

# Guardian Connect (Developer Portal)

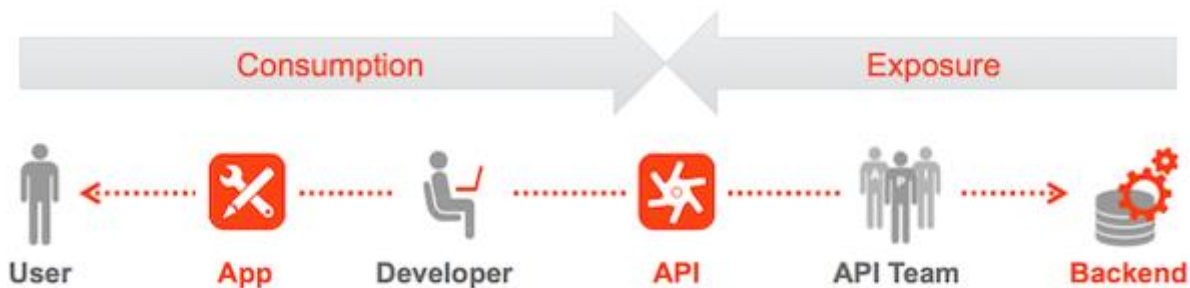
Version 2 last updated March 25, 2021

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## Guardian Connect

Guardian Connect is an API Developer portal, which is a user friendly, self-service portal that enables API owners to publish their API documentation for application developers. Application developers from external partners can leverage Guardian APIs within their applications they are planning to build for their customers. Application developers can browse through the APIs published on the portal, if the APIs meet their requirements, request access to try them in test environment.



## Registration

Developers on the partner side to get access to APIs, the person(administrator) who is responsible to manage carrier connections, should email their company name, administrator first name, last name and contact email address to [API\\_Admin@glic.com](mailto:API_Admin@glic.com). Once we received required details, an account will be created in Guardian Connect and email will be shared to partners to register in Guardian Connect. If you do not receive the email, please check your spam folder. If still not found contact [API\\_Admin@glic.com](mailto:API_Admin@glic.com).

Sample Email:

From: noreply-guardian-connect@glic.com <noreply-guardian-connect@glic.com>  
Sent: Saturday, March 7, 2020 8:40 AM  
To: <PARTNER EMAIL ADDRESS>  
Subject: Welcome to Guardian Connect

Dear <Partner Name>,



Welcome to Guardian Connect!

To activate your new Guardian Connect Account, you will need to verify a few pieces of information along with your one time use registration code:

Registration Code : 61bb569b-359a-475e-8417-658e1c8e4228

For account verification and activation please navigate to the following link:

[Click here to continue your PartnerAdmin Registration](#)

Happy Building!

Sincerely,

The Guardian Connect Team

\*\*\*\*\*PLEASE DO NOT REPLY TO THIS EMAIL\*\*\*\*\*

Clicking the above link will route to Guardian Connect registration page. Follow instruction from below table to fill the registration details.

Field Name	
Partner Full Name	Enter Partner full Company's name
Admin Contact Email	Enter the email address to be used to contact to validate for security issues
Registration code	Enter code received from email


### Partner Registration

Partner Full Name \*

Admin Contact Email \*

Registration Code \*

I agree to Guardian's [Online terms and conditions of use](#).

 I'm not a robot   
reCAPTCHA  
Privacy - Terms

**Submit**

Once above details are validated, you will have option to create password as below. After entering password and mobile number, click submit. Once account is created in Guardian Connect, the system will route to the sign in page.

Field Name	
Password	Enter Password (Password requirements are listed on the page)
Confirm Password	Re-Enter Password
+1 – Mobile Number	Enter number with no dashes starting with area code i.e. 2321243234

## Password Creation

---

Password \*

Confirm Password \*

+1 - Mobile Number \*

**Submit**

## Login to Guardian Connect

Field Name	
UserID	This is the email address used in the first step / Registration
Password	

### Login to Access Your Account

User ID

Password

[Forgot Password?](#)

By clicking "Sign in" I agree to Guardian's [Online terms and conditions of use](#).  
After successful login you will be returned to the Guardian Connect application.

