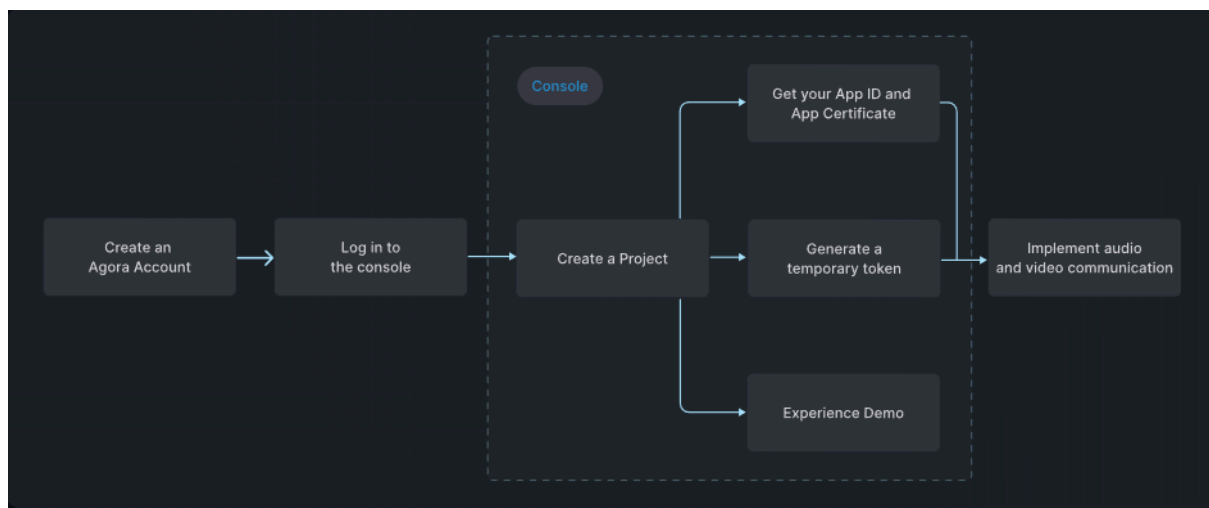# DOCUMENTATION: AGORA

1. Introduction

1.1 Overview

Agora.io provides real-time engagement APIs and SDKs for voice, video, and live interactive streaming capabilities, enabling developers to integrate these features into their applications seamlessly.

Agora provides free services for initial 10,000 minutes and would need to upgrade to premium later to continue with the services.

Agora works on a pub-sub model.

1.2 Scope

This documentation covers the setup, integration, API reference, Usage, security considerations, troubleshooting, and resources related to using Agora.io's APIs and SDKs.

2. Getting Started

2.1 Sign Up and Account Setup

To use Agora.io, sign up for an account at Agora.io Sign Up. Follow the steps to obtain API credentials and access keys.

2.2 Installation

For Web:
We have used the Web SDK in our project.

To integrate Agora.io into your web application, include the Agora Web SDK in your project, by downloading the Web SDK for Video Calling and Signalling (Real-time Messaging).

[SDKs Download | Agora Docs](#)

2.3 Example

Here there is a need to integrate the SDK javaScript file in the code to use the functionalities.

[Video Calling SDK quickstart | Agora Docs](#)

3. API Reference

3.1 Agora RTC SDK

3.1.1 join(appId, channel, tokenOrKey, uid)

Joins a channel with the specified appId, channel name, token (optional), and user ID (optional).

Parameters:

- `appId`: string - The App ID assigned by Agora.io.
- `channel`: string - The channel name that users will join.
- `tokenOrKey`: string | null - The token or key for authentication (optional).
- `uid`: number | null - The user ID. If not specified, Agora.io assigns one automatically.
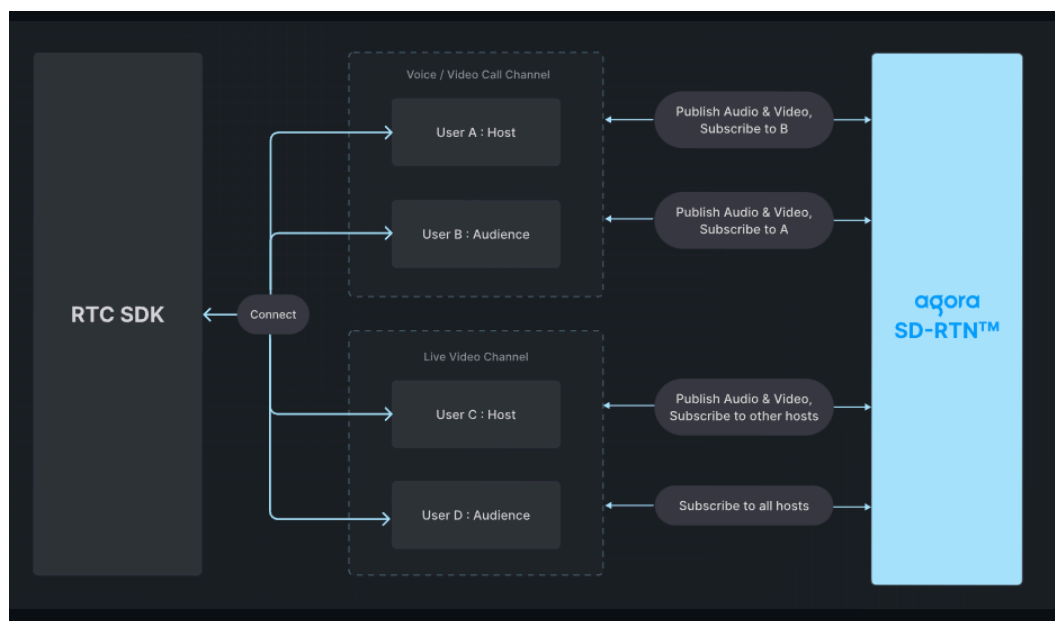
Implementation:

Create a client:

```
rtc.client = AgoraRTC.createClient({ mode: "rtc", codec: "vp8" });
```

Join the RTN(Real-time-Network):

```
rtc.client.join(appId, channel_name, UID, token);
```

Create Microphone and Camera Tracks:

```
rtc.localAudioTrack= await AgoraRTC.createMicrophoneAudioTrack();
```

```
rtc.localCameraTrack= await AgoraRTC.createCameraTrack();
```
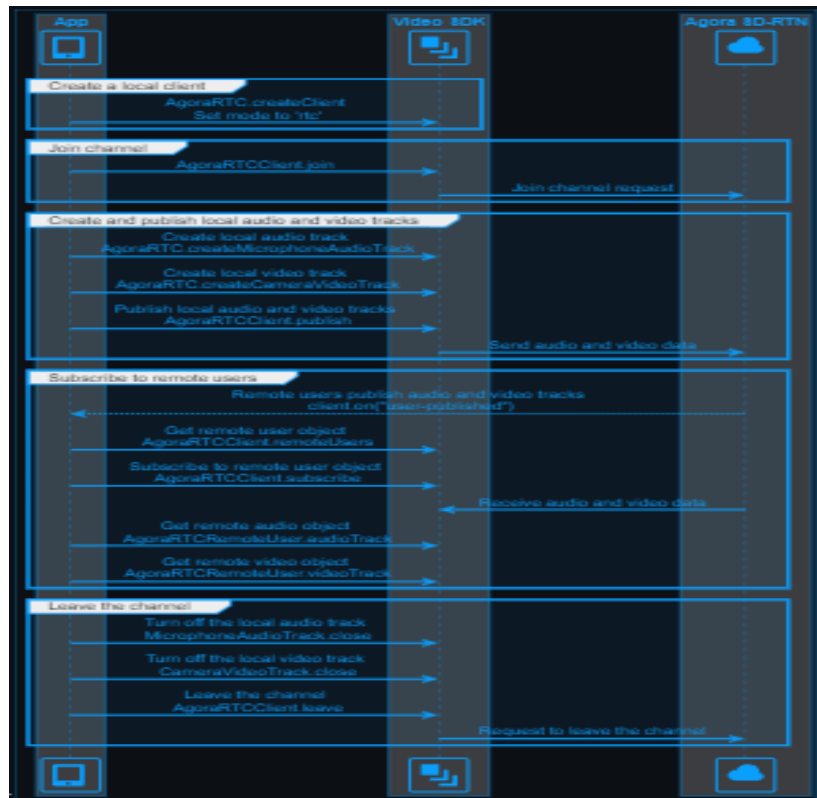
Subscribe to Agora RTN:
```
rtc.client.publish([rtc.localAudioTrack, rtc.localVideoTrack]);
```

Unpulish Client:
```
await client.unpublish([rtc.localAudioTrack, rtc.localVideoTrack])
```

Leave Channel:
```
await rtc.client.leave();
```

RTM(Signaling)

Similar to RTC, after client is created and RTC is connected to the Agora RTN, subscribe to RTM.

