



# ENTERPRISEWIZARD WHITE PAPER

## REDUCING THE COSTS OF GOVERNMENT COMPLIANCE WITH BUSINESS PROCESS AUTOMATION



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## Abstract

Government compliance regulations have significantly raised the costs of doing business in recent years. The 2008 [federal takeover](#) of mortgage giants Fannie Mae and Freddie Mac has increased pressure for additional regulations that will further drive up costs for public companies.

This paper summarizes compliance costs, describes technologies that reduce both the cost of government compliance and the overall cost of doing business, illustrates the impact of adopting such a system, and outlines an implementation plan to reduce costs.

## Introduction

It is no surprise that government compliance regulations increase costs for those businesses subject to them. A [2007 survey](#) by Financial Executives International (FEI) found that compliance costs for Section 404 of Sarbanes Oxley were upwards of \$1.7 million for companies with average revenues of \$4.7 billion. A 2003 PricewaterhouseCoopers survey of 136 U.S.-based multinational corporations provided the following analysis of costs:

**I. Accounting and Audit Costs:** The most obvious expenses are the additional effort and material costs needed to keep track of all activities covered by the SOA regulations.

- Around 12,000 hours of internal work
- 3,000 hours of external work
- Additional audit fees around \$590,000

The most commonly cited aspect of these costs is documentation, named by 74% of respondents to the PricewaterhouseCoopers survey.

**II. Indirect Costs:** Companies may be less likely to make deals if it takes longer to review major decisions. On top of that, with the increased focus on compliance and meticulous documentation, productivity is also affected.

An article titled [Talleying the Cost of the Sarbanes-Oxley Act](#) published by the New York State Society of CPAs notes that if employees must spend additional time on tasks such as evaluating financial reports and producing additional documentation for their board of directors, other important activities will suffer.

## Reducing Costs

As detailed in these surveys and others, the primary costs of government compliance arise from the requirement to prepare documentary proof of compliance. Such documentation presupposes: 1) a defined process to meet those regulations, 2) a way to force employees to follow that process, and 3) some documentary proof that can be collected at the end to show that the appropriate process was followed.

As an example, let's suppose that government regulations now require that for any significant change to the company's financial reporting software application, a minimum of 2 executives in the Operations department must approve a document analyzing and certifying the impact of such a change.

In the days before your company went public, such a change might have simply been made on the fly. Now, subject to increased regulations, your company will need to define a process whereby if someone wants to make a change to the financial software application, someone in the Finance department must be asked to prepare the analysis document, and then must send it to the two designated executives for their approval. Depending on the results, the document may need to be

resubmitted or it may be approved, at which point the department in charge of making such application changes would need to do the necessary work and report on the results. For each application change of this type there must be a clear audit trail showing all the necessary documents and approvals, the results of the work, and so on.

For many companies this whole process is done manually, relying on phone calls, email, and a hard copy form with documentation outlining the process. This form is passed along to each employee involved and eventually ends up being filed away for auditors to review. In a large corporation with hundreds of such processes, it is not hard to see where the cited figure of 12,000 internal staff hours comes from. Experience and micro-optimization can reduce these costs by a few percentage points, but fortunately, there is a much better way.

## Automating Business Processes

Business Process Automation (BPA) software is designed to help companies manage their complex business processes, ensuring that the proper processes are followed while eliminating as much of the repetitive, time-consuming manual effort as possible. By providing an online system for submitting requests, automating the process flow, requiring that necessary documents are attached at each point along the way, handling all of the reminder notifications, and recording a full audit trail of everything done to the request, such systems can free up staff members to concentrate on doing the more interesting parts of their job. Implementing an adaptable Business Process Automation system can thus be an extremely effective way to reduce both direct and indirect costs of government compliance, while at the same time increasing the efficiency of your entire organization.

A BPA system will typically reduce costs dramatically by taking over the following tasks:

- \* Guiding users through the appropriate processes
- \* Ensuring that these processes are followed
- \* Automatically moving items to the next stage and notifying the appropriate individuals by email, providing both automatic follow-up and escalation when needed
- \* Creating a full audit trail of the way in which the processes were followed
- \* Providing auditors with all the information they need to verify compliance, **without any special effort**

