Designing an Integrated PMO

Geoff Rankins

This presentation will describe how standard methods and commonly observed PMO patterns were integrated and tailored in an agile way to develop the programme management structures for a major infrastructure replacement programme.

Keywords: Integrated PMO, iPMO, Infrastructure Programme Office Design

Abstract

A Government Authority establishing a major infrastructure replacement programme required a coordination body, identified as an Integrated Programme Management Office (iPMO), to manage the programme. A consultant was engaged under contract to design this iPMO using a conventional approach mandated in the contract; this approach proved to be inadequate. Design activities were completed using a more agile approach. The ethical implications of the need to change approach are discussed.

Background

A newly formed Government Authority was charged with establishing a $400 million programme to rationalise the State's emergency services radio communication infrastructure. This programme would move the infrastructure from a situation of overlapping networks operated by each of the major emergency services Agencies at well over one thousand sites, into a single network under the control of the Authority at a considerably reduced number of sites. The management of the emergency services organisations who would be the Authority's clients, as well as Treasury officials who would fund the programme, had expressed concerns about the Authority's ability to manage a programme of this size. A major consulting firm had been engaged to provide advice, and had recommended that the programme required an iPMO to succeed, without specifying what this meant. The author was asked to design this iPMO.

Initial Approach

The tender that led to the author's engagement was written on the assumption that the iPMO was to be essentially a conventional PMO. This tender document was put together based on PMO tenders in other Government organisations.

The contractual framework that the successful tenderer would have to work within required that the engagement be conducted in two phases:

- Capture of the Authority's functional and non-functional requirements for the iPMO;
- Creation of a detailed specification of the iPMO to address these requirements.

It soon became apparent that this approach would not lead to an effective solution, because the client's understanding of their needs was incomplete. The Agency had only recently formed, and no staff had experience of a programme of the size contemplated, meaning that the requirements gathered through interviews were incomplete, of poor quality, sometimes inconsistent, and not indicative of the nature of iPMO required. An informal P3M3 assessment indicated that while the Authority was probably at level 2 or 3 in terms of project management maturity, it was barely aware of core programme management perspectives.

A list of possible functions that could be provided by an iPMO across portfolio, programme, project and service management layers was developed, using input from PRINCE2, PMBoK, MSP, P3O and ITIL. The literature is replete with approaches which offer such a cookbook approach to PMO design. However, while the client could be led through a series of workshops to assess the need for, and approach to, each function, this approach was rejected for a number of reasons:

- There was no reason to believe that the outcome for the client would be any different;
- There would likely be some functions implemented but not required;
- A consultant led approach would not have broad buy-in from Authority staff, Agency management or

Treasury;
- As the detailed specification was to be incorporated into a subsequent tender to acquire an iPMO Partner, the Authority would be unlikely to have the detailed understanding required to evaluate tender responses.

Revised Approach

With the Authority's approval, a revised approach was approved, to consist of the following phases:

- Identify the constraints within which the programme in general, and the iPMO in particular, must operate;
- Macro design, using a range of design templates to determine the overall nature of a suitable iPMO model, and undertake a high-level risk assessment and cost estimate of each alternative, to select the most attractive approach;
- Development of a Concept of Operations (CoP), as a 'strawman' model to support iterative refinement of the preferred macro model;
- Micro design, to detail the organisational structures, roles and responsibilities of the iPMO, required toolsets and competencies, expected sizings and costs, and an outline implementation plan, once the CoP had converged on a suitable solution;
- Development of an external-facing description of the iPMO and its context, based on the final solution, suitable for inclusion in a tender document.

The macro design options included:

- An iPMO based on an extension of the Authority's existing PMO;
- An iPMO based on an extension of the Authority's existing PMO, supported by a Vendor Management Office to manage the construction, technology and site acquisition partners, and provide any necessary associated technical oversight services;
- An iPMO provided by an external organisation to provide programme management, PMO, VMO, engineering and site acquisition services;
- An iPMO acting as a full Service Programme Office, managing the infrastructure programme, and then scaling down to oversee all ongoing service management arrangements.

It was determined on a risk and cost basis: that the iPMO should be provided by a third-party with experience in major infrastructure programmes, to be held responsible for programme delivery; that Authority and Agency staff would be embedded in the iPMO with assurance, but not delivery, responsibilities; that the existing service management arrangements would be scaled up; that all provider contracts would be let by the Authority; and that the iPMO Partner would act as the Authority's agent; and that a range of governance assurance mechanisms would need to be developed in support of the overall management by exception framework.

