Privacy and Security - **Guaranteed**

Boolberry Solves CryptoNote Flaws

Boolberry’s feature:
Unlinkable Outputs

In this presentation you’ll find out how anonimity works in ordinary CryptoNote technology and **Boolberry’s** modified CryptoNote technology.

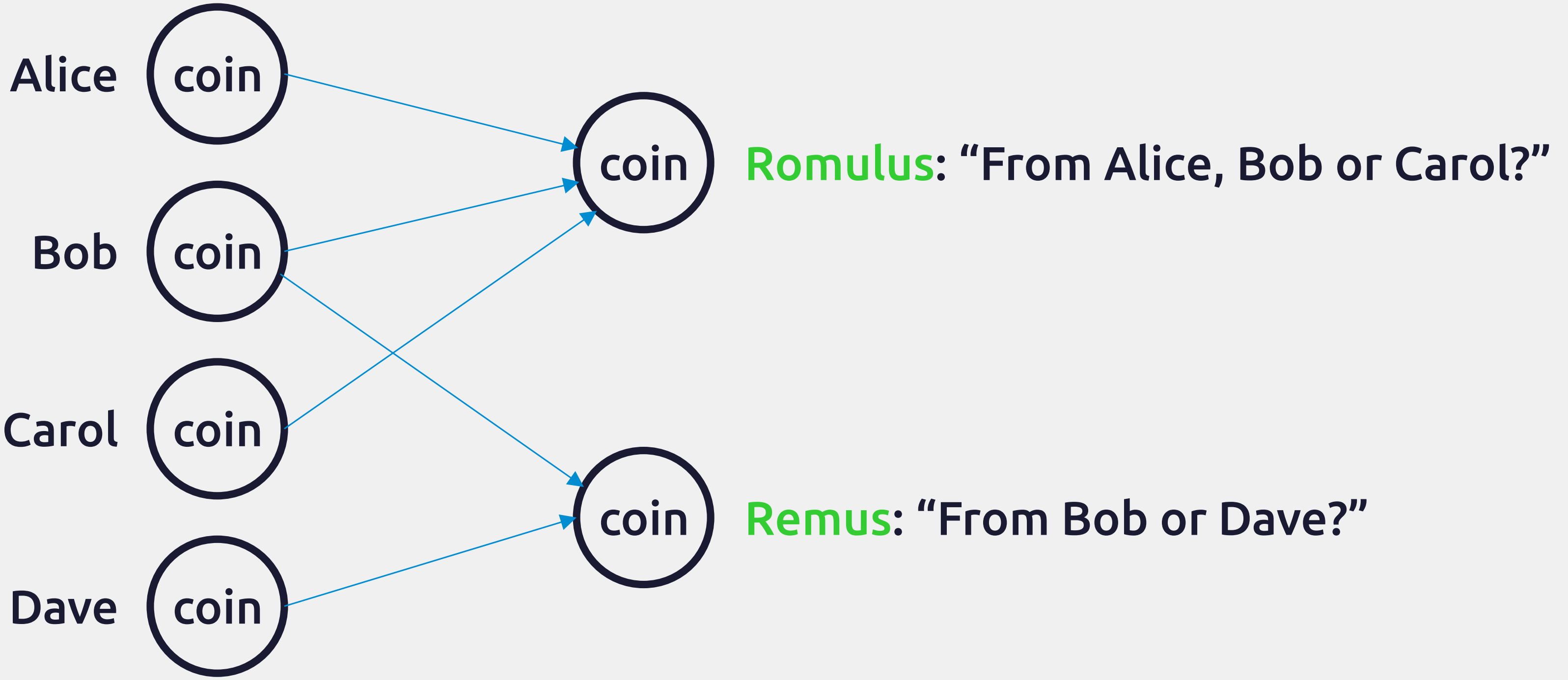
Let’s compare!

Ordinary **CryptoNote** Technology

Alice wants to send a coin to **Romulus** and keep this transfer **private**.
To achieve this, she uses Bob’s and Carol’s coins as ***mixins**.
At the same time, **Dave** wants to send a coin to **Remus**, and also wants to keep the transfer **private**. To achieve this he took **Bob**’s coin as a ***mixin**.

