

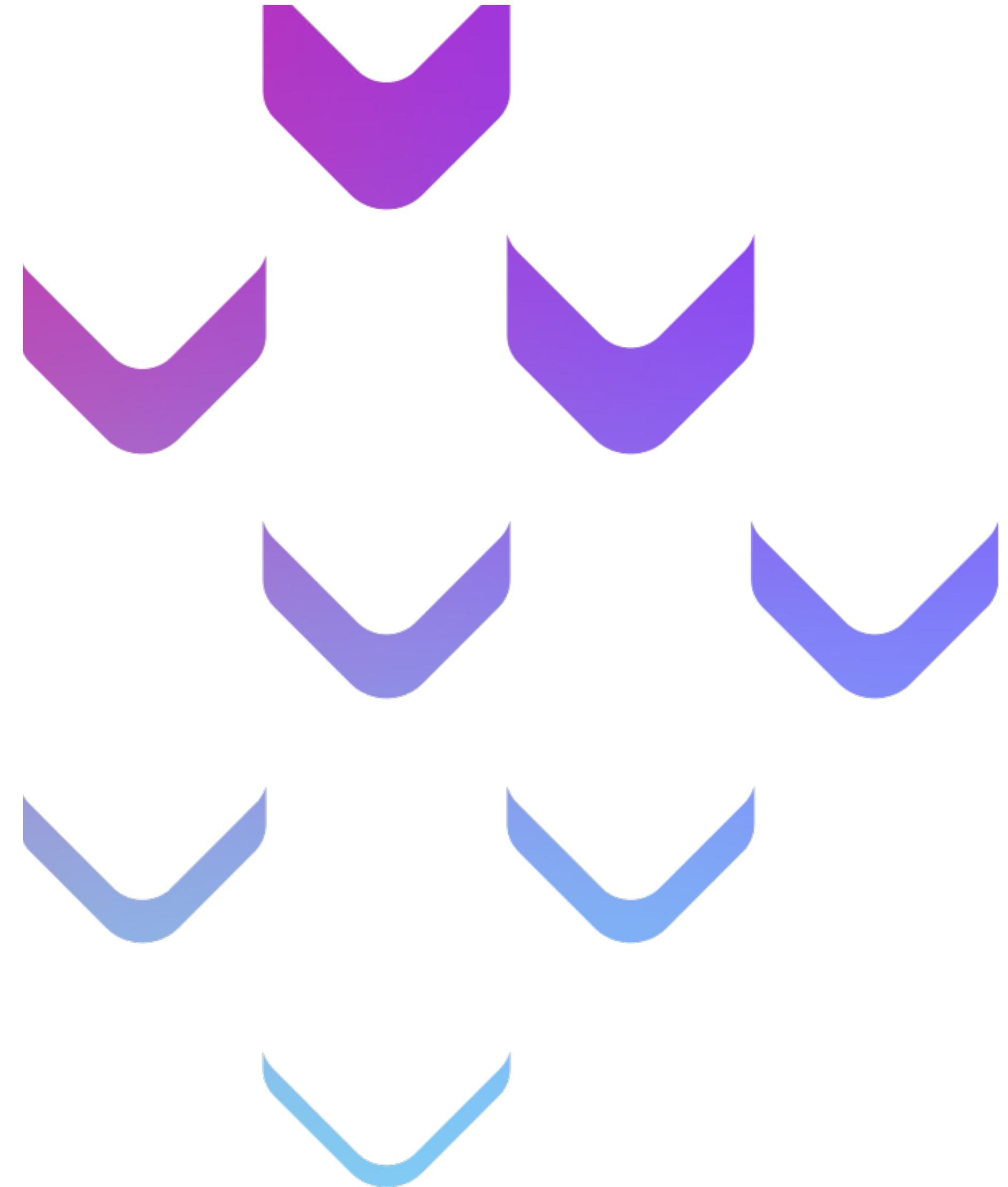
The world of wireless connectivity is on the cusp of a major transformation, and it's happening on your phone too. In this session, we will embark on a journey through the evolution of 1G to 5G networks and operators, charting the path that has led us to the brink of this exciting new era and will explore how Network APIs are emerging as the pivotal tool for unlocking the full potential of our interconnected world. From enhancing connectivity and data exchange to revolutionizing user experiences, these new wireless APIs are set to transform our digital landscape. Get ready to uncover the future of Network APIs and learn how you can leverage them to drive innovation for your customers.

The Next API Revolution Will Be Wireless

Paul Ardeleanu

Senior Manager - Developer Relations, Vonage

DevCon 2023



Vonage Developer Center

Communications API

Integrate sms, voice, video and two-factor authentication into your apps with Vonage communication APIs. Build complex conversational flows with a user friendly drag-and-drop interface in Vonage AI Studio .

 Get Started

 Full Documentation

Send an SMS

cURL Node.js Java .NET PHP Python

```
curl -X "POST" "https://rest.nexmo.com/sms/json" \
-d "from=$VONAGE_BRAND_NAME" \
-d "text=A text message sent using the Vonage SMS API" \
-d "to=$TO_NUMBER" \
-d "api_key=$VONAGE_API_KEY" \
-d "api_secret=$VONAGE_API_SECRET"
```

[View full source](#)

 Most popular

 Telecommunications

 In-app communications

 Identity verification

Two factor authentication

Add an extra layer of security when users perform sensitive tasks by confirming their identities.

Verify API

Telecommunications

Video Chat Embeds

Generate a 1-to-1 video appointment workflow. This can be used for a doctor-patient, student-teacher, or any other 1-to-1 web scheduling application.

Video API

In-app communications

Interactive Voice Response (IVR)

Build an automated phone system for users to input information with the keypad and hear a spoken response

Voice API

Telecommunications

developer.vonage.com/tools

Client SDKs

The Client SDKs allows you to build in-app messaging and voice solutions. Android, iOS and JavaScript are supported.

Android SDK
Develop voice and message applications using the Client SDK for Android.

iOS SDK
Develop voice and message applications using the Client SDK for iOS.

JavaScript SDK
Develop voice and message applications using the Client SDK for JavaScript.

Server SDKs

The Server SDKs allow you to quickly get up and running with the Vonage APIs in your language of choice.

vonage-ruby-sdk
Vonage REST API client for Ruby
gem version 7.10.0
Ruby ★ 215 ⚡ 105

vonage-dotnet-sdk
Vonage REST API client for .NET
nuget package 6.3.3
C# ★ 90 ⚡ 74

vonage-php-sdk
Vonage REST API client for PHP
stable 4.0.0
PHP ★ 104 ⚡ 8

vonage-node-sdk
Vonage REST API client for Node.js
npm package 3.5.1
Javscript ★ 357 ⚡ 167

vonage-python-sdk
Vonage REST API client for Python
pip package 3.5.2
Python ★ 165 ⚡ 109

vonage-java-sdk
Vonage REST API client for Java
version 7.4.0
Java ★ 85 ⚡ 121

Vonage CLI

You use the Vonage Command Line Interface (CLI) to manage your Vonage account and use Vonage API products from the command line.

vonage-cli
Vonage CLI (Command Line Interface)
npm package 1.2.4
JavaScript ★ 16 ⚡ 7

vonage-cli
Vonage CLI (Command Line Interface)
Java ★ 30 ⚡ 1

Framework Libraries

The Vonage framework libraries can get you up and running with the Vonage APIs quickly and easily in your framework of choice.

vonage-laravel
Vonage framework library for Laravel
stable 1.0.3
PHP ★ 14 ⚡ 4

nexmo-rails
Vonage framework library for Rails
gem version 1.0.0
Ruby ★ 8 ⚡ 1

nexmo-spring-boot-starter
Nexmo starter and auto configuration for Spring Boot
version 1.1.0
Java ★ 5 ⚡ 4

Client SDK UI Web Components

A set of UI Web Components to be used with the Vonage Client SDKs.

vc-keypad
A versatile keypad primarily used for phone number inputs
Javscript ★ 2 ⚡ 0

vc-text-input
A simple text input with a send button commonly displayed below a list of messages
Javscript ★ 2 ⚡ 0

vc-members
Lists all active members of a conversation
Javscript ★ 2 ⚡ 0

vc-messages
Used as part of a chat app UI to display messages in a conversation
Javscript ★ 2 ⚡ 0

vc-typing-indicator
In a chat app UI it displays typing indicators when appropriate
Javscript ★ 2 ⚡ 0

Silent Authentication SDKs

The Silent Authentication SDKs allow you to force a mobile connection for a successful HTTP request.

