

Your network is reactive. Ours is predictive.

Platform 3 — Self-Healing RAN

The world's first AI platform that predicts individual user session degradation and fixes it automatically — before they notice.

$R^2=0.99$

Prediction accuracy ·

<10 seconds

End-to-end correction latency

Zero

Infrastructure changes required

THE PROBLEM

45 minutes. That is how long after your user's call drops before anyone investigates.

Today every major telecom operator runs their network the same way. A cell tower degrades. Users start complaining. Complaints reach the NOC. Engineers investigate. A fix is applied — typically 45 to 90 minutes after the first sign of trouble.

Existing AI tools made this slightly better. They can predict that a cell covering 5,000 users might fail in the next few hours. But they still cannot tell you which user is about to be affected, by how much, or in how many seconds. And none of them fix anything automatically.

The result: every degraded video call, every dropped telemedicine consultation, every factory automation stall — is a failure that was predictable and preventable.

45–90 min Average time from first signal degradation to NOC corrective action	Cell-level only Existing AI predicts risk for sectors of thousands — not for individual users	0 seconds Time current tools spend predicting your specific session quality
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THE PLATFORM

Platform 3 sees it coming. And fixes it in 8 seconds.

Platform 3 is a software platform that runs inside your existing network infrastructure — specifically inside the Near-RT RIC, a standardised component already present in every O-RAN network. No hardware changes. No tower modifications. No handset updates.

It connects to your base stations through standard O-RAN E2 and O1 interfaces and watches every active user session every 500 milliseconds. When its ML models predict a session is about to degrade — throughput dropping, error rate climbing — it automatically executes the precise corrective action through the same interfaces your network already uses.

The user never notices. The NOC sees a clean audit trail of what was predicted, what was fixed, and what the outcome was. And the model gets smarter every week.

24–72 hours ahead Strategic Layer Scores every cell in your network 0–100 for outage risk every hour, using four ML models watching KPIs, IP session flows, weather, and terrain. Gives NOC teams enough lead time to pre-position resources and dispatch field maintenance before users are affected.	2–10 seconds ahead Tactical Layer Predicts each individual user's throughput and error rate 2–10 seconds ahead. When a threshold is breached, it automatically corrects — adjusting the link encoding, triggering a pre-emptive handover, or topping up slice resources — before the user experiences any degradation.
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Result: the network fixes itself. Your users stay connected. Your NOC stays informed.

HOW IT WORKS

3 corrective actions. All automatic. All reversible. All logged.

When Platform 3 predicts a user's session is about to degrade, it selects one of three corrective actions based on the root cause — not just the symptom.

TIER 1 · <100ms

Signal Encoding Fix

E2SM-RC via O-RAN E2 interface

When the error rate is predicted to climb too high, Platform 3 tells the base station's scheduler to use a more robust encoding method for that specific user. Think of it as switching from writing in tiny font to large font when the paper gets wet — slower, but readable. The user gets slightly lower peak speed but zero errors. Auto-releases when channel quality recovers.

Who benefits: Any user experiencing channel degradation — cell edge, interference, signal obstacles.

TIER 2 · <3 seconds

Pre-emptive Cell Handover

E2SM-MHO via O-RAN E2 interface

When a user is predicted to move out of a cell's reliable coverage area, Platform 3 triggers the handover to the best neighbouring cell while signal is still strong — not after it has already degraded. Traditional handover fires after quality drops. Platform 3 fires 5–8 seconds earlier. The user migrates seamlessly with no dropped packets, no call interruption, no video freeze.

Who benefits: Moving users, cell-edge users, users in high-congestion cells.

TIER 3 · <5 seconds

Guaranteed Bandwidth Restoration

FORSLICE API — Z3 formally verified

For enterprise customers on guaranteed-quality network slices, when Platform 3 predicts the slice is about to exhaust its allocated bandwidth, it automatically requests additional resources from currently idle slices. The allocation uses a mathematically verified algorithm — provably impossible to accidentally harm other users' guarantees. SLA maintained. Zero breach. Zero penalty.

Who benefits: Enterprise customers, factories, hospitals, financial institutions on guaranteed 5G slices.

