



Tender Documents

31/08/2015

Procuring organization

Kungliga Tekniska Högskolan

Marina Busk







Procurement

Procurement of Learning Management System (LMS)

V-2015-0068

Tender closing date: 12/10/2015

Legend:

	The text/question contains requirements to be met		The text will be part of the contract
	The text is included in the qualification		The text contains confidential information
	The question is weighted and is part of the part of the procurement		The question is answered by the buyer



1. Invitation to tender for the procurement of LMS

1.1 KTH operations and organisation

KTH Royal Institute of Technology accounts for one third of Sweden's capacity for technical research and the education of engineers at the university level. KTH was founded in 1827 and is the largest of Sweden's universities of technology. Since 1917, KTH has been located at Norra Djurgården in central Stockholm. At present, KTH has additional campus-sites in Kista, Solna, Haninge, Flemingsberg and Södertälje. In total, nearly 12 500 full-time undergraduate and graduate students and more than 1800 doctoral students study at KTH, which has close to 5 100 employees.

The education and research are of a high international standard and cover a broad area - from natural sciences to every branch of technology and also comprises architecture, industrial economics, urban planning, occupational sciences and environmental engineering. KTH comprises 10 schools and the university administration. Each school is headed by a dean. KTH has a decentralised organisation, which means delegated responsibility to the deans.

Besides the research conducted at the schools, there are some ten national competence centres located at KTH. The various research foundations also finance a number of research programmes/graduate schools. KTH has programmes leading to architectural degrees, engineering degrees at the master's and bachelor's level, Master of Science degrees and the degrees of licentiate of engineering, licentiate of philosophy, doctor of philosophy and doctor of engineering. Extensive continuing education is also offered here. More information on KTH's operations and organisation is available on the KTH website: www.kth.se.

1.2 Definitions

These Tender Documents contain the following definitions:

Must-requirements - constitute the minimum level of requirements that the Tenderers or tenders must fulfil. The contract documentation and attachments include a number of mandatory requirements indicated with the verb "must". The condition for a tender to be eligible for consideration, evaluation and acceptance is that these mandatory requirements are satisfied. All must-requirements are marked with a symbol presented in **Legend** as "The text/question contains requirements to be met".

Shall-requirements - means commercial requirements or terms and conditions in the Agreement concept that Tenderer must fulfil.

Should-requirements - do not need to be fulfilled, but are important as they can be crucial in the selection of tenders and form the basis of e.g. the evaluation of tenders according to the requirement specification/assignment description.

Indicate, specify, describe - these details constitute information that is necessary for us and must be provided.

LMS - the offered Learning Management System

System is defined as the software and the hardware used to provide the service.

Web-based application is defined as a system with a web-based interface.

Service is defined as the functionality provided by the system and other resources.

1.3 Commercial confidentiality

1.3.1 Public access and secrecy in procurement matters

During the on-going procurement, procurement secrecy applies, so-called absolute secrecy, pursuant to Chapter 19 Section 3 Paragraph 2 of the Public Access to Information and Secrecy Act. This means that all documents in a procurement matter are secret during the on-going procurement (except the contract documents, which are publicly available in conjunction with them being sent out) until the award decision has been made public or all tenders have been made public or the procurement has been concluded in another manner.

After the award decision has been made, all documents in the procurement matter are made public and thereby available to anyone requesting them.

If you consider that certain information in your tender should be made confidential, in the tender, you must:

- request that the document(s) are to be made confidential
- specify which parts of the document(s) to be made confidential
- submit a justification for the way in which you would be damaged if the information were disclosed.

Wishes for confidentiality must have support in Chapter 31 Section 16 Paragraph 1 of the Public Access to Information and Secrecy Act. Prices in tenders are generally considered not to be subject to secrecy as they are commonly a part of the evaluation.

At the same time, it should be emphasized that it is the contracting authority that shall decide if information shall be made confidential under the Public Access to Information and Secrecy Act.

A secrecy assessment that takes place after an award decision has been made is done every time documents are released. Advance notice cannot be provided of whether information will be made confidential or not!

KTH can never guarantee that a document will be made confidential as KTH's decision can be appealed to become subject for review by a court. The court may accordingly decide that the document shall not be kept confidential.

Do you request commercial confidentiality for any part of your tender? (Yes/No answer)

Yes

No

If you answer "Yes" fill in appendix 1 "Commercial confidentiality" and attach it to the tender regarding which parts of the documents are to be made confidential and provide a justification of the manner in which you would suffer damage if the information is disclosed. If you do not do this, confidentiality cannot be provided. (Attached document)

1.4 Qualification of Tenderer

1.4.1 Introduction

The **must**-requirements are that the Tenderer must have adequate technical and professional capacity and requisite professional expertise in order to be able to carry out the requested assignment as desired. KTH will assess the Tenderer's ability to complete the assignment based on, among other factors, the Tenderer's technical and professional capacity and professional expertise based on that stipulated in Chapter 11 Sections 11 and 13 of the Public Procurement Act. The assessment of this is done through a collective assessment of the responses to the requirements submitted by the Tenderer and the responses to potential questions provided by references.

1.4.2 Legal standing

The Tenderer must be registered in the country in which the company is established according to the country's rules regarding the registration of limited companies or partnerships or similar registers.

