

From Portal to Value Aggregator – A Distributed Approach to e-Government

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INTRODUCTION

Since the early '90s there has been a progression of e-prefixed concepts, innovations and tools – each with its own unique and profound impact on the way we live and go about our business. We are all used to the pace at which developments in ICT occur, although many of us struggle to keep up. So it is no surprise that most of these e-concepts have transformed over their short history and continue to feed off the latest and greatest innovations, enabling us to communicate and conduct business in ways that even ten years ago would have stretched most imaginations.

E-government, probably the most prosaic of all e-concepts, is no exception. And while some would argue that e-government is not prodigiously imaginative, it really is a matter of perspective.

At the Federal level the National Office for the Information Economy (NOIE) plays an advisory role, developing policies and advice guiding the development of online services among Federal government agencies. Similarly at the State level, since the mid '90s each government has been developing and implementing its own online strategy. Then at the local level, some 680 local council authorities, often with meagre resources, have individually developed a variety of online offerings ranging from static brochure-ware to complex online forms.

Despite the apparent extemporisation of e-government services there have been literally dozens of well co-ordinated, innovative and exciting developments over the past ten years. As a whole, Australian governments are among the world's leaders in online service delivery and continue to attract international attention.

Among these are the Education Network Australia (EdNA); Australian JobSearch; South Australia's Bizgate; and the Business Entry Point. Each of these provides an excellent example of how governments are creatively harnessing new technologies to transform the services they provide to all sectors of the community.

The Business Entry Point (BEP) serves as a good case study in highlighting the progress of e-government in Australia as it remains the only online service that is not restricted by jurisdictional boundaries. Pre-dating most Australian e-government innovations, the BEP has succeeded in smoothing the divisions of three levels of government for business purposes. This in itself is a world first – other countries with multiple tiers of government have not yet attempted to open the Pandora's Box labelled 'whole-of-government' services, and are now looking closely at the BEP model.

However the BEP is more than a cross-jurisdictional business web portal, and its activities demonstrate the increasingly

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important role that e-government is playing in the development of the broader issues of e-commerce, digital security and authentication.

Moreover, the BEP example also demonstrates quite clearly that the business models traditionally applied to e-business practices can be effectively applied to e-government systems.

GETTING THE FUNDAMENTALS RIGHT

Arguably, one of the most profound impacts the internet and the ICT revolution has had on government is the closer integration of traditional divides between government, business and citizens. In the pre-electronic days, distinctions between public and private jurisdictions were very clear. Some government interactions were undertaken by intermediaries on behalf of citizens - for example, accountants were common intermediaries between individuals and the tax office - but for the most part, government dealings and other day-to-day activities were very separate processes. In contrast, the Internet has helped to more closely align government processes with other activities, and intermediaries now play a much more important role in disseminating advice about both.

The establishment of government portals is partly responsible for this closer alignment of government and non-government processes, but only where the portal is a part of the business model. When a portal is tacked on to an existing business model it is much more difficult to bridge the gap.

An indifferent response to government web sites and portals sent a strident message to governments that the 'build it and they will come' philosophy was flawed. The BEP, despite ranking highly among government websites, quickly realised that it did not matter how much information, or how many transactions the website offered, its effectiveness as a portal was limited. The portal model perpetuated the separateness of business and government processes; but for business, dealing with government is a part of being in business.

Take, for example, a business making the decision to export. The business owner's primary focus is likely to be on breaking into new markets, supply and distribution networks, or marketing their product overseas. Although many businesses would go to their industry association, chamber of commerce or another intermediary for advice, seeking government compliance and

regulatory information tends to be a much lower priority, if it is there at all. Nonetheless this is an important part of the process and can lead to problems for the business if ignored or not undertaken properly. In some cases, such as exporting, neglecting the government aspects of the process could even lead to missing out on financial support for the venture.

