

A stylized, colorful illustration of a landscape. In the foreground, there are rolling green hills with a dark brown path winding through them. On the left, a green tree and a purple flower stand on a small hill. A red bird is flying in the sky above the tree. The background features a white sky with blue wavy lines representing clouds or distant hills.

Socket communication

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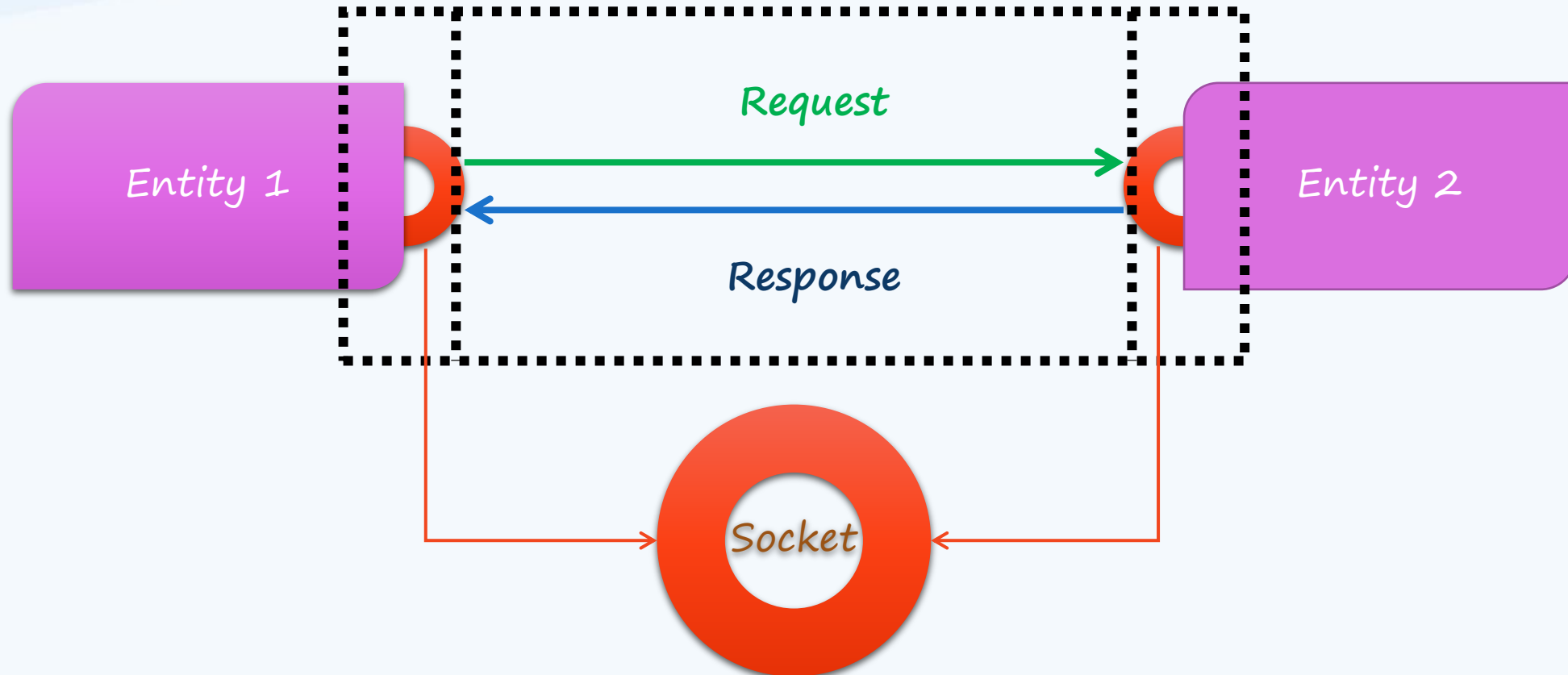
What is Socket ?

- *Sockets* allow communication between two different processes on the same or different machines
- A *socket* is one endpoint of a two-way communication link between two programs running on the network
- *Socket programming* is a way of connecting two nodes on a network to communicate with each other
- A *network socket* is one endpoint in a communication flow between two programs running over a network

What is Communication?

