

A more productive ESC, administratively speaking.

This submission recommends changes to the way Providers and DEEWR transfer data between each other. The submission suggests a policy change that brings DEEWR IT Systems in line with other government policies and also goes through practical implementation issues.

History

EA2000: A system where providers were expected to create their own systems and software. Providers had to upload the results. The system was manual and user based. Uploads frequently did not work.

EA3000: Was created due to demand from providers after struggling with EA2000. The result of creating such a large system with “one size fits all” approach was a complicated and administratively intensive system.

The current situation:

Smart Client

During the presentation in Sydney on the 16th of May 2008 Minister Brendan O’Conner made several comments about the burden of administration in the current system, including one comment that some consultants spend up to 50% of their time conducting administrative tasks.

There has not been a time this year when every part of the system has worked in Smart Client. At various times reports have not been functioning for 2 – 4 weeks. These reports are used by providers; this high level of downtime is very disruptive to day to day activities.

The current system provides bulk downloads of some information, management reports of other information and dynamic query tools provide a third way of retrieving other bits of information. Even with these 3 systems for retrieving information, there are still details of a provider’s caseload that are available to EA3000 Smart client, but are not available via any bulk query.

Providers

Most Providers either have in-house software or use software from 3rd parties. Some of this software goes beyond the functionality of Smart Client but much of it is replicated. This results in two things; either complex systems are created to interact with Smart Client through large data downloads or real humans are spending countless hours re-entering the data from their own systems. This issue is being addressed for the job seeker account, but this is only a small part of a larger problem.

A source of tension

Predominantly, interactions with DEEWR from providers are made through either Smart Client or Helpdesk and for some people this is the only interaction they will ever have. The general

impression a person gets of a body can be greatly influenced by their most frequent interactions with that body. For DEEWR, with most interactions occurring via Smart Client, this lasting impression is one of slowness and excessive bureaucracy.

A new way

A swift and decisive policy change before the commencement of the next contract could solve many of these problems and return Australia to the position of an innovative leader in employment services.

A secure, well-documented open application programming interface (API) should be created.

The suggestion is not that the next version of EA3000 (referred to as EA4000 in this document) is not built, but rather that it is built and remains a free *option*. Anyone would be able to build another product that either replaces or supplements EA4000.

The key to the success of this policy would be that DEEWR's Smart Client would communicate with DEEWR's database through the same publicly accessible API.

This idea is not outlandish. It would essentially be opening up the development and removing the monopoly that EA3000 currently has. The current system is very much not in the spirit of the employment services contract. The creation of the ESC came from the realisation that competition would yield greater results than a monopoly according to Minister O'Conner.

Benefit

Job seekers

The potential benefit to job seekers could come in several forms: consultants have more time to spend with job seekers and innovative systems can be created that job match job seekers more accurately, send reminders for appointments and track the progress of a job seeker in ways that are better suited to the individual job seeker's employment pathways plan.

Providers

Saving providers' time is in everyone's interest, especially the most disadvantaged job seekers. With additional innovation introduced from the private sector, systems would become easier to use and be more streamlined, leaving consultants more time to spend helping job seekers.

If a software provider (including EA4000) were to have an unacceptable amount of downtime the provider would have alternative choices.

DEEWR

With ESC providers having a choice of software provider or the ability to make their own software, any unrest about the system would be directed at that software provider rather than DEEWR, or if that ES provider was using EA4000 they would be doing so out of choice and not feel that they were falling victim to an imposed system. This will ease relationship difficulties currently present in the contract.

This new system would save the government a large amount of money in the long run. Providing helpdesk support for an API would require far less staff than supporting Smart Client with a large user base. Although Smart Client would still exist, the number of users may be significantly reduced and therefore support costs reduced.

Harbour Innovation

This change would bring a new wave of innovation to employment services. Its effect would not only save providers time but also change the way providers did business. New features such as Client Relationship Management systems (CRM) and invoicing systems could be integrated with DEEWR's database. Such features could also lead to providers becoming more compliant.

Stopping a downward trend

The current system is only getting larger and more complicated as new things are introduced and old things are maintained. As time goes on the system is getting slower and temporary unavailability of sections is occurring more frequently.

Removing bottlenecks

Under the current system if a report is not available in EA reporting it can result in the provider's customised software not to function, crippling the provider's ability to operate at full capacity.

With an API system DEEWR can focus on the mission critical parts of their system and therefore benefit from reduced downtime as smart client can be fixed as a secondary problem.

