

Scenario: The SKF wallet creates an Escrow and adds or removes Service Providers

Modified Wed Dec 20 2017

SelfKey Foundation's CrowdSale Contract owns the **SelfKey Token** contract

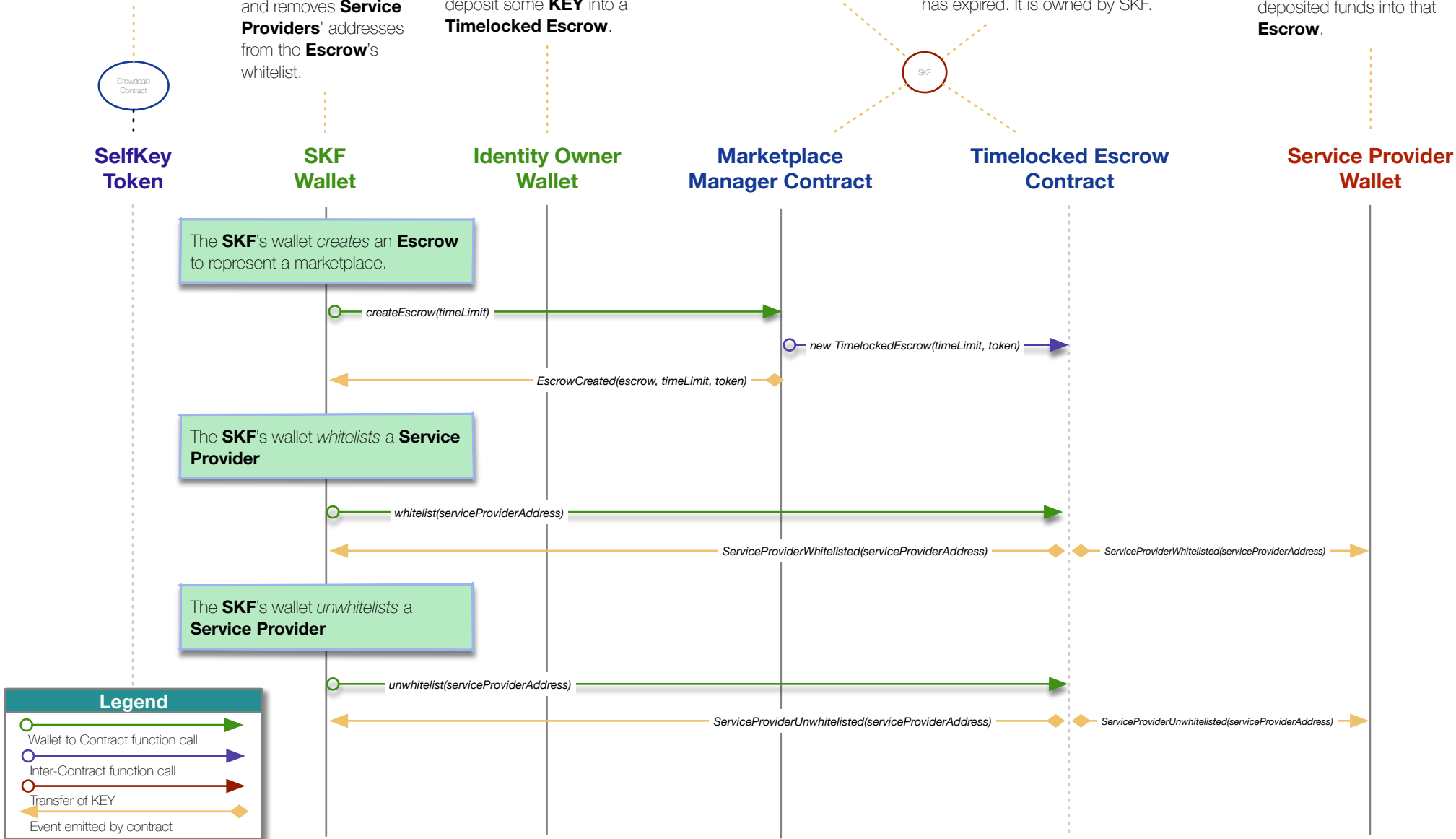
The **SelfKey Foundation's** wallet creates **Escrow** contracts and adds and removes **Service Providers'** addresses from the **Escrow's** whitelist.

An **Identity Owner** is a party that wishes access to a service provided by a Service Provider. They will deposit some **KEY** into a **Timelocked Escrow**.

