

# Lunar Foundation

## Public Repositories Requirements

**Prepared for:**  
Lunar Foundation

**Authors:**  
Shepard, MasterJedi

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# What is a Requirements Document?

The Requirements Document is the most important document in a software development project. This document outlines objectives a specific product must meet to provide value to the customer. It is imperative that all parties agree on the contents of this document before a single line of code is written, as misinterpretation of Requirements Documents is the #2 cause of software project failure, right behind inaccurate estimates.

## Objective Outline

The objective of this engagement shall be to move designated Lunar code repositories and/or infrastructure components into publicly visible environments (i.e.: GitHub). This transition shall provide additional transparency around the Lunar Dev Team's common operations and give DAO members more insights to help them make critical decisions for the platform.

The process of moving private infrastructure components must be properly documented and analyzed prior to engaging in any major tasks. These tasks shall include but are not limited to:

- Catalog available components and environments.
- Determine destinations for each associated component and/or environment.
- Run pre-security checks to prevent the leaking of sensitive information.
- Executing the move based on the prescribed process.
- Validate proper permissions and security configuration settings.
- Validate usage and transactions of components are optimal.

Now that we have provided an outline of the task at hand, we can jump into the priorities and an initial timeline of this engagement, with clear descriptions of what the business objectives to follow.

# Public Repositories Transition Overview

This section provides additional details to support the objective outline.

## Repo Transition Overview

The Lunar Dev Team has been developing and delivering products via private repositories and within a managed private Application Lifecycle Management (ALM) platform, Azure DevOps. Up to this point, the Azure DevOps platform has been responsible for providing the Lunar Dev Team with a centralized platform for all build and release needs.

## Project Priority

With the formation of the Lunar DAO and the Lunar Foundation, the Lunar community has made transparency a priority. The Lunar Dev team is excited to assist with this initiative and therefore the priority of this engagement is high. Without these commitments to transparency, the Lunar DAO community will begin to lose confidence in the consistent, professional delivery of products and value from the Lunar Dev Team.

This priority is driving transparency and confidence in the Lunar Dev Team, and as a result, the team would like this project completed as quickly as possible, even if this means adjusting some of the expectations.

## Efforts Estimate

To help understand the development efforts necessary to conduct this engagement, we have outlined an estimate of the efforts below.

- **Research, Analysis & Design**
  - Description: Cataloging of resources, destination decisions, and pre-security checks
  - Effort: 8 hrs.
- **The Move**
  - Description: Conduct final security checks, re-deploy infrastructure, validate security / permissions
  - Effort: 20 hrs.
- **Testing**
  - Description: Validate usage and acquire final sign-off
  - Effort: 16 hrs.

# Public Repositories Requirements

## Business Objectives

This section outlines what the Lunar Foundation is attempting to accomplish by making the suggested changes.

### Objective #1: Increase Development Process Transparency

Objective
Description
As the management organization behind the Lunar DAO, the Lunar Foundation has a mandate to conduct as much of its business as possible in a manner visible to all DAO members.
Current Shortcomings
Because Lunar DeFi, Inc. was previously a private company, the goals, tasks, and issues for each component of the Lunar Platform have been managed in a private repo behind the scenes. If we want to show a subset of that work to the community, as we attempted to do previously, it requires double the management effort to implement.
Outstanding Questions
N/A

### Objective #2: Improve Product Delivery Visibility

Objective
Description
DAO members desire a richer understanding of what the Lunar Foundation is doing on a daily basis. Moving more development out into the open will satisfy their need for constant serotonin injections and reduce harassment from members about what we're shipping, and how frequently we're shipping.
Current Shortcomings
The Lunar Foundation has repeatedly come under fire for "not shipping anything" by market manipulators who like to sow fear, uncertainty, and doubt (FUD). Bringing the Solidity contracts (and potentially other OSS parts of the platform) into GitHub will give the Lunar Foundation an easy and publicly available resource to refute the hate from fudders.
Outstanding Questions
N/A

### Objective #3: Catalog Lunar Foundation Technical Assets

Objective
Description
Wherever feasible, we want Lunar DAO members to understand what technical assets the DAO possesses. We should provide as much information as practical without compromising operational security.
Current Shortcomings
Under the previous structure, software development appeared as a black box to the outside world, and as a private company we were not required to share any information.
Outstanding Questions
N/A

# Implementation Objectives

This section describes the process by which we will implement the Business Objectives, the potential issues we might encounter along the way, and how we intend to mitigate those issues.

## Objective #1: Catalog Available Assets & Delivery Systems

Objective
<b>Description</b>
We must catalog all available infrastructure components, and their associated environments, to ensure nothing is missed during the transition. We must then designate the destinations for all components and their related environments.
<b>Current Shortcomings</b>
We have not set up any public environments or determined the ultimate destinations for all the infrastructure components we currently manage for the Lunar DAO. This shortcoming directly affects our ability to be confident in any kind of transition.
<b>Issues &amp; Mitigations</b>
<b>Issue:</b> The destination environment may not support the applicable configurations from the original DevOps environment, resulting in misconfigured / unsupported processes.
<b>Mitigation:</b> Every destination component needs to be evaluated to ensure it can provide the desired outcomes or modified to achieve similar outcomes.
<b>Implementation Details</b>
We intend to achieve this objective by providing a list of available infrastructure components, repos, and associated environments. <ul style="list-style-type: none"><li>• Catalog available components and environments.</li><li>• Research and verify feature parity can exist between platforms.</li><li>• Determine destinations for each associated component and/or environment.</li></ul>
<b>Outstanding Questions</b>
N/A

