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1999-707 Final Report

Review of Buying Power 2000 (BP2K)

2000-05-09



Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
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Audit and Review

Vérification et Examen

Canada

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Executive Summary

Authority for the Project

The Review of Buying Power 2000 (BP2K) was approved as part of the 1999/2000 Audit and Review Plan by the Audit and Review Committee.

Objectives

The objectives of the review of Buying Power 2000 (BP2K) was to:

- a. verify that it is in accordance with the departmental Electronic Commerce strategy;
- b. assess whether the objectives of the system are relevant;
- c. determine the degree to which the system's objectives are being met;
- d. verify that the savings identified in the Business Plan are being achieved;
- e. identify factors inhibiting performance, if any;
- f. assess the plans for extension and/or expansion; and,
- g. assess the managerial and operational controls of the system, including the measuring, reporting and monitoring of its:
 - i performance,
 - ii security (access); and,
 - iii automatic debiting (financial transactions).

Scope

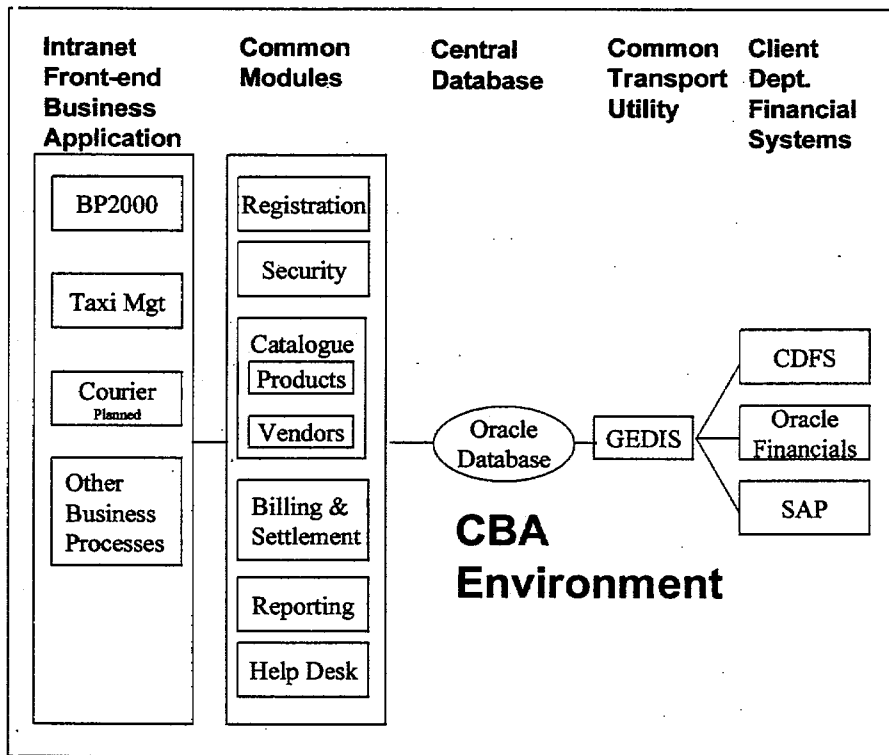
The scope of the review included the Electronic Commerce Sector of GTIS, all interfacing organizations within the department, and the:

- a. Definition and Communication of requirements, objectives and goals;
- b. Organizational structures, including the provision of resources;
- c. Planning and Risk Assessment, including, workload estimates and costs;
- d. Capability/Continuous Learning, including training and operating instructions;
- e. Direct Control Activities and Mechanisms; and,
- f. Indicator/Measurement Controls

Background

E-Procurement Through Settlement (EPTS) is a Directorate within GTIS's Electronic Commerce Sector which until recently, was known as the Cross-functional Business Analysis (CBA) Directorate. The mandate of the former CBA, as detailed in the 1998/99 business plan, was to re-engineer cross functional business processes (standardize, centralize and integrate) and to provide government employees with enabling electronic tools in order to eliminate paper and leverage automation to improve information management, data accuracy and accessibility.

One of CBA's initiatives was development of the "CBA Environment", upon which BP2K was built. The CBA Environment, illustrated below in *Exhibit I*, refers to six "common modules", the Central Oracle database, and the Common Transport Utility or back-end feeder systems for corporate systems (GEDIS - Government EDI Service). The six CBA common modules include user registration, security, catalogue (products and vendors), billing & settlement, reporting, and help desk.



The CBA Environment, although originally built to support BP2K, is intended to be constantly improved and adapted to new uses. New products, vendors, and processes can be "plugged-in" rather than developed from scratch. CBA describes three benefits of the "CBA Environment": eliminates a significant proportion of the development work required for each application; reduces and centralises data maintenance; and eliminates considerable duplication in the operational environment.

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Currently, the CBA Environment supports several front-end business applications including BP2K, the Taxi Management System, Printing services, and very recently, a Translation module (operating as a pilot within GTIS). Future plans include possible addition of a "Courier" module.

Key Findings

There is no documented BP2K business plan that details anticipated costs, savings or benefits. BP2K is a "graduated" version of Electronic Payment Authorization or EPA¹, implemented to support the department's move from physical supply stores (i.e.. the Locally Shared Services Support Centres (or LSSSCs) to "virtual stores".

