Cross-platform Open Security Stack for Connected Device

D6.1 Project Website

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Document Information

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List of Acronyms

Abbreviation / acronym	Description
CA	Consortium Agreement
CROSSCON	Cross-platform Open Security Stack for Connected Device
DoA	Description of Action
D6.1	Deliverable number 1 belonging to WP6
EC	European Commission
EU	European Union
GA	Grant Agreement
IoT	Internet of Things
KPI	Key Performance Indicator
MCU	MicroController Unit
OA	Open Access
OEM	Original Equipment Manufacturer
PC	Project Coordinator
RoT	Root of Trust
SME	Small and Medium-sized Enterprise
TEE	Trusted Execution Environment

Executive Summary

This report provides a description of the CROSSCON project's public website and its structure. The project website is an important dissemination and communication tool, being one of the main channels to present CROSSCON to the project stakeholders and targeted audience. It is a comprehensive source of information that presents the main project events, findings, structure and other content to the general public. In this early version of the website, the main sources used were those from the original proposal and description of work, including information about the consortium or objectives and work structure. The website is expected to evolve and to provide links to the social media platforms for news and updates, or relevant projects and initiatives.

1 Introduction

The public website is one of the project's most relevant dissemination and communication tools, and its initial version, presented in this report, establishes visual identity, structures, as well as some procedures related to it.

It should efficiently convey the important information about CROSSCON, in a way that it evolves from project-centric to result-centric contents, allowing the general audience to acquire a high-level understanding of the project, from its challenges and objectives to concrete results and outcomes.

The CROSSCON website was launched online in the first days of 2023 and the general public can access it through the following link: https://crosscon.eu/. While structure and hosting are done by ATOS, its content will be provided by the dissemination leader UMINHO. For this reason, the evolution of initial procedures for content publishing, as well as its structure, is expected to happen during the first year of the project.

1.1 Purpose of the document

This document presents the Project Website report and is part of the Work Package 6 (WP6) - *Dissemination, Exploitation and Impact Creation*, which takes the duration of the entire project. The website is expected to evolve over the project lifespan, especially when relations to relevant projects, communities etc., are established. Besides online visibility and awareness creation, this report also briefly addresses relevant processes and procedures that are expected to evolve during the project lifespan.

1.2 Relation to other project work

The website is part of the strategy and plan of actions defined in the description of work and also in the deliverable D6.2 - Dissemination and Communication Plan. While this report mainly focuses on the layout and structure, the future content will depend on inputs from all work packages.

1.3 Structure of the document

This document is structured into 4 main chapters, described as follows:

Chapter 1 - presents the introduction.

Chapter 2 - shows the design and development of the website.

Chapter 3 - describes the plans and procedures related to content publishing.

Chapter 4 - describes the future evolution, concludes, and closes this document.

2 Website Design and Development

The dissemination and communication strategy of CROSSCON is based on speeding up online presence and constant evolution of the project website. It is also expected that in the first months, the project will rapidly build connections, thanks to the pre-existing contacts, that will provide early feedback on web look and feel from an external audience. The social network presence, blogs or list of community events will be added.

Besides deliverable and scientific publications, it is also expected that website offers useful information about related events, technology, or legal and policy activities in EU.

2.1 Image

The image of the initial website has the CROSSCON project's logo as its main element. The logo is the image that will identify the project in its simplest possible form, using that image or icon in a recognizable and memorable way.

The CROSSCON logo was designed during the proposal phase and it was finetuned in the early stages of project execution, with the goal of being simple, related to the project objectives, easily readable, and useable in different contexts.

Logo concept and design.

The two O's in the word CROSSCON have been replaced by two Microcontroller Unit (MCU) icons. An MCU is a small, self-contained computer that is housed on a single integrated circuit or microchip typically dedicated to a single function, often embedded in other devices like household electronics to transform them into IoT devices. MCUs are used like microprocessors but in a simpler way. They run "bare metal": no intermediary operating system to execute instructions, which confer simplicity to them and results in increased security because of the limited potential of attack vectors.

The two interconnected MCUs represent two concepts at the same time:

1. The idea of different and heterogeneous devices that will be able to connect and interact in an open and flexible, yet coherent manner, which reinforces the idea of security and trust.
2. The concept of modularity of the stack, which allows configuring only the necessary security features, leveraging those already implemented in the lower layers, and implementing security at higher levels as building blocks. Open source is represented by a two-coloured line connecting the two O's.

The first "o" is in a square position and the second is rotated 45 degrees, more like a rhombus or diamond shape. They both are the same but look different due to the change of position; a line that goes through a single and almost unnoticed green dot still manages to connect them. This ethereal dot represents the core of the Crosscon system conception: an IoT security stack that can facilitate the interoperation of applications and services, running across different edge devices and multiple hardware platforms, independently of as many proprietary implementations of Root of Trust (RoT) and Trusted Execution Environments (TEE) as could exist. At the same time there is no place for other connections or "easy" entry points for attackers: security is warranted.

