

# **There Has to be a Better Way!**

Selecting a Learning Management System  
for AnyCorp's Training Department

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# Table of Contents

<b>Executive Summary.....</b>	<b>3</b>
Background.....	3
Alternatives.....	3
Recommendation.....	3
<b>Part I: Background of the Project.....</b>	<b>4</b>
Project Rationale.....	4
Business Objective.....	4
Criteria and Constraints.....	4
<b>Part II: Alternatives.....</b>	<b>6</b>
Alternative 1: Online Learning and Training (OLAT).....	6
Alternative 2: Saba Learning Suite.....	11
Alternative 3: Inaction.....	14
<b>Part III: Recommendations.....</b>	<b>16</b>
Glossary.....	17
Tables.....	19
References.....	21
Appendix A: AnyCorp's Desktop Computer Specifications.....	22
Appendix B: IBM eServer p5 520 Express.....	23

## **Executive Summary**

### *Background:*

The AnyCorp Training Department is facing the tedious task of keeping track of records and wants to limit the number of staff members involved in the activity. A Learning Management System (LMS) would automatize this process and make the process more efficient.

### *Alternatives:*

Three alternate solutions are assessed:

- (1) Online Learning and Training (OLAT) is an open source system used by the public sector in Switzerland. Initial Cost - \$32,601.60
- (2) Saba is a learning management system that specializes in human capital management solutions and would also provide LCMS capabilities. Initial Cost - \$752,000.00
- (3) Inaction is another possibility. Initial Cost - \$288,000.00

### *Recommendation:*

This document concludes by recommending the OLAT system.

OLAT had all the features we need and is easily customizable for any feature we might need in the future. The return on investment of this alternative was highest (3599%) and it had the lowest risks.

## **Part I: Background of the Project**

### *Project Rationale:*

The AnyCorp Training Department is facing the tedious task of keeping track of records and wants to limit the number of staff members involved in the activity. This project aims to identify a Learning Management System (LMS) to purchase so that this process can be made more resource-efficient.

### *Business Objective:*

Completely revise the training records by a December 2005<sup>1</sup>; thus, eliminating the once-a-year record update by both Instructional Designers and Administrative staff, reducing time spent by Administrative staff looking up records by 60%, and supporting AnyCorp's drive to make business processes more efficient.

### *Criteria and Constraints:*

To fully solve the problems faced by the department, this system must keep track of the training courses available in the company catalog and must have the following features:

#### ***o Learning management<sup>2</sup>***

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<sup>1</sup> We have assumed that the selection process and installation will take some time, therefore we decided that this process should be complete by the end of the year.

<sup>2</sup> *Italicized* words are defined in the glossary.

***o Competency management***

***o Certification Management***

As a secondary requirement, the system could also possess ***Learning Content Management System (LCMS)*** capabilities such as the creation, storage, use, and reuse of learning content created by the training department. AnyCorp is considering e-learning as a viable option for future training and this would preempt having to choose a different system later on that may not interface with the LMS.

The system must support at least **1000 learners**, allow for both **French and English interfaces**, and adhere to **usability standards**. It must also be able to run on AnyCorp's **current desktop computers** (see *Appendix A*) using the company network. Servers and other hardware required to support the system will most likely need to be purchased or provided by the vendor – depending on the alternative chosen. The Technical Department representative on the Selection Committee will advise us of technical feasibility but we acknowledge that we will most likely need to acquire our own technical consultant to set up and maintain the system depending on the solution.

Budget considerations will be made by the Selection Committee as we have not yet been informed of any limitations.

## Part II: Alternatives

### **Alternative 1: Online Learning and Training (OLAT) System**

OLAT is a web-based *Open Source Licensed* LMS/LCMS used in the public sector of Switzerland. This application enables instructional to easily create and learners to easily access content and self-assessments independent of time and location. Many more features are included and will be discussed below. Commercial support is available through goodsolutions, a consultant group that helped develop OLAT. They provide fast and reliable service including installation, training, and customization such as added functionality.

<b>Components</b>	<b>Per Unit Cost</b>	<b># of Units</b>	<b>Cost</b>
OLAT System	\$0.00	1	\$0.00
Subsequent System Upgrades	\$0.00	...	\$0.00
IBM eServer p5 520 Express <sup>3</sup> w/ 2 Processors	\$8,500.80 (including taxes)	2	\$17,001.60
Installation and Set-Up Fee	\$1,800.00 <sup>4</sup>	1	\$1,800.00
Interface Customization Fee	\$1,800.00 <sup>4</sup>	1	\$1,800.00
Training Cost per Employee	\$300.00	8 staff	\$2,400.00
Monthly System Maintenance Fee (includes installation of upgrades)	\$200.00	12 months <sup>5</sup>	\$2,400.00
Advanced Customized Solutions	\$180.00 per hr	40 hours <sup>6</sup>	\$7,200.00
<b>Total Costs</b>			\$32,601.60
<b>Yearly Renewable Costs</b>			\$2,400.00 (+ training for new staff)

<sup>3</sup> See Appendix B.

