

Server Setup for IM with Google Firebase

How to enable the Firebase server on IM App:

Go to AdminCP > Apps > Installed > Instant Messaging > Settings and select "Firebase" at setting **Select chat server**

Settings Instant Messaging Manage Notification Sound Import Data From v3

Select chat server

Firebase

⌵

Then, configure the required **Firebase Config Object** setting. We will guide you to get the value when adding Firebase project which will be instructed below.

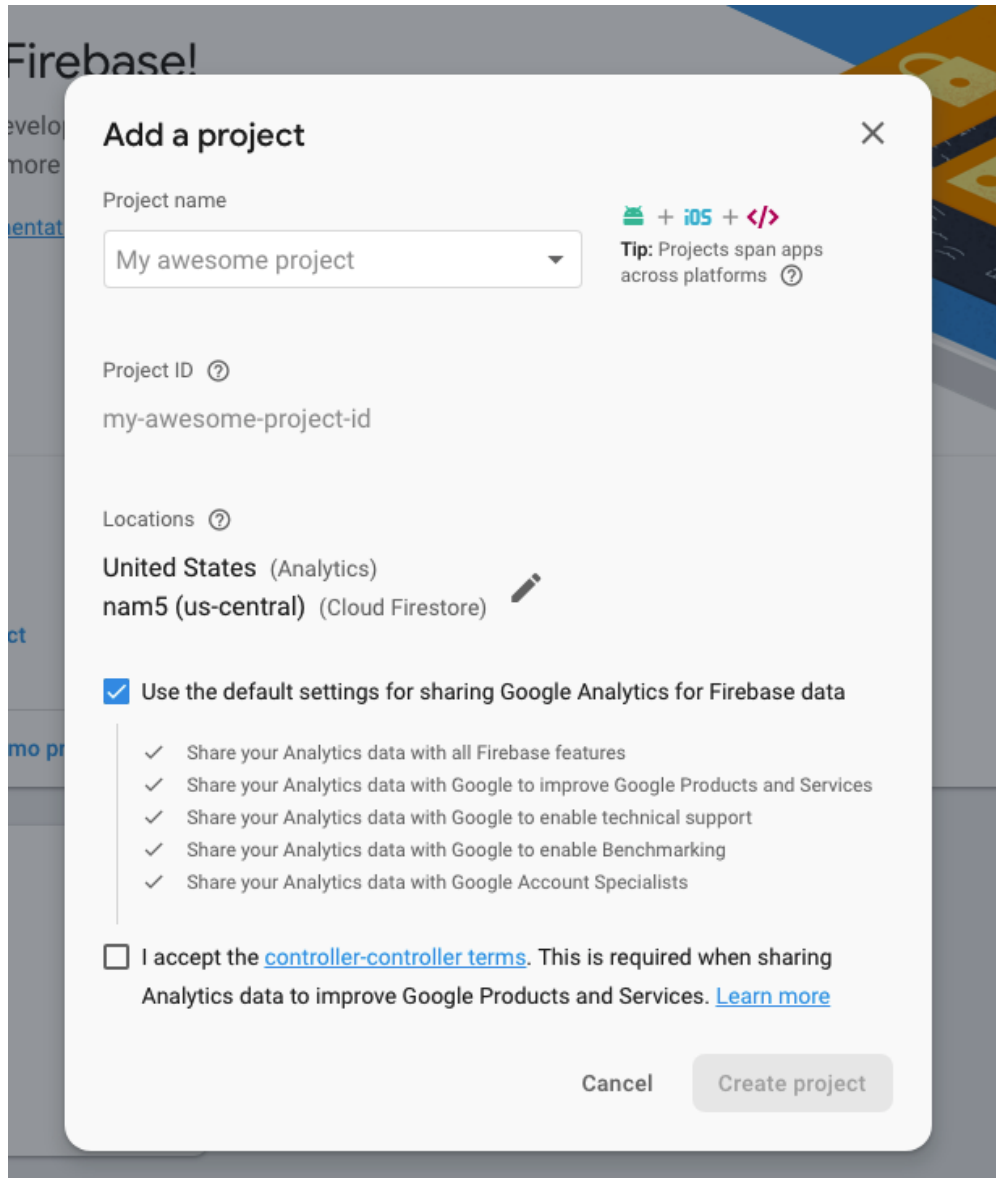
Also, you can configure **Algolia App ID** (Optional) and **Algolia API Key** (Optional) to support search messages. The instructions will be given later.

