



Education Sector: Intelligent Traffic Management Solutions

INTELLIGENT TRAFFIC MANAGER BENEFITS:

- Support large, distributed and remote faculty, staff and students
- Manage user traffic based on education campus, department or faculty – fair use
- Boost learning by prioritizing critical educational and research applications and devices
- Improve Wi-Fi performance
- Increase revenues with personalized, usage-based services
- Anticipate and mitigate constantly evolving cyber threats, blocking unacceptable applications

As virtual learning, global research, and eSports continue to grow more strategic to colleges and universities, Intelligent Traffic Manager is the solution network administrators need to manage user experience on and off campuses.

Education networks are rapidly evolving to meet the changing demands of students, faculty, staff, and guests. These users bring with them numerous different devices and applications for on-campus and remote learning and collaboration, global research projects, eSports, cloud gaming, and video streaming.

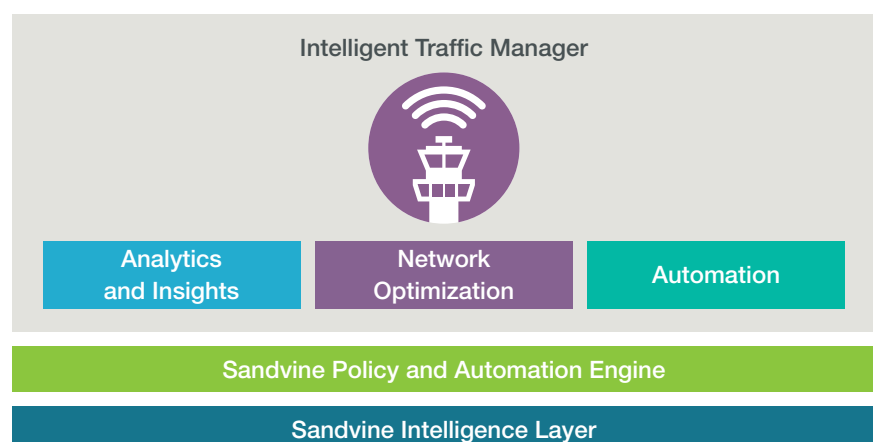
As education network and IT administrators modernize their education infrastructure, they are constantly challenged by:

- Explosive network traffic growth – video, content sharing, bandwidth-intensive applications
- Shifting device, application usage and location patterns
- The need to differentiate critical educational and research applications from casual applications
- Decreasing traffic visibility due to encryption
- New cyber security threats

Intelligent Traffic Management Solutions for the Education Sector

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

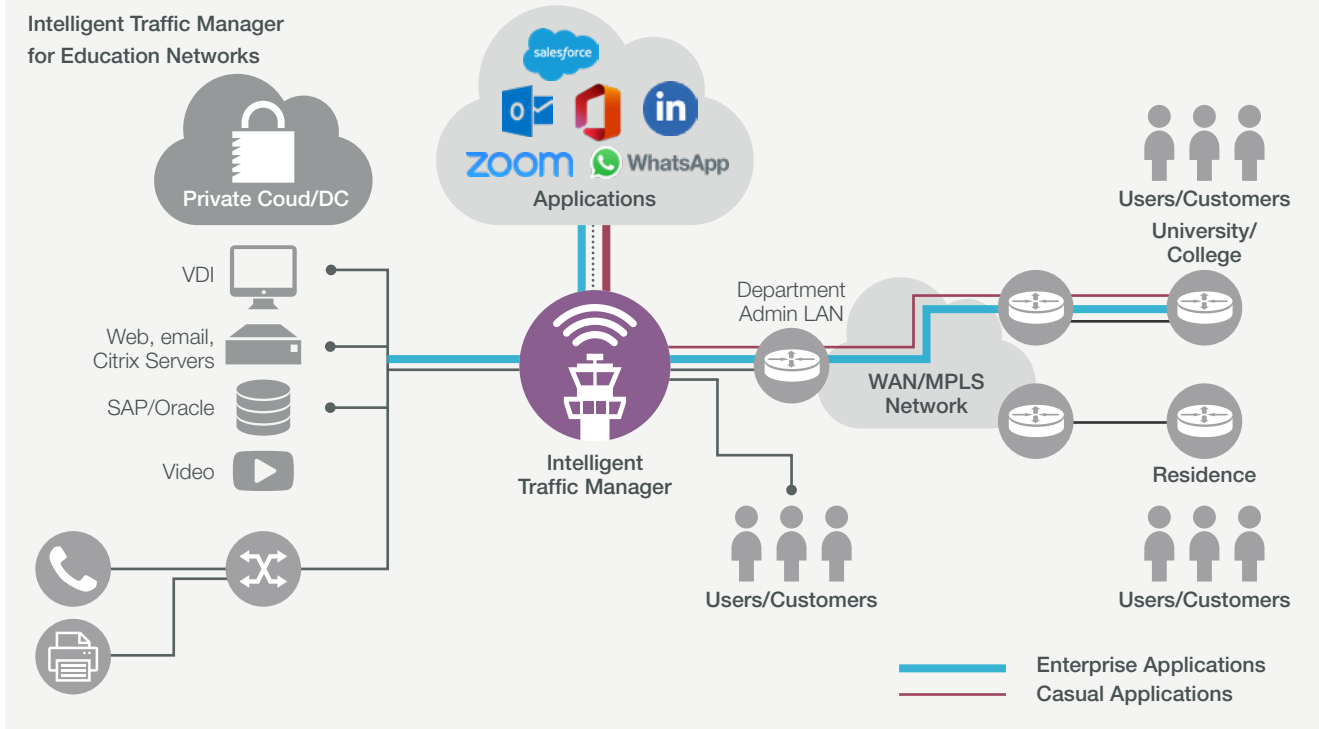
- **Visibility:** Granular visibility, identification, and contextual awareness of all user, application and device traffic transiting networks in real time
- **Analytics:** Behavioral, intent-based analytics that compare network, application, device, and user behavior to identify areas of action
- **Automation:** 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).





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 to improve 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 and filtering.

Figure 1



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

¹ [Frost & Sullivan Award](#)



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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