***mixin** - it's a part of Cryptonote technology that makes your transfer private.

Ordinary CryptoNote transfer



Alice
coin
Bob
coin
Carol
coin
Dave
coin
coin
Romulus: “From Alice, Bob or Carol?”
coin
Remus: “From Bob or Dave?”

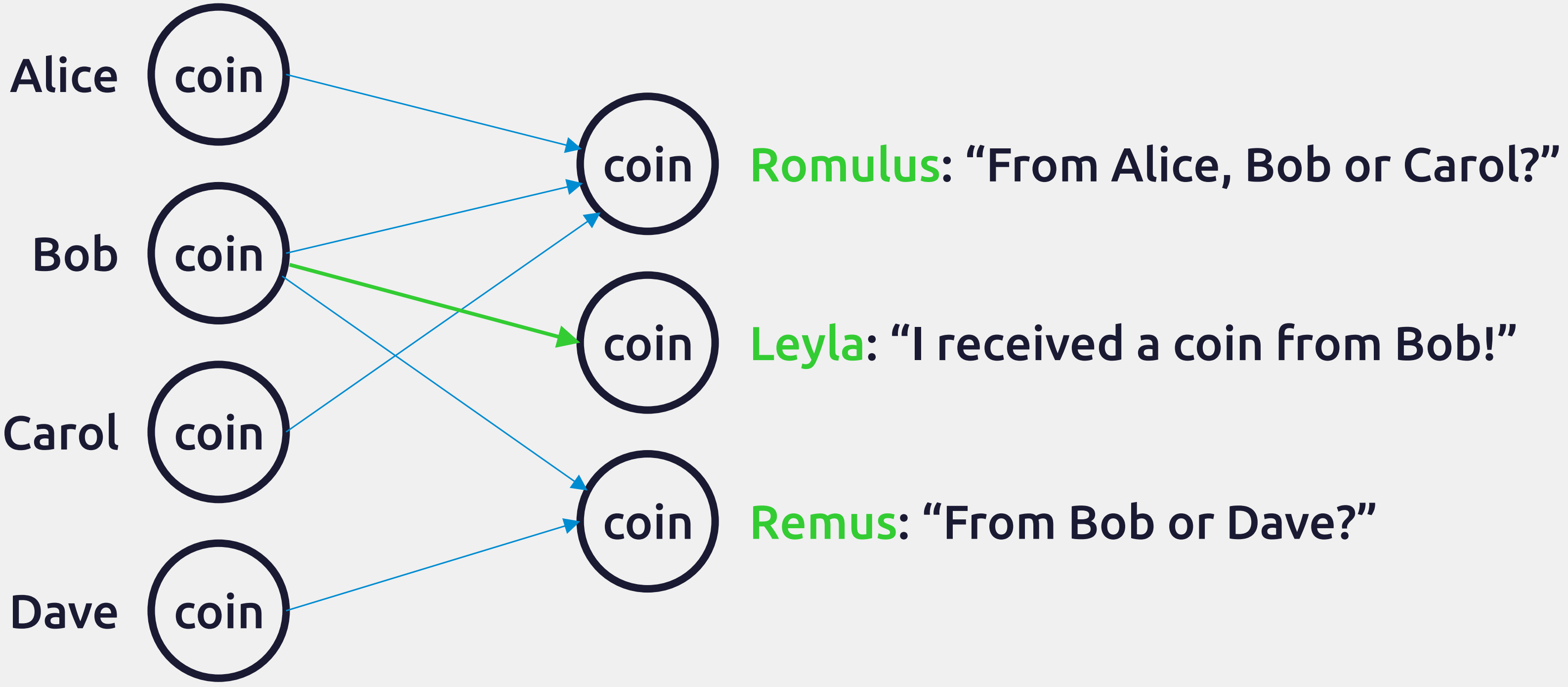
Let’s compare!

Ordinary **CryptoNote** Technology

Romulus’ and **Remus’** transfer is unlinkable. Great!

