Glocal enterprise network
focusing on customer-centric collaboration

D3.2
GloNet Platform 1

Edited by
Bholanath Surajbali, CAS
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GloNet WP3
Cloud-Based Software Service Provision Platform

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<td>Main Contributors</td>
<td>Bholanath Surajbali -- CAS Software AG</td>
</tr>
<tr>
<td>Other Contributors</td>
<td>Markus Bauer, Holger Bär -- CAS Software AG</td>
</tr>
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Deliverable summary

This report documents the initial GloNet platform 1 software release from Deliverable 3.1. It summarises the necessary tools and steps to have the GloNet platform running. In further iterations, the platform will be refined and additional modules will be integrated into the platform architecture.
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PROJECT-RELATED SUMMARY

This deliverable describes the GloNet platform 1 software package from of deliverable 3.1. It consists of the implementation of a cloud-based platform for solutions supporting the collaborative development and operation of highly customised and service-enhanced products.

The deliverable describes the initial set of modules and services that have been completed. WP 3 is conceived to be iterative. In further iterations, the platform will be refined and additional modules will be integrated into the platform architecture.

WP 2 will define a number of concepts and functionalities for the collaborative development and operation of highly customised and service-enhanced products, which will be implemented by additional modules of the platform.

Additionally, WP 4 and WP 5 will also contribute additional services which will either directly be built on top of the platform or integrated with the platform by the integration mechanisms provided by the platform.
1. INTRODUCTION

This document specifies the implementation details of the GloNet platform - a cloud-oriented technology platform allowing the creation and modification of scalable, extensible SaaS solutions for the collaborative development and operation of highly customised and service-enhanced products.

As described in the deliverable 3.1, the GloNet platform uses a framework-based approach, defining an application architecture providing a blueprint to implement GloNet systems and provides a number of that implement the basic building blocks if this architecture.

The document describes the installation guidelines for the GloNet platform as well as instructions and credentials to access the GloNet system. In section 2, the development system for the GloNet platform is described as well as the different installation guidelines. Then in section 3, the publically available GloNet cloud platform is presented in the form of a first pilot application. Finally, section 4 offers the deliverable conclusion.
2. GloNet PLATFORM

The GloNet platform employs a number of industry standards and off-the-shelf components which form the technical infrastructure of the GloNet platform. These components are the following:

- Tomcat web container,
- MySQL database and runtime components,
- the development environment (pre-configured Eclipse version with tooling and build / deployment support, form Designer to create / modify GUI forms), and
- a preliminary demo for the pilot consisting of a preconfigured MySQL database example with multiple tenants and an Eclipse project with the demo solution (explained in Section 3).

The preliminary demo version contains the same code as the publicly available GloNet platform but allows for individual modifications and enhancements.

2.1 GloNet Installation Files on Standalone Machine

The current release version of the GloNet platform is packaged with following components:

- apache-tomcat-6.0.36. The folder contains the Tomcat servlet container that is preconfigured for a deployment of GloNet application and uses the CAS Open configuration files that are stored in the folder; e.g. in Windows operating system it will be: C:\Glonet\cas_open_runtime\config.

The deployed local GloNet application is accessible using http://localhost:8080/glonet/login

Note: Tomcat can be used to deploy additional (external) services.

- cas_open_runtime
  - config. The sub-folder contains configuration files for the CAS Open based applications. The subfolder must match the context name (i.e. the .WAR-Name). The configuration files are shared by the applications started within Tomcat and Jetty (Jetty is used within Eclipse as a development-time servlet container).
  - documentStore. The sub-folder contains the base path for the store where all files (i.e. documents) for the different tenants are stored. Declarative forms are stored in subfolders <tenant>\filesWithoutRecord\formdesigner
  - Logs. The logs sub-folder contains the logs that are written by a running CAS Open application. Logging configuration is stored in the config folder.

