



Best Practices for Successful Portal Delivery

This document describes best practices that can improve the return on investment (ROI) for portal implementations. These practices are most effective if they are incorporated as each phase of the portal project is being planned.



Best Practices

A portal can contribute greatly to the agility of an organization while reducing the cost of information technology. This document suggests some best practices that you can use when planning, implementing and running your portal. Some of these practices are quite straightforward, but sometimes it helps to have them put into words.

USER REQUIREMENTS ARE CRITICAL – DON'T FORGET FIELD OFFICES!

When planning a portal project, you must be laser-focused on identifying the needs of the organizations and users that your portal will serve. This may seem obvious, but it bears repeating. The business users and their organizations are your “customers.” Your goal is to improve their ability to do their jobs. To do so, you need to know what their needs are. Avoid over-generalization; lumping all possible users under a single umbrella will miss the most important requirements.

For example, “field workers” within most organizations — whether they work out of hotel rooms or large field offices — live at the narrow end of a long information pipeline. The field’s ability to collaborate with each other and with headquarters staff is often quite poor, and the quality and quantity of information that reaches these users is proportional to the size of the field office and the distance from HQ.

Conversely, field workers are usually the most familiar with real-world customer needs and concerns. Unfortunately, it is often difficult for them to share this critical information with other field workers and headquarters staff in a way that makes this information actionable.

The consequences of these problems can be very severe. This is because field workers are the main channel through which your company interacts with its customers. Whether during the sales cycle, during service projects or during the product development process, field workers must be empowered to contribute and obtain the latest information — or else reactions will be slow, customers will suffer from misinformation, deals will be lost and distributed projects will be more difficult to manage.

If you give them better access to information and people, the road warriors and the satellite office staff will be your biggest fans. Because of their lack of day-to-day physical



presence at HQ, field workers tend to be more dependent than anyone else in the organization on electronic collaboration and information tools.

In addition to offering important use cases, serving the needs of field workers imposes some important requirements. A road warrior may need to access the portal over very slow, noisy, expensive dial-up lines. Is dial-up access a common requirement among your users? There are many implications; a few simple and practical ones are:

- Avoid unnecessarily fancy graphics and applets on core pages.
- If a file is offered for download, tell the user how large the file is without forcing him or her to download it.
- Minimize the number of clicks required to access commonly needed information (a good idea in any case!).
- In extreme cases, or where users are off-line most of the time, implement an off-line content access solution (several of which work with TIBCO PortalBuilder®).

Although focusing on the needs of your customers is an obvious best practice, IT projects have been known to forget it. Remember that if the portal does not serve your users, they will not use it very much.

FOLLOW A PHASED IMPLEMENTATION PLAN

The portal is best implemented in a series of rapid phases, each of which delivers value to the business. You don't need to do everything in the first phase.

Despite the appeal of a clean slate, studies show that most big bang IT projects tend to fail. They suffer from long timelines, scope creep, budget cuts, staff turnover, lack of attention and unrealistic ambitions. And in the end, because they fail to deliver value quickly, it is often hard to defend their existence in an era of tight budgets.

Instead, you should implement your portal in a series of short, focused phases, each of which is designed to deliver value to the business. The modular nature of the portal, which promotes the creation of modular, reusable portlet- and template-based UIs, user profiles and content types, helps in this regard.

In general, you should try to integrate existing resources at first, rather than trying to reengineer them. TIBCO PortalBuilder's strong integration capabilities make it uniquely capable of implementing this strategy.



NEVER DELIVER AN EMPTY BOX

Before you announce a new portal, tool or database to your users, make sure that it contains a critical mass of useful content.

Picture yourself being notified about a great new knowledge base in your organization, a source of information that will greatly help you in your daily work. However, when you login to the portal and excitedly check out the new tool, you find that nobody has yet contributed any information. What do you do? Most users, faced with this situation, will leave and never come back.

You must therefore ensure that before any tool or database is announced to your user base at large, it provides enough information or features to be useful to the users.

If the tool is a content/collaboration tool such as the one described above, the best way to ensure a critical mass of content is to migrate a heavily-used or valuable but inaccessible legacy content source. This will require you to work closely with the owners of all this information — which is a very good idea anyway, as we'll see in a moment.

