1: Count of IMB staff and classifications

CIO   x1
BL   x3
IS30   X9
IS27   X5
IS24   X13
IS21   X5
IS18   X4
IS14   x3
IS13   x1

2: Listing of IMB services

Ministry of Finance (MFIN) Information Management Branch (IMB) Client Service Matrix
Governance and Strategy
Chief Information Officer (CIO)
Strategic Planning
Portfolio Management
Procurement and Contracting
Project Governance Office (PGO)
Governance Support
ASD Oversight
Client and Business Solutions
Client Business Manager (CBM)
Business Solutions Analysis (BSA)
Project Director/Manager
Information Protection
Awareness and Training
Assessments (TRA)
Incident Response Coordination
Consultation
Audit Services
Ministry Information Security Officer (MISO)
Service Desk
Single Point of Contact
On-line requests
Incident Lifecycle Management
General Inquiry
Break/Fix
Install, Move, Add, Change or Cancel (IMAC)
Procurement
Maintenance (software, hardware)
Telephony (ACD, UCD, phone)
Line of Business Software
Line of Business Hardware
Asset Disposal

Technology Support

Basic Technology Support

Enhanced Technology Support

Systems Infrastructure Support

Infrastructure Architect

Support (Web, database, SharePoint)

Infrastructure Administration

Technology Planning

Service Provider Oversight

Service Manager

Government Data Security Administrator (GDSA)

Qualified Receiver (QR)

Project Implementation Services

IMIT Expenditure Analysis and Reporting

Business Applications

Application Architect

Business Requirements Analysis (BA)

Design

Development

Documentation

Deployment and Migration

British Columbia Revenue Management Project

SOW 3, LEVEL 1

IM/IT SERVICES

SCHEDULE 8

SOW 3, LEVEL 1 (IM/IT SERVICES)

(Section 4.1(c))

Please see attached.

Table of Contents

1. SOW 3, Level 1 Scope and Summary

1.1 Definitions

Capitalized terms used in this SOW 3 Document will have the meanings given to them in the Appendix E of the SOW 3 Appendices.

1.2 Purpose of this Level 1 Document

The purpose of this SOW 3, Level 1 Document is to generally describe the scope and functions of the IM/IT Services to be performed by EDS for the Province under the terms of the Master Agreement. The specific process descriptions applicable to the IM/IT Services are described in the SOW 3, Level 2 Document. In addition, detailed procedural descriptions and performance outputs will be established and set forth in the SOW 3, Level 3 Document.

1.3 IM/IT Services Overview

This Level 1 Document describes the general scope and functions of the following components, which comprise the IM/IT Services, to be provided by EDS to the Province under the terms of the Master Agreement:

- Architecture and Engineering Services.
- Application Services.
- Infrastructure Services.

The IM/IT Services for each of the above-noted components are more particularly described in the Level 2 Document and Level 3 Document of SOW 3.

conditions are to be interpreted and construed consistent with the principles set out in this Section.

1.3.2 Architecture and Engineering Services

EDS will perform the following Architecture and Engineering Services for the Province, more specifically for the Ministry of Provincial Revenue of the Province of British Columbia:

- IM/IT Strategy
- Application Architecture
- Infrastructure Architecture
- Information Architecture
- Security Architecture
- Transformation Strategy

Each component of the Architecture and Engineering Services will include all applicable engineering of methods, templates, product selection, quality assurance and continuous improvements.

1.3.3 Application Services

EDS will perform Application Services for the Province to solve specific business issues, including maintenance and support of existing In-Scope Applications, enhancement of application capabilities, development of new applications, and support of dynamic business strategies resulting in a framework that is focused on specific business needs, but also yields a total end-to-end application solution. The major functions comprising the Application Services are:

- Application Maintenance
- Application Enhancement
- Application Development
- Application Production Support
- Database Management
- Application Continuity
- Application Training

A list of the In-Scope applications is set forth in SOW 3 Level 2 document.

1.3.4 Infrastructure Services

EDS will perform the following Infrastructure Services for the Province:

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1.3.1 Principles

EDS and the Province acknowledge and agree that the principles governing the provision of the IM/IT Services by EDS to the Province during the term of the Master Agreement are:

- The IM/IT Services will be responsive to, and driven by, the specific information management and information technology needs, goals and priorities of the Province at a business level.

- EDS will seek continuous improvement in the IM/IT Services including, without limitation, in the IM/IT processes, methods and tools used by EDS.

- EDS shall operate the IM/IT Services in an efficient, business like manner to provide improved value for money.

