MICROSERVE

CASE STUDY:

DOUGLAS COLLEGE HCI VXRAIL

MISSION-CRITICAL DATA CENTRE UPGRADE

CASE STUDY AT A GLANCE

Company: Douglas College
Industry: Higher Education Industry
Students: 25,000 Undergraduate Students
Locations: Metro Vancouver, Canada

ABOUT DOUGLAS COLLEGE

Douglas College is the largest degree-granting college in British Columbia, Canada, educating close to 25,000 students per year. Founded in 1970, the college has over 960 experienced, teaching-focused faculty and over 900 additional employees working across several campuses and facilities within the Greater Vancouver area.

THE INITIAL CHALLENGE

Douglas College spent many years updating and making the most of an aging IT infrastructure, while systems requirements continued to increase along with growth in faculty and student population. The College had outgrown their old system and demands for new systems kept increasing. The College's systems had reached high watermark capacities and were unable to support the service levels required for their application workloads. The applications and technologies had considerably changed over the lifetime of the aging infrastructure, and feature and functionality requirements were no longer being met. The ultimate business drivers in securing an updated solution were increasing reliability issues with legacy hardware and risk of data center failure.

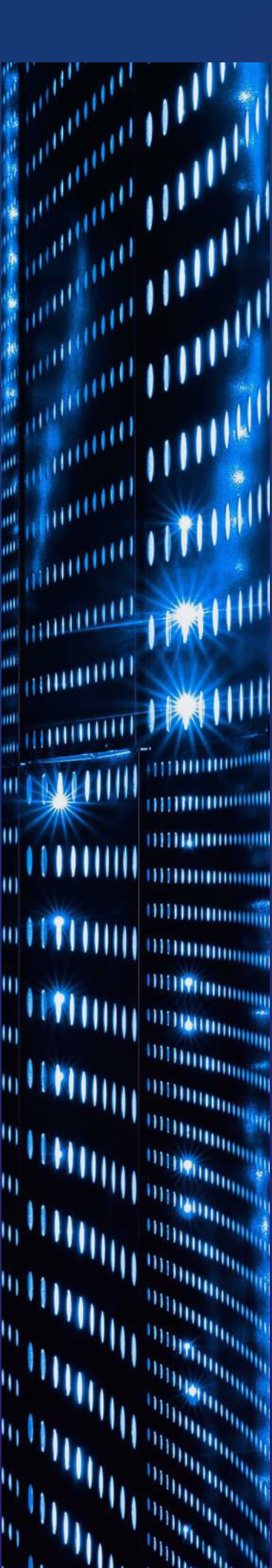## Modernizing Technology For 25,000 Students and 2,000 Staff

Douglas College approached Microserve as their trusted IT partner to help develop the best-fit solution to meet their evolving needs. The College's goals were to modernize their data center technology in order to exceed performance requirements, consolidate existing workloads, flatten architecture, servers and hypervisors, as well as reduce its environmental footprint.

There were some highly complicated questions and considerations that went into choosing the best technology solution: how to consolidate the workload, deciding on different options for the infrastructure, types of hypervisors and how to use them, reducing electrical consumption, reducing space, becoming more software-defined, and flattening physical servers and architecture. Our selection process included analysis of computer, networking, storage, and backup and recovery requirements. Microserve facilitated a series of meetings for Douglas College, which aided in needs analysis, planning, building consensus surrounding solutions, and keeping key stakeholders informed throughout the process.

Ultimately a business case was finalized and presented to effectively communicate business requirements and total cost of ownership for the proposed solution to the College's executive leadership: High availability, Hyper-Converged Infrastructure (HCI) was mission-critical to mitigate operational risks and meet the College's evolving needs now and in the future.

