



**Proposed Action Plan and Associated Budget Request**  
**October 29, 2018**

**Prepared for submission to:**  
**The Department of Education and Early Childhood Development**

## Introduction

Over the last few years, the internal team of the Newfoundland and Labrador English School District (NLESD), the Comptroller General's Office and most recently the Auditor General, highlighted the existence of operating environments (in previous districts and the current District) dominated by inadequate controls, a lack of process documentation and deficient system functionality. To make matters worse our provider notified us two years ago that our financial system (SDS) has been basically sunset with no further updates or modifications with a recommendation that NLESD migrate to another system. These factors contributed to a financial and operational culture considered high risk and susceptible to potential inappropriate/fraudulent activity. Unfortunately, due to volume and vast displacement of District operations, processes were set up to be more decentralized with respect to purchasing of goods and services in the Facilities Division. This left the District extremely vulnerable and highly dependent upon the integrity of all individuals involved, and pressure on staff to detect or prevent inappropriate actions.

It should be noted that the absence of an asset and inventory control system has been a long standing issue for Districts for a number of years. The distribution of operations creates a huge impediment to implementing a standard program for managing such initiatives and, as a result, has consistently been punted forward from year to year. This does not excuse the reality of what has been portrayed in the Auditor General's report in terms of asset/inventory management and the District realizes it must move the yard stick on this initiative to safeguard its investments.

The District has implemented a number of initiatives over the last couple of years to effect change and address system deficiencies. Specifically with respect to culture, the way staff views public funds, the importance of following policy and procedures, policy creation, establishment of a Risk Management Program, adjusting of responsibilities, etc. However, admittedly, these are mainly softer implementations intended to raise awareness, educate staff and move ownership of some processes as much as possible with limited staff available. The District is eager to immediately start the process to further mitigate risk and implement the significant change required to address the major concerns noted in the report. However, additional **investment** in the District is required to:

1. Fund replacement and acquisition of new systems; and,
2. Fund replacement of some FTEs removed as a result of initiatives over the number of years. See Appendix "A".

The next three charts articulate what is critical from a systems and staffing perspective and what noted issue each addresses to allow the District to successfully implement the change required to mitigate risk in its operation.

Financial Impacts Summary									
Priority Ranking	Proposal	Issue	System/Software acquisition		Staff				Bargaining Unit/ Mngt/ NUNM
			One-time costs	Annual costs (effective year 2)	Number FTE's 2019-2020	Number FTE's 2020-2021	Number FTE's 2021-2022	Number FTE's 2022-2023	
1	Integrated financial management system *	Current system inefficient, lacks controls and basically Manufacturer Discontinued	~ \$500K	Note Below **	\$ 85,000	\$ 305,000	\$ 305,000	\$ -	Mngt/NUNM
2	Business Analysis	Document and ongoing mgmt of internal controls and business processes	N/A	N/A	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	Mngt/NUNM
3	Inventory control and Asset Management - Phase 1	Better Management and tracking of District investments	~ \$150K	~\$20K	\$ 445,000	\$ 805,000	\$ 805,000	\$ 565,000	1 Mngt/remainder BU
4	Centralized purchasing	Remove all purchasing responsibility from facilities mgmt and consider other areas of District	N/A	N/A	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	BU
5	Fleet and Fuel Card Management (GPS Tracking)	Better security over costs of ongoing mtc and fuel card purchases. GPS helps eliminate manual fuel logs and provide added layer of safety.	~\$200K	~\$175K	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	BU
6	Accounts Payable Quality Control	Provide more appropriate workload over AP processing including process integrity.	N/A	N/A	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	BU
			~ \$850K	~ \$195K	\$ 1,240,000	\$ 1,820,000	\$ 1,820,000	\$ 1,275,000	

\* Confirming One-Time Quote still valid

\*\* No change to annual support fee of \$160K paid today for the next least 5 years.



Proposal Implications								
Priority Ranking	Proposal	Issue	System		Staff			Bargaining Unit/ Mngt/ MUNM
			System/ Software acquisition	Number FTE's 2019-2020	Number FTE's 2020-2021	Number FTE's 2021-2022	Number FTE's 2022-2023	
1	Integrated financial management system	Current system inefficient, lacks controls and basically Manufacturer Discontinued	Migrate to new system including additional modules/functionality	1 (initial planning)	5 (temp implementation)	5 (temp implementation)	0	Mngt/MUNM
2	Business Analysts	Document and ongoing mgmt of internal controls and business processes	N/A	2	2	2	2	Mngt/MUNM
3	Inventory control and Asset Management - Phase 1	Better Management and tracking of District investments	Acquire Asset Tagging system/process and Inventory Management Software	1 Perm manager & 12 Temp starting half year	1 Per Mgr & 12 (temp for implementation)	1 Per Mgr & 12 (temp for implementation)	9 Perm (5 facilities, 3 transportation, 1 IT)	1 Mngt/ remainder BU
4	Centralized purchasing	Remove all purchasing responsibility from facilities mgmt and consider other areas of District	N/A	5	5	5	5	BU
5	Fleet and Fuel Card Management (GPS Tracking)	Better security over costs of ongoing mtc and fuel card purchases. GPS helps eliminate manual fuel logs and provide added layer of safety.	Potential for new software/system to manage Fleet and fuel Card. Requirement to acquire GPS Tracking infrastructure and software.	1	1	1	1	BU
6	Accounts Payable Quality Control	Provide more appropriate workload over AP processing including process integrity.	N/A	2	2	2	2	BU

Proposal Impact on Issues Raised by AG Report						
Issue reported by AG audit on Management of Procurement of Goods and Services	Integrated financial management system	Business Analysts	Inventory control and Asset Management	Centralized purchasing (remove all purchasing responsibility from facilities)	Fleet and Fuel Card Management (GPS Tracking)	Accounts Payable Quality Control
Purchase orders issued without quotes obtained		X		X		
Poor documentation/controls over assignment of limits	X	X				
Weak segregation of duties (system limitation)	X	X		X		
Poor records management over quote documentation	X	X		X		
Poor documentation of emergency situations		X				
Purchases without a district issued PO		X		X		
Poor records management over payment (invoice) documentation	X					X
Supplier statements not reconciled frequently enough						X
Payment of duplicate invoices	X					X
Poor internal controls over safeguarding assets		X	X		X	
Unnecessary purchases (or necessity not documented)			X	X		
Inadequate documentation to support the receipt of goods/services	X		X		X	
Vehicle purchases not tracked by vehicle	X				X	
Reported instances of non-compliance not addressed		X				

The remaining pages provide a narrative on each initiative.



