Work Package Report R7.3: Support and Help Desk

April 2014
Deliverable R7.3: Documentation of the activities in the Work Package “Support and Help Desk”

Responsible: Kristin Bührig

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Editor: Timm Lehmberg
Contributors: Kristin Bührig, Hanna Hedeland, Daniel Jettka, Moritz Lautenbach
1. Introduction

This report provides an overview of the work undertaken as part of WP7 between the milestones M24 and M36. Section 2 describes the implementation status of the operating version of the CLARIN-D help desk, including the OTRS (Open-source Ticket Request)\(^1\) ticketing system. It also describes the results and experience made in this first part of the implementation phase that will lead to a further optimization of the support and ticketing workflows. Section 3 describes the steps taken towards the dissemination and better acceptance of the CLARIN-D help desk. Section 4 contains a brief overview of upcoming tasks and plans for the next phase.

2. Implementation Status

2.1 Current state

The CLARIN-D ticketing system as a central platform to provide a CLARIN-D wide user help desk began operating in June 2013 after an intensive phase of planning and testing. (For further details see previous deliverable R7.2).

User support is performed by student assistants who are supervised by at least one expert at every CLARIN-D centre. Experts, as per definition, are specialist for the local implementation of the help desk as well as of centre specific expertise. A support process (henceforth called “ticket”) that results from user queries can be initiated in several ways, depending on the users’ preferences (see Figure 1).

![Figure 1 Ticket initiation](image)

Tickets can be created manually – based on incoming requests via personal email, telephone call or face-to-face conversation – by any help desk agent. Automatic ticket creation on the other hand is initialized by incoming emails to the CLARIN-D support email account

\(^1\) \text{http://www.otrs.com/}

(support@clarin-d.de) or to other accounts used for centre-specific support. As an example, the Hamburg Centre of Language Corpora performs centre-specific support by processing requests regarding the EXMARaLDA software suite from the email address exmaralda-support@uni-hamburg.de as well as requests for access to the corpora hosted at the HZSK, sent to the email address corpora@uni-hamburg.de.

Alternatively, a ticket can be created (and pre-classified) by using web based contact forms that are distributed all over the CLARIN-D web site and infrastructure components and that are called by special call-to-action buttons (see Section 3.1).

Once a ticket is created, the person who sent the request (henceforth called “customer”) receives, within minutes, an automatically generated acknowledgement email. Simultaneously, the ticket is automatically sorted (applicable to frequent requests or manually created tickets) into the respective ticket queue that is part of the hierarchical queue structure (cf. previous reports). Depending on the queue, the automatically generated notice of arrival mentioned above may contain specific information such as links to relevant documentations or FAQs. That is, if a user requests access to a restricted resource user agreements – to be signed by the customer – are sent to the customer automatically. At the same time, CLARIN-D members who are responsible for the respective support queue are notified via email about the incoming ticket. From that point onwards, the support workflow is individualized.

The first help desk agent to open a ticket is, by default, assigned responsible and owner of the respective ticket. Whilst being responsible implies that the agent is in charge to keep control over the entire support process, the assignment owner enables him/her to delegate the ticket to another help desk agent to work on the ticket while it is locked for everybody else. Every authorized help desk agent is entitled to request ownership and/or write comments and receive notifications concerning the tickets status. (For CLARIN-D-wide synergies see section 2.3). Furthermore, it is possible at any time to forward a ticket to an external expert via email and thus integrate third parties into the support. The expertise provided by the ticketing system is thereby not restricted to solely the circle of help desk agents.

Further mechanisms that grant an effective and fluent support process:

- In case a help desk agent is unavailable for a certain period of time, he/she can set an out-of-office message to inform those agents who have him/her assigned as owner.

- In case a request has not been processed within two working days, an automatic escalation notification is sent to the respective administrator to ensure a timely processing.

