Canto

TECHNICAL WHITE PAPER

Understanding Cumulus Deployment Options

Enterprise DAM On-Premise, in the Cloud or a Hybrid Approach

Choose the right setup and be the DAM hero

Whether your company is moving from a structured or unstructured approach of organizing and repurposing important digital content, Cumulus can help you future-proof your investment in digital asset management (DAM) technology by helping you select the right configuration for your business.

This white paper provides you with considerations and recommendations for selecting Cumulus on-premise, hosted in the cloud or as a hybrid DAM.

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Executive Summary: Choose the Cumulus deployment that is right for you

When it comes to deploying Cumulus as your chosen digital asset management platform, you have options:

Cumulus On Premise



Many customers deploy Cumulus on their own servers for a myriad of reasons – such as concerns over internet

speeds and corporate mandates, to a name a few.

For On Premise DAM deployments, Canto Professional Services will work together with your in-house IT teams to make sure you have the correct hardware available. Security patches, updates and maintenance for the operating system will be the sole responsibility of your IT folks.

Canto will take care of installing and configuring the system on your machines – whether they be physical or virtual servers. Either your team or Canto Professional Services may perform Cumulus software upgrades.

With On Premise deployment, you are purchasing a perpetual right to use the software license indefinitely plus maintenance fees.

Cumulus On Premise software is available as an annual subscription. Packages start with 50 named read/write users and scale up as needed. A second server license is included for backup, testing or disaster recovery

For On Premise subscriptions, total asset storage size is irrelevant to Canto and entirely up to your hardware capacity and demands.

Cumulus in the Cloud



We see an increasing number of enterprise customers choose our cloud solution - Cumulus Private Cloud.

With Cumulus Private Cloud, Canto's Professional Services take care of all the IT infrastructure, redundancies, high availability, VPN setup (in concert with customer IT teams), security protocols and audits, configuring it to your needs and performing all ongoing updates and upgrades – a veritable turnkey DAM platform in the cloud.

Annual subscription pricing for Cumulus Private Cloud varies depending on total asset storage volume needed, number of named users on the system, add-ons such as the Adobe InDesign Client and other API connectors required.

Cumulus Hybrid



For some companies a Hybrid scenario makes the most sense.

You may want the speed of a local area network for work-in-progress files with the ability to push finished assets onto a content delivery network (CDN) for prompt global distribution.

Or you may have solid IT resources that choose to setup the DAM within your preferred data center. Or you may wish to place marketing files in the cloud while keeping sensitive financial/patient/student/customer data in-house to stay in compliance and reduce risk.

Each of these and other Hybrid Cloud scenarios are possible with Cumulus. The Microsoft Azure and Amazon S3 Asset Stores for Cumulus allow you to pay-for-what-you-consume in terms of asset storage that could save you money by not overinvesting in excess IT hardware capacity.

Globally distributed teams can work from the same set of files without server replication, from a highly secure and fast ecosystem, serving up assets from the edge of the Internet.

Pricing for Hybrid Cloud Asset Store Connectors are included with Cumulus On Premise Subscriptions, and available for a small add-on fee for Private Cloud subscriptions..



It should be noted that regardless of your selection, **Cumulus is infinitely scalable** to handle however many files and users you decide to throw at it. Over 2,500 customers globally do exactly that, including a number of Fortune 50 and Global 2000 clients. When you choose

Cumulus, feel confident that you are joining the ranks of elite digital asset managers, with the added benefit of Cumulus being recognized by industry analysts Forrester, Real Story Group and Frost & Sullivan for its 'price performance' and 'value for the money'.

Cumulus Architectural Considerations

(Metadata) Server

At the heart of Cumulus is the **Cumulus Server** – where uploaded assets' metadata gets indexed. The server creates a robust database of your entire digital portfolio. Cumulus' NoSQL database can be mirrored to a SQL database.
We provide infinite controls to fully customize your DAM.

The Cumulus server stores all the rich information about each asset and thumbnail previews, but it does not store the physical files themselves. Cumulus can point to multiple storage location(s) you designate, and it often makes sense to set up a central asset location for check-in/check-out and version control. The Cumulus server may be installed on a Windows, Mac or Linux operating system.

You may access your catalogs of rich media files from multiple access points – each with its own designated purposes. See Figure 1.

InDesign Client

Cumulus integrates natively with Adobe InDesign. Two-way data exchange lets designers search for content in Cumulus and check on updated versions without leaving InDesign.

Admin Client

We have a desktop client available for both Mac and PC. System Administrators use the desktop app (aka Admin Client, Native Client) to granularly toggle permission settings, customize views, catalog files in bulk and configure Cumulus to work exactly the way you need it to, to satisfy your users' needs. Power users who want to perform highly sophisticated metadata magic will get a lot of miles from the Admin client as well.

For Cumulus On Premise and Cumulus Hybrid, Canto Professional Services and partners help configure the initial

setup and provide training for your primary Admin to take over. Cumulus is highly configurable to an infinitesimal degree. Permissions can be laser-customized by using only check boxes and drop-down menus, so no custom coding required.

Due to the myriad of options, expect to invest some time to get it just right.

For Cumulus Private Cloud, you will still want to designate an in-house 'owner' that has access to the Admin Client, but you may not find yourself working in there too much. Canto Professional Services will take care of the setup and ongoing updates needed for your cloud-hosted DAM. Your team can spend less time configuring settings and more time uploading, enriching files with metadata and finding exactly what they need.

