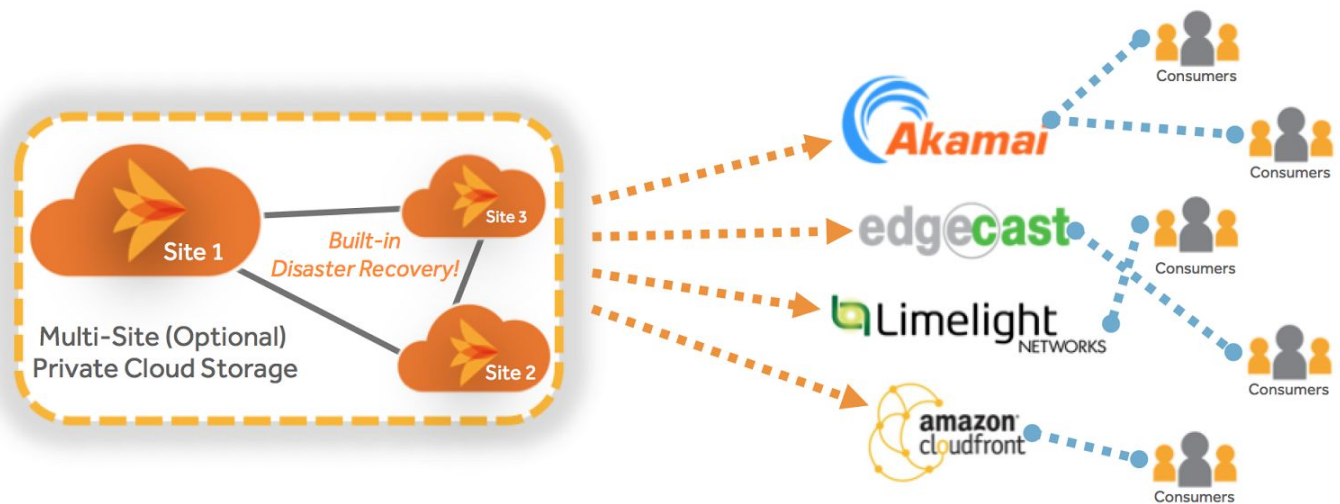


Using SwiftStack as an Origin for Amazon CloudFront CDN



Introduction

Both in the media industry and in more general web and mobile applications, one common use case for SwiftStack hybrid cloud storage is that of an *active archive*: It is both a long-term and cost-effective destination for data to live even after it grows “cold” and is rarely accessed, but it can simultaneously provide active access to data just as well. One of the specific applications that can benefit from this is a Content Delivery Network (CDN). In a nutshell, CDNs act as a network of local caches that respond to requests for specific data; for example, think of an image on a web page hosted by a server in San Francisco: If someone visits that web page in Sydney, retrieving that image across the Pacific Ocean will take some time, but if a local CDN cache in Melbourne already had a copy of that image, the image could be retrieved much more quickly, and thus the web site would appear to be much more responsive.

