



schools online curriculum content initiative

BASIC E-LEARNING TOOL SET

Deployment Strategy

VERSION: 1.0

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Commercial in Confidence

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1 Project Site

A website will be developed to support the Basic E-Learning Tool Set (BELTS). As BELTS is being developed as an open source project there will be a number of features of the site, including:

- Packaged releases of the BELTS system.
- A functional specification.
- CVS repository for up-to-date source code.
- Bug and feature tracking.

The website is expected to be delivered in mid January 2003.

2 System Hardware and Software Requirements

The following are the minimum hardware and software requirements for a BELTS installation.

2.1.1 Hardware Specification (minimum)

- 1 x Pentium 4 - 1.5 GHz (Or Greater)
- 1 GB Memory
- 18 GB Hard Drive Storage (Or Greater)

2.1.2 System Software Configuration

The BELTS software will be tested on the following platforms:

2.1.2.1 Platform 1

Operating System	Microsoft Windows 2000 Server.
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2.1.2.2 Platform 2

Operating System	Linux (Red Hat Distribution) v 8.0
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2.1.2.3 Other Software (Both Platforms)

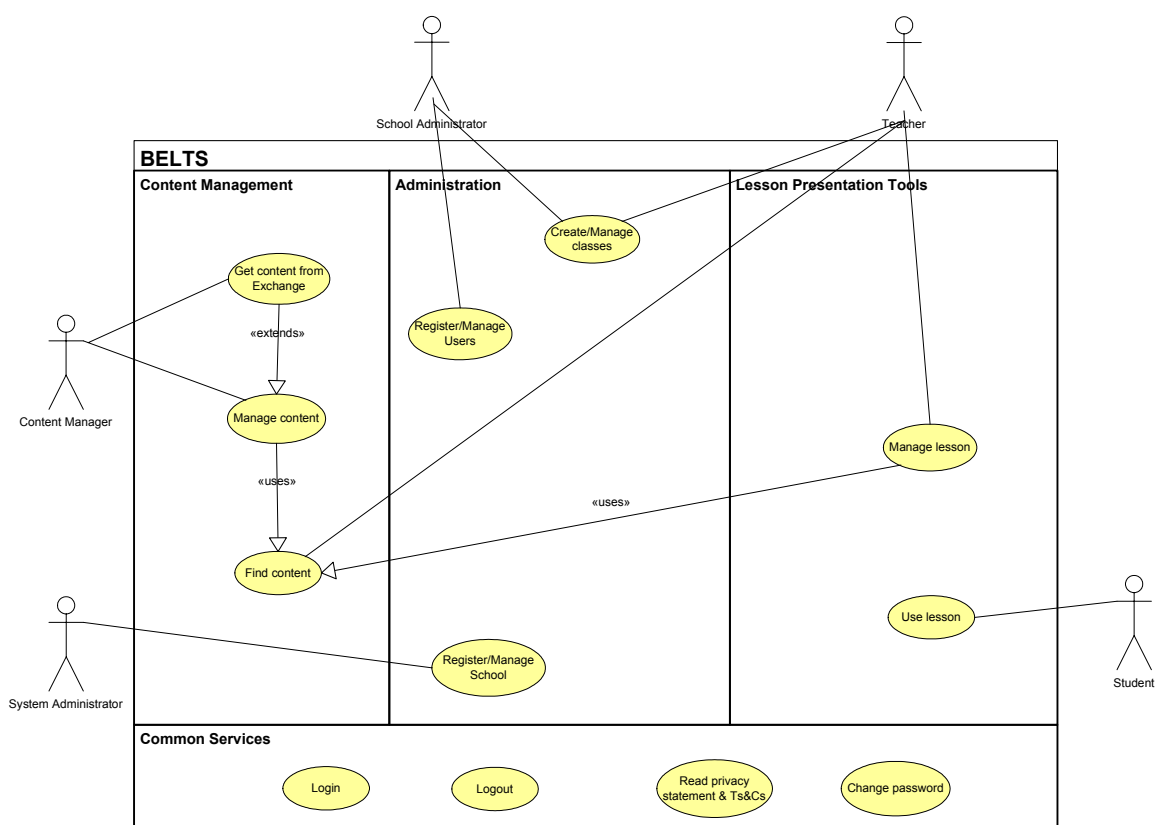
Database	PostgreSQL 7.2 Professional <i>(Other JDBC compliant db products can be used but have not been tested)</i>
Application Server / EJB Container	JBOSS 3.2
Java 2 Environment	JDK 1.4.1

