Technology Investment Strategy
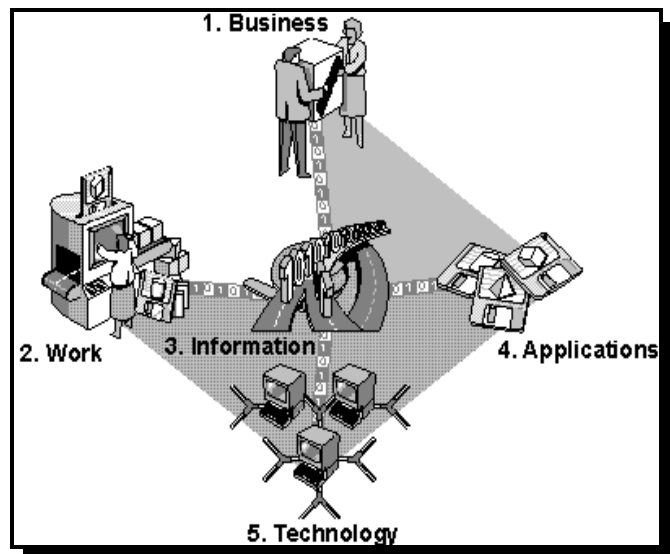**Purchasing Service Branch**

Terms of Reference

The Purchasing Services Branch, like many branches throughout Management Board Secretariat and, indeed, throughout Government, needs to re-appraise its approach to technology in the face of diminishing resources, both human and financial. Technology has offered new opportunities to achieve both productivity improvement and more effective service delivery at lower costs. Approaching this new reality in a haphazard, reactive manner will not result in the optimal achievement of results - a planned and systematic approach to technology investment will produce the best results.

Organizational Views

Principles are *"general rules or maxims which have repeatedly proven successful when followed."*[1] Using established principles provide a basic guideline for action - based on the success of other organizations. The Federal Blueprint for Action describes a set of principles with a systemic framework. The Blueprint contains the following graphic which highlights five key architectural features of an action plan for the delivery of services which are *affordable, accessible and responsive*

Looking at the organization from each of these *views* permits a systematic analysis of technological needs, one based on the business and work activities performed in the organization. The model is designed to describe an organization at the highest level. Applying it to a specific branch, albeit a distinct business unit, results in marginal distinction between the business and work views (since activities are a more appropriate division at this level) and between application and technology views (since the technology architecture is largely determined by other actors in the larger organization). Therefore, the analysis to follow will consolidate the five views into three - the **Service View** (business and work), the **Information View** and the **Technology View** (including applications). Throughout, frequent comment will be made to principles inherent in the views. These principles are listed in Appendix A.

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[1] Charles Boar, *The Art of Strategic Planning for Information Technology,* Wiley, 1993, p. 208.

Views of the Purchasing Services Branch

The Service View

PSB As	Research and Development (PLAN)	Delivery (DO)	Evaluate (CHECK)
Buyer Goal: *Cost savings through reduced administration and product costs*	**Commodity Research** Research public sector buying patterns and assess future needs to recommend new commodities for corporate buying	**Corporate Contracting** Develop and manage **Procurement Process** Develop, acquire and implement programs	**Vendor Performance** Assess vendor performance **OPS/BPS Usage** Savings ensuant from use of corporate contracts **Evaluation Research** Evaluate success of programs
Advisor Goal: *Decrease the costs of doing business by and with the Ontario public sector*	**Buyer Analysis** Assess needs of buyer community **Supplier Analysis** Understand the supplier market	**Best Practices** Promote efficient and effective procurement practices through public sector **Supplier Development** Provide information and advice on how to do business with government	**Supplier Performance** Measure improvement in practices from advise.
Relationship Manager Goal: *Cost savings through streamlined processes*	**Reengineering Process** Provide advice on streamlining procurement process **RFP Construction** Developing standard terms and conditions	**Governance** Internal Trade Agreements Policy and Procedures IAP liaison	**Trade Compliance** Review and analyse trade compliance by jurisdictions, dispute resolution

Enablers				
	Electronic Commerce Promote electronic messaging, document distribution and forms transmittal including CEBRA and PSB Online			
	Marketing Promote the use of corporate services through information dissemination and presentations			
	Leadership Provide leadership and strategic advice. Monitor and adjust programs by assessing performance in relation to resources.			
	Organizational Structure	**Project Management**	**Operational and Administrative Support**	**Organizational Development**
	Review and adapt organizational structure	Ensure the delivery of projects by monitoring and adapting for optimal performance	Deliver efficient and effective support through monitoring resource usage and provide admin and tech support	Ensure needed skills through the review of skill inventories and the delivery of training programs

Based on the principle that client needs should drive the design of government services, the Service Model identifies PSB businesses by buyers and suppliers. Considered jointly, the two create a third primary business - managing the relationship between suppliers and Government. Each of these roles can be distinguished by a focus on PLAN, DO or CHECK: policy research and development activities, program delivery and performance evaluation respectively.

To realize cost savings by reduced administration and product costs, PSB negotiates standing agreements and offers of behalf of the Government. To accomplish this requires judgement of product

categories as candidates for collective buying. These results must be further supported by expected trends to ensure the future applicability of an established pattern. Once established these contracts must be managed and evaluated. Similarly, PSB develops and/or administers programs such as the purchasing card and travel programs on behalf of the Government. Vendor performance under these contracts is constantly assessed as well.

Information technology extends the feasible reach of corporate buying to include the Broader Public Sector (BPS) - an organizational collectivity six times that of the narrower Ontario Public Service (OPS). This group is more diverse with fewer common approaches and technology platforms. Strategies which include them must reflect this diversity. Such a widening of the client base requires new approaches which feature an awareness of the need for flexibility and a reliance on new technological tools to permit the extension of community while maintaining the benefits of decentralization.

