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BC Post-Secondary Administrative Service Delivery Transformation

Opportunity Assessment

Final Report

February 12, 2013

Context of analysis

- The purpose of the Administrative Service Delivery Transformation project was to identify opportunities that could be further explored by the post-secondary sector and the Ministry in an effort to reduce administrative costs and improve service delivery. As such:
  - The purpose of this approach was to gain an “order of magnitude” understanding of the potential size of each opportunity to assist the Ministry and the sector in making decisions about which opportunities to further explore
  - This analysis should not be considered a detailed business case. It provides an approximate low and high-end estimate of the potential financial benefits and implementation costs associated with each opportunity. The purpose of the estimates is to provide the Ministry and the sector with an overview of the potential benefits fro service delivery transformation opportunities to help in decision-making about where to focus effort and resources. They are not precise calculations for benefit tracking purposes
  - A detailed business case with data collected from all institutions for each opportunity should be developed prior to using the estimates outlined in this report for detailed budgeting exercises or performance target setting

Context of analysis

- The analysis was conducted:
  - based on the data provided by a select group of post-secondary institutions. This data has been assumed to be accurate and was not subject to detailed verification except where outliers appeared in the data
  - after removing research related spending from key areas

- The specific governance and service delivery models required to deliver the opportunities have not yet been defined. They will be defined in a subsequent phase

- The analysis did not look at the internal operations of individual institutions or consider the decentralized components of the academic functions reviewed (i.e. HR and Finance within individual faculties)

- Benefit estimates shown are the assumed benefits that could be generated at full realization of each opportunity. In many cases this may take multiple years to realize based on implementation timeline and factors such as current commercial contracts that must expire before a new contract can be put in place

- Opportunities have been grouped into Tiers based on net financial benefits and complexity of implementation. The benefit calculations for Tier 1 opportunities do not include staff reductions

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The purpose of this report is to summarize the opportunities, governance considerations and next steps in relation to the BC Ministry of Advanced Education, Innovation and Technology ('Ministry') and post-secondary education institution's administrative service delivery transformation opportunity assessment

This document is organized into the following sections:

Executive Summary

The Administrative Service Delivery Transformation project has identified opportunities to deliver value through collaboration

- The purpose of this project was to study, review and identify collaboration opportunities for the BC post-secondary sector, including shared procurement and non-academic service delivery transformation
- Collaboration and sharing of services is happening across the BC post-secondary sector that is providing institutions with the ability to deliver high-quality service in an efficient manner. The models currently in place can be formalized and expanded to the benefit of the sector as a whole
- There are opportunities across multiple administrative areas. Key areas include procurement of commonly purchased goods, IT, library copyright and digital resource services
- There is also a significant opportunity to formalize the sharing of best practices to allow institutions to benefit from the experience, expertise and investments of others in the sector
- Not all opportunities will provide benefits for every institution and the benefits provided will vary depending on institution size, type of institution or scope of services provided, and geographic location or region
- Opportunities have been grouped into three Tiers based on net financial benefits and complexity of implementation. Tier 1 opportunities present significant potential financial benefits and are of lower complexity. The benefit calculations for Tier 1 opportunities do not include staff reductions
- This analysis doesn't presume a specific future state service delivery or governance model for each opportunity. These elements will need to be defined in a future phase
- Funding for implementation is required to achieve the benefits outlined in this report

Achieving the savings from Administrative Service Delivery Transformation will not be easy

- Key considerations in the achievement of the benefits outlined in this report include:
  - legislated governance and decision-making structures at institutions
  - the important role institutions play in supporting local economies
  - existing commercial contracts at institutions
  - current collective bargaining agreements
  - the decentralized nature of administrative services and budgets at some institutions
  - the diversity of size and scope of various institutions
  - the customized nature of business processes and information systems

Three tiers of opportunities provide the sector with potential for cost savings and service delivery improvements

- The opportunities identified were evaluated based on the potential benefit that they could deliver and level of complexity to implement. They were then categorized into three tiers based on this evaluation:
  - **Tier 1:** Opportunities where the estimated benefits are the clearest and the implementation is considered most feasible. The benefit calculations for Tier 1 opportunities do not include staff reductions
  - **Tier 2:** Opportunities where the benefits and costs are more difficult to quantify and implementation will be more complex. Tier 2 opportunities have minimal staff impacts
  - **Tier 3:** Opportunities that are the most complex, difficult to implement and may have significant staff impacts

Tier	Opportunities Included	One-time / Recurring	Financial Benefits before required costs (in millions)		Required Costs (in millions)		Time to Realize Maximum Potential Benefit
			Estimated Low end	Estimated High end	Estimated Low end	Estimated High end	
Tier 1	Shared procurement, IT, library copyright and digital resource services, sharing of specialized expertise	Recurring	$26	$57	$0.5	$4	Up to 4 years
		One-time			$8	$12	
Tier 2	Cloud-based IT opportunities, ancillary services contract consolidation and service delivery, capital planning centre of expertise and additional strategic sourcing opportunities	Recurring	$12	$26	$1	$2	Up to 6 years
		One-time			$4	$8	
Tier 3	Facilities alternative service delivery, Finance/HR/Payroll shared systems and services	Recurring	$8	$31	$1	$8	Up to 7 years+
		One-time	$26	$36	$44	$104	
		TOTAL Recurring	$46	$114	$2.5	$14	
		TOTAL One-time	$26	$36	$56	$124	

A number of steps must be taken in both the short and long term in order to achieve these benefits

- Achieving the benefits from the identified opportunities will not be easy or immediate. In order to achieve the benefits within the timelines estimated in this report, it is critical that the opportunities selected by the sector and Ministry move forward as soon as possible

Opportunity Assessment Communications and Decision Making	Detailed Business Casing, Delivery Models, Funding and Governance	Implementation
• Communication of the opportunity assessment results with key stakeholders, including institution staff, government and unions • Decision-making within government, individual institutions and the project Steering and Executive Committees about which opportunities to move forward with in the short-term	• Initiate detailed data gathering and analysis on opportunities where more information is required • Determine high-level governance models, service delivery models and cost sharing models for each selected opportunity • Detailed business casing and planning for each opportunity with go/no-go decisions at key stages in the process	• Kick-off implementation of selected Tier 1 opportunities by working with the interested and relevant group of institutions for each opportunity

Report

The service delivery transformation project sought to identify opportunities for institution collaboration

Project Purpose	• The purpose of this project was to study, review and identify opportunities for the BC post-secondary sector, including shared procurement and back office administrative service delivery transformation
Project Objectives	• To identify opportunities for collaboration that should be further explored by the sector that can help reduce costs and improve quality and build on existing processes and infrastructure • To develop a roadmap and supporting governance structure for moving forward with the opportunities
Project Scope	• Project included significant participation from nine post-secondary institutions as well as input from all 25 institutions throughout the project • The following functions were included in the analysis: procurement, facilities, IT, HR and finance, libraries and ancillary services • The analysis did not look at the internal operations of individual institutions or consider the decentralized components of the academic functions reviewed (i.e. HR and Finance within individual faculties) • Academic services (other than libraries) were excluded from the project scope

The core principles guiding the opportunity assessment phase of the Administrative Service Delivery Transformation were:

- The Ministry and post-secondary institutions will work in partnership to explore opportunities
- The Ministry will provide broad policy direction while respecting institution governance
- Opportunities will be guided by quantitative and qualitative benefits and costs
- Successful delivery models already established in BC post-secondary institutions will be explored where possible
- Leading practices from other jurisdictions will be identified and leveraged
- All service delivery models will be considered
- The areas of project focus will not negatively impact the delivery of academic services

Overview of the Administrative Service Delivery Transformation project process

The Service Delivery Transformation project involved significant engagement of the BC Post-Secondary sector throughout the following key phases:

Project Preparation and Initiation

- Preliminary portfolio of potential opportunities was developed based on Deloitte experience and research on other jurisdictions in Canada, the US and globally
- Preliminary opportunities were rationalized and new items were added at the Steering Committee kick-off meeting

Data Collection & Analysis

- Data was collected from select institutions across the key functional areas of analysis
- Two cross-sector working sessions, over 70 one-on-one interviews with institutional functional experts, and meetings with Association Presidents and the Steering Committee were held to identify opportunities, gather qualitative benefits and risks and understand implementation considerations for individual opportunities
- A questionnaire was distributed to all institutions in the sector to gather perspectives and information from the institutions who were not part of the project Steering Committee

Opportunity analysis and roadmap development

- Opportunities were defined and some were consolidated due to similarities in theme while others were removed as they were not feasible or did not provide sufficient benefits to warrant the investment required
- Opportunities were prioritized for further exploration based on level of benefits that could be achieved, estimated cost of implementation and complexity
- Using the prioritization criteria, opportunities were grouped into three tiers with Tier 1 focusing on those opportunities that are relatively less complex and could yield benefits in the shorter-term
- A final list of opportunities and proposed roadmap was presented to the final Steering Committee, Executive Committee and all VPs of Finance in the sector and revisions were made based on feedback received

Key administrative service delivery transformation opportunities

The Administrative Service Delivery Transformation project identified opportunities in a number of functional areas

- The focus of the Administrative Service Delivery Transformation project was non-academic administrative functions
- Not all opportunities will provide benefits for every institution and the benefits that they do provide will vary depending on institution size; type of institution or scope of services provided; and geographic location or region

Procurement	
Strategic sourcing*	
P-Cards*	
Additional Strategic Sourcing*	

Facilities/Capital	
Facilities and Capital Procurement*	
Capital Planning COE	
Facilities management ASD	

Information Technology	
Managed Print Services*	
Data Centre	
Workstation Procurement*	
Network Procurement*	
Specialized IT Expertise Sharing	
Specialized IT Procurement*	
BC Campus	
Email (Cloud)	

Human Resources	
Specialized HR Expertise Sharing	

Finance	
Credit Cards*	
Specialized Finance Expertise Sharing	
Finance/HR/Payroll Shared Systems/Services	

Library Services	
Copyright	
Digital Resources	

Ancillary Services	
Vending Machines*	
Bookstore Shipping*	
Print Shop*	
Food Services*	

Opportunity will provide benefits to none of the institutions

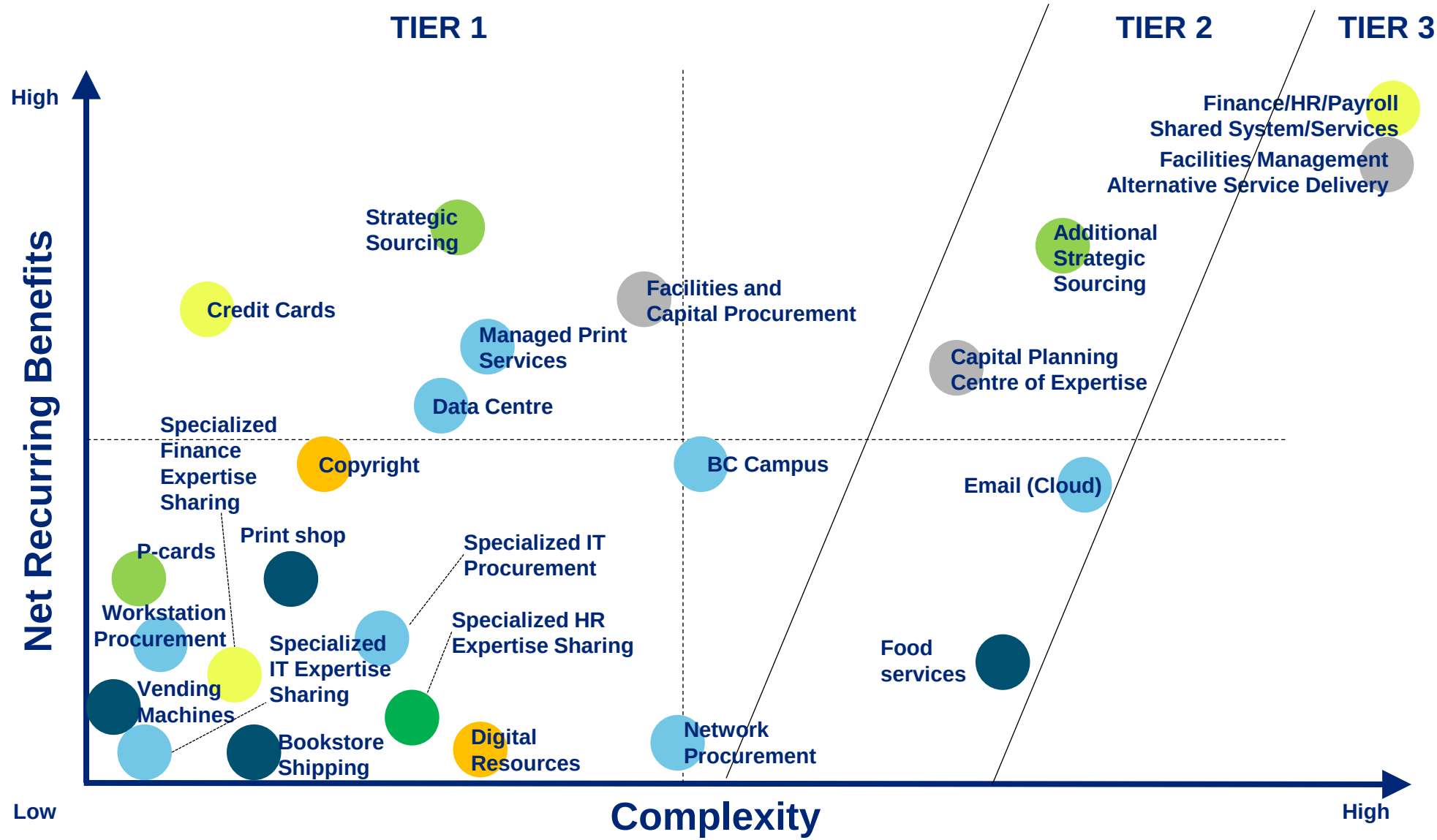
Opportunity will provide benefits to all institutions

* Denotes opportunities that are procurement related

Tier 1 Opportunity | Tier 2 Opportunity | Tier 3 Opportunity

Note: The Harvey balls are meant to provide a general representation of the impact of each opportunity on the post-secondary sector. Opportunities may not be applicable to all institutions, and not all institutions will be impacted to the same degree.

The implementation should happen in waves based on size of benefit and level of complexity



Tier 1 Administrative Service Delivery Transformation opportunities

- Tier 1 opportunities are those where the estimated benefits are clearest and they are the most feasible from an implementation perspective
- While most feasible, the implementation of Tier 1 opportunities will come with risks and challenges
- A four year time horizon is estimated for Tier 1 opportunity implementation and benefit realization

Function	Opportunity	Quantitative Benefits and Investments				Section Ref
		Recurring Annual Benefits		One-time Investments (OT) & Incremental Recurring Costs (R)		
		Low	High	Low	High	(pg)
Procurement*	Shared procurement to pool spend and strategically source key common categories	$9.8M	$16.8M	R - $0.5M OT - $1M	R - $4M OT - $1.5M	43
Procurement*	Optimize overall use of P-cards and leverage the most beneficial program by exploring existing P-cards programs at institutions	$0.5M	$1.4M	OT - $0.1M	OT - $0.2M	43
Facilities*	Increase collaboration for facilities related purchases procurements and contract consolidation	$3.2M	$12.3M	Investments in shared procurement are estimated in the Procurement opportunity profile		60
IT*	Transition to a single Managed Print Services contract for the post-secondary sector	$2.0M	$6.0M	OT - $0.1M	OT - $0.3M	74
IT	Shared post-secondary data centre facilities	$5.0M	$7.0M	OT - $7.0M	OT - $10.0M	78
IT*	Shared procurement of desktop and laptop hardware (workstations)	$0.5M	$1.0M	Investments in shared procurement estimated in the Procurement opportunity profile		86
IT*	Standardize network hardware and software and share procurement	$0.4M	$0.9M	Investments in shared procurement estimated in the Procurement opportunity profile		90
Finance*	Shared contract to reduce credit card merchant fees for Tuition and Non-tuition revenue	$4.0M	$9.0M	Investments in shared procurement are estimated in the Procurement opportunity profile		113
Ancillary* Services	Explore shared print shop services provided by one institution or an external service provider for those with contracted out print shop services	$0.5M	$1.5M	Investments in shared procurement are estimated in the Procurement opportunity profile		129
Ancillary* Services	Collaborate on shipping/freight to obtain higher discounts.	$0.1M	$0.3M			130
Ancillary* Services	Collaboration to obtain higher commissions on vending machine contracts	$0.2M	$0.4M			131
	TOTAL Tier 1	**$26.2M**	**$56.6M**	**OT - $8.2M**	**OT - $12M**	
* Denotes opportunities that are procurement related				**R - $0.5M**	**R - $4M**	

Tier 1 Administrative Service Delivery Transformation service improvement opportunities

- In addition to the cost saving opportunities, there are a number of opportunities that offer the potential for institutions to avoid costs, improve services, or add services at a cost that they may not have been able to afford otherwise

Function	Opportunity	Quantitative Benefits and Investments				Section Ref
		Recurring Annual Benefits		One-time Investments (OT) & Incremental Recurring Costs (R)		
		Low	High	Low	High	(pg)
IT	Extend shared procurement and hosting of IT hardware and software into specialized areas (i.e. Emergency Notification Systems, audio/visual)	• Avoided costs and incremental savings • Reduced tendering costs		• Investments in shared procurement estimated in the Procurement opportunity profile		94
IT	Provide interested institutions with shared access to IT expertise (DBAs, SharePoint Developers, WLAN Designers etc..)	• Avoided costs for external consultants • Improved service delivery and efficiency		• Organization startup costs • Incremental staff (ongoing)		98
HR	Shared access to HR expertise for interested institutions	• Improved service delivery for small institutions		• Incremental staffing costs to support small institutions		105
Finance	Shared access to Finance expertise for interested institutions	• Avoided costs from reduced service fees • Reduced risk through improved Internal Audit		• Tendering costs • Organization startup costs • Incremental staff (ongoing)		117
Libraries	Copyright • Establish a Copyright Centre of Expertise (COE) • Create a shared legal service for copyright issues (as part of COE) • Joint procurement of rights management software	• Due to rapid changes in the copyright environment and uncertainty about future requirements, estimating benefits will require detailed analysis and stakeholder discussions		• Level of investment required is uncertain at this time.		143
Libraries	Digital Resources: • Transition to a shared digital repository for the entire sector • Establish a shared conversion program to digitize physical collections • Transition to a shared, centrally hosted streaming video service	• Calculation of quantitative benefits not feasible at this time due to uncertainty about future investments and rapid changes in technology		• Level of investment will depend on the scale of services, number of institutions participating, and the nature of technology that will be required to support these initiatives.		150
IT	Explore expanding BC Campus services to a broader set of institutions • Transcript Exchange • ApplyBC • Collaborative Education Services	• Avoided future implementation costs and recurring operating costs		• Transition costs • IT costs (Student Information System integration)		157

Tier 2 Administrative Service Delivery Transformation opportunities

- Tier 2 opportunities where the benefits and costs are more difficult to quantify and implementation will be more complex. These are often areas where a service improvement is possible but the benefits are difficult to directly attribute

Function	Opportunity	Quantitative Benefits and Investments				Section Ref
		Recurring Annual Benefits		One-time Investments (OT) & Recurring Costs (R)		
		Low	High	Low	High	(pg)
Procurement	Additional procurement opportunity • Tier 1 procurement opportunities analyzed ~36% of provincial spending. This opportunity would address remaining 64%	$12M	$21M	R - $1M*	R - $2M*	41
Facilities and Capital Management	Create a capital management/planning Centre of Expertise (COE) (provincial or regional)	Savings range from 2% – 5% from improved design and specifications, standardized and more effective contracting processes, stricter change control management and improved project management		Incremental staff to provide capacity as needed with supporting space, IT and additional overhead costs.		60
IT	Shared cloud-based email implementation **	$0.1M***	$3.0M	OT - $4.0M	OT - $8.0M	82
Ancillary Services	Explore potential to transition to a single food services contract for the post-secondary sector for those currently contracting this service	$0.2M	$2.0M	Investments in shared procurement have been estimated in the Procurement opportunity profile.		131
	TOTAL Tier 2	**$12.3M**	**$26M**	**OT - $4.0M**	**OT - $8.0M**	
				R - $1M	**R - $2M**	

* Assumes this is additional incremental investment on top of investment required for Tier 1 strategic sourcing opportunity. Assumed that no additional one-time costs would be incurred beyond those from the Tier 1 Strategic Sourcing opportunities.

** Would require the creation of a cloud offering in BC or Canada or changes to BC privacy legislation to achieve the high annual recurring benefit estimate

***The low end of the benefit range for email is based on a private cloud shared email implementation hosted either within the sector or by a dedicated Canadian provider. The high end of the savings range is based on a move to a public cloud (e.g. Microsoft 365) which would have significantly lower costs for participating institutions.

Tier 3 Administrative Service Delivery Transformation opportunities

- Tier 3 opportunities are more complex longer term opportunities where factors such as collective agreements may limit achievement of benefits
- The benefits estimates outlined below are order of magnitude and directional. Additional information is required to validate and further assess feasibility of implementation
- A clear business is required to make decisions about Tier 3 opportunities

Finance / HR / Payroll Shared System / Service	• 20 of the 25 institutions in the sector currently use one of three ERP systems (PeopleSoft, Banner and Colleague). The remaining 5 would are facing multimillion dollar implementation costs if they wish to replace their systems. These institutions are currently in a position of high risk and would see significant avoided cost if they were able to leverage a shared system and would be the highest priority in moving to a shared system. • In the longer term, there is a significant avoided cost opportunity in moving all or part of the sector to a shared system for Finance, HR and payroll. Estimated one-time avoided costs are **$26M - $36M** to move to a shared system • This shared system would enable the potential realization of further savings through the development of a Finance, HR and Payroll shared services centre to centrally perform core transactional processes. Estimated annual savings from shared services are **$2M - $7M.** • There would be qualitative benefits, including increased efficiency and access to information for the Ministry and sector • As next steps, detailed analysis will need to be conducted in order to develop a more detailed estimate of the costs to implement a shared Finance HR and Payroll system across these institutions • Further analysis will be required in order to assess the current FTE, process volumes and complexities across the institutions involved in order to better understand the number of staff that would be required in order to support them in a shared services setting. This will be crucial in developing a more detailed estimate of the savings potential from shared services • This opportunity is very complex and would require negotiated changes to collective agreements. This is long-term opportunity that requires careful consideration and analysis
Facilities Alternative Service Delivery	• The opportunity for alternative service delivery for facilities management functions (custodial services, grounds-keeping, maintenance/trades) was explored given this model is already in place in many BC institutions and is being explored elsewhere in Canada • The potential benefits from this opportunity are in the range of **$6M to $24M.** Estimated recurring contract management costs would be 1% - 7% of the contract costs which would equate to **$1M to $8M** depending on the type of contract negotiated • This opportunity is very complex and would require negotiated changes to collective agreements. This is long-term opportunity that requires careful consideration and analysis

Complex issues will need to be addressed to move forward with each opportunity

- Achieving the potential benefits for the identified service delivery transformation opportunities will not be easy. A complex set of issues will need to be navigated, including:

Governance	The governance and decision-making processes at individual institutions and within Government need to be respected and engaged to deliver these benefits. A governance structure must be put in place to move opportunities forward
Community Impact	Post-secondary institutions play an important role in their local communities in terms of leadership, generating economic activity and supporting other organizations. This role needs to be considered when moving forward with any specific opportunity
Collective Agreements	Some opportunities, particularly those in Tier 3 will have labour impacts and require new service delivery models that will require negotiated changes to collective agreements
Collaboration	Increasing cross-sub sector collaboration will be critical to maximizing the benefits that come from each opportunity. This will require new structures and governance processes
Commercial Contracts	The commercial contracts in place across the sector will need to be respected which could increase the time to benefit of certain opportunities
Unique demands and characteristics	Each institution is unique, with unique policies and requirements, ranging from tuition and procurement polices to system requirements to geography to student population to organizational culture that will need to be considered when moving forward with any of the opportunities identified in this report. Not all opportunities will apply to all institutions in the same way
Legislation	There is an opportunity to dramatically lower costs in areas such as email and data storage by leveraging cloud computing models. These models would require changes to BC privacy legislation for them to become feasible for the BC post-secondary sector or a vendor would need to develop a Canada-based offering that meets BC privacy standards. New credit card processing models may also be impacted by existing legislation
Funding and Cost Sharing Model	For each selected opportunity, funding and cost sharing models will need to be developed in order to ensure that the costs borne by participating institutions are aligned to the benefits received
Sector Capacity	An important consideration during implementation will be the capacity of individual institutions to support the various implementation activities required to move these opportunities forward

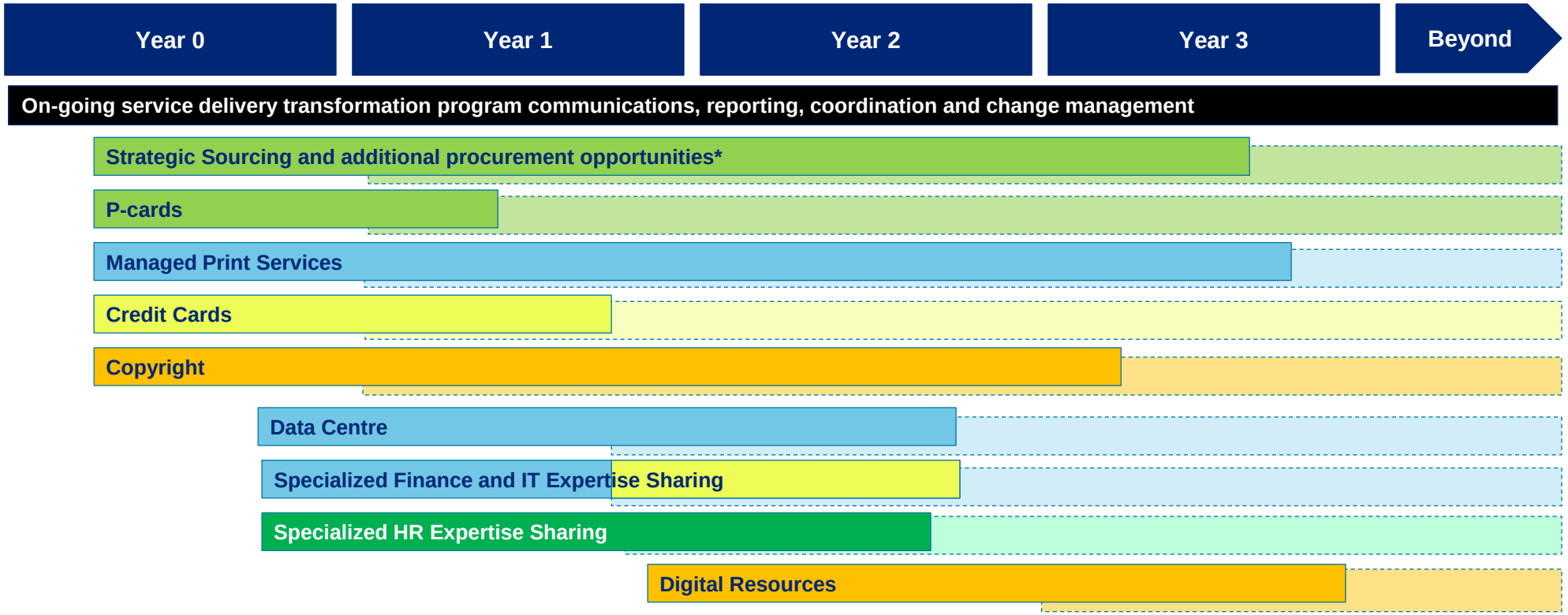
Enhancing the existing collaborative infrastructure of the sector has the potential to benefit all institutions

- A more formalized structure to facilitating collaboration will increase the likelihood of maximizing the benefits of service delivery transformation
- New structures or governance mechanisms should build on the structures already in place where appropriate (i.e. Finance or HR specialized expertise sharing opportunities)
- These structures will support all participating institutions in driving the service delivery transformation initiatives, provide a venue to explore new opportunities that emerge in the future and build a critical mass of expertise over time that many in the sector can benefit from