# INTEGRATED FINANCIAL SUPPORT SYSTEM



**Newfoundland and Labrador English School District**  
**2019-2020 Budget Proposal**  
**Submission to Department of Education and Early Childhood Development**

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**Priority Ranking:**      1

**Proposal:**      **Implementation of Cayenta Schools ERP Product Suite**

**Description of Budget Proposal:**

The District is again requesting approval to repurpose funds in order to proceed with the upgrade its current financial management system is offering to its Canadian school districts currently using the SDS system.

As there will be no increases to the District's current annual maintenance and support fees, this request is for one time upgrade cost only.

**Issue and Risks Identified:**

The District's current financial management systems lacks fundamental internal controls specifically in its purchasing module. This risk has also been presented by the Auditor General in the 2018 audit report on "Management of the Procurement of Goods and Service", and on several occasions by both the Internal and External Auditors.

The District's current financial management system does not support the intended controls for segregation of duties within the purchasing activity. According to the AG report, "This weakness within the accounting system significantly increased the opportunity and risk of errors, unauthorized transactions, unethical behavior and/or fraud".

The current system also does not facilitate the recording and monitoring of vehicle expenditures or repairs. Given the District's reliance on vehicles to meet its operational requirements (student transportation and facilities management), and the fact that the District has experienced fraud in this area on more than one occasion, we feel this risk is significant.

**Background and Analysis:**

The District highlighted its requirement and desire to migrate to another financial management system in the past. Specifically the analysis and letter provided to the Department in May 2017 after lengthy discussions. See Appendix B.



**Financial Requirements**

Description of one-time cost	Amount	Additional Information or Considerations
Professional fees to migrate financial information to Cayenta Suite	\$500,000	Second option is repurpose funding from District reserved equity or from remainder of proceeds from sale of schools; no new funding would be required.
Annual Support Fees	No Change	Cayenta initially agreed to no change in support fees for first 5 years.
<b>Total</b>	<b>\$500,000</b>	

Annual Costs (Effective Year 2)	Amount	Additional Information or Considerations
Annual Support Fees	No Change	Cayenta initially agreed to no change in support fees for first 5 years.
<b>Total</b>	<b>\$0</b>	

**Human Resource Requirements**

Anticipated Position Title	# of Posn's	Type **	Location	Cost Information		
				2019-20	2020-21	2021-22
Planning/Implementation Manager	1	M	St. John's	\$85,000	\$85,000	\$85,000
Temp. Implementation Support	4	BU	St. John's	\$0	\$220,000	\$220,000
<b>Total Request</b>	<b>5</b>			<b>\$85,000</b>	<b>\$305,000</b>	<b>\$305,000</b>

**Recommendations**

Approval to proceed with request given criticality to mitigate risks of fraudulent activity.



# BUSINESS ANALYSTS



**Newfoundland and Labrador English School District**  
**2019-2020 Budget Proposal**  
**Submission to Department of Education and Early Childhood Development**

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**Priority Ranking:**      2

**Proposal:**      Addition of two (2) Business Analyst (FTE).

**Description of Budget Proposal:**      The District is requesting funding to hire two (2) full-time business analysts – these positions will be additions to the current Finance and Business Administration division of NLESD.

**Issues and Risks Identified:**

- Absence of records management system for documentation/records – (business processes/procedures/information);
- Inadequate documentation to support business processes/procedures;
- Lack of planning/implementation to address risks identified in risk management program.

**Financial Risks:**

- Poor documentation/controls over assignment of limits;
- Poor records management over quote documentation;
- Poor records management over payment (invoice) documentation;
- Inadequate documentation to support the receipt of goods/services.

**Operations/Process Risks:**

- Purchases without a district issued PO;
- Emergency purchasing situations not documented.

**Risk Mitigation:**

- Limited ability to address risks identified in risk management program;
- Limited ability to cover all areas of fraud in risk management program;
- Risks associated with fraudulent activities was not a focused activity not assessed in risk management program.

**Background and Analysis:**

Currently, the District does not have a business analyst function. For any organization the size of the District a business analyst more accurately reflects the roles and responsibilities necessary to help ensure that the District is capable and adequately resourced to respond properly to the Auditor General report, to identify and mitigate risk and to produce effective and efficient business operations. Mitigating actions and measures, associated with the identified risks, will require detailed assessments, evaluations, and analytics of business systems and operational business lines from dedicated personnel. This will have a direct impact



on mitigating risk and will result in accurate and detailed documentation of all business operations leading to refined, standards-based and policy-driven financial processes and procedures (both systems and user oriented).

Value added to the District business and financial operations include but is not limited to:

- Maintain and enhance the value/merit already created by business operations (policy, processes, systems, etc.);
- Contribute to the prevention of undesirable/damaging events/fraud that might not have been fully considered;
- Improve current systems by reviewing and assessing current practices and processes - designing modifications and implementing improvements;
- Identify control weaknesses; recommend and deliver mitigation strategies that includes implementing improvements to processes and procedures;
- Continued review of a variety of areas including operations, purchasing, inventory, distribution and facilities;
- Through reviews and analyses of current processes using operational metrics and reports, enhance financial and operational reporting that highlights relevant business trends and opportunities for improvement;
- Support senior management in developing policies, procedures and various toolkits and work closely with the managers within the all department to support their reporting requirements;
- Support senior management in risk management and associated mediation steps;
- Extract, collate and disseminate financial and business intelligence from systems to assist the District in strategic decision making process - using both formal reports and ad-hoc queries;
- Through strategic planning, research, innovation and project management, operates as a liaison at the intersection of business and ICT to assist with the adoption of new financial systems and technologies to drive business and financial goals and objectives;

**Financial Requirements**

<b>Description of one-time cost</b>	<b>Amount</b>	<b>Additional Information or Considerations</b>
N/A - No System requirements	0	N/A
<b>Total</b>	<b>\$0</b>	

<b>Annual Costs (Effective Year 2)</b>	<b>Amount</b>	<b>Additional Information or Considerations</b>
N/A - No annual mtc/support	0	
<b>Total</b>	<b>\$0</b>	



### Human Resource Requirements

Anticipated Position Title	# of Positions	Type **	Location	Cost Information		
				2019-20	2020-21	2021-22
Business Analysts	2	M	St. John's	\$200,000	\$200,000	\$200,000
<b>Total Request</b>	<b>2</b>			<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>

### Recommendations

Recommend Approval. Operation a District of this size should have Business Analysts on staff to provide constant updating and management of internal controls and process documentation.