The final version of the project logo is presented in Figure 1.

Figure 1: Project logo.

2.2 Structure

The project public website was designed with a single style website, being composed of a main page, where the website lands, following the link, and additional sections, that are expected to have evolution in the near future.

The main page of the website has an image that illustrates the overarching vision of the project and the main pillars of the concept. Blue, which is the colour that traditionally represents security and confidence, has been used to represent the system, and green, which invokes ease and freshness, has been chosen for the lettering. The Pantone main and secondary colours are represented in Figure 2.

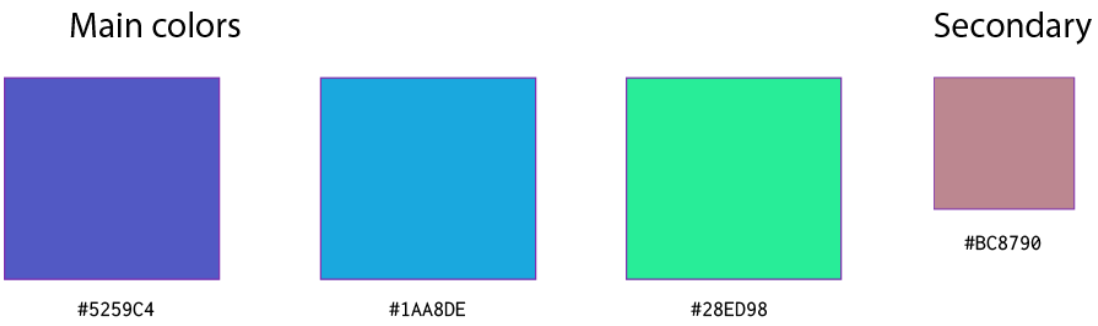

Figure 2: Pantone

On top of the page, there is a menu bar to navigate through all the website's sections. In the near future, we will add links to the project's social media channels, as well as other important sections. The CROSSCON website's home page, as seen when accessed through a browser[1], is presented in Figure 3.

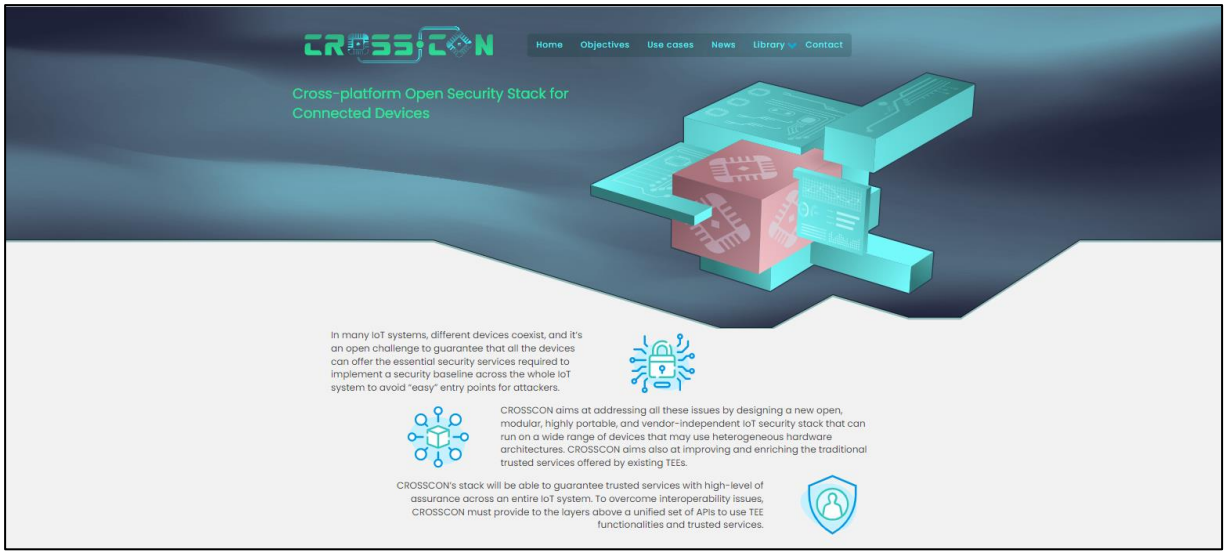

Figure 3: Initial project website

Whereas the website home page presents the general idea behind the project concept, each section will look different, depending on its need to expand and provide additional information. For instance, the section called "library" groups downloadable content, such as deliverables or published papers, and has a high-level view, as well as an expandable list of documents that are (or will be) available to download.

