Work Package Report R7.4: Support and Help Desk
May 2015
Deliverable R7.4: Documentation of the activities in the Work Package “Support and Help Desk”

Responsible: Kristin Bührig

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Editor: Timm Lehmberg

Contributors: Kai Wörner, Kristin Bührig, Hanna Hedeland
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Introduction
This fourth annual report provides an overview of the work and the activities undertaken as part of Work Package 7 (“Support and Help Desk”) within the period between the milestones M36 and M48.

It starts with an insight into the current status of the CLARIN-D ticketing system as well as an outlining report on the personnel costs of help desk operation (section 1). Section 2 reports on the state of integration of the help desk into other parts of the CLARIN-D infrastructure (section 2.1), recent technical improvements (2.2), and on first approaches of integrating support workflows for external tools and services of partner institutions (section 2.3). Section 3 summarizes the most important dissemination activities within the reporting period.
1. Status and Statistics

During the reporting period from June 2014 to May 2015, the CLARIN-D Ticketing System as a central component of the CLARIN-D help desk has continued to prove successful in increasing the performance of the CLARIN-D user support. Its operation started in June 2013.

The efficiency of the system and the implemented workflows can be seen in the number of support requests and the required processing time. While the number of support requests increased to 20 requests per week, the processing times as well as the personnel effort remained on the same level. The assessment of processing times in June 2014 and again at in March 2015 came to the result that the time effort remained constant with an average of 25 min/day for first level and 15 min/day for second level support.

The number of incoming requests that initiate new support workflows, using a ticketing system also used in software maintenance, is monitored by all help desk agents with the help of a diagram (see figure 1) that reports the number of new incoming (blue line) and closed (brown line) tickets for a period of seven days. Other statistics that give information on response times, the number of tickets per queue etc. are created in the background and will be part of the quantitative evaluation scheduled for the consecutive period between milestones M48 and M60.

By April 2015, a total amount of 1000 tickets have been processed successfully so far. The response time (the duration between the automatically generated response and the first contact between a help desk agent and the user) ranged from one to three working days (48 hours are the targeted response time). In few cases where the response was significantly delayed, the mechanisms of escalating tickets after a period of 48 hours to an administrative member of the CLARIN-D help desk proved successful. Such delays were caused by suboptimal assignment processes, or to unplanned absences. The fall back procedures proved to be effective.

More concrete quantitative statements as a result of the long-term measurement of response times, distribution and personnel effort will be part of the M60 report.
2. Help Desk Integration

Aiming at a long-term establishment of the help desk as an point of entry for users to the CLARIN-D infrastructure as well as an efficient interface to the outside world for CLARIN-D, it is necessary to achieve an optimum visibility not only for actual but also for possible users of the infrastructure and its components. To ensure this, a bidirectional approach that not only aims at providing entry points for user support in all parts of the CLARIN-D website and infrastructure components but also integrates external tools and services into the help desk seems suitable.

This section reports both on the state of integration of the help desk into CLARIN-D and its components (section 2.1), the technical improvements (section 2.2) of these components and on first approaches of integrating external components of partner institutions (section 2.3).

2.1 Integration into the CLARIN-D Infrastructure

As described in previous reports, for a performant and user friendly help desk, it is important to provide numerous points of entry with a low threshold for users. They are placed all over the CLARIN-D websites and infrastructure components. The following tools and mechanisms have been implemented as entry points that allow for bidirectional communication:

- Support workflows for existing tools and infrastructure components can be easily integrated by simply forwarding user queries from the email addresses currently used for the support to the respective help desk queues\(^1\) and thus to help desk agents who are in charge of the support.
- Contact forms and uniform call-to-action-buttons (“help desk buttons”) which provide an intuitive access for contacting the help desk are placed all over the CLARIN-D website and infrastructure components. Depending on the location of the button or form, specific parameters help in automatically assigning the ticket to its respective service queue and consequently delegate it to a qualified CLARIN-D help desk agent. This allows not only for a faster ticket assignment but also a direct contact between users and help desk agents.
- Additionally manual ticket creation and delegation based on individual requests to a CLARIN-D member is always possible.