- *Communication* is simply the act of transferring information from one place to another
- The transmission of data from one *computer* to another, or from one device to another
- *Data communications* refers to the transmission of this digital data between two or more *computers* and a *computer* network or data network

Communication



Communication Between two Entity. Entity may be process of same machine or different machines

Different Type of Communication

- *Client Pull Communication*
- *Server Push Communication*
- *Peer to Peer Communication*

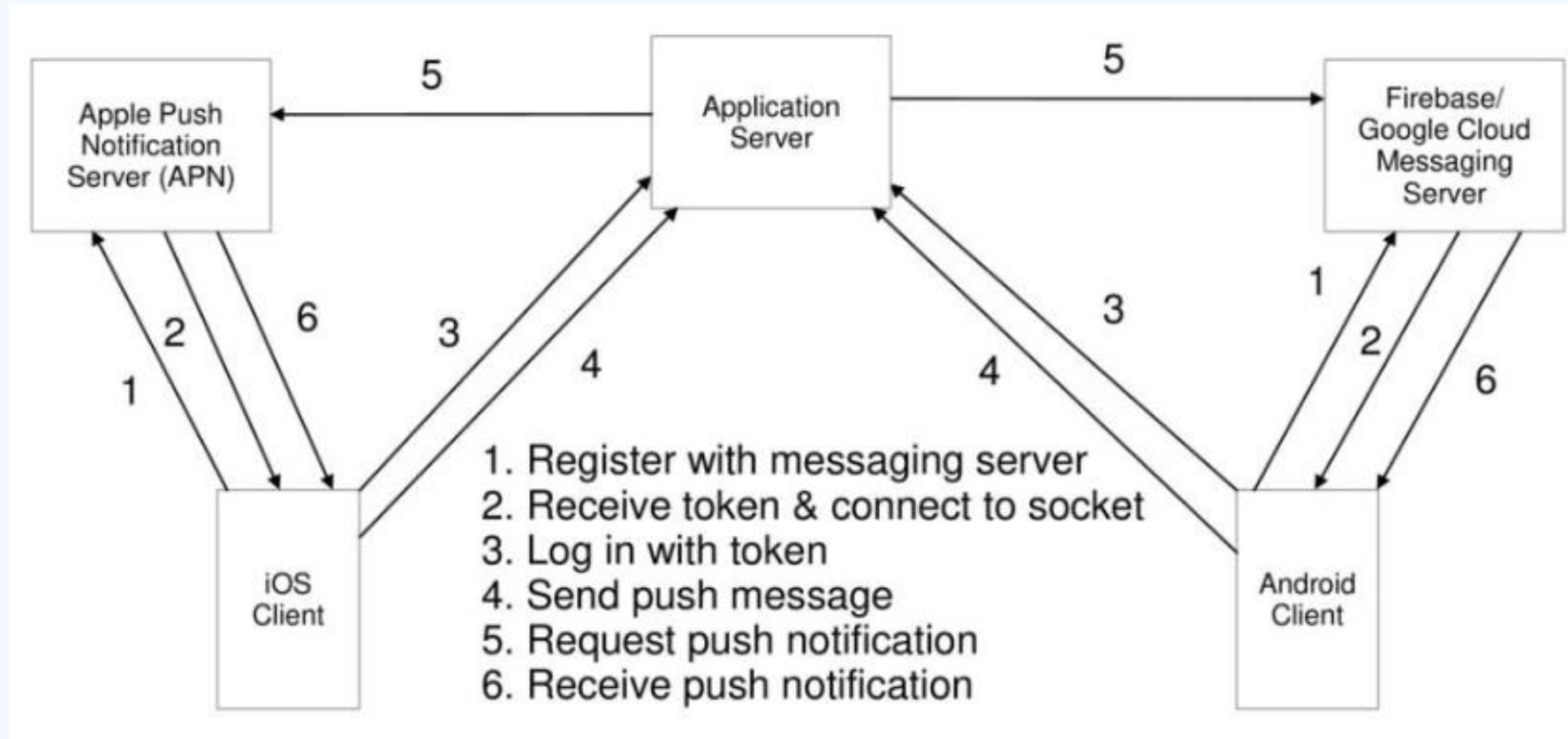
Client PULL Communication

Pull coding or client pull is a style of network communication where the initial request for data originates from the client, and then is responded to by the server



