What Is Claimed Is:

1. A computer-implemented method for establishing communication between a first blockchain network and a second blockchain network, comprising:

embedding a first library into a process;

executing the first library to create a first border node embedded into the process, wherein the first border node operates together with a first set of nodes in the first blockchain network, the first set of nodes not being embedded into the process;

embedding a second library into the process;

executing the second library to create a second border node embedded into the process, wherein the second border node operates together with a second set of nodes in the second blockchain network, the second set of nodes not being embedded into the process; and

establishing a communication interface within the process to allow the first border node and the second border node to communicate with each other to jointly establish communication between the first blockchain network and the second blockchain network through the first border node and the second border node, wherein the process causes a processor to allocate a trusted execution environment to the communication interface, and the first border node and the second border node communicate with each other utilizing one or more function calls.

2. The method of claim 1, further comprising:

obtaining the first library and the second library, the first library including binary code for the first border node, and the second library including binary code for the second border node.

3. The method of any preceding claim, wherein the first library further includes data representing a first blockchain to be managed by the first border node.

4. The method of any preceding claim, wherein the second library further includes data representing a second blockchain to be managed by the second border node.

5. The method of any preceding claim, wherein the process is implemented as a Java™ process.

6. The method of claim 5, wherein the Java process utilizes Java™ Native Interface (JNI) to embed and execute the first and second libraries.

7. The method of any preceding claim, wherein the first border node and the second border node communicate with each other utilizing one or more function calls.

8. The method of any preceding claim, wherein the process causes a processor to allocate a separate memory region to each of the first and second border nodes using hardware level processing unit instructions.

9. The method of any preceding claim, wherein the process causes a processor to allocate a trusted execution environment to the communication interface.

10. The method of claim 9, wherein the processor provides hardware-enforced protection for the trusted execution environment allocated to the communication interface utilizing cryptography.

11. The method of any preceding claim, further comprising:

embedding a third library into the process;

executing the third library to create a third border node within the process, wherein the third border node operates in a third blockchain network; and

establishing the communication interface within the process to allow the first border node, the second border node, and the third border node to communicate with each other.

12. A device for establishing communication between a first blockchain network and a second blockchain network, comprising:

one or more processors; and

one or more computer-readable memories coupled to the one or more processors and having instructions stored thereon that are executable by the one or more processors to perform the method of any of claims 1 to 11.

13. An apparatus for establishing communication between a first blockchain network and a second blockchain network, the apparatus comprising a plurality of modules for performing the method of any of claims 1 to 11.

14. A non-transitory computer-readable medium having stored therein instructions that, when executed by a processor of a device, cause the device to perform the method of any of claims 1 to 11.