Where such principles are interpreted in a manner that is consistent with the economic model developed by EDS and the Ministry in connection with the RMP project.

In adhering to these principles, EDS will strive to:

- Reduce business risk through increased use of consistent modeling, documentation and methods.

- Increase flexibility of IM/IT staff by ensuring that the IM/IT staff are appropriately trained in multiple aspects of the IM/IT Services.

- Increase productivity of staff.

- Reduce the time to conduct and complete impact assessments and provide more accurate business estimates to support the business planning cycle.

- Deliver more reliable and predictable IM/IT Services and projects.

- Provide integrated components with longer effective life.

- Align with proven industry trends to achieve greater business value for investment.

- Understand the Province's business to help facilitate business process improvement.

- Identify new IM/IT opportunities to support the Province's business goals.

- Ensure that IM/IT strategies align with the Province's business goals.

These principles are not intended to alter the plain meaning of the terms and conditions of the SOW Documents or to require EDS to undertake specific performance obligations not otherwise required by the SOW Documents. To the extent the terms and conditions of the SOW Documents are unclear, the terms and

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- Server Management
- Network Management
- Workstation and LAN support
- Security Management
- Help Desk Services
- Software Package Management
- Procurement Services and IT Asset Management

A list of the Infrastructure Services is set forth in SOW 3 Level 2 document.

2. Architecture and Engineering Services

2.1 Description of Architecture and Engineering Services

The following diagram depicts the relationship of the various component services provided under the Architecture and Engineering Services.
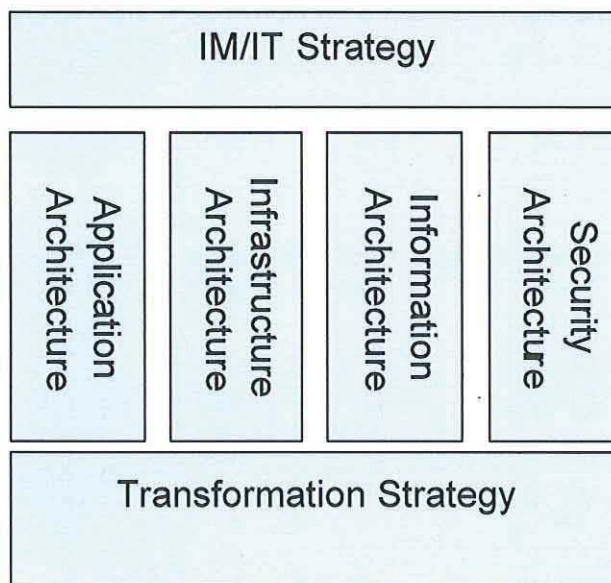
Figure 1: Architecture and Engineering Services Components

The above services to be provided by EDS and forming the Architecture and Engineering Services are described in the sections 2.2 to 2.7.

As part of the Architecture and Engineering Services, EDS will provide functional analysis services to facilitate the delivery of all IM/IT Services (including impact analysis, business planning account management including ongoing priority setting and issue escalation). Through the functional analysis services, EDS will understand the Province's business needs and communicate the IM/IT Service offerings to the Province, with a view to ensuring the IM/IT Strategy and the Province's business needs are aligned.

2.2 IM/IT Strategy

The general framework (including applicable IM/IT policies and guidelines) is provided by the Province. EDS will develop an overall IM/IT Strategy including IM/IT principles, technology policy, security policy and business/Revenue

Management Operating Planning that affect and support the implementation of the Province's business strategies. The framework of the IM/IT Strategy is described in SOW 3 Level 2 Document.

2.3 Application Architecture

Application Architecture defines the application functions, integration, and interfaces which establish the relationships and flow of the applications for the Ministry as a whole. Requirements-based criteria are defined to describe how the enterprise application architecture is developed. The Application Architecture aligns with the following to address the business needs of the Province:

- Policies
- Business requirements
- Locations
- Business functions
- Business processes
- Organizations (branches, other government).

2.4 Infrastructure Architecture

Infrastructure Architecture defines the infrastructure elements leveraged by the applications. Elements such as infrastructure functions and interfaces are described, along with developing and maintaining the as-is and to-be architectures. Detailed leveraged templates, along with criteria based on requirements, are also defined. Infrastructure Architecture interacts with the Application Architecture to describe how the infrastructure is, and can be, leveraged by additional applications. In addition, the Infrastructure Architecture will link to the technology policy and security policy that is defined in the IM/IT Strategy.