PSB as Buyer

Currently PSB concentrates on its role as Buyer for commodities which meet certain criteria. It researches government spending to identify candidates for corporate-wide buying, but administers only those which have a wider than single ministry application. Specialized commodities which are localized predominantly within a single ministry are administered by that organization by virtue of their greater knowledge of the commodity. Hence, they do benefit from the internal supports which PSB offers for the agreements it administers such as research, marketing and electronic commerce extensions. More importantly, the contracts are not extended to the BPS where there may well be additional public sector actors who might benefit from access to the contract or to the supports. This responds directly to the Federal Blueprints identification of *Partnerships* and *Common Sharable Solutions* as key principles of a redesigned business. It is made possible by another key Blueprint principle - the use of enabling technologies to *design the delivery of government services.* PSB might redefine its' role as buyer to encompass contracts maintained by other actors on the Government's behalf, building on the capability of electronic methods to better define a *virtual community.*

In addition to administering corporate contracts, the branch also delivers specific programs designed to achieve immediate cost savings. The Purchasing and Travel Programs are examples of targeted programs to achieve these ends.

Lastly, following the PLAN, DO, CHECK process, PSB evaluates the success of these ventures by administering vendor performance and conducting evaluation research on the programs it administers. This promotes *Accountability*, another key principle of the Blueprint by facilitating corrective action to the programs and agreements during defined periods and also by supplying important benchmarks for new contracts and programs.

PSB as Advisor

The delivery of these programs leads to a concentration of purchasing expertise within the branch which can be leveraged to even greater advantage by acting as Advisor to other public sector buyers. Understanding these needs is an important element in performing this role. Acting upon and promoting *Best Practices* throughout the public sector is a key deliverable of this role.

A similar role exists with regard to suppliers reflects a movement towards developing key partnerships with the private sector. In this capacity PSB provides information and advice on how to do business with the Government. The diversity and the autonomy of the BPS precludes acting as an advisor on their behalf. Research and evaluation components of the PLAN, DO, CHECK method are not well defined at this time and will require further strategic work as the role develops.

PSB as Relationship Manager

Coordinating PSB roles as buyer and advisor implies a third role - that of relationship manager. This role becomes increasingly relevant as Government divests itself of programs and activities by outsourcing or other means. Doing so alters the traditional role of program deliverer to contract manager - ie. managing the contract with the outsourced vendor.

These relationships promote and extend specific partnerships. Identifying and codifying them promotes the principle of *common, sharable solutions* while advancing PSB as the *single window* to suppliers for information on these matters. It can promote the work view principles of streamlining, offering choices and achieving internal consistency in the application of outsourced contracts.

The goal inherent in this role is cost savings through streamlined processes. To do this requires research and planning as input to reengineering efforts. Developing standard Terms and Conditions for RFP's used throughout Government is a concrete example of a planning activity in this area.

Many of the activities in this area are specific projects under the Internal Administration Initiative (IAP). PSB has a role in coordinating these with the activities for which it has responsibility. These include several aspects of governance with regards to purchasing - internal trade agreements (AIT and Ontario-Quebec) and Purchasing Directives. Evaluation activities encompass trade compliance reporting by both the OPS and BPS sectors.

Infrastructure Services

The basic objective of infrastructure services is to maximize the branch's ratio of output over input by centralizing and rationalizing support activities. The impact of electronic commerce on branch businesses and activities is not only pervasive but also extensive in redefining the client community to include the BPS by facilitating communication and dialogue over extended distances in a timely and cost effective way.

The geographical diversity of the broader public sector and the recentness of their coverage requires an explicit marketing initiative to promote the terms and benefits of the agreements. This would be a formidable task without the ability of the internet to disseminate large quantities of information easily to a large audience. A coordinated strategy which combines the broadcast potential of this media with specific, targeted presentations is seen as producing maximum benefit at acceptable costs.

Leadership is also a key enabler of the core business. Monitoring and adjusting internal administrative systems in the four identified areas will provide a basis for continuous quality improvement of organizational structures, project management methodologies, operational and administrative systems and improved skill sets through organizational development.

The Information View

PSB As	Research and Development (PLAN)	Delivery (DO)	Evaluate (CHECK)
Buyer Goal: *Cost savings through reduced administration and product costs.*	**Commodity Research** Information on public sector buying needs obtained through summary reporting of ministry expenditure data. Trends in public sector buying estimated through extrapolation of Government policy and industry direction.	**Corporate Contracting** Terms and conditions of contracts including prices Definition of client community - OPS and BPS **Procurement Process** Number and value of program usage expressed as savings from benchmarks	**Vendor Performance** Key vendor performance data obtained from suppliers and transcribed into standard reports. **OPS/BPS Usage** Number and dollar value of sector usage of SA's. . **Evaluation Research** Program outputs and costs
Advisor Goal: *Decrease the costs of doing business with the Ontario public sector*	**Buyer Analysis** List of client community **Supplier Analysis** Basic data on suppliers whom Ontario deals with or plans to deal with.	**Best Practices** Readings on how procurement is conducted in other jurisdictions and variances in practices within Ontario jurisdictions **Supplier Development** Policy and procedures on doing business with Ontario	**Buyer Inclusiveness** Completeness and accuracy of buyer registry **Supplier Performance** Supplier satisfaction indexes on dealing with Ontario EDI take-up CEBRA OPS/BPS usage and subscriber statistics
Relationship Manager Goal: *Cost savings through streamlined processes*	**Reengineering Process** Usage and cost data on aspects of procurement process. **RFP Construction** Terms and Conditions for a variety of commodities in different jurisdictions.	**Governance** Internal trade agreements Purchasing directives	**Trade Compliance** Trade compliance statistics Number of accesses to directives and agreements, Survey data on usefulness

Enablers

Electronic Commerce
EDI take-up by Ontario suppliers and public sector buyers, # of HITs from PSB Online

Marketing
Number of downloads from PSB Online, Number of presentations and attendees of presentations

Leadership
Snr mgmt policy and procedures. Budget and resources usage data. Reforecasts of resources based on changes to expectations. Program performance measures.

