Liferay Digital Experience Platform 7.2

Liferay Digital Experience Platform (DXP) 7.2 is software to create and manage digital experiences across web, mobile and connected devices. Built on a highly flexible architecture with portal, CMS and collaboration capabilities, Liferay DXP can be customized to meet the needs of today’s digital-first business teams to deliver personalized experiences rapidly across channels for employees, customers or partners.

For a full feature list, please read the Liferay DXP 7.2 Features Overview.

Key Benefits

Personalization at Scale
Achieve greater control over managing personalized experiences across multiple touchpoints for rapid delivery of user experiences. Business users can easily define audience segments with robust rules for fine-grained personalization and engage these segments with a range of personalized experiences across pages, navigation and assets. Automate content personalization based on user behavior with interest-based content recommendations.

Increased Headless Freedom
Leverage a decoupled CMS with improved APIs that give developers the benefits of headless freedom with traditional CMS-like management for the business user. This hybrid approach offers the best of both worlds to enterprises looking to efficiently deliver experiences at scale.

Streamlined Business Processes
Gain end-to-end visibility on critical business processes with workflow reports and real-time workflow analytics. Working from shared data across systems, employees can implement initiatives to improve services and give other departments the insight they need to make operations run better. Back office operations are further enhanced with peer-to-peer document sharing and open data engine APIs designed to help developers build more flexible business applications.
Integrates With Everything

Integrate the systems that power the core of your business. Liferay DXP builds on our portal heritage with a set of comprehensive business components that can connect all of your systems and processes. Our platform is compatible with most things out there, even closed-source software. With Liferay DXP, you aren’t limited to buying software from one massive vendor. APIs, web services and messaging services make it easy to unite third-party software and legacy systems on Liferay DXP.

Flexibility for Your Business

Liferay DXP’s suite of business tools and features allows you to leverage core technologies like portal servers and content management systems within one cohesive platform that is secure, scalable and extensible. Liferay DXP includes a broad set of out-of-the-box features so you can set up the majority of what you need right away, then customize for your unique needs.

Organic Innovation

Liferay DXP is developed completely in-house, rather than through acquiring third-party solutions. Rely upon a comprehensive platform with a full suite of features that was designed from the start to work well together as the foundation for your digital strategy.

Feature Highlights

Segmentation and Personalization

Meet customer demands for meaningful and seamless experiences across touchpoints with robust segmentation and personalization tools. Continually improve these experiences with content and user insights provided by Liferay Analytics Cloud.

Enhanced Segmentation: Easily personalize anything on a page for different segments. The latest release of Liferay DXP provides improved segmentation which includes a rule builder that can accommodate complex rules, session rules to target visitors based on cookies, device or URL and extension points for use case-specific segmentation rules. In addition, integrate advanced segmentation rules provided in Liferay Analytics Cloud.

Content Recommendations: Automate personalization of content based on a user’s past behavior powered by Liferay Analytics Cloud integration, such as behavior-based and interest-based recommendations.
Personalized Content Sets: Define content that can be reused through site pages and across different channels. Easily execute personalized variations to display different content depending on segmentation.

Analytics and Insights: Deliver the right content to the right audience with insights about your pages, content and users from Liferay Analytics Cloud.

Content Management

Leverage content management tuned for enterprise teams, with tools to better manage and deploy content to any digital channel.

Decoupled CMS: Because content management is detached from the front-end with an API, users can publish content across multiple channels freely without needing new front-end templates every time. Developers can leverage the freedom of a headless system while business users still have the comfort of traditional content management tools.

Structured Content: Manage and create different content models as needed, to make sure your case-specific content management becomes a reality. This also includes an improved content authoring interface, streamlined structured content authoring, easy visibility to web content usages and reusable content sets. Web content authors also have the ability to preview content before it's published, at any stage in the workflow and can also preview with any desired template or within a specific page.

Auto-tagging: Liferay DXP enables content teams to work more efficiently by automatically adding tags to images, web content and documents upon upload through a machine learning service for improved search.

Enterprise DAM: Efficiently organize and share enterprise assets on one central system with features such as bulk editing and tagging, peer-to-peer document and asset sharing and editing, automatic versioning policies and integrated online document editing with Google Docs.

Experience Management

Build and customize digital experiences that are tailored for your users' needs easily with the following capabilities on Liferay DXP.