All corrections fire only when prediction confidence exceeds **85%**. Below that threshold, Platform 3 generates a one-click alert for your NOC team to approve. Every action — automated or human-approved — is logged to an immutable audit trail with full explainability.

WHO IT IS FOR

Built for operators. Benefits everyone.



Telecom Operators

Reduce NOC workload, prevent SLA breaches, improve customer NPS scores, and gain a network intelligence layer that compounds in accuracy over time on your specific network conditions.



Enterprise Customers

Factories running 5G automation, hospitals operating remote diagnostics, financial institutions running latency-sensitive systems — receive automatic SLA protection without needing to monitor it themselves.



Critical Services

Emergency services, NDRF teams, and public safety networks running on URLLC slices are identified by Platform 3 and given the highest priority corrections first. Critical communications are never reactive.



Underserved Areas

Rural and peri-urban cells with single-tower coverage receive 24–72 hour advance warning before failures, enabling proactive field maintenance before communities lose connectivity.

Not a prototype built on assumptions. Built on peer-reviewed results.

arXiv: 2604.09632 · Virginia Tech 2026

ML-Based Real-Time Downlink Performance Prediction in Standalone 5G NR

LightGBM $R^2=0.99$ on a real srsRAN + USRP B210 testbed using commercial smartphones. Validates our model choice, feature set, and hardware reproducibility. The same testbed is available at COEP Technological University where Platform 3 is built.

arXiv: 2604.08244v1 · ISI Kolkata + Ericsson Research 2026

FORSLICE — Automated Formal Framework for Efficient PRB Allocation

44.45% PRB efficiency improvement. Z3 SMT-solver-verified allocation logic. Provides mathematical correctness guarantees to every Tier 3 bandwidth restoration action Platform 3 executes.

O-RAN Alliance · E2 Interface Stack

E2SM-KPM · E2SM-RC · E2SM-MHO

All three correction tiers use standardised O-RAN interfaces supported by every O-RAN compliant vendor globally. No proprietary integration. No vendor lock-in.

DEPLOYMENT

Live in your network in weeks. Not months.

Platform 3 deploys as an xApp inside your existing Near-RT RIC. It connects to your base stations through O-RAN O1 and E2 interfaces — standards already supported by Nokia, Ericsson, Samsung, and all major O-RAN compliant vendors. No hardware procurement. No tower access required. No subscriber device changes.

Each operator configures their own data sources, SLA thresholds, and correction policies through the Platform 3 portal. The LightGBM models fine-tune automatically on your network's live session data through the federated online learning loop — your data never leaves your infrastructure.

Tier 1 — Predict

Strategic layer + NOC dashboard

Cell risk scoring · SHAP explanations · NOC alert feed · Work order auto-creation

For operators who want 24–72hr network intelligence without automated correction

Tier 2 — Predict + Protect

+ Tactical layer + AutoCorrect engine

Per-UE prediction · Three-tier automated correction · Immutable audit trail · Human override layer

For operators who want the full self-healing capability

Tier 3 — Enterprise

+ SLA monitoring + FORSLICE

Enterprise SLA monitoring · FORSLICE integration · Custom model retraining · CAMARA QoD API access

For operators serving enterprise customers with contracted SLA guarantees

GET STARTED

Your network is generating the data. Platform 3 turns it into action.

We offer a structured pilot programme — live deployment on a defined cell cluster, 60-day performance measurement, full NOC dashboard access, and a before/after comparison report. No commitment beyond the pilot.

PILOT PROGRAMME INCLUDES

- O-RAN E2 interface integration with your existing infrastructure
- 60-day live prediction and correction on agreed cell cluster
- Weekly model accuracy report (R^2 trend, correction success rate)
- Full NOC dashboard with SHAP explanations
- Before/after SLA breach rate comparison
- Dedicated technical integration support

Let's talk.

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"From a telemedicine call in rural Bihar to a factory automation line in Pune — Platform 3 protects the session. Not just the cell."

1.2 Billion

Indian subscribers. Every one of them is a potential beneficiary.

\$58.7 Billion

AI in Telecom market by 2032.

Zero

Changes needed to your existing infrastructure.