The **Marketplace Manager** contract is owed by **SKF** and creates new **Timelocked Escrow** contracts

The **Escrow** holds **KEY** deposited by the **Identity Owner** that can not be transferred to any address that is not in the **Escrow's** whitelist until the timelock has expired. It is owned by SKF.

A **Service Provider** is a party, whitelisted by an **Escrow**, that wishes to provide a service to an **Identity Owner** who has deposited funds into that **Escrow**.



Scenario: A person checks that an address has been whitelisted for an Escrow

Modified Wed Dec 20 2017

SelfKey Foundation's CrowdSale Contract owns the **SelfKey Token** contract



SelfKey Token

The **SelfKey Foundation's** wallet creates **Escrow** contracts and adds and removes **Service Providers'** addresses from the **Escrow's** whitelist.

SKF Wallet

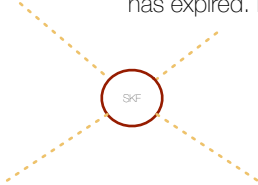
An **Identity Owner** is a party that wishes access to a service provided by a Service Provider. They will deposit some **KEY** into a **Timelocked Escrow**.

Identity Owner Wallet

The **Marketplace Manager** contract is owed by **SKF** and creates new **Timelocked Escrow** contracts

Marketplace Manager Contract

The **Escrow** holds **KEY** deposited by the **Identity Owner** that can not be transferred to any address that is not in the **Escrow's** whitelist until the timelock has expired. It is owned by SKF.



Timelocked Escrow Contract

A **Service Provider** is a party, whitelisted by an **Escrow**, that wishes to provide a service to an **Identity Owner** who has deposited funds into that **Escrow**.

Service Provider Wallet

The **Identity Owner's** wallet checks an address to see if it's been whitelisted.

← *isWhitelisted(address) returns bool* →

Legend

- → Wallet to Contract function call
- → Inter-Contract function call
- → Transfer of KEY
- ◀ → Event emitted by contract

Scenario: A person deposits KEY into their Escrow

Modified Wed Dec 20 2017

SelfKey Foundation's CrowdSale Contract owns the **SelfKey Token** contract

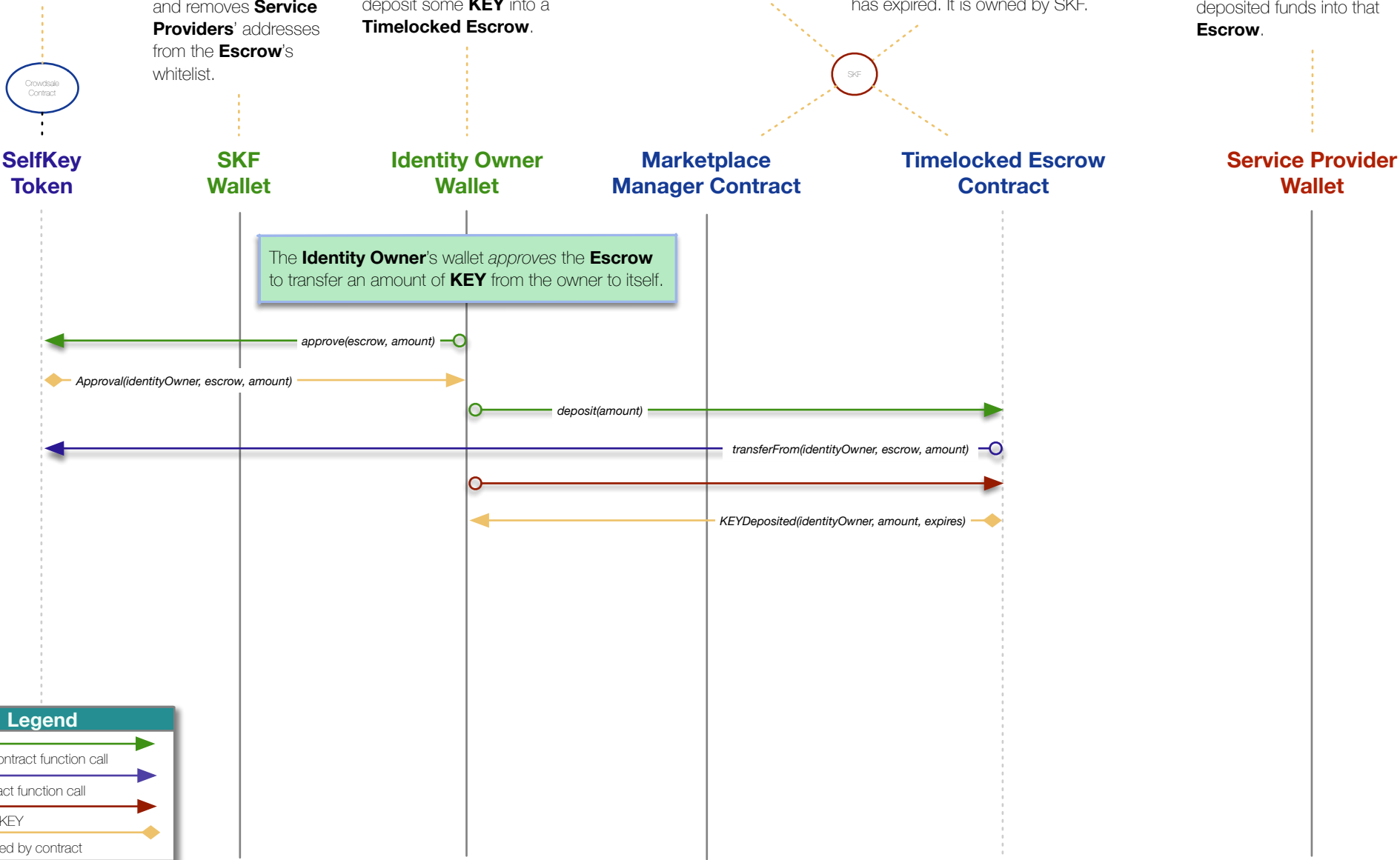
The **SelfKey Foundation's** wallet creates **Escrow** contracts and adds and removes **Service Providers'** addresses from the **Escrow's** whitelist.