There was no formal departmental Electronic Commerce Strategy when BP2K was implemented in March 1998. The departmental Electronic Commerce Strategy has been evolving since BP2K implementation. In November 1999, the Information Management Committee (IMC) decided to proceed with an Electronic Procurement Through Settlement (EPTS) solution that will be based upon a yet to be determined Commercial-Off-The-Shelf (COTS) product. The extent of role, if any, of BP2K and or the "CBA Environment" modules within the proposed EPTS project, if any, is unclear. There is no documented BP2K business plan detailing anticipated costs, savings or benefits during the interim period until EPTS is implemented. However, to ensure parallel direction, since the November 1999 IMC decision, all decisions related to BP2K extensions or expansions are being guided by the EPTS Project Team

Although EPTS Directorate-wide objectives are described in business plans, specific BP2K objectives are not documented. Actual BP2K sales levels have been tracked, while BP2K specific costs have not been tracked (although costs related to the entire "CBA Environment" have been tracked). BP2K savings levels have not been tracked.

Through discussions with EPTS personnel, and a review of EPTS/CBA business plans, two BP2K-related objectives were identified: firstly, to support the department's move from physical to virtual stores by increasing and improving BP2K, and secondly, to serve as an interim electronic procurement solution that would better position GTIS to implement a much larger scale EPTS project. Although there are various activities underway within the EPTS Directorate, there is minimal documentation of plans, progress, or degree of success.

Although not completely documented, there are various managerial and operational controls related to the measuring, reporting and monitoring of BP2K performance (including performance related to sales volume, client satisfaction and BP2K operations).

Operations personnel within the EPTS Directorate are responsible for BP2K application security, and although not formally documented, there are various managerial and operational controls

¹ PWGSC's first e-procurement initiative was development of a system known as EPA, or Electronic Payment Authorization. Subsequent to EPA, PWGSC planned to develop a much broader vision e-procurement system, the Electronic Procurement and Settlement (EPS) system. Although partially developed, EPS was abandoned before it was ever implemented.

related to the measuring, reporting and monitoring of BP2K security. *

NCS is responsible for the security of the "CBA Environment" and the network. These responsibilities are detailed in a Service Level Agreement.



Conclusions

Although BP2K, as an electronic procurement application, clearly supports the department's (and government's) electronic commerce objectives and strategy at some level, the extent of support and relevancy is unclear, given the lack of documented plans and documentation of progress against those plans. The cost effectiveness and value-add of the BP2K initiative is unclear.

Although activities to enhance or expand BP2K appear to be in parallel with related departmental objectives, including the EPTS initiative, there is no formal action plan. Further, there is not yet a documented plan for the transition from BP2K to EPTS.

Operational and management controls that measure, monitor and report on BP2K performance (including performance related to sales volume, client satisfaction and BP2K operations) are partially documented, ad hoc and or informal. It is unclear whether the current controls would support further expansions or enhancements to BP2K operations.

Operational and management controls that measure, monitor and report on BP2K application security (access) are documented *

Operational and management controls that measure, monitor and report on the CBA Environment and network are detailed in a Service Level Agreement (SLA) with Network and Computing Services (NCS) and are in accordance with PWGSC/GTIS standards.

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Recommendations

It is recommended that the Assistant Deputy Minister, GTIS:

1. *Determine the Sunset date of Buying Power 2000 (BP2K).*
2. *Ensure that the Director, Electronic Procurement Through Settlement, leverages the value of the BP2K operational experience by formally documenting all current and future BP2K "lessons learned" and "best practices", and incorporating them into EPTS planning.*
3. *Ensure that the Director, Electronic Procurement Through Settlement, reassess the adequacy of existing BP2K application security and financial controls.*

Given that the Sunset date in Recommendation 1 is in the short term, it may be appropriate that no further action is required.

Given that the Sunset date is in the longer term, the following recommendations would apply.

Recommendations

It is recommended that the Assistant Deputy Minister, GTIS ensure that:

4. *The Director, Electronic Procurement Through Settlement, develop and document a BP2K action plan for the interim period (i.e. until the BP2K Sunset date), including specific objectives and anticipated costs, savings and benefits.*

This would include an indication of how these costs, savings, and benefits will be tracked, monitored and reported, and requires that all activities to achieve those objectives are supported by documented plans, including resource requirements, anticipated timelines and anticipated results. Also included as part of the BP2K interim action plan is a BP2K "Phase Out, Transition or Integration" plan that is in parallel with EPTS planning, strategy, and timelines.

5. *The Director, Electronic Procurement Through Settlement, ensure BP2K operational and management controls (including performance, security and financial integrity) are adequate to support the BP2K interim action plan.*

1 Introduction

1.1 Authority for the Project

The Review of Buying Power 2000 (BP2K) was approved as part of the 1999/2000 Audit and Review Plan by the Audit and Review Committee.

1.2 Objectives

The objectives of the Review of Buying Power 2000 (BP2K) was to:

- a. verify that it is in accordance with the departmental Electronic Commerce strategy;
- b. assess whether the objectives of the system are relevant;
- c. determine the degree to which the system's objectives are being met;
- d. verify that the savings identified in the Business Plan are being achieved;
- e. identify factors inhibiting performance, if any;
- f. assess the plans for extension and/or expansion; and,
- g. assess the managerial and operational controls of the system, including the measuring, reporting and monitoring of its:
 - iv performance,
 - v security (access); and
 - vi automatic debiting.

