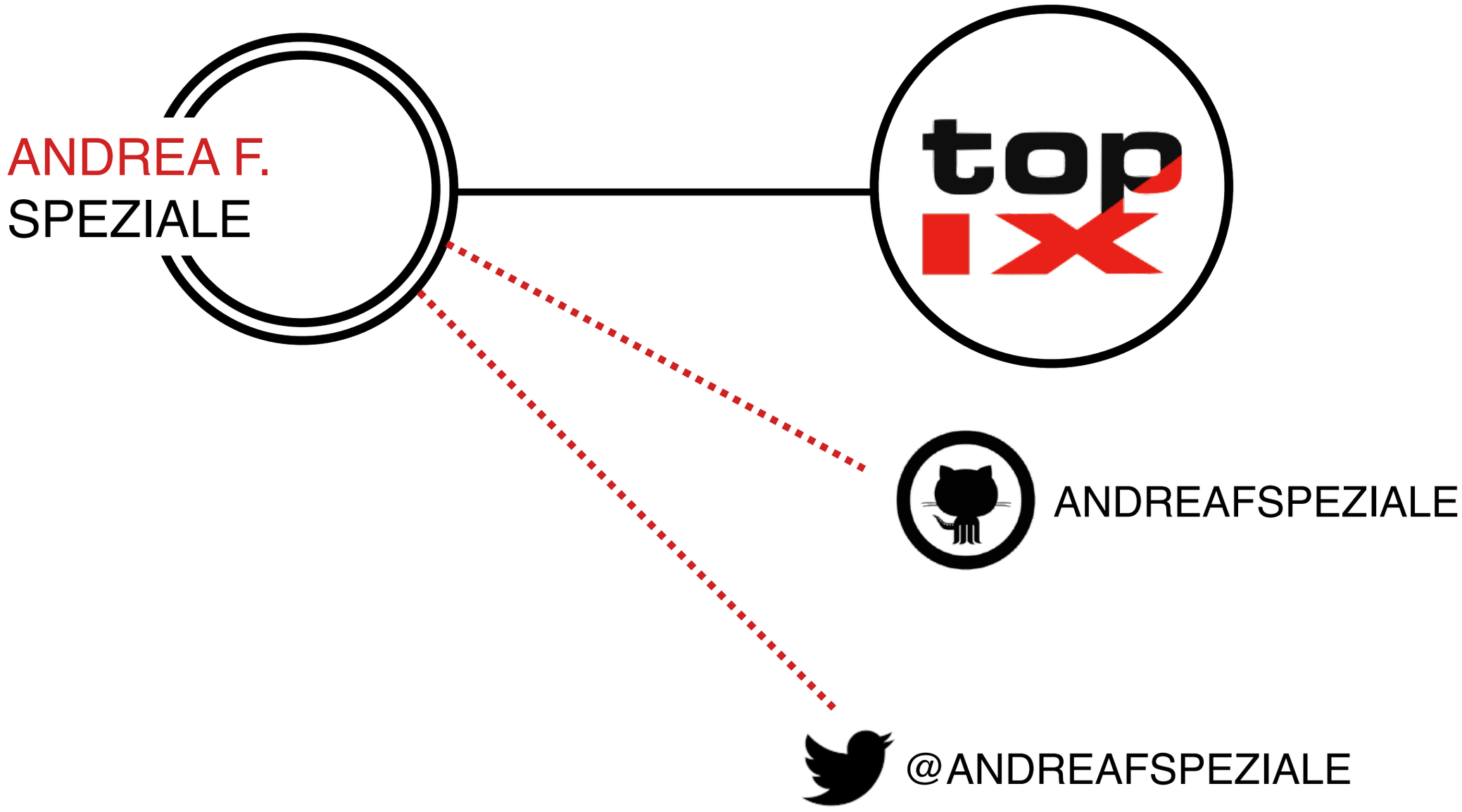
Hello BOT!