2.5 Information Architecture

Information Architecture describes the delivery of the information to authorized individuals within the Ministry and the Ministry's clients (including Program Ministries) to help them effectively execute business processes and make informed decisions.

2.6 Security Architecture

Security Architecture describes the way security measures fit together in the context of enterprise architecture to meet the security objectives of the Province and EDS, encompassing the requirements for confidentiality, integrity, availability, and accountability. Security architecture transcends all elements of the enterprise architecture.

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The following are elements of the Security Architecture:

- Identification & Authentication
- Authorization & Access Control
- Incident/Problem/ Contingency Management
- Threat & Vulnerability Management
- Trusted Communications.

2.7 Transformation Strategy

Transformation Strategy defines the special initiatives or projects and establishes how the initiatives drive change within the Ministry at both the business and technology level. The Transformation Strategy will also include the requirements, constraints, and risks associated with the projects for carrying out change.

3. Application Services Descriptions

3.1 Introduction to Application Services

Application Services are comprised of the following service areas:

- Application Development
- Application Enhancement
- Application Maintenance
- Application Production Support
- Application Continuity
- Database Management
- Application Training.

Sections 3.3 to 3.9 describe the Application Services in more detail.

3.2 Application Common Functions

Each of the Application Services is supported by a set of common functions or processes ("Common Services") to be provided or performed by EDS as part of the Application Services, namely:

- **Configuration Management** – the management process to classify, store, and control IM/IT delivery components.

- **Release Management** – the holistic view of a change to an IM/IT Service that ensures that all aspects of a release, both technical and non-technical, are considered together.

- **Change Management** – the standardized methods and procedures used for efficient and prompt handling of all changes to the IM/IT Services, in order to minimize the impact of any related incidents upon Service Levels.

- **Incident Management** – the protocol and procedure to restore normal service operation as quickly as possible after an incident, with minimum disruption to the Province's business.

- **Problem Management** – the minimization of the adverse effect of incidents and problems caused by errors in the IM/IT environment and proactively preventing the occurrence of incidents, problems and errors.

- **Project Management** – the control of the start-up, planning, execution and close down of tasks in the delivery of projects.

Common Services are applied to the Application Services as follows:

SERVICE	APPLICATION DEVELOPMENT	APPLICATION ENHANCEMENT	APPLICATION MAINTENANCE	APPLICATION PRODUCTION SUPPORT	APPLICATION CONTINUITY	DATABASE MANAGEMENT	APPLICATION TRAINING
Configuration Management	X	X	X	X		X	X
Release Management	X	X	X	X		X	X
Change Management	X	X	X		X	X	X
Incident Management			X	X		X	
Problem Management			X	X		X	
Project Management	X	X	X	X	X	X	X

The In-Scope applications will be modified by mutual agreement of the parties over the life of the Master Agreement. The level of effort/FTEs to be provided by EDS to deliver the Application Services will be further defined in conjunction with the Revenue Management Operating Planning process and documented in the Process Description, forming part of the SOW 3 Level 2 Documents.

3.3 Application Development

EDS will perform the services for the development of new applications for the Province, consisting of design, development, and implementation of any new applications or the replacement of In-Scope Applications. The term development, as it pertains to the construction of application software, will also include the acquisition of third-party software packages. At a high level, the development of new application software includes the following system lifecycle activities that will be performed by EDS:

Define Phase:

- Identify the business need, articulate the high-level requirements, and determine the project scope that will satisfy those requirements.
- Development or enhancement of business models as required.

Analyze Phase:

- Assess the current business and technical aspect of the Province's environment.
- Refine the high-level requirements into detailed business requirements that satisfy the business need.
- Define the logical system.
- During the analyze phase, detailed business requirements are determined that are clear, complete, appropriate, and verifiable. The system's logical components – such as business data and processes – also are identified.

Design Phase:

- Build design specifications that can be used to produce and implement a system that satisfies the Province's requirements. Both business and technical components are considered in the design phase. The application itself is designed with consideration for the impact on the business organization.
- Create, refine or eliminate business processes. Technical components, such as software, hardware, and network architecture, are established. Conversion and migration procedures are devised.

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Production Phase:

- Translate designs and specifications into automated and non-automated components that meet the Province's requirements. These components are then tested both as independent units and as an integrated system.

- During the production phase, business processes are developed, and templates and procedures are created. Software is created or obtained, hardware and network components are obtained and installed, the pieces are assembled into a functional unit, and user training materials are prepared.