<sup>4</sup> As quoted by goodsolutions.

<sup>5</sup> This cost requires the hiring of a local consultant.

<sup>6</sup> Assume two features added which will take ~20 hrs each to implement.

The OLAT system has many features that fulfill our initial criterion thus making it a viable alternative.

### **Functionality**

First of all, OLAT is capable of managing the department's catalog using hierarchical structuring of the resources. Also, it can contain an unlimited number of courses – although more storage space will be required.

As for learning management aspects, the system has advanced user/group management features. It allows for simple file record changes, user behavior, access statistics, and the association of groups to learning areas. Right based security allows for more flexibility than role based security in enrolling students into different courses. Updated information is periodically delivered to administrative staff, trainers, and trainees up to date.

There are no certification management features in OLAT, however, we have reserved part of the budget for the development of such features by goodsolutions.

As for LCMS features, OLAT has an integrated WYSIWYG content editor, assessment editor, course preview, and publishing and access management for learning content via the learning resource repository module.

## **User Experience**

The system is able to support self-organized learning by giving users access to personalized task management. Collaborative work is can be easily implemented via so-called "buddy group" where everybody can create his/her own group and work together with his peers. These groups are further facilitated with integrated instant messaging and online awareness tools. They can also be informed about changes in any of their OLAT environments (like forums and folder contents) using a notification system.

## **Technical Features**

OLAT can support an unlimited number of user accounts as long as the infrastructure is sufficient. Also, the system allows for both French and English interfaces among others.

Java, Tomcat, and MySQL are used to support the system.

Because they are commonly known installations, finding a consultant to install and maintain will be very simple.

goodsolutions predicted 2 weeks to implement the system and train employees once the interface customization and advanced feature customization were completed.

Also, the system is standards based using the following IMS specifications:

- o Content Packaging content form learning repository
- o QTI test, self-test, and questionnaire
- o IMS Learning Design

This makes export easy if the company ever decides to switch systems or share (sell) courses in the future.

### **Security Considerations**

Studies about security in open-source software versus closed-source software (Dellio, 2004; Kerner, 2005) show that closed-source software have fewer advisories but open-source software usually has less time between flaw discovery and a patch or fix. Advocates of closed source argue that since no one is responsible for open-source software, there is no way to know whether it has been fixed. Open-source advocates argue that since the source code of closed-source software is not available, there is no way to know what bugs may exist.

### **Project Returns**

The returns for this alternative will be containing costs. We discussed, in the business objective, that (1) we would eliminate the once-a-year record update (which we assume happens during the summer months

because of learner holidays) since the system allows such features as automatic notification of deadlines.

This alone would transfer \$161,000.00 of the five Instructional Designer's time back into training. This would also transfer \$37,800.00 of the Administrative staff's time back into learner management.

Also, (2) Instructional Designers could now offer summer training programs which would bring in \$90,000.00 in revenue to the department.

We also believe that the system will (3) reduce time spent by Administrative staff on learner management tasks by 60%. Therefore 40% or \$133,056.00<sup>7</sup> of their time can be spent on other tasks such as managing more learners.

Since the Administrative staff has to input all of the records into the system anew, and we expect this task to take until the end of the year, we will not see returns until the 2006 cycle. Therefore we expect the returns for this alternative to be \$1,687,424.00<sup>8</sup>.

The risk factor for this alternative is very low, however we may not achieve our deadline of December 2005. Even so, if we go over time by up to 6 months our returns would be reduced to \$1,649,624.00. Therefore the risk factor is 90%.

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<sup>7</sup> 264 working days (or one year) x 7 hrs/day x 60\$/hr = \$110,880.00, \$110,880.00 x .60 = \$66,528.00, \$66,528.00 x 2 = \$133,056.00

<sup>8</sup> (\$161,000.00 + \$37,800.00 + \$90,000.00 + \$133,056.00) x 4 years = \$1,687,424.00

The Return On Investment (ROI) for this alternative is 3599%<sup>9</sup>.

### **Alternative 2: Saba Learning Suite**

Saba provides human capital management solutions in a scalable, open, multi-lingual system. It allows clients to define competencies and business objectives across entire enterprises and align individuals and teams to meet these requirements.