*Is the Tenderer registered in the Swedish Trade Register?
Please answer YES or NO. Swedish tenderers must be: 1) registered for the payment of value added tax, if the operations are subject to VAT; 2) registered for corporate tax.
If the Tenderer is a non-Swedish tenderer, submit documentation that shows that it meets the requirement regarding business registration. Specify appendix numbers in the motivation field. (Free text answer)*

1.4.3 Financial capacity

The Tenderer must have a stable financial capacity. A Swedish tenderer must have a credit rating equivalent to a minimum of risk class 3 according to UC's risk classes (www.uc.se). A non-Swedish tenderer must submit evidence that shows that it meets the requirement regarding financial capacity.

As a non-Swedish tenderer attach to the tender evidence, for example, in form of balance sheets and income statements from the past three years and potential certificates from auditors and specify a number of appendixes in the motivation field. (Free text answer)

If a Swedish tenderer does not meet the requirement of risk class 3 according to UC's risk classes, but want to assure that it has the corresponding financial stability, evidence for example, in form of balance sheets and income statements from the past three years and potential certificates from auditors should be attached to the tender. Please specify a number of appendixes in the motivation field. (Free text answer)

1.4.4 Technical and professional capacity

The Tenderer must have requisite skill to be able to carry out the assignment. By this, we

Printed:

mean that the tenderer has supplied at least 10 (ten) customers of equivalent size (number of students) which use relevant LMS functionality of the past 3 (three) years which this procurement concerns and that the customer was satisfied. Technical and professional ability will be verified through information provided in the document "References".

1.4.5 Support organisation



The Tenderer must have access to an English- or Swedish-speaking support organisation, which answers questions by phone or e-mail.

Describe the support organisation in the motivation field. (Free text answer)

1.4.6 Quality assurance

The Tenderer must work with quality assurance. By the Tenderer having quality-assured production, the company ensures that the supplied product has the requisite quality and performance. The Tenderer must describe how work on quality assurance is done and show how deviations are managed.

Does Quality certificates exist, e.g. ISO900X? If there is a quality assurance system, name which one. (Free text answer)

Indicate how the company works with quality improvement/continuous improvement. Through e.g. Six Sigma, Kaizen, etc. (Free text answer)

1.4.7 Company information

The Tenderer shall provide the following information about the company:

Company name (Free text answer)

Presentation of the company (Free text answer)

Address (Free text answer)

Phone number (Free text answer)

Corporation ID no. (For US companies use EIN number) (Free text answer)

VAT no. (Free text answer)

Name and title of the person authorised to sign tenders (Free text answer)

Name and title of the person authorised to sign agreements (Free text answer)

Contact person for the procurement (Free text answer)

Phone number to contact person (Free text answer)

Mobile phone number to contact person (Free text answer)

E-mail to contact person (Free text answer)

1.5 Assessment of tenders and tenderers

1.5.1 Assessment (qualification) of the Tenderer

The assessment (qualification) of the Tenderer is done in part to ensure that the tenderers that are accepted have a financial/economic standing and technical capacity that mean that they have the possibility of carrying out the delivery during the given period of time. In addition, the Public Procurement Act (SFS2007:1091) stipulates that certain checks must be done of intended suppliers.

Qualification of Tenderers takes place through a check of the Tenderer's technical, professional and financial capacity. This check comprises four components, which are based on Chapters 10-11 in the Public Procurement Act.

1. Check of legal standing.

2. Check if disqualification grounds exist.
3. Check of financial capacity.
4. Check of technical and professional capacity and professional expertise.

1.5.2 Assessment of the tenders

Comment [ÄL1]: Usability

The tender that fulfils the mandatory requirements (must-requirements) in these contract documents and is the financially most advantageous considering the evaluation criteria will be accepted. "Financially most advantageous" means many factors will be evaluated. The evaluation model "Fixed price" will be used in the procurement.

Fixed price means that the price is set and Tenderers will not gain any advantage from offering a lower price. The following two award criteria will be used in the evaluation of the tender: Fulfilment of the evaluation requirements and Usability test.

This procurement will be evaluated in two stages; in Stage 1 KTH will evaluate the information provided in the tender. Competition is achieved by Tenderers including as much as possible for that sum i.e. to increase the chance of winning fulfilling as many evaluation requirement (should-requirements) as possible. The three (3) Tenderers with the highest score in Stage 1 will be invited to Stage 2 where offered systems will be tested of an evaluation group at KTH. How Usability will be evaluated is described in the appendix 1 "Stage 2: Evaluation of Usability.

The score from Stage 1 (maximum 525 points) and Stage 2 (maximum 525 points) will be combined into a total score and the tender with the highest total score will be awarded the contract.

If two or more tenders are tied for the highest score, the highest score in stage 2 will break the tie. Should there still be a tie it will be broken by a ballot, during which the same principles will be applied as during opening of tenders according to Act on public procurement (SFS 2007:1091), chapter 9, 7§.

1.6 Information to tenderers

1.6.1 Procurement procedure

This procurement is being conducted as an **open procurement procedure** under the Public Procurement Act. By law, it is not permitted to negotiate in an open procurement. The possibilities of supplementing and/or clarifying information in the tender are limited, which is also true prior to a potential contract signing. You are therefore encouraged to provide all information and any comments from the very beginning.

