

Nova RAN

RAN optimization with dynamic, geo-located subscriber data

EXFO



Nova RAN enables network planning, troubleshooting, optimization and monetization with dynamic, geo-located subscriber data



59% of RAN specialists lack subscriber and handset analytics



The value of accurate and precise geodata

Nova RAN is an integrated solution suite for planning, optimizing, and monetizing mobile networks. It enables operators to maintain peak performance with fast, precise insight into radio coverage, subscriber and device connectivity and location that scales from cell site to nationwide visibility in seconds.

With the complexity of 5G and the explosion in network equipment, it's more important than ever to understand how RAN performance issues impact subscribers and their devices.

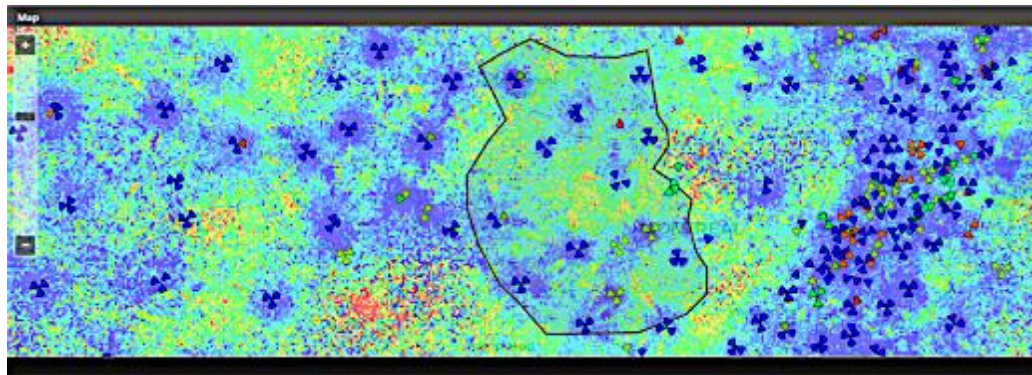
Subscriber-level insight is essential to efficiently scaling out 5G in the context of 3G and 4G services.

- Fastest visibility and analysis for accelerated optimization and fault resolution
- Massive dynamic maps and multi-dimensional analytics that update in seconds
- In-depth multi-layer troubleshooting from core to cell site and connected devices
- Scalable, fast big data architecture and open northbound interface
- Experienced, global professional services for 3G-4G-5G radio networks and systems



Nova RAN Solution Suite

3 solutions complemented by a professional services team with expertise in radio optimization, geolocation and traffic analysis



Less than
35%

of operators can fully perform **multi-dimensional**, user-defined analytics with maps

NOVA Geo

Multi-technology & multi-vendor radio optimization tool measuring RF coverage & quality of the network. Facilitates daily radio optimization tasks by automating recurrent analysis and drastically reduces the number of drive tests.

- Coverage/traffic map analysis
- Hotspot and problem detection
- Automated optimization algorithms

NOVA Explorer

Powerful application for deep end-to-end troubleshooting (from RAN to core), problem root-cause identification of customer complaints and detection of quality degradations over multi-technology networks.

- User/network troubleshooting
- Customer complaint analysis
- Drill down to L3 call flow, 3GPP messages