<b>Components</b>	<b>Per Unit Cost</b>	<b># of Units</b>	<b>Cost</b>
Saba System	\$400,000.00	1	\$400,000.00
Initial Installation, Customization, Configuration, Consulting, & Integration	\$100,000.00	1	\$100,000.00
System Maintenance, Upgrades, and Employee Training	\$250.00	1008 <sup>10</sup>	\$252,000.00
<b>Total Costs</b>			\$752,000.00
<b>Yearly Renewable Costs</b>			\$252,000.00

### **Functionality**

Saba is capable of managing the department's catalog using hierarchical structuring of the resources. Also, it can contain an unlimited number of courses – although more storage space will be required.

As for learning management aspects, the system allows for simple file record changes, user behavior, access statistics, and the association of groups to learning areas. Its unique application

<sup>9</sup>  $\$1,518,681.60 / \$42,201.60 = 3599\%$

<sup>10</sup> Per seat charge - 1000 learners + 8 staff members = 1008.

partitioning capabilities allows people to deploy multiple learning portals for different user populations or business purposes in a single system.

Saba Certification Management supports complex certification schemes within an integrated, accountability-based human capital management solution. Extensive configuration options allow organizations to develop the certification program they need, without customization.

### **User Experience**

Saba enables personalization at both the administrator and learner levels. Administrators can design portal pages, personalize learning catalogs and change business processes for different learner audiences; individual learners can personalize their own learning portals by adding and deleting portlets through a point-and-click interface. Managers also have personalized views of critical information, including a dashboard-level view of their teams' skills.

With Saba, people can also automatically prescribe and track a set of learning activities for an individual or a large set of people based on their roles, jobs, hire date, or other attributes. This saves time in searching the catalog.

Saba designed to help organization capture, consolidate,

organize, manage, and reuse critical learning content developed and stored in the many silos across organization. With this system, organizations can capture and consolidate content assets into a meta-repository, automate processes for managing the content lifecycle, reuse content by disassembling and reassembling into multiple course packages, and disseminate content for consumption by end-users.

### **Implementation**

Saba will take at least six months to be fully installed within the organization. Saba not only provides LCMS but also provides solutions that integrates the organization's Human Capital Management system with its LCMS.

### **Project Returns**

The returns for this alternative would be almost identical to those of the first alternative except that implementation time would take up to six months. This would make the returns \$1,687,424.00.

The risk factors would be that Saba goes out of business or implementation takes longer than expected. The former is mentioned because the software market is very volatile and such occurrence happen on an everyday basis. There is a risk of this and the consequences are that the project will be scrapped. As for

implementation going over time, this would reduce the returns to \$1,398,624. Therefore the risk factor is 75%.

The ROI for this alternative is 72%<sup>11</sup>.

### **Alternative 3: Inaction**

This alternative allows us to analyze the costs of inaction considering the AnyCorp Training Department's situation.

<b>Components</b>	<b>Per Unit Cost</b>	<b># of Units</b>	<b>Cost</b>
Time Unnecessarily Spent by Instructional Designers on Administrative Tasks	\$32,200.00 <sup>12</sup>	5	\$161,000.00
Time Unnecessarily Spent by Administrative Staff on putting the records up to date when this could be automatized	\$18,900.00 <sup>13</sup>	2	\$37,800.00
Lost Revenue from Training Programs	\$18,000.00 <sup>14</sup>	5	\$90,000.00
<b>Total Costs</b>			\$288,800.00
<b>Yearly Renewable Costs</b>			\$288,800.00

In this alternative, none of the criterion is fulfilled and everything stays *status quo*. Instructional Designers become frustrated because such administrative tasks are not a part of their job description and quit their jobs. The department falls behind on their training schedule.

<sup>11</sup>  $\$1,265,568.00 / \$1,760,000.00 = 72\%$

<sup>13</sup>  $45 \text{ work days (or two months)} \times 7 \text{ hrs/day} \times 60\$/\text{hr} = \$18,900$

<sup>12</sup>  $45 \text{ work days (or two months)} \times 7 \text{ hrs/day} \times 100\$/\text{hr} = \$32,200$

<sup>14</sup> Assume that during the summer, Instructional Designers could have offered two courses each, with 15 students per course, and a \$600 registration fee per student.

Errors are made because information cannot be easily tracked and verified.

### **Project Returns**

There are no returns for this alternative, only costs; therefore, the ROI is 0%.

### **Part III: Recommendation**

The system we recommend is the OLAT system.

OLAT had all the features we need and is easily customizable for any feature we might need in the future. As an aside, while this report was being produced, we attempted to contact both companies directly. When we inquired about a specific feature in OLAT, we were told the program could easily be customized to do what we wanted it to do. Two days after the communication, we were informed that the feature had been implemented and it would be in the next release (due out soon). Also, the overall costs were *much* lower than that of other commercial systems therefore the ROI was higher. As well, the risks were very low with this alternative.

