



Intelligent Traffic Manager

Delivering network visibility, control, and management

KEY BENEFITS:

- Boosts organization productivity by improving business-critical application performance
- Delivers state-of-the-art surgical traffic management for advanced QoE and network resource optimization
- Allows full control of encrypted applications' traffic via machine learning-powered traffic classification
- Lowers operating costs with reduced IT support activities

Network performance is critical now more than ever for businesses to connect employees, students, and customers, and to effectively work from anywhere. Mission-critical cloud, mobile, and video applications are driving demand for bandwidth and present challenges in ensuring network and application performance; critical components to ensure a quality user experience (QoE). Moreover, today's networks face unprecedented challenges from encrypted and malicious traffic.

For enterprises, these internal and external factors translate into a direct need for better network control and management, ensuring prioritization and optimization of resources, reduced IT support costs, and overall good productivity levels.

INTELLIGENT TRAFFIC MANAGER

Sandvine Intelligent Traffic Manager provides industry leading traffic visibility, control, and management, aligning QoE and network resources with business priorities for enterprises of all sizes (single or multi-site).

Specifically, this solution arms enterprises with key network management tools, such as highly granular applications and web content intelligence and surgical policy control to manage application performance and user experience.

Visibility

Although it's critical to optimize bandwidth expense, without the proper traffic visibility this goal is in direct conflict with application performance and user experience.

Sandvine's Classification Engine provides industry leading traffic signature recognition, offering unparalleled traffic classification and management. Built with advanced machine learning, the Classification Engine employs multiple techniques (such as decision trees, Bayesian networks, Gradient Boosting) to identify and categorize encrypted traffic.

This Classification Engine can be further enhanced with ContentLogic, which delivers real-time traffic identification and classification of tens of millions of websites, identifying approved enterprise applications for prioritizing, while protecting businesses from malicious and unwanted traffic.

The Intelligent Traffic Manager's level of visibility addresses fundamental challenges, including decreasing traffic visibility due to encryption, poor application performance, and exponentially increasing traffic volume due to the proliferation of remote working, studying, and connectivity.

Control

Visibility without context does not result in effective network traffic control. The Intelligent Traffic Manager combines best-in-class traffic classification capability with contextual awareness – application, device, location, and QoE – to deliver fine grained traffic management capabilities.

It leverages unprecedented visibility and contextual awareness as the intelligence to drive policy-based traffic management capabilities.

The Intelligent Traffic Manager enables multi-level shaping policies, providing a wide range of actions for greater traffic control and resource management, such as committed and maximum information rates on a per application basis.

As part of its various traffic management capabilities, Sandvine's Intelligent Traffic Manager boasts granular shaping and weighted fair queuing, allowing network administrators to enforce network and application policies that deliver predictable network performance and ensure application based QoE.

These capabilities enable network administrators to achieve cost control, while ensuring business critical applications receive priority over non-critical application, and protecting the network and users from malicious traffic.

Management

This solution offers a centralized management platform, Elements. Elements simplifies the installation, configuration, and ongoing updates of a single site or distributed multi-branch/ office installation.

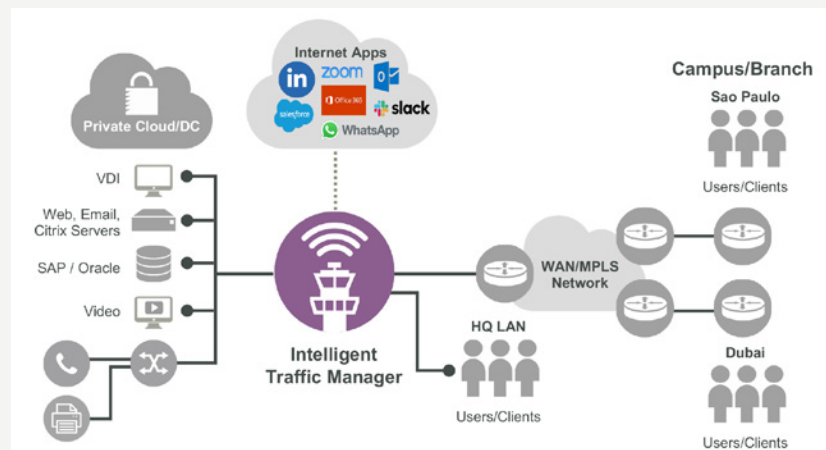
The LiveView functionality provides a simple and intuitive interface to define traffic policies, review real-time statistics and historical reporting to manage bandwidth allocation, QoE, and security issues.

Automated event triggers add additional levels of control to gracefully manage planned and unplanned traffic events. The solution is capable of leveraging static and dynamic parameters for event-based triggers – time of day, application/content category, IP address/port, connection rate, and concurrent connections.

The Intelligent Traffic Manager solution provides a comprehensive set of tools to seamlessly manage network and application performance, ensure user QoE, and protect against malicious traffic.

Figure 1

Intelligent Traffic Manager Deployment



KEY FEATURES

- **Sandvine Classification Engine** uses machine learning to identify applications in spite of encryption.
- **Policy-based Traffic Management** includes asymmetric traffic control, distributed traffic shaping and filtering, traffic flow classification and prioritization, traffic monitoring, and packet re-write.
- **Advanced Packet Queuing**, including parallel queuing to enable more flexible traffic management policies, ensures predictable delay and jitter, enabling organizations to meet their business and customer expectations.
- **Event-based Triggers** automatically apply policy in response to specified real-time network traffic conditions by dynamically enabling DOS/DDOS connection limits, traffic shaping, and filtering based events.
- **Real-time LiveView Query Engine** enables sophisticated real-time forensics to manage QoE, network congestion, and network security issues.
- **Per Flow Reporting** enables real-time and historical reporting on many parameters, providing real-time QoE updates.
- **HTTP Header Enrichment** leveraging stateful awareness to delivered enhanced layer 7 capabilities.
- **ContentLogic** (optional) enhances traffic classification accuracy via multi-database categorization of internet websites (URLs) and IP addresses for web intelligence, advertising, and filtering.
- **BGP Integration** (optional) enables peering and CDN visibility, per AS path-based traffic shaping, QoE metrics support for Origin-AS and Transit analysis.
- **IPFIX Export** (optional) provides enriched flow record export with L7 application identification, HTTP header information, traffic shaping statistics, etc.

Organizations around the world are faced with two competing problems: increasing IT expenditure, and decreasing user productivity due to poor business critical application performance. Sandvine's Intelligent Traffic Management combines accurate traffic visibility with fine grained network traffic control to empower organizations to optimize network costs while assuring business critical application performance and user experience.

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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