# INVENTORY AND ASSET MANAGEMENT



**Newfoundland and Labrador English School District**  
**2019-2020 Budget Proposal**  
**Submission to Department of Education and Early Childhood Development**

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**Priority Ranking:**     **3**

**Proposal:**     **Phase 1:** Asset Identification  
                  **Phase 2:** Inventory/Asset Management

**Description of Budget Proposal:**

The District is requesting funding for the following in order to address the organizational risk associated with the inability to effectively manage and track inventory of its assets:

- One-time cost for acquisition and implementation of Asset Management software;
- Human Resources to effectively implement and manage the Asset Management system as well as to conduct audits against the system (regular physical inventory counts);
- Ideally, the District could arrive at a comprehensive asset management system that includes inventory control, however, this would be at a significant cost. At a minimum, the designed system would tag assets and capture pertinent information regarding each asset such as location, maintenance schedule, insurance, warranty, and licensing requirements to facilitate confidence of asset existence to minimize the risk of asset loss and theft and duplicate and unnecessary purchases.
- Eventually, capital could be necessary to acquire appropriate facilities, or for renovations of existing facilities, for central inventory warehouses that would receive all inventory and be responsible for distribution to the specific school/facility including subsequent related annual building costs. This will clearly depend upon the amount of risk mitigation achieved through initial processes.

**Issue and Risks Identified:**

Risks identified for not having an effective asset management system and appropriate personnel are as follows:

- Inability to effectively track and record inventory/assets which increases the risk of asset loss, theft and fraud and purchasing duplication and unnecessary assets;
- Inability to effectively track appropriate asset maintenance schedules which increases the risk of injury and shortening of asset useful life or unnecessary insurances/warranties/maintenance & license agreements;
- Inability to effectively audit physical inventory against asset purchases (count inventory) which increases the risk of asset loss, theft and fraud;
- Inability to effectively monitor and track purchasing habits of employees which increases the risk of asset theft and fraud.



These risks have also been presented by the Auditor General in the 2018 audit report on “Management of the Procurement of Goods and Service”, and on several occasions by both the Internal and External Auditors.

**Background and Analysis:**

Tracking and securing assets for the District is complex, labour intensive and costly given the high volume of items purchased each year. These items are generally delivered to the purchasing school/bus depot/facility, making it difficult to tag them and record specifics in a central database. Examples of such assets are: tools, equipment, furniture, parts and vehicles.

A computerized tracking system is required and resources are needed in order to implement such a system, count and record assets, and track all additions, transfers and disposals as well as regularly audit the tracking system against the actual inventory which requires regular physical inventory counts.

An effective system to manage the District’s assets should include an asset register that records pertinent information about the asset such as purchase date, make, and model, serial number or other identifying information. The asset register would ideally link with software to determine asset quantity, asset custody and location, when maintenance or disposal is required, and whether insurance is required and maintained.

Without an asset management system, District staff cannot readily obtain or monitor key information about their current inventory, including the location of inventory. This increases the risk of loss and theft of assets and purchasing duplicate and unnecessary assets.

**Financial Requirements**

Description of one-time cost	Amount	Additional Information or Considerations
Asset Tracking software, computers and various IT equipment (barcode scanners etc.)	\$60,000	Estimated cost
Fixed Asset software	\$90,000	Estimated cost
Purchase of Warehousing Facilities (or renovations of existing facilities)		This will depend upon future direction of possible Central Stores
<b>Total</b>	<b>\$150,000</b>	

Annual Costs	Amount	Additional Information or Considerations
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<b>(Effective Year 2)</b>		
Annual Support/Mtc. on Software	\$20,000	Need to determine if any ongoing support depending upon system/software acquired.
<b>Total</b>	<b>\$20,000</b>	

**Human Resource Requirements**

Anticipated Position Title	# of Positions	Type **	Location	Cost Information		
				2019-20	2020-21	2021-22
Manager (including initial planning)	1	M	St. John's	\$85,000	\$85,000	\$85,000
Staff to do initial tagging and system updates	12	BU	Various	\$360,000	\$720,000	\$720,000
<b>Total Request</b>	<b>13</b>			<b>\$445,000</b>	<b>\$805,000</b>	<b>\$805,000</b>

Note: After 2021-22 will downsize to permanent team to manage of 1 Mgr & 8 clerks - \$565,000 annually

**Recommendations**

Recommend Approval. Asset and Inventory Management has been a long standing issue for school Districts and has been included in a number of past reports. The current AG report has highlighted the significant risk to loss of inventory and equipment as well as potential for incorrect accounting of assets in our financial reporting. Initially a very manual process will have to be implemented to implement a minimum process to address.



# CENTRALIZED PURCHASING



**Newfoundland and Labrador English School District**  
**2019-2020 Budget Proposal**  
**Submission to Department of Education and Early Childhood Development**

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**Priority Ranking:**      4

**Proposal:**

Currently the District operates on what can be described as a decentralized procurement model whereby some facilities management staff are buyers and can procure goods and services independent of the procurement team. To mitigate the risks involved and identified in the Auditor General's report, the District would like to commence migration to a more centralized purchasing model by moving all purchasing for the Facilities Division to its Procurement Division.

**Description of Budget Proposal:**

Given the District operated on a decentralized model the procurement team is not staffed to absorb the additional workload required to take over the significant volume of work involved to manage all the buying for the Facilities Division. This budget proposal will ensure all POs are approved by the procurement team before being issued to the vendor. This will provide consistency with purchasing segregation currently in place with other divisions of the District when acquiring goods or services.