Organizational Structure	Project Management	Operational and Administrative Support	Organizational Development
Resources used in activities which further businesses Staff performance in performing activities	Project outlines, resource expectations, deadlines, milestones, etc. Documentation on projects including on-time, overdue and reasons for delays and failures to meet deadlines	Administrative data: PO's, various forms and requests	Skills inventory data

PSB as Buyer

In the past, the identification of commodities for corporate buying has been more art than science. The proliferation of distinct ministry financial systems along with latitude in the definition and use of expenditure codes has made the researching of public sector buying patterns problematic. The development of a single financial system for all Ontario ministries complimented with a year-by-year data warehouse of spending by expenditure category will provide an important information base to construct applications to extract expenditure patterns for PSB review. Unfortunately, this system will not include the BPS or scheduled agencies, a buying community many times larger than the OPS. PSB should monitor developments in constructing this system with a view to the extraction of expenditure data to meet its needs. Including the capability to add summary data for major BPS buying organizations would be an important adjunct to this system.

Unfortunately, this capability will not, however, be available for several years. In the meantime, PSB must rely on less reliable sources which require greater compilation and management. These sources should include the best available abstracts of summary spending from individual ministries. They can be supplemented by other information specific to individual or groups of commodities. Summary spending from the CIBC on purchasing card usage is an example of this kind of information source.

PSB has several mailing lists defining the OPS and BPS purchasing communities. The BPS list consists mainly of MASH (Municipalities, Academic Institutions, School Boards and Hospitals) collected from responsible ministries and supplemented with organizations who have called in and requested coverage inclusion. The Social Contract legislation has been the defining document to assess this coverage. The mailing lists are not cross-checked regularly against ministry records, so that, over time, they will experience degradation. Consisting of some 2500 entries, at an average of 10% change per year, at least one-half the entries are probably incorrect (though contact name is the most likely error and may not prevent mail from being received by the appropriate official). Ultimately, the goal should be for respective ministries to maintain the BPS entities which are their responsibility. This conforms to the information principle of *Stewardship* - ie. *Specific organizational units will be accountable for certain classes of information to ensure integrity, quality, relevance, and authorized usage.*.

User guides are mailed to this client base as needed. In commodities which experience dynamic price changes (such as technology), three to four guides are prepared each year (at about 70 pages per guide). Assuming two-sided copies, this accounts for 262,500 pages per year. Assuming three cents per page (cost of paper, postage and labour), this represents over three-quarter million dollars per year. Clearly, this area can gain from measures which

- o reduce the cost per page of providing information,
- o reduce movement of redundant information,
- o target information to those who need it

This cost represents a single vendor. Multiple it by four VAR's and seventeen equipment manufacturers and the costs of paper distribution are astronomical. Clearly alternate delivery mechanisms must be found to disseminate this information.

The Travel Program is, similarly available to this client base. The Travel Express is published quarterly on a single two-sided sheet. The cost per client of postage is fixed, however, regardless of the modest length making costs about 45 cents each or over $1,000 per issue. The Purchasing Card is restricted to use within the OPS and, therefore, does not involve serious questions of distribution. Information is generated electronically by CIBC for ministry consideration.

Vendors are monitored for compliance with the term and conditions of the standing agreements. They are asked to provide performance data monthly which is entered into spreadsheets for comparative and trend-line analyses. This compliance does not, however, offer assurances that the Government continues to benefit in areas which experience dynamic price reductions and product changes. Vendor usage statistics should be supported at regular intervals with a market analysis of the vendors' prices

against standard market benchmarks (a shopping basket approach). The goal is to maintain a standard *Savings Index* which can be multiplied by usage to estimate contract savings.

PSB as Advisor

Acting as Advisor requires specific knowledge and understanding of the client base. Basic to performing this role are mailing lists defining the client areas. In addition, to contact name and mailing address, should be information indicating when and why specific information was distributed and what impact the distribution had. Attendance at any presentation might prove useful. This basic contact information is basic to developing a comprehensive information base for future marketing strategies and is pertinent to suppliers as well as buyers. Specific information sources such as *Risk Assessment Manager* are valuable sources for determining the viability of individual vendors and the database is customizable permitting a basic structure which can be enhanced by additional content peculiar to PSB .

The results of best practices information needs to be recorded and maintained in textual format for later review and commentary against results. Wherever practical readings in this area should be made available to interested parties. This conforms to the information principle that *once captured and where practical, government information will be stored and exchanged electronically to avoid manual transcription and re-entry.* Similarly, PSB provides information to suppliers on how to do business with Government (meaning the OPS). Since the definition of the supplier community is harder to identify and maintain, the information must be made available by request. The wider availability of Purchasing Directives would enhance the suppliers understanding of the purchasing environment within the OPS. This could be furthered by including references to specific ministry and BPS guidelines where available.

The *Risk Assessment Manager* could be supplemented by specific PSB generated data on vendor performance in dealing with PSB. It could be further augmented by verified commentary passed to PSB from other public sector buyers who have dealt with the company. This could provide an information base to measure an improvement in practices attributable to PSB's advisory role.

