

# Liferay Portal Datasheet

## PRODUCT HIGHLIGHTS

- Compatible with all major databases, operating systems, and app servers
- Hierarchical system of communities and organizations
- Granular, delegable permissioning system
- Highly scalable, supporting over 3,000 concurrent transactions (3.3K simultaneous users) per server
- Real-world performance of millions of page views and 1.3 million users
- Supports over 30 languages, out-of-the-box
- Award-winning user interface

*For more information or to request a personal demo, please email [sales@liferay.com](mailto:sales@liferay.com).*

*To test-drive Liferay Portal, download the product here: [www.liferay.com/downloads](http://www.liferay.com/downloads)*

# Liferay Portal

## Delivering Solutions that Work

Now in its 11th year of development, the award-winning Liferay Portal is one of the most widely deployed portal technologies on the market, with an estimated 250,000 deployments worldwide.

More than a portal, Liferay is a platform for creating effective business applications and solutions. It offers a robust feature set, impressive scalability, time-saving development tools, support for over 30 languages, and a flexible, scalable architecture that is open source developed and enterprise refined. Popular deployments include:

- Self-Service Portals
- Knowledge Sharing Workspaces
- Dynamic Web 2.0 Websites
- Revenue-generating Social Networks
- Enterprise Application Integration

## ROBUST FUNCTIONALITY OUT-OF-THE-BOX

Liferay Portal 60+ out-of-the-box portlets can be categorized into three main categories:

### 1 **Content Management & Web Publishing**

Liferay Portal's built-in content management system is a structured system with support for roles-based workflow, separation of presentation from content creation, and editorial approval and versioning processes. Its document library features versioning, document locking, and automatic file-type conversions for document-based collaboration, as well as WebDAV, and Microsoft Office® integration for dynamic document sharing. Content may also be stored on third-party systems such as Jackrabbit, Magnolia, and Alfresco.

What's more, users can seamlessly integrate content with native collaboration and social networking features, as well as third party applications, to publish full-bodied enterprise solutions to the web.

### 2 **Collaboration**

Liferay's collaboration suite includes Message Boards, Blogs, Wikis—featuring RSS capabilities, tagging, common meta-data, and social bookmarking—that work within Liferay Portal's flexible system of communities and organizations. As a whole, they enable productive discussion around your collective knowledge; not only can users manage their own work experiences with our built-in webmail client and personal calendars, they can dynamically share their work and thoughts as part of a team.

### 3 **Social Networking**

Tying our content and collaboration features together is an enterprise-ready social networking suite with presence-enabled features like instant messaging and activity tracking that facilitate fluid, real-time communication.

Moreover, Liferay's Social API gives users get a platform for building their own social application. Users can plug into Liferay's social capabilities and allow third party applications

to take part in Liferay's activity feeds, member and "friend" lists, and other social assets, and customize these assets per their specific needs. In essence, Liferay provides you with the tools and framework for building a fully functional social network that can be customized to meet your unique specifications. The latest version of Liferay Portal also provides OpenSocial support, granting any gadget built with the OpenSocial API automatic access to Liferay Portal's granular permissioning and roles-based authorizations so that it operates as if it were a native Liferay portlet.

### **AWARD-WINNING USER INTERFACE**

Liferay offers a rich, easy-to-use "Web 2.0" interface using AJAX and other presentation layer technologies. It features effortless GUI-based personalization, drag-and-drop portlets, dynamic navigation and breadcrumb features, and an instant-add portlet library. The portal platform ships with Liferay own AlloyUI framework, which leverages YUI3, and also integrates with other frameworks like JQuery, DOJO, or your JavaScript library of choice.

### **MULTI-TENANCY VIA COMMUNITIES AND ORGANIZATIONS**

Liferay Portal gives enterprises the ability to organize users by business-defined categories such as departments, geographies, or offices, as well as by cross-departmental teams and workgroups. Each community and organization can inherit and define its own permissions and administer user, group, and role management for the various portlets it chooses to include. Virtual hosting allows them each to apply their own individual friendly URLs, themes, and configurations, independent of the others.

### **FLEXIBLE ARCHITECTURE**

Organizations choose Liferay Portal for the flexibility of its architecture and the ease of integration. Thanks to our use of Service Oriented Architecture, users get accelerated development cycles, re-usable services, and composite application development.