The procurement is concluded with a written Agreement being signed between KTH and the winning Tenderer.

1.6.2 Scope of the tender

Tenders must be submitted electronically through TendSign. How this is done is presented on TendSign's website. You can also get information on how it works from their customer service by phone at +46 771 – 440 200. Note that files larger than 50 mb cannot be uploaded to TendSign. Tenders by fax or e-mail are not accepted as we cannot ensure commercial confidentiality with this procedure.

The Tenderer shall accordingly enter the requested information in the Tender Documents. In order to be able to assess the tender evidence must be provided that shows that the requirements are fulfilled. Qualification and assessment of Tenderers and tenders will be done

based on the information provided no later than the final tender submission date. The Tenderer cannot expect to have the possibility of supplementing missing information and documents afterwards. Nor can the Tenderer expect KTH to request missing documents or information. It is the Tenderer's responsibility to ensure that the tender is complete.

Requested appendices and documents shall be submitted and named as follows: company name (abbreviation is approved)_type of document (appendix no./product catalogue/etc.). Also be sure to number the pages in the appendices.

There is no limitation as to how much information may be attached, keep the information as short and concise as possible and do not attach information or documents that are not requested (e.g. SKV 4820, Corporate tax certificate, credit report on the Tenderer). This is to facilitate the contracting authority's handling of received tenders.

1.6.3 Final tender submission date

The last date for submission of tenders in this procurement is 12/10/2015

1.6.4 Tender validity period

The tender must be valid up to and including date stated below. If the procurement is appealed, the tender's period of validity is extended until the agreement has been signed, although by four months at most, counted from the original final tender submission date.

Tender validity period is up to and including 05/02/2016

1.6.5 Communication during the procurement process

All relevant correspondence in this procurement procedure must be in Swedish or English. This also applies to evidence/documents from authorities, which shall be translated no later than when KTH so requests.

If the Tenderer considers the Tender Documents to be unclear or ambiguous in some respect or believes that set requirements are unreasonable, it is important that KTH be notified of this. We are happy to answer questions from the Tenderers due to the formulation and contents of the Tender Documents.

Questions regarding the procurement must be posed via the "question and answer function" in Visma TendSign. Answers are provided solely via this function in order to ensure that all Tenderers receive the same information at the same time. Any supplements/clarifications from KTH will also be sent out via this function. Answers to questions and supplemental information to the Invitation to tender and other documents in this procurement are binding for both KTH and the Tenderer only on condition that the information is provided via the "question and answer function".

Everyone who has registered for this procurement in Visma TendSign will receive a notice via e-mail that there is new information for this procurement. Those who have not registered for the procurement in TendSign may themselves monitor any questions and answers or supplements regarding the procurement.

It is therefore of great importance that you have continuous monitoring of the e-mail address you have provided in conjunction with registration since it is this e-mail address to which any information on the procurement will be sent.

Questions can be asked up to and including 02/10/2015

1.7 Signatures

Kungliga Tekniska högskolan

Madeleine Axberg
Head of procurement

Mats Herder
Dean of ECE-school

2. Requirement specification

2.1 Background

KTH has need of a unified LMS (Learning Management System) to serve as a common system for all teachers and students, and that it is well integrated with other systems at KTH, e.g. LADOK and KOPPS to import teachers, students and courses. Simplified one can say that an LMS is a meeting place for teachers and students during a course round.

KTH operates nearly 12,500 full-time students (FTE) at undergraduate and graduate level, over 1 800 active postgraduate students and over 5 100 employees. For this purpose, KTH will procure a new LMS (Learning Management System) as a cloud service, definitions may vary, but KTH want the supplier to be responsible for the production and further development; interface for KTH users are delivered over the Internet. Today, the most used LMS:es are "Bilda" (PING PONG from Ping Pong AB) and "Course web" (a part of the proprietary system called KTHSocial).

2.2 General description

Comment [ÅL2]: Usability

Budget for this procurement is limited and the system must meet the following impact objectives:

- The system must be perceived as an improvement in the functionality for the users. This means that the system should have at least 90% of the desired functionality as standard.
- The system is to be delivered as a cloud service to be fully integrated into the existing IT infrastructure already in place at the university.
- The system must be an open platform, under continuous development where KTH gets the benefits of all new updates, and where it is also possible for KTH to add extended functionality through API:s for third party components or components developed by the IT-department or by teachers at the university.

The system must be perceived as an improvement in the usability of the users.

The contract time is 3 (three) years with the option of prolongation for an additional 2 + 2 years.

