Digital Planning

Business Initiative Intake
& Resource Planning
Standard Operating Procedure (SOP)

Draft Version 0.99

May 2019
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About this Document

This standard operating procedure (SOP) is a digital planning deliverable to improve Queen’s digital governance. IT Services strives to excel as a valued strategic business partner to Queen’s leadership. This document summarizes the procedures, activities, and key decision points to maximize the return on Queen’s IT investments against institutional expectations of value by:

- Improving the intake of new and emerging business needs as IT opportunities;
- Ensuring consistent requirements definition;
- Exploiting synergies across initiatives when possible;
- Enabling clear, transparent prioritization of initiatives;
- Adherence to standards and effective resource capacity planning.

The purpose of this standard operating procedure (SOP) is to act as a guide to:

- Bring IT opportunity visibility, create transparency and increase synergies
- Effectively and efficiently manage the intake of business initiatives into IT Services;
- Determine and document requirements;
- Develop initial solution options and cost estimates;
- Ensure availability of IT opportunity funding;
- Forecast demand for IT investment; and
- Allocate IT Services resources to prioritized /scheduled IT opportunities.

This will result in increased IT Services throughput and improved prioritization of the IT Services project portfolio in support of Queen’s vision and mission.

IT Services will respond promptly to all types of business intake (Table 1). The focus of this SOP is primarily on the intake of New Business Needs.

**Table 1 - Types of Business Intake**

<table>
<thead>
<tr>
<th>Intake Trigger</th>
<th>Client Engagement</th>
<th>Process Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Incident</td>
<td>Service incidents are reported to the IT Support Centre via phone, by email, by completing a form or in person.</td>
<td>A break / fix issue that needs to be resolved and is handled (recorded / actioned) through a ticket (documentation of the event) that is used to coordinate actions across workflows.</td>
</tr>
<tr>
<td>Service Request</td>
<td>Service requests are handled through the IT Support Center and in future will be automated through the online Service Catalogue.</td>
<td>A request for an existing service that IT Services offers to clients. Service requests are fulfilled after the appropriate tasks and approvals have been accomplished. Service requests may be fulfilled by the user selecting predefined items made available through the online service catalogue (future).</td>
</tr>
<tr>
<td>Intake Trigger</td>
<td>Client Engagement</td>
<td>Process Description</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Continuous Service Improvement (Service Roadmap)</td>
<td>Service Owners work collaboratively with stakeholders to identify service improvement priorities.</td>
<td>Service Roadmaps are used to plan and prioritize service improvements in collaboration with stakeholders. Improvements are implemented through a series of goal-based releases that implement new service features.</td>
</tr>
<tr>
<td>New Business Needs (Initiative Intake Form)</td>
<td>The Business Relationship Management team collaborates with stakeholders to identify strategies and new business initiatives.</td>
<td>This process provides a standard, responsive, transparent and effective means to move a business need from an idea proposed by a Business Champion, through to a prioritized and chartered (authorization to proceed) initiative and is outlined in this SOP.</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

Queen’s digital strategy continues to evolve in support of the institution’s vision and mission. The Business Initiative Intake and Resource Planning processes documented in this standard operating procedure (SOP) enable IT Services to act on the emerging business needs of Queen’s faculties, departments and shared services in a standard, transparent and effective manner. This results in IT opportunities moving efficiently through a set of review steps and decision-making checkpoints to become funded, scheduled, chartered IT projects, authorized to proceed to Project Execution (Figure 1).

Figure 1 - Focus of the Business Initiative Intake & Resource Planning SOP

The Business Initiative Intake process includes review steps and decision-making checkpoints to identify, validate and fund IT opportunities (Figure 2). The process is generally initiated when a Requestor identifies an IT opportunity and engages with Business Relationship Management (BRM) resources to develop the IT opportunity profile (see review steps 1.1 and 1.2). BRM reviews the suitably documented IT opportunity profile with the identified Business Champion (see glossary). Based on their review of the documented IT opportunity profile information, the Business Champion decides to either (a) investigate, (b) put on hold, or (c) decline to commit further effort to the IT opportunity (see decision-making checkpoint 1.3).

A decision by the Business Champion to investigate the IT opportunity engages Solution Development resources in the review of the IT opportunity profile. The assigned Solution Development team determines the expected technical approach, solution option(s) and initial high-level costing for the IT opportunity (see review step 1.4). These findings are documented as part of the IT opportunity profile. BRM reviews the updated profile with the relevant Business Champion and based on this review the Business Champion decides to (a) recommend funding of the IT opportunity, or (b) to turn it back for revision to address any concerns (see decision-making checkpoint 1.5).
The decision by the Business Champion to recommend funding results in the IT opportunity being routed to the appropriate level of funding decision-making authority. This routing of the IT opportunity for a funding decision is based on classification of the IT opportunity profile by the Business Champion using effort, cost, risk and value criteria (see Appendix D). Routing of an IT opportunity to the appropriate funding decision authority (Faculty et al, Strategic or Executive) is facilitated by the governance administrator (see glossary).

**Faculty, department or shared services** IT opportunities are funded through available budgets at the local level overseen by the Faculty Dean as the funding decision authority. **Strategic level** IT opportunities (as well as Faculty et al IT opportunities requiring additional funding beyond currently available budgets) are routed for funding approval through the Digital Planning fund. This fund is currently overseen by Digital Planning Project Group (DPPG) as the funding decision authority. **Executive level** IT opportunities are routed to executive level funding decision authority for funding approval through the Vice-Principals’ Operations Committee (VPOC) (>2.5 million) or Board of Trustees (>5.0 million) and require that a business case be completed as a pre-requisite to funding approval. Based on their review of the IT opportunity profile information, the Funding Decision Authority decides to either (a) fund, (b) put on hold, or (c) reject the IT opportunity (see decision-making checkpoint 1.6).

The **Resource Planning** process includes review steps and decision-making checkpoints to prioritize and schedule funded IT opportunities that require IT Services resources (Figure 3). The process is initiated when Program Management is informed of an IT opportunity to be resourced. The IT opportunity profile is reviewed for documentation completeness and funding for the IT opportunity is confirmed. Based on their review of the IT opportunity profile information, IT Services, **Program Management decides** to either (a) confirm the IT opportunity can proceed to be scheduled and resourced, or (b) escalates the IT opportunity to BRM for necessary modifications required to address deficiencies in the IT opportunity profile or lack of funding (see decision-making checkpoint 2.1).
This decision by Program Management to schedule the IT opportunity engages Solution Development to prioritize and schedule the IT opportunity as a pending IT project and ensure available IT project resource capacity. The proposed schedule for the IT opportunity is routed through BRM to the Business Champion for their agreement. In the case of a dispute, BRM strives to reach a suitable resolution with the Business Champion on any disagreements with the proposed schedule (see review step 2.2). The scheduled IT opportunity is subsequently authorized to proceed to project execution through the creation of an IT project charter led by Solution Development and signed off by the Business Champion (see review step 2.3).
1 BUSINESS INITIATIVE INTAKE PROCESS

Through its Business Relationship Management (BRM) function, IT Services actively liaises with stakeholders across Queen’s faculties, departments and shared services to seek out and pursue new business needs resulting in IT opportunities that require IT Services support and/or system design review and risk assessment. There are a number of process activities and decision-making checkpoints that are undertaken along the way as described in this section of the SOP. The process flow and responsibility assignment matrix (aka RACI) for these activities are provided at the end of this section.

1.1 Identify IT Opportunity

As part of their annual planning activity, Queen’s faculties, departments and shared services provide IT Services with a list of initiatives resulting in IT opportunities. This input to the continuous Business Initiative Intake process is elicited by BRM, who also work diligently throughout the year to liaise with IT Services customers to:

- Understand their needs and goals;
- Inform their strategic planning;
- Assist them in determining their potential IT opportunities;
- Identify technology needs that span multiple areas of the university; and
- Recognize IT related risks.