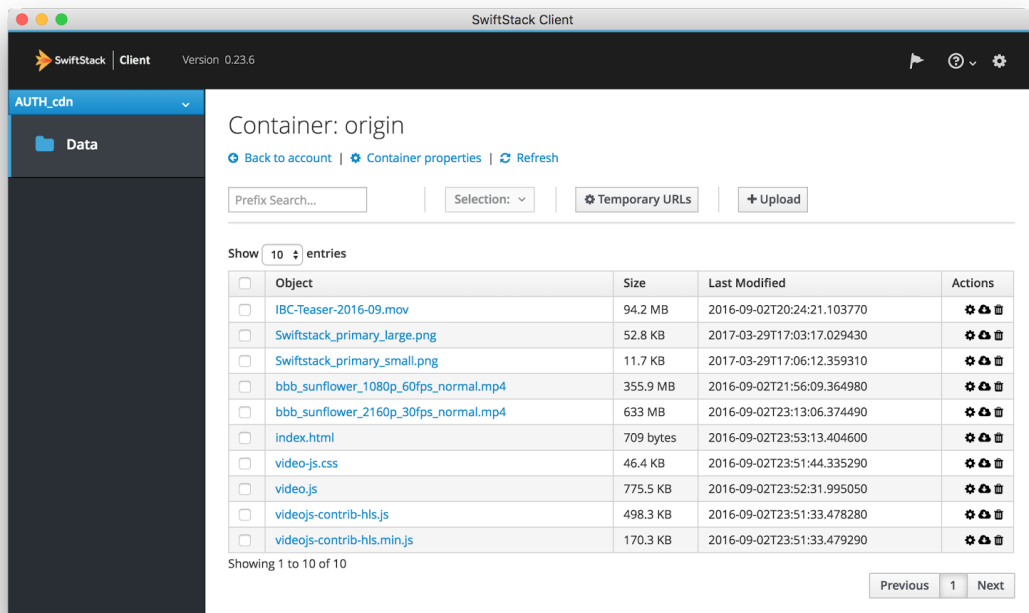


Companies like Akamai, Verizon, Limelight Networks, and Amazon provide CDN services to do exactly this. Consider in our example, though, that the local caches had to somehow get an initial copy of the web page image; this can happen proactively—by pre-populating them from an “origin” with data that is likely to be requested by clients—or reactively—meaning the caches request the data from the origin the first time a client requests it, then the cache can store it locally for a period of time to more quickly respond to future requests for the same piece of data. In most cases, CDN providers also sell origin storage space for your source data, but if you are already using SwiftStack for private or hybrid cloud storage, it can act as your CDN origin—meaning you don’t have to pay your CDN provider for origin storage, and the CDN service can pull data directly from from SwiftStack as needed!

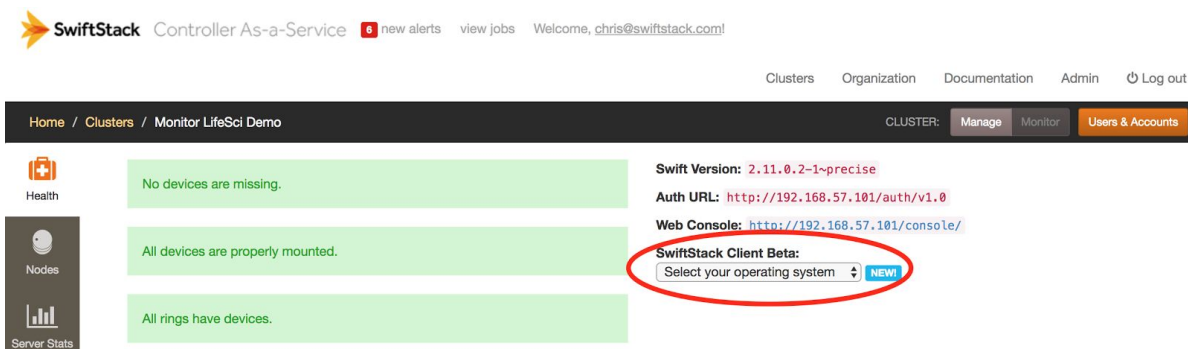
In this brief how-to guide, we’ll look at configuring Amazon’s CloudFront CDN to pull source content from SwiftStack instead of S3. Be sure to read Amazon’s [CloudFront Getting-Started Tutorial](#) to get familiar with basic CloudFront configuration, and if you’re new to SwiftStack, you can read the [Quick Start Guide](#) and watch an [example video](#) to help with basic setup.

Configuring SwiftStack

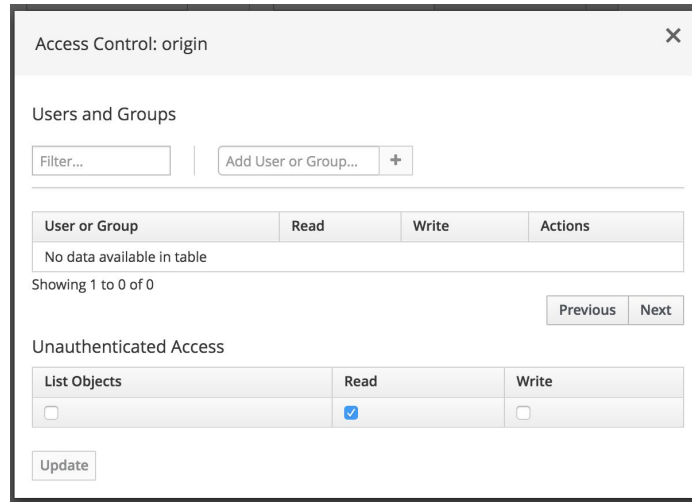
All that is needed is a “container” (analogous to an Amazon S3 “bucket”) with content in it that is publicly readable. In SwiftStack, containers exist inside “accounts,” and you can easily create an account and container programmatically using the API or manually using the SwiftStack Client. For example, in the picture below, we used the SwiftStack Client to create an account named “AUTH_cdn” with a container in it named “origin,” and we have added a handful of sample media files to the container.