But what if **Bob** will decide to send his coin to **Leyla** **without mixin?**

Bob sending his coin to Leyla without mixin

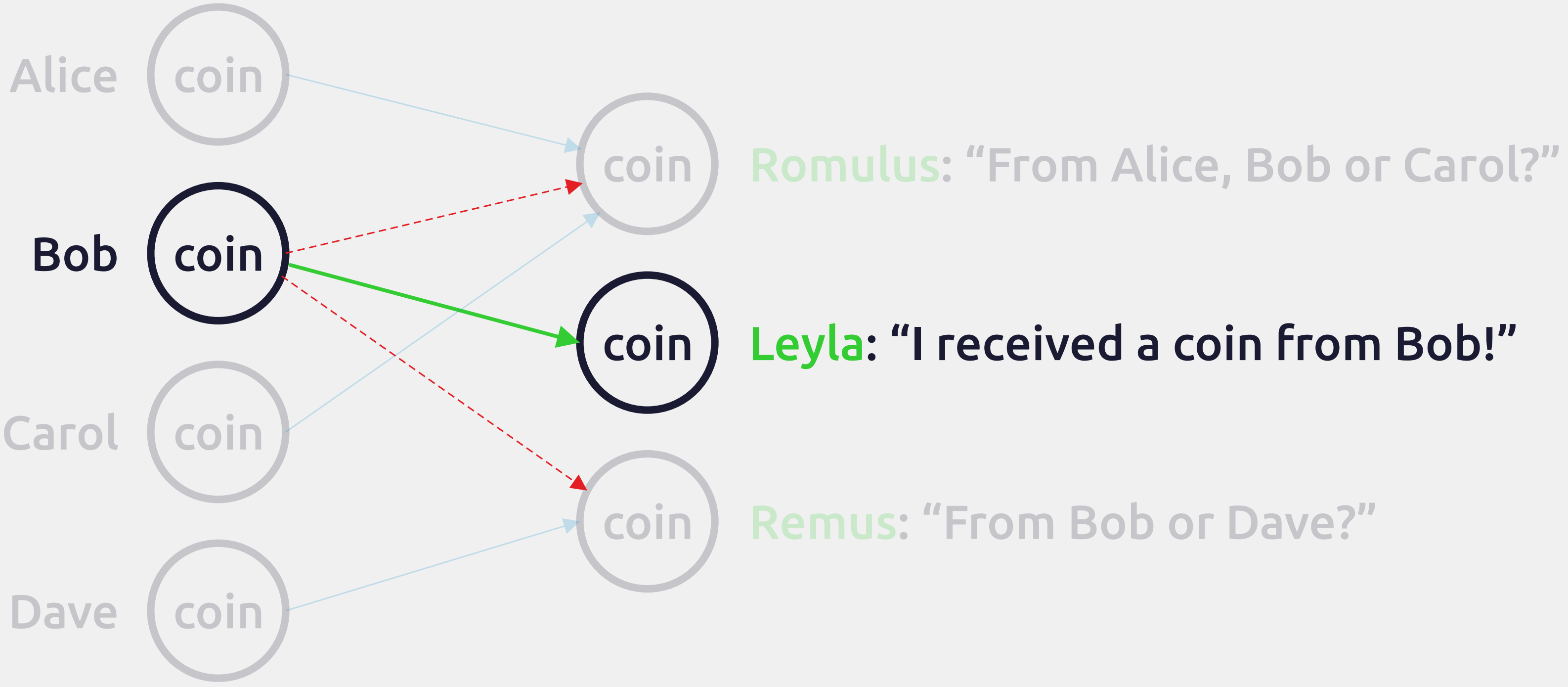

Alice
coin
Bob
coin
Carol
coin
Dave
coin
coin
coin
coin
Romulus: “From Alice, Bob or Carol?”
Leyla: “I received a coin from Bob!”
Remus: “From Bob or Dave?”

Let’s compare!

Ordinary **CryptoNote** Technology

Once **Bob** sent his coin without mixins,
his coin in other **mixins** became **fake.**

Bob sending his coin to Leyla without mixin



Alice coin

Bob coin

Carol coin

Dave coin

coin Romulus: “From Alice, Bob or Carol?”

coin Leyla: “I received a coin from Bob!”