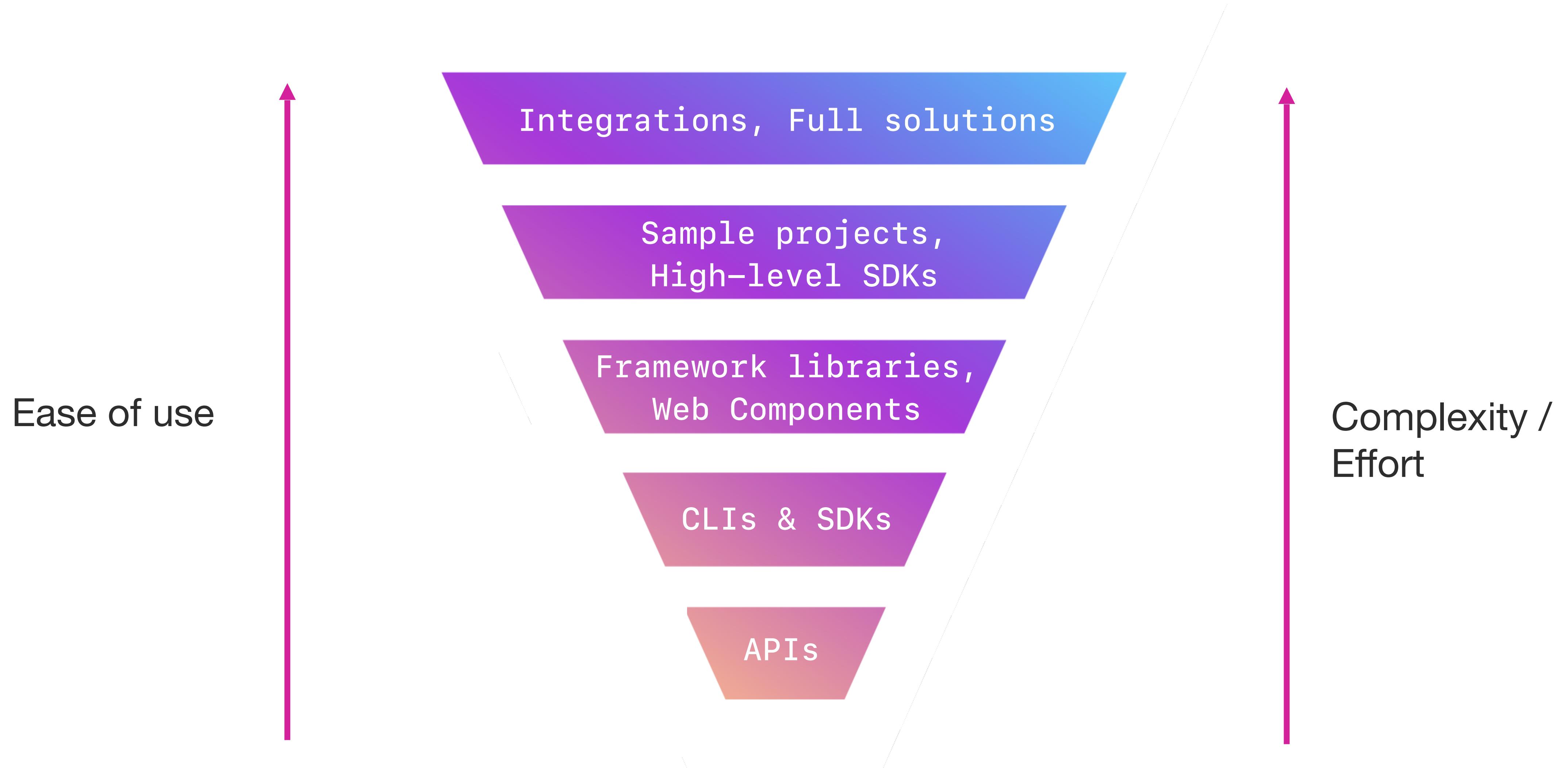
verify-silent-auth-sdk-android
Vonage Android Silent Auth SDK
Java ★ 1 ⚡ 0

verify-silent-auth-sdk-ios
Vonage iOS Silent Auth SDK
Swift ★ 0 ⚡ 0

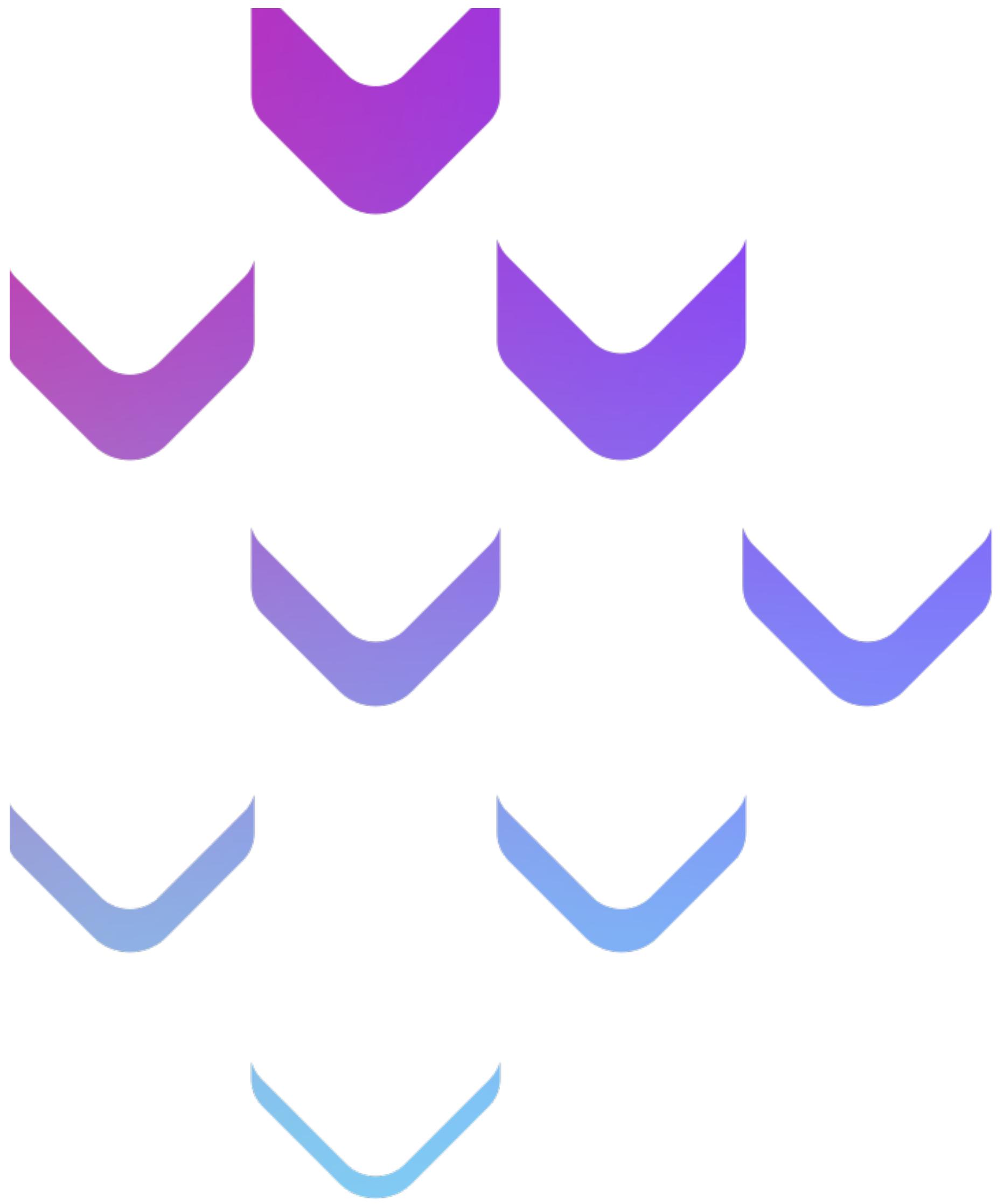
silent-auth-android
Silent Authentication 2DK
Java ★ 1 ⚡ 0

silent-auth-ios
Silent Authentication 2DK
Swift ★ 0 ⚡ 0

developer.vonage.com/tools



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Mobile internet usage worldwide - Statistics & Facts

Worldwide



Mobile devices have become a fixture of everyday life for millions of people. Across the globe, web-enabled devices such as smartphones and tablets have evolved into essential tools for communication, information, and entertainment alike. In 2022, the number of [unique mobile internet users](#) stood at five billion, indicating that over 60 percent of the global internet population uses a mobile device to go online. Mobile ownership and [internet usage](#) are forecasted to keep growing in the future, as mobile technologies are becoming more affordable and available than ever. This upward trend in mobile internet adoption is particularly visible in developing digital markets where mobile networks are the primary means of internet access. Today, [mobile internet traffic accounts for](#) almost 60 percent of total web traffic, while in mobile-first markets such as Asia and Africa, mobile connections account for an even larger share of webpage views.