language is the new interface

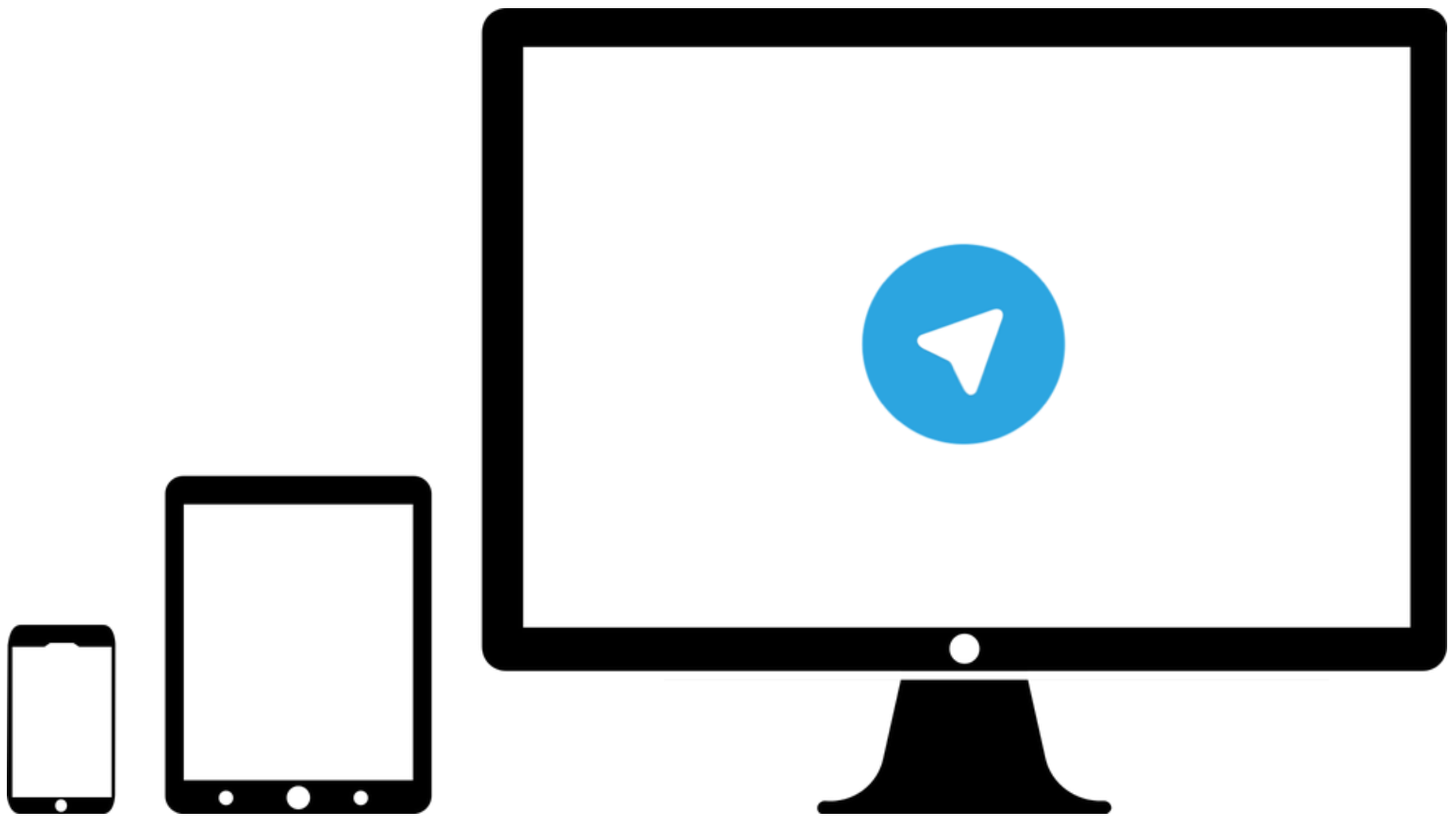
Andrea Francesco Speziale

20/05/2017


ANDREA F.
SPEZIALE
top
ix
ANDREAFSPEZIALE
@ANDREAFSPEZIALE

CAN CHATBOT
&
BLOCKCHAIN TALK?

