



# ETHLove

*On-chain marriage agreements*

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[ethlove.github.io](https://ethlove.github.io)

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## INTRODUCTION

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In many different countries marriages are heavily regulated: either you need to hire some middleman, to pay extremely high fees; this is a time and money consuming process.

In other countries people can't marry someone from the same sex than them, some people can't marry together because of another specific regulation.

But thanks to Ethereum smart contracts system we can solve that problem, we can avoid using any middleman and interact with the blockchain with no restrictions based on where we live.

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## PRESENTING ETHLove

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To do so, we developed a new Decentralized Application (DAPP) on the Ethereum blockchain to allow anyone to organize and validate its marriage agreement in a seamlessly, yet secure way.

ETHLove is working in a very simple way:

- By going to the [deploy page](#) one can start an agreement with the keys of the two parties wanting to get married, an url (preferably to an [IPFS](#) gateway) to a document describing the agreements (if wanted), a time period (described later) and *validity period* in years which defines when the agreement is over, this allow parties to eventually redefine the terms of their agreement once that period is over (they could also choose an extremely long period if they are not interested in such feature).
- Then the people deploying the contract would just need to share the contract's address in order to let people interact with it on the [interact page](#).
- Depending if one is a party, a witness or just an external viewer different actions are available.

The interact page provides the following possibilities:

- Everyone can see the keys of both parties, the refund period, the url provided and the "status" of the agreement (are parties married? Or are they waiting for their witnesses to sign the agreement?).
  - During the **initialization** phase parties can add some witnesses or end that phase.
  - During the **waiting for confirmations** phase witnesses and parties need to accept the union, to guarantee that every signatory thought carefully about the union they are required to deposit the sum of *0.1 ETH*.
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- If the time period selected is over and that the agreement still requires some signatures, signatories can be *refunded* the sum they sent when they accepted the union.
  - If all witnesses and parties sign the agreement it now switches to the state **married** (congrats to parties), the sums sent are now not refundable anymore, they will be used to improve ETHLove and help people organizing their on-chain marriage as well as to extend the service or provides a better infrastructure.
  - Once **married** parties (not witnesses) can choose to *divorce* and thus break the agreement. Divorce should be harder than marriage, to ensure so the party wanting to divorce will need to deposit the sum of *0.4 ETH*, then the agreement will self destruct.

The interface makes use of the web3 API to interact with the ethereum blockchain and is storing *no data*, everything takes place on the Ethereum blockchain, it means one is not *obliged to use the interface*, he or she could choose to use its “standard” wallet.

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## CONCLUSION

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We presented ETHLove, a DAPP to perform on-chain marriage agreements, this allows anyone in the world (provided they can access the Ethereum network) can choose to marry with someone else with no limitations based on their jurisdiction (for instance a man could marry another man, or a girl could marry another girl even if their government is forbidding so).

One could argue those agreements cannot have the same value than “standard” ones, fortunately we believe they will soon have thanks to governments recognizing smart contracts as formal contracts, [Arizona](#) and [Nevada](#) already started doing so.

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