1.3 Scope

The scope of the review includes the Electronic Commerce Sector of GTIS, all interfacing organizations within the department, and the:

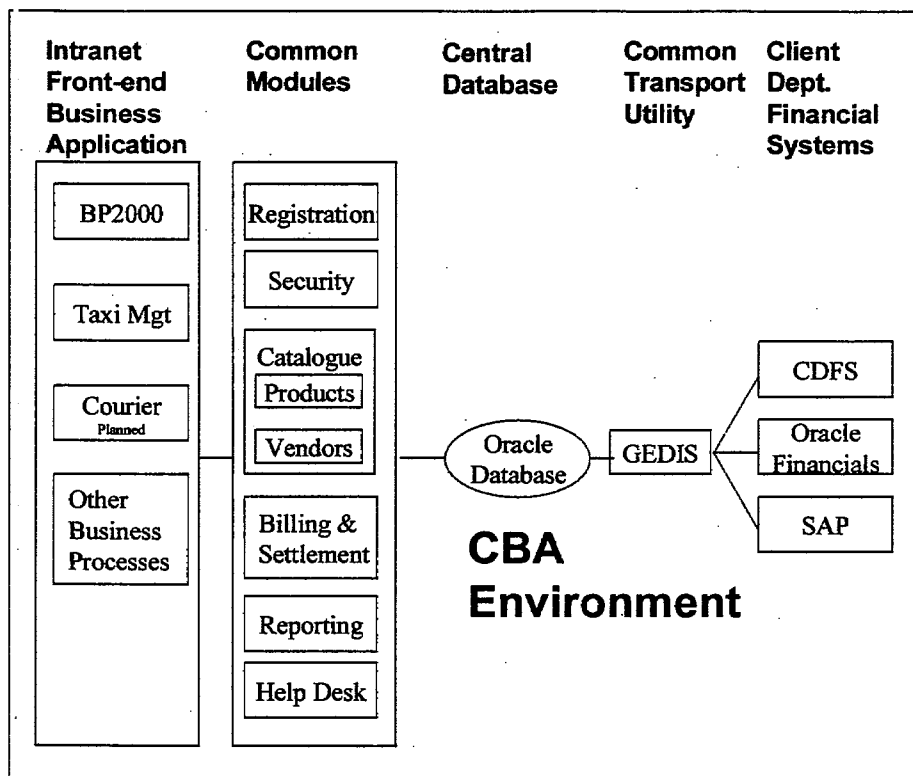
- a. Definition and Communication of requirements, objectives and goals;
- b. Organizational structures, including the provision of resources;
- c. Planning and Risk Assessment, including, workload estimates and costs;
- d. Capability/Continuous Learning, including training and operating instructions;
- e. Direct Control Activities and Mechanisms; and,
- f. Indicator/Masurement Controls.

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1.4 Background

E-Procurement Through Settlement (EPTS) is a Directorate within GTIS's Electronic Commerce Sector which until recently, was known as the Cross-functional Business Analysis (CBA) Directorate. The mandate of former CBA, as detailed in the 1998/99 business plan, was to re-engineer cross functional business processes (standardize, centralize and integrate) and to provide government employees with enabling electronic tools in order to eliminate paper and leverage automation to improve information management, data accuracy and accessibility.

One of CBA's initiatives was development of the "CBA Environment", upon which BP2K was built. The CBA Environment, illustrated below in *Exhibit I*, refers to six "common modules", the Central Oracle database, and the Common Transport Utility or back-end feeder systems for corporate systems (GEDIS - Government EDI Service). The six CBA common modules include user registration, security, catalogue (products and vendors), billing & settlement, reporting, and help desk.



The CBA Environment, although originally built to support BP2K, is intended to be constantly improved and adapted to new uses. New products, vendors, and processes can be "plugged-in" rather than developed from scratch. CBA describes three benefits of the "CBA Environment": eliminates a significant proportion of the development work required for each application; reduces and centralises data maintenance; and eliminates considerable duplication in the operational environment.

Currently, the CBA Environment supports several front-end business applications including BP2K, the Taxi Management System, Printing services, and very recently, a Translation module (operating as a pilot within GTIS). Future plans include possible addition of a "Courier" module.

2 Issues Examined

2.1 BP2K and the departmental Electronic Commerce Strategy

The first objective of the review was to verify that BP2K is in accordance with the departmental Electronic Commerce strategy. To determine whether BP2K is in accordance with the Departmental Electronic Commerce Strategy, we examined the following:

- What were the goals and objectives of the departmental Electronic Commerce Strategy when the BP2K concept was developed?
- In the absence of a formal departmental Electronic Commerce Strategy, what business or strategic objective(s) was BP2K intended to support?
- What are BP2K's goals and objectives, and are they formally documented?

2.2 Relevancy and Achievement of BP2K Objectives

The second objective of the review was to assess whether the objectives of the system are relevant, and to determine the degree to which BP2K's objectives are being met. To make the this assessment, we examined the following:

- What are BP2K's objectives, and what departmental objectives are being supported?
- What specific "levels or targets" were to be achieved by BP2K?
- How does CBA measure the extent to which these objectives are achieved?

2.3 BP2K Savings

The third objective of the review was to verify that savings identified in the Business Plan are being achieved. The following issues were examined:

- What level of savings was anticipated for BP2K?
- How were BP2K savings (and benefits) measured?
- Were anticipated savings (or anticipated benefits) achieved?