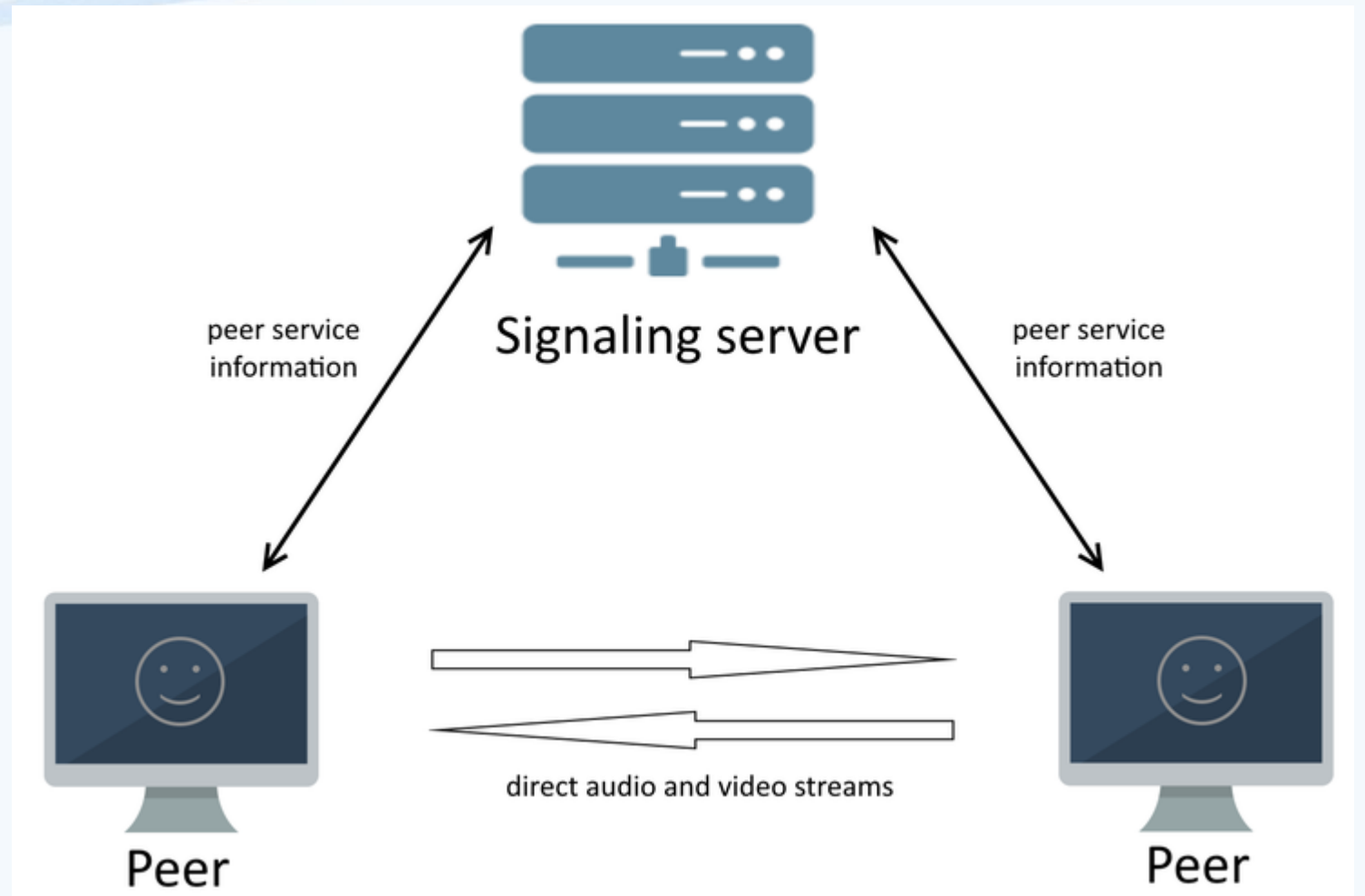
Server Push Communication

The request for a given transaction is initiated by the publisher or central server



Peer to Peer Communication

In its simplest form, a peer-to-peer (P2P) network is created when two or more PCs are connected and share resources without going through a separate server computer



