



**The Canadian Electronic Transcript Network:  
Vision Moving Toward Reality**

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ARUCC Conference, June 18, 2014

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**Today's Session**

- **Background**
  - PESC and PESC XML
  - Canadian PESC User Group
- **The Vision**
  - Canadian Transcript Exchange Network
- **New Realities**
  - BC and Ontario
  - Ontario intra-provincial exchange
  - Ontario and Alberta
- **On the Horizon**
  - New Brunswick
- **How YOU can be involved**

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**P20W Education Standards Council**

- A North American standards group that promotes the implementation and usage of data exchange standards
- Non-profit, community-based
- 80 members (7 Canadian) and affiliates including AACRAO and major software vendors
- Standards are driven by member working groups

[www.pesc.org](http://www.pesc.org)

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### What is PESC XML?

- PESC XML standards have evolved from existing X.12 EDI standards
- Think of PESC XML standards in three parts:
  - 1) A transport based on XML
  - 2) Standard attributes for each data element (length, characteristics)
  - 3) Standard definition of content

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### Why use PESC XML Standards?

- Enhanced data quality
- Flexibility
- Enhanced data exchange capability
- Other benefits
  - (Near or) real-time processing and web services
  - Allow for attachments and extensions, which can be easily identified for use or ignored if desired
  - Better interaction with SIS and document management systems

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### A Grassroots Movement

- Began with four Canadian application services each determining standards are required for best practices
- Recognized the need for a Canadian presence within PESC
- Membership from all 10 provinces, including centralized application centres, universities, colleges, Ministries of Education, software vendors and government agencies

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- Primary contact between PESC and ARUCC
- PESC and ARUCC formalized their partnership in April 2013 with a MOU
- Meets the second Thursday of each month by teleconference
- ShareFile repository – resources and documentation




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### The Vision

- Develop a Canadian Transcript Exchange Network
  - Student-centric, HS & PS, using PESC XML standards
  - Facilitate adding new trading partners
  - Facilitate student mobility
  - Improve data quality, security, integrity, accuracy and comprehensiveness
- The San Diego Decision: The four application services are best placed to lead the way
  - Start small, share what we've learned with those who will follow later

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### The BC2ON Project: A BCcampus, OUAC, Douglas College Success Story

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### BCcampus, Vancouver

- Uses IT to collaboratively connect expertise, programs and resources of all 26 B.C. postsecondary institutions
- Uses PESC standard for transcript exchange service with six institutions (so far)
- Facilitates TranscriptsBC Standards Reference Group for PESC XML data standards to:
  - Develop transcript data exchange solutions
  - Ensure alignment of print and electronic transcripts
  - Develop consistent PESC XML tag use
  - Develop common testing scenarios to facilitate implementation and PESC adoption sector-wide

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### The Ontario Universities' Application Centre (OUAC), Guelph

- Primarily manages centralized processing of student applications to Ontario's 20 universities
- Supports an EDI transcript hub for Ontario's universities
- Uses PESC XML High School Transcript and Acknowledgement since September 2013
- Supports PESC XML College Transcript & Acknowledgement using corresponding EDI ↔ XML crosswalks since January 2014

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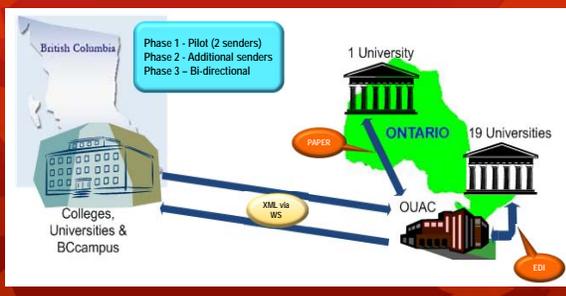
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BCcampus + OUAC + Douglas College =  
 First tangible interprovincial achievement in the Canadian Transcript Exchange Network!




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### How did we get there?

