Retail Sector: Intelligent Traffic Management Solutions

INTELLIGENT TRAFFIC MANAGER BENEFITS:

- Manage remote and distributed user traffic based on department, store, or location-based policies

- Boost productivity and improve retail transaction efficiency by prioritizing business critical applications – point-of-sale, inventory, security video, productivity and customer engagement applications

- Influence customer behavior with personalized advertising, promotions, and product placement

- Anticipate and mitigate constantly evolving security threats – anomalous and unauthorized activity, fraud detection and management, block unacceptable applications

Retail business models are being upended as the physical store becomes a personalized, customer experience-driven brand and media showcase, while transactions are performed online. Intelligent traffic management will be critical to retail success in this major transition

Excellent services, engaging in-store experiences, and a high level of customization are the criteria redefining the new retail landscape. To compete in this new environment, retailers are upending their business models. They are using their physical stores as a media and brand showcase to attract and engage customers with more personalized experiences, while browsing, virtual try-ons, customization, and sales transactions are performed online.
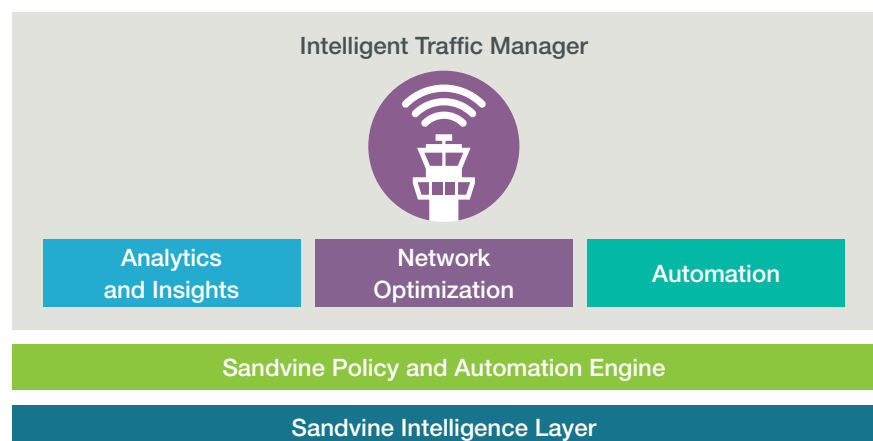
Automation is occurring at every level as augmented and virtual reality, the Internet of Things, and connected inventory and logistics introduce new network challenges including:

- Managing exponential traffic growth and distributed and remote workforces
- Prioritizing business critical applications
- Influencing customer behavior with personalization
- Enhancing security

Intelligent Traffic Management Solutions for the Retail Sector

Sandvine's pre-packaged intelligent traffic management solutions deliver the network visibility, analytics, automation, machine learning, and security required for the public sector to meet these challenges:

- **Visibility:** Granular visibility, identification, and contextual awareness of all user, application and device traffic transiting networks in real time
- **Analytics:** Behavioral, intent-based analytics that compare network, application, device, and user behavior to identify areas of action
- **Automation:** Closed-loop policies deliver the intended digital service quality
- **Machine Learning:** Continuous innovation in automation/machine learning focused on education outcomes
- **Security:** Visibility, analytics, automated policies, and machine learning to check anomalies and suspicious traffic patterns against updated libraries of cyber threats (distributed denial of service attacks, malware, ransomware).

Intelligent Traffic Manager

| Analytics and Insights | Network Optimization | Automation |

Sandvine Policy and Automation Engine

Sandvine Intelligence Layer

The Intelligent Traffic Manager (ITM) is the foundation of these solutions. It is based on Sandvine's ActiveLogic platform, the industry's most advanced hyper-scale traffic classification and packet processing system for improving network performance and security. Built with advanced machine learning functions, ITM employs multiple techniques to detect encrypted traffic behavior such as VoIP, video, and VPNs. In addition, ITM's traffic classification capability can be enhanced with ContentLogic, a multi-database categorization of Internet websites and IP addresses for web intelligence, advertising, and filtering.