Queens faculties, departments and shared services demand for IT Services to provide technology guidance and support their understanding of IT opportunities is the basis for eliciting clear stakeholder requirements and identifying common goals. Therefore, understanding the requirements (Figure 4) and desired IT investment outcomes of the various stakeholders\(^1\) throughout Queen’s is BRM’s first priority.

*Figure 4 – Types of Requirements\(^2\)*

\(^1\) Students, faculty, staff, instructors, researchers, administrators and IT directors

\(^2\) See Appendix C – Requirements Classification and Integration Guidelines
The output of this ongoing process activity is the identification and information about business-related needs for IT systems, services and support, and desired IT investment outcomes.

1.2 Develop IT Opportunity Profile

Throughout the year, as faculty, department and shared services confirm their plans, BRM works with them to profile their business initiatives and related IT opportunities using the Initiative Intake Form. This form is completed in collaboration with the Requestor(s) and the Business Champion for an initiative. BRM validates the completeness of the resulting IT opportunity profile and works with the Requestor to fill in any gaps. The IT opportunity profile is then reviewed for accuracy by relevant stakeholders to confirm it contains all necessary information to suitably inform IT Services of the need, rationale, scope, objectives and requirements for new or modified IT systems, services and support.

Queen’s stakeholders also require systems and applications that can communicate and cooperate to share data and support business processes. To ensure a campus network of well-integrated applications, BRM profiles integration requirements using the integration subsection of the Initiative Intake Form. This subsection is completed when any requirements for secure and robust integrations exist as part of an IT opportunity.

IT Services may request that additional input be prepared as necessary to sufficiently understand IT opportunities and integration requirements. All proposed initiatives, and related integration requirements, are referenced and tracked by BRM throughout their life cycle on the Initiatives Master List for transparency and managing performance.

The output of this process activity is the draft IT opportunity profile captured in a standardized format using the Initiative Intake Form and tracked on the updated Initiatives Master List for transparency.

1.3 Validate IT Opportunity

Once profiled, the IT opportunity is assessed to understand and validate the merits of expending IT Services resources to further investigate the business need at this time. In close partnership with the Business Champion, BRM will determine whether IT Services requires more information to investigate the IT opportunity for its technical feasibility, solution options, required resources, time and cost to complete. To create a holistic view of requests and balance business needs to available resources, the relative prioritization of this IT opportunity will be determined (based on appropriate institutional or faculty strategic plans) within the portfolio of other IT opportunities put forth by this Business Champion and/or their

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3 See Appendix B – Initiative Intake Form
4 See Appendix B – Initiatives Master List
faculty, department or shared services area. The Business Champion will either decide to move the IT opportunity forward to investigate solutions and high-level costing or decline to move forward with the IT opportunity.

The result of this decision-making checkpoint is a decision by the Business Champion to either (a) investigate, (b) put on hold, or (c) decline to commit further effort to this IT opportunity at this time.

1.4 Determine Technical Approach, Demand and Cost Estimates

Led by the applicable Manager, Solution Engineering (see Engineering Manager role in Table 2), the required IT Services resources are engaged to evaluate the IT opportunity for solution options and provide input and guidance. The integration architect carefully and comprehensively analyzes associated integration requests. IT Services determination of the best technical approach for the IT opportunity is informed by knowledge of the technology and application portfolio and architecture, as well as architecture policies and standards.

To ensure security, compliance and infrastructure alignment the proposed technical systems design for all IT opportunities and any options are evaluated by the enterprise architect in conjunction with the information security officer (ISO) for compliance with architecture principles, IT strategy, and applicable policies and standards. These include, but are not limited to, cybersecurity, technology platform, data interoperability and integration concerns.

For those shared IT opportunities to be delivered centrally through IT Services, Solution Development resources are engaged to determine the required level of effort, available resource capacity to deliver, initial delivery schedule and estimated costs. The existing IT Project Portfolio and IT Project Portfolio Delivery Roadmap (both overseen by the Assistant Director, Programs) are referenced to determine any project interdependencies and aid in high level scheduling estimates.

The output of this process activity is an updated profile of the IT opportunity with technical approach, solution options (when applicable), high-level requirements and initial costing included.

1.5 Recommend IT Opportunity

BRM facilitates a review of the IT opportunity profile updates with the Business Champion, including the technical approach, any solution options, and initial estimates of resource effort and costing. Where relevant, any system design governance concerns raised by the enterprise architect/information security officer are also addressed at this time. If satisfied, the Business

See Appendix I – Step #1.4 Determine Technology Approach, Demand and Cost Estimates for a more in-depth explanation of this process activity
Champion recommends the IT opportunity move forward for funding or may request appropriate modifications to the IT opportunity profile to address any concerns related to scope, scale, or compliance issues etc.

The result of this decision-making checkpoint is a decision by the Business Champion to (a) recommend funding of the IT opportunity, or (b) to turn it back to prior steps for necessary revision to address any concerns.

1.6 Approve IT Opportunity Funding

The Business Champion’s decision to recommend funding results in the IT opportunity being routed to the appropriate level of funding decision making authority. To facilitate appropriate funding approval, each IT opportunity profile is classified based on consideration of its estimated effort, cost, risk and value. Refer to Appendix D – Definition of IT Projects, for a complete definition.

- **1.6a) Faculty, department or shared services** IT opportunities (with compliant systems designs) are prioritized and funded through available budgets overseen by a Faculty Dean as the funding decision making authority. These IT opportunities proceed to Resource Planning once funding is approved – unless they are to be delivered and operated remotely by a faculty IT function (i.e. decentralized). In all cases they should be in compliance with current systems design policies and standards (e.g. cybersecurity policy).

- **1.6b) Strategic level projects**, (as well as Faculty, department or shared services projects that require additional funding beyond currently available budgets) are routed for funding approval through the Digital Planning fund. This fund is currently overseen by the Digital Planning Project Group (DPPG) as the funding decision authority.

- **1.6c) Executive level projects** are routed to executive level funding decision authority for funding approval through the Vice-Principal’s Operations Committee (VPOC) (>2.5 million) or Board of Trustees (>5.0 million) and require that a business case be completed as a pre-requisite to funding approval.

Prior to routing an IT opportunity for funding approval, the Business Champion may require that the IT opportunity profile be reviewed and ranked by the applicable advisory committee\(^9\). This may be a centralized, inter-faculty, committee, or appropriate faculty, administrative or department committee. The committee may support IT opportunity funding decisions by:

- Evaluating the IT opportunity profile for accuracy and completeness;
- Using project ranking guidelines to facilitate transparent evaluation and recommendation;

\(^6\) See Appendix J – Step #1.6 & 2.2, IT Opportunity Assessment Guidelines for a more in-depth explanation of this process activity

\(^9\) e.g. a Teaching & Learning Technologies Steering Committee
• Providing guidance to strengthen the case for benefits, improve institutional alignment or facilitate any collaborations that might be needed for the IT opportunity to succeed in achieving its intended results;
• Providing leadership on the prioritization of the IT opportunity within the local portfolio of initiatives based on its contribution to relevant institutional goals and objectives.

Each funding decision authority responsible for the decision to fund an IT opportunity confirms that the funding is available within the appropriate budget or that the IT opportunity can be otherwise fully funded. This should also include any funding necessary for operational change management, training and communication, as well as the ongoing sustainment funding required to realize the full benefits of the business initiative behind the IT opportunity. The funding decision authority also confirms that the resulting IT project can be conducted in compliance with all relevant policies, procedures, guidelines, standards, legislation and regulations.

The result of this decision-making checkpoint is a decision by the Funding Decision Authority to (a) fund, (b) put on hold, or (c) reject the IT opportunity.

