

Liferay DXP

CMS Overview

Take Control of Your Brand With Liferay DXP

Website management today is a highly collaborative process, often pulling in stakeholders from multiple roles, such as developers, designers, site administrators and marketers. To address these needs, it is crucial that web platforms provide broad, robust applications that an employee in any role can quickly learn to use. Additionally, development teams should be empowered to open up and customize their platforms, giving them the freedom to create true competitive advantages unique to their business.

Liferay DXP is a scalable, extensible platform that provides out-of-the-box tools to help teams create and maintain website content and experiences. Liferay DXP empowers your stakeholders to ensure brand consistency at every digital touchpoint for even the most complex site, enabling your company to:

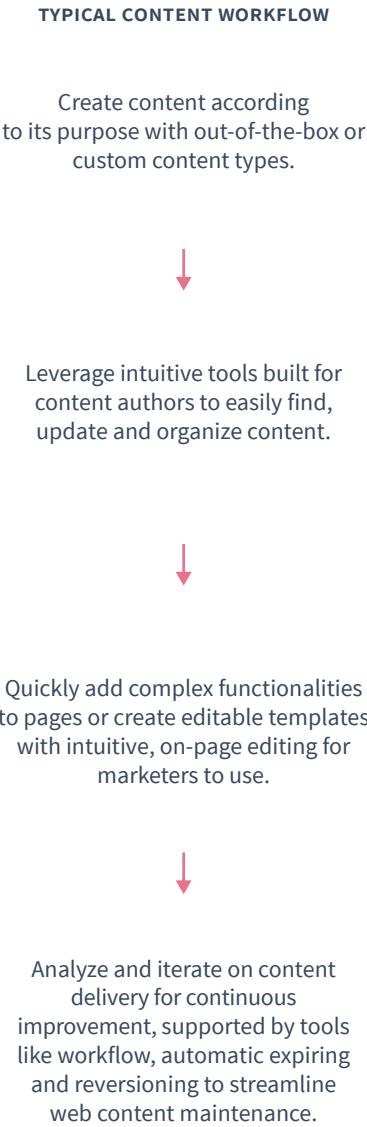
- Offer developers unmatched flexibility to configure, customize and extend the platform for your company's business goals.
- Enable marketers, designers and site administrators to easily manage the day-to-day work of running successful corporate and marketing websites.
- Ramp up new projects or teams in less time with intuitive, business user friendly interfaces that make onboarding and training easy.
- Manage hundreds of sites with supporting capabilities such as content sharing, multitenancy, localization and multilanguage support.
- Liferay DXP integrates seamlessly with Liferay Commerce and Liferay Analytics Cloud, enabling you to manage and optimize content and experiences across the entire customer journey.

How Content Management Works in Liferay DXP

Liferay DXP is developed with real input from users across roles, including developers, site administrators, designers and marketers. Its content management features are built so that all of your website stakeholders can collaborate together, while still giving them independence to take care of tasks without waiting on other teams. Liferay DXP is incredibly flexible, but once things are set up for your organization, it's very straightforward to use and maintain. Start with simple roles and settings, then expand your structure and add detail as needed.

A key characteristic of content management in Liferay DXP is the decoupling of content authoring and management from content delivery. This separation allows the organization to have the flexibility to choose their content management strategy, whether to use Liferay DXP as a headless CMS, a traditional CMS or a hybrid of the two. By decoupling these functionalities, development and design teams are freed up to create any experience they envision with each website, while roles like content authors and marketers can quickly input copy and make it available for reuse across pages. This division also makes it easier to achieve brand consistency, as the design team can enforce and update the look-and-feel of the site without having to recreate content.

Content Management in Liferay DXP



Features

Editorial Capabilities

Liferay DXP provides core CMS functionalities to help users easily create, edit and deliver content. Content creation in Liferay DXP combines intuitive authoring with important collaboration features like commenting, versioning, comparisons and subscriptions so that contributors can keep up to date on any changes and ensure they're always using the correct version of an asset. Workflows can also be assigned to each content type so that the proper approval happens, including automatic notifications and commenting to move the process forward.

