



CabinetOffice

Open Standards Survey Outcome

A summary of lessons learned from the UK
Government Open Standards Survey, 2011

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INTRODUCTION

Government must be better connected to the people it serves and the partners who work with it – especially small businesses, voluntary and community organisations. We are working to make our ICT more open, cheaper and better connected and to do this, we asked for your views on which standards you considered the most important for us to prioritise.

From 25 February until 20 May 2011, the Cabinet Office conducted an online survey on standards used in government IT. We asked for your help in choosing the right open standards to make it easier for business and community organisations to work with government and to help us open up data, better informing your decisions, and prompting innovation. This was an informal, crowd sourcing survey to gather views on:

- The definition of the term open standard
- The open standards that should be a priority for Government to consider
- Whether particular standards should mandated, recommended or avoided

There was keen interest. Over 970 responses were received online and a number of written responses were sent

directly to the Cabinet Office. With over 34,000 separate answers to analyse, there is still much work to be done, but some key conclusions are already beginning to appear. We will continue to work through your suggestions.

The results from the survey have been shared with the Chief Technology Officer Council's subject matter expert teams, which have responsibility for the current standards, and with HM Revenue and Customs, which is leading on delivery of open technical standards for HM Government's ICT Strategy and so provided analysis of the data.

CHAPTER 1: SURVEY FINDINGS

As individuals started to complete the survey, respondent IDs were generated automatically. Some of those who registered did not complete the survey and a few were registered more than once as they logged into the survey multiple times. In total 970 respondent IDs were generated, of these:

- 394 completed answers to the detailed survey questions
- 141 provided additional comments
- 793 indicated the sector they work in
- 768 indicated their job role
- 34,551 separate answers were provided

Responses were received from public, private, academic and third sectors, with the majority being from the private sector, as shown in figure 1.

Regarding the survey as a whole, positive feedback was received from authoritative professionals such as Chief Technology Officers (CTO), senior architects and

academics who were encouraged to see the Cabinet Office carrying out such an activity on open standards. There was support for the initiative and the efforts that were being put into driving forward open standards adoption in the UK Government:

“Great to see this effort going into open standards. It will create a lot of opportunities and hopefully simplify operations in future”.

Around a quarter of the additional comments were critical of the survey, especially the content and its structure, ease of handling and the time it took to complete. The majority of these comments were also from senior authoritative sources such as CTO or chief executive level professionals and academics:

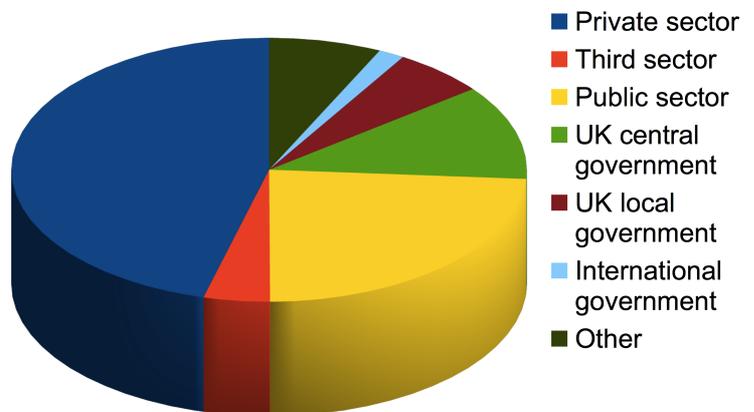
“I was disappointed by this survey - do you really think anybody knows what all those standards are, or that they have time to read them if they do not? It would have made much more sense to ask which things I thought were important to mandate and used the collective answers to determine which standards to implement...”.

On a positive note there appears to be an appetite across all respondent categories to engage, suggestions were put forward on how the search for open standards and the survey can be improved. Around a third of comments suggested additional standards to consider or offered comments on particular standards. Others followed a range of themes from interoperability, concerns relating to the cost of standards, and the need for an independent, vendor neutral approach to development of standards. Several respondents also viewed it as essential that presentation formats (e.g. electronic documents) should not impose a requirement on the user to install a particular application.

Within the comments, issues were raised regarding the difficulties faced in implementing an open standards approach. It was suggested that as standards evolve and change at a fast rate, government will always be playing catch-up if we get too involved in the detail. A plea was also made for Government not to impose regulatory constraints or red tape that would make it difficult for suppliers to comply, in particular smaller SMEs.

Some respondents felt we should mandate standards that are core to most government systems because of the number of different standards that are available and because of compatibility issues, particularly in legacy systems. The point was also made that a standard only makes sense in a particular application if it was designed for that

Figure 1: Respondents by sector



purpose. Therefore clarity is needed on the context in which standards are used and the systems which need to be integrated.

CHAPTER 2: DEFINITION

The Government's definition of an open standard, as it applies to the procurement of government ICT, was published in January 2011 as part of a Cabinet Office *Procurement Policy Note (PPN 3/11) – Use of open standards when specifying ICT requirements*¹. The full definition included five clauses, which were each included in the survey for comment. There has also been ongoing engagement between government and stakeholders including industry bodies regarding the definition.