2.3 Functionality requirements

2.3.1 System

2.3.1.1 Mandatory requirements

The system must support automated process for storage of old course rounds, i.e. a possibility to configure an automated workflow for archiving is necessary given the number of course rounds yearly. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements Yes
No

The system must support re-activation of archived course rounds for specific individuals. KTH must allow for students that have not passed a course can return to finish them at a later point. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements Yes

No

The system must make it possible to create course rounds that are stand alone, thus not having a course code in LADOK. This functionality is needed in order to facilitate other types of courses, seminars etc. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements

Yes

No

The system must support automated creation of course rounds based on LADOK-data. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements

Yes

No

2.3.1.2 Evaluation requirements

The system should comply with Learning Tools Interoperability (LTI).The system should have LTI-integration readiness to allow for integration of LTI-compatible tools on enterprise level and be well documented. It should also allow for teachers to integrate LTI-compatible tools themselves on course round level. Describe how these integrations are done, by whom and how long they normally take in the motivation field in less than 400 words. (Multiple choice answer)

9,52 %

LTI-integration allows for teachers to make their own LTI-integrations on course round level: 50 points

LTI-integration allows for the IT department to make integrations in 4 hours/tool or less: 25 points

LTI-integration allows for the IT department to make integrations in more than 4 hours/tool : 0 points

The system should be able to copy whole/parts of a previous course round, i.e. copied content within the course round should be fully functional also when copied (i.e. dynamic links, all preferences for all functions/tools enabled). Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

1,90 %

Allows for copy of by teacher selected parts of course round: 10 points

Allows for copy of all settings and material of course round: 5 points

Allows for copy of contents of course round: 0 points

The system should support the option to create temporary users with access to course rounds. This can mean both to give access to a specific course round for existing users as well as to create user accounts that are not already within the system. (Multiple choice answer)

1,90 %

Teachers can add temporary users to a course round with accounts with pre-set conditions determined on enterprise level (for instance available only for a limited time and notification sent to LADOK-admin):10 points

The system should support use of disability meta data from LADOK. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

The system should support use of a students' previous progress in new course round. It is important for a teacher to be able to find what a student has completed previously. Not just on course round level but also on learning objectives within a certain course round. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

The system should support result reporting to LADOK. It is vital that it is easy for a teacher to report the results from the course round in a way that makes registering it in LADOK a straight forward and secure process. A workflow approach to this is preferred. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

2.3.2 Learning

The system must provide a CMS-tool for course content creation using a WYSIWYG-editor. Teachers must be able to turn of the WISIWYG-editor and it should be non-destructive to code entered with the editor turned off. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Printed: 31/08/2015 11:19

The system must provide a CMS-tool that support access levels for publishing, i.e. it must be possible to set the access level to various levels such as public/school/course/teachers/subgroup/individual level. Describe how requirement is fulfilled in less than 400 words. (Yes/No answer)

Requirements Yes
No

The system must support log books both for Individuals and groups. Describe how requirement is fulfilled in less than 400 words. (Yes/No answer)

Requirements Yes
No

The system must support personal portfolio. All users must be able to create and share their personal portfolio. Describe how requirement is fulfilled in less than 400 words. (Yes/No answer)

Requirements Yes
No

2.3.2.2 Evaluation requirements

The system should provide a course round specific file area. 5,71 %
Describe how requirement is fulfilled in less than 400 words
(Multiple choice answer)

File area integrated with box.net: 30 points
File area with support for drag-and-drop use
and virus control: 15 points
Not supported: 0 points

The system should provide a CMS-tool that support logics/relations in published content. This means that it must be possible to set access based on for instance whether a student has passed a quiz to access new content. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 1,14 %

All content and functions can be used as logic
criteria: 6 points
Some functions can be available based on
previous progress: 3 points
Not supported: 0 points

The system should provide a survey tool. Course evaluations and course analysis are vital to the quality assurance at KTH. The system should support both of these applications for each course round. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 1,90 %

Survey tool has the support templates for
result (report) sharing with students with the
ability for the teacher to also add comments
(for course analysis): 10 points
Survey tool has the support templates with
possibility for teachers to add/adjust parts for
their own course round (for course
evaluations): 5 points

Not supported: 0 points

7,62 %

The system should provide a quiz tool. Quizzes are mainly used for diagnostic tests on large courses with several parallel course rounds, but their use is growing with future applications also for examination given that security can be assured. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

Secured access quiz tool has support for question types interval answer and complex random variables such as e.g. vectors in the native quiz tool: 40 points

Quiz tool has support for using the quiz through secure browser (Respondus, SEB or similar): 20 points

Not supported: 0 points

5,71 %

The system should have an assignment tool (student file submission). Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

Support for teacher-grading inline of the submitted document based on plagiarism controlled material using tablet and plagiarism control: 30 points

Support for file submission with plagiarism control and the result integrated in the teacher-grading tool: 15 points

Not supported: 0 points

5,71 %

The system should have support for peer review assignments. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

Support for continuous distribution of peer review partners (pool groups) for courses that are on going with students opting in at different times for both individuals and groups with plagiarism control and anonymous peer review as an option: 30 points

Support for basic peer review for individuals and groups with plagiarism control and anonymous peer review as an option: 15 points

Not supported: 0 points

2.3.3 Course Administrative

2.3.3.1 Mandatory requirements

The system must support templates for new courses. It must be possible to set up and make available templates for teachers to use when creating new courses. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements

Yes

No

The system must support Import of calendar events.
Curriculum events is synced with the course round calendar.
Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements Yes
No

The system must support calendar export using Exchange format or iCal. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements Yes
No

The system must have support for student project groups.
Project groups are a very common practice in courses at KTH.
The system must have support for this way of working.
Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements Yes
No

The system must support a modular approach where functions can be switched off. Courses and teachers differ and the system must enable a teacher to decide which functionality should be enabled for every specific course round. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements Yes
No