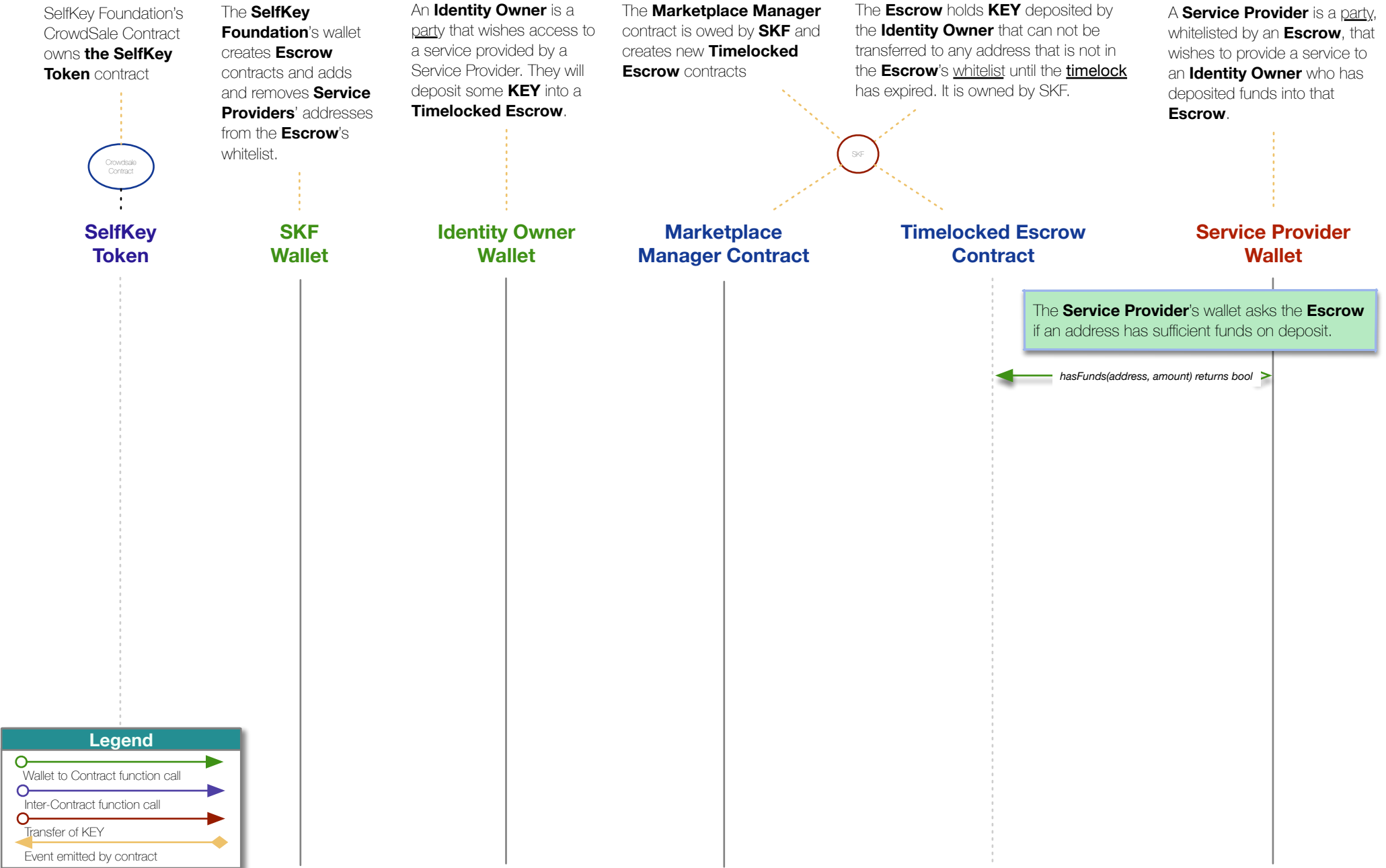
An **Identity Owner** is a party that wishes access to a service provided by a Service Provider. They will deposit some **KEY** into a **Timelocked Escrow**.