PSB as Relationship Manager

Streamlining the overall government procurement process requires good process mapping information on the process obtained from representative ministries of the government. Benchmarks provide comparative measures for analysis of these results. Maintaining a level of expertise in the procurement process requires continuing access to information on benchmarking and on what other organizations are doing to reengineer their processes.

Efforts to collect cost and activity data on purchasing processes has been haphazard. As a result, various reports (such as the Strategic Procurement Initiative - SPI) have suffered by the reliability of the collected data. Many of the problems are rooted in the inability of ministries to provide break-downs of staff activity by components of the process. As well, lack of control over the collection of the data results in inconsistent application between ministries.

One aspect of the process over which PSB exercises greater control is the RFP process. Following the Information Principle of *Sharing and Re-using Information*, standard terms and conditions should be collected and be made available electronically to public sector buyers. This will clarify government business to suppliers and speed up RFP construction by buyers.

PSB is responsible for maintaining and distributing information pertaining to several aspects of the relationship between buyer and supplier. It is responsible for the distribution of the terms and conditions of the internal trade agreements, amendments and interpretations. Likewise, it has recently been assigned responsibility for maintaining and distributing Government Purchasing Directives.

Lastly, PSB is responsible for verifying compliance with the terms of the trade agreements. This involves the coordination of ministry statistics on overall buying, total value of other-province buying and exceptions on an annual and periodic in-year basis (timed according to scheduled meetings between jurisdictions) Similar reporting should be maintained for access to the Directives and the trade agreements in order to annually evaluate success.

Enablers

Just as infrastructure creates enablers of business, information on the enablers can increase their effectiveness - enable the enablers if you will.

Electronic Commerce will have a dramatic effect through the OPS in the next few years. It will have a dramatic effect on all three primary PSB roles - buyer, advisor, relationship manager. Keeping informed on trends in the field will improve PSB ability to make correct choices. Just information abounds on the world wide web itself. Maintaining this information in a consistent and coherent manner for use in subsequent research reacts to the Information Principles of *sharing and Re-using Information* and *Exchanging Information*. Indeed, PSB can build upon this reading source using PSB Online to maintain links to readings in areas such as EDI, encouraging others involved in similar readings to share their efforts, This is a key benefit of the kind of group dynamics which are facilitated through electronic exchange.

Slide presentations present information in a particular format, the goal of which is to enhance learning and understanding through higher value forms and immediate feedback. Handouts usually accompany a presentation providing the attendee with something to take away. The reach for these presentations can be extended by providing them through PSB Online. This is not a replacement for the interaction of face-to-face presentations, but an compliment to this form. It extends the reach (albeit without the same quality) without incurring additional costs. Statistics on client activity are readily available in this area - web site and download HITS, number of attendees at sessions, etc.

There is a variety of information which diffuses from senior to middle OPS management. This comes in the form of directives, policy statements and various special interest policy and briefing material. At the highest level information such as the Government's fiscal outlook and budget statements are now being distributed through Government web sites. More specialized information is usually distributed in paper form or as attachments to e-mail. It is copied and re-transmitted many times as it disperses throughout a ministry. This information needs to be *managed* in accordance with the Federal Blueprint's principle - "*a strategic resource and will be effectively managed throughout its lifecycle.*"

Organizational support generates its' own information needs. Resources are assigned to Responsibility Centres (RCS).   Human resources are assigned to activities which often cross RCS. As a result, there is seldom any consistent monitoring of the costs of activities performed by the branch. PSB is not exception.
Monitoring performance requires ratios of output over inputs. Inputs, however, because they are seldom tracked on a consistent basis throughout the year, must be estimated from available data - expenditure and personnel reports. The same requirements pertain to providing resource input for Project Management. What is required for both is resource data (both human and operating) by activity / project.

In the past, activity auditing has been seen as to cumbersome to collect. However, new emphases on productivity, efficiency and Reengineering within Government have driven a need for better resource estimation, both to evaluate current programs and to provide benchmarks for future ones.

The task need not be onerous. Minute-by-minute reciting of time spent is not need. Estimating hours spent in performance of activities requires no more than five minutes per day.

While activity auditing provides better estimation of resource utilization, performance measurement translates the activity into measurable results. While widely recognized as important throughout Government few branches consistently perform annual performance appraisals. Fewer still make it more than an annual exercise. The provision of ongoing activity results makes this job less daunting because it provides an ongoing database for consideration. Providing performance commentary can be tied into an overall data base to serve several goals related to resource usage and performance monitoring.

There are several initiatives associated with the Internal Administration Project, which PSB as a branch like any other does processes which will ultimately gain by these initiatives. The information moves through a variety of forms, from purchase order, expense claims and other kinds of requests. These forms migrate through authorities, with less attention paid to the number of people and steps in the process than to the savings and control they are intended to achieve.

Information is crucial to the fulfilment of the business and is the primary influence in determining the proper technologies . The following vision provides a focus in assessing informational content.

> **Vision**
> *Providing the right information, to the right person, at the right time, in the right place, on the appropriate media, efficiently and at low cost, for use in making decisions.*

Comparing key elements of this objective with the information requirements results in the information table on the accompanying page.