If the initial content does not come from an existing source, you will need to create seed content before announcing the tool. This often involves putting together a set of frequently needed pieces of information within the domain covered by the tool and driving an effort to create them.

Once the tool or database contains sufficient content that your users need, you should pilot this content with a small set of users to ensure that it is useful prior to rolling it out for general availability.

KEEP THE CONTENT CURRENT

It's wonderful to deliver good, solid information and great tools that help your business users do their job better. However, if you don't ensure that content and tools are kept up to date and even enhanced to meet the changing needs of the business, they will eventually become useless.

The best way to make sure that useful information is updated is to make it very easy for the most important and prolific sources or authors to contribute data or content. This is a special case of a general principle – “make work easier, not harder” – which we will discuss below.



Make it easy for applications and users to contribute useful information organized in a useful way (more about organization below). Then, notify your contributors when content expires or seems to be outdated, and let them update it, retire it, mark it as unreliable or re-submit it.

Finally, include feedback forms and other mechanisms that let end users comment on the usefulness or obsolescence of information contained in the system.

MAKE LIFE EASIER, NOT HARDER

Your goal should be to make business tasks easier for your users — not harder. If using a tool requires users to jump through a lot of hoops without delivering immediate, visible benefits to these users, most busy users won't take advantage of the tool unless forced to do so by management. This will hinder efforts to collect and maintain good content.

You should also make life easier for your end users rather than introducing new burdens. The portal's single sign-on features can be very helpful in this regard, as can the portal's ability to bridge application silos (see below).

Another way to make life easier is to automate processes and integrate with enterprise applications, rather than forcing users to manually maintain or synchronize information.

To make access to data from enterprise applications easier, you can provide portlets that deliver rapid access to particular functions of these applications. It's even better if you can fill in by default some of the information that the user will likely want to submit rather than making him or her type it all in, and if you can display by default the information that is most often needed most quickly. Certainly, single sign-on should be attempted.

Automation of tasks can also help. TIBCO PortalBuilder's Content Publisher application comes with a SOAP API that allows a client program to push content into it, and a loader that synchronizes a folder tree within the Content Publisher with a directory tree in your file system. Automation of such activities greatly reduces the set of administrative tasks associated with the portal.

To make collaboration easier rather than introducing a new hurdle, you can integrate the JIVE Forums discussion software with email aliases (an off-the-shelf feature). The forums provide a web-accessible, topical, threaded and searchable archive that prevents the loss of critical intellectual capital without forcing users to change long-standing behavior patterns overnight.



SEARCH AND TAXONOMY ARE CRITICAL – NO TAXONOMY MEETS EVERY NEED

It is extremely important that non-technical users be able to quickly locate needed resources and information. If they cannot find what they need, many users will give up in frustration — perhaps after wasting a lot of valuable business time.

The two ways to find resources are search and browsing (also called “taxonomy browsing”). Search refers to the now-familiar concept of the search engine; a user enters a query and the engine locates the resources that best match the query. A taxonomy is a collection of resources that have been hierarchically classified into folders according to their content; for example, documents about pets could be organized into the categories, mammals, reptiles, birds and fish and mammals could be further divided into cats and dogs.

The purpose of search is to help users find resources when they already know the terms for which they are looking (e.g. “Porsche transmission”).

The purpose of a taxonomy is to help users find resources when they are not sure what terms to use, but can narrow down the concepts iteratively (e.g. “TIBCO Portal > Best Practices > Security > Secure Internet Access to Intranet Applications”).

TIBCO PortalBuilder organizes resources such as portlets and documents into folders to help users find them using a taxonomy approach. However, it is very rare for a single classification hierarchy to meet everyone’s needs. For example, a TIBCO product knowledge base might be organized by product lines and functional areas — but some users will want to find the products that are supported on a particular platform, while others might want to find the products for which a particular reseller has distribution rights.

It is impossible to come up with all the possible hierarchies, and it would be wasteful to try to create hierarchies for the more unlikely cases. Instead, you should employ search as well as one or more classification hierarchies.

