Choosing the Right WCM
On-Premises vs. Cloud

Learn the pros and cons of these two different approaches to Web Content Management, and which is best for *your* enterprise

crownpeak

Table of Contents

Introduction: Which way with WCM?

For years, the decision-makers within IT departments in pursuit of software and platform solutions have been migrating their organizations into the cloud.

For global companies, or enterprises with multiple operating groups in different sectors and locations, the cloud has been a godsend. It's given them efficiencies in adoption, scalability, and control that far transcend any benefits of on-premises software infrastructures.

Most cloud-based Software-as-a-Service (SaaS) or Platform-as-a-Service (PaaS) offerings are typified by...

- Provision of web-based access to software, platforms, and pre-built infrastructures.

- Software that is managed i.e., regularly monitored, debugged, and upgraded by the provider.

- The ability to be delivered to any number of end users simultaneously.

- The inclusion of Application Programming Interfaces (APIs) to let additional apps or integrations be added, improving functionality.

- Savings over on-premises solutions that demand staffing, maintenance, hardware infrastructures, and upgrade costs.

Yet even as IT has been jumping into the cloud, Web Content Management (WCM) solutions have remained stubbornly rooted on-premises. Why?

In evaluating where to house their WCM capabilities, many digital marketers and IT managers have been able to count off reasons against migrating WCM to the cloud:

- Very few WCM products are designed from the ground up to work in the cloud. One of the biggest limitations being the inability to use the same piece of software across many clients, often called multitenancy.

- There's minimal support for integration with their enterprise systems such as CRM, customer data, inventory, ERP, and others.

- Integrating outside their firewall poses challenges stemming from infrastructure and security concerns.

- A lack of development support for adapting cloud-based WCM to their specific needs.

Making the choice between on-premises WCM and cloud-based WCM solutions can be a knotty challenge. What blurs the lines between the two even further is the fact that some WCM systems claim to offer the advantages of a true SaaS, but actually don't.

The stigma around cloud-based web content management is fading, however. Enterprises are moving away from on-premises solutions in favor of gaining agility, and leaving the costs and headaches of running their own systems behind. And analysts are reinforcing that migration as being essential to the evolution of digital marketing.

> *"Web CMS's new role is a hub — content, experience, and workflow — to orchestrate customer engagement across many digital channels (e.g. web, mobile, email, social, etc.). –Mark Grannan, Forrester[1]*

In this guide, we'll explain the distinctions between on-premises and cloud-based WCM solutions, clarify the benefits of each, and provide insight into the next stage of evolution for WCM.

That's important because, as savvy, forward-thinking marketers make decisions about WCM, they're looking down the road. They're trying to judge what platform will give them agility and flexibility today and tomorrow, so they can incorporate new tools such as machine learning and artificial intelligence, and effectively govern a growing digital presence even when it crosses borders.

[1]Forrester, "The Next Step In Web CMS Evolution," 1/24/17

Definitions and distinctions

First, let's define all the options we're discussing.

The **cloud** is a term that isn't for a specific thing, but for the way we're now using the Internet for storing data, and accessing and using applications, rather than doing so on your personal computer, office workstation, or LAN server.

On-premises refers to housing and operating software on devices – like those workstations and LAN servers – that are located inside the confines of your office or company.

> *Example: The MS Word 2.0 program that was introduced in 1983 was strictly "on-premises" – it only ran on desktop MS-DOS PCs. Today, Google Docs is a cloud-based application where you can use a platform-agnostic browser interface to do your work on a Google server.*

On-premises WCM means an organization houses, controls, and maintains its web content management operations by implementing, administering, and updating all its own web content management software, applications, and data. This, in turn, entails installing and maintaining a complete in-house development, training, and hardware infrastructure.

Cloud-based WCM solutions are, obviously, supplied via cloud computing services provided by vendors who take on the burden of developing and managing infrastructure, upgrades, uptime, scalability, and security.