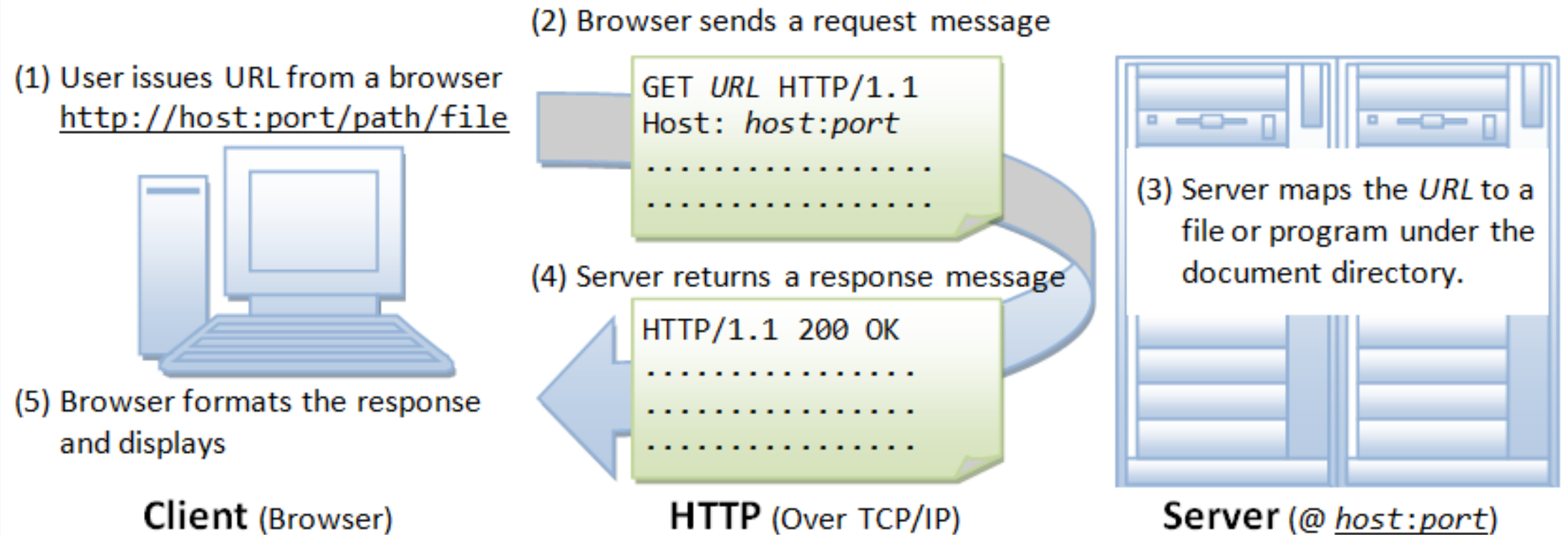
Examples

Client PULL Communication → HTTP Request

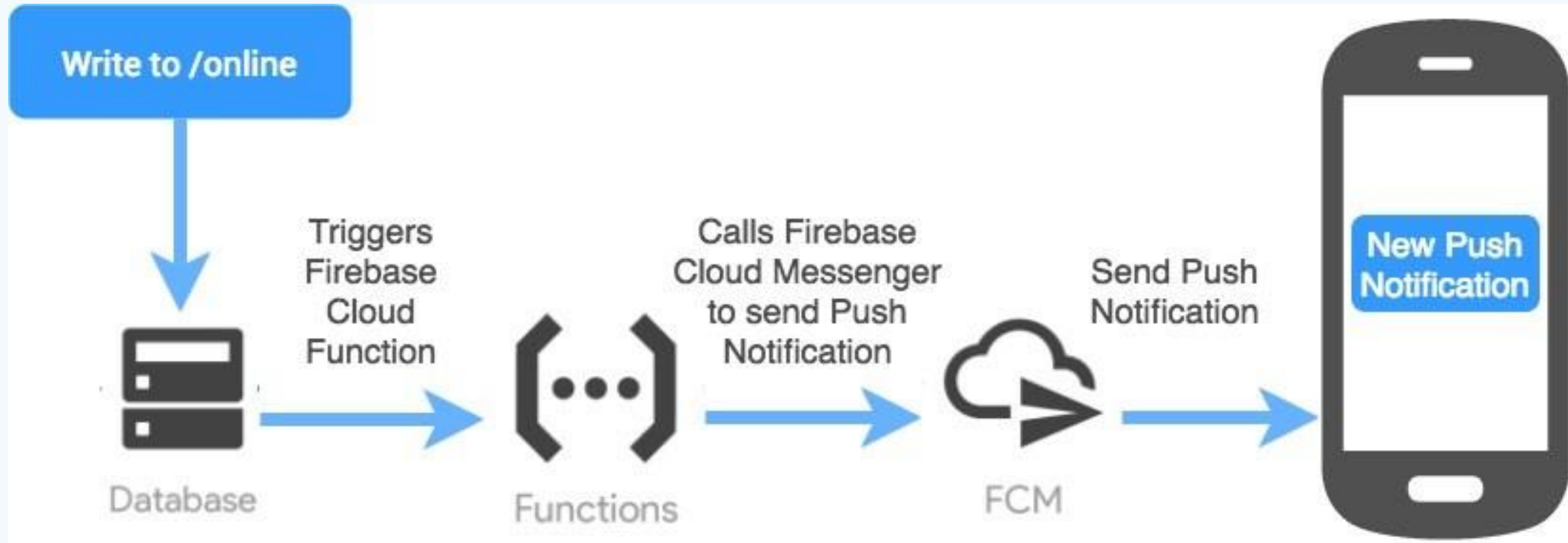
Server PUSH Communication → Push Notification