[Show more ▾](#)Published by [Statista Research Department](#), Sep 14, 2023

KEY INSIGHTS

Active mobile internet users worldwide in 2022

4.97bn

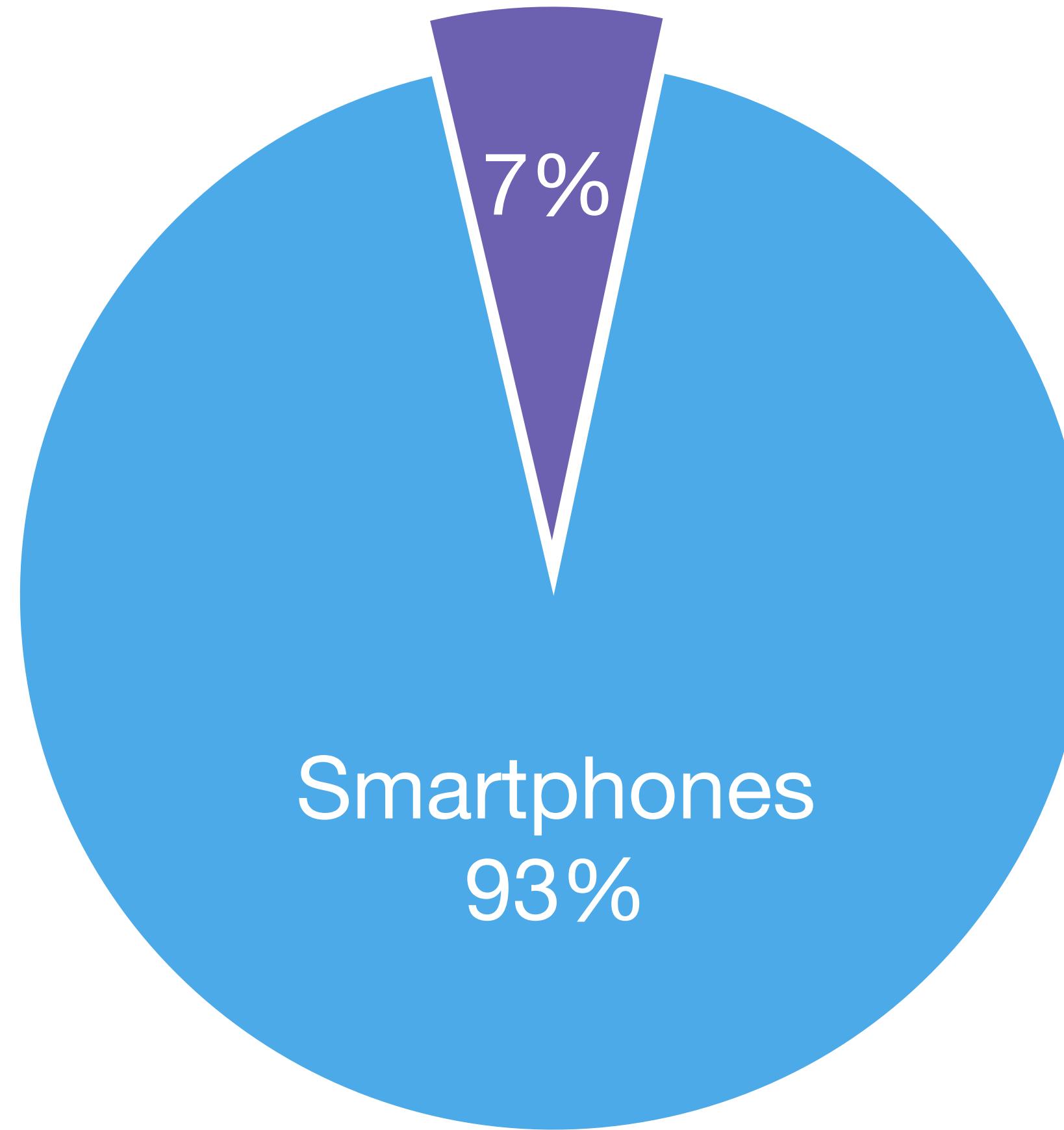
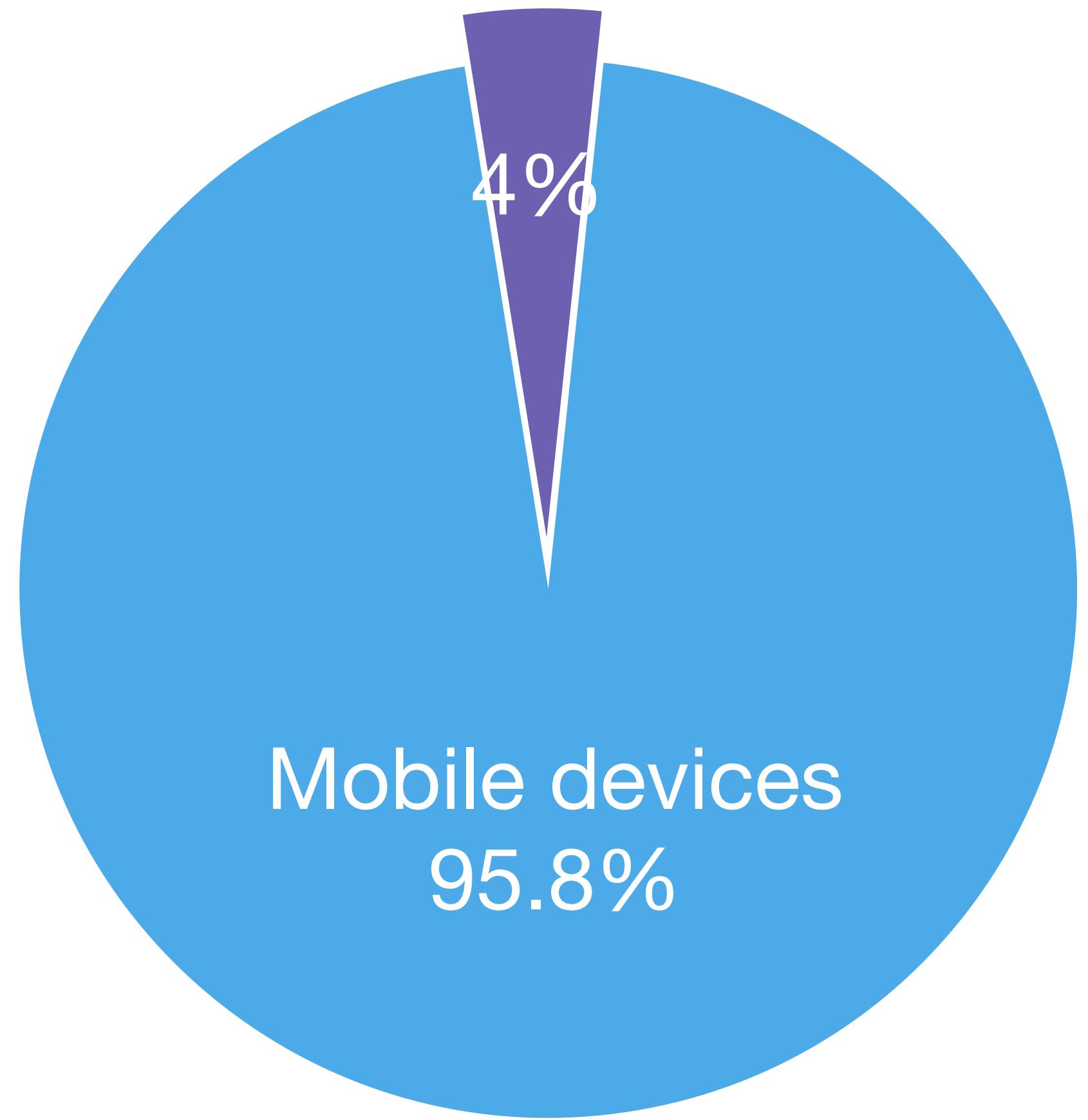
Mobile internet traffic as share of total global online traffic

58.5%

Country with the fastest average mobile internet speed

Qatar[Get more insights](#)

