

A short horizontal bar with a teal segment on the left and an orange segment on the right.

Multi Tenant Account

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Hello

My name is Kai Adachi, commonly known as Adachi.Standard from Japan.

I'm Senior Web2 Developer and recently joined Web3.

I am currently developing an ecosystem and underlying framework to bridge Web2 and Web3.
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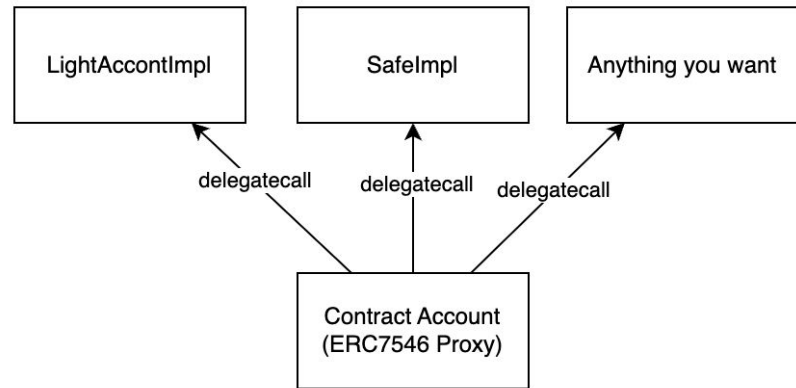
What is Multi Tenant Account

Multi Tenant Account is a contract wallet with upgradability that combines BEAKON PROXY and DIAMOND STANDARD at the same time.

it is infinitely scalable accounts that can incorporate the behavior of any contract account of your choice.

For example, when ERC4337 was released, the only option for adapting to it was to discard the existing proxies. However, this account does not require such a measure.

This is based on ERC7546(Upgradable Cron) what is we developed.



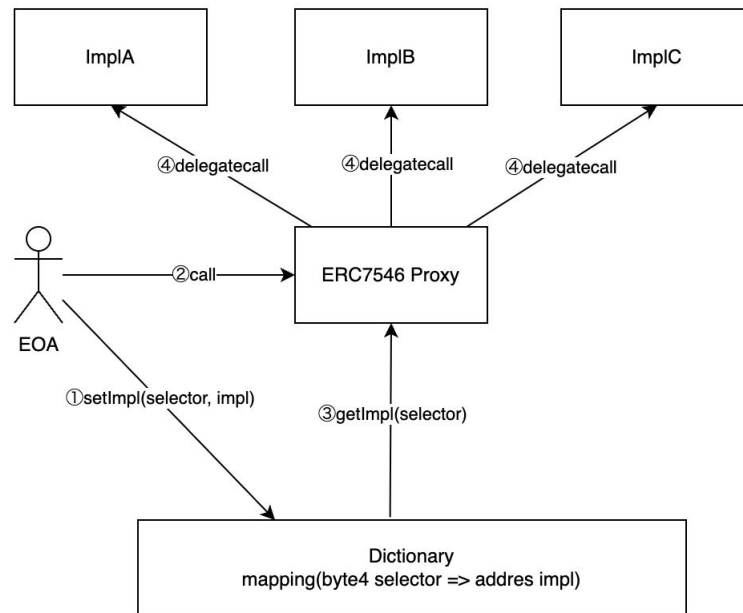


How it works

What is ERC7546: Upgradeable Clone Standard

UCS is a design pattern that

- The proxy has function-level upgradeability: Similar to Diamond Standard
- Factory-friendly & Upgradeable simultaneously: Similar to Beacon