TELEGRAM



/ 2013 Nikolai e Pavel Durov

TELEGRAM I KEY SUCCESS

TELEGRAM BOTS

TELEGRAM END-TO-END ENCRYPTION

TELEGRAM I BOTS

/ Third-party **Applications**

/ **Interaction by messages, commands..**

/ WHY should I create a bot? Purposes

/ **Custom alerting**
/ **Feed News** **(TechCrunch Bot.. Forbes Bot)**
/ **..**

they DON’T EAT
DON’T SLEEP
or
COMPLAIN

TELEGRAM I BOTS CREATION

CREATION
/newbot
—> @username

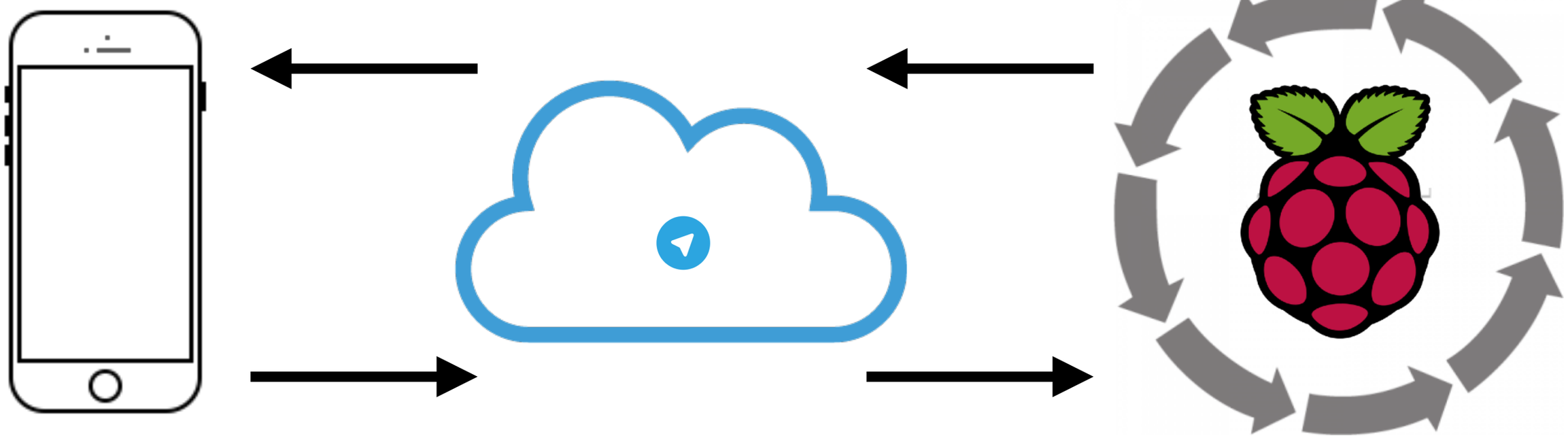
API KEY
Authorization

MANAGEMENT
/setname
/setdescription..

TELEGRAM I ARCHIT. SAMPLE

TELEGRAM

Server handling interaction using **Telegram API**
in 2 ways: **polling** I **webhook**



CLIENT

Telegram client running
on your device

CODE

Server running your code
and talking with the bot using
the generated **API KEY**

TELEGRAM I INTERACTION

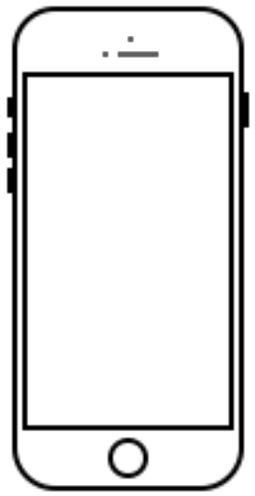
GET USER INPUT BY POLLING

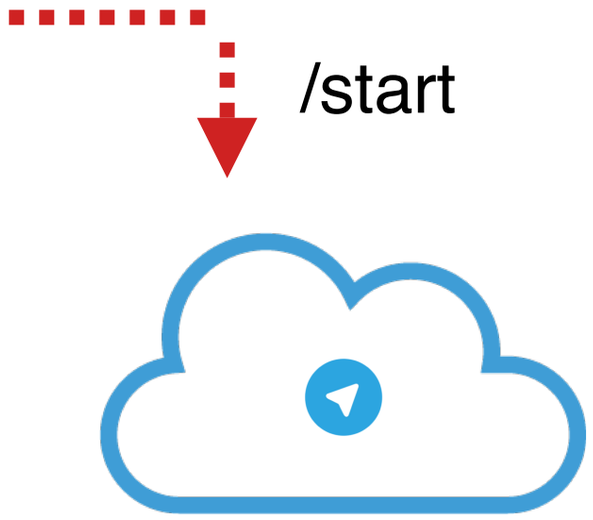
Asking periodically to Telegram servers for new messages