See Appendix D – Definition of IT Projects
1.7 Process Flow and RACI – BUSINESS INITIATIVE INTAKE

The process activities and decision-making checkpoints previously described in this section of the SOP are illustrated in the following process flow diagram - Figure 5. The corresponding responsibility assignment matrix (RACI) for each activity is shown in Table 2.

Figure 5 – Business Initiative Intake Process Flow
### Table 2 – Business Initiative Intake Process Responsibility Assignment Matrix (RACI\(^\text{11}\))

<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
<th>Queen’s Stakeholders</th>
<th>IT Services Strategy &amp; Architecture</th>
<th>IT Services Solution Development</th>
<th>IT Services Service Ops</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>BRM</td>
<td>Enterprise Architect</td>
<td>Engineering Manager</td>
</tr>
<tr>
<td>1.1</td>
<td>Identify IT Opportunity</td>
<td>A (Requestor)</td>
<td>R</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>1.2</td>
<td>Develop IT Opportunity Profile</td>
<td>C</td>
<td>A</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>1.3</td>
<td>Validate the IT Opportunity</td>
<td>A (Business Champion)</td>
<td>R</td>
<td>C</td>
<td>I</td>
</tr>
<tr>
<td>1.4</td>
<td>Determine Tech Approach, Demand and Cost Estimates</td>
<td>I</td>
<td>R</td>
<td>R</td>
<td>A</td>
</tr>
<tr>
<td>1.5</td>
<td>Recommend IT Opportunity</td>
<td>A (Business Champion)</td>
<td>R</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>1.6</td>
<td>Approve IT Opportunity Funding</td>
<td>A (Funding Decision authority)</td>
<td>R</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

\(^{11}\) R – Responsible; A – Accountable; C – Consulted; I – Informed

\(^{12}\) Business Champion and institutional decision makers
Table 3 – Process Deliverables by Activity

<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
<th>IT Opportunity Profile</th>
<th>Initiatives Master List</th>
<th>IT Project Portfolio</th>
<th>IT Project Portfolio Delivery Roadmap</th>
<th>IT Project Charter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Identify IT Opportunity</td>
<td>Initiated</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Develop IT Opportunity Profile</td>
<td>Drafted/Revised Profile</td>
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<tr>
<td>1.3</td>
<td>Validate the IT Opportunity</td>
<td>Agree to proceed/Hold/Decline</td>
<td>Updated for status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Determine Technology Approach, Demand and Cost Estimates</td>
<td>Updated for Effort &amp; Estimates</td>
<td>Updated for status</td>
<td>Reference</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>Recommend IT Opportunity</td>
<td>Recommended</td>
<td>Updated for status</td>
<td></td>
<td>Updated</td>
<td></td>
</tr>
<tr>
<td>1.6</td>
<td>Approve IT Opportunity Funding</td>
<td>Funded</td>
<td>Updated for status</td>
<td></td>
<td>Updated</td>
<td></td>
</tr>
</tbody>
</table>
2 RESOURCE PLANNING PROCESS

IT opportunity profiles that successfully receive funding approval, and that involve central IT Services resources, must be prioritized and scheduled by the IT Services Program Management function so that resources can be allocated to undertake the IT project.

Program Management coordinates with the Solution Engineering Managers and other Solution Development resources to prioritize and schedule the approved IT opportunities and develop the necessary project charters. There are a number of process activities and decision-making checkpoints that are undertaken as described in this section of the SOP. The process flow and responsibility assignment matrix (aka RACI) for these activities are provided at the end of this section.

2.1 Approve IT Opportunity Scheduling

Program Management will review the documented IT opportunity profile for completeness and approval for scheduling. When necessary, modification may be requested. Once approved by Program Management, the IT opportunity can be prioritized and scheduled for development.

If IT Services has been involved in the documentation and review of the IT opportunity profile throughout the Business Initiative Intake process outlined in section 1, then the transition into prioritizing and scheduling the IT opportunity should occur readily. However, where the nature of an IT opportunity has changed substantially, or the IT opportunity is not sufficiently documented, funded or assessed (e.g. it did not go through the Business Initiative Intake process in section 1) then it may be necessary to route the IT opportunity through the Business Initiative Intake process to address any deficiencies before proceeding with resource planning.

The result of this decision-making checkpoint is a decision by Program Management to either (a) confirm the IT opportunity is funded and sufficiently documented to proceed to be scheduled and resourced, or (b) escalate through BRM for modification to address any deficiencies.

2.2 Prioritize & Schedule IT Opportunity

Based on the IT opportunity profile, Program Management facilitates scheduling of the IT project with the appropriate Manager, Solution Engineering taking into full account the faculty, department or shared services stakeholder’s desired timing, benefit stream assumptions, priority, project interdependencies, available capacity, procurement lead times, etc. The IT opportunity is entered as a pending project into the IT Project Portfolio and IT Project Portfolio Delivery Roadmap.

13 See Appendix K – Step #2.2 Prioritize and Schedule IT Opportunity for a more in-depth explanation of this process activity
BRM is notified of the proposed schedule and informs the faculty, department or shared services stakeholders. If these stakeholders disagree with the proposed schedule, BRM facilitates conversations between the stakeholders and IT Services to reach a suitable resolution. If a suitable resolution cannot be reached, BRM facilitates escalation to strategic governance for a decision on prioritization.

The output of this process activity is the proposed scheduling of the IT opportunity, notification of the faculty, department or shared services stakeholders and the resolution of any conflicts or disputes.

2.3 Charter IT Project

Once the IT opportunity has been scheduled, Program Management will engage with the required Solution Development resources and requisite IT opportunity stakeholders to undertake the creation of an IT project charter. Prior to the IT project entering into project execution through the Systems Development Lifecycle (SDLC), the Business Champion will sign off on the completed IT project charter.

The output of this process activity is a completed IT project charter for the IT opportunity, signed off by the Project Champion ready to enter into the Systems Development Lifecycle (SDLC).
2.4 Process Flow and RACI – RESOURCE PLANNING

Figure 6 – Resource Planning Process Flow
Table 4 – Resource Planning Process Responsibility Assignment Matrix (RACI)

<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
<th>Queen’s Stakeholders</th>
<th>IT Services Strategy &amp; Architecture</th>
<th>IT Services Solution Development</th>
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<tr>
<td></td>
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<td>BRM</td>
<td>Enterprise Architect</td>
<td>Engineering Manager</td>
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<td>Analysts, Specialists</td>
<td>Program Management</td>
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<td>2.1</td>
<td>Approve IT Opportunity Scheduling</td>
<td>I</td>
<td>R (escalation)</td>
<td>C</td>
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<td></td>
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<td>R (escalation)</td>
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<td>A/R</td>
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<td>Charter IT Project</td>
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Table 5 – Process Deliverables by Activity

<table>
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<tr>
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<th>IT Project Portfolio Delivery Roadmap</th>
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<td>Updated for priority</td>
<td>Updated for schedule</td>
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<td>Charter IT Project</td>
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</tbody>
</table>

14 Business Champion and institutional decision makers e.g. Faculty and Department Heads, Committees, CIO, VPOC
## Appendix A – GLOSSARY