Optimization Phase:

- Complete the new application software system to ensure that the Province's defined requirements are met, and that the new system is ready for implementation.

- Provide the opportunity to address any modifications in terms of the whole system. Business processes, databases, and network components are further tested and fine-tuned for performance. Critical software and architectural components are improved for reliability, adaptability, and other technical considerations.

- Final Province acceptance for implementation into the production environment is obtained.

Implementation Phase:

- Train the users.

- Perform contingency planning to provide service directives when an implementation does not proceed.

- Install the produced system with minimal disruption to the Province's business environment.

- Migrate current processes and data to the new system.

- A new production environment is established or modified.

- Transition the support and operations of the new application.

- Post implementation review.

3.4 Application Enhancement

EDS will perform application configuration changes and develop and/or enhance custom program code for the Province. Enhancements to applications are classified into two categories as follows:

- **Minor Enhancements** – Minor enhancements are functional modifications made to an application to supplement or replace the application's existing features. Minor enhancements do not include corrective maintenance, adaptive maintenance, corrupted data repair, perfective maintenance, or third-party package implementations, all described herein. Support of upgrades may be considered minor enhancements, corrective maintenance, or preventive maintenance depending on the nature of the individual code release. Examples of minor enhancements include creating/changing basic reports, information gathering queries, coding changes to forms, cosmetic changes to screens, and minor configuration changes. The size of Minor Enhancements is defined in SOW 3, Level 2 Documents.

- **Major Enhancements** – Major enhancements occur when the application development or adaptive application maintenance exceeds the thresholds established for Minor Enhancements. Major Enhancements may be addressed: (i) as part of EDS' daily operations using available capacity; or (ii) as a special project. The determination of whether a Major Enhancement will be implemented as a special project will be made by the parties during the annual Revenue Management Operating Planning exercise or as part of the joint governance.

Application enhancements will be processed and implemented using the same system life cycle phases as found in the Application Development section above.

3.5 Application Maintenance

Application Maintenance includes the following:

- **Adaptive Maintenance** – maintenance to an application due to changes in the environment it operates in. User functionality is not affected.

- **Corrective Maintenance** – specific actions that are to be taken to eliminate or to minimize the impact of known problems including corrupted data repair. Corrective maintenance includes maintenance to an application that corrects defects in the application. User functionality is not affected.

- **Perfective Maintenance** – maintenance that modifies an application to improve its operation. User functionality is not affected.

- **Third Party Packaged Software** - release and implementation (provides patches and bug fixes; major release changes are defined as project activity).

- **Application Engineering Environment** – monitoring, performing impact analyses, refresh and upgrades.

3.6 Application Production and On-Call Support

Application Production and On-Call Support consists of the tasks and activities that enable the ongoing operation of productive applications based upon the applications' operation requirements provided by the Province to EDS including:

- Production cycle monitoring and execution based on the support coverage requirements for In-Scope Applications.

- Production restarts and reruns.

- Performance optimization & tuning.

- Applications capacity planning.

This Application Production and On-Call Support service consists of the following tasks to verify conformance to operation requirements:

- **Application Production Support** - The monitoring of application performance for conformance with operational and business requirements.

- **Application On-Call Support** – The availability to respond to reported application production issues/failures. Also included are the root cause analysis, correction and restoration of the production application.

- **Preventive Maintenance** – Application backup, database performance analysis tuning, system resource planning.

3.7 Application Continuity

Application Continuity services are the services to restore applications to their operational state as was the case immediately before any disruption of the application occurred and includes planning and the development of practices and procedures to allow for continuous system service. Application Continuity services include:

- **Disaster Recovery Planning**– Planning, testing, and supporting processes for the recovery of the operating environment and the direction and administration of the activities necessary to verify recovery requirements and application contingency planning is effectively managed with documented operational procedures.

- **Recovery** – Restoring the application and the data.

3.8 Database Management

Database Management consists of the management of all In-Scope production and non-production databases and data files in the Province mainframe, midrange, and server environments, specifically the following:

- **Database Management Services** – Management of the database environment under the control of EDS. Services consist of providing and supporting the database environment for application software development, maintenance, testing, quality assurance and ad hoc reporting; supporting applications development and maintenance; database design and modifications; installation, upgrade and maintenance; database administration support; and database configuration (schema set-up and design).

- **Database Optimization and Tuning** Services - Conducting database management system performance and capacity management.

- **Database Backup and Restore Services** – Duplication and recovery of files and software so that loss is minimized.

