



# Case Study: Waterloo Region School District Board

MICROSOFT AZURE VIRTUAL DESKTOP



## OVERVIEW

Waterloo Region District School Board (WRSD) is the public-school board for the Region of Waterloo in Ontario, serving more than 64,000 students. The Board was challenged with the need to provide secondary school technology students with access to high performance applications supporting remote learning.

The object of the project was to enable a secure and ubiquitous remote desktop experience allowing students to access course software from anywhere, anytime, from any device.

- > This solution has **helped over 5200 students** gain access to virtual platforms and resources without booking physical access to computer time
- > Microsoft AVD enabled students and staff to continue to participate in tech programs that were limited to remote learning.
- > AVD uses **Microsoft's state-of-the-art security features** that are controlled by custom policies regardless of where or how information is being accessed.

## CHALLENGE

The Waterloo Region District School Board was facing the combined challenges of aging computer labs being unable to run the latest software, a high cost to replace equipment, and unequal access to computing equipment for at-home or hybrid learning students.

The Board required a solution that enabled students and staff to have access to a high-performance complete modern desktop from any device, that offers complete security and compliance. Built on Azure, Microsoft's Azure Virtual Desktop (previously Windows Virtual Desktop) would provide a simplified IT infrastructure, enhanced flexibility and productivity, lower costs, and enhanced security. As an on-demand cloud system, costs could be managed by only paying for the computing resources when they are in use, and accessible available from anywhere in the world with an internet connection.



*Azure Virtual Desktops provided our secondary students and educators access to high performance computer resources without the need to physically be in one of our schools, this provided in-person and remote learning students access to the same resources. We now have over 250 classes with more than 5200 students actively using the virtual resources and we continue to receive requests from different educators to extend access for new courses. The project has been a success both financially and improving our students experience.*

**IVANA MACISAAC**  
**SENIOR MANAGER OF IT, WRDSB**





## SOLUTION

Microsoft's Azure Virtual Desktop (AVD) was implemented as a solution for Waterloo Region District School Board's needs as it is not only scalable, but it is built on the familiarity and compatibility of Windows 10. A customized AVD solution was implemented for the School Board that tailored to their specific application set and infrastructure. The implementation addressed an initial set of use cases that included high-performance GPU technical workloads, standard Office Suite applications, and administrative applications.

The service was first piloted with an internal staff implementation, where the benefits of AVD were discovered. As a Microsoft Gold Partner, Softlanding was engaged to speed up timelines and ensure a successful deployment across all schools. The Waterloo Region District School Board chose a graduated rollout of AVD that would increase the number of classes transformed over three months. This strategy helped to ease the service into the hands of the students, teachers, and IT staff leading to better adoption rates. Further, to support change management, Tech teacher champions were identified and worked to train their colleagues on the adjustments and transformation occurring within the organization.

Another solution implemented with this pilot was the use of Host pools within AVD. Host pools are a collection of one or more identical virtual machines (VMs), which allow users to interact with an app group the same as they would on a physical desktop. This implementation for instructional use allows the students to have better access to any applications that may have only previously available at the school computer lab. Further, the implementation of host pools for administrative use allows access to internal resources previously unavailable off the network for Principals, VP's, Secretaries, etc.

Prior to the implementation, classes were not able to operate without access to physical labs. This solution enabled all students to have equal access to tools such as AutoCad, Adobe Creative Suite, and the Microsoft Office Productivity Suite in a hybrid learning situation. As of November 2021, more than 5200 students use the virtual platforms scaling up to 150+ host pools, giving them access to resources without booking physical access to computer time.

The solution proved to be great for students, teachers, and IT staff, and a long-term adoption plan was created to increase the use of WVD across the Waterloo Region District School Board.

## BUSINESS BENEFITS

The initial measurement of success was the enablement of students and staff to continue to participate in tech programs that were limited to remote learning. Both students and teachers quickly realized that the AVD environment performed superior to the physical student lab computers.

The IT team now can retire the aging physical labs, reducing capital acquisition costs of hardware, eliminate the maintenance of the lab systems, and most importantly return the physical classroom asset back to the facility.

The Board leadership was initially concerned about the escalating costs of AVD, Softlanding being a Nerdio partner presented the business benefit of using Nerdio Manager for AVD to aggressively manage the scalability of the host pools based on time-of-day and active user counts, this addition also simplified the management of the images for the IT team. With the help of Softlanding, the Board was able to reduce their physical footprint while still maintaining increased class participation.

Looking to the future, the Board plans to expand the implementation with an increased software library which will support new course offerings and broaden existing courses. Further, the implementation of a virtual infrastructure will spread courses to schools that have few physical labs and who previously could not have these tools.



### SUPERIOR PERFORMANCE

Students and staff could continue to participate in tech programs that were limited to remote learning



### COST EFFECTIVE

Retire aging computer labs, reduce capital acquisition costs of hardware and eliminate the maintenance of the lab systems



### SCALABLE HOST POOLS

Able to reduce the physical footprint while maintaining increased class participation



## RESULTS

WRDSB partnered with Softlanding, Microsoft, and Nerdio; they presented a business problem that impacted students' ability to succeed; the outcome was not limited to just providing students with a new way to succeed, the design achieved measurable benefits and cost savings never considered.



### IMPROVED STUDENT & TEACHER EXPERIENCE

- Access AVD from anywhere, anytime, from any device: PC, Chromebook, Android, iOS, Apple OS and via HTML5
- Allow users to work with on prem applications without a VPN or remote view software
- Flexibility to work from any room at the school or from home with the same experience in all locations, thus leading to improved collaboration
- Consistent application performance across all devices



### INCREASED BUSINESS BENEFITS

- Eliminate hardware purchases for student Labs
- Eliminate support costs for computer lab equipment and software
- Return computer labs back to classrooms – reducing the need for portable classrooms
- Ability to schedule time-of-day access to resources to manage costs
- Ability to scale up and down based on class schedules



### IMPROVED SECURITY & SUPPORT

- Secure workspace that is controlled by your policies regardless of where or how it's being accessed
- No VPN Software required. No special setup required. No exposure to internal resources from outside the network
- Deep Integrations with Azure security features including MFA, Conditional Access, and more
- Reduce image management and patching
- Reduced service desk requests, training, and deployment requirements with computer labs
- Reduce software fragmentation
- Hardware Requirement Changes

## About Softlanding

Established in 2000, Softlanding is a leading provider of cloud, professional and managed IT services that helps organizations boost innovation and drive business value.

We are a multi-award-winning Microsoft Gold Partner with 14 Microsoft Gold Competencies. We use our experience and expertise to ensure our clients have the best technology solutions to solve their business challenges and thrive in an ever-changing world. We optimize the return on investment of their technology while creating a solid foundation for growth strategies, flexibility and scalability.



**Head Office**  
555 West Hastings st.  
Suite 1605  
Vancouver, BC V6B 4N6

**Offices**  
Toronto  
Montreal  
Calgary

888-976-3852  
cloud@softlanding.ca  
softlanding.ca