- Discussions started following the San Diego PESC Summit in May 2013
- Project Charter signed in October
- Deliverables:
  - A working transcript/acknowledgement exchange process between BCcampus and the OUAC, using web services and PESC XML
  - A Master Agreement to govern this and future collaborations
  - A Statement of Work for interprovincial postsecondary transcript exchange, including a steady-state Service Level Agreement
  - For the OUAC, a process to re-route transcripts to the appropriate Ontario receivers

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### How did we get there? (cont'd)

- 5 Project Team meetings,
- 8 Tech Team meetings,
- Many, many emails (no face-to-face meetings)
- And lots of testing...
- On January 23, 2014 Douglas College started sending transcripts in PESC XML to BCcampus for the OUAC to retrieve via web services and forward to Ontario universities

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### Project Outcomes

- Established value of using PESC XML
- Established use of web services between BC and Ontario
- Produced an overarching Master Agreement to govern the BCcampus and OUAC relationship and future collaborations
- Produced a project summary document to share with others
- Created a template for bringing on new B.C.-Ontario partners
- Shared our project resources on the BCcampus wiki and the User Group ShareFile repository

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## Ontario and Alberta: Collaboration on a Canadian PESC Implementation Guide

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### About ApplyAlberta

- ApplyAlberta - 26 public post-secondary institutions; implemented in October 2009 using PESC XML
- Common application system for universities, colleges, and polytechnical institutions in Alberta
- Transcript transfers between post-secondary institutions in Alberta; high school transcript delivery from Ministry of Education
- More than 580,000 applications submitted
- Over 709,000 transcripts transferred
- Currently investigating requirements for high school transcript exchanges with other provinces

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### What ApplyAlberta and OCAS have achieved together

- Draft of a PESC Canadian High School Implementation Guide
  - Complements the existing PESC Implementation Guide
  - Makes recommendations for the Canadian sector
  - Will serve as a resource for future exchange partners
  - A living document
  - ApplyAlberta and OCAS plan to exchange high school transcripts in future

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Ontario and Ontario:  
Extending eTMS to OUAC




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**About Ontario College Application Service (OCAS)**

- Created by Ontario's 24 public Colleges of Applied Arts and Technology and Institutes of Technology and Advanced Learning in 1992
- Established as a not-for-profit
- Primary services are applications to college, data warehousing, marketing
- 3 million distinct visitors to our applicant website (ontariocolleges.ca) annually
- 200,000 applicants apply to over 500,000 college programs annually

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**About OCAS eTMS**

- eTMS = Electronic Transcript Management System
- Objective:
  - Create one system for Ontario students to request secondary and postsecondary transcripts online
  - Allow institutions to easily manage transcript requests by providing secure access to authorized individuals to monitor, distribute and receive transcripts
- Since 2003, has operated an EDI transcript hub for Ontario's colleges, linked to the OUAC hub
- Supports an electronic high school transcript system for 53 school boards / 1,200 high schools
- Accommodates EDI, XML, PDF and DAT files
- Provides batch and real time delivery / processing
- Recognized with 2012 PESC Best Practice Award!

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**OCAS delivers numerous transcripts yearly**

Transcripts received that are re-distributed to colleges.

Source	Destination	Transcripts
Ontario Colleges	Ontario Colleges	43,000
Ontario Colleges	Ontario Universities	26,000
Ontario Universities	Ontario Colleges	32,000
Ontario High Schools	Ontario Colleges	41,000
	Yearly TOTAL	142,000

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**eTMS Turnaround Time**



Total Transcript Requests Sent *	1698	%
Automated Transcripts	1674	98.6%
Manual Upload Transcripts	15	0.9%
No Matching Transcript	9	0.5%

\*Academic year: Sept. 27, 2012 – March 13, 2013

Average turn around time for 98.6% of transcript requests is approximately 1 day (once a day batch process)

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## Extending eTMS to OUAC

- In 2013, OUAC partnered with OCAS to leverage eTMS capabilities for its non-direct-entry (105) applicants
- Branded as My Student Record

High-level Schedule

- Project Kick-off on March 13
- Requirements completed May 7
- Announced June 25
- Launched September 16 – just 7 months after kickoff!



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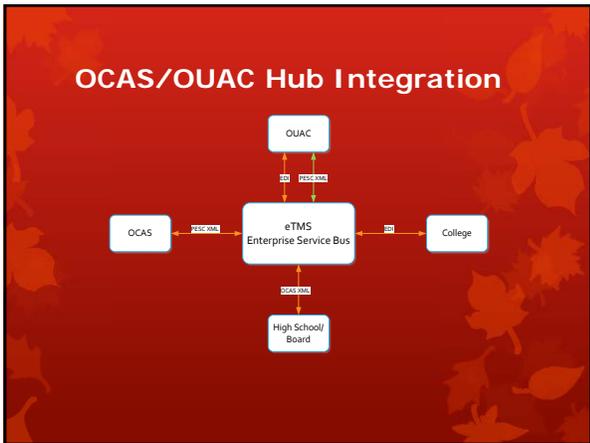
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## Project Approach