Peer to Peer Communication → WebRTC (Audio/Video Call)

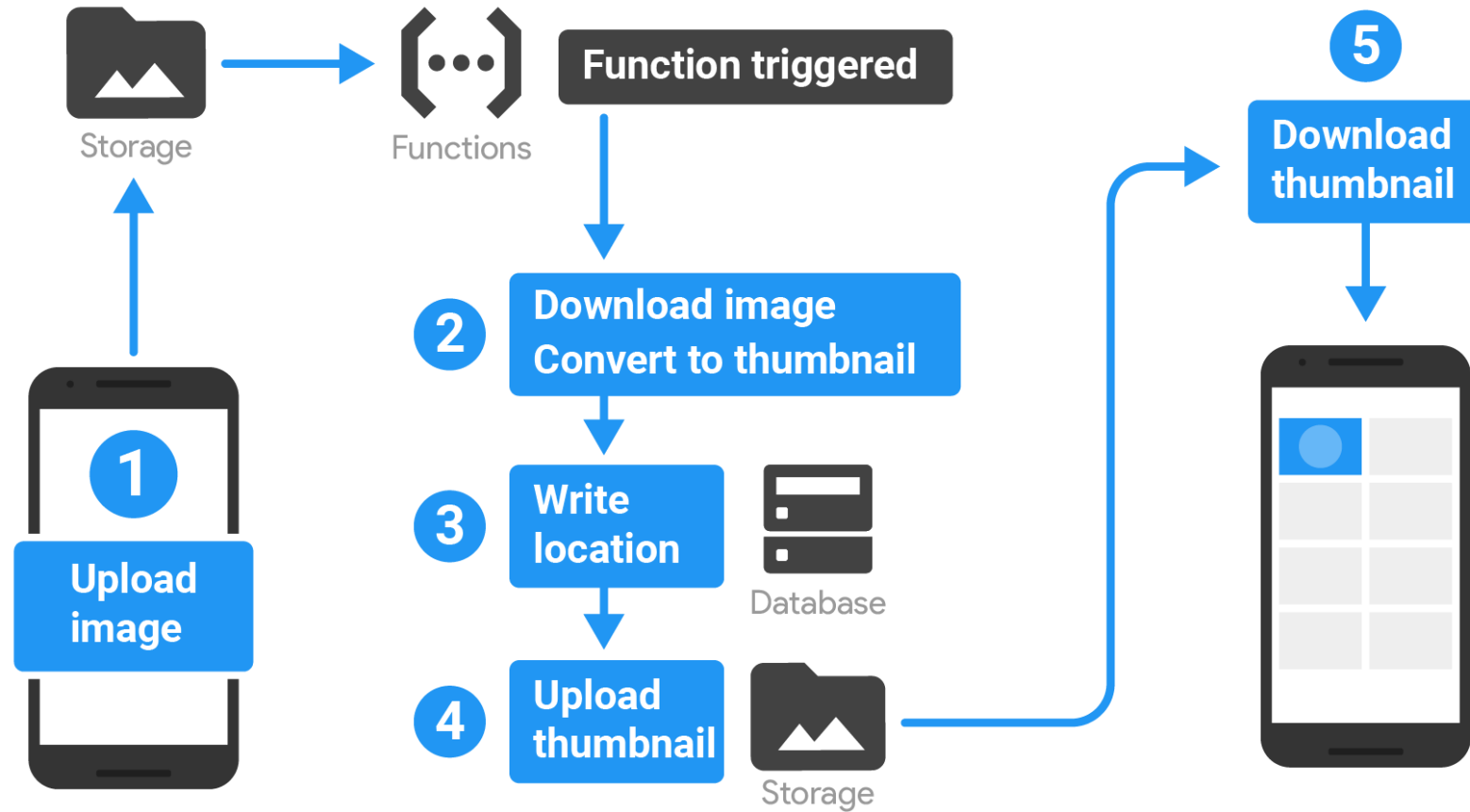
AJAX HTTP Request & Response



Firestore PUSH Notification



Example: simple usage of Firebase



WebRTC Communication