For an overview of the centre-specific CLARIN-D components and services integrated into the CLARIN-D help desk so far, see the following table:

<table>
<thead>
<tr>
<th>Centre</th>
<th>Service/Tool</th>
<th>Type</th>
<th>Location/Address</th>
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</tr>
</tbody>
</table>

\(^1\) hierarchical ordered organizational units in the ticketing system
It is accessible to all CLARIN-D members through the CLARIN-D developers’ wiki\(^2\) and is updated when more services are integrated. The system also provides a module for maintaining a list of frequently asked questions (FAQ). This additional undirectional channel of the CLARIN-D ticketing system allows for the creation, administration and hierarchical structuring of multiple FAQ-lists which can be either made accessible to the public or a restricted group of registered users and help desk agents.

The thematically structured FAQ-lists are maintained and administered continuously by help desk agents based on incoming user queries. They comprise a powerful knowledge resource not only for users looking for a quick reply to common and frequent issues but also for help desk agents when responding to such requests and thus the FAQ reduces the efforts especially in first line support. The important issue of providing FAQ-lists to users is to keep them up to date and to place them at relevant points in the CLARIN-D Infrastructure. This has been solved by the technical improvements described in the following section.

### 2.2 Technical Improvements and Usability

The motivation for the technical improvements in the reporting period was to allow for a more flexible and user friendly embedding of the abovementioned entry points (FAQ-lists and contact forms) and to gain new mechanisms for user guiding and pre-classification of support requests. For this purpose – using of the default Generic Interface of the OTRS System\(^3\) – two SOAP-based web services were implemented, one for querying and embedding all public accessible FAQ-lists and one for basic ticketing operations like ticket-creation, ticket-delegation and ticket-classification. The web components described below will be part of the new CLARIN-D Portal that is to be launched in June 2015.

**FAQ List Embedding**

The demand for a SOAP-based and thus more flexible querying and embedding of the Generic FAQ based on the recognition that – as described in previous reports – the standard customer graphic user interface of the OTRS system does not fulfill the demands of a state-of-the-art frontend in terms of responsibility and usability.

![Figure 2: Flexible and responsive embedding of FAQ-lists](http://de.clarin.eu/mwiki/index.php/%C3%9Cbersicht_-_Helpdesk-Einbettung)


FAQ at the EXMARaLDA-Homepage and the HZSK Repository where EXMARaLDA based data is hosted. The embedding can be realized within individual and responsive web components (see Figure 2).

**Ticket Operations**

Most of the productive ticketing systems use the email protocol (POP3 or IMAP) as interfaces to the outside world because this in most cases appears to be the most generic and flexible approach for the creation and pre-classification of tickets. By querying different email accounts the customer’s name, email address, subject and message text are simply transferred to a ticketing system whereas additional parameters are often stored in the email headers. In cases where web based contact forms are used, it is common to pass form parameters to email headers and transfer them to the ticketing system via email for the post-processing steps. In practice this gives rise to a series of problems and difficulties. First of all the communication via email integrates additional technology levels, here email servers, into the communication process, possibly resulting in information loss, due to the different interpretation and transfer of information that is included in the email headers. Furthermore – depending on the respective protection mechanisms – a ticketing system becomes prone to spam and bulk messages, depending on the amount of data from different email addresses.

By using the above-mentioned SOAP web services for ticket creation from web forms, these difficulties can be avoided. The ticketing system is capable of information exchange with other systems in the CLARIN infrastructure, such as issue and bug trackers used by (CLARIN) developers as well as local ticketing systems at other CLARIN centres. It also becomes easier to transfer data from the users via tools and wizards to the ticketing system and thus to optimize support routines and workflows.
**Online Wizard**

Within CLARIN, users should be provided with a decision tree based online wizard guiding them to relevant knowledge resources and contact persons at the CLARIN-D help desk. Similar approaches have been pursued by CLARIN-D members in the case of the *Lindat License Selector*\(^4\), and the *Data Depositing Wizard* that will be part of the new CLARIN-D Web portal.

The decision tree is implemented with the help of concept mapping using the publicly available *Cmap* software\(^5\). With its help, a first version of the decision tree that is based on the experience with user queries so far has been finished and will be published internally to CLARIN-D members for discussion and collaboratively editing by M48.

With respect to a more uniform and user friendly external effect the user interface to be used with the wizard will be matched to the *Data Depositing Wizard*.

### 2.3 Integration and Adaption of new Support Areas

The dissemination work (see section 3) of CLARIN-D and its growing acceptance in the user community lead to the situation that developers and providers of tools and resources asked for an integration their local support routines into the CLARIN-D help desk. This also affected components that are not genuinely developed by CLARIN-D, both supra-national components like the *CLARIN Virtual Language Observatory* (VLO) but also tools and platforms from the CLARIN-Ds *Discipline Specific Working Groups* and partner institutions. In the following, an overview of all integrated services and tools which are not provided by a CLARIN-D centre is given in association with the assessments and reconsideration of support-routines that where connected with it.

