



EuroGEOSS Showcases: Applications Powered by Europe

## **Deliverable 6.4**

### **Help Desk strategy and setup**



The e-shape project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement 82085

## ABSTRACT

The primary goals of the e-shape Help Desk are to assist end-users, solve problems and maximize services value. These goals cannot be met unless and until Help Desk services are fully utilized. Success depends upon acceptance and awareness.

*Acceptance* is derived from service quality and acquired credibility. End-users must believe that the Help Desk is capable of providing the required assistance. That belief comes from actual experience and the quality of the services provided. To realize “acceptance”, Help Desk services must be provided in a manner consistent with the overall e-shape vision, while *awareness* comes from active communication and dissemination aiming in engaging end-users. If the end-user community is not sufficiently aware of the Help Desk mission, and the services provided, it is unlikely that utilization and “acceptance” goals can be met. This is the purpose of a Help Desk “communication program”.

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S4	Under preparation		

## 1 ABBREVIATIONS

<b>API</b>	Application Programming Interface
<b>CMS</b>	Content Management System
<b>CSS</b>	Cascading style sheets
<b>EC</b>	European Commission
<b>EO</b>	Earth Observation
<b>e-shape</b>	EuroGEOSS Showcases: Applications Powered by Europe
<b>FAQ</b>	Frequently Asked Questions
<b>HTTP</b>	HyperText Transfer Protocol
<b>IT</b>	Information Technology
<b>KPI</b>	Key Performance Indicator
<b>MySQL</b>	Open Source Database
<b>NGO</b>	Non Governmental Organisation
<b>NOA</b>	National Observatory of Athens
<b>PHP</b>	Ypertext Preprocessor
<b>SC</b>	Showcase
<b>SSO</b>	Single Sign -On
<b>WP</b>	Work Package



## TABLE OF CONTENTS

<b>LIST OF FIGURES .....</b>	<b>6</b>
<b>2 EXECUTIVE SUMMARY .....</b>	<b>7</b>
<b>3 INTRODUCTION.....</b>	<b>8</b>
<b>4 HELP DESK STRATEGY.....</b>	<b>9</b>
4.1 IMPLEMENTATION PLAN.....	12
4.2 SITEMAP .....	13
4.3 TICKETING PROCESS .....	14
<b>5 GENERAL OVERVIEW .....</b>	<b>15</b>
5.1 HELP DESK PROCESS (USER FLOW) .....	15
5.2 USE CASES .....	18
5.2.1 Home Page.....	18
5.2.2 Knowledge Base.....	19
5.2.3 Community Forums.....	19
5.2.4 FAQ.....	20
5.2.5 Submit a Request .....	20
5.2.6 Log In.....	22
<b>6 TECHNICAL SPECIFICATIONS .....</b>	<b>23</b>
<b>7 EVALUATION &amp; NEXT STEPS .....</b>	<b>24</b>
<b>8 APPENDIX .....</b>	<b>25</b>
8.1 WORDPRESS TEMPLATING ENGINE .....	25
8.2 WORDPRESS AVAILABLE APIS & LINKS.....	25

## LIST OF FIGURES

### Figures:

<b>Figure 1: Statistics page.....</b>	<b>10</b>
<b>Figure 2: Sitemap of e-shape Help Desk.....</b>	<b>13</b>
<b>Figure 3: General structure of Help Desk .....</b>	<b>17</b>
<b>Figure 4: Brief diagram showing the application's architecture.....</b>	<b>23</b>

## 2 EXECUTIVE SUMMARY

The primary goals of the e-shape Help Desk are to assist end-users, solve problems and maximize services value. These goals cannot be met unless and until Help Desk services are fully utilized. Success depends upon acceptance and awareness. *Acceptance* is derived from service quality and acquired credibility. End-users must believe that the Help Desk is capable of providing the required assistance. That belief comes from actual experience and the quality of the services provided. To realize “acceptance”, Help Desk services must be provided in a manner consistent with the overall e-shape vision, while *awareness* comes from active communication and dissemination aiming in engaging end-users. If the end-user community is not sufficiently aware of the Help Desk mission, and the services provided, it is unlikely that utilization and “acceptance” goals can be met. This is the purpose of a Help Desk “communication program”.

The e-shape Help Desk is a key element to establish a dialogue with users, to reinforce the users’ experience, to improve their satisfaction, to identify the potential gaps, the strengths and/or the weaknesses of each pilot and to transfer the information within the consortium for improvement.

It will be a key tool for linking users with the showcases and pilot teams as well as to ensure efficient and fruitful exchanges between “clients and service providers”. The main target of the Help Desk is to coordinate engagement between the project team and externals and help the users to overcome the obstacles that may appear for each phase: initial uptake, integration, operation usage.

As a general principle the e-shape Help Desk, was designed in an attractive and informative way with strong emphasis on user experience aspects.

This report provides a short description of the strategy, the content and the structure of the e-shape Help Desk.

### 3 INTRODUCTION

The Help Desk Strategy and Set Up is part of WP6 “Communication, Dissemination & Help Desk”, whose main objective is to ensure that the impact of the e-shape project will be maximized through an effective campaign of communication, dissemination and engagement activities.

Apart from classical communication and dissemination activities, a dedicated e-shape Help Desk facilitates and enhances the communication with users and with stakeholders interested in the project. It will serve as the single point of linking users with the showcase and pilot teams, ensuring that different issues and user concerns are quickly addressed and resolved.

The deliverable aims to transfer all the necessary information about the e-shape Help Desk and its functionality.

Taking all this into account, this report follows the structure presented below:

- **Chapter 4:** presents the high-level strategic priorities and methodology comprising the Help Desk strategy of e-shape and provides an overview of the necessary implementation actions.
- **Chapter 5:** presents the general structure of the Help Desk and use cases.
- **Chapter 6:** provides an overview of the technical information and architecture or the proper functioning of the Help Desk software.
- **Chapter 7:** presents the next steps that could be taken to enhance the way forward and future work.
- **Chapter 8:** presents the overall objectives for the use of WordPress (appendix).