- After a ticket has been closed, any further customer inquiries will automatically reopen the ticket and automatically assign it as described above.
2.2 Increasing Help Desk Performance

As described in section 2.1 the concept of assigning roles as well as the taxonomic queue structure has proven successful. However, due to the early stage of implementation of the CLARIN-D infrastructure, the number of CLARIN-D users is only just growing. Thus it is to be expected that the growing number of users will naturally lead to an increasing number of support requests that have to be processed without tying up too many personnel resources on the help desk work. To grant the optimum use of this support system, it has to be kept in mind at all times to minimize the effort for the help desk agents as much as possible by optimizing the support workflows described above. The first year of implementation has shown that this is done best by

- pre-selecting and pre-processing the tickets to grant for a quick assignment and a satisfactory reply to the customer within two working days (see also section 3.1),
- delegating as much of the support activities to student assistants without losing administrative control (see below),
- making optimal use of synergies between CLARIN-D centres (section 2.3),
- making use of the FAQs and documentations (section 2.4).

At the present time, quantitative statements about the number of support requests, and the effort associated with answering questions, are based on the number of 350 tickets that have been processed successfully since the startup of the help desk system at M24.

At the beginning of the implementation phase, it was agreed to perform the majority of the help desk tasks (especially the first line support) with the help of student assistants. For the supervision of the first and the second line support, each CLARIN-D centre assigned at least one researcher to help answering particularly complex user inquiries. The greater integration of researchers into the first line support did, however, not lead to any additional effort for the experts. On the contrary: In supervising student assistants performing the first line support, researchers were able to prevent tickets from escalating to second level support and in doing so, they reduced their own effort. The reason for this lies in the fact that the greatest effort turned out to be the writing and formulating of the actual replies. It turned out that in most cases, researchers just had to hint the student assistants at how to reply to requests or refer to relevant documentation.

2.3 Using Synergies between CLARIN-D Centres

The current queue structure of the OTRS-based CLARIN-D ticketing system has all nine CLARIN-D centres assigned to the first level. This structure, at first glance, is not an exact representation of the “Taxonomy of Support Areas” that was defined as an initial basis for the CLARIN-D help desk structure at the beginning of the implementation phase. However, this principle does not
discount the idea of a centre-overarching work to process incoming tickets but indeed supports the optimal use of synergies between the different centres in the CLARIN-D infrastructure. During the implementation phase, it became obvious that the initial support requests often dealt with concrete issues concerning CLARIN tools or services. Thus they had to be processed as quickly as possible by one specific expert from the respective CLARIN-D centre. Additional and supplementary information about methodical and technical issues in many cases did not emerge up until later stages of support process. Consequently, the tickets only then had to be forwarded/delegated to an overarching circle of experts. For this purpose the OTRS ticketing system, among other things, uses the sophisticated role concept as described in 2.1. This concept, firstly, clarifies the allocations of ticket responsibilities between the agents and, secondly, encourages collaborative work between the members of different centres. In most cases this was realized by delegating a request to another help desk agent or help desk queue. To allow to the help desk agents to also consult external experts having no direct access to the CLARIN-D helpdesk, the ticketing system provides an email interface for external communication. At the same time, all tickets not being assigned to centre internal queues (due to data protection issues this could become necessary) are, at any time, accessible for every CLARIN-D help desk agent. Such tickets can be commented on, ownership can be requested or the agent can simply engage in a discussion. An exchange of knowledge and expertise is thus always guaranteed. Already during the early stages of the help desk implementation, comprehensive synergy effects were discernible – especially between centres sharing similar expertise (e.g. the BAS and HZSK - both working with spoken language corpora).

Another example of synergy benefits is demonstrated by the collaborative support provided for the EXMARaLDA\(^2\) software suite, which since a couple of years is being developed and supported by the HZSK as well as the IDS, both being part of the CLARIN-D infrastructure. As expected, it has shown that an improved cooperation between the centres reduces the effort of the CLARIN-D specific help desk. It would furthermore be desirable for all existing local help desk routines at the CLARIN-D centres, which also consume and tie up considerable human resources, to be integrated into the CLARIN-D help desk with an adaption of the above mentioned routines.

**2.4 FAQ**

The OTRS system contains a powerful FAQ-module that allows the creation, administration and hierachical structuring of multiple (and probably nested) FAQ lists. These FAQ lists (or parts of them) can be either made publicly accessible or access be restricted to registered customers and help desk agents only. This facilitates not only the creation of internal FAQs regarding CLARIN-D internal issues like ticketing workflows, documentation of the ticketing system etc.. It

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\(^2\) [http://www.exmaralda.org](http://www.exmaralda.org)
also enables CLARIN-D members to work collaboratively on FAQ lists, which are generated on the base of user requests, and discuss them before publication.