IT Services Structure	• Creation of an IT services structure that serves the entire BC Post-Secondary Sector through the delivery of core network and procurement services • Governance considerations and implementation risks are outlined on slide 70
Shared Procurement	• Shared procurement to negotiate preferred pricing on behalf of the sector in common spending categories • Many models could be considered and this should be determined prior to implementation; model should leverage existing procurement capacity in the sector and build over time to demonstrate benefit to individual institutions. These models are discussed on slide 33 • Governance considerations and implementation risks are outlined on slides 43 and 44

Formalized Best Practice Sharing	• More formalized sharing of best practices was identified by the Steering Committee and individual institutional functional experts as a critical opportunity for the sector
	• It would be beneficial in all functional areas and could take many forms depending on the functional area and needs of individual institutions, including:
	  • Regular meetings and conference calls of leaders and staff in key functional areas
	  • Creation of SharePoint sites or distribution lists of key contacts
	  • Creating of new functional associations to provide formal networking opportunities where none currently exist
	• Examples of valuable best practice sharing that were identified during this project include energy management, capital planning, RFP/RFQ processes and IT planning

Immediate implementation activities should focus on Tier 1 opportunities



Tier 2

Notes:

- ***Implementation timelines for each opportunity listed above include time for additional planning and analysis***
- ***Bars with dashed lines denote benefit realization timelines***

Additional strategic sourcing

Email (Cloud)

Capital Planning COE

Food services contract alignment

* Additional procurement opportunities include workstations, facilities and capital procurement, bookstore shipping, print shop, vending machines, network procurement and specialized IT procurement

Procurement | Facilities/Capital | IT | HR | Finance | Libraries | Ancillary

A formalized governance and program structure is required to move the opportunities forward

	Responsibilities	Proposed membership
Administrative Service Delivery Transformation Steering Committee	• Provide overall support and guidance to the transformation and individual opportunities • Champion the transformation and specific opportunities across the sector	• To be determined by the sector and Ministry

Administrative Service Delivery Transformation Program	• Lead and coordinate the administrative service delivery transformation program
	• Report on progress and results of overall transformation to the sector, government and stakeholders
	• Conduct financial analysis throughout the transformation to identify and track benefits
		• Program Lead – full-time role
		• A mix of full and part-time roles
		  • Program coordinator
		  • Program communications
		  • Financial analysis

Administrative Service Delivery Transformation Project Teams	• Lead the implementation of individual service delivery transformation projects
	  • Detailed analysis and business case
	  • Project plan development
	  • Contract negotiation as necessary
	  • Implementation activities
	• Report on progress, results and issues to service delivery transformation program and the Steering Committee
		• Project Lead – full- or part-time depending on size and complexity of project
		• Project support roles as needed based on size and complexity of project
		• Post-secondary sector working groups
		• Other project resources as needed (partners, stakeholders, vendors)

A number of steps must be taken in both the short and long term in order to achieve these benefits

- Achieving the benefits from the identified opportunities will not be easy or immediate. In order to achieve the benefits within the timelines estimated in this report, it is critical that the opportunities selected by the sector and Ministry move forward as soon as possible

Opportunity Assessment Communications and Decision Making	Detailed Business Casing, Delivery Models, Funding and Governance	Implementation
• Communication of the opportunity assessment results with key stakeholders, including institution staff, government and unions • Decision-making within government, individual institutions and the project Steering and Executive Committees about which opportunities to move forward with in the short-term	• Initiate detailed data gathering and analysis on opportunities where more information is required • Determine high-level governance models, service delivery models and cost sharing models for each selected opportunity • Detailed business casing and planning for each opportunity with go/no-go decisions at key stages in the process	• Kick-off implementation of selected Tier 1 opportunities by working with the interested and relevant group of institutions for each opportunity

A number of factors will need to be addressed throughout the service delivery transformation

The following success factors should be kept in mind when implementing service delivery transformation opportunities:

Success factor	Description
Governance	Governance ensures that policies are developed and enforced, disputes are resolved appropriately, services are continuously monitored/reviewed, and performance goals are set and achieved. Additionally, having an effective governance structure will help to ensure there is continuous investment and oversight for ongoing projects. This is important for the implementation of the service delivery transformation and the on-going operation of each opportunity. A critical aspect of any governance model for the service delivery transformation implementation will be alignment to and considered of institution governance and decision-making processes
Standardization of processes and requirements	For opportunities such as strategic sourcing, standardization of processes and requirements will be critical to maximizing the benefits that come from economies of scale. For opportunities that involve IT components, the extent to which processes are standardized prior to moving to a shared system will also reduce the amount of change – thus risk – in implementing collaborative service delivery models
Employee engagement	Service delivery transformation may impact the way that employees at each institution perform their duties. The level of impact may vary based on the opportunity but, in order to maximize success, it is important that the impact on employees be considered
Change management	Transformation projects of all kinds contain elements of change management. As a result, an effective change management strategy is required when communicating with and motivating employees during the change in order to prepare them for their new roles and keep executives aligned during the process
Decision-making	Establishing decision-making guidelines will provide structure and clarity with respect to how decisions are made and the individuals/groups involved. Additionally, decision making will be supported by the vision of the initiative and be in line with the established governance structure. Institution decision-making processes will also need to be respected
Manage transition and training	A shift towards collaborative models has a substantial amount of change for employees that are both directly and indirectly involved. As a result, it is important for respective institutions to ensure a smooth transition for their staff and provide any necessary training associated with their new role/position
Ensure flexibility for collaboration	Institutions should have the flexibility to opt in and out of certain (but not all) services based on their ability to provide them internally and their level of satisfaction and/or dissatisfaction with the service. It is also important to be clear on which services should be mandatory across the sector
Performance management	Measuring the performance of the projects against their stated benefit is important to ensure they are delivered effectively, in a timely manner, and provide value to the sector and the Ministry

Appendix

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Opportunity profiles provide detail on benefits, costs and current and future state of each area

- The following section includes the detailed opportunity profiles for each functional area analyzed during the Administrative Service Delivery Transformation project
- Each profile provides a detailed summary of the opportunity, issues and challenges, benefits and costs, implementation considerations and risks as well as a summary of the method of analysis that was used to calculate the benefits and costs
- The appendix also includes a summary of existing collaboration happening across the sector to date and opportunities that should be further explored
- The profiles are structured in the following way*:

Opportunity Profile	Description
Slides #1-2	**High-level overview:** Summary of general observations, opportunities, overall benefits and high-level summary of analyses
Slide #3	**Profile summary:** An overview of current state, current challenges, example practices and potential benefits from identified opportunities for collaboration
Slide #4	**Benefits and costs:** A summary of the potential quantitative benefits and costs for each opportunity
Slide #5	**Governance model and implementation considerations:** List of qualitative benefits, considerations for future state governance models, and implementation considerations and risks to implement the collaboration opportunities
Slide #6	**Analysis Summary:** An overview of the analysis methodology to quantify the benefits and costs, including discussion around assumptions and limitations, list of data sources and summary of conclusion(s)

*Profiles may vary slightly depending on functional area to include additional information to supplement explanations as required

Process for analysis

- The estimated benefit and cost information was developed using the following process:
  - Information was gathered from a select set of institutions through data requests in each of the core functional areas of analysis (Procurement, Facilities and Capital Management, IT, HR, Finance, Library Services, and Ancillary Services). Information was also leveraged from surveys recently conducted by BCNet, HEIT BC, BC Campus and the college sector about existing collaboration
  - Information from the select set of post-secondary institutions was used to calculate the current costs of delivering key services in each of those institutions
  - These current state costs were compared to industry standard benchmarks to understand the potential benefits of the future state for the select institutions. Benchmarks included service delivery costs in place in BC post-secondary institutions, BC government contract rates, published 3rd party estimates (e.g. Gartner) and Deloitte experience
  - Benefits were extrapolated to the relevant group of institutions (all, sub-sector, regional, geographic) using sector student demographic and operating grant information to understand the total potential benefit of each opportunity
  - The purpose of this approach was to gain an “order of magnitude” understanding of the potential size of each opportunity to assist the Ministry and the sector in making decisions about which opportunities to further explore
  - A conservative estimate was used in most cases for the benefits extrapolation to reflect the fact that opportunities are only relevant to some institutions (i.e. others were already operating in the future state model) and to account for variability in implementing provincial solutions
  - Implementation costs were developed based on published 3rd party estimates and Deloitte experience
  - While all opportunities have some form of recurring costs, they are accounted for differently based on the type of opportunity and the benefit driver. For procurement-related opportunities the benefit driver is a reduction in the price paid for goods and services. There are organizational costs that may be incurred to facilitate the development of shared procurement depending on the operating model chosen. These recurring costs are listed separately as one-time investments or incremental recurring costs to create a separate procurement function. An alternative model that involves shared procurement via institutions taking responsibility for sector wide procurement for different categories is also an option. This model would require a one-time investment to do a full spend analysis and develop a shared procurement plan, operating model and governance model but would have limited recurring costs as it would leverage staff already in place. For service delivery opportunities, the benefit driver is reduced spending for existing services or a change in the way that services are delivered. In these cases, the forecasted benefit would be net of all recurring costs and for that reason the recurring costs are not specifically added to the summary tables
  - Any FTE savings generated from new delivery models have not been calculated for Tiers 1 and 2. For all of the service delivery opportunities, there is some type of recurring cost required to execute the new model. The assumption is that the current staff complement would be leveraged to deliver new services in the new format and the recurring staff savings would provide the necessary staff time to support the new model. If the individual institutions choose to redeploy staff to alternative functions based on the reduced effort required then that is at their discretion and the associated effort reduction of that activity has not been accounted for as a benefit.
- Benefit estimates shown are the assumed benefits that could be generated at full realization of each opportunity. In many cases this may take multiple years to realize based on implementation timeline and factors such as current commercial contracts that must expire before a new contract can be put in place

The Administrative Service Delivery Transformation (ASDT) is building on a foundation of collaboration

- There is a history of collaboration in the BC post-secondary sector
- There is an interest amongst institutions to explore opportunities for further collaboration to reduce costs and improve services to students and faculty
- To date collaboration is taking place primarily at the sub-sector level (i.e. research universities, teaching universities, institutes or colleges) or between individual institutions as a result of personal relationships
- The three sector associations – RUCBC (Research Universities' Council of BC), BCAIU (BC Association of Institutes and Universities) and BC Colleges – facilitate collaboration at the sub-sector level
- The functional areas that have the highest current levels of collaboration include:
  - Procurement – There are numerous purchasing consortiums in place across the sector including CAUBO (Canadian Association of Business Officers), BC EDCO (Education Cooperative Purchasing Group), BCPPBC, Public Buyers of Prince George and many others
  - IT – BCNet, HEITBC (Higher Education Information Technology BC) and BC Campus provide shared IT services across the sector; Administrative Systems Consortium for the institutions running the Colleague software
  - HR – PSEA (Post-Secondary Employers' Association), UPSEA (University Public Sector Employees' Association), Benefits consortium
  - Libraries – There is a long history of collaboration between post-secondary libraries in areas from licensing to data collection to sharing of best practices

There are additional opportunities in some functions that could be explored further

- There are a number of opportunities that were explored but not included in the final list due to either limited savings opportunities or significant progress having already been made by the sector
- However, many of these areas represent good practices that should be explored by interested institutions. For example:

Function	Opportunity	Overview
Finance	**Collections**	• Future negotiations with collections agencies on commission rates should be done in a joint fashion
HR	**Non-academic recruiting**	• Institutions interested in accessing a shared recruiting portal should work together to agree on an existing portal and collaborate to add any specific functionalities required in order to meet their needs
HR	**Benefit procurement**	• There are currently 19 institutions participating in the Benefits consortium. The group is working to further optimize their services and some additional value could be possible of extending this program further.
IT	**Mobility**	• Institutions currently using Telus as a service provide should move to the Telus TSMA signed by the BC Government and others should assess whether the pricing would provide them with costs and service benefits
Facilities/Capital	**Energy management**	• Institutions that are planning to implement energy management programs or explore energy efficient building solutions should leverage the investments and best practices in place at institutions further ahead in this area
Ancillary	**Parking**	• Explore potential to transition to a single parking services contract for those currently contracting this service

- The complete list of opportunities that were not part of the final list is included in each functional area section. Institutions are encouraged to review these opportunities to identify opportunities that may be of interest to their individual operations that they may wish to pursue in partnership with others in the sector

Key assumptions and data sources

- The following key assumptions have been made throughout this analysis and should be kept in mind when reviewing the opportunity profiles
- Global Assumptions:
  - The in-scope institutions are collectively representative of the entire sector
  - Student FTE or provincial operating grants as proportionate to the provincial total has been used as the basis to extrapolate current costs from the in-scope institutions
  - Where extrapolating to the whole province, the implied assumption is that the benefits will extrapolate uniformly; in some opportunities, this assumption has been moderated to reflect the impracticality of a province wide deployment
  - All benefits are recurring unless otherwise indicated
  - Staff costs were calculated using the provincial average salary per support staff and management staff FTE
- Numbers <$1M are provided to the nearest $0.1M, >$1M are rounded to the nearest $1M; numbers less than $250k are generally rounded to the nearest $5k
- While sources for cost figures, benchmarks, leading practices and other relevant points are cited through the document, a number of data sources have been used repeatedly throughout this analysis:

Function	Data Source	Description
All	Ministry of Advanced Education	Provincial financial data, including operating grant figures and student FTEs
	Post-Secondary institutions in-scope per functional area	Data requests
Procurement	CAPS Research	Procurement industry benchmarks

Overview of data quality and completeness

- The analysis outlined in this report was based on the data provided by a select group of post-secondary institutions. This data has been assumed to be accurate and wasn't subject to detailed verification except in some cases where outliers appeared in the data. The data provided for this analysis was of varying degrees of quality and completeness. The analysis is based on the data that was deemed to be most usable.

Function	# of institutions that provided data	Overall completeness	Overall quality
Procurement	8 of 9		
Facilities	9 of 9		
IT	12 of 12		
HR	8 of 9		
Finance	8 of 9		
Libraries	9 of 9		
Ancillary	9 of 9		

Extremely low quality so data unusable or not provided

Very high quality and complete data

Procurement Opportunities

Shared procurement and committed collaboration could generate annual savings

General observations

- Procurement groups in the post-secondary education sector currently engage in collaboration ranging from informal relationships for specific category purchases to purchasing consortia (e.g. CAUBO, GVMPG, BC EDCO). However the current models don't maximize spend or provide committed purchase volumes
- There are many categories which have common core requirements that are procured by many or even most institutions. Examples include office supplies, scientific lab equipment, contracted cafeteria services, contracted custodial & maintenance services, IT, professional services associated with capital projects and travel

Opportunities

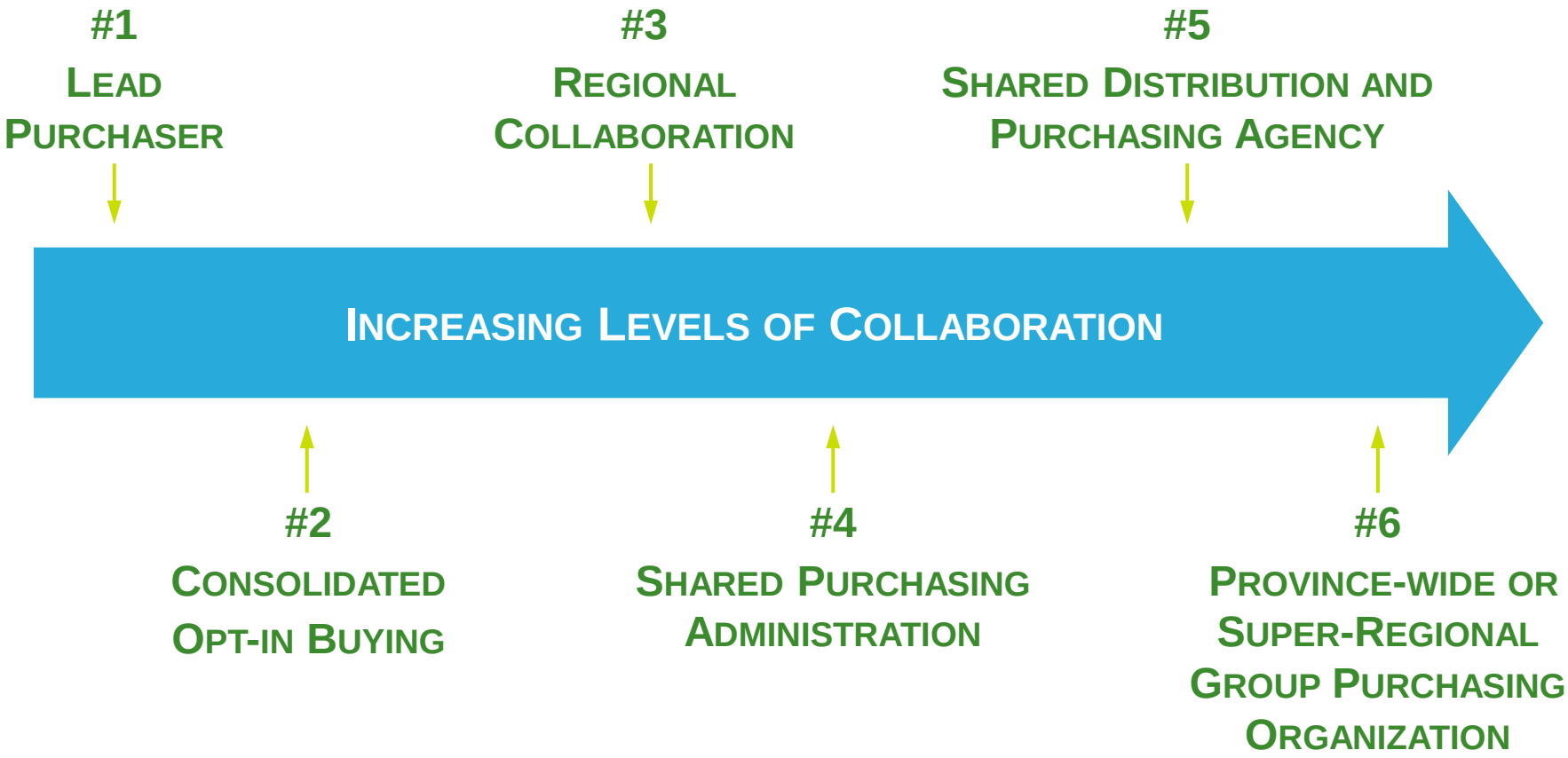
- Create a structure to facilitate shared procurement, initially focused on a few key categories. There are several models that can be leveraged (see next slide for more details).
- Generate savings by consolidating purchase volumes and applying economies of skill and scale to the sourcing process
- Optimize P-card spend to the benchmark of 6-13% of total spend and maximize P-card rebates by using one P-card provider

Summary of benefits

- Overall savings by implementing Tier 1 strategic sourcing and optimizing P-cards across the 15 analyzed spend categories is estimated to be $10.3M – $18.2M, annually
    - The shared procurement categories included in Tier 1 of this report have the potential to yield $9.8M – $16.8M in savings
    - Benefits from using one P-card vendor and optimizing P-card usage at each institution yields $0.5M – $1.4M from increased rebate

The sector will need to decide which model it will leverage in order to achieve potential benefits from shared procurement

- Shared procurement structures offer the opportunity for institutions to leverage the purchasing power of the sector in order to optimize value based on collective buying power
- As the level of collaboration increases, the achievable benefits increase
- There are also significant qualitative benefits from increased knowledge and expertise



Tier 1 Strategic Sourcing opportunity is based on 15 key spending categories

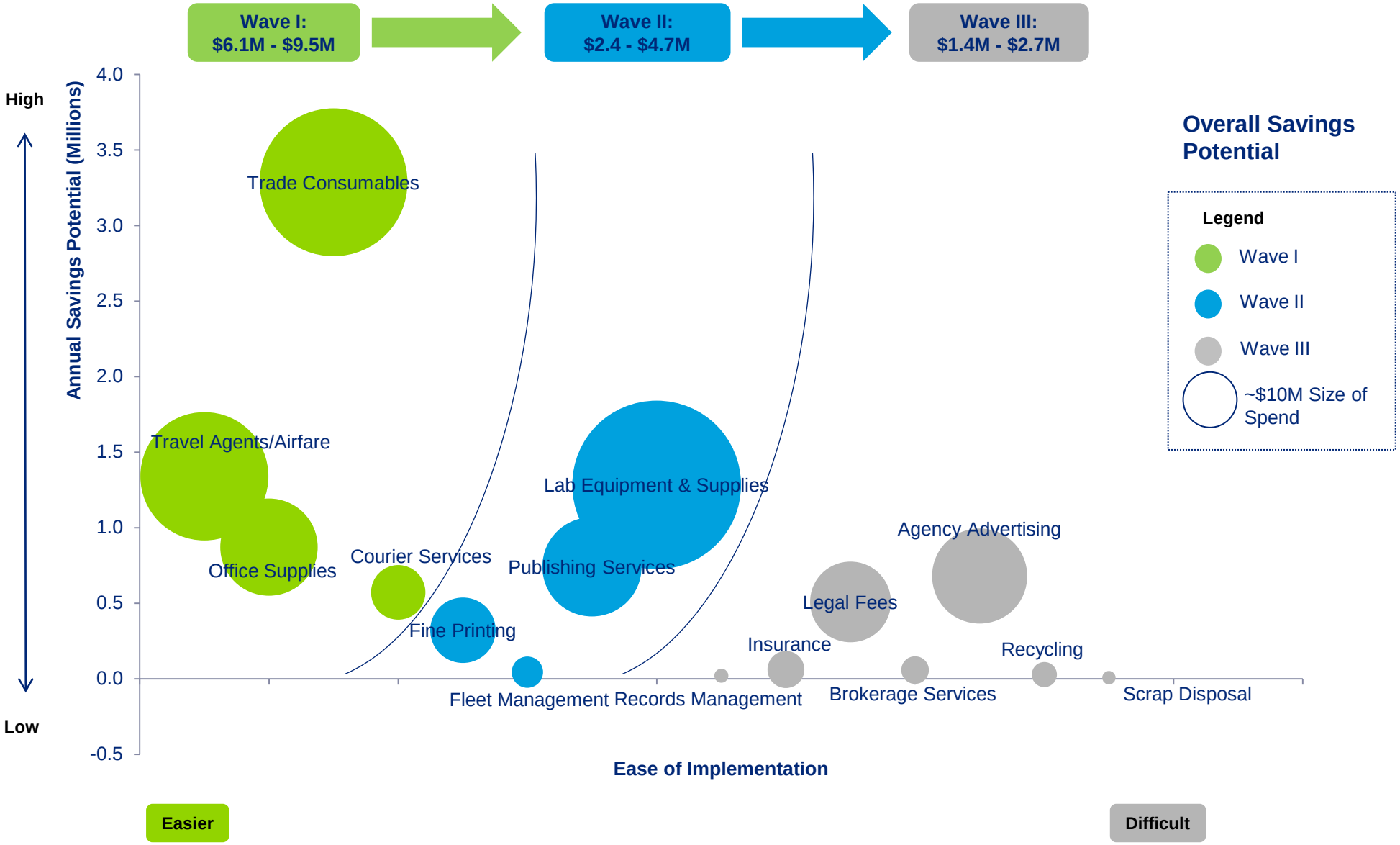
Spend Category	In-scope Institution Spend	Total Provincial Spend (extrapolated)	Savings Benchmarks		Savings Estimates	
			Low	High	Low Savings	High Savings
Agency Advertising	$ 7,645,045	$ 13,625,547	5%	10%	$ 681,277	$ 1,362,555
Brokerage Services	$ 716,287	$ 1,152,778	5%	10%	$ 57,639	$ 115,278
Courier Services *	$ 2,863,760	$ 4,457,836	15%	20%	$ 572,766	$ 795,657
Fine Printing	$ 4,427,157	$ 6,441,873	5%	15%	$ 322,094	$ 966,281
Fleet Management	$ 846,966	$ 1,469,868	3%	5%	$ 44,096	$ 73,493
Insurance	$ 1,519,420	$ 2,057,200	3%	5%	$ 61,716	$ 102,860
Lab Equipment & Supplies	$ 39,726,540	$ 42,800,659	3%	5%	$ 1,284,020	$ 2,140,033
Legal Fees	$ 6,707,165	$ 9,784,298	5%	10%	$ 508,784	$ 978,430
Office Supplies *	$ 7,740,578	$ 14,255,018	7%	10%	$ 872,044	$ 1,299,695
Publishing Services	$ 13,995,299	$ 14,824,662	5%	10%	$ 741,233	$ 1,482,466
Records Management *	$ 208,245	$ 297,152	10%	15%	$ 20,923	$ 35,780
Recycling	$ 530,345	$ 941,831	3%	5%	$ 28,255	$ 47,092
Scrap Disposal	$ 71,854	$ 269,054	3%	5%	$ 8,072	$ 13,453
Trade Consumables	$ 8,777,597	$ 32,867,487	10%	15%	$ 3,286,749	$ 4,930,123
Travel Agents/Airfare *	$ 16,539,318	$ 24,722,554	8%	15%	$ 1,341,005	$ 2,434,785
Totals	**$ 112,315,577**	**$ 169,967,817**			**$ 9,830,672**	**$ 16,777,981**

*Note: For these four categories, the benchmarks used to estimate potential savings were more conservative for UBC. The savings estimates for these categories shown above factor in these lower savings targets.

The definitions of these 15 key spending categories are listed below

Sub-Category	Definition & Examples of included spend
Office Supplies	• Spending on items such as paper, desk supplies, shredder, bags, boxes, etc..
Records Management	• Spending on records management contract fees, storage fees, destruction fees
eWaste Management	• Spending to discard computers, office electronic equipment, entertainment device electronics, mobile phones, television sets, etc..
Scrap Disposal	• Spending to discard office equipment and supplies
Recycling	• Spending to recycle materials such as paper, glass, metal, plastic, textiles, electronics
Lab Equipment & Supplies	• Spending on classroom learning such as chemicals, weight measuring instruments, viewing and observing instruments and accessories, etc..
Trade Consumables	• Spending on trade learning including steel, wood, lubricants, etc..
Agency Advertising	• Spending on agency fees and associated advertising costs for magazine, newspaper, online, radio, TV advertising, etc..
Fine Printing	• Spending for work-intensive printing such as corporate direct mail, signage, etc..
Insurance	• Spending for corporate insurance, physical asset insurance not bundled with standing offers or purchases – not including government insurance
Legal Fees	• Legal fees associated with copyright, procurement contracting, etc..
Publishing Services	• Spending associated with research or journal publishing
Courier Services	• Spending associated with package and postal delivery services
Brokerage Services	• Spending associated with full-service or prime brokerage providers
Travel Agents/Airfare	• This category includes spending associated with booking travel such as travel agent fees and airfare costs
Fleet Management	• This category includes spending associated with vehicle purchases, vehicle/fleet management (vehicle maintenance services, etc..) and vehicle consumables (fuel, spending on lubricants, etc..)