Funding for 5 Buyers:

- Four Buyer II and one Buyer I positions.

**Issue and Risks Identified:**

Auditor General in her report noted:

- Fraud
- Staff not following Procurement Protocol/Division of duties
- Insufficient Documentation
- Buyers receiving gifts
- Inappropriate and/or non District related items purchased
- Lack of Vendor monitoring
- Significant PO splitting to avoid appropriate processes and keep within purchasing limits

**Background and Analysis:**

Facilities management staff now have purchasing approval authority with no oversight from the procurement team:

- 40% of all purchases outside procurement staff



- \$25 million purchased by buyers outside Procurement Division
- Auditor General identified areas of risk that need to be addressed

**Financial Requirements**

Description of one-time cost	Amount	Additional Information or Considerations
N/A		
<b>Total</b>	<b>\$</b>	

Annual Costs (Effective Year 2)	Amount	Additional Information or Considerations
N/A - No annual support/mtc fee		
<b>Total</b>	<b>\$</b>	

**Human Resource Requirements**

Anticipated Position Title	# of Positions	Type **	Location	Cost Information		
				2019-20	2020-21	2021-22
Buyer II	4	BU	St. John's	\$245,000	\$245,000	\$245,000
Buyer I	1	BU	St. John's	\$55,000	\$55,000	\$55,000
<b>Total Request</b>	<b>5</b>			<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>

**Recommendations**

Recommend Approval - Migration to centralized purchases will remove the risk of these behaviours continuing with respect to buying in the Facilities Division.



# **FLEET AND FUEL CARD MANAGEMENT INCLUDING GPS TRACKING**



**Newfoundland and Labrador English School District  
2019-2020 Budget Proposal  
Submission to Department of Education and Early Childhood Development**

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**Priority Ranking:** 5

**Proposal:** Fleet/Fuel Card Administrator and GPS Technology

**Description of Budget Proposal:**

The Newfoundland and Labrador English School District is seeking approval for funding to implement a vehicle GPS system for student transportation busing, service vehicle fleet, facilities operation service fleet and the headcount requirement to monitor the fleet and fuel card administration.

**Issue and Risks Identified:**

Risks identified by not having the appropriate personnel and system in place include the following:

**Safety Issues/Risks**

- Lack of tracking of vehicle repairs, maintenance and replacement requirements
- Inability to review and address unacceptable driving habits (speeding, breaking, stopping, etc.)
- Inability to locate vehicles in adverse weather or if an incident occurs

**Financial Issues/Risks**

- Undetected unauthorized/inappropriate purchases
- Undetected existence of unauthorized cards
- Inability to track District assets

**Operational Issues/Risks**

- Inability to monitor employee performance.
- Inability to review efficiencies relating to idling times, fuel efficiencies, etc.
- Inability to manage workflow efficiently for employees services schools over a large geographic location.

**Background and Analysis:**

District wide NLESD operates approximately 349 schools buses, 16 service vehicles relating to student transportation spending approximately \$2 million per year in fuel and \$1.2 million in repairs. Approximately an additional 60 vehicles are operated by NLESD facilities operations spending approximately \$300,000 on fuel and \$260,000 on repairs.

Operating this fleet properly and efficiently, while minimizing the risks identified above, requires direction, oversight, data compilation and review. It requires access to the right data and someone to use this data. At present, NLESD does not have staff assigned to perform these functions, nor does it have the relative data available with the current system. NLESD management has identified this as an area of concern. This issue has also been presented by the Auditor General in the 2018 audit report on



“Management of the Procurement of Goods and Service” and in 2018 NLESD Internal Audit report on “Log Book and Fuel Card Management”. As it relates to transportation, GPS was an item included in a 2013 report on “Student Transportation Considerations”. Below are the details on the relative sections from the aforementioned reports.

#### 2018 Auditor General report:

*“Fuel cards are issued to authorized employees in relation to NLESD owned vehicles. NLESD officials indicated that fuel cards were used to purchase an average of approximately \$194,000 in fuel each year during the five-year audit period ended June 30, 2016. While we did not perform detailed audit work on fuel cards, we did make the following observations:*

- *NLESD did not have policies and procedures for vehicle fuel purchasing and payment. For example, there was no clear process regarding the authorization of the issuance of fuel cards to employees. Also, NLESD did not have a senior management official assigned with responsibility for fuel card management.*

*In 2012, an employee of the former Eastern School District developed a draft Fuel/Gas Card Management policy that included designating a fuel card administrator to manage the fuel cards for NLESD vehicles. However, this policy had not been finalized or implemented.*

- *Accounts payable managed all aspects of fuel card management including the acquisition, distribution, activation and deactivation of fuel cards and the payment of bills. The lack of segregation of duties increased the risk of errors, unauthorized actions, unethical behavior and/or fraud.*

- *While accounts payable maintained listings of fuel cards issued to employees, there was no process to regularly verify the accuracy and completeness of the listing.*

- *Accounts payable clerks processed payments to fuel card vendors without reconciling employee fuel receipts with vendor statements. Clerks simply filed employee fuel receipts in envelopes upon receipt. Reconciliations are a key detective control to identify errors, unauthorized actions, unethical behavior and/or fraud.”*

#### 2018 Internal Audit report:

*“It was noted as part of the review that there were various weaknesses or inconsistencies with the NLESD’s current fleet and fuel management. These include the following:*

- *There was no fleet administrator position or individual/team responsible for the issuance and maintenance of fuel cards. Without a proper administrator in place to monitor the issuance and cancellation of fuel cards, there is an increased risk of fraudulent activity. Also, if cards are not issued and cancelled in a timely fashion this can cause unnecessary and lengthy operational delays.*
- *There was no individual or team assigned to complete proper reviews of mileage information submitted. Internal Audit found that there were log books that were submitted late, not completed properly or not completed at all. Without a designee responsible for review and*



*follow up of submissions, there is no assurance that data is received, entered, submitted and reasonable which makes the control ineffective.*

- *There was no consistent matching or review of fuel logs to fuel payments. Without proper review and matching, this increases the risk of undetected inappropriate or unauthorized purchases.*
- *There was no consistent purchasing method for fuel and various cards are used and assigned differently dependent on operational area or region. Examples of the cards currently used include Irving, Ultramar, and BMO fleet cards. There are some vendors who invoice NLESD directly for transactions. Using various processes and charge cards/accounts for means of payment creates inconsistencies and the inability to develop a district wide, consistent practice and increases the number of payments to be processed.”*