Information	Target	Timing	Location	Media	Decisions
PSB as Buyer - Research and Development					
OPS historical expenditures	Primary: PSB research staff Secondary: performance indicators.	Ongoing but likely with annual cyclical variation	PSB	1. Provide alert when buying passes prescribed amounts.	Designate categories for corporate buying to OPS
BPS historical expenditures				2. Input into position and policy papers	Applicability of extending corporate decision throughout BPS.
Prediction of future buying needs	PSB research staff	Cyclical	Primary: PSB Secondary - any public sector buying organization	Position papers	Designate categories and define contract length and terms.
PSB as Buyer - Delivery					
Client Directory	1. PSB mailing list 2. Vendor authentication for SA coverage 3. PSB Online registration governing access to vendor pricing information	Initial major effort Continual but infrequent update	MBS LAN and CTS web server	Immediate: data base and web site registration system Long-term: Web site registration database	Authentication of legitimate OPS/BPS buyers and to restrict access to sensitive information More appropriate targeting of paper and electronic information dissemination
Corporate Contracts	OPS and BPS buyers	Periodic	Province-wide	Textual following identified guidelines for User Guides	Buyer decision to use SA or tender for purchase of goods and services
Travel Express and other literature on travel Program	OPS / BPS buyers of travel services	Ongoing	Province-wide	Newsletter, information update	Use program to best affect as described by features in newsletter
PSB as Buyer - Evaluation					
Vendor Performance Data	PSB mgmt OPS buyers	monthly	PSB made available to Buyers on an as-needed basis	Statistical summaries Commentary on specific suppliers	Amend relationship with supplier Purchase from supplier
PSB as Advisor - Research and Development					

Information	Target	Timing	Location	Media	Decisions
Buyer Analysis	PSB Suppliers	Comprehensive original collection exercise Periodic, regular, infrequent update	Throughout province	mailing list or database format	Higher quality and better targeted interaction with public sector buyers
Supplier Analysis	PSB Buyers	Annual update from outside source supplemented with internal update of specific fields	PSB	Database	To deal with a specific supplier Summary data used to develop supplier policies

PSB as Advisor - Delivery

Information	Target	Timing	Location	Media	Decisions
Best Practices	OPS / BPS purchasing community	Ongoing	PSB - internet	Web documents and hot links to documents	Faster, better procurement processes throughout public sector
Supplier Development	Suppliers dealing with OPS	Periodic	PSB	Document outlining procedures and tips	Less confusion amongst suppliers in selling to Government

PSB as Advisor - Evaluation

Information	Target	Timing	Location	Media	Decisions
Buyer Inclusiveness	PSB - Suppliers		PSB		Representativeness of client database. Delivery/update methods
Supplier Performance	PSB supplier development policies	Annual or Quarterly	PSB	Statistical Summary	Supplier policy development
EDI take-up	Purchasing community		PSB - province-wide		Speed and scope of EDI introduction. Supplier development policies
CEBRA Usage	MBS - trade secretariat		CEBRA		Services offered by CEBRA to Ontario including value-added. .

Relationship Management - Research and Development

Information	Target	Timing	Location	Media	Decisions
Reengineering Process	OPS / BPS procurement officials	Ongoing	PSB	Reading lists and periodicals covering various	Initiating new procurement processes
Standard Terms and Conditions	OPS and BPS buyers Suppliers	Comprehensive initial exercise with ongoing but infrequent update	province-wide	Textual database by topic	Items to be included in RFPs. Supplier understanding of dealing with Ontario
Relationship Management - Delivery					
Trade Agreements and amendments	Canadian public sector buyers and suppliers	Periodic	national	text agreements	Equal and transparent access by Canadian suppliers
Purchasing Directives	Primary: OPS buyers Secondary: Suppliers and BPS	Annual	Toronto	text directives	Proper and appropriate purchasing actions within OPS Clarity of OPS rules by suppliers and BPS
Relationship Management - Evaluate					
Trade Compliance	Provincial Jurisdictions	Annual or Quarterly	CEBRA - PSB	statistical summary	Amend trade agreements
Directives Usage	MBS mgmt	Annual	PSB	statistical summary	Introduce measures to increase awareness
Electronic Commerce					
Events in EC	PSB and MBS policy	Ongoing	International	Periodicals, reviews analyses resulting in internal policy - maintained through internal reading lists	Timing and nature of electronic commerce extension by national provider or other actor Input into IAP and other initiatives in EC
Marketing					

Information	Target	Timing	Location	Media	Decisions
BPS Presentations	BPS	Monthly	Throughout province	Computerized slide show	BPS usage of corporate SA's, CEBRA and PSB Online
Supplier Presentations	Suppliers				Supplier decision on how to deal with government. Subscription to CEBRA Access to PSB Online
PSB Online	Buyers and Suppliers	Ongoing	PSB	HTML documents	Wider, cheaper information dissemination
Leadership, liaison, resource management					
Gov't and ministry policy and guidelines	PSB mgmt	Ongoing	PSB	Textual database for internal reference and policy development leading to briefing and issue notes	More relevant and quicker policy development process
Branch resource utilization	PSB mgmt	Monthly	PSB	Variances against planned usage - textual explanation of variances	Reforecast of resource usage. Meeting expenditure targets
Performance management	PSB mgmt	Quarterly or monthly	PSB	Supplier and program performance reports	Adjust programs New program development bench marking
Branch Management					
Activity auditing	MBS mgmt	Daily	PSB	Activity logs	Resource allocation
Performance appraisals	PSB mgmt - staff	Quarterly with annual evaluation	PSB	verbal and written reports	Job specifications
Project Management					
Project time lines, milestones and completion dates including historical recording of adjustments	PSB mgmt and staff	Ongoing with monthly update	PSB	Project mgmt GANTT charts with textual explanation	Project adjustment Benchmarks for future project outline
Operational and Administrative Systems					

Information	Target	Timing	Location	Media	Decisions
Forms (PO's, attendance, etc)	PSB staff and MBS admin staff	Ongoing	Toronto	electronic forms transmittal	Purchasing and attendance decisions and control
Training and Development Plans					
Training plan	PSB staff	Annual	PSB	Project plan	Resource allocation and human development targeting