## 4 HELP DESK STRATEGY

In today's demanding world, a Help Desk plays a pivotal role in creating new opportunity and delivering competitive advantage to users.

Help Desk is the primary point of contact for all internal and/or external visitors. It will be the function which users are most easily perceived. Users' impressions of Help Desk impact the image of service a lot. A good image of Help Desk can help to obtain more support for visitors and propel higher user satisfaction.

The main goal of the platform's support service is to help the user to overcome the obstacles that may appear for each phase: initial uptake, integration, operation usage and generally provide great knowledge base opportunity after completion of the project, ensuring a positive and effortless user experience. That awesome experience starts from the very first touchpoint, when they visit Help Desk platform and carries all the way through to when visitors actually use e-shape Help Desk services and become main users.

The goal will be accomplished by providing an open line of communication to answer any question coming from a stakeholder interested in using any of the 27 pilots, to engage externals and target audiences as well as to coordinate this engagement within the project team. The system will be managed by a human element and supported by IT tools. In the course of time, it will be optimised ensuring user satisfaction through a positive and effortless user experience.

Increasing number of visitors as main users to the web page of the Help Desk, is of primary importance and an approach to promote the success stories of the project and support the on boarding actions as well. Intriguing the visitor to browse the content is a secondary but of equal significance objective of the platform.

More precisely, the **objectives** of the Help Desk are to:

- Bring more visitors to the landing page of the Help Desk & motivate them to subscribe as main users.
- Provide a workspace that support and understand different types of users and handle a wide variety of different issues.
- Provide an open line of communication to engage externals and target audiences as well as to coordinate this engagement within the project team.
- Provide support to the stakeholders across the EO value chain, including policy makers, end-users, thematic networks & associations, innovation hubs, data owners, and service providers.
- Communicate e-shape Help Desk as the right place to find an answer regarding e-shape pilots, showcases, capacity building actions, IPR issues, market, etc.
- Promote the success stories of the project and support the on boarding actions.
- Consider users as partners and give them a "seat at the table" by creating a community forum.
- Develop FAQs for different problems and posting them in a central, easily accessed location.
- Better tracking of performance and KPI's (Requests per category/showcase, Requests created per day, Requests per user) (with Help Desk platform the journey of each support ticket through the system is recorded and available for analysis, giving a powerful body of information to work with when trying to improve service).

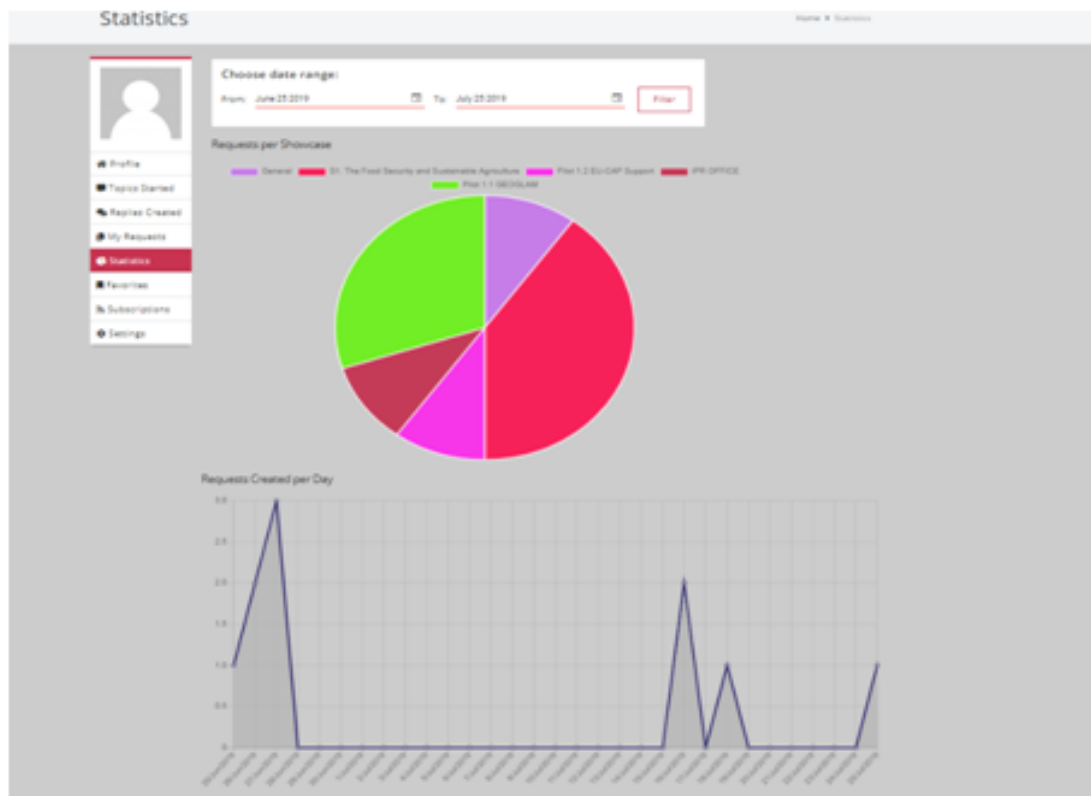


Figure 1: Statistics page

- Gather actionable insights (data) that can be fed back into the organization, producing valuable insights for services, leading to a better all-round user experience.
- Create a knowledge base open to the public during and after the program, meaning that the platform will be reusable and extendable.
- Provide robust ticketing.

Additionally, commonly asked questions with corresponding answers will be available on the project's Help Desk and a ticketing platform will streamline consortium coordination, ensuring that incoming requests/questions will be handled and organized in a timely manner by the most appropriate individual/group in the consortium.

To maintain and deliver a successful Help Desk, the below **technical specifications** were adopted:

- User-friendly - Accessible from mobile devices. Typical management tools aren't accessible from mobile devices. However, Help Desk platform overpasses this matter by its responsive design.
- Role type support. Business model based on supporting different types of users. Help Desk software allows to add new types of users and edit their role permissions.

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- Role type support. Business model based on supporting different types of users. Help desk software allows to add new types of users and edit their role permissions.