[Sign in](#)

[Register Now](#)

Field Name	
Email	This prefills with the email address utilized for the Admin Contact Email
Text	This prefills with the mobile number utilized in password creation
	The agree button to allow Guardian to send identify questions
	Select the preference of receiving the security code and then submit

### Verification Required

We need to send you a code to verify your identity.  
Where should we send your code?

- Email to s\*\*\*\*\*@\*\*\*\*\*.com
- Text to \*\*\*\*\*4745

I agree to receive a text message or email at the selected destination for the purpose of receiving my identification code. Normal text message charges may apply.

[Submit](#)

On submit a code will be sent to your registered email or device, which you need to enter on the next page. The code will be valid for 10 minutes, so please have your device nearby.

Field Name	
Identification code	Enter the one-time code received in the email
	If public computer is selected identity will need to be verified each time logging in
Code	Enter code in the image




### Validate Verification Code

A code has been sent to your registered email address/device at 6:54 AM ET. Guardian team will never ask you for the code. We send the Identification code immediately, but many factors may influence how fast you receive them. If you need a new code, please click on [Resend code](#)

Please enter your Identification code \*

Please select if you are using a Personal/Business or Public Computer

- This is my Personal Computer ( [Save security token on this computer](#) )
- This is a Public Computer ( DO NOT Save security token on this computer )

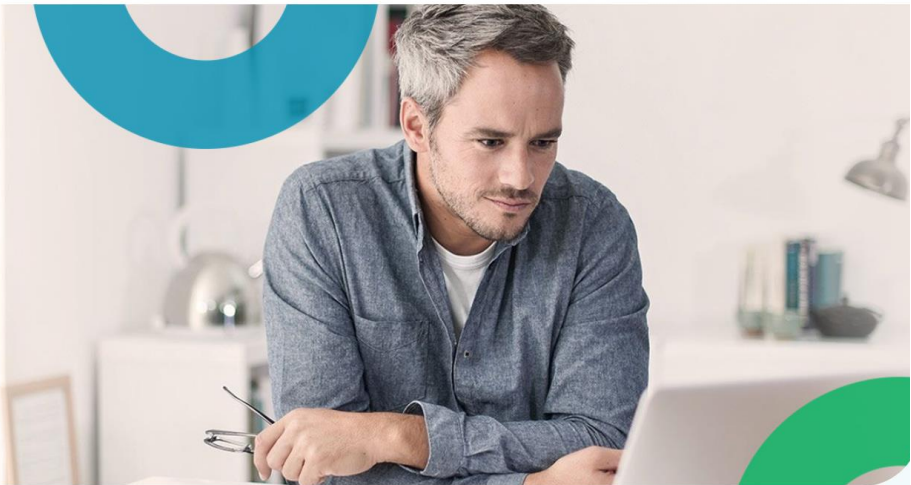
 I'm not a robot   
reCAPTCHA  
Privacy - Terms

[Submit](#)

Once Submit is selected and successfully login, you will be routed to the Guardian Connect home page.

# Welcome to the **Guardian** API Portal

[Let's build](#)