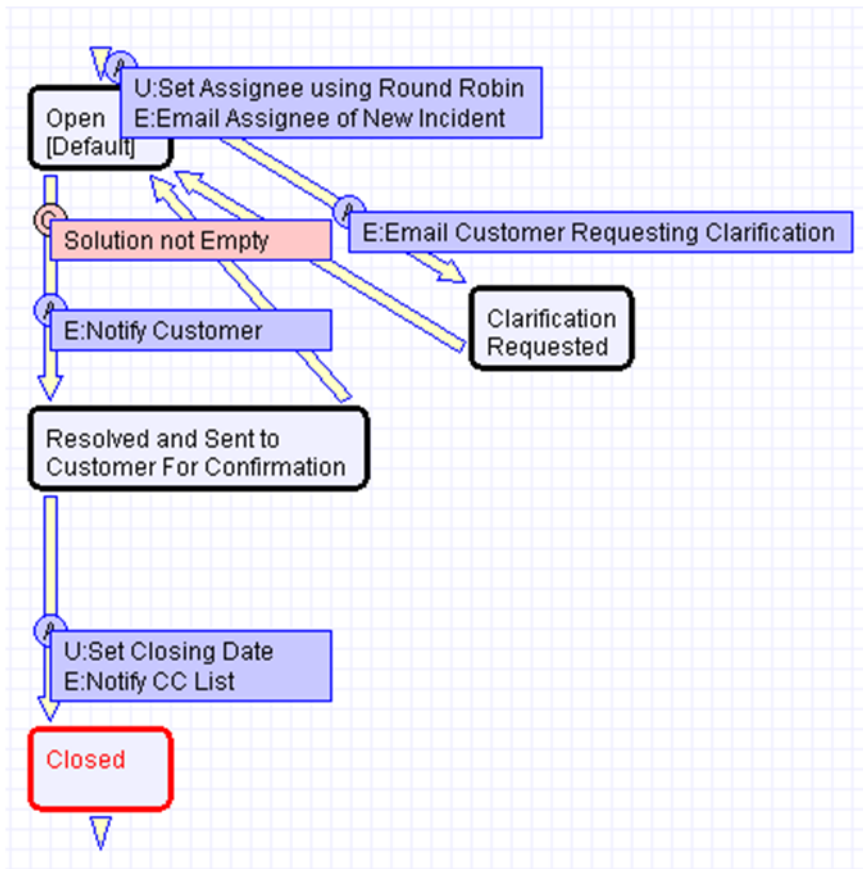
Let's look at how it accomplishes each of these tasks.

### Guiding Users Through the Process

Once an internal process has been defined, along with any necessary approval steps, required signatures, documents, and so on, it needs to be built and documented. Users need guidance to follow the process, which may be provided via written instructions or better still, dynamically, as they walk through the process online.

### Documenting the Process for Users

In an ideal world, processes, once defined, should be self-documenting. That is to say, building the automated process also documents it. This is illustrated by the following workflow for managing Service Incidents, where management has decided that the incident can only be closed when the customer agrees with the resolution. This is taken from a screenshot of the workflow editor itself:



Key:

The lavender text boxes such as "Set Assignee using Round Robin" are the names given to business rules executed by the system. They are not showing what should happen but what automatically *does* happen.

For example, when the Service Incident is created, it is automatically assigned by a round robin method and the Assignee is emailed about the new incident.

The guard "Solution not Empty" prevents changing the Incident to a state of Resolved if the Solution field is empty.

Other systems may represent the same information differently, but the key point here is that this is not a "diagram" of the workflow, but the workflow editor itself. So building the process automatically documents it.

Note: Setting up the above workflow -- not just the diagram, but the actions and guards themselves -- on the EnterpriseWizard platform took just 20 minutes.

### Moving Users through the Process

As users fill out required information online, they should be visually guided to fill out the necessary information through fields marked as required, input instructions, and information about what will occur based on their selections. For example, here is part of a form for submitting a change request:

Required Fields with a Red Asterisk

Change Request

Details | Related Records | Background | Emails | History

Next | Finish | Finish & New | Finish & Next | Cancel

ID: 9

**Request Information**

Urgency of Change:  Normal  Emergency      \*Change Category:

\*Risk if Done:       \*Risk if Not Done:

\*Related to:

**This date must be at least 7 days from today unless this is an Emergency change**

Requested Date of Completion:         Estimated Time to Complete:  D  H

\*Change Summary:

Change Description:

Business Justification:

Attached Files: Attach/Manage  
No Files Attached

Hard Coded Input Instruction

The variety of input aids, from asterisked required fields to mouseover help and inline input instructions, assist the user in filling out the appropriate information. Drop-down lists and calendar field lookups make it easy for users to provide information in the right format.

