

coRAN LABS



SATORI
SOLUTIONS

RAN Slice Assurance rApp



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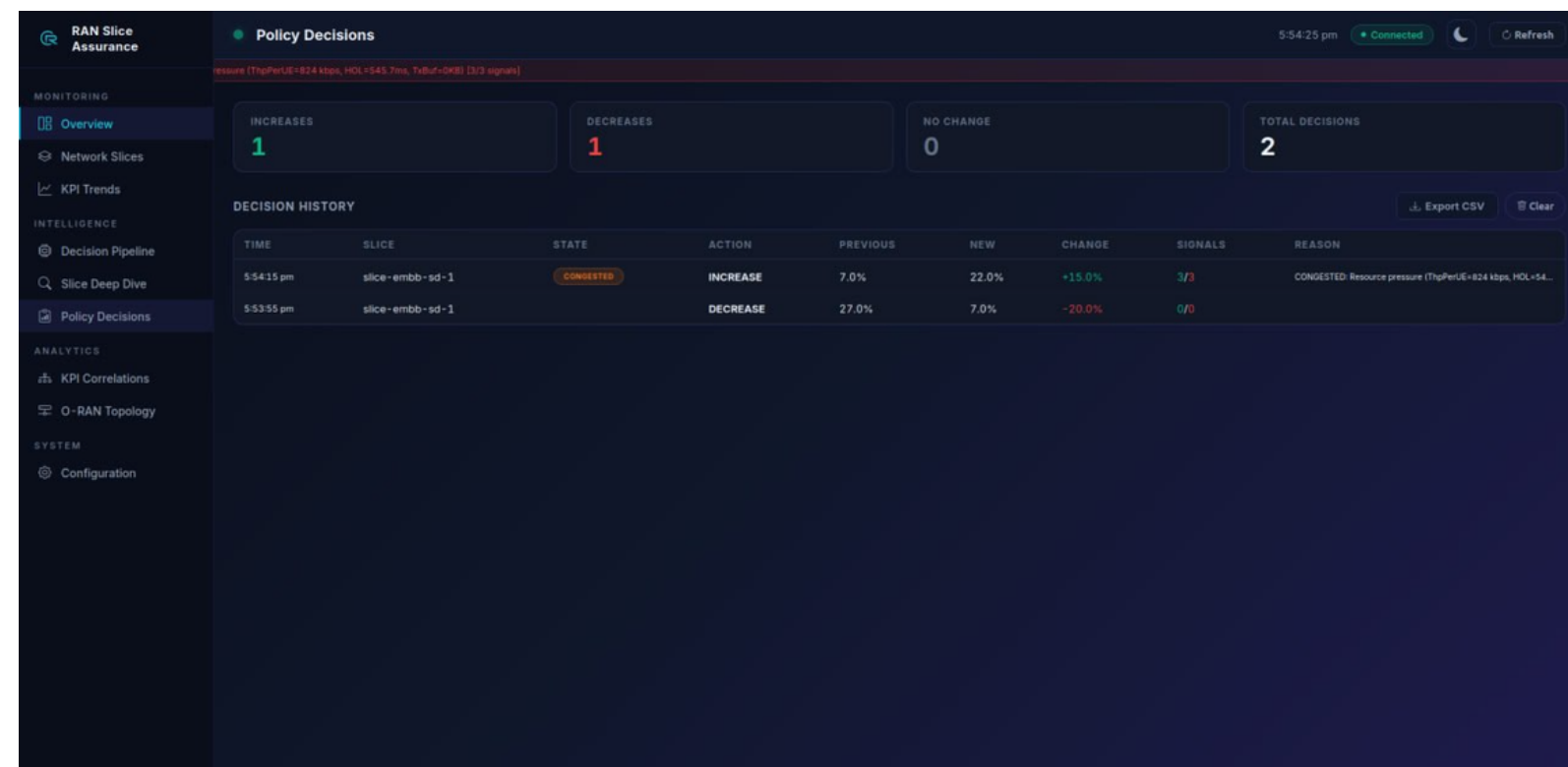


Closed-Loop RAN Slice Optimization

RAN Slice Assurance rApp enables real-time monitoring, analysis, and automated optimization of 5G network slices. It dynamically adjusts radio resource allocation based on live network conditions to maintain slice performance.

Key Capabilities

- Real-time multi-KPI monitoring
- Intelligent decision engine
- Closed-loop automation
- Dynamic RRM policy control





PROBLEM & SOLUTION

The Challenge

5G network slicing introduces strict operational requirements, but current systems face key limitations:

- Static resource allocation cannot adapt to dynamic traffic
- Manual optimization leads to delayed response
- Single KPI monitoring misses complex degradation patterns
- Reactive systems cause instability and oscillations

Operators need autonomous, real-time slice assurance

The Solution

RAN Slice Assurance rApp introduces a closed-loop control system for slice optimization.

- Monitor → Collect real-time KPIs
- Analyze → Evaluate slice health
- Decide → Apply intelligent policies
- Act → Update RRM configurations

Continuous Optimization Loop

Multi-KPI Decision Engine

Evaluates slice performance using key KPIs:

- SINR
- Retransmission Ratio
- TX Buffer
- Active UEs
- Throughput per UE
- BLER
- CQI
- HOL Delay



How It Works

- KPIs collected from RAN (gNB)
- Data ingested via Kafka streams
- Decision engine evaluates slice state
- Policies updated via SDNR / NCMP
- RAN adapts resource allocation in real time



SLA Assurance



Faster Response



Reduced Manual Effort



Efficient Resource Utilization

Key Features



Multi-KPI Intelligence

Evaluates multiple KPIs simultaneously for accurate decisions



Stability & Anti-Oscillation

Prevents rapid fluctuations and ensures stable network behavior



Adaptive Optimization

Adjusts resource allocation based on network conditions



Dual Deployment Modes

Supports both O-RAN and Ericsson E1AP environments

Real-Time Dashboard

- Live monitoring, trends, and decision visibility

The **Ericsson Intelligent Automation Platform (EIAP)** provides Service Management and Orchestration (SMO) for Open RAN and further enhances openness, network management, and automation by supporting multi-vendor and multi-technology RAN environments.

EIAP is supported by open interfaces and the industry's leading Software Development Kit (SDK) to enable an ecosystem of developers with all the capabilities needed to innovate, build, validate, share and operate rApps.