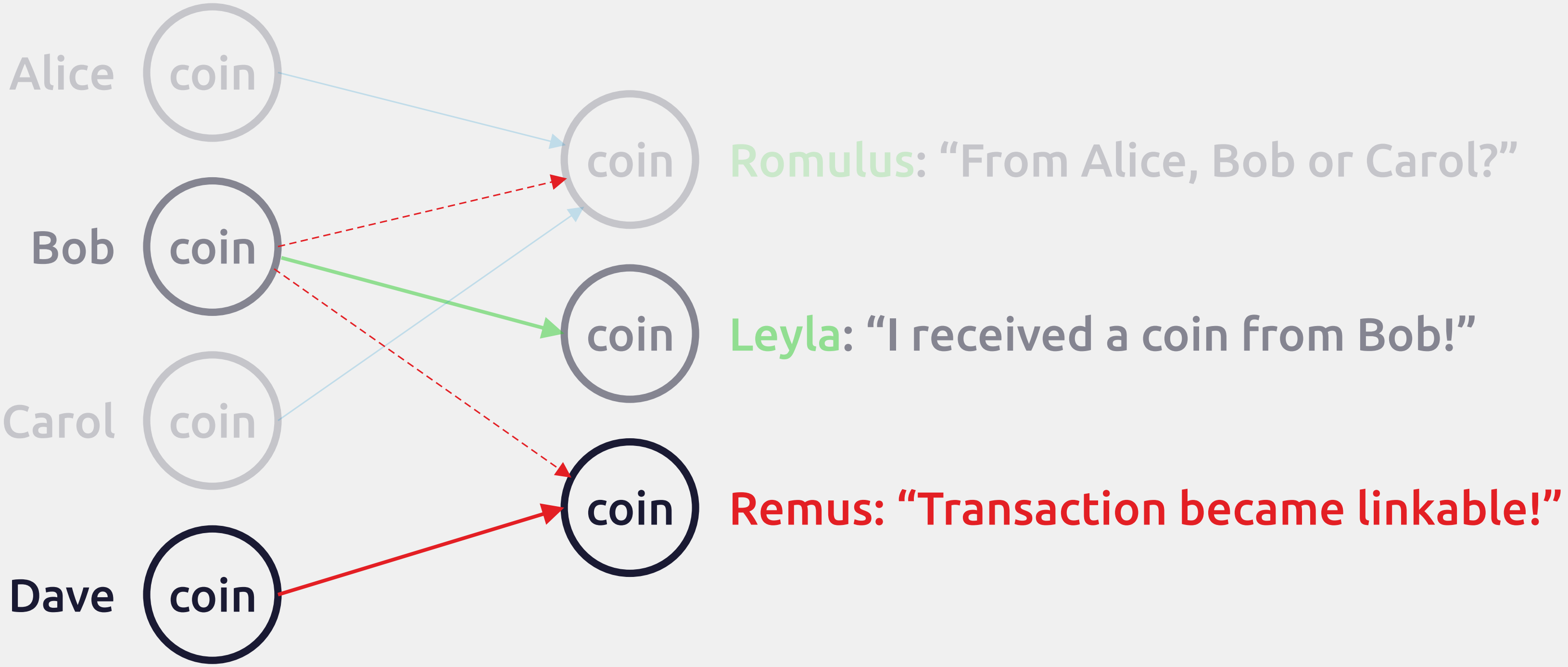
coin Remus: “From Bob or Dave?”

Let’s compare!