Under the cloud computing services umbrella, though, are three delivery models that create the stack we know as cloud computing, and they're relevant to how competing cloud-based WCM products are configured:

- **Infrastructure-as-a-Service (IaaS)** is the hardware and software that powers it all – servers, storage, networks, operating systems, virtual machines, firewalls, and more. Compared to SaaS and PaaS, IaaS users must do more management of data, apps, O/S, runtime, and other elements, but gain an infrastructure atop which they can install any required platforms. To give an analogy in the pizza-making world, this is the equivalent of going to a store, buying all the ingredients off the shelf, taking it home, and making the pizza from store bought ingredients.

- **Platform-as-a-Service (PaaS)** are the sets of tools and services designed to make coding and deploying those applications quick and efficient. PaaS gives organizations a managed framework they can use to develop, test, and deploy web application solutions for their own customers. In the pizza analogy, this is like buying your pizza from a take-and-bake store, taking it home and cooking it in your oven. Some of the work is done for you (the pizza assembly piece), but not all of it. You are still required to cook the pizza.

- **Software-as-a-Service (SaaS) applications** are designed for end-users, and are delivered over the web. Updates, runtime, middleware, data, operating systems, servers, and networking are all managed by the vendor. In the pizza scenario, the SaaS-world is like ordering pizza and having it delivered. All you need to do is use (eat) the pizza. The pizza is assembled, cooked, and brought to you, and you can simply consume the pizza as a service.

Within WCM, a truly SaaS offering is entirely managed by the vendor, so the marketer can focus on making great content and delivering it to customers. If an organization goes with IaaS and PaaS solutions instead, users get access to servers and software to develop, manage, and run their applications while also being responsible for maintenance, and oversight - all which is eliminated in SaaS.

Here's a basic chart that (broadly) illustrates the varying levels of user-versus-vendor management involved in each option:

	On-Premises	IaaS	PaaS	SaaS

Enterprise Manages WCM Unit Sales

Vendor Manages WCM
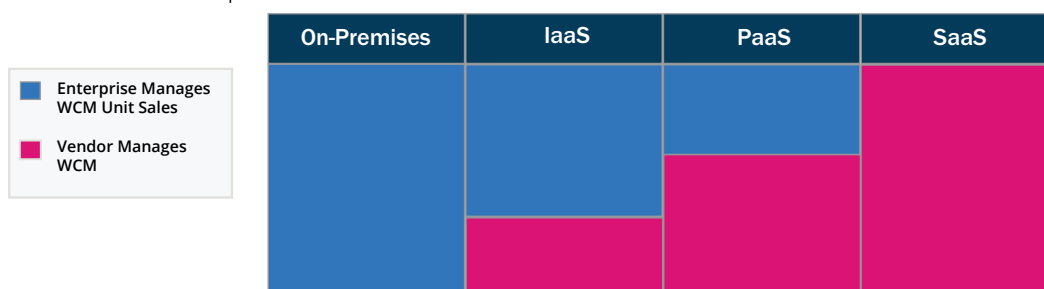
Comparing approaches

Advocates of each WCM hosting approach trumpet the pros their choice offers, and the cons of the other. So let's take a quick look at these approaches and compare:

PROS	
On-Premises WCM	**Cloud-Based WCM**
• Caters to those who prefer to implement and administer all of their own web content management software, applications, and data.	• Presents a more cost-effective approach, from startups to enterprises, as they pay for thin clients rather than full on-premises infrastructure.
• Gives greater control over administration of servers and contents, including software and apps.	• Permits fast deployment of software which doesn't rely on a possibly outmoded intranet.
• Centralizes management of content and publishing processes.	• Combines centralized control with easier platform deployment across multiple/global locations and enterprise units.
• Presents a customizable environment for the enterprise's specific needs.	• Drives economies of scale possible with multi-tenant services.
• Allows for software patches and updates, backups, and security guidelines, dictated by internal demands and planning.	• Provides ongoing maintenance and support is included at all times, including upgrades.
• Adds more control over applications and third-party software (such as browsers, plug-ins, etc.).	• Integrates efficiently with third-party software via built-in APIs.
• Provides the perception of increased data security, as it's kept within an in-house network, behind enterprise firewalls.	• Provides ultimately safer data stored off-premises thanks to professional management, encryption, redundant backups, and other continually-updated security measures.
• Provides internal infrastructure and limits dependance on outside resources.	• Offers inherent scalability and flexibility to exploit unpredictable or seasonal traffic peaks, yet you pay only for those specific usages.
• Leverage skills of your IT department, helping to optimize that investment.	• Frees IT resources to address other, more crucial tasks, or even reduces need for in-house IT.