The Saba system involved more risk and had some fancy features that our company has not asked for. The price of the system was not justified. Also, the system was recommended to us only if we had more than 10,000 users.

## **Glossary:**

### **Open Source License**

“An open-source license is a copyright license for computer software that makes the source code available under terms that allow for modification and redistribution without having to pay the original author. Such licenses may have additional restrictions such as a requirement to preserve the name of the authors and the copyright statement within the code.” (Wikipedia, n.d. a)

### **Learning Management System (LMS) vs.**

### **Learning Content Management System (LCMS)**

“A Learning Management System... enables the management and delivery of learning content and resources to students ... [and] usually allows for student registration, the delivery and tracking of e-learning courses and content, and testing, and may also allow for the management of instructor-led training classes. In the most comprehensive of LMSs, one may find tools such as competency management, skills-gap analysis, succession planning, certifications, virtual live classes, and resource allocation (venues, rooms, textbooks, instructors, etc.). Most systems allow for learner self-service, facilitating self-enrollment and access to courses. Some LMS vendors

do not distinguish between LMS and LCMS, preferring to refer to both under the term LMS but there is a difference. The LCMS, which stands for Learning Content Management System, facilitates organization of content from authoring tools and presentation of this content to students via the LMS.” (Wikipedia, n.d. b)

### **Competency Management**

The ability to keep track of competencies a worker has develop over his/her time at the company and through the participation in training.

### **Certification Management**

The ability to keep track of who has what certification and when they need to update their skills.

## Tables

### Alternative 1: Online Learning and Training (OLAT) System

Components	Per Unit Cost	# of Units	Cost
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### Alternative 2: Saba Learning Suite

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<sup>15</sup> See Appendix B.

<sup>16</sup> As quoted by goodsolutions.

<sup>17</sup> This cost requires the hiring of a local consultant.

<sup>18</sup> Assume two features added which will take ~20 hrs each to implement.

<sup>19</sup> Per seat charge - 1000 learners + 8 staff members = 1008.

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Lost Revenue from Training Programs	\$18,000.00 <sup>22</sup>	5	\$90,000.00
<b>Total Costs</b>			\$288,800.00
<b>Yearly Renewable Costs</b>			\$288,800.00

### Project Returns

Alternative	Return	Initial Investment	ROI	Risk Factor	Adjusted ROI
<b>OLAT</b>	\$1,687,424.00	\$32,601.60	5176%	90%	3599%
<b>Saba</b>	\$1,687,424.00	\$752,000.00	224%	75%	72%
<b>Inaction</b>	\$0.00	\$0.00	0%	0%	0%

<sup>20</sup> 45 work days (or two months) x 7 hrs/day x 100\$/hr = \$32,200

<sup>21</sup> 45 work days (or two months) x 7 hrs/day x 60\$/hr = \$18,900

<sup>22</sup> Assume that during the summer, Instructional Designers could have offered two courses each, with 15 students per course, and a \$600 registration fee per student.

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## **Appendix A: AnyCorp's Desktop Computer Specifications**

AP07-CELERON

Processor: Intel Celeron D 320 2.4GHz  
Memory: 512MB PC3200 DDR Samsung  
Mainboard: ASRock P4i45GV S478 533FSB USB 2.0  
Optical Drive: BenQ 52x32x52x CD-RW  
Hard Drive: Hitachi 80GB 2MB 7200RPM  
Floppy Drive: Samsung 1.44 Internal  
Video: Integrated 4x AGP Video  
Audio: Integrated Sound  
Network: Integrated 10/100  
Chassis: 17" ATX Case w/ Front USB  
Power: CSA Approved P4 300 Watt  
Keyboard: Windows 107 Keys PS2 Keyboard  
Mouse: 2 Button Wheel Mouse  
Speakers: 2 Satellite Multimedia Speakers

## **Appendix B: IBM eServer p5 520 Express**

### Hardware Summary

- Deskside or 4U 19" rack-mount packaging
- Two 64-bit 1.50GHz POWER5 processors
- 36MB L3 cache
- 32GB of 266MHz DDR1 SDRAM
- Six 3.3v PCI-X adapter slots (4 – 64-bit/133MHz)
- Four standard and four optional hot-swappable SCSI disk bays
- Dual channel Ultra320 SCSI controllers
- Two Ethernet 10/100/1000 ports
- 2 Gigabit Fibre Channel and 10 Gigabit Ethernet adapters
- Two USB, two HMC, two service processor communication ports
- Two slimline and one standard media bays