Cumulus Architecture Overview

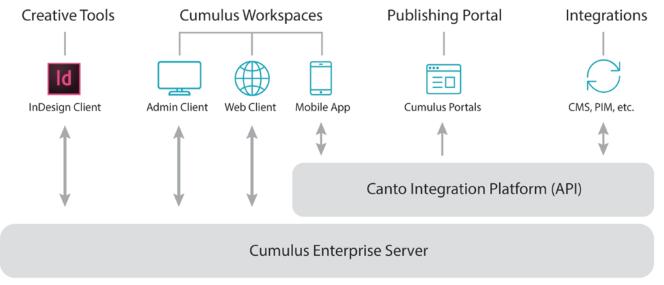


Figure 1: Sample Cumulus Architecture

Web Server (not pictured)

Other access points into Cumulus are Web-enabled. Therefore we'll typically set up Cumulus Web Solutions on a secure Web Server in a DMZ (demilitarized zone) to host the web applications. It is not a requirement and can be set up on the backend.

Web Client

Next, we have the **Web Client** – "The Face" of Cumulus. The Web Client is designed for a smooth user experience.

The Web Client is for users with read/write privileges. Of course, you can lock down which users see which files based on their permissions and settings.

The Cumulus Web Client is where you will do most of your core DAM work, such as uploading files, editing metadata – including image licensing data for digital rights management (DRM), sorting and relating files.

The Web Client also shines when helping move along review, edit and approval statuses as well as ad-hoc workflows by collaborating via a commenting and markup toolbar.

Whether you deploy **On Premise**, **Cloud** or **Hybrid** the main consideration for using the Web Client is the speed of your Internet connection – either in the office or working remote.

Mobile Apps

Cumulus offers an iOS mobile app for convenience in working with your digital content from an iPad or iPhone. Performance will not be impacted regardless of whether you choose On Preimise, Cloud or Hybrid.

Portals

Portals is a great tool for distributing content en mass for those who need read-only/download-only access.

Cumulus Portals is our publishing portal that can be branded to match your corporate guidelines. Users can 'shop' for PDFs, video files, images and whatever you allow by navigating a category tree, filtering and searching for what they need.

Portals connects to the Cumulus Server or Restful API. Portals visitors may resize and crop images, transform into different file formats, receive watermarked files, download low-res only and of course get the originals, depending on permissions. Portals is mobile-responsive, built with HTML 5 and Bootstrap to let you maintain control of your assets and reinforce your brand.

For On Premise deployments related to distributing your files via Portals, you'll want to consider the file size and expected geographic location of those accessing and downloading assets. If your files are huge or the regions you serve cross multiple continents, consumers of the files may have to practice a little patience. Video may remain on premise or be uploaded to the cloud for format conversion and device + bandwidth recognition with Cumulus Video Cloud.

With **Private Cloud**, you do not have to worry about your Web Server infrastructure, as Canto contracts with a highly available, redundant data center that provides system monitoring 365 days a year, 24 hours a day, 7 days a week for your virtual environment. We provide 99.98% uptime.

A Hybrid approach can be very powerful as it relates to Cumulus Portals – especially if you have a substantial read-only audience. Canto is one of the few DAM vendors (if not only) that offers unlimited user access to its download portal. From Portals, visitors can search, transform and download assets from anywhere in the world, and having those assets accessible from a CDN can greatly improve productivity speed.

If you have mission-critical, timesensitive files, such as event-driven shots from a sporting event or Fashion Week, and your files must go to a vastly



distributed network, then it may make sense for you to have a **Hybrid Cloud** setup. Delivering your media files using Amazon S₃ or Microsoft Azure will save time and improve your user experience.

Finally, is the **Cumulus Mobile App** which lets you catalog, search, find and share files seamlessly and easily while on the go. The mobile app does not discriminate, and performance will not be impacted regardless of whether you choose **On Premise** or **Hybrid**.

API

Canto offers a RESTful API that we call the **Canto Integration Platform (CIP)** to allow you to pass data to / from Cumulus into other systems. Your assets and corresponding data managed in Cumulus become even more valuable when users can access those files directly from their Project Management tool, their Marketing Automation platform, or Web CMS, eCommerce System, Product Information Management system, Adobe tools or other digital workflow systems.

Canto Integration Platform runs on a Web application server. The Web application server may be installed on a Windows, Mac or Linux server. We provide a software development kit (SDK) with sample code, sample projects and detailed documentation to get your developers (or Canto Professional Services) up and running.



Private Cloud

Hybrid Cloud

Next Steps

We hope this white paper helps you have a better understanding of which Cumulus deployment may be right for your organization. If you have more questions, or would like pricing for your environment, please contact us with your requirements and contact information. We look forward to working with you and solving your digital asset challenges.

Contact us at info@canto.com 415-495-6545



About Canto

Canto is driven by delivering digital content more intelligently. This has made the company a global leader in the digital asset management community.

By always putting the focus on its users, Canto delivers scalable software and services that match customers' demands. More than one million users from a wide spectrum of market segments have trusted Canto's expertise since the company's founding in 1990. Canto is based in San Francisco (USA), Berlin and Giessen (Germany) and serves a worldwide customer base in close cooperation with its worldwide partner network. For more information visit canto.com.

About Cumulus

Cumulus allows companies to easily organize, find, share and create digital content — on any platform. It helps customers protect their brand assets, ensure efficiency and ultimately improve their bottom line.

Cumulus can be integrated with popular applications, and customized to support and streamline customer workflows. Canto's worldwide partner network offers many integrations and enhancements for Cumulus, enabling Canto to deliver truly tailored solutions. During its 20 year history, more than one million users from a wide spectrum of market segments have chosen Cumulus.