CBT PACKAGE EXCHANGE NOTIFICATION

AICC CMI SUBCOMMITTEE

SCOPE

This document recommends guidelines that promote a means of simplifying the transfer of content packages between systems. The guidelines support a notification service to announce the location of content package(s) that are available for transport. The intent is to automate the notification, transfer and delivery confirmation of content packages between tools or systems that generate content and systems that manage, publish or deliver content. The scope of the guidelines are constrained to the notification request, package transfer and related responses. Specifically outside the scope of the guidelines are mechanisms for physical deployment of content packages, content management, version control, publication or revocation of content.

RECOMMENDATIONS

For web-based courseware, the AICC recommends a(n):

- Authoring tool or system or content publishing system that is able to prepare AICC-compatible content packages.
- Content repository, content management, or CMI system that is able to import AICC-compatible content packages.
- Authoring tool or system, or content publishing system that generates AICC-compatible messages to notify other systems of the availability of content packages.
- Content repository, content management, or CMI system that is able to accept, acknowledge and act upon AICC-compatible messages indicating the availability of a content package

AICC-compatible data elements, data types, vocabularies, protocol rules, and bindings are defined in the documents identified below

RATIONALE

In the past, content authors or publishers needed to perform many independent manual steps to package, stage, transfer and import AICC-compatible content packages into a system. If the customer wanted to take automate this process, he had few choices:

- Design his own CMI system with his authoring system tools
- Purchase a CMI system from the same vendor who supplied the authoring system
- Create a customized integration between specific versions of specific commercial products
- Accept the tedious manual process with multiple steps

In any case, the resulting system works only for the specified products and limits the ability to use other products and easily transfer AICC-compatible packages. These guidelines allow systems to automate processes in a consistent manner so that users can more easily transfer content packages, thereby reducing the complexity and time required to make content available.

REFERENCE DOCUMENTS

The AICC Package Exchange Notification Services functional specifications and requirements are described in a single document, *Guidelines for Package Exchange Notification Services* (AICC document CMI-010, approximately 35 pages).

The latest version of this document can be found at www.aicc.org.

OVERVIEW OF PACKAGE EXCHANGE NOTIFICATION SERVICES

Synopsis of the package exchange notification services (PENS) model:

- A notification is sent from a content source (such as authoring tool, CMS, or LCMS) to a Target System (central deployment or repository system such as a CMS, LCMS or LMS).
- The notification announces the availability and location of a content package that is available for transport.
- The notification represents the first step in initiating the Target System workflow to transfer and import a content package.
- The system receiving the notification validates the message and responds to indicate the absence or presence of errors relative to both the values of the message and the capability of the system.
- The system receiving the notification initiates transfer of the content package from the location indicated (i.e., it performs retrieval).
- The system receiving the notification issues a receipt indicating either successful retrieval of the package or the nature of the errors encountered during retrieval.

Additional optional alerts or messages from the receiving system may be issued by the receiving system to the alert address(es) provided, as additional processing continues through the receiving systems workflow.

Illustrative use case:

A use case for this specification is shown in Figure 1.

- Client (authoring system) creates and prepares a content package.
- Client sends a PENS message to Target System (e.g., an LMS), announcing the availability of the content package.
- Target System acknowledges PENS message.
- Target System collects and processes content package

Figure 1—Conceptual model diagram, Content System to Target System communication

Package Exchange Notification Services (PENS)
Use Case: Content System-to-Target System communication
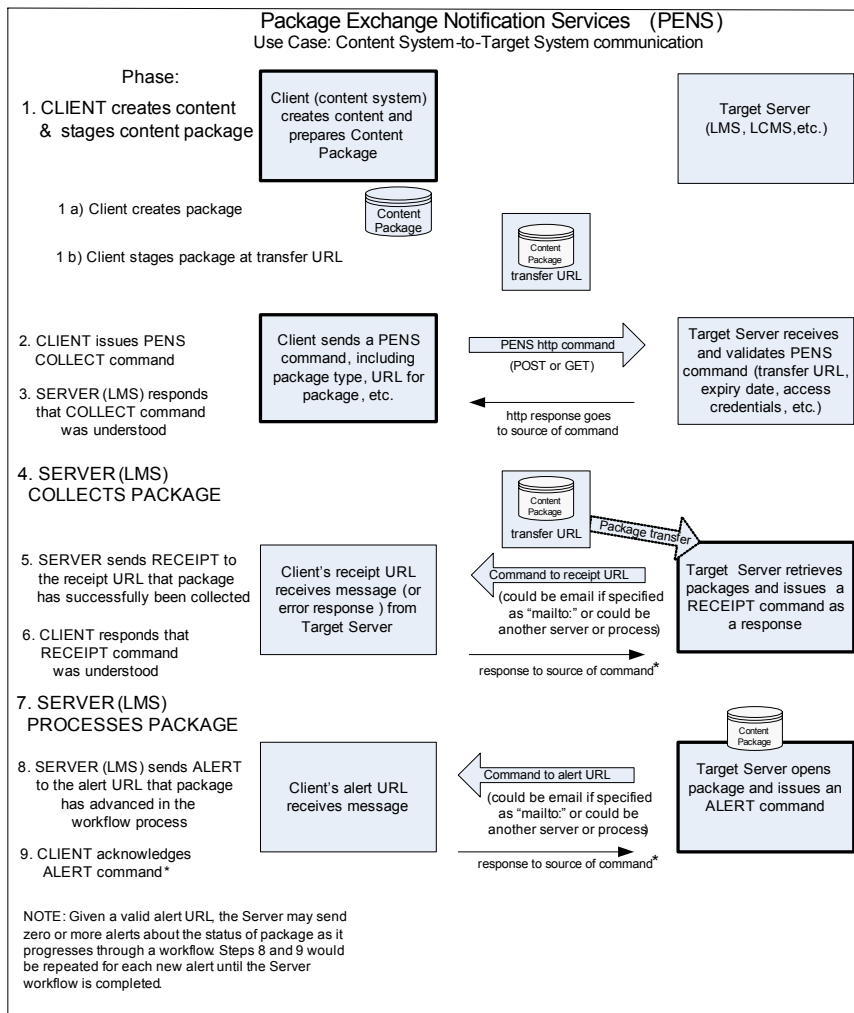
*When a message is sent from an HTTP or secure HTTP URL the system receiving that message shall generate an HTTP response back to the sender. Asynchronous URL protocols, such as "mailto:", shall not be required to acknowledge PENS messages with a response.