Fragments: Easily and quickly build new pages with designed, reusable components. Create fragments with out-of-the-box elements and component sets. Fragments use in-line editing to change text and images and can incorporate Liferay DXP applications for advanced functionality.
In-Context Creation: Drag and drop to create page layouts with content, fragments and widgets. Business users can even define complex custom page layouts with the new section builder. In addition, map content to individual sections with display page templates. Integration with Analytics Cloud also helps provide insight into users, referrals and engagement.

Widgets: Empower business users to drag and drop from a generous collection of out-of-the-box widgets for different business needs that can be easily added to any page, including a JavaScript widget creator that can easily build front-end apps using the latest libraries through a CLI tool.

Multichannel Support

From storefront to mobile to IoT, reach customers wherever they are with multichannel experiences that can adapt to your channels and target segments with ease.

Headless APIs: Give front-end developers headless freedom from back-end conventions and structures. Developers can now focus on building great experiences and do it simultaneously alongside content teams using content delivery, management and participation APIs.

Adaptive Media: Liferay DXP dynamically adjusts images to best fit the screen size and network speed of each device, addressing experience and performance issues.

Mobile Support: Rapidly develop native apps, create mobile experiences and define mobile device rules using Liferay DXP as a mobile back end.

Integration and Interoperability

Liferay DXP can integrate across multiple back-end systems for a unified user experience.

Improved Frontend Toolkits: Liferay JS Themes, Bundle and Fragment Toolkits help developers create, update and maintain themes built on Liferay DXP as well as help produce an OSGi bundle containing the needed NPM dependencies to ensure that it runs when deployed to Liferay DXP.

Integration Framework: Liferay DXP is a central presentation layer platform for integrating content and services from back-end or legacy applications. Liferay DXP supports multiple methods to integrate, including SOAP, REST, RSS, as well as proprietary APIs.

Upgrade Tool: A revamped Upgrade Tool simplifies the upgrade process from previous versions of Liferay, reducing the amount of time spent troubleshooting.
**REST API Builder:** This tool will help accelerate development by generating scaffolding needed for business logic used for custom REST APIs.

**Forms, Workflows and Business Process Automation**

Accelerate and streamline business processes with robust features for creating forms and workflows.

**Form Creation and Rules:** Design forms for everything from business process automation to replacing complex paper applications. Create personalized forms with conditional rules, which allows users to introduce dynamic behavior in forms.

**Data Engine APIs:** Use data engine APIs to help build flexible business applications. Execute CRUD operations on data definitions to quickly assemble business applications that can scale with flexibility.

**Organization and User-Driven Workflows:** Define any number of simple to complex business processes or workflows, leveraging users, groups and roles defined in Liferay DXP with a graphical workflow designer. In addition to these organization-wide workflows, users can create individual workflows based on their own requirements.

**Workflow Process Analytics:** Define any number of simple to complex business processes or workflows, leveraging users, groups, roles and due dates for specific tasks within the workflow process. Use progress analytics to see the status of all open tasks within the workflow process in real-time.

See a complete list of features on page 7.

**Liferay DXP’s Modular Core**

Liferay DXP leverages a modular core, with benefits that include:

**Standards Based Customization:** Less reliance on underlying app server technology makes it easier to create applications and extensions that now follow an OSGi based approach.

**Incremental Release Cycles:** New features and bug fixes can be released on an as-needed basis, eliminating the need to wait for major version releases.

**Reliable Deployment:** Deploying modules is now independent of underlying app server technology, leading to fewer deployment issues and fewer server restarts.

**Modern Development:** Leverage modules that are smaller and more concise than legacy portlet plugins. Rest assured since Liferay uses industry-based development standards such as OpenAPI, Portlet 3.0, etc.
Dynamic Dependency Resolution: Modules have built-in dependency resolution, which makes it easier to determine what dependencies the application needs to run and minimizes severe consequences from conflicts during deployment.
Deployment Compatibility

Operating Systems
CentOS
Debian
IBM AIX
Oracle Linux
Oracle Solaris
Red Hat Enterprise Linux
SUSE
Ubuntu
Windows Server

Public and Private Clouds
Liferay DXP is deployable to the cloud and virtualized environments

Application Servers
JBoss EAP
tcServer
Tomcat
WebLogic
WebSphere
Wildfly

Databases
Amazon Aurora
DB2
MariaDB
MySQL
Oracle
PostgreSQL
SQL Server

Contact sales@liferay.com for the latest list of supported configurations and versions.

Key Components

Analytics and Optimization

Insights
Page analytics
Path analytics
Asset analytics
Customer Profiles
Dynamic segments
User Identity Services
A/B testing

See how Liferay Analytics Cloud further supports DXP: liferay.com/products/analytics-cloud.