- The Help Desk's software is based on an open software solution so that makes it reusable in any possible way (Help Desk tool - knowledge base). Most Help Desk tools don't offer this type of extensibility.
- Dashboard - front end / backend for each type of user.
- Reporting - Statistics by using KPIs based on project design and progress.
- Dynamic definition of types and fields in the support form.
- Based on open source software - open source standards.
- User Forum with social media integration and compatibility for future integration with Single Sign On (SSO) EuroGEOSS integration in order to encourage cooperation between stakeholders and share knowledge with crowdsourcing logic.
- Compatible with external APIs.

The e-shape Help Desk is built on the following **factors**:

- Sustainable tool after completion of the project. Meet the expectations of the EC- EuroGEOSS Initiative.
- Supports unlimited users without additional costs (big volume in coming traffic (1000s transactions) operating in secure hosting and server environment at NOA).
- Better use of team resources (access from all moderators).
- Based on open software and open standards (no license needed).
- Extendable software, for example: create new user roles, add more functionalities customized to the needs. Amendment of design can be used with existing credentials (facebook, twitter, google accounts, gmail, open id)
- Low budget for its maintenance. Supports migration to every type of server. Supports interoperability with third parties, by using APIs.

## 4.1 Implementation plan

The goal is simple - to ensure that all end-users have been fully informed and understood e-shape's areas of expertise, the available services and how these services are to be requested and utilized, as well as what the project is all about. The Help Desk will offer to end-users the chance to be informed on how EO services and data can support their line of work.

Communication efforts and pilots' contribution must also focus on generating interest and enthusiasm for the services that the Help Desk provides and eventually contributing in gaining the trust of the users.

The clear advantage of understanding the users, their common characteristics, and their needs, lies in the fact that Help Desk can be successfully equipped to provide services and share information. Eventually, the user will feel knowledgeable and in-the-loop through the process.

Following e-shape Communication & Dissemination strategy, Help Desk visibility will be increased and continuously improved.

Taking into account the Help Desk objectives presented previously, e-shape will implement an action plan, in collaboration with the WP, SC leaders and pilots, that covers the following steps:

- Get all showcases and pilots involved in user service.
- Support numerous & different types of requests as possible.
- Provide timely and quality services for the users.
- Build a Help Desk that has continual improvement built into its design.
- Help visitors succeed on a personal level. The better the Help Desk performs, the more empowered the user will be in their own role. One way to distinguish the project as a pioneer is to demonstrate that e-shape invested in user's success on a personal level if possible.
- Build an advanced knowledge base that helps to resolve issues more rapidly in the future. To utilize this knowledge base to maintain continuity in service even after the completion of the project.

The users of the Help Desk are split to 4 categories:

**Administrators:** Those who are registered and authenticated in the platform and can manage the other user actions and the platform's processes. The objective of the administrators is to ensure that standardized methods and procedures are used for efficient and prompt handling of all requests.

**Moderators:** (SC/Pilot/WP leaders) Those who are registered and authenticated in the platform & can answer/resolve/assign a request. From Help Desk view, moderators are not only responsible to manage the request but also track and push on the progress, ensure the standardized methods and procedures are used for efficient and prompt handling of all changes, timely.

**Main users (registered - active users):** Executives and directors need a trusted source of industry news that helps them lead. Main users are considered as all the external stakeholders who want to be informed about the program and the pilots.

**Potential main users (not registered - visitors):** Public institutions, Academics, Developers, Researchers NGOs, Companies. e-shape Help Desk improves user's satisfaction since it will be actively responsive, consistently assist users, and go the extra mile in service delivery support. This provides support to the project's objectives and facilitates the growth of its service by increasing the number of returning users.

Furthermore, the platform will have the ability to provide support so as to get an end user back into functioning mode. As a matter of best practice, Help Desk utilizes its technical specifications (Chapter 5) to record, track and manage issues raised.

## 4.2 Sitemap

Below there is a diagram depiction of the web page in which the Help Desk has been developed. Each category of the main menu is divided into parts leading to different sections with distinct functions each.

