

Percussion CM1 Cloud

Percussion's CM1 Cloud Edition consists of two primary components: the content management server (CMS) running the CM1 application, and the published website.

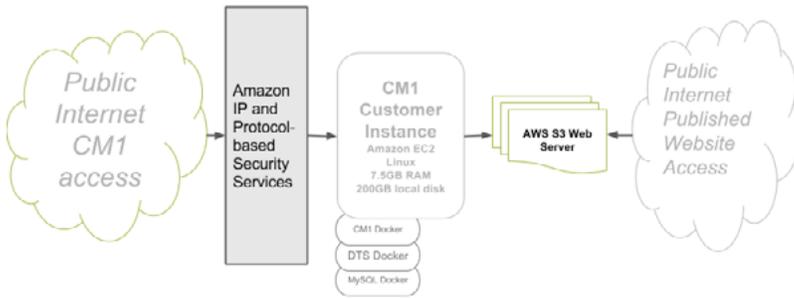
CMS Server

- Each Percussion customer receives a unique CM1 virtual server, which runs on an Amazon EC2 Linux server instance hosted within the Amazon EC2 infrastructure. (http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EC2_GetStarted.html)
- Amazon's EC2 infrastructure has a guaranteed SLA of 99.95% (see <http://aws.amazon.com/ec2/sla>).
- Additionally Percussion monitors all CM1 instances continually, and should there be an outage Percussion is staffed to react appropriately to outages.
- Percussion's unique product design does not require that the CMS system be active in order for the published website to be available to users.
- Unlike competitor's offerings, Percussion's CMS system is only required in order to make changes to the published website.
- Under general operation the published website runs completely independently of the CMS system, and will continue to operate even when the CMS system is down (if it were undergoing maintenance, for example).
- Percussion's CM1 virtual servers are constructed using the Docker software virtualization architecture (<https://www.docker.com/>).
- Through Docker all components of the CM1 instance are separately virtualized as individual "Docker objects", which allows entire subsystems within the CM1 instance to be swapped in or out independently of all others.
- As such, the CM1 application itself, the database server, and many other system components can all simply be swapped into the CM1 instance as individual, fully-tested units, rather than relying on individual installer-based software upgrades needing to take place on each instance.
- Additionally, due to the nature of the Docker objects, should there become a need to swap-back to a previous software release the process is identical to upgrades: the appropriate Docker containing the older software release can simply be swapped onto the CM1 server and operation resumed.
- Upgrades of the CM1 Cloud Edition application occur on roughly a ten-week schedule. Customers will be notified in advance of the outage before it occurs, and, unless there is an urgent need, upgrades will occur outside of the customer's normal business hours.

About Percussion

Percussion Software makes it easy and affordable for financial services organizations to create, publish, and share content that drives web traffic, engages visitors, and looks great on any device. Percussion customers love our unique coaching program, drag-and-drop editing, built-in blogs, responsive mobile templates, SEO tools, and fast migration with LiveFirst. Leading customers include FirstMerit Bank, the U.S. Social Security Administration and Ceridian. To learn more, visit www.percussion.com or follow @Percussion on Twitter.

CM1 SaaS Architecture Overview



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- During scheduled upgrades Percussion will also apply all relevant Linux patches to the system that have occurred since the last scheduled upgrade.
- Individual customer content on each CM1 instance (web pages and graphics, as well as user account information, workflows, templates, etc.) is backed-up on a nightly basis on a two-week rotating schedule. In the unlikely event that a customer should request restoration of customer content from a backup within this two-week window Percussion will endeavour to execute this action within two business days of the customer making the request.
- All access to the CM1 user interface occurs over encrypted (HTTPS) connections only, using an RSA 2048-bit encryption key.
- Additionally, at their option customers can request an "Intranet-only" implementation of CM1 Cloud Edition, which restricts access to the CM1 UI from exclusively within the customer's internal network. Customers wishing to utilize this option should discuss it with their Percussion representatives, and will need to provide additional technical information to Percussion for this feature to be implemented.
- Users are provided with a number of default user accounts for CM1 as part of their on-boarding process, and each of these default accounts is assigned a unique random password. Customers are encouraged to change these passwords upon receiving them.

Published Website

- Percussion's CM1 Cloud Edition uses Amazon's S3 service for all static website content.
- Amazon S3 is a unique hosting platform that services exclusively static web content and does not utilize a conventional underlying webserver.
- As such there is nothing to "attack" - there is no Apache server, there is no MySQL server, there is no PHP handler, etc. Amazon has built S3 so that it only hosts static web pages and does not support web applications, so there is simply no need for these potential attack vectors to exist within S3.

- Due to their massive infrastructure it would be practically impossible to "flood" Amazon - DDNS attacks simply won't work.
- Amazon's guaranteed SLA for S3 is 99.9% (<http://aws.amazon.com/s3/sla/>). However due to the truly unique nature of the offering, S3's data durability is 99.999999999% (<http://aws.amazon.com/s3/#protecting>), insuring your content is always available.
- In the unlikely event that content is missing from the published website on S3, the customer would simply run a "full publish" inside their CM1 instance, and all content would be restored to the site. At all times the CM1 instance is the "master" for all content, the published web server simply makes that content available to web browser users.
- Pages are published between CM1 and the S3 site using Amazon's S3 publishing API. As all traffic occurs within Amazon's network, there is no way to "sniff" this traffic over the public Internet.
- When content is published from CM1 to the S3 site via the S3 API access security is handled by the utilization of Amazon's Access Key/Secret Key infrastructure. Without these two keys, which are never accessible publicly, and which are 160 bits and 320 bits long respectively, there is no way to access the S3 site to change its contents.
- At their option customers can purchase a wildcard SSL certificate from a certificate provider, in order to allow their S3-based website to be accessible over HTTPS.



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