Content Management Interface	<p>The content management interface in Liferay DXP has two main components.</p> <p>First, there is the repository, which uses a familiar folder system to organize content. This is where site managers can search through content, check versioning, review edit history and manage other detailed content information.</p> <p>Second, there is the content authoring interface. Content authoring in Liferay DXP is designed to be both simple and powerful. Content authors are given a minimalist window to create content, with formatting tools that stay out of the way until they're needed. Content authors can also open menus to customize everything from the URL to the publish date for that content.</p>
Structured Content	<p>Templates and structures help act as a guardrail to keep web content production consistent and aligned to best practices, which allows for content creators to produce content faster with more accuracy. Manage and create different content models and web content needed, for making sure your use case-specific content management system becomes a reality.</p>
Content Modeling	<p>Easily create and manage content models for your web content through Web Content Structures. The metadata associated with these content structures help differentiate the different types of content and apply proper rules for each content type.</p>

AlloyEditor	AlloyEditor is an intuitive toolbar for formatting content and adding additional elements like images or videos. When you add or highlight text, the context-aware toolbar appears and offers you the relevant editing options, such as switching to a source code view, adding file attachments, inserting tables and other rich text elements.
Inline Editing	Site administrators can enable inline editing with Content Pages, which create an editable preview of the final design. This allows content authors to create and edit content on the page so they can see exactly how it will look in the final product. Inline editing with content pages leverages the AlloyEditor toolbar, just like editing anywhere else in Liferay DXP.
Content Previews	Content creators can easily preview web content regardless of the state it's in. This helps the content creator to visually understand and quickly see how their content appears in any context.
Content Differences	Once you make changes to a piece of web content, you can compare it to previous versions to see what has changed. This is particularly useful during workflow processes, so that reviewers can see new changes before giving final approval.
Versioning and Reversion	Most content and digital assets in Liferay DXP use automatic versioning, with the option for users to choose whether they've made minor or major changes when publishing new versions. You can also revert to previous versions in order to undo changes.
Search	Search capabilities are integrated across Liferay DXP and enable the ability to surface web content for whoever is searching. This helps your content team, as well as your visitors find the information they need faster, making it easy to find what they need, when they need it.

Dynamic Tagging and Auto-Tagging	When authoring web content, the metadata field allows you to create and add dynamic tags. These tags can be leveraged for search, so that users can quickly find the content they're looking for or in applications like Asset Publisher to show the topics for content articles. Auto-tagging capabilities leverage third-party machine learning services to provide personalized experiences and improve the findability of assets by automatically adding tags to images, documents and web content upon upload and creation.
SEO	SEO settings can be managed at the page level across Liferay DXP sites. Users can choose meta tags for description and keywords. There is also a separate Robots field for telling robots and crawlers how frequently the page is updated and how it should be prioritized. If the page is localized, users can generate canonical links by language.
Content Subscriptions	Users can choose to subscribe to content assets or whole folders and enable email notifications whenever changes are made.
Content Types	Liferay DXP includes a full digital asset management system, making it possible to create and support every type of digital asset. These out-of-the-box content types include: web content, documents, images, videos, blogs, forms and more.
Widgets	Liferay DXP comes with a host of out-of-the-box applications that can be used to quickly add key functionality to any website. Each application can be dragged-and-dropped onto a page, then configured to dynamically display related content, commenting, highest rated content and much more.

Site Building

Liferay DXP includes several page types, out-of-the-box templates and components, allowing teams to choose the option most appropriate for each use case. Together, these page types, templates and components, make it easy to offer simple to complex functionality across the site with a few clicks.