Unfortunately, the web based FAQ front end that comes with the OTRS system does not fit the demands of a user friendly interface which requires an intuitive handling and an easy information access. Thus, to support the embedding of FAQs into all CLARIN-D websites, an export function was implemented creating HTML, XML and JSON output from the FAQ module and hence allow everybody in the CLARIN-D infrastructure to integrate new FAQ articles. In this way, CLARIN-D wide FAQ content can be centrally administered and updated as well as simultaneously spread as wide as possible.

At the present stage the OTRS FAQ module is used as

- an internal FAQ list, primarily focussing on technical and administration related questions for the CLARIN-D help desk and ticketing system (internal),
- a comprehensive list of example queries sorted by research topics and collected by members of the ‘Discipline-specific Working Groups’ (F-AGs – ‘Fachspezifische Arbeitsgruppen’) in 2013 (public),
- a bilingual (German/English) guide addressing numerous legal issues concerning research data that has been made available by the WP6 members (public),
- a pool of a growing number of specific FAQ lists that refer to special tools or platforms (i.e. EXMARaLDA, WebLicht etc.).

3. Dissemination Activities

3.1 Helpdesk Button

Constituting an interface between infrastructure projects such as CLARIN-D and the outside world, a centralized help desk seems to be expedient. Enhancing the visibility of the project and offering insights into how its infrastructure components are used, it is crucial to identify where further user assistance is needed. To ensure this, the idea of “help desk buttons” was developed, following the principles of emergency call boxes, which provide an intuitive access to the help desk. As a result, a considerable number of these call-to-action buttons were placed all over the CLARIN-D website and various infrastructure components. After having clicked a help desk button, a web based form pops up enabling the user to send a message to the CLARIN-D help desk. Depending on the location of the button, certain parameters are transmitted to the help desk system. These parameters are designed to automatically assign any newly created ticket to its respective queue and consequently delegate it to a qualified CLARIN-D help desk agent. This allows not only a fast ticket assignment but also a direct contact between users and help desk agents. The form mentioned above is highly customizable, so
that, depending on where the buttons are embedded, additional user information can be collected, simplifying the allocation as well as the response process.

Due to its distinctive design the help desk button provides a high recognition value. The embedding is performed smoothly with the help of code snippets which are provided by the HZSK.

Figure 2 Help desk button

Up to present date the Helpdesk Button has been placed at the following locations:

- CLARIN-D main website
  http://de.clarin.eu/
- TüNDRA user interface
  https://weblicht.sfs.uni-tuebingen.de/Tundra/
- Weblicht user interface:
  https://weblicht.sfs.uni-tuebingen.de/WebLicht-4/
- Telemaco platform
  https://fedora.clarin-d.uni-saarland.de/hub
3.2 Workshop Activities

From November 28th to 29th 2013, a workshop titled “Annotation: Anwenderbedarf und Support” (“Annotation: User demands and Support”) was conducted at the HZSK. The aim of the workshop was to bring together developers and users (primarily linguists, who formerly had requested help from the CLARIN-D help desk) of annotation and analysis software, who mutually exchanged their system demos to subsequently discuss requirements and possible solutions. Based on the experience gained from the help desk work, it was found that the majority of potential CLARIN-D users not only has to deal with non-standardized data (spoken language data, manuscript data etc.), but also with highly specific annotation workflows. Additionally, a great variation of demands for the annotation of vocabulary and its principles, turned out. For example:

- different (possibly concurring) interpretations of ambiguous language phenomena resulting into different annotation layers,
- segmenting and tokenizing principles that deviate from the common approaches which mostly are based on standardized written language.

The initial idea was to increase the awareness of the CLARIN-D infrastructure and its helpdesk, and, at the same time, gather information on the users’ demands to improve the CLARIN-D helpdesk as well as its tools and services.