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Champion</td>
<td>The Business Champion provides the business context for the IT opportunity and agrees to the accuracy and completeness of the documented IT opportunity profile related to the business need. They are pivotal to the related operational change management and communications on the institution side. Has overall authority and accountability for the business initiative on behalf of the institutional area that they represent. This role will be played by either the (Assistant / Associate / Vice) Principal, (Vice / Deputy) Provost or (Assistant/ Associate/ Vice) Dean or CIO depending on the nature of the business initiative.</td>
</tr>
<tr>
<td>Business Relationship Management (BRM)</td>
<td>BRM is familiar with Queen’s business processes and reduces the barriers between centralized IT and university functional areas by acting as the IT Services liaison across all faculties, departments and shared services. BRM works closely with stakeholders to understand institutional strategies and priorities, seek and investigate new business needs, advise on services and solutions, actively participate in digital planning and proactively bring new opportunities to improve efficiency / cut costs to customers and the university through continuous improvement.</td>
</tr>
<tr>
<td>Data Custodian</td>
<td>A Data Custodian is an employee of the University who has administrative and/or operational responsibility over Institutional Data. In many cases, there will be multiple Data Custodians. An enterprise application may have teams of Data Custodians, each responsible for varying functions.</td>
</tr>
<tr>
<td>Enterprise Architect</td>
<td>The enterprise architect works closely with stakeholders to create, maintain and manage the IT architecture. They interpret, use and apply information contained within IT architecture models to inform a range of university improvement activities, particularly those involved in the design, development, enhancement and maintenance of IT systems.</td>
</tr>
<tr>
<td>Funding Decision Authority</td>
<td>IT opportunities are routed for funding to the appropriate Funding Decision Authority based on classification of the IT opportunity profile. Funding Decision Authorities include Faculty Deans, Digital Planning Project Group (DPPG), Vice- Principals’ Operations Committee (VPOC) and the Board of Trustees (BoT).</td>
</tr>
<tr>
<td>Governance Administrator</td>
<td>The Governance Administrator role undertakes all of the necessary governance administration activities required to support and enable each of the review steps and decision-making checkpoints throughout the Business Initiative Intake and Resource Planning processes. This role is played by IT Services Program Management resources who also ensure the flow of decision-making information throughout these SOP processes.</td>
</tr>
<tr>
<td>Information Security Officer (ISO)</td>
<td>The information security officer is responsible for setting security policy and plays a key role in informing, advising, and alerting management on matters relating to information security.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Initiative Intake Form</strong></td>
<td>The standard template used by IT Services to iteratively capture and describe the salient details of an IT opportunity sufficient to come to an understanding of the full nature of the opportunity in the form of a documented IT opportunity profile  &lt;br&gt;(see Appendix B – Business Intake Form, Initiative Master List, IT Project Charter)</td>
</tr>
<tr>
<td><strong>Initiatives Master List</strong></td>
<td>Listing of all IT opportunity profiles documented, or in the process of being documented using the Initiative Intake Form to capture the details of the related IT opportunity. The Initiative Master List is maintained by BRM and will make reference to the unique “Initiative ID#” assigned to each documented IT opportunity for identification and tracking purposes.  &lt;br&gt;(see Appendix B – Business Intake Form, Initiative Master List, IT Project Charter)</td>
</tr>
<tr>
<td><strong>IT Integration</strong></td>
<td>An IT integration represents one or more systems/applications communicating with one another. The form of communication can vary depending on the client needs.</td>
</tr>
<tr>
<td><strong>IT Opportunity</strong></td>
<td>The characterization of Queen’s stakeholder business needs and resulting IT investment. IT opportunities are uncovered in consultation between BRM and stakeholders across Queen’s faculties, departments (including CIO) and shared services having business goals and requirements that can be addressed (at least in part) through IT solutions and services.</td>
</tr>
<tr>
<td><strong>IT Opportunity Profile</strong></td>
<td>The description of an IT opportunity captured using the Initiative Intake Form, based on information from the Requestor(s)/ Business Champion. The IT opportunity profile is constantly updated using the Initiative Intake Form and also includes information and input from the solution development team as the IT opportunity proceeds through the Business Intake Process.</td>
</tr>
<tr>
<td><strong>IT Demand Forecast</strong></td>
<td>Enables matching of expected work portfolio (macro demand) to IT Services ability to deliver resource capacity. Regular resource demand forecast reports should involve Queen’s faculties, departments and shared services providing strategic plans and updates for initiatives and work that impact IT Services. IT Services analysts will confirm work plans and updates with the faculties and the program manager will oversee up to date resource demand forecasting</td>
</tr>
<tr>
<td><strong>IT Project Charter</strong></td>
<td>A short document that provides a shared understanding of the IT project, describes the scope, objectives and participants and serves as a contract between the project sponsor, key stakeholders and the project team. The IT opportunity profile is a key input to the creation of the project charter.  &lt;br&gt;(see Appendix B – Business Intake Form, Initiative Master List, IT Project Charter)</td>
</tr>
<tr>
<td><strong>IT Project Portfolio</strong></td>
<td>A list of diversified IT project opportunities, balancing risks with potential returns. IT Services consults with university stakeholders to evaluate, approve, and prioritize proposed investments to ensure the right mix of IT projects are in the portfolio to maximize overall returns.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>IT Project Portfolio</strong></td>
<td><strong>Delivery Roadmap</strong> Shows when IT projects will both start and finish over the course of a planning period. Factors determining where a project will be located on the roadmap include: priority and strategic value, dependencies and resource availability.</td>
</tr>
<tr>
<td><strong>IT Services Teams Site</strong></td>
<td>IT Services electronic collaboration location (Microsoft Teams) of all key templates and submitted documents relevant to this SOP.</td>
</tr>
<tr>
<td><strong>Requestor</strong></td>
<td>A faculty, department or shared services stakeholder who provides input to the IT opportunity and/or integration requirements and agrees to the accuracy and completeness of the documented IT opportunity profile related to the business need. Works with the Business Champion to ensure alignment with plans and goals of the faculty, department or shared service.</td>
</tr>
<tr>
<td><strong>Software as a Service (SaaS)</strong></td>
<td>Software as a Service is a cloud-based software licensing and delivery model. Software is licensed on a recurring subscription basis (e.g. monthly or annually), centrally hosted in the cloud and accessed via an internet browser. Typical expected SaaS benefits include: lower up-front costs, quick set up and deployment, easy upgrades, accessibility, and scalability.</td>
</tr>
<tr>
<td><strong>Systems Development Life Cycle (SDLC)</strong></td>
<td>Systems Development Life Cycle (SDLC) is a term used in solution engineering to describe the process for planning, creating, testing and deploying an IT system.</td>
</tr>
<tr>
<td><strong>3rd party / external system</strong></td>
<td>A system or application not maintained by IT Services. IT Services is not responsible for 3rd party systems.</td>
</tr>
</tbody>
</table>
Appendix B – Business Intake Form, Initiative Master List, IT Project Charter

Initiative Intake Form
The current version of the Initiative Intake Form can be found in Teams at GROUP_ITS_CIO_NEW BUSINESS INTAKE.

There are 3 sections contained in the intake form. The first section is to be completed with the institutional stakeholders (Requestor(s)/Business Champion). The second section captures integration needs and use case scenarios. The third section is for IT Services to complete. It contains the technical approach, solution option(s), high level effort and costing for implementation and sustainment for both the business side as well as IT Services. Additionally, it captures where there is a funding source identified and what years that funding available.

Initiative Master List
The Initiative Master list is a living document whose purpose is to provide transparency on endorsed, approved and proposed initiatives. The list has a web presence at GROUP_ITS_CIO_NEW BUSINESS INTAKE and is refreshed on a regular schedule.

*Draft Notes:*
The Initiative list will include a simple entry containing information related to the initiative such as the Business Champion, Requestor, title of initiative, whether an intake form has been completed, and what stage it’s at within the intake process [as described within this standard operating procedure]. It will also indicate where the initiative has been placed for prioritization and any funding approvals given or being requested.

IT Project Charter
The current version of the IT Project Charter template can be found in Teams at [location TBD]
Appendix C – Requirements Classification and Integration Guidelines

Classification of Requirements

The Business Analysis Body of Knowledge (BABOK) v3 defines four types of requirements as illustrated in the following diagram.

![Diagram showing the classification of requirements: Business Requirements, Stakeholder Requirements, Transition Requirements, and Solution Requirements.