Fragments	Developers can use HTML, CSS and Javascript to create page fragments to implement web designs. Page fragments are designed components that can be reused across the site for faster creation of Content Pages. Liferay DXP's applications can also be embedded into fragments to achieve more advanced functionality on pages.
Content Pages	Content Pages leverage Page Fragments and Widgets to quickly build layouts and add rich media content to marketing and landing pages. New functionality provides even more powerful tools to help content creators to create the site pages they need with more functionalities to leverage. Drag-and-drop applications on the page, create your own fragments, map content to a fragment for display and easily layout new pages with ease in the intuitive interface. All of this can be done and personalized with just a few clicks.
Widget Pages	Widget Pages allow you to drag-and-drop applications onto the page that support advanced functionality such as user authentication, dynamic publishing and more. Change page layouts to an out-of-the-box format with one click or create your own customized page layouts.
Content Sets	Create content sets from multiple pieces of web content and assets, and leverage that to create a curated content feed for each page, experience or site. These content sets can also be personalized and targeted to specific segments of people.
Experiences	Easily create variations on a page and even create completely different page layouts that can be personalized and targeted to different groups of people. All the tools available for creating these site pages and web content can also be leveraged for creating these page variations.

Content Delivery

Liferay DXP incorporates a variety of ways to publish and display content to pages. Because structured content is uncoupled in Liferay DXP, developers can pull in assets for individual pages through out-of-the-box applications. This allows content creators to update the asset once and know that it will be updated on every page that displays it.

Web design in Liferay DXP empowers developers to create useful tools that increase the independence of content creators, marketers and other business roles. For instance, developers can create libraries of page templates so that business users can quickly generate new pages and update their content as needed. This takes the burden of design completely off of marketers so they can publish large volumes of content and leave the final branding to the development and design team.

Site and Page Templates	Create reusable site and page templates to facilitate one-click page and site creation in Liferay DXP. Out-of-the-box widget page templates include full page applications, embedded pages, panel pages and more.
Display Page Templates	Display page templates are a way to create a common template for individual types of web content. For example, most companies publish press releases that use a common layout, which could be designed and managed through display pages. Users can assemble templates from page fragments and map content sections without ever touching code. When a piece of web content is published with a display page template, it will automatically be given its own page with a unique URL, replacing the default content in the template with the newly added web content.
Application Display Templates	Application Display templates define how applications display content. These templates allow you to fully customize the look and feel of an application without using a theme or hook, which require deployment and typically have to be upgraded between Liferay versions.

Web Content Structures and Templates	Web Content structures are used to create different types of structured content in Liferay DXP. For example, the required web content for an upcoming webinar will differ from the content needed for a case study. Web Content structures allow you to specify the exact fields and labels for each part of the content, with drag-and-drop elements like boolean fields, dropdown menus, text inputs and much more. Users can then create templates to define how each web content field will be displayed on the page.
Web Content Display Application	The Web Content Display application publishes any piece of web content created within Liferay DXP to a page. Web Content Display is the best way to display a single, specific piece of web content in Liferay DXP and can be arranged on a page with a convenient drag-and-drop.
Asset Publisher Application	The Asset Publisher application allows users to dynamically display any piece of content either through a set of publishing rules or by manual selection. Asset Publisher is one of the most powerful features in Liferay DXP and can be used to create custom content feeds organized by content type, topic and more.
Scheduled Publishing	When authoring content, users can set the display date (when it will go live on the site), an expiration date and a review date, making it simple to ensure content stays current. Users can also disable the expiration and review settings for content that doesn't need to be automatically retired.
Staging	Set up Local Live or Remote Live staging for your site, with page versioning that leverages a Git-like system to create, merge and publish changes. Enable or disable staging at the application level. Site administrators can assign individual users or roles permissions to publish content from staging to production. Users can also leverage publishing templates to repeat common publication processes.
Device Previews	Preview each page on standard and custom screen sizes to ensure that it looks good on desktop, tablets, mobile and beyond.