The Technology View

PSB As	Research and Development (PLAN)	Delivery (DO)	Evaluate (CHECK)
Buyer Goal: *Cost savings through reduced administration and product costs*	**Commodity Research** Summary databases of expenditure patterns over time supplemented by estimation of future spending. Single financial system and common commodity codes expedites the process	**Corporate Contracting** Electronic document distribution through internet and intranet Mailing list of public sector buyers which also serves as registration system for access to sensitive vendor pricing information **Procurement Process** Spreadsheet of statistical data	**Vendor Performance** Spreadsheet of statistical data maintained over several years **Evaluation Research** Spreadsheet of statistical data
Advisor Goal: *Decrease the costs of doing business with the Ontario public sector*	**Buyer Analysis** Mailing list and contact manager of OPS/BPS buyers **Supplier Analysis** Database of financial viability of suppliers - access to public sector databases such as RAM supplemented wit internal fields denoting OPS experience with supplier	**Best Practices** Maintenance of documents and links on web sit for client access **Supplier Development** Internet, electronic download supplemented with fax-back capability.	**Supplier Performance** Spreadsheet of statistical performance metrics
Relationship Manager Goal: *Cost savings through streamlined processes*	**Reengineering Process** Document data storage and retrieval **RFP Construction** Document data storage and retrieval	**Governance** Internet availability of trade agreements accompanied by document download. Fax-back to bridge gap until OPS/BPS/suppliers are more electronically capable. Intranet availability of OPS-wide policy and procedures	**Trade Compliance** Spreadsheet of internal compliance statistics. Display of compliance statistics on internet.

Enablers

Electronic Commerce
PSB Online and CEBRA (electronic tendering provider), EDI extensions, single financial and HRMIS systems, data warehousing of summary annual HR, financial and performance statistics. Fast personal computers and web tools.

Marketing
PSB Online electronic distribution of presentations. High quality slide show software including ability to create video and sound effects. High quality laptop and slide projector to make presentations easy, effective and reliable.

Leadership
Government intranet. Textual databases of internal documents easily retrievable..

Organizational Structure	Project Management	Operational and Administrative Support	Organizational Development
Executive Information Systems (EIS) summarizing branch expenditure and HR usage against plan	Suitable project mgmt software Spreadsheets maintained historical documentation on past projects	Forms generation software supported by forms control through LAN or intranet	Spreadsheets maintained historical documentation on effectiveness of training

Intra/Internet Services

By including the Broader Public Sector in corporate contract coverage, the Government has taken a step towards creating a wider community. Doing this with acceptable costs is possible only through electronic methods.

Similarly, it promotes new relationships with suppliers. The new corporate PC equipment contracts illustrate this point dramatically. Even with a single supplier, it was becoming problematic to distribute updated product lines and pricing information. Time delays in creating User Guides most often meant they were dated by the time they were distributed. With seventeen equipment providers disbursing through four value-added resellers paper distribution becomes impractical. Electronic access to web site(s) maintaining this information leads to immediate cost savings, more timely and accurate pricing information and provides an infrastructure for higher value future service offerings. The principle of *single-entry at source* implies vast savings for everyone involved - PSB, manufacturers and VARs. The latter will update the information themselves. PSB Online will become the central funnel to direct public buyers to the appropriate location while maintaining some aspect of security over the information.

While PC vendors provide the test-bed for electronic distribution, there is a wide variety of other contracts and information which PSB provides.. PSB Online offers the means to do this expeditiously as well.

PSB Online conforms to the Government Internet/Intranet strategy for the OPS approved at the November 14, 1996 meeting of the Government's Information Technology Directions Committee. New software products are rapidly offered web publishing services, so that, over time, use of web-based tools will become commonplace.

PSB can enhance its leadership image and prestige by embracing this trend early. Use of Intranet browsers to distribute branch-wide information (instead of word processing and e-mail services) will channel scarce training dollars and software/hardware expenditures into an area which will experience rapid growth over the next few years. This adheres to the Application Principle of *consistency* - providing a consistent look and feel to users. It also follows the Technology Principles of *Modularity* - facilitating upgrading and substitution with minimum disruption, *Inter-operability* - components that work with one another and *Network Orientation* - all stations attached to an electronic network. Moreover, the experience gained will be of immeasurable benefit throughout the ministry as the wider Intranet gains momentum. Services which could be offered using a PSB Intranet include (1) the archiving of branch policies and directives, including BMC minutes, (2) project management tracking and (3) forms control and work flow including attendance, expense claims, etc.

Experience to date with PSB Online has demonstrated the importance of the internet to reach the BPS and suppliers - both widely dispersed. However, savings have yet to materialize. This is because the service is seen as an adjunct, rather than replacement, for paper distribution. Material is still produced first for the paper media using paper-based word processors. The current technology platform (Windows 3.11) does not support the new breed of word processors which include HTML (ie. Web) publishing as an option. In creating documents, little attention is devoted to how easily it can be translated into HTML. The result is inordinate effort and time required to publish on PSB Online. To rectify this situation requires the following changes:

- begin an early introduction to Windows 95. The ministry has plans to migrate to this platform over the next year. As well, several branches involved with internet publishing have begun the change. Doing so, allows access to new, more sophisticated and time-saving tools which are no longer developed for the older (Windows 3.11) platform;

- upgrading the hardware of those chiefly involved in web publishing to faster, more featured

machines, able to meet the greater demands of the software;

o   shift the primary emphasis for the initial publication from paper to HTML publishing. Supplement paper distribution with a fax-back service (more later) to realize greater immediate savings;

o   begin offering Adobe Acrobat documents on PSB Online with the view to gradually removing Wordperfect 6.1 formatted documents. Adobe Acrobat is a widely accepted standard for document distribution and the Adobe Reader can be downloaded at no cost from Adobe's web site. The Adobe Reader can be added as a Netscape or Microsoft Explorer *plug-in* permitting the document to be viewed directly on-screen. This widens the target audience for electronic document download.

o   the web is evolving rapidly from document distribution using HTML to information databases using JAVA or Active-X programming languages. These permit the display of databases of information based on user selected criteria. These tools reflect a growth in information wherein the sheer amount requires techniques to limit its' display. BPS entities per geographic site are an example of this kind of need. The present BPS registration system involves programming content which indicates a greater complexity than has existed with HTML preparation. There is a need to retain a part-time consultant to assist with the implementation of the registration system for the next two months.