GET USER INPUT BY WEBHOOK

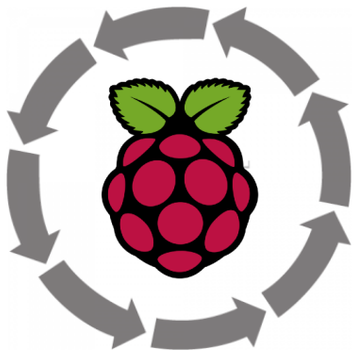
Receiving in real-time every new message by Telegram servers

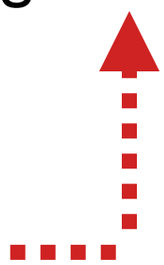
TELEGRAM I RESPONSE SAMPLE





getUpdates



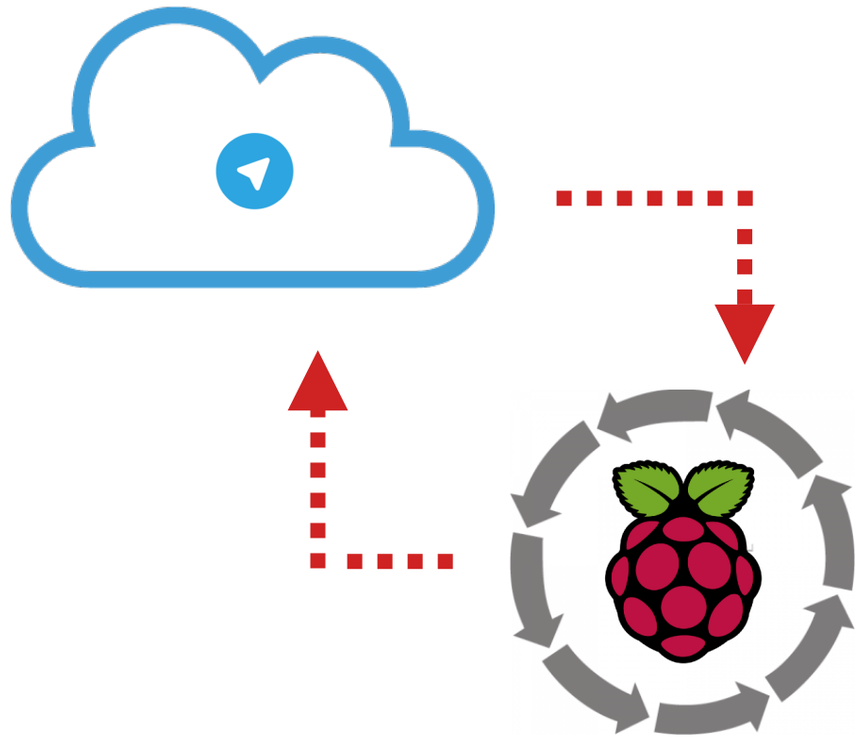


```
{
  "ok": true,
  "result": [
    {
      "update_id": 246250701,
      "message": {
        "message_id": 1,
        "from": {
          "id": 12345,
          "first_name": "unnikked",
          "username": "unnikked"
        },
        "chat": {
          "id": 12345,
          "first_name": "unnikked",
          "username": "unnikked"
        },
        "date": 1443448777,
        "text": "/start"
      }
    }
  ]
}
```