- CASOpenUpdateSite. The folder contains several subfolders:
  - CASOpenPlatform. The sub-folder contains the CAS Open as an Eclipse-compatible target platform. It must be selected as target platform location in Eclipse:
    - Preferences->Plug-In Development->Target Platform
  - CASOpenTool. Contains additional tooling for CAS Open and these tools are already installed in the bundled Eclipse installation. The tools are accessible using:
    - the "CAS Open" menu item in the title bar and the context menus. An Eclipse View that can be used to query a running
    - CAS Open server using CAS SQL can be opened using Windows->Show View-> Other, select CAS Open->CAS SQL.

- Eclipse3.7. The folder contains a preconfigured Eclipse version of the CAS Open tooling.

- Eclipse3.7_Settings. The folder contains the required settings that can be imported to Eclipse (Eclipse formatter, templates etc.)

- EimInterfaceProvider. The folder contains the EIMInterfaceProvider source files.
• **FormDesigner.** An Eclipse RCP application that can be used to create new / change existing forms stored in the document store. Forms must first be imported from a running GloNet application and must be exported after changing them.

• **GlonetWorkspace.** It contains all source code of the GloNet application (excluding the declarative forms for object types EQUIPMENT and PRODUCT, which are stored in the document store).

• **JDK.** The JDK used by all Java-based applications (Tomcat, Eclipse3.7, Form designer).

• **mysql.** The folder contains MySQL portable with predefined configuration & databases. Additionally the folder contains a dump of tenant “Glonet” from the demo server piashowcase.cas.de. MySQL runs on standard port 3306 and this need to be re-launched if a version of mysql is already installed & running.

• **Tool.** The folder contains some additional (3rd-Party) tools:
  - **CreateGUID.** Small tool that is accessible from the system tray. It can be used to create GUIDs that are needed when defining new data types etc. E.g. use "createGUID (ohne -r,{},)" to create a new GUID that is stored in the clipboard; and use "flood clipboard" if you need several GUIDs. While active, every second a new GUID is stored in the clipboard.
  - **HeidiSQL_7.0_Portable.** It is a frond-end for MySQL.
  - **iReport-3.0.0.** It is a tool to generate reports for the Jasper Reports framework (used within CAS Open)

• **setCommandLinePath.bat.** This is a batch file that appends mysql/bin to the PATH. It is needed for SDK Tool actions to invoke commands mysql/mysqldump

• **startDB.bat.** The batch file contains the start script for the MySQL database. Note: MySQL must be started before Tomcat is started or the application is launched within Eclipse.

• **stopDB.bat.** The batch file contains the stops script for the MySQL database.

### 2.2 GloNet Platform Software

1. The GloNet platform is packaged in an archive folder and is accessible from the following URL: [http://casopen.cas.de/Glonet.zip](http://casopen.cas.de/Glonet.zip)

2. Downloading the archive and extract the archive under the local root directory. For instance in the Windows environment in the C:\ directory and under the folder Glonet (that is C:\Glonet). The contents of the extracted folder are shown in Figure 1 containing all the components as described in section 2.1

![Figure 1: Extract of the Glonet package archive folder](image)
3. Remark: It is strongly suggested to set the %TEMP% directory to a short path without spaces, e.g. in Windows operating system you can set it to "C:\tmp"

4. Add mysql/bin to your PATH (either by adjusting the variable or using setCommanLinePath.bat for the windows platform)

5. Start MySQL using startDB.bat (this script is to start MySQL on the windows platform).

6. Open Eclipse (Eclipse3.7/eclipse.exe) and use workspace "GlonetWorkspace"

7. Use existing launch configuration "Glonet" to start the application

8. After "EIM (version n/a) bootstrapping completed." the application can be accessed at: http://localhost:8080/login.

2.3 GloNet Software Deploying the application as WAR in Tomcat

To deploy the GloNet platform the following steps need to be performed:

1. Start MySQL (use startDB.bat if you are using the Windows operating system).

2. Tomcat must be started, for instance using Windows it will be the C:\Glonet\apache-tomcat-6.0.36\bin\startup.bat.

3. Generate a WAR using CAS Open->de.cas.open.glonet.app.feature->Build WAR. (as shown in Figure 2).

4. The generated WAR will be placed in project de.cas.open.glonet.app.feature/build.

5. Rename "de.cas.open.glonet.app.feature.war" to "glonet.war" and deploy it to Tomcat, e.g. using the Tomcat Manager.

![Figure 2: Build WAR from Eclipse](image-url)
3. GloNet CLOUD INSTANCE AND PILOT APPLICATION

The GloNet platform showcase example can be reached from [https://piashowcase.cas.de/glonet/login](https://piashowcase.cas.de/glonet/login) from a browser (Chrome or Firefox are recommended) as shown in Figure 3:

![GloNet Login Browser](image)

*Figure 3: GloNet Login Browser*

Table 1 provides the different tenants login to the GloNet platform. In each tenant, there are a number of users to choose from.

