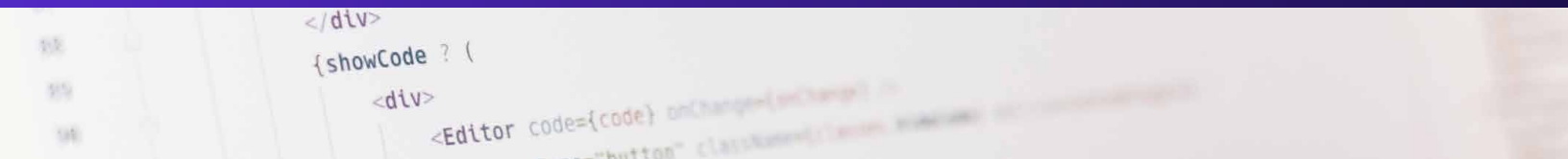




Headless dotCMS Product Brief

The New Standard For a Modern CMS





Introduction

A new standard has been set for both marketing and IT teams when it comes to the content foundation of their digital ecosystem. The release of dotCMS 5.1 offers more tools than ever for enterprises to **deliver a connected, trusted, and continuous customer experience** along every touchpoint of the journey. **dotCMS 5.1 is particularly focused on new tools for both marketing and development teams** who wish to leverage a headless CMS. Bridging existing pain points and capability gaps in the industry, dotCMS helps to reduce Total Cost of Ownership and increase ROI for brands taking the next step in their digital maturity.

Into the Wild

In today's digital age, it's not just a number of websites that brands leverage to engage with their targeted audiences. With the rise of mobile devices, social channels and IoT devices, the number of digital

and physical touchpoints between organizations and their constituents has exploded. **To deliver a consistent brand experience, digital marketers initially had to support all these touchpoints with multiple solutions** outside their legacy CMS, which in return created technological, organizational and experience siloes. To mitigate this, and to get control back of these experiences, headless CMS solutions became very popular, especially in the last few years. It allowed for IT teams to leverage more **modern and agile technology frameworks**¹, independently from vendor-specific stacks.

A huge downside of most headless CMS vendors, is the disrupted editor experience, due to the lack of some key marketing tools like preview, inline-editing, page template editing, and drag & drop. Most vendors also support a limited number of front-end technologies and therefore locking into a specific stack, which limits near term and future flexibility. Headless dotCMS 5.1 mitigates these restrictions out-of-the-box, and offers best-in-class tools for the key pillars of Content Management, and bring the best of all worlds together for business & IT teams.



Headless dotCMS for Marketing Teams

Regardless of the type of CMS (headless, head-optional, hybrid), **content needs to be created, curated and managed**. Thus, there needs to be a number of marketing tools in your arsenal.

01. Content Modeling

In order to transform an interaction design/UX to engage your brand prospects and customers, you have to create a content model that allows you to support the customer experience you want for each persona during the entire customer journey they follow. When it comes to content modelling, the **two key (NoCode) tools that stand out in dotCMS:**

01. Content Type Builder

An intuitive tool with **drag & drop capabilities** that allows marketers to create any content type they want, with a single line of development. [Watch Video](#)

02. Content Relationships

Building a comprehensive content model can get complicated quickly. With a solid Content Relationship tool, this takes away any barrier to make this a fun and easy task, as well keeping it maintainable as your model evolves. Again, no developer needed at all. [Watch Video](#)

02. Content Approval

Building a comprehensive governance model around content is already a task in itself, but making it a reality in dotCMS isn't difficult with the content marketing tools we bring to the table.

01. Workflow Module

Creating multi-step, complex content approval workflows, with **personalized notifications**, and have **immediate visibility** on governance in your process is easily done without a single line of code.

02. Versioning & Roll-back

Every piece of content is versioned and can be rolled back at any given time without engaging technology teams or uploading a back-up. Just a couple of clicks will get you to whichever previous content version you need.