Internet users Q2 2023

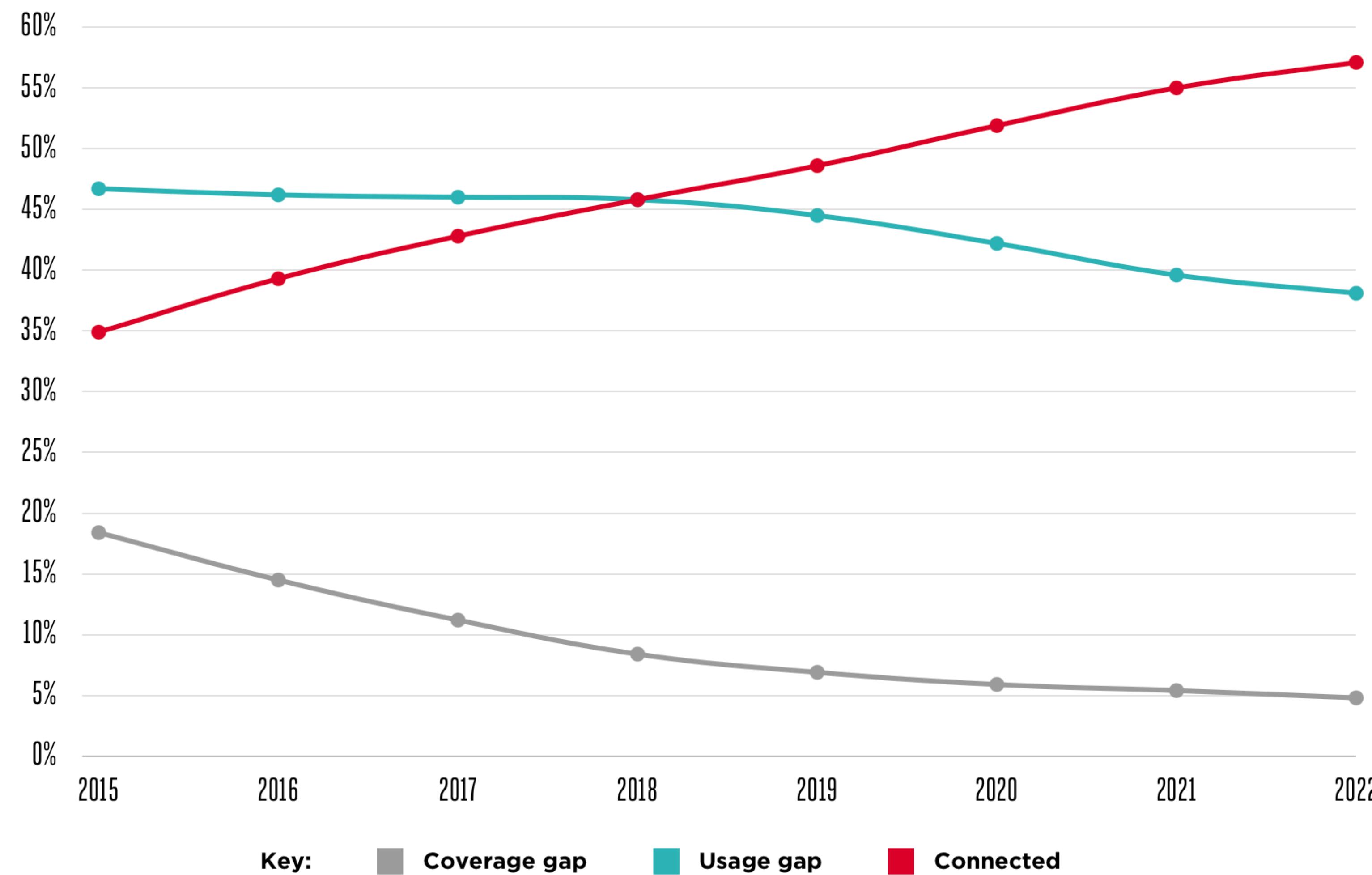


Mobile internet connectivity

3G, 4G & 5G

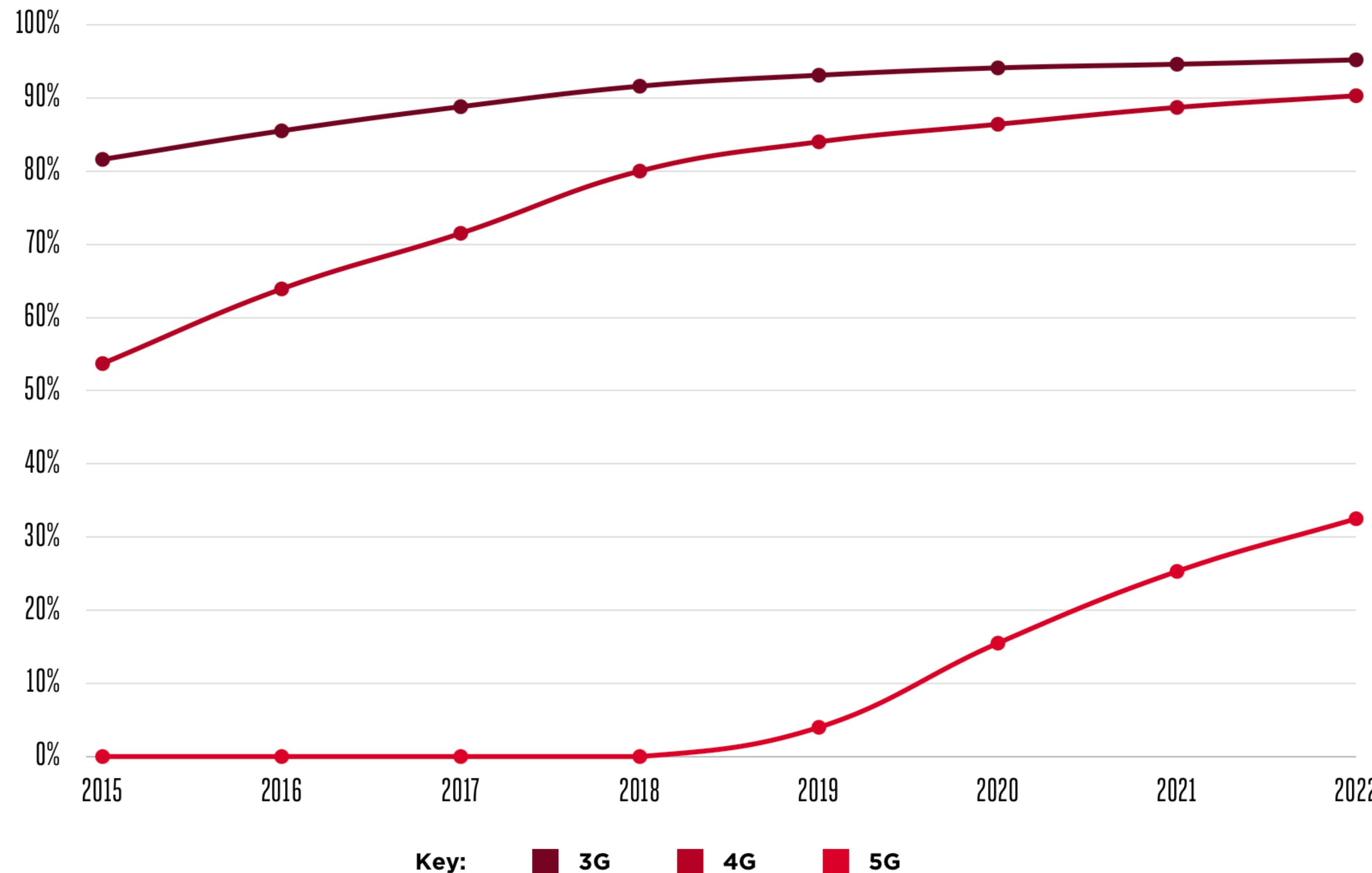
Download speeds

This graph shows the evolution of global mobile internet connectivity from 2015 to 2022, including the percentage of people connected, the coverage gap and the usage gap.



Mobile internet connectivity**3G, 4G & 5G****Download speeds**

This graph shows the trend in 3G, 4G and 5G coverage from 2015 to 2022.



STARLINK

RESIDENTIAL

ROAM

BOATS

PERSONAL

BUSINESS



RESIDENTIAL

Connect at home



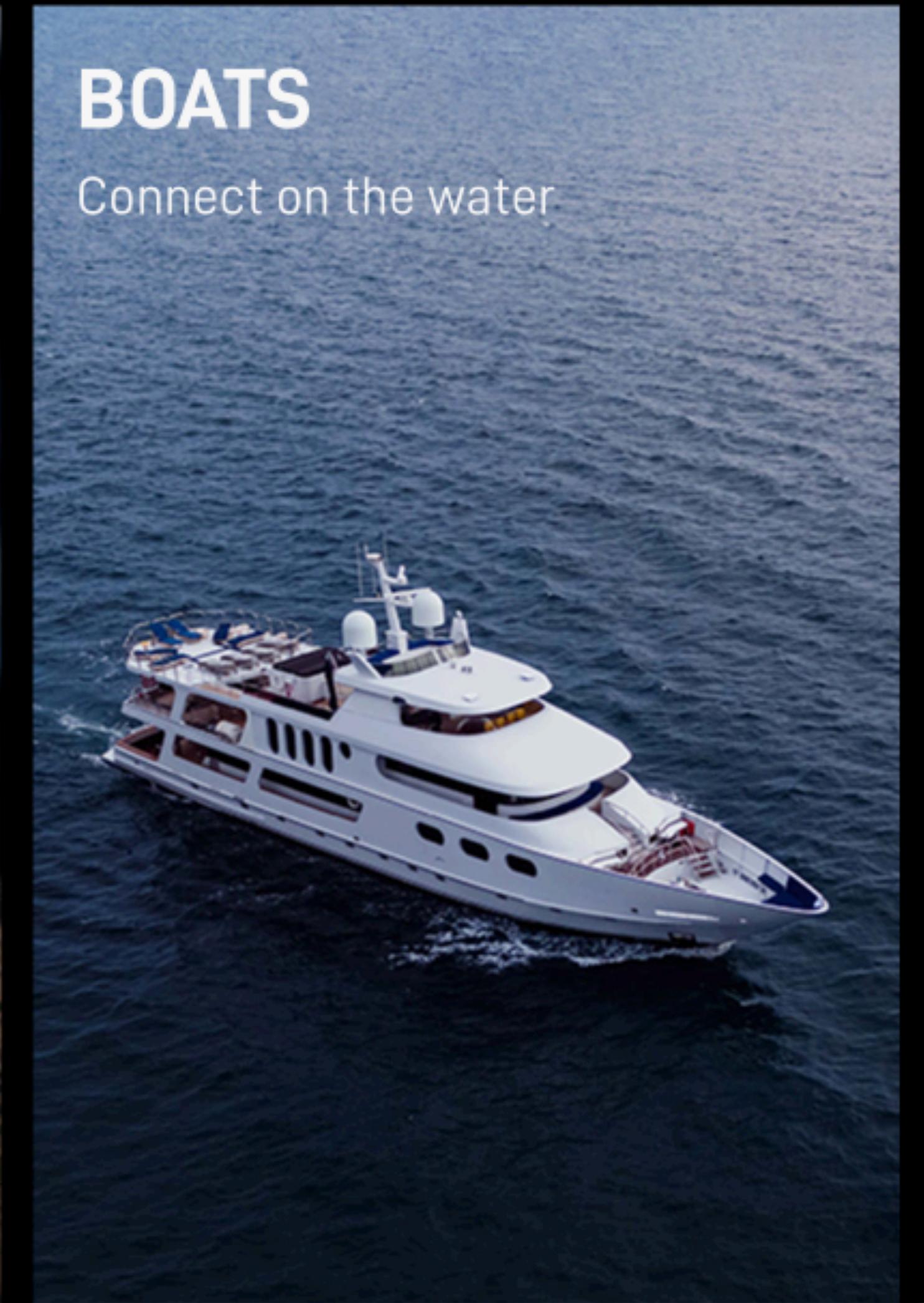
ROAM

Connect on the go



BOATS

Connect on the water



"Magical" handsets



iPhone 15 Pro



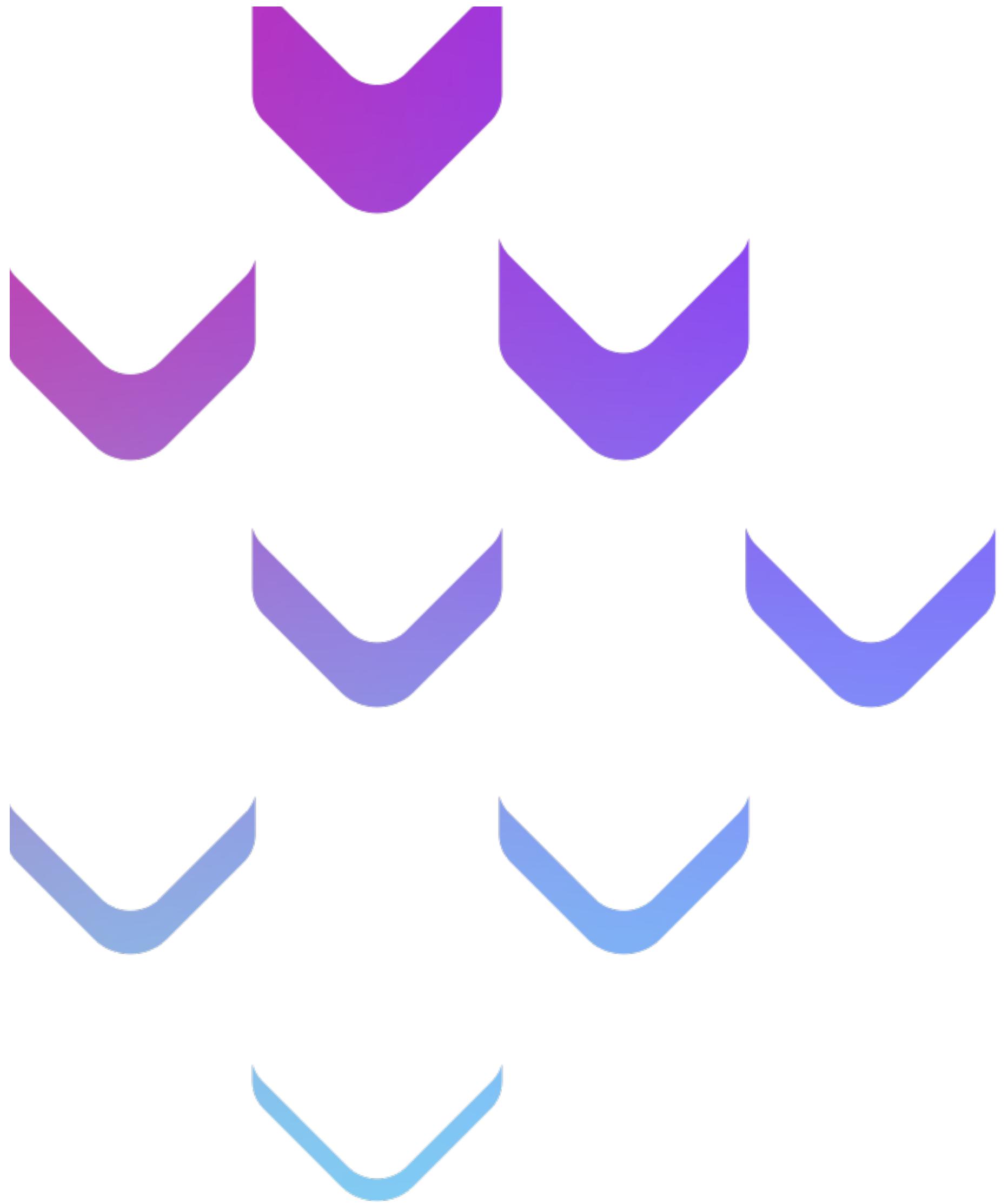
- 5G NR (Bands n1, n2, n3, n5, n7, n8, n12, n20, n25, n26, n28, n30, n38, n40, n41, n48, n53, n66, n70, n75, n76, n77, n78, n79)
- FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28, 30, 32, 66)
- TD-LTE (Bands 34, 38, 39, 40, 41, 42, 46, 48, 53)
- UMTS/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz)
- GSM/EDGE (850, 900, 1800, 1900 MHz)
- 5G (sub-6 GHz) with 4x4 MIMO7
- Gigabit LTE with 4x4 MIMO and LAA7