Categories were prioritized into three waves based on savings potential and relative difficulty of implementation



The ASDT opportunity assessment only reviewed a portion of overall sector spending; additional analysis is required

- Procurement spend has been analyzed across the different functional areas including procurement, facilities, IT and ancillary services. The total spend analyzed was $365M which represents ~36% of an estimated $1B in total non-research annual spend across all institutions
- The following table outlines the procurement spending reviewed during the ASDT opportunity assessment

Functional Area	Current Spend*	Description	Total Savings		% Savings	
			Low	High	Low	High
Procurement	$170M	Strategic sourcing categories (Tier 1)	$9.8M	$16.8M	6%	10%
Procurement	$94M	P-card	$0.5M	$1.4M	0.57%	1.51%
Facilities and Capital	$71M	Facilities procurement	$3.2M	$12.3M	5%	17%
IT	$10M	Workstation procurement	$0.5M	$1M	5%	10%
IT	$8M	Network hardware procurement	$0.4M	$0.8M	5%	10%
Ancillary Services	$10M	Print Shop	$0.5M	$1.5M	5%	15%
Ancillary Services	$2M	Bookstore	$0.1M	$0.3M	5%	15%
TOTAL Procurement Opportunity	**$365M**		**$15.0M**	**$34.1M**	**4%**	**9%**

- The remaining 64% of estimated provincial spend (approximately $635M) should undergo further investigation through a detailed spend analysis for strategic sourcing opportunities. Based on the CAPS benchmark of 65% managed spend and 3% - 5% of potential savings, the extrapolated savings from the spend analysis ranges from **$12M - $21M.** (See slide 34 for analysis and spend breakdown)
- Note: for detailed assumptions and caveats on the spend data from facilities, IT and ancillary services, please refer to the opportunity profiles of the corresponding functional areas
- *Current spend is based on extrapolated figures from the spend data submitted by the in-scope institutions

Strategic sourcing provides additional opportunities for the sector

- Tier 1 procurement opportunities address about 36% of provincial non-research spending
- The Tier 2 procurement opportunities addresses the remaining 64% of estimated provincial spend
- A high-level, directional estimate indicates that the benefit to the sector could be between **$12M** and **$21M**

Tier 2 Procurement Opportunity Analysis:

Estimated Provincial Procurement Spending		$1,000,000,000 *	Total non-research procurement spending
Estimated Provincial Procurement Spending captured in Tier 1, 2 and 3 opportunities		$ 365,000,000	Total procurement spending captured by Tier 1, 2 and 3 opportunities
Total additional spending to be addressed through further strategic sourcing		**$635,000,000**	
Managed Spend Benchmark		65%	Estimated % of procurement spending that could be addressed by additional strategic sourcing opportunity
Managed Spend Estimate (total spend addressable by further strategic sourcing opportunity)		$415,000,000	
Low Savings (%)	3%	**$12,000,000**	
High Savings (%)	5%	**$21,000,000**	

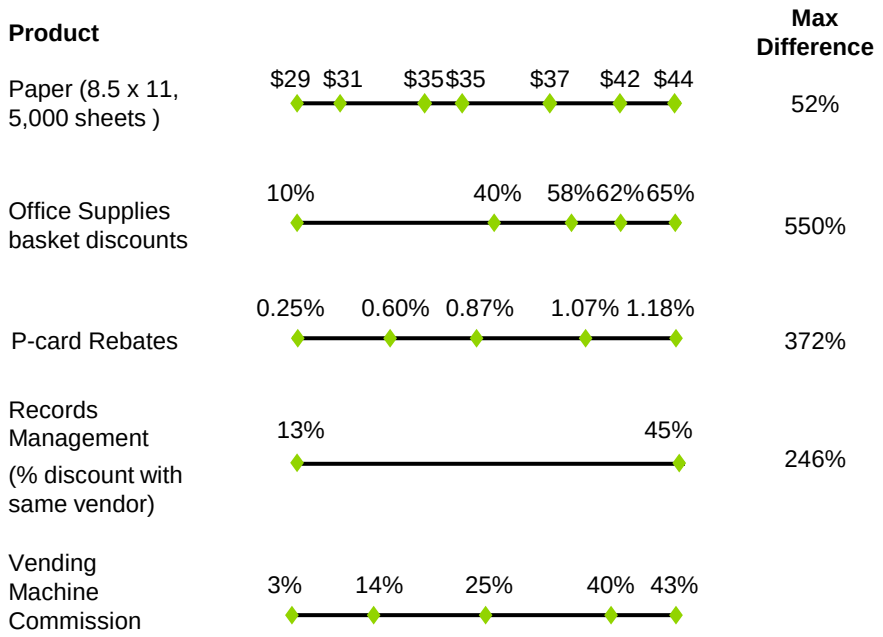
* Total provincial non-research spending estimate based on CAUBO information, institution financial statements and public account information

Estimated sourcing savings are based upon observed differences in current pricing across institutions and on benchmarks from Deloitte sourcing experience

Snapshot of price and discount variability amongst institutions:

- The collected data sample on specific items revealed a high range of differences between the minimum and maximum prices and discounts, ranging from 32% to 550%

***Sample Opportunities: Price & Discount Differentials**



Savings benchmarks by category:

- Savings benchmarks for the categories are based on Deloitte sourcing experience from other jurisdictions. In addition, certain categories are based on observed savings from institutions

	Benchmarks	
Spend Category	**Low**	**High**
Agency Advertising	5%	10%
Brokerage Services	5%	10%
Courier Services	15%	20%
Fine Printing	5%	15%
Fleet Management	3%	5%
Insurance	3%	5%
Lab Equipment & Supplies	3%	5%
Legal Fees	5%	10%
Office Supplies	7%	10%
Publishing Services	5%	10%
Records Management	10%	15%
Recycling	3%	5%
Scrap Disposal	3%	5%
Trade Consumables	10%	15%
Travel Agents/Airfare	8%	15%

Opportunity Profile – Procurement

Current State	Opportunity Potential ($)	
	Recurring benefits	
	Low	High
The procurement function includes strategic sourcing of commodities, processes such as issuing RFx's, vendor and contract management, and managing low dollar, high volume transactions through P-cards **Strategic Sourcing** • There are numerous purchasing consortia in existence, from informal relationships such as the Northern BC buying group, to formal groups such as CAUBO, GVMPG, BC EDCO, BCPPBG, Mid-Island Purchasing Group, Public Buyers of Prince George, HEITBC, and broader public sector partnerships with local school districts, health authorities, municipalities and the Province • Shared service models are forming among specific institutions in procurement, with certain institutions formalizing the relationship through a Memorandum of Understanding (MOU) for shared services opportunities • Spend under management by the procurement group varies by institution, ranging from 13% to 68%, which is consistent with the observed differences in the level of centre-led procurement at the institution (i.e. high degree of centre-led generates a higher level of spend under management). Broad industry benchmarks range from 65% to 100% with an average of 83% • There are many common categories across institutions including: office supplies, scientific equipment, cafeteria services, custodial & maintenance services, IT, professional services associated with capital projects, textbooks, utilities, and legal services (common supplier list on slide 52) • There are numerous institutions that are using common suppliers, and differing suppliers within the same categories (e.g. office supplies), indicating savings opportunities by consolidating spend to fewer suppliers for better discounts and rebates (see common supplier list on slide 52) **P-card** • P-card program maturity and penetration varies across the institutions; some institutions are just initiating P-card programs while others have established and relatively mature P-card programs that have associated policies and procedures • Institutions with established P-card programs are generally satisfied with the utilization and the associated rebate levels of their programs • Six different P-cards in use across the institutions: Scotiabank, BMO, US Bank Canada, American Express, and Diners Club. Rebates range from 0.25% to 1.27% with one institution reporting a 0% rebate • Several institutions have higher P-card spending than would be predicted from cross industry benchmarks (8-13% of total spend) • Rebates with the Provincial P-card are believed to exceed all but two of the institutions' P-card rebate levels. There are certain institutions in BC achieving higher rebate levels in the range of 107-118 basis points from individually contracted vendors that could be leveraged by the sector	$22.3M	$39.2M
	Investments	
	Low	High
	R - $1.5M OT - $1M	R - $6M OT - $1.5M

[1]Results based on experiences in other jurisdictions

Opportunity Profile – Procurement

#	Current Challenges	Example Practices	Potential Opportunities
1	• Overall there is a high level of decentralization for purchasing amongst institutions. This results in low compliance with purchasing contracts by end users (i.e. researchers, staff) and challenges in standardizing category requirements	• An Australian university consolidated purchasing across their entire institution for office supplies, travel services, lab supplies and chemicals, and expense management system and realized approximately 15% savings on these categories[1] • Pittsgrove Township is a purchasing organization that services 80-90 New Jersey school districts to purchase paper and materials. They prepare quotes, specifications and bid documents, and manage vendor relationships. Through this, the vendors in the joint purchasing arrangement have guaranteed prices at least 10% less than the state contract price[1] • A US University has identified sustainable savings opportunities of $9M-$17M over an addressable baseline of $173M[1] • There are a number of successful purchasing groups in North America and international jurisdictions that could be leveraged for success in BC (see table on page 51)	Shared procurement to pool spend and strategically source key common categories (i.e. travel, office supplies, publishing services, etc..)
2	• Contracts are typically negotiated within individual institutions; other institutions lack awareness of existing contracts that could be leveraged across the sector to maximize potential savings		
3	• There is a large number of P-card vendors and variability of rebates offered across the sector, resulting in reduced overall rebate dollars flowing back to the institutions • The level of P-card usage (as a percentage of spend) is highly variable across institutions, resulting in less than optimal P-card usage and rebates across all institutions	• CAPS Research benchmarks indicate average P-card spend at 1.5% of total spend (industries range from 0.4% - 4.9%[1]) which is significantly lower than the observed institution P-card spend levels as high as 13%	Optimize overall use of P-cards and leverage the most beneficial program by exploring existing P-cards programs at institutions

Additional considerations and relevant practices

- Consideration for cost of shipping is a significant factor for remote institutions where it can double the cost of purchase – the general recommendation is for a regional approach amongst remote institutions, rather than a less competitive provincial purchase where other region institutions would likely subsidize the cost of shipping for remote regions
- Some institutions have well established P-card programs with standardized P-card usage policies (i.e. thresholds limits, adjusting the pay period to maximize rebates, etc..) that could be leveraged by institutions that are starting the process or at different stages of program maturity and development
- As opportunities are explored, the goal should be to incrementally increase overall value. Where changes by an institution or groups of institution(s) may result in losses in other parts of the public sector, an approach to include all institutions should be explored to add overall value to the broader public sector

[1]Results based on experiences in other jurisdictions

Opportunity Profile – Procurement

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Costs		
		Low	High	Low	High	
1	• Consolidate spend across a number of categories from travel and office supplies to publishing services. Categories in analysis include: • Agency advertising • Brokerage services • Fine printing • Fleet management • Insurance • Lab equipment & supplies • Legal fees • Office supplies • Publishing services • Records management • Recycling • Scrap disposal • Trade consumables • Travel agents/airfare	$9.8M	$16.8M	$0.5M – $4M (R) $1M - $1.5M (OT) Size of recurring costs dependent on model implementation for shared procurement		Tier 1
2	• Optimize overall use of P-cards and leverage the most beneficial program by exploring existing P-cards programs at institutions	$0.5M	$1.4M	$0.1M (OT)	$0.2M (OT)	Tier 1
3	• Additional shared procurement	$12M	$21M	$1M (R)	$2M (R)	Tier 2
	TOTAL	**$22.3M**	**$39.2**	**$1.1M (OT) $1.5M (R)**	**$1.7M (OT) $6M (R)**	

*Benefits are assumed to be realized after sourcing occurs in a series of waves

Primary benefit driver	• Consolidated spend provides a larger opportunity for suppliers and provides increased negotiating power, resulting in lower costs per unit • P-card rebates escalate with increased spend volume, so by consolidating P-card vendors a greater overall spend is realized and more competitive rebate levels can be achieved
Institutions most likely to benefit	• All institutions purchasing these categories may see benefit, however a larger percentage improvement will accrue to those institutions who do not consolidate purchasing within their institutions • Institutions that are capacity constrained for procurement resources would likely reap additional benefits from leveraging contracts with other institutions

Opportunity Profile – Procurement

Qualitative Benefits	Governance Considerations

• Reduced contract administration, resulting from moving to fewer vendors
• Increased standardization
• Potential service level improvements (e.g. requesting vendors ship in shorter lead times, providing better technical support, leveraging size to improve contract terms)
• Ability to improve purchasing practices through pooling of resources for training (e.g. specialized processes)
• Knowledge transfer through sharing of ideas and strategies by the institutions with leading practices
• Improved spend tracking and benchmarking
• Value added services such as a central repository of product information or special vendor incentives
• Decreased costs from sourcing the same commodity multiple times
	• The future model for the shared procurement must consider:
	  • (1) Decision making – how the structure will be run and rights and responsibilities of participants. (i.e. decision making based on the member institution votes through a Board composed of each institution's VP of Finance & Admin)
	  • (2) Participation – which institutions participate and who will be involved from each institution (i.e. Non mandatory participation has been a key success factor for ISI)
	  • (3) Investment sharing – pay for use, or membership (i.e. funding model based on membership fees)
	  • (4) Benefits and cost sharing – beyond cost savings, rebate to users or to off-set costs (i.e. savings are accumulated to the member institutions and no margins are applied to products purchased)

Opportunity Profile – Procurement

Implementation Considerations and Risks

- A phased approach to implementation should be considered:
  - After forming shared procurement, the first activity should be to expand purchasing activities across the sector with the easiest to implement, highest benefits categories including trade consumables, travel and office supplies (wave 1)
  - Next activities would then be to expand to other categories that are more challenging to implement (waves 2 and 3)
  - In the long term, shared procurement would eventually expand the scope of activities to source additional spend categories, and act as a Centre of Expertise to institutions to enable sharing of RFX's and best practices of procurement processes
  - Existing contracts have varying terms and end dates, which will determine the timing of implementation
- There may be resistance from institutions to consolidate spend from fear of losing autonomy
- It may be challenging to gain consensus amongst institutions on spend tracking and savings measurement
- Increased effort by procurement to align purchases, contracts and timing may create initial resistance; implementation success can be improved by finding initial categories that present the easiest initial wins and generate savings
- Procurement cycle times may increase as broader requirements are collected; perceived level of service may decline initially
- Getting agreement on category standardization may be difficult; some end clients may see reduced choices of offerings resulting from standardization
- Lack of organizational support and strong governance within institutions – overall decentralized culture within the higher education sector's individual institutions
- A lack of communication and effective change management may impact the implementation timelines and realization of benefits
- Consolidation for certain categories could create diseconomies of scale by reducing the number of eligible suppliers who can meet the requirements of an increased client base composed of different types of institutions
- Post-secondary institutions play an important role within their local community. In an effort to support local companies and provide services in a sustainable way, many institutions prefer to purchase goods and services locally. This must be considered in future joint purchasing initiatives.
- Rural institutions require additional consideration:
  - (1) The local communities are more dependent on their business and depending on the category sourced, it may negatively impact relations as well as the local economy
  - (2) Consideration for cost of shipping is a significant factor for remote institutions – general recommendation for a regional approach amongst remote institutions, rather than a less competitive provincial purchase where other region institutions would likely subsidize the cost of shipping for remote regions
- Many long term supplier agreements provide benefits outside of the commodity or service being purchased. These additional benefits (e.g. sponsorships and scholarships to students) require consideration, as the incremental benefits of shared procurement cannot be fully relative to existing agreements from other institutions. As with shipping costs above, the total value of contracts needs to be considered, not simply the unit price.
- Implementation of P-cards programs at individual institutions will require time and investment, and could be accelerated by leveraging existing programs

Opportunity Profile – Procurement

Analysis summary	
Analysis	• Spend data was requested for the 2011/2012 year from each institution, including total addressable spend, total P-card spend, and total spend for 15 identified categories • Additional data such as the P-card vendors, P-card rebates, and item price data for specific commodities were requested • Extrapolations for province-wide institutions for P-card and category spend data were calculated by using the ratio between the collected spend data and the known operating grant against the total operating grant for the province • Benchmarks from CAPS Research for spend under management, total spend per procurement employee and managed spend per procurement employee were used as comparisons with the institution averages • Calculations for strategic sourcing savings for the 15 categories were based on savings benchmarks from Deloitte sourcing experience in other jurisdictions and observed savings from in-scope institutions
Assumptions and Limitations	• To extrapolate provincial spend for the strategic sourcing categories and P-card, two methods were tested: (1) student FTEs and (2) operational spend. The operational spend yielded more conservative estimates, therefore was used as the basis for projected calculations • The data analysis was divided into two groups: UBC and the rest of the institutions. Through the analysis, we found spend to be sufficiently similar across all institutions within the province, except UBC; thus it is separated into its own category • Consolidated spend data from institutions are assumed to be an estimate of current total spend and spend by category • The calculations for P-card optimization (benchmark of 6% - 12.6%) were based on institution data rather than CAPS Research benchmarks. This higher range has been used to adjust for the unique nature of the higher education sector which is more autonomous, operates with professional employees, and thus has higher utilization of P-cards than the private sector
Data Sources	• Data represented a sample* of institution types including research universities, teaching universities, institutes and colleges • Ministry of Advanced Education aggregated operational grant and student FTE 2011 data • CAPSresearch.org was used for benchmark comparisons in categories, along with strategic sourcing experience from other jurisdictions
Conclusion	• There are “quick-win” opportunities to leverage established contracts for airline vendors, office supplies, as well as reviewing contracts in trade consumables, lab equipment & supplies, legal services, records management and IT where a number of institutions use the same vendor but appear to have negotiated contracts independently of one another • P-card savings can be gained from each institution optimizing spend to the institution average benchmark of 6% - 12.6% of total spend, and using one P-card provider to maximize rebate by consolidating spend volume • Longer term benefits could be gained from strategically sourcing more difficult to implement categories such as agency advertising, brokerage services, legal services, fine printing, fleet management, insurance, publishing services, recycling, and scrap disposal

*Out of the 9 institutions in scope, NLC was not able to provide sufficient data to be included in the analysis

Immediate next steps

1. Create a committed group of institutions to conduct collaborative sourcing of Wave 1 categories and foster compliance with agreements within their institution
2. Create a steering group to provide implementation governance
3. Create a program management office (PMO) to facilitate execution, manage timelines and track progress and benefits
4. Assign initial categories to willing procurement groups who will execute within the PMO framework
5. Conduct a comprehensive spend analysis and develop a robust business case for dedicated shared procurement for post-secondary education in BC

Procurement opportunities analyzed that do not present significant savings potential

Area	Sub-Function	Opportunity	Reason
Procurement	Strategic Sourcing	Create one centralized shared service centre(s) for procurement function, or regional/institution-type grouping for procurement services	• Incorporated to the implementation of shared procurement that would enable collaboration across institutions and maximizing spend volumes
Procurement	Strategic Sourcing	Implementation plan to leverage key commodity contracts already in place, to increase participation from sector and/or expanded to include adjacent sectors	• Combined with main opportunity to strategically source key common contracts through shared procurement
Procurement	P-card Management	Optimize overall use of P-cards (physical and ghost) to reduce procurement costs and to increase discounts and rebates	• Combined as an opportunity within strategic sourcing to optimize and leverage overall use of P-cards
Procurement	P-card Management	Leverage the most beneficial program by exploring existing P-Cards programs at institutions, including systems, rebates and compliance	• Combined as an opportunity within strategic sourcing to optimize and leverage overall use of P-cards
Procurement	Contract Management	Create centre(s) of expertise to manage large vendor contracts and ensure compliance with terms and conditions as well as service level agreements (SLAs) on an ongoing basis	• Incorporated to the strategic sourcing implementation as a long-term goal of shared procurement

Procurement Appendices

Appendix A – Existing Procurement Collaboration

Consortium / Group	Participating Institutions*	Description	Spend Categories	Source
Canadian Association of University Business Officers (CAUBO)	• UBC • SFU • UNBC • VIU • BCIT • LC	CAUBO is not solely a purchasing consortium and has an extensive mandate: to promote and support the professional management and effective leadership in the administrative affairs of Canadian universities and colleges.	• Car rentals • Courier services • Customs brokerage services • Hotels • Moving and relocation services	• http://www.caubo.ca/supplier_contracts/main • Group procurement meeting
BC Education Cooperative Purchasing Group (BC EDCO)	• BCIT • SFU • VCC • LC	BC EDCO is a purchasing consortium, with the primary objective to achieve the best value for the taxpayer's dollar by leveraging collective volumes and sharing of information and resources.	• Charter bus services • Office supplies • P-card with BMO • Janitorial services • IT supplies (Dell Canada) • Fuel	• http://www.bcedco.ca/index.html • Group procurement meeting
Greater Vancouver Municipal Purchasing Group (GVMPG)	• SFU • VIU	GVMPG is a purchasing consortium with a wide membership base from the majority of municipalities near the lower mainland and Kelowna, school districts and some higher education institutions.	• P-card with BMO	• SFU, VIU interviews
BC Petroleum Products Buying Group (BCPPBG)	• SFU • VIU	Consortium created specifically for the purchase of petroleum and lubricants products	• Fuel & petroleum products	• VIU interview
Mid-Island Purchasing Group	• VIU	An informal purchasing group formed for geographic proximity and benefits of scale. Trying to form Broader Island Purchasing Group	• Waste removal	• VIU interview

*Only institutions in-scope for the project have been included in the list

Appendix A – Existing Procurement Collaboration

Consortium / Group	Participating Institutions*	Description	Spend Categories	Source
Public Buyers of Prince George	• UNBC	An informal purchasing group between the local health authority, City of Prince George, SD 57, UNBC, College of New Caledonia	• Paper	• UNBC interview
Northern BC buying group #1 (informal)	• SD 59 • NLC	An informal joint relationship with NLC and SD 59 to share purchasing of bulk paper and an energy manager	• Bulk paper • Energy manager	• NLC interview
Northern BC buying group #2 (informal)	• SD 60 • SD 81 • SD 87 • NLC	An informal relationship between school districts and NLC for shared maintenance	• Building maintenance • Grounds maintenance	• NLC interview
ASC	• CoTR • Emily Carr • VCC • NLC	Collective group of colleges to jointly procure Colleague ERP	• Colleague ERP	• NLC interview
Partnership with Mercer & other colleges	• NLC	Collective group to purchase employee benefits through consulting firm Mercer	• Employee benefits • Employee family assistance program • Manulife contract	• NLC interview
Higher Education Information Technology (HEITBC)	• BCIT • CoTR • LC • OC • SFU • UBC • UNBC • VCC • VIU	A formal purchasing consortium comprised of 24 Colleges, Universities, University-Colleges and Polytechnics from across British Columbia that negotiate and manage software licensing agreements	• Software licensing	• IT Functional Expert interviews • NLC interview • http://www.heitbc.ca/about/members

*Only institutions in-scope for the project have been included in the list

Appendix B – Group procurement in other jurisdictions

Institution/Group	Description
ISI (Interuniversity Services Inc.)	• Provides selected central administrative services to 19 member institutions in Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland
OECM (Ontario Education Collaborative Marketplace)	• Provides strategic sourcing and procurement for publicly funded school boards, colleges and universities in Ontario
RGAUQ (Regroupement des Gestionnaires d'Approvisionnement des Universités Québécoises)	• Consortium composed of 19 post-secondary education institutions that formalizes the exchange of information between supply managers of all Quebec universities, and negotiates on behalf of Quebec universities with vendors
Boston Consortium	• Consortium composed of 11 Boston-area colleges and universities, with the mission to act as an external resource in creating a collaborative environment among member institutions for the development and practical implementation of cost saving and quality improvement ideas

- The majority of the purchasing groups did not mandate spending, however from procurement SME sources the Quebec consortium RGAUQ may have mandated spend according to a bill passed in 2008 (see link https://www.mcgill.ca/procurement/regulation/government/act)

Appendix C – Top shared suppliers

Supplier Name	Number of institutions using supplier	Category	Total Spend ($)
Pearson Education Canada	6	Textbooks	$ 5,799,942
Nelson Education Ltd	5	Textbooks	$ 2,387,769
BC Hydro	4	Utilities	$ 5,863,549
Bell Canada	4	IT	$ 2,485,332
HEITBC	4	IT	$ 621,967
Praxair Canada Inc	4	Trade Consumables	$ 1,677,021
Ricoh Canada Inc	4	IT	$ 1,599,155
Acrodex	3	IT	$ 507,875
Apple Canada	3	IT	$ 2,128,034
Canadian Research Knowledge Network	3	Library	$ 9,094,647
Dell Canada Inc.	3	IT	$ 1,019,081
EBSCO CANADA LIMITED	3	Library	$ 3,784,120
Fisher Scientific	3	Lab Equipment & Supplies	$ 7,895,253
Fortis BC	3	Natural Gas	$ 3,787,834
Grand & Toy	3	Office supplies	$ 845,228
Harris & Company LLP	3	Legal	$ 553,801
Login Brothers Canada	3	Bookstore	$ 791,552
Macquarie Equipment Finance Ltd	3	Equipment leasing	$ 4,184,673
Sharp's Audio Visual	3	IT	$ 517,579
Sysco	3	Food	$ 786,335
Unisource Canada Inc	3	Office supplies	$ 1,339,141

Appendix D – Total number of suppliers per spend category

Numerous suppliers across the analyzed spend categories indicates opportunities for collaboration

Spend Categories	Suppliers Low	Suppliers High
Trade Consumables	15	178
Agency Advertising	13	997
Fleet Management	5	12
Publishing Services	4	28
Insurance	3	84
Legal Fees	3	55
Lab Equipment & Supplies	2	4,230
Fine Printing	2	612
Travel Agents/Airfare	2	27
Office Supplies	1	1,004
Courier Services	1	18
Recycling	1	6
Records Management	1	3
Brokerage Services	1	2
Scrap Disposal	0	5

Facilities Opportunities

Facilities and Capital Management

- Facilities Management (FM) encompasses the maintenance and operations of buildings post development (maintenance, custodial, grounds), while Capital Management (CM) broadly covers the development (new, renovated and renewed buildings) of facilities

- Generally the facilities and capital functions are focused on internal operations and do not have capacity to actively seek out collaboration opportunities; however, given this challenge there is collaboration occurring within the sector today

- Opportunities for collaboration in facilities and capital management exist primarily in the procurement of good and services to support facilities maintenance and custodial services as well as the sharing of capital expertise and best practices across the sector

- The procurement of facilities management goods and services should leverage sector shared procurement identified in the strategic sourcing opportunity profile. The potential financial benefits of this opportunity are in the range of $3M - $12M

- Alternative Service Delivery for facilities management was also explored given this model is already in place in many BC institutions and is being explored in other jurisdictions. The potential benefits from this opportunity are in the range of $6M-$24M. This assumes that facilities procurement is not part of the alternative service delivery arrangement

- Given the complexity of the alternative service delivery model it is not an opportunity to explore in the short-term

Exploring alternative service delivery for some facilities management services is of interest and extremely complex

- The trend in the public and commercial/private sectors is toward alternative delivery models for facilities management (including all functions from overall management through to the sub-functions of maintenance, custodial/janitorial, grounds and even preventative maintenance programs)

- Through interviews and data collection, it is clear that a number of institutions have found alternative service delivery models for portions of their facilities management function (includes maintenance, custodial/janitorial and grounds) to be advantageous. All institutions use some level of contracted services; the key difference being which and how much of each sub-function (e.g. all of janitorial, facilities maintenance over $100,000) institutions believe can be delivered most effectively internally versus externally

- There was nearly unanimous agreement that significant changes to the current delivery models would be extremely difficult to implement and would be subject to strong resistance by the institutions and their staff

- However, there was general support for investigating increasing the components that are already provided through alternative service delivery (i.e. janitorial, grounds) where such agreements are in place

Opportunity Profile – Facilities and Capital Management

Current State	Opportunity Potential ($)	

• Facilities Management (FM) encompasses the maintenance and operations of buildings post development (maintenance, custodial, grounds), while Capital Management (CM) broadly covers the development (new, renovated and renewed buildings) of facilities
• Of the three primary service delivery models (Insourced, Outsourced and Hybrid), all nine institutions follow some form of hybrid with some tending more to one side or the other typically based on size, with the larger institutions doing more internally
• At a minimum, institutions have retained overall facilities and contract management, while other institutions maintain responsibility for facilities management through to delivery of the majority of services
• Institutions indicated they are exploring 3P models for certain types of new infrastructure projects (e.g. residences, athletic facilities)
• Most institutions indicated increasing deferred maintenance as a challenge
• The facilities and capital functions are generally, but not exclusively, focused on internal operations and do not have capacity to actively seek out collaboration opportunities to the same extent as other functions (i.e. Libraries), however there are a number of examples of current collaboration:
  o Shared facilities between institutions and with other broader public entities (i.e. city, school districts)
  o Cooperative or reciprocal maintenance agreements
  o Shared project and energy managers, some limited formal venues for sharing information, practices and lessons learned, industry associations (WACAPPA, PCAPPA), and sharing within the sector through established networks
	Recurring benefits	

	Low	High
	$9M	$36M
	Investments	
	Low	High
	See shared procurement investment outline (slide 39)	