To help analyse the survey, the responses to the definition clauses were divided into categories indicating whether the respondent was generally in agreement with or against each of the criteria. Responses that did not provide a 'for or against' statement were not counted in the statistics. As this part of the analysis was subjective, it can only serve as an indication of the general level of approval or disapproval for each clause.

Some respondents considered that a weighting would be useful in terms of which of the criteria are more important and which could be considered as optional when

government selects its open standards.

Several comments recognised the benefit of aligning with European Member States in defining and selecting open standards and for this reason called for the definition to be aligned with the European Interoperability Framework (EIF). However, there were conflicting views regarding whether this should be the definition of an open standard as described in the *European Interoperability Framework version 1.0*² or the principle of openness described in EIF version 2³. One respondent stated:

“UK public sector should wherever possible align itself to the European Interoperability Framework and where it does not meet UK national requirements influence this framework... this would allow UK interests to be met, but also with a unified approach pan-Europe this would have a global influence upon standards”.

Response to clause 1: open standards are standards which result from and are maintained through an open, independent process.

56% of respondents agreed that this criteria should be used:

“This is critical. The process needs to be independent enough to be resilient to domination by e.g. high profile supplier

¹ Procurement Policy Note (PPN 3/11) – Use of open standards when specifying ICT requirements, January 2011: <http://www.cabinetoffice.gov.uk/resource-library/procurement-policy-note-ppn-use-open-standards-when-specifying-ict-requirements>

² European Interoperability Framework version 1.0, November 2004: <http://ec.europa.eu/idabc/en/document/3473/5585.html>

³ European Interoperability Framework version 2.0, December 2010: http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf

groups or particular governments, open transparency of the process is both the way to demonstrate that independence and to garner broad contributions.”

A further 10% agreed but requested further clarification, mainly relating to what constitutes an open, independent process. An additional 17% agreed in principle but had suggestions relating to the process that should be adopted for selection, maintenance and implementation, particularly relating to impartiality. 13% of respondents disagreed with this statement.

Some key points raised:

- The genesis of a standard may be in a closed community but as it evolves, it could become ratified and maintained as an open standard.
- Collaboration and impartiality are considered as key to the independence of the decision making process.
- The process should involve a balance of representatives from across government and industry, perhaps from both commercial source and open source communities. However, some considered that vendor influence was an issue.
- Cost of access to the decision making process could act as a barrier to engagement for small businesses, on

the other hand standards organisations need to find funding support for their development and maintenance activity.

Response to clause 2: open standards are approved by a recognised specification or standardisation organisation, for example W3C, ISO or equivalent.

34% of respondents agreed with this statement, whilst a further 32% disagreed. Others suggested further clarification was needed, highlighted reasons both for and against the statement, or agreed but had concerns regarding the processes, or the criteria for recognition of standards organisations.

There were competing views regarding which standards bodies should be considered appropriate for a variety of reasons including: impartiality, operating model, cost of access for engagement or to the published standards. Concern was raised that some standards do not have an identified maintenance path. It was also suggested that some standards bodies operate extremely slowly, and waiting for standardisation of an already widely-used open standard may hamper flexibility and responsiveness in government procurement:

“I think this risks making [the standards] too formalised. Some of the most transformative 'open standards' of recent times have emerged through informal channels...”

A selection of other key points raised:

- Focus should be on ensuring there is stability and a feedback and ratification process to ensure quality, rather than on which standards organisation has approved the standard.
- If competing standards exist, it is essential for ensuring interoperability and competition that international standards should be preferred over European standards and European standards should be preferred over UK-specific standards. However, some standards are required that are specific to the UK, especially semantic standards.
- Careful attention must be paid to emerging standards, particularly at a global level. Government should act as a champion for emerging innovative approaches and accept the risk that immature technologies may bring.

Response to clause 3: open standards are thoroughly documented and publicly available at zero or low cost.

42% agreed with this statement, with 11% disagreeing. Some agreed but argued either for a zero cost only approach (24%) or a low cost only approach (3%). Some suggested utilising the web for delivery of zero cost documentation, with printed versions available at a low cost to cover production and distribution. Other respondents agreed

with the statement but wanted further clarification on the terms used, had concerns on how achievable this would be in practice, or provided suggestions on quality, maintenance and access to the standards.

Other key points raised:

- Reuse of the standard should not be subject to reauthorisation and documentation should be comprehensive and able to be freely distributed.
- Quality of the documentation and confidence in maintenance of the standard are important.
- There are costs for developing, maintaining and promoting standards. This cost is either covered by creators, users, or those who want the standards to be used. Depending on how this cost is spread there may be barriers to participation or to access of a standard.

Response to clause 4: open standards have intellectual property made irrevocably available on a royalty free basis.

The majority of respondents (68%) agreed with this statement. A further 13% agreed but required clarification or had concerns about the quality, ownership and maintenance of standards. An additional 6% agreed but cited further considerations on patents and intellectual property risks.