| CONS	
On-Premises WCM	**Cloud-Based WCM**
• Requires highly experienced developers and systems administrators (with specific skill sets). • Makes for expensive and difficult upgrades. • Leads to expensive integrations that require permanent support. • Makes scalability and availability expensive and difficult to implement. • Contributes to much higher total cost of ownership. • Requires a much higher dependency on IT.	• Can be less flexible.* • Can constrain feature set.* • Can be challenging to integrate with on-premises services.* • Can be proprietary and not allow customizations of an open source development model. *Varies by degree based on vendor and package

Hidden costs (and complexities)

We've all seen the iceberg metaphor for hidden costs, and it's applicable to the total costs of on-premises WCM. But another, more complete analogy might be the one below. Cloud WCM are designed to provide simplicity of adoption and operation, with no hidden dimensions for the enterprise to deal with. On-premises WCM systems don't merely involve costs hidden from plain sight, but multiple degrees of complexity for the enterprise to manage. Moreover, each on-prem WCM layer must integrate properly with the rest, or else the efficiency of the entire platform can be compromised.
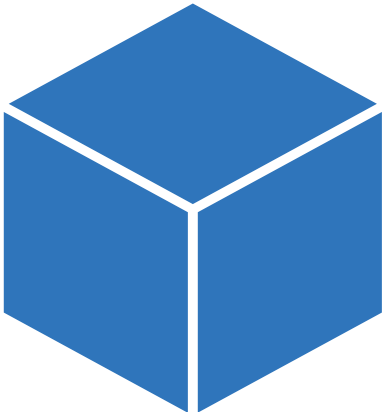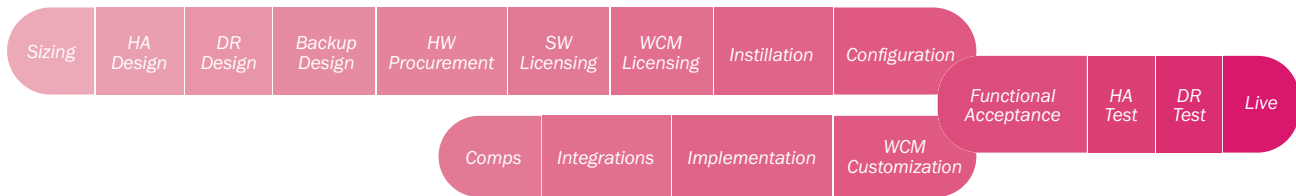
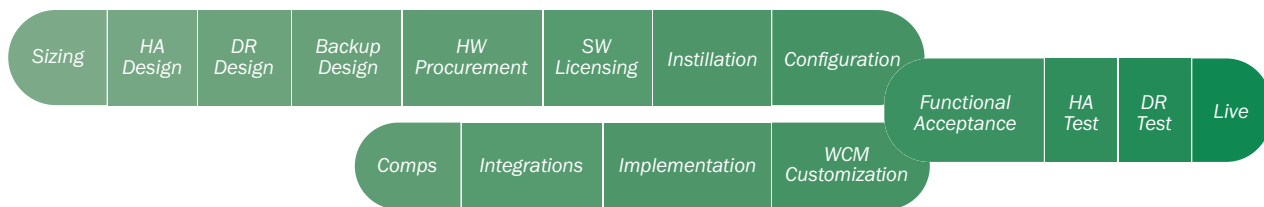**Cloud WCM**   **On-Premises WCM**
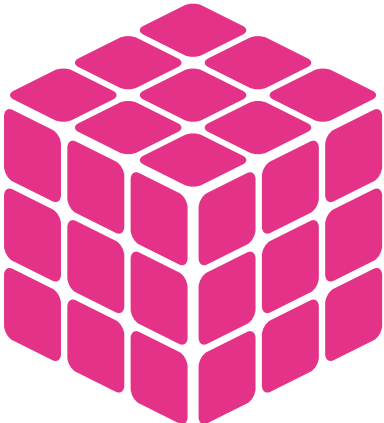
Speed-to-launch

Another comparison that shouldn't be overlooked: How much time a WCM platform requires to launch websites, since speed-to-launch is a major factor in maintaining modern marketing agility.

