

Transaction

Smart Contract Creation

Hash → transaction identifier

Nonce → minimum account nonce
Not valid if less than value in world state

Gas Price → typically 0 for permissioned

Gas Premium → typically 0 for
permissioned

Free Cap → typically 0 for permissioned

Gas Limit → typically MAX for
permissioned

To → *empty* for contract creation
Derived from nonce + sender addr

Value → typically 0 for permissioned

V, R, S → transaction signature
Output of ECDSA signing process

Sender → Address of EOA

Chain ID → Preventing reentrancy

ref: Init → points to payload

ref: Data → *empty* for contract creation

Payload → Smart Contract bytecode

Transaction Type → transaction
specification. Currently constant EIP1559

Message Call

Hash → transaction identifier

Nonce → minimum EOA nonce
Not valid if less than value in world state

Gas Price → typically 0 for permissioned

Gas Premium → typically 0 for
permissioned

Free Cap → typically 0 for permissioned

Gas Limit → typically MAX for
permissioned

To → address of smart contract to invoke

Value → typically 0 for permissioned

V, R, S → transaction signature
Output of ECDSA signing process

Sender → Address of EOA

Chain ID → Preventing reentrancy

ref: Init → *empty* for message call

ref: Data → points to payload

Payload → Function and parameters

Transaction Type → transaction
specification. Currently constant EIP1559