#	Current Challenges	Example Practices	Potential Opportunities

1	• Maintaining facilities for existing and future requirements is becoming increasing complex and costly for institutions:
	  o Many institutions have facilities built in the same time periods (i.e. late 1960's early 1970's), some of which are nearing the end of their useful lifespans
	  o Several institutions indicated facilities have increasing deferred maintenance deficits
	  o Modern requirements (technology, heating/cooling, space utilization) are imposing demands not contemplated when many buildings were developed 30-60+ years ago
		• One institution has instituted a delivery model that is client centric, incorporates local ownership of service provision through the use of zones across the campus and service accountability through the use of a net promoter scoring methodology
		• Performance based contracts where facilities owners are effectively hands off and manage by 'uptime' and defined service levels
		• Third parties are increasingly being engaged to manage portions (janitorial is common) or all (full facility management) of the facilities' functions for public and private facility owners (e.g. Health sector in BC, BC government facilities, commercial sector globally)
			• Increase collaboration for facilities related purchases and procurements

Opportunity Profile – Facilities and Capital Management

#	Current Challenges	Example Practices	Potential Opportunities
2	• Unpredictable pattern of capital projects at many institutions makes retaining capital expertise difficult	• Public, private partnership (3P) models when conditions align to enable this option (i.e. large funding projects, future revenue model – fees/rental income/long term service contracts) • These models typically require a project size in excess of $100M. In other jurisdictions this model has been delivered to find savings of 29% for the project that included design, build and a 30 year maintenance agreements. Within BC, there are numerous examples in the broader public sector (Kelowna and Vernon hospitals project, Golden Ears and Port Mann bridges). • Benefits from P3 models included upgraded facilities (e.g. more median on the Sea to Sky highway) and performance based contracts that incent win-win outcomes	• Explore the creation of a shared capital management / planning COE to support institutions who require capital planning and management services • Use alternative service delivery models for facilities functions
3	• Some institutions do not have extensive experience with capital projects and have to procure capital project experience when initiating projects - these resources are often expensive and unfamiliar with the post-secondary sector		
4	• Several smaller institutions indicated they faced a dual challenge of a shortage of available skilled trades and simultaneously being unable to compete for these scarce resources within current market conditions		

Opportunity Profile – Facilities and Capital Management

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Increase collaboration for facilities related purchases procurements and contract consolidation (natural gas, facilities maintenance, custodial/janitorial services, grounds maintenance, consumables) • Key areas to investigate include service contracts (e.g. elevators, HVAC, life safety inspections)	$3M	$12M	• See shared procurement investment outline (slide 39)		Tier 1
		Note: This opportunity is mutually exclusive of the alternative service delivery opportunity below				
2	• Create a capital management/planning COE	• Savings potential ranges from 2% – 5% from improved design and specifications, standardized and more effective contracting processes, stricter change control management and improved project management *(source: Deloitte expertise)*		• Incremental staff to provide capacity for institutions and supporting space, IT and additional overhead costs		Tier 2
3	• Explore alternative service delivery models for facilities management functions (custodial services, grounds-keeping, maintenance/trades)	$6M	$24M	$0.3 (OT) $1M (R)	$0.5M (OT) $8M (R)	Tier 3

Primary benefit driver	• **Facilities Procurement:** key benefits driver is from spend consolidation that increases enables purchasing for a lower cost per unit • **Capital COE**: cost avoidance resulting from improved project planning and delivery (i.e. fewer and smaller cost overruns, more accurate planning and budgeting, more efficient delivery by leveraging broader expertise) • **Alternative service delivery**: benefit drivers include reduced MRO***** costs that result from the service providers increased buying power and from improvements in productivity (i.e. units of work per employee) *****MRO – Maintenance, Repair and Operations
Institutions most likely to benefit	• **Facilities Procurement**: all institutions can realize some level of benefits; however the smaller institutions (by spend volume) would receive a proportionately higher benefit • **Alternative service delivery**: those institutions with limited or lower levels of existing third party service delivery would be positioned to benefit the most; while smaller institutions or those with high levels of third party service delivery would see lower benefits; contract consolidation and increased competitiveness of existing contracts is achievable by all institutions • **Capital COE**: all institutions with capital plans may benefit slightly, but those institutions with smaller budgets and less experience and capacity for delivering projects would benefit the most significantly

Opportunity Profile – Facilities and Capital Management

Qualitative Benefits

Facilities related procurement:
• Refer to the Procurement opportunity on slide 40 for common qualitative benefits.
 	
Capital Planning and Management
• A core team of capital development experts allow for increased consistency of projects from planning through to delivery, which can in turn improve long term operating costs, "which can often exceed the capital costs many times over." Source: functional SME (interview)
• Lower project costs via improved pricing on project professional services (engineers, architects, planners, project managers, etc.)
• Improved budget forecasting and within budget delivery resulting from increased experience managing similar projects and the incorporation of lesson's learned from a wider range of projects
• More consistent and efficient projects from conception through to ongoing operations
 	
Alternative Service Delivery
• There are a number of qualitative benefits that come from alternative service delivery for facilities management, including:
  • Service level realignment (matching service levels to business requirements) to achieve consistent performance and service level standards which are based on a broader experience set (e.g. productivity for wide ranges of tasks)
  • Contract standardization and rationalization (trades, sub-specialties, commodities and supplies)
  • Larger buyer power for both materials (e.g. MRO and other consumables) and services
  • Increased use of technology and other efficiency investments that may not be within current investment plans at the institutions
  • Benchmarking across multiple similar facility types and increased productivity per unit (from process improvements, work standardization and service level rationalization)

Opportunity Profile – Facilities and Capital Management

Governance Considerations

Facilities related procurement

Please refer to the Procurement opportunity on slide 41 for a description of common governance considerations. Items specific to Facilities are listed below.

- Specific areas of commonality worth further exploration for shared procurement include: Elevator, HVAC, Controls/Automation systems, Fire and life safety inspection contracts
- More commodity type contracts (e.g. MRO supplies, paper and consumables) are candidate categories with high requirement similarity and may be candidates for broader collaboration beyond local or regional buying areas
- Within logical geographic areas Janitorial/Custodial/Maintenance and Trades contracts present an opportunity to further collaborate for institutions already contracting this service to a third party
- In the shorter term, increased collaboration across the institutions to work on key categories could produce more rapid benefits

Capital Planning and Management COE

- The ideal future state would leverage existing expertise and institutional infrastructure (people, processes, experience, knowledge) and build upon this foundation to provide institutions in need of additional support, access to broader capital project experience
- The future state model could take one of the following forms:
    - A COE model in which one institution provides services to other institutions on a cost recovery (or other fee) basis. It may add additional staff based on increased demand from other institutions
    - A pooled team of resources, supplied by the participating institutions, provide services back to the institutions and function as a sector team; several options exist for how the team is constructed - based in one institution, a shared office, virtually across multiple institutions
- A COE model will help facilitate the sharing of best practices (e.g. energy management, project scope management)
- The expertise developed at institutions ranges from project planning (e.g. space development guidelines) through to project management for delivery of capital projects
- Certain institutions have mature facilities and capital management functions that already provides information and support to the broader sector for capital planning and management
- The challenge for smaller, rural or eastern locations finding and retaining skilled and experienced staff indicate a single location for the COE or a regionalized COE model that leverages institutions with more established facilities and capital management functions

Opportunity Profile – Facilities and Capital Management

Implementation Considerations and Risks

Facilities related procurement:

Please refer to Procurement opportunity on slide 41 for a description of common implementation risks and considerations. Items specific to Facilities are listed below.

- Contract alignment, sharing and leverage will require increased collaboration among facility leaders as well as institutional procurement teams
- Implementation success can be improved by finding initial categories that present the easiest initial wins and generate savings (light tubes, MRO supplies, similar contract types – inspection services, elevator service, key HVAC components)

Capital Planning and Management COE

- For the participating institutions successfully leveraging a COE requires establishing a clear governance model and should, at a minimum, address:
    - Resource availability and ownership challenges between 'supplying and buying'
    - Cost sharing and price of services, especially when project capacity and therefore the need to retain people declines
    - Project priorities and competing in-house projects versus 'client' institution projects
    - Funding model – Provincially funded, participating institutions pay via a share model, fee for service, other models
- Timing of project funding and completion deadlines across province will impact the practicality of sharing resources (i.e. if all institutions get funding at the same time, capacity will be absorbed quickly; conversely if long periods of time occur when funding is lower than average, resources may leave the market and become hard to find when funding returns)
- A governance model that defines how projects are prioritized and managed to ensure projects are managed at the appropriate priority level
- Increased complexity resulting from shared responsibility between projects across institutions
- May be perceived to be competing with the private sector for some similar services
- Trust in any one institution or the COE to maintain the same priority on other institutions' projects (i.e. don't want to be a second level priority)
- Potential impact on local market providers
- Understanding of unique local requirements, particularly for smaller institutions outside the lower mainland and south island

Opportunity Profile – Facilities and Capital Management

Qualitative Benefits	Implementation risks and considerations
Alternative Service Delivery • There are a number of qualitative benefits that come from alternative service delivery for facilities management, including: • Service level realignment (matching service levels to business requirements) to achieve consistent performance and service level standards which are based on a broader experience set (e.g. productivity for wide ranges of tasks) • Contract standardization and rationalization (trades, sub-specialties, commodities and supplies) • Larger buyer power for both materials (e.g. MRO and other consumables) and services • Increased use of technology and other efficiency investments that may not be within current investment plans at the institutions • Benchmarking across multiple similar facility types and increased productivity per unit (from process improvements, work standardization and service level rationalization)	**Alternative Service Delivery** • The current cost and service level baseline is not well documented and would take significant effort to define. Creating and gaining agreement on the service baseline is a critical success factor for service delivery model changes • Understanding the key stakeholders (internally and externally) is challenging, but required to effectively develop the appropriate governance model • Contract management must be an active, ongoing activity for both the institution and the service provider • Retention of unique or specialized skill sets – local staff are usually retained when they have site specific knowledge • Existing labour agreements and organizational culture can make moving to these models impractical or highly complex • The sector SME's were strongly outspoken against any direction to change their current service delivery models due to the labour implications that would arise • Would require negotiated changes to collective agreements

Opportunity Profile – Facilities and Capital Management

Analysis summary	
Analysis	**Procurement** • Similar to the procurement analysis, savings ranges from best practices and Deloitte experience were applied to the provided spend volumes and extrapolated to the rest of the province using the ratio of operating grants (again setting UBC aside and re-adding their total). • The data indicated the top five categories represented 98% of the reported spend; the analysis was performed on the these five categories. **Alternative service delivery:** • Two approaches were evaluated; the results of both were consistent. • The first approach involved using the total facilities spend as reported by the institutions and extrapolated to the province based on operating spend, the potential savings range of 5-20% was then applied. • The second approach calculated gross square meters (GSM) for AVED based the total post secondary student FTE spaces in the province and the known FTE spaces and GSM for the sample institutions • Using the K-12 report findings as a check, a similar analysis was conducted to compare potential savings based on (GSM) • The GSM was calculated as a percentage of the K-12 GSM and then reduced by a factor for existing outsourcing in the sector • Sensitivity analysis for both of these assumptions (K-12 to AVED ratio and proportion of outsourcing) indicated a change of ~37% and 30% (respectively) in both variables lead to a potential range of ~$5M to $59M • Calculating productivity ratios is complex in this sector due to the varied and unique uses of space (e.g. large gymnasia through to highly specialized science and research labs) and requires varied ratios supported by detailed calculations, which were beyond the scope of this phase • Ongoing costs were estimated using a Deloitte benchmark indicating that contract management costs are 1-7% of the annual cost of the contract. Using a midpoint contract value of ~$107M, the costs were projected to be between ~$1M and ~$8M
Assumptions and Limitations	The quantitative analysis is preliminary; additional, more detailed analysis is required to confirm and validate the opportunities in both areas • The data provided was used ‘as is’ and detailed review was not conducted • Institutions had equal access and ability to extract and categorize the spend data • A simplifying assumption has been used that all institutions’ facilities management needs are reasonably similar, while being different is size and scale; further analysis using the provincial facility space reports and developing a more detailed analysis is required to refine this opportunity • The available data from the post-secondary institutions indicated existing third party delivery is in use by approximately half (50%) of the institutions, however this requires further validation • Typical savings for alternative service delivery range from 5-20% • GSM ratio between AVED and K-12 was estimated at ~41% • Proportion of current state outsourcing in the sector is assumed to be 50% • The work of facilities management (including all components) is similar enough to that in K-12 that a high level comparison is valid • Data (data request and interviews) from the sample institutions is representative for the broader sector

Opportunity Profile – Facilities and Capital Management

Analysis summary	
Data Sources	• B.C. government: http://www.aved.gov.bc.ca/mediaroom/facts.htm • B.C. government: http://www.bced.gov.bc.ca/reporting/docs/SoK_2011.pdf • Deloitte SME's • Deloitte K-12 report • Sample institutions data request submission
Conclusion	**Procurement**: • Increased strategic sourcing provides an opportunity to save $3M to $12M in the facilities management function **Alternative service delivery:** • Based on the savings ranges and supporting sensitivity analysis, alternative service delivery for facilities could provide savings across the sector between $6M to $24M; however, more detailed data gathering and analysis by sub-function within facilities management is required to refine these high level estimates • Implementing changes in this area will be very difficult, complex and require an extended effort across several years

Facilities and Capital Project Planning opportunities analyzed that do not present significant savings potential

Area	Sub-Function	Opportunity	Reason
Facilities	Capital Project Planning	Bundle capital projects into larger tranches where practical	Functional experts interviewed suggested capital projects vary significantly from one institution to the next and are not similar enough to allow bundling.
Facilities	Facilities Management	Energy Management - opportunity for smaller institutions to leverage energy managers from larger schools	Institutions are leveraging the Energy Manager program through BC Hydro, but this may still present an opportunity to share best practices across the sector.
Facilities	Facilities Management	Explore alternative service delivery models for security services and potential linkages to parking services	Opportunities relating to parking services were addressed in the Ancillary Services section.

IT Opportunities

There are a number of opportunities to build on the tradition of collaboration across IT in post-secondary

- A culture of collaboration is in place across post-secondary education IT departments
- There are significant differences in size and scale which impact budgets and cost models across institutions
  - Budgets and frequency of hardware refresh cycles vary based on the size of institution
- Opportunities exist to leverage existing infrastructure in place across the sector
- As IT departments look to continue expanding their services in a constrained fiscal climate, the sector is moving toward larger scale sharing of procurement and service delivery. There are eight specific opportunities for institutions to reduce spending or improve service delivery for current service offerings:

Sub-function	Opportunities to be explored	Benefits
Managed Print Services	• Implementing a shared contract for Managed Print Services	~$2M - ~$6M
Servers, Storage and Data Centre	• Implementing shared virtual data centre using existing facilities	~$5M - ~$7M
Email	• Implementing a shared email platform	~$0.1M - ~$3M
Workstations	• Shared desktop and laptop procurement	~$0.5M - ~$1M
Local Area and Wireless Networks	• Shared network hardware and software procurement	~$0.4M - ~$0.9M
Specialized IT Procurement & Hosting	• Shared procurement of specialized IT software, hardware and services	Continued incremental savings
Specialized IT Expertise Sharing	• Shared specialized IT resources	Avoided contracting costs and increased service delivery

Network bandwidth and privacy legislation are key considerations to maximizing savings in service delivery

	Network Bandwidth	Privacy Legislation
Issues	• Many institutions expressed challenges with access to the desired level of bandwidth level	• The Freedom of Information and Protection of Privacy Act (FOIPPA) prevents personal data from being stored outside Canada
Implications	• Lack of bandwidth and ability to prioritize traffic forces institutions to have servers within local area networks in order to provide adequate processing power • This increases costs by forcing institutions to deploy more servers would otherwise be required, and it limits opportunities to increase service efficiencies through remote support • This a barrier to the implementation of shared or cloud-based services	• The growing trend in IT service provision is to provide infrastructure and applications as a service where they are hosted by a service provider in large data centres allowing the service provider's customers to benefit from their combined scale • While the data centres used in these scenarios are often located all over the world with very few in Canada. Even when these centres are located in Canada, there is no guarantee from the vendor that the data will remain in Canada • For this reason, BC post-secondary institutions have not been able to take advantage of the potential cost savings available under this model

Opportunities Impacted	• Shared Data Centre
	• Shared Email and Unified Communications
	• Managed Print Services
	• Shared ERP Hosting
	• Various hosted applications
		• Infrastructure-as-a-Service:
		  • Shared Data Centre
		• Software-as-a-Service:
		  • Shared Email and Unified Communications
		  • Various hosted applications

- The potential cost savings identified in this document are estimated based on models that work within these constraints
- If either or both of these key considerations were addressed, there would be significant incremental savings opportunities. Lifting these barriers would require investments to extend the data network to rural and remote areas of the province. Removing the barriers to leveraging public cloud services would require either a change in legislation or the commitment from service providers to build Canadian data centres in order to serve the public sector

IT services and procurement should be developed within a post-secondary shared services structure

- There are three existing IT organizations in BC post-secondary education, two of whom (BCNet and HEITBC) are involved with core IT shared services, while the third, BCCampus, provides student-facing services and educational technology
- As the two IT shared services organizations have grown they have begun to overlap one another
- As the sector moves toward increased collaboration, an IT shared service structure will be facilitate the successful implementation and ongoing support of the opportunities identified in this assessment and any future opportunities for collaboration
- This structure should be designed to that provide core IT services, facilitate sharing of expertise and coordinate with shared procurement

	Post Secondary Education IT Services Structure
Description	• Shared procurement and contract management for IT hardware, software and services by leveraging shared procurement (see procurement profile) • Management and support of the shared data centre and shared email platform • Management of the BCNet network • Coordinate, staff and support the sharing of specialized IT expertise and facilitate the current ERP user groups • Facilitation of formalized sharing of plans and best practices in order to coordinate new initiatives and increase collaboration moving forward
Governance Considerations	• All 25 institutions participate • Remove duplication of services between multiple organizations • Equitable control over services • Cost recovery funding model

Opportunity Profile – Managed Print Services

Current State	Opportunity Potential ($)	
• Printing refers to procurement, maintenance, support of printers and multifunction devices (MFDs) and related supplies (e.g. toner) • There are a number of different models for the management and support of printers and MFDs. These range from traditional models where the hardware is owned or leased by the institution, supplies (i.e. toner) are purchased internally and support is performed by institution employees to managed print services contract where all capital, support and supply costs are bundled together and charged based on a blended cost per impression for different types of printing (i.e. black and white, colour). • Nine of the twelve institutions surveyed indicated that they have implemented some form of Managed Print Services • Traditional support models for printing result in costs being spread across a number of cost centres making a detailed understanding of the total cost of printing difficult to obtain • Many interviewed institutions have a large number of individual desktop printers, increasing the difficulty of allocating print costs • The managed print services contracts currently in place vary in a number of ways including the vendor, the services that are included and the duration of the contract. This makes the comparison between contracts relatively complex • The BC Government is currently in the process of finalizing a contract for managed print services that will provide the ability for the institutions to leverage the scale of BC's entire public sector	Recurring benefits	
	Low	High
	~$2M	~$6M
	Investments	
	Low	High
	~$0.1M	~$0.3M

#	Current Challenges	Example Practices	Potential Opportunities
1	• Decentralized deployments, support models and purchasing of printers and MFDs make management, support and tracking of costs difficult	• Large organizations with a widely dispersed printing environment have potential to achieve significant savings through print optimization (Source: Gartner – Hype Cycle for Education, 2011) • Develop a strategy that includes the measurement and tracking of output usage, as well as the regular review of output needs (Source: Gartner – Hype Cycle for Education, 2011)	• Transition to a single managed print services contract for the post-secondary sector
2	• Large number of individual office or desktop printers that are not currently accounted for, resulting in a higher total cost of ownership for printing	• Users who deploy managed print services can increase the ratio of staff per device to ~10:1 or better (Source: Deloitte Expertise)	

Additional considerations and example practices

- Managed Print Services enable tracking of pages printed by individuals. Implementing accountability programs (e.g. print quotas) for staff has been shown to reduce the number of pages printed by 15% or more (Source: Deloitte Expertise)

Opportunity Profile – Managed Print Services

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Transition to a single managed print services contract for the post-secondary sector	~$2M	~$6M	~$0.1M	~$0.3M	Tier 1

Primary benefit driver	• The primary benefit driver is a reduction in printing costs by eliminating fixed costs and paying a blended rate per printed page that includes all of the components involved in supporting printing within an institution
Institutions most likely to benefit	• Small to medium-sized institutions who currently own their printing infrastructure and are due for a large capital refresh as well as those who have entered into a managed print services contract individually and are paying higher costs relative to their larger peers are the most likely to gain from this • Institutions who have managed print services contracts that are based on high page volumes are likely to have attractive rates and are thus less likely to benefit significantly from a shared contract

Opportunity Profile – Managed Print Services

Qualitative Benefits	Implementation Risks and Considerations
• Moving to a full Managed Print Services contract across all institutions will remove the burden of managing and refreshing capital assets for printing and provide detailed insight into print costs • Managed Print Services initiatives have been shown to reduce the number of pages printed which results in further savings as well as environmental benefits associated with using less paper and power • A single contract will allow for benchmarking against other contracts in the future in order to ensure that the sector continues to get access to the best available pricing • Managed Print Services allow for detailed tracking of print volumes and cost at an individual level	• Transitions to Managed Print Services can be a cultural challenge. Individuals who have become accustomed to having personal printers in offices or classrooms are often very resistant to the idea of relinquishing these devices • It is likely that the aggregated cost of individual printers is not tracked which means that current total costs for printing are underestimated. This can have the effect of artificially diminishing the business case for a transition to managed print services which can make It more difficult to gain buy-in from staff and management • If a large number of desktop printers remain in place after a managed print implementation, savings will not be maximized • There are a number of existing contracts in the sector that are already in place. In order to properly assess the expected benefits from a move to a single contract, these contracts should be catalogued in detail in order to forecast the expected timing for each institution to onboard onto the new contract • In order to address the cultural challenges involved in a transition to managed print services, it is important that the leadership of the institution set an example by using the shared printers themselves • There may be cases where the centralized contract does not make sense for all institutions. This may be because the chosen vendor does not operate in their community or because their current model is lower cost than it would be under the common agreement
Governance Considerations	
• The contract will require central management in order to oversee the development and implementation of a post-secondary managed print services contract. This may involve onboarding onto the BC Government contract or managing a tender process in order to develop a separate contract for the post-secondary sector • An implementation plan would need to be put into place where institutions would onboard to the new contract . This may be done when existing contracts expire, when capital is due to be refreshed or any other times that make sense for both the institution and those coordinating the rollout. • Individual institutions would deal with the vendor individually and thus it is unlikely that there would be FTE savings associated with this opportunity	

Opportunity Profile – Managed Print Services

Analysis summary	
Analysis	• The opportunity to move to a shared managed print services contract was assessed by calculating the total cost for printing across the institutions and comparing this with a range of costs per page from the BC Government and from the lowest cost performers within the sector in order to determine the lowest possible rate future state cost • One important consideration is that the models currently in place across the twelve interviewed institutions were not consistent. Only one institution indicated that they do not currently have a managed print service contract in place. The remainder had some form of contract though the scope of these contracts varied and all still had at least some capital costs related to printing. For this reason, the analysis of current state was normalized by adding together all of the costs related to printing and then dividing by the number of pages printed • Costs for printing were extrapolated based on the size of the institution in order to ensure that different the scale of different-sized institutions was accurately represented in estimates for the rest of the sector
Assumptions and Limitations	• Because printing is often a decentralized function, the data collected from the institutions is less reliable than in other opportunity areas. Based on the feedback of the contacts from the institutions, it is likely that the current cost of printing and the number of pages printed are underrepresented by the data in this analysis. • While, smaller institutions often reported very low costs for printing, it was assumed that these models were not scalable to the entire sector and thus were not considered as potential lowest cost performer metrics
Data Sources	• Current state data was collected through institutional data requests • Projected rates for a BC Government managed print services contract were estimated based on Deloitte expertise in managed print services procurement
Conclusion	• Moving to a consolidated Managed Print Services across the sector offers an opportunity to generate ~$2M to ~$6M in annual savings

Opportunity Profile – Servers, Storage and Data Centre

Current State	Opportunity Potential ($)	
• Servers, Storage and Data Centre refers to the procurement, maintenance and support of both physical and virtual server hardware and software as well as data storage both inside a centralized institutional data centre or installed separately. The scope of this analysis is on the servers, storage and data centres that are managed by the central IT department and not those maintained by individual faculties or research groups. • Strategies for managing servers and storage vary based on the size of the institution, its geographic location, the number of campuses and its access to bandwidth • The majority of institutions have a centralized data centre in place though this does not necessarily mean that it contains 100% of the servers and storage units within the institution • Institutions with slower internet connections and/or lack of technology to prioritize bandwidth usage are forced to keep servers in each physical location in order to reduce the amount of data being transported externally • BCNet has submitted a funding proposal to the Ministry to develop a shared virtual data centre for all BCNet members using upgraded resources at SFU and UVIC • BCNet recently secured a contract for NetApp storage equipment at an attractive price point	Recurring benefits	
	Low	High
	~$5M	~$7M
	Investments	
	Low	High
	~$7M	~$10M

#	Current Challenges	Example Practices	Potential Opportunities
1	• Institutions are investing in their own data centres and often do not have the scale to maximize this investment	• Nearly all enterprises should consider external hosting in their tactical and strategic sourcing decisions, because the services are standardized, and support flexibility of upward and downward scaling (Source: Gartner - Hype Cycle for Education, 2011).	• Develop a shared virtual data centre for hosting and storage
2	• Budgets for server and storage hardware and equipment refresh vary based on the institution size. Smaller institutions often purchase used server and storage hardware and refresh on an ‘as needed basis’ and subsequently are likely paying higher prices than they could be while smaller instructions will have their services impacted by older equipment.	• Leveraging the scale of the sector for purchasing hardware will allow smaller institutions to gain access to attractive pricing thus increasing service levels	• Shared procurement of server and storage hardware and software

Additional considerations and example practices

- For some institutions in rural or remote regions of the province, a centralized data centre is not feasible due to bandwidth constraints. In these institutions, local servers and storage units will be used in order to avoid large amounts of data being transmitted across the network.
- Server utilization at most organizations can be increased to higher levels and there is often an opportunity to reduce the number of physical servers by virtualization. In most cases, costs savings are attained on virtualization of up to 50% of servers. Beyond 50% virtualization, the ROI would need to be assessed on an organization by organization basis *(Source: Gartner: Ten Key Actions to Reduce IT Infrastructure and Operations Costs)*

Opportunity Profile – Servers, Storage and Data Centre

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Develop a shared virtual data centre for hosting and storage	~$5M	~$7M	~$7M	~$10M	Tier 1
2	• Shared procurement of server and storage hardware and software	~$0.1M	~$0.4M	Tendering and contract management costs		N/A

- Opportunities are mutually exclusive. Shared procurement is inherent in the shared data centre concept and would significantly reduce the amount of spending on server and storage hardware and software at the institution level

Primary benefit driver	• The primary benefit driver of the shared virtual data centre is reduced operational and capital costs achieved by no longer having so support individual data centres • By upgrading existing data centre facilities at member institutions, the costs are much lower than building a brand new data centre • There is also a benefit of facilitating the move to virtual servers for smaller institutions who have not yet made this transition
Institutions most likely to benefit	• Institutions that have access to adequate bandwidth to facilitate remote data centres are most likely to benefit from this initiative • Smaller institutions with aging infrastructure and smaller budgets will have a more difficult time achieving savings. These institutions are also likely to the ones who have limited bandwidth. For these institutions a service delivery improvement opportunity exists as well as an opportunity to remove the burden of refreshing and supporting hardware

Opportunity Profile – Servers, Storage and Data Centre

Qualitative Benefits	Implementation Risks and Considerations
• As demand for computing power and storage grows, a shared data centre allows institutions to avoid the future costs associated with upgrading and/or replacing data centres • Providing institutions with a lower cost managed service alternative could produce the benefit of reducing the number of small data centres located in research labs or individual servers scattered throughout campuses. These individuals would continue to have the choice of how they would spend their research funds but if a lower cost alternative is presented to them there would be an opportunity to lower costs and allow a higher percentage of grant funding to be spent on research which would benefit the sector. • Moving to a shared virtual data centre moves the sector into position where it is able to continue to benchmark its costs against industry metrics in order to ensure that everyone receives the highest possible value from the money being invested	• The virtual data centre would leverage upgraded existing data centre facilities at two or more institutions. The multiple sites would function as a single data centre with users having access as if the facilities were located within their premises. • Without investments in the data network, certain institutions may not be able to leverage a shared data centre. The bandwidth demands that would be associated with an offsite data centre should be weighed prior to making the commitment to moving and there should be a sector-wide plan in place in order to ensure that these institutions are able to take advantage of this opportunity. • Due to FOIPPA concerns, the most feasible model for the first iteration of the post-secondary shared data centre would likely be an on-campus model such as that proposed by BCNet. This would allow the institutions to obtain some of the scale benefits associated with moving to the cloud while keeping data ownership within the sector. • The benefits for this opportunity may not be fully realized for several years. The institutions who participate may begin to move their existing hardware into the shared data centre and then move to the managed virtual server solution over time. For those who have not moved to a fully virtualized server fleet, this may be the most practical means of virtualizing.
Governance Considerations	
• The IT shared service structure is still to be determined. A model where a shared service structure acts as the contracting, procurement and capital asset holding company is the model that would allow the most flexibility moving forward. BCNet has built this governance model and has put forth a proposal for a shared data centre. If in the future it is decided that a privately provided model would make the most sense, this governance model would allow the institutions to move together toward the best possible option at the given time.	

