WHITEPAPER

An introduction to Headless Content Management Systems

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Introduction

Surfing web content used to be limited to desktop computers. This has drastically changed over the last 10 years, so much so that mobile phones are now the most common device for browsing content.

Today companies are increasingly distributing digital content to a greater number digital channels and IoT (Internet of Things) devices such as voice assistants, wearable devices and digital billboards as part of a larger Digital Transformation strategy.

The aim of this whitepaper is to provide an introductory guide to the Headless Content Management System (CMS) to highlight its strengths and show how headless differs from the traditional CMS.

A headless CMS architecture is extremely agile and flexible, allowing companies to stay ahead of the curve to engage with customers in new channels in days rather than months.
Traditional CMS

A traditional CMS is a tool that combines content and presentation aspects (templates) for the creation and publishing of websites.

Authors and editors use the system to create and manage content. The ability to publish content is dependent on templates.

Templates are built by development teams that are proficient in building websites using the CMS templating framework.

By associating content and web style templates together the traditional CMS is perfect for managing websites.

However, today there's a massive number of internet connected devices that are part of everyday life. To manage and distribute content to these devices (as well as the web) we need a new type of CMS.
What is a headless CMS?

The headless CMS has two fundamental differences to a Traditional CMS:

No CMS Templates

CMS templates bolt down how a piece of content behaves, where it can be used and how it is presented. To present and deliver content for any device content cannot be associated to a layout, therefore a headless CMS has no templates.

A Content API

A headless CMS publishes content to a central location in a structured format. To allow digital channels to use this content, it exposes it via a Content API web service. This is often referred to as a 'Content Service'

The Content Service is now a central point for applications to connect and request information, be it a website, smart watch, tablet or touch screen panel.

The term ‘headless’ has been used for some time in the I.T. world to describe a computer system that can run without a monitor or presentation device.
Centralized Content

Having a single point for content management and distribution via the CMS and its API, the headless CMS is now the perfect central repository for content.

With traditional CMS products organizations have struggled to commit to a centrally managed content platform.

It’s common to see various departments implement a multitude of CMS products within the silos of the company.

A headless architecture provides a single source of truth content hub across an entire organization that improves efficiency, reduces inconsistency and duplication of effort.
Content Management Functionality

We’ve been focused on creating web content for so long, but creating for today’s digital channels requires a different approach as content can be consumed from any channel.

As the content is no longer created with a purely website hierarchy in mind, content needs to be organized, structured, classified and managed in a non-page centric way.

This shift can take a little getting used to, but in removing the burden of understanding page and template types in favor of a semantic approach to content creation, the process becomes much simpler and easier to manage.

With an editing experience centered on pure content management, enriching content with meta data or personalization rules is also a much simpler process.

It is worth pointing out that a headless CMS still contains the same processes as a traditional CMS in that users go into the tool to create content and upload multimedia assets, and they still validate through workflows and publish.

It’s clear that content editors still need functionality such as versioning, simple editing interfaces and reporting from their CMS.
**Developer Friendly**

With templates out of the picture developers are no longer locked into learning the rendering language of the particular CMS.

Developers now have full control of the codebase and can build applications in their preferred language such as JavaScript, .Net, PHP or Java.

This is a great benefit for companies too as finding consultants that are skilled in each CMS is time consuming and is often difficult. With a headless approach, developers can jump straight into work with zero to little knowledge of the underlying CMS.

Many headless CMS vendors supply a few sample implementations in key technologies to enable developers to plug in to their content almost immediately and start working from a solid base.
Cloud Ready

Companies are increasingly moving their systems to the cloud as this can be more efficient in terms of ownership, performance and support.

The API-based delivery of a headless architecture really lends itself to a Software as a Service (SaaS) model, as such most headless CMS vendors do offer SaaS as an option.

One of the great frustrations with most enterprise software packages are upgrades; they are time consuming and often require content freezes. With SaaS cloud based software you are always on the latest and greatest version of the tool without any outages.

On-Premise

Of course, cloud isn’t for every organization, some prefer the flexibility to manage their own infrastructure and have greater control of monitoring and tweaking the software, for those, fear not; most headless CMS tools are available as on-premise installations.

Hybrid Cloud

With the loosely coupled nature of a headless architecture any of the key components can be placed in the cloud or on-premise, for example, the CMS can exist in the cloud, while the content API can be installed internally within an organization.
Digital Transformation

Digital transformation is imperative for all businesses, to remain competitive and relevant as the world becomes increasingly digital. To do so companies need to rethink their business models finding new ways to test and measure ideas and adjust based on data.

A headless CMS is more agile than the traditional CMS in that it requires little to no infrastructure set up within the CMS environment. This means that proof of concept creations require little CMS knowledge within development teams, taking days rather than weeks to implement and evaluate.

An Example

A great example of this is Uber Eats and WaitR. Both services provide food ordering and delivery services for restaurants. As the restaurant owner, I want to work with both services, but I also want the same information about meals on my own website. I want to manage this in a central location and update it only once.