- **Business Requirements**: Statements of goals, objectives, and outcomes that describe why a change has been initiated. They can apply to the whole of an enterprise, a business area, or a specific initiative.
- **Stakeholder Requirements**: Describe the needs of stakeholders that must be met in order to achieve the business requirements.
- **Solution Requirements**: Describe the capabilities and qualities of a solution that meets the stakeholder requirements. They provide the appropriate level of detail to allow for the development and implementation of the solution. There are two types of solution requirements: functional and non-functional.
- **Functional Requirements**: Functional requirements are the expected features of the system. Any requirement which specifies what the system should do. A functional requirement describes a particular behaviour of function of the system when certain conditions are met, for example: system will send an automatic notification to system administrator when an account is modified.

Business requirements are typically high-level business goals, whereas stakeholder requirements are more individualistic (as per the perception of the stakeholder e.g. a Faculty or Department Head).

Solution requirements refer to the expected features and behaviour of the system and are more detailed. Transition requirements are temporal and refer to requirements to enable the successful implementation of a project.

*Table 6 – Requirement Types*

<table>
<thead>
<tr>
<th>Type</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Requirements</td>
<td>Statements of goals, objectives, and outcomes that describe why a change has been initiated. They can apply to the whole of an enterprise, a business area, or a specific initiative.</td>
</tr>
<tr>
<td>Stakeholder Requirements</td>
<td>Describe the needs of stakeholders that must be met in order to achieve the business requirements.</td>
</tr>
<tr>
<td>Solution Requirements</td>
<td>Describe the capabilities and qualities of a solution that meets the stakeholder requirements. They provide the appropriate level of detail to allow for the development and implementation of the solution. There are two types of solution requirements: functional and non-functional.</td>
</tr>
<tr>
<td>Functional Requirements</td>
<td>Functional requirements are the expected features of the system. Any requirement which specifies what the system should do. A functional requirement describes a particular behaviour of function of the system when certain conditions are met, for example: system will send an automatic notification to system administrator when an account is modified.</td>
</tr>
<tr>
<td>Type</td>
<td>Definition</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Non-Functional Requirements</td>
<td>Non-functional requirements are the requirements which are related to the behaviour of the system. Any requirement which specifies how the system performs a certain function. A non-functional requirement generally specifies the system’s quality attributes or characteristics, for example: system will auto-save every 2 minutes when in edit mode.</td>
</tr>
<tr>
<td>Transition Requirements</td>
<td>Describe the capabilities that the solution must have and the conditions the solution must meet to facilitate transition from the current state to the future state, but which are not needed once the change is complete. They are differentiated from other requirements types because they are of a temporary nature.</td>
</tr>
</tbody>
</table>

### Integration Principles & Guidelines

IT Services is moving towards a master data model for University operations and student success where there is a single version of data entities used by all and these principles will be followed:

- Data must be stored securely;
- Security & privacy assessments required;
- Access to data must be approved (Data Stewards) and deemed necessary;
- Data must only be used for that which is authorized (contract); authorization is not transferable;
- Decisions made about data ownership, data access and conflict resolution follow a concise process;
- Handling of and management of data must adhere to legal requirements, policy, privacy and best practices (guidelines, principles);
- Queen's is the owner of all institutional data;
- Data Classification completed.

The following general guidelines will guide IT Services in evaluating and acting upon integration requirements:

- Standards: all parties will agree on the best possible integration patterns and scenarios that fit to both the client’s needs (and adhere to best practices);
- Any alteration of data (translations / transformations) will be agreed upon by data owners, custodians and clients;
- Best practices:
  - Consolidation: minimize the customization of services;
  - Reusability: multi-use services, micro services;
  - Shared Components: common services platform to reduce redundancy;
  - Secure.
- Artifacts / documentation will be completed (design specifications, privacy, etc.);
- Data transfer between systems will be done securely and will use the most appropriate technology;
- Vendors: If a vendor is involved IT Services will engage to ensure all aspects of the Vendor application are considered for the integration.
Appendix D – Definition of IT Projects

In addition to ongoing operational work that sustains and delivers current service offerings\textsuperscript{15}, IT Services undertakes temporary endeavors in the form of IT projects that are discrete pieces of planned work, completed over a period of time and intended to produce a specified and valued output. IT projects manage risk, require cross-functional teams and significant communication, deliver valued outputs that are time critical to the university and may be capital projects.

IT Projects are related to software, hardware, infrastructure services and other relevant activities and involve:

- Acquisition or development of required software, including purchases, licenses, and subscriptions (e.g. SaaS);
- Acquisition of required IT hardware, including upgrades from one major version to another;
- Development of new or improved IT service offerings or capabilities;
- All associated activities and services (including planning, scoping, requirements elicitation, installation, development integration, configuration, implementation and transition to operations).

IT Services classifies projects according to specific criteria (Table 7)

\textit{Table 7 – IT Services Project Classification}

\begin{tabular}{|c|c|c|c|}
\hline
\textbf{Criteria} & \textbf{Digital Opportunity Classification} & \textbf{Faculty / Dept.} & \textbf{Strategic} & \textbf{Executive} \\
\hline
\textbf{Effort Estimate} & & < 250 hours & 250 - 5,000 hours & > 5,000 hours \\
\hline
\textbf{Cost Estimate} & & <$100K & >$100K & > $2.5M (VPOC) \>$5.0M (BoT) \\
\hline
\textbf{Institutional Risk Assessment} & LOW (up to 4) & MED to LOW (5 to 9) & MED to HIGH (10 to 25) & \\
\textbf{(see Appendix E)} & & & & \\
\hline
\textbf{Initiative Value Assessment} & Subjective for now & Subjective for now & Subjective for now & \\
\textbf{(see Appendix F)} & & & & \\
\hline
\end{tabular}

\textsuperscript{15} E.g. handling service requests and incidents, maintenance upgrades and patches related to existing services
IT Project Approvals

The intent of this SOP is to clarify and improve the process to provide a standard, responsive, transparent and effective means to move a business need from an idea proposed by a Business Champion, through to an approved IT opportunity and prioritized and chartered IT project. This will increase clarity and overcome challenges with the current approvals process for IT Services projects including:

- Projects that are initiated through various doors into IT Services and get worked on without common understanding;
- The clarity of what defines a project as opposed to support work;
- Inconsistent use of project charters and lack of a common project charter template;
- Unclear criteria for how business needs and new IT initiatives will be assessed and approved;

IT Project Charter

A short document that provides a shared understanding of the IT project, describes the scope, objectives and participants and serves as a contract between the project sponsor, key stakeholders and the project team.

The IT opportunity profile informs the creation of the project charter. The project charter is the bridge between this SOP and the SDLC process.
Appendix E – IT Opportunity Risk Assessment

Utilizing the Queen’s Enterprise Risk Management policies and procedures framework, the BRM team within IT Services will support Requestors and Business Champions in assessing status quo risks (the risks of not doing anything) as part of the business intake process.

“Effective risk management will:

- Create and protect value – it contributes to the demonstrable achievement of objectives and improvement in performance across all areas of the institution;
- Form an integral part of the responsibilities of management and all organizational processes including strategic planning and all project and change management processes;
- Be a key part of the decision-making process at Queen’s and helps decision makers make informed choices, prioritize actions and distinguish among alternative courses of action.”

Risks are identified in the following broad categories: Financial, Compliance, Strategic, Operational, Health and Safety, Organizational, External.

Each identified risk should be assessed based on likelihood and impact. The overall risk ranking is calculated for each risk (likelihood * impact). This information will be considered to classify the IT opportunity appropriately.

*Figure 7 – IT Opportunity Risk Assessment Matrix*

<table>
<thead>
<tr>
<th>Impact</th>
<th>Likelihood</th>
<th>1 (None or rare)</th>
<th>2 (Unlikely)</th>
<th>3 (Possible)</th>
<th>4 (Likely)</th>
<th>5 (Almost Certain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Catastrophic</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>4 Major</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>3 Moderate</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>2 Minor</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>1 Very Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

16 Queen’s University Enterprise Risk Management Policy and Procedures Framework March 2017
Appendix F – IT Opportunity Value Assessment

Each IT opportunity is expected to deliver a return on investment. While subjective, this value should be considered as part of the decision making for prioritization. The breadth and depth of the desired outcome should be considered.