The **Marketplace Manager** contract is owed by **SKF** and creates new **Timelocked Escrow** contracts

The **Escrow** holds **KEY** deposited by the **Identity Owner** that can not be transferred to any address that is not in the **Escrow's** whitelist until the timelock has expired. It is owned by SKF.

A **Service Provider** is a party, whitelisted by an **Escrow**, that wishes to provide a service to an **Identity Owner** who has deposited funds into that **Escrow**.





Scenario: A Service Provider verifies that an address has funds that are timelocked

Modified Wed Dec 20 2017

SelfKey Foundation's CrowdSale Contract owns the **SelfKey Token** contract



SelfKey Token

The **SelfKey Foundation's** wallet creates **Escrow** contracts and adds and removes **Service Providers'** addresses from the **Escrow's** whitelist.

SKF Wallet

An **Identity Owner** is a party that wishes access to a service provided by a Service Provider. They will deposit some **KEY** into a **Timelocked Escrow**.

Identity Owner Wallet

The **Marketplace Manager** contract is owed by **SKF** and creates new **Timelocked Escrow** contracts

Marketplace Manager Contract

The **Escrow** holds **KEY** deposited by the **Identity Owner** that can not be transferred to any address that is not in the **Escrow's** whitelist until the timelock has expired. It is owned by SKF.

Timelocked Escrow Contract

A **Service Provider** is a party, whitelisted by an **Escrow**, that wishes to provide a service to an **Identity Owner** who has deposited funds into that **Escrow**.

Service Provider Wallet

The **Service Provider's** wallet asks the **Escrow** if an address's deposit is still timelocked.

areFundsTimelocked(address) returns bool

Legend

- Wallet to Contract function call
- Inter-Contract function call
- Transfer of KEY
- Event emitted by contract

