# XM Cloud components building

XM Cloud Components is a Front End as a Service application that lets you create your brand’s style guide and build visual components in a WYSIWYG editor.

The Styles library is a design system that ensures visual consistency across all components built in XM Cloud Components. The library comes with out-of-the-box predefined basic styles, and you are expected to build upon those to create themes that will define your brand in all the components you build for your website.

XM Cloud Components lets you work on styles on your own, or share your library with coworkers from the same organization. Once you are satisfied with your themes, you can stage and publish them, so they are available in XM Cloud Pages and on the live website. This ultimately allows you to change the style of your entire website in just a few clicks.

The Components builder is a powerful tool that lets you create new components or modify imported components using an intuitive WYSIWYG builder. You can create a component from scratch or import an existing component in the builder to build and style it further. You can map dynamic data to your component or create responsive components that will render differently for different device types. All components and their versions are organized in collections in the Components library.

With XM Cloud Components, content authors, UX designers, and marketers can work in parallel to speed up the process of creating on-brand digital experiences for their customers.

If you want to build a REST API integration with Components, you can follow the Swagger documentation.

# Content Management Systems guides

Content stack’s comprehensive collection of articles on CMS.

Choosing the right CMS can save you time and money, and pave a path to the future that is much more manageable. Selecting the wrong CMS can push your content editors and developers into a black hole struggling to keep up with the latest technologies. Find out how choosing the right CMS can improve the productivity of your content and development teams and ensure future-proof content delivery.

The following articles explain the fundamentals of Web Content Management System (CMS) technology and what it takes to be successful in the short-term and the long-term when choosing a CMS.

# Decoupled CMS

In the early days of creating websites, HTML formatting tags were embedded along with the text. With the introduction of cascading style sheets (CSS), there began a movement to separate content that made up a web page from the formatting, referred to as the presentation layer, as well as separating the programming, known as the behavior layer. It soon became a best practice to store CSS formatting and JavaScript functions into separate files from the HTML content. Separating the content from formatting and programming proved to be a powerful way to control the look of a website. For example, by changing a setting in a CSS file, you could change the entire look and feel of any site component without changing the content.

[**Download The Ultimate Guide to CMS now.**](https://www.contentstack.com/resources/eb/ultimate-guide-cms-comparison-architecture-vol-1)

Today [content management systems](https://www.contentstack.com/cms-guides/what-is-a-content-management-system/) extrapolate on that same concept. A decoupled system consists of two or more systems that are able to transact without being connected, similar to the separation of an HTML (content) file from a CSS (formatting) and a JavaScript (programming) file. A decoupled CMS allows changes to be made to the presentation (formatting) and behavior (programming) layer without having an effect on the content of the site. Traditional or legacy CMS systems are not separated but are coupled systems, so the front and back end and content are built into a single system.

## Decoupled CMS vs. headless CMS

The term decoupled and headless are frequently used interchangeably, but is a decoupled CMS the same as a [headless CMS](https://www.contentstack.com/cms-guides/headless-cms/)? Both a headless and a decoupled CMS have content management, a database, and deliver content through a programming interface, commonly referred to as an API. However, there is a [primary difference between a decoupled CMS and a headless CMS](https://www.contentstack.com/blog/all-about-headless/traditional-vs-decoupled-vs-headless-cms). A headless CMS does not have a front-end system or presentation environment, as shown in the figure below. A headless CMS is API-first, which means content management tools are integrated via API. Separating formatting from content allows you to publish content to any device or channel, such as a website, a phone, a smartwatch or any device connected to the Internet of Things (IoT).

A screenshot of a diagram

Description automatically generatedDecoupled CMS and Headless CMS Architectures

## The decoupled CMS bandwagon

Because decoupled and headless CMSes are getting a lot of attention, it is little wonder that a lot of coupled systems are jumping on the bandwagon and reinventing themselves to say that they are decoupled or headless content management systems. WordPress, Drupal, Episerver, and Sitecore are all examples of traditional CMSes that are delivering what they are calling decoupled versions of their CMS. [WordPress](https://www.contentstack.com/docs/developers/export-content-from-other-cms/wordpress-to-contentstack) and [Drupal](https://www.contentstack.com/docs/developers/export-content-from-other-cms/drupal-to-contentstack), for example, are providing extensions and plugins that decouple them from their front-ends. It might come as a surprise that a lot of things handled by most decoupled CMSes will be missing by disconnecting the front-end entirely from WordPress or Drupal, so you must handle these on your own, for example, website preview, translations, SEO functionality, security and any updates, upgrades, or changes to the API provided by the plugin or extension, and so on.

A true headless CMS is built from the ground up to be an [API-first CMS](https://www.contentstack.com/blog/all-about-headless/api-first-cms-for-enterprises), not a traditional CMS with APIs attached using extensions or plug-ins so that they can call themselves a decoupled or headless CMS. It can be confusing to know what a real decoupled, headless CMS is since traditional CMS vendors use the term loosely for varying versions of decoupled CMS systems.

## A decoupled CMS and the content hub architecture

A content hub architecture centralizes all your content in one place using an API to deliver content anywhere. This content-centric approach accelerates and simplifies content management letting your developers use the best-of-breed tools to create digital experience platforms (DXP) with omnichannel content delivery to help create more personalized customer journeys and more impactful digital experiences across today's and tomorrow's digital channels. The figure below shows an example of a content hub architecture with the API delivering content to desktops, mobile phones, smart TVs, gaming devices such as Xbox, kiosks, voice-activated virtual assistants, jumbotrons, virtual reality headsets, augmented reality apps, wearables, and news feeds.