Setup Google Firebase App:

1. Add Firebase project

Go to [Firebase console](#)

Select **Add Project** if you don't have one



The image shows a 'Firebase!' header at the top left of a dialog box. The dialog box is titled 'Add a project' and has a close button (X) in the top right corner. It contains the following fields and options:

- Project name:** A text input field with the value 'My awesome project' and a dropdown arrow.
- Project ID:** A text input field with the value 'my-awesome-project-id'.
- Locations:** A section with two options: 'United States (Analytics)' and 'nam5 (us-central) (Cloud Firestore)'. A pencil icon is next to the second option.
- Analytics sharing settings:** A checkbox labeled 'Use the default settings for sharing Google Analytics for Firebase data' is checked. Below it are five sub-items, each with a checkmark:
 - ✓ Share your Analytics data with all Firebase features
 - ✓ Share your Analytics data with Google to improve Google Products and Services
 - ✓ Share your Analytics data with Google to enable technical support
 - ✓ Share your Analytics data with Google to enable Benchmarking
 - ✓ Share your Analytics data with Google Account Specialists
- Terms and conditions:** A checkbox labeled 'I accept the [controller-controller terms](#). This is required when sharing Analytics data to improve Google Products and Services. [Learn more](#)' is unchecked.
- Buttons:** 'Cancel' and 'Create project' buttons are at the bottom right.

Additional UI elements include a tip on the right: 'Tip: Projects span apps across platforms' with a question mark icon, and platform icons (Android, iOS, and code symbols) above the tip.

Go to App **Dashboard**, select **Project Overview > Project settings**

IM Chat

Go to docs

Settings

GeneralCloud MessagingIntegrationsService accountsData privacyUsers and permissions

Your project

Project name

IM Chat

Project ID

im-chat-b8c34

Cloud Firestore location

nam5 (us-central)

Web API Key

Public settings

These settings control instances of your project shown to the public

Public-facing name

project-

1

Support email

Not configured

Your apps

There are no apps in your project

Select a platform to get started

iOS

In **Your apps** section click on icon `</>` to Add Firebase to web app

Add a project

Project name

My awesome project

Project ID ?

my-awesome-project-id

Locations ?

United States (Analytics)

nam5 (us-central) (Cloud Firestore)

☒ Use the default settings for sharing Google Analytics for Firebase data

- ✓ Share your Analytics data with all Firebase features
- ✓ Share your Analytics data with Google to improve Google Products and Services
- ✓ Share your Analytics data with Google to enable technical support
- ✓ Share your Analytics data with Google to enable Benchmarking
- ✓ Share your Analytics data with Google Account Specialists

☐ I accept the [controller-controller terms](#). This is required when sharing Analytics data to improve Google Products and Services. [Learn more](#)

Cancel Create project

Add **App nickname**, then click **Register App**, then click **Continue to console** to back to **Project Settings** page

 **Add Firebase to your web app**

 Register app

 **Add Firebase SDK**

Copy and paste these scripts into the bottom of your `<body>` tag, but before you use any Firebase services:

```
<!-- The core Firebase JS SDK is always required and must be listed first -->
<script src="https://www.gstatic.com/firebasejs/6.1.0/firebase-app.js"></script>

<!-- TODO: Add SDKs for Firebase products that you want to use
      https://firebase.google.com/docs/web/setup#config-web-app -->

<script>
  // Your web app's Firebase configuration
  var firebaseConfig = {
    apiKey: "[REDACTED]",
    authDomain: "[REDACTED].firebaseapp.com",
    databaseURL: "https://[REDACTED].firebaseio.com",
    projectId: "[REDACTED]",
    storageBucket: "[REDACTED].appspot.com",
    messagingSenderId: "[REDACTED]",
    appId: "1:555767431731:web:b5147f0326945398"
  };
  // Initialize Firebase
  firebase.initializeApp(firebaseConfig);
</script>
```

Learn more about Firebase for web: [Get Started](#), [Web SDK API Reference](#), [Samples](#)

Continue to console

In **Your Apps** section, chose the app you just created, then click on **Config** option of **Firebase SDK snippet**. Copy all script code and paste to **Firebase Config Object** setting in AdminCP > Apps > Installed > Instant Messaging > Settings area.

Firebase SDK snippet

☐ CDN ?

☒ **Config** ?