2.3.3.2 Evaluation requirements

The system should support bookable resources. KTH has a lot of laboratory works and other activities that require students to book time slots for their participation. A tool that streamlines this process for the teachers within a course, sometimes spanning different course rounds, is essential. Types of bookable resource include rooms, time slots and equipment.
Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

2,29 %

Support for teacher creation of bookable resources spanning several parallel course rounds: 12 points
Support for teacher creation of bookable resources in course round: 6 points
Not supported: 0 points

The system should support the use of learning objectives/milestones. In order to make courses with a complex structure, for instance many assignments, it is essential that the teacher can create a good overview where students can monitor their progress. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

1,90 %

Support for both automated learning objectives/milestones and manually entered objectives/milestones which can be set to be checked by teacher or student: 10 points

1,90 %

1,90 %

Printed: 31

The system should support student view for teachers. A student view ensures the teacher of what is accessible by teachers and what is not. It is important that this view is flexible to reflect the various settings that can affect what a student can see or not depending on what functionality is used within a specific course round. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

0,76 %

Support student view with full customization to access the course round with possibility to set all variables in use for the course round (group membership, passing of tests, calendar date etc.): 4 points
Support student view through teacher accessing as one of the actual students on the course: 2 points
Not supported: 0 points

The system should support editing and publishing. It is important for teachers to be able to make adjustments of course contents in an orderly manner without being worried if the changes are visible before they are ready to be published. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

0,76 %

The system allow for a teacher to edit, save and publish content. The system warns the teacher in case parts of the content is still unpublished when exiting edit/publish mode: 4 points
The system allow for a teacher to edit, save and publish content: 2 points
The system has no separate publishing functionality; content is made available to the students when the teacher saves: 0 points

The system should have user help in Swedish. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

1,52 %

All help texts in Swedish with the option of adding KTH-related links in context: 8 points
All help texts in Swedish: 4 points
Not supported: 0 points

The system should have dual language support for content. Dual language support for content should also have a fall back option if translations are not available. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

0,38 %

Support for parallel languages in all content in the course round: 2 points
Support for parallel languages in pages created in the Content/CMS-tool: 1 points
Not supported: 0 points

The system should have user help texts based on context. Describe how requirement is fulfilled in less than 400 words. (Multiple choice answer)

1,52 %

Context based help texts adapting the text depending on where the user is in the system and these can be customized with KTH add on texts/links: 8 points

Context based help texts adapting the text depending on where the user is in the system: 4 points
Not supported: 0 points

2.3.5 Communication

2.3.5.1 Mandatory requirements

The system must have a message board. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements

Yes

No

2.3.5.2 Evaluation requirements

The system should have a discussion forum tool. Discussion forums are important in order to facilitate topic orient discussions throughout the course round. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

3,81 %

Includes discussion forums in the tools for examination making it possible to use posts as part of the grading process and collecting posts from an individual in the teacher grading tool: 20 points
Setting for "post first, then read" and option of enabling rating of posts (karma etc.): 10 points
Not supported: 0 points

The system should have support for instant messaging. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

0,76 %

Integrations for the most common IM-apps and include usage in the teacher statistics: 4 points
Integrations for the most common IM-apps: 2 points
Not supported: 0 points

The system should have support for student to teacher questions. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

1,14 %

Students can send a question, non-anonymous or anonymously to the teacher who can decide on how these questions are forwarded (E-mail, SMS etc.) with the ability to answer using the same media: 6 points

Students can send a question, non-anonymous or anonymously to the teacher who decides on how these question are forwarded (E-mail, SMS etc.): 3 points
Not supported: 0 points

The system should have support for wikis. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 0,76 %

Wiki usage through allowing students to access parts of the CMS-tool: 4 points
Wiki as a separate tool for the students: 2 points
not supported: 0 points

The system should have support for FAQ. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 0,76 %

FAQ is supported by enabling the teacher to select certain information such as submitted questions, discussion forum posts and information pages and flagging them as part of the FAQ section: 4 points
FAQ using a separate tool: 2 points
Not supported: 0 points

The system should have support for sending messages to the class or groups. For a teacher it is sometimes vital to send out messages to the class, a flexible tool that makes it easy for students to receive these messages in the way they prefer is important. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 1,90 %

Sending message to the student group overriding personal preferences (for extremely important messages) through e-mail: 10 points
Sending message to the student group with the option for students to decide on how these messages are sent forward (email, SMS etc.): 5 points
Not supported: 0 points

The system should have support for notifications. Notifications are important for both students and teachers in order to keep up to date with course. Not all information is important all the time, so it is important that each user can customize how and how often different notifications are sent. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 1,90 %

Notifications enable the student to decide on how these are sent (e-mail, IM etc.) and with what frequency and notification from other systems can also be integrated using a documented API: 10 points
Notifications enable the student to decide on how these are sent (e-mail, IM etc.) and with what frequency: 5 points

Not supported: 0 points

2.4 Technical requirements

2.4.1 System

2.4.1.1 Mandatory requirements

The Tenderer must provide access to the system source code and system documentation, i.e. Open source; to enable KTH:s adjustments in the LMS, the code must therefore be published. (Yes/No answer)

Requirements Yes
No

The system must provide storage, minimum 5 Gb per course round and 500 MB per user. Define volumes in the offered price in section Price. (Yes/No answer)