Unfortunately the mere existence of a web portal will do little to get business operators to more routinely start thinking about government paper-work as part of their ongoing business processes. Nor will simply moving traditional offline transactions online encourage them, en masse, to reach for a mouse instead of a phone book.

This problem is widespread and not the sole domain of the small business sector. For e-government to become an effective medium for delivering services to any sector of the community there needs to be an acceptance that no matter how innovative and useful it may be, most people will still see dealing with government as a chore, and will do so reluctantly. That said, governments of course have a responsibility to deliver services and inform the public about the regulations they administer. So the challenge is to do so in a way that is as seamless, un-bureaucratic, and convenient as possible.

VALUE AGGREGATION

The BEP's approach is to integrate as far as possible, government information and transactions with existing business processes, relying primarily on business intermediaries to deliver a complete package to business clients. This is a two-staged approach that builds on the BEP's core business as an aggregator of government information and transactions, and delivering its product directly to intermediaries. It works like this:

- The BEP's aggregation process revolves around seeking information and transactions that are closely aligned with business processes: employing staff; importing; paying tax etc. The value that the BEP brings to the table is in distilling the volumes of business information from all three levels of government and then contextualising it, packaging it and publishing it in a way that caters to different navigational needs.
- The second stage of the process is to enable intermediaries to take the BEP's aggregated content and publish it on their own web sites. In doing so, the intermediaries are able to add more value by integrating it with the services

they already provide their business clients.

The syndication of government information and transactions in this way creates a synergy between government and intermediaries that ultimately results in small business operators benefiting from a more valuable and complete service that would be difficult to deliver otherwise.

This strategy is driven largely by a fundamental change in perception about the role of the BEP as a portal. In this model, the portal's primary role is no longer that of the one-stop shop, but that of a *value net aggregator* in the government content supply chain.

The concept of *virtual value chains* and *value net aggregators* has been developed by Peter Weill and Michael Vitale in their book *Place to Space* (2001), which discusses the migration from traditional offline models to e-business. Although this concept had been derived from case studies of multi-national companies, with some minor adjustments it is equally applicable to the public sector portal model.

According to Weill and Vitale, e-business effectively separates *physical* and *virtual* value chains:

Goods move along the *physical value chain* from supplier to producer to consumer, passing through intermediaries on the way. In the parallel virtual world, information about members of the physical value chain is gathered, synthesised, and distributed along the *virtual value chain*. (2001, p221)

The role of the value net aggregator is to aggregate, contextualise and package information in the virtual value chain, thereby

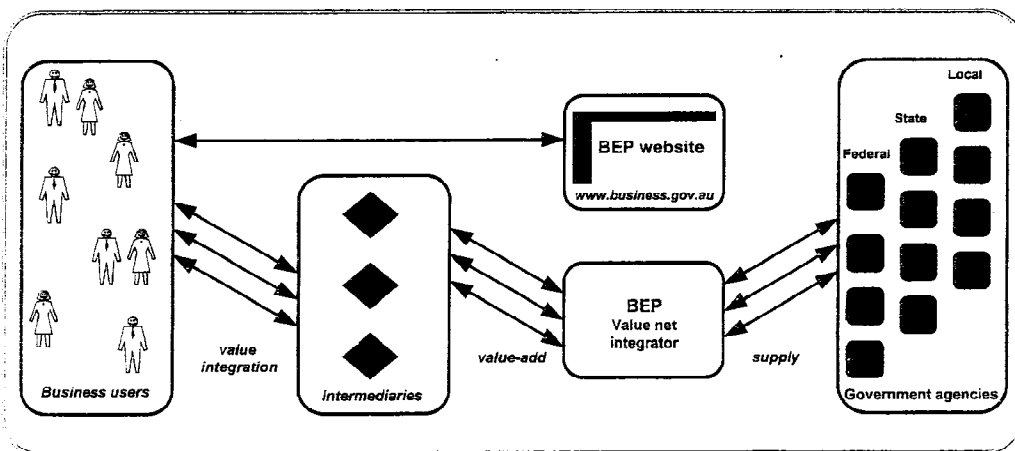
improving the effectiveness of the chain. The BEP has adapted this model and has taken on the role of the value net aggregator at one end of the chain, and in doing so, is assisting intermediaries to provide further value at the other end. The Virtual Value Chain model as it applies to the BEP is shown in Figure 1.