Ordinary **CryptoNote** Technology

Since all mixins with **Bob**’s coin became **fake**,
Dave’s transfer **is not unlinkable anymore!**

Remus receives a linkable coin

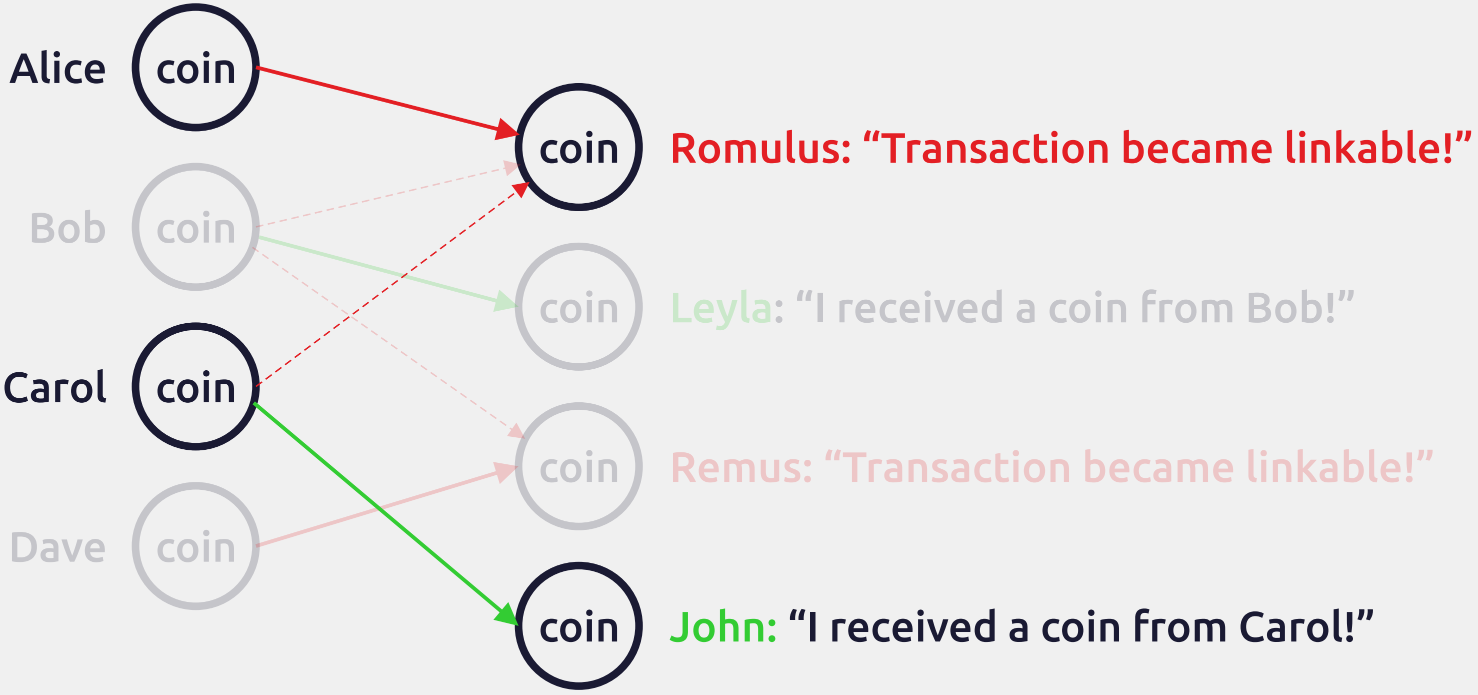

Alice
coin
Bob
coin
Carol
coin
Dave
coin
coin
Romulus: “From Alice, Bob or Carol?”
coin
Leyla: “I received a coin from Bob!”
coin
Remus: “Transaction became linkable!”

Let’s compare!

Ordinary **CryptoNote** Technology

The same issue occurs when **Carol** sends her coin without mixin to **John**.
Alices’s transfer **is not unlinkable anymore!**

Carol sending her coin to John without mixin



Romulus: “Transaction became linkable!”

Leyla: “I received a coin from Bob!”

Remus: “Transaction became linkable!”

John: “I received a coin from Carol!”