03. TimeMachine

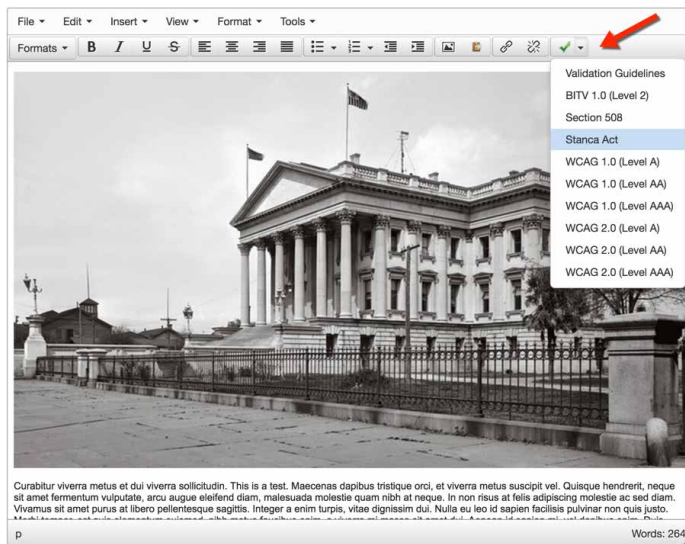
When creating customer experiences, it's important to preview content before it gets published, even if it's in the future. Also, going back in time can help you to create current and future experiences. The [TimeMachine](#) will bring you there.

04. WYSIWYG

This means having full control (permission-based) on standard and advanced **editing capabilities with the TinyMCE editor** that is shipped in the core.

05. Built-in Compliance

dotCMS offers built-in compliance to make sure you comply with WCA guidelines. Read more in our guide: [Website Compliance in 2019: Delivering Accessible Digital Experiences with dotCMS](#)



06. Edit Mode Anywhere

When using a CMS in a headless scenario, the editor experience can be disrupted by not having the option

to preview, in-line editing, and drag & drop content before publishing. Edit Mode Anywhere overcomes this burden in full. Regardless where content is exposed, **editors will continue to have the full capabilities:**

- **Preview content**
- **In-line Editing**
- **Drag & Drop page composition**
- **Page Template management**

This capability enhances the hybrid CMS¹ model that dotCMS supports from its inception, without compromising any editorial experience for marketing teams, and increasing possibilities for technology choices in the digital ecosystem. [Watch Video](#)

03. Content Delivery

Delivering content to the presentation tier of your application is a critical function. For the business user this means a simple 'publishing' trigger in the UI, but under the hood, a number of powerful capabilities bring great value.

01. Publishing

Once approved, content can be published (directly or scheduled), potentially to multiple environments, using Push Publishing². **Offering both static and dynamic publishing** completes the flexibility any marketer and technologist should expect³.



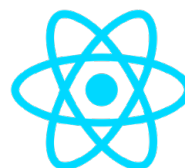
Headless dotCMS for IT Teams

01. Edit Mode Anywhere

Where this new capability brings undisrupted editor experience for marketing teams, the value for IT teams is equally as exciting.

First, IT teams can choose the front-end framework/programming language of their liking for building applications that are content-driven by dotCMS. **Any framework will work seamlessly with the Edit Mode Anywhere tool** in the authoring environment, which gives technology teams freedom of innovation and technology agility.

Secondly, legacy applications can be utilized going forward in order to leverage their proven value, while the **technology teams accelerates innovation with new and modern technologies**. dotCMS is not a limitation from an IT perspective and supports IT in this scenario, while marketing teams continue to have an undisrupted editor experience. [Watch Video](#)



