Network of Excellence

Deliverable D1.1

NESSoS JVRL Web Portal
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Abstract
This document contains a brief presentation of the web portal for the NESSoS project. Along with a basic overview of the portal, a description of the technologies used and the underlying choices is provided. Additionally, a tour of the portal and its main functionalities is shown, along with basic usage hints both for visitors and for publishers.

Keyword List
Dissemination, communication, web site.
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1 Portal overview

The web portal for the NESSoS project is located at http://www.nessos-project.eu/. It has been designed to faithfully reproduce the logical partitioning of the project. For this reason, a large part of the portal reflects the organization of the project into WPs.

Figure 1.1: Web portal main page.

The top-level menu displays six sections:

Project description contains basic information about the project, essentially regarding the objectives of the NoE;

Consortium briefly describes all the project partners;

Integration contains the WPs related to the JVRL, the workbench and the integration of tools provided by the Consortium (WP 1 – WP 5);

Research contains the research work packages (WP 6 – WP 11);

Spreading of excellence contains the work packages related to education and dissemination of results (WP 12 – WP 14).

The Integration, Research and Spreading of excellence menus are further divided into subsections, each corresponding to a WP. Each of these smaller sections contains a brief description (similar to the one in the DoW), and can be populated with articles pertaining to the WPs. Because the structure so closely resembles that of the project, the portal has been designed so as to allow each WP leader to build his or her own section. Each section can be populated either by the site administrators, or by its WP leader.

The main menu contains some additional entries, which are not tied to the project structure:
**Publications** contains research publications connected to the NoE;

**Events** is a simple web calendar, where project members can point out events (conferences, meetings, schools) related to the project;

**Web links** is a container for links to websites, both internal to the project (such as the other portals) and external (for example, useful tools);

**Contact** is a web form to ask for information related to the NESSoS project;

**Administration** is used to access the backend (administrative) area of the web site.

Last, the main page contains a form for accessing the reserved area (for users who are enabled to post contents).
2 Public section

The main purpose of the NESSoS web portal is to provide visibility of the NoE to visitors. The main target of the portal, therefore, are worldwide researchers of the research areas of the NoE. The portal aims at providing information about advances in research, publications, events, and the tools used by the members of the NoE to carry on their research.

The section called Project description contains an overall view of the project. Apart from a general description, the various objectives (from the DoW) are listed in this section, along with a description of each:

OBJ1 Long-lasting research community
OBJ2 Common body of knowledge
OBJ3 Integrated research agendas
OBJ4 Integrated infrastructure tools and methodologies
OBJ5 Spreading of excellence
OBJ6 Mobility of human resources
OBJ7 Industrial impact
ROBJ1 Engineering discipline secure software FI services
ROBJ2 Security assurance
ROBJ3 Risk- and Cost-aware SDLC

The Consortium section contains two pages:

Core partners contains links to the description of each of the twelve NESSoS partners;
Associated contains a list of associated participants who are not part of the main NESSoS consortium (see Figure 2.1).

Most of the web site has not been populated yet, and its purpose is actually to be populated during the course of the project. Members are encouraged to populate the WP sections with content. Initially, the only content in the WP sections is the WP description from the DoW. However, they can be expanded to contain articles related to the WPs, progresses in the project, news, and so on. There are a total of fourteen WP categories in the web site.

• The Integration section contains the following WPs:
  – Joint Virtual Research Lab
  – Tools & Methodologies
  – Mobility program
  – Road-mapping and community building efforts
  – Knowledge Portal

• The Research section contains six WPs:
  – Security Requirements for Services
  – Secure Service Architectures and Design
  – Programming environment for Secure and Composable Services
  – Assurance
  – Risk and Cost Aware Software Development Lifecycle
Future Internet Application Scenarios

- Spreading of excellence has three additional WPs:
  - Dissemination and Communication
  - Education and Training
  - Exploitation and Industry Liaison
Figure 2.2: The WP categories

(a) Integration menu.

(b) Research menu.

(c) Spreading of excellence menu.
3 Technical implementation

The web portal is basically built using the following technologies:

- Joomla! CMS, version 1.5.21 Stable;
- a server running Ubuntu Linux 10.5;
- Apache 2.2.11 web server;
- a MySQL 5.0.75 database.

Access to the restricted area of the web portal is based on an LDAP authentication. Users' login data are not stored in the CMS's internal database, but on a separate LDAP directory. The reason for such a choice was to enable a shared authentication across different services, if they are provided with an LDAP binding (which most widespread tools do have). This way, users of the NoE will not be required to have several access credentials to different services; additionally, the LDAP directory can be used to store extra information, for example to create an addressbook of the NoE members. The web portal is built in such a way that, when users are created (by an administrator), their relevant information is placed directly into the LDAP directory, and changes they make on their own profile in the portal (e.g., changing the password) are forwarded to LDAP.

In addition to the software described above, some extensions for Joomla! have been selected, for the following purposes:

- better LDAP integration;
- event publishing;
- publication management.

Joomla! already comes with a plugin for LDAP authentication; however, several other plugins were needed to map user permissions and to synchronize the information between Joomla! and LDAP. Basically, the extensions used were Sam Moffatt's JAuthTools¹, along with the Advanced Tools from the same developer.

For the calendar management (posting and viewing events relevant to the NoE), the JEvents extension² has been used. This extension comes with several small add-ons, but only the main package has been used.

Last, a large extension has been installed for managing publications. J!Research³ allows posting and viewing publications, with several useful options such as tools for import/export in BibTeX format (which has been enabled in the NESSoS web portal).

The graphic layout is based on the free version of the a4joomla-Social-F template⁴, slightly modified with the colors of the NESSoS project and some minor changes.

Because of some very specific requirements, some changes were needed which were not found in any extension surveyed. For this reason, some changes to the Joomla! code were needed to accommodate a specific functionality which allows each WP leader to post articles only in the sections related to his or her WP(s); the WP leadership is encoded in an attribute in the LDAP entry.

All the tools used were covered by royalty-free licenses.

²http://www.jevents.net/
³http://joomla-research.com/
Figure 3.1: JEvents administration page.

Figure 3.2: J!Research administration page.
4 Usage

The whole content of the web portal is open to public access. However, only administrators and registered users are allowed to post new contents. Registration is not openly allowed, users must be added by an administrator.

There are several content-posting functionalities solely available to registered users. These include: posting articles, posting web links, adding events, or inserting publications.

Users are in charge of one or more WPs. Since the site structure closely reflects that of the WPs, each user is allowed to post content in the sections related to his or her WPs. A user must select a section and category when posting an article. If the user is in charge of a single WP, then the choice is disabled and the system automatically posts his content to the correct position. Otherwise, select boxes will allow the user to choose the category to post the article to. The newly-posted content will then be visible by navigating the menus to the relevant WP.

Web links are all placed in a separate area of the web site. They are supposed to include links to everything that doesn’t fit into specific categories such as the WPs or events.

Users can also create events. The description of an event must have a name, dates and, possibly, a contact, a description and a place (see Figure 4.1). Events are classified in the following categories:

- conference
- workshop
- meeting
- conference call
- school

Publications can be posted in two separate ways, either through a form which differs according to the publication type or by pasting a BibTeX entry into a textarea (see Figure 4.2). It is also possible to upload the publication file or other attachments. After a publication has been posted, the public page for viewing the publication list also offers some basic search and filtering options (as shown in Figure 4.3).
Figure 4.1: Event form.
Figure 4.2: Publication posting form.

Figure 4.3: Publication list.