Helps in creating multiple private room based on the channelName:
await rtmClient.subscribe(channelName, options)

Unsubscribe RTM client when user leaves the channel:

rtmClient.unsubscribe(channelName);

4. Resources

Video Calling Product overview | Agora Docs

Signaling Product overview | Agora Docs

SDKs Download | Agora Docs

Api Reference | Agora Docs

5. Issues Faced

- A message indicating that the user has left the room would be broadcast automatically, even though the user was still present in the meeting.
- In this scenario, users were unable to mute or unmute their audio and video, and were also prevented from sending messages.
- Video had high latency, sometimes
- Cloud Recording did not work.
- Support Ticket : CUS-43155

Shivam Nahar 2024-06-17 13:33

Summary	Agora audio/video usage numbers logged are far greater than expected
Detailed Description	Hi, We have connected our web app to a free tier Agora ID, and have been noticing some unusual usage. Even when we are not connected to a channel, the audio and video numbers seem to be adding up at an unprecedented rate — and that is even when no one in our knowledge is logged in to the website. Can you please help us figure this out? Is there a way that we can track usage in a more granular way than what shows up in the Agora dashboard currently (ie simply by date of usage)? Can we see exactly when - what service was used - by who? That will be very helpful. We really need to figure out that the usage numbers aren't spiking without reason before we make the website public and start using the paid plan. Looking forward to hearing from you.
Attachments	

Choy Clapis 2024-06-17 14:52

Hi,

Good day! Thank you for contacting Agora support.

To analyze this issue, could you please share with us the channel name, UID, and timestamp when this happens?

Also, is it possible to share the track usage for reference?

Thank you!
Best Regards,

Shivam Nahar 2024-06-19 00:21

Hi,

App ID: 030a466f24dc4dc8b0d829089c73f3ba.
Project Name: Scratch_Video

We are not sure how to access the channel name and UIDs since we didn't store this data anywhere. PFA the usage metrics for 30 days, and specifically some of the days when our usage has been recorded the highest. You will notice that there are a lot of audio minutes adding up - and that is our main concern.

So one team member had been using the Agora App ID locally for testing before 12th. On or around the 12th, we connected the ID to our domain. Then 3 of us used the ID for a few hours maximum from 12 - 14th, the period where the greatest usage was recorded. Here's the thing though - we know for a FACT, especially when we became of this, that we have been closing the domain tabs on our devices. Once we're done testing, we quit the channel by exiting the chrome tabs — by common sense, this should not stop registering any Audio usage. right? Especially since we are not connected to any channel anymore, which we are sure of because if we were our devices lets us know with a symbol for mic on or video on.

But clearly, Agora has been accruing additional minutes, and we have no idea why. We have ensured that none of us have tabs open, but it is still running.

This is the problem that we need to figure out - why is it racking up audio minutes when no one is using the channel, and how to stop it. I suspected that connecting it to the domain might have somehow be adding the idle minutes, but the logs for the 28th and 29th - way before the app was connected to our domain, clearly show that it was racking up idle minutes way before that.

Please help us figure out and fix this, and please let us know if you need any other information from us, and how we can get it.

Thank you!

30 days - 1_01eeb12f.jpg
30 days - 2_7b8af372.jpg
March 28_ab85a33a.jpg
March 29_39aa193a.jpg

Choy Clapis 2024-06-19 16:04

Hi,

Is it possible for you to share your code repository for us to test our appID?
We will try to check it on our side.

Thanks.
Best Regards,

Shivam Nahar 2024-06-19 22:02

Hi Choy,

I can't seem to be able to upload the zip file, so please download the repo from this link: https://github.com/Educating-Autistic-Software-Engineers/Collaboration-Station

This repo contains all the code for our site pages integrated with Agora. We don't think you'll require it for testing, but if you want the repo for the Scratch GUI: https://github.com/Educating-Autistic-Software-Engineers/CollaborationStationGUI

To give you a summary: We are building an integrated platform ("Collaboration Station") that allows users to communicate and work on projects together on Scratch in real time. We are using Agora for chat, audio, and video along with Scratch GUI to achieve this.

