



What ORION can do for higher education

How ORION is helping professors and students connect and compute like never before, all across the province.

We're helping students and learners of all ages complete professional diploma programs online in communities as remote as Ginoogaming First Nation.

We're also helping students and their professors access advanced computing services that are essential to their work in astronomy and physics, in food supply safety, in breast cancer research, and in the incidence and health risks of toxic blue-green algae blooms.

We provide exponentially faster speeds.

"Before ORION, it would take us weeks to upload files...Now, we can do it within days from our office."

McMaster University

"Without the high-speed...high-capacity network we have with ORION, we wouldn't be able to do this research."

Northern Ontario School of Medicine

We created the Ontario Cybersecurity Higher Education Consortium (ON-CHEC) to help higher learning institutions improve their cybersecurity posture.

"ON-CHEC is changing the digital security landscape by enabling higher education institutions to effectively prepare, prevent and respond to cybersecurity breaches."

Humber College

"I believe this is a landmark initiative for Ontario higher education shared services...The ON-CHEC program will help to centralize and manage IT security for universities, colleges and potentially other stakeholders (in) the R&E community in Ontario." *OCADU*

"I see this project being a strong baseline for other institutions, to help guide them to be more cybersecurity aware as well as addressing any compliance programs such as PCI."

Brock University

Key features	ORION	Other networks
Network	Exclusively for Research, Education & Innovation (RE&I) users More secure than public networks Not for profit	Public – open to all For profit
Internet	Speeds up to 100 Gbps Vast bandwidth for big data, high traffic Low latency for streaming media Rates based on sector and capacity needs	100x-1000x slower* Rates must provide a profit
Access to RE&I networks	Direct, easy access to Canada's National Research and Education Network as well as other RE&I networks worldwide	No direct access Bandwidth too low for big data
Cybersecurity	DDoS Threat Protection included Anycast DNS service included 24/7 DDoS Threat Protection available Cybersecurity awareness training available ON-CHEC membership available Specialized security initiatives available	May not be included Greater vulnerability to viruses, hackers, breaches, malware and ransomware** No opportunity to share cybersecurity expertise & intel on threats with peers
Community training	Professional development for RE&I cybersecurity & IT professionals Flexible online training CodeRed learning platform	Quality, cost and scope vary widely Training geared to general audiences
Access to high-performance research tools	Fast, direct access to ARC / HPC facilities for big data research Unsurpassed ease & quality of connection	Quality of connection varies widely
Library data backup	Via Scholars Portal Rapid uploads / massive bandwidth Data integrity preserved	Quality of connection varies Slower uploads / lower bandwidth Potential for errors in data

*In 2020, Canada's highest reported download speed among public networks was 583.7 Mbps – just over half of one Gbps. The next highest was a quarter of that. PCMag, Statista

**1 in 4 organizations in Canada had a security breach in 2020; another 38% were unsure if they had. CIRA

What can we do for you?
Find out by calling 416-507-9860 or by emailing communitydev@orion.on.ca



Part of Canada's National Research and Education Network