Note: The SwiftStack Client is freely available to all SwiftStack users. It can be downloaded from the “Monitor Cluster” page in the administrator interface as shown below; if you do not have access to the administrator interface, contact your SwiftStack administrator for access to the SwiftStack Client for your laptop or workstation.

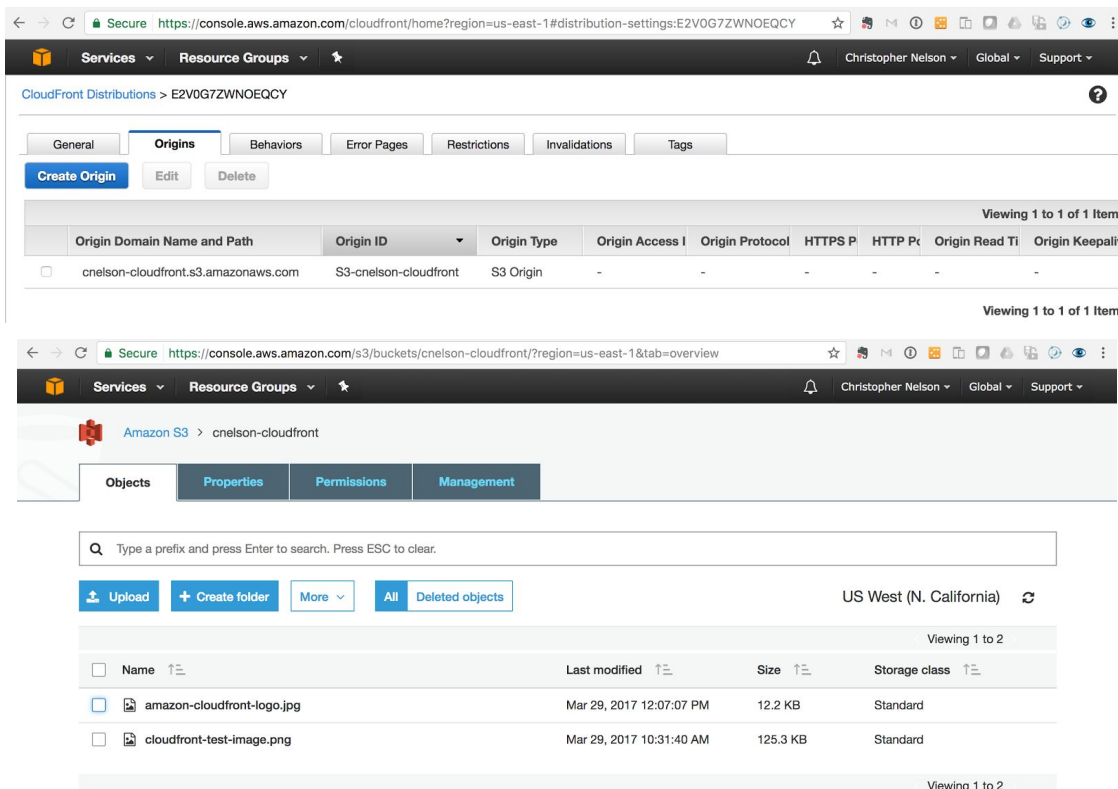


You can make the SwiftStack container readable (i.e., give the CDN permissions to access the content) either programmatically using the API as described in the [documentation](#) or manually using the SwiftStack Client by clicking the lock “access control” icon for the container and then selecting “Read” under Unauthenticated Access.

