

**THE ECONOMIC VALUE OF ENTERPRISE ARCHITECTURE
THE CASE OF A SHARED SOLUTION USED BY
THE OREGON DEPARTMENT OF HUMAN SERVICES
AND OREGON EMPLOYMENT DEPARTMENT**



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Can we put economic values on Enterprise Architecture?

The following case about Inquisite – a shared service between Oregon Department of Human Services (DHS) and Department of Employment (OED) gives enterprise visionaries a real-life answer to that preceding question.

Introduction

"Never underestimate the power of a small group of committed individuals to change the world. Indeed, they are the only ones who ever have."
— Margaret Mead —

State Enterprise Architecture (EA) does not always have to start from the top in a formal process with task force steering committees. A few individual with a good idea can bring results. The case on Inquisite survey software, a shared service solution between the Department of Human Services (DHS) and the Oregon Employment Department (OED) exemplifies that different approach. Besides introducing the concept of State EA, the authors of this case also attempt to justify the economic benefits behind it.

State EA is grounded in the concept that the synergies created from collaboration by agencies can justify the resources used. DHS and OED project teams have been successful in proving the economic benefits of State EA framework through collaboration saving from \$11,000 to \$146,000 dollars. The value of state EA, however, should not always be transferred to dollar and cents. One reason is that it is not always easy to put a number on potential values created, such as improved employee satisfaction or increased productivity. Therefore, this case study should serve as an illustration of but not an official guide for future success measurement of the state EA program itself.

State Enterprise Architecture

Although state agencies operate under a mutual state budget, they often work independently, serving the public within their specific scope. Finite public resources may therefore not be fully utilized at optimized levels. From the beginning of the new century, state leaders established multi-agency cooperative leadership workgroups to change this approach. One of such workgroup is the Chief Information Officer (CIO) Council, which oversees the statewide information resource strategy. In November 2006, as an experiment in collaboration, the CIO Council gave birth to the state Enterprise Architecture (EA) program. The EA program supports a robust framework, aligning IT with business needs not only at the agency-level (local EA) but also at the statewide level (interagency EA).

Agency Backgrounds

Agency Profile

* Agency: Oregon
Department of Human
Services (DHS)

*Location: Salem, Oregon

*Employees: 9,500

* 2006-2007 Budget:
\$10.7 billion

DHS is the largest state agency in Oregon, serving over one million citizens. The agency mission statement is "to help people become independent, healthy and safe". DHS administers public assistance programs such as child welfare, Medicaid, addiction and vocational rehabilitation services, public health services...

The Oregon Employment Department (OED) administers the state's unemployment insurance program. OED facilitates statewide employment services, such as job development, language and technical assistance for job seekers...The agency also provides statistical research and reports on the state employment situation.

Agency Profile

* Agency: Oregon
Employment Department
(OED)

*Location: Salem, Oregon

*Employees: 1,200

* 2006-2007 Budget:
\$1.8 billion

A Need for an Integrated Solution

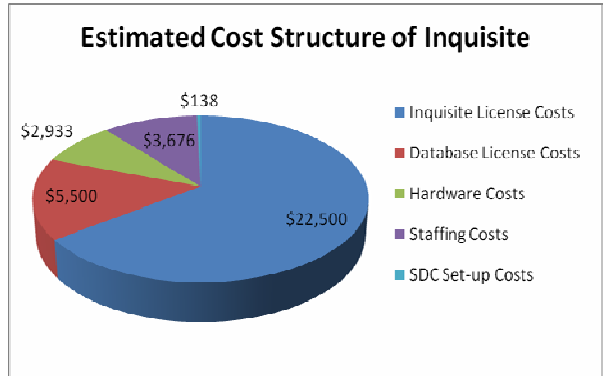
- In 2007, OED was looking into renewing its survey software license. The agency was using Inquisite – a well-known name in corporate online survey solution. Inquisite offers extensive features that emphasize ease of use, scalability and security. Just like most state agencies, OED wants to utilize its limited resources in order to yield the greatest value. The agency was looking into cost cutting opportunities when planning for the license renewal process.

- During the same period, DHS was also in need for a strategic online survey solution. The agency conducted surveys on a regular basis to understand the changing demographics it serves. While there was already an old version of Inquisite in use in DHS, the number of software copies available was not sufficient to support the growing demand. Staff had to find workarounds from free and commercial online services

such as Zoomerang or Survey Monkey. Even though these services offered convenience and flexibility, they lacked key functionalities for data mining purposes. Additionally, using these free services also raised concerns about customer information security. With that in mind, DHS looked into either upgrading and adding additional licenses of Inquisite or replacing it with a newer solution. Just coming out from an economy downturn, the agency understood that its final solution had to be the most cost effective one.

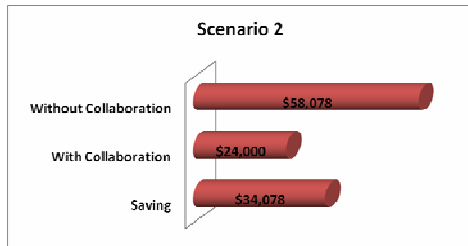
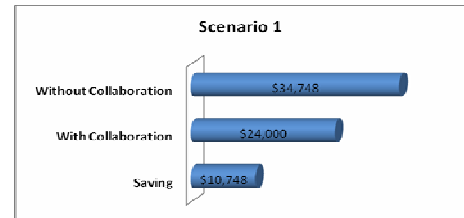
An “Incidental” State Enterprise Approach

The first thought on collaboration started when Jack Doyle – a then research analyst for the Office of Information System (OIS) of DHS met with John Glen from OED. A casual meeting between two friends turned to a conversation about life at the office. Both discovered that their agencies had a common business need. They also understood that a collaboration could potentially save each agency half the cost of installing and maintaining Inquisite.