Opportunity Profile – Servers, Storage and Data Centre

Analysis summary	
Analysis	• Annual equipment costs are combined with addressable salaries of staff and management FTEs to reach total annual server and storage costs • Server & storage data was separated into two categories: those inside a data centre and those outside in order to gauge the effects of shifting data centre service • The costs for each were calculated and the data centre costs were compared using different future state cost models for a shared data centre. Some of these (including the BC Government Data Centre) were based on power costs (i.e. kVA) while others (including the proposed BCNet Data Centre) were based on the number of managed virtual servers and the storage capacity in terabytes (TB). • Projected costs for these two models showed that kVA option did not provide a financial benefit and required that institutions would continue to provide the hardware themselves. The managed service option which was one of two options for the proposed BCNet data centre, would allow institutions an opportunity to move toward fully virtualized servers in a managed fashion while divesting themselves of the need to continually purchase, maintain and refresh capital assets.
Assumptions and Limitations	• The estimates for the implementation leverage the BCNet Data Centre funding proposal that was submitted to the Ministry • The completeness of the submittal of data related to the Servers, Storage and Data Centre analysis varied across institutions
Data Sources	• Current state data was collected through institutional data requests • The future state cost model for a shared data centre was an estimate derived from a conversations with BCNet as well as the funding proposal that was submitted to the Ministry for a shared data centre
Conclusion	• Implementing a shared virtual data centre for the post-secondary sector offer the opportunity to generate annual savings of ~$5M to ~$7M

Opportunity Profile – Email and Unified Communications

Current State	Opportunity Potential ($)	
• Email refers to software, hardware, maintenance and support related to providing email for both staff and students/alumni • A number of existing email systems are in place at various institutions including cases of multiple instances within a single institution • 24 of 25 institutions have access to discounted pricing on the Microsoft E-Desktop suite that includes Exchange as well as some other unified communications components (i.e. Lync instant messaging) • In group settings and one-on-one interviews, IT management from the majority of institutions expressed a desire to move email management outside of their department in order to devote resources to supporting more strategic initiatives Institutions have explored cloud-based email solutions (i.e. Microsoft Exchange 365, Gmail) as a means of alleviating the burden of supporting email internally. Public cloud solutions like the Microsoft offering have been avoided to date due to conflicts with BC's privacy and personal protection legislation. One institution has made the transition to the Microsoft solution while another has leveraged a private cloud solution through IBM in which the email servers are hosted in a data centre in Ontario. • Strategies for Unified Communications vary across institutions though there is a common thread of conversations related to how institutions can leverage the Microsoft Lync platform that is included in the Microsoft licensing • HEITBC is currently moving to implement a centrally hosted Lync pilot for its member institutions	Recurring benefits	
	Low	High
	~$0.1M	~$3M
	Investments	
	Low	High
	~$4M	~$8M

#	Current Challenges	Example Practices	Potential Opportunities
1	• Email is seen as a commodity service. IT departments have expressed that they would prefer to devote resources to more strategic initiatives that can provide value for students, staff and faculty.	• Organizations with on-premise email deployments greater than 15,000 users see a reduction of ~12% in per user email costs compared with organizations that have fewer than 5,000 on-premise users. (Source: Forrester - Should Your Email Live In The Cloud? A Comparative Cost Analysis). This suggests that there could be substantial savings generated by consolidating on-premise email across the post-secondary sector.	• Share a hosted email implementation across multiple institutions • Transition to a software-as-a-service email provider
2	• Institutions are exploring unified communications independently or in small groups. Pursuing this technology in a fragmented manner will likely lead to higher costs and potentially prevent smaller institutions from moving forward at all.	• Pursuing common purchasing and implementation of large scale technology products results in avoided implementation and ongoing support costs	• Implement and host a Unified Communications suite for multiple institutions

Additional considerations and example practices

- A number of institutions in other Canadian provinces (i.e. Alberta and Ontario) have moved email into the cloud. This was possible due to less restrictive privacy policies in these provinces. This model allows institutions to benefit from scale that goes far beyond the post-secondary sector. Due to aggressive pricing for educational institutions, these services are often for little to no cost.

Opportunity Profile – Email and Unified Communications

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Share a hosted email implementation across multiple institutions	~$0.1M	~$0.3M	~$4M	~$8M	Tier 2 (Cloud option not feasible within current privacy legislation)
2	• Transition to a software-as-a-service email provider	~$3M	~$4M	~$4M	~$8M	
3	• Implement and host a Unified Communications suite for multiple institutions	Avoided implementation costs		Incremental costs over and above shared email		N/A
	TOTAL	~$0.1M	~$4M			

Primary benefit driver	• The primary benefit driver for s hared email deployment comes from reducing costs on a per mailbox basis by leveraging the scale of the post-secondary sector
Institutions most likely to benefit	• Institutions with aging infrastructure and high costs per mailbox are the most likely to benefit from a shared email deployment. • Some smaller institutions reported costs that were lower than any of the benchmarks used in this assessment. These deployments were too small to be considered as a viable model for the rest of the sector but do not offer an opportunity for savings against baseline costs.

Opportunity Profile – Email and Unified Communications

Qualitative Benefits	Implementation Risks and Considerations
• Leveraging a shared email platform will enable the IT departments at the various institutions to free up staff members to support more strategic technology functions • Moving to a Unified Communications platform in conjunction with the email platform will present an opportunity to avoid future costs and increase synergies in support and maintenance of the system once it has been implemented • Increased use of collaboration tools within a unified communications suite will also provide increased service levels for institutions and will enable productivity gains among employees	• There are technical complexities related to identity management that will need to be worked out in order to make the shared email system a single platform • Unified communications technologies, particularly VOIP, rely on sufficient bandwidth and QoS technology. These technologies are not currently available to all institutions which will impact their ability to leverage these technologies. • Due to concerns surrounding privacy legislation, a shared Email and/or Unified Communications platform must be hosted on servers that are located within Canada • Cost savings could be expanded if the sector were able to move toward larger scale cloud email and unified communications deployments (e.g. Microsoft or Google) as has been explored in other provinces • There are multiple platforms currently in use for email within BC's post-secondary institutions. While many institutions are either using or intend to use Microsoft Exchange, there are others who are using or intend to move to the Zimbra platform. For this reason, it is possible that providing two shared email platforms may be the best solution. This would result in some incremental cost to support the two separate platforms.
Governance Considerations	
• Shared email platform would be facilitated by the IT shared service structure. The service provider would be either a private sector provider of managed hosting service or to an institution who can manage the email on a cost-recovery basis. • The lowest cost service model within the sector IT departments should be used as a benchmark against which private sector service providers should bid. If a private service provider is able to support email at a lower cost than the lowest cost model from institutions within the parameters of the privacy legislation, this would be the preferred option.	

Opportunity Profile – Email and Unified Communications

Analysis summary	
Analysis	• The analysis for a centralized email platform compared the current state cost for each school to provide staff email separately with the cost to provide a single email implementation across all institutions using a hosted service or the lowest cost provider • The calculation of current state costs included software, hardware, consulting services, and in-house staff supporting email • These figures were then divided by the total number of supported mailboxes in order to arrive at a cost per supported mailbox • The total costs of the current state were then compared with external costs for a hosted email service as well as with the lowest cost per supported mailbox within the sector • An assessment of the potential costs was also done using a cloud model where software and hardware costs are eliminated • In calculating the benefits of these opportunities , it was assumed that existing staff would be 50-70% of the FTE count attributed to email would be redeployed to other functions within IT departments. This was based on a Forrester metric that estimated a ~60% reduction in staffing costs attributed to email (Source: Forrester - Should Your Email Live In The Cloud? A Comparative Cost Analysis). • Implementation costs were estimated to be between $5 and $10 per user. These estimates were provided based on Deloitte experience and conversations with vendors. Due to the size of the potential shared email deployment for the post-secondary sector, it is possible that this number would be even lower
Assumptions and Limitations	• An assumed monthly cost of hosted email services ranged from $3 per user to $5 per mailbox. This was derived from quotes and conversations within the sector. • An assumed monthly cost from the lowest cost provider ranged from $1.45 to $3 per mailbox. The cloud option as used as the ultimate low at $0/mailbox • Deloitte did not have access to any vendor quotations for the size of deployment that would potentially be implemented across the post-secondary sector. It is possible that both internal and external cost per supported user metrics would be even lower • It was assumed that certain institutions that had lower email costs would not be able to scale their services to the entire sector
Data Sources	• Current state data was collected through institutional data requests
Conclusion	• Moving to a consolidated email deployment for the post-secondary sector offers institutions the opportunity to save ~$0.1M to $3M

Opportunity Profile – Workstations

Current State	Opportunity Potential ($)	
• Workstations refers to the procurement, maintenance and support of both desktops and laptops. This would also include costs and activities related to virtual desktops. The scope of this analysis is focused on workstations that are issued and managed by the central IT departments and does not include those purchased and maintained by individual faculties or research groups. • Workstations management varies in the degree of control that the central IT department has over the desktops and laptops that are deployed within the institutions. The larger research institutions tend to have higher levels of decentralization while colleges and smaller institutions in general tend to have higher levels of centralization. • Fewer than half of the in-scope institutions indicated in interviews that faculty computers are issued by the central IT department. • Makes and models of workstations vary across the in-scope institutions. Smaller institutions will often have longer refresh cycles for workstations in order to reduce annual capital costs and effort related to workstation refresh. Others purchase used machines from other sectors in order to reduce capital costs. • BCNet is preparing to issue a Request for Proposal for workstations that includes provisions for the entire sector to gain access to the negotiated pricing if they choose to. The contract will include escalating sector-wide volume discounts meaning that broader participation will increase savings for all participating. • The Government of BC has a wide reaching agreement with IBM for the provision of desktop and laptop computers and support	Recurring benefits	
	Low	High
	~$0.5M	~$1M
	Investments	
	Low	High
	See shared procurement investment outline (slide 39)	

#	Current Challenges	Example Practices	Potential Opportunities
1	• Workstation procurement is managed separately at each institution meaning that institutions are potentially overpaying on a per-unit basis	• Deloitte benchmarks in education suggest that institutions who strategically source and rationalize hardware purchases can save an additional 5-10% over and above existing discounts for the education sector	• Shared procurement of desktop and laptop hardware

Additional considerations and example practices

- Institutions have had success bringing faculty workstations into their portfolio by demonstrating the cost advantages that come from leveraging the scale of the central IT department.
- The Government of BC has a large Workstation contract with IBM that includes services as well as capital purchasing details. This contract was considered in this analysis but was not put forward as a potential option due to a lack of fit with the service delivery and cost model and resistance to centralized workstation support within the sector.
- Another potential area to drive savings in the sector is through desktop virtualization, When surveyed, institutions reported that the average price paid for a desktop computer were between ~$750 and ~$1,250 (Source: Gartner - PC Hardware Replacement Strategies: Desktop
- PCs, Thin Clients and Zero Clients). Because virtual desktops perform less processing at the local level, the costs for these machines is significantly lower. According to Gartner, thin-client prices can range from $150 to $600 per client while zero-client prices are even lower, ranging from $50 to $300. While some larger institutions have begun virtualizing their desktops, smaller institutions are less likely to have done so. A move to virtualized desktops is dependent upon reliable bandwidth connectivity which could be a barrier for some of these smaller institutions.

Opportunity Profile – Workstations

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Shared procurement of desktop and laptop hardware	~$0.5M	~$1M	See shared procurement investment outline (slide 39)		Tier 1

Primary benefit driver	• The primary benefit driver of shared workstation procurement is an increased discount from list price on desktops and laptops
Institutions most likely to benefit	• The institutions most likely to benefit from this opportunity are those that regularly refresh their capital but do not have a large enough scale to command significant discounts from vendors • Smaller institutions who refresh equipment on an 'as needed' basis and/or purchase used equipment are less likely to see a financial benefit from this opportunity. For those institutions, the primary benefit will be access to higher quality equipment at a price point that they would not normally have access to.

Opportunity Profile – Workstations

Qualitative Benefits	Implementation Risks and Considerations
• A shared contract for workstation procurement will reduce the administrative burden associated with tendering and contract management that is currently duplicated across the 25 institutions • A single contract for the sector could increase service levels for institutions that are currently purchasing used hardware and/or retaining assets for longer than 5 years • Allowing institutions to refresh hardware at a lower cost would reduce the demand for end-user support and increase employee productivity for those that are currently using workstations that are beyond their ideal refresh date	• For those institutions that currently refresh their workstations on an as-needed basis or purchase used workstations, there may not be savings to be had by purchasing new machines, regardless of the discount available • The shared workstations contract should be structured such that faculty members have access to the terms of the agreement but, given the difficulties in moving them to purchasing contracts made by central IT at each institution, the estimates should be done based only on those machines currently managed by the IT departments • Institutions interested in leveraging a shared workstation procurement contract should commit to participating prior to the RFP being generated. This will maximize the cost benefits of the joint procurement.
Governance Considerations	
• The contract should be brokered by the shared service structure with member institutions signing on to participate • The shared service structure would also be responsible for vendor management	

Opportunity Profile – Workstations

Analysis summary	
Analysis	• An analysis was conducted to compare the spending for of each individual institution to purchase desktop and laptop computers with the savings that could obtained via shared procurement • An estimated savings from share procurement was applied to total annual equipment costs across the in-scope institutions and the savings assessed. Based on Deloitte benchmarks, a 5-10% savings was used to assess the benefit of shared procurement.
Assumptions and Limitations	• The analysis was performed based on the amount of workstations that institutions currently purchase annually. This number was judged to be the best indicator of the current state as many institutions indicated that they did not refresh workstations on a standard 4 or 5 year cycle
Data Sources	• Current state data was collected through institutional data requests
Conclusion	• Based on the current spending patterns, shared procurement of workstations offers an opportunity to save between ~$0.5M and ~$1M

Opportunity Profile – Local Area and Wireless Networks

Current State	Opportunity Potential ($)	
• Local Area Networks and Wireless Networks refers to the procurement, installation, maintenance and support of hardware and software used to manage local area networks (LAN) and wireless networks (WLAN) • There are various makes and models of LAN and WLAN hardware and software in place across the in-scope institutions. Designs and configurations vary as well. • Purchasing of LAN and WAN hardware and software is done independently by each institution • Institutions have expressed that staff who specialize in WLAN design and architecture are difficult to find and/or retain in the current labour market. Other institutions may not have demand for a dedicated resource for this function. • Larger institutions will generally have larger IT budgets and subsequently will be able to maintain, refresh and update LAN and WLAN infrastructure and design to stay current. Smaller institutions, on the other hand, are often refreshing hardware on an "as needed" basis and purchasing inexpensive or used hardware when a refresh has been deemed necessary. • Sophistication and complexity of LAN and WLANs vary based on the size of the institution and its demand for data • Research universities require infrastructure that is capable of supporting massive data volumes from research programs in addition to the traffic arising from staff, students and faculty • Institutions in rural and remote communities have bandwidth challenges that limit the required capacity of LAN and WLAN networks. If these institutions were to gain access to increased bandwidth and more modern technologies (i.e. QoS), there would likely be a requirement for more robust LAN and WLAN infrastructure.	Recurring benefits	
	Low	High
	~$0.4M	~$0.9M
	Investments	
	Low	High
	See shared procurement investment outline (slide 39)	

#	Current Challenges	Example Practices	Potential Opportunities
1	• Budgets for network hardware and equipment refresh vary based on the size of the institution. Smaller institutions often purchase used hardware and refresh on an 'as needed basis'.	• Deloitte benchmarks have shown that shared procurement for hardware can have the benefit of reducing costs by ~5-10%	• Standardize network hardware and software and share procurement
2	• Smaller institutions lack the scale to retain specialized resources for LAN and WLAN design and architecture	• Shared procurement of consulting resources or sharing of full time employees across the sector will enable institutions to avoid future costs related to improving service delivery.	• Shared resources for LAN/WAN design (See Sharing of Specialized IT expertise opportunity)

Opportunity Profile – Local Area and Wireless Networks

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Standardize network hardware and software and share procurement	~$0.4M	~$0.9M	See shared procurement investment outline (slide 39)		Tier 1

Primary benefit driver	• The primary benefit driver of shared network hardware procurement is an increased discount from list price on network equipment
Institutions most likely to benefit	• The institutions most likely to benefit from this opportunity are those that regularly refresh their capital but do not have a large enough scale to command significant discounts from vendors • Smaller institutions who refresh equipment on an 'as needed' basis and/or purchase used equipment are less likely to see a financial benefit from this opportunity. For those institutions, the primary benefit will be access to higher quality equipment at a price point that they would not normally have access to.

Opportunity Profile – Local Area and Wireless Networks

Qualitative Benefits	Implementation Risks and Considerations
• Standardizing hardware would have the benefit of lowering costs and, in the long run, allowing institutions to further share resources for the management of local area networks • The use of standardized hardware will enable institutions to more closely align their designs and business processes toward best practices for network deployment and support • Institutions that are not currently refreshing their hardware on a regular cycle or are purchasing used hardware will have the ability to access higher quality equipment than they would on their own	• Due to the large number of network equipment suppliers currently in use within the sector, consolidating and standardizing will be a complex process that may take years to complete. Achieving the full benefits as forecasted here is thus unlikely within the near term. • Implementing this type of initiative would require institutions to come to an agreement on a standard vendor which, give the current investments that are already in place across the sector, is very challenging • Institutions interested in leveraging a shared LAN and WLAN equipment procurement contract should commit to participating prior to the RFP being generated. This will maximize the cost benefits of the joint procurement.
Governance Considerations	
• The procurement of network hardware would be carried out as a partnership between the shared procurement and IT shared services structures. • The analysis conducted to explore LAN and WLAN-related opportunities also included an assessment of shared LAN and WLAN management services. While there is likely some opportunity to share design professionals, specifications and best practices, the cost models of a post-secondary IT department are such that managed LAN/WLAN services do not appear to be cost effective. For this reason, the shared LAN/WLAN resource opportunity was included as a component of Sharing of Specialized IT expertise	

Opportunity Profile – Local Area and Wireless Networks

Analysis summary	
Analysis	• Annual equipment costs consisting of hardware, maintenance and software were combined with addressable salaries of staff and management FTEs to reach total annual network costs • Managed service cost estimates were calculated and were deemed to be far higher than current internal costs and not considered as an option. Based on this, shared procurement is the only option discussed in this report • Annual costs for hardware and software were collected throughout the sector with a Deloitte benchmark used to assess potential savings through shared procurement
Assumptions and Limitations	• Using Deloitte benchmarks for IT hardware procurement, savings from shared procurement were assumed to be 5%-10%
Data Sources	• Current state data was collected through institutional data requests
Conclusion	• Based on the current spending patterns, shared procurement of workstations offers an opportunity to save between ~$0.4M and ~$0.9M

Opportunity Profile – Specialized IT Procurement & Hosting

Current State	Opportunity Potential ($)

• Specialized IT Procurement & Hosting refers to a set of specialized technologies that are commonly used within post-secondary institutions but are currently purchased, supported and/or hosted separately
• For the purposes of this analysis, Specialized IT Procurement & Hosting includes the following technologies:
  • Video Conferencing
  • Audio/Visual Hardware
  • Research and Grant Management Software
  • Emergency Notification Systems
  • Helpdesk Management Software
  • Desktop and server virtualization software
• Video conferencing is currently shared among BCNet member institutions
• Emergency Notification Systems have been identified as a priority within the sector with several institutions indicating an immediate priority to implement. In this particular case, there is likely an opportunity to avoid future costs by gaining access to lower unit costs as this expenditure will be net new for many institutions.
• Many of these technologies will vary across institutions in terms of the vendor/supplier, the level of adoption and the degree of sophistication. This level of variance from one institution to the next will impact the opportunities for collaboration across institutions. In other cases, such as Research and Grant Management Systems, the technology may not be applicable to all institutions.
• Existing examples of shared procurement and hosting include the following:
  • HEITBC is currently managing shared procurement contracts for a number of applications including the Microsoft E-Desktop Suite, Adobe, Cognos, and Oracle
  • BCNet currently has shared procurement in place for the Blue Jeans videoconferencing service
  • BCCampus is currently hosting the Moodle Learning Management System
	Benefits
	
	Calculation of quantitative benefits not feasible at this time due to uncertainty in the size of investments in various areas

#	Current Challenges	Example Practices	Potential Opportunities
1	• Fractured procurement of various technologies leads to duplication of effort for development and issuance of RFPs as well as discrepancies in the unit costs paid for items due to differences in scale	• The shared procurement and hosting initiatives undertaken to date by HEITBC, BCNet and BCCampus have demonstrated significant savings for participating institutions and represent existing models that can be leveraged in other technologies	• Extend Shared procurement and hosting of IT hardware and software

Opportunity Profile – Specialized IT Procurement & Hosting

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Extend Shared procurement and hosting of IT hardware and software	• Avoided costs for net new initiatives (i.e. Emergency Notification Systems) • Reduced costs related to generation of RFI or RFP documents • Incremental savings for participating institutions on specific opportunities (i.e. Helpdesk Management Software)		See shared procurement investment outline (slide 39)		Tier 1

Primary benefit driver	• The primary benefit driver of this opportunity is ongoing access to attractive pricing for IT software, hardware and services. By committing to ongoing collaboration, institutions will move together on net new investments, thus avoiding costs and increasing standardization throughout the sector.
Institutions most likely to benefit	• All institutions should benefit from reduced costs related to shared procurement

Opportunity Profile – Specialized IT Procurement & Hosting

Qualitative Benefits	Implementation Risks and Considerations
• Shared procurement allows institutions the opportunity to leverage the scale of the industry for pricing of various products • While these opportunities are small in terms of the number of institutions that may be interested as well as the cost to each, increased collaboration will allow each institution to avoid duplication of effort and create a mechanism for institutions to move in concert when implementing new technologies	• There is a risk that the amount of time, energy and expense involved with governing the procurement and potential shared hosting of new technologies will outweigh the financial benefits • In order to make this initiative impactful, there should be formalized sector-wide communication of business plans and technology priorities in order to align projects across institutions. Shared procurement would be the ideal solution to facilitate this ongoing process to avoid fractured spending and implementation of disparate technologies in the future.
Governance Considerations	
• An IT shared service structure will enable interested institutions to leverage their collective in order to produce savings and cost avoidance in specific technologies • Emergency Notification Systems have been identified as a high priority by institutions across the sector which provides an opportunity to generate an example of sharing procurement for an emerging technology.	

Opportunity Profile – Specialized IT Procurement & Hosting

Analysis summary	
Analysis	• The benefits from this opportunity are largely avoided costs with some small procurement savings in some established areas (i.e. Audio/Visual equipment) • Other areas are net new (i.e. Emergency Notification Systems) and thus do not have a baseline cost • Deloitte benchmarks suggest that savings of 5-10% are possible for computer hardware and software. These savings will vary depending on the specific opportunity and the size of the spend across the entire sector
Assumptions and Limitations	• Costs were collected for any of the areas where there was an existing baseline cost. These numbers that were returned suggested small numbers with significant variance across the institutions. Because of this variance, the extrapolations are less valid than in other areas which makes forecasting of quantitative benefits less feasible.
Data Sources	• IT Data Request submissions • The primary source of information for this Opportunity was one-on-one and group interviews with IT representatives throughout the sector
Conclusion	• Shared procurement of hardware and software has a demonstrated history of success with the Post-Secondary sector in BC. With increased formality, governance and communication, institutions will have the opportunity to collaborate further and ensure that all possible savings are captured.

Opportunity Profile – Specialized IT Expertise Sharing

Current State	Opportunity Potential ($)

• The Sharing of Specialized IT expertise refers to a set to a set of specialized functions that IT departments require in order to move forward with key strategic initiatives. The following specific functions were mentioned in interviews as skillsets that are difficult or expensive to retain on a full time basis:
  • Database Administrators
  • Report Writers
  • SharePoint Developers
  • Wireless Network Design specialists
• The difficulty in locating these resources was expressed by a cross-section of institutions though smaller institutions, particularly those in rural or remote areas were the most likely to have this problem
• These specialized resources are in high demand and subsequently are often highly paid thus making them difficult for institutions to find and retain within their salary structures.
• Smaller institutions have periodic demand for the skills provided by these specialized resources but lack the budget and/or the steady demand for a dedicated full-time staff member. This leads to either the use of contractors to perform these roles or to less qualified resources performing these specialized tasks.
• While larger institutions are generally more able to locate, retain and pay a competitive salary to specialized resources, this is not the case all of the time
• Where institutions do have access to these specialized resources they are often limited to a single person thus leaving them in a vulnerable position if the employee were to leave the institution
	Benefits
	
	Calculation of quantitative benefits not feasible at this time due to lack of baseline data or benchmarks for potential savings and avoided risk

#	Current Challenges	Example Practices	Potential Opportunities
1	• Specialized resources are difficult to locate in the labour market and difficult to retain due to high demand. In some cases institutions will have demand for the skills of a specialist but will not have the demand or budget for a full time employee	• Existing models of resource sharing agreement between post-secondary institutions have begun to develop in other areas (e.g. Internal Audit)	• Provide all institutions with access to Specialized IT expertise (DBAs, SharePoint Developers, WLAN Designers, etc..)