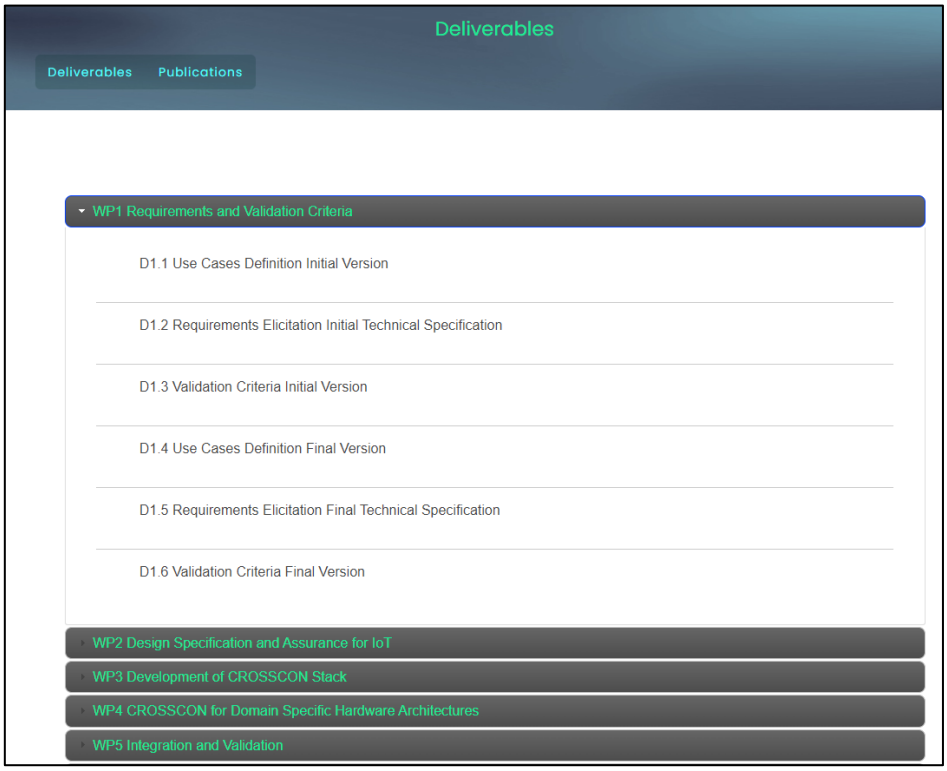

Figure 4: Website section for deliverables

[1] As of January 2023

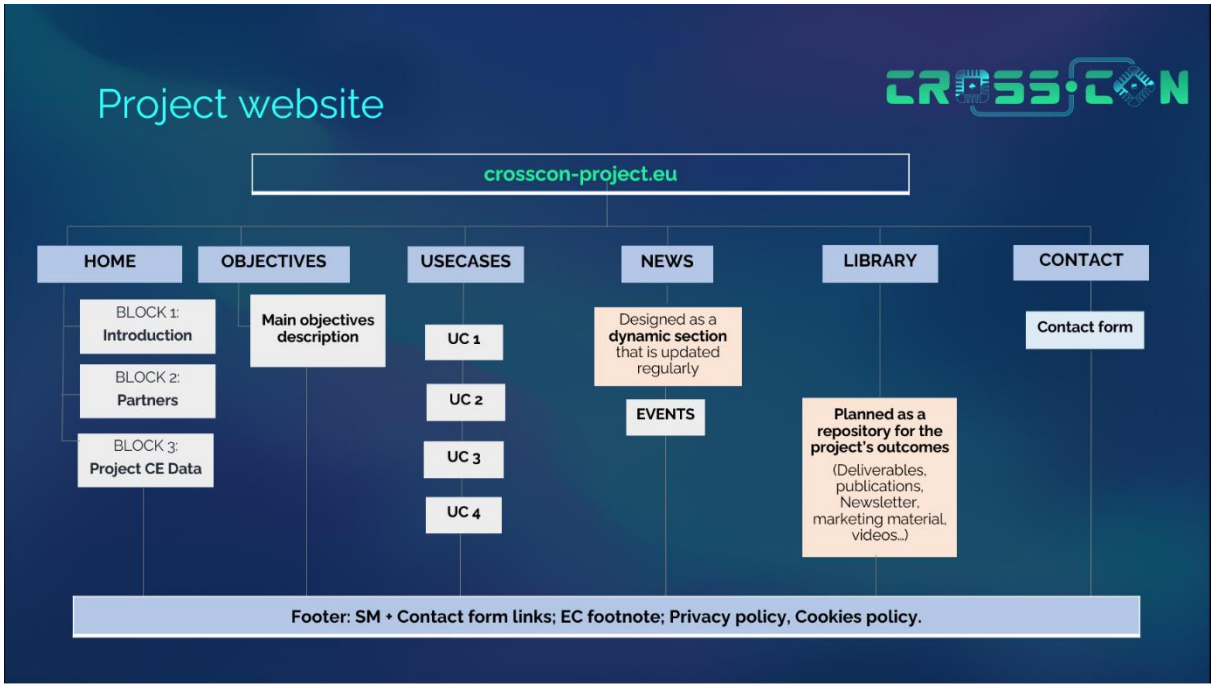

Figure 5: Website map

2.3 Design and Deployment

The project website will use the Drupal CMS, a free and open-source content-management framework that can be tailored and customized to simple websites or complex web applications. It provides a way for editors to maintain and update the site's content without involving technical users in the process, all along with advanced features and functionalities, with active maintenance to ensure security.

Main site features:

- Every section has personalized fields, such as the date for events, image processing template integrated, files, videos (hosted internally or externally), links, and many other field types.
- The user system is role-based, and permissions can be specified in many aspects if necessary, such as several editors updating content.
- The site provides RSS feeds to get site news and events updates.
- If the website content grows, taxonomies with different vocabularies can be set in different or many sections, simple taxonomies, tags, or tree hierarchized.
- The web template is "responsive" which means users can easily open and render the website on any capable device, such as tablets and smartphones.
- Survey / user data collection can be also configured, where an analysis tool is available and the results can be downloaded.
- The website will also provide a template-ready content update for a rich template content experience, including layouts with text and images, collorbox galleries, videos, etc.
- SEO is provided and configured for better positioning.
- Google Analytics will be the main provider of site statistics.
- Optional Newsletter subscription system.

3 Plans and Procedures for Content Publishing

As coordinator, partner Atos oversees both the design and deployment of the website, while partner UMINHO is in charge of WP6 (Dissemination and Communication). At this initial stage, the plan for content publishing will be as follows:

Once the domain registration, content map, and design have been completed, ATOS will securely transfer the access keys to UMINHO and will organise a meeting between both teams in which there should be participation of:

- persons involved in the original design of the website on the part of ATOS; and
- persons responsible for content management on the UMINHO side.

This meeting will be structured as an interactive discussion in a webinar and will be recorded for later use and consultation by UMINHO. In this webinar, the ATOS team will present the steps of the procedure to follow for a proper update or editing of the most common contents, such as news and events, or uploading of documentation.

