



Regulatory VoIP Management

Manage Illegal or unlicensed VoIP

KEY SYSTEM BENEFITS

- Frequent updates to Sandvine's industry-leading signature database ensures current and accurate identification of all VoIP applications
- Sophisticated heuristics and machine learning techniques applied to maintain currency with encrypted VoIP for both tunneled and masquerading applications that require a sophisticated network intelligence engine
- Multi-use case deployments provide greater ROI than standalone deployments by adding Analytics, Traffic Optimization, Revenue Generation, Revenue Assurance, Network Security, or other Regulatory Compliance use cases

Government regulators are concerned with the security risks posed by the use of encrypted VoIP for unlawful communications. This is especially true in developing regions where many regulators choose to block over-the-top VoIP for these safety and security reasons. In other countries that permit regulated VoIP providers to operate, identifying the traffic is still a critical resource, as it enables the regulator to address security concerns and preserve crucial revenue streams for network operators.

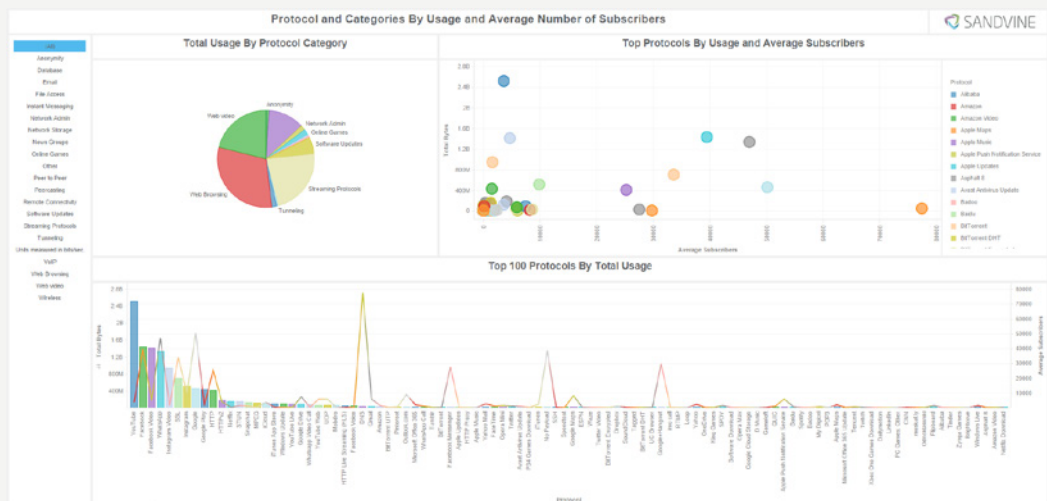
The challenge facing network operators today – who are obligated to uphold a jurisdiction’s regulations – is to permit only lawful voice services while minimizing the overhead and cost for compliance.

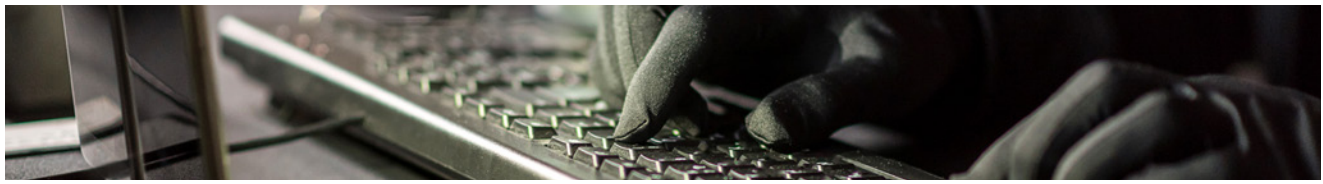
VOIP MANAGEMENT FOR TELECOMMUNICATIONS REGULATORS AND NETWORK OPERATORS SOLUTION OVERVIEW

Sandvine is the leader in regulatory VoIP management. Our regulatory VoIP management solution provides the broad functionality and flexibility needed to deliver reliable compliance while also preserving the ability to adapt to changing regulations, traffic makeup, and patterns of usage. Since encrypted VoIP applications are among the most sophisticated and aggressive in attempting to avoid detection, managing this traffic is one of the biggest technology challenges for regulated operators. Sandvine leverages our unique Active Network Intelligence to combine our ability to detect AND manage VoIP traffic to deliver the most effective VoIP management solution.

