



CAF presents a new model for sharing online resources

By Lori MacMullen, Executive Director, CUCCIO-CDPIUC

Based on principles of sharing and trust, the newly-created Canadian Access Federation (CAF) will enable members to access and share each other's web-based resources including databases, electronic publications and software, as well as provide easier access to computing and networking. Using their home institution credentials (i.e., user-id and password) students, faculty and staff of member universities can access wireless networks on other member campuses (without the burden of having to establish a guest account). As more resources are made available, they will also have access to web-based databases, electronic publications and, in some cases, software and computing resources.

In the early 2000s, the need for a better and easier way to support authorized access to a variety of resources was identified. Resources such as electronic library holdings, e-learning services, high performance computing, and research databases were recognized as potential 'shareable' resources across the Canadian higher education community. However, in order to protect the resources, meet licensing and access restrictions, and ensure the protection of personal information, individual institutions were (and continue to be) faced with the overhead and complexity of providing and managing multiple access options, based on the use of 'guest accounts' to allow those users not associated with their institutions access to 'shareable' resources. Users are required to establish and maintain multiple user-ids and passwords in order to access the resources they need. As the demand to work, study and teach in a collaborative manner rises, this approach is clearly not sustainable.

After examining the trends in higher education around the world in 'Authentication and Authorization Infrastructure (AAI),' including the technologies being used, how they are managed and how they are delivered, Eduroam® (Education Roaming) has emerged as the de-facto standard in support of providing visitors access to wireless networks at other institutions. SAML (security assertion mark up language) is being adopted to provide a standard approach to authorize access to web-based resources and applications.

In addition to adopting technical standards, the countries leading in this area (including Switzerland, the US, UK and 15 others) have established and funded federations for the management and delivery of federated services to their members. Each member of the federation agrees to a set of principles, guidelines, and technologies enabling them to grant access to other members to the shareable resources within their respective institutions. The agreed-to set of principles, guidelines and technologies form the framework required to support the trust relationship between members and is promoted and managed by the national access federation.

In 2006, under the umbrella of the Canadian University Council of Chief Information Officers - Conseil des dirigeants principaux de l'information des universités canadiennes (CUCCIO-CDPIUC), 14 universities funded a pilot project to develop and implement a 'Canadian version' of an

access management federation. Based on the success of the pilot and, in anticipation of the continued and increasing demand to provide 'seamless' access to the multitude of electronic resources available across the Canadian higher education community and beyond, the Canadian Access Federation-Fédération canadienne de la gestion des accès (CAF-FCAG, hereafter CAF) was established. Under the auspices of CUCCIO-CDPIUC, CAF serves as the vehicle for delivering federated services in Canada.

CAF provides the policy framework, organizational structure, business processes and technical infrastructure required to support a trusted and secure relationship among and between universities, research institutions and other organizations and in support of collaboration across higher education, within Canada and around the world. Using the technologies noted, CAF allows users (i.e., researchers, faculty and students) to be authenticated using their home credentials (i.e., the user-id and password they use to access electronic information or services at their own institution) and to access 'shareable' services such as wireless networking or 'shareable' resources such as electronic publications or online databases. As similar federations continue to emerge around the world, CAF will support collaboration across higher education and research communities internationally through federations of federations.


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To date, 23 Canadian institutions have joined CAF.

While this is a new venture for Canada, access federations are in common use in Europe, the US and Australia. In order to continue to participate effectively in worldwide collaborative research, CAF must be in place, supported and accessible to the Canadian higher education community and its service providers. To this end, CUCCIO-CDPIUC, supported by CANARIE and in conjunction with the Canadian Knowledge Research Network and Compute Canada, has undertaken the CAF Futures Study, with the objective of identifying and implementing a sustainable funding and delivery model for the Canadian Access Federation going forward. 

The Canadian Access Federation - Fédération canadienne de la gestion des accès (CAF-FCAG) is an initiative of the Canadian University Council of Chief Information Officers - Conseil des dirigeants principaux de l'information des universités canadiennes (CUCCIO-CDPIUC). For more information on CUCCIO or the CAF, please contact Lori MacMullen, Executive Director, CUCCIO-CDPIUC, at executive-director@cuccio-cdpiuc.ca.



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