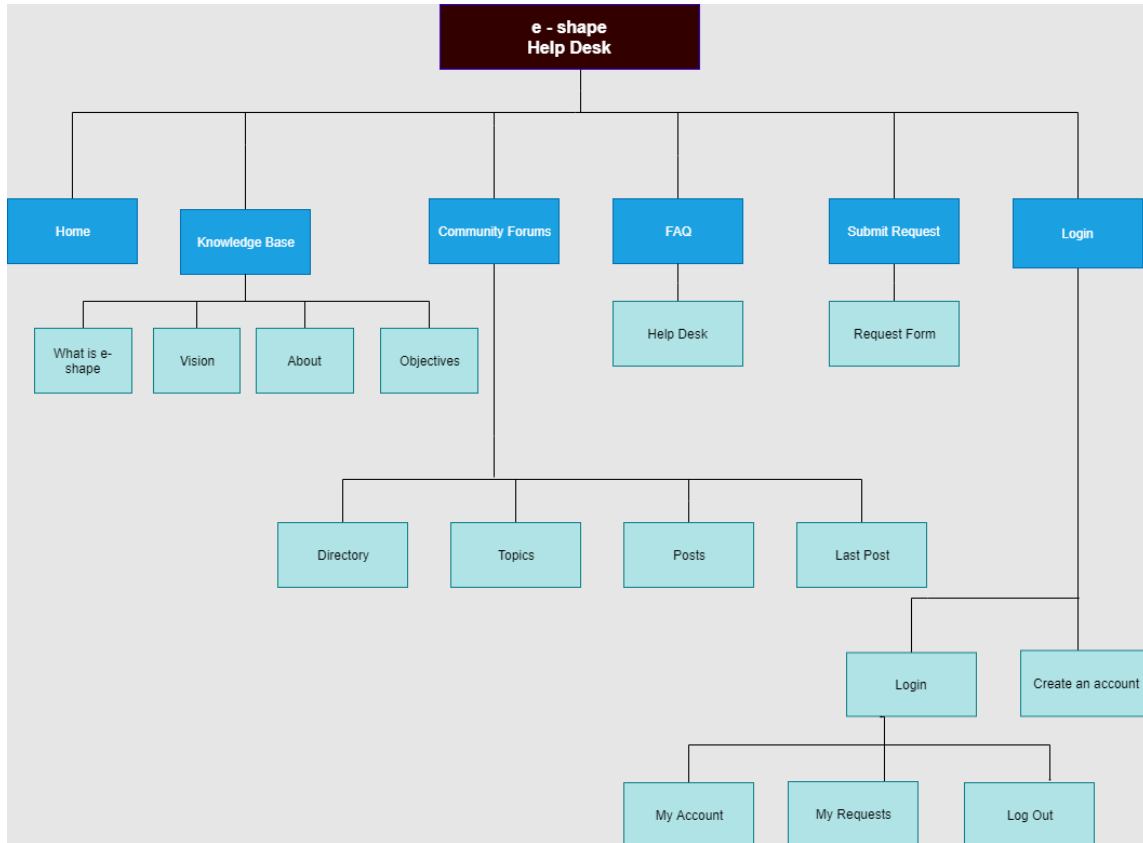


Figure 2: Sitemap of e-shape Help Desk



### 4.3 Ticketing process

At the core of the Help Desk platform is ticket management that sorts user conversations in many ways including by date, affiliation and type of request. This feature can also automate processes to speed up the resolution of cases.

In this context, the Help Desk step-by-step ticketing process breakdown is briefly presented below:

#### **1. Ticket creation**

A user creates a ticket (open question or drop-down list) and the Help Desk software will automatically create a ticket or open a case on the user.

#### **2. Help Desk communication module activation**

The Help Desk administrator is notified of all new tickets and is responsible to distribute the “open question” request accordingly (moderators). In case the user selects from the drop-down list, the moderator (pilots, SC, WP leaders) of the case will claim responsibility for the ticket and be assigned to it automatically.

#### **3. Ticket Resolution & Team Interaction**

The ticket is updated by the moderator based on the information provided by the user.

The administrators can also tag other team members on the ticket if it needs to be escalated or requires a specialist response.

Also, in order to ensure that incoming requests/questions will be handled and organized in a timely manner, SC leaders, as moderators of the Help Desk, will monitor pilots' requests in order to follow up and manage the process of escalation, track the progress of a case as it moves through the different stages of support.

#### **4. Ticket Closure & Contact Renewal**

Once the issue or query is resolved, the person in charge (administrators, pilots, SC, WP leaders) of the ticket will close it.

However, all that information collected should stay within the Help Desk software as updated contact information for use in future queries and interactions.

Furthermore, main users will like to know what is happening with their query, this procedure will become easier with regular updates on the status of their request. The main users will be kept in the loop throughout the life cycle of the ticket and not just when it is resolved.

## 5 GENERAL OVERVIEW

### 5.1 Help Desk process (user flow)

The general structure of the Help Desk function is divided into 7 different activities (Figure 3):

1) At “Help Desk/submit request” the visitor can find a form for submitting Requests to the platform, either as a logged-in user or as a guest. A moderator will be automatically assigned to resolve the Request. If a guest, the user will receive a link in their email inbox with which they can access the Request's support thread.

2) Once the logging in process is completed, the user can keep track of the personal activity under the thread “My Account” and “My Requests”.

- “My Account” shows the basic information the user has submitted under their profile which can be edited at any time.
- “My Requests” is a record of the requests sent, either resolved or unresolved. Additionally, the activity in the forum is demonstrated in this section, such as favorite topics, topics created by the user, and comments made.

3) Depending on the role assigned (moderator, administrator or main-active user), the user may have different access rights which are filtered accordingly and view the Request List. Each user category has its own filters to choose from, such as filters for seeing personal Requests (submitted by them) or Requests assigned to them.

4) At “My Account” section an administrator can click on Statistics and watch various Requests stats.

5) The FAQ section serves as an informational section where anyone interested can find short answers to common questions regarding the e-shape platform.

6) Similarly, the Knowledge Base is also an informational section, which serves as a library, providing more extensive information and short articles.

7) The Community Forums are public forums where logged-in users can discuss topics of interest as long as it is relevant to the specific forum or sub-forum's category description.







An indicative flow diagram is cited below depicting the steps a user has to follow in order to make the fullest use of the platform.