Cloud Capability

Application Management
Log management
Shell access
Autoscaling
Backup and restore
Environments management
Environment variables
Custom domains

Development Lifecycle
Continuous Integration
Continuous Deployment
Zero downtime deployments
GitHub integration
Dependency management
Persistent file system
Port configuration

Performance and Availability
HTTP/2
SSD
Self-healing
Multi-AZ database instance

Monitoring
Usage (CPU, memory and data transfer)
Health
Advanced monitoring with Dynatrace Software Intelligence
Real-time alerts

See how Liferay DXP Cloud further supports DXP: liferay.com/products/dxp-cloud.
## Collaboration and Social

**Shared Features**
- AlloyEditor
- Ratings/Comments
- RSS feeds
- Categories/Tags
- Related assets
- Reader subscriptions
- Polls
- Bookmarks
- Wikis
- Versioning and reversion
- Creole, HTML or MediaWiki syntax
- Attach files
- Threaded comments
- Inline image editing

**Blogs**
- Recent blogs lists
- Badge icon for social activity
- Social bookmarks
- Inappropriate content flagging
- Friendly URLs
- Estimated reading time
- Embedded videos
- Inline image editing
- Microblogs

**Message Boards and Forums**
- Recent Posts list, My Posts list
- Reader subscriptions
- Anonymous posting
- File Attachments
- Support for categories/threads reorganization
- Inappropriate content flagging
- Inline image editing

**Social Networking**
- Friends list
- Activity wall
- Activity tracker
- Social Activity
- Tagging

**Calendar**
- AJAX-based interface
- iCal and microformats support
- Personal and group
- Task lists
- Resource scheduling
- Email, IM or SMS event reminders

**Alerts/Announcements**
- Broadcast news or status
- Scheduled start/stop
- Site or role based targeting

## Content Management

**Headless CMS**
- REST and headless APIs

**Content Creation**
- AlloyEditor
- Templating: FreeMarker
- Global content sharing between sites
- Content sharing in site hierarchy
- Reusable content sets

**Themes and Layout**
- JavaScript framework: Metal.js
- CSS framework: Twitter Bootstrap
- HTML 5.0 compliant
- Responsive mobile theme
- Multiple page layout templates

**Site Content Sharing and Publishing**
- Dynamic and static site templates
- Drag-and-drop site maps
- Sitemap protocol support
- Friendly page URLs
- Remote server staging and scheduling
- Multiple site variations/versions
- Faceted search
- Recycle bin
- User customizable pages
- Content analytics

**Enterprise DAM and EFSS**
- Multi-repository support
- Customizable document types
- Metadata per document type
- CMIS support
- Check in/check out
- Content previews
- Live preview
- Automatic content versioning
- Bulk tag management
- Image and content auto-tagging
- Online document editing with Google Docs
- Peer-to-peer document and asset sharing

**DAM and EFSS Integration**
- Document types and metadata sets
- Preview generation
- Search
- Versioning
- Media Selector

**Enterprise File Sync and Sharing**
- Mobile/desktop file synchronization using Liferay Sync
- WebDAV

**Integration**
- Google Docs integration
- Microsoft Office® integration
- Office 365™ integration
# Experience Management

## Experiences
- Fragments with editor
- Fragments Toolkit

## Widgets
- Drag-and-drop interface
- Widget Library

## Pages
- Display page templates
- Search engine optimization
- Analytics Cloud integration

# Forms, Workflow and Business Process Automation

## Form Creation
- Autocomplete
- Multi-page forms
- Configured success page
- Duplicate fields
- Clone forms
- Autosave
- Import/export data provider definitions
- Localization
- CAPTCHA enablement
- User authentication

## Form Management
- Shareable form URLs
- Redirect after form submission
- Workflow integration
- Email notification
- Versioning
- Element sets
- Validation
- Data storage

## Form Fields
- Paragraph
- Text field
- Select from list
- Single selection
- Date
- Multiple selection
- Grid
- Numeric
- Upload

## Conditional Rules
- Require
- Enable
- Autofill
- Show/hide
- Jump to page
- Calculation
- Belong to
- API for customized rules

## Dynamic Data Lists
- Boolean
- Color
- Date
- Decimal
- Documents and Media
- Geolocation
- HTML
- Integer
- Link to page
- Number
- Radio
- Select
- Text
- Text box
- Web content
- Localization

## Workflow
- Define workflows per document type and folder
- Versioning and reversion
- Drafts
- Localization
- Duplicate workflows
- Preview revisions
- User notifications
- Model workflows with a graphical interface or by writing XML definitions
- Workflow metrics
## Integration and Interoperability