Commercial enterprise WCMs are the most time-consuming option:

| Sizing	HA Design	DR Design	Backup Design	HW Procurement	SW Licensing	WCM Licensing	Instillation	Configuration				
				Comps	Integrations	Implementation	WCM Customization		Functional Acceptance	HA Test	DR Test	Live

- They often mandate a 12-18 month timescale.

- They require huge coordination between marketing, IT, agencies, and systems integrators.

Open source on-premises WCMs are perceived as cheaper and faster, but really aren't:

Sizing	HA Design	DR Design	Backup Design	HW Procurement	SW Licensing	Instillation	Configuration				
			Comps	Integrations	Implementation	WCM Customization		Functional Acceptance	HA Test	DR Test	Live

- Timescales are still 12-18 months.

- Time and money may be saved with WCM procurement, but nothing else.

- They, too, need great amounts of coordination between marketing, IT, agencies, and systems integrators.

Cloud WCMs offer a significantly shorter timescale:

			WCM Licensing		
Comps	Integrations	Implementation	Functional Acceptance	Live	
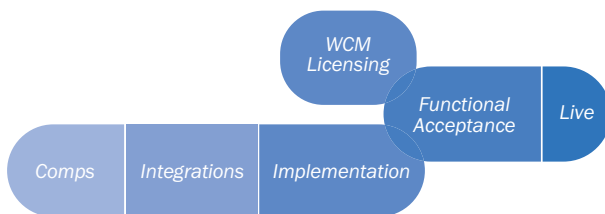
- Successful site launches can occur in as little as 3-6 months.

- Time is mainly saved by avoiding procurement, sizing, availability planning, and deployment.

Fake cloud versus true cloud

When an enterprise evaluates its WCM hosting options, it needs to be aware that not all cloud WCMs are the same.

There are plenty of non-WCM applications and platforms that claim to be cloud-based, but are generally recognized as not meeting the definition of true cloud computing. There's even a disparaging term for this practice: **"cloud-washing."**

For our purposes, let's divide WCMs that claim to operate in the cloud into two groups: **Fake Cloud WCMs** versus **True Cloud WCMs**. Many of the inherent advantages of the cloud aren't fully realized when you're dealing with a Fake Cloud solution.

- A **Fake Cloud WCM** is a traditional on-premises WCM, but installed on cloud infrastructure and managed by a third-party. In essence, it's on-prem software, just running in a different data center. This typically leverages an IaaS or PaaS infrastructure, and you are responsible for the upkeep of the application on top of the infrastructure.

- A **True Cloud WCM** is built in the cloud, with the express purpose of running in the cloud.

For some points of comparison to keep in mind, see the comparison chart on the next page.

Compare Fake Cloud vs. True Cloud WCM

	Fake Cloud WCM	True Cloud WCM
Speed to Market	• Initial set-up and configuration often requires advanced planning for difficult-to-forecast future needs (capacity, performance, distribution).	• Subscribe, configure, go!
Operating Expenses	• Although based on a subscription model and no large licensing fee upfront, adding more capacity (CPUs, storage, distribution channels) increases costs.	• Based on a subscription model (no large licensing fee upfront). • Very few variable costs.
Management	• Coordination with vendor team is required, especially to schedule upgrades at non-disruptive times. • Development/QA environments incur additional cost.	• Vendor manages ongoing fixes, patches, and upgrades transparently and non-disruptively, eliminating user need for a DevOps team. • Includes a development/QA environment.
Operating Expenses	• Capacity is provisioned in advance and billed whether it's used or not.	• Easily scaled up or down so enterprises can meet demand peaks or grow at their own pace.
Upgrades	• Significant configuration and development work is needed to handle upgrades, so users often end up on older versions. • In many cases, platform customizations can complicate, or even block off upgrade points.	• New features and innovation are added frequently, in real-time and at no additional cost. • Existing implementation work is unharmed by upgrades. • Upgrade path cannot be blocked by users' of the system.
Summary	• Provides little of the cost, agility, and scalability benefits of a SaaS approach.	• Continually up-to-date. • Scales with ease and cost-efficiency. • Zero effort and minimal cost required to add new sites and handle traffic surges.

