

Developing Cross Chain Dapps

If you haven't read the Wormhole[introduction](#) to understand what Cross Chain Development is and how developers and Dapps can benefit from it, please start there.

[VAAs](#) are the core messaging primitive in Wormhole. You can think of them as packets of cross chain data that are emitted any time a cross chain application contract interacts with the Core Contract.

[Relayers](#) in the Wormhole context are processes that deliver Verifiable Action Approvals (VAAs) to their destination, playing a crucial role in Wormhole's security model. They can't compromise security, only liveness, and act as delivery mechanisms for VAAs without the capacity to tamper with the outcome.

When building a cross chain application, there are two primary ways to relay messages (VAAs) with Wormhole.

1. [Automatic Relaying](#)
2.
 - No off chain code required
3. [Specialized Relaying](#)
4.
 - Some off chain code may be required
- 5.

The components outlined in blue are those that must be implemented by the developer

Automatic Relaying

Automatic Relaying is currently only supported for EVM environments. ?

With Automatic Relaying, only the contracts need to be developed. Leave the message delivery to a service provider.

[Read More](#)

[Quick Start](#)

Specialized Relayer

?

With Specialized Relaying, the developer can communicate with [any blockchain Wormhole supports](#) and has the freedom to choose a delivery strategy.

[Read More](#)

[Quick Start](#)

More

More tutorials are available [here](#) .

Last updated 1 month ago

On this page * [Automatic Relaying](#) * [Specialized Relayer](#) * [More](#)

Was this helpful? [Edit on GitHub](#)