



Unifying Quebec Universities through Federated Identities

Students commonly want or need to take courses from an institution that's not their own. A visiting student may wish to expand their knowledge in their chosen field, use resources that aren't found at their own college or university, continue their education while pursuing an internship, or sample a class from a school that better matches their needs.

Situations requiring cross-institution studies are often found in medicine where training is highly specialized and equipment is expensive. However, the enriching and sometimes essential experience of studying at another school is typically fraught with complex procedures, red tape, and endless forms.

A Coalition of Quebec's Universities

Given the importance of facilitating better academic opportunities and mobility for students, all Québec universities signed a common agreement in 1967 to form the corporation that is today called "Bureau de coopération interuniversitaire" (BCI). BCI is a voluntary coalition of the province's 18 universities, and its overall mission is to promote dialogue between university administrators, support their deliberations on joint initiatives, and enable

services that the universities need to excel in teaching, research and administration.

Serving a Mobile Student Population

By 2016, 4,500 Quebec students took courses at institutions other than their own. To do this, students had to create accounts at BCI and re-enter all their personal information that already resided in their home institution's systems. Additionally, each application needed validation by administrators.

BCI knew the time had come to re-design the application process. This was driven by the urgent need of the province's medical schools and their mobile students to

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join a Canada-wide system launched by the Association of Faculties of Medicine of Canada (AFMC) and to synchronize that with the BCI system. Enrolling a transient student requires both the home and the host university to share key data about the student, their program of study, and the desired course(s). Avoiding duplication of effort and inconsistencies in information among universities was a significant challenge.

Simplifying Services Among Universities

BCI collaborated with CANARIE and joined the Canadian Access Federation (CAF) to implement the Federated Identity Management (FIM) service. FIM was a perfect fit to streamline student and faculty access to a broad range of services across multiple institutions. By leveraging the FIM service, which lets the universities verify the identity of students and staff, BCI was able to create a new, simplified version of the online application. The FIM service allows BCI to retain a single set of data for each student, managed by their home university. This avoids error-prone manual processes and prevents validation issues from unsynchronized data, and stale information.

Federated Identity Management in Action

The new student management model required substantial changes to the institutions' decision-making processes and their business models as they related to BCI. At the same time, BCI had an urgent need to implement the new model for the management of medical internships. As a result, all parties agreed to a phased roll-out, with the first phase addressing the needs of the faculties of medicine.

Quebec students wishing to enrol as medical trainees at another Canadian host university can now use BCI's service, which in turn uses CANARIE's FIM service to assist with all aspects of identity management. Students need only their home university's login to grant BCI authorization to access their data, relieving them from the significant chore of correctly re-entering all their personal information for each new application.

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- Mrs. Ginette Lortie, Director of IT at BCI.

BCI's online application, linked to the AFMC national portal, uses student information to verify that they are officially registered at their home university. It also verifies that they comply with the institution's policies and the agreement between Quebec's universities that authorizes credit transfers between them. The online application communicates with the host university to check that the student can be accepted – e.g. they meet course prerequisites. It also verifies that the course is relevant to the student's program of study and that the credits can be applied towards their degree. Once all the steps are validated, the student is informed that their application has been accepted.

A Smooth Start

Although BCI had extensive experience with many IT domains, they were not experienced in the details of federated identity management. In collaboration with the universities, BCI needed to create a service that would plug into a unified identity federation system – the Canadian Access Federation (CAF) – that associated a university student's login with their profile data. CANARIE helped by providing documentation and comprehensive support to BCI and the universities' implementation teams. “CANARIE has an amazing onboarding process,” says Mrs. Ginette Lortie, Director of IT at BCI. “Their helpful staff and solid expertise made them an absolute pleasure to work with.”

In order to roll out the service throughout the province, all the universities needed to join the Canadian Access Federation. CANARIE helped ensure that Quebec institutions were able to join CAF, provided guidance and assistance to their IT departments and also introduced those universities to a range of services that leverage FIM.

Post-Secondary Studies Potential

The program has completed its first phase, with an initial four Quebec universities now using the BCI online application that allows their medical students to register for cross-university electives requests. Phase Two, which incorporates the remaining 14 Quebec universities for all other fields of study, is slated to complete in 2019.

Mrs. Lortie is pleased with their decision to work with CANARIE. “Rather than creating a single-point solution for this problem, our integration to CANARIE’s FIM enables us to create other shared services throughout the university system,” she explains. BCI believes that this newly adopted technology could eventually be used to

provide additional cross-university services and improve others, such as transcript transfers and inter-library book loans.

Given BCI’s focus on improving Quebec’s educational institutions, new services would naturally be offered to all universities in Quebec. But academic research and education is not limited to a single province - using a common identity framework sets the stage for BCI to eventually help Quebec institutions collaborate with other Canadian or global universities. “Our project with CANARIE was a great investment,” Mrs. Lortie concludes, “Not only is it helping us fulfil our mission of improving cooperation within Quebec universities, it also leaves the door open to many other possibilities.”