Fax-Back Services

In the near term significant improvements to the distribution of material can be made through the provision of fax-back services. Such services are based upon the greater availability of fax machines than personal computers with internet access. They permit the automatic delivery of image product without human intervention. A secondary stage to this service would be its extension through PSB Online.

The mailing list would indicate which method of distribution pertains to which organization. A well-maintained mailing list will reduce the amount of paper being delivered to out-of-date addresses, and, over time, migrate delivery from paper to electronic means (first fax then electronic download).

Electronic Data Warehouse

The advent of a single financial system will also assist in providing basic information on OPS compliance with trade agreements by providing the means to develop routines which identify purchases over specified amounts. Maintaining available fields in a data warehouse for the purpose of recording compliance will expedite and improve the quality of this information. As well, maintaining the ability to add BPS entities to the warehouse would enhance the ability of PSB to report on trade compliance. Once again, it is important for PSB to represent these requirements in the development of the system.

The ability to identify candidate areas for coporate contracts is furthered through the use of consistent summary data on corporate expenditures. This summary data is facilitated through the use of dta warehouses - respositories of financial expenditures by expenditure categories reviewed by their dispersion patterns across organizations and over time. A single financial system would provide the transaction base to annually retire expenditures in a summary form. Linkages through a coporate Intra-net would provide easy access in much the same way that Statistics Canada currently offers summary' statistical data through its' web site. The ability to download and extract portions of this data into local database or spreadsheet formats will permit local manipulation and analyses.

The data warehouse can be extended through the use of Distributed Database Systems whereby

additional data elements can be linked for reporting purposes with the primary data repository. Adding expenditure patterns for broader public sector participants would extend the reliability of corporate contract identification by including their expenditures into the equation. Additional linkages might encompass other kinds of resource usage such as human resources leading ultimately to a comprehensive control system. Including planning and performance data would ultimately result in an integrated planning and control system - a kind of executive decision-support nirvanna.

This vision is long-term and contigent upon events occuring around the development of single financial and human resource systems and the coordination of the separate developments taking place. It is incumbent upon PSB to ensure that its' unique requirements are represented in these developments.

Client Database

New standing agreements and trade agreements are increasingly redefining the public sector community. A definition of the community needs to be maintained to acknowledge SA and trade coverage. Since migration to electronic capability will be gradual over the next few years, this definition must include data for paper as well as electronic distribution. A comprehensive mailing list should be maintained which permits both paper and electronic distribution methods. A database package should be selected which has extensions to web developments. Standard SQL (Standard Query Language) is becoming the standard for this kind of development.

Groupware

Greater collaboration of documents can be achieved by utilizing the groupware capabilities inherent in today's technology. Groupware features will be extended upon in future technologies. They include voice and text markup to documents, text-based archiving and indexing of previous work.

In the long run, consideration of more sophisticated tools such as Lotus Notes should be considered given their potential to better define collaboration with key broader public sector partners. However, the current tools are more than satisfactory to make a start in this important area. The impediments are more cultural than technological - preferences for paper, face-to-face communications and organizational models which direct the flow of information through hierarchies rather than direct networks. Initial efforts should be towards removing cultural obstacles.

Forms Control

The branch should automate many of the standard paper forms used and tracked within the branch. Attendance and expense claims are obvious initial efforts. Secure routing to the appropriate individuals should be added using the branch Intranet as the technology to do so becomes more prevalent.

Word Processing

It is estimated that 80% of all corporate electronic information is in the form of documents, rather than as structured databases. Several studies further point out that 40-60% of a worker's time is spent on documents and 20-45% of labour costs are taken up with them. Perhaps most significantly 12-15% of corporate revenues are taken up with the management of documents. The creation of correspondence, briefing and issue notes, position papers, etc involves the collation and re-entry of much of this material. Intelligence is the value-added to the process - its purpose is to interpret or clarify; to determine trends or interrelationships. It provides insights and understanding so that decisions can be made on issues and priorities established. Far too much activity is devoted to the grouping and collating of information and

too little to developing intelligence. *The essence of an information management system is to take single pieces of data and transform them into intelligence.*

There is a range of software available to satisfy word processing needs. At the low end are free or products with neglible costs. These products would satisfy the word processing needs of about one-half of all staff at next to no cost. In the mid-range are products such as Wordperfect and Microsoft Word (which together have about 75% of the market share). These products meet the needs of almost all users. At the high end are desk-top publishing packages such as Pagemaker and Ventura Publisher. These products are needed for highly professional output on a continuing basis. The vast majority of products which require simple graphics can be satisfied by word processing packages.

Moreover, there is a need to maintain a simple and discrete set of products used. The cost of the product itself is not the determinant. More important is the investment in learning and the transferablility of the skill sets. Specialized products used by a single individual do not provide backup in case that individual leaves. The investment in learning is better placed in the existing product base because its application is more widespread over the work of the organization.

Investment in learning is better placed in upgrading capabilities in the existing product mix, until it can be clearly demonstrated that those products cannot accomplish business requirements. Database and project management application needs are examples.