The user flow is: Login using a registered email ID -> Pick a project from the projects page -> Click on project and enter the main project collaboration page (where we immediately connect to an Agora channel on audio/video). This is where the usage minutes start logging, and apparently keep logging on idle even when we close the tab/leave the stream.

Here are 3 email IDs you can use to log in: rpeddap@clemson.edu ; snahar@clemson.edu ; sraghuv@g.clemson.edu

Please ensure to keep this repo as private information. And please let us know what else you might need from us.

Looking forward to hearing from you.

Best,
Collaboration Station team

Shivam Nahar 2024-06-24 11:27
Hi,

The time slots available to us are at very odd times - from 2 AM to 7:30 AM US EST time. Do you think it might be possible for you to do sometime earlier than 2 AM on any day?

Choy Clapis 2024-06-25 02:15
Hi,

I just want to ask what time do you prefer earlier than 2am US EST time?

Thanks.
Best Regards,

Shivam Nahar 2024-06-25 15:20
Are you able to do 12 AM today?

Shivam Nahar 2024-06-26 03:55
Hi Choy,

Please let us know when you might be free at the earliest. even if it's at our 2 AM and we'll book the slot. We want to get this fixed asap and would really appreciate your timely help.

Shivam Nahar 2024-06-26 11:54
Thanks Choy, set you at our 12 AM tonight!

Shivam Nahar 2024-06-27 00:05
Hi Choy,

We are waiting for you at the meet link you sent.

Choy Clapis 2024-06-27 00:06
Hi,

I was already in the call.

You can proceed to :

AVC room CUS43155: https://videocall.agora.io/webapp/room?rid=Q1VTNDMxNTU

Thanks.
Best regards,

Shivam Nahar 2024-06-27 02:00
Hi Choy,

I wanted to let you know that we are submitting the cloud recording ticket using another Agora ID belonging to one of our team members, which is what we are currently using for testing. The email ID is sraghuv@g.clemson.edu.

Please treat both tickets under the same project. Does that work for you?

Also, we had another question: Does Agora offer any functionality for auto-kicking users from the channel if they have been idle for x amount of minutes?

Please let us know. Thanks!

Choy Clapis 2024-06-20 13:30
Hi,

Thank you for providing the code repository and the user flow as a guide for our testing.
We will assure you that this repo will be keep as a private information.

I just want to confirm whether you have shared your ID and certificate with anyone else, or if only authorized users have access to them?

Best Regards,

Shivam Nahar 2024-06-20 13:56
Hi,

Only our team of 5 has access to these IDs. More than one person can log in using the same ID, so that shouldn't be a problem. It might be better to use your own Agora App ID to test this though as multiple people using the same ID may through off your numbers and not give 100% clarity on the idle minutes.

Thank you for your prompt replies. Please keep letting us know what else you might need clarification and information about.

Choy Clapis 2024-06-27 10:13

Hi,

We do have a kicking rule <1>, that let you remove/kick a participant of the call.
Best Regards,

[1][https://docs.agora.io/en/broadcast-streaming/channel-management-api/endpoint/ban-user-privileges/create-rules?platform=web]

Shivam Nahar 2024-07-02 09:56

Hi Choy,

Any updates on the ticket?

Kriziah Rodriguez 2024-07-02 15:34

Hi,

Could you let us know the ticket number please?

Thanks!

Shivam Nahar 2024-07-02 18:16

Hi Kriziah,

The ticket number is CUS-43155. I suppose Choy has already been working on the ticket so he might have better insight.

Also, we are currently in US EST time - is it possible to get technical support during this time zone?

Please let us know any updates you have.

Thanks!

Choy Clapis 2024-07-03 09:48

Hi,

Regarding the testing update I conducted during our call: I was on the call when you explained how to access the channel, which I believe was around 1 pm (1 am US EST). I left the channel around 6 pm (6 am US EST). However, there is no recorded usage on my appID even though I already change the appID parameter on the code. To verify, I tested a demo of live stream on agora to ensure my appID could log usage minutes, and it did log the minutes in the demo. As shown, there was audio usage since I had my mic open during the demo.