Opportunity Profile – Specialized IT Expertise Sharing

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Provide all institutions with access to specialised IT expertise (DBAs, SharePoint Developers, WLAN Designers, etc..)	• Avoided costs for external consultants • Improved service delivery and efficiency		• Organization startup costs • Incremental staff		Tier 1

Primary benefit driver	• The primary benefit driver for the Sharing of Specialized IT expertise is access to skillsets not previously available without significant cost
Institutions most likely to benefit	• Small to medium-sized institutions who lack the scale to hire full time employees in specialized areas are the most likely to benefit • Larger institutions have the opportunity to use excess capacity within their departments

Opportunity Profile – Specialized IT Expertise Sharing

Qualitative Benefits	Implementation Risks and Considerations

• Access to specialized resources at reduced costs will improve the services provided by the IT departments while allowing existing staff to be less divided across multiple functional areas and more focused on core service delivery
• Improving service levels will have indirect benefits such as:
  • DBAs will enable systems to process transactions and reports more quickly and efficiently, leading to productivity gains for the business
  • Report writers will , enable better business decisions through quicker turnaround and better insight into data
  • SharePoint developers will enable institutions to pursue portals as a strategic initiative
  • Improved wireless network architecture will improve network performance and better leverage existing investments in network hardware
• These opportunities also represent avoided cost opportunities for institutions who have a skill gap and thus no baseline cost
	• As the size of the shared service structure grows, employees with different levels of seniority may be required. In these cases, the institutions would need to ensure that the cost sharing methodology is designed to account for blended costs of employees with different salaries

Governance Considerations	
• The sharing of IT expertise across the sector should be facilitated by the IT shared service structure on behalf of the institutions • The most likely model would be for staff members from member institutions to be seconded to the IT shared service structure with a set percentage of their salary allocated to other member institutions according to their estimated usage. The usage of staff should be reassessed at regular intervals in order to ensure that the costs are shared in proportion to use. • As new skillsets are added, this process will be repeated in order to ensure fair cost allocations	

Opportunity Profile – Specialized IT Expertise Sharing

Analysis summary	
Analysis	• The Sharing of Specialized IT expertise is an opportunity for institutions to gain access to skillsets that were not previously available. For this reason, the benefits of Sharing of Specialized IT expertise are difficult to quantify • Data was collected for some areas while others were added to the list during interviews and other meetings
Assumptions and Limitations	• There is little current state data for the skillsets included in the Sharing of Specialized IT expertise • Many of the benefits that institutions would experience are indirect and stem from improved service delivery
Data Sources	• IT Data Request submissions • The primary source of information for this Opportunity was one-on-one and group interviews with IT representatives throughout the sector
Conclusion	• The Sharing of Specialized IT expertise represents an opportunity for institutions to gain access to an increased array of specialized skills in a manner that is affordable, financially sustainable and tailored to their demand

IT opportunities analyzed that do not present significant savings potential

Area	Sub-Function	Opportunity	Reason
Information Technology	Workstation and Help Desk Management	Shared management of virtualization rollout/provisioning/back-end management	There is an opportunity to avoid costs through further collaboration but the immediate opportunity is not urgent priority for the IT departments at the in-scope institutions
Information Technology	Workstation and Help Desk Management	Centralized Level 1 helpdesk/dispatch	The IT representatives from the in-scope institutions did not feel that shared helpdesk was an opportunity for savings or service improvement due to differences in applications, equipment and desktop images across institutions
Information Technology	Local Area and Wireless Network Management	Shared LAN and WLAN management services	Costs to manage LAN and WLAN within institutions are well below industry benchmarks for managed serves. These benchmarks were for enterprise deployments. It is possible that there would be managed service offering that would make financial sense for post-secondary but it is not readily apparent
Information Technology	Wide Area Network Management	Extend BCNet managed services to all institutions	There are bandwidth challenges and organizational decisions that must be addressed in order to determine whether this is an opportunity
Information Technology	Mobility and Telecommunications	Leverage the BC Government's TSMA deal with TELUS to achieve savings in Mobility and Voice billings	There is a lack of data available for future state telecommunications costs under TSMA, In addition, many institutions expressed a plan to explore the potential rates.
Information Technology	SharePoint	Shared SharePoint provisioning services	Demand across the sector is not consistent enough to indicate a sharing opportunity. SharePoint developers were one of the resources specified in the Sharing of Specialized IT expertise opportunity.
Information Technology	Data Management	Consolidate HR databases	This was not identified as a high priority for any of the in-scope institutions
Information Technology	Transcript Exchange	Implement the BCCampus Transcript Exchange application to facilitate electronic sharing of transcripts among institution	The savings did not appear to justify the level of investment. This application provides an opportunity to improve student services and potentially save costs but further consultation with registrar’s offices is required

HR Opportunities

HR

- In small to medium-sized institutions, most HR departments have a number of generalists who perform a wide variety of tasks in their day-to-day tasks. Some institutions have HR administrators that support the department in performing their tasks
- Only the largest institutions have specialized resources for functions such as Attendance Support or Labour Relations
- There is a large amount of informal collaboration and sharing of practices but little formalized collaboration
- Collective bargaining agreements vary across institutions and the number and the scope of agreements are not uniform. These differences present a barrier to further collaboration, particularly with respect to the sharing of systems and processing of core HR and Payroll transactions
- This assessment has identified two opportunities for institutions to further benefit from collaboration:

Sub-function	Opportunities to be explored	Benefits
Specialized Human Resources Expertise Sharing	• Shared Labour Relations resources to provide opinions, preparation for arbitrations and general day to day support as needed • Sharing internal resources for wellness promotion and disability management	Improved service delivery Avoided costs

Opportunity Profile – Specialized Human Resources Expertise Sharing

Current State	Opportunity Potential ($)

• Wellness Promotion, Disability Management and Claims Management refers to all programs related to promotion of employee wellness, management of employee absenteeism, early intervention and return to work programs, and the management of WorkSafe BC
• Management of wellness promotion, disability and claims management programs varies across the interviewed institutions. These differences depend on several factors including whether the institution has short term disability insurance or is self-insured and whether they have the size and budget to have full time staff dedicated to attendance support.
• Best practice programs encourage constant contact with employees to ensure that they receive the support that they need if unable to work are within their employment agreement with respect to absenteeism
• When employees miss work there are a number of costs that may be incurred by the institution including:
  • Replacement costs
  • Increased insurance premiums (e.g. Short-term disability (STD), long-term disability (LTD), WorkSafe BC)
  • Increased employee turnover, reduced productivity and increased stress levels where absent staff are not replaced
• WorkSafe claims are filed when an employee has a work-related disability or illness. The institutions pay a premium to WorkSafe BC that is assessed as a charge per $100 in assessable payroll. The based rates for the post-secondary sector are $0.22/$100 of assessable payroll for college, teaching universities and trade or vocational Schools and $0.19/$100 of assessable payroll for universities. Individual institutions will pay a rate above or below this (i.e. a surcharge or a discount) based on their Experience Rating Assessment (ERA). This rate is adjusted each year.
• Claims filed with WorkSafe BC and are accepted electronically, meaning that on some occasions claims are accepted that do not fit the definition of a work-related injury or illness. If these claims are not monitored and contested by the employer, the ERA will increase, meaning that the institution's WorkSafe premiums will be higher than they should be.
• Many institutions do not have full time staff managing either the Attendance Support of the WorkSafe claims management functions
• Labour Relations and Legal refers to the provisions of legal advice either through in-house counsel and contract support for institutions in relation to employment litigation, Labour, grievance and arbitration-related advice
• Labour Relations is a specialized function. Only larger institutions have the scale necessary to hire dedicated staff to perform
• The Post-Secondary Employers' Association (PSEA) is the bargaining agent for the 19 colleges, institutes and teaching universities and provides some support for labour relations related specifically to specifically
• The University Post-Secondary Employers' Association (UPSEA) does not have the same mandate as PSEA but rather works to ensure coordination of policies and practices and improve communications between employers and employees
• Larger institutions with established programs have experienced staff who are able to actively manage grievances, make strategic decisions about whether they should be settled, whether to contest them in court or whether it can be resolved without legal proceedings. These specialized skills have the net effect of reducing the amount spent on external legal counsel.
• The use of external legal counsel is present at all institutions though it may be used more sparingly by those with more specialized Labour Relations functions
• Relationships with law firms often date back multiple decades which leads to a high level of understanding of the institution
• Relationships with law firms are often developed over several decades and lower rates achieved through shared procurement may not offset the loss of service that would arise from changing law firms
• Differences in collective bargaining agreements and union relations from one institution to the next are a barrier to increased sharing of services
	Recurring benefits
	Low / High
	Calculation of quantitative benefits not feasible at this time due to lack of baseline data or benchmarks for potential savings and avoided risk
	Investments
	Low / High
	• Consulting costs related to program development
	• Incremental staff costs

Opportunity Profile – Specialized Human Resources Expertise Sharing

#	Current Challenges	Example Practices	Potential Opportunities
1	• Many organizations lack the scale to have specialists managing attendance and wellness-related projects	• Models for sharing of specialists are emerging in other areas within the post-secondary sector	• Create a centre of expertise or shared resources to develop comprehensive programs to improve employee wellness and attendance
2	• Many institutions lack the scale to dedicate specialized resources to Labour Relations	• Institutions that are able to actively manage grievances and make strategic decisions on contesting or settling grievances are generally able to reduce the number of cases that go to court and subsequently the cost incurred for legal fees	• Provide all institutions with optional access to shared expertise for Labour Relations centrally located within PSEA

Additional considerations and example practices

- In interviews and conversations with Deloitte subject matter experts, it was expressed that there is a common issue within post-secondary education (both inside and outside of BC) relating to employees not reporting absences. This presents an additional challenge in establishing an attendance support program as baseline data may underestimate the issue and the cultural change will be significant.
- The research universities bargain and administer collective agreements autonomously with their unions. There are no subsector-wide agreements.

Opportunity Profile – Specialized Human Resources Expertise Sharing

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Create a centre of expertise or shared resources to develop comprehensive programs to improve employee wellness and attendance	~$0.8M	~$1M	• Consulting costs related to program development • Incremental staff costs • Reduced WorkSafe premiums		Tier 1
2	• Provide all institutions with access to a shared Labour Relations resources centrally located within PSEA	• Improved service delivery for small institutions		• Incremental staffing costs to support small institutions		Tier 1

Primary benefit driver	• The primary benefit driver is a reduction in replacement costs for employees who are absent due to illness, injury or disability. • There are other indirect benefits achieved through reduction of premiums (both WorkSafe and private insurance benefits funded by institutions) • The primary benefit driver is access to Labour Relations specialists for institutions who do not have these resources on staff at a cost that is affordable and proportionate to their needs.
Institutions most likely to benefit	• Small to medium-sized institutions who do not have established programs are likely to be the primary beneficiaries of this initiative. • Larger institution who do have established programs will benefit from increased collaboration and sharing of best practices which will enable marginal improvements in existing programs • Smaller institutions have expressed the most enthusiasm about this initiative as they are least likely to have Labour Relations specialists in-house and, as such would likely be the first customers of such a service.

Opportunity Profile – Specialized Human Resources Expertise Sharing

Qualitative Benefits	Implementation Risks and Considerations
• Wellness Promotion, Disability Management and Claims Management programs have numerous qualitative and indirect benefits related to improved employee wellness, employee engagement, and employee relations and reduced turnover • Given that employees are not always replaced during short term absences, a wellness program often results in benefits such as improved productivity from increased attendance • While it is difficult to specifically attribute savings to the management of WorkSafe Claims (see Risks), the program is an essential component of a larger Wellness ad Attendance Support plan and provides crucial data that can be used to measure success • Access to Labour Relations and Legal specialists for small institutions represents an opportunity for these institutions to realize service improvements and allow the institution to deal more effectively with labour issues • In the event that grievances are taken to arbitration, the existence of Labour Relations and Legal expertise may allow institutions to manage tasks early in the process that would have previously been assigned to lawyers due to lack of internal capacity and thus savings costs. • Access to Labour Relations professionals will also help the institutions who require support to prepare for and potentially avoid future issues. This would enable them to avoid costs from arbitrations or litigation.	• Wellness Promotion, Disability Management and Claims Management has been a contentious issue with unions in many jurisdictions. Need to be sure to work in conjunction with unions and design programs around employee wellness as opposed to enforcement • Attendance Support functions are dependent upon systems to monitor and track employee attendance. Those institutions who do not currently have systems for this process should evaluate the potential of adding it to their existing HR/Payroll systems • While management of WorkSafe BC claims is an opportunity to deliver some savings, there are a number of externalities (i.e. serious accidents) that can impact the Experience Rating Assessment for an institution. For this reason, the direct benefits from a claims management program are difficult to directly align with the institution of a program. • While the benefits of an Attendance Support program in a sector that does not replace its employees every day are difficult to quantify, the institutions interviewed for this assessment who do not currently have a comprehensive program expressed that they would be interested in gaining access to resources who could help them to avoid costs and leverage best practices in setting up a program of their own • Any Attendance Support and Wellness program will need to work within existing structures related to collective bargaining agreements • Attendance Support programs often take three or more years to begin producing financial returns (Source: Deloitte Expertise) • Interviewed institutions expressed concern that this model would create the perception of an extra layer of bureaucracy which could limit adoption • Differences in relationships and collective bargaining agreements across institutions could create some issues as the shared resources become acquainted with the nuances of each participating institution • There is a risk associated with carrying staff who are not utilized enough to make the model financially feasible • This opportunity is not a sector-wide opportunity and should not be perceived as such. Because the demand for these services is not fully quantified, an analysis to determine demand would be a necessary first step to implementing this type of project. • Based on conversations within the sector, it is the smaller institutions who were most supportive of this concept and indicated an intent to use the service • Institutions bargain and administer collective agreement autonomously
Governance Considerations	
• Smaller institutions would also benefit from access to shared resources to manage the programs in conjunction with the local HR staff • The cost to employ Labour Relations resources would be shared based on their usage. This could be done using either a fee for service (i.e. hourly rate) model or a shared FTE model where institutions commit to a percentage of an employee's salary cost in exchange for a guarantee of a proportionate amount of their time. • These resources would be leveraged by institutions for opinions, guidance, preparation and any other items that they may have previously used a lawyer for due to lack of internal bandwidth and expertise • The organization that would be best suited to house these shared resources would be PSEA. Institutions that are not PSEA members but would be interested in leveraging these resources would need to either form a service delivery agreement with PSEA.	

Opportunity Profile – Specialized Human Resources Expertise Sharing

Analysis summary	
Analysis	• The assessment of Wellness and Attendance Support programs is impacted by a number of features. The figure that is most directly attributable to these programs is replacement costs from short term absences. By collecting these and extrapolating across the sector, it is estimated that replacement costs attributed to sick days are roughly $10M. • Using the Deloitte benchmark of reduction in absenteeism, of 8-10% through the institution of a program, it was estimated that there would be savings of ~$0.8M-$1M across the sector • The sharing of Labour Relations and Legal resources is an opportunity for institutions to gain access to skillsets that were not previously available. For this reason, the benefits difficult to quantify • Data was collected for some areas while others were added to the list during interviews and other meetings
Assumptions and Limitations	• The available data for this opportunity is very limited and, as such, the extrapolations are based on a small sample of those that provided estimates for replacement costs attributable to sick days • The institutions who do not have active programs due to a lack of scale will not have insight into their current costs and thus will not necessarily be able to make a proper assessment as to whether this opportunity will produce a positive financial return
Data Sources	• The HR data requests along with in-person interviews were the primary data source for this analysis • Many of the benefits that institutions would experience are indirect and stem from improved service delivery
Conclusion	• There is broad agreement that Attendance Support, Wellness and Claims Management offer an opportunity to generate both quantitative and qualitative returns for the post-secondary sector but the lack of available data makes it difficult to produce a concrete business case • The sharing of Labour Relations resources represents an opportunity for institutions to gain access to an increased array of specialized skills in a manner that is affordable, financially sustainable and tailored to their demand.

HR opportunities analyzed that do not present significant savings potential

Area	Sub-Function	Opportunity	Reason
Human Resources	Non-Faculty Recruiting	Implement a centralized recruiting portal for non-faculty staff	Institutions can pursue existing recruitment portals where necessary but the level of interest among the in-scope institutions was not sufficient to suggest this as a sector-wide opportunity
Human Resources	Non-Faculty Recruiting	Shared procurement of executive recruiting services	Steering committee members did not feel that any one executive recruiting firm would be able to deliver services on the scale of the sector which could lead to service degradation that would outweigh any potential savings
Human Resources	Benefits Procurement	Extend the Benefits Consortium to all institutions	The Benefits Consortium is in place for all 19 PSEA institutions. There is potential for some incremental savings for smaller UPSEA institutions if they were to join this program but these were not quantifiable within the scope of this assessment.
Human Resources	Learning & Development	Shared procurement of consultants or sharing of internal resources to provide leadership development training	Learning and development budgets are decentralized within institutions making implementation of this type of initiative complex. In addition, there are travel costs for institutions outside of Metro Vancouver that could outweigh any potential savings.
Human Resources	Occupational Health and Safety	Develop a centralized Occupational Health & Safety centre to provide support, training and guidance to post-secondary institutions	The HR representative within the in-scope institutions did not consider Occupational Health and Safety to be an opportunity to drive savings or service delivery improvement

Finance Opportunities

Finance

- Finance departments have varying levels of centralization with some of the larger institutions locating finance staff within other departments
- Accounts Payable, Accounts Receivable, Payroll and General Ledger Accounting make up the majority of Finance processes and staff members. In some cases Payroll is situated within the HR department.
- Only the largest institutions have specialized resources for functions such as Internal Audit
- There are a number of HR, Finance and Payroll systems in place across the sector with the most common being Banner, Colleague and PeopleSoft
  - Despite the use of common systems, there is little to no standardization of the deployments
  - The implementation of these systems were often highly customized resulting in increased cost and complexity of maintenance and upgrades leading to a trend toward standard configurations
- Collaboration has historically been limited to the sharing of best practices though there are increasing discussions about sharing specialized resources across multiple institutions
- The Finance departments in post-secondary institutions have opportunities to add value through collaboration. These opportunities range in their complexity:

Sub-function	Opportunities to be explored	Benefits
Credit Card Merchant Fees	• Reducing the merchant fees paid by institutions on current credit card-based revenue offers an opportunity to save	~$4M - ~$9M
Specialized Finance Expertise Sharing	• Sharing internal resources and/or services contracts for Internal Audit and Actuarial Consulting	Improved service delivery
HR, Finance and Payroll Systems and Services	• Implement shared systems and services HR, Finance and Payroll	~$26M - ~$36M (avoided implementation costs)
	• HR, Finance and Payroll shared services	~$2M - ~$7M

Opportunity Profile – Credit Card Merchant Fees

Current State	Opportunity Potential ($)	
• Credit card processing relates to the fees/merchant discounts associated with processing credit card purchases for tuition as well as ancillary services such as bookstores and cafeterias • In recent years many post-secondary institutions have ceased to accept credit card payments for tuition due to the large amount of fees being paid • Those that do accept credit cards for tuition will often pay a higher merchant discount because tuition payments are often done online and are thus “card not present” scenarios where there is a higher risk of fraud. • This has increased the administrative burden relating to processing payments made via cash or cheque as well as increased amount of collections due to cheques that do not clear. For these institutions, these additional costs have been deemed to be less than the fees that would be charged if they resumed accepting credit cards for tuition. • Based on the data collected from the institutions, BC Post secondary institutions pay merchant fees ranging from as low as ~1% to over 3%. Smaller institutions tend to pay higher fees and are often assessed different fees based on the type of card used. Premium cards that offer points or cash back to the cardholder will carry a higher merchant discount) by the student/customer while larger institutions tend to pay lower fees with little to no variance based on the type of card used.	Recurring benefits	
	Low	High
	~$4M	~$9M
	Recurring benefits	
	Low	High
	Tendering costs and contract management Transition costs	

#	Current Challenges	Example Practices	Potential Opportunities

1	• The merchant discounts charged by credit card providers vary based on volume thus leaving smaller institutions paying a higher percentage of credit card based revenue	• Leveraging the scale of the entire sector would reduce the % merchant discount and reduce costs for institutions without impacting services	• Shared contract to reduce credit card merchant fees for:
			  • Tuition
			  • Non-tuition revenue

2	• Due to the financial burden of merchant fees for tuition payments, many institutions have ceased to accept cards. Those institutions that have continued to accept credit cards continue to incur this expense.	• A number of institutions have begun to explore services that assess a fee to the payer (i.e. student) rather than the payee (i.e. the institution). This program has been instituted successfully by the University of Saskatchewan (Source: CAUBO – Application from University of Saskatchewan for the 2012 Quality and Productivity Award Program). This would make the collection of student tuition fees affordable for the institution but could prove to be unpopular with students. If institutions decide to pursue this route, it is recommended that combine their purchasing power in order to minimize the fee that would be assessed to students.	• Transition to user fee model for credit card-based tuition payments

Opportunity Profile – Credit Card Merchant Fees

#	Potential Opportunities	Quantitative Benefits and Investments				Est. Timing of Benefit
		Benefits		Investments		
		Low	High	Low	High	
1	• Shared contract to reduce credit card merchant fees for non-tuition revenue	~$3M	~$4M	• Tendering costs and contract management • Transition costs		Tier 1
2	• Shared Contract to reduce credit card merchant fees for tuition	~$1M	~$3M			
3	• Transition to user fee model for credit card-based tuition payments	~$4M	~$5M			
	TOTAL	~$4M (1+2) ~$7M (1+3)	~$7M (1+2) ~$9M (1+3)			

Primary benefit driver	• The primary benefit driver is a reduction in the percentage merchant fee assessed against credit card-based revenues. For tuition, the option exists to eliminate fees borne by the institution by assessing a user fee for payments made via credit card.
Institutions most likely to benefit	• Based on the data collected, smaller institutions tended to pay higher percentage merchant fees due to their reduced scale. These institutions were also most likely to be currently accepting credit cards for tuition. • Large institutions who have ceased to accept credit cards have the opportunity to once again offer this option to students without being assessed a merchant fee

Opportunity Profile – Credit Card Merchant Fees

Qualitative Benefits	Implementation Risks and Considerations
• Reduction in credit card merchant fees is an opportunity that allows institutions to generate savings without any impacts to service or increases in tuition • Moving to the University of Saskatchewan model for processing of tuition payments via credit card allows institutions that have stopped accepting credit cards a method to bring back this option to students • Finance subject matter experts interviewed during this assessment indicated that accepting credit cards for tuitions has led to increased back office efficiencies including reduced processing time, fewer cheques returned due to insufficient funds and reduced collections activities	• Reasons for ceasing to accept credit cards differ among institutions. UBC indicated that the volume of payments from tuition would result in highly onerous PCI compliance criteria that would result in significant administrative costs. • There is a risk that user fee for tuition payment via credit card would be unpopular among students • It may be challenging to fully realize the benefits from this opportunity to issues of compatibility between the software systems used by credit card providers and the software in place at institutions (i.e. the point of sale software in a bookstore may only be compatible with certain payment providers).
Governance Considerations	
• The first step in implementing this opportunity will be to determine the level of interest in the user fee model for tuition payments. If there is interest in this service, a joint tendering process should be carried out in order to receive the service with the lower possible student fee. • For institutions that choose to continue with tuition payments in the current model and for other credit card-based revenue (bookstore, cafeteria, etc..), an additional joint tendering process should be done in order maximize savings • Procurement/tendering activities should be carried out with an idea of the maximum participation level in order to optimize savings. • If institutions decide to pursue the University of Saskatchewan model, the procurement/tendering process should follow a similar model. Ideally the scale of the sector could be leveraged to minimize the fees paid by students.	

Opportunity Profile – Credit Card Merchant Fees

Analysis summary	
Analysis	• An analysis was conducted to compare the costs of each institution paying different credit card fees per transaction to a single lower fee used by all schools • Rates paid for credit card processing ranged from ~1% to over 3% in extreme scenarios. In order to provide a more representative analysis, the rage of rates used was 1% to 2.65%. This excluded less frequent fees for premium cards which could skew the assessment of the current state costs upward and inflate the potential savings. • This assessment was performed for both tuition and non-tuition revenues • Credit card-based tuition revenues for the 8 institutions that returned the data request are ~$163M (~$154M of this is for international students and ~$9M is for domestic students) • Credit card-based revenue from other sources (bookstore, cafeterias, etc..) is ~$235M • Using the various high and low merchant rates reported by each institution, merchant fees paid by the eight reporting institutions are ~$2.4M-$3.5M for tuition and $2.5-$5.6M for non-tuition revenues • Extrapolating these figures to the entire sector was done by totaling the fees paid by for different sizes of institutions, extrapolating to include all institutions of these various sizes and then adding the figures together. After this process it is estimated that merchant fees for tuition are ~$5M-$6M and merchant fees for non-tuition revenue are ~$3M-6M • The three savings scenarios are based on using the lowest rate for credit card processing across these two areas. An additional scenario included the elimination of merchant fees for tuition. • The lowest rate paid by an institution was then found and applied to all institutions in-scope, and the results extrapolated • Another analysis was done to assess the impact of reducing tuition-based merchant fees to zero
Assumptions and Limitations	• The analysis assumes that the institutions included in this assessment are representative of the broader sector. Due to the fact that the decision of whether or not to accept credit cards for tuition is made at the institution level, there is no guarantee that the extrapolations for the entire sector are as consistent with actual results as they may be in other areas.
Data Sources	• Current state data was collected through institutional data requests • Information related to the University of Saskatchewan credit card processing model was gathered from the following document CAUBO – Application from University of Saskatchewan for the 2012 Quality and Productivity Award Program
Conclusion	• Reducing the merchant fees paid by institutions on current credit card-based revenue offers an opportunity to save ~$4M-$7M • Reducing the merchant fees paid by institutions on current all credit card-based revenue aside from tuition and eliminating fees paid for tuition offers institutions an opportunity to save ~$7M-$9M

Opportunity Profile – Specialized Finance Expertise Sharing

Current State	Opportunity Potential ($)
• Internal Audit refers to the use of internal staff members or external consultants in performing audits of various compliance and internal controls initiatives in place within institutions • Internal audit functions vary across institutions. Larger institutions have Internal Audit departments, often residing within their finance department. These departments are generally small (<3 people). • Interview and data collection have indicated that smaller institutions have little to no internal audit function and will use external consulting firms to perform specific audits • Interviews with many of the smaller institutions indicated a desire to gain access to internal audit resources from larger institutions • High level conversations have taken place between one of the larger institutions (who currently has an existing internal audit department) and one of the mid-sized colleges (which that does not) to explore a model for sharing the internal audit resources of the larger institution. The reason given for this is the amount of spending on external consultants by the smaller institution and an opportunity to benefit from the scale of the larger institution. • Three institutions recently issued a shared RFP to have a professional service firm provide Internal Audit services • Actuarial Consulting refers to the use of actuaries to calculate liabilities from benefit and pension plans • Actuarial Consulting was previously centrally provided by the Ministry and is now the responsibility of the institutions • The needs for actuarial consulting vary depending on the funding model for benefit plans and pensions. Those with employee-funded plans have little to no use for actuaries while those with employer-funded plans have much greater needs.	Benefits Calculation of quantitative benefits not feasible at this time due to lack of baseline data or benchmarks for potential savings and avoided risk

#	Current Challenges	Example Practices	Potential Opportunities
1	• Only the largest institutions have the scale and budget to hire full time internal audit resources	• Two institutions (one large and one smaller) are currently discussing a plan to share resources from one the Internal Audit department of the larger institution	• Share existing models and staff at larger institutions
		• Three institutions have issued a Shared tender for Internal Audit services from a professional service firm	• Shared procurement of Internal Audit Services
2	• Institutions will need to procure services from an actuarial consulting firm which, if done independently represents an expense that will likely be higher than it would be if services were procured sector-wide	• In order to reduce rates for individual institutions, shared procurement of professional services is being explored in other functional areas within post-secondary education (e.g. Internal Audit)	• Shared procurement of actuarial consultants

Additional considerations and example practices

- A recent article in the Globe and Mail indicated that financial crime in Universities often goes undetected (Source: Globe and Mail, “Financial crime common in Canadian universities”, August 1, 2012). In cases where an institution has little to no baseline expenditures for internal audit, the risks associated with this lack of oversight should be taken into consideration.

Opportunity Profile – Specialized Finance Expertise Sharing

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	• Share existing models and staff at larger institutions	• Avoided costs from reduced Actuarial Consulting rates		• Tendering costs		
2	• Shared procurement of Internal Audit Services	• Avoided costs from reduced Internal Audit consulting rates or use of shared resources within institutions • Reduction in risk through an enhanced Internal Audit function		• Organization startup costs • Incremental staff • Tendering costs		Tier 1
3	• Shared procurement of actuarial consultants					

Primary benefit driver	• The primary benefit driver of the Internal Audit opportunities is access to Internal Audit specialists for institutions who do not have these resources on staff at a cost that is affordable and proportionate to their needs. This is a service delivery improvement and risk avoidance opportunity rather than a direct cost saving opportunity • The primary benefit driver of the Actuarial Consulting opportunity is a reduction in fees paid for Actuarial Consultants via shared procurement
Institutions most likely to benefit	• Smaller institutions have expressed the most enthusiasm about this initiative as they are least likely to have Labour Relations specialists in-house and, as such would likely be the first customers of such a service. Despite this, any interested institution could access this service if they found it to be beneficial.