### Controlling State Changes

In an online system, the process flow is generally managed by a set of "states" or "statuses" that indicate where a request is in terms of the process. When staff members work on an item, their options for what "State" changes are allowed should depend on the current state of a record and the workflow that has been defined for this process. For instance, in a simple helpdesk request process, one might be able to move to the following statuses from a starting point of Open:

Status: 

- Open
- Assigned
- Sent to Customer
- Closed


Whereas, once the record has been Closed, if it is edited again, the "Status" options may be further restricted. Here, the workflow has been designed to provide only one exit status for Closed, to Reopened.

Status: 

- Reopened
- Closed

## Notifying Users about What Will Happen

When selecting a new Status from this list, the system may be designed to immediately inform the user about what automatic actions will occur. Here, for instance, when the status of Closed is selected, the user sees that an automatic action will send an email to the customer:



Status:  

**Active Action:**

Closing Email to customer

A system with good workflow functionality will assist you both in designing a process flow and in guiding users through the appropriate process steps.

## Ensuring that the Correct Processes are Followed

We have already seen how the form and workflow design help ensure that processes are followed. However, a good system will also provide a flexible and easily configured business rule engine to enable any combination of criteria to be enforced. This is particularly critical for managing complex processes and saving time and effort over manual processes.

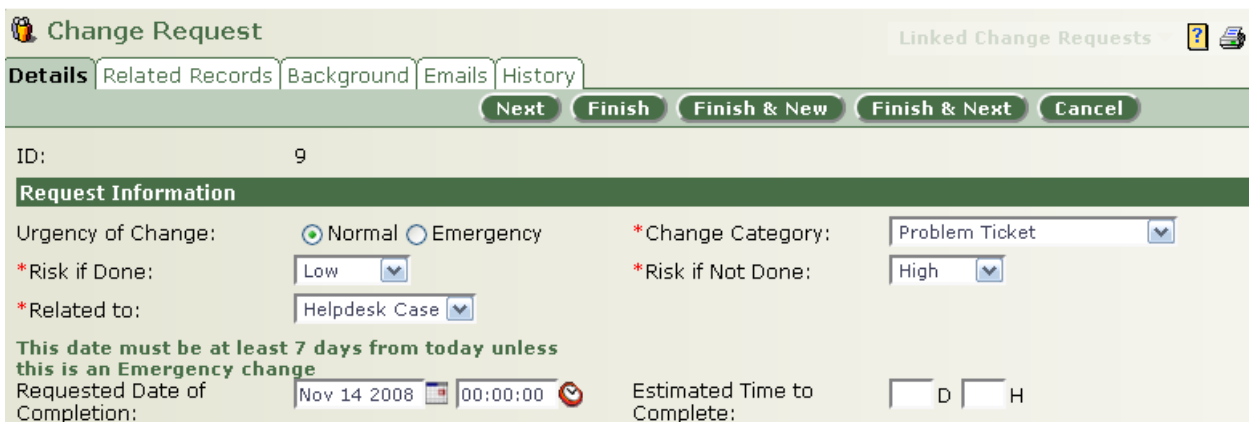
To illustrate, using the Change Request form above, suppose you have a date field, such as Requested Date of Completion, and you want to control what dates are acceptable based on the context. Suppose for an emergency change you want to permit users to choose any date in the future, while for a non-emergency change they must choose a date at least 7 days away.



With a manual process a user might fill out a written form and choose an unacceptable date, forcing whoever receives the form next to make a correction or send it back to the first user to make the change, delaying progress and wasting everyone's time.

With a well configured system, a business rule can require the appropriate range of values in the field as the form is being submitted, giving the user a custom worded error message if he does not comply:

Immediate record validation results in huge time savings and greatly increased efficiency when managing complex, multi-variable processes.

**Error: You must set a Requested Date of Completion value that is at least 7 days in the future for a nonemergency case.**



**Change Request** Linked Change Requests  

**Details** | Related Records | Background | Emails | History

**Next** **Finish** **Finish & New** **Finish & Next** **Cancel**

ID: 9



**Request Information**

Urgency of Change:  Normal  Emergency \* Change Category:

\* Risk if Done:  \* Risk if Not Done:

\* Related to:

**This date must be at least 7 days from today unless this is an Emergency change**

Requested Date of Completion:     Estimated Time to Complete:  D  H

## Automatic Processing, Notification, and Escalation

Another benefit provided by a well-designed BPA software product is automatic process progression and notification. When the required conditions are met in a form, a system with a robust rule and workflow engine can automatically move the request to the next stage, assign it to the proper team or individual, and email that assignee all the information needed to perform the next task, including any attached files. In some systems, the email can even include a hyperlink he can click that will automatically add his approval to the record or take him right back into the record to put his comments.