Adaptive Media Application

The Adaptive Media application dynamically adjusts images to best fit the screen size of the device being used. It also offers deep control over how images are loaded and displayed, allowing you to address performance issues across a wide variety of devices and varying network speeds between users and countries. Adaptive Media does most of this automatically but can be configured through Liferay DXP's system settings.

Multi-site, Multi-locale Support

Create content on the global level if it needs to be shared with other sites or keep it separate within parent or child sites. Users, roles and permissions can also be shared across sites. A mature template and theme development system allows developers to apply unique branding to each site.

Independent Themes	Give each site its own custom theme, allowing you to freely manage multiple projects under their own branding.
Shared Content	Share content across child and parent sites. Administrators of child sites can use all the structures, templates, categories, application display templates and more from any parent site that allows for it.
Multitenancy	Liferay DXP supports robust multitenancy capabilities for companies with many sites. Organize users by business-defined categories such as departments, geographies or offices, as well as by cross-departmental teams and workgroups. Each organization and site can inherit or define its own permissions and administer user, group and role management for the various applications it chooses to include. A single instance can be used to create many websites quickly to create hosted websites within one Liferay deployment.
Localization and Multilanguage	Liferay DXP includes out-of-the-box support for many languages, including right-to-left language support. To create localized versions of content, users simply choose the language or region they want to localize for, which generates a duplicate of the content that is still tied to the original asset. This does two things. First of all, it ensures that content is being localized consistently, so that you don't need to worry about content changing drastically from region to region. Second, the content localizations are still tied together. Users can toggle between localizations within the content management interface, keeping all of the versions in a single location for easier maintenance.

Segmentation and Personalization

Due to its portal heritage, Liferay DXP facilitates personalization based on user attributes, with particularly robust functionality around known users. Ensure that each user sees the most relevant and engaging content on every channel.

Segmentation	Create and deliver content tailored for each of your segments based on rules and behavior. Target specific audiences for personalization for delivering prescriptive customer journeys. Manage and move segments to different scopes and segment users based on profile and organization criteria.
Role-Based Content Delivery	Liferay DXP allows for multiple user types to access a single URL and see a unique page view depending on the user's role, group, organization or personal preferences. Administrator controlled and user customized, Liferay DXP provides a central platform for determining enterprise content policy, including who can edit and publish content, files, communities, files and applications.
Analytics Cloud Integration	Allows advanced segmentation rules to have consistent functionality with the segmentation rules provided in Analytics Cloud. Segments will be available at the root level along with Users, Organizations, Roles and User Groups.
Rule Builder, Session Rules, and Extension Points	Create complex rules to segment your visitors. Target unauthenticated visitors based on cookies, device, URL, geolocation and locale. Create use case-specific segmentation rules.
Content Recommendations [BETA]	The Adaptive Media application dynamically adjusts images to best fit the screen size of the device being used. It also offers deep control over how images are loaded and displayed, allowing you to address performance issues across a wide variety of devices and varying network speeds between users and countries. Adaptive Media does most of this automatically, but can be configured through Liferay DXP's system settings.

User Administration

Tailored user and group administration allow for your CMS team to set the permissions they need based on criteria like job, role, rank and geography. Liferay DXP provides a powerful and granular permissioning system that has enough flexibility to allow your team to grow.

Workflow	Design workflows with a drag-and-drop designer, then assign them to different content types. This enables you to require tasks and approvals to be completed before content can be published, allowing for greater control over what content is pushed out to your customers.
Roles	Create custom roles according to your company's structure and hierarchy. You can create and assign as many roles as you need at the global, site or organization level. Together with permissions, roles are a powerful way to ensure that each user has the right access to creating, managing and publishing content on your site.
Permissions	Permissions are incredibly granular in Liferay DXP. Site administrators have the ability to define whether a role can view, update, configure or take other actions on every single part of Liferay DXP. Permissions can be applied at a global level or to individual sites, enabling further control.
User Groups and Organizations	Create custom user groups and organizations to align with your departments and project teams. This allows you to create individual spaces for different content projects so teams can collaborate more easily.