- Used an Agile/Iterative approach to gathering requirements and delivery
- Four main use cases: Request, Pay, Fulfill, Send
- Conducted intensive all-day requirements gathering workshops
- Weekly status meetings and reports
- Utilized Sharepoint to store and share project related materials including BRD, design, schedule, issues & risks
- Project involved collaboration from both teams

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## Technical Approach

- o The implementation was comprised of 6 key components:
  - o New ASP.NET MVC web application to host the transcript request page for OUAC applicants
  - o New Moneris store/hosted pay page for processing of OUAC applicant payments
  - o Existing ESB components used for exchange of transcript request messages between request originators and suppliers
  - o Existing eTMS Application for use by High Schools/Boards to fulfill requests
  - o Existing eTMS administration module of secure partner application for use by OUAC
  - o New integration points for exchange of XML files between OCAS and OUAC
  - o Existing server platform used by OCAS Applicant and Partner portals reused (i.e., no new hardware required for implementation). This inherited existing features for performance, high availability, browser support, accessibility, security, monitoring and backup.

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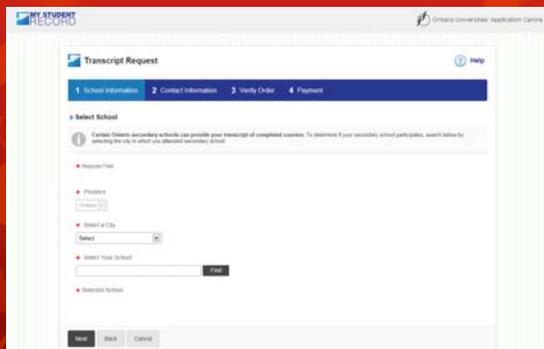
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## My Student Record – Transcript Request




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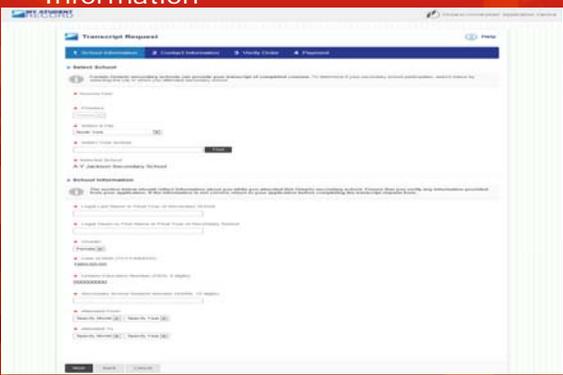
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## My Student Record – Student Information




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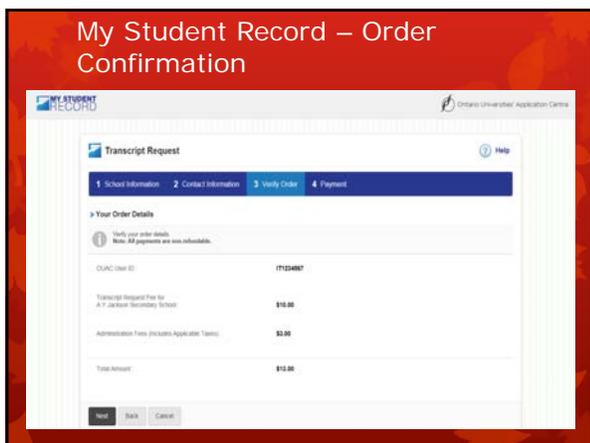
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### My Student Record – Order Confirmation



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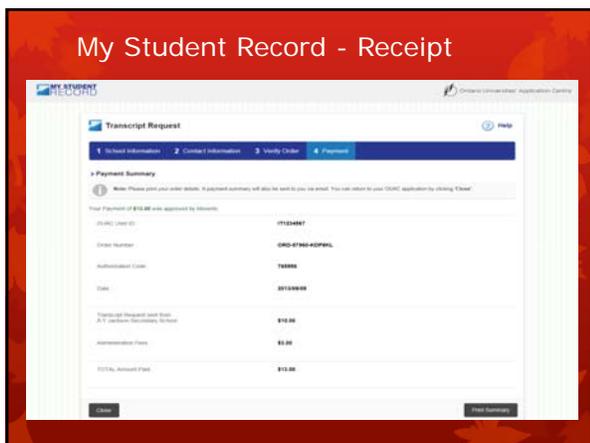
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### My Student Record - Receipt



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**CANADIAN PESC USER GROUP**

## Electronic Transfer of High School Transcripts to PSE Institutions

...the New Brunswick Experiment!