Pixel 8 Pro



- 5G mmWave + Sub 6GHz23: Quad-band (850, 900, 1800, 1900 MHz)
- UMTS/HSPA+/HSDPA: Bands 1,2,4,5,6,8,19
- LTE: Bands B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/29/30/38/39/40/41/46/48/66/71
- 5G Sub-623: Bands n1/2/3/5/7/8/12/20/25/26/28/29/30/38/40/41/48/66/70/71/77/78
- 5G mmWave23: Bands n257/258/260/261
- eSIM

How did we get here?



A trip down the memory lane...



1900 1920 1940 1960 1980 2000 2020 2040

Early Experiments (late 1800s - early 1900s)



James Clerk Maxwell

Predicted the existence of
radio waves.



Heinrich Hertz

Demonstrated the existence of
electromagnetic waves.



Guglielmo Marconi

Wireless telegraphy

1900

1920

1940

1960

1980

2000

2020

2040

Radio Era (1920s - 1930s)



Early
Experiments

Radio

1900

1920

1940

1960

1980

2000

2020

2040

Microwave Communication (40s - 50s)



Early
Experiments

Radio

Microwave

1900

1920

1940

1960

1980

2000

2020

2040

Cellular Networks (70-80s)



Early
Experiments

Radio

Microwave

1G

1900

1920

1940

1960

1980

2000

2020

2040

Digital Era (90s)



Early
Experiments

Radio

Microwave

1G

2G

1900

1920

1940

1960

1980

2000

2020

2040

Internet Connectivity (00s)



Early
Experiments

Radio

Microwave

1G

2G

3G

1900

1920

1940

1960

1980

2000

2020

2040

Faster Connectivity (late 00s-10s)



Early
Experiments

Radio

Microwave

1G

2G

3G

4G

1900

1920

1940

1960

1980

2000

2020

2040

Faster-er 😎 Connectivity (2020s)