The fundamental premise supporting the shift from a one-stop shop approach to that of a virtual value chain is that intermediaries have a crucial role to play, and without them, many government organisations struggle to interact and communicate effectively with their primary audience.

In the small business sector there exists a diverse and widespread network of intermediaries. In its early days as a portal the BEP recognised the value of these intermediaries in providing a conduit to business operators.

As the popularity of portals grew, there came a proliferation of business-related one-stop shops. Each provided valuable products and services but none truly provided the all-things-to-all-people functionality that is implicit within the one-stop shop label. While access to information and advice has undoubtedly improved through the online medium, it could be argued that the plurality of business-related websites has done little to resolve the problems small businesses face in fitting all the pieces of the jigsaw together. Nor has it resolved the separateness between government and non-government aspects of individual processes.

This is where a public sector adaptation of the virtual value chain comes into its own. The model adopted by the BEP, rather than working at odds with a range of other suppliers, eliminates any perception of competition. It creates a synergy between



Source: *A Place to Space*, 2001, p:222

Fig. 1 – The virtual value chain

government and intermediaries that is not possible under a traditional portal model, and is a genuine win-win concept. Most importantly, the end users, small business operators, benefit through the provision of a much more valuable product.

One reason this model works particularly well when applied to e-government is because of the non-competitive and altruistic nature of government service delivery agencies. Government agencies have a vested interest in making sure their information and services are easily accessible, and generally do not charge for regulatory information. And although there are varying levels of competition between the intermediaries themselves, they are able to individualise the value integration process to provide a unique range of products and services for their own client base.

A good example of this is the way in which organisations participating in the BEP's content syndication project integrate the aggregated package provided by the BEP with their existing services. The BEP might syndicate exactly the same package of aggregated content to both the Victorian and Queensland branches of the same industry association. But even though the government content is identical when it reaches the intermediary, each organisation can integrate it with their own State-specific products to provide a package of services and information that is uniquely relevant to their own clients.

From the clients' point of view, much of the value is being provided by the industry association and they are receiving an improved service for their membership dollar. At the other end of the value chain, the BEP has been able to deliver, on behalf of its suppliers, information about a wide range of government compliance and regulatory activities to business operators who otherwise may have been oblivious of its existence.

The virtual value chain model may prove more successful for some e-government applications than others. An essential component of delivering government services more effectively is the ability for clients to be able to undertake significant transactions online. And while the virtual value chain can be highly effective in disseminating information about necessary transactions, issues of security, privacy and authentication, at least for the time being, prevent online transactions from being undertaken with anyone other than the host agency.

INVESTMENT IN TRANSACTIONS THE KEY

Again, drawing on the small business sector as an example, less than ten percent of all government transactions - approximately 11,000 across all jurisdictions - are able to be completed through the use of an online form. Yet there are strong indications that Australian businesses are prepared to deal with government over the Internet. Approximately 95 percent of all new Australian Business Number (ABN) applications are undertaken electronically, either through the BEP's online registration facility, or through intermediaries dealing directly with the ATO. In addition, the BEP has over 20,000 registered users of its Transaction Manager facility, which allows them to discover and manage a multitude of government transactions through a web-based interface.

This trend is not unique to the business sector, nor to Australia. Douglas Holmes highlights several e-government achievements from around the world in his book, *e-gov: e-Business Strategies for Government* (2001, p1.):

- A traffic website for commuters in Minneapolis is viewed 300,000 times a day
- University students in Germany register for exams and search for library books using wireless devices
- The US Federal government annually makes four million online purchases for goods and services worth \$17 billion
- Dubai customs services clear 8,000 online shipping consignments every day

And the list goes on.