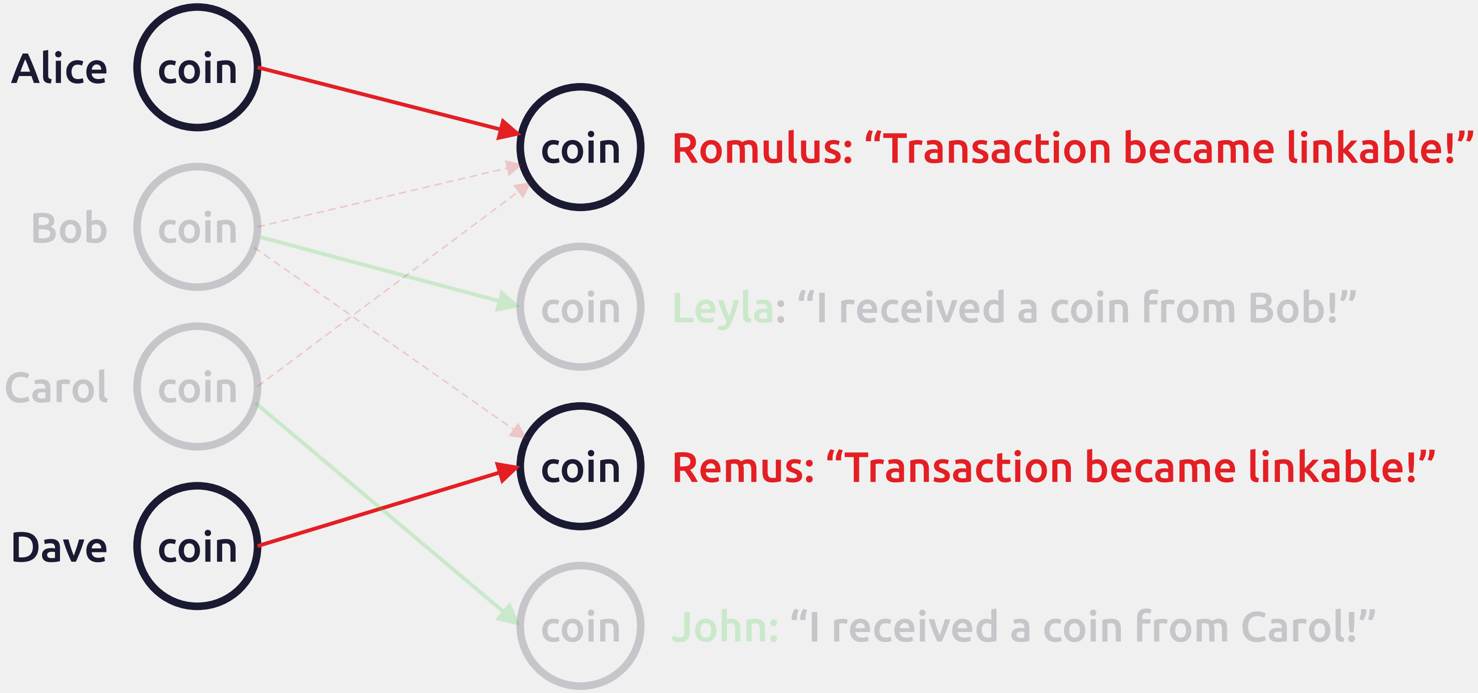
Let’s compare!

Ordinary **CryptoNote** Technology

The problem is that ordinary CryptoNote coin’s (**Bytecoin**/**Monero**) ***ring signatures** **will lose unlikability** from time to time.

***ring signature** - Cryptographic algorithm used in CryptoNote technology for transaction validation.

Carol sending her coin to John without mixin


Alice
coin
coin
Romulus: “Transaction became linkable!”
Bob
coin
coin
Leyla: “I received a coin from Bob!”
Carol
coin
coin
Remus: “Transaction became linkable!”
Dave
coin
coin
John: “I received a coin from Carol!”

How does boolberry solve this critical issue?

Modified **CryptoNote** Technology

Unlike no other **CryptoNote** coins such as **Bytecoin** and **Monero**, **Boolberry** has a special **flag** in each transaction's output.

With that flag the sender can set the output to be used only with specified number of mixins.