For example, below is an email sent to a supervisor when an employee submits a request for a new piece of hardware. If the supervisor wants to approve the request, he can simply click the link and the system will add his approval to the request, change the status to Approved by Supervisor, and assign it to the Procurement group for processing. Alternatively, the supervisor can click the Rejected link and it will log him into the request where he can add his reasons for rejection in a comments field and prompt the system to automatically change the Status to Supervisor Rejected and email the requestor with the details of why the request was rejected:

Subject: Purchase Request for Lynn Smith requires your approval ID:[Bza3kv/458]

The purchase request shown below requires your approval. Please click [here](#) to approve the request or click [Rejected](#) to reject the request and add your comments. The items requested are:

| Item Type | Item Name                 | Quantity |
|-----------|---------------------------|----------|
| Monitor   | HP 20" Flat Panel Monitor | 1        |

Requestor Name: Lynn Smith  
Recipient Name: Lynn Smith  
Type of Request: New Hardware  
Priority: Medium  
Business Justification: test  
Total Value of Order: 470.0\$  
Status: Pending Approval  
Date Created: Dec 09 2008 20:51:40

The time taken to approve or reject requests and move them along in the process can be dramatically shortened with such automation. Better still, all actions done by each individual are captured and made available to auditors without any extra effort.

In addition to action-based email notifications, most systems provide a time-based escalation capability that runs constantly in the background, watching for items to pass specific deadlines. When an item meets the criteria, the system can send an email, change values in the record itself (for instance, change the Status to Escalated), update related records, and so on. This effortless vigilance frees managers from having to worry about whether items are falling through the cracks and means that staff can focus on the most pressing issues, knowing that nothing will be forgotten. It means that your organization can more easily meet internal process SLAs and other kinds of process deadlines. An integrated calendar can even automatically schedule events and reminders based on date fields in a record. For instance, all scheduled changes for approved change requests can be auto-entered into a global calendar where they may be viewed by all staff members.

## Providing an Audit Trail of Approvals and Work Done

A good BPA system will provide a full audit trail of all changes made in the system, full documentation of necessary approvals having been received, of appropriate steps being followed, and so on. This is a key feature that enables your company to meet auditor requirements without expending an ounce of extra energy or time.

For a system to meet the needs of government compliance it must include a full history function that tracks all changes made at the record level and, ideally, at the administrative level as well. It should show all email actions that occurred, all record edits, and all deletions. For example, the History overview for our Purchase Request record above might look like this:

## Purchase Request

General | Work Notes | Background | Emails | **History**

Back Finish Finish & New Finish & Next Cancel

history: Date/Time of Change By Whom Field(s) Modified

|                      |        |  |
|----------------------|--------|--|
| May 08 2009 14:54:10 | admin  | Updater Team, Updated By, Updater Login, Date Updated, Total Item Cost, Additional Notes |
| Feb 06 2009 11:32:14 | config | <b>Purchase Request Created</b>  |

Back Finish Finish & New Finish & Next Cancel

We see an entry for each person that touched the record. Drilling down provides a more detailed view of the changes and offers the ability to see exactly what the Purchase Request looked like after each change. It shows email actions that were triggered by business rules, changes made by users or rule actions, and so on.

Here is an example of an expanded history entry for a change request. The request type was changed to a child request, and as a result a rule called Parent/Child CR Handling ran, checked to see if the Parent request was already approved, found that it was, and therefore set the Approved field for the Child request to Yes and copied the Approver from the Parent request. All this can be seen from the history entry.

**Close**

**Jan 26 2009 12:22:01**

**Changes made by davide** **View Change Request After Change**

| Field Changed  | From                 | To                   | By       |
|----------------|----------------------|----------------------|----------|
| CR Type        | Independent          | Child                |          |
| Attached Files | --undefined--        |                      |          |
| Date Updated   | Jan 26 2009 12:21:34 | Jan 26 2009 12:22:01 | Defaults |

**Rule: Parent/Child CR Handling** **View Change Request After Change**

| Action Name                  | Action Report   |
|------------------------------|---|
| Conditional Approval Actions | If-then-else flow   |
|                              | search matched CR Type='Child'                              |
|                              | search matched Parent CR Approved='Yes'                     |
|                              | action executed Set "Approved" to Yes                       |
|                              | action executed Set Approved By field to Parent CR Approver |

| Field Changed            | From          | To           | By                           |
|--------------------------|---------------|--------------|------------------------------|
| Approved by 1st Approver | --undefined-- | Yes          | Conditional Approval Actions |
| Approved By              | --undefined-- | David Miston | Conditional Approval Actions |

**Close**

All inbound and outbound email is also recorded and displayed in the associated record. If an action includes sending an automatic email or if a user sends in an email update to a record, the emails are displayed in the Emails table embedded in the record. The result is that everyone is accountable and all documentation necessary for audits is automatically available.

