



# REWIRE - Cybersecurity Skills Alliance A New Vision for Europe

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# R4.3.2. REWIRE Scenario Sharing Platform



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# 1 EXECUTIVE SUMMARY

This document offers a concise overview of the key components comprising the operational REWIRE Marketplace. It outlines fundamental details and directs readers to accessible documentation within a publicly available GIT repository.

The marketplace's foundation rests upon Gitlab, a platform that facilitates change tracking, user role management, and more. Notably, a built-in ticketing system streamlines support management and development, while the option to disseminate supplementary information through Gitlab pages enhances communication.

## 2 REWIRE MARKETPLACE

### 2.1 GitLab

GitLab is a versatile platform that helps teams work together on coding projects. In the context of the REWIRE Cyber Range Platform and the KYPO portal, GitLab is used as a place to keep different versions of scenarios and training materials. This makes it easy for people to collaborate and make updates. The Masaryk University GitLab instance, which is like a special version of GitLab, forms the backbone of the REWIRE Scenario Sharing Platform. This platform lets cybersecurity experts share their scenarios and work on them together. Access to Masaryk University GitLab is possible using different accounts, like EINFRA AAI<sup>1</sup> or Masaryk University accounts, for added convenience and security.

### 2.2 Naming Conventions

The team of project REWIRE has established a structured naming convention for GitLab repositories to create an all-encompassing library of training scenarios, Ansible roles, and other support tools. This well-structured naming convention cultivates a comprehensible, well-organized landscape of GitLab repositories for distributing cybersecurity training content. By ensuring clarity, cohesion, and ease of navigation, the development team empowers the effective collaboration and code management.

Naming Convention	Explanation
<b>KYPO Library</b>	The highest level of organization represents the main project repository, acting as the foundation for all related work.
<b>Content</b>	A subgroup under the top-level group places emphasis on content-related components, aiding in the categorization and organization of specific aspects of the project.
<b>Ansible Roles</b>	Another subgroup under the top-level group is dedicated to the management of Ansible roles, thereby enhancing the modularity and maintainability of the project.
<b>&lt;sub-group&gt;</b>	Subgroups, formed under the Content/Ansible Roles group, further categorize, and compartmentalize specific content or types of roles within the project (e.g., Ansible roles for web servers)

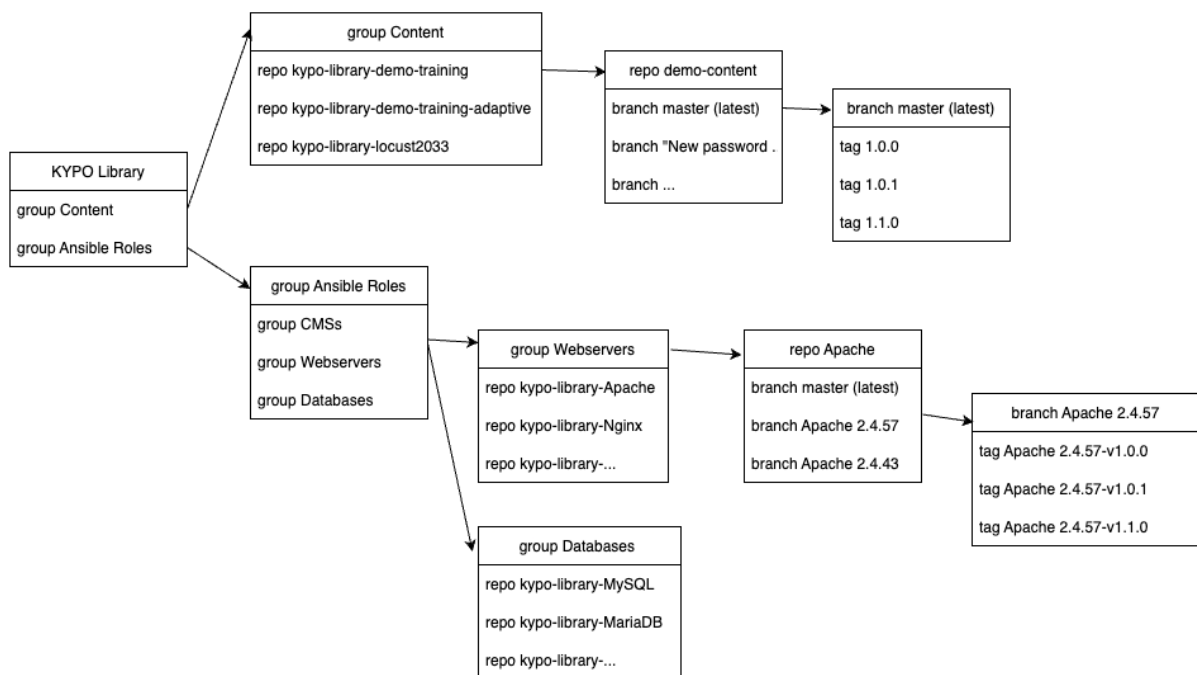
<sup>1</sup> <https://aai.cesnet.cz/en/index>