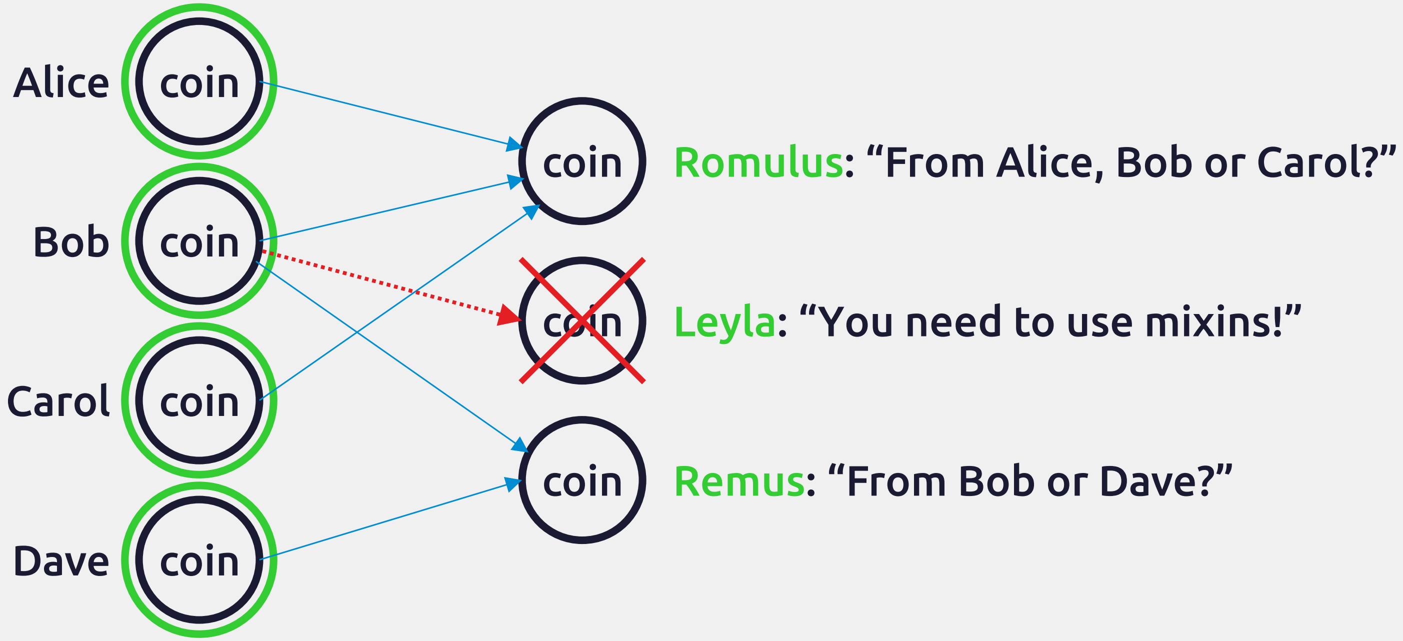
In other words, this flag guarantees that this coin won't be spent without mixins, so it will never compromise ring signatures in which it was involved.

Boolberry’s solution

Modified **CryptoNote** Technology

Boolberry’s outputs with guaranteed anonimity

Bob is trying to send his coin without mixins, but he can’t!