USING

POLLING

TELEGRAM I LIBRARIES



A WORLD OF

LIBRARIES

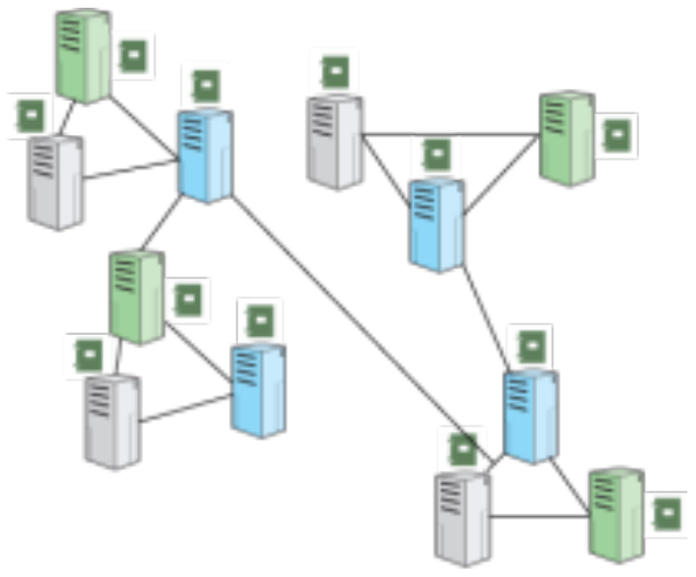
LISK BLOCKCHAIN PLATFORM

BLOCKCHAIN I INTRODUCTION

/ a distributed database in a decentralized peer network.

Centralized ledger network

Distributed ledger network



Decentralized ledger network

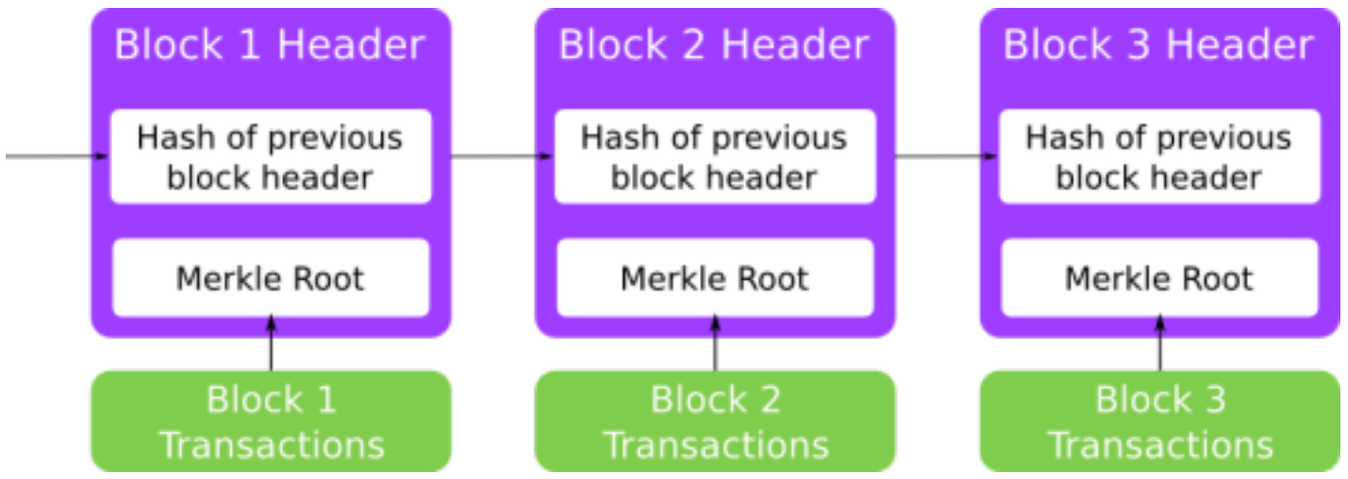
BLOCKCHAIN I INTRODUCTION

/ This distributed database is partially or totally located in every node of the network,
the latter automatically inserting new valid entries,
WITHOUT the intervention of a guaranteeing third party.

BLOCKCHAIN I INTRODUCTION

/ in the blockchain

every new entry is a NEW **BLOCK**.



HOW new entries are validated and accepted in the chain**?!**

the famous problem of

BYZANTINE GENERALS' PROBLEM

Algorithmically.