Four main areas of value include:

- Improving quality;
- Increasing revenues;
- Achieving efficiencies and reducing cost;
- Reducing risk.

Table 8 – Tangible and Intangible Benefit Types

<table>
<thead>
<tr>
<th>Category</th>
<th>Benefit Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible</td>
<td>New revenue</td>
<td>Initiative produces net new revenue (e.g. introduces a new product or market segment).</td>
</tr>
<tr>
<td>Tangible</td>
<td>Additional revenue</td>
<td>Initiative produces additional revenue from existing sources (e.g. an increase in revenue from existing sources that exceeds business as usual forecasts).</td>
</tr>
<tr>
<td>Tangible</td>
<td>Cost avoidance</td>
<td>Initiative reduces or avoids costs.</td>
</tr>
<tr>
<td>Intangible</td>
<td>Strategic alignment</td>
<td>Initiative aligns current operations with institutional strategy.</td>
</tr>
<tr>
<td>Intangible</td>
<td>Competitive advantage</td>
<td>Initiative generates an advantage for Queen's over its competitors (e.g. increase in ability to attract talented researchers).</td>
</tr>
<tr>
<td>Intangible</td>
<td>Competitive response</td>
<td>Initiative ensures that Queen's is able to meet a threat from competitive sources (e.g. rank higher in 'best schools' rankings, ability to attract highly qualified grad students)</td>
</tr>
<tr>
<td>Intangible</td>
<td>Management information</td>
<td>Initiative ensures that Queen's has the information required to successfully manage its operations and execute strategic change (e.g. quality of student data).</td>
</tr>
<tr>
<td>Intangible</td>
<td>Risk avoidance</td>
<td>Initiative strengthens Queen's capability to meet identified risks.</td>
</tr>
</tbody>
</table>
Appendix G – IT Opportunity Life Cycle

[Diagram showing the IT Opportunity Life Cycle with states such as Business Initiative Intake in Process, Approach & Cost Being Assessed, Being Funded, Resource Scheduling in Process, Being Prioritized & Scheduled, Being Chartered, and other states like Digital Strategy, Goals, Objectives, Abandoned, Denied, Not required, Not feasible, Funded centrally, Funded locally, Decentralized development, IT Services SDLC, IT opportunity validated, IT opportunity recommended, IT opportunity schedule agreed, IT project charter completed, and decision points.]

For Internal Use Only
Appendix H – IT Services Organizational Overview

IT Services is adapting its organisational structure to be more client-centric and service-optimized. The transition to a service-optimized structure will be accomplished by organizing into four key inter-related areas of operation.

Strategy & Architecture

Strategy and Architecture is responsible for aligning IT Services’ direction and functional operations to Queen’s objectives and strategy and maximising the return on Queen’s investments in IT solutions against institutional expectations for value.

Solution Development

Solution Development is responsible for the design, build, test and transition of new services and solutions into production including program/project management and solution, data and technology engineering.

Service Operations

Service Operations is responsible for ongoing management, maintenance and support of services, solutions and technology assets, and transitioning new ones into production.

Operational Oversight

Operational Oversight is responsible for overseeing and communicating the quality and value of the catalogue of IT services, ensuring strong vendor relations and financial, human capital and IT asset management.
Appendix I – Step #1.4 Determine Technology Approach, Demand and Cost Estimates

The Business Initiative Intake Process includes activity by IT Services to determine the technical feasibility, approach, resource demand and cost estimates for an IT opportunity. The purpose of this activity is to begin a systematic approach to finding, capturing and tracking the requirements to reach an agreed understanding of what the recommended solution should do.

Successful completion of this step (#1.4) optimizes the trade-offs between requirements and constraints to identify a compliant solution option(s) that maximizes value relative to stakeholder expectations. Subsequent to this step, stakeholder agreement on the recommended high-level solution design is achieved (see subsection 1.5) before any major funding investments are made or IT Services proceeds with resource scheduling of the IT opportunity for solution development.

The work in this step (#1.4) in the Business Initiative Intake process is only undertaken after:

- The required business initiative information has been elicited and captured by Business Relationship Management (BRM) using the Initiative Intake Form (see Appendix B – Business Intake Form, Initiative Master List, IT Project Charter); and
- The Business Champion has approved IT Services to proceed with these activities (see subsection 1.3).

The appropriate Manager, Solution Engineering (Engineering Manager role) is accountable to lead completion of the required activities in this step (#1.4) of the process. They collaborate closely with BRM and the enterprise architect and identify and notify any Solution Development analysts and specialists (e.g. integration architect) that are required to review and assess the IT opportunity (see Table 9).

Table 9 - Business Intake Process (RACI) for Business Intake Process Activity #1.4

<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
<th>Queen’s Stakeholders</th>
<th>IT Services Strategy &amp; Architecture</th>
<th>IT Services Solution Development</th>
<th>IT Services Service Ops</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BRM</td>
<td>Enterprise Architect</td>
<td>Engineering Manager</td>
<td>Analysts, Specialists</td>
</tr>
<tr>
<td>1.4</td>
<td>Determine Tech Approach, Demand and Cost Estimates</td>
<td>I</td>
<td>R</td>
<td>A</td>
<td>R</td>
</tr>
</tbody>
</table>

17 Appropriate based on the assigned areas of responsibilities of each Manager, Solution Engineering and the nature of the IT opportunity.
For each IT Opportunity profile the appropriate Manager, Solution Engineering ensures the Initiative Intake Form:

1. Contains the findings and output of the work completed by IT Services during this part of the Business Intake Process in the applicable section of the form that profiles these findings for the IT opportunity; and

2. Includes updated technology approach, solution options (if applicable) and initial costing estimates determined by the analysts and specialists (Figure 8).

BRM then reviews this technology approach, options and costing information captured in the IT opportunity profile with the Business Champion to enable them to make an informed decision to proceed with funding the IT opportunity (see subsection 1.5).

Figure 8 – Collaboration on IT Opportunity Technology Approach and Cost Estimates

Manager, Solution Engineering Responsibilities

In general, the Solution Engineering Managers oversee the continual development and improvement of IT systems through both incremental and innovative technological changes and improvements. This includes the planning, development and refinement of application and technology infrastructure architectures, components and services based on business needs, application or technology lifecycles, new technology developments, operational performance and customer satisfaction.
The appropriate Manager, Solution Engineering (depending on the nature of the IT opportunity) quarters this step (#1.4) of the Business Intake process and determines the required resources (e.g. solution architects, system analysts, integration architects etc.) to bring together based on the IT opportunity profile information provided. They are accountable for overseeing this team to determine the high-level technology approach and solution design option(s) for the IT opportunity. This includes:

- Ensuring that the technology approach is compliant with IT standards and policies and the new or enhanced solution is appropriately designed to support requirements, including any integration requirements;
- Actively collaborating with BRM to engage Queen’s stakeholders to identify requirements as needed to complete a high-level technology approach and solution design, including negotiation of required vs. desired features based on cost, time to implement etc.;
- Translating the IT opportunity into the amount and type of resources required i.e., work/effort, skills, infrastructure components etc.;
- Using estimation models based on different activity types (package implementation, custom development, etc.) and historical trends to aid in costing and resource forecasting;
- Referencing the existing IT Project Portfolio and IT Project Portfolio Delivery Roadmap (both overseen by the Assistant Director, Programs) to determine any project interdependencies and aid in high level scheduling estimates.

Reuse of any applicable existing solution designs and components minimizes time-to-implementation and improves solution quality.