A New Approach to Equipment Provisioning

The majority of web-based tools are being developed for Windows 95, Windows NT and future Windows services. They are not being developed for the current Windows 3.11 environment. This means that a plan is needed to migrate the current platform upward. This conforms to ministry plans. PSB should adopt a migratory plan which is consistent with these events and which places it in a leadership role. This plan should recognize that:

- there is an ever-increasing demand for more and higher value product,
- there will always be new technologies being offered and new demands for higher value product - technology acquisition should be approached strategically through a replacement strategy which replaces one-third of all machines every three years.
- staff have different requirements for and predispositions toward new technology - the current inventory of machinery should be re-shuffled to gain maximum advantage and utility from the entire inventory.

The branch should initiate a policy of strategic replacement over a three year period - that is, one-third of the machines should be replaced every three years. Since presently machines are leased over a three year period with an annual payment, such a purchasing policy accomplishes the same cash flow and budgeting goals without incurring additional leasing costs.

Appendix A

Business View Principles

The business view of the organization highlights the high level businesses which support the branch's mandate. The Federal Blueprint identifies principles which *"transform government services".*

• **Client Service Focus** - client needs will drive the design of government services.

• **People Management** - employees' involvement, development, and commitment are critical to successful business renewal.

• **Common Shareable Solutions** - common requirements will be addressed by common, shareable solutions.

• **Partnership** - strategic alliances will be pursued with other governments and the private sector.

• **Accountability** - accountability, performance standards, and evaluation capabilities will be incorporated into the design and delivery of government services.

• **Enabling Technology** - information technology will be used to its full advantage for redesigning the delivery of government services.

Partnership is a key consideration in extending the trade umbrella and corporate standing agreements to broader public sector organizations. This redefinition of Government is enabled by new forms or electronic communications which lessens the impact of distance and organizational size in maintaining dialogue and responsiveness with an extended community.

Work View Principles

The work view details the physical activities performed throughout the organization in support of its' businesses. It is subject to organizational priorities over time and hence determined by strategic and operational planning designed to fulfill organizational mandates and objectives in a strategic and coherent sense. Objectives define what is to be accomplished. Strategic moves define the ways. Tactics define the explicit "how", but should do so in a flexible and dynamic manner in accord with events. The Federal Blueprint highlights Work Principles for the redesign of government service delivery processes.

• **Single Window/Seamless Service** - government services will be delivered to common clients through a single window.

• **Streamlining** - the process between the client and delivery of government service will be minimized.

• **Choices** - where practical and cost justifiable, clients will have options as to how government services are delivered.

• **Consistency** - the same types of work activities involved for different government services will be done the same way.

• **Location and Time Independence** - clients will have access to government services at any time and from many places, where practical and cost justifiable.

Information View Principles

The information view presents the intelligence required to support the work and business views of the organization. It is at the juxtaposition of the four views because it supports each equally. Without information there is no progress, no quality improvement, no continuing research and analysis. The absence of good information may suggest a strategic thrust to collect it in order to augment the organizations' capabilities in the future. The Federal Blueprint cites information Principles for managing government information.

- **Managing Government Information** - government information, in all forms (e.g., print, voice, electronic, or image), is a strategic resource and will be effectively managed throughout its life cycle.

- **Data Administration** - all government information will be subject to data administration to ensure common definitions, integrity, and consistency of use.

- **Sharing and Re-using Information** - information will be captured once, as close to source as possible, then shared and re-used by authorized users.

- **Exchanging Information** - once captured and where practical, government information will be stored and exchanged electronically to avoid manual transcription and re-entering.

- **Protecting Information** - the security, integrity, and privacy of government information will be ensured through various electronic and manual security measures.

- **Retaining Information** - government information will be retained only for valid reasons, such as business needs, policy or legislative requirements, and historical and archival needs.

- **Stewardship** - specific organizational units will be accountable for certain classes of information to ensure integrity, quality, relevance, and authorized usage.

Application View Principles

The application view establishes the software applications necessary to support the information requirements. Application principles for managing computer systems mentioned by the Federal Blueprint are:

- **Sharing Systems** - computer systems for common processes or functions will be shared broadly across the government to reduce maintenance and development costs.

- **Modularity** - computer systems will be designed using modular components to facilitate sharing, development and design changes.

- **Rapid Application Development** - joint development teams will be used for short term projects to yield a working prototype, to be refined and improved via successive iterations through to implementation.

- **Re-usability** - computer systems will be designed to use common, shareable components.

- **Distribution** - computer systems and tools will be designed for replication and distribution on the government electronic network.

- **Standard Inter-application Interfaces** - standard interfaces between system modules will be used to facilitate information sharing and transfer of transactions.

- **Consistency** - computer systems and tools will be designed to provide a consistent look and feel to users.

Technology View Principles

Finally, the Technology View pinpoints the basic hardware architecture to be employed in achieving the objectives described by the other views. The Technology Principles for managing information technology in the government contained in the Federal Blueprint are:

- **Modularity** - technology components that can accommodate expansion, upgrading and substitution easily with minimal disruption to services will be used.

- **Inter-operability/Connectivity/Portability** - technology components will be able to work with one another using modern connectivity tools and standard components and interfaces.

- **Distribution** - processing, storage, and communications technologies may be distributed to multiple levels in the architecture, where appropriate, to support dispersed business operations.

- **Workstation Orientation** - intelligent multi-functional workstations supporting industry-standard interfaces will be preferred.

- **Network Orientation** - all workstations will be attached to the government electronic network, with appropriately secure communications linkages to all authorized servers and users.

- **Infrastructure Management** - the architectural design will provide for the management and security of the information technology infrastructure.