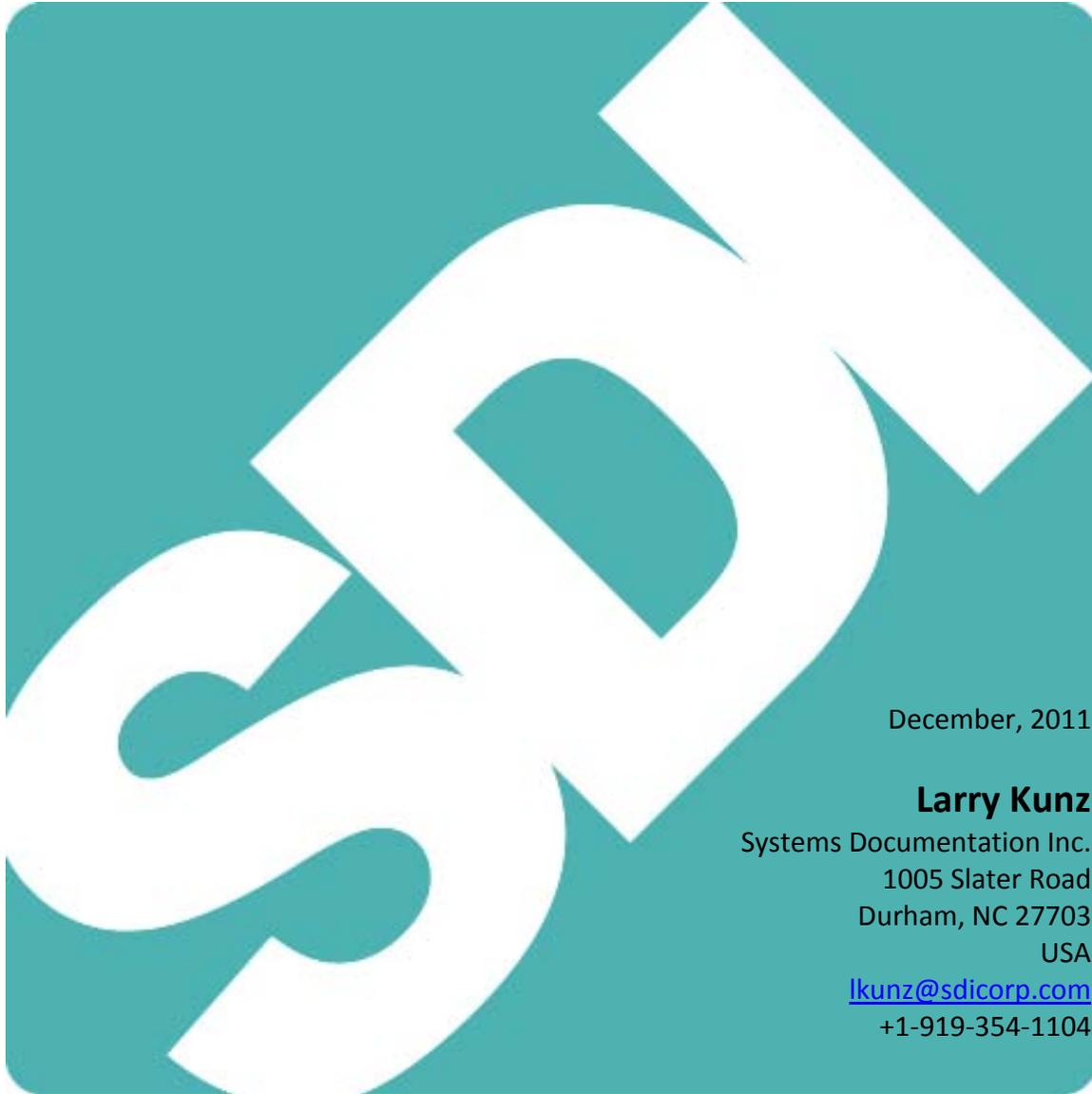


Designing and Developing Portals



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Larry Kunz

Systems Documentation Inc.

1005 Slater Road

Durham, NC 27703

USA

lkunz@sdicorp.com

+1-919-354-1104

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Executive Summary

Portals, which have long been deployed in web browsers and now are increasingly accessed through applications on mobile devices, provide single access points to related information sources and applications. A well-designed portal enhances customer satisfaction and user productivity by providing easy access to written and visual content that is useful and relevant.

Systems Documentation Incorporated (SDI) can maximize client satisfaction by drawing on its thorough understanding of industry best practices and on its experience developing portals for a wide variety of businesses and organizations.

Characteristics of a portal

A portal provides a single access point from which a user can conveniently interact with a variety of related information sources and applications, even though they might be in different formats and might reside on different systems. The earliest portals were web portals that displayed in browsers, for example Yahoo! in the 1990s. While web portals remain in widespread use, we are seeing increased use of portals that display content to mobile devices like tablets and smartphones.

A well-designed portal can enhance customer satisfaction and user productivity by providing timely, easy access to information and applications that support a particular business function or user task.