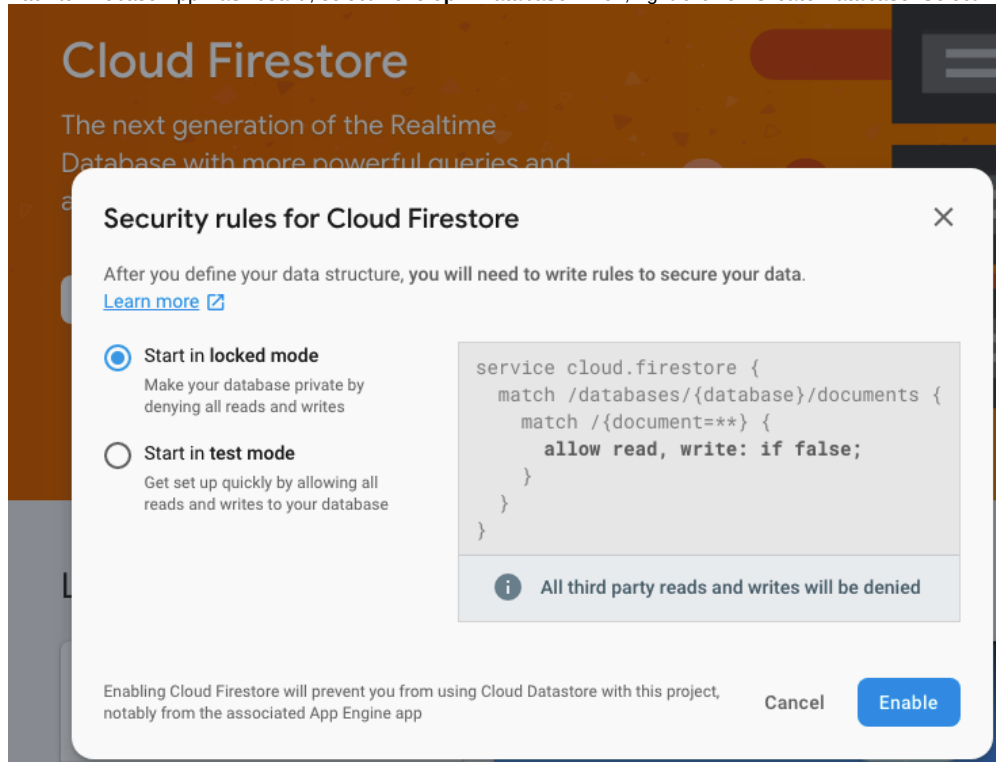
Copy and paste these scripts into the bottom of your `<body>` tag, but before you use any Firebase services:

```
const firebaseConfig = {
  apiKey: "[REDACTED]",
  authDomain: "[REDACTED].firebaseapp.com",
  databaseURL: "https://[REDACTED].firebaseio.com",
  projectId: "[REDACTED]",
  storageBucket: "[REDACTED].appspot.com",
  messagingSenderId: "[REDACTED]",
  appId: "1:555767431731:web:b5147f0326945398"
};
```

Remove this app

2. Enable Firebase Database

Back to Firebase App **Dashboard**, select **Develop > Database**. Then, right-click on **Create Database**. Select mode and click **Enable**



After enabling, you will redirect to database page. In that page, select tab **Indexes** and add 2 **Composite** indexes to Database by click on **Create index manually**.

Then, configure fields as 2 screenshots below:

Create a composite index

Cloud Firestore uses composite indexes for compound queries not already supported by single field indexes (ex: combining equality and range operators).

Collection ID

messages

Fields to index

At least two fields required*

1	receiver	Ascending
2	seen	Ascending
3	time_stamp	Ascending

Add field

Query scopes

☒ Collection

For queries within a specific collection path

Cancel Create index

Creation time depends on the amount of data being indexed

Create a composite index

Cloud Firestore uses composite indexes for compound queries not already supported by single field indexes (ex: combining equality and range operators).

Collection ID

messages

Fields to index

At least two fields required*

1	deleted	Ascending
2	text	Ascending
3	time_stamp	Descending

Add field

Query scopes

☒ Collection

For queries within a specific collection path

Cancel

Create index

Creation time depends on the amount of data being indexed

Indexes enable:

