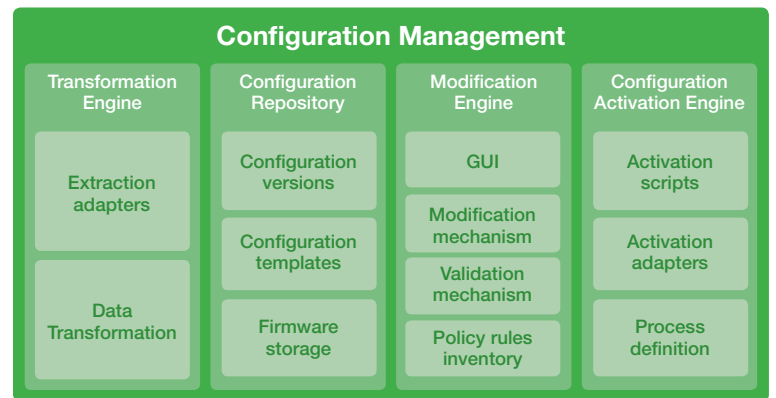
and Performance Management and enables the optimization of resource usage and efficiency, on-demand reconfigurations for seamless integration of new services, and timely roll backs or modifications of existing configurations to ensure service quality and customer satisfaction.

# DETAILS

NetCracker's Configuration Management provides comprehensive capabilities for the centralized creation, modification, and management of network and IT resource configurations in multi-vendor, multi-service environments.

Configuration Management integrates with multiple network and IT systems and entities via pluggable, customizable adapters, and accumulates data across all CSP resources, acting as a single repository of configuration information from siloed systems. It reinforces and reconciles IT and network resource configuration policies and makes sure that a given configuration complies with both corporate and industry standards.

Configuration Management includes Transformation Engine, Configuration Repository, Modification Engine, and Configuration Activation Engine:



## TRANSFORMATION ENGINE

**Transformation Engine** transforms data gathered via discovery adapters and interfaces into a unified view, and extracts configuration data on network and infrastructure resources to be further stored in the Configuration Repository:

- Data transformation adapters
- Extraction of network and infrastructure configuration data
- Mapping of external attributes to the internal data model

## MODIFICATION ENGINE

**Modification Engine** provides the ability to make changes in existing configurations or to create new ones:

- GUI for the creation, modification, and comparison of network and infrastructure configurations
- Policy rules and validation mechanism
- Scheduling of configuration activities
- Rule-based initiation of workflow actions

## CONFIGURATION REPOSITORY

**Configuration Repository** provides a centralized location for storing configuration data and versions (e.g. planned, historical, current). It also stores typical configuration scripts in the form of reusable templates:

- Storage of configuration versions
- Storage of user-configurable templates
- Firmware storage

## CONFIGURATION ACTIVATION ENGINE

**Configuration Activation Engine** allows new configurations to be applied to equipment via activation adapters:

- Generation of activation scripts
- Definition of the activation process and steps
- Activation of newly created and modified configurations
- Vendor- and technology-specific adapters

# BUSINESS BENEFITS

NetCracker's Configuration Management delivers the following benefits to CSPs:

- Improved operational and workforce expenses through centralized configuration of multi-vendor infrastructure
- Reduced time to market through advanced scalability and configuration change capabilities
- High quality of service and reduced churn through minimized discrepancies between as-built and as-designed networks
- Facilitated network expansions and minimized CapEx through optimized capacity and efficiency of network and IT resources
- Reduced downtime and fallout prevention through efficient change management and pre-integration with Fault Management and Performance Management