**CLARIN Virtual Language Observatory (VLO)**

The support for the CLARIN Virtual Language Observatory (VLO)\(^6\) has been integrated into the CLARIN-D help desk as of November 2014. The VLO harvests metadata for language resources and tools from all European CLARIN centers as well as further archives and institutions. The gathered information is displayed in a faceted search to scholars worldwide. Whereas the technical aspects of the integration of the new support queue connected to the existing feedback form\(^7\) of the VLO web interface remained trivial, the administrative aspects on the other hand proved to be rather complex and required reassessing and further determining the implementation of support workflows.

The VLO support brought about two main issues; the question of separating between issue tracking and user support and the geographic coverage of the CLARIN-D help desk.

Some CLARIN employees are at the same time super-users of the infrastructure and since the questions regarding other centers’ components, tools or resources comprise an important contribution to the help desk’s knowledge base and the FAQ (see above) they should preferably be treated as regular tickets. However, since the VLO report functionality was originally set up to enable the reporting of errors in the metadata, this was the purpose of most tickets created in the queue. It became necessary to differentiate between on the one hand CLARIN-internal issue reporting, for which the CLARIN

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\(^5\) [http://cmap.ihmc.us/](http://cmap.ihmc.us/)

\(^6\) [http://catalog.clarin.eu/vlo](http://catalog.clarin.eu/vlo)

\(^7\) [http://www.clarin.eu/node/3759](http://www.clarin.eu/node/3759)
issue tracker system already provides a Metadata Curation component managed by the corresponding Centre Committee Taskforce, and on the other hand tickets created by the actual users of the infrastructure needing support regarding the VLO.

While this problem could be solved easily, the content of the error reports lead to further discussions. Obviously, there are tickets regarding the functionality of the VLO itself, but there are also tickets regarding specific metadata entries and the resources referenced through them. Within CLARIN-D, the VLO working group is concerned with several aspects of the VLO; both regarding the user interface and the facet semantics behind it, and also the documentation for both VLO users and metadata providers. The members of a working group to improve the VLO from the various German centers would thus be suitable to answer many questions on the VLO. Questions regarding specific resources or their metadata on the other hand inevitably extend the background of the German experts when resources are addressed hosted elsewhere. This is also reflected in the creation of the Europe-wide Centre Committee Taskforce on Metadata Curation. Using the entire network of experts residing in all CLARIN countries enables a more efficient support, e.g. for users with questions regarding resources in specific languages or with regards to the location of specific resources. The distribution in Europe is also important regarding methodological questions for which there are experts in several CLARIN countries.

WebAnno

WebAnno is a web-based annotation platform that covers a wide range of linguistic annotation possibilities. It is developed as a curation project of the Discipline Specific Working Group 7 (“Applied Linguistics, Computational Linguistics”). The decision to integrate user support for a WebAnno instance hosted by CLARIN-D was made at the beginning of the implementation phase. The integration of WebAnno also led to discussions regarding the separation between issue tracking and user support, and additionally on how to link the CLARIN-D help desk to existing community based support routines such as mailing lists and discussion groups.

The distribution and documentation of WebAnno is realized with the help of the Google Code portal. Besides general information, the WebAnno homepage on Google Code\textsuperscript{8} provides a download area for the WebAnno Tool and for sample data as well as a user guide and a wiki containing documentation for the use of WebAnno. The page also contains two discussion groups, which are important support-related elements; one “user group” and one “developers group”, both dealing with user and technical issues regarding the tool.

The initial discussion between members of the CLARIN-D help desk and the WebAnno developers was on the question on how the two concurring user support approaches can benefit from each other. Whereas the CLARIN-D help desk mainly focusses on individual ticket-based user support routines with individual user contact, WebAnno developers follow a rather community based approach that aims both at users and developers.

