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Project management of government IT projects

THE STANDISH GROUP, a leading IT research group (http://www.standishgroup.com), conducted a study into 300 000 information systems projects. The research, which was released in 2001, showed that only 26 % of these projects succeeded. Success was defined as 'projects completed within time and budget and in accordance to their original specifications'.

The top four reasons for IT project failure were as follows:

- Insufficient user involvement
- Lack of executive management support
- No clear business objectives
- No experienced project manager

A similar study, undertaken by the same group in 1994, reported that only 16 % of projects succeeded. In this earlier survey, participants had cited the following top three causes of project failure:

- Lack of user input
- Incomplete requirements and specifications
- Changing requirements and specifications

ENGINEERS AND SPECIFICATIONS

As engineers, we are very familiar with specifications. A typical civil engineering project is usually well defined 'spatially' with thorough engineering drawings and 'materially' with schedules of quantities. General and specific conditions of contract are standard and very few engineering projects reach implementation stage without a project implementation plan. The project plan usually contains time frames, milestones and quantifiable deliverables.

IT projects within government, however, are often implemented with little or no specifications. This makes these projects almost impossible to project manage. Furthermore, many of these projects run into millions of rands. The questions that must be asked therefore are, 'How does one go about creating a

Table 1 A typical system requirements specification

System requirement category	Examples of questions asked per category
Data	What data will the system require initially? What data will be required on an ongoing basis (maintenance)? What database management system should be used?
Hardware	What hardware (server/desktop) will be required to implement the system? How much will this hardware cost? Where will the hardware reside (is an air-conditioned secure server room required)?
Software	Which software technologies are available to meet the requirements? Should open source or proprietary software be used for different parts of the systems architecture? What is the corporate IT policy regarding systems and standards (GIS for example)?
Integration	What other internal/external IT systems will the system have to integrate with? How will data sharing between systems be handled (xml/ftp, etc)?
People	Where are the users of the proposed system located? How will users access the system (intranet/internet/LAN/WAN)? What and how much training will users require?
Processes	Define the business processes that the system will support (a system that does not support the business will not be used) What information is generated/required by each business process? Which parts of the business process should the software support?

specification for an IT project' and 'How should one project manage such a project'.

MEASURE IT TO MANAGE IT?

We all know the adage, 'If you cannot measure it, you cannot manage it.' The question of IT project management really therefore begins with the question, 'How do we measure or specify an IT project.' Once we have done this, we can discuss how to project manage it.

IT industry best practice calls for a system requirements specification (SRS) as the non-negotiable point of departure for any IT project. A typical SRS will define the IT project in terms of broad categories (see table 1).

PROJECT MANAGING AN IT PROJECT

Once a comprehensive SRS has been generated, specific quantifiable tasks can be drawn out of this document. These tasks can then each be allocated time frames and deadlines. This is essentially the basis of any project implementation plan.

For example, once the 'people' section of the SRS has been completed, one will know how many people require how many sessions of training on which modules of the software. The 'training task' having been properly defined/specified can now be given a realistic duration and deadline.

The 'Integration' section may define how many other IT systems the planned system must integrate with. These other external systems will then become a task or line item on the project plan. Specific deadlines will be allocated to these tasks and they therefore now become manageable.

BENEFITS OF COMPILING AN SRS

A good SRS will describe the IT system in both business and IT 'language'. In other words, it will describe the technical IT requirements as well as the core functional business requirements for the system. Once the system has been specified, it can now be managed. Other benefits of compiling an SRS include the following:

- The SRS is the basis for a 'request for quotations' or tender document, a critical part of any formal procurement process. Because the system has now been described in detail, one can expect cheaper quotations as risk to both parties is minimised. Where specifications are vague, the private sector usually elevate their prices to price risk into their quotations
- Payment to the implementing software service provider can be structured and based on the SRS. This gives government institutions more control over IT projects

CONCLUSION

The principles and ideas put forward here will be familiar to most readers, but the main point is that IT projects can and must be managed. The compilation of a system requirements specification should be the non-negotiable point of departure for any IT project. IT projects that are not specified using the SRS approach described above will have a much higher chance of failing.

An SRS also has the potential to reduce the cost of an IT system by eliminating the risk of the unknown to both parties concerned. It also provides the baseline specification upon which the tried and tested principles of project management can then be applied. □

Source:
http://www.saice.org.za/downloads/monthly_publications/2008/CivilEngJul08/#/0