### **ENTERPRISE APPLICATION INTEGRATION**

Moreover, Liferay Portal is an open framework with a completely exposed API supporting web services (SOAP), JSON, RMI, and RMI over HTTP. As long as your existing applications are open and provide support through some service layer or API, Liferay can integrate with those applications.

There is a range of options for application integration depending on your needs, from a web proxy and iFrame portlet for lighter integration scenarios to WSRP, custom portlets using web services, or Gadgets for more complex integration scenarios.

### **SECURITY**

Liferay Portal uses industry standard, government-grade encryption technologies, including advanced algorithms such as DES, MD5, and RSA, and was benchmarked as among the most secure portal platforms using LogicLibrary's Logicscan suite. It offers a customizable single sign-on (SSO) that integrates with CAS, LDAP (Active Directory, etc), NTLM, CA Siteminder, Oracle Access Manager, Novell Identity Manager, Open SSO, and more.

What's more, Liferay Portal ships with robust user management and security features including password policies, user reminder

settings, and complete login security procedures. Liferay also abides by OWASP guidelines to reduce the risk of security vulnerabilities.

Other security features include:

- Pluggable Authentication
- Email Verification
- Session Management

### **HIGH AVAILABILITY AND HIGH PERFORMANCE**

Liferay Portal has been tested to support over 3,000 concurrent transactions (3.3K simultaneous users) on a single 8-core application server; mean login times under ¼ of a second, maximum login times of ½ a second, and throughput of 79+ logins per second. Our Web Content Management (WCM) system scales to beyond 150,000 concurrent users on a single Liferay Portal server with average transaction times under 50ms and 35% CPU utilization; In high-traffic web-publishing scenarios, Liferay Portal has proven to handle millions of page views and over 1.3 million users. Additionally, in collaboration and social networking scenarios, each physical server supports over 1,500 concurrent users at average transaction times of under 800ms.

Liferay Portal is also deployable to the Cloud and virtual server environments and ensures high availability and performance with:

- Hardware/Software Load Balancing, HTTP Failover, Session Replication
- Distributed caching and data grid solutions
- Database replication and clustering solutions

### **THEMING AND EASE OF BRANDING**

Theming in Liferay Portal allows you to create dynamic sites of any kind, from

*(continued on back)*

# LIFERAY PORTAL ARCHITECTURE DIAGRAM

PORTLETS		
• Collaboration	• Portal Admin	• Social Networking & Presence
• Web Content	• Document Management	

### Mashup Capabilities

Facebook, NetVibes, Widgets, iGoogle/Gadgets, Shindig, RSS/Atom

PLUGINS		
• Portlets	• Themes	• Gadgets
• Hooks	• Layout Templates	• Third-party Intergrations (SOLR, JBPM, Documentum, Droolz, etc.)

UI
• Liferay Taglibs • Liferay Alloy UI

TOOLS
• Service Builder • Liferay IDE

FRAMEWORK	
• Liferay Theme Engine	• Liferay Remoting (Java/Web Service)
• Liferay Portlet Container (JSR168 / JSR286 / WSRP 1.0 / WSRP 2.0)	
• Liferay Service Interface (Spring)	



### Rich Clients

jQuery, JSF, JSP, Flash, PHP, Ruby, Velocity



### Web Services

SOAP, JSON, HTTP, REST, Atom, Java API

API SERVICES		
• Content	• Portal	• Personalization
• Collaboration	• Reporting / BI (Jasper Reporting Engine)	• Security
• Social	• Tagging (Folksonomy, Taxonomy)	• User
• Auditing/Monitoring	• Workflow (JBPM, Kaleo)	• Scheduling
• Analytics	• Rules	• ClusterLink



### LDAP AUTH/SOO

Microsoft, Open SSO, Apache, OpenID, Novell, NTLM, Fedora, CAS, Open:DAF, Sitemindert

COMMON SERVICES		
Enterprise Service Bus	Message Bus & Events	Persistence (Hibernate, JPA)

BPMS (BPEL, JPD)

Legacy Apps

Content Stores (JCR, CMIS, Documentum)

SAP, Other ERP

Mail Server

Chat Server

DB2, Ingres\*, MySQL, MS SQL Servers, Oracle, Postgres, more

## DEPLOYMENT COMPATIBILITY

### OPERATING SYSTEMS

- Linux (CentOS, RHES, SUSE, Ubuntu, and others)
- Unix (AIX, HP-UX, Mac OS X, Solaris, and others)
- Windows