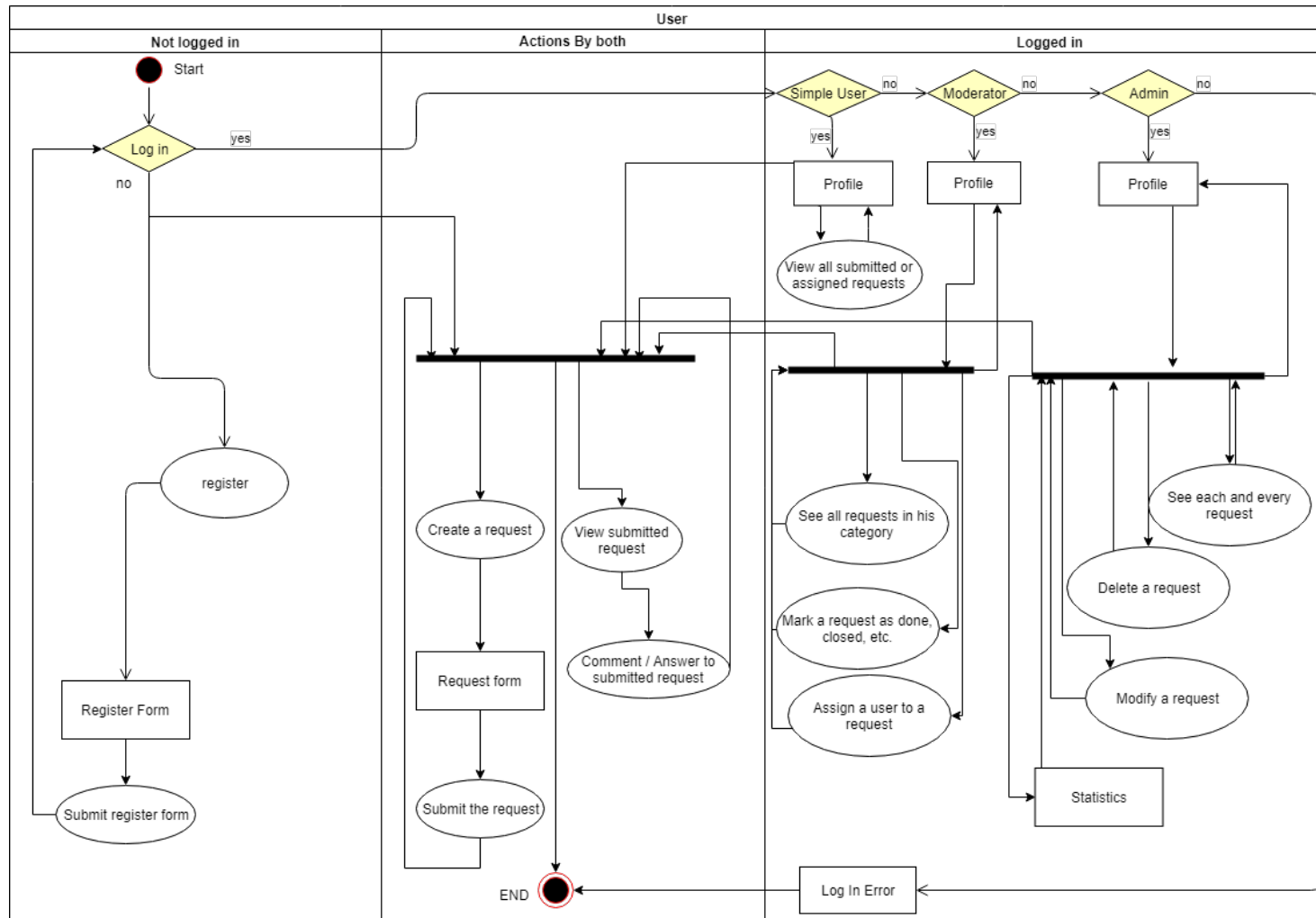


Figure 3: General structure of Help Desk

## 5.2 Use cases

To design the navigation architecture of e-shape Help Desk, WP6 has taken into account the needs of the consortium members and the different dissemination/engagement targets. The home page has an informative character but is also the gateway to the core functionality of the platform. It consists of a number of distinctive and dynamic content blocks which are positioned accordingly to accommodate the content of each section. The users will be able to navigate to the different pages of the Help Desk home page through a number of static and dynamic items presented in it. The following items are depicted below:

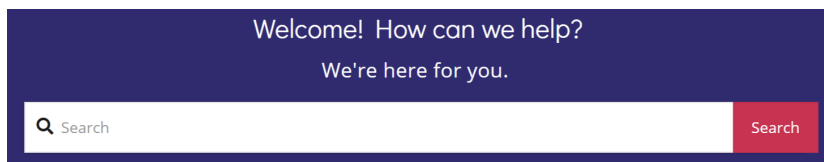
### 5.2.1 Home Page

Entering the Home Page, the visitor can browse the basic categories.

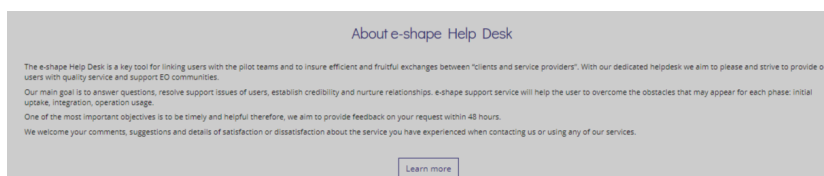
- Knowledge Base
- Community Forum
- FAQ
- Submit a Request
- Login



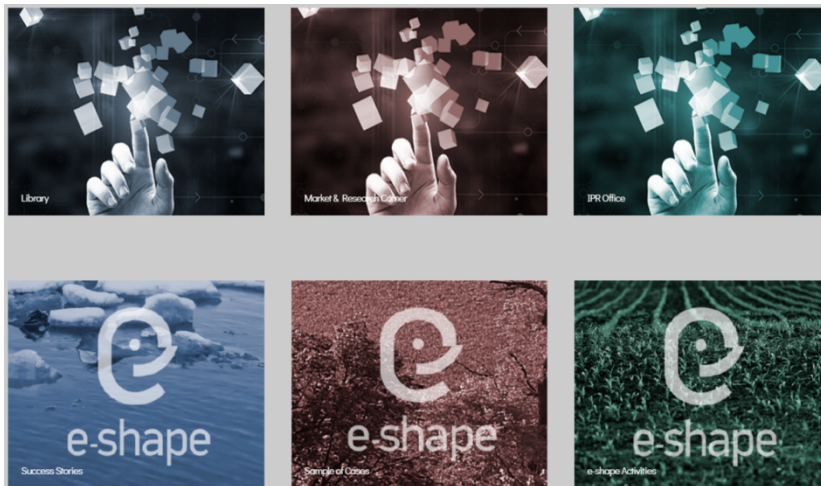
Below the navigation menu, there is a field serving as a search bar, in which the user can type a keyword and get some results.



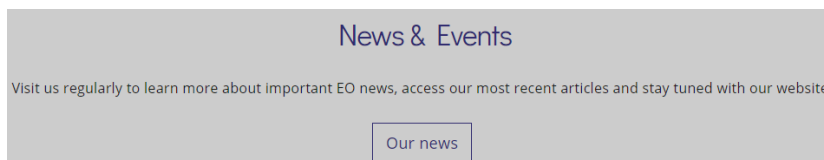
Further information regarding the goal and the objectives of e-shape Help Desk is presented, with a link leading to the main website of e-shape, <http://e-shape.eu/>.



Through the “Library”, the visitor can find out about the Frequently Asked Questions, whereas the rest of the categories are still under construction.