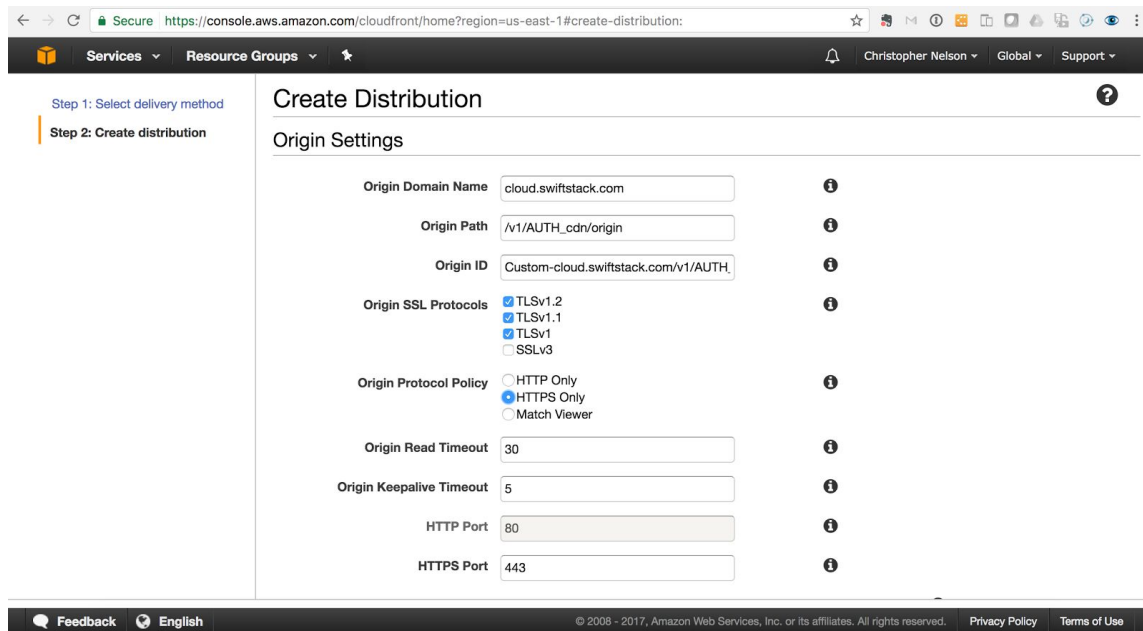


Configuring CloudFront

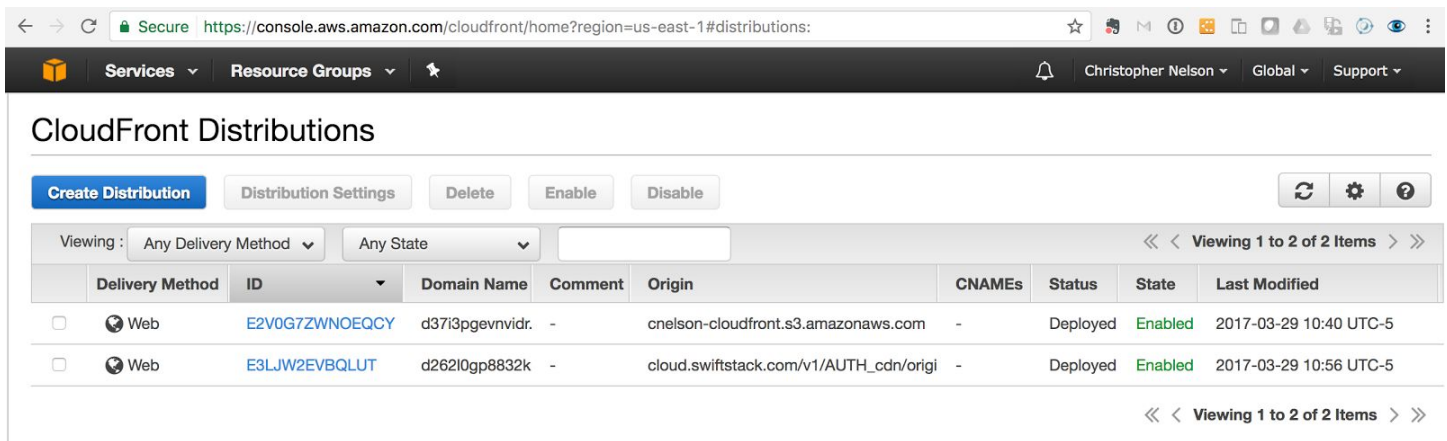
If you have followed along with the basic [CloudFront Tutorial](#), you should have a functioning distribution set up to serve a file from an S3 bucket like this one:



To create a distribution that leverages SwiftStack as an origin, create another web distribution, and enter your SwiftStack account and container details as shown below; set the “Origin Protocol Policy” to “HTTPS Only,” and leave everything else as defaults:



When that distribution has been deployed by ColorFront, you should see it in your list of distributions as seen here:



Using Your Content

At this point, you are ready to go! To test your configuration, you can create a simple web page that loads content from your CDN using the domain names assigned by CloudFront (see the screenshot above). In this example HTML page, we are displaying content via ColorFront from both an Amazon S3 bucket and a SwiftStack container:

