

SO.1 Contract Establishment

2 | D | O | _ | A | SO.1.1 Understand and define user requirements

2 | D | O | _ | A | SO.1.1.1

Initiators (normally users and/or user management) identify the need to acquire, develop and/or enhance a software product and/or service due mainly to:

- a) business and operations opportunities for growth or improvement;
- b) deficiencies in existing systems and software requiring modifications.

2 | _ | O | _ | A | SO.1.1.2

Software developers (normally software managers and/or system analysts) discuss with initiators to obtain a clear understanding of the user requirements;

For an internal development project, software project management procedures will be followed (refer to Software Project Management Practice);

The need for outsourcing software projects may arise under the following circumstances:

- a) Recognition that the internal software organization is not capable of providing a quick enough turnaround time;
- b) Shortage of technical skills;
- c) Organization policy to outsource as a means to reduce cost.

1 | _ | O | _ | A | SO.1.1.3

Following agreement, initiators with the support of developers, specify the user requirements.

SO.B provides a document template for preparing the user requirements specifications.

1 | _ | O | _ | A | SO.1.2 Nominate SCM

1 _ O _ A SO.1.2.1

Software management with the support of users, nominate an SCM from the internal software organization who is available and possesses the necessary contract management and people skills, knowledge and experience.

1 _ O _ L SO.1.2.2

The SCM reviews the user requirements and prepares a Stakeholder Chart to identify the people or groups the project deals with including:

- a) initiators;
- b) end-users;
- c) suppliers;
- d) subcontractors;
- e) the prime contractor;
- f) other sub-system developers.

2 _ O _ L SO.1.2.3

With the support of initiators and software management, the SCM establishes a cross-functional team (CFT) to support decisions made in resolving outsourcing issues by:

- a) Defining the terms of reference for the CFT;
- b) Selecting the right candidates (to potentially include SCM, initiators, users and developers from the impacted software organization) to serve in the CFT;
- c) Identifying the roles and responsibilities for members in the CFT.

2 _ O _ A SO.1.3 Prepare feasibility study**2 _ O _ A** SO.1.3.1

The SCM prepares the software product or service feasibility study to address user requirements by:

- a) evaluating alternative solutions (including build/buy, in-house/outsource etc.) to address user requirements;
- b) for each feasible alternative, evaluating the associated risks and benefits, recommending the most suitable alternative;

- c) performing a cost-benefit analysis or other analytical techniques to justify expenditure;
- d) preparing software acquisition plans, integrating them with project plans as appropriate.

2 **_** **O** **_** **A** SO.1.3.2

The SCM reviews the feasibility study with initiators, CFT and software managers and seeks approval for expenditure.

2 **_** **O** **_** **A** SO.1.4 Develop acquisition strategy

2 **_** **O** **_** **A** SO.1.4.1

The SCM prepares a software product and/or service acquisition strategy based on the recommended solution that includes:

- a) A shortlist of most suitable suppliers;
- b) Negotiation criteria;
- c) Processes to solicit bids, evaluate responses, select the supplier and manage and control the supplier.

1 **_** **O** **_** **A** SO.1.5 Prepare software outsourcing contract (SOC)

1 **_** **O** **_** **A** SO.1.5.1

The SCM prepares an SOC based on the recommended solution and acquisition strategy to include:

- a) User, systems, performance and software acceptance criteria;
- b) Verification of supplier's test plan;
- c) Maintenance and support agreement;
- d) Control methods that will be used by client to achieve contract goals and objectives (ie, concept of staging, refer Software Project Management Practice);
- e) Any required interfaces to agents who may perform independent verification, validation and/or test;
- f) Any interfaces to subcontractors who could be

- involved in the work described in the contract;
- g) Joint audits and reviews that will be performed with supplier;
 - h) Requirements for packing, delivering and installing the software;
 - i) Change management process;
 - j) Staff training requirements;
 - k) Contract value and payment terms;
 - l) Need for the supplier's project plan to integrate with the main or parent project plan if available.

1 | _ | O | _ | A | SO.1.5.2

The SCM submits the SOC for review and approval of:

- a) The organization's legal counsel;
- b) Initiator (s) and software management.

SO.2 Contractor Selection

1 | _ | O | _ | A | SO.2.1 Communicate contract requirements to suppliers

1 | _ | O | _ | A | SO.2.1.1

Based on the requirements stated in the SOC, the SCM prepares to communicate to potential suppliers of the software product and/or service e.g. prepare a Request For Proposal (RFP).

SO.C describes a method for preparing the RFP.

2 | _ | O | _ | L | SO.2.1.2

The SCM reviews the RFP with the CFT before distribution to potential suppliers.

1 | _ | O | _ | A | SO.2.2 The SCM reviews the RFP with the CFT before distribution to potential suppliers

1 | _ | O | _ | A | SO.2.2.1

At this stage, the SCM and/or the delegated RFP contact person should be ready to answer any questions posed by any of the suppliers regarding the RFP.

2 _ O _ A SO.2.2.2

The SCM and/or delegated RFP contact person should acknowledge all proposals submitted.

1 _ O _ A SO.2.2.3

The SCM with support from members of the CFT should evaluate all supplier responses and proposals with the objective of selecting the most suitable one.