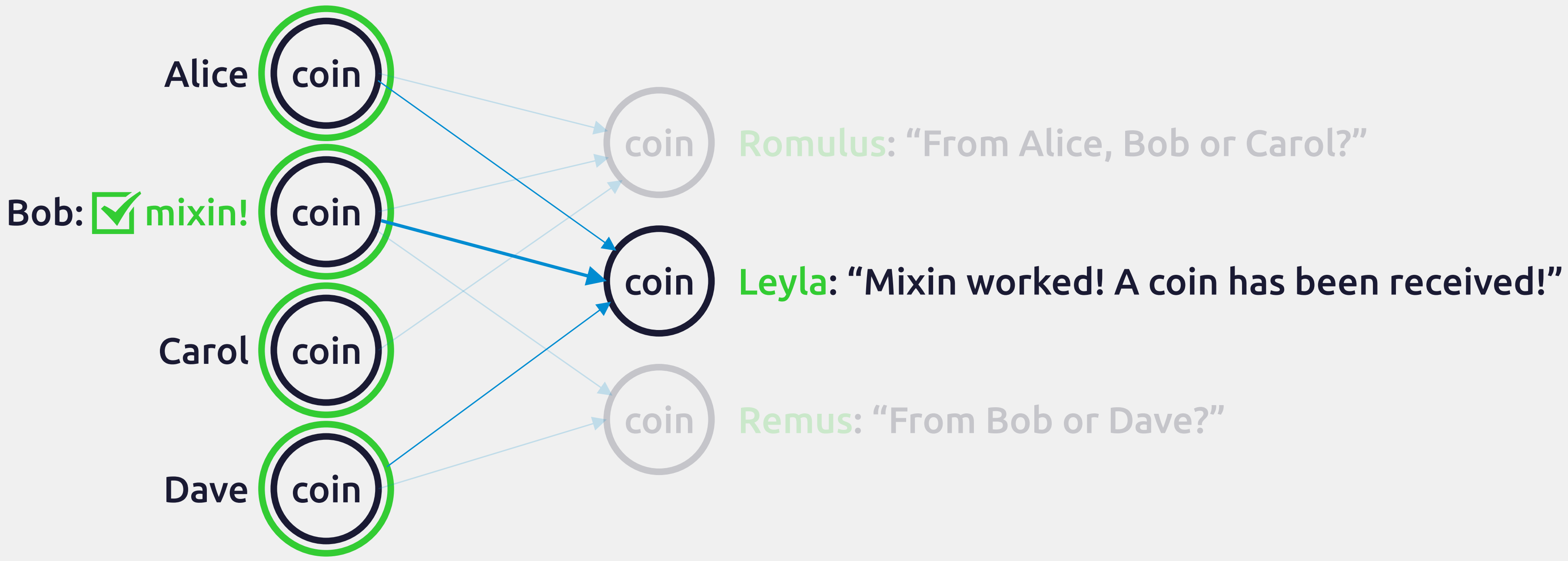

Alice
coin
Bob
coin
Carol
coin
Dave
coin
coin
Romulus: “From Alice, Bob or Carol?”
coin
Leyla: “You need to use mixins!”
coin
Remus: “From Bob or Dave?”

Boolberry's solution

Modified **CryptoNote** Technology

Boolberry's outputs with guaranteed anonimity

The only way to send this coin for Bob is with mixin

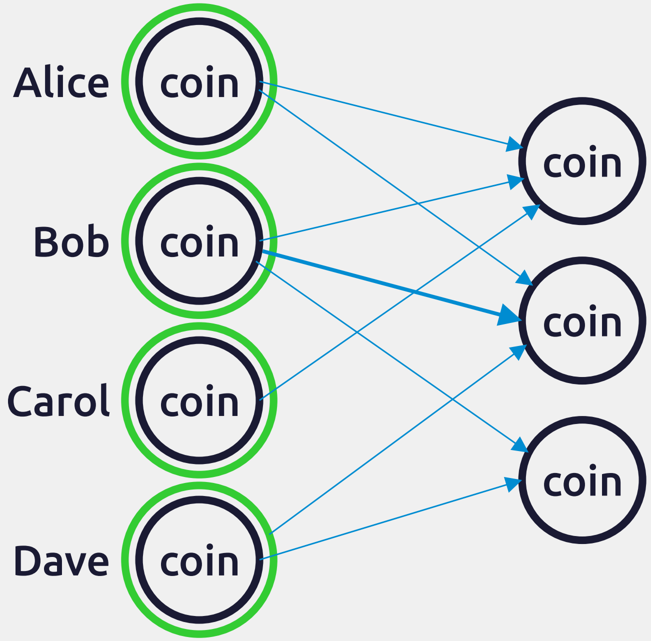

Alice
coin
Bob: ☑ mixin!
coin
Carol
coin
Dave
coin
coin
Romulus: "From Alice, Bob or Carol?"
coin
Leyla: "Mixin worked! A coin has been received!"
coin
Remus: "From Bob or Dave?"

Boolberry's solution

Modified **CryptoNote** Technology

Boolberry's outputs with guaranteed anonimity.
Using this feature **you can be sure** that your transfers
will stay unlinked forever.

Privacy and security - Guaranteed



Guess what?

Boolberry is the first and only CryptoNote coin that can guarantee unlinkability for users!

Boolberry is trading on www.poloniex.com and www.bittrex.com

For more information please visit www.boolberry.com