#### 2013 Deloitte report

*“In the long term, the Department should consider installing GPS on buses. GPS systems can provide transportation planners with critical information on actual route travelled and route metrics such as speed. GPS systems allow for on-the-road performance monitoring from a desktop. GPS units provide details such as when the bus was started, how fast it travelled, where it travelled, when it stopped, when the doors opened, and when the crossing arm and sign were deployed. GPS systems can also provide functionality to allow parents to track their student’s bus online. Data can be viewed in real time and/or analyzed over years for trending.*

*Following the implementation of routing software, the Department should consider installing GPS units on buses to compliment the software, and reduce the amount of route auditing as part of the compliance monitoring.”*

Overall, there are numerous risks associated with fleet and fuel management and in order to mitigate and reduce these risks to an acceptable level, resources are required. The duties/benefits are summarized below broken out by each of the two parts of the request:

#### A) Fleet/Fuel Card Administrator:

- Receiving requests and issuance/cancellation of NLESD assigned fuel cards
- Reviewing all requests for accuracy and completeness
- Creating, providing and obtaining card agreements for NLESD assigned fuel cards
- Issuance and cancellation of PINs for those assigned NLESD fuel cards
- Customer service – handles inquiries and issues with fleet purchases
- Receiving and tracking fuel log books and usage log books
- Review, assess and follow up on GPS system reports (if implemented)
- Generate data/reports relating to payroll information (employee start and stop times) to provide to relative management for assessment
- Generate data/reports
- Reviewing usage and compare to fuel purchases
- Watch for usage and purchase trends
- Developing reports on usage/trend data to provide to employee/division managers
- Log all calls for metric purposes
- Review monthly fuel statements and agree to log books submitted and fuel usage logged
- Tracking and reviewing of vehicle repairs and regular maintenance
- Reviewing usage trends and vehicle assignment to ensure appropriate and assign as necessary



B) GPS for Fleet Management

- Productivity/optimization Solutions
  - Efficiencies of employee (job scheduling, site locations, unit assignment, and client records)
  - Efficiencies of equipment (fuel efficiencies/speeds/breaking, fleet performance/behavioral spending, etc.)
  - Reduced loss of work time (monitoring of employees, break times, start and end time tracked to payroll records)
  - More accountability of employees (same items as above)
  
- Safety
  - Reminders and tracking of vehicle maintenance
  - Historical replays (accident tracking)
  - Live map - District and parents can see where bus is along the route
  
- Overall
  - Reporting options used in decision making, vehicle assignment, etc.
  - Expected cost savings by reducing idling times, more productivity at work, more efficient planning
  - Will reduce time and costs relating to filling out and ordering logbooks, improve accuracy of data and allow for information in a more timely manner.

Important to note that the District recently conducted a pilot of GPS technology in 6 of its buses and 6 Mtc. vehicles with great success. The pilot provided tremendous insight into the driving habits of our staff using these vehicles as well as areas where savings could be achieved (i.e. unacceptable idle times). See Appendix C.

**Financial Requirements**

Description of one-time cost	Amount	Additional Information or Considerations
GPS System implementation - Mtc. Fleet	\$50,000	Purchase equipment, training, travel
GPS System implementation - Board Buses	\$150,000	Purchase equipment, training, travel
<b>Total</b>	<b>\$200,000</b>	

Annual Costs (Effective Year 2)	Amount	Additional Information or Considerations
Annual operating cost GPS system	\$175,000	Licensing, Support and Tracking
<b>Total</b>	<b>\$175,000</b>	

**Human Resource Requirements**



Anticipated Position Title	# of Positions	Type **	Location	Cost Information		
				2019-20	2020-21	2021-22
Fleet/Fuel Administrator	1	M	St. John's	\$80,000	\$80,000	\$80,000
<b>Total Request</b>	<b>1</b>			<b>\$80,000</b>	<b>\$80,000</b>	<b>\$80,000</b>

**Recommendations**

It is recommended that the proposal be approved for this funding request in order to reduce risks to an acceptable level.



# ACCOUNTS PAYABLE QUALITY CONTROL



**Newfoundland and Labrador English School District**  
**2019-2020 Budget Proposal**  
**Submission to Department of Education and Early Childhood Development**

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**Priority Ranking:**      6

**Proposal:**      **Implementation of accounts payable quality control function**

**Description of Budget Proposal:**

The District is requesting funding to implement a quality control function within its current accounts payable department. This proposal will provide for two bargaining unit positions who will be responsible for ensuring that accounts payable batches have been processed correctly, according to District procedure and invoices contained within the batches are legitimate and have not been previously paid.

**Issue and Risks Identified:**

The 2018 Auditor General report on “Management of the Procurement of Goods and Service” has highlighted several weaknesses in the District current accounts payable function. These weaknesses include poor controls to prevent payment of duplicate invoices, supplier statements not reconciled frequently enough and poor records management over payment (invoice) documentation.

Also, since 2013 the District has been functioning with an extended time to close period ends which leads to delayed budget to actual reporting and puts the District at risk of exceeding its budget.

**Background and Analysis:**

The district currently has a team of 1 accounts payable manager and 8 accounts payable clerks who process an average of 60,000 invoices and travel claims per year. Despite our efforts to create efficiencies the department regularly experiences difficulty meeting deadlines for vendor payments and a high level of keying and processing errors.

The current process requires that all invoices under \$2,000 are batched and cross-checked by a second accounts payable clerk. Invoices above \$2,000 are batched and checked by the Accounts Payable Manager. The District is proposing that the process of checking batches to verify processing be segregated from the accounts payable clerks thereby allowing them to focus on invoice processing and supplier statement reconciliation.