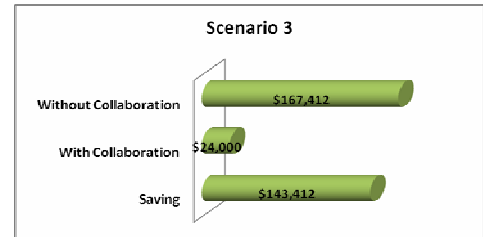
Three Saving Scenarios for DHS under the Collaboration Plan

After thorough discussions with John, Jack presented the case to his upper managers at DHS. He firmly believed that besides meeting the business needs and saving costs, collaboration with OED also released DHS from major capacity bottlenecks. Jack detailed his cost saving plan under three different scenarios. Depending on the server configuration in each scenario, collaborating with OED could help DHS to reduce its cost from about \$11,000 to \$143,000.



Under the first scenario, virtual servers are used to support the set up of Inquisite. This scenario would yield a saving of around \$11,000.

Under the second scenario, a blade server would be used to meet a greater workload. This scenario yields a saving of around \$34,000.



Under the last scenario, a standalone server would be used to support the greatest projected workload. This scenario saves DHS around \$143,000.

Implementation

With the business case developed, the partnership idea quickly got approved from the managers of both agencies. The initiative was formalized by a Memorandum of Understanding in the early of 2007. The stated purpose of this memorandum was to “develop and expand a framework of collaboration between OED and DHS”. It also emphasized that “the activity (sharing Inquisite) embraces the fiduciary responsibility of OED and DHS to the public by maximizing the use of current resources.” [1]

Soon after the Memorandum of Understanding was signed, an official Intergovernmental Agreement was authorized, with responsibilities clearly defined for each partner. After installation at the SDC, the survey tool has been used on a day-to-day basis by both DHS and OED.

Results

After having the survey up and running for more than one year, both agencies can clearly declare victory for their collaborative effort:

- The business needs for both sides were met. The survey tool touches every aspect of the two agencies' work by providing a secure gateway to gather internal and external data, obtaining feedback and providing insights about their customers and staff.
- Successful collaboration between two agencies also led to substantial cost savings. DHS saved between 11,000 and \$143,000. In addition, they do not have to maintain the servers used for the application, saving them an additional \$800 for each server every month. OED on the other hand cut in half the price of the upgrade and the price of purchasing and installing SQL Server. This cut in overlapping costs truly sets the stage for future interagency cooperation and encourages more resource sharing statewide.

Critical Success Factors

- Money talks: By showing the values added and the substantial cost savings from collaboration, Jack and John were able to obtain the support from the management of both agencies.
- Building trust: In the collaborative effort between DHS and OED, every step from planning to implementation was built on the basis of open sharing, consensus and mutual benefits for both agencies.
- Collaboration with the State Data Center (SDC): The data center is responsible for the purchase, set up and maintenance of new equipment – the new servers and the SQL Server database. Working effectively with SDC was crucial for the success of the project.
- State enterprise thinking and planning: This is probably the biggest success factor in achieving the final solution. Without that incidental meeting between Jack and John, the collaborative effort would not exist. The two agencies would have proceeded independently and shouldered the full cost of installing the software.

Tie It All Together: Final Words on Statewide Enterprise Architecture

So how does this case relate to the interagency EA concept mentioned at the beginning? Interagency EA is the underlying framework that ignited the collaborative effort between DHS and OED. Contrary to the general belief that EA is an intangible concept yielding little or no value, this case study shows that EA does indeed provide valuable blueprints to achieve specific course of actions for organization.

In the Inquisite case, the collaborative effort between DHS and OED was initiated from an incidental meeting between Jack and John. The EA framework allows organizations to have these kinds of collaborations in a more structured and planned way. The state enterprise architect will first look at state agencies as an enterprise composed of individual agencies. Using the Business layer of EA, state enterprise architects will then develop the state architecture according to state business strategic plans. The next step involves recognizing and analyzing common business needs of individual agencies. Moving on to the other layers of EA such as Data, Application and Technology, state architects also need to answer specific questions about transformation, transition and created synergies.

For example, as Inquisite is a shared service, it fits into both Business and Application layers of EA. Using the EA blueprint, the process of identifying cost cutting opportunities like Inquisite could be as simple as answering a small list of questions:

- What business needs do DHS and OED have in common?
- Is there an opportunity to share and collaborate?
- What synergies can be achieved from the collaboration?

Again, economic benefit is not the single biggest value of having an EA framework in place. Organizations seek to improve and make themselves more efficient through change. Enterprise change is, however, dynamic and often quite difficult to achieve. An EA framework creates value by making sense of the complexities involved, helping to derive the final solutions.

Although there are still many challenges and doubts, EA remains the main story behind the change of modern organizations in this century. We want to share the story of change. Do you want to be part of that story?

Notes:

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*The case study was completed with the help of Jack Doyle – now Senior Enterprise Architect for DHS and John Glen, Research Analyst, with OED

[1] DHS Memorandum of Understanding with Employment 2007

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