Opportunity Profile – Specialized Finance Expertise Sharing

Qualitative Benefits	Implementation Risks and Considerations
• Due to the lack of dedicated staff at nearly all of the interviewed institutions, Internal Audit does not represent a cost savings opportunity. Despite this, there is considerable risk associated with not having a dedicated Internal Audit function and institutions have expressed desire to gain access to Internal Audit resources. For these smaller institutions to either conduct shared procurement of Internal Audit services or to leverage resources from a larger institution represents an opportunity to both reduce risk and avoid cost in setting up a program. • Actuarial consulting is a service that was previously provided by the Ministry for many institutions and is thus a net new cost for many. While the costs are low, it makes sense for shared procurement to be done in order to minimize the costs going forward.	• There is potential operational risk involved with sharing resources across multiple institutions • There is a risk that institutions will not be able to dedicate the resources to a shared Internal Audit function due to the increase in costs over and above the baseline • When discussing shared resourcing models in a number of areas, many institutions have expressed concern over the governance and whether the institution providing the service will prioritize its own affairs • The use of shared procurement of professional service firms may be the most flexible model in that it would allow the institutions to gain access to resources specifically when they are needed without the need to ensure that these resources are being utilized during downtime.

Governance Considerations
• Given that there are both shared procurement and shared resources models developing within the sector, these two initiatives have the opportunity to act as pilots. It is very possible that both options continue to exist within the sector with the scale growing as institutions determine which model fits them best. • During the preparation of this report there were RFPs issued for actuarial consulting services with clauses to include the rest of the sector. Before any purchase is finalized, it would make sense to determine what the level of demand would be across the sector in order to ensure that the rates being received by the chosen consultant are minimized.

Opportunity Profile – Specialized Finance Expertise Sharing

Analysis summary	
Analysis	• The Finance Specialist Resource Pool is an opportunity for institutions to gain access to skillsets that were not previously available. For this reason, the benefits of the Finance Specialist Resource Pool are difficult to quantify • Data was collected for some areas while others were added to the list during interviews and other meetings
Assumptions and Limitations	• There is little current state data for the skillsets included in the Finance Specialist Resource Pool • Many of the benefits that institutions would experience are indirect and stem from improved service delivery and reduced risk
Data Sources	• Finance Data Request submissions • The primary source of information for this Opportunity was one-on-one and group interviews with Finance representatives throughout the sector
Conclusion	• The Finance Specialist Resource Pool represents an opportunity for institutions to gain access to an increased array of specialized skills in a manner that is affordable, financially sustainable and tailored to their demand

Opportunity Profile – HR, Finance and Payroll Systems and Services

Current State	Opportunity Potential ($)	

• HR and Finance Systems and Services refers to the processing HR, Finance and Payroll processes as well as the management, hosting and support of the information systems that support these processes. Student Information Systems (SIS) are often integrated with HR/Finance/Payroll applications and thus these systems are considered as part of this analysis. Due to differences in how students are admitted and links to academic independence, processes supported by SIS are not considered in this analysis.
• Finance, HR and payroll processes are currently performed independently by the 25 post-secondary institutions in BC
• Differences in collective bargaining agreements, business processes and benefit plans are cited as key considerations in the implementation of a common system or service delivery organization for the post-secondary sector
• The institutions have control over the systems that they select though there are relatively few systems on the market that suit the needs of the sector. The common systems in place are as follows:
  • Banner (10 institutions): These tend to be 'medium-sized' institutions with the largest Banner users being UVIC and BCIT
  • Colleague (8 institutions): These tend to be smaller institutions including College of the Rockies and NWCC
  • PeopleSoft (2 institutions): This system is used by two of the larger institutions in the province (SFU and UBC)
  • The remaining 5 institutions use various custom-developed or other vendor products. At least two of these institutions have expressed either a desire or an immediate need to move to a new system.
• Despite the commonality of these software packages, the implementations are often highly customized. In recent years many institutions have begun to move toward more "out of the box" functionality in order to reduce the cost of upgrades and support.
• Collaboration in licensing and support is in place to varying degrees among the institutions using Banner and Colleague. For both of these systems shared license procurement is in place and facilitated by HEITBC. According to the institutions involved, the Administrative Systems Consortium (Colleague Institutions) has led to significant savings
• The 8 Colleague institutions have their systems hosted at Camosun College in Victoria. There are a limited number of support resources available for Colleague leading the institutions to leverage an external vendor (OA Solutions) to provide support. This is costly and there is a high level of dependence on a single vendor with relatively few resources which represents an operational risk.
• The 10 institutions using Banner have not established the same level of collaboration as those that use Colleague
• The six Banner institutions located in Metro Vancouver have entered into high level discussions on establishing collaboration
• The PeopleSoft institutions have levels of complexity that are not relevant to smaller institutions and do little to no collaboration
	Recurring benefits	

	Low	High
	~$2M	~$7M
	One-time benefits	
	Low	High
	~$26M (One time avoided implementation costs)	~$36M One time avoided implementation costs)
	Investments	
	Low	High
	~$44M	~$104M

#	Current Challenges	Example Practices	Potential Opportunities
1	• Upgrading or replacing HR, Finance and Payroll is cost prohibitive for individual institutions	• The Ministry of Education in Finland established a shared service centre to provide Finance and Payroll services to nine universities on a shared SAP platform. HRIS and SIS were excluded	• Shared resources related to HR, Finance and Payroll
2	• Costs for database administrators, report writers and general system support for Banner and Colleague is expensive	• Ireland has established a shared service centre that provides a Banner platform (Finance, HRIS and SIS) for 11 institutions with processes performed at the local institution	

Additional considerations and example practices

- The existing shared systems/services implementations in other jurisdictions often do not include SIS as this is seen to conflict with institutional independence and student services. Institutions often consider the SIS to be a source of competitive advantage when competing for enrollment with other institutions.,

Opportunity Profile – HR, Finance and Payroll Systems and Services

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Costs		
		Low	High	Low	High	
1	• Increased collaboration, sharing of support for mid-sized institutions (i.e. those using Banner)	• Improved practices • Reduced support costs		• Contracting and coordination costs		Tier 3 (#1 could happen earlier than Tier 3 if institutions are interested)
2	• Implement a shared HR/Payroll/Finance system for small to medium sized institutions (business processes performed locally)	~$26M (One time avoided implementation costs)	~$36M (One time avoided implementation costs)	~$44M	~$104M	
3	• Implement a shared services centre to centrally perform HR/Payroll/Finance functions on the shared platform	~$2M	~$7M	• Program design and setup costs		

Primary benefit driver	• Benefits for systems are driven by reduced system support, implementation and upgrade costs • Benefits related to processes are driven by reduced headcount to produce transactional processes
Institutions most likely to benefit	• Case studies from other jurisdictions have indicated that it is likely the small to medium sized institutions who would participate in and benefit from a shared system or service initiative

Opportunity Profile – HR, Finance and Payroll Systems and Services

Qualitative Benefits	Implementation Risks and Considerations
• Increased collaboration in HR, Finance and Payroll systems and services offer institutions with the opportunity to avoid future implementation and upgrade costs, improve business processes and improve coordination and sharing of best practices • For the 5 institutions using systems other than PeopleSoft, Banner and Colleague, there is a significant risk to continuing to use their existing systems and the cost to upgrade is prohibitive. For these institutions, to leverage a shared system would have the added benefit of reducing this risk • Having core transactional processes managed by a shared services organization would enable local HR and Finance departments to concentrate on value-added processes • Increased efficiency in gathering information from across the sector	• Implementation of a shared software platform will involve substantial risks and capital investments • As the level of coordination increases, the complexity increases significantly • Coordination of upgrades on shared software platforms becomes increasingly difficult as the number of participating institutions increases • Differences in business processes, collective bargaining agreements, benefit plans, software versions and modules are all barriers to implementing shared systems and services • Implementation of shared services across the institutions has a significant labour impact • Extracting savings from shared HR, Finance and Payroll services will be difficult in smaller institutions that currently operate with the smallest possible staff footprint • Given the complexity and large number of potential participants for HR, Finance and Payroll Systems and Services, a staged rollout process would be the most likely method of implementation • Institutions that are similar in scale and scope, use common systems, and have similar collective agreements, benefit plans and classification systems and are located within the same geographic region would be a logical starting point on the move toward HR, Finance and Payroll Systems and Services
Future State Model Overview	
• System-related collaboration should be coordinated through the IT shared services structure with staff managed as part of the IT Resource Pool • Shared HR, Finance and Payroll personnel would likely be located within a single institution. These personnel would likely be employees of the hosting institution and seconded to the shared services structure. • Costs for both personnel and overhead would be allocated to participating institutions according to their proportional use	

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Opportunity Profile – HR, Finance and Payroll Systems and Services

Analysis summary	
Analysis	• In order to assess the various options related to HR, Finance and Payroll Systems and Services data was collected to assess the support costs for systems as well the number of FTEs involved in processing core HR, Finance and Payroll Processes • System support costs included licensing and maintenance, dedicated hardware, external consulting costs and support staff • Core Finance processes included Accounts Payable, Accounts Receivable, General Ledger Accounting, Project Accounting. Travel & Expenses and Fixed Asset Accounting • Core HR processes included Personnel Data Management and Benefits Administration • Payroll was calculated separately due to the fact that it varies across institutions whether it sits within Finance or HR departments • System implementation costs were estimated to be ~$4M-~$8M for a new implementation. Adding additional institutions to an existing implementation were estimated to be 50% of the cost of new implementations • Costs were calculated to assess the sector-wide costs for the 23 institutions in scope to separately implement or upgrade their ERP • This was compared with an assessment that assumed a pilot phase where three institutions would implement a new system at a to be used as a blueprint for the shared system at a cost of ~$4M-~$8M each. Additional costs would include an average of ~$2M-~$4M per institution in configuration, process redesign and integration with local student systems at the remaining institutions. • Through this it was estimated that the separate implementations would cost between ~$70M and ~$140M while the shared implementation would cost between ~$44M and ~$104M, resulting in estimated avoided implementation costs of ~$26M -~$36M • Current costs for core HR, Finance and Payroll staff for the 23 institutions included in the scope were estimated to be ~$23M • Savings from shared services were estimated based on the Public Sector results in Deloitte's Global Shared Services Survey. The report indicates that 58% of organizations achieved initial headcount savings of between 10% and 40% (Source: Deloitte - 2011 Global Shared Services Survey Results, Public Sector respondents). For this assessment, it is estimated that institutions would save between 10% and 30% which would generate estimated annual savings of ~$2M-~$7M • Deloitte estimates that larger post-secondary institutions can have 20-30% of Finance staff and 30-60% of HR staff decentralized. Additional benefit would be achieved through centralizing these functions within these individual institutions. • IT support costs for ERP systems are not included in benefit projections. These costs were calculated but excluded from the benefit projections due to existing collaboration on license purchases for institutions using Banner and Colleague, support staff at local institutions being difficult to rationalize due to student systems remaining separate. It is estimated that roughly half of support staff are dedicated to HR, Finance and Payroll with the remaining half dedicated to SIS. Using this reduced staff number, it is difficult to extract savings at the local level. As with some o f the IT opportunities there would likely be a benefit from capacity increase with the current headcount if a shared system were implemented.
Assumptions and Limitations	• The assessment of FTE costs for HR, Finance and Payroll personnel was done at a high level. A more detailed assessment would be required in order to properly size and scope a shared service organization for HR, Finance and Payroll.
Data Sources	• This assessment included inputs from the HR, Finance and IT data requests and interviews
Conclusion	• A shared HR, Finance and Payroll deployment offers institutions an opportunity to significantly reduce their aggregate expenditure across the sector, resulting in avoided one-time implementation costs of ~$26M -~$36M • The implementation of this shared platform is a potential enabler for centralized processing of core HR, Finance and Payroll processes, which could add annual savings of ~$2M-~$7M • There are many significant challenges that would need to be addressed to achieve the benefits from this opportunity

Finance opportunities analyzed that do not present significant savings potential

Area	Sub-Function	Opportunity	Reason
Finance	Investment Management	Shared management of endowment funds	Institutions deal with multiple and in some cases dozens of investment firms to manage endowments and other investments
Finance	Collections	Shared contracting of agencies to manage collections for tuition and other receivables	Collections fees are not a major source of spending for institutions and the complexity around sharing a contract may not be justified by the potential savings

Ancillary Services Opportunities

Opportunities for increased collaboration and shared services exist within Ancillary Services

- Ancillary Services play an important function at post-secondary institutions by generating revenue and providing services to students, faculty and staff
- Acknowledging variations from one institutions to the next, Ancillary Services generally encompasses Bookstore, Child Care, Career Services, Food Services, Housing, Parking, and Print Shop
- Limited collaboration across the sector exists for Ancillary Services; communication between institutions occurs informally in most cases and happens more at a sub-function level (such as a Bookstore manager keeping in touch with peers at other institutions)
- The functional experts included in the Administrative Service Delivery Transformation initiative expressed an interest in establishing a forum for collaboration, networking, and sharing of ideas across the sector
- A range of service delivery models are in place across the Ancillary Services functions, from fully in-house operations to fully outsourced services
- Generally, institutions tend to manage their Print Shop, Bookstore and Housing internally, while contracts with external service providers are more often in place for Food Services and Parking
- Opportunities generally relate to collaborating on joint procurement of existing contracts with service providers

Opportunities for increased collaboration and shared services exist within Ancillary Services

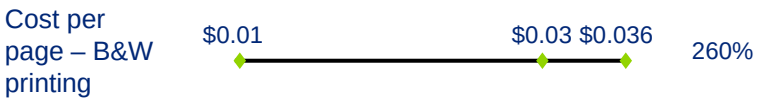
Sub-function	Opportunities to be explored
Print Shop	• Explore shared print shop services provided by one institution or an external service provider
Bookstore	• Collaborate on shipping/freight to obtain higher discounts
Food Services	• Explore potential to transition to a single food services contract for the post-secondary sector for those currently contracting this service • Collaborate to obtain higher commissions on vending machine contracts
Parking	• Explore potential to transition to a single parking services contract for the institutions that currently contract this service

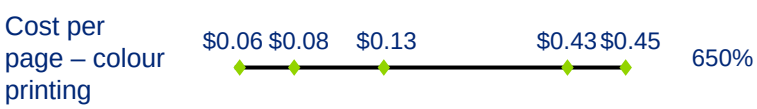
- Opportunities that exist in Ancillary Services are presented in the table above; the total potential cost savings in all areas are estimated to be $1.0M to $4.2M
- Opportunity risks include labour agreements that may restrict the ability of institutions to participate in shared services or engage with external service providers, and regional differences and distances between institutions that may cause challenges in negotiating joint contracts for shipping, food services, and parking

Opportunity Profile – Print Shop

Current State	Opportunity Potential ($)
• Post-secondary institutions have print shop services to handle a variety of jobs for students, staff, and faculty. Jobs may include black & white or colour copying; black & white or colour printing; binding; laminating; and production of posters, signs, and business cards. Typically, the highest volumes are for the production of course packs for sale at the bookstore. Costs of operating print shops include labour, purchase or lease of equipment, overhead, and consumables such as paper, ink and toner. • Across the sample of 9 institutions included in this initiative, 1 had no print shop, while some others expressed a desire to scale down or eliminate their print shop. Two institutions have partially or fully contracted out print shop services, while another is investing heavily in the latest printing technology and intends to offer services to other institutions. • Institutions expect to see decreased demand for print services as students and faculty increasingly adopt digital resources; some print shops are operating at a loss as they do not achieve the volumes required to generate enough revenues to cover costs and/or because they do not have the resources to invest in more efficient equipment • There may be a significant amount of excess capacity within the sector, with most print shops operating only 8 hours per day, five days per week	Recurring benefits Low – High $0.5M – $1.5M Investments Low – High See shared procurement investment outline (slide 39)

#	Current Challenges	Example Practices	Potential Opportunities
1	Some post-secondary print shops are operating at a loss. Excess capacity exists within the sector as print shops typically only operate during business hours.	• The Midwestern Higher Education Compact (MHEC) selected an external vendor to provide print services to K-12 schools and higher education institutions in 12 U.S states. Since 2009, MHEC members have saved over $7M on print services and solutions. • Ohio's largest community college (Cuyahoga Community College) replaced decentralized print services with a central print shop operated by an external service provider. Savings over 5 years are expected to exceed $1.5M. • UBC has moved to an outsourced model with a 3rd party providing services on campus	Explore shared print shop services provided by one institution or an external service provider.





Opportunity Profile – Bookstore

Current State	Opportunity Potential ($)	
• Bookstores provide a location for students to purchase textbooks, course packs and other supplies required for their programs. Bookstores often sell a variety of other merchandise including clothing, stationary, athletic equipment, and institution-branded items. • All 9 institutions included in this initiative operate at least one bookstore on campus. • A number of factors including increased competition from online retailers, rising fuel/shipping costs, and high labour costs are affecting the profitability of post-secondary bookstores. • Textbook prices are set by the publishers, with all institutions receiving identical discounts with no room for negotiation. • Bookstores spend a significant amount each year on shipping, as most books used in B.C are sent from the east coast of Canada and the U.S. The institutions are currently obtaining shipping/freight services independently from a number of vendors.	Recurring benefits	
	Low	High
	$0.1M	$0.3M
	Investments	
	Low	High
	See shared procurement investment outline (slide 39)	

#	Current Challenges	Example Practices	Potential Opportunities
2	Profitability has been declining due to competition from online retailers and rising shipping costs. Bookstores spend a significant amount annually on inbound and outbound shipping. Institutions currently make shipping arrangements independently of each other.	According to Deloitte subject matter experts, a consortia could negotiate optimum discounts (up to 20%) following a detailed analysis of volumes and shipping lanes.	Collaborate on shipping/freight to obtain higher discounts.

Opportunity Profile – Food Services

Current State	Opportunity Potential ($)
• Post-secondary institutions provide a variety of food services on campus in the form of cafeterias, full service restaurants, residence dining rooms, and catering services. • All 9 institutions included in this initiative have contracted out at least some food services functions to an external service provider. 3 institutions have independently contracted food services with the same vendor; others have contracts in place with different vendors. 2 institutions have culinary arts programs whereby the students prepare food which is then sold through campus food service locations. • Food Services contract commissions (representing the percentage of revenue generated that is paid to the institution by the service provider) of 4% to 20% were reported by institutions in our sample; rates depend in part on volume of food sold and whether food is branded or not. • Several institutions have exclusive beverage supplier deals, which provide revenue as well as other benefits such as sponsorship of sports teams and support of student activities on campus. • All institutions also generate some revenue through vending machines; a range of commission rates from 3% to 43% have been observed.	Recurring benefits Low – High $0.4M – $2.6M Investments Low – High See shared procurement investment outline (slide 39)

#	Current Challenges	Example Practices	Potential Opportunities
3	Commission rates for food services at those institutions with external service providers vary widely across the sector.	One institution in this initiative recently negotiated with their food service provider to significantly increase commissions.	Explore potential to transition to a single food services contract for the post-secondary sector for those currently contracting this service
4	Commission rates for vending machines vary widely across the sector.	One institution in this initiative recently negotiated significantly higher commissions on vending machine revenues (an increase from 3% to 40%).	Collaborate to obtain higher commissions on vending machine contracts

Food Service Contract Commissions

400%

Vending Machine Commissions

1333%

Opportunity Profile – Parking

Current State	Opportunity Potential ($)
• Post-secondary institutions maintain an inventory of parking spaces on campus to meet the needs of students, staff and faculty who travel to campus by car. Institutions are encouraging stakeholders to look to alternative and more sustainable means of transportation such as bicycles, car shares, and public transportation. • Costs of parking services operations include labour, maintenance, enforcement, and purchase or lease of equipment such as ticket dispensers and parking meters. • Across the sample of 9 institutions included in this initiative, 8 have paid parking while 1 institution does not charge for parking on campus. 3 institutions operate their own parking services, while 3 institutions have independently contracted out parking to the same service provider. Two institutions have contracted out to different vendors who each provide both parking and security services under one contract. . • Commission rates (the percent of parking revenue paid to the external service provider as a management fee) observed in the sample ranged from 5% to 15%. • Total spend on contracted parking services was approximately $0.9M for Steering Committee institutions	Recurring benefits Low / High Cost savings would not be significant due to relatively low value of contracts observed in sample institutions Investments Low / High See shared procurement investment outline (slide 39)

#	Current Challenges	Example Practices	Potential Opportunities
5	Institutions that have parking services contracts with the same service provider vary with respect to commission rates.	5 out of 9 Steering Committee institutions have an external parking service provider. Commission rates on contracted parking services range from 5-15% at the institutions included in this initiative.	Explore potential to transition to a single parking services contract for the institutions that currently contract this service
6	A variety of service delivery models are in place at the Steering Committee institutions. It is unknown which model is the lower-cost option or which is able to generate higher revenues.	Models observed in Steering Committee institutions include: • In-house • Fully contracted out • Blend of in-house and contracted services • Parking and security offered in one contract	Explore options for different parking service delivery models

Parking Services Contract Commissions

200%

Opportunity Profile – Ancillary Services

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	Explore shared print shop services provided by one institution or an external service provider	$0.5M	$1.5M	See shared procurement investment outline (slide 39)		Tier 1
2	Collaborate on bookstore shipping/freight to obtain higher discounts	$0.1M	$0.3M			Tier 1
3	Explore potential to transition to a single food services contract for the post-secondary sector for those currently contracting this service	$0.2M	$2.0M			Tier 2
4	Collaboration to obtain higher commissions on vending machine contracts	$0.2M	$0.4M			Tier 1
5	Explore potential to transition to a single parking services contract for the institutions that currently contract this service	Cost savings would not be significant due to relatively low value of contracts observed in sample institutions				Tier 2
	TOTAL	**$1.0M**	**$4.2M**			

Opportunity Profile – Ancillary Services

Primary benefit driver	• **Print Shop:** Lower cost per page for services, institutions avoid capital investments, and the sector makes more efficient use of excess capacity • **Bookstore:** Leveraging the buying power of the post-secondary sector to negotiate lower shipping rates • **Food Services:** Leveraging the buying power of the post-secondary sector to negotiate higher commissions on food services contracts and vending machine revenues • **Parking:** Leveraging the buying power of the post-secondary sector to negotiate lower parking commissions paid to external service providers
Institutions most likely to benefit	• **Print Shop**: Institutions with print shops operating at a loss and those without resources to invest in the most cost-effective technology will benefit most. Institutions that have already contracted out print shops will not benefit immediately but in the future may be able to leverage better joint contracts. • **Bookstore**: Institutions not currently leveraging any discounted shipping rates will benefit most. • **Food Services**: Only institutions with food services contracts will benefit; institutions currently receiving lower commission rates will benefit most • **Parking**: Institutions paying the highest commission rates for contracted parking services will benefit most.

Opportunity Profile – Ancillary Services

Print Shop	Bookstore	Food Services	Parking
<u>Qualitative Benefits</u> • Smaller institutions can access new technology and services • Eliminates need for future investment in print shop equipment by each individual institution • Former print shop locations can evolve to become responsible for electronic document management (digitizing & archiving institution records) or be repurposed for other uses <u>Governance Considerations</u> • Participation in the shared print shop should not be mandated; institutions should choose whether or not to use the service	Please refer to the Procurement opportunity for general qualitative benefits and governance considerations.	Please refer to the Procurement opportunity for general qualitative benefits and governance considerations.	Please refer to the Procurement opportunity for general qualitative benefits and governance considerations.

Opportunity Profile – Ancillary Services

Print Shop	Bookstore	Food Services	Parking

Implementation Risks and Considerations
Please refer to the Procurement opportunity on slide 41 for general risks and considerations. Specific print shop items are listed below.
• Labour agreements will affect the ability of some institutions to contract print shop services to an external service provider, whether it is another institution or a commercial vendor
• Institutions may not trust that a shared service will be responsive enough to handle jobs with tight timelines
• If a one institution provides shared printing services, determining the following would be required:
  • Scope of services
  • Fees for service
  • Service Level Agreements
• Planned capacity must consider the fact that peak periods will be aligned across the sector
	Implementation Risks and Considerations
	Please refer to the Procurement opportunity for general risks and considerations.
		Implementation Risks and Considerations
		Please refer to the Procurement opportunity for general risks and considerations. Specific food services items are listed below.
		• Culinary Arts programs must not be impacted
		• Achieving higher commission rates may depend on the number of institutions participating, volume of food sold, proportion of branded food, and geography of locations involved
		• Vending machine revenues may decline due to an emphasis on healthy choices in machines and a ban on bottled water at some institutions
			Implementation Risks and Considerations
			Please refer to the Procurement opportunity for general risks and considerations. Specific parking services items are listed below.
			• Consideration must be given to the diversity of services and varying models at each institution (such as parking and security services offered by one department or provider)

Opportunity Profile – Ancillary Services

Analysis summary	
Analysis	• Print Shop: Calculated total print shop expenditures for 7 institutions with internal print shops. Excluded CoTR (no print shop costs reported) and UBC (print shop is contracted out). Calculated average print shop expenditure per student FTE, then extrapolated this average to the other 16 institutions based on student FTE to provide an estimate of the total print shop expenditures across the sector. Range of cost savings is based on an estimated reduction in cost of 5% to 15%. Detailed cost savings estimates would depend on whether services are provided by a post-secondary institution or a third-party provider, and whether a single print shop is possible or if more than one location is required. • Bookstore: Calculated total shipping expenditures for 9 institutions in the sample. Calculated average shipping expenditure per student FTE, then extrapolated this average to the other 16 institutions to provide an estimate of the total bookstore shipping expenditures across the sector. Range of detailed cost savings estimates is based on an estimated reduction in cost of 5% to 15%. detailed cost savings estimates would depend on a more detailed analysis of volumes and shipping lanes. • Food Services contracts: Calculated the current total commissions (in $) for those institutions that have contracted out some or all food services, then calculated potential increase in commissions assuming institutions could negotiate rates in the range of 10-16% (top commission rate observed in the sample was 20%; analysis modeled a more conservative high of 16%) . Extrapolated the potential increase in commission across the sector based on student FTEs. • Vending Machine revenues: Calculated the current total commissions (in $), then calculated potential increase in commissions assuming institutions could negotiate rates in the range of 30-43% (43% was the highest rate observed amongst Steering Committee institutions). Extrapolated the potential increase in commissions across the sector based on student FTEs. • Parking: Analysis was limited by the nature of data collected, as it is possible institutions included or excluded different types of work or services when reporting parking costs. It was not possible to complete an “apples to apples” comparison between different parking services models, as some institutions are in-house, others are contracted out, and others include both parking and security services in one contract
Assumptions and Limitations	• Print Shop: Analysis assumes that the average print shop expenditure per student FTE for our sample group is a reasonable estimate of print shop expenditures across all other institutions, and does not consider whether or not any of those institutions currently operate without a print shop or have already contracted out their print shops. Assumed reduction in total print shop expenditures of 5-15%, based on an example from Rotterdam University where 10-15% cost reduction was achieved through shared print shop services across 5 campus, provided by a 3rd party provider. • Bookstore: Analysis assumes that the average shipping expenditure per student in our sample of 9 institutions is a reasonable estimate for shipping expenditures per student in the remaining 16 institutions. • Food Services: Analysis assumes that the other 16 institutions have contracted out food services to the same extent as the 9 institutions included in this initiative, where models included in house, hybrid, outsourced, and culinary arts programs. Assumes that the average commissions observed in the sample are a reasonable estimate of average commissions in the remaining institutions..

