EXCELERON COMMUNICATIONS

RAN Optimization & Network Performance

MULTI-VENDOR RADIO TUNING FROM 2G TO 5G

Better coverage and quality from the radio network you already run

Cluster optimisation, parameter tuning and network performance management across Nokia, Ericsson and ZTE radio networks, from 2G to 5G.

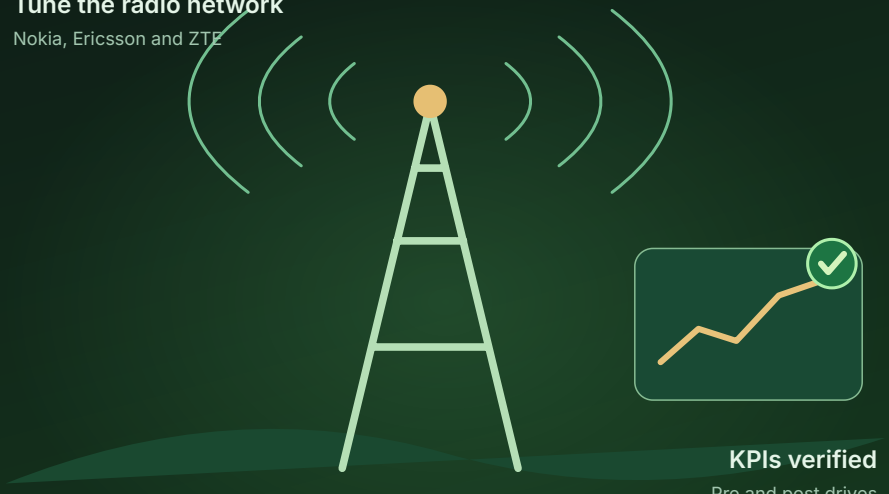
SITES UNDER JAZZ NPM
5,600

OEMS: NOKIA, ERICSSON, ZTE
3

TECHNOLOGIES
2G–5G

ZTE PERFORMANCE AWARDS
5

Tune the radio network
Nokia, Ericsson and ZTE



KPIs verified
Pre and post drives

Recognised by ZTE
RAN optimisation awards, 2014–2021

Cluster optimisation

Multi-city cluster tuning for coverage, accessibility, retainability and mobility.

Parameter delta analysis

Settings compared across Nokia, Ericsson and ZTE against the operator's baseline.

Neighbour and layer audits

Intra-frequency neighbour audits and layer rationalisation on consolidated networks.

OPERATIONAL CONTEXT

A clearer way to work

Cluster optimisation, parameter tuning and network performance management across Nokia, Ericsson and ZTE radio networks, from 2G to 5G.

01

Parameter drift

Mixed-vendor estates collect inconsistent settings that quietly hurt KPIs.

02

KPI drops after change

Rollouts, swaps and new layers often bring coverage holes and dropped calls.

03

Neighbour clutter

Missing or excess neighbours and unused layers degrade mobility.

THE CHANGE IN DAILY OPERATIONS

Before	With RNO
– Settings differ by vendor	✓ One baseline across vendors
– KPI drops after each change	✓ Clusters verified after change
– Neighbour lists out of date	✓ Clean neighbours and layers
– Antenna faults hidden in counters	✓ Audited antenna installations
– Results hard to prove	✓ Signed-off cluster reports

AN OPERATIONAL SCENARIO

Recover KPIs on a cluster

A cluster shows falling accessibility and dropped calls after a change in a mixed-vendor area, and the counters alone do not explain why.

5,600	3	2014–21	Signed off
Sites managed for Jazz	Vendors in one team	ZTE awards for RAN optimisation	Cluster by cluster

CAPABILITIES 1

The capabilities that do the work

Explore the core functions of RAN Optimization & Network Performance and the operational tasks they support.

01

Cluster optimisation

Multi-city cluster tuning for coverage, accessibility, retainability and mobility.

02

Parameter delta analysis

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04

Network performance management

Ongoing KPI monitoring and corrective action across a nationwide estate.

05

Planning tools

Nokia NetAct and Atoll for planning, performance and operations work.

06

RF antenna audits

Azimuth, tilt and installation checks that explain what the counters show.

DESIGNED AROUND THE USERS

Mobile operators Better KPIs on the existing estate.

Network vendors Optimisation capacity for operator contracts.