CONSENSUS ALGORITHMS

BLOCKCHAIN I BITCOIN DIGITAL CASH

/ Satoshi **Nakamoto**

/ 2009 **Genesis block**

/ Algorithm: **Proof Of Work** (POW)

/ new blocks are appended in the chain with a process called **mining resolving** math problems

/ *every node / miner compete for the creation of the next block and get rewarded*

BLOCKCHAIN I ETHEREUM SMART CONTRACTS

/ Vitalik **Buterin**

/ 2015 **LIVE** version

/ Algorithm: **Proof Of Work** (POW)

Moving to **Proof Of Stake** (POS)

BLOCKCHAIN I LISK BLOCKCHAIN APP PLATFORM IN JS

/ Max **Kordek** & Oliver **Beddows**

/ 2016 **LIVE** version

/ Algorithm: **Delegated Proof Of Stake** (DPOS)

/ only 101 elected nodes of the network can add entries on the chain, those nodes are called **Delegates**

/ *101 nodes are elected by the LISK stakeholders*

LISK BLOCKCHAIN PLATFORM

LISK I VISION

SINCE **JS** IT'S THE LINGUA FRANCA OF PROGRAMMING

CREATE A SIMPLE TO USE

BLOCKCHAIN PLATFORM

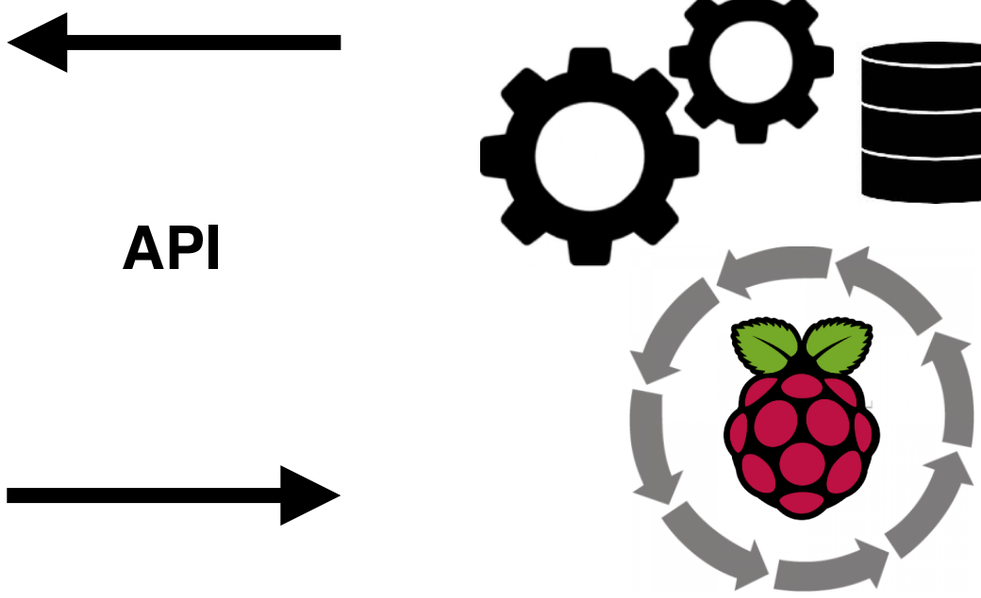
FOR **DECENTRALIZED**

JAVASCRIPT APPLICATIONS

LISK | PLATFORM

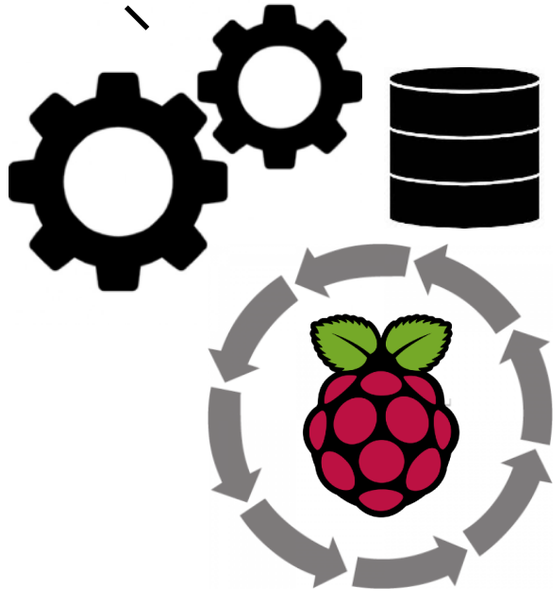
Lisk Network
decentralized peer network

API



Lisk Nodes
/ expose web wallet
/ expose API

Lisk Web Wallet
front-end web app for blockchain interaction



I'M FRONT-END DEVELOPER
USING A LOT OF JS.