Figure 1

Intelligent Traffic Manager for Retail Networks
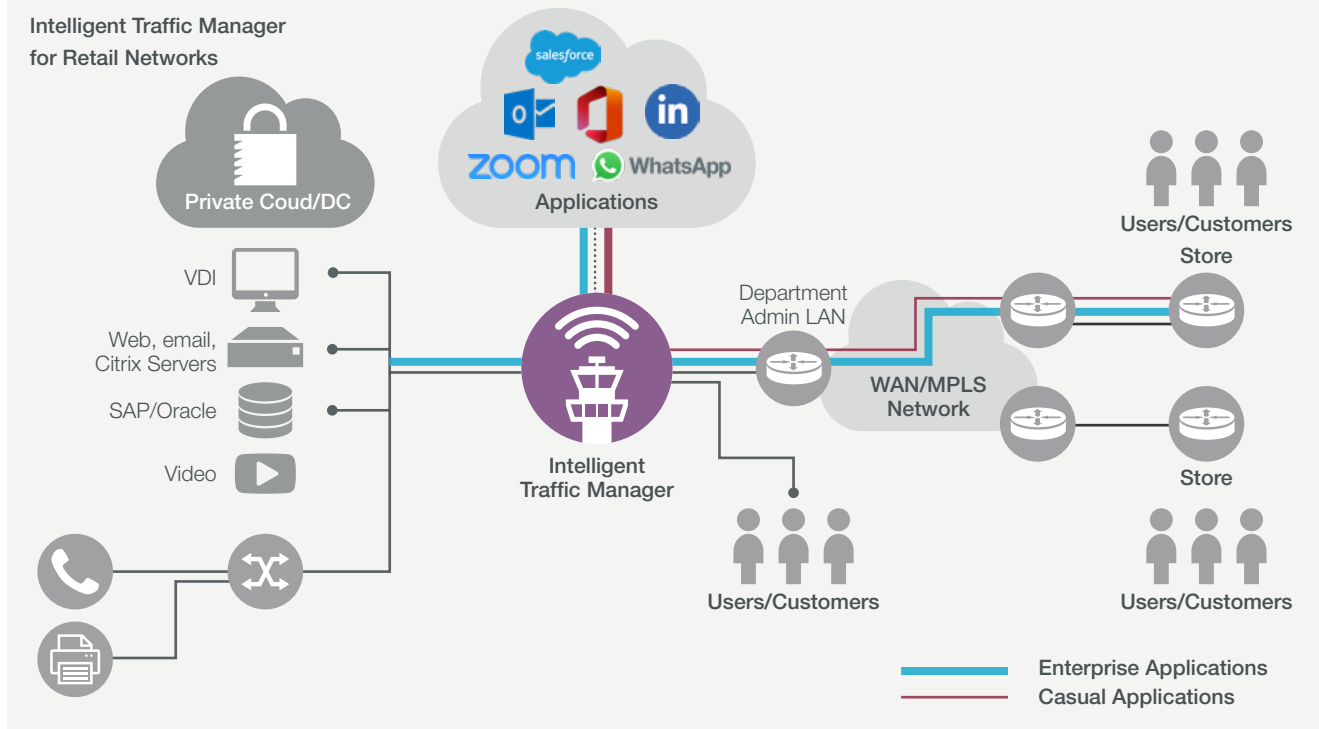
Why Sandvine?

Global enterprises count on Sandvine's market-leading intelligent traffic management solutions to run world-class networks and deliver personalized services.

- Over twenty years of experience providing solutions to 500+ enterprises and 160+ communications service providers across more than 100 countries – 2.5 billion network users

- Global partnerships provide onsite services and support to ensure that Sandvine's solutions meet specific enterprise requirements

- ActiveLogic platform received Frost & Sullivan's 2020 Global New Product Innovation Award for excellence in technological innovation

  - Over 10 years of unique machine learning analytics and closed-loop automation expertise to extract network intelligence – 98%+ encrypted and unencrypted traffic visibility, 3500+ traffic classification signatures updated weekly

  - Flexible, easy and highly scalable set-ups – virtual or cloud deployments across multiple access networks

  - Automation business cases leverage user data and machine learning techniques to solve specific enterprise network and security challenges and deliver personalized experiences

[1] [Frost & Sullivan Award](#)

- Future-proofed to meet new 5G, cloud, edge and AI enterprise requirements

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.**

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