Traffic Perspective is the core technology that drives Procera’s Subscriber Experience Intelligence solutions. Based on Datastream Recognition Definition Language (DRDL), Procera’s industry-leading deep packet inspection (DPI) engine, Traffic Perspectives identifies thousands of applications and protocols on broadband networks. This application visibility is used throughout Procera’s solutions, and the speed and quality of our application signatures is a competitive differentiator for our customers for analytics and enforcement.

DRDL can identify both encrypted and unencrypted applications with a high degree of granularity. Many “DPI” engines recognize encrypted streams solely by their protocol container - HTTPS, TLS, etc - and not as the core application generating the traffic. Traffic Perspective will break out traffic into the individual datastreams that use encryption protocols as a transport layer - popular applications like Skype and uTorrent as well as content from Facebook and YouTube. DRDL combines multiple recognition techniques including heuristics, pattern matching, protocol inspection, and property extraction to quickly identify the applications with minimal latency to ensure that policies are enforced in real time for all traffic on the network.

Each connection on the network is inspected and categorized with the Procera Networks Categories (Web, Streaming Video, Messaging, Gaming, etc) as well as associated with the application generating the traffic. The PRE inspecting the traffic collects the statistics and application properties for each connection for us in analytics and policy enforcement. These statistics are stored in the Insights database or streamed via IPFix for Big Data Integration.

HIGH-VALUE USE CASES

- **Network & Subscriber Analytics** Understand the applications that your subscribers are consuming and feed that into the Insights platform or Big Data systems
- **Service Creation** Gain insights into what content and applications your subscribers are consuming for marketing offers or service plans
- **Policy Enforcement & Charging** Differentiated charging and zero rating at the application and content level
- **Congestion Management & Fair Usage** Subscriber-based fairness and congestion management based on subscriber tiers and application-based policies
- **First Call Resolution for Customer Care** Integration with Customer Care Insights provides a subscriber-centric view to enable first call resolution for fixed, mobile, or WiFi subscribers through Root Cause Analysis and real-time application visibility
TRAFFIC PERSPECTIVE TECHNOLOGY

Traffic Perspective is visualized through the PacketLogic Client and the Insights product family. Within the PacketLogic client, Dynamic LiveView displays the aggregate of all of the traffic active on the network, and can drill down to a single flow for a subscriber to provide all of the attributes of that flow for network forensics or troubleshooting. The types of information available for each flow includes bytes and packets, length of the flow, policy or statistics rules matched, packets dropped and latency due to traffic shaping, URLs, and many other attributes that are associated with the flow. Dynamic LiveView can also create dynamic views that filter out specific information based on network attributes, i.e. “What applications are iPhone subscribers consuming at Cell Site XYZ?”. The Insights product family uses Traffic Perspective to analyze network and subscriber trends based on the applications being consumed by subscribers. Customer Care Insights has a real-time view of the applications being used by a subscriber to assist in troubleshooting and problem isolation, providing a unique view into the subscriber experience for customer care agents.