## Reducing Auditing Costs

In addition to the History and Audit trail for each request, the system should be able to generate reports showing whatever data is necessary for verifying that regulations have been met.

For instance, suppose you need a report listing all assets that were disposed of during the fiscal year and the method of their disposition. If you have been managing your assets in the system, it takes only about 5 minutes to create a standard html or excel report containing the appropriate information.

In addition, some systems provide an audit trail of a full range of activities within the system, including logins, record edits, record deletion, and administrative activity. For instance, in the EnterpriseWizard system, the activity log can track any or all of the following activities in the system:

**Select All**
**Clear All**

|   |  |   |
|---|--|---|
| <input checked="" type="checkbox"/> Login           | <input checked="" type="checkbox"/> Logout by User | <input checked="" type="checkbox"/> Logout by Timeout |
| <input checked="" type="checkbox"/> Logout by Admin | <input type="checkbox"/> New Record                | <input type="checkbox"/> Edit Record                  |
| <input type="checkbox"/> View Record                | <input type="checkbox"/> Delete Record             | <input type="checkbox"/> Initiate Chat                |
| <input type="checkbox"/> Respond to Chat            | <input type="checkbox"/> View FAQ                  | <input type="checkbox"/> View Table                   |
| <input type="checkbox"/> View My Items              | <input type="checkbox"/> View File                 | <input type="checkbox"/> Add File                     |
| <input type="checkbox"/> Delete File                | <input type="checkbox"/> New Table                 | <input type="checkbox"/> Edit Table                   |
| <input type="checkbox"/> Delete Table               | <input type="checkbox"/> New Group                 | <input type="checkbox"/> Edit Group                   |
| <input type="checkbox"/> Delete Group               | <input type="checkbox"/> New Team                  | <input type="checkbox"/> Edit Team                    |
| <input type="checkbox"/> Delete Team                | <input type="checkbox"/> Edit Workflow             | <input type="checkbox"/> New Business Rule            |
| <input type="checkbox"/> Edit Business Rule         | <input type="checkbox"/> Delete Business Rule      | <input type="checkbox"/> Run Business Rule            |
| <input type="checkbox"/> URL Click                  | <input type="checkbox"/> New Column                | <input type="checkbox"/> Edit Column                  |
| <input type="checkbox"/> Delete Column              | <input type="checkbox"/> Add Columns to History    | <input type="checkbox"/> Delete Columns from History  |
| <input type="checkbox"/> Run Report                 |  |   |

Any actions that have been selected are automatically recorded and displayed in a report showing who did it, when, and to what.

Once you have selected the logging and the reports you need, your staff can get on with doing their principal work without having to spend time gathering data, remembering complex processes, and meeting with auditors.

It may still be necessary to pay external auditors to review the system, but these costs are greatly reduced when all the necessary information is easily available and verifiable. Not only are costs reduced when auditors can avoid "forensic" audits where they try to reconstruct what happened from bits and pieces of evidence, but the resulting grades are higher and the opportunity for conflict between the auditors and internal staff is reduced.

When it is time for the annual audit, the information can simply be made available to your auditors by giving them read only access to the parts of the system you want them to examine. If you have implemented a web-based system, they can login from their own office to review the information at their convenience.

## Possible Objections to an Automation Solution

While it should be clear that automating business processes will reduce the ongoing cost of doing business and managing financial audits, there may be some objections to implementing such a solution. Let's address a few of them here.

### What if the Solution Costs More than it Saves

Naturally there are costs associated with automation, such as the cost of the software, hardware, and implementation time. However, software and hardware costs are continually declining relative to human costs, and unlike employees, software will work with near perfect consistency 24/7.

There are many vendors on the market offering business automation solutions to fit most company budgets, from small companies with just a few users, to large Fortune 100 companies with thousands of employees. There are also a multitude of license models available, from on-premise permanent licenses for all company employees to monthly hosted offerings in which only technician users need a staff seat. Depending on the processes being automated and the number of users involved in those processes, the license cost may be quite low.