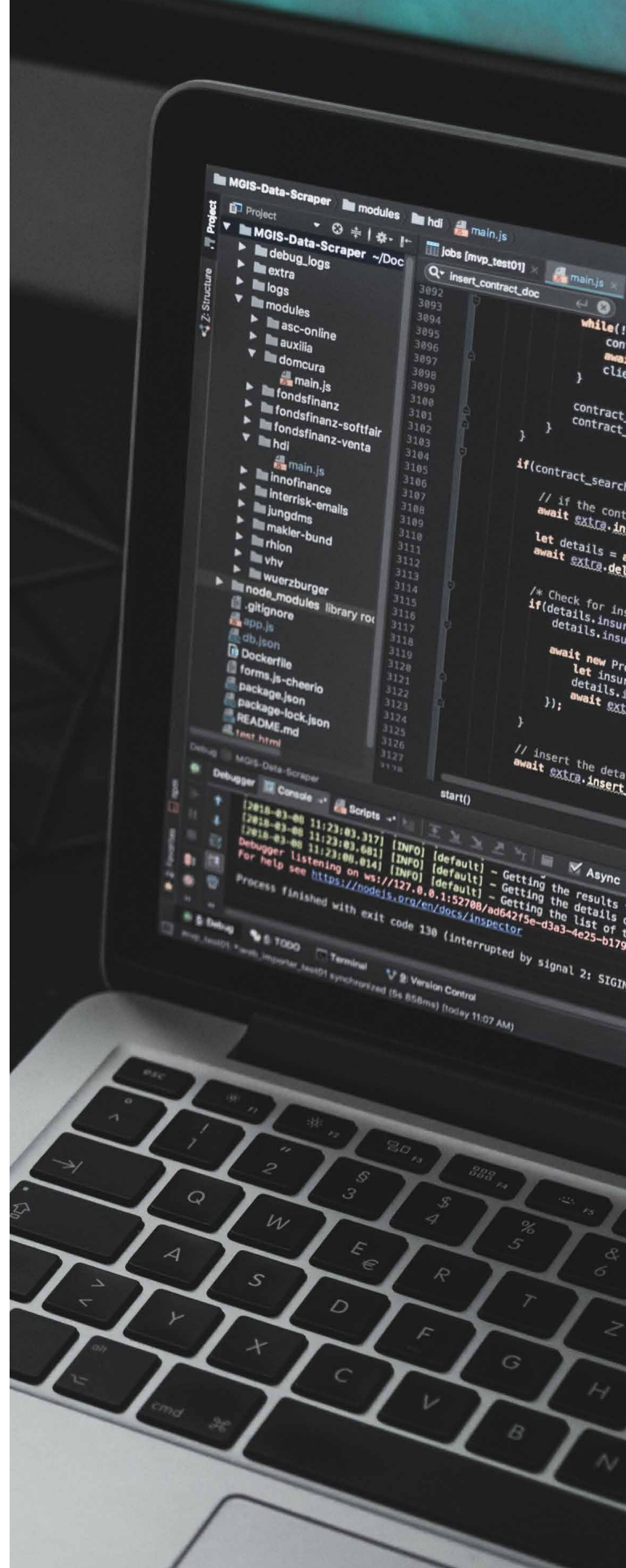
02. Content Delivery

01. REST API

In dotCMS, everything is content, and all content can be exposed via **flexible REST API end-points**⁴. This is not only a must-have for modern headless CMS solutions, it's quintessential for building a digital experience platform with the content foundation as-a-service needed .

02. GraphQL

Starting with dotCMS 5.1, the GraphQL API and GraphQL query language are supported out-of-the-box by dotCMS. dotCMS GraphQL support exposes the dotCMS content repository as GraphQL and provides an API that allows developers to query and return specific properties of content and shape the API response at call time. Coupled with our new content relationships, this makes delivering custom views into the content repository simple and allows developers to traverse the content graph based on content relationships and other properties. [Watch Video](#)



```

curl -v -u admin@dotcms.com:admin -XGET
http://localhost:8080/api/vt1/dynamic/37f93fcb-6124-46af-83b4-9ece6c1c5380 -H
"Content-Type:application/json" -d '{
  "velocity":
}

#set($employeeList = [$dotcontent.find($pathParam)])
#set($resultList = [])
#foreach($employee in $employeeList)
  #set($person = {})
  $person.put("firstName", $employee.firstName)
  $person.put("lastName", $employee.lastName)
  $person.put("jobTitle", $employee.jobTitle)
  $person.put("profilePicPath", ${employee.photo.shortyUrl})
  #foreach($department in $employee.departments)
    #set($departmentName = $department.departmentName)
    $person.put("department", $departmentName)
  #end
  $resultList.add($person);
#end

$dotJSON.put("dotcache", 5000)
$dotJSON.put("employeeList", $resultList)
}'

```

03. API tools

Building REST endpoints in dotCMS was already easy, but with the addition of two new tools, **the level of effort for web developers to build REST endpoints is reduced** even further.