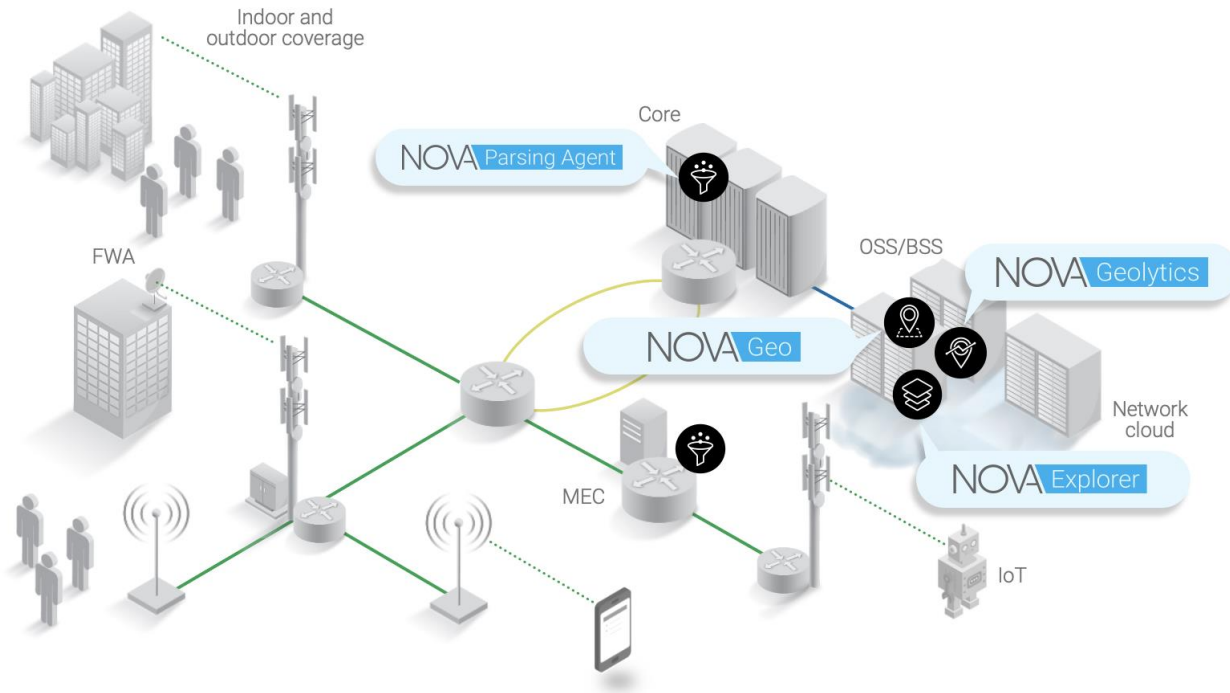
NOVA Geolytics

Multi-dimensional business intelligence application empowering you to make informed and effective decisions.

- Multi-dimensional geo-analytics
- Historical KPI Trending
- VIP and Device monitoring



End-to-end visibility from core to RAN



Nova Parsing Agent

Nova Parsing Agent runs centrally or on the mobile edge (MEC) to collect, process and geolocate 100% of network traffic.

Northbound Interface

Nova RAN features a northbound interface to integrate near real-time RAN KPIs and geolocation insights with data lakes and location analytics systems.

End-to-End RAN to Core

Integrate Nova Core for end-to-end troubleshooting and analytics and Nova SensAI for automated network and subscriber monitoring.



Nova RAN use cases

Actionable insight enriched with dynamic, geo-located subscriber data

Optimize 5G RAN

Identify areas with a critical mass of 5G handsets and high data usage to prioritize new cell deployment. Troubleshoot call flows. Model 4G power reduction to improve 5G capacity. Optimize 5G neighbors and dual connectivity. Visualize multi-generation RANs on fast, massive maps.



5G visibility is less than half
what it was for 4G

Enhance VoLTE services

Optimize VoLTE services end-to-end. Monitor VoLTE performance by cells, devices and subscribers. Investigate VoLTE blackspots, accessibility and handoff issues. Assess traffic distribution and call drop hotspots. Improve interoperability in multi-RAT, multi-vendor RANs. Maximize VoLTE service quality ahead of re-farming.



48%
of operators lack the end-to-end
visibility to optimize
VoLTE

Minimize drive testing

Capture what drive testing can't: busy hours, device capabilities and subscriber behavior. Precisely model cell site performance and utilization along high traffic corridors and high-density urban areas with rich geo-located subscriber data. Validate network plans before scaling up new sectors and services.



Drive tests are
400%
more expensive
than remote site
performance modeling



80%
of drive tests
are unnecessary

Nova RAN enables significant productivity gains

Eight ways to benefit:

- 1 Automate recurring radio optimization tasks¹
- 2 Accelerate 4G / 5G radio deployment
- 3 Assure performance in high traffic corridors
- 4 Evaluate next-generation handsets
- 5 Eliminate VIP connectivity issues²
- 6 Minimize drive testing
- 7 Monetize location-based insights, billing and CRM
- 8 Improve network planning and optimization



more efficient UE benchmarking

faster investigation of VIP complaints

reduction in drive tests

Across these use cases, Nova RAN paved the way for a 64% productivity gain—equivalent to US \$4M in annual savings—at a Tier-1 mobile operator.*

In contrast to drive testing, Nova RAN can capture the actual customer experience and help increase customer satisfaction.

Satisfied Nova RAN customers

Nova RAN delivers RAN performance for mobile network operators



Thomas Vonlanthen
Head of Wireless Access Technologies

"We called upon EXFO for their flexible and feature-rich solution and their proactivity in solution evolution towards big data. We also highly value their expertise in radio optimization, geolocation and traffic analysis."

Telefonica

Juan Carlos Garcia
RAN GCTO Director

"We will leverage the Nova RAN platform's best-in-class geolocation accuracy to optimize network deployment and increase RAN performance efficiency."



Juan Serrano Sánchez
Quality Manager Orange Spain

"Nova RAN allowed us to become the best service provider on high-speed trains in Spain and created a real competitive differentiator for Orange."



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