**Financial Requirements**

Description of one-time cost	Amount	Additional Information or Considerations
N/A - No system requirements	0	N/A
<b>Total</b>	<b>\$0</b>	

Annual Costs (Effective Year 2)	Amount	Additional Information or Considerations
N/A - no annual mtc/support	0	N/A
<b>Total</b>	<b>\$0</b>	

**Human Resource Requirements**

Anticipated Position Title	# of Posn's	Type **	Location	Cost Information		
				2019-20	2020-21	2021-22
Compliance Officer	2	BU	St. John's	\$130,000	\$130,000	\$130,000
<b>Total Request</b>	<b>2</b>			<b>\$130,000</b>	<b>\$130,000</b>	<b>\$130,000</b>

**Recommendations**

Approval to proceed with request given criticality to mitigate risks.



# ***APPENDICES***



***APPENDIX “A”***  
***FTE REDUCTION 2013-2018***



**BOARD OFFICE POSITION  
REDUCTIONS**

	<b>2011-2012</b>	<b>Current</b>
Transportation	15	14
Finance and Administration	55	41
Information Technology	48	42
Operations	36.5	23
<b>Total</b>	<b>154.5</b>	<b>120</b>



***APPENDIX “B”***  
***INTEGRATED FINANCIAL MANAGEMENT SYSTEM***  
***PREVIOUS CORRESPONDENCE***



# Proposal for implementation of Cayenta Schools ERP Product Suite

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## BACKGROUND

In March 2013, the Government of Newfoundland and Labrador announced an amalgamation of the four English-Language school boards effective September 2013. Financial Services for the new board, including payroll, accounts payable and purchasing were to be centralized from the St. John's office. Due to the significant time constraints, a decision was made by the Department of Education that the new board would use the financial management system currently in use by the Eastern School Board as an interim solution. The new board could later evaluate the options in the market to establish a more permanent financial management system.

Shortly after the amalgamation, NLESD began experiencing performance issues with the database of the financial information system - Harris Computers product "School District Systems" (SDS). As NLESD was the largest customer currently using the software, these performance issues were encountered during peak volumes of user activity. The vendor was subsequently able to rectify the performance issues with the database.

In November 2014, NLESD engaged Ernst Young to gain an understanding of options around Financial Management and HR/Payroll systems currently used by other similar sized school districts in Canada. These options would be the starting point for future evaluation should NLESD decide to move away from the current system.

The following year, fraud allegations regarding specific individuals within NLESD's facilities division led to a review of internal controls by the Province's Internal Audit team. The review focused on the procurement to payment cycle and highlighted concerns regarding the lack of system enforced segregation of duties and an incomplete audit trail over purchasing activities.

During the same time, Harris Computers announced an upgrade path for its Canadian school districts using SDS. A business line acquired by the company in 2004 (Cayenta), which currently serviced larger customers in the utilities and municipalities industries, would be customized to accommodate the operating requirements of the school board industry. Harris Computers would now only provide regulatory updates to SDS as required by customers using the legacy system. Therefore, they would not provide modifications to SDS to address the issues surrounding internal controls over purchasing.

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## CURRENT ENVIRONMENT

System that lacks fundamental segregation of duties and audit trail over purchasing.



Vendor will no longer add new features or modules, only regulatory updates, stopping systems growth and functional upgrade enhancements.

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## **RECOMMENDATION**

Based on our research and analysis, migrating to Cayenta Schools is the most cost effective and efficient path to take and one that fits our business model of operation.

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## **KEY CONSIDERATIONS**

### **Operational**

- The proof of concept, for the District, which validates that the design concept for Cayenta Schools is feasible and demonstrated in principal, given the Canadian schools Districts currently using this platform for their ERP.
- All modules of Cayenta Schools are designed and streamlined for school district business and processes. If the District adds new readily available modules to enhance system functionality, these additional modules (off the shelf) will be designed for the District's business. Its features and functionality are based on District business and schools day-to-day operations that fit certain characteristics of a school district and matches unique requirements.
- Although many ERP systems allow for customization of modules, software re-engineering can lead to ongoing extensive customizations, increase in scope of work, process modifications and unpredictable costs.
- With implementation of Cayenta, the purchasing internal control issues with SDS would be addressed.

### **Infrastructure**

- Easy migration for database upgrade to go from ProIV (ISAM) database (current) to Microsoft SQL Database (required for Cayenta Schools).
- Cayenta Schools uses IBM Cognos as its business intelligence tool. This web-based, [business intelligence](#) suite can provide a toolset for reporting and data analysis that can be customized to meet the needs of not only the District users but for any level of Government.

### **Implementation**

- Harris Computers is already very familiar with NLESD business processes and procedures. Moving to Cayenta Schools requires significantly less business analytics. Only delta knowledge/discovery process would be required where simply a refresh of business analytical work would be necessary.



Starting with a new ERP application would require significant more time and financial resources to identify business needs and to determine solutions. A new ERP implementation would be required to begin from first steps and include a software-systems development component, extensive business analytical work and comprehensive training for staff.

**Financial**

High level cost information was provided by Ernst Young as a component of their 2014 engagement. A cost range estimate was provided for four financial management systems used in similar sized school districts in Canada, as shown:

Vendor/Software	Software/Licensing	Professional Services	Total Project Cost	Annual Maintenance
MS Dynamics	\$1,000,000	\$2,000,000	\$3,000,000	\$200,000
Oracle Peoplesoft	\$680,000	\$2,820,000 to \$5,320,000	\$3,500,000 to \$6,000,000	\$150,000
Oracle Cloud	\$300,000	\$2,700,000 to \$4,700,000	\$3,000,000 to \$5,000,000	\$300,000
Keous K212	\$650,000	\$585,000	\$1,235,000	\$154,000

Since the NLESD is a current customer of SDS, a migration to Cayenta is considered an upgrade from SDS, and therefore would not incur software/licensing fees. Professional fees to upgrade to the full Cayenta suite would be approximately **\$500,000**, and annual maintenance fees would only be in the range of \$145,000 to \$160,000. A notably significantly more cost effective approach and not a large investment even if a new way forward was considered by Government in the next few years.



