



ICODEON
Simple Sequencing Now.

Icodeon

Project Report

May 20 2005

Making Tracks Work Packages 2,3

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1. Making Tracks Work Package 2

Title: Installation and Testing of Toolkits

Objective: Will install and test the toolkits required to realise the demonstrator.

Task Number 2: Install ISIS Toolkit and QA against Carnegie Mellon test Suite

Due Date: 31 May 2005

Comment:

The Icodeon Sequencing Engine is built using test driven development and quality assurance (QA) is implemented using a suite of over 100 tests during each build of the engine. These tests check the internal sequencing algorithms of the sequencing engine implementation.

Following a successful build against the QA test suite, quality control (QC) is implemented using a growing suite of over publicly available tests. At this time point QC the test suite includes:

- ADL SCORM 2004 conformance tests.
- Carnegie Mellon LSAL sequencing templates
- CETIS Zapster Content Packages
- ADL Photoshop Examples

Suggested Action:

Icodeon to release test suite to the NRIC/ Making Tracks Team as soon as required.

Task Number 3: Install Demonstrator

Due Date: 30 June 2005

Comment:

Icodeon is building a SCORM 2004 run time environment to integrate with the ASSIS project architecture (see later under work package 3). Icodeon plans to have this ready for first deployment at NRIC w/c 20 June 2005.

Suggested Action:

Icodeon to deploy the SCORM 2004 run time environment to Icodeon servers ahead of 20 June for early visibility to the NRIC team.

2. Making Tracks Work Package 3

Title: Specifying and Developing Demonstrator

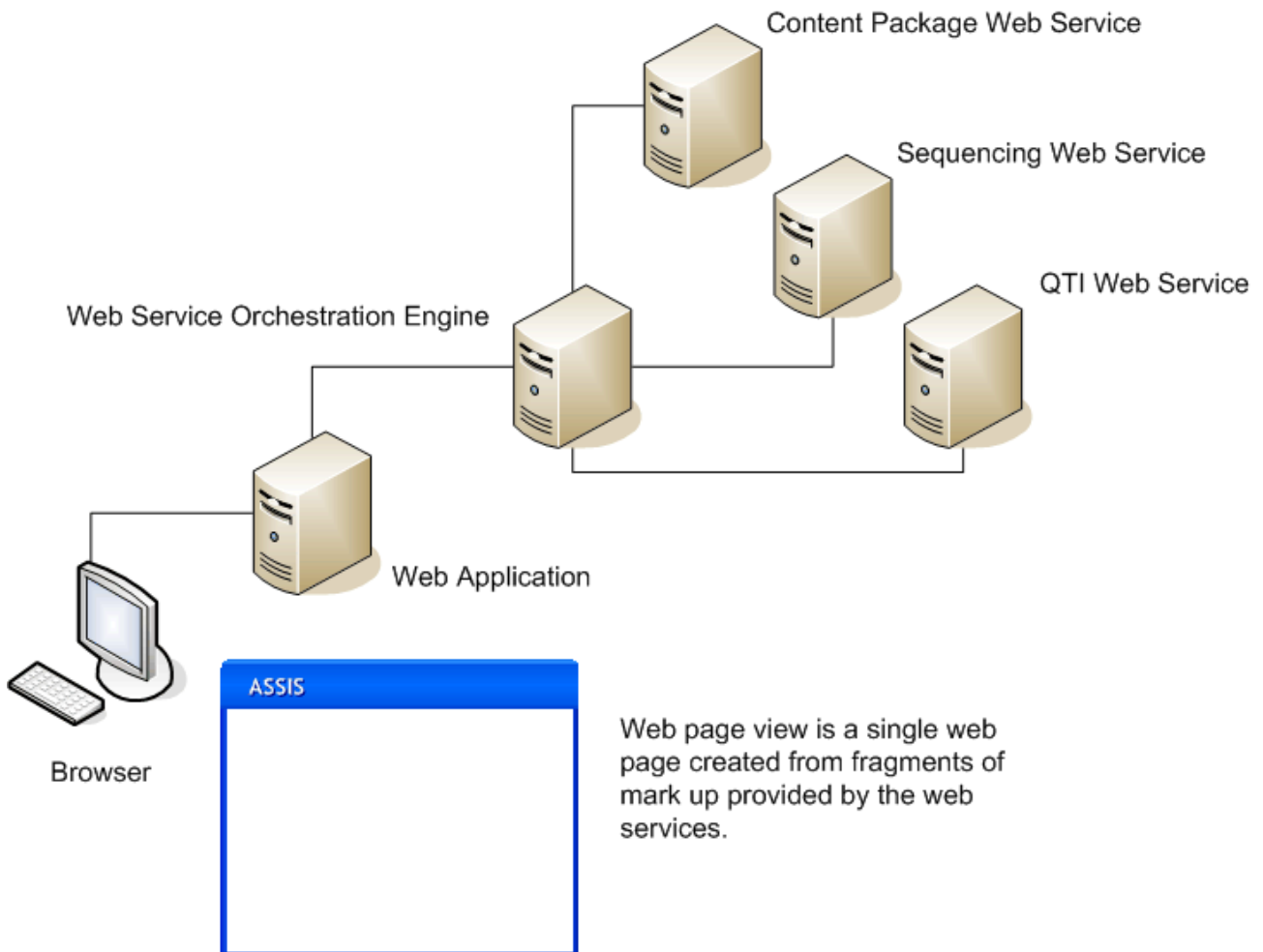
Objective: Will provide a specification and detailed examples for the use of the demonstrator.