2.4 Plans for BP2K Extension and/or Expansion

The fourth objective of the review was to assess the plans for extension and/or expansion. We examined the following:

- What are BP2K's plans for extension and/or expansion, and are these plans documented?
- What are the objectives of the plans? What departmental business plan or objective is being supported?

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- How is achievement of each objective in these plans defined?
- How will progress towards these objective be measured and monitored?

2.5 Measuring, Reporting and Monitoring of BP2K Performance

The fifth objective of the review was to assess the managerial and operational controls of the system, including the measuring, reporting and monitoring of its performance. The review addressed the following:

- What operational and managerial controls are in place related to the performance of BP2K? (consider performance issues related to sales, customer service, vendor and SOA management, as well as system operations and back-up)
- Who is responsible for implementation of these managerial and operational controls?
- Are these operational and managerial controls documented?
- How is BP2K's performance measured?
- How is BP2K's performance monitored and reported?

2.6 Measuring, Reporting and Monitoring of Security (access)

The sixth objective of the review was to assess the managerial and operational controls of BP2K, including the measuring, reporting and monitoring of security (access). The review addressed the following:

- What operational and managerial controls are in place related to the security of BP2K
- Who is responsible for implementation of these managerial and operational controls?
- Are these operational and managerial controls documented?
- How is BP2K's security monitored and reported?

2.7 Measuring, Reporting and Monitoring of Financial Transactions

The seventh objective of the review was to assess the managerial and operational controls of BP2K, including the measuring, reporting and monitoring of financial transactions (including automatic debiting). The review examined the following:

- What operational and managerial controls are in place related to the integrity (i.e. authorization) and accuracy (or completeness) of BP2K financial transactions (consider controls surrounding vendor catalogues, registration of BP2K clients, financial authorities, and receipt of goods and invoice payment.).
- Who is responsible for implementation of these managerial and operational controls?
- Are these operational and managerial controls documented?
- How is the integrity and accuracy of BP2K's automatic debiting monitored and reported?

3 Findings, Conclusions and Recommendations

This section is organized around the review objectives. The original nine objectives have been consolidated into seven to minimize duplication of overlapping issues.

3.1 BP2K and the departmental Electronic Commerce Strategy

A comprehensive BP2K business case or plan has never been documented. The objective of the implementation of BP2K was apparently to support the department's decision to graduate from the operation of physical supply stores to the operation of "virtual stores"².

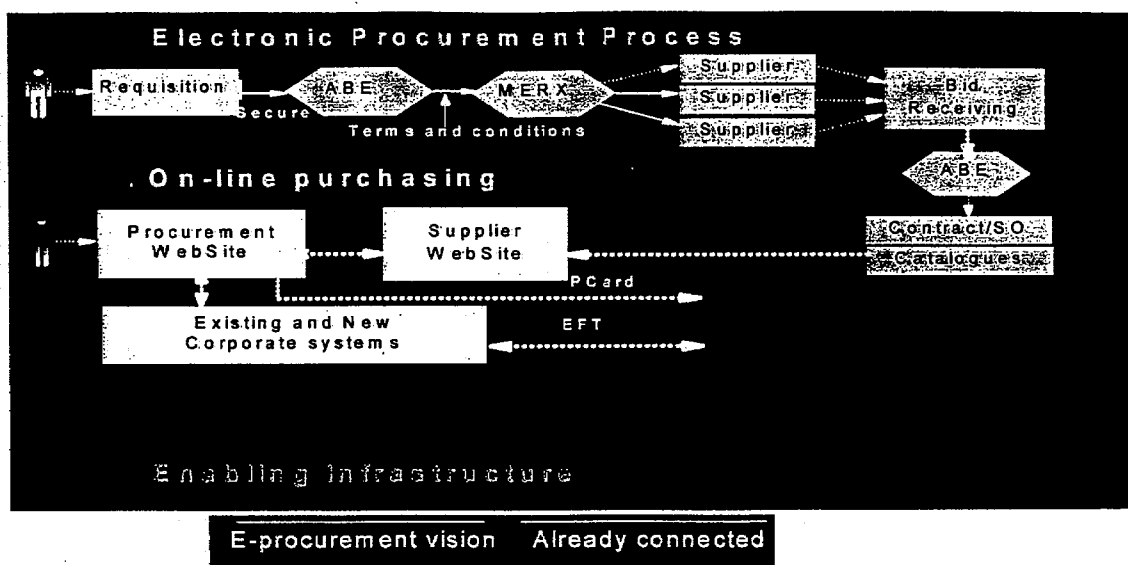
In March 1998, when BP2K was implemented, like other governments and industries around the world, the department was still in the process of developing an Electronic Commerce Strategy. In the absence of a departmental Electronic Commerce Strategy, but in an effort to facilitate the move to "virtual stores", the decision to implement BP2K (a "graduated" version of a previously abandoned GTIS electronic procurement application, EPA, or Electronic Payment Authorization) was viewed as an interim solution by the then CBA Directorate.

EPTS Directorate personnel describe BP2K as "proof of concept" initiative, and acknowledge there was very little documentation completed in the early stages of BP2K. Although more recent releases of BP2K have been supported by extensive technical specifications, nonetheless there continues to be minimal documentation detailing plans, anticipated savings or benefits, or estimated resources or timelines required to achieve such savings or benefits.