SO.D provides an effective method of selecting a suitable supplier that will fulfill the contract requirements.

1 _ O _ A SO.2.3 Negotiate and award SOC

1 _ O _ A SO.2.3.1

When a suitable supplier has been selected, a suitable time and place should be set for the SCM to review and negotiate the terms and conditions of the SOC with the supplier(s).

1 _ O _ A SO.2.3.2

As and when the terms and conditions are agreeable, the SOC document should be endorsed by authorized personnel in both parties to legalize it whereby contract execution activities can commence.

1 _ O _ A SO.2.3.3

If for any reason, the terms and conditions of the SOC are not agreeable by either party, the SCM has the option of:

- a) Changing the terms and conditions of the SOC (approvals need to be obtained);
- b) Selecting another supplier for providing the software product and/or service (this means repeating 5.2.3 Negotiate and award SOC);
- c) Evaluating the offer and proposal of supplier with others to arrive at the right choice of supplier.

supplier on progress and provide support in resolving any outstanding issues encountered.

1 O A SO.3.3 Train staff

1 O A SO.3.3.1

The SCM should ensure that assigned staff (from the user and software development areas) receive the necessary training to install, operate and use supplier's products or services.

SO.A provides a list of processes and activities that should be performed in parallel to or as part of managing the contract.

SO.4 Receipt and Installation

1 O A SO.4.1 Prepare site

1 O A SO.4.1.1

The SCM should prepare the site(s) in readiness to receive the supplier's products and/or services to consider:

- a) Hardware, software and telecommunications requirements including PCs, printers, storage devices, specific applications, operating systems etc.
- b) Other facilities including terminals, desks, shelves, racks etc.

The SCM should consider using a 'test' site or environment before moving into the 'live / production' site or environment to avoid the risk of disruption to existing services. Only upon successful acceptance testing should the software products and/or services be moved into the 'live /production' environment.

1 O A SO.4.1.2

The SCM should ensure that trained staff is available to receive the supplier's products and/or services.

1 O A SO.4.2 Receive and verify supplier's products and/or services

1 O A SO.4.2.1

When the supplier's software products and/or services are received, the SCM or delegate should:

- a) Verify the correct receipt and packaging of materials, supplies, software and documentation, to ensure completeness, correctness and compliance with standards and specifications.;
- b) If the software product or service has to be returned for supplier rectification, the SCM or delegate should exercise the proper return procedures.

1 _ O _ A SO.4.3 Install software product and/or service

1 _ O _ A SO.4.3.1

When the software product and/or service has been verified to be correct, the SCM and/or delegate should commence with installation procedures.

Note that:

- a) The supplier's software product and/or service should be installed into a 'test' environment. Installation into the 'production / live' environment should be done after user acceptance testing described in SO.5 below.
- b) Installation procedures could include updating:
 - Configuration item (hardware, software, network etc.) libraries;
 - Documentation libraries;
 - Databases
 - etc.

SO.5 Acceptance

1 _ O _ A SO.5.1 Conduct user acceptance test

1 _ O _ A SO.5.1.1

The users with support of the SCM and supplier should conduct a User Acceptance Test (UAT) of the software product and/or service in accordance to requirements specified in the SOC to include the following:

- a) To validate that the software product and/or service demonstrates its capabilities (functional and operational) in its operational environment;

- b) To verify the User Manual that users will refer when the software product and/or service is operating live;
- c) To verify the User Manual that users will refer when the software product and/or service is operating live;

Note that:

- a) User acceptance testing should take place in a test environment that resembles the target production environment or in a simulated production environment;
- b) SO.5 of the Software Testing practice provides a detailed description of the tasks and procedures that are required to be performed in UAT.

1 _ O _ A SO.5.1.2

During the execution of UAT,

- a) Software operations staff shall resolve all operational problems;
- b) Software operations staff should monitor systems and/or service capacity and performance;
- c) Users with the support of the SCM should document any temporary work-arounds which will be permanently fixed by the supplier.

1 _ O _ A SO.5.2 Close-off Contract

1 _ O _ A SO.5.2.1

On completion of UAT, the SCM with the support of users should assess whether the software product and/or service supplied has complied with all that has been stated in the SOC. Any deviations should be reported to the supplier for corrective actions to be taken. Under such circumstances, delayed contract payment is inevitable.

1 _ O _ A SO.5.2.2

If the software product or service supplied has complied with all that has been stated in the SOC, the SCM with support from users and the software operations staff should implement the software product or service into the live / production environment.

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 SO.5.2.3

After the software product or service has been implemented into the live / production environment, the following activities should take place:

- a) The SCM with support from users should facilitate processing of final invoices, issuing payment to suppliers and resolving any payment problems;
- b) The SCM then executes plans to reallocate resources, equipment and facilities to other areas or projects of the software organization.
- c) The SCM obtains the signature(s) of the users (normally represented by user management and/or initiators) and the software operations group (normally represented by software operations management) to indicate successful completion of the SOC.
- d) The relevant software documentation should be handed over to the operation and maintenance teams
- e) The SCM with support from users should commence post installation services in accordance to the maintenance and support agreement spelt out in the SOC (refer also to Post Implementation Support Practice).