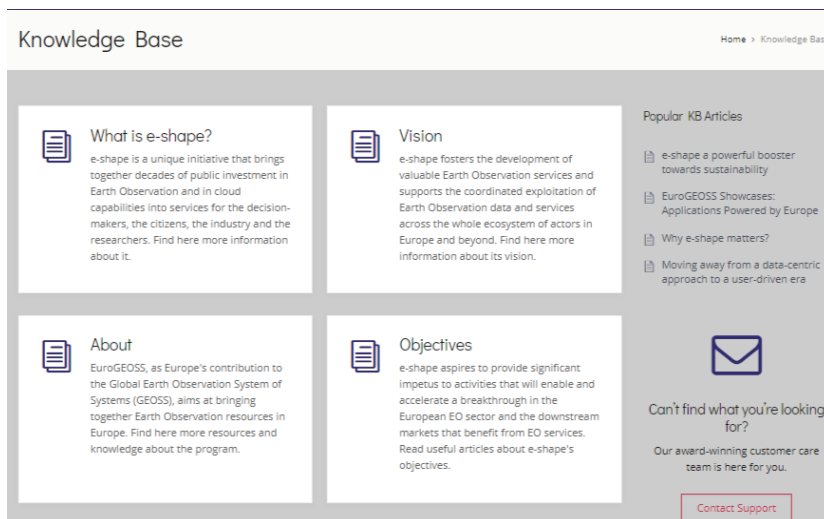


Exploring downwards, the visitor can learn about EO news, access the most recent articles and stay tuned with the website.



### 5.2.2 Knowledge Base

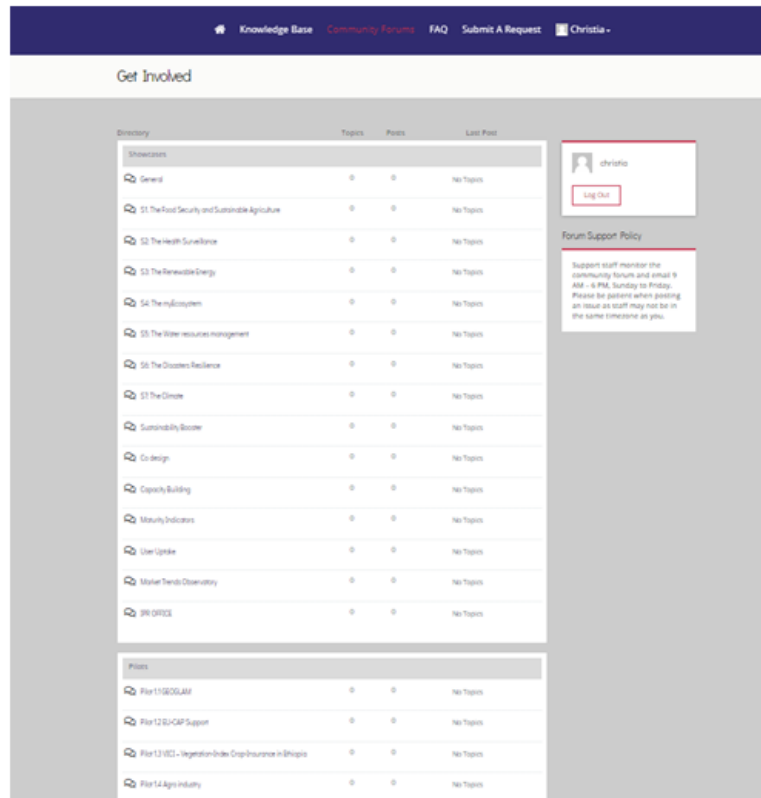
This section offers a well-rounded glance to the purpose and the objectives of e-shape. On the right-hand side, there are popular Knowledge Base Articles and the “contact support” link which leads to the contact form.



### 5.2.3 Community Forums

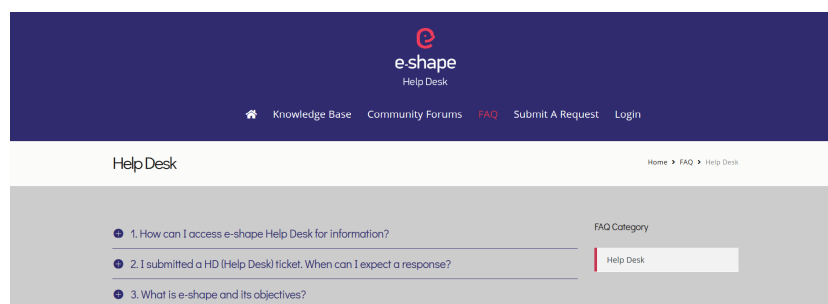
e-shape online forum will be a destination for Help Desk (community) members (registered users) to voice their opinions, submit suggestions and ideas, ask for help, get updates through project-communicated news and messages etc. It will be a dynamic and volatile space where interactions must be managed carefully by the e-shape team.

Getting involved in discussions is essential for the expansion of the platform and its improvement and a simple way to avoid conversational traffic is to create categories. Help Desk's community forum structure will start simple with a basic categorization (SC & Pilot category) and as e-shape community grows, the team will revisit the structure to add categories (nesting and sub-categorization) and to make sure it provides optimal usability. When a topic seems to command sustained attention the team will consider giving it its own category but at the same time fight the urge to over categorize.



#### 5.2.4 FAQ

A list of basic questions about the Help Desk platform and its functionality is presented in this section. Short answers to common issues relevant to the platform clarify possible uncertainties in order to ensure the regular operation.



#### 5.2.5 Submit a Request

To submit a request, the user must choose the option "Send a Request" from the main menu bar and will automatically be transferred to the screen with the request form. The fields marked with an asterisk (\*) are mandatory to be filled.

The fields “Affiliation” & “About which project is your request?” include a drop down list with a list of items. A dedicated space is available for a more detailed description of the request and for uploading up to five files.