So what is the driving force behind developing online alternatives to offline government processes? It is safe to say that no-one really deals with government for the fun of it. Most of us will routinely (if not begrudgingly) fill in our forms and make our payments because we know we have to. If we are IT savvy, and if the systems exist, we will do it online because it is more convenient. But very few of us will contact government agencies demanding they move more transactions online.

Instead, innovations like these are more often born more out of a need for agencies to improve back-end processes and bring about greater efficiencies in administrative overheads, than by user demands. However, once new processes and transactions do come online take-up rates are generally high and a new demand is then created.

An example of this phenomenon can be found in Penrith City Council's experience following development and implementation of its online Building

Application/Development Application (BA/DA) in 2000. Penrith developed the online BA/DA facility in an effort to improve productivity and gain new efficiencies behind the scenes. And although there was little demand by developers at the time to complete and track applications via the web, the application has since gained wide acceptance among developers in the area, from small individual businesses through to major development companies like AV Jennings.

Another example is the online ABN/GST registration process developed jointly by the BEP and the Australian Taxation Office in the lead up to the new tax system in July 2000. Under new tax system legislation, all business entities were required to apply for an Australian Business Number and, in most cases, to register for GST. The online application was built to provide an alternative registration mechanism to paper-based processes and the Electronic Lodgement Service used by accountants and tax agents.

Initial expectations were that in the lead up to 30 June 2000, between one and three percent of eligible business entities would apply for their ABNs using the online form. In fact there was an overwhelming response to the online application and by 30 June around 17 percent of eligible businesses had used the BEP facility to apply for their ABN. Significantly, 75 percent of ABN applications now occur online via the BEP.

So while on the surface there appeared to be little market demand for building an online transaction, the demand was generated once the transaction was built.

CREATING DEMAND THROUGH INVESTMENT IN INFRASTRUCTURE

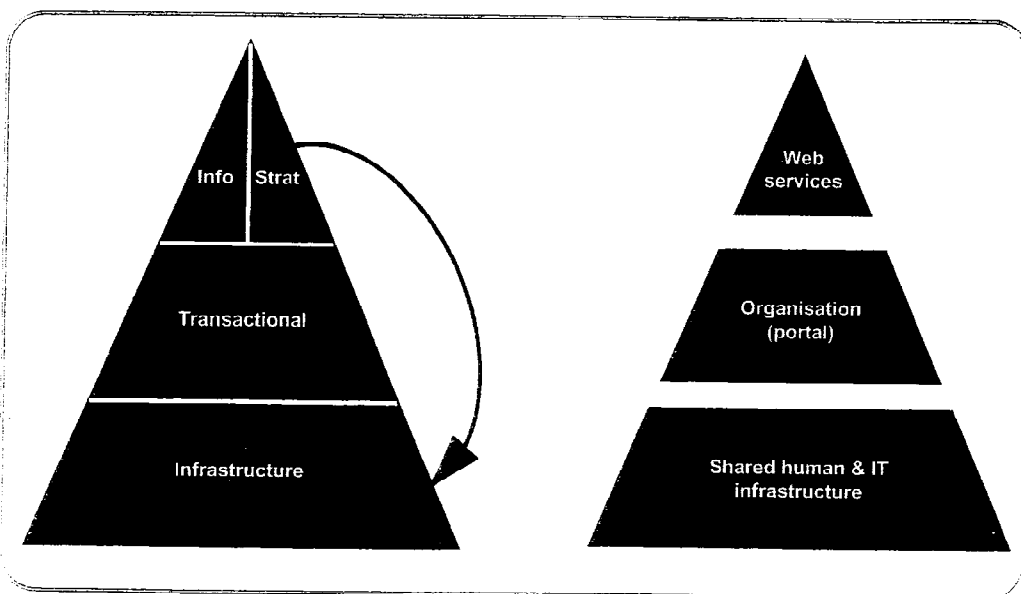
The common thread between these and other e-government successes is a strategic approach to investment in ICT infrastructure that again, is equally applicable to both private and public sector models.