The Concept of Operations approach is used extensively in major Defence acquisitions, to give stakeholders an opportunity to investigate the full implications on operational posture of a proposed new capability. Authority staff were involved in a succession of workshops to evolve the CoP.

As the CoP converged to a generally acceptable level of detail in a particular area, micro design was commenced to develop a detailed specification of that area.

Finally, the external facing description of the iPMO was developed. It incorporated the principles of programme management from MSP and the principles of project management from PRINCE2, suitably interpreted, as guide to the behaviours expected of the future iPMO Partner. Detailed requirements were specified under the broad headings:

- Business requirements:
  - Experience;
  - Capability;
  - General;
- Functional requirements:
  - Programme delivery management;
  - Programme support (conventional PMO / VMO);
  - Value engineering and site acquisition;
- Non-functional requirements:
  - Client service approach;
  - Scalability;

- Accessibility;
- Performance;
- Innovation.

The final iPMO design was then used as the basis for development of:

- Staffing estimates, for the iPMO Partner, as well as Authority and Agency staff embedded in the iPMO;
- Expected toolsets the iPMO Partner would bring;
- iPMO implementation approach, and posture over the life of the programme;
- Cost profile over this timeframe.

Finally, the outward-facing description of the iPMO and its expected role was developed in a form suitable for use in the iPMO Partner tender. Senior Agency and Treasury staff were briefed on this outward-facing description, and expressed confidence in the iPMO approach developed.

Final Design

The final iPMO design included the following features. The iPMO will be led by an iPMO Partner with expertise in programme management. The prime contractor will also provide conventional PMO functions plus other functions that equate to a VMO being the ability to manage the issue of a large number of Purchase Orders and receive a large number of invoices. The iPMO Partner will also provide staff with specialist engineering and site acquisition skills. Staff from the Authority and its prime emergency services clients were to be embedded in the iPMO, with assurance but not delivery responsibilities. The Authority would maintain control through the governance layer, and a management by exception framework covering engineering design, site acquisition, and financial control. The iPMO's functions were specified in detail, as well as its interfaces with the large range of Government organisations that were users of the infrastructure, and the various construction, technology and site acquisition partners.

Ethics in Consulting

The initial difficulties experienced in this iPMO engagement might be interpreted as an ethical dilemma: should a consultant follow the client's explicit direction, mandated in a contract, about the approach to be taken by the consultant? Or should the consultant press for a more workable approach that the client might perceive as attempting to evade contractual obligations?

The Authority initially sought to ensure that the consultant kept to the agreed schedule and delivered exactly the deliverables specified at each milestone. This approach was intended to ensure that the Authority maintained control, and the engagement completed in time to meet the timeframe of the future iPMO Partner tender. However, this approach provided only the illusion of control, because of the underlying unfamiliarity of the Authority with the requirements for a major infrastructure replacement programme, and would have led to a substantially lower quality result. The approach taken by the consultant was to gradually wean the Authority onto a more agile approach; this was probably significantly assisted by the prior public-sector experience of the author, his familiarity with a range of agile approaches, and the personal relationships formed with Authority staff, engendering the necessary level of trust.

Conclusion

This paper presents a unique combination: an actual case study of the creation of the programme management structure for a very large infrastructure replacement programme, while demonstrating the value of an agile client-focussed approach and the application of standard methods pragmatically combined and tailored to the needs of a complex programme.

References

AXELOS Limited, *Portfolio, Programme and Project Offices* (P3O), Second edition, 2013, The Stationery Office
AXELOS Limited, *PRINCE2 Agile*, First edition, 2015, The Stationery Office
Cabinet Office. *Management of Portfolios* (MoP). Second impression, 2012, The Stationery Office
Cabinet Office. *Managing Successful Programmes* (MSP). Fourth edition, 2011, The Stationery Office

Dynamic Systems Development Limited. *Agile Project Management Handbook,* Version 2, DSDM Consortium
Gerald Kendall and Steven Rollins. *Advanced Project Portfolio Management and the PMO.* J Ross Publishing, 2003
ITIL V3 2011. http://wiki.en.it-processmaps.com/index.php/ITIL_Processes
Office of Government Commerce. *Managing Successful Projects with PRINCE2,* Fifth edition, 2009, The Stationery Office