### SERVLET CONTAINERS

- Jetty
- Resin
- Tomcat

### APPLICATION SERVERS

- Geronimo
- GlassFish
- JBoss
- JOnAS
- OracleAS
- SUN JSAS
- WebLogic
- WebSphere

### DATABASES

- IBM DB2
- MySQL
- Oracle
- PostgreSQL
- SQL Server
- Sybase

### PUBLIC & PRIVATE CLOUDS

- Liferay Portal is deployable to the cloud and virtualized environments, including EC2 and VMware

## PORTAL DETAILS

### TECHNOLOGIES USED

- AJAX
- Apache ServiceMix
- ehcache
- Groovy
- Hibernate
- ICEfaces
- Java J2EE/JEE
- jBPM
- JGroups
- Lucene
- MuleSource ESB
- Seam
- Spring 3.0 & AOP
- Struts & Tiles
- Tapestry
- Velocity

### SCRIPTING LANGUAGE SUPPORT

- Javascript
- Ruby
- PHP
- Python

### IWEB SERVICES

- JSON
- Hessian
- Burlap
- REST
- RMI
- Spring HTTP
- WSRP (full support for 1.0 and 2.0)
- WebDAV

### STANDARDS

- AJAX
- iCalendar & Microformat
- JSR-168
- JSR-127
- JSR-170
- JSR-286 (Portlet 2.0)\*
- JSF-314 (JSF 2.0)
- OpenSearch

### ARCHITECTURE

- Hierarchical and extensible system of communities and organizations
- Replicable templated communities and organizations
- Message-oriented architecture leveraging Liferay's lightweight message bus, Mule, or ServiceMix ESB.
- Dependency injection provides pluggable service implementations

### IDENTITY MANAGEMENT

- LDAP Authentication and Synchronization
- Oracle Access Manager
- Novell Identity Manager
- Sun Identity Manager / Open SSO
- SiteMinder
- Tivoli

### PERFORMANCE & SCALABILITY

- Clustering at any combination of tiers (presentation, service, business logic, and database)
- Terracotta DSO integration
- Advanced Caching (Ehcache, Memcached)
- Page Caching
- Load Balancing
- Static Content Export
- Portlet Performance Monitoring
- Code Performance Monitoring

### SINGLE SIGN ON

- Yale CAS and Siteminder out of the box
- Support for JAAS, LDAP, Netegrity, Microsoft Exchange

### SECURITY

Liferay Portal uses industry standard, government-grade encryption technologies including advanced algorithms such as DES, MD5 and RSA. Liferay was benchmarked as among the most secure portal platforms using LogicLibrary's Logiscan suite.

- Pluggable Authentication
- Email Verification
- Granular Permissioning
- LDAP Authentication
- Session Management

## CONTENT MANAGEMENT

### DOCUMENT LIBRARY

- JSR-170 compliant Java Content Repository
- Check in/check out
- Integration with Microsoft Office\*
- Versioning
- Workflow
- Fine grained permissioning
- Multi-file uploads
- File format conversion among common formats like Microsoft Office, PDF, TXT and HTML (import and export)
- WebDAV enabled
- Image gallery

### LANGUAGE SUPPORT

- i18N support for any language
- Ships with default translations for over 30 languages.

### THEMES & LAYOUT

- User group page templates
- Administrator-defined page/layout templates
- Automatic page structure inheritance
- Alloy UI
- HTML 5.0 Compliant
- Semantic & nonobtrusive markup
- LAR import/export of themes
- Hot-deployable

### KNOWLEDGE MANAGEMENT

- NEW KnowledgeBase portlet for team-driven creation of content and knowledge stores
- Taxonomy (categorization) framework
- Framework to add taxonomies to custom portlets
- Web Content Management, Wiki, Knowledge Base Taxonomy-enabled
- Category-based navigation

### WEB & WORKSPACE PUBLISHING

- One-click page creation
- Rich (WYSIWYG) text editors
- Separation of content from layout
- Reusable content
- CSS
- Logical content templates using either Velocity or XSL
- Bookmarks
- Dynamically generated site taxonomy
- Drag and droppable site map
- Sitemaps protocol support
- Search Engine Optimization (SEO)
- OpenSearch
- Live page editing
- Staging and scheduling to remote servers
- Friendly URLs
- Meta tagging

## COLLABORATION & SOCIAL

### WIKIS

- Rich text editor (WYSIWYG)
- Versioning & reversion
- Creole syntax support
- File attachments
- Threaded comments
- Recent changes tracking
- LDAP integration
- Tag-based navigation
- RSS