Requirements Yes
No

2.4.2 Access

2.4.2.1 Mandatory requirements

Identities or access codes are never required to be shared between users. (Yes/No answer)

Requirements Yes
No

The service must be configured with minimum access and administration rights at delivery. (Yes/No answer)

Requirements Yes
No

The service never uses passwords that are shared for other purposes. (Yes/No answer)

Requirements Yes
No The

system must lack mechanisms that allow users or administrators to go around eligibility mechanisms (backdoors, "emergency accounts", etc.). (Yes/No answer)

Requirements Yes
No

The system must support login (identification and authentication) via local accounts in the system, and through integration with KTH login service via KTH-id. (Yes/No answer)

Requirements Yes
No

The system must use CAS with LDAP or SAML with Shibboleth for integration with KTH login service. (Yes/No answer)

Requirements Yes
No

The system must be configured with minimal user rights and runs with minimal system privileges. (Yes/No answer)

Requirements Yes

No

System Accounts that are not needed for service operations must be blocked for interactive logon. (Yes/No answer)

Requirements Yes

No

2.4.2.2 Evaluation requirements

The system should contain functionality to follow which access rights have been distributed over time. (Multiple choice answer) 0,95 %

Requirement fulfilled: 5 points

Requirement not fulfilled: 0 points

The system should store the user and administrator passwords hashed with user unique salt. (Multiple choice answer) 0,95 %

Requirement fulfilled: 5 points

Requirement not fulfilled: 0 points

The system should not reveal if a user is registered or not when declining access due to wrong user or password. (Multiple choice answer) 1,90 %

Requirement fulfilled: 10 points

Requirement not fulfilled: 0 points

Identity and user rights should easily be compiled for all people with configured access to the system - both for users and for administrators. (Multiple choice answer) 0,38 %

Requirement fulfilled: 2 points

Requirement not fulfilled: 0 points

2.4.3 Traceability

2.4.3.1 Mandatory requirements

The system must be configured upon delivery to store logs for a minimum of 6 months. (Yes/No answer)

Requirements Yes

No

The system performance must meet the KTH's demands also with logging turned on. (Yes/No answer)

Requirements Yes

No

Password, incorrect passwords, encryption keys or other sensitive information must never be written to the log. (Yes/No answer)

Requirements Yes

No

The system must be protected with a firewall so that only predefined traffic case allows network access to the service. The system is protected from other systems that have a lower degree of protection against IT attacks. (Yes/No answer)

Requirements Yes

No

2.4.3.2 Evaluation requirements

Logging should occur when users and administrators are added, deleted, or have their rights changed. (Multiple choice answer) 0,57 %

Requirement fulfilled: 3 points

Requirement not fulfilled: 0 points

System administrators on the system in which activities are logged, should not be able to influence (modify, delete) the logs on the system where the logs are stored. (Multiple choice answer)

Requirement fulfilled: 3 points

Requirement not fulfilled: 0 points

2.4.4 Encryption

2.4.4.1 Mandatory requirements

All encryption must be done with keys whose length is far beyond what is possible to crack with raw power used. For example, 128 bit AES, 2048 bit RSA. (Yes/No answer)

Requirements	Yes
	No

No standard keys, or keys that are shared with other users of this system are allowed (except for public encryption keys in a "public key" methods). (Yes/No answer)

Requirements Yes

No

The system must only provide encrypted protocols (such as SSH, RDP or HTTPS) for the services unless the buyer has expressly requested otherwise. (Yes/No answer)

Requirements	Yes	No	The
--------------	-----	----	-----

system database must be configured to only accept encrypted connections over the network. (Yes/No answer)

Requirements	Yes
	No

Service APIs must be configured to only accept encrypted connections over the network. (Yes/No answer)

Requirements	Yes
	No

All system communication (databases, APIs, file transfer, etc.) must be encrypted. (Yes/No answer)

Requirements	Yes
	No

2.4.4.2 Evaluation requirements

Only publicly published encryption algorithms should be used to provide the system with encryption or signing protection. (Multiple choice answer)

Requirement fulfilled: 2 points

Requirement not fulfilled: 0 points

2.4.5 Web-based applications

2.4.5.1 Mandatory requirements

Web-based applications that are included in the delivery and exposed to the users are not allowed to have any demands on the browser makes, browser version or underlying client operating systems. (Yes/No answer)

Requirements Yes
No

Web-based applications in the delivery must lack vulnerabilities listed under the OWASP Top 10. (Yes/No answer)

Requirements Yes
No

The service must have support for the use of mobile devices (tablets and phones) based on Windows 8.1 or later. The Tenderer must declare any version requirements and restrictions in the system function. (Yes/No answer)

Requirements Yes
No

The service must have support for mobile devices (tablets and phones) based on Android. The tenderer must declare any version requirements as well as any limitations on system performance. (Yes/No answer)

Requirements Yes
No

The service must have support for mobile devices (tablets and phones) based on iOS. The tenderer must declare any version requirements as well as any limitations on system performance. (Yes/No answer)

Requirements Yes
No

The system must be sized for good performance for KTH:s size of 12,500 students and 5,100 employees. (Yes/No answer)

Requirements Yes
No

Reading and writing of data to the system must be possible to be made via a web service APIs (REST / SOAP or similar). (Yes/No answer)