WEED OUT THE JUNK

Too much verbose information is almost as bad as none at all. If it is impossible to find reliable information in the flood of junk, then few users will have the patience or ability to find and benefit from the information. At the very least, productivity will be adversely affected.



There are several ways to solve this problem:

- Where appropriate, use approval processes or expert moderators to ensure the quality of published information. Workflow engines can help you manage content (and also non-content) processes.
- Use search and taxonomy to help users wade through the mass of information and find what they need. Meet regularly with users to determine what kinds of content they find most important and how easily they are finding it, and try to make it available through a minimum of clicks.
- Content contribution forms should encourage contributors to provide key information separately from massive attachments, so that users can judge for themselves whether the information is pertinent to their needs. Conciseness should be encouraged.
- Expire [but archive] old information.

INTEGRATE THE SILOS

Before an enterprise portal is introduced, end users typically access information through a large number of narrow, isolated user-interface silos. This situation is far from ideal, because it wastes time and increases the chance of user error, which degrades their ability to do business.

For example, when a user fills out a form to submit a service order to one application, some of the field values need to be obtained from valid records in other, unrelated applications. TIBCO PortalBuilder portlets make it easy to turn the second application into a provider of “pickers” for the first, without modifying either application.

Similarly, users who discover a problem or opportunity in the data from one application often want to examine related information in other applications without having to sign onto these applications, manually recreate the required context and manually query these applications. TIBCO PortalBuilder allows users to quickly “drill across” from a record in one application to a related record in another. Since you can set up drill-across links very quickly and without coding, it can be very easy to create composite applications and deliver a truly seamless enterprise view to your users.

If you have several different customer databases, you can use drill-across to unify these and provide a holistic view of the customer. If several different applications handle different parts of the order management life cycle, you can use drill-across to support



a quick “fly-through” of an order’s history. You can even use drill-across within an application to implement drill-down from master information to detail screens.

Drill-across and pickers tend to be very useful to users who interact with several application silos that contain related information.

Drill-across and pickers do, however, need some sort of foreign-key relationship that relates information in one application to information in another. If no such relationship is readily available, TIBCO BusinessWorks™ SmartMapper and EAI techniques can be used to establish one.

DELEGATE PORTAL BUILDING AND ADMINISTRATIVE TASKS

A small team can accomplish a lot when creating a new portal release, but the maintenance of large amounts of content and large numbers of integrations can only be done well by organizations that own the applications or sites. Any non-delegated approach risks making the portal team a bottleneck.

TIBCO PortalBuilder supports powerful, granular delegated administration features that allow you to assign different groups — usually consisting of non-programmers — control over specific content items (e.g. specific portlets or folders). This prevents your team from becoming a bottleneck and frees you up to work on adding value in the next release.

The Content Publisher application allows business users to publish and share content, and allows them to manage their own areas. The introduction of this feature on TIBCO’s own intranet portal allowed TIBCO to shift from a model that required eight administrators at headquarters to update all site content, to a model in which well over 100 business users manage their own content. The administrators have become much more productive, and business content reaches end users much more quickly and easily.

MAKE THE BEST POSSIBLE USE OF CACHING

TIBCO PortalBuilder is used in extremely large business-to-consumer portals as well as in enterprise information portals, B2B portals and portals hosted by application service providers. The portal is extremely scalable, and supports excellent performance even under heavy load.

The single biggest contributor to portal scalability and performance is the ability of the portal to intelligently cache information. TIBCO PortalBuilder is a mature, robust product.



Since our customers expect exceptional scalability and performance from our products, we have focused intensively on this area.

Caching applies in several areas:

- Content caching
- Template caching
- User profile caching
- Role membership caching

The caching algorithms used by the portal are very important. It is not the purpose of this document to examine them, but teams that are to integrate enterprise applications into the portal should understand them and how they can be used. This information is covered in the product documentation.



Conclusion

The strategies in this document are intended to help make your enterprise portal successful from day one, and to help it add value to your business from the beginning. These strategies run the gamut from requirements gathering and project approaches, to content management approaches, to integration strategies.

TIBCO is committed to helping its customers realize significant business value by effectively utilizing all the information and resources at their disposal. We hope that this document helps you to reach your organization's objectives.



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