OFFICE OF THE ASSISTANT DIRECTOR  
(Finance & Business Administration/Student Transportation)

Chair: Goronwy Price  
C.E.O./Director of Education (Interim): Anthony Stack

May 3, 2017

Mr. Paul Smith  
ADM – Corporate and School Infrastructure  
DEECD - Government of Newfoundland and Labrador  
P.O. Box 8700  
St. John's, NL A1B 4J6

Dear Mr. Smith:

This letter is a follow up to the April 18, 2017 email I forwarded you regarding the District's necessity to migrate to another software ERP. To summarize, this necessity is derived from two fronts as follows: our requirement to implement tighter system and process controls that our current SDS software does not provide and the fact that the provider has announced it will no longer be releasing or performing modifications or upgrades to the existing software – essentially sun setting of current application. The District feels that even one of these two scenarios provides an impetus for change but having both surface in unison demands change.

As detailed in the document, the District had commissioned E&Y a couple of years ago to provide alternative ERP solutions that existed in other school districts of comparable size. The resulting report did provide some options but none were thought to be acceptable and all were cost prohibitive.

The District has completed research into an alternate solution provided by the same family of companies that SDS resides called Cayenta. Cayenta provided a walkthrough of the Finance and HR components to demonstrate it provides a significant upgrade from the current SDS application including addressing the desire to have more system controls and audit features. Further, Cayenta provides functionality that would assist the District in addressing other audit issues such as fleet management, work orders, etc. Cayenta has retained the SDS team that would provide continuity of support and allow the District to work with a team that has full knowledge of its operations making a migration much more efficient.

The District acknowledges the Governments initiative to review all ABCs for potential Shared Services efficiencies. However, the District's needs are immediate and the modest investment would not impede any potential identified efficiencies that could be gained through shared services in the longer term.

In closing, the District is requesting approval from the Department to proceed with the short to mid-term solution of migrating to Cayenta. The District feels the required migration investment of approximately \$500K is extremely modest for the return it will obtain even if only for a medium term duration. The District would be happy to discuss funding options for the project with the Department. I look forward to your response.

TERRY HALL, CGA, CPA  
ASSISTANT DIRECTOR OF EDUCATION  
(Finance and Business Administration/Student Transportation)

TH/sec



***APPENDIX “C”***  
***GPS TRACKING SYSTEM PILOT***



**Decision Note**  
**Newfoundland and Labrador English School District**

**Title:** GPS Technology for NLESD's Student Transportation Fleet

**Decision/Direction Required:**

- The Newfoundland and Labrador English School District (the District) is seeking approval from the Minister of the Department of Education and Early Childhood Development (DEECD) to repurpose funds previously provided by the DEECD for rust issue vehicle repairs of the District's school bus fleet for the upfront cost associated with the acquisition of GPS technology for the Student Transportation fleet (buses and service vehicles).
- It is recommended that the Minister approve the repurpose of these funds for the upfront cost for the acquisition of GPS technology on the District's Student Transportation fleet.

**Background and Current Status:**

- The August 2013 Deloitte Report titled "Student Transportation Considerations" stated the following:

*In the long term, the Department should consider installing GPS on buses. GPS systems can provide transportation planners with critical information on actual route travelled and route metrics such as speed. GPS systems allow for on-the-road performance monitoring from a desktop. GPS units provide details such as when the bus was started, how fast it travelled, where it travelled, when it stopped, when the doors opened, and when the crossing arm and sign were deployed. GPS systems can also provide functionality to allow parents to track their student's bus online. Data can be viewed in real time and/or analyzed over years for trending.*

*Following the implementation of routing software, the Department should consider installing GPS units on buses to compliment the software, and reduce the amount of route auditing as part of the compliance monitoring.*

- In the 2013-2014 school year, the DEECD provided the District with funding for technology to enhance the Student Transportation system. A Request for Proposal was issued which included GPS technology but it did not end up getting awarded; the DEECD later withdrew the funding.
- In 2016, the DEECD provided funding to the District for the acquisition of routing software. The District acquired routing software later that year (Bus Planner). There are 4 GPS vendors whose software is compatible with Bus Planner: *Zonar Systems, GPS To Go, TDM Technologies* and *Synovia Solutions*.
- In 2016, the DEECD allocated \$1.8 million to the District for rust issue repairs on school buses based on District estimates at the time. As of July 25, 2018, there is just over \$1 million remaining in this fund.
- All of New Brunswick's school bus fleet are outfitted with GPS technology (*GPS To Go*). Buses from some School Boards in Nova Scotia are outfitted with GPS technology as well (*GPS To Go*).
- The Student Transportation division has a fleet of 349 buses and 16 service vehicles.



- The general concept of this proposal was discussed with DEECD transportation management back in May 2018
- The District conducted two simultaneous GPS pilot projects from May 28, 2018 to June 29, 2018. 6 units from *Zonar Systems* were piloted on school buses from the District’s Gander Depot and 6 units from *GPS To Go* were piloted on buses from our Baie Verte Depot.

**Analysis:**

- The following is a summary of some of the benefits of GPS technology on school buses and the District’s service fleet:

Benefit	Description
Increased Safety	Compliance with HTA <i>(ex. Speeding, complete stops at stop signs)</i>
	Adherence to Loading/Unloading Procedures <i>(stop arm, stop sign, flashing lights, parking brake etc.)</i>
	Employee Safety <i>(Use of seatbelt, location of employee (lone worker))</i>
	Adherence to Bus Schedules <i>(route paths, bus stop locations, times)</i>
	Preventative Maintenance <i>(Immediate notification of engine issues etc.)</i>
	Reduction of Idling <i>(air pollution exposure to students, employees and the general public/atmosphere)</i>
	Response to Accidents/Incidents <i>(can extract detailed accident information including harsh braking and rapid acceleration, knowing the exact location of the bus)</i>
	Reduction of Student Wait Time at Bus Stop <i>(real-time location identifier app so parents can view when their bus is “around the corner”)</i>
Increased Org. Efficiency & Effectiveness	Reduction of Fuel Cost – idling
	Reduction of Prev. Maint. Cost
	Compatible with Bus Planner (NLESD routing software)
	Prevents Unauthorized Usage of District Assets
	Enhanced Fleet/Data Metrics
	Enhanced Driver Accountability
	Enhanced Accident/Incident Investigations
	Increased Service Consistency – Route Schedules
	Increased Internal Controls – fleet/fuel
	Reduced Resources used on Driver Performance Issues
	Increased Asset Security - \$20mil in fleet assets
Increased Stakeholder Engagement	Real-time Bus Identifier Application (mobile app)
	Enhanced Response to Public Complaints/Investigations



Increased Public Confidence	Growing Public Expectation (Organizations using GPS to name a few: Metrobus, City of St. John's Plows, TW Plows, RNC fleet etc.)
	Increased Safety, Monitoring, Control, Security, Service Consistency

Some sources:

- <https://www.gpstogo.com/>
  - <https://www.zonarsystems.com/>
  - <https://synoviasolutions.com/>
  - <https://www.business.com/articles/can-gps-tracking-save-your-business-money/>
  - <https://www.linkedin.com/pulse/what-future-gps-technology-fleet-management-tracking-business-track-1>
- Two weeks into the 2 GPS pilots, the Student Transportation division created a friendly competition between the Gander and Baie Verte Depots in an effort to motivate the drivers to change their idling behaviour. The challenge put forth was what Depot could idle the least amount over the subsequent 2 week period (while still ensuring all District policies and procedures were met of course).