37 respondents (9%) disagreed with this criteria being included in the definition – of these, 15 suggested that a Fair, Reasonable and Non-Discriminatory (FRAND) approach should be adopted, rather than a royalty-free open standards approach:

“In the digital age intellectual property constitutes a substantial share of the value of products and services. Good ICT solutions stem from innovation. For innovation to take place it must be possible to earn back the investments in [research and development] and make a reasonable return on them. Demanding that IP be given away for free will discourage innovation and weaken competitiveness of European innovative companies...”

Some additional points made:

- This approach could rule out a number of otherwise open standards, potentially limiting choice, innovation and competitiveness. It may also reduce the numbers of participants in standards development, lower adoption and reduce the number of standards developed.
- UK government should adopt a business model neutral approach.
- An open standard should not be discriminatory against implementation in commercial or open source products.

- Royalty-free is a necessary condition to ensure that government does not discriminate between suppliers. Open standards should not be patent encumbered or subject to non disclosure agreements - this ensures full interoperability with all other implementations and compliance with fair competition requirements.
- Standards development bodies and software development companies should be free to choose the appropriate models for their business.
- Greater transparency and predictability is needed around IPR and royalties for standards. Without this, there are risks that future changes to rights or royalties may compromise existing implementations. The threat of unforeseeable royalty costs or legal action are significant barriers to implementation.

Response to clause 5: open standards as a whole can be implemented and shared under different development approaches and on a number of platforms.

60% of respondents agreed with this statement, 22% agreed but required clarification or had caveats on the implementation and development approach, ownership and quality assurance. 9% offered arguments both for and against and 9% disagreed.

Some of the key points raised were:

- Open standards should be compatible with implementations in proprietary and free and open source licensing and development models; they should be supplier and application agnostic.
- Some open standards are niche-specific and therefore not relevant for different platforms.
- Different development approaches and business models are key for innovation. All models are valid and have a place within the UK innovation ecosystem.
- Multiple implementations should be demonstrated, preferably including an open source software reference implementation.

CHAPTER 3: LESSONS LEARNED

The approach adopted to source views from the public, industry and other interested groups, revealed some interesting results, from which we have been able to derive valuable lessons and form a wider package of work around the subject of open standards.

The breadth of technical standards contained in the survey did however represent a challenge for respondents to comment upon effectively and led to a lengthy completion time for those providing a response. This in turn generated a complex set of results, making interpretation and analysis unnecessarily complex and time-consuming.

Moving forward, engagement and crowd-sourcing across a large number of subject areas will be avoided, with specific subject areas being targeted and clear purposes for the activity being established at the outset. This will ensure that engagement is sufficiently focused, making it easier for people to get involved and giving government an easier task in analysing and interpreting results.

In deciding which open standards to adopt, it is essential that the purpose for which a standard is proposed is clearly defined, both in a policy and technical context. Similarly the impact of adopting standards must also be made clear. We recognise that in this instance the standards survey lacked this wider context, making it difficult for respondents to give an opinion. Government is developing a reference model showing how its IT is connected, due for publication in March 2012, which will help give this context.

What is clear from this exercise is that people and organisations are very keen to engage and share their views around open standards, demonstrating a genuine desire to influence and be part of the Government's drive for a more open approach to IT.

The survey has provided a rich source of information, however it has also raised many questions that we now need to investigate in more detail. Therefore, a formal public consultation will be published to gather evidence and further develop the open standards policy. The views provided in this survey will be taken into account as part of that process.

CHAPTER 4: NEXT STEPS

Cabinet Office and HM Revenue and Customs, have taken on board the lessons learned from this survey and identified the approach that will be taken to identifying and mandating a set of technical standards, in line with the key milestones in the ICT Strategy Strategic Implementation Plan⁴.

SIP – key milestone:

Publish the first release of a draft suite of mandatory Open Technical Standards – by December 2011.

Approach

1. Government will publish an online public consultation on open standards, building on information provided during the survey, to ensure all views are taken into account in the development of the policy.
2. Government will consult on options for a draft suite of open technical standards for Government to comply with, taking into account:
 - a. priorities identified by the results of this survey
 - b. the benefits of mandating or recommending each proposed open standard for use in Government's IT
 - c. the impact and consequences of adopting particular open standards
 - d. where in the government's IT blueprint, use of these standards can support delivery of better connected, interoperable IT for less cost.
3. Government will set up a web-based channel to provide citizens, businesses and community organisations with a front-door for getting involved in the selection of government IT standards. It will focus on:
 - a. Providing transparent access to discussions on standards, ensuring open engagement with people, to gather ideas and options, informing balanced decisions.
 - b. Supporting the standards management process, keeping UK Government standards up to date and relevant.
4. Set up an Open Standards Board to champion use of open standards across government and challenge existing practices.

⁴ Government ICT Strategy – Strategic Implementation Plan, October 2011: www.cabinetoffice.gov.uk/content/government-ict-strategy-strategic-implementation-plan#opentech

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