Early
Experiments

Radio

Microwave

1G

2G

3G

4G **5G**

1900

1920

1940

1960

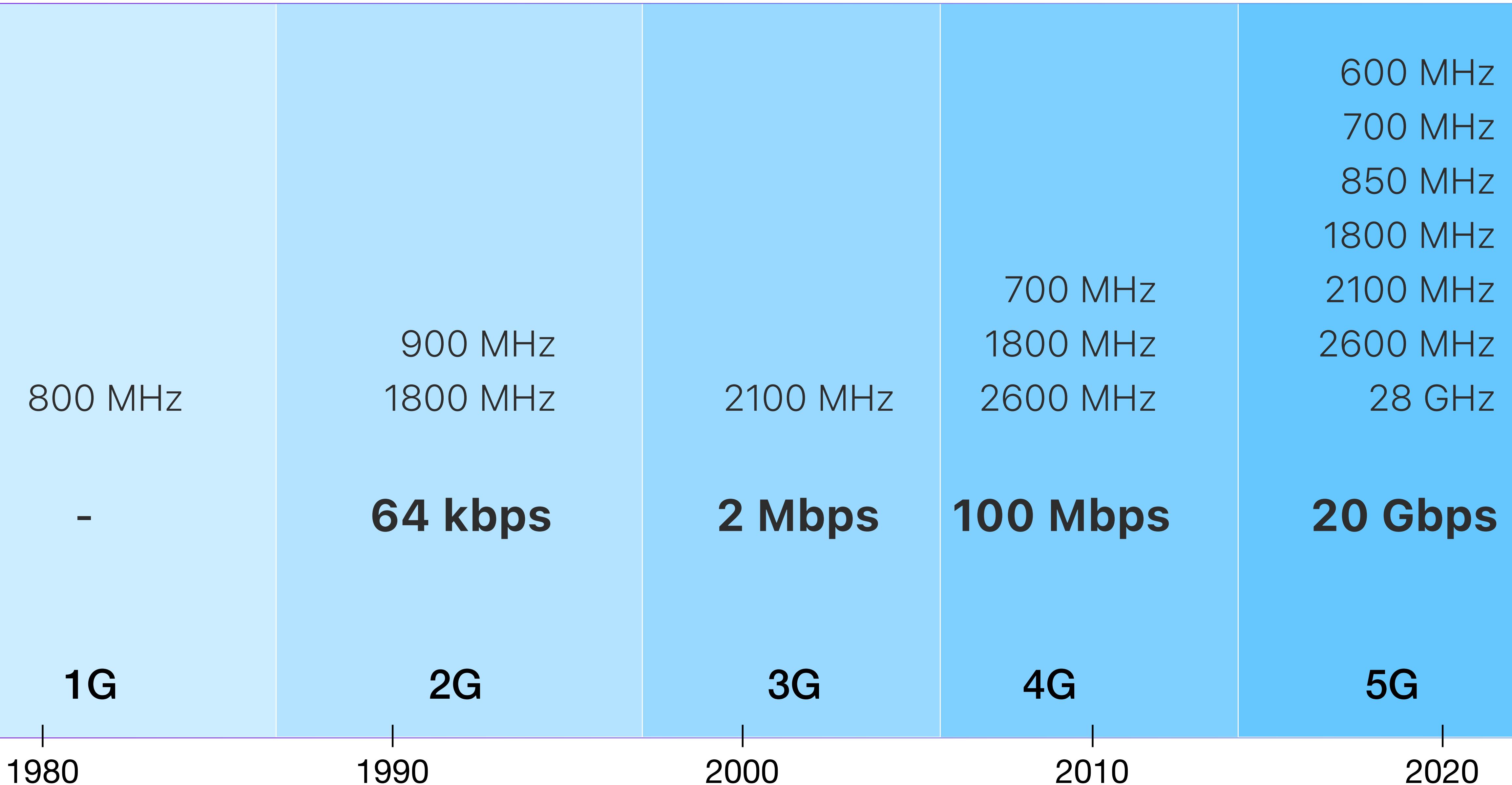
1980

2000

2020

2040

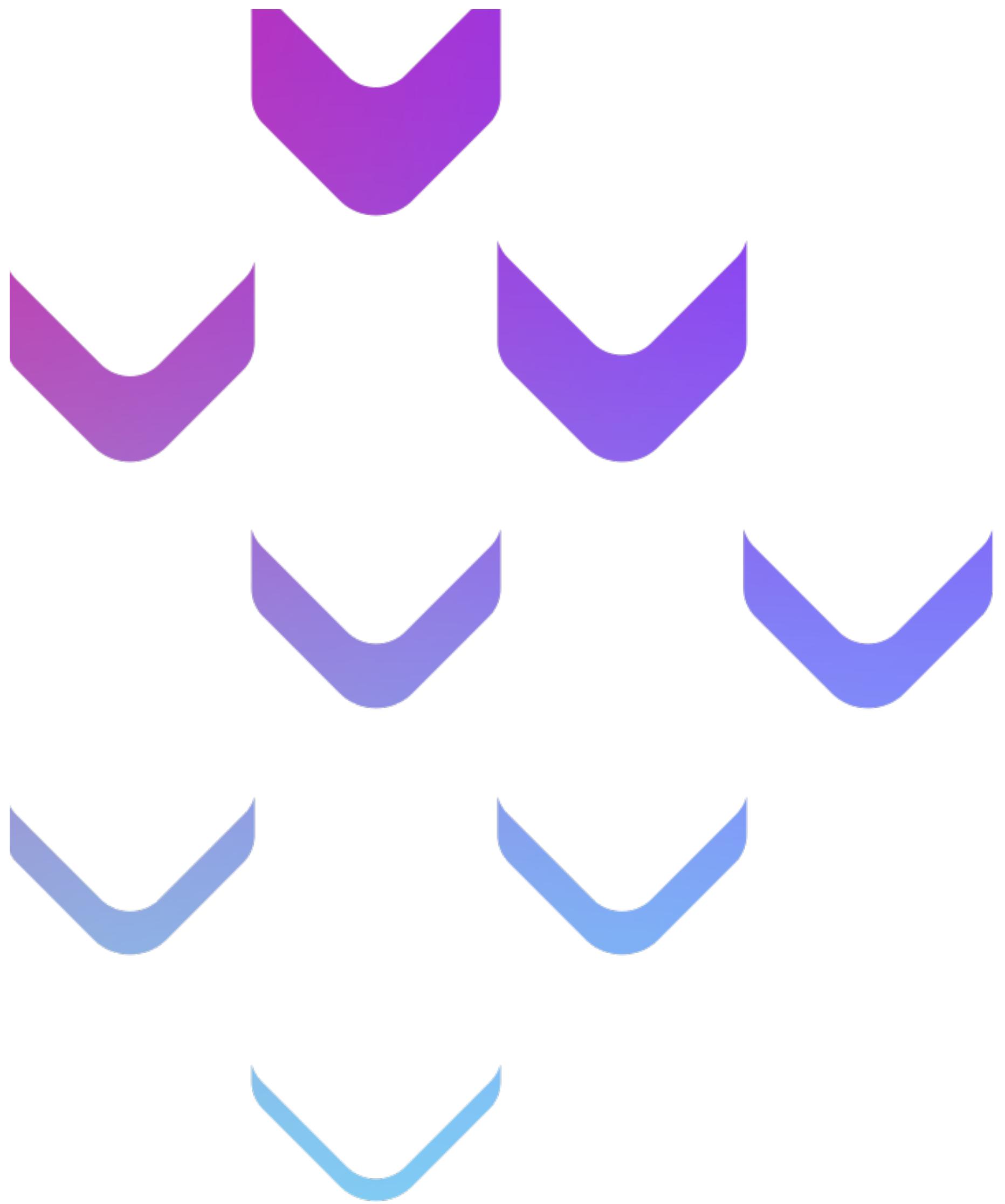
Frequencies & Speeds



4G & 5G capabilities

- high-speed data transmission
- low latency
- enhanced quality of service (QoS)
- high capacity
- support for file transfer and streaming
- LTE (Long Term Evolution)
- Voice over LTE (VoLTE)

What's next?



CAMARA - The Telco Global API Alliance

The screenshot shows a web browser window with the URL www.linuxfoundation.org/press/press-release/linux-foundation-announces-new-project-camara-the-telco-global-api-alliance-with-global-industry-ecosystem. The page is a news article from The Linux Foundation. At the top, there's a purple header bar with the text "Learn how open source is advancing the UN's sustainability goals. [Read the research.](#)". Below the header, the Linux Foundation logo is visible, along with "ENGLISH", "Sign In", and a search icon. A "JOIN" button is also present. On the left side of the main content area, there's a vertical blue sidebar with social sharing icons for email, Twitter, Facebook, and LinkedIn. The main title of the article is "Linux Foundation Announces New Project ‘CAMARA - The Telco Global API Alliance’ with Global Industry Ecosystem". Below the title, it says "3 MIN READ". The article text starts with "Open source project to address industry API interoperability leveraging GSMA OPG requirements and Linux Foundation’s Developer Ecosystem". It continues to describe the project's purpose and its announcement at Mobile World Congress 2022. The footer of the page includes the Linux Foundation logo and navigation links like "HOME", "ABOUT", "PROGRAMS", "JOBS", "PARTNERS", "CONTACT", and "LOG IN". The bottom right corner of the page shows "DevCon 2023 33".

Learn how open source is advancing the UN's sustainability goals. [Read the research.](#)

ENGLISH Sign In

JOIN

3 MIN READ

Linux Foundation Announces New Project “CAMARA - The Telco Global API Alliance” with Global Industry Ecosystem

THE LINUX FOUNDATION | 27 FEBRUARY 2022

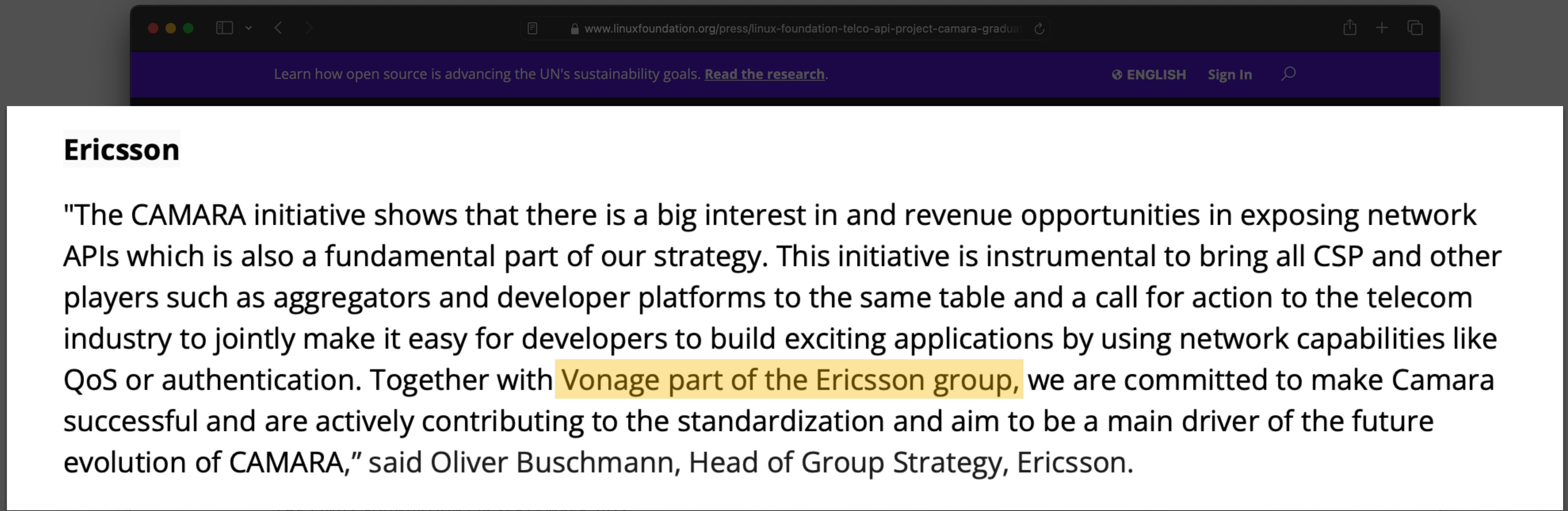
Open source project to address industry API interoperability leveraging GSMA OPG requirements and Linux Foundation’s Developer Ecosystem

SAN FRANCISCO and BARCELONA, Spain —Mobile World Congress 2022 —February 28, 2022 —The Linux Foundation, the nonprofit organization enabling mass innovation through open source, and the GSMA, a global organization unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change, today announced a new, open source project: “CAMARA – The Telco Global API Alliance”. The global partnership will address challenges in porting and reproducing API services across heterogeneous operator and cloud architectures.

@pardeI

DevCon 2023 33

CAMARA - The Telco Global API Alliance



The screenshot shows a web browser window with a dark theme. The address bar displays the URL www.linuxfoundation.org/press/linux-foundation-telco-api-project-camara-graduates. The page content includes a purple header bar with the text "Learn how open source is advancing the UN's sustainability goals. [Read the research.](#)". Below this, there is a section titled "Ericsson" containing a quote. The quote discusses the CAMARA initiative, mentioning its interest in revenue opportunities, its role in bringing CSPs and other players together, and its commitment to making CAMARA successful through standardization and contributing to its evolution. A specific mention of Vonage being part of the Ericsson group is highlighted in yellow. The quote is attributed to Oliver Buschmann, Head of Group Strategy, Ericsson. At the bottom of the screenshot, there is a footer with the text "THE LINUX FOUNDATION | 19 SEPTEMBER 2023".

Ericsson

"The CAMARA initiative shows that there is a big interest in and revenue opportunities in exposing network APIs which is also a fundamental part of our strategy. This initiative is instrumental to bring all CSP and other players such as aggregators and developer platforms to the same table and a call for action to the telecom industry to jointly make it easy for developers to build exciting applications by using network capabilities like QoS or authentication. Together with Vonage part of the Ericsson group, we are committed to make Camara successful and are actively contributing to the standardization and aim to be a main driver of the future evolution of CAMARA," said Oliver Buschmann, Head of Group Strategy, Ericsson.

- *Successful collaboration on open source telco APIs drives CAMARA project to next level with Premier and General project sponsors bolstering new funded model*
- *250 companies and 750+ contributors dedicated to collaboratively define interfaces providing customers with access to telecom industry network capabilities*

BILBAO, Spain — Open Source Summit Europe — September 19, 2023, The Linux Foundation, the nonprofit organization enabling mass innovation through open source, announced that its CAMARA project, an open source community addressing telco industry API interoperability, has graduated to a funded model.





Structure

The structure of CAMARA consists of Sub Projects and Working groups

Within one Sub Project one API family is developed and maintained. Working groups span more than one (in most cases all) Sub Projects and cover overarching topics like maintaining an API Backlog or Commonalities (topics that are in common for all Sub Projects).

Each Sub Project is contained in a separate GitHub repository, while all working groups were together in one additional GitHub repository. In the "Governance" repository all regulations for the open source project are saved.