Requirements Yes
No

Web interface that is exposed to users must easily be adapted for KTH's graphical profile (<https://intra.kth.se/administration/kommunikation/grafiskprofil/>). (Yes/No answer)

Requirements Yes
No

2.4.5.2 Evaluation requirements

Web-based applications should require user approval before cookies are stored (only relevant for systems that are accessible to the public). (Multiple choice answer) 0,38 %

All data is stored in the system should be available through the API (enter any restrictions). (Multiple choice answer)

The system should be designed to meet the WAI guidelines to facilitate accessibility for disabled people. (http://www.w3.org/TR/WCAG20/). (Multiple choice answer)

The system must be able to integrate with other components in KTH:s IT-environment with document APIs. Describe on a high level available API and integration solutions. Describe how requirement is fulfilled in the motivation field in less than 400 words (Yes/No answer)

Requirements	Yes
	No

The system must be able to integrate with KOPPS. Course and program directory with formal, legally required information about courses, source for course IDs and names RESTish XML API <http://www.kth.se/api/kopps/v2/>. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements Yes

No The

system must support import of users, teachers and courses into course rounds created based on LADOK entries. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements	Yes
	No The

system must be able to integrate with UG, Identity management system. Provides user and group directory. Java library API for instant (PUSH/PULL) updates. The information is also available through LDAP (Active directory) as well as RESTish XML interface for PULL updates. Includes information about teachers, assistants and students of a course and course instances by groups with well-known names. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Yes/No answer)

Requirements	Yes
	No

The system should be able to integrate easily with KOPPS. 1,90 %

Course and programme directory with formal, legally required information about courses, source for course IDs and names RESTish XML API <http://www.kth.se/api/kopps/v2/>. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

Simple integration: 10 points

Can be integrated: 0 points

The system should be able to easily support import of users, teachers and courses into course rounds created based on LADOK entries. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 1,90 %

Simple integration: 10 points

Can be integrated: 0 points

The system should be able to easily integrate with UG, Identity management system. Provides user and group directory. Java library API for instant (PUSH/PULL) updates. The information is also available through LDAP (Active directory) as well as RESTish XML interface for PULL updates. Includes information about teachers, assistants and students of a course and course instances by groups. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 1,90 %

The system should be able to easily integrate with UG, Identity management system. Provides user and group directory. Java library API for instant (PUSH/PULL) updates. The information is also available through LDAP (Active directory) as well as RESTish XML interface for PULL updates. Includes information about teachers, assistants and students of a course and course instances by groups. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

Simple integration: 10 points

Can be integrated: 0 points

The system should be able to integrate with Schema. Aggregates schema information from the classroom scheduling system with course events from the KTH social pages. RESTish JSON API. <http://www.kth.se/api/schema/v2/apidoc.html>. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 1,90 %

The system should be able to integrate with Schema. Aggregates schema information from the classroom scheduling system with course events from the KTH social pages. RESTish JSON API. <http://www.kth.se/api/schema/v2/apidoc.html>. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

Simple integration: 10 points

Can be integrated: 5 points

Cannot be integrated: 0 points

The system should be able to integrate with Profiles. RESTish JSON API with user profile information, job title, profile image etc. There is some information overlap with the UG system (see below) <https://www.kth.se/social/api/profile/1.1/>. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 1,90 %

The system should be able to integrate with Profiles. RESTish JSON API with user profile information, job title, profile image etc. There is some information overlap with the UG system (see below) <https://www.kth.se/social/api/profile/1.1/>. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

Simple integration: 10 points

Can be integrated: 5 points

Cannot be integrated: 0 points

The system should be able to integrate with Search, GSA-based (Google Search Appliance); there is a proxy front-end translating between GSA and application specifics. The system needs to be able to push data for indexing (RESTish API) unless crawlable, with the URL and some sort of ACL representation for non-public information. The proxy translator handles translation of application specifics to GSA internals. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer) 1,90 %

The system should be able to integrate with Search, GSA-based (Google Search Appliance); there is a proxy front-end translating between GSA and application specifics. The system needs to be able to push data for indexing (RESTish API) unless crawlable, with the URL and some sort of ACL representation for non-public information. The proxy translator handles translation of application specifics to GSA internals. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)

	Simple integration: 10 points	
	Can be integrated: 5 points	
	Cannot be integrated: 0 points	
The system should be able to integrate with Notifications, RESTish JSON API to notify a user that something has happened in some system that the user should react to. E.g., assignment on course turned in by student, grading of assignment done. Basically a descriptive text and a URL to some place the user could or should react to the event. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)		1,90 %
	Simple integration: 10 points	
	Can be integrated: 5 points	
	Cannot be integrated: 0 points	
The system should be able to integrate with Toolbar. The KTH toolbar is a JavaScript widget included into web systems where possible. It injects code at the top of the DOM to provide the user a toolbar user interface element with user-oriented information and navigation across the KTH web space. Describe how requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)		1,90 %
	Simple integration: 10 points	
	Can be integrated: 5 points	
	Cannot be integrated: 0 points	