Figure 1

SERVICES OVERVIEW FROM SANDVINE ANALYTICS





ACTIVE NETWORK INTELLIGENCE FOR REGULATORY COMPLIANCE

VOIP MANAGEMENT WITH ACTIVE NETWORK INTELLIGENCE

The foundation of the VoIP Management solution is Sandvine's extensive application signature library, with support for hundreds of VoIP applications and protocols today, including encrypted VoIP traffic. Operators also have the option to design their own custom signatures if so desired if they are offering a managed VoIP service to their subscribers.

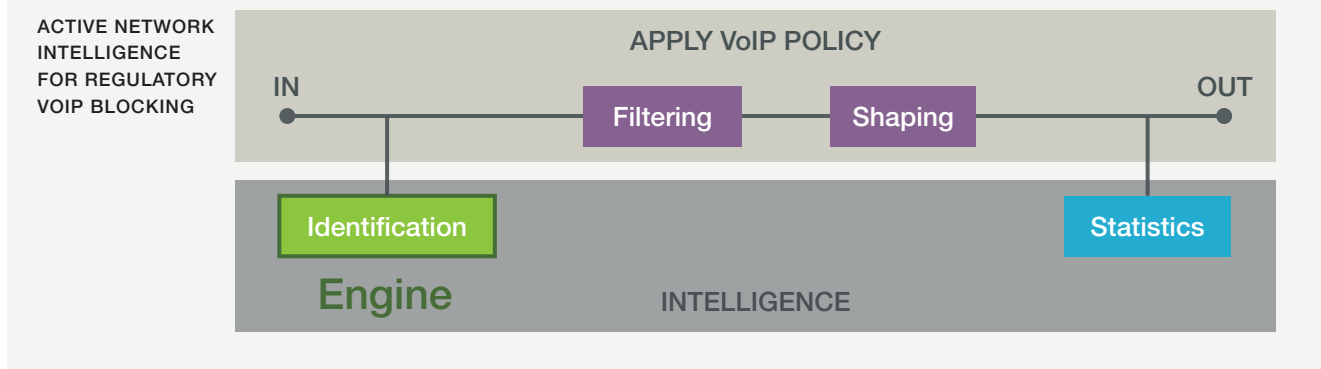
Once VoIP traffic is identified by the Sandvine engine, multiple actions can be applied to comply with regulations. For instance, unlicensed VoIP traffic can be blocked or rejected, which will prevent calls from connecting; alternatively, traffic can be rate-limited or session-limited, which delivers better results for some types of VoIP applications (e.g., polymorphic applications that change behavior when blocked).

If logging or analytics is part of the regulatory requirement, then statistics can be gathered on VoIP traffic passed, blocked, limited, or dropped; these statistics include volume, number of call attempts, quality of experience, and many other metrics that provide a closed-loop analysis of the effectiveness of the regulatory compliance.

REGULATORY VOIP BLOCKING DEPLOYMENT

Sandvine solutions can be deployed anywhere in the network - on a virtual CPE, provider edge, core, or peering point. For Regulatory VoIP Management, Sandvine is traditionally placed in-line, enabling the solution to natively block traffic that is deemed to be non-compliant with the VoIP regulatory policies. When Sandvine is integrated with policy systems, more information is available as a selector for traffic blocking to further narrow the policy - for example if some subscribers are allowed to use VoIP, their traffic can pass. This provides both operators and regulators more flexibility for regulatory enforcement.

Figure 2



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ABOUT SANDVINE

Sandvine helps organizations run world-class networks with Active Network Intelligence, leveraging machine learning analytics and closed-loop automation to identify and adapt to network behavior in real-time. With Sandvine, organizations have the power of a highly automated platform from a single vendor that delivers a deep understanding of their network data to drive faster, better decisions. For more information, visit sandvine.com or follow Sandvine on Twitter at [@Sandvine](https://twitter.com/Sandvine).



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