Since March 1998, GTIS/PWGSC personnel have continued to be very involved in government-wide planning and discussions related to e-commerce and e-government. In December 1998, PWGSC's Information Management Committee approved GTIS' "EC Vision", which is illustrated in *Exhibit II* on the following page. In March 1999, the Information Management Committee approved the GTIS business case for an end-to-end, paperless, electronic procurement through to settlement (EPTS) system for the department. EPTS is still in the early planning stages, but the intent is to build the system around a commercial-off-the-shelf (or COTS) electronic commerce application. It is unclear at this time to what extent, if at all, the EPTS configuration will include BP2K and or other modules of the CBA Environment. As of January 2000, a comprehensive PWGSC electronic commerce strategy has not been released although we understand its release is imminent.

² The only documentation made available in support of the decision to implement BP2K was reference to an October 16, 1996 Business Board Record of Decision: "Procurement (including catalogues), Payment and Settlement will be the central set of LSSSC services. Efforts will be directed to systems that support "virtual stores" rather than physical outlets".

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Conclusions

As of January 2000, the department's electronic commerce strategy, although in the process of being developed for several years, had not been finalized. However, the government's goal to become a world leader in the development and use of electronic commerce is well known. Although BP2K, as an electronic procurement application, clearly supports the department's (and government's) electronic commerce strategy at some level, the cost effectiveness and extent of support is unclear, given the lack of a documented business plan with clearly stated objectives, costs, savings and anticipated benefits.

3.2 Relevancy and Achievement of BP2K Objectives

While EPTS Directorate-wide objectives are described in business plans³, specific BP2K objectives are not documented. Through discussions with EPTS personnel, two objectives for BP2K were identified. These are detailed in the table below.

³ We were provided with the 1996/1997 and 1998/1999 CBA/EPTS Directorate business plans. The 1997/1998 plan was not made available. The 1999/2000 business plan is still in draft, and therefore a copy was not made available. However, a one page "1999/2000 Management Accord" outlining the directorate's objectives was provided.

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**Table I
BP2K Objectives**

BP2K Objective	Source of objective
<p>1. Transition from physical stores by increasing BP2K activity and by improving BP2K:</p> <p>Add more clients, suppliers, products, services and business lines and diversify the range of products offered through our Web-based applications.</p> <p>Continuous product improvement based on client feedback, joint application sessions, problem management, system analysis and conformance to evolving standards, such as Internet publishing standards.</p>	<p>1998/99 CBA Business Plan</p>
<p>2. Better position GTIS to implement the proposed EPTS project by:</p> <p>(a) providing GTIS personnel with hands on experience running an electronic commerce application;</p> <p>(b) identifying BP2K lessons learned and best practices for electronic procurement that can be incorporated into the proposed EPTS project</p> <p>(c) developing a customer base that can be automatically transferred to the new EPTS system;</p> <p>(d) establishing working relationships and developing protocol with vendors who can be automatically transferred to the EPTS system;</p> <p>(e) re-engineering existing PWGSC business processes to support an electronic commerce application like BP2K, to simplify the transition to operations on EPTS.</p>	<p>Discussions with EPTS Directorate personnel.</p>

With respect to the first objective to transition from physical stores to "virtual stores, the final Locally Shared Services Support Centre (the LSSSC) was closed in the fall of 1999. There is no documentation detailing the anticipated transfer of clients or sales as a result of the transition from LSSSC's to BP2K. The volume of business transferred to BP2K is well below the LSSSC volumes. The 1996/97 budgeted sales for the LSSSCs was in the range of \$7-\$8 million, while BP2K sales for the 10 months ended January 2000 were \$1.1 million, or on a prorated basis, \$1.3 million per annum.

The first objective notes the transition will be supported by increasing BP2K activity and improving BP2K. There are many such activities in progress within the EPTS Directorate, including efforts to:

- (a) increase the client base by providing mini-training sessions to clients identified in a "Targeted Client" list;
- (b) improve client satisfaction through one on one contact between BP2K clients and the BP2K help desk;
- (c) improve the BP2K purchase experience by enabling clients to view photographs of intended purchases;
- (d) increase the client base by adding a wide range of services to BP2K such as the capability of processing translation and courier transactions; and
- (e) increasing the number of vendors by educating vendors on the technical requirements of catalogue management, and by clarifying and simplifying the process of becoming a vendor on BP2K.

There is minimal documentation of plans, progress or specific objectives related to these activities.

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The second major objective of BP2K was to better position GTIS for the proposed EPTS project. Details of this objective are not formally documented, therefore it is unclear whether the intended results have or will be achieved. The following table provides an overview of the status related to achievement of this objective.