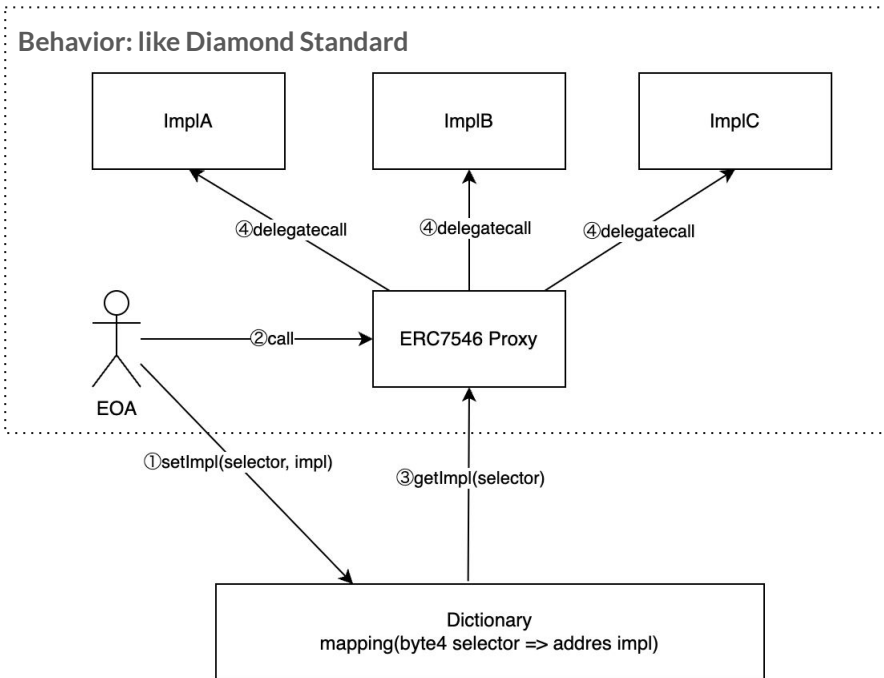


How it works

What is ERC7546: Upgradeable Clone Standard

To behave like the Diamond Standard, it allows for upgrades at the function level and incorporates any implementation without deployment

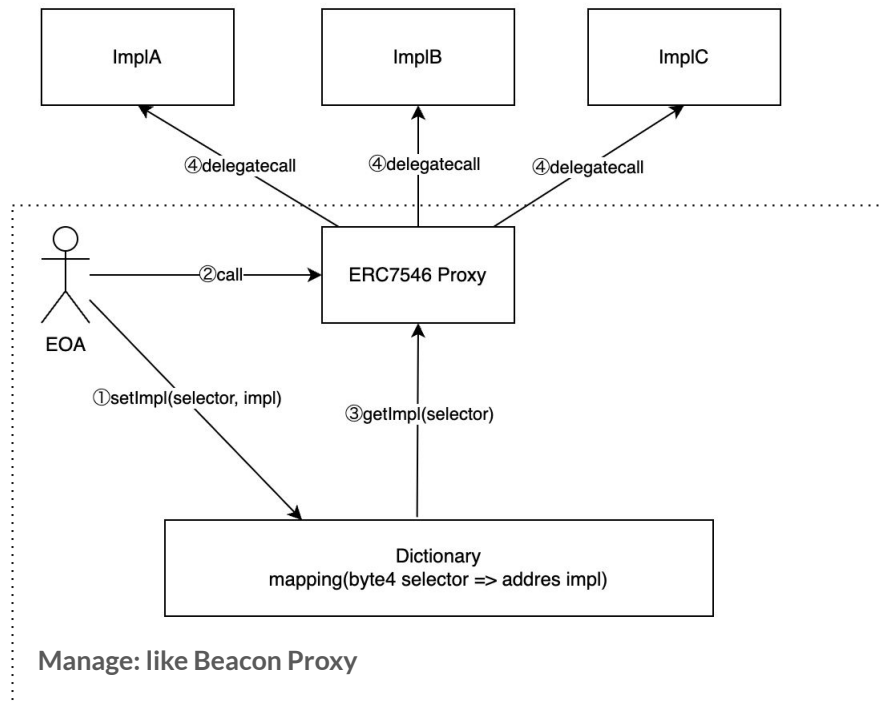
Thus, the gas cost overhead is the same as that of the Beacon Proxy. The deployment of the proxy is done using a low-level language called Huff, which makes it very cost-effective.



How it works

What is ERC7546: Upgradeable Clone Standard

To Manage like the Beacon Proxy, the proxy can undergo bulk upgrades.