Research into different vendors and pricing models should uncover some vendors that fit your company budget. For small companies, for instance, a hosted solution may cost as little as a couple of hundred dollars a month for a few users.

When planning a budget you must include implementation costs, whether it is your own staff or vendor consultants who do the implementation. Depending on the nature of the solution, these may be very reasonable or quite expensive, and again it pays to do some research. Some vendors will do fixed price implementations with a full money back guarantee, which completely removes the financial risk of such an implementation.

### Our Processes are Too Complex to Automate

You might be concerned that the processes your company uses are too complex, with too many conditions, to be mapped to an affordable BPA tool. However, it can be surprisingly affordable to map even the most complex processes with an appropriate software product.

In general, the more complex the process, the greater the cost savings when converting it to an online, automated process. This is because the most complex processes require the greatest degree of manual effort, both to ensure compliance and to document that the process was followed.

### We're too Busy Putting out Fires to Implement a New System

If your staff spends most of their time putting out fires, this is a strong indication that there is room for process improvement. A mistake that many companies make is prioritizing tasks that are urgent rather than tasks that are important. Important tasks are those that are critical to company survival in the long-term, but that do not seem urgent on any given day. Improving efficiency while reducing the costs of government compliance fall firmly into the "important" category. Staying with this metaphor, the way to stop spending time putting out fires is to implement a process that prevents the fires from being lit in the first place.

It is true that designing and implementing a full solution that automates all of your principal business processes may require substantial time and effort. However, there is no need to bite off the whole

thing at one time. A better approach may be to proceed with small steps, as described in the next section.

You can simply rough out an overall plan of approach, choose a vendor and product that will meet your long-term needs for full automation, and then start small by automating just one process for one department. When that first process has proven and paid for itself in increased productivity and success, it will be easier to justify the time and money to implement the next process.

## Reducing Costs With Minimal Risk – An Implementation Plan

*The Deming [PDCA](#) Cycle* of Plan, Do, Check, Act provides a useful blueprint for implementing Business Process Automation. Applying these principals to a staged implementation reduces the time and cost risks substantially.

### Plan: Choose which business process you wish to automate

Focus on the process that is causing you the most problems and/or is most costly to your company.

Define precisely what currently happens in that process and what needs to happen for it to be more efficient and auditable. At this point, you're not focusing on the technical solution, but rather on your business needs.

Choose an appropriate product for achieving these business needs. Naturally, the technology must be robust enough to meet not just your current needs for this process, but the needs of other processes you expect to automate. Ideally, it should be easy enough to use that your own staff can adapt it to changing requirements without requiring the help of external consultants or depending on the "common sense" of programmers.

### Do: Implement the chosen solution

If possible, find a vendor that is confident enough of success that they are willing to be paid the majority (or entirety) of the PO on a fixed price basis when the project is completed and that will guarantee your success.

Implement the first process with the help and guidance of the vendor, treating it as a learning exercise for your team to gather the skills to make modifications and implement the next process themselves.

### Check: Review the lessons learned from this implementation

With 20/20 hindsight, you should be able to see some improvements that you can make and mistakes that can be avoided when automating the next process. Be sure to involve all stakeholders such as the staff, managers, auditors, third party suppliers, and customers in these discussions.

### Act: Implement the lessons learned

Improve the first process, analyze the cost savings, and start planning the automation of the next process. By using the money saved from the automation of one process to pay for the automation of the next, costs are continually reduced with only a small initial outlay.

## Conclusion

The Sarbanes-Oxley Act has been widely perceived as a burden on public companies. However, its passage also ended up highlighting weaknesses and inefficiencies in the business processes of many American corporations.

As illustrated here using EnterpriseWizard as an example, effective business process automation can not only virtually eliminate the costs of being compliant with government regulations, but can also greatly reduce the cost of doing business.

## Next Steps

[Sign up for a personalized demo](#) showing your toughest business process automated.

[Set up a free hosted KB](#) to try it for yourself.

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## About EnterpriseWizard

EnterpriseWizard, Inc. ([www.enterprisewizard.com](http://www.enterprisewizard.com)) Tel: 888.727.2209 is the leading provider of powerful, easy-to-deploy, and cost-effective Web-based software solutions for business process automation, customer support, ITIL, and CRM for organizations with complex products or services. Its adaptable platform has attracted hundreds of customers, ranging from startups to Fortune 100 companies such as Chevron, NEC and Emerson Electric.