

Collaborative Enterprise Portals

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INTRODUCTION

The strategic goal of an enterprise portal is to provide a simple-to-use view into content, applications and collaboration tools for all who interact with an enterprise: its employees, customers, suppliers, and business partners.

While there are multitudes of enterprise portal deployments, each can be assigned to one of the three distinct groups. These groups, in an increasing order of complexity, are classified as fundamental, integrated, and collaborative (BEA, 2005; Bisconti, 2004; Bristow, Dickinson, Duke, Henry, & Makey, 2001; IBM, 2005; Moore, 2002; Strauss, 1999; Terra & Gordon, 2002).

The fundamental portal offers a framework where users are provided easy access, from a single entry point, into a few departmental silo applications or disparate Web sites. Such a portal provides a means to connect enterprise's legacy applications and very little functionality and. It may offer the enterprise some benefit, nonetheless, it falls short of the overall strategic goal of a portal, and does not offer any type of enterprise process integration. Fundamentally, a portal typically functions as a list of links and embodies the most elementary step in portal evolution.

The integrated portal integrates the applications and the delivery of customized, role-based content (that is, content specific to the role in the enterprise played by the employee, customer, supplier, and business partner), while providing access to the necessary information across the enterprise. Such a portal is typically seamless to its user, imparting a consistent look and feel across different applications and a single sign-on. Integrated portal, however, still does not offer the ability to create the collaborative workplace that fully integrates work of people, applications, processes, and the content specific to the enterprise. This need for the ability to fully integrate people, processes, content, and applications forced many enterprises to rethink their enterprise portal deployment (Cherbakov, Galambos, Harishankar, Kalyana, & Rackham, 2005; IDC Executive Brief, 2005; Kano, Koide, Liu, & Ramachandran, 2005; Millen, Fontane, & Muller, 2002; Yong, Chaudhury, & Rao, 2002). Many began to rebuild their portal's functionality to construct what is currently known as the collaborative portal.

The collaborative portal integrates users, applications, content, and collaborative tools and thus allows for the creation of a collaborative workplace that takes advantage of all the available information and communication technologies.

Collaboration services such as presence awareness, instant messaging, Web conferencing, and third-party applications, in the context of business processes (Havenstein, 2005; IBM, 2003; Thomas, Redmond, Yoon, & Singh, 2005), are integrated into the portal.

Enterprise portal use, and with it the portal market, is evolving. In many enterprises a portal is becoming the main driver of applications integration. Enterprises of all types and sizes are planning on using portals as a collaboration center to improve access to information, boost productivity, control costs and, bring together geographically dispersed work teams that work in both, asynchronous and synchronous modes (BEA, 2005; IBM 2005).

An example of a collaborative portal currently in use in the public domain (see Figure 1) is the Southern California Earthquake Center's (SCEC) Community Modelling Environment that can be found at <http://epicenter.usc.edu/cmportal/>. Note the presence of a variety of services in the CME work areas that include community models, grid computing, Web services, and data visualization, between many others.

The objective of this portal is to develop geophysics and IT collaboratory that will perform seismic hazard analysis and geophysical modelling. Currently, the informational portion of the portal is completed, where the information and tools for collaborators and the public are provided. A computational testbed is under development. When available, the computational testbed will make it possible to assemble and run seismological and geophysical simulations.

Automating and Reinventing Business Processes

For the business enterprises, collaborative portals represent a very big step toward automating business processes for the enterprise, and perhaps, most importantly, help to reinvent these processes for the extended enterprise. By the extended enterprise we understand the enterprise that includes enterprise employees (on all levels), enterprise customers, suppliers, and business partners.

Such portal solution must allow an enterprise to look at itself as a collection of business processes (financial management, product development, human resources management, and so on) rather than functional departments (marketing, manufacturing, human resources) or simplified user segments such as business-to-employee, business-to-customer,

Figure 1. Screenshot of the SCEC Community Modelling Environment portal

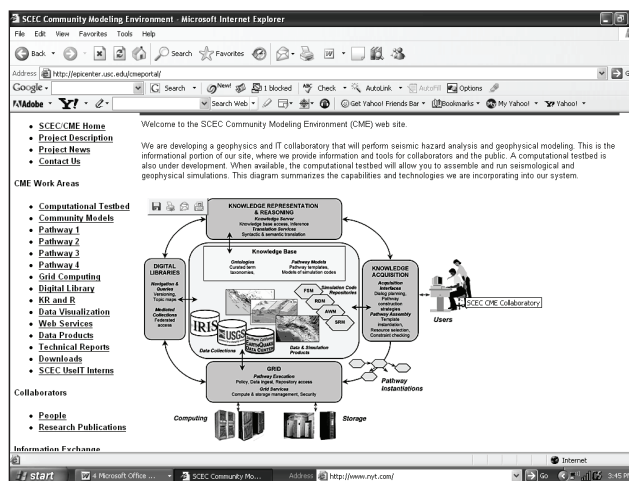
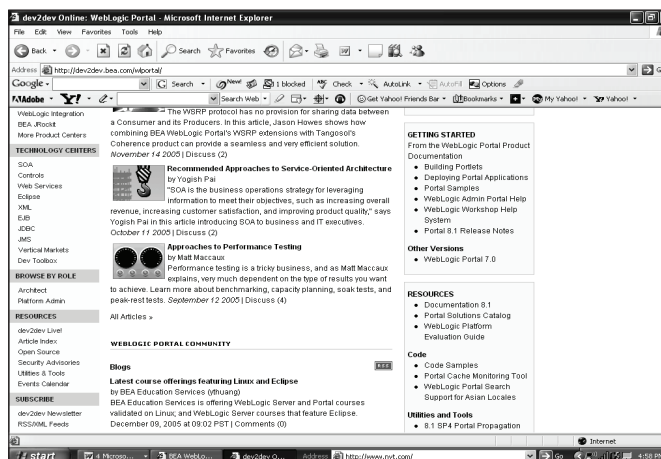


Figure 2. Screenshot of the Developer to Developer (Dev2Dev) BEA portal



or business-to-supplier (Bisconti, 2004; Cherbakov et al., 2005; Collins, 2003; Terra & Gordon, 2002).

An example of the collaborative portal used in an enterprise that is itself a major player in the provision of the solutions for the collaborative enterprise portal market is the developer portal from BEA (www.bea.com). This portal can be found at http://dev2dev.bea.com. The screenshot from the main page of this portal is shown in Figure 2.

The objective of this portal is to offer extensive support to developers and those who want to evaluate BEA products. Variety of utilities and tools, technical talks and educational services, blogs, wikis, and sample portals that illustrate collaboration and other services are offered here. Note the presence of the portal community and the ability to browse by role (architect or platform administrator).

SERVICE-ORIENTED ARCHITECTURE

Collaborative enterprise portal comprises an integral element of the service-oriented architecture (SOA). BEA WebLogic Server architecture (www.bea.com) and its WebLogic Enterprise Platform¹ offer one of the best examples of the functionality available within an integrated service framework—portal, personalization services, commerce, business process management, and integration services. Figure 3 shows these elements.

Service-oriented ideas are important for both, the business and the information technology communities because they hold the promise of interoperability between heterogeneous systems, reuse of components, and flexible and efficient



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