Headless APIs and Front-end Developer Tools

Liferay's foundation as a developer platform continues to evolve with the addition of headless APIs for out-of-the-box services. Developers now have unmatched flexibility to integrate Liferay across all systems, whether that's pulling data into Liferay or bringing Liferay into an existing ecosystem. Headless API support is just one more way we're empowering developers to innovate for every new screen, device and disruptive technology that comes their way. Give your front-end developers the freedom to create differentiated customer experiences that are perfect for every channel. Go completely headless with Liferay or use a hybrid, decoupled approach to enable collaboration between your content teams and developers.

Content Management APIs	New REST APIs allow for functionality to manage various types of content, like web content, documents, blogs and more. Basic actions are enabled for managing content as well, like: add, edit and remove.
Content Delivery APIs	These new REST APIs that empower front-end developers to deliver richer, faster, and more responsive user experiences. Front-end developers can use their native tools and frameworks to build sites. These APIs provide access to web content, documents, categories, keywords, etc.
Content Participation APIs	Community sites, portals and intranets need to support user participation in the form of ratings, comments, likes, etc. The new REST APIs support user participation interactions with access to comments and ratings data.

Frontend Toolkits	<p>A set of tooling that Liferay created to help developers use NPM in their projects so that they can deploy them to Liferay DXP and see everything working seamlessly with little effort. This includes:</p> <p>Themes Toolkit (formerly “Themes SDK”): This is a set of NPM packages designed to help create, update and maintain Liferay Themes. This toolkit comes with a Yeoman generator and set of Gulp tasks, dedicated to helping your developer create, build and deploy themes on Liferay DXP.</p> <p>Bundle Toolkit (formerly “NPM SDK Bundle”): A tool to process a Liferay portlet project to produce an OSGi bundle containing the needed NPM dependencies so that it can be run when deployed to Liferay DXP.</p>
Themes	Liferay DXP includes robust theme creation tools that give developers complete control over branding and design for each website.
Responsive Design	Sites created on Liferay DXP are mobile responsive out of the box. Liferay DXP’s CSS framework is designed to work with browsers on all platforms.
Screens	Liferay Screens is a collection of fully native mobile components that speed up the development of mobile apps. Reuse functionality you’ve already developed for desktop browsers without having to recreate code.
Javascript and UI Frameworks	Support for popular JavaScript frameworks such as Angular, Vue.js, React and modern JavaScript workflows are included out-of-the-box. Liferay DXP also supports Liferay-created and third-party UI frameworks including Metal.js, Twitter Bootstrap, JQuery, ReactJS, AngularJS, Senna.js, Clay, Vaadin and more.

Analytics

Liferay DXP includes a base subscription to Liferay Analytics Cloud. Companies can also integrate Liferay DXP with other popular analytics solutions, such as Google Analytics or Tableau.

Liferay Analytics Cloud	Customer Profile Analytics Integrate customer data from multiple sources to create in-depth analytics and known users. Touchpoint Analytics Measure individual touchpoint performance to improve digital experiences. Traffic and Path Analytics Filter traffic types and visualize a customer path to easily identify key traffic sources. Asset Analytics Track and visualize engagement levels for forms, blogs, documents, media and other content.
Other Integrations	Liferay DXP provides fields to easily add a Google Analytics ID or Matomo (formerly Piwik) script in order to leverage these tools. Other third-party tools can also be easily integrated through customization.

Moving Forward

Optimize Content with Liferay Analytics Cloud

Learn how to improve your customer's content experiences with insights from Liferay Analytics Cloud. As a SaaS offering that works with Liferay DXP, Liferay Analytics provides customer insights and web analytics to uncover insights into providing better digital experiences.

[Download the full Liferay Analytics Cloud features list >](#)

Request a Customized Demo

Talk to Liferay's Sales team for a customized demo and an opportunity to ask questions about how Liferay can solve your unique business challenges.

[Schedule a live demo >](#)



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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