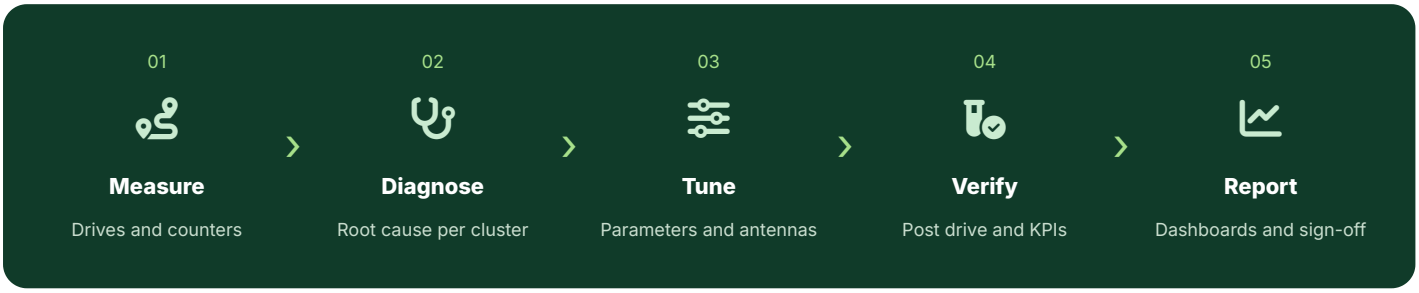
RF managers Cluster-level evidence and sign-off.

Planning teams Neighbour, PCI and layer clean-up.

WORKFLOW

From the first step to the outcome

A connected sequence makes the handoffs and responsibilities easier to follow.



01 Baseline
We take counters, drive data and the design baseline for each cluster.

02 Diagnose
Senior RF analysts find the root cause of each degradation.

03 Change
Parameter and antenna changes are agreed with you and applied.

04 Verify
Post drives and KPI trends confirm the change worked.

05 Sign off
Cluster reports and dashboards close each cycle.

A PRACTICAL WALKTHROUGH

Recover KPIs on a cluster

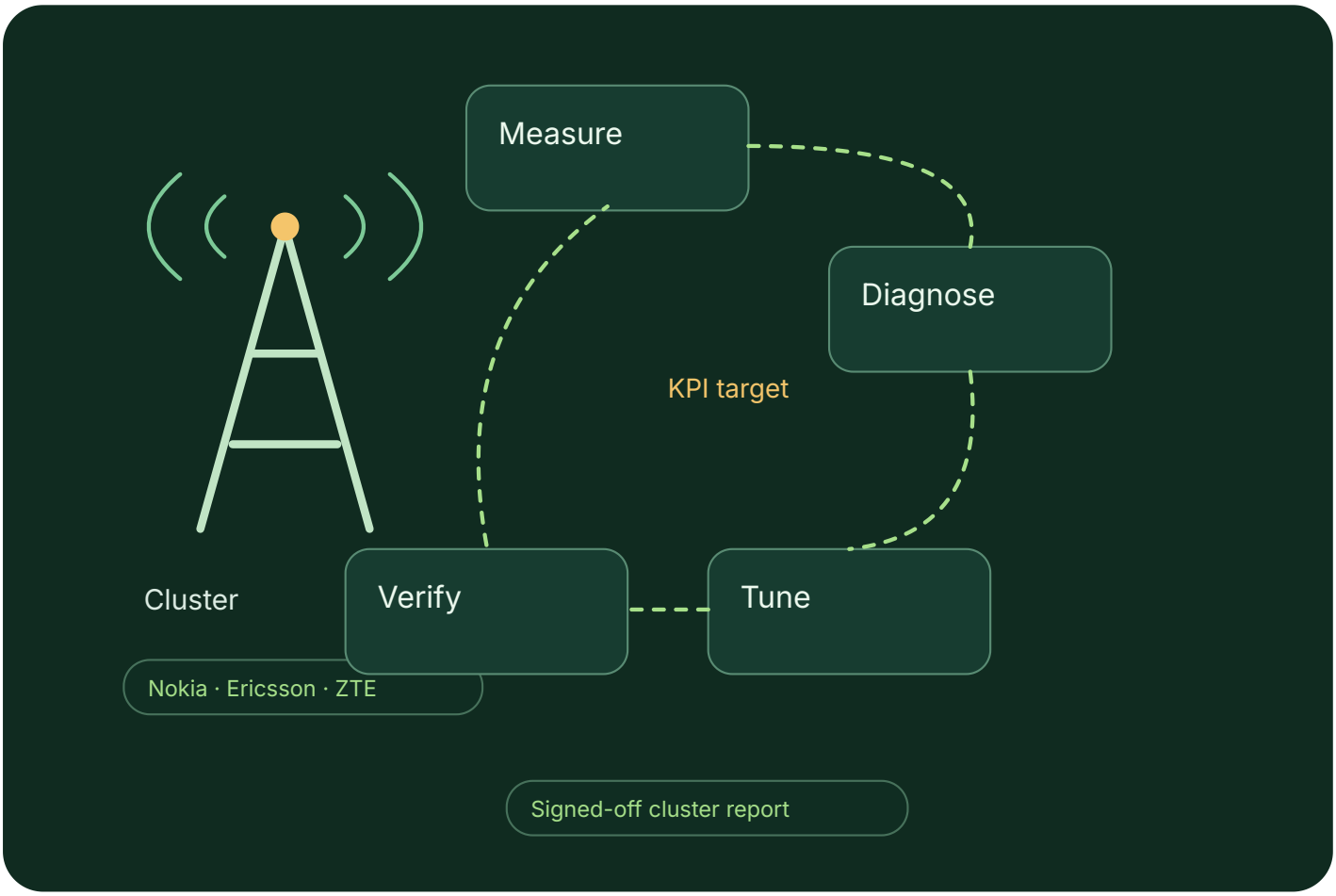
A cluster shows falling accessibility and dropped calls after a change in a mixed-vendor area, and the counters alone do not explain why.