The Final Technology Solution: Dell EMC HCI VxRail and VMWare

After investigating all options, the solution ultimately selected to best meet the College's requirements was built on the Dell EMC VxRail Hyperconverged Infrastructure (HCI) platform, leveraging VMware ESXi for the hypervisor. Whether you are accelerating data center modernization, or deploying a hybrid cloud, VxRail delivers a turnkey experience and is the only fully integrated, pre-configured, and pre-tested VMware hyperconverged system powered with VMware vSAN or VMware Cloud Foundation. VxRail transforms HCI networking and simplifies VMware cloud adoption, while meeting any HCI use case - including support for many of the most demanding workloads and applications.

Microserve worked in close partnership with the Douglas College team, from solution development to implementation and vendor management. The IT infrastructure implementation project was broken into Phase 1 for deploying the new VxRail and VMware environment, and phase 2 for migration of legacy systems, testing and go-live.

The implementation project aligned with Douglas College's IT project governance and approval processes, and thorough planning played a critical role in optimizing the success of the project. "It took six months of planning for the build of just over five days, including stress and performance testing. The project can be described as measure twice, cut once. By the time the equipment was delivered, it was a very smooth implementation", says Michael Lam, IT Manager of Infrastructure at Douglas College.

MICROSERVE AND DELL DELIVER BEST-IN-CLASS IT SOLUTIONS TO HIGHER EDUCATION

Microserve is a Dell Titanium Solution Provider, which is the highest level of Dell partnership. Dell Titanium partners are Dell's most strategic partners with robust capabilities from edge to core to cloud. Microserve is the only Dell Titanium Solution Provider based in Western Canada.

Douglas College was able to leverage BCNET's procurement contracts for Dell EMC Storage Equipment and Server Hardware for this project, through which Microserve is an authorized reseller. BCNET is a not-for-profit, shared services organization that represents the interests of its members – colleges, universities, and research institutes in British Columbia. One of the services that BCNET provides to members is building strategic alliances with industry partners and establishing IT procurement contracts that can be leveraged by member institutions such as Douglas College.

> *""The level of engagement Microserve has for problem solving and getting the best prices for hyper-converged infrastructure is streets ahead. That's paying off, we're looking for other solutions such as the integration of GPU farm of servers, customer advocacy, attention to details and talent pool. The positive impact to our organization is long-term."*

Brian Mackay, Associate Vice-President, Technology & Chief Information, Douglas College

THE END RESULT OF THE PROJECT

This project helped the College achieve their goals and objectives, and the new technology platform provided simplification and consolidation across the entire technology stack.

Douglas College was able to reduce the physical servers by **60%**, which resulted in **$15,000** savings for 191 megawatts reduction in electricity per year. This does not include the downstream savings of air conditioning for the new HCI, which would need 60% less air conditioning. The new system reduces significant carbon dioxide emissions for a big environmental benefit. The mission-critical reporting and analytics solution is a night and day improvement due to the extreme performance of the new system, and the college staff working with the new systems love it.

Michael Lam says of the VxRail implementation and migration project delivered by Microserve, "It was highly successful. The feedback was extremely positive due to support from Microserve and execution was on time and on budget for both phase 1 build and testing, and phase 2 moving the old workload into the new one. Microserve is excellent. They are leagues better and critical for Douglas College's success. We would not be where we are without Microserve."

ABOUT MICROSERVE

Your Partner for IT Solutions

Microserve provides hyper-convergence technology (HCI) infrastructure to unite computing, storage, and networking components into a single system, putting you on the fast track to performance, with all resources to be shared across all instances of an HCI data center.

With over 300 employees and consultants, along with over 200 OEM technology partners, Microserve is different than your average IT provider. Instead of taking a one-size-fits-all approach, we focus on designing custom IT solutions that help our clients more efficiently accomplish their goals. Our clients have trusted our experience, commitment to excellence, and insight to keep all their technologies running and optimized for the future.

Microserve is headquartered in Burnaby, BC, with offices in Victoria, Calgary, Edmonton and Halifax. Founded in 1987, we support the IT needs of businesses and organizations across industries throughout British Columbia, Alberta and Atlantic Canada, with clients ranging from small to mid-sized operations and enterprise-level organizations. We partner with each of our clients, regardless of size, to provide custom, responsive IT support and solutions that propel our clients toward their goals.

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