### Foundation
- Integration framework
- Workflow framework
- Upgrade Tool
- Custom fields
- REST API Builder
- Modularity

### Developer Tools
- Integrated development/test environment
- Front-end toolkits
- Liferay Marketplace
- Liferay Workspace
- Liferay Connected Services (LCS)
- Blade CLI

### Developer Studio
- Java
- JSF
- Clay
- Groovy
- JQuery
- Twitter Bootstrap
- Metal.js
- ReactJS
- AngularJS
- Senna.js
- Vaadin
- Ruby, Scala and others

### Theme Developer Languages
- FreeMarker
- Lexicon

## Multichannel Support

### Headless
- Headless APIs
- REST APIs

### Mobile Support
- Mobile device rules
- Previews within browser
- Responsive theme
- Device recognition
- Eclipse-based Mobile SDK
- Service Builder
- Push notifications
- Mobile Sync app

### Platform Support
- iOS
- Android
- Cordova
- Xamarin.iOS
- Xamarin.Android

### Adaptive Media
- Control image resolution and size per device
- Enable/disable rules
- Automatic optimization

### Native and Hybrid App Development with Liferay Screens
- Log in
- Sign up
- Forgot Password
- User portrait
- DDL form
- DDL list
- Asset list
- Web content display
- Blogs entry display
- Image display
- Video display
- Audio display
- PDF display
- File display
- Web page display
- Rating
- Comment List
- Comment Display
- Comment Add
- Asset Display
- Blogs entry display
- Image display
- Video display
- Audio display
- PDF display
- File display
- Web page display
Personalization and Context Awareness

Segmentation
Liferay Analytics Cloud integration
Personalize experiences with page editor

Content Targeting
Content recommendations powered by Analytics Cloud
Personalized reusable content sets

Segmentation Rules
BEHAVIOR
Content visited
Page visited
Score based on content and pages visited

FACEBOOK PROFILE
Age
City
Education
Friends
Gender
Page likes

USER ATTRIBUTES
Age
Gender
Regular role
Site membership
Site role
Organization membership
Organization role
User group membership
Currently signed in
User created date
User last login date
Language
IP
Custom fields

SESSION ATTRIBUTES
Browser
Cookies
Device
Location
Operating system
URL

Platform Services

Performance and Scalability
Clustering at any combination of tiers (presentation, service, business logic and database)
Advanced caching (e.g., Ehcache)
Performance monitoring support (JMX, Java profiling and more)
Single page applications
Simplified UI
Multitenancy
Dynamic virtual hosting

Other Standards/Technologies
AJAX
JSR-362 (Portlet 3.0)
JSR-344 (JSF 2.2)
Spring 3.0
CMIS 1.0/1.1
Hibernate collection of projects
OSGi Core 6.0
SAML 2.0
OAuth 1.½

Other Back-End APIs
Asset
Cache
Comments
Data handlers
File storage
Membership policies
Message bus
Permissions
Ratings
Recycle bin
Scheduler
Scripting
Upgrade
Workflow
Search

Search Tools
- Elasticsearch integration
- Faceted search
- Multi-tier search
- Multi-language search
- Low-level search APIs
- Search administration tools

Security Administration and Access Control

Security
- Government-grade encryption
- Pluggable authentication
- Email verification
- Granular permissioning
- LDAP authentication
- Session management
- Data protection for GDPR compliance

Identity Management Support
- LDAP
- SAML
- OAuth
- OpenSSO / OpenAM
- SiteMinder
- Facebook Login
- CAS
- OpenID Connect

Web Services
- SOAP
- JSON
- REST

What’s Next

Get Started With Liferay University
Liferay offers free access to Liferay University to active Liferay DXP subscribers. Equip your entire team with self-paced lessons and courses so that they can learn how to use Liferay anytime, anywhere on their own schedule. Gain access to courses for content managers, back-end and front-end developers and system administrators.
Learn more at university.liferay.com

Put Liferay DXP to the Test
Explore the possibilities of Liferay DXP free for 30 days. Our trial includes access to professional documentation, exclusive Liferay Marketplace apps and more.
Get started at liferay.com/dxp-trial
Liferay makes software that helps companies create digital experiences on web, mobile and connected devices. Our platform is open source, which makes it more reliable, innovative and secure. We try to leave a positive mark on the world through business and technology. Hundreds of organizations in financial services, healthcare, government, insurance, retail, manufacturing and multiple other industries use Liferay. Visit us at liferay.com.

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