Table II
Achievement of BP2K Objectives

Sub-objectives of Objective #2: To better position GTIS	Comments/status
(a) providing GTIS personnel with hands on experience running an electronic commerce application;	GTIS personnel have gained first hand experience operating an electronic commerce application. To capitalize on this experience, GTIS will need to retain the staff and ensure their knowledge is transferred into documented processes and business practices.
(b) identifying BP2K lessons learned and best practices for electronic procurement that can be incorporated into the proposed EPTS project	<p>EPTS Directorate personnel are emphatic that BP2K lessons learned and best practices will and are being incorporated into the EPTS project plan. Given several senior BP2K personnel are heavily involved with the EPTS project, it is quite likely that the major issues will be included. However, because there has been no formal process for documenting and accumulating this knowledge, the extent to which this objective has been achieved is unclear⁴.</p> <p>The planning and preparation for the EPTS project is beyond the scope of this review. However, it is apparent that various third party analyses and studies have been conducted to assist with EPTS planning and scoping. It is unclear whether these studies incorporated or benefited from the lessons learned and best practices of BP2K.</p>
(c) developing a customer base that can be automatically transferred to the new EPTS system;	As of January 2000, BP2K operations involved about 200 individuals (PWGSC and several OGDs), accounting for transactions in the range of \$1.3 million per year. It is unclear whether these clients will automatically transfer to the EPTS system, however, such issues could be addressed in the future by the EPTS project plan.
(d) establishing working relationships and developing protocol with vendors who can be automatically transferred to the EPTS system;	<p>As of January 2000, approximately 25-30 vendors are registered on BP2K. Through discussions with BP2K personnel, it is evident that the process of managing vendors and catalogues is evolving, and that vendor issues, concerns and requirements are continuously and jointly being addressed by the vendors and BP2K and SOS personnel.</p> <p>It is unclear whether these vendors will automatically transfer to the EPTS system, however, such issues could be addressed in the future by the EPTS project plan.</p>
(e) re-engineering existing PWGSC business processes to support BP2K, to simplify the transition to operations on EPTS.	<p>There was no re-engineering of PWGSC business processes to transition to BP2K cataloguing.</p> <p>However, recent additions to the "CBA Environment" like translation services and the proposed courier component have or will involve re-engineering of PWGSC business practices, with the potential that transition to EPTS would be simplified.</p>

⁴ . . . The Fiscal 99/00 CBA "Management Accord" includes as an objective: "documenting business rules unique to e-procurement, based on BP2000". We were not provided with any documentation to indicate that resources have yet been dedicated to this objective.

Conclusions

BP2K objectives are relevant to the department's objectives. However, the lack of documented plans, and progress against those plans, makes it difficult to conclude on the extent to which BP2K operations are relevant or on the extent to which BP2K objectives have been achieved.

3.3 BP2K Savings

BP2K related costs and savings have not been identified or tracked. Costs specific to BP2K have not been tracked within the EPTS Directorate (or the former CBA Directorate). Costs have, however, been tracked for the "CBA Environment" (of which BP2K is part). The only cost information made available was that budgeted cost⁵ for the CBA Environment in Fiscal 1998/99 was \$1.6 million and that budgeted cost in recent years were in the same range. Therefore, operating cost for the "CBA Environment" from Fiscal 1997/1998 can be estimated to be approximately \$5 million.

There have been no efforts to identify or track savings attributable to lower margins negotiated on account of BP2K. Although sales are tracked by product and vendor by BP2K, and theoretically such information could be used to negotiate volume discounts with vendors, EPTS Directorate personnel do not consider existing BP2K volumes sufficient to initiate such negotiations.

Although savings attributable to efficiencies gained by conducting business with BP2K have not been identified or tracked, BP2K promotional literature notes that "it (BP2K) saves 25% of the administrative costs of procurement. That's close to \$29 every time you shop". The basis of this \$29 savings is PWGSC's February 1995, report on Electronic Procurement and Settlement (or EPS): "*Potential Cost Reductions in the Federal Government Procurement and Settlement Process*". The report suggested implementation of EPS could, through elimination or efficiency improvements in 14 of 28 activities, potentially result in savings of \$29 (approximately 25% of the original estimated cost per transaction of \$120). There is no documentation to support the claim in the BP2K promotional literature, including consideration of whether the assumptions in the EPS report are consistent with BP2K operations.

Details regarding total fees generated by BP2K were not made available. GTIS has arranged to receive a 2% fee from vendors for BP2K sales, the intent being to compensate PWGSC for providing the vendor with benefits such as centralized invoicing and a means of easily reaching a large interdepartmental customer base. The justification and rationale for this 2% fee is not documented, however it has been suggested that the reasonability or adequacy of this fee will be revisited for the EPTS implementation. Given BP2K has been in operation since March 1998, and BP2K sales⁶ have been in the range of \$1.3 million in Fiscal 1999 and 2000, a reasonable estimate of the 2% fee to date is \$26,000.

⁵ Although requested, no actual cost amounts were made available.

⁶ Total sales generated by the CBA Environment include four sources of revenue: BP2K, taxi, printing services and most recently translation services within GTIS.

Conclusions

The cost effectiveness and value-add of the BP2K initiative is unclear.

3.4 Plans for BP2K Extension and/or Expansion

Detailed plans for the extension and or expansion of BP2K are not documented. Based upon discussions with EPTS personnel and a review of the Directorate's 1990/2000 "Management Accord"⁷, the Directorate's current mandate is twofold:

- firstly to maintain and progress BP2K; and
- secondly, to obtain approval for and manage the E-Procurement through Settlement (EPTS) pathfinder project.

Although still in the early planning, development and approval stages, the anticipated implementation date for the EPTS system is late 2000. It is unclear at this time to what extent, if at all, the EPTS configuration will include BP2K and or other modules of the CBA Environment.

Although there are no detailed plans for the interim period, the current approach by the EPTS Directorate appears to be in parallel with the EPTS project. The approach is to continue operating BP2K as an "interim solution" and subject to approval by the GTIS EPTS project team, expand or enhance BP2K capabilities if such expansion or extension supports the EPTS implementation.