Opportunity Profile – Ancillary Services

Analysis summary	
Data Sources	• Print Shop: Rotterdam University Higher Education Case Study, published by Xerox, 2010. http://www.xerox.com/downloads/gbr/en/gdo/casestudies/RotterdamUniversity-UK_LR.pdf • Bookstore: Potential discounts achieved through strategic sourcing of joint shipping provided by Deloitte procurement and strategic sourcing Subject Matter Expert. • Food Services: All data used was provided by institutions in this initiative. • Parking: All data used was provided by institutions in this initiative.
Conclusion	• There is limited collaboration in Ancillary Services across the post-secondary sector, but there is interest in determining the best venue for leaders to meet on a regular basis to share ideas and work together to address common challenges • Opportunities for collaboration and shared services exist in the areas of Print Shop, Bookstore, Food Services and Parking • Consideration must be given to appropriate governance structures, regional differences between institutions, the high value placed on purchasing locally, and existing labour agreements before these opportunities can be implemented

Ancillary Services opportunities analyzed that do not present significant savings potential

Area	Sub-Function	Opportunity	Reason
Ancillary Services	Bookstore	Collaborate on joint purchasing to obtain better discounts from publishers/vendors	Textbook prices are set by publishers; no room for negotiation of discounts.
Ancillary Services	Bookstore	Inventory management systems - negotiate together for lower licensing and maintenance fees.	Amount spent on inventory management systems not significant relative to other opportunities.
Ancillary Services	Housing	Explore alternative service delivery models for housing administration/management.	Little to no support for this opportunity from the functional experts.
Ancillary Services	Parking	Collaborate on investments in technology like electric charging stations, purchase of parking payment machines etc.… to achieve consistency and negotiate a better deal	Functional expert interviews revealed limited plans for investing in these types of technology in the near term.

Library Services Opportunities

Copyright and digital resources present opportunities to build upon extensive collaboration within Library Services

- Post-secondary libraries in B.C collaborate extensively in a number of ways and participate in a number of provincial and national consortia and shared services initiatives; for example:
  - The Council of Post Secondary Library Directors (CPSLD) provides a forum for all libraries to communicate on a regular basis and encourages collaboration across the sector
  - The BC Electronic Library Network (BCELN) negotiates on behalf of all institutions for collaborative database licensing and coordinates shared services (AskAway and WriteAway)
  - Libraries leverage purchasing power and obtain significant discounts by buying through consortia such as BCELN, Electronic Health Library of BC (e-HLbc), Canadian Research Knowledge Network (CRKN), and the Council of Prairie and Pacific University Libraries (COPPUL)
- Given the significant collaboration that existing between libraries with respect to licensing costs there is limited opportunity to find additional savings in this area. However, other there are other significant opportunities for libraries to collaborate further. In many cases these new areas represent opportunities to avoid or reduce future costs rather than save on current costs
- Copyright is emerging as a significant challenge that is affecting every institution, and library directors are struggling to cope with rapid change and rising costs. A shared copyright clearance and compliance service, shared legal services and joint procurement of rights management software present opportunities for cost avoidance, standardization, and economies of scale
- The rapidly changing technological and intellectual landscape is increasing the need for libraries to innovate and provide services in new ways. One way this is affecting B.C's post-secondary libraries is the move towards digital resources, which presents opportunities to collaborate on digital repositories, digitization programs, and streaming video services

Copyright and digital resources present opportunities to build upon extensive collaboration within Library Services

Sub-function	Opportunities to be explored
Copyright	• Establish a Centre of Expertise at UBC • Create a shared legal service for copyright issues • Explore joint procurement of rights management software
Digital Resources	• Transition to a shared digital repository for the entire sector • Establish a shared conversion program to digitize physical collections • Transition to a shared, centrally hosted streaming video service

- Opportunities that exist in Library Services are presented in the table above; the analysis included in this report has focused on qualitative benefits and a description of future cost avoidance due to the high level of uncertainty regarding institutions' future needs and investment plans
- Opportunity risks include the rapid changes in landscape for both copyright and digital resources, and a great deal of uncertainty about future requirements
- Institutions felt strongly that no initiative should be mandated and that the decision to participate must be made by each individual institution
- Establishing clear and appropriate governance structures and determining decision-making processes will be key to the success of these initiatives

Opportunity Profile – Copyright

Current State	Opportunity Potential ($)

• Responsibility for managing copyright clearance and compliance often resides within Library Services at those institutions without dedicated Copyright Officers due to the role of the library in licensing material.
• Copyright is emerging as a significant challenge across the sector. This is largely due to changes to the fee structure of licensing agreements with Access Copyright (AC), Canada's copyright licensing agency.
  • Under the previous agreement, institutions were charged $3.80/FTE plus $0.10/page for the use of copyrighted materials such as books, journal articles etc..
  • AC now requires members of the Association of Canadian Community Colleges (ACCC) to pay $10/FTE, while members of the Association of Universities and Colleges of Canada (AUCC) pay $26/FTE, which represents a significant cost increase for many institutions.
• As a result of the fee changes, 4 of 9 Steering Committee institutions have either opted out of the model license with AC or have postponed signing the model license. The remaining 5 institutions have signed, mainly due to a lack of other options and a lack of resources to perform copyright clearance internally.
• The repertoire of copyrighted materials managed by AC represents a limited portion of materials for which institutions must manage permissions. institutions must also determine how to manage permission other works including media and multimedia material. This affects all institutions regardless of their current relationship with AC.
• Institutions anticipate requiring services from legal experts in copyright to help them interpret and comply with copyright laws and to manage the threat of litigation due to non-compliance.
• Some institutions are considering the purchase of rights management software to assist with managing copyright permissions, assisting with compliance and managing workflows
	Benefits
	Low / High
	Due to rapid changes in the copyright environment and uncertainty about future requirements, estimating benefits will require detailed analysis and discussions with stakeholders.
	Investments
	Low / High
	Level of investment required is uncertain at this time.

#	Current Challenges	Example Practices	Potential Opportunities
1	Copyright licensing costs have increased due to changes in AC's fee structure. Institutions that have or are considering opting out of the licensing agreement will need to determine how to perform copyright clearance independently from AC.	A working group has been established to provide a forum for library directors, copyright officers and other stakeholders to collaboratively address copyright clearance and compliance issues. UBC is establishing a Scholarly Communications and Copyright Office to perform copyright clearance independently from AC. Across Canada, several universities including U of Calgary, U of Saskatchewan, Waterloo and Memorial have publicly announced they have opted out and are operating independently from AC.	Establish a Centre of Expertise at UBC
2	Managing copyright is complex and time consuming regardless of whether the institution has signed with AC. Some institutions lack dedicated resources to handle requests and to educate students and faculty on their rights and responsibilities.		

Opportunity Profile – Copyright

#	Current Challenges	Example Practices	Potential Opportunities
3	Many institutions are anticipating the need to engage copyright legal experts to assist with copyright clearance and compliance on a regular basis, and to help mitigate the risk of litigation due to non-compliance with copyright laws. Currently procuring such services is done independently which can be expensive and in some cases out of reach for smaller institutions. There is also some duplication of effort and resources expended on similar copyright issues.	There are law firms in B.C (Richards Buell Sutton LLP, Clark Wilson LLP) with experience in providing services to multiple institutions on a joint retainer basis. There are also examples within the health sector in B.C of several parties submitting similar questions to legal counsel, who prepare answers once and split the cost between participants.	Create a shared legal service for copyright issues.
4	Institutions may need to purchase rights management software (such as Ares) to assist with copyright clearance and compliance.	BCELN estimates that joint procurement of Ares software by multiple institutions could reduce ongoing maintenance costs by up to 20% and waive one-time implementation costs.	Explore joint procurement of rights management software.

Opportunity Profile – Copyright

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits		Investments		
		Low	High	Low	High	
1	Establish a Centre of Expertise at UBC	Due to rapid changes in the copyright environment and uncertainty about future requirements, estimating benefits will require detailed analysis and discussions with stakeholders.		Level of investment required is uncertain at this time.		Tier 1
2	Create a shared legal service for copyright issues.	Magnitude of benefits will depend on the future needs of institutions and the volume of hours of legal advice required.		Effort will be required to determine volumes and negotiate a joint retainer with a law firm.		Tier 1
3	Explore joint procurement of rights management software.	$7,000*	$19,000*	Effort required to consolidate requirements and negotiate a joint purchase.		Tier 1
	TOTAL	$7,000*	$19,000*	* Plus one-time cost avoidance of $45,000 to $60,000		

Primary benefit driver	• **Copyright COE:** Institutions avoid cost of creating and managing their own copyright office. Consistency of practice, increased access to specialized services and reduced duplication of efforts. • **hared copyright legal service**: Reduced hourly rates. Consistency of practice, increased access to specialized services and reduced duplication of efforts. • **Rights management software**: Leveraging the buying power of the post-secondary sector to achieve discounts on implementation and maintenance costs.
Institutions most likely to benefit	• **Copyright COE**: All institutions who choose to participate should benefit, but those who have opted out of the Access Copyright model license or those who lack dedicated copyright personnel may benefit most • **Shared copyright legal service**: Institutions without in-house copyright legal counsel and those who anticipate purchasing a high volume of hours of legal advice will benefit most • **Rights management software**: Larger institutions planning to invest in this software will benefit from discounts; those planning to operate without the software will not.

Opportunity Profile – Copyright

Qualitative Benefits	Opportunity Risks
Copyright Centre of Expertise • A collaborative approach to copyright across the sector will encourage consistency of practice and standardization • Centrally-developed policies, procedures, and education for faculty and students will eliminate duplication of effort and churn • Providing access to copyright experts and specialized services will alleviate the strain on smaller institutions that lack dedicated resources for this function • The COE would provide a more comprehensive service to allow institutions to handle all their copyright clearance and compliance in an effective and efficient way Shared Legal Services • Collaboration to negotiate a joint retainer (based on a minimum volume of hours at reduced rates) will improve access to legal advice for those institutions without the resources to independently engage legal counsel Joint procurement of Rights Management Software • Collaboration to procure the same software will encourage consistency of practice and standardization	Copyright Centre of Expertise • The copyright landscape is changing at a rapid pace; assumptions and decisions made today may not be valid 6-12 months from now • A significant degree of uncertainty exists with respect to the future of copyright in Canada • Threat of litigation for non-compliance is a serious risk to those institutions who have opted out of the Access Copyright model license • There may be resistance to UBC offering services to other institutions, and fear that their issues would not receive the same attention or priority as UBC's • The needs of institutions may vary greatly and a risk of cost or use inequity exists • Copyright issues are often highly time sensitive and a shared service may not be responsive enough to meet institution deadlines Shared Legal Services • Some institutions may prefer to seek out their own independent legal advice; fewer participating institutions may lower the discounts obtained Joint procurement of Rights Management Software • Some institutions may decide they are able to operate without software to assist with copyright clearance and compliance; fewer participating institutions may lower the discounts obtained

Opportunity Profile – Copyright

Governance Considerations	Implementation Considerations

<u>Copyright Centre of Expertise</u>
• UBC is interested in engaging in discussions with other institutions to determine how best to leverage their investments made in staff and infrastructure to establish the Scholarly Communication and Copyright Office
• Detailed analysis and discussion will be required to address the following:
  • Scope of services
  • Governance structure
  • Decision-making authority and processes
  • Staffing requirements, both at UBC and at individual institutions
  • Fees for services (cost recovery, cost sharing)
  • Legal structure of the organization (i.e is there a need for a separate legal entity to be controlled by participating institutions)
• A collaborative approach to determining the appropriate governance structure and controls will be key to the success of this initiative
 	
<u>Shared Legal Services</u>
• The copyright working group that was recently formed in B.C is well positioned to drive this initiative forward and could work on behalf of all institutions interested in participating
• As part of the COE, UBC could offer shared copyright expertise and refer institutions to legal counsel as appropriate
 	
<u>Joint procurement of Rights Management Software</u>
• BCELN could initiate and manage negotiations on behalf of participating institutions
	<u>Copyright Centre of Expertise</u>
	• UBC has invested in human resources, technology and other infrastructure to meet its own copyright clearance and compliance requirements; additional investments will be required to accommodate the needs of those institutions wishing to use a shared service
	• Service Level Agreements (SLAs) will need to be determined to ensure institutions will receive appropriate prioritization and attention
	• A pilot approach involving a smaller number of institutions to test out the shared service and identify issues would reduce risk and disruption
	
	<u>Shared Legal Services</u>
	• The copyright working group that was recently formed in B.C could work together with stakeholders to determine requirements and negotiate a joint contract with a single legal firm
	
	<u>Joint procurement of Rights Management Software</u>
	• BCELN could work with libraries to help determine which institutions will participate and to standardize requirements to allow for negotiation of a joint contract.
	• Individual institutions would be responsible for implementation and integrating the rights management software with existing technology as needed

Opportunity Profile – Copyright

Implementation Risks and Considerations

Copyright Centre of Expertise

- A significant degree of uncertainty exists with respect to the future of copyright in Canada
- The copyright landscape is changing at a rapid pace; assumptions and decisions made today may not be valid in 6-12 months
- Threat of litigation for non-compliance is a serious risk to those institutions who opted out of the Access Copyright model license
- There may be resistance to UBC offering services to other institutions, and fear that their issues would not receive the same attention or priority as UBC's
- The needs of institutions may vary greatly and a risk of cost or use inequity exists
- Copyright issues are often highly time sensitive and a shared service may not be responsive enough to meet institution deadlines
- UBC has invested in human resources, technology and other infrastructure to meet its own copyright clearance and compliance requirements; additional investments will be required to accommodate the needs of those institutions who use the shared service
- Service Level Agreements (SLAs) will need to be determined to ensure institutions will receive appropriate prioritization and attention
- A pilot approach involving a smaller number of institutions to test out the shared service and identify issues would reduce risk and disruption

Shared Legal Services

- Some institutions may prefer to seek out their own independent legal advice; fewer participating institutions may lower the discounts obtained
- The copyright working group that was recently formed in B.C could work together with stakeholders to determine requirements and negotiate a joint contract with a single legal firm

Joint procurement of Rights Management Software

- BCELN could work with libraries to help determine which institutions will participate and to standardize requirements to allow for negotiation of a joint contract.
- Individual institutions would be responsible for implementation and integrating the rights management software with existing technology as needed
- BCELN could work with libraries to help determine which institutions will participate and to standardize requirements to allow for negotiation of a joint contract.
- Individual institutions would be responsible for implementation and integrating the rights management software with existing technology as needed

Opportunity Profile – Copyright

Analysis summary	
Analysis	• Copyright Centre of Expertise: Calculation of quantitative benefits not feasible at this time due to rapid changes in copyright and uncertainty about the future • Shared legal services: Calculation of quantitative benefits not feasible at this time due to uncertainty about the volume of hours that will be required going forward • Joint procurement of rights management software: Estimated savings across the sector based on waived implementation cost and discount of 20% on ongoing licensing costs.
Assumptions and Limitations	• Analysis assumes that to date only 2 institutions have invested in rights management software and that of the remaining 23 institutions, 9-12 will choose to license such software in the next year. A separate instance of the software is required for each institution to manage institution-specific licenses and workflows. This assumption is based on feedback received in functional expert interviews indicating some smaller institutions do not necessarily require this software to manage permissions and may continue to operate without it. Analysis conservatively estimates half of B.C's post-secondary institutions would be interested in implementing the software if received at a lower cost. • Estimated savings from joint procurement of Ares rights management software received from BCELN following investigation into cost of Ares. Potential discount of 20% on annual maintenance cost of $4,000 to $8,000 per instance (sector savings of $7,000 to $19,000 annually), waived implementation cost of $5,000 per instance (total of $45,000 to $60,000 in avoided costs for those 9-12 institutions who decide to implement software).
Data Sources	• BCELN provided estimated discounts obtained through joint negotiation of Ares software
Conclusion	• Copyright is a significant challenge across the post-secondary sector, and library directors are keenly interested in collaborating and working together to address issues and plan for the future • A working group of library directors, copyright officers, and bookstore representatives has been formed and plans to meet on a regular basis to address issues and plan for the future • There is agreement that a Copyright COE is an opportunity worth investigating further, but detailed analysis and careful consideration of a variety of factors will be required; a pilot program may be a way to test out the shared service and address issues before the initiative is rolled out more broadly

Opportunity Profile – Digital Resources

Current State	Opportunity Potential ($)*	
• Digital resources in post-secondary libraries include online journals and databases, e-books, digitized versions of print materials, streaming video, audio recordings, and multimedia • Factors influencing libraries include the steadily rising prices of monographs and journal subscriptions (serials), the costs of providing both electronic and paper versions of many of these resources, the expansion of institutions' intellectual horizons to new areas of study, and the proliferation of both printed materials and electronic media required for scholarship now and in the future (Source: [1]Report of the Task Force on University Libraries, Harvard University, November 2009) • The rapidly changing technological and intellectual landscape is increasing the need for libraries to adapt, innovate and provide services in new ways • Post-secondary libraries in B.C are embracing the move towards digital resources. SFU has invested in a digital institutional repository; UBC and VCC are investing in digitization/conversion programs; and many other institutions have shifted the majority of spending on licensing materials to electronic resources.	Recurring cost avoidance	
	Low	High
	$0.3M	$3.7M
	One-time cost avoidance	
	Low	High
	$0.5M	$3.7M
	Investments	
	Low	High
	OT - $0.25M R - $0.25M	OT - $0.5M R - $0.5M

#	Current Challenges	Example Practices	Potential Opportunities
1	Post-secondary libraries need an approach to save and archive the output of student and faculty research, as well as provide open access to this information.	• BCELN is currently conducting a survey of post-secondary institutions to gauge interest in a shared institutional repository to house research papers and data produced by students and faculty. • Hathi Trust is a partnership of major research institutions and libraries that brings together digital collections of partner institutions in digital form; the initiative includes over 60 partners such as McGill University, Harvard, Stanford, and Yale	Transition to a shared digital repository for the entire sector.

*NOTE: Cost and benefit figures for the Digital Resources opportunity are presented as high-level, directional estimates. For this reason, the numbers in this Opportunity Profile are not included in the program totals in the Executive Summary

Opportunity Profile – Digital Resources

#	Current Challenges	Example Practices	Potential Opportunities
2	Institutions are interested in digitizing collections but may lack the necessary time, funding, or skilled resources to initiate a conversion program.	• UBC and VCC have begun investing in digitization programs. • UVic is will be completing a review of its digitization programme in mid October with an eye towards expanding capacity through enhanced equipment and software (provided at very low cost by the Internet Archive), and internal staff reorganization . This will allow UVic to better address internal university demands for the digitization of scholarly research materials as well as provide a centre that could provide capacity for the needs of other Vancouver Island institutions such as Camosun, RRU, GVPL, BC Archives, Legislative Library etc. • Harvard University Library has an extensive digitization program in place across 73 libraries. In-house, specialized staff are responsible for digitizing and preserving rare works; materials such as books are being converted at a low cost by 3rd parties such as Google Books.	Establish a shared conversion program to digitize physical holdings.
3	Libraries want to provide students and faculty with access to a greater number of streaming videos but it can be time consuming to obtain individual licenses and expensive to set up infrastructure to host such media.	• iTunes U allows institutions to upload videos, which are hosted by Apple and made available in the world's largest online catalog of free education content.	Transition to a shared, centrally hosted streaming video service.

Opportunity Profile – Digital Resources

#	Potential Opportunities	Quantitative Benefits and Investments				Tier
		Benefits*		Investments*		
		Low	High	Low	High	
1	Transition to a shared digital repository for the entire sector.	Cost avoidance: OT - $0.5M R - $0.3M	Cost avoidance: OT - $3.7M R - $3.7M	OT - $0.25M R - $0.25M	OT - $0.5M R - $0.5M	Tier 1
2	Establish a shared conversion program to digitize physical holdings.	Potential cost avoidance will depend on the future needs of institutions and their ability and willingness to invest in joint digital resources initiatives. A collaborative approach will leverage scale and buying power and result in a greater degree of cost avoidance		Level of investment will depend on the scale of services, number of institutions participating, and the nature of technology that will be required to support these initiatives. A collaborative approach will leverage scale and buying power and result in a lower requirement for investment.		Tier 1
3	Transition to a shared, centrally hosted streaming video service.					Tier 1

Primary benefit driver	• All of the opportunities described above will drive benefits through standardization, achieving economies of scale, and improving services for students, faculty and other post-secondary stakeholders
Institutions most likely to benefit	• All institutions would benefit from these initiatives. Smaller institutions without the resources to independently invest in any of these areas would benefit from the lower costs that could be achieved through a joint approach; larger institutions with bigger collections and • Institutions that have already invested in these areas will benefit less

*NOTE: Cost and benefit figures for the Digital Resources opportunity are presented as high-level, directional estimates. For this reason, the numbers in this Opportunity Profile are not included in the program totals in the Executive Summary

Opportunity Profile – Digital Resources

Qualitative Benefits	Implementation Risks and Considerations
• Building upon the high degree of collaboration that already exists amongst B.C's post-secondary libraries will enable the sector to continue to embrace the move towards digital resources • A shared digital repository would result in improved access to resources for the province's faculty, students, and community users • A shared digitization program would increase standardization, achieve better economies of scale, and would encourage preservation of collections held by institutions that may lack the resources to launch an internal digitization program • A shared streaming video service would result in improved access to videos for students, faculty and community members, and reduced duplicate content or licenses	• Rapid advances in technology make it challenging to anticipate and plan for investments in digital repositories, digitization programs and streaming video • Balancing different needs and preferences of individual libraries may be challenging • Integration with other library systems may be required • Some smaller institutions may not have the necessary funding, bandwidth, or technical expertise required to enable participation in a shared digital repository or shared streaming video service • Copyright legislation is changing and affects use of streaming video • B.C's post-secondary libraries are highly collaborative, and an inclusive approach involving a wide range of stakeholders will improve outcomes • Participation in any digital resources initiative must be voluntary to respect the autonomy and decision-making process at each institution • The digital resources opportunity presents a way to avoid future costs by collaborating on any planned investments in digital resources, and are not opportunities for current cost savings • Investments in technology will be required to proceed with these initiatives
Governance Considerations	
• Oversight provided by an external body such as BCELN is the preferred approach to generate trust and buy-in across the sector • BCELN has been very successful at leading collaborative initiatives amongst the libraries and should play a role in facilitating future digital resources initiatives, but decision making authority should remain with institutions • BCELN could work collaboratively with BCCampus if there is a need for technology resources (IT support, infrastructure etc.…) to support joint digital resources initiatives	

Opportunity Profile – Digital Resources

Analysis summary	
Analysis	• To calculate the cost avoidance involved in a shared implementation of a digital repository, the one-time avoided cost was estimated to be $100k (low) to $150k (high) for each institution. Therefore, the one-time cost avoidance was estimated to be in the range of $500k to $3.7M. A recurring cost avoidance of $375k to $3.7M was calculated using an estimate of $75k to $150k for ongoing maintenance costs for each institution. • Calculation of quantitative benefits for a shared conversion program and shared streaming video service is not feasible at this time due to uncertainty about future investments in digital resources and rapid changes in technology. It is not known at this time how many institutions would choose to participate, what types of technology would be required, the scope of services included, or what the required level of investment might be. • Potential cost avoidance will depend on the future needs of institutions and their ability and willingness to invest in joint digital resources initiatives. A collaborative approach will leverage scale and buying power and result in a greater degree of cost avoidance going forward
Assumptions and Limitations	• In calculating the potential cost avoidance of a shared digital repository, it was assumed that a range of 5 to 25 institutions might choose to participate
Data Sources	• Cost estimates for a single versus a shared implementation as well as ongoing maintenance costs for a digital repository were provided by SFU's library director
Conclusion	• There appears to be agreement across the sector that a collaborative approach to managing digital resources would reduce future investment costs and would provide better, equitable access to resources for all of B.C's students. Post-secondary libraries are very interested in working together to address the rapidly changing technological and intellectual landscape, and to provide services in new and innovative ways • The functional experts involved agree that these initiatives make sense and that they are worth exploring together, but that they do not represent opportunities for current cost savings – they are future cost avoidance opportunities • A collaborative approach to any investment in digital resources (shared digital repository, shared digitization program, or shared streaming video service) will result in improved access to resources, increased standardization and efficiency, and avoided costs achieved by leveraging the buying power of multiple institutions. • BCELN is well positioned to build on work started in these areas, and continue to represent the needs of institutions

Library Services opportunities analyzed that do not present significant savings potential

Area	Sub-Function	Opportunity	Reason
Library Services	**Library Services**	Explore opportunities related to shared Integrated Library Systems (ILS). Potential for a single ILS shared between all institutions, or multiple implementations of a ILS shared between fewer institutions.	The BC Research Library Group (UBC, UVic, SFU, UNBC, Royal Roads, TRU) recently reviewed the possibility of adopting a common ILS platform for their institutions and reaffirmed that no single system provided the required functionality across all institutions.
Library Services	**Library Services**	Explore shared acquisitions, licensing, and memberships.	Institutions currently purchase/license the majority of content through consortia. BCELN has already negotiated significant discounts by leveraging the buying power of the sector.
Library Services	**Library Services**	Shared physical storage repository (provincial or regional).	Colleges and smaller institutions do not generally face space constraints and do not require additional storage space. UBC is investing in a physical storage repository and is open to sharing with other institutions, potentially on a cost-sharing basis.

IT Opportunities - BC Campus

BC Campus provides a suite of services that could benefit all institutions in the sector

- BC Campus is a publicly funded organization that uses information technology to connect the expertise, programs, and resources of all B.C. post-secondary institutions under a collaborative service delivery framework
- A key service provided by BC Campus is an ICT infrastructure for student data exchange, shared services, online learning and distance education, communities of practice and online resources for educators
- There are opportunities to expand the number of institutions taking advantage of the shared services currently being provided by BC Campus, including the Transcript Exchange, ApplyBC and Collaborative Education Services

Transcript Exchange

- The Transcript Exchange is a BCCampus initiative that aims to enable institutions to share transcript data with one another electronically in cases where students transfer from one institution to another or applying for graduate and post-graduate programs
- The differences in Student Information Systems (SIS) across the 25 institutions has made the sharing of transcript data across institutions difficult to implement
- The current method of sharing transcripts across institutions involves printing and mailing the transcripts in hard copy. The estimated cost of this is ~$7 in postage and supplies per transcript, not including the staff time required to process transcript requests at the issuing institution and to file them at the receiving institution.
- The number of transcript requests processed across the province's 25 institutions is estimated to be ~100,000 annually
- The Transcript Exchange program was initiated by the registrars of BC's institutions. A motion to move forward with the program was passed unanimously by the BC Registrar's Association (BCRA) who then sent a letter to BCCampus to request that they begin to work on a mechanism to share transcript data electronically.
- A pilot of the Transcript Exchange has been implemented at three institutions with another currently in development and two more scheduled to join within the next year
- The anticipated annual recurring financial benefits from the Transcript Exchange are ~**$500,000 - $1M**
- In order to move to a sector wide implementation of the system, BCCampus will require an investment of **~$1.5M - $2.5M**
- In addition to the financial benefits, managing transcripts electronically is an opportunity for institutions to improve the student experience, reduce paper usage and administrative effort require to manage student transcript exchange
- Implementation of the Transcript Exchange would need to consider a number of factors, including student information system interfaces and revenue impacts from moving to this new system

BC Campus provides a suite of services that could benefit all institutions in the sector

Apply BC	• The ApplyBC program has been developed by BCCampus in order to provide a means for applicants to post-secondary institutions in BC to apply to multiple institutions at once • The use of this platform is not mandatory and students can still apply directly from the school's website. In other post-secondary sectors in Canada the centralized application portal is the only way to apply for post-secondary education • There is potential to generate additional savings through this model but the costs involved in the current state have not been quantified and would require a detailed assessment with the registrar's offices which was not in the project scope • There could also be a significant service improvement benefit for the applicants using the system

Collaborative Education Services	• BC Campus acquires, hosts and supports a number of shared educational technologies, including:
	  • Adobe Connect – currently used by 9 institutions
	  • Blackboard Collaborate – currently used by 9 institutions
	  • Desire2Learn – currently used by 10 institutions
	  • Moodle – currently used by 7 institutions
	• To support post-secondary library services, BC Campus provides an online library reference service called AskAway. AskAway is used by all institutions in the sector as a significantly lower costs than if developed and maintained by each institution separately. BC Campus estimates that avoided cost savings to be more than $3M
	• By providing these services to the sector in a collaborative manner BC Campus has enabled the institutions participating to realize significant avoided cost and efficiencies in the delivery of these technologies
	• There is an opportunity to expand the number of institutions using these services to increase the overall savings to the sector