To create maximum synergies between these approaches without the existing productive WebAnno support losing its autonomy, it was decided to create at least one WebAnno instance in the CLARIN-D Infrastructure whose users are served and supported individually by the CLARIN-D help desk. The CLARIN-D help desk will also reply to queries regarding WebAnno from external users. In the result-

\textsuperscript{8} https://code.google.com/p/webanno/
ing support process the abovementioned knowledge resources and user groups will be referenced (for instance in auto-reply messages of the ticketing system). However, incoming queries referring to development and administrative issues will be forwarded directly to the WebAnno developers’ group. Furthermore it was decided to create a WebAnno FAQ-list based on incoming queries and the abovementioned WebAnno documentation and user groups.

ANNIS

ANNIS\(^9\) (“ANNotation of Information Structure”) is an open source, cross platform, web browser-based search and visualization architecture for complex multilayer linguistic corpora with diverse types of annotation. It was originally designed to provide access to the data of the \(\textit{SFB 632 – Information Structure: The Linguistic Means for Structuring Utterances, Sentences and Texts}\) in Potsdam, Germany. It is currently developed at the “Institut für deutsche Sprache und Linguistik” at Humboldt-University, Berlin.

The developers of ANNIS expressed their interest in integrating the functionality of the CLARIN-D Helpdesk for ANNIS and asked for a dedicated queue in the system.

CATMA

During the Help Desk Workshop at Hamburg University on December 12\(^{th}\) 2014 (see section 3), it was suggested to integrate the support for a further prominent and widely adopted annotation tool, CATMA (Computer Aided Textual Markup & Analysis\(^10\)), into the CLARIN-D help desk.

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\(^9\) http://annis-tools.org/

\(^10\) http://www.catma.de
3. Dissemination Activities

3.1 Meetings and Workshops Organized by WP7

**CLARIN-D/CLARIN-DK Help Desk Meeting**

The meeting between the members of the CLARIN-D WP 7 and their Danish colleagues managing the CLARIN-DK user support (Dorte Haltrup Hansen, Costanza Navaretta and Claus Povlsen) took place on September 18th 2014 at the University of Copenhagen and in conjunction with a number of courses on the topic of “Multilingual Spoken Data” belonging to the series “Digital Humanities”, organized and hosted by the initiative “Digital Humanities Lab Denmark” (DIGHUMLAB)\(^{11}\) and CLARIN-DK at the University of Copenhagen. The main objective for the participation at the event was to get into discussions on how to increase user involvement, improve the communication between (potential) CLARIN users and thus getting insights on a better dissemination and general improvement of the CLARIN help desk. The participation was made possible by a CLARIN/ERIC Mobility Grant.

Unlike in CLARIN-D, where, by operating a centralized support portal in form of a ticketing system, a cross-center user support is realized, in CLARIN-DK only individual and personalized user support is provided. In doing so, each member is responsible for one specific domain, which are “Danish language technology” (support requests focusing on computer linguistics), “Multimodality” (support requests with a focus on the research on digitalized multimodal communication) and the CLARIN-DK-Platform.

After a short presentation of the two different help desk strategies and the experiences gained, a fruitful discussion emerged, concerning user requirements and the call to increase user involvement. The discussion primarily focused on the issue of how to motivate especially users with highly specific questions and non-standardized data to use and thus benefit from the expertise of one of the respective CLARIN/ERIC centers. The proposals ranged from integrating local help desk routines, as practiced in CLARIN-D, to locating strategies for the definition of user groups and user acquisition. Thus, proposals on how to encourage students to use the CLARIN-D help desk were discussed, for example by referring to the CLARIN-D support in seminars with students using infrastructure components such as WebAnno or WebLicht. Furthermore, ideas regarding the placement and linking of the help desk on the CLARIN-D website were expressed, as well as the utilization of highly frequented user portals – including relevant mailing lists, conferences etc. We plan to implement these suggestions in the near future.

**Workshop “Support and Help Desk” at Hamburg University**

The Workshop on December 12\(^{th}\) 2014 was organized in association with the CLARIN-D/CLARIN-NL Multiconference “Community building and Multimodal Language Resources” that took place from December 12\(^{th}\) to 14\(^{th}\) 2014 at Hamburg University as a joint event organized by the Hamburg Centre for Language Corpora (HZSK), the Institute of German Sign Language and Communication of the Deaf at the University of Hamburg and the PI group on Sign Language Linguistics of the Centre for Language Studies (CLS) at Radboud University.