Peter Weill and Marianne Broadbent (Leveraging the new Infrastructure; 1998, p.86) describe the strategic ICT investment as a three-tiered process.

The initial major investment in ICT is directed towards commodities such as computers, data base applications or operating systems that are essential in developing and supporting business processes. Over time, the original investment becomes embedded as a part of the ongoing transactional or application services of the organisation, and then eventually forms the new supporting infrastructure.

In the commercial world, the classic example of this theory is with the banks' investments in ATMs. Originally, ATMs represented a major component of a bank's strategic IT infrastructure investment. Over time however, the ATMs served to drive down transactional costs and eventually became an essential part of the bank's operating infrastructure.

In the public sector, the government's investment in the BEP tells a similar story. Initially, the major cost pertained to



Source: *Leveraging the New Infrastructure*, 1998, p.86

Fig. 2 -- The new infrastructure

establishing the systems and applications to develop the facility. Again though, over time the BEP helped to drive down transactional costs, either through time or money, and the BEP is now a vital component of the government's online infrastructure. This process is depicted in Figure 2.

As we have seen with the BEP model, there has been a convergence between the traditionally separate government and non-government processes. Through the simple adaptation of long-held private sector models to the public sector environment, innovative organisations like the BEP are transforming e-government applications to a point where they more than hold their own with their private sector counterparts.

To achieve real and significant benefits for users of government online services we need to ensure there is both a continued commitment to developing ICT enabling infrastructure, and a focus on working more strategically and cooperatively with other agencies and intermediaries.

CONCLUSION

There are a number of lessons for e-government providers in the approach the BEP and other organisations have taken in developing innovative online applications.

Firstly the value of intermediaries cannot be overstated. There will always be certain government services and programs that, for legislative reasons, must operate in isolation to other non-government organisations. But for many, working co-operatively with intermediaries to provide a value-added package to the end users, whether they are small businesses or in other sectors of the community, can deliver benefits all round.

It is also important to consider that it is not always necessary for the return on investment in ICT infrastructure to flow directly back to the organisation. Often, returns are realised through broader benefits to the community as a whole, but are significant nonetheless. The BEP, for example, was never intended to provide returns directly back to the government. Productivity gains have been realised by both private and public sector organisations almost as a side-effect of BEP activities, but the real return on investment is achieved through the efficiencies achieved by businesses themselves.

Finally, in considering new e-government strategies, the focus should not be on the demand for a particular online activity, but on the potential demand that could be

generated through the development of an online application. Not until the majority of Australians are active users of online transactions will we see citizens demanding particular government services to be provided online. Instead, we can create the demand by developing and promoting innovative, user-friendly and safe e-government opportunities.

In e-government, as the BEP story illustrates, you do not need to be big to make a difference. Significant benefits can be achieved by moving from the portal to the value net aggregator.

BIBLIOGRAPHY

- Weill, P. & Vitale, M.: *Place to Space – Migrating to eBusiness Models*; Harvard Business School Press, 2001, p:222
- Weill, P. & Broadbent, M.: *Leveraging the New Infrastructure – How Market Leaders Capitalize on Information Technology*; Harvard Business School Press, 1998 p:86
- Holmes, D.: *eGov – e-Business Strategies for Government*; Nicholas Brealey Publishing, 2001, p:1

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Previously Marie was a senior consultant with the SMS Consulting Group and played a lead role in establishing the SMS e-business capability. She has also undertaken extensive work with the Victorian Government Online Program and has also advised on e-business strategy issues in the utility sector. Prior to joining SMS, Marie was the e-Business Project Manager with the State Revenue Office of Victoria, where she was responsible for e-business strategy and implementation. In addition to her direct e-business experience, Marie has an MBA from the Melbourne Business School during which she examined the impact of e-business on the financial services sector. She has published on her findings.