As noted earlier, current BP2K-related activities include efforts to increase the client base, improve client satisfaction, develop vendor relationships and increase vendors. However, there is minimal documentation of plans, progress or specific objectives related to these activities.

There is only one BP2K-related release proposed for 2000, and this is addition of the "courier module". Although a formal proposal for this module has been released in draft, it was not made available for review. Apparently, a major component of the "courier module" will be the requirement to re-engineer the current business processes, the intent being to ensure courier processing is readily transportable to the EPTS system.

Conclusions

Although activities to enhance or expand BP2K appear to be in parallel with related departmental objectives, including the EPTS initiative, there is no formal action plan. Further, there is not yet a documented plan for the transition from BP2K to EPTS.

⁷ The 1999/2000 Business Plan for the EPTS Directorate is still in draft and was not available during the review.

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3.5 Measuring, Reporting and Monitoring of BP2K Performance

Although often not documented in formal procedures, there are various operational and managerial controls in place to monitor, measure and report on the performance of BP2K (including performance related to sales volume, client satisfaction and BP2K operations).

With respect to monitoring, measuring and reporting on sales volume:

- the EPTS Directorate prepares the "Electronic Administration Monthly Status Report". This report represents consolidated information for four of CBA's business lines including printing services, BP2K, the LSSSC's⁸, and the taxi management service. Information in the report includes statistics such as number of client departments, number of transactions, total number of suppliers, number of orders placed, number of purchase orders eliminated, and number of invoices eliminated.; and
- BP2K has the functionality to produce many activity reports related to all activities including Commodities, Sales, Vendors and Billing. During the review it was evident that many of these reports are reviewed and analyzed by BP2K personnel. An overview of available reports are listed in Table III on the following page.

**Table III
Sample Listing of BP2K Reports**

Sample Listing of BP2K Reports
Commodity Reports Menu Top 50 Selling Items Top 100 Items and Product Cost Bottom 100 Items and Product Cost Popularity of Items by Vendors by Store
Reports Menu Sales Summary Reports Billing and Distribution Report Customer Sales Reports Vendors Sales / Invoicing Reports <ul style="list-style-type: none">☞ Vendor Invoices☞ Sales For One Vendor☞ Margins by Vendor☞ Margins For One Vendor

⁸ The last LSSSC was closed in the fall of 1999.

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With respect to measuring, monitoring and reporting on client satisfaction, the EPTS Directorate conducts annual customer satisfaction surveys. The performance indicators defined in the survey encompass both LSSSC and BP2K customers and although there are few BP2K specific performance indicators, the information and concerns accumulated from these surveys are incorporated into BP2K operations. For example, client concerns about ease of use were addressed by organizing focus group sessions with BP2K clients.

Day to day BP2K operations are measured, monitored and reported on by EPTS personnel through use of a daily production checklist and weekly reporting and documentation of production failures and resolution. A comprehensive procedures manual for EPTS operations personnel has not been documented. We understand personnel rely upon a combination of first hand knowledge and ad hoc notes provided by developers.

NCS is responsible for provision of network and computer services. Specific roles and responsibilities of NCS and EPTS personnel are set out in a Service Level Agreement, in effect from April 1, 1999 to March 31, 2002. Examples of the types of services provided by NCS include specific performance requirements such as:

- systems manage the GTIS Electronic services delivery infrastructure on a 7 days by 24 hour basis;
- provide CBA with service availability of 98%+/- .25% over each calendar month during regular work weekdays between 7:00 and 19:00;
- provide the required secured data centre computing facilities and services; and
- database operations including copy, backup and recovery.

Although the SLA requires NCS to provide quarterly reports on the results of BP2K/CBA Environment operations (including information detailed below in Table IV), no formal quarterly reports have been provided to the EPTS Directorate. The lack of formal reporting by NCS is not considered an issue by EPTS production and operation personnel, since the responsible persons from both EPTS and NCS are in daily contact.

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**Table IV
Intended content of NCS Quarterly Reports**

Criteria	Example information
Availability	Host availability Web-server availability FTP-server availability Oracle database availability
Performance	CPU Utilization (total, system, user and idle) Memory utilization and paging File system utilization
Web Server	Total requests by day Total requests by hour Total page requests by hour Requests by domain Directory report
Database	Instance Size Tablespace size Database size
Infoman reports	Problems closed last month Problems open or assigned Changes completed last month Changes due this month

Conclusions

Operational and management controls that measure, monitor and report on BP2K performance (including performance related to sales volume, client satisfaction and BP2K operations) are partially documented, ad hoc and or informal. It is doubtful whether the current controls would support further expansions or enhancements to BP2K operations.

3.6 Measuring, Reporting and Monitoring of Security (access)

Application level security controls and processes are managed by EPTS Directorate operations personnel. These controls were established, in part, on the basis of the findings of a March 1998 Threat and Risk Assessment conducted on the BP2K⁹.

This issue is further discussed in the next section of the report.

NCS is responsible for the security of the CBA Environment. Specific responsibilities of NCS are documented in the Service Level Agreement (SLA) for "The Provision of Electronic Services Delivery" and include:

⁹ The purpose of the threat and Risk Assessment (TRA) was to identify the security risks associated with BP2K including an examination of asset sensitivity, safeguards, vulnerabilities, threats and risks. the TRA focused on the BP2K application residing on an NT web server and on client workstations running web-browser technology.