Please check if there are any logged minutes of usage on the day of our meeting (July 27, US EST) to see if the minutes are recorded under your appID.

Best Regards,

Shivam Nahar 2024-07-05 01:48

I am able to run the Agora cloud recording through Postman collections which is available on the official Agora documentation, but when I do the same thing in the attached code it is giving the below error. Can you help with this on priority Choy?

{"code":2,"reason":"webRecording must acquire web resource!"}

📄 agora-cloud-recording_cc6a3d3e.js   🗑

Shivam Nahar 2024-07-03 13:48

Hi Choy,

Let us know shelf this issue for now since we have a bigger concern that we need to address. Can you PLEASE get on a call with us? It cannot be explained over text, we need to show it to you. Please get back to us as soon as you can.

Choy Clapis 2024-07-04 05:10

Hi,
You could set the meeting again around 12 AM in US EST please kindly book on what day you preferred in the calendly.

https://calendly.com/josemarlouie/meeting

Looking forward to your response.

Thanks.

Shivam Nahar 2024-07-04 13:52

So to give you a brief about the problem. When more than 5 participants are in the room, the behaviour starts to break. Even when someone is in the room it shows that they have left the chat. Also, the participants list will sometimes not show all participants when someone has left/entered the room, or someone refreshes their page, etc.

We'll explain in more detail on the call, but just wanted to give you a heads up. Looking forward to talking to you!

Choy Clapis 2024-07-08 10:17

Hi,
Error code 2 means that there is invalid parameter in the request body.
Please do check if the App ID, channel name, or user ID does match with the resource ID and if other parameters have the right values.

Also please send the request for inquire and start method and their responses for us to double check.
You can send the code in a text file and upload it here.

Thanks.
Best Regards,

Shivam Nahar 2024-07-10 19:29

Hi Choy,

Has there been any update about what we talked about on our call on Friday last week? We discussed how the participant list is inconsistent and the video/audio functionality breaks without making sense. Please let us know if you want to ask any clarifying questions or get on a call. As you can understand, this functionality is quite important to us and we need to figure a fix asap.

Choy Clapis 2024-07-11 09:53

Hi,

Could you please test another session on a different channel?
As I checked the channel 530425234, there is just 1 user in the channel and I cannot able to see other users that joined the channel.

Also please try to recreate the scenario where many user joined the channel and one user gets kicked out and if possible please do a 1 test only on the new channel
so I can track it more faster.

Thanks.
Best Regards,

JiraAssistant 2024-07-17 12:53

Hi,

This is an automated message to remind your ticket has been pending for 4 days and awaits your feedback.

Please let our support team know if you need any further assistance and we're happy to help. Please also feel free to email Feedback feedback@agora.io to let us know how are you liking our support.

Hi Choy,

We have created 6 test user IDs that you can use to test the channel as multiple users on your end. The email IDs are:

testuser1@gmail.com, testuser2@gmail.com,... testuser6@gmail.com

They all have access to the 530425234 Pikachu channel.

Please reply back and confirm that you are able to access the channel through these IDs, and let us know if you have any questions.

Choy Clapis   2024-07-19 09:55

Hi,

Thank you for providing the test users. Please give us some time to complete the testing. We will update you with the results afterward.

Best Regards,

Shivam Nahar   2024-07-21 23:22

Sure, looking forward to hearing from you.

Choy Clapis   2024-07-22 10:47

Hi,

After the testing, it seems that I did not encountered the issues that we've experienced last meeting.

I tried to wait if there is a participant that will get kick out when I was having a 6 users in the channel but it seems normal and there is no undefined user.
Please check the attached images for reference.

Also, the users are can be traced on our end meaning there are 6 users that joined the channel:

There is no error encountered during the testing and the network is stable and I leave the channel through the call normally. I just want to confirm if you do still experiencing the issue on your testings?

Thanks,
Best Regards,

🖼 image-2024-07-22-22-44-28-103.png   🗑

🖼 image-2024-07-22-22-44-42-502.png   🗑

🖼 No_undefined_user.jpg   🗑

🖼 No_User_Left.jpg   🗑

6. Unresolved Issues

- A message indicating that the user has left the room would be broadcast automatically, even though the user was still present in the meeting.
- Cloud Recording.