Global enterprises and the WCM decision

For companies that have global reach, or even simply operate multiple business units within a single set of borders, there are special considerations driving their decision about which approach to adopt for WCM.

Overwhelmingly, **they're turning to cloud-based WCM solutions** because of the unique advantages they assume all cloud-based options offer. However, they often find that their initial optimism regarding the anticipated agility and cost benefits becomes dampened as reality sets in. This is a common consequence of failing to distinguish between **Fake Cloud** and **True Cloud** during the procurement process.

Here are some questions companies trying to suss out the difference can ask to help differentiate between the two:

Question	Fake Cloud WCM Vendor	True Cloud WCM Vendor
Who performs the upgrades on my platform?	• You do. But we can help, if needed. • We do, but you have to schedule it with us. • We do, but you make sure upgrades work, and we restrict some software features.	• We do.
When do upgrades happen?	• Whenever you want. Just let us know.	• Here's our schedule.
How do I manage platform capacity and performance?	• Here's our management interface. Figure out how many CPUs or how much extra disk storage you need and press confirm. We'll generate an additional invoice. Your service may be interrupted while the extra capacity is allocated.	• Our system will expand as necessary to accommodate demand.
I started out serving my US market, but now I'm looking at the EU and Asia Pacific. How do I make sure my customers experience good performance?	• Here's our management interface. Figure out where you want to deploy replicated stacks. We'll generate an additional invoice. Your service may be interrupted while the extra capacity is allocated. There may be a delay each time you publish before new content becomes available in your replicas.	• Our system is already scaled globally. There's nothing you need to do.

14 questions to ask cloud WCM providers

If you're exploring the possibility of moving your WCM operations to the cloud, here are the 14 questions to put in front of any prospective vendor. It's your business that's at stake, so drill down to ensure you're getting the right answers:

1. Is the product really and truly 100% cloud-based? What cloud-native services does the product incorporate?

2. How is initial migration of your data to a new cloud system handled?

3. How difficult (or easy) will it be to integrate with your other systems, especially when those other systems MUST remain on-premises and may not be internet-accessible?

4. How are infrastructure resources scaled up to meet demand spikes? Is it automatic or does it require customer intervention?

5. Does the platform have the elasticity to reduce consumption and meter down usage just as quickly?

6. Where will data be stored? And how will it be handled in a way that's compliant with local or industry regulations? What if data must be split between multiple local markets?

7. How secure is the platform? What type of web application firewalls are in place to protect against sophisticated outside attacks, such as cross-site scripting, SQL injection, session token hijacking, and targeted application exploits?

8. How does the product manage access and permissions? Can it integrate with your existing authentication system?

9. How are customer support issues handled, and in what timeframe?

10. What happens if you want to change systems later?

11. What's the cost of adding websites as your brand or product line expands?

12. How are upgrades handled? Do they require any planning or configuration that would demand resources on the enterprise side? What costs are involved?

13. What circumstances could lead to upgrades becoming impossible?

14. What case-proven statistics can be shared about uptime and reliability?

Beyond WCM: Evolving toward DXP

Digital marketers considering moving to the cloud aren't merely considering SaaS WCM systems, but Digital Experience Platforms (DXP) that are **natively built to work in the cloud.**

Some cloud WCMs are still limited in their ability to address global or large-scale marketers' needs. Maintaining quality control and centralized digital governance across a wide range of digital touchpoints, often on a global scale, or launching a new channel or pushing specific content to a partner site, can still require huge efforts. Integrations with vital on-premises back-office systems may be extremely difficult. Partitioning customer personal information to meet multiple regulatory jurisdiction requirements may be impossible.

