

KEEPING ALL YOUR NETWORK DATA UP TO DATE

DISCOVERY & RECONCILIATION

BUSINESS CHALLENGE

The strong competition of the past several years is forcing Communications Service Providers (CSPs) to expand their offerings with next-generation services, such as all-IP and cloud computing, and build profit-yielding partner schemes. But at the same time that CSPs are attempting to provision the multitude of new services, operational systems are growing in number and complexity. Assuring a high quality of service and superior customer experience therefore becomes a front-burner challenge, as managing the inventory that underlies service delivery and assurance processes becomes more complicated and time consuming. Keeping data up to date and synchronized is crucial for streamlining provisioning and assurance. A demand has been created for data integration and updates, which requires ongoing service and network data comparison as well as proactive discrepancy management.

To manage multiple data sources, CSPs need to seamlessly integrate with external inventories in order to extract and process incoming data on a continuous basis.

Further, with the inventories in multi-service, multi-vendor

environments constantly increasing in quantity and size, the need to synchronize the data stored in them with live network information has never been more urgent.

Moreover, CSPs must be capable of proactively discovering the gaps between as-built and as-designed network views to

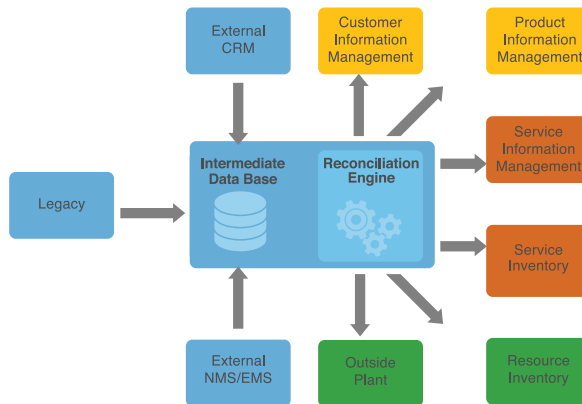
better plan network investments, enhance productivity, improve service assurance, and enhance customer satisfaction.

To ensure that databases are accurate, and discrepancies are quickly detected and eliminated, CSPs must have discovery and reconciliation tools that interface to data sources (like network and element management systems or back-

office databases) and ensure timely data synchronization and discrepancy management.

NetCracker's Discovery & Reconciliation pre-integrates with Fulfillment & Assurance, Resource Management, and Network Management — part of our extended Telecom Operations and Management Solutions (TOMS) offering — and provides cross-domain data synchronization and validation.

“NetCracker’s OSS solution supports Omnitel’s business objectives through an adaptable integration path that uses all of our information from other vendors, different technologies and Omnitel’s internal software data. This increases our efficiency and enables us to better serve our customers without unnecessary delays or errors.”



*Rolandas Ryliskis
Chief Technology Officer, Omnitel*

DETAILS

NetCracker's Discovery & Reconciliation improves data integrity by interfacing with different data sources, including network management systems and back-office databases. It compares collected data with data stored across all NetCracker modules and generates intelligent reports if any discrepancies are detected. It then reconciles the two sets of data, and, if necessary, automatically updates relevant information or issues a change notification for manual reconciliation.

Discovery & Reconciliation enables data to be reconciled in different business scenarios. For example, it enables point discovery as part of fulfillment to validate the availability of assigned inventory resources; or it helps to compare as-built and as-designed network views as part of a Design & Planning solution.

NetCracker's Discovery & Reconciliation includes Mediation Dataflow, Validation Engine, Transformation Engine, and Reconciliation Engine:

MEDIATION DATAFLOW

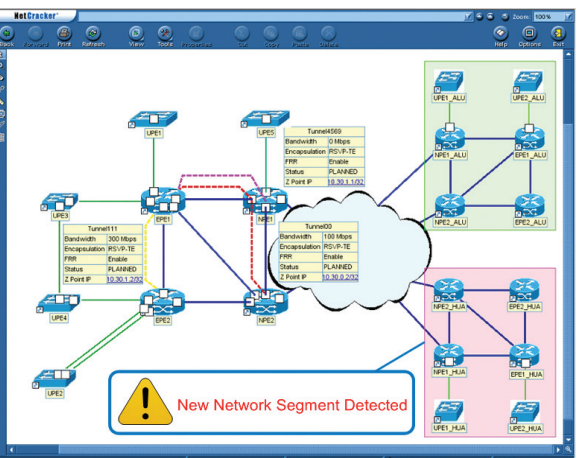
Mediation Dataflow facilitates data extraction from external systems through extraction adapters:

- Configuration of external system integration via GUI for streamlined data extraction
- Reusable integration patterns for optimized migration times
- Configuration of various external data sources for D&R, including legacy systems, Excel databases, etc.

VALIDATION ENGINE

Validation Engine provides tools to validate, verify, and correct data at all D&R stages:

- GUI-accessible validation rules for ease of configuration
- Data validation against both physical and logical data consistency
- Generation and execution of validation scripts with incorrect data reporting capabilities



TRANSFORMATION ENGINE

Transformation Engine transforms data from Source Database (SDB) to Intermediate Database (IDB):

- Mapping of external data sets to NetCracker via GUI
- Generation and execution of transformation scripts with transformed data reporting capabilities
- Preparation of IDB for further reconciliation
- IDB population by Mediation Dataflow or other software capable of performing SQL updates

RECONCILIATION ENGINE

Reconciliation Engine compares IDB data with OSS data using logic defined through the intuitive GUI:

- Intelligent reconciliation with pattern recognition
- Discrepancy report generation with options for automated, semi-automated, and manual reconciliation
- Discrepancy description, hierarchical representation, and assignment to particular users

BUSINESS BENEFITS

NetCracker's Discovery & Reconciliation enables:

- Facilitated data integrity management through reusable, GUI-enabled configuration of integrations with external systems
- Support for multi-service, multi-vendor, multi-technology environments through continuous, proactive reconciliation of physical and logical resources with OSS data across all layers
- Streamlined data transformation through flexible rules that allow any data from any source to be mapped to NetCracker
- Proactive data discrepancy management through the configuration of intelligent reconciliation patterns