Walk through a baseline, root-cause analysis, the agreed parameter and antenna changes, and the post-drive verification that closes the cluster.

ARCHITECTURE & HANDOFFS

A closed loop for each cluster

Optimisation runs cluster by cluster: measure, diagnose, tune and verify until the KPIs meet the target.



Conceptual product flow · RAN Optimization & Network Performance

01

Baseline counters, drive data and the design for the cluster.

02

Find the root cause and agree parameter and antenna changes.

03

Verify with post drives and KPI trends before sign-off.

DISCUSS YOUR ENVIRONMENT

Confirm the source systems, responsibilities and integration boundaries during the walkthrough. The diagram explains the product concept; the deployment scope is agreed for your environment.

TRACK RECORD

Work we have delivered

Named programmes where Exceleron Communications has delivered ran optimization & network performance.

01 Jazz Network Performance Management: 5,600 sites nationwide, covering planning, optimisation, drive tests and RF antenna audits.

02 ZTE awards for outstanding performance in RAN optimisation: Charlie (2014–15), Alpha (2017–18 and 2019) and Bravo (2020 and 2021).

03 Letters of appreciation from Nokia for delivery excellence (2021–22).

5,600	3	2G–5G	5
Sites under Jazz NPM	OEMs: Nokia, Ericsson, ZTE	Technologies	ZTE performance awards

TECHNOLOGY 1

Understand the connected pieces

Formats, protocols and tools in the product scope, with plain-language explanations for technical and business readers.

NetAct

Nokia network management system for operating and monitoring the radio network.

Atoll

Radio network planning software for designing coverage and capacity.

LTE

4G mobile network technology.

MIMO

Multiple antennas at each end of the link, raising speed and reliability.

5G NSA

5G Non-Standalone: 5G radio anchored on an existing 4G core.

Carrier aggregation

Combining several frequency carriers so a phone gets more bandwidth.

EN-DC

Dual connectivity that lets a phone use 4G and 5G at the same time.

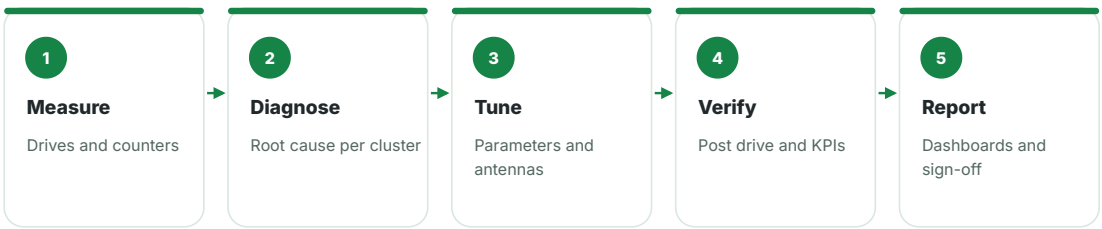
PCI planning

Assigning cell identities so neighbouring cells don't clash.

Power BI

Microsoft dashboard tool for sharing live KPI reports.

THE RNO OPERATING FLOW



INTEGRATION PLANNING

Agree the source systems, supported versions, data ownership and access requirements during discovery. Validate the relevant interfaces against your environment before production rollout.

ASSURANCE & NEXT STEPS

Prepare for a successful rollout

Match the product scope to your people, systems and operating requirements.

PRODUCT ASSURANCE

- **Changes checked against operator KPI thresholds**
- **Pre and post comparison for every cluster**
- **Vendor-native tools**
- **Reports in operator formats**

PLAN THE ENGAGEMENT

01

Discover

Review your current process, source systems, users and constraints. Identify the operational problem the first phase should solve.

02

Demonstrate

Walk through a baseline, root-cause analysis, the agreed parameter and antenna changes, and the post-drive verification that closes the cluster.

03

Validate

Agree the applicable product scope, access controls, integration checks and acceptance criteria. Confirm deployment and support responsibilities.

04

Handover

Plan user guidance, operational ownership and support contacts. Confirm the reporting cadence and review process for the agreed scope.

START A CONVERSATION

Explore RNO with our team.

Bring your operational scenario. We will walk through the relevant workflow and discuss a suitable scope.

info@excelerongroup.com

www.excelerongroup.com · Lahore, Pakistan