

WHAT IS CLAIMED IS:

1. A computer-implemented method for implementing a smart contract call on a blockchain network, the method comprising:

5 retrieving one or more smart contract definitions from the blockchain network, the one or more smart contract definitions including a plurality of contract functions from a plurality of smart contracts stored in a blockchain maintained by the blockchain network;

generating a smart contract interface representing the one or more smart contract definitions, the smart contract interface including a plurality of interface functions
10 corresponding to the plurality of contract functions, the smart contract interface configured to allow developer software applications to call each of the contract functions by calling a corresponding interface function;

receiving a local call to a particular interface function from a developer software application, the local call including call parameters corresponding to parameters of a
15 particular contract function corresponding to the particular interface function;

in response to the receiving the local call to the particular interface function, (i) retrieving, from the local call, the call parameters, (ii) converting, using a software library, the call parameters to smart contract parameters for communicating with the corresponding smart contract on the blockchain network, and (iii) generating a smart
20 contract call to the particular contract function, the smart contract call including the smart contract parameters; and

transmitting the smart contract call to the blockchain network.

2. The method of claim 1, further comprising receiving results from an execution of
25 the smart contract call by the blockchain network and providing the results to the developer software application.

3. The method of any preceding claim, wherein retrieving the one or more smart contract definitions includes retrieving bytecode associated with smart contracts stored in
30 the blockchain.

4. The method of any preceding claim, wherein each call parameter has a parameter type matching a contract parameter type of a corresponding parameter of the particular contract function.

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5. The method of claim 4, wherein the parameter type includes at least one of an integer, a string, or a byte array.

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6. The method of any preceding claim, wherein transmitting the smart contract call to the blockchain network comprises broadcasting the smart contract call to a plurality of nodes of the blockchain network.

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7. The method of any preceding claim, wherein retrieving the one or more smart contract definitions and generating the smart contract interface are performed automatically in response to a change to the one or more smart contract definitions stored in the blockchain.

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8. A system for implementing a smart contract call on a 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 7.

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9. An apparatus for implementing a smart contract call on a blockchain network, the apparatus comprising a plurality of modules for performing the method of any of claims 1 to 7.