Demo

In this demo, I will show you how a contract wallet can easily behave as an AccountAbstraction, Multisig, using a multi-tenant account.

This means not only that it can behave as various contract accounts, but also that the contract wallet associated with account abstraction becomes a vendor-locked off-contract wallet.

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Demo

[multi tenant account demo](#)

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Advantages

1

Freely Upgrade

Existing contract accounts are a given, but even if a later, good contract account is developed by others, you can easily incorporate any contract account implementation without deployment

2

Bulk Upgrade

If multiple proxies refer to the same dictionary, a function update can be used to bulk update all the proxies.

3

Function Level Upgrade

Unlike beacon proxies, multiple implementations can be registered in a dictionary for each function, allowing for flexible upgrades on a per-function basis with limited scope of influence.

4

Low Cost Deployment

It is possible to deploy the proxy at a very low cost because the proxy cloned by Factory is written in a low-level language called huff



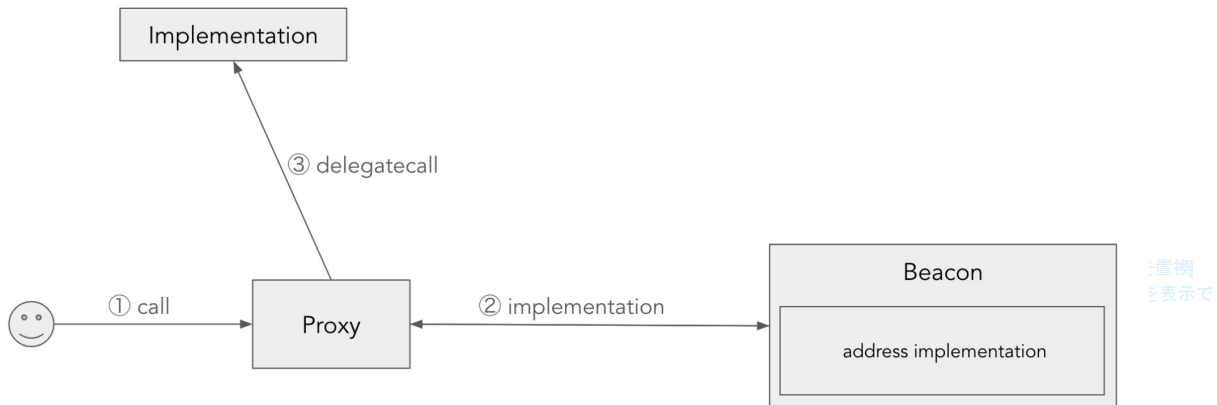
Thank you !

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Appendix

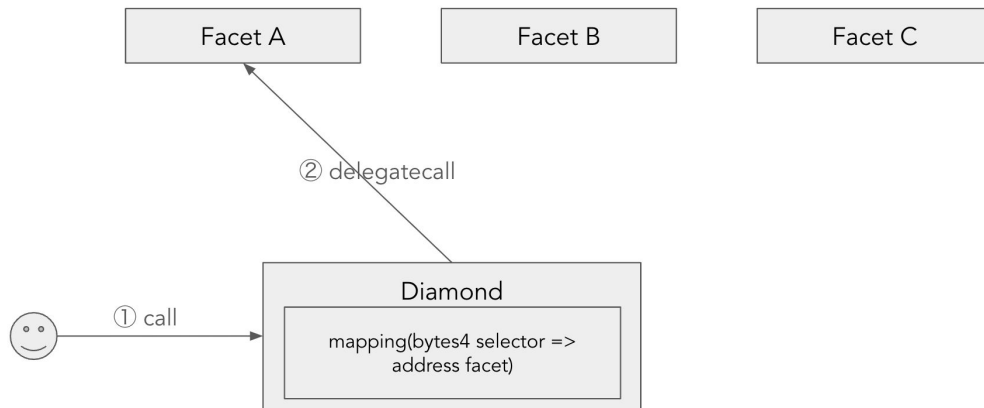
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Appendix

< Diamond Standard >



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