IM Chat

Go to docs

Database

Cloud Firestore

Data

Rules

Indexes

Usage

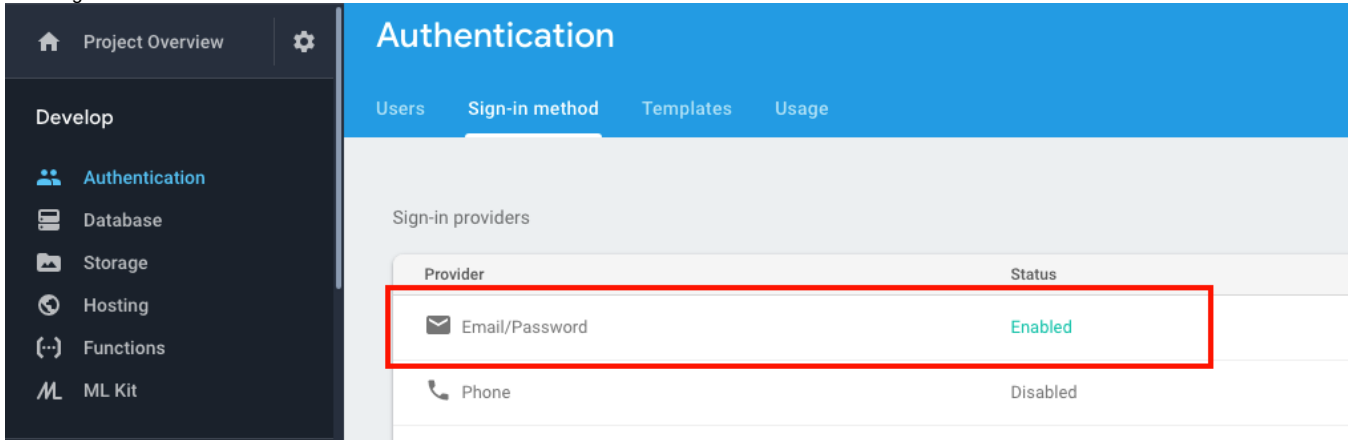
Composite

Single field

Add index

Collection ID	Fields indexed	Query scope	Status
messages	deleted Ascending text Ascending time_stamp Descending	Collection	Enabled
messages	receiver Ascending seen Ascending time_stamp Ascending	Collection	Enabled

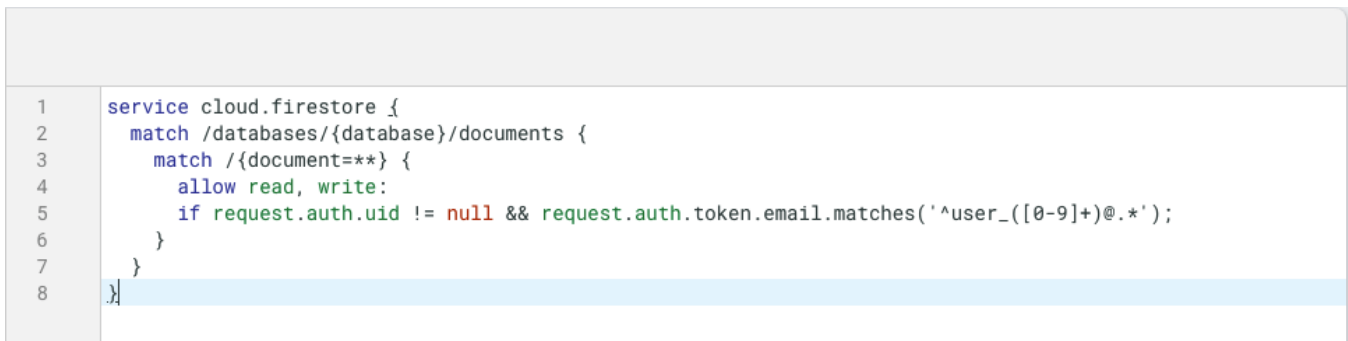
Go to Develop > Authentication, enable Sign-in method for **Email/Password provider** in your project to allow users access to the database, as the following screenshot:



Then, go to **Database > Rules** tab and add the following database rules:

```
service cloud.firestore {
  match /databases/{database}/documents {
    match /{document=**} {
      allow read, write:
        if request.auth.uid != null && request.auth.token.email.matches('^user_([0-9]+)@.*');
    }
  }
}
```

Rules table will be as the below image:



Now, you can start to use IM App with Firebase.

Setup Algolia to support search messages

Note: Without Algolia configure on IM App, users can only search for messages with prefix and case sensitive.

Go to [Algolia App Manage](#), sign up if you don't have an account

Note: Algolia is pay to use, so you should check their pricing at [Algolia Pricing](#)

Go to your **App Dashboard**

Applications

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DASHBOARD TEAM EDIT DANGER ZONE

TRIAL 13 days remaining
Hong-Kong

OPERATIONS
890 / 25M

RECORDS
1K / 5M

3 INDICES
getstarted_actors, rating_a...

Select **Indices**, create new Index with name **im_chat**

Create index

To handle indices across multiple environments, just prefix/suffix your index name like dev_NAME, test_NAME, or prod_NAME

Index name

im_chat

Cancel Create

After Create Index, select menu **API keys** on left

- Copy **Application ID** and paste to setting **Algolia App ID** on IM App
- Copy **Admin API Key** and paste to setting **Admin API Key** on IM App

algolia

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(UNNAMED APP)

Overview Indices Analytics Query suggestions Monitoring Infra API keys Team Billing

Your API Keys All API Keys

Application ID

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This is your unique application identifier. It's used to identify you when using Algolia's API.

Search-Only API Key

This is the public API key to use in your frontend code. This key is only usable for search queries.

Regenerate

Admin API Key

This is the ADMIN API key. Please keep it secret and use it ONLY from your backend: this key is used to create, update and DELETE your indices. You can also use it to manage your API keys.

Now, users can search full-text messages with IM App and Firebase