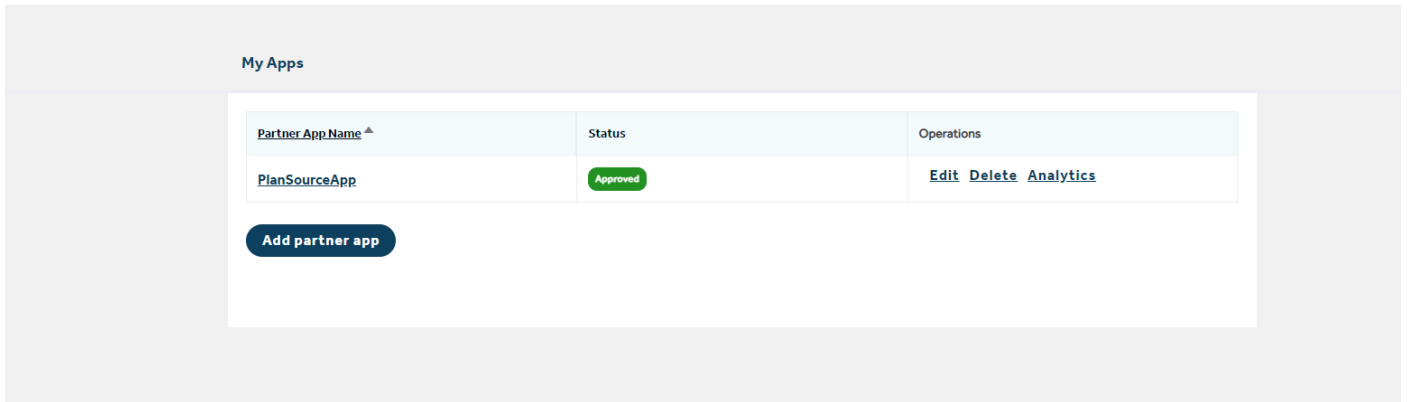
## Latest Announcements

Guardian Connect is live now!



## Creation of Developer APP

From the home page, select My Apps. Select Register new partner app



Field Name	
Partner App name	Enter the name you would like to identify the partner app as
Callback URL	Field can be left blank
Description	Freeform to describe the partner app
API's	Search the API's and Select <b>Group Benefits API Product, Group Policy API Product and Group EOI API Product</b>

### Add Partner App

Partner App name

Callback URL

External site to which a consumer of this app is redirected to log in when using three-legged OAuth.

Description

**APIs**

- Group Benefits API Product
- GC-AppApproval-Product
- Group EOI API Product
- Group Policy API Product

**Add partner app**

Once app is created, the partner app will appear in MyApps. Under Products your new products will appear. The Blue boxes will state Pended. – (Please send an email to [API\\_Admin@glic.com](mailto:API_Admin@glic.com) to approve your products) Once your products have been approved the status will update to Enabled.

[Home](#) > [Partners](#) > [Demo Testing JWT partner](#) > [My Apps](#)

## MyGuardianApp partner app

[Keys](#) [Products](#) [Details](#)

Policy GC Product Enabled

Benefits GC Product Pending



Once all steps are completed and app is approved, the consumer key and secret will be active.

[Home](#) > [Partners](#) > [Demo Testing JWT partner](#) > [My Apps](#)

## MyGuardianApp partner app

[Keys](#) [Products](#) [Details](#)

Partner App status

<span>Approved</span>		
Consumer Key	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
Consumer Secret	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
Issued	5 days 5 hours ago	
Expires	Never	
Key Status	<span>Approved</span>	

The reference ID will be sent in a separate email from Guardian.

Once the consumer key, consumer secret and reference ID have been received, next steps can be started.

# Security: OAuth 2.0 and JWT

## Introduction

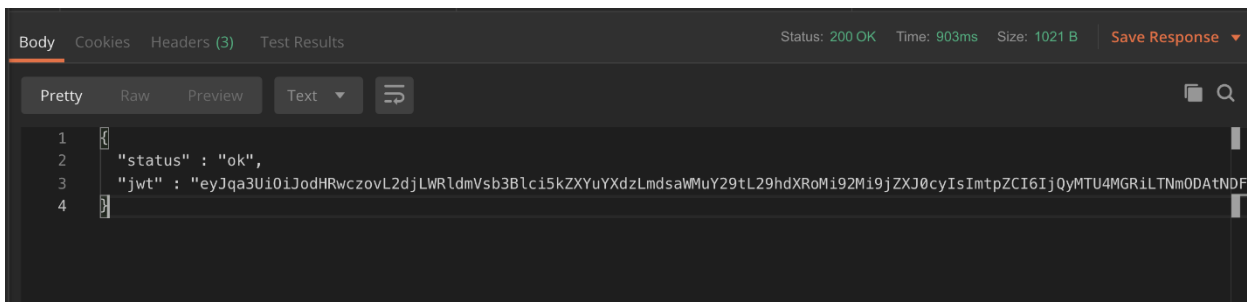
A JSON Web Tokens (JWT) is a self-contained, open standard JSON object used to securely exchange information between 2 or more parties. This information is in the form of a set of claims, which are key/value pairs generally used to provide unique attributes about a user or a 3rd party. JWT is commonly implemented in OAuth 2.0 and OpenID Connect (OIDC) type integrations. The following document provides detailed guidelines on usage, generation, consumption, and validation of JWT using Apigee Edge.