**Request Form**

Subject \*

Your affiliation \*

Tell us about your organisation and your affiliation \*

About which project is your request? \*

How can we help you? \*

Attachments

Terms & Conditions \*

☐ I have read, understand and accept the Privacy Policy & Terms of Use

Submit

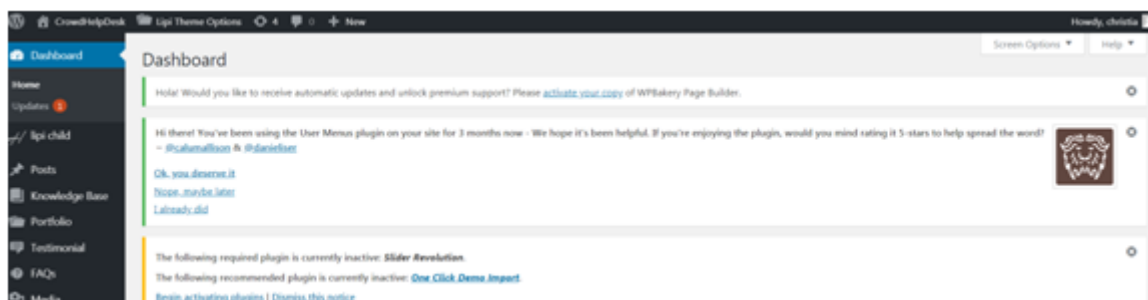
Your request has been submitted

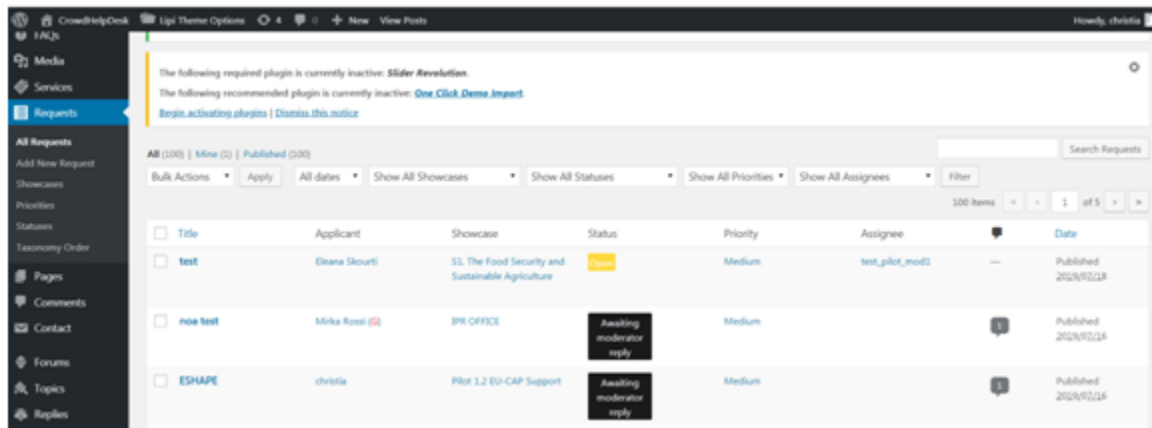
Home > You request has been submitted

Your request has been saved!

Once the Request form is completed, the inquiry will be assigned to the person with the appropriate role and a corroboratory message is shown on the screen.

An administrator or a moderator coordinates and handles the requests through the Help Desk's back office panel. From the menu, the administrator can edit the requests, the comments made, and other fields of the platform that may need moderation.





When a request form is filled by a user, the administrator is notified through email. The requests appear in the form of a list and each one can be modified separately.

<input type="checkbox"/>	Title	Applicant	Showcase	Status	Priority	Assignee		Date
<input type="checkbox"/>	test	Elena Skourti	S1. The Food Security and Sustainable Agriculture	Open	Medium	test_pilot_mod1	—	Published 2019/07/18
<input type="checkbox"/>	noa test	Mirka Rossi	IPR OFFICE	Awaiting moderator reply	Medium			Published 2019/07/18
<input type="checkbox"/>	ESHAPE	christia	Pilot 1.2 EU-CAP Support	Awaiting moderator reply	Medium			Published 2019/07/18

### 5.2.6 Log In

In this option of the main menu, the visitor can either create an account or log in the existing one, where there are certain options such as edit their profile (under My Account), watch the activity (under My Requests) or log out.

### Login

Login, to access this site

Username:

Password:

☐ Keep me signed in

Login

Register

Lost your password?

Create an account.

Your username must be unique, and cannot be changed later. We use your email address to email you a secure password and verify your account.

Username:

Email:

Register

## 6 TECHNICAL SPECIFICATIONS

The technologies used for the implementation of the Help Desk are an Apache server for the hosting of the web application, a MySQL database, WordPress which is an open-source CMS, PHP as a server-side scripting language for the content serving and management and HTML, CSS and JavaScript as the main tools for the front-end design structure. When the user visits the web application through the front end he sends various HTTP requests to the server, then the server makes the appropriate communications to the other components and gets the requests the data, which are then served to the user.

Below is a brief diagram showing the application's architecture.