During the evolution of the project, other procedures will be developed related to change requests, expected to cover more complex development needs that will be detected for the website. In such cases, UMINHO will transmit these needs to the rest of the consortium, with the supervision of the coordinator and WP6 leader (which is ATOS), who will jointly decide on each request and the most convenient procedure for each change. This could provide UMINHO with the necessary knowledge, or the direct management of such new developments and website evolution by the ATOS team, as appropriate.

4 Future Evolution and Conclusions

The website is one of the main channels to reach target audience that includes a diverse group of stakeholders. One of the early actions in WP6 is a liaison with these stakeholders, including associations such as ECSO/ECCO, AIOTI, NGIOT, GAIA-X, IDS, IERC, FIWARE, FME, or RISC-V. Other related projects that have been identified will also be contacted to add their website links to our web and vice versa. Citizens and society in general will be targeted later in the project. Partners' participation in many different communities and wide online presence (including partners' websites) will serve as a springboard to promote CROSSCON website and attract a large number of visitors. Blog entries targeting scientific or technological audience and policy makers will be also added to website. Cross-fertilization with social network channels will increase awareness of CROSSCON. This way, the weblink will appear on different sites, which helps in increasing the number of CROSSCON visitors and downloads.

As a practice enforced by the project, most new scientific contributions will be published using the Open Access (OA) principle and will be made available for download. A white paper and/or scientific paper, describing the key ideas of the project and how it will improve science towards building secure IoT devices, is also planned to be published early. Moreover, press releases are also planned, which contributes to create awareness about the project, as well as to attract more visitors to the project website, where more detailed information can be found. During the kick-off meeting, it was proposed the idea of a special interest group (SIG) as a kind of early adopters of technology. It is likely that this kind of groups will consist of subscribes to newsletters, which is something to be considered at a later stage and will also be available for download on the website.

To conclude, this initial version of CROSSCON website already offers an opportunity to project partners and external audience to have an early idea about project, its challenges, objectives, research areas, events, and other essential information. Dissemination actions and overall impact are closely linked to the evolution of the website and its visibility across different communities. For this reason, it was designed an attractive webpage with dynamic procedures for the content publishing. CROSSCON consortium will regularly monitor access and type of visits to this website and will analyse gaps or shortcomings, if any. This will impact dissemination and communication strategy and plan, by taking necessary actions when correction is needed, or further updates / re-structuring might also prove to be beneficial.