2.5 Personal Data Processing and e-archive

2.5.1 Evaluation requirements

Student should give their explicit consent regarding the processing of personal data. Describe how the requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)		1,90 %
	100 Can easily implement explicit consent: 10 points	
	50 Can implement explicit consent: 5 points	
	0 Can not implement explicit consent: 0 points	
The system should erase the personal data in such a manner that they cannot be recreated (Backups excluded). Describe how the requirement is fulfilled in the motivation field in less than 400 words. (Multiple choice answer)		0,95 %
	100 Can erase data described above: 5 points	
	0 Cannot erase data described above: 0 points	
The Tenderer should provide a customer case description of export and external archiving of course round data. The description has to include process/workflow and how the data is extracted (and if relevant, how it is converted) and then imported into another system (i.e. an university e-archive) for archiving. Is there a tool with support for this functionality or is it achieved using custom scripts? Describe how the requirement is fulfilled in the motivation field in in less than 400 words. (Multiple choice answer)		1,90 %
	100 Provided description of archiving of course data in e-archive at university: 10 points	

50 Provided description of archiving of course
data in general repository: 5 points
0 No description is included: 0 points

2.6 Technical evaluation

2.6.1 Mandatory requirements

Comment [ÅL3]: Usability

It must be possible for KTH to practically test the offered system during the evaluation of the tenders with regard to the system's fulfilment of the requirements, evaluate functions and usability. These activities are planned to take place in October 2015, the Tenderer must provide access to the system from KTH premises. (Yes/No answer)

Requirements

Yes

No

3. Commercial requirements

3.1 General

The Tenderer must confirm that the commercial terms and conditions in the Agreement concept in appendix 2 are accepted. Please observe the parts highlighted in yellow - these terms are related to the winning tender and will be further discussed with the winning Tenderer in conjunction at signing of the contract.

Standard agreements, general terms and conditions, etc. from the Tenderer are not accepted.

If a Tenderer wishes to propose a change to the contract text or has identified something that will result in undue cost increases, please inform KTH immediately through the Questions and Answer function in TendSign and justify your proposal so we can consider the change and possibly make an amendment before the last day for questions. KTH's possibility to make such modification after closing date for tenders is severely restricted. Last day for questions:

02/10/2015

Do you accept the Agreement concept in appendix 2 in full?

Note! The terms highlighted in yellow will be able to be modified after negotiation with the winning Tenderer. (Yes/No answer)

Requirements

Yes

No

3.2 Implementation plan

The Tenderer must provide an implementation plan for delivery starting from the Agreed start date 2016-03-01. If the procurement is appealed and consequently delayed, the Agreed start date can be postponed. The implementation plan includes at least: activities, time, responsibilities and roles as well as a set of agreed products.

The implementation plan will later be coordinated with KTH's implementation plan.

Attach an appendix for the implementation plan. (Attached document)

3.3 Maintenance and operations

3.3.1 Mandatory requirements

The Tenderer must guarantee that KTH can update the operating system (or other core components) within 30 days after the patch / upgrades released for those with guarantees, etc. intact. Alternatively the Tenderer within this time on their own initiative delivers a timed plan to within a reasonable time adapt the system so that its platform can be upgraded.

(Yes/No answer)

Requirements

Yes

No

The Tenderer will never require that KTH do not install safety upgrades to the platform, or put a condition that guarantees or service commitments in that case cease to apply. (Yes/No answer)

Requirements ☒ Yes ☐ No

Functionality that implements security measures for server data is not allowed to be implemented on the "client side" in the applications or web solutions with client-server-like functionality. (Yes/No answer)

Requirements ☒ Yes ☐ No

Techniques and procedures must be in place to ensure that backups are made of all the applications, configurations and all data necessary to restore the system. (Yes/No answer)

Requirements ☒ Yes ☐ No

Complete recovery tests must be carried out on the delivered system once a year or more often. (Yes/No answer)

Requirements ☒ Yes ☐ No

Backup Schedule must ensure that backups are taken daily, which means that more information than that cannot be lost with a full system failure. (Yes/No answer)

Requirements ☒ Yes ☐ No

Daily backup must be stored for at least 30 days and if necessary be restored. (Yes/No answer)

Requirements ☒ Yes ☐ No

Backup systems must be physically separated (in another fire Separated, local) from the system backup. (Yes/No answer)

Requirements ☒ Yes ☐ No

Written procedures for backup and restoration must be available and accessible to KTH. (Yes/No answer)

Requirements ☒ Yes ☐ No

The Tenderer must describe the maximum loss of information, given the backup schedule offered KTH. (Yes/No answer)

Requirements ☒ Yes ☐ No

The Tenderer must enclose a backup schedule. (Attached document)

System / application incl. related equipment must restart automatically after a power failure. (Yes/No answer)

Requirements ☒ Yes ☐ No

Requirements	Yes
	No

3.4.1 Price for LMS

The Tenderer must offer the LMS with the price of 2 000 000 SEK per year and implementation cost of 200 000 SEK. All prices are excluding VAT. (Yes/No answer)

Requirements Yes

The price must be fixed price and should be in Swedish kronor (SEK). If the Tenderer offers the price in another currency than SEK it will be evaluated in SEK based on the exchange rates of the Riksbank (www.riksbank.se) at the closing date for opening of tenders. (Price matrix)

Specification	Kvantitet	Enhet
Hourly rate for extra order of consultancy	1,00	hour
Price for training package per day, e.g. "train the trainer" in accordance with clause 11 in the Agreement concept, provided on KTH:s premises.	1,00	day