2.2 Functional Description

This release of BELTS supports 4 primary functional modules (as outlined in the diagram below):

- content management;
- administration;
- lesson presentation tools; and
- common services.

A more detailed description of the functionality supported by each use case is provided below the diagram. According to UML methodology, the users that may perform the functionality are called Actors, and for each use case the Actors are identified.



Use Case	Functional Description
<i>Register/ Manage School</i>	<p>When a central BELTS repository is used directly by school users, the school needs to be registered in BELTS to enable users to be grouped and managed under the school identity. An Actor registers a school in BELTS by inputting a set of school details. The school may be subsequently edited or archived.</p> <p>The main Actor for this use case is the System Administrator.</p>
<i>Register/ Manage Users</i>	<p>An Actor registers users in BELTS and assigns the user predefined role(s) suitable for the level of functionality they need to access. The roles supported in BELTS are:</p> <ul style="list-style-type: none"> • system administrator • school administrator • content manager • teacher • student <p>Users may subsequently be edited or deactivated.</p> <p>The main Actor for this use case is the School Administrator. A teacher may also reset a student's password within this use case.</p>

Use Case	Functional Description
<i>Create/ Manage Classes</i>	<p>Classes are used as a way of organising lessons and assigning students that are in a class to a specific lesson. Note however that lessons may also be created outside classes (refer to use case Manage Lesson)</p> <p>An Actor creates a class in BELTS by entering a class name. Students and teachers may be assigned to the class.</p> <p>The main Actors for this use case are the School Administrator and Teacher.</p>
<i>Find Content</i>	<p>Any user who needs to do something with content in BELTS, such as adding it to a lesson or publishing it so that it is available to all teachers, needs the ability to find the content they require.</p> <p>BELTS will support :</p> <ul style="list-style-type: none"> • searching against a predefined set of metadata • browsing content via learning area and year level • presentation of content details including viewing the actual learning object and viewing the full metadata. <p>The main Actors for this use case are the Content Manager and Teacher.</p>
<i>Manage Lesson</i>	<p>Lessons are groups of learning objects, teachers' own content, URLs and related instructions written by the teacher. A class (or multiple classes) may be assigned to a lesson and/or the lesson may be made available to students via a lesson login (an id and password that enables direct access to the lesson from the login page). Lessons may be subsequently edited, deactivated or deleted.</p> <p>The main Actor for this use case is the Teacher.</p>
<i>Use Lesson</i>	<p>Students will be able to open a lesson assigned to a class in which he/she is a member or directly via a lesson login. The lesson contents and instructions will be presented to the student and navigated through item by item.</p> <p>The main Actor for this use case is the Student.</p>
<i>Get Content from Exchange</i>	<p>Content residing in the Exchange will be pulled into a BELTS repository using the SOAP interface defined in the LORAX specification.</p> <p>BELTS provides the ability for a user to specify their search criteria, view the results, view the full metadata and download learning objects from the Exchange.</p> <p>The main Actor for this use case is the Content Manager.</p>
<i>Manage Content</i>	<p>BELTS will enable the following content management functions:</p> <ul style="list-style-type: none"> • managing what content in the local repository is available to teachers. This will be via a publishing function; • removing unwanted content. <p>The main Actor for this use case is the Content Manager.</p>