Task Number 4: Produce Draft Specification

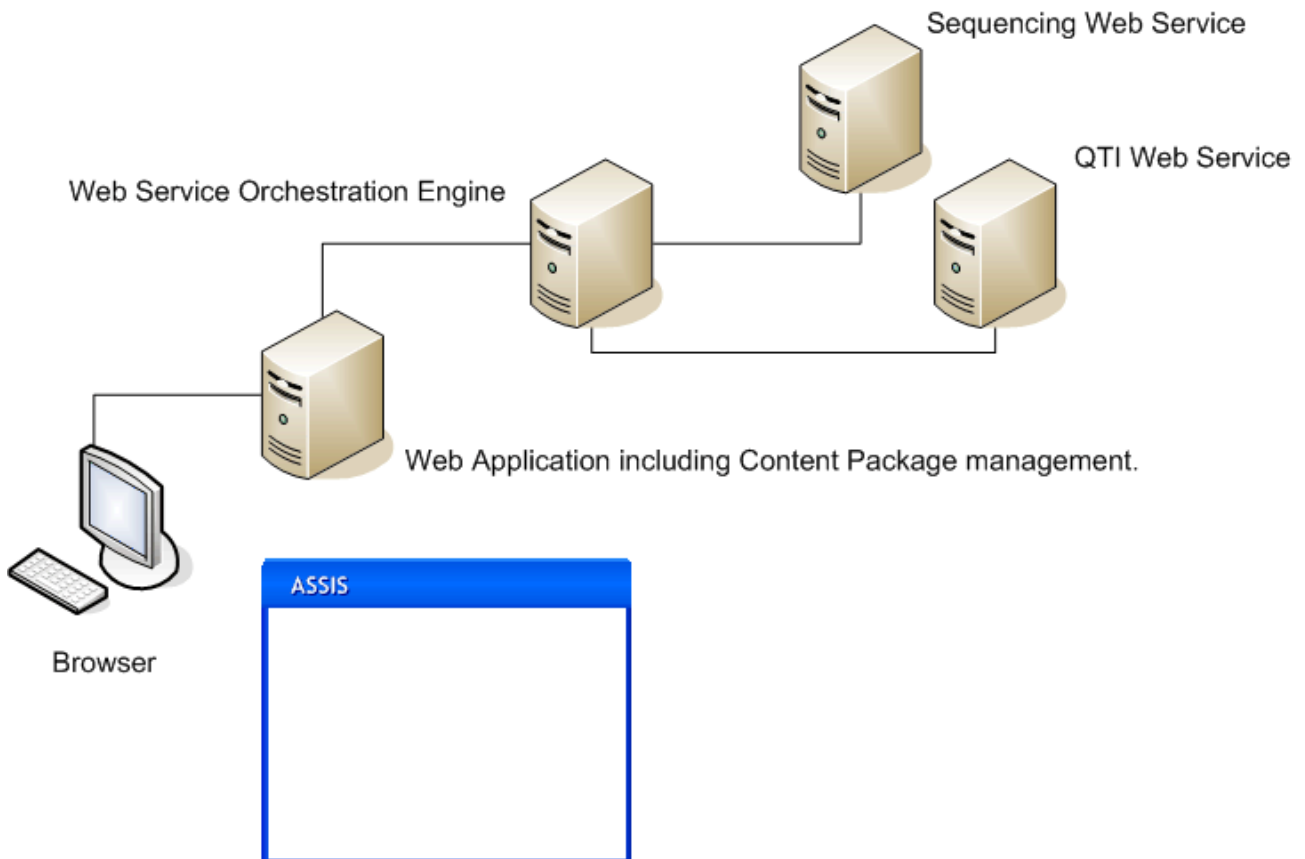
Due Date: 15 May 2005

Comment:

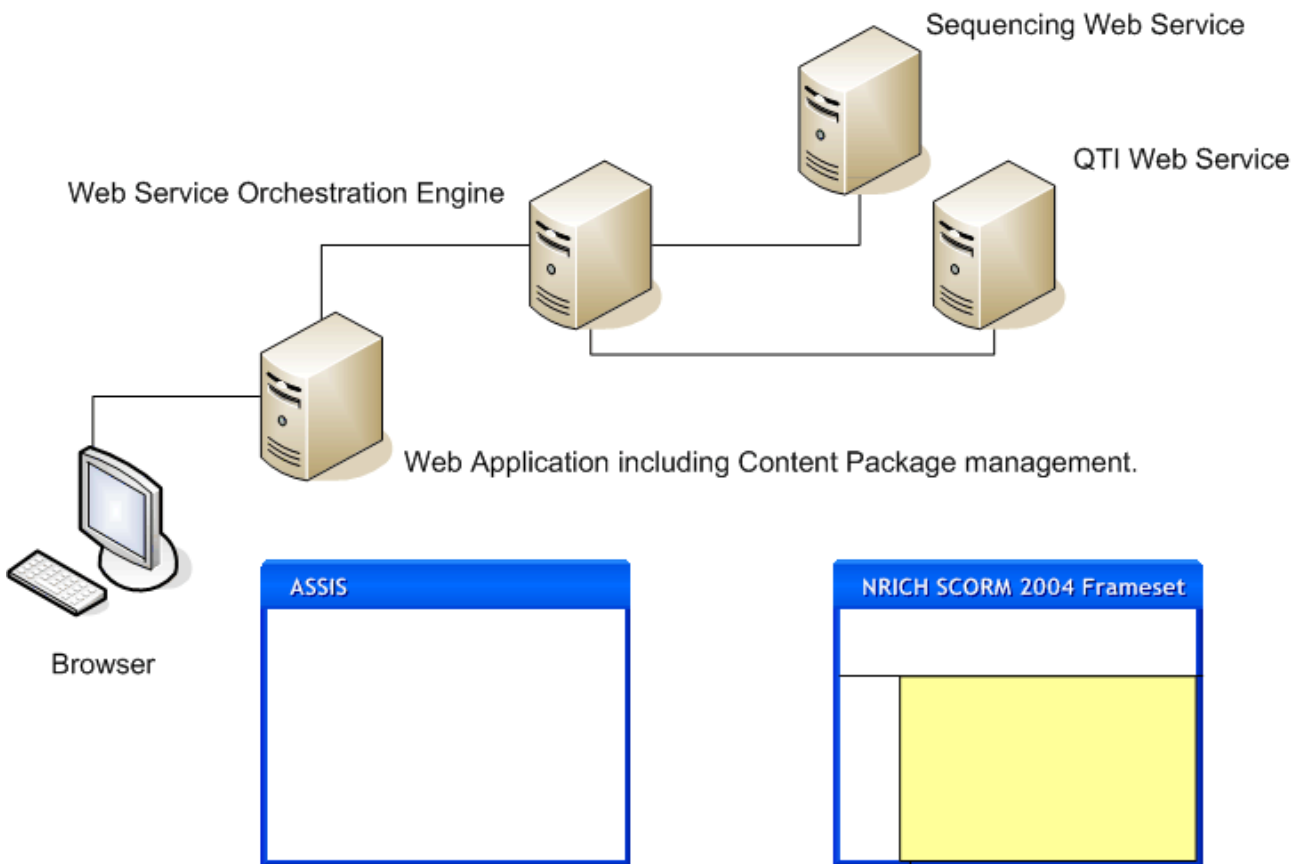
1. The current architecture for ASSIS involves three web services, a web service orchestration engine and a STRUTS based web application:



