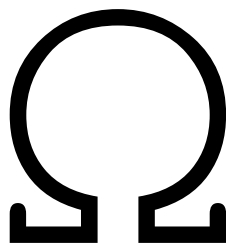


Freename Resolution Snap

Final Audit Report

January 24, 2025



Team Omega

`Teamomega.eth.limo`

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Summary

Team Omega audit the Metamask plugin found at the following repository:

<https://github.com/FreenameDomains/freename-resolution-snap>

We found **no high severity issue** - these are issues that can lead to a loss of funds, and are essential to fix. We classified **no** issues as “medium” - these are issues we believe you should definitely address. We did classify **2** issues as “low”, and an additional **3** issues were classified as “info” - we believe the code would improve if these issues were addressed as well.

Severity	Number of issues	Number of resolved issues
High	0	0
Medium	0	0
Low	2	1
Info	3	2

Scope of the Audit

Scope of the Audit

The audit concerns an Metamask plugin that calls the freename.io API to resolve domain names to blockchain addresses. It is developed on the following repository:

```
https://github.com/FreenameDomains/freename-resolution-snap
```

The audit report was based on the following commit:

```
155d555ae3e65a8667a205117bd77367db694d29
```

Resolution

The issues we found were addressed in following commit:

```
6241b3b7fe9456d11083c82081061814dadb1065
```

We reviewed all the changes and marked the resolution of issues below.

Methods Used

Code Review

We manually inspected the source code to identify potential security flaws, and paid specific attention to the context in which the software is used.

Disclaimer

The audit makes no statements or warranties about utility of the code, safety of the code, suitability of the business model, regulatory regime for the business model, or any other statements about fitness of the contracts to purpose, or their bug free status. The audit documentation is for discussion purposes only.

Severity definitions

High	Vulnerabilities that can lead to loss of assets or data manipulations.
Medium	Vulnerabilities that are essential to fix, but that do not lead to assets loss or data manipulations
Low	Issues that do not represent direct exploit, such as poor implementations, deviations from best practice, high gas costs, etc
Info	Matters of opinion

Findings

General

G1. BNS, ID, and DNAME are not supported by the Freename API [low] [not resolved]

The plugin loops over a series of registries and queries each of these (via the freename.io API) for the given domain. It also loops over 3 registries that are not supported by the freename API, namely BNS, ID and DNAME. This does not compromise the security of the plugin: the software will log that it has failed to fetch information from these registries, but it does affect its performance.

Recommendation: Remove the unsupported registries.

Severity: Low

Resolution: The developers acknowledged the issue, but state that the integration of these registries is on the API roadmap, and this is a way of “future-proofing” the implementation.

G2. Dependencies should use fixed versions instead of floating [low] [resolved]

The software dependencies in package.json specify a range rather than a specific version. Although versions are pinned in the yarn.lock file, this leaves a certain level of ambiguity in the development process, which could be a problem if, for example, users want to verify the plugin, or if for some reason new versions of the dependencies get compromised.

Recommendation: Specify fixed version for each dependency.

Severity: Low

Resolution: The issue was resolved as recommended.

G3. Incomplete LICENSING information [info] [resolved]

The file `package.json` suggests that the software is intended to be published under the Apache license.

```
"license": "Apache-2.0",
```

To release the software under the Apache license, you must include the text of the license file in the repository. In addition, you will need to claim copyright to the work.

Recommendation: Add the relevant license file (in a file called LICENSE) and claim copyright to the work.

Severity: Info

Resolution: The issue was resolved - the software is published under the MIT license.

G3. The function docstring is not correct [info] [resolved]

The docstring claims that the function implements an option for reverse lookup of a domain by passing an address. However, no such functionality was implemented.

Recommendation: Fix the docstring.

Severity: Info

Resolution: The issue was resolved as recommended.

G4. Dependencies on centralized services could be removed [info] [not resolved]

The service depends on the centralized API: `apis.freenow.io`. This presents a security risk: whoever has access to this centralized service can fish the users and trick them into sending tokens or transactions to addresses that are different than what they intended.

There is an alternative available: interface directly with the public registries that are (more or less) trustlessly accessible via RPC endpoints. You could also use those services to double check, client side, that the information provided by the API is correct.

Recommendation: Consider rewriting the plugin to make it less vulnerable to centralization risks.

Severity: Info

Resolution: The issue was not resolved. The developers acknowledged the issue and are aware of the tradeoff, and note that the API is developed and controlled by Freename itself which indexes the records and offers the resolution service as part of its main value proposition.