## JWT as OAuth 2.0 Access Tokens

JSON Web Tokens are used as OAuth 2.0 tokens while requesting access to protected resources, such as APIs. The authorization servers or issuer is responsible to generate the JWT after successfully authenticating and Authorizing a client App. These apps identify themselves using an API key and secret along with some other additional attributes. This token is signed by the issuer/authorization server using a private key or shared key. Signing the token ensure that payload will immediately become invalid if tampered by the client application or user. This ensures that the integrity of the payload is intact. These tokens are used as short lived bearer token, which means the bearer of the token will be able get access to the requested data when they present it to the authorization server, hence it is important to ensure this token is protected and securely stored. A compromised token can be revoked by the authorization server. To provide maximum security, it is important to ensure these tokens have a short life, typically 30mins to an hour.



```
ciLCJhdWQiOiJFRnNqR0xVV0VqOFBydUFoaWRTQWFSUWxxMGQ5QVpEWSIsInZlbnRvcml9pZCI6IjllZjRhNzgzLWM5ZmUtNDU2ZC05OWFILTZhNTNkODY2ZTNINyIsImZcyLmFwaXN2Y2F1dGguZGV2LmF3cy5nbGJlLnNvbSIsImV4cCI6MTU3Mjl3NTIzMiwiawWF0ljoXNTcyMjcXNjMyLCJub25jZSI6ImdkZmdkcZiLcJqdGkiOiJiOTNIYTNIiNi03NjU4LTQxYzgtOGQ2YS1jZTQ1NTJmZjY3OGYifQ.U1pHvXUaSEwbJRszR928aH162lBpFwZf7vz_wtPUriSPWl27eqMPEwRJUNap2v6uDjMLBzWFtza_5U-sWu6p7y9KOI1NHoSwiGaS4K1IBk0fyqGSXMxgXqklpel_EkDR-GcjS0rZ7D5uC1ivHrhVoEiMVB_9WRXKEQYOKrgxNGM7JlnLy8PXxN6BcmEWTAmXeViU9WerjrstUkErH7Rqtlhffb4dKPtgamTAtPlh9W3TUJ0OI-xrkfki-sJlGmA3ReDjdkFn926jRzgA237qnF5pDwjrbXDH3jaNPNVVsW-nvg2OrR5L9Rn6PDbzZUOYVr7iknFMup6vi94wPA"
}
```



## Status Codes

Status codes	Response	Reason
200 OK	Valid JWT response	NA
401 Request missing Authorization Data	<pre>{   "error": {     "code": 401.01,     "message": "Request missing Au"   } }</pre>	Authorization header missing
400 - Bad Request	<pre>{   "error": {     "code": 400.01,     "message": "Missing required fields"   } }</pre>	Any required attribute is missing such as nonce or subject



Status codes	Response	Reason
	<pre data-bbox="370 415 386 447">}</pre>	
401 - unauthorized	<pre data-bbox="370 485 751 709">{   "error": {     "code": 401.01,     "message": "Invalid Nonce"   } }</pre>	Same nonce used again. Nonce should be unique for each token request
401 - Invalid Subject or Partner/App not active	<pre data-bbox="370 793 821 1018">{   "error": {     "code": 401.01,     "message": "Unauthorized user"   } }</pre>	<p data-bbox="846 751 1333 1045"><b>Subject is invalid</b> - Subject must be the unique vendor reference id provided by the Guardian Connect API during new partner registration process. All API keys are associated with a given subject and must match for validation to be successful.</p> <p data-bbox="846 1073 1317 1178"><b>App/Partner is invalid or not active</b> - Partner is marked inactive in the system.</p>

## JWT Verification by Client App

Since we are using JWT as OAuth 2.0 access tokens, the token verification needs to happen first at the client end and later when the client requests access to a resource using a bearer token, the issuer (authorization server) will do token verification again before giving access to the requested resource.