**Analysts & Specialists Responsibilities**

Determination of the best technology approach for an IT opportunity will be informed by analyst and specialists’ knowledge of the technology and application portfolio as well as architecture policies and standards. The required Solution Development analysts and specialists are enlisted by the Manager, Solution Engineering to evaluate the IT opportunity. These resources will conduct an internal IT Services meeting\(^\text{18}\) (in person, online or over the phone) to:

- Assess the information provided in the IT opportunity profile;
- Determine if sufficient information has been captured for initial solution option(s) and high-level effort and cost estimates;
- If the analysts and specialists assigned to the IT opportunity deem there is inadequate information in the IT opportunity profile to proceed, and BRM cannot provide sufficient clarification, then BRM will facilitate a meeting with the customer Requestor(s) to provide the additional information required.
- Develop an action plan to put together the information required to update the applicable part of the IT opportunity profile (captured through the Initiative Intake Form) to provide

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\(^{18}\) This may be in the form of a standing internal IT Services meeting for the purposes of regularly evaluating new IT opportunities
the required technology approach, level of effort, available resource capacity to deliver, initial delivery schedule and estimated costs.

The integration architect will carefully and comprehensively analyze integration requests (when and where applicable).

**Enterprise Architect (Business Architect, Information Security Officer) Responsibilities**

To ensure security, compliance and infrastructure alignment the proposed technical systems design and any solution options for an IT opportunity will be evaluated for compliance with business and technical architecture principles, IT strategy, and applicable policies and standards. These include, but are not limited to, cybersecurity, technology platform, data interoperability and integration concerns. The enterprise architect participates in this activity.

The enterprise architect is a key member of the Strategy & Architecture team who is:

- Involved in clearly defining goals for IT aligned to Queen’s strategic objectives and vision;
- Charged with ensuring solution design compliance with the business and IT architectures.

The enterprise architect safeguards the development and ongoing maintenance of architectural and technology standards to facilitate interoperability, reuse, rapid development and to confirm they remain current with leading practices (e.g. Cloud, API, cyber security etc.). They also oversee the development and maintenance of IT policies and guidelines aligned with university policies and Queen’s objectives.

Within this step (#1.4) of the Business Intake process, the enterprise architect is responsible for providing architectural input as required and reviewing the IT opportunity profile to confirm compliance with applicable IT goals, standards and policies.

This may include the enterprise architect:

- Considering privacy, security, and regulatory requirements in the solution design;
- Ensuring the solution design is based on reuse and established architecture patterns;
- Conducting a preliminary architecture review of the solution design;
- Acting as subject matter expert to represent published IT strategy, technology roadmaps and architectural policies, guidelines and principles.

As required, the enterprise architect will coordinate with the appropriate Manager Solution Engineering and BRM to bring any issues to the attention of the Business Champion. For non-compliant solution designs, the enterprise architect will ensure that any exceptions are identified, noted and resolved appropriately.

**BRM Responsibilities**

Throughout the Business Intake process, BRM is responsible for managing the relationship between IT Services and its customers to understand the strategies and priorities of Queen’s stakeholders. In general, BRM shares information on available services, overall IT Services strategies and generally provides advice and guidance to Queen’s stakeholders on services and solutions. They also proactively work with customers to identify new opportunities to improve efficiencies and increase value for the university.
In the early part of the Business Intake process a key responsibility for BRM is to facilitate IT Services demand management by identifying and capturing emerging business needs and priorities for future IT initiatives. This is done in close consultation with customers, and specifically knowledgeable Requestor(s) who can describe the business needs as well as the Business Champion19 accountable for the IT opportunity. Emerging business needs are captured by BRM using the Initiative Intake Form20, to provide IT Services with the necessary context, high-level requirements and understanding of the business challenges or opportunities. This informs and enables IT Services to determine the appropriate technology approach, options and initial costing estimate for the IT opportunity.

Within this step (#1.4) of the Business Intake process, BRM is specifically responsible for coordinating with Requestor(s) and the Business Champion (as necessary and in cooperation with the Manager, Solution Engineering).

This may include BRM:

- Collaborating with the Manager, Solution Engineering and rest of the IT Services team by acting as a proxy for the Requestor(s) and Business Champion to clarify and/or elaborate the IT opportunity context, concept and requirements captured through the Initiative Intake Form;
- Liaising with Queen’s stakeholders to further clarify business strategies and needs related to the IT opportunity and/or coordinate with relevant external 3rd party(s) they may have engaged (e.g. SaaS provider) to capture any required inputs needed to complete the technology approach assessment;
- Communicating and resolving issues and challenges uncovered during the technology approach assessment that require the attention of the Business Champion. This could include things such as any compliance related issues, for business or technical policy compliance, technical standards compliance, regulatory related issues etc.

<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
<th>IT Opportunity Profile</th>
<th>Initiatives Master List</th>
<th>IT Project Portfolio</th>
<th>Delivery Roadmap</th>
<th>IT Project Charter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4</td>
<td>Determine Technology Approach, Demand and Cost Estimates</td>
<td>Updated for Effort &amp; Estimates</td>
<td>Updated for status</td>
<td>Referenced</td>
<td>Referenced</td>
<td>Referenced</td>
</tr>
</tbody>
</table>

19 See Glossary
20 See Appendix B – Business Intake Form, Initiative Master List, IT Project Charter
Appendix J – Step #1.6 & 2.2, IT Opportunity Assessment Guidelines

For business initiatives requiring strategic or executive level approval, the Business Initiative Intake Process may require advisory committee activity to rank and recommend funding prioritization for these IT opportunities (see subsection 1.6).

The IT Opportunity Assessment Guidelines provide Business Champions and advisory committees with a means to:

- Consistently and collectively decide on the importance (rank) and sequence of proposed projects to submit for funding and approval;
- Frame deliberations and undertake transparent decision making related to their recommendations.

The following steps provides a consistent approach for advisory committees to undertake IT opportunity assessment:

1. Review the IT opportunity profile information (captured through the Initiative Intake form) along with all additional business initiative documentation;

2. For each IT opportunity, score each of the following ranking categories as appropriate:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal /External Compliance or Regulation</td>
<td>1 to 5</td>
<td>Committee determines whether the IT opportunity addresses an internal or external compliance or regulation deadline, including but not limited to a legal request, policy, senate motion, audit, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. No internal or external compliance implications.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Faculty compliance implications (internal faculty governance decisions).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Senate compliance implications</td>
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<tr>
<td></td>
<td></td>
<td>4. Board compliance implications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Legislation (government)</td>
</tr>
<tr>
<td>Strategic Alignment with Queens Plan</td>
<td>1 to 5</td>
<td>Committee rating based on the extent for which the IT opportunity aligns to Queen’s strategic plan and budget framework.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. No alignment with the plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Minor alignment with small elements of the plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Moderate alignment with multiple elements of the plan, and/or considerable alignment with small elements of the plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Considerable alignment with multiple elements of the plan and/or complete alignment with small elements of the plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Complete alignment with multiple elements of the plan</td>
</tr>
<tr>
<td>Criteria</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
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</tr>
</tbody>
</table>
| Impact   | 1 to 5  | Committee rating based on the breadth of impact on Academic or Administrative areas of the University.  
1. Minor impact on the objectives and/or results of specific projects, programs, or services within the faculty, department or shared services unit  
2. Moderate impact on the objectives and/or results of specific projects, programs, or services within the faculty, department or shared services unit  
3. Major impact on the objectives and/or results of specific projects, programs, or services within the faculty, department or shared services unit, and/or a moderate impact beyond the shared services unit;  
4. Major impact on the determination of the objectives, specific projects, programs or services of a division or faculty, and/or a moderate impact beyond a division or faculty; or a moderate impact on the University’s services, resources or obligations  
5. Major impact on the direction of programs and services beyond a division or faculty and/or, major impact on the University’s services, resources, or obligations. |
| Benefits | 1 to 5  | Committee determines the extent the IT opportunity provides benefits to the University? Does it provide improvements to processes, projects, programs, or services where there is a net savings of time or dollars or will revenues increase as a result of the proposed project? Does it create a new service, or address an existing service or process gap? What is the scope of benefits to the University?  
1. Minor benefits to the objectives and/or results of specific processes, projects, programs, or services within the faculty, department or shared services unit  
2. Moderate benefits to the objectives and/or results of specific processes, projects, programs, or services within the faculty, department or shared services unit  
3. Major benefits to the objectives and/or results of specific processes, projects, programs, or services within the faculty, department or shared services unit, and/or a moderate impact beyond the shared services unit;  
4. Major benefits to the determination of the objectives, specific processes, projects, programs or services of a division or faculty, and/or a moderate impact beyond a division or faculty; or a moderate impact on the University’s services, resources or obligations  
5. Major benefits to the direction of programs and services beyond a division or faculty and/or, major impact on the University’s services, resources, or obligations. |
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>See Appendix E</td>
<td>Business Sponsor determines if the IT opportunity addresses institutional risk? If so, what is the risk rating? The Institutional Risk Rating based on Queen’s Enterprise Risk Management policies and procedures framework.</td>
</tr>
</tbody>
</table>