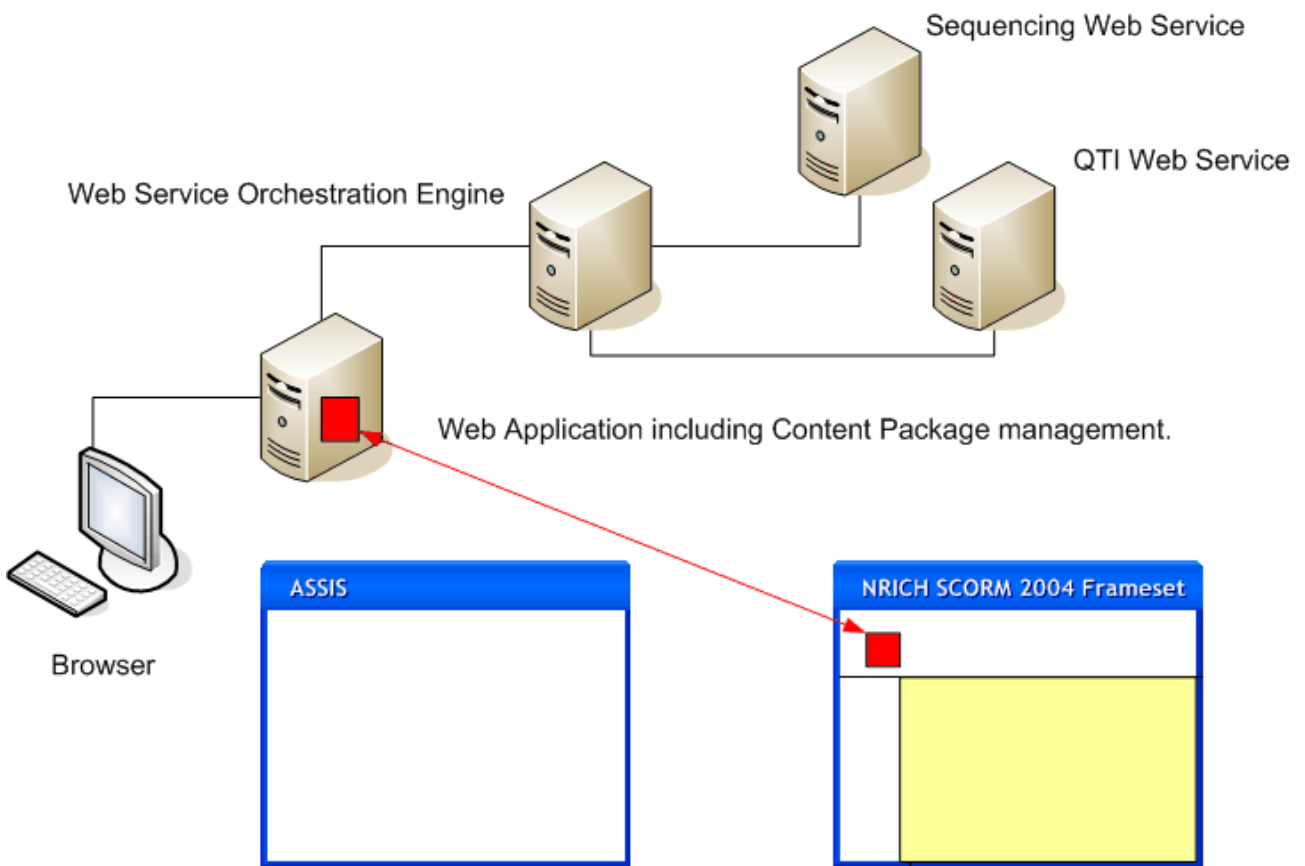
2. There is a well documented issue in SCORM implementations known as the “cross domain scripting issue”. The easiest way to resolve this issue is to ensure that the content package store is located on the same server as the SCORM 2004 web application. Refactoring the ASSIS architecture to support SCORM 2004 will move Content Package management from a discrete service to part of the web application:



- 3. In the ASSIS architecture at present, the web page view is a single page created from mark up fragments provided by the different web services. In SCORM 2004 this is not possible, as many content tools (e.g. InSite) produce content as nested framesets. Refactoring the ASSIS architecture to support SCORM 2004 will require a separate frameset view for SCORM 2004 packages:



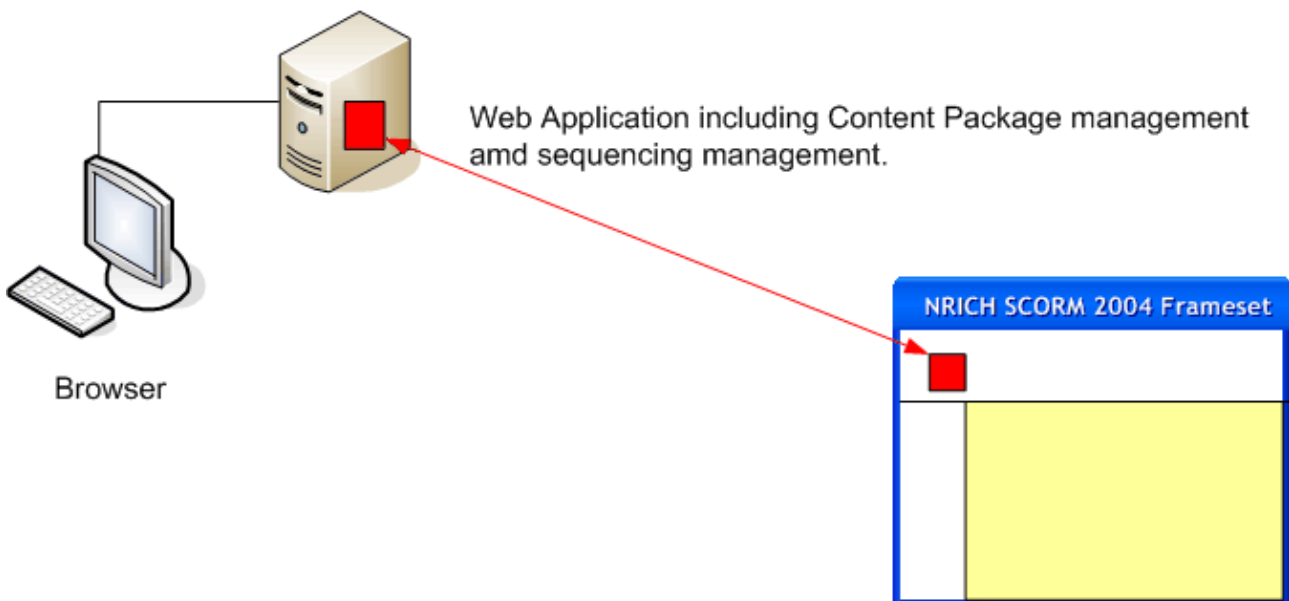
4. In the ASSIS architecture at present, communication between the browser and the web application server is over HTTP POST and GET. In SCORM 2004 this is complicated by the requirement for run time communication between the content and the web application. Typically this accomplished with a hidden Java Applet making socket connections to a separate servlet on the same server as the web application server. Serialized Java Objects are sent over this socket connection. This client feature is known as the **API Adapter**.



5. The above discussion outlines the key tasks for refactoring the ASSIS architecture to support SCORM 2004 for NRICH. Required are:

- Move Content Package management from a discrete web service to a component of the web application.
- Create a frameset view to be launched for SCORM 2004 packages. Non-SCORM 2004 packages can retain a single page view.
- Create an API Adapter for the frameset.
- Create a separate servlet to manage content run time communications.

To reduce the complexity of the architecture at an early stage of development, the management of sequencing may also be moved from a discrete web service to the web application, and the QTI service can be ignored for the moment as it is not relevant to SCORM 2004. This system is the suggested deliverable for demonstrator deployment testing by June 20th:



Once this architecture is deployed and tested, during the later part of the Making Tracks project, the sequencing management can be broken out as a discrete web service again.

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