The workshop program was structured into three sections:

1. **Spoken Language corpora:**
   - **Thomas Schmidt** (Institute for the German Language) reported on the principles of normalizing, lemmatizing and part-of-speech annotation on the Forschungs- und Lehrkorpus Gesprochenes Deutsch (FOLK).
   - **Daisy Lange** and **Cordula Meißner** (University of Hamburg) presented, based on the GeWiss project, different techniques of pragmatic annotation and their respective integration in the corpus.
   - **Karoline Kühl** (Copenhagen University) presented options of annotation to differentiate between systematic and idiosyncratic characteristics of languages in multilingual corpora.
   - **Melanie Andresen** and **Dagmar Knorr** reported on the management, integration and processing of various (multilingual) data formats.
2. **Annotation Practice and Variation**

- **Hagen Hirschmann** (Humboldt University of Berlin) presented the basic levels of annotation inherent to the FALKO corpus and discussed the obstacles and goals of the corpus’ architecture.

- **Wolfgang Menzel** (University of Hamburg) discussed the effects of the great difference in individual interpretation for the definition of gold-standards to be used for annotations and argued in favour of pluralistic standards and tools.

- **Seid Muhie Yimam** (TU-Darmstadt) demonstrated the features and possible applications of the annotation tool WebAnno, which is part of the CLARIN-D infrastructure.

- **Daniel Jettka** (CLARIN-D/Leipzig University) provided a system demonstration of WebLicht.

3. **Annotation of Non-Standard Data**

- **Fabian Barteld** (Hamburg University) presented the benefits of and requirements on the annotation tools GATE and Synpathy concerning a multi-level annotation of historical texts.

- **Katharina Dreeßen, Sarah Ihden** and **Timm Lehmberg** (Hamburg University) reported on the tasks and methods required to annotate historical texts, focusing on the adaption of already established tagsets as well as borderline cases of annotation and segmentation.

- **Sarah Kwekkeboom** (Ruhr University Bochum) discussed the challenging aspects of standardized pre-annotations in historical corpora.

- **Cristina Vertan** (Hamburg University) discussed the challenges of applying automatic annotation to multilingual historical texts.

As an important result it turned out that users of the CLARIN-D Infrastructure and help desk in most cases require more flexible tools, platforms and data formats that fit their individual annotation demands. Furthermore all participants agreed that individual and personal interaction between users and CLARIN-D members in the framework of help desk workflows plays an important role in a successful help desk implementation.

3.3 **Cooperation**

**CLARIN-D Work Package 6: Legal and Ethical Issues (IDS Mannheim)**

Due to the special nature of the Legal Help Desk, especially the strict rules governing provision of legal advice and the high level of privacy that is required when dealing with legal issues, the
Legal Helpdesk cannot proceed in same manner as the general CLARIN-D help desk by means of a ticketing system. What the experts of the Legal Helpdesk provide to researchers is guidance on what institutional departments they may consult and what resources are available (in German and English) at the Legal Helpdesk’s webpage.\(^3\)

**Discipline-specific Working Groups**

As described in the previous work package report, in the testing phase of the ticketing system 100 typical user-requests from members of the ‘Discipline-specific Working Groups’ (F-AGs – ‘Fachspezifische Arbeitsgruppen’) where collected and used to test the system with representative inquiries. The replies given by the help desk agents were documented in form of a separate FAQ list with the help of the OTRS FAQ-module (see also section 2.4) and made publically available.

**4. Outlook and Perspectives**

To improve help desk performance and reduce the personnel expenses, further mechanisms of filtering and pre-classification of incoming requests need to be implemented. This is not only to achieve a faster assignment and processing of the tickets but also to provide information, documentation etc. to users. These improvements will probably assist them to answer their questions on their own, making individual support redundant. Based on the experience gained so far, this can be achieved by:

- Including additional elements such as drop down menus, checkboxes etc. to the embedded contact form to motivate users to provide further – and thus more specific – information when contacting the CLARIN-D Helpdesk.

- Creating a decision tree based online wizard that users run in order be guided to knowledge resources and contact persons at the CLARIN-D help desk.

- A further integration of local help desk routines and knowledge resources (like documentation, FAQ lists etc.) from the CLARIN-D centres into the CLARIN-D help desk.

\(^3\) http://www.clarin-d.de/legaissues