## **Blackboard**

#### Deploying Media (Movie, Audio) Files Within Learn Courses

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**Product:** Blackboard Learn

**Description:** Utilization of media files (movie, audio, etc.) within Blackboard Learn, while supported, can introduce system performance concerns and quickly consume available storage if a content management plan is not in place.

Symptoms:

### Who this article applies to

- This article applies to Managed and Self-Hosted clients
- This article applies to Learn SaaS-hosted clients on Learn versions prior to 3400.11.0
- This article applies to Learn SaaS 3400.11 and higher only the administrator has chosen to exclude media files from the cloud-signed-URLs feature.

### What is the issue?

Utilization of media files (movie, audio, etc.) within Blackboard Learn, while supported, can introduce system performance concerns and quickly consume available storage if a content management plan is not in place. Additionally, media files are now streamed when requested instead of requiring a user to download a file and then play the file within an additional application. Streaming media files to multiple users creates significant load across a Learn installation regardless of deployment.

Best practices are shared for each deployment type of Learn and are recommendations to manage the system in a way that prevents storage and performance issues. Blackboard is investigating product and infrastructure changes to help ensure a better user experience when media files are delivered directly from Learn, but our recommended best practice is to deliver these files via native services using the MashUp tool or a 3rd-party media tool via a Building Block or media server.

# **Summary of recommendations:**

- Only deploy small media files (<50MB) in courses with 50 or less enrollments
- SaaS and Managed Hosting Customers will receive notifications of large media files deployed in large courses
- Utilize the mashup tool or 3<sup>rd</sup>-party media tool/building block to deploy large files
- Blackboard is working on product and infrastructure changes to ensure a better user experience when media files are delivered in large courses directly from Learn.
- Establish a plan to archive and delete older/unused courses from the system.

### **Self-Hosted Deployments of Blackboard Learn**

An institution that utilizes Blackboard Learn on-premise at their institution controls the entire deployment from the foundational storage to the firewall endpoint. In this deployment, storage and bandwidth may not be a concern as resources can be allocated to Learn based upon the institution's own deployment policy.

As a general guideline Blackboard recommends that media files larger than 50MB are not deployed in courses with more than 50 enrollments. To utilize larger media files (even within larger courses) it is recommended to use the Learn MashUp tool or a 3<sup>rd</sup>-party media tool via a Building Block or media server.

### Managed Hosting Deployments of Blackboard Learn

An institution that utilizes Blackboard Learn within a Blackboard data center has the ability to scale resources to accommodate media files without needing immediate approval or other obligations. However, institutions are contracted to specific system configuration, bandwidth, and storage tiers that should be considered when managing the Learn deployment. Costs associated with upscaling are addressed during the yearly client review or renewal process by the institution's Account Team.

As a general guideline Blackboard recommends that media files larger than 50MB are not deployed in courses with more than 50 enrollments. To utilize larger media files (even within larger courses) it is recommended to use the Learn MashUp tool or a 3<sup>rd</sup>-party media tool via a Building Block or media server.

Blackboard Client Support will notify institutions at the beginning of each week when media files that are 50MB+ in size are deployed within a course of 50 enrollments or larger. When receiving this notification, it is recommended that an instructor redeploys the content utilizing the MashUp tool or a 3<sup>rd</sup>-party media tool via a Building Block or media server. Institutions can also request that Blackboard provide a more detailed report of media file deployment within courses by opening a case with Client Support.

Finally, it is recommended that institutions have a policy in place to archive older unused courses and store these archive files (.zip) in a different location from the Learn deployment. Blackboard Client Support can assist in this activity up to 4 times a year and provide course archives via an encrypted hard drive, downloadable from an AWS S3 bucket, or upload the files to a secure (required) storage location preferred by the institution.

### SaaS Deployments of Blackboard Learn

This section applies only to Learn SaaS prior to 3400.11.0

Institutions that utilizes Blackboard Learn within cloud resources (AWS) maintained by Blackboard have the ability to automatically scale resources to accommodate media files without needing immediate approval or other obligations. However, institutions are contracted to specific system configuration, bandwidth, and storage tiers that should be considered when managing the Learn deployment. Additionally, cloud resources (while dedicated and also elastic) can face issues upscaling at the speed of the required need during certain peak utilization times.

Blackboard Client Support will inform institutions on request about media files that are 50MB+ in size which are deployed within a course of 50 enrollments or larger. When receiving this report, it is recommended that an instructor redeploys the content utilizing the MashUp tool or a 3<sup>rd</sup>-party media tool via a Building Block or media server.

Finally, it is recommended that institutions have a policy in place to archive older unused courses and store these archive (.zip) files in a different location from the Learn deployment. Blackboard Client Support can assist in this activity up to 4 times per calendar year and provide course archives via an encrypted hard drive, downloadable from a Blackboard provisioned AWS S3 bucket, or upload the files to a secure storage location preferred by the institution.

### **Supporting Documentation**

- Best Practice: Reduce Your Course Size
- Best Practice: Limit Course Size
- Archive Courses
- Size Content Storage