Leading-edge DXP platforms address these issues, shorten sales cycles, accelerate time-to-market, and enhance customer experiences, helping to drive quicker ROI. They give marketers centralized digital governance of their total digital presence; that's an important advantage in a complex digital environment, especially when operating in multiple markets and regulatory environments.

Crownpeak's DXP, called Digital Experience Management or DXM, provides the most comprehensive SaaS solution in its class and enables non-technical marketers to rapidly and securely publish content across any digital channel, while maintaining centralized control.

Crownpeak DXM:

- Deploys digital experiences rapidly, to any channel.

- Enables multiple website changes in real-time and rapid roll-outs of dozens of websites and touchpoints simultaneously.

- Integrates with any existing business applications or third-party integration.

- Makes it possible to quickly create landing pages without dependency on developers or IT.

- Increases conversions with easy-to-use A/B testing.

- Delivers personalized digital experiences based on geography, website usage, keyword, referring source, and more.

- Accesses real-time data and tracks visitor behavior about your content's performance across any touchpoint, channel, or integration to optimize messaging.

- Is built on a unique, globally-scalable hybrid-tenant SaaS architecture, which combines shared infrastructure economies of scale with robust data partitioning.

- Provides the most sophisticated system and data security protections at all layers of the technology stack, utilizing technologies and processes that meet the highest industry standards for security and regulatory compliance.

- Separates web content management processes from content delivery due to decoupled architecture, providing enterprise architects with unconstrained freedom by eliminating budget and technology barriers to getting sites and projects live.

- Scales globally and provides high availability and performance, even during traffic spikes.

- Offers a high level of personalized service and support for enterprise needs worldwide.

As the only DXP with integrated Digital Quality Management (DQM), and Digital Privacy Management, it:

- Ensures your digital experiences comply with accessibility, brand, SEO, legal, and usability standards.

- Makes it easy to detect and fix compliance issues, file and image errors, broken links, misspellings, and unique brand and business rule violations.

- Ensures consistency across all customer touchpoints, regardless of channel.

- Enforces content standards and policies at a global, regional, and local level.

- Improves the user experience, increases conversions, and optimizes the digital marketing supply chain across your websites and apps.

- Helps your brand achieve compliance with the consent requirements of the GDPR, CCPA, and other privacy laws.

Summary

On-premises WCM systems may still have a role for companies with very specialized needs. But even cautious firms that are extraordinarily sensitive to issues like data security are turning to cloud-based WCM solutions. Crownpeak's impressive customer list featuring well-known companies in the highly-regulated financial services, insurance and pharmaceutical industries, demonstrates the case.

The flexibility, scalability, and agility delivered by cloud WCM are just a few of the topline benefits driving a veritable stampede in its direction.

In its February 2019, Magic Quadrant for Digital Experience Platforms, Gartner says:

> *"Application leaders responsible for digital experience and CX are under pressure to provide an agile and scalable infrastructure. They also must empower their business partners to innovate faster.*
>
> *A cloud-first and API-led approach prevails because it gives organizations the advantage of a faster pace of innovation, greater scalability and agility."*

For marketers, then, it's critical to choose the right WCM provider. Look for one that's built specifically for the cloud, and able to provide the full suite of tools needed to ensure they're connecting with customers across devices and screens – now and in the years to come, when innovation, acceleration, and agility will make all the difference.

Find out how Crownpeak can help you move to the cloud.
Request a demo today!

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About Crownpeak

Crownpeak provides the leading, enterprise-grade, cloud-first Digital Experience Management (DXM) platform. The Crownpeak DXM platform empowers Fortune 2000 companies to quickly and easily create, deploy, and optimize customer experiences across global digital touchpoints at scale. Besides featuring content management, personalization, search, and delivery, it is the only digital experience platform that includes built-in Digital Quality Management (DQM) to ensure brand integrity, best practices, and web accessibility compliance. Crownpeak is also the leading provider of simple technical solutions for complex digital Governance, Risk & Compliance (GRC) challenges. These solutions, including the Universal Consent Platform and TagControl, are designed to help companies comply with the General Data Protection Regulation (GDPR), the California Consumer Privacy Act (CCPA), and other privacy regulations.

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