### Steps to validate a JWT

Step #	Validation	Expected result (by environments)
<b>Signature Verification</b>		
1	Decode the JWT. The header and the payload are encoded and separated by "." (period)	
2	Read the header section and look for "jku" and "kid" claims	

Step #	Validation	Expected result (by environments)
<b>Signature Verification</b>		
3	Verify the url against whitelisted JWKS urls	
4	Download the JWKS from the url provided in the "jku" claim	
5	Read the "n" attribute for the given "kid" claim	

6	Check the algorithm used to sign the payload using the "alg" claim from the header section	
7	Use the "n" value from the JWKS to validate the signature of the JWT payload. Proceed to next step if signature is valid	Integrity of the token is intact

**Additional Security Validations (JWT validation beyond signatures)**

8	verify subject ( <i>sub</i> )	subject must match the subject provided during token request
9	verify nonce	nonce must match the nonce provided during token request

Step #	Validation	Expected result (by environments)				
10	verify issuer ( <i>iss</i> )	Issuer must match the below listed issuers by environment <table border="1" data-bbox="613 1417 1183 1602"> <thead> <tr> <th>Environments</th> <th>Issuer</th> </tr> </thead> <tbody> <tr> <td>PROD</td> <td><a href="https://api.guardianlife.com">api.guardianlife.com</a></td> </tr> </tbody> </table>	Environments	Issuer	PROD	<a href="https://api.guardianlife.com">api.guardianlife.com</a>
Environments	Issuer					
PROD	<a href="https://api.guardianlife.com">api.guardianlife.com</a>					
11	verify expiry ( <i>exp</i> )	current time should be prior to the value in the expiry ( <i>exp</i> ) claim.				
12	verify audience ( <i>aud</i> )	( <i>aud</i> ) claim will contain API key. ( <i>aud</i> ) must match API key provided during token request				

## Token Expiry

Please note tokens are only valid for 30 minutes from the time of issuance. A new token can be requested after 30 mins with a new nonce.

## Verification of JWT by Issuer

### Input parameters

attribute	type	Expected value	Example
nonce	query params	The nonce must match the nonce provide during token request	nonce=gdfgds1
Authorization	Headers	The JWT used as a bearer token for verification	Authorization: Bearer 'eyJqa3sdjfkjsjdfks'

### Steps to validate a JWT

Step #	Validation	Expected results (by environments)
<b>Signature Verification</b>		
1	Decode the JWT. The header and the payload are encoded and separated by "." (period)	
2	Read the header section and look for "jku" and "kid" claims	

3	Download the JWKS from the url provided in the "jku" claim	
4	Read the "n" attribute for the given "kid" claim	
5	Check the algorithm used to sign the payload using the "alg" claim from the header section	
6	Use the "n" value from the JWKS to validate the signature of the JWT payload. Proceed to next step if signature is valid	Integrity of the token is intact
<b>Additional Security Validations (JWT validation beyond signatures)</b>		
7	verify nonce	nonce must match the nonce provided during token request
8	verify expiry ( <i>exp</i> )	Current time should be prior to the value in the expiry ( <i>exp</i> ) claim.

### Status Codes

Status code	Response	Reason
200 OK	Valid response from the backend after successful validation of JWT	
401 Request missing Authorization Data	<pre>{   "error": {     "code": 401.01,     "message": "Request missing Authorization Data"   } }</pre>	Bearer token missing

Status code	Response	Reason
	<pre> }</pre>	
400 Bad Request	<pre> {   "error": {     "code": 400.01,     "message": "Missing required attributes"   } }</pre>	Nonce is missing
401 Unauthorized	<pre> {   "error": {     "code": 401.01,     "message": "Token expired or invalid"   } }</pre>	Token as either expired or already revoked
401 Invalid Nonce	<pre> {   "error": {     "code": 401.01,     "message": "Invalid Nonce"   } }</pre>	Invalid Nonce. Nonce does not match the nonce provided using token request