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### Preconditions...How the planets need to align

- We've been down this road before, haven't we?
- ...and we got lost!
- A previous attempt at establishing a transfer framework for the Maritimes didn't work. Why?
  - Several jurisdictions with a variety of legislative and regulatory environments (too much diversity can be a bad thing!)
  - Many different computer systems, incompatible computer languages (our computers didn't like each other)
  - Unclear needs and/or benefits? Political will?
  - No common student identifier...and, by the way, my code is better than yours!

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### The planets...how many are there now?

- What needs to line up:
  - A single regulatory framework helps!
    - New Brunswick universities are subject to the RIPPA
      - Thus fewer concerns related to protection of private information
    - One Education Act...one is enough!
    - Two provincial departments...not eight all reporting to a single political structure
  - A clear political will and government support!
    - The New Brunswick project is supported by the departments of Education and of Post-Secondary Education, Training and Labour with some funding. Funding is symbolic, but creates a link with the public service and provides credibility.
    - Creation of collaborative structures that bring all parties together...makes any project of a provincial scope much easier. Provides a framework for inter-institutional initiatives. (NBCAT, Council of University and College Presidents, etc.)

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### ...more planets

- What needs to line up, still:
  - Biting off what we can chew...starting small, with big aspirations!
    - 7 PSE institutions, all public or chartered
    - No common admissions management system
    - Starting with pilot project and growing from there
    - Transfer from schools to PSE first, then among PSE, then *A Mari usque ad Mare!*
  - The existence of a central hub
    - The DoE is in the process of implementing a central repository of high school transcripts
    - No need to connect directly to every school district or every school
  - The existence of Student Information Systems in all institutions, both secondary and postsecondary
    - All colleges and universities use a well-known SIS (PowerSchool, Banner, DataTel, PeopleSoft)

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### ...still more planets

- A common student identifier
  - Need to index and link admissions requests to electronic transcripts through a common identifier
  - The NBSN was implemented a few years ago and is already captured by PSE institutions as part of reporting to the MPHEC
- A common reliable tested secure transfer protocol!!!!
  - Helps to convince the Province of our capacity to mitigate risk of information leaks
  - XML as a universal code allows compatibility of data across all systems
  - PESC standards are imbedded in all major Student Information Systems, which means that there is no need to build a transfer interface from scratch, but rather only to configure the existing modules within our systems to send and receive from partner institutions. Also, compatibility will remain through all system upgrades.

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### A rogue planet?

- As with any other initiative, this one needs a champion!
  - Need to have an institution / official who will carry the ball
  - Someone who believes in the project and will convince and motivate all others

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### What we've done...

- Defined the project scope and concept
- Identified a reporting mechanism (CPC – NBCAT)
  - Lead within the DoE is at ADM level
  - NBCAT Council has included the project in its list of priorities
  - CPC included the project in its charter of actions for next three years
- Obtained government approval and funding
- Struck the Steering Committee
  - Chaired by the head of DoE's Policy and Planning Division
  - Includes representatives of Universities and Colleges (both bilingual)
- Agreed on broad outline of the implementation of the project and timeline
  - Two working groups
    - One on policy matters (Protection of Privacy, Ownership of Data, Agreements between government and institutions, etc.)
    - One on technical matters (programming the transfer interfaces, implementing protocols, etc.)
  - Pilot project in the fall of 2015, with full deployment in the fall of 2016

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### ...and what's left!

- Drafting an official project implementation schedule
- Resolving all policy matters
- Resolving all technical matters
- Testing period
- Pilot project
- Full implementation

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### Making the case...without Kopernikus

- Reduction of work within the school system for the production and distribution of transcripts
- Reduction of data entry work within PSE institutions
- Reduction in the number of data entry errors
  - Errors can be costly both to students and to institutions
- Less hassle for students to applying for admission to PSE
- Greater capacity to collect and generate data

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### Other jurisdictions

- Nova Scotia has launched a similar project and is progressing rapidly
- Before long – Ontario, BC, Alberta, NB and NS will/may have a provincial system that can be linked to others through PESC protocols
- Newfoundland and Labrador, Saskatchewan, PEI, Manitoba, Québec?
- The dream: That in a few years all Canadian students will be able to transfer their transcripts from anywhere to everywhere with a few clicks. All that is needed are the champions to carry the ball forward!

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How YOU can be involved



- Awareness
- Understand the benefits
- Connect with others in your province
- Have your institution or organization join the Canadian PESC User Group

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Thank you.

Questions?

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