3.9   Application Training

Application Training is provided by EDS as required in the event of application enhancement and development activities that may take place. Application Training consists of:

- **Application Training Services** - Development and distribution of an Application Operators' Guide, Application User's Guide, training specifications and facilitation of training sessions for key Province personnel (train the trainer) including User Training development and delivery.

- **Technical Training Services** – Development and delivery of training for technical support staff.

4. Infrastructure Services

4.1 Introduction to Infrastructure Services

Infrastructure Services are comprised of the following service areas:

- Server Management
- Network Management
- Workstation and LAN Support
- Security Management
- Help Desk Services
- Software Package Management
- Procurement and Asset Management.

Sections 4.3 to 4.9 describe the Infrastructure Services in more detail.

4.2 Infrastructure Common Functions

Common Services are applied to the Infrastructure Services as follows:

SERVICE	SERVER MGMT	NETWORK MGMT	WORKSTATION AND LAN SUPPORT	SECURITY MGMT	HELP DESK SERVICES	SOFTWARE PACKAGE MGMT	PROCUREMENT AND ASSET MGMT
Configuration Management	X	X	X			X	
Release Management	X	X	X	X		X	
Change Management	X	X	X	X		X	
Incident Management	X	X	X	X	X	X	
Problem Management	X	X	X	X	X	X	
Project Management	X	X	X	X		X	X

4.3 Server Management

EDS will provide an integrated set of server management processes to the Province including monitoring, evaluating, and reviewing the server and storage environment for ongoing delivery that meets operational requirements. Server Management Services will include the following services:

- Operating System/Hardware Environment Support

- Operating System and layered software patch management
- Performance Management
- Printer Management
- Managed Backup and Restore
- Disaster Recovery Planning.

4.4 Network Management

EDS will provide network management to monitor network devices and manage firewall environments for the ongoing delivery that meets operational requirements:

- Managed Firewall Services.
- Network Monitoring.
- Disaster Recovery Planning.
- Monitoring Services.

4.5 Workstation and LAN Support

EDS will provide the following workstation and LAN support:

- Desktop - installs, moves, adds, changes.
- LAN devices - installs, moves, adds, changes.
- File and print services.
- Antivirus updates.
- Workstation operating system patch management.
- Remote desktop management.
- Deployment and basic troubleshooting for common desktop software as described in SOW 3 Level 2 document.

4.6 Security Management

EDS will provide security management, designed to protect the Province's data using an integrated set of user access administration processes and varying degrees of preventive, detective, and reactive controls. Security management includes the following:

- Security Administration – Provides the management of user logon ids and their access rights to system level resources, as well as maintaining server level security parameters and security product options.

- Security Awareness – Comply with Government policies and standards, assist in the design, coordination and delivery of IM/IT security awareness education.

- Server Vulnerability – preventive and detective services to identify vulnerabilities as they emerge; to prevent those vulnerabilities from affecting the In-Scope systems; to detect when an In-Scope system has been affected; and to cure those affected systems.

- Virus Protection – deployment of software on servers to provide protection and detection of viruses, worms and other malicious code.

- Audit Compliance – provides assessments and vulnerability reports to make certain that systems and services comply with security policies.

- Intrusion Detection Services (IDS) – Host Based IDS is the process of monitoring, detecting and identifying unauthorized activities on selected servers.

- Intrusion Detection Services (IDS) – Network Based IDS is the process of monitoring, detecting and identifying unauthorized activities against the network.

- Security Event Logging - detective control that enables the recording of security events on system hosts based on preset parameters.

4.7 Help Desk Services

EDS will provide Level 1 support for all technical support calls for the Ministry. EDS will provide Level 2 support for all In-Scope application problem and service requests.

The following table describes the help desk services available to the Ministry.

HELP DESK SERVICES	
Application Support	Application Support resolves feature, function, and usage concerns for in scope business applications (Level 2).
Technical Support	Technical troubleshooting on the in scope application functionality including password reset (Level 1).
Business Support	Business Support manages user service requests for modifications and access to applications. (Level 2)

4.8 Software Package Management

EDS will provide In-Scope applications (including Common Off the Shelf COTS) changes to the Province desktops, laptops and servers. These changes will be driven by the release changes from EDS' applications team. Software Package Management is broken down into four phases:

- Packaging
- Testing
- Integration
- Distribution.

4.9 Procurement and Asset Management

EDS will provide procurement and asset management, including the following:

- Acquisition of hardware, software, and other services.
- Allocation and management of software licenses.
- Inventory asset management of hardware and software.