<table>
<thead>
<tr>
<th>Tenant name</th>
<th>Organisation</th>
</tr>
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<tr>
<td>glonet</td>
<td>Iplon</td>
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<tr>
<td>komix</td>
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<td>uninova</td>
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*Table 1: GloNet Tenants*

3.1 GloNet platform Credentials

For new users to access the GloNet platform they need to contact CAS Software AG and appropriate login credentials can setup and provided.

3.2 GloNet Showcase User View

After logging as a user for example logging using the user profile “victor” the dashboard window as shown in Figure 4 is displayed. Each login user is provided with a number of modules, the Search module, Stakeholders module, Calendar module, Tasks module, Documents module, Projects module, Product module, Equipment module, and the Sensor data module. Each of these main components is described in the section below.
3.2.1 Dashboard Showcase Module

The dashboard provides the users with a view of his/her appointments details, Open tasks, Weather forecast, company news, as well as News information. The dashboard is customisable to the user preferences.

![Dashboard Example Image](image)

Figure 4: Logging through the GloNet platform as user “Victor Thanburaj”

Each user can add users, groups and customise the permission system. Click the icon in the right top corner of the screen to access the administration area (see Figure 5):

![Administration Area Image](image)

Figure 5: GloNet Administration Area

Please note that this area can only be accessed by GloNet users who use the platform for the first time or have administration rights. All this is done using the "Administration" (as shown in Figure 6), the dialog accessible from the title bar from the icon. For example, the users Victor and Ulli belong to different user groups and can be used to add and browse the data.

The different users' roles and permissions administration is provided in deliverable 3.1 in section 4.8.3. Under the User management tab, the GloNet user can enter new users or resources (e.g. meeting rooms) or activate them. Next, the Company settings tab, users can add the corporate logo to their reports. The Export tab, allows users to save all their data and documents that have been entered from their local computer. The Classifications tab, allows users to customise different selection lists (contact categories, industry sectors, acquisition phases, and so on). Under the Tags tab, tags that are not being used can be found, and can be removed if desired.
3.2.2 Search Showcase Module

The showcase search module as shown in Figure 7, allows each user to search through the collaborative workspace information about his contacts, appointments, documents, tasks, projects, equipment, products. In addition with each search the user can add specific filter. The filter form provides a comprehensive list of possibilities to filter to the appropriate search such Changed By, Changed On, Created By, Function, Keyword, Manufacturer, Maximum external access right, Notes, Standard, does not contain, does not end with, does not start with, ends with, equal and Boolean expressions with each of the search.
3.2.3 Stakeholders Showcase Module

The stakeholders showcase module (as shown in Figure 8) allows the user to store organisational details (organisational name, sector, category, classification), addresses (business address, visit address), contact (phone, e-mail, homepage, fax, preferred contact method), individual contact of organisation and notes.

![Figure 8: GloNet Showcase Stakeholders View](image)

3.2.4 Calendar Showcase Module

Each user can view and customise calendar in terms of Day, Working Week or Week arrangements. Figure 9 shows the weekly calendar of user Victor.

![Figure 9: Showcase Calendar Week View for user](image)

Each user can add appointments to his calendar as shown in Figure 10. The user can provide specific details of his appointment in terms of Category information (as defined by the organisation which can
be product development, marketing, etc.), Type (Training, Customer Meeting, Event, Staff, Coordination), Location. Specific time of the meeting can be defined in terms of the start and end time, with reminders advance (in minutes advance or at a scheduled time). Furthermore the user can add other participants of the collaborative platform, resources and notes for the appointment.