CAMARA Technical Steering Committee

The Technical Steering Committee is the oversight body for the technical CAMARA Project. The Technical Steering Committee currently consists of the following participants:

Name	(Company) Role
Herbert Damker	(Deutsche Telekom AG) Active Maintainer, TSC chair
Eric Murray	(Vodafone) Active Maintainer, TSC deputy chair
Ludovic Robert	(Orange) Active Maintainer, TSC deputy chair
Adnan Saleem	(Radisys) End User Council representative
Chris Howell	(Vonage) Active Maintainer
Diego González Martínez	(Telefónica) Active Maintainer
Doug Makishima	(Summit Tech) End User Council representative
George Glass	TM Forum representative
Henry Calvert	GSMA representative
Jan Friman	(Ericsson) Active Maintainer
Jose Luis Urien	(Telefonica) Active Maintainer
Kevin Smith	(Vodafone) Active Maintainer
Mahesh Chapalamadugu	(Verizon) End User Council representative
Shilpa Padgaonkar	(Deutsche Telekom AG) Active Maintainer
Toshi (Toshiyasu) Wakayama	(KDDI) Active Maintainer

The Technical Steering Committee meetings are held virtually, are open for the public and are scheduled each first Thursday in a month at 10am CE(s)T and every third Thursday in a month at 4pm CE(s)T time. You're welcome to join via: [Meeting link](#).

github.com/camaraproject/WorkingGroups

camaraproject / WorkingGroups

Type ⌘ to search

Code Issues 12 Pull requests 11 Discussions Actions Projects 1 Wiki Security Insights

WorkingGroups Public template

Unwatch 36 Fork 45 Star 31

main 74 branches 0 tags Go to file Add file Code Use this template

MarkusKuemmerle Update WG_PARTICIPANTS.MD 6aea67d 3 days ago 958 commits

APIBacklog Update WG_PARTICIPANTS.MD 3 days ago

Commonalities Update WG_PARTICIPANTS.MD last week

Marketing Add files via upload 5 days ago

.gitignore Moved image files from working directory last year

GOVERNANCE.MD Create GOVERNANCE.MD last year

README.md Update main WG README.md 2 weeks ago

README.md

last commit last thursday issues 12 open pull requests 11 open contributors 39 repo size 150 MB License Apache 2.0

License CC BY 4.0

CAMARA Working Groups

Repository for the CAMARA Working Groups:

- API backlog
- Commonalities
- Marketing

About

Repository for the CAMARA Working Groups

Readme Activity 31 stars 36 watching 45 forks Report repository

Releases

No releases published [Create a new release](#)

Packages

No packages published [Publish your first package](#)

Contributors 40

+ 29 contributors

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CAMARA Project on GitHub

The screenshot shows the GitHub repository page for the CAMARA Project. The URL in the address bar is github.com/camaraproject. The page features a dark header with the GitHub logo and navigation links for Product, Solutions, Open Source, and Pricing. A search bar and sign-in links are also present.

CAMARA Project

302 followers | Germany | <http://camaraproject.org> | adm@lists.camaraproject.org

[Overview](#) [Repositories 23](#) [Projects](#) [Packages](#) [People](#)

Pinned

- Governance** Public
Telco network capabilities exposed through APIs provide a large benefit for customers. By simplifying telco network complexity with APIs and making the APIs available across telco networks and coun...
★ 47 ⚡ 35
- WorkingGroups** Public template
Repository for the CAMARA Working Groups
★ 31 ⚡ 45

Repositories

Find a repository... Type Language Sort

- WorkingGroups** Public template
Repository for the CAMARA Working Groups
★ 31 ⚡ 45 ⚡ 12 ⚡ 11 Updated yesterday
- DeviceStatus** Public
Repository to describe, develop, document and test the Device Status API family
★ 8 ⚡ Apache-2.0 ⚡ 25 ⚡ 5 ⚡ 3 Updated 2 days ago
- IdentityAndConsentManagement** Public

People

This organization has no public members. You must be a member to see who's a part of this organization.

Top languages

Java Gherkin Go Kotlin

API Proposals

The screenshot shows a GitHub repository interface for 'WorkingGroups / APIBacklog / documentation / SupportingDocuments / API proposals'. The left sidebar displays a file tree with several sub-directories like 'MeetingMinutes' and 'SupportingDocuments'. The main area lists a series of API proposal files, each with its name, last commit message, and date. A specific commit by 'jordonezlucena' is highlighted, mentioning a merge pull request #295 from 'maheshc01/patch-1'. The commits are dated from '3 days ago' down to 'last week'.

Name	Last commit message	Last commit d...
...		
APIFamilyproposal_Identity&Consent.md	Update APIFamilyproposal_Identity&Consent.md	9 months ago
APIproposal_NumberVerification_DeustcheTelekom.md	Update API backlog directory (issue #88)	last year
APIproposal_AnonymisedSubscriberIdentifier_Vodafone.md	Update API backlog directory (issue #88)	last year
APIproposal_BlockchainPublicAddress_Telefonica.md	Update APIproposal_BlockchainPublicAddress_Telefonica.md	6 months ago
APIproposal_CarrierBillingCheckOut_Telefonica.md	Update API backlog directory (issue #88)	last year
APIproposal_ClickToDial_ChinaMobile.md	Update APIproposal_ClickToDial_ChinaMobile.md	2 months ago
APIproposal_DeviceIdentifier_Vodafone.md	Update API backlog directory (issue #88)	last year
APIproposal_HomeDevicesQoD_Telefonica.md	Update APIproposal_HomeDevicesQoD_Telefonica.md	last year
APIproposal_KYC-Fillin_MTNandKDDI.md	Create APIproposal_KYC-Fillin_MTNandKDDI.md	3 months ago
APIproposal_KYC-Match_KDDI.md	Create APIproposal_KYC-Match_KDDI.md	3 months ago
APIproposal_NetworkInsights_Verizon.md	Update APIproposal_NetworkInsights_Verizon.md	last month
APIproposal_NumberVerificationMS2FA_DeustcheTelekom.md	Update API backlog directory (issue #88)	last year
APIproposal_Sim Swap_DeustcheTelekom.md	Update API backlog directory (issue #88)	last year
APIproposal_Site to cloud (S2C) VPN.md	new API proposal- Site to cloud VPN	2 months ago
APIproposal_Traffic Influence_TIM.md	removed TEF from traffic influence owners	last year
APIproposal_WebRTC_Telefonica.md	WebRTC API proposal	2 months ago
Device Swap.md	Rename Device Swap to Device Swap.md	2 weeks ago
IMEI Fraud.md	Update IMEI Fraud.md	last week

CAMARA APIs

The screenshot shows the GitHub repository page for the CAMARA project at github.com/camaraproject. The page displays seven repositories, each represented by a card with a green line graph icon on the right:

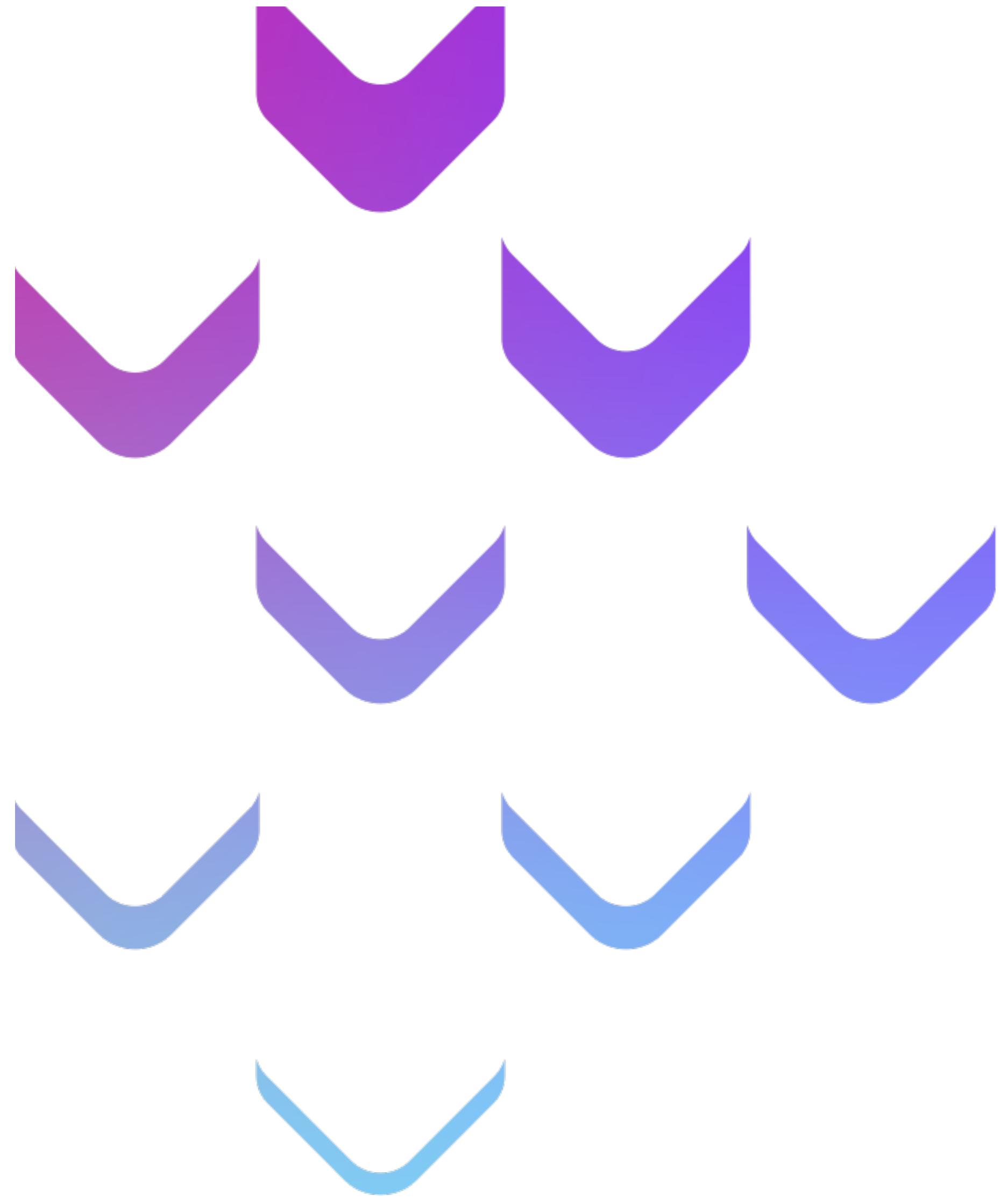
- WorkingGroups** [Public template] - Repository for the CAMARA Working Groups. Last updated yesterday. Metrics: 31 stars, 45 forks, 12 issues, 11 pull requests.
- DeviceStatus** [Public] - Repository to describe, develop, document and test the Device Status API family. Last updated 2 days ago. Metrics: 8 stars, Apache-2.0 license, 25 forks, 5 issues, 3 pull requests.
- IdentityAndConsentManagement** [Public] - Repository to describe, develop, document and test the Identity and Consent Management API family. Last updated 2 days ago. Metrics: 6 stars, Apache-2.0 license, 22 forks, 8 issues, 3 pull requests.
- Governance** [Public] - Telco network capabilities exposed through APIs provide a large benefit for customers. By simplifying telco network complexity with APIs and making the APIs available across telco networks and countries, CAMARA enables easy and seamless access. Last updated 2 days ago. Metrics: 47 stars, 35 forks, 10 issues, 3 pull requests.
- Commonalities** [Public] - Repository to describe, develop, document and test the Commonalities. Last updated 2 days ago. Metrics: 5 stars, Apache-2.0 license, 12 forks, 23 issues, 7 pull requests.
- QualityOnDemand_PI1** [Public] - Provider Implementation of QualityOnDemand by Deutsche Telekom. Last updated 2 days ago. Metrics: Java language, 2 stars, Apache-2.0 license, 6 forks, 1 issue, 0 pull requests.
- SimSwap** [Public] - Repository to describe, develop, document and test the Sim Swap API family. Last updated 2 days ago. Metrics: 13 stars, Apache-2.0 license, 14 forks, 7 issues, 3 pull requests.

