

# SCORM White Paper call

## Abstract

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Acts as: Software Engineer for Dokeos SPRL, company acting as principal developer of the Dokeos open-source e-learning software.

This document is written as a broad recommendation, with deep knowledge of SCORM 1.2 but very uneven knowledge of SCORM 1.3/2004.

## Problem definition

Content producers and platform developers don't find a common and unique solution to the Cross-Domain JavaScript/ECMAScript problem.

When users use the remote content, they trigger JS events which then trigger SCORM events that call the LMS SCORM API. When the remote JS tries to call the local LMS API, the browser prevents the content (located on another domain) to directly call a JS element provided by the LMS API, which blocks the process (hence the cross-domain naming)

This means that platform developers have to effectively develop about 4 different solutions to make sure all remote contents can be played on their platform, some of them effectively creating dangerous security holes.

## Use case

A content developer develops a remotely-executed content (remotely for the LMS) which relies on execution of JS/ECMAScript to react with the learner's input and trigger SCORM calls.

A user uses the remote content and triggers a JS event. The event then tries to trigger a call to the LMS SCORM/JS API, but the content JS being on another domain (=remote) than the LMS, the content is banned by the browser (for security reasons), hence preventing the execution of the SCORM call and defeating the reporting purpose of SCORM.

## Stakeholders

Content producers

LMS developers

## Proposed Solution

There is a set of suggestions proposed in the following document

[http://madeira.ls.fi.upm.es/o-e-learning/ficherosDocumentos/ADL\\_CrossDomainScripting.doc](http://madeira.ls.fi.upm.es/o-e-learning/ficherosDocumentos/ADL_CrossDomainScripting.doc)

The second proposal seems to be both the most secure and most practical in the case of Dokeos.

Only one solution should be kept as an official SCORM recommendation to make SCORM 2.0 a stronger standard with fewer doubts over the method.

## Integration and other technical issues

These issues are developed in the document referenced in the previous section.

## **Existing implementations/prototypes**

See referenced document

## **Summary and recommendations**

Provide one and only one official recommendation of solution to the cross-domain execution of JavaScript between content and LMS, provided as part of the main SCORM 2.0 standard definition.