NFT Data Storage: On-Chain vs Off-Chain

ON-CHAIN

(Blockchain)

Token ID: uint256

Owner: address

Approvals: mapping

Token URI: string

Contract Logic

tokenURI()

OFF-CHAIN

(IPFS/Server)

Image/Media

Metadata JSON

Attributes/Traits

Description
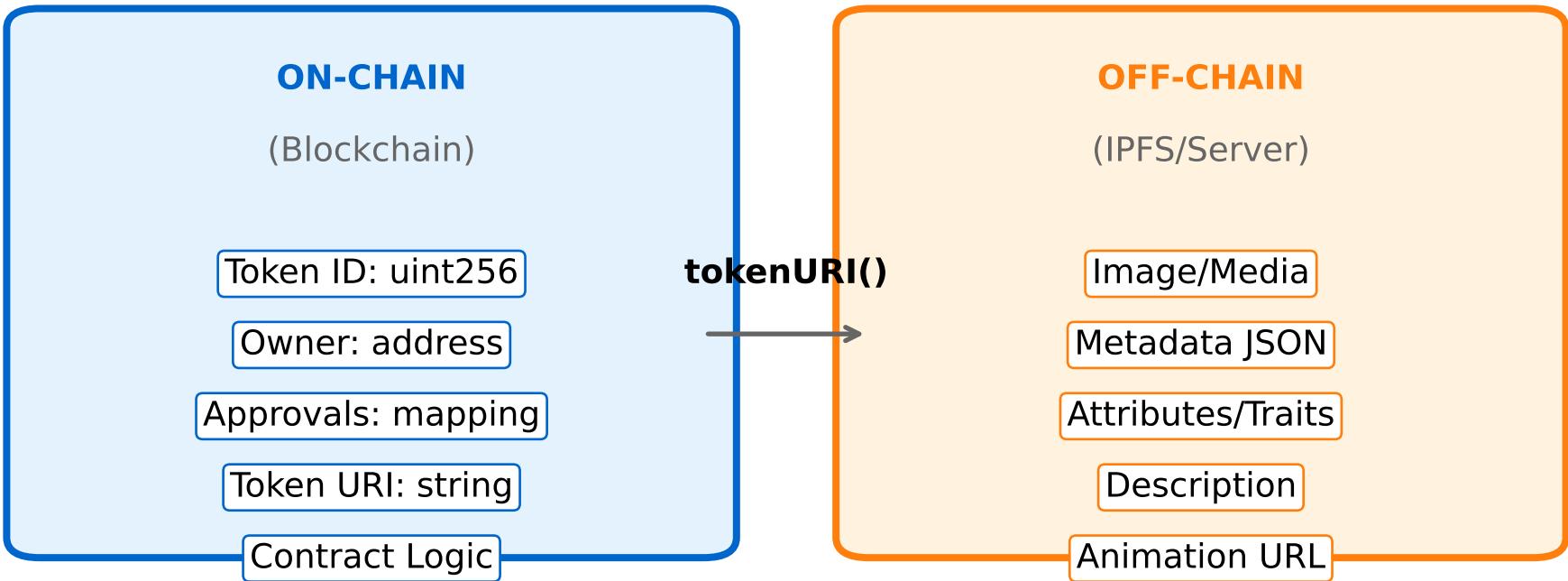
Animation URL

Cost: HIGH

~20,000 gas per 32 bytes

Cost: LOW

~$0.01 per MB (IPFS)