The power of portals lies in their ability to bring together content from disparate sources to support users' workflows and to vary the content based on business needs, users' characteristics, or other criteria.

Portals typically provide some or all of the following features:

- Integration of information (text, images, video, audio) and applications in the same space
- Personalization, in which a user can customize the portal to display content that is most interesting or relevant
- Access control, in which the portal is available only to users having proper credentials
- Search, using basic methods (keyword and Boolean)
- Advanced search, semantic analysis, and visualization of large, diverse information sets (petabytes) containing structured and unstructured information—techniques that yield relevant business intelligence or government-related intelligence information
- Integration with a business processes automation framework that enables automation of complex workflows and rapid execution and control of multiple enterprise processes

Best practices for developing portals

When designing a portal, the designer will incorporate the following best practices into his or her work.

Audience analysis: The designer must determine who will use the portal and under what circumstances. The portal should be designed, and content within the portal should be organized, in a way that promotes efficient and effective use by the target audience. Audience analysis accounts for demographic factors like age, nationality, and education level, as well as for other factors such as the level of technological sophistication the typical user is expected to have.

Flexibility: The designer should ensure that the portal’s content can be used through a variety of web browsers and on a variety of devices. The extent of this variety depends on the audience analysis—for example it might not be necessary to design the portal for use on smartphones if it can be demonstrated that hardly anyone will want to use it on a smartphone. Decisions like this need to be reevaluated periodically, however, because a particular audience’s technology preferences may very well evolve over time.)

Accessibility: The portal design should ensure that the portal can be used effectively by people with disabilities such as impaired vision, limited mobility, and so on. In some cases, for example with the U.S. government’s Section 508, the standards are included as part of the client’s requirements. In other cases the designer applies a set of commonly accepted industry standards to ensure accessibility.

Integration and automation: Where required, the portal can support standards-based business process modeling, process automation, structured and unstructured information integration, exchange, federation, processing, visualization, and analysis—providing a high degree of efficiency and effectiveness over previous manual or semi-automated methods.

SDI’s experience developing portals

ContinuityNow web portal: SDI has developed an event-driven, process automation platform with a secure, customizable web portal. Known as ContinuityNow, it is used for event monitoring and detection when an automated or semi-automated response plan is needed. Customers can configure

- **Real-time common operational picture & communication**

- Automated Processing of Events, incidents, communication
- Cameras, Sensors, Communications
- Community locations and venues
- Escalated emergency events
- Alerts of imminent weather dangers
- Inter, intra-agency connectivity
- Resource Management
- Event audio/video collaboration

Continuity Now!



the portal to provide monitoring, detection, tracking, visualization, communication, collaboration, and decision support to carry out predefined response plans. The ContinuityNow portal has been used for emergency and disaster management, flood monitoring and response,

consolidation of multiple alerting and communication systems, management dashboards, automated readiness reporting, and integrated logistics applications.

Interactive web portal for U.S. Navy JCREW Acquisition and Logistics Support: SDI designed and developed the JCREW (Joint Counter Radio-Controlled Electronic Warfare) web portal to support the knowledge needs, business processes, and collaboration activities of various U.S. armed services acquisition, engineering, and logistics communities that provide Electronic Warfare support to the U.S. Joint Forces and Coalition partners in combat and elsewhere across the globe. SDI's design uses .Net/ASP and Enterprise SharePoint technology to provide access to and storage of program management information and product-related information for authorized users. Through automated workflow, content management, and business intelligence functions, the portal also supports the business activities used by the applicable offices within the defense community.

U.S. Navy Electronic Warfare (EW) Readiness support center: SDI defined the requirements and the vision for developing an interactive, web-based distance support capability that enabled U.S. Navy technical and logistics personnel to provide sustainment support for EW aircraft deployed on aircraft carriers and at land-based naval facilities. This support enhances the fleet's airborne readiness and reduces time and cost associated with correcting problems. The portal was designed to provide access to technical documentation, training, engineering data, product configuration and maintenance history, and other logistical data.

Interactive Electronic Technical Documentation (IETM) viewer: SDI designed and developed this "single source" authoring and content management system to provide HTML- and PDF-based documentation for U.S. Department of Defense customers. The IETM viewer offers a unique capability for users of complex software and equipment to use computer-based training materials and electronic technical documentation in conjunction with each other. The solution delivers a highly effective



training environment and provides current, easily updated reference information for different user communities.

City of Philadelphia Social Services Management Portal: SDI assisted in the effort to tie together the monitoring and response activities for the city’s social services departments—each of which had its own separate systems. SDI’s Intelligent Command platform (a customized version of ContinuityNow) is an integral part of a new Social Services portal that integrates twelve different agency applications, exchanging data, providing overarching workflow, and helping to coordinate and streamline the work of city agencies. The portal also provides city officials with relevant business intelligence for more effective management of these activities.

Eclipse-based documentation: SDI has developed several documentation portals that provide a convenient way for customers and internal users to view product documentation. Based on the Eclipse development environment, the portals provide a structure presenting content in a way that supports user tasks and is easy to scan and search.

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