

# RAN PERSPECTIVES

RAN Analytics and Enforcement



## Measure RAN Quality from the subscriber's point of view

With RAN Perspective, mobile service providers can better detect and mitigate traffic and congestion problems, putting them in a better position to deliver a high quality of experience.

M2M services can utilize RAN Perspective to control non-smartphone device's application usage and conduct health checks to ensure connectivity is maintained

### RAN PERSPECTIVE

RAN Perspective is a revolutionary software service that gives network operators real-time signaling updates from any SIM-enabled mobile device. Rather than deploy costly probes throughout the network, RAN Perspective accesses information directly from the device—regardless of device type, operating system, or RAN access type (2G/3G/4G). The 3GPP signaling information (Signal Strength, Error Codes, Available Networks, etc.) is collected on the device and streamed in real-time for usage by the network for analytics and enforcement.

RAN Perspective is unique for a mobile operator because it provides the subscriber's view of the network quality and not the network's view of the subscriber. The device's view of signal strength and quality is a metric that cannot be retrieved by network probes or from the mobile gateways and is extremely valuable for the operator. This information can be used during customer care calls to determine when bad coverage events have occurred for a customer and quickly diagnose a bad experience. It can also be used by the RAN Engineering team to identify areas with poor coverage and associate the subscribers with coverage events with the service plan to maximize ROI on coverage investments.

When combined with the rest of the PacketLogic product suite, a mobile operator has powerful analytics and enforcement solutions available to deliver a high quality of experience for their mobile subscribers. The Insights products visualize the RAN intelligence in the same views as the IP intelligence, providing a more comprehensive view of their network's performance and quality delivery.

### HIGH-VALUE USE CASES

USE CASE	DESCRIPTION
Real-Time Congestion Management	Real-Time location updates ensures congestion management based on active users in a cell
Location-based Analytics	Gain insights into where your subscribers are consuming applications and content for marketing offers or service plans. CAPEX decisions can be made with service plan views of network quality
Location-based Services	Fixed-Mobile Substitution offerings are enabled with location-based charging, as well as Happy Hour and event-based offers
Crowd-Sourced Minimized Drive Testing	Subscriber devices act as network probes, reporting signal strength and quality metrics to the operator to enable proactive responses
Customer Care	RAN Perspective integration with Customer Care Insights provides a RAN+IP view to enable first call resolution for mobile subscribers

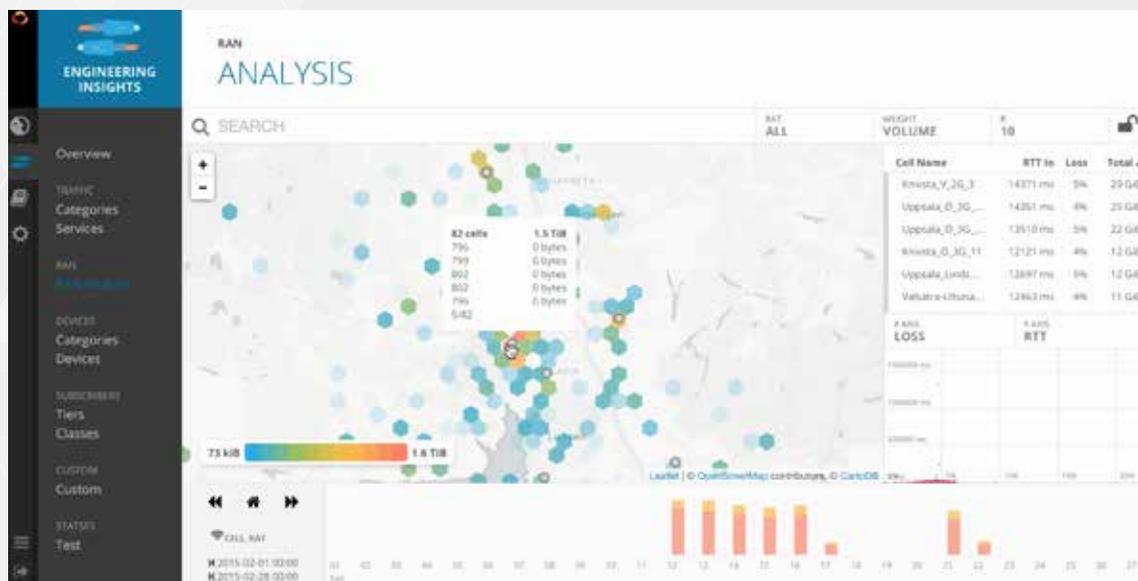
## RAN PERSPECTIVE

### RAN PERSPECTIVE TECHNOLOGY

RAN Perspective is deployed on SIM-based devices that connect to the mobile network, either over-the-air or pre-installed in the devices. The applet configuration can be modified in real-time based on the use cases deployed in the network. The SIM-Based applet collects 3GPP statistics and sends the data back to a Collection Server for the signaling metrics configured by the system – signal strength, error codes, available networks, etc. The location updates are sent to the Subscriber Perspective system to enrich the subscriber intelligence with real-time location information. The signaling intelligence is stored in the Insights database and visualized in **Engineering**, **Customer Care**, and **Executive Insights**. **Engineering Insights** uses the location data to visualize heat maps for coverage and application usage, determine RAN quality, and provide service analytics. **Customer Care Insights** uses the data to present the customer care agent with real-time RAN root cause analysis information. **Executive Insights** uses the real-time location updates for providing network quality scoring for subscribers based on their network location.

Figure 1

RAN Perspective view in Engineering Insights



### ABOUT PROCERA NETWORKS

Procera Networks, the global Subscriber Experience company, is revolutionizing the way operators and vendors monitor, manage and monetize their network traffic. Elevate your business value and improve customer experience with Procera’s sophisticated intelligence solutions. For more information, visit [proceranetworks.com](http://proceranetworks.com) or follow Procera on Twitter at @ProceraNetworks.

**PROCERA**

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