\(^{11}\) http://digihumlab.com
The focus of the workshop was to evaluate the needs for technical support and help desk at the University of Hamburg and to detect and evaluate relevant existing expertise. For this purpose, several representatives from the University of Hamburg which act either as providers or receivers of technical support in the area of eHumanites were invited to present their work:

- **Kai Wörner (Faculty of Humanities)** reported on work in progress on the infrastructure for sustainability in the humanities (Geisteswissenschaftliche Infrastruktur für Nachhaltigkeit - gwin) that aims at a long-term accessibility of scientific data and applications from the Faculty of Humanities at Hamburg University. A help desk portal following the example of the CLARIN-D help desk will be a central component of the infrastructure.

- **Hartmut Wried (Regional Computing Centre)** provided insights into operations and workflows of the help desk portal implemented at the local Regional Computing Centre (Regionales Rechenzentrum - RRZ). The focus of this presentation was on how to deal with large amounts of tickets in a structure with 120 different queues; apart from that, service level agreements for special user groups and possible interfaces for an interchange between the RRZ and the CLARIN-D ticketing system were discussed.

- **Timm Lehmburg (HZSK)** demonstrated the state of implementation of the CLARIN-D help desk. Based on this it was discussed to what extent local providers of support and help desk in the area of eHumanities could be integrated into the CLARIN-D help desk and whether, as a fallback strategy, the CLARIN-D ticketing system should be migrated to the University of Hamburg at the end of the implementation phase.

- **Marco Petris** (heureCLÉA) gave an overview on the user support for the annotation tool CATMA (Computer Aided Textual Markup & Analysis) and expressed the wish for an integration of the CATMA support into the CLARIN-D help desk.

- **Hagen Peukert (Faculty of Humanities)** outlined a web based project management tool for the support, administration and processing of data collections that had been created in the Framework of the excellence cluster Linguistic Diversity Management in Urban Areas (LiMA).

- **Thomas Hanke (Institute of German Sign Language and Communication of the Deaf)** provided an overview on the broad spectrum of support areas that are connected with iLex, a tool for sign language lexicography and corpus analysis.

- **Dagmar Knorr** and **Melanie Andresen (Faculty of Education)** formulated demands on an eHumanities help desk based on their corpus-based empirical work at the Schreibwerkstatt Mehrsprachigkeit (“multilingual writing workshop”).

- **Heike Zinsmeister (Faculty of Humanities)** formulated demands on an eHumanities help desk and on local as well as supraregional research infrastructures, and also presented concepts and ideas for an integration of the help desk into university teaching from her point of view as a professor in corpus linguistics.

- **Mareike Höckendorf (Faculty of Humanities)** gave an insight into her work in the framework of the DARIAH infrastructure at the University of Hamburg concerning users’ behavior in digital research infrastructures. With this background, a closer cooperation between the local members of CLARIN-D and DARIAH-DE for the implementation of a helpdesk system was established.
3.2 Posters and Presentations

- December 12th 2014: 
  Poster presentation *The CLARIN-D help desk* at the CLARIN workshop “Exploring new Ways of Harvesting and Generating Sign Language Resources - Legal, Technical, and Crowd-sourcing Issues” (Hamburg)

- December 13th/14th 2014: 
  *CLARIN-D Kiosk* at the CLARIN-D/ CLARIN-NL Multiconference “Community building and Multimodal Language Resources” (Hamburg)

- October 25th 2014: 
  Poster presentation *The CLARIN-D help desk* at the “CLARIN Annual Conference 2014” (Soesterberg)

- November 17th 2014: 
  Oral presentation – *Helpdesk für Ressourcen - Ressourcen für den Helpdesk* at the BBAW Workshop “Textkorpora in Infrastrukturen für die Geistes- und Sozialwissenschaften” (Berlin)
Outlook
The remaining part of the implementation phase will be used to further improve the technology and to put the help desk system to its final state. At the end of this period a quantitative analysis will be provided with figures on usage, required processing time, services integrating the helpdesk, etc.

Within this period, an assessment will take place on required resources for operating user support. This will cover the maintenance of the structures and mechanisms of user support, especially from the background of a growing user community from the digital humanities. The integration of more tools and resources can be seen as a strategy to increase acceptance and to achieve further outreach into the user communities, but it does not provide a long-term perspective.

One step in this direction is the cooperation with local infrastructures, such as the gwin at the University of Hamburg mentioned in section 3, which will provide support for local users and could at the same time be a part of a distributed infrastructures such as CLARIN. The experiences made when integrating the VLO support, described in section 2.3, gives rise to the question whether a European infrastructure should rely on national support platforms, or if it rather needs to provide mechanisms to manage Europe-wide support workflows.