



**ILIAS open source e-Learning e.V.**

**Technical Board**

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## Call for Bids

**Name of Project:** Investigation of Service/Utilities & Shell-Commands  
**Deadline for Bids:** 30 June 2021  
**Hand in Bids to:** Matthias Kunkel, ILIAS open source e-Learning e.V., [info@ilias.de](mailto:info@ilias.de)

Dear all,

the Technical Board of the ILIAS society hereby calls for bids for the aforementioned project.

The source code in Services/Utilities was created by many developers over many years and contains a large number of different use cases, classes and methods. In many cases, these are very central methods that are used in an extraordinarily large number of places in ILIAS. However, the code in the directory is not subject to an explicit maintainer. We, the Technical Board, see this as a major problem, also with regard to security weaknesses, e.g. through the execution of shell commands.

Within the framework of this project, we want to gain an initial overview in order to be able to derive concrete measures. The goal is to ensure that all functionality currently found under Services/Utilities and still needed in the future is maintained by an explicit maintainer.

Details of the project are outlined on the next page. Please hand in your bids and a corresponding statement of work by email according to the information in the header.

Bids will be judged by the offered price and the details outlined in the statement of work. We are looking forward to your submissions.

Best regards,

Matthias Kunkel

on behalf of the Technical Board of the ILIAS society

**Haben Sie Fragen?**  
[tb@ilias.de](mailto:tb@ilias.de)

**Geschäftsführer:**  
Matthias Kunkel  
VR 16017 / Amtsgericht Köln  
USt-ID: DE 815 319 517

**Vorstand:**  
1. Vorsitzender: Oliver Samoila  
2. Vorsitzender: Martin Studer  
Schatzmeister: Thomas Schroeder

**Technical Board:**  
Timon Amstutz  
Michael Jansen  
Fabian Schmid  
Richard Klees  
Stephan Winiker



## Project Details

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Name of project: Investigation of Service/Utilities & Shell-Commands

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Latest date of delivery: 31 August 2021

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Goals and benchmarks:

- The Technical Board receives an overview of the classes and methods in Services/Utilities and their use in the source code of ILIAS.
- There is a categorisation of the classes and methods within services/utilities in order to be able to separate them into packages according to their purpose. A description of the use case and possible maintainers is available for each package.
- The execution of shell commands in ILIAS is treated separately in the study. The focus of this study is on the secure execution of shell commands and possible alternatives.
- A way is shown how existing code in services/utilities can be brought under maintainership.

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Deliverables:

- Description of the UseCases of Classes and Methods in a well-structured Document as well as a possible “packaging” of those. We prefer a structural document or tool such as DataCollection or Excel.
- A Management-Summary, which gives an overview and facts about the investigation.
- A separate study (chapter of its own) on the execution of shell commands in ILIAS:
  - Where and why are they needed?
  - What alternatives exist for individual use cases (if there are any)?
  - How can the then remaining calls be made more secure?
- The authors and co-authors of the PDF must be available for a Q&A by the technical board and the product manager in a one hour skype session.

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General conditions: None

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