## The benefits of a ecoupled CMS

The following sections take a look at how a decoupled CMS lets you use a content hub architecture to centralize your content and explains the benefits of a decoupled CMS, such as how it enables you to adopt new cutting-edge technologies, iterate and apply redesigns faster and deliver content to any device or channel and integrate multiple back-ends or services by making content accessible via an API. Additionally, it explains how a decoupled CMS is more reliable and secure and can save you time and money compared to using a traditional CMS.

* **A Decoupled CMS Frees Your Developers to Excel** Front-end technologies are accelerating, and new delivery channels and devices continue to grow exponentially. A traditional or legacy CMS locks your developers into the language and framework built into the CMS. Since a traditional CMS is a single website management tool that controls layout with built-in tools, it is difficult to change or integrate to use new state-of-the-art tools and solutions. Taking a decoupled approach means that you can give your developers the freedom to follow leading technology trends by trying new frameworks and tools. It is likely that a developer might want to try using any one of a dozen modern frameworks, such as Angular.js, Backbone.js, Meteor.js, Node.js or Ember.js. Additionally, they may want to use the React library for creating user interfaces, Redux for tracking state and use Google’s AMP or Polymer tools for mobile applications.
* **A Decoupled CMS Enables Omnichannel Delivery** A major benefit that a decoupled CMS brings to the table is omnichannel delivery. The front-end code and templates that a decoupled CMS provides can be used for standard web delivery, but like a headless CMS, you can connect to your content via an API for adjusting the presentation layer for different channels. Because your content is separate in a decoupled CMS, content managers create content while developers work on ways to present content for omnichannel delivery, such as native iOS and Android apps, wearable devices such as smartwatches, streaming apps, and new voice-activated virtual assistant devices, such as Amazon’s Echo Alexa or Google Home, virtual and augmented reality, and the Internet of Things (IoT).
* **A Decoupled CMS Improves Reliability and Performance** The problem with a traditional CMS is that it locks you into whatever your CMS vendor does or doesn’t support. By putting yourself into a proprietary content model that is reliant on front-end standards, it becomes hard to move away from a traditional CMS and can prove extremely difficult to re-purpose your content for multiple front-ends. Scaling is much easier to do with a decoupled CMS. Using a traditional CMS, a standard solution to handling increases in traffic is to add multiple servers running the CMS. However, removing the CMS application overhead on every web server improves content delivery speed, which is important because how fast your website content loads can directly affect your bottom line. A decoupled CMS also allows you to scale and avoid database bottlenecks that you are likely to encounter using a traditional CMS. Many decoupled CMSes, such as Contentstack, can automatically adjust your cloud infrastructure to match demand and use a CDN to improve performance.
* **A Decoupled CMS Increases Security** A single vulnerability in the traditional CMS could compromise your entire system. You put your trust into your CMS vendor. This trust applies to any third-party applications that you integrate into your CMS as well. If you use WordPress for your CMS, you are relying not only on the WordPress CMS but also the companies that are supplying any plug-ins and themes that you use. Recently, Sam Thomas, a researcher at Secarma, reported a severe WordPress vulnerability, which has been left a year without being patched that has the potential to disrupt countless websites running WordPress. This type of security issue is nothing new, the WPScan Vulnerability database website catalogs over 11,000 WordPress core, plug-in and theme vulnerabilities. It is up to your IT team to make sure that all your security is up to date. This is not to say that you will not have to be diligent about any third-party add-ons that you connect to your content hub, but the name of the game is minimizing risk, and a decoupled CMS with add-ons that you can trust makes for a safer more secure site.
* **A Decoupled CMS Saves Time** By separating content from the presentation layer, makes it possible to let developers work on upgrades and site redesigns without holding your content editors hostage, while upgrading the system or applying new presentation changes. If you need to upgrade the system or roll out a new site for a marketing campaign, a legacy CMS might take weeks to months. Using a decoupled CMS, it can take as little as a day. When you are upgrading software with a decoupled CMS, only the back and front-end of your CMS application is affected, not your content and your website. This decoupling means that your content team can still work on creating and editing content and your site can keep running live as you update the system. Allowing developers and content editors to continue to work saves time and money.

## To decouple or not to decouple? That is the question

A decoupled architecture is not the solution for everyone. Besides all the benefits of a decoupled CMS, there can be added costs to using a decoupled CMS. If you are primarily going to be delivering content to a website and you do not have a developer (or the budget to hire one), a traditional, coupled CMS can be the most cost-effective solution. However, if you are a business that needs to be innovative, secure, scalable, and have the flexibility to provide personalized customer journeys and compelling state-of-the-art digital experiences with omnichannel delivery, and you want your CMS to be future-proof, allowing you to integrate with new technologies and applications as they come on the scene, a decoupled or headless solution makes the most sense.

**About Contentstack**

The [Contentstack team](https://www.contentstack.com/blog/author/the-contentstack-team) comprises highly skilled professionals specializing in product marketing, customer acquisition and retention, and digital marketing strategy. With extensive experience holding senior positions in notable technology companies across various sectors, they bring diverse backgrounds and deep industry knowledge to deliver impactful solutions.

Contentstack stands out in the [composable DXP](https://www.contentstack.com/composable-dxp) and [Headless CMS](https://www.contentstack.com/headless-cms) markets with an impressive track record of **87 G2 user awards**, **6 analyst recognitions**, and **3 industry accolades**, showcasing its robust market presence and user satisfaction.

Check out our [case studies](https://www.contentstack.com/case-studies) to see why industry-leading companies trust Contentstack.

Experience the power of Contentstack's award-winning platform by [scheduling a demo](https://www.contentstack.com/request-demo), starting a [free trial](https://www.contentstack.com/try-for-free), or joining a [small group demo](https://explore.contentstack.com/intro-to-contentstack-2023) today.

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