No down side

With smart client still running for those who choose to use it, it is very difficult to think of reasons not to introduce this policy, and we address DEEWRs concerns below. It will ease the relationship between providers and DEEWR, help job seekers and save the government money.

Case Studies

This is no longer ground breaking technology. Some well known examples of publicly released APIs include:

Google maps, Youtube, Mediawiki, iPhone, Windows, Linux, OSX, OpenGL, IBM, Plaxo, Basecamp, Yahoo, Amazon web services, Google earth, Digg, Facebook, Whereis, Reuters and Flickr.

Governments are also adopting this technology. Some government implemented APIs:

Library of Congress Subject Headings, USAspending, Maplight, AMEE, LOUIS, Open patent Services, FedSpending.org, Cicero, Democracy In Action, Sunlight Labs, TheyWorkForYou, Who is my Representative, Follow The Money, GovTracker, Civic footprint, US Postal Service and NOAA Weather Service.

It is difficult to find a case where creating an open API has caused any problems for that body. In fact for most of the companies listed, they credit having an open API as the reason for their market dominance.

Leading the way

I recently attended the CeBIT 08 conference where Senator Kate Lundy talked about the government's role in more open systems. She said "[The] newly-appointed Rudd Government represents a creative peak in public policy". She went on to say that "But for the business uptake of the Open Source philosophy to spread to policy makers, stake holders must play an active role in lobbying for change". "We've got all the evidence we need; I think the next step is to grasp the political agenda" She concluded with "My own view is that Australia is quite a lot greater than the sum of its parts. Let's not deny ourselves the tools that will help us achieve our potential".

According to the Triveni submission of February 13, 2008, Senator Penny Wong is also in support of an open API.

Australia is one of the world's most prominent users of open source technologies. According to a 2008 census, 36% of businesses in Australia use open source systems compared with 28% in both the US and Europe.

<http://census.waughpartners.com.au/census-report-2008-r1.pdf>

DEEWR's concerns:

Steven Moore, IT systems group manager, responded to the broad points of this submission during a public Livemeet where he stated his concerns of security and cost.

Regarding the issue of security:

The issue pertained to the security risk created by data being accessed through something other than the smart client login.

Both the ATO and ASIC have effective authentication systems that securely encrypt communication transmitted over the internet. One concern with the current BDF system is that it does require user intervention to save unencrypted CSV files. These files could be left on local desktops or even laptops with a much greater potential to be stolen. A secure server to server connection is far less likely to lead to such a data breach.

The cost of a rebuild:

Mr. Moore's second issue was with the cost of rebuilding the system.

Large parts of the system will need to be rebuilt for ESC4 in any case; this is a perfect opportunity to change paradigms. The short term cost will be more than saved with reduced support costs over the years. Mr. Moore did also comment that the open API would force the department to work in a way that was much more based around the contract rather than building things "for just one screen [of EA3000]", this would make the system more flexible to contract change and result in a system with a longer life cycle.

Technical details

There are some requirements that need to be in place at policy level to ensure that the system achieves its full potential.

- DEEWR's smart client must be required to use the same API that is available to other software providers.
- The connection should use a key system so that it is more secure than passwords.
- Data should be encrypted server to server.

At an implementation level:

- Data should be available 24/7.
- Servers should be fast and able to handle hundreds of requests per second.
- Ideally data should be transmitted using some of the more modern approaches: representational state transfer (REST), JavaScript object notation (JSON) or simple object access protocol (SOAP).
- The API should be kept backwards compatible wherever possible.
- Ability to subscribe to all changes in data.
- To be clear an API is not a file upload facility, rather it is a facility for objects to be passed between servers.

In Summary

- There is a great opportunity to significantly improve the day to day operations of employment services contract.
- Many people in government are claiming that the current administration is in support of such ideas.
- The technical ability is there.
- Everyone benefits.
- Government saves money.
- Australia leads the way in innovation.

Support

Many providers have expressed problems in their submissions that will be solved by this initiative. This submission has been forwarded to some providers and their responses are included below.

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Conclusion

Large changes are afoot in the employment services contract; this comes from a long term change in the profile of the unemployed. There have also been large changes in IT technologies.

Many parts of the current IT system were built almost six years ago. When the system was built it was based around a significantly smaller amount of data and using technologies that are now nearly obsolete. In 2003 open APIs were just getting established and would not have been a viable option. Today things are very different with most large organisations utilising this stable technology.

With private organisations being dependant on the secure interactions with government data the Australian employment services industry stands to be one of the greatest beneficiaries of this technology. The needs of providers have changed and the technologies exist to solve these problems today.