- establish appropriate secured network to meet current and upcoming Electronic Services delivery requirements;
- the requirement to manage the security of the environment according to the PWGSC/ITSD and the CSIS accepted Security Management methodology and process. and
- provide the required secured data centre computing facilities and services.

Any instances of security violations are reported to EPTS Directorate operations personnel. If the matter is a PWGSC-wide issue it is addressed at weekly meetings within PWGSC's IT security directorate.

Conclusions

Operational and management controls that measure, monitor and report on BP2K application security (access) are documented. *

Operational and management controls that measure, monitor and report on the CBA Environment as a whole are detailed in the SLA with NCS and appear in accordance with PWGSC/GTIS standards.

3.7 Measuring, Reporting and Monitoring of Financial Transactions

The following section discusses issues related to BP2K-related financial integrity and:

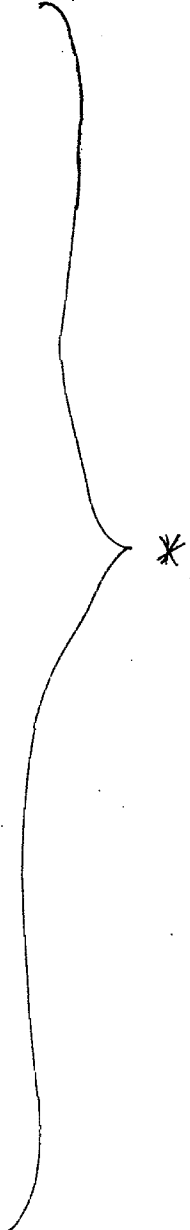
- vendor catalogues (products, prices and terms);
- registration of BP2K clients; and
- receipt of goods and invoice payment.

i. **Vendor catalogues:** Formal processes are in place to ensure only SOS approved vendors are registered as BP2K vendors. It is viewed as the responsibility of vendors to provide and update the electronic BP2K product and price catalogues on a timely basis, and formal instruction packages are provided to vendors.

There are no formal processes in place within the EPTS Directorate to verify whether the prices, products and terms set out in agreements with SOS are accurately reflected in the BP2K catalogue versions. Responsibility for this function is viewed by the EPTS Directorate as a SOS responsibility, however there is no formal clarification of these roles and responsibilities. Recently SOS personnel have been conducting informal and ad hoc reviews of the accuracy of the BP2K catalogues and discrepancies between SOS negotiated terms and the BP2K catalogue versions have been identified.

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- * ii. Registration of BP2K Users: Although there is a formal BP2K registration process, Prospective BP2K users (both PWGSC and OGD clients) complete and submit a hand written registration form which includes the client's name, financial authority and limits, applicable G/L accounts, and the signature of the client's manager



¹⁰ An annual "post audit on the Accounts Payable processed in GTIS-EPA Feeder System" is conducted by PWGSC's financial services division. For example, the audit for the period April to September 1998 reviewed 316 documents selected from BP2K, taxi, printing and LSSSC transactions. The audit concluded "all documents were identified as "full verification". No major errors were found".

¹¹ Financial managers do of course have access to general ledger information regarding items charged to their responsibility centres, and BP2K transactions are included within these totals, once the purchase has been initiated, received, paid and posted to the account.

¹² See Footnote 9.

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iii. **Receipt of goods and invoice payment:** Operational and management controls in place to support the processing of orders, receipts, credits, invoicing and payment, appear adequate given the current level of BP2K activities. There is evidence of numerous balancing and reconciliation controls, some done automatically within the system, others requiring manual intervention. It is unclear whether the current manual processes would be practical given higher transaction volume. For example, EPTS Directorate personnel routinely review transactions to identify goods that should already be received by the BP2K client, and then phone each individual to determine whether the goods have been received, and whether the invoice should be processed.

Conclusions

Recommendations

It is recommended that the Assistant Deputy Minister, GTIS:

1. *Determine the Sunset date of Buying Power 2000 (BP2K).*
2. *Ensure that the Director, Electronic Procurement Through Settlement, leverages the value of the BP2K operational experience by formally documenting all current and future BP2K "lessons learned" and "best practices", and incorporating them into EPTS planning.*
3. *Ensure that the Director, Electronic Procurement Through Settlement, reassess the adequacy of existing BP2K application security and financial controls.*

Given that the Sunset date in Recommendation 1 is in the short term, it may be appropriate that no further action is required.

Given that the Sunset date is in the longer term, the following recommendations would apply.

Recommendations

It is recommended that the Assistant Deputy Minister, GTIS ensure that:

4. *The Director, Electronic Procurement Through Settlement, develop and document a BP2K action plan for the interim period (i.e. until the BP2K Sunset date), including specific objectives and anticipated costs, savings and benefits.*

This would include an indication of how these costs, savings, and benefits will be tracked, monitored and reported, and requires that all activities to achieve those objectives are supported by documented plans, including resource requirements, anticipated timelines and anticipated results. Also included as part of the BP2K interim action plan is a BP2K "Phase Out, Transition or Integration" plan that is in parallel with EPTS planning, strategy, and timelines.

5. *The Director, Electronic Procurement Through Settlement, ensure BP2K operational and management controls (including performance, security and financial integrity) are adequate to support the BP2K interim action plan.*