FNT Mobile RAN Management

Facilitate Mobile Rollout and Operations in an Increasingly Digital World

Mobile is expected to play a major role in industry digitalization. The rollout of new 5G networks is central to digital transformation efforts and will continue to gain momentum. Managing mobile networks and their new technological characteristics is key to enabling new digital services and tapping into new revenue streams.

Capacity and coverage of mobile networks are two primary concerns in today's digital economy. Networks need additional bandwidth to enable the flow of massive amounts of data. They also need to reach users and devices (i.e. the "things" of IoT) wherever they are located, with minimal latency and improved energy efficiency. While it is possible to achieve both, it will require network upgrades to accommodate new network architectures and technologies. It will also require additional sites be brought online, configured and operated.

Planning, rolling out and operating mobile networks with 2-3-4 and 5G technologies is central to network transformation. From FTTA and C-RAN architecture upgrades, to laying fiber and connecting BBU pool resources to the core network, there are countless steps that must be taken. FNT Mobile RAN Management addresses mobile Radio Access Network planning and rollout management, configuration management, site management and operations.

EASIER PLANNING OF RAN ROLLOUTS

FNT Mobile RAN Management simplifies documenting and planning new sites, extending networks and modifying existing sites. These activities require precise knowledge of all active and passive components in the telecommunications network. FNT lets network planners know exactly what resources are available and provides detailed information so they can plan changes on accurate as-is documentation. It integrates with workflow tools for structured execution of planned changes and reconciles data with EMS systems of different RAN suppliers. It shares data with other OSS / IT applications and ERP systems to facilitate planned rollout tasks.

FULL TRANSPARENCY FOR RAN OPERATIONS

It is important to have configuration data in combination with resource information to operate 4G and 5G networks. FNT Mobile RAN Management provides a central repository of all RAN data. This as-is documentation is the key enabler for many critical activities, such as impact analysis in case of an outage and what-if analysis to plan and manage maintenance windows. It also integrates with monitoring and ticketing solutions to better analyze alarm situations and automate problem resolution and repair processes. Managing RAN configuration data with FNT provides significant improvements in daily operational processes. The as-is status can be compared at different points in time to identify network issues, and discrepancy reports allow efficient analysis of any changes in the network.

BETTER OPERATION OF MOBILE NETWORKS

Combining Mobile RAN with FNT's other Telco solutions supports holistic management of all mobile network resources, regardless of whether they are active or passive devices or physical, logical or virtual resources in RAN, fronthaul, backhaul or core network. FNT's integrated data model makes it possible to easily navigate, access and use information about all these different resources.

THREE SOLUTION LEVELS

One size does not fit all, especially when it comes to software. The solution is available in three versions of progressively increasing functionality. Choose the level of support that best suits your needs. Change your selection as your needs change.

BASIC

FNT's introductory package. It contains all the functionality required to fulfill the main purpose of the solution.

STANDARD

Provides extended functionality, including enhanced reporting and dashboarding capabilities. Other functional enhancements improve the execution of additional use cases the solution supports.

ADVANCED

FNT's most comprehensive package. Provides all Basic and Standard functionalities, plus additional advanced tools to more fully automate processes. Supports execution of the primary and extended use cases with the highest degree of performance excellence.

// USE CASES

PLANNING & ROLLOUT OF MOBILE RAN

Structured processes and automation reduce errors and increase efficiency of the rollout process. Automatic creation and routing of work orders, inventory checks, and integration with ERP systems to manage purchasing results in process efficiencies that yield substantial cost saving.

- Improve the planning and rollout of active and passive equipment per site, including change management and milestone tracking
- Create work orders according to planned activities
- Distribute work orders via workflow integration to different teams and subcontractors for execution
- Manage asset information in combination with integrated spare part management functionality

MOBILE RAN CONFIGURATION MANAGEMENT

Many new mobile sites, with hundreds and thousands of configuration parameters assigned to active and passive devices and cells per technology (2-3-4-5G), are needed. Managing these configuration parameters requires complete transparency for optimal planning, rollout and operations.

- Manage configuration data for active nodes, passive infrastructure, and cells
- Store configuration data on several layers (i.e. as-is, blueprint, planned) and report on discrepancies
- Manage default set of configuration parameters for planning and validation
- Reconciliation of as-is configuration data by integrating the RAN vendors' EMS systems
- Load planning parameters from external radio planning systems

SITE, TOWER, AND INFRASTRUCTURE MANAGEMENT

A huge number of mobile sites is required to support 4G and 5G rollouts. A tremendous amount of information is generated and collected to prepare, beginning with the initial need for a new site. A significant amount of data must be stored and made available for rollout planning, execution and ongoing operations.

- Manage site information from "candidate" status to "in operation"
- Manage relevant infrastructure equipment and data per site (civil, safety, facility)

MOBILE RAN OPERATIONS

Operating the mobile network is much more challenging in the 4G and 5G world. The intricate mix of technologies, infrastructure, architecture and assets makes end-to-end visibility and the ability to see dependencies and impacts across all layers a critical must-have for network operators.

- Access to Mobile RAN and microwave link configuration data to support daily operations
- Provide impact analysis in the event of an outage or to manage maintenance windows
- Data enrichment for monitoring and ticketing systems to automate incident and problem management processes
- Support repair processes, spare part management, and lifecycle management

Major Benefits of FNT Mobile RAN Management

OPTIMIZED PLANNING

- Plan network expansions and rollouts based on accurate as-is documentation
- Create automatic work orders for field teams to execute the planned tasks
- Keep data current by automatically updating the documentation as a result of planning
- Synchronize ERP purchasing activities with planning results and bill of material reports

TRANSPARENCY ON MOBILE RAN CONFIGURATION DATA

- Centrally manage configuration data on several layers (as-is, blueprint, planned, etc.) as there are thousands of configuration parameters per site in 4G/5G networks.
- Compare data and create discrepancy reports more efficiently between layers at different times
- Apply rules to analyze, compare and modify configuration data
- Automatically create and archive reports

ACCELERATE TROUBLESHOOTING

- Faster identification of configuration changes
- Up-to-date information available to plan and manage repair processes
- On-site activity is supported with access to all relevant data required

FASTER IMPACT ANALYSIS

- Data enrichment optimizes incident and problem management processes
- Tasks are prioritized in daily operations to avoid SLA breaches
- Dependencies and relations between active and passive devices can be queried immediately

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