![New Appointment Window](image1)

**Figure 10: New Appointment Window**

Each user can also further customise the appointment through the recurrence tab. The user can add specific recurrences of events and specific recurrence notes of the meetings, e.g. daily, weekly, monthly, annually. In addition within the recurrences tab the user can customise period of meetings e.g. with start date and end date with recurrence frequency of meetings. Finally, the user can add exceptions to his/her appointment for example the default setting is No exceptions, but can include exceptions such as to exclude specific days (specific days of the week), or next available day. The recurrence tab window is shown in Figure 11 below.

![New appointment recurrences tab](image2)

**Figure 11: New appointment recurrences tab**
The user can also browse through the dossier tab to retrieve specific record types such as Contacts, Appointments, Tasks, Documents, Projects, Products and Equipment within his organisation and add the specific information to his Appointment, as shown in Figure 12.

![Figure 12: New appointment Dossier tab form in Calendar Window Showcase Module](image)

### 3.2.5 Showcase Products Module

Figure 13 shows the showcase Product Module View. It consists of all products records and the project phases. For the user Victor, if he chooses products, the full list of product parts are displayed as shown in Figure 14. For the particular product the user can view the associated customer and responsible person within the organisation contact details. The user can also specify required access rights view on the equipment, for example only specific employees working on the project within the organisation to be able to view product. At any point the user can add, remove and search for other equipment and add it to the particular project.

![Figure 13: Showcase All Products Module View](image)
The GloNet user can also add followup notes on equipment in the list. For example clicking on the followup button the user can provide Time reminders, status priorities, status of completion (not started, in progress, completed), responsible person and specific notes, as shown in Figure 15.

3.2.6 Showcase Equipment Module
The user can also view details of the equipment and corresponding images of the equipment. Images can be uploaded up to a size of 20MB. Figure 16 illustrates the view in the GloNet system for the “K&Z Pyranometer CMP11” equipment.
The GloNet user is also able to view the Manufacturer details, Type Designation details of the equipment, add specific specifications to the equipment, status in terms of functional classification within each organisation and version the equipment. In additional specific notes can be added to the equipment. The GloNet user can also do link with contacts in the collaborative workspace, add appointments, documents, tasks and assign equipment with existing and New Project.

3.3 GloNet Showcase platform Settings

Each GloNet user can change the settings, by click on the button to customise the dashboard, language, country, timezone, start forms view as he/she login to the GloNet platform, change password, and sort the Navigation order window, as shown in Figure 17. Also the GloNet user is also to further customise his screen, adding existing contacts, Calendar settings (start and end working time, notification settings), adds public holidays of different country and supports several add-in (e.g. mail archiver, CASInfo@Click to make phone calls, and synchronise data with other applications).
3.4 GloNet Showcase platform Logout

To logout of the GloNet showcase platform the user can do so, by clicking on the button on the top right corner of the form. On doing so, the user is prompted with a dialog requesting him to confirm his choice as shown in Figure 18.

Furthermore, if any changes are noted to have been performed and not saved to the database, the user is prompted with a Record was Changed dialog (as illustrated in Figure 19) to ensure all data are properly saved before the user is logged out of the platform.

Figure 18: GloNet Showcase Logoff dialog

Figure 19: GloNet Showcase Platform Logoff Record Changes Dialog
4. CONCLUSION

The GloNet platform provides a comprehensive framework for creating applications for the collaborative design and operation of complex service enhanced products. The GloNet software release provides such capabilities as defined in the work deliverable 3.1 and illustrated in Section 3 of this document, involving different stakeholders’ collaboration through their different products, equipment and services.
5. REFERENCES

CONSORTIUM

CAS Software AG, Germany
Project coordinator: Dr. Bernhard Koelmel

UNINOVA – Instituto de Desenvolvimento de Novas Tecnologias, Portugal
Technical coordinator: Prof. Luis M. Camarinha-Matos

Universiteit van Amsterdam, Netherlands

iPLON GmbH The Infranet Company, Germany

Steinbeis GmbH & Co., Germany

SKILL Estrategia S.L., Spain

Komix s.r.o., Czech Republic

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