I WANTED TO BE A PART OF IT!

LISK I NODE INSTALL

GUIDELINES AT

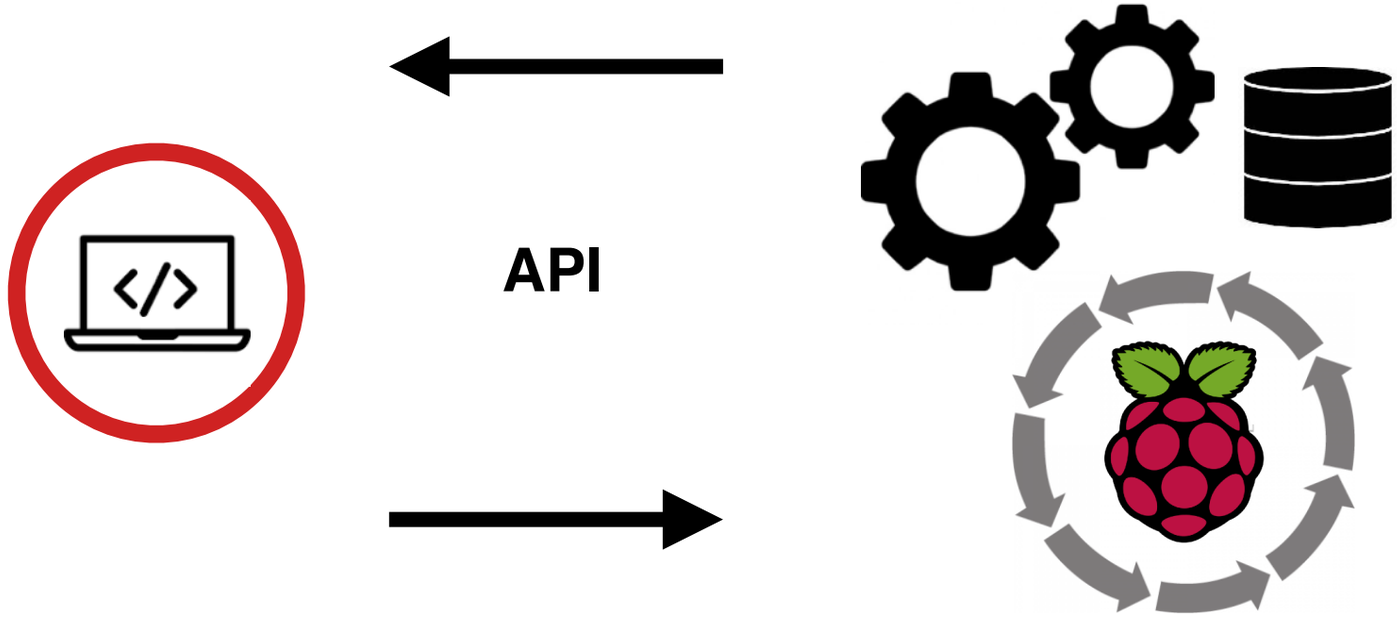
HTTPS://GITHUB.COM/LISKHQ/LISK-WIKI/WIKI/GETTING-STARTED

My Lisk Node

/ synced with Blockchain

/ Public IP

/ HTTPS



Web wallet

/ exposed by my server

/ available for everyone

But while I’m AFK
I want MONITORING my
LISK node!