<b>kypo-library- &lt;repository&gt;</b>	Individual repositories, situated under specific subgroups or the top-level group, each encompass distinct code and functionalities (e.g., Ansible role for Apache web server, KYPO CRP training demo).
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### 2.3 Structure

The KYPO Library entry point is named **KYPO Library**. This overarching repository is the central hub for all collaborative efforts, serving as the foundation for the entire project.

KYPO Library Structure



Using a hierarchical structure helps to categorize and organize various aspects of the project. For instance, the **Content** subgroup handles content-related elements, while the **Ansible Roles** subgroup manages Ansible roles, enhancing the project's modularity and manageability.

Moreover, to accommodate projects requiring even finer granularity, introducing subgroups with descriptive names beneath the overarching KYPO Library umbrella are introduced. These subgroups, such as **Databases** and **Webservers**, enable the preservation of a clear separation of concerns and streamlined collaboration.

Repositories address directly separate training content or Ansible roles for specific software (e.g., **kypo-library-apache** for **Apache webserver**). Further information about branches and tags in the repositories is provided in the attached image.

## 2.4 Visibility

The visibility configurations for the various groups and repositories within the KYPO Library project adhere to the following defined rules. All groups within the KYPO Library initiative are uniformly set to public visibility. This deliberate choice emphasizes transparency and open collaboration by making overarching organizational structures, thematic classifications, and high-level project insights accessible to the general public. The visibility settings for repositories within the KYPO Library initiative are discerningly determined based on further described conditions.

### 2.4.1 Public Content Repositories

Repositories that house released training scenarios intended for public consumption are configured with public visibility. By adopting this approach, the KYPO Library actively encourages broad engagement, enabling the wider community to freely access and derive value from the openly shared contributions.

### 2.4.2 Private Content Repositories

Repositories that safeguard unreleased, proprietary, or sensitive content adhere to a private visibility setting. This measure ensures that such content remains shielded from public view, accessible only to authorized stakeholders involved in cybersecurity training development.

### 2.4.3 Public Ansible Role Repositories

Repositories linked to Ansible roles within the initiative are set to public visibility. Anybody can freely use these roles to create their own cybersecurity training. This facilitates transparency in the operational structure, enabling interested parties to grasp the roles that contribute to encouraging community engagement.

### 2.4.4 Private Ansible Role Repositories

For instances where the nature of a role mandates restricted access (e.g., intellectual property, unreleased role), repositories tied to such roles are assigned a private status. This ensures the protection of sensitive operational details or proprietary methodologies, permitting controlled collaboration among authorized team members while maintaining the required level of confidentiality.

## 2.5 User Access

All above-mentioned Parts of KYPO Library structures are freely available to everyone on the internet in read-only mode. The rest is available only to logged users. User roles after login are mapped on the standard user roles in Gitlab, and they add additional context from the library point of view.

### 2.5.1 GitLab User Roles

User roles Maintainer, Developer, and Reporter are used for user access in the KYPO Library.

1. **Maintainers:** Maintainers have significant control over the project or repository. They can create, edit, and delete files, manage issues, and merge requests, and configure project settings. They play a pivotal role in overseeing the development process.
2. **Developers:** Developers can contribute code, create branches, open merge requests, and collaborate on the development of the project. They can't make structural changes to the project or repository.
3. **Reporters:** Reporters can view project content, including issues, merge requests, and code, but they can't make any modifications. This role is suitable for individuals who need access to project information without actively participating in development.

### 2.5.2 KYPO Library Context

User roles Curators, Developers, and Content Users provide additional context for KYPO Library use cases.

1. **Curators (Maintainers):** Curators assume a pivotal role in upholding the quality standards of both content and Ansible groups. Their authority is exclusive when it comes to merging content and Ansible roles into master branches and transitioning them to a public status.
2. **Developers:** Developers are responsible for developing cybersecurity training content and new Ansible roles for others.
3. **Content Users (Reporters):** Content users form an integral part of the ecosystem, with the capacity to access group content and initiate the enrollment of their KYPO CRP instances. This engagement allows them to receive continuously updated content through subscriptions to the master branch of specific content repositories.

## 3 ACCESS AND DOCUMENTATION

KYPO Library is available at <https://gitlab.ics.muni.cz/kypo-library>. Access to the system can be requested at [support@kypo.cz](mailto:support@kypo.cz).