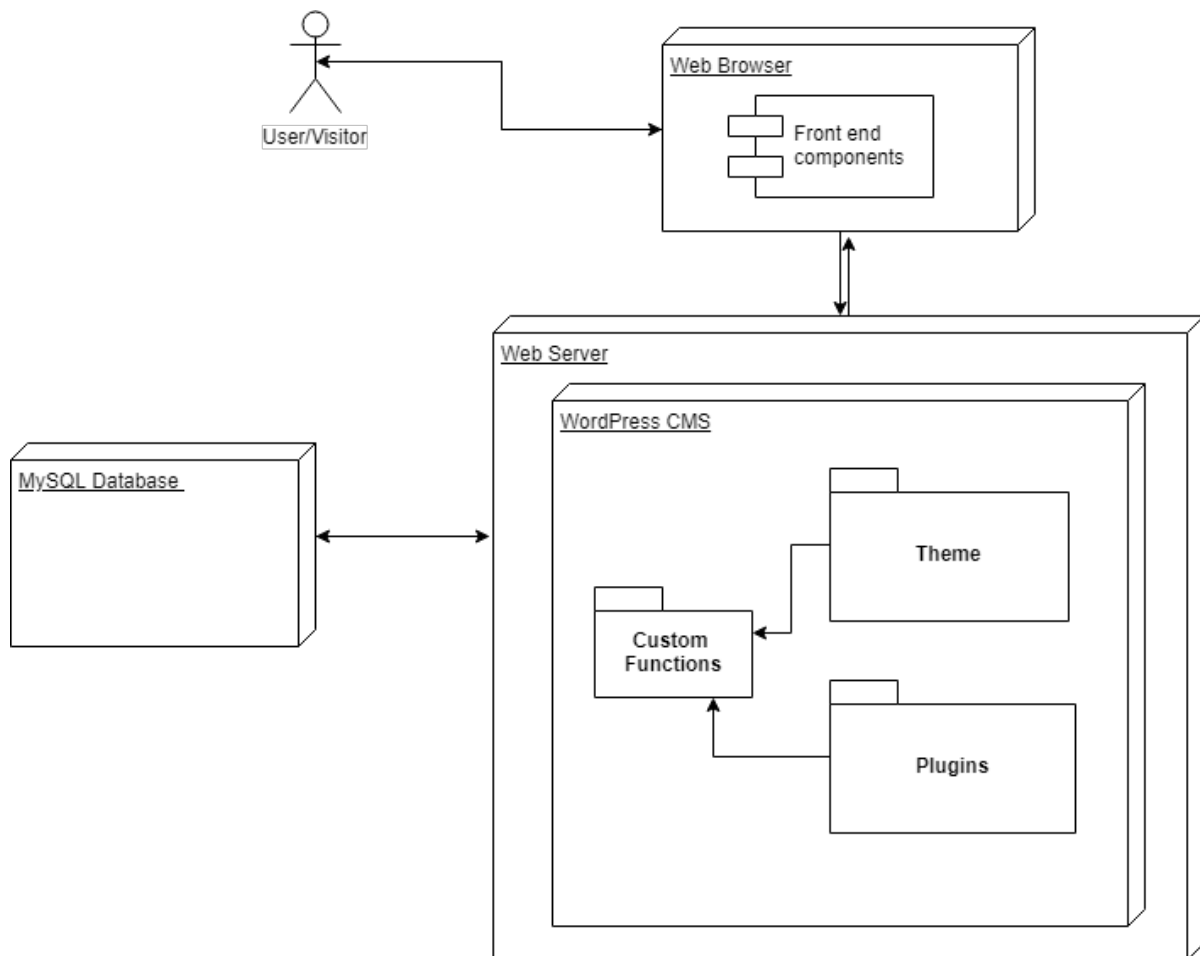


Figure 4: Brief diagram showing the application's architecture.

## 7 EVALUATION & NEXT STEPS

Since users demand rapid service, we set response and resolution time objectives (KPI's). More importantly, satisfaction survey questions is taken seriously since it ensures the future operation of the platform and its continuity and allow us to measure user perception of the quality of our support. Such straight- forward way is very useful to understand our users' real needs.

e-shape Help Desk will conduct customer satisfaction survey automatically; this will save time and improve efficiency.

Once the journey of a request is completed, close-ended questions (a more efficient means of collecting quantitative data) appear and give users the floor.

The end goal of the survey (through actionable feedback) is to become an imperative tool for improving user's experience and e-shape services.

WP6 will measure how many queries are resolved through Help Desk knowledge base (KPI's), remove any potential causes of dissatisfaction, understand better the user experience and provide ever-better services so users encounter ever-fewer problems. The impact of the communication activities (D6.1) is strongly tied to the success of the stakeholder engagement (i.e Number of requests served by the Help Desk).

The first step in planning and developing an effective communication program is to evaluate current Help Desk value and visibility. To start, project team must ask and answer the following defining questions:

- Do we need to improve the awareness and understanding of Help Desk policies and procedures?
- Do we need to improve the quality of communications between the Help Desk team and the end-users?
- Do we need to improve the end-user/Help Desk team relationship?
- Do we need to improve the level of awareness of all Help Desk service level obligations?

The answers to these key questions will further establish the scope and purpose of the Help Desk communication effort, establishing prioritized needs and related project objectives.





## 8 APPENDIX

### 8.1 WORDPRESS TEMPLATING ENGINE

- Understanding the WordPress site architecture  
<https://www.optimizesmart.com/wordpress-ninja-15-minutes/#a1>
- Understanding the functionality of the most common template files used in WordPress  
<https://www.optimizesmart.com/wordpress-ninja-15-minutes/#a2>
- Template files call other template files  
<https://www.optimizesmart.com/wordpress-ninja-15-minutes/#a3>
- Understanding the functionality of WordPress installation files and folders  
<https://www.optimizesmart.com/wordpress-ninja-15-minutes/#a4>
- Introduction to phpMyAdmin  
<https://www.optimizesmart.com/wordpress-ninja-15-minutes/#a5>
- Take regular backups of your WordPress database  
<https://www.optimizesmart.com/wordpress-ninja-15-minutes/#a6>
- WordPress permalinks  
<https://www.optimizesmart.com/wordpress-ninja-15-minutes/#a7>
- Changing your WordPress log-in username  
<https://www.optimizesmart.com/wordpress-ninja-15-minutes/#a8>
- Creating custom page templates  
<https://www.optimizesmart.com/wordpress-ninja-15-minutes/#a9>

### 8.2 WORDPRESS AVAILABLE APIS & LINKS

The **WordPress API** stands for the WordPress Application Programming Interface. It can be separated into multiple API sections / topics. Each covers the functions involved in and use of a given set of functionality. Together they form what might be called the WordPress API, which is the plugin/theme/add-on interface created by the entire WordPress project.

The information given below enlighten us as to how to extend WordPress through Plugins.

- [Dashboard Widgets API](#)
- [Database API](#)
- [HTTP API](#)
- [REST API](#)
- [File Header API](#)
- [Filesystem API](#)
- [Metadata API](#)
- [Options API](#)
- [Plugin API](#)
- [Quicktags API](#)
- [Rewrite API](#)
- [Settings API](#)
- [Shortcode API](#)
- [Theme Modification API](#)
- [Theme Customization API](#)
- [Transients API](#)
- [Widgets API](#)
- [XML-RPC WordPress API](#)(supersedes the legacy Blogger, MovableType, and metaWeblog APIs)



See also [WordPress.org API](#).

Categories:

- [Advanced Topics](#)
- [WordPress Development](#)
- [API](#)



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