Demo

The screenshot shows the OpenAPI Editor interface with the following details:

- File:** device-status.yaml
- Path:** DeviceStatus > code > API_definitions > device-status.yaml
- Operation:** post
- Tags:** Device roaming status
- Summary:** Get the current roaming status and the country information
- Description:** Get the current roaming status and the country information
- Operation ID:** getRoamingStatus
- Request Body:**
 - Content type: application/json
 - Schema: \$ref: "#/components/schemas/RequestRoamingStatus"
 - Required: true
- Responses:**
 - 200:**
 - Description: Contains information about current roaming status
 - Content type: application/json
 - Schema: \$ref: "#/components/schemas/RoamingStatusResponse"
- Examples:**
 - No-Country-Code:
 - roaming: true
 - countryCode: 901
 - countryName: []
 - Single-Country-Code:
 - roaming: true
 - countryCode: 262
 - countryName: ["DE"]
 - Multiple-Country-Codes:
 - value:
- Servers:** {apiRoot}/{basePath}
- Components:**
 - examples
 - responses
 - schemas

Real-world implementations





Silent Authentication

VONAGE DEVELOPER

API Dashboard ↗ Vonage.com ↗ Pricing ↗ Support ↗ EN ↗

Use Cases Documentation SDKs & Tools ↗ Community ↗ Blog Code Hub

Search Sign in < Sign up for free />

← View All docs

VERIFY API

OVERVIEW

DISCOVER & TEST

BUILD YOUR SOLUTION

Getting Started

Guides

Overview

Verify Migration Guide

Verify API Webhooks

Verify V2 Anti-Fraud System

Network Unblock API

Using WhatsApp Interactive with Verify V2

Silent Authentication

Using the Silent Authentication Sandbox

Silent Authentication

Silent Authentication uses a mobile phone's Subscriber Identity Module (SIM) to prove a user's identity, without any user input. This guide will explain what it is, how it works, and how it can be used with [Verify V2](#).

What is Silent Authentication?

Once a user has entered their login credentials, Silent Authentication proves a user's identity by checking information from their SIM against their carrier's records to ensure that their phone number is active and genuine. Once a request has been verified, you are able to continuously authenticate the user until either the request expires or it is cancelled by the user. As with any authentication method, there are advantages and disadvantages to this approach:

Advantages

- Minimal user input** - Silent Authentication is very user friendly; once the user has entered their credentials, the authentication process happens in the background. There are no OTP codes to input, making the process as frictionless as possible.
- No phishing** - By moving authentication directly between the carrier and the mobile device, the threat of phishing via SMS is removed.

Disadvantages

- The user must own a mobile device** - Silent Authentication needs the user to authenticate from a mobile device, which they may not always have.
- A cellular network connection is required** - Silent Authentication relies on a verified GSM response from the device to prove its credentials, which is not sent if the user is connected to Wi-Fi. The user must therefore trigger the authentication request using cellular data. You can use our [SDKs](#) to help force a mobile connection.

Using Silent Authentication with Verify V2

Silent Authentication is available in V2 of the Verify API, and can work both synchronously and asynchronously (using webhooks).

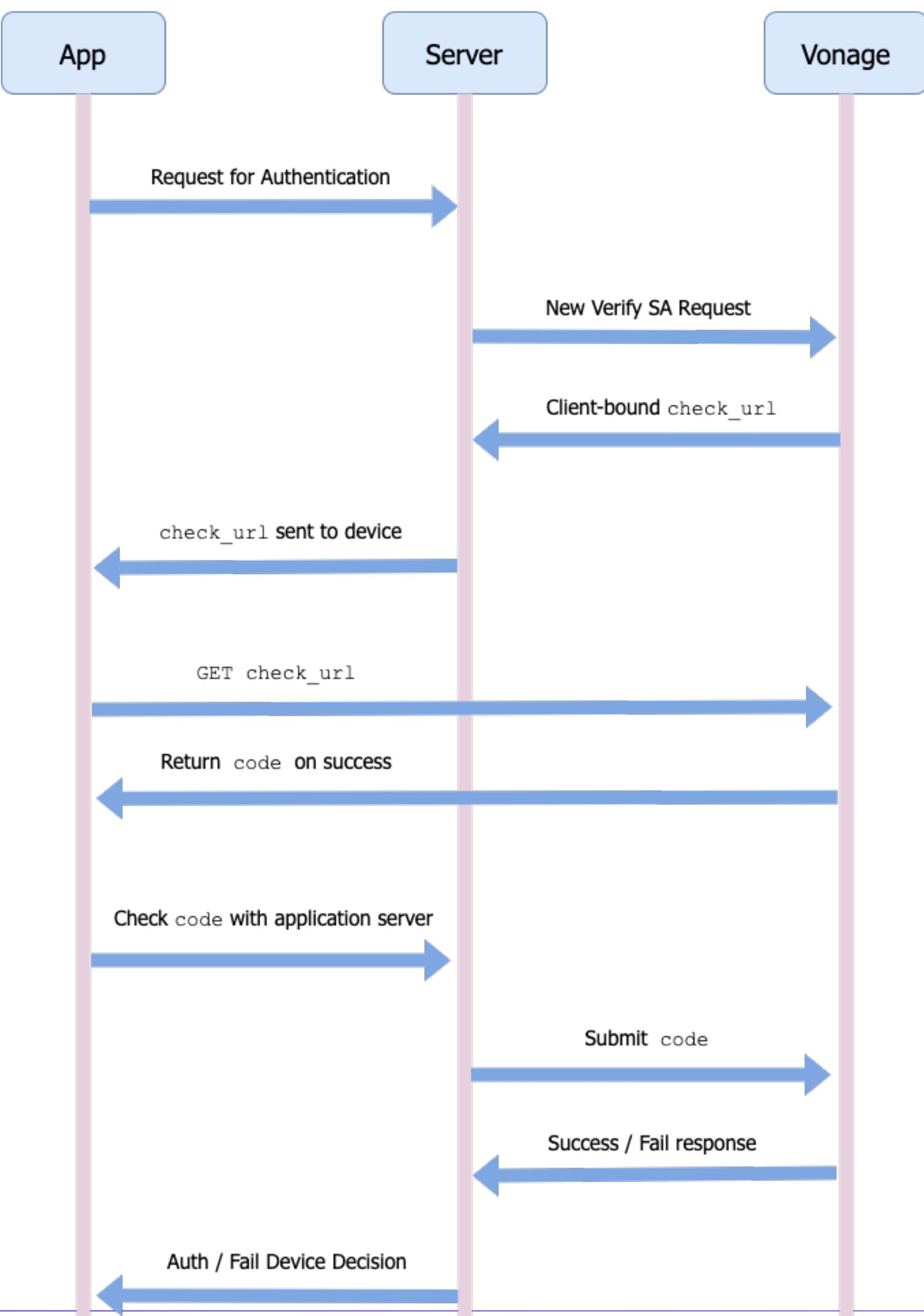
NAVIGATION

Silent Authentication

What is Silent Authentication?
Advantages
Disadvantages

Using Silent Authentication with Verify V2
Synchronous Implementation
Asynchronous Implementation

Android and iOS SDKs
Available Territories



Boost Network Connection

The screenshot shows the Xcode interface with the following details:

- Project Navigator:** Shows the project structure for "BoostTutorial".
- Editor:** Displays the code for "ViewController+Boost.swift".
- Utilities:** Shows the "Identity and Type" panel for the selected file.
- Text Settings:** Shows settings for text encoding, line endings, and indenting.

```
import UIKit

extension ViewController {
    @objc func boost() {
        DispatchQueue.global(qos: .userInteractive).async {
            // device specific info - make sure to replace with your number
            let msisdn = "447700900000"
            guard let deviceIp = self.getIPAddress() else { return }

            // solution specific info
            let destinationCidr = "192.168.1.1/32"

            // API call body
            let body = """
                "msisdn": "\u{msisdn}",
                "duration": "PT2H",
                "channels": [
                    {
                        "source": {
                            "ip": "\u{deviceIp}"
                        },
                        "destination": {
                            "cidr": "\u{destinationCidr}"
                        },
                        "profile": "VIDEO"
                    }
                ]
            """
            guard let url = URL(string: "https://api-eu.vonage.com/v1/boost/boosts") else {
                print("Invalid Boost URL"); return
            }
        }
    }
}
```

Device Status	Edge Cloud	Click to Dial	Identity And Consent Management	
Carrier Billing Check Out	Site to Cloud	Age Verification	Number Verification	
OTP Validation	Home Location Verification	Network Slicing	Network Insights	
Device Location	Dynamic People Density Information	WebRTC	Traffic Influence	
Sim Swap	Device Identifier	Blockchain Public Address	Know Your Customer	
Quality on Demand	IMEI Fraud	Device Swap	Home Devices Quality on Demand	
Device Visit Location	Home Location Verification	Region User Count		TBD

THANK YOU!

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x.com/pardel

github.com/pardel/presentations