3. List and rank each IT opportunity in accordance with their score;
   - Committee records ranking for the individual IT opportunity.

4. Review rank scoring for each IT opportunity and order IT opportunity in order of importance;
   - Update the relative overall ranking for the group of IT opportunity.

5. Collectively discuss each advisory committee member’s rank and rationale to develop a committee IT opportunity rank.
   - Individual IT opportunity rankings are sent to the committee member responsible for aggregating the results;
   - The results are aggregated for review and discussion at the next committee meeting to develop a committee IT opportunity rank.

The ranking criteria are derived from the information presented in the IT opportunities and provide a quantitative approach to reviewing the opportunities. The ranking criteria is not stand alone, but rather will be used by each advisory committee member to rank IT opportunities and for the overall committee to collectively rank project proposals.
Appendix K – Step #2.2 Prioritize and Schedule IT Opportunity

The Resource Scheduling Process includes the activity completed by IT Services to prioritize and schedule an IT opportunity (see summary in subsection 2.2). The purpose of this activity is to confirm the sequencing of IT opportunities and agreed with stakeholders on the highest priority initiatives for IT Services to charter, resource and start first.

Successful completion of this step takes into account:

- The Business Champion / Requestor(s) desired timing;
- Benefit stream assumptions and local priorities related to this initiative;
- Project dependencies / interdependencies with other IT projects and any external dependencies;
- Available IT Services resource capacity; and
- Procurement lead times.

Prioritizing and scheduling IT opportunities results in more control of the IT Project Portfolio for IT Services and more transparency for customers. Information on the priority and schedule for an IT opportunity is captured, stored and shared consistently with customers so they know definitively when IT opportunities will be chartered, and IT projects will start. They are also aware of which IT projects are currently resourced and in progress.

The project work is only undertaken after:

- The IT opportunity is sufficiently documented and funded to proceed (refer to the Business Initiative Intake process in section 1); and
- Program Management has approved the IT Opportunity for scheduling (see subsection 2.1).

Program Management is accountable to lead completion of the required activities in this step (#2.2) of the process. They maintain the accuracy and completeness of the IT Project Portfolio and associated IT Project Portfolio Delivery Roadmap in close collaboration with the Solution Engineering Managers and BRM, as well as consultation with analysts, specialists and the enterprise architect to elicit their input as required (see Table 9).

Table 11 - Business Intake Process (RACI) for Business Intake Process Activity #2.2

<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
<th>Queen’s Stakeholders</th>
<th>IT Services Strategy &amp; Arch</th>
<th>IT Services Solution Development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>BRM</td>
<td>Enterprise Architect</td>
</tr>
<tr>
<td>2.2</td>
<td>Prioritize &amp; Schedule IT Opportunity</td>
<td><strong>C</strong></td>
<td>R (escalation)</td>
<td>C</td>
</tr>
</tbody>
</table>

21 Business Champion and institutional decision makers e.g. Faculty and Department Heads, Committees, CIO, VPOC
For each IT Opportunity, Program Management ensures the:

1. IT Project Portfolio contains the necessary prioritization and other information on the IT opportunity; and
2. IT Project Portfolio Delivery Roadmap includes updated proposed scheduling of the IT opportunity (Figure 8).

The IT Project Portfolio Delivery Roadmap shows when IT projects will both start and finish over the course of a planning period. BRM reviews the proposed resource scheduling information for the IT opportunity with the Business Champion. If they are in agreement, then the IT opportunity scheduling can be confirmed and the IT opportunity chartered as an IT project (see subsection 2.3). Otherwise, BRM escalates the scheduling issue within IT Services for resolution.

**Figure 9 – Collaboration on IT Opportunity Resource Scheduling**

**Program Management Responsibilities**

Based on the IT opportunity profile, Program Management facilitates scheduling of the IT project with the appropriate Manager, Solution Engineering taking into account the faculty or department stakeholder’s desired timing, benefit stream assumptions, priority, project interdependencies, available capacity, procurement lead times, etc. The IT opportunity is entered as a pending project into the IT Project Portfolio and IT Project Portfolio Delivery Roadmap.
Manager, Solution Engineering Responsibilities

The Manager, Solution Engineering is the resourcing authority for their area and evaluates the availability of the required resources (e.g. solution architects, system analysts, integration architects etc.) necessary to execute on the IT opportunity as currently understood. The Manager, Solution Engineering is responsible for guiding and providing their input to Program Management to facilitate optimizing the scheduling of the IT opportunity.

BRM Responsibilities

BRM is notified of the proposed schedule and informs the IT opportunity Business Champion when the IT opportunity is scheduled to be chartered as an IT project and will both start and finish over the course of the planning period. If the Business Champion (representing the faculty, department or shared services stakeholders) disagrees with the proposed schedule, BRM facilitates conversations between the IT opportunity stakeholders and IT Services to reach a suitable resolution.

Table 12 – Process Deliverables for Resource Scheduling Activity #2.2

<table>
<thead>
<tr>
<th>#</th>
<th>Activity</th>
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<th>IT Project Portfolio Delivery Roadmap</th>
<th>IT Project Charter</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Prioritize &amp; Schedule IT Opportunity</td>
<td>Updated for status</td>
<td>Updated for priority</td>
<td>Updated for schedule</td>
<td>Scheduled</td>
<td></td>
</tr>
</tbody>
</table>
Appendix L – SOP Guiding Principles

The **guiding principles** that govern IT Services in the execution of this SOP are:

- **LIAISE** – The Business Initiative Intake process is the interface between IT Services and faculties, departments and shared services to register, communicate, analyze and dispatch all new business needs;
- **CAPTURE** – Initiative intake requests will be consistently and sufficiently documented to facilitate a clear determination of institutional value and enable determination of effective and compliant solution design options and high-level costing;
- **COMMUNICATE** – Initiative intake requests and related information needs will be tracked, and Business Champions and Requestors will be kept informed of their status and prompted when action is required;
- **SATISFY** – Stakeholder satisfaction with the quality of the Business Initiative Intake process will be monitored and inform IT Services continuous improvement actions;
- **EVALUATE** – Development of solution options and high-level costing will conform to a systematic approach including clearly defined roles, responsibilities, activities and checklists;
- **PREDICT** – Demand for IT Services resources will be forecasted often and early to assist in the ability to plan and schedule resources to deliver solutions and services downstream;
- **PRIORITIZE** – Recommend and influence prioritization of IT opportunities to maximize the return on Queen’s IT investments against institutional expectations of value and best optimize demand to fit IT Services available capacity to deliver.