With a headless CMS, the owner can create and manage content centrally and have the services consume the content. If he/she wishes to update product prices or descriptions, this is modified in the CMS and simply republished.

Not only that home assistant speakers are increasingly becoming popular now, as the owner of my restaurant, I'm looking to evaluate if there's a greater way to gain business by allowing people to speak their order into their device at home.

With a small technical investment, the owner can implement this without having to change any content within the CMS.
Disadvantages of a headless CMS

The content service is an entry point for any number of content consuming applications. Without proper governance marketing and business teams can become disconnected from the experiences available to users.

Many headless CMSs are relatively new and as a result they lack the robustness and breadth of features of established Traditional CMSs. This means your CMS may lack certain capabilities leaving you in a situation where you need to build them yourself.

Traditional CMSs typically have a WYSIWYG (What You See Is What You Get) editing interface which is ideal for content authors to make content changes within the website directly. With a headless CMS, users can lose these interfaces including the ability to preview the result of personalization.

Content as a Service

The Content API is a central access point to all applications; which also means it can be central point of failure.

It’s imperative that the service is robust to handle high volume requests from across the globe with infrastructure in place to ensure many instances of the service are available to support service load sharing and failover. Not all headless CMSs offer this kind of robustness and resilience.
The advantages of SDL’s Tridion Sites CMS

The growth of headless has seen the creation of several popular ‘headless only’ CMS tools, while SDL’s CMS has grown from a Traditional CMS to offer headless functionality. As a result it combines the best of both worlds, providing robust website management features as well as the ability to expose content to any other channel or device.

There’s many key benefits to SDL’s CMS:

- SDL has been perfecting the editing functionality for over 10 years, versioning, workflow and custom extensions are possible within SDL whereas newer headless CMS vendors are slowly incorporating these features with new releases.

- SDL stores content in small component based blocks. This decision was years ahead of its time when originally developed in the CMS, but today this is exactly as a CMS tool should manage content to ensure maximum reuse across multiple channels.

- SDL’s BluePrinting functionality allows for a greater separation of content into specific channels, while still supporting a single source of truth for content.

- SDL is the only CMS vendor that specializes in globalization and translation and this is built directly into the CMS suite.

- Better support for marketers as personalization and integration is built into the platform.

- For existing customers, switching from a traditional CMS structure to a headless approach requires the purchase and migration to a new CMS platform. With SDL, it’s easy to maintain the same content and technology and simply install SDL’s content API functionality. If you have current websites using traditional CMS templates, these can remain exactly as they are, while also making use of SDL’s CaaS to share the same content with new digital channels.

- SDL provides a Digital Experience Accelerator (DXA) framework in several technologies to enable development teams to quickly plugin content and take advantage of SDL’s implementation features without writing a single line of code.

- SDL is the only CMS vendor that provides joined up technology to publish both marketing content (SDL Tridion Sites) and structured product content (SDL Tridion Docs) through the same set of common APIs. As such, the SDL Tridion DX suite solves the typical disconnect between marketing and support content.

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Conclusion

The evolution of web, coupled with the plethora of new hardware, software and applications means that there are now a wide variety of digital touchpoints offering online interactions.

To ensure an edge over the competition, businesses are undertaking new activities to ensure their content is available to potential and existing customers regardless of their device.

SDL Tridion Sites delivers a solution to support business, marketers and developers. Providing traditional and headless publishing architectures on top of a wealth of advanced content management features such as personalization and globalization; SDL’s CMS is a smart choice for enterprises looking to future proof their global content management needs.
About Content Bloom

At Content Bloom we provide successful digital experiences through a combination of technical proficiency, strategic vision and a hard-working commitment to clients.

Content Bloom is a trusted implementer of SDL’s Tridion Sites, Tridion Docs and Language products. Our global delivery team includes the largest dedicated SDL team in North America with more than 80% of our team certified by SDL.

Our clients include fortune 500 companies, governments and non-profits, working across many verticals such as Banking, Automotive, Consumer, Media and Energy.

We have a unique set of services related to SDL’s suite of products that help our clients improve delivery times, reduce cost and result in a greater return on their investment.

To find out more about Content Bloom, visit our website at: http://www.contentbloom.com.
About SDL

SDL is the global leader and innovator in content management technology and language solutions. With more than 25 years of experience, SDL creates transformative business results for its enterprise customers through maturing their content supply chain from ad-hoc to autonomous as they align people, processes, and technology.

Our technology has been tested and proven by hundreds of global customers who differentiate themselves by delivering a superior customer experience through integrated:

- Web content management for global digital experiences.
- Structured content management for effective, high quality product information.
- Language technology for the highest quality human and machine translations available.

Our services give our customers unparalleled capacity to deliver multilingual creative content and quality translations at scale. SDL language experts provide value beyond translations, ensuring content builds global brand equity through an understanding of local culture, language and context.

To find out more about SDL, visit their website at http://www.sdl.com.