So I created a

TELEGRAM BOT

@LiskitBot

@LISKITBOT | THE PROJECT

OPENSOURCE

HTTPS://GITHUB.COM/ANDREAFSPEZIALE/LISKITBOT

node-telegram-bot-api

@LISKITBOT I STRUCTURE

PROJECT DEPENDENCIES
PACKAGE.JSON

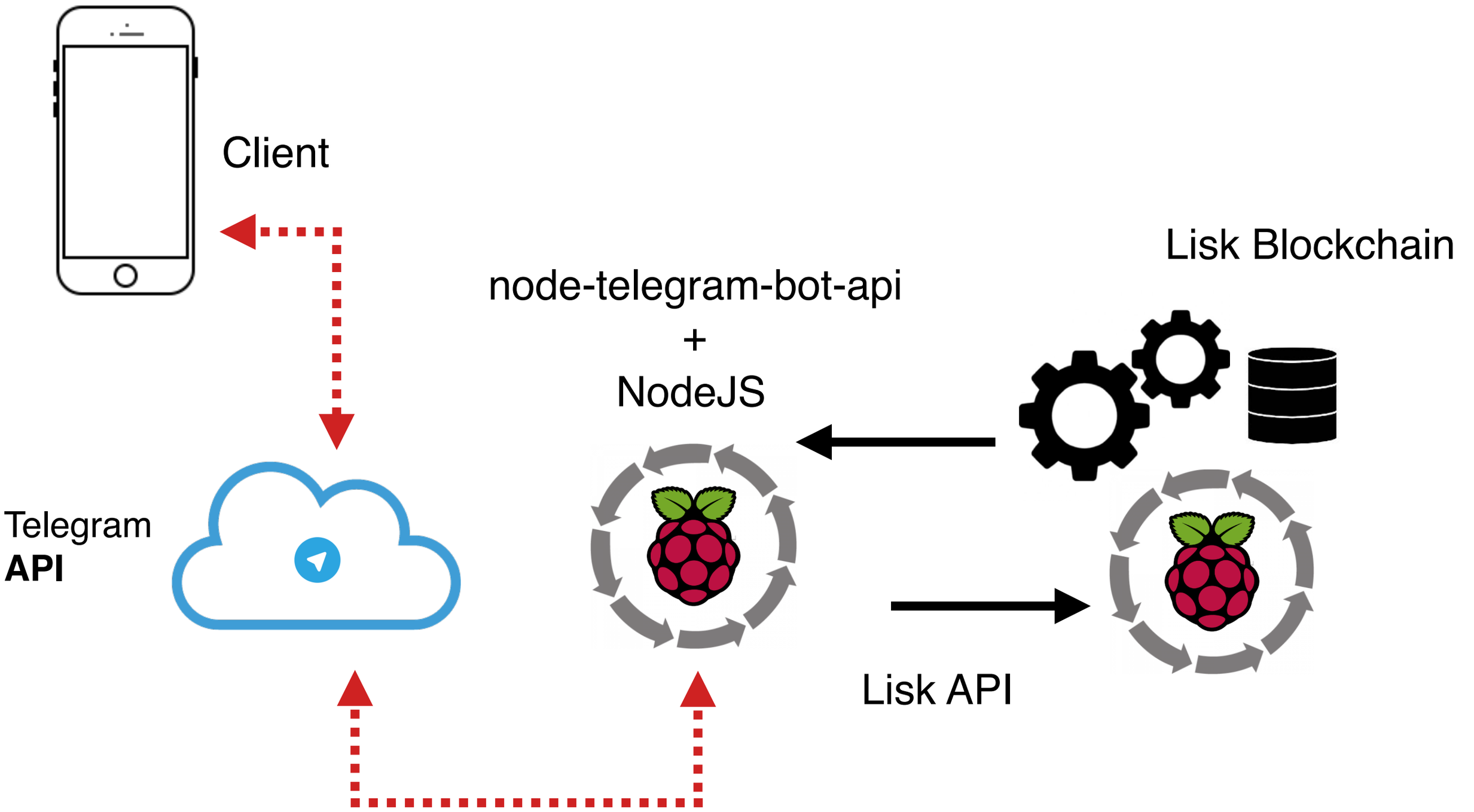
BOT COMMANDS
BOT.JS

BOT INFO JSON
MONITOR.JSON

BOT + LISK CONFIGS
CONFIG.JSON

LISK API CALL
FUNCTIONS.JS

@LISKITBOT I ARCHITECTURE



YES THEY CAN!
THANK YOU