Use Case	Functional Description
<i>Login</i>	<p>A user must be logged into BELTS to establish their credentials to use the functionality. There are two types of login supported:</p> <p>Individual login: a user types in a personal username and password and are able to perform the roles assigned to them. The user must be registered in BELTS to be provided with a login.</p> <p>Lesson login: the user types in a lesson id and password and is given direct access to the lesson to which they belong. The individual user does not need to be registered in BELTS to use a lesson login.</p> <p>This use case applies to all Actors.</p>
<i>Logout</i>	<p>Users will be able to logout of BELTS, thus ending their session.</p> <p>This use case applies to all Actors.</p>
<i>Change password</i>	<p>Each user with an individual username and password will be able to change their own password.</p> <p>This use case applies to all Actors.</p>
<i>Read Privacy Statement and Terms & Conditions</i>	<p>Personal information must be captured to create individual user accounts, and therefore, BELTS will provide a link to a privacy statement file.</p> <p>There will also be terms and conditions relating to how the system owners wish users to interact with the site and content.</p> <p>The installation owners must provide the privacy statement and terms and conditions files, as this information is specific to each BELTS deployment.</p> <p>This use case applies to all Actors.</p>

3 Installation Support

The Le@rning Federation will provide setup and configuration support of one BELTS system for each State and Territory education system and one for the New Zealand education system. Sectors will be supported by arrangement.

Two setup and configuration options are supported. Both options require that the Operating System and other software (outlined in the System Hardware and Software Requirements section above) are installed:

3.1.1 Option 1: Off-Site (Physical Shipment of Server)

This involves the physical shipment of the BELTS server to The Le@rning Federation where the BELTS application will be installed and the system configured. The server will then be shipped to the desired location.

3.1.2 Option 2: Remote Configuration from an Off-Site Location

This option involves opening a remote connection to the server so that a qualified technician can install BELTS from a remote location.

In the case of the Windows platform, the following extra software component must be installed on the server:

- Terminal Services

In the case of the Linux platform the software components required to achieve connectivity to the server will ordinarily be available as part of the Linux distribution installation. In this case the software component is:

- ssh

In both instances, permissions and network access would have to be negotiated between the parties.

There will be further installation instructions provided in the BELTS website to facilitate other installations to take place.

3.2 Preparing for Installation

The items below are guidelines for what must be addressed prior to installation. They only outline some application specific items and therefore do not comprise a complete listing of preparation activities.

1. If installation support is being sort from The Le@rning Federation: configure hardware and software components (as outlined in the System Hardware and Software Requirements section above) prior to forwarding the server to The Le@rning Federation or prior to establishing remote access facilities.
2. Terms and conditions and a privacy statement. Links will be provided in the BELTS system, but each installation owner must provide the files that will become associated with these links, as they are specific to a deployment. Further details will be provided on the format of these files.

Useful information for creating the privacy statement and terms and conditions:

- A username and password will need to be allocated to any user requiring individual login. This will include any person performing the system administrator, school administrator, content manager and teacher role. Students may or may not require individual logins.
- A lesson login and password will need to be allocated to any user requiring direct access to a lesson.
- When a user visits BELTS under the default configuration, BELTS will **not** log:
 - any system events (such as creating or deleting data) and associate them with the user id;
 - the server address of a logged in user;
 - the time and date of a user's visit;
 - pages and documents accessed; and
 - the type of browser used.This configuration may change in the future.
- 3. Email server: An email server is required to enable emailing passwords to new users created in BELTS. If an email server is not provided, then passwords will need to be distributed manually (outside BELTS).

3.3 Ongoing Support

The Le@rning Federation can recommend third party suppliers to provide ongoing support for the operation and maintenance of BELTS installations.

3.4 Ongoing Installation Collaboration

The Le@rning Federation requests that the ECC member nominate a person to be responsible for their BELTS installation and therefore be the primary point of contact for all installation-related collaboration. Ideally this person should be a network/systems/communications engineer with experience preparing and deploying systems built with the selected operating system and corresponding software outlined above.

The nominations should be forwarded to Simon Sinnott at The Le@rning Federation (simon.sinnott@thelearningfederation.edu.au) by 20th December 2002. They should include the name, role and contact details for the nominated person.