## Objective #2: Conduct Pre-Transition Security Assessment

Objective
Description
We will be moving potentially sensitive information and therefore we must ensure that nothing being migrated contains sensitive information and would be considered as leaked information in the newly established environment.
Current Shortcomings
We are unable to easily determine which portions of our Azure DevOps components and repo artifacts contain sensitive information and therefore we must conduct pre-security reviews on these components.
Issues & Mitigations
Not Anticipated
Implementation Details
We intend to incorporate secrets utilizing GitHub Actions “Encrypted secrets” to ensure no sensitive information is leaked out to the public, exposing our technology and leaving us vulnerable to external attacks.
Outstanding Questions
N/A



### Objective #3: Move Lunar Infrastructure Components

Objective
Description
We must move the identified infrastructure components to ensure Lunar Dev Team members can continue to operate and deliver products to the Lunar DAO and its community. The Lunar Dev Team intends to migrate the Lunar public to a public but secure Lunar Foundation GitHub Repo and environment.
Current Shortcomings
We are not in a public environment and therefore do not have the necessary infrastructure components to operate our products with the proper CI/CD and automation processes.
Issues & Mitigations
<b>Issue:</b> The Lunar Dev Team could potentially miss any number of pre-move security check items, resulting in sensitive information being stored in the destination repo. This sensitive information would then be permanently saved in repo history and the entire repo would have to be deleted.
<b>Mitigation:</b> Properly catalog and conduct pre-move security assessment checks against all relevant items to prevent leaking of sensitive information.
Implementation Details
We intend to conduct this transition through GitHub and its associated guides. The process shall be broken down into several phases and conducted with clear, distinct steps.
Outstanding Questions
N/A

## Objective # 4: Transition Testing & Sign-Off

Objective
Description
Once the move has been completed, the Lunar Dev Team must ensure the new system is still providing the same value, experience, and level of automation the Azure DevOps system has to offer.
Once testing has been conducted, we must receive Sign-off from the Lunar Foundation that all items have been addressed, verified, and completed.
Current Shortcomings
Lunar Dev Team expects a certain level of automation and documentation that must remain after the transition to the GitHub organization, team, and repos.
Issues & Mitigations
<b>Issue:</b> The Lunar Dev Team could fail to properly archive or de-commission the origin repo, which may result in confusion or potential leaking of sensitive information in the future.
<b>Mitigation:</b> Validate that all de-commissioned components are accounted for during and after the transition.
Implementation Details
We intend to conduct this move through GitHub and its associated guides. We must confirm that the expected results allow for the Lunar Dev Team to operate at peak efficiency.
Outstanding Questions
N/A

# Public Repo Infrastructure Details

## Infrastructure Transition

The following is a list of research resources we've used to put this document together.

### GitHub Actions

Capability
Description
GitHub Actions should provide the Lunar Foundation with the necessary automation workflows, CI/CD components, and environments to deliver products to Lunar and its community.
Use Case(s)
GitHub Actions has many use cases, as described within the primary business objectives. As both Azure DevOps and GitHub are Microsoft products, many of the use cases fall directly in correlation to our Azure DevOps platform.
Research
GitHub Action Builds & Releases as Workflows to help the building and releases of code and technology: <ul style="list-style-type: none"><li>• <a href="https://docs.github.com/en/actions/using-workflows/about-workflows">https://docs.github.com/en/actions/using-workflows/about-workflows</a></li></ul>
GitHub Action Tests to ensure our Solidity Code Coverage contains to be executed: <ul style="list-style-type: none"><li>• <a href="https://docs.github.com/en/actions/automating-builds-and-tests/building-and-testing-nodejs">https://docs.github.com/en/actions/automating-builds-and-tests/building-and-testing-nodejs</a></li></ul>
GitHub Action Encrypted Secrets for secure, sensitive information: <ul style="list-style-type: none"><li>• <a href="https://docs.github.com/en/actions/security-guides/encrypted-secrets">https://docs.github.com/en/actions/security-guides/encrypted-secrets</a></li></ul>
GitHub Action Migration from Azure Pipelines Documentation: <ul style="list-style-type: none"><li>• <a href="https://docs.github.com/en/actions/migrating-to-github-actions/migrating-from-azure-pipelines-to-github-actions">https://docs.github.com/en/actions/migrating-to-github-actions/migrating-from-azure-pipelines-to-github-actions</a></li></ul>
GitHub Action Hosted Runners (like Build Agents in Azure DevOps) Documentation: <ul style="list-style-type: none"><li>• <a href="https://docs.github.com/en/actions/using-github-hosted-runners/about-github-hosted-runners">https://docs.github.com/en/actions/using-github-hosted-runners/about-github-hosted-runners</a></li></ul>

## Conclusion

By the end of this engagement the customer shall have a new, more publicly visible environment to help showcase the hard work the Lunar Dev Team conducts on a day-to-day basis, have an organized platform for the Lunar Foundation to review technical and non-technical processes and have an environment that promotes the high-quality and professionalism produced by the Lunar Dev Team.

## Sign-Off

By signing below, the Lunar Foundation indicates it understands the information presented and has given the Dev Team the go-ahead to proceed as outlined above.

Lunar Sign-off: Marcus Yarbro  
[Marcus Yarbro \(Dec 13, 2022 09:39 CST\)](#)

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