- **Scriptable API endpoints** – in this release it is possible to define and deliver scriptable REST endpoints, which is a more solid and scalable pattern.
- **Scripting-as-a-Service** – in addition, permissioned users can control responses by using PUTting and GETting Velocity script in the requests.

This has a direct impact on the integrations (of any kind) with adjacent system and technology. No Java coding is required to build REST endpoints using this tool⁵.

03. Content Presentation

This is taken care of by your delivery tier and not a capability of a pure headless CMS. If your content-driven applications are a limited number of apps that your technology team supports & maintains, this can work. The downside of a pure headless play, is that for every single application you want to expose to the world, whether it's a landing page, microsite etc., your marketing team relies on your development team.

That is where a hybrid CMS can take away this downside: **for standard and simple web properties, use the presentation capabilities of the CMS, and go headless for your flagship applications.** dotCMS is one of the few hybrid CMS solution currently out there⁶.

04. Security

Being an open source CMS, dotCMS is exposed to few security vulnerabilities, if any. **It allows our customers to control the security of the platform in their own terms** by conducting penetration tests periodically, as well as line-by-line code inspection, unlike in closed-source solutions. Since our customers build business-critical applications, security is one of our key priorities and has a dedicated team to fix security breaches immediately⁷.

05. Performance & Scalability

Based on a solid foundation of enterprise-grade frameworks and a decoupled architecture **makes dotCMS auto-scalable in any direction and performant for a multitude of application types.** The performance of any digital experience platform is merely as good as the content foundation at its core.





Headless dotCMS At a Glance

For Business & Marketing Users

Tools & Capabilities	CMS industry	Headless dotCMS
Mobile & Persona Preview	✓	✓
Layout as a Service	✓	✓
Edit Mode	✓	✓
• Page Editing	✓	✓
• In-line Editing	✓	✓
• NoCode Page Template Editing	✗	✓
• NoCode Content Type Builder	✗	✓
• Improved Content Type Builder	✗	✓
Edit Mode Anywhere	✗	✓
NoCode Content Relationships	✗	✓
NoCode Advanced Workflow Management	✗	✓
Hybrid CMS	✗	✓

For Developers & Administrators

Tools & Capabilities	CMS industry	Headless dotCMS
De-coupled CMS Architecture	✓	✓
Plugin Architecture	✓	✓
REST APIs	✓	✓
Docker Images & Reference Implementation	✓	✓
Lightweight REST Builder & Scripting-as-a-Service	✗	✓
Native GraphQL API & Query Language Support	✗	✓
Support for front-end frameworks/technologies:	Maybe	✓
• SpringMVC	Maybe	✓
• ASP. Net	Maybe	✓
• Php	Maybe	✓
• EmberJS	Maybe	✓
• NodeJS	Maybe	✓
• React	Maybe	✓
• Angular	Maybe	✓



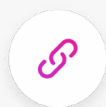
About dotCMS

Founded in 2003 and at the forefront of enterprise content management. It is our belief that the days of monolithic, all-in-one suite solutions are gone and will never come back. **Building a digital experience platform -by definition- requires the art of seamless integration into an existing technology stack that brings marketing, transactional and experience platforms together.** Integrations should be built

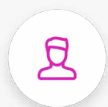
'on the fly' or based on NoCode capabilities to drive time-to-market, Total-Cost-of- ownership and return on investment on digital.

Business and marketing teams can orchestrate content and personalized experiences for every touchpoint along your customer journeys for any device, with real-time and actionable insights, on-premise, in the cloud or hybrid, but most of all at scale and with an availability of 99.95% if needed.

The Content Management System is the foundational infrastructure of your digital experience platform.



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