- GPS Pilot Competition Results:

GPS Pilot Competition Results - Idling	
Avg. Reduction of Idling Hours per Reg. Driver per Day	0.35 (48% reduction)
# of Reg. Drivers in 2017-2018 (routes/operating units)	288
# of School Days per Year	190
Total Extrapolated Reduction of Idling Hours per Year	19,152
# of Litres Used per 1 Hour of Idling*	3.78
Estimated Fuel Cost per Litre	\$1.30
Estimated Fuel Cost per 1 Hour of Idling	\$4.91
Total Annual Estimated Cost Savings	\$94,113
Estimated Savings as a % of 2017-2018's Fuel Budget	5.1%

\*<https://www.env.nm.gov/aqb/GHG/documents/IdlingMythsandFacts.pdf>

- It is projected that the upfront cost of the acquisition (supply and install) would range between \$60,000 and \$130,000, however, the overall cost of the supply, installation and ongoing service/support over a 5 year timeframe has the potential to be cost neutral (or thereabout) due the estimated annual savings it could yield. A detailed 5 year cost projection estimate is attached for reference.
- Although this proposal involves District-operated fleet exclusively, the District is also reviewing the possibilities as well as the contractual and operational implications of incorporating this technology into Contracted service in the future.



Estimated Cost Projection to Acquire GPS for Student Transportation Fleet - 5yr Period														
EXAMPLES	ESTIMATED COST (HST included net of rebate)							ESTIMATED NET COST						
	Vendor	Units	Upfront Total	Upfront / Unit	Annual	Term	5YR TOTAL	Annual Cost	Year 1	Year 2	Year 3	Year 4	Year 5	5YR TOTAL NET COST (SAVINGS)
1	2013 NLESD RFP (Georef Bid with Zonar)	350	\$145,080	\$ 415	\$102,672	5yrs	\$ 658,440	Cost	\$247,752	\$ 102,672	\$ 102,672	\$ 102,672	\$ 102,672	\$ (51,502)
								Savings	\$(69,270)	\$(119,966)	\$(162,357)	\$(179,174)	\$(179,174)	
								Net	\$178,482	\$ (17,294)	\$ (59,685)	\$ (76,502)	\$ (76,502)	
2	Zonar 2018 (Option 1 - Buy Equip)	350	\$132,095	\$ 377	\$ 98,481	5yrs	\$ 624,251	Cost	\$290,527	\$ 98,481	\$ 98,481	\$ 98,481	\$ 98,481	\$ (85,690)
								Savings	\$(69,270)	\$(119,966)	\$(162,357)	\$(179,174)	\$(179,174)	
								Net	\$161,256	\$ (21,535)	\$ (63,926)	\$ (80,743)	\$ (80,743)	
3	Zonar 2018 (Option 2 - Lease)	350	\$ 62,161	\$ 178	\$131,242	5yrs	\$ 718,369	Cost	\$193,403	\$ 131,242	\$ 131,242	\$ 131,242	\$ 131,242	\$ 8,427
								Savings	\$(69,270)	\$(119,966)	\$(162,357)	\$(179,174)	\$(179,174)	
								Net	\$124,133	\$ 11,275	\$ (31,116)	\$ (47,933)	\$ (47,933)	
4	GPS To Go (Geotab Buy Equip)	350	\$ 62,965	\$ 123	\$121,867	5yrs	\$ 672,302	Cost	\$184,888	\$ 121,867	\$ 121,867	\$ 121,867	\$ 121,867	\$ (37,640)
								Savings	\$(69,270)	\$(119,966)	\$(162,357)	\$(179,174)	\$(179,174)	
								Net	\$115,563	\$ 1,901	\$ (40,490)	\$ (57,307)	\$ (57,307)	

	Fuel Savings	3%	5%	6%	6%	6%
(June 2018 GPS pilot yielded a reduction of 5%)		\$55,722	\$92,870	\$111,444	\$111,444	\$111,444
Vehicle Repair Savings	1%	2%	2%	2%	2%	
(Engine/Battery/Tire/Gas Leak Conditions)		\$13,548	\$27,096	\$27,096	\$27,096	\$27,096
Insurance Savings	3% reduction - reduced risk/damage	\$0	\$0	\$7,000	\$7,000	\$7,000
Reduction of # of Spares Required	(due to reduced "Out of Service" time)	\$0	\$0	\$16,817	\$33,634	\$33,634

Notes:

Option 1 - taken from NLESD's 2013 RFP that did not end up getting awarded

Option 2 - based on purchasing all of the equipment + monthly service fee (written quote)

Option 3 - based on leasing all of the equipment + monthly service fee (written quote)

Option 4 - based on purchasing all of the equipment + monthly service fee (verbal quote)

Estimates based on loose figures provided by vendors (Zonar's was based on a 3yr model)

Estimates include HST and are net of NLESD's HST Rebate (3.4%)

Fuel savings estimate based on 2017-2018 budget (\$1,857,403) and results from 2 pilots (May/June 2018)

Vehicle Repairs savings estimate based on 2017-2018 budget (\$1,354,800) and research/conversations with vendors

Insurance savings estimate based on research/conversations with vendors and NLESD's/Govt of NL's insurance provider

Reduction of spares savings estimated based on rationale that reduced "Out of Service" time due to improved Prev. Maint. will reduce the number of spare buses needed