### BLOGS

- Rich Text Editor (WYSIWYG)
- Social bookmarking
- Threaded comments
- Tags and Labels
- Social Bookmarking
- Rating system
- Trackback URLs
- RSS

### MESSAGE BOARDS

- Rich text editor (WYSIWYG)
- Role-based permissioning
- User data display
- Threaded comments and categories management
- Versioning
- Statistics
- Recent posts
- Email based subscriptions
- RSS
- Presence

### PRESENCE & SOCIAL

- AJAX chat client
- Dynamic friend list
- Activity wall
- Activity tracker with Activity Tracker API
- Mashups & Integration

### INSTANT MESSAGING

- AJAX-based IM client
- User profile pictures
- User controlled status updates
- Chat sessions persist across all pages

### CALENDAR

- AJAX-based interface
- iCal and Microformats support
- Task lists for event creation, management, and search
- Events sharing across communities
- Event reminders via email, IM, or SMS

### KNOWLEDGEBASE

- Rich text editor (WYSIWYG)
- Threaded articles
- Versioning
- Easy creation of content with templates
- Print to PDF
- File attachments
- Integration with Open Search
- Inheritance based permissioning
- Inheritance based subscriptions/RSS
- Rating system
- Threaded comments

### WEBMAIL CLIENT

- Rich text editor (WYSIWYG)
- AJAX-based interface
- Multiple email accounts
- Supports IMAP and SMTP
- Custom preconfigured accounts

### ALERTS & ANNOUNCEMENTS

- AJAX-based
- Targeted group delivery
- Remote delivery (email, SMS)

### MASHUPS & INTEGRATION

- User location map
- Facebook
- OpenSocial container / Shindig
- iGoogle / Google Gadget
- NetVibe

traditional portals to heavily branded solutions that may not resemble a portal at all. Via the creation and dynamic inheritance of CSS and Javascript templates, you have full control over the look-and-feel of your site without actually having to modify any code within the portal or portlets. Since all components of the Liferay SDK (Themes, Hooks, Layout Templates and Portlets) are hot deployable to your Liferay environment, you can install and change these customizations while the portal is still running. This makes for impressive flexibility in customizing Liferay Portal, extremely painless updates, as well as notable savings in development time.

## READY INTEGRATION

As the only independent enterprise portal on the market, Liferay is fully committed to keeping its platform compatible with all major databases, operating systems, and application servers. Liferay Portal is built with standard integration technologies including JSR 168/286, JSR 170, WebDav, iCal and WSRP. The core source is comprised of open source frameworks such as Struts, Spring and Hibernate and the product runs PHP, Ruby, Python, Grails and other lightweight scripting technologies within a robust Java framework.

Thanks to its adherence to open standards and this flexible architecture, Liferay Portal integrates easily with both open source and mainstay proprietary products such as Documentum, Microsoft Office®, Alfresco, Intalio, JasperSoft, Magnolia, MuleSource, Pentaho, Terracotta, and more.

## CUSTOMIZATION AND EASE OF DEVELOPMENT

Created, designed, and honed by developers, Liferay Portal places high value on the ease of development and offers its own SDK. It includes tools such as Liferay ServiceBuilder that automatically generates data tiers (SQL and Hibernate logic/classes), Spring Dependency Injection wiring, and Web Service access. This frees your development team to focus on higher-priority matters like business logic.

Meanwhile, Liferay Hooks give you access to modify core Liferay functionality without modifying Liferay's core source code. Liferay's extensible development environment permits an easy upgrade path for your customizations because it creates a clean separation between the platform and your modifications. The modular nature of our hooks results in less code to maintain and fewer scenarios to test.

Other features include:

- Spring Framework for dependency injection to ease customization and configuration
- Support for both JPA and Hibernate persistence
- Pluggable caching layer to accommodate Ehcache, Gigaspaces, Coherence, etc.
- Support for portlet frameworks like JSF, Wicket, Spring MVC, and others
- Integrated Kaleo workflow engine allowing developers to define dynamic business processes (i.e., publishing and editorial approval, user registration, e-commerce transactions). Developers can leverage this workflow integration for their own application modules. In addition, we integrate with other workflow engines like Intalio and JBPM.

## OUR CLIENTS:



\*Please contact [pr@liferay.com](mailto:pr@liferay.com) for a more comprehensive list of our users.

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