Scenario: An Identity Owner transfers funds from the Escrow to an address

Modified Wed Dec 20 2017

SelfKey Foundation's
CrowdSale Contract
owns **the SelfKey
Token** contract

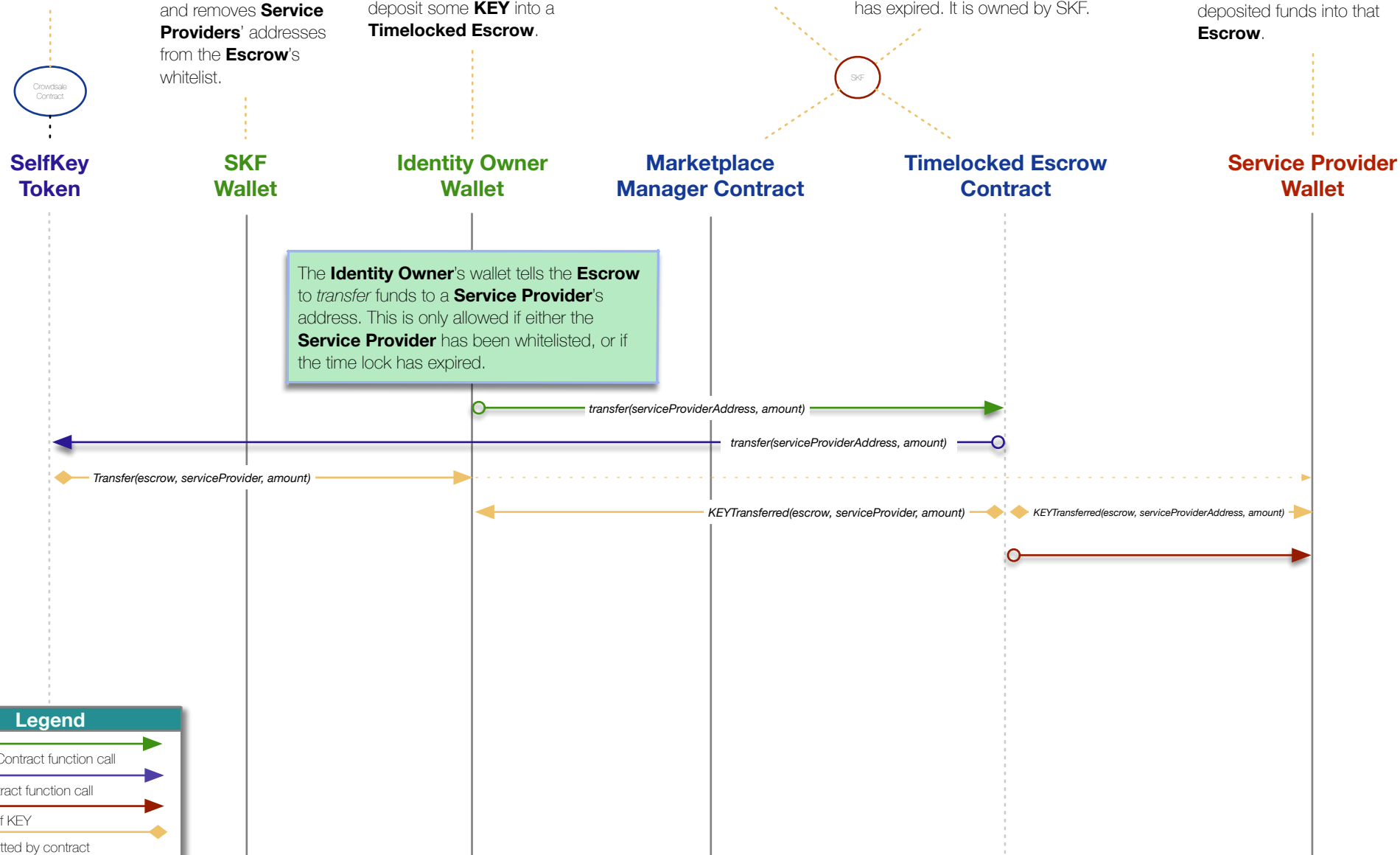
The **SelfKey** Foundation's wallet creates **Escrow** contracts and adds and removes **Service Providers'** addresses from the **Escrow's** whitelist.

An **Identity Owner** is a party that wishes access to a service provided by a Service Provider. They will deposit some **KEY** into a **Timelocked Escrow**.

The **Marketplace Manager** contract is owed by **SKF** and creates new **Timelocked Escrow** contracts

The **Escrow** holds **KEY** deposited by the **Identity Owner** that can not be transferred to any address that is not in the **Escrow's** whitelist until the timelock has expired. It is owned by SKF.

A **Service Provider** is a party, whitelisted by an **Escrow**, that wishes to provide a service to an **Identity Owner** who has deposited funds into that **Escrow**.



Scenario: An Identity Owner retrieves previously deposited funds from the Escrow

Modified Wed Dec 20 2017

SelfKey Foundation's CrowdSale Contract owns the **SelfKey Token** contract

The **SelfKey Foundation's** wallet creates **Escrow** contracts and adds and removes **Service Providers'** addresses from the **Escrow's** whitelist.

An **Identity Owner** is a party that wishes access to a service provided by a Service Provider. They will deposit some **KEY** into a **Timelocked Escrow**.

The **Marketplace Manager** contract is owed by **SKF** and creates new **Timelocked Escrow** contracts

The **Escrow** holds **KEY** deposited by the **Identity Owner** that can not be transferred to any address that is not in the **Escrow's** whitelist until the timelock has expired. It is owned by SKF.

A **Service Provider** is a party, whitelisted by an **Escrow**, that wishes to provide a service to an **Identity Owner** who has deposited funds into that **Escrow**.

