

HOW TO USE ELASTIC ENTERPRISE SEARCH WITH GITHUB



Elastic Company has acquired Swiftype for its product portfolio, branding it [Elastic Enterprise Search](#). This product gives users the ability to query a variety of data sources, including public sources and internal company documents and data sources.

We previously explained [how to install Enterprise Search](#). In this article, I'll illustrate how it works by connecting it to GitHub.

Overview: How Elastic Enterprise Search works

Enterprise Search offers the ability for users to query data sources using natural language. It is particularly useful within organizations who share internal documents. Popular sources you can query with Enterprise Search include:

- Dropbox
- Google Docs
- GitHub
- Microsoft OneDrive
- Jira
- Salesforce
- Custom sources (via APIs)

Enterprise Search works by indexing search data in Elasticsearch and connecting to the data source using [OAuth](#), an industry standard for authenticating apps. To understand OAuth, I like it to when you use Facebook or Google credentials to look into an app.

Note on GitHub limitations

You cannot use Enterprise Search with your own personal GitHub repository. Instead you must use an organizational repository. In other words, if you are an employee named **Fred** working at **Smith Airlines**, then you can search Smith Airlines. You cannot search Fred. That makes sense since Enterprise Search is designed for an enterprise and not a single individual.

Setting up Elastic Enterprise Search

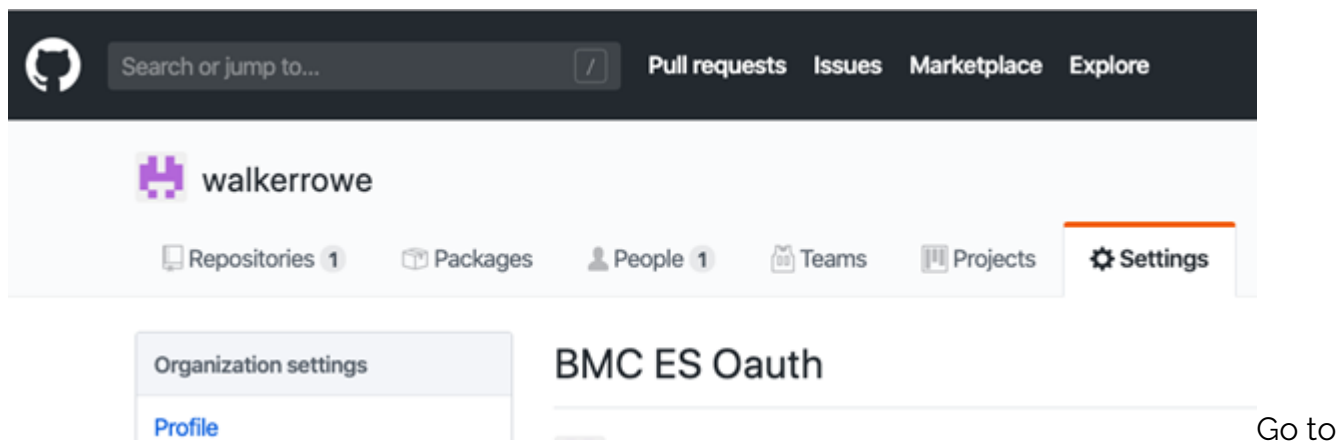
Follow these steps to set up Elastic Enterprise Search.

1. Create an OAuth App in GitHub. This is where you define the callback URLs that points to your Enterprise Search Installation. It also creates the Client ID and Client Secret needed to connect to Enterprise Search.
2. Create the GitHub source in Enterprise Search.
3. Enterprise Search polls GitHub for activity.
4. Start searching.

Configuring GitHub OAuth Settings

Login to GitHub and click on Settings --> Developer setting for the repository. Make sure you click the organizational repository settings and not your personal settings.

In this example the repository is **walkerrowe**:



Developer settings then create a **New OAuth App**.



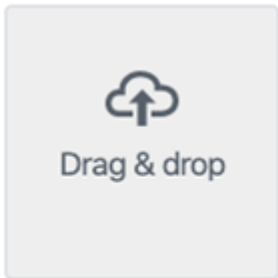
Give it a name. For the callback URL, use these links:

Homepage URL [https://\(your server\):3002](https://(your server):3002)

Authorization callback URL

http://(your server):3002/ent/

Note: the Swiftype documentation mentions **localhost**. Do not use that. (GitHub cannot reach your localhost.) Instead, it must be the public IP address of your Enterprise Search server or the private IP if you are running GitHub internally. You will need to open firewall port 3002.



Upload new logo

You can also drag and drop a picture from your computer.

Application name *

BMC ES Oauth

Something users will recognize and trust.

Homepage URL *

https://walkercodetutorials.com:3002

The full URL to your application homepage.

Application description

Application description is optional

This is displayed to all users of your application.

Authorization callback URL *

http://walkercodetutorials.com:3002/ent/

Your application's callback URL. Read our [OAuth documentation](#) for more information.

Click **Register**

Application then note the **client ID** and **client secret**. You will put those credentials into Enterprise Search.

BMC ES Oauth

 walkerrowe owns this application.

You can list your application in the [GitHub Marketplace](#) so that other users can discover it.

List this application

1 user

Client ID

[Redacted]

Client Secret

[Redacted]

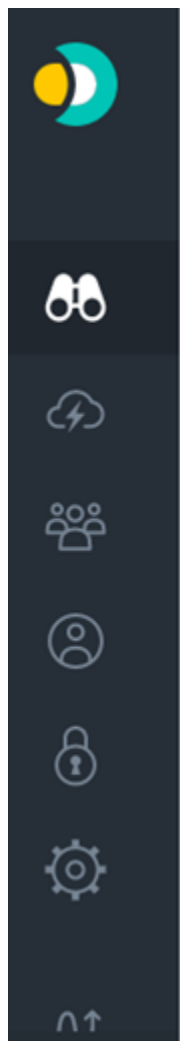
Revoke all user tokens

Reset client secret

Add GitHub Source in Elastic Enterprise

Search

Click on Add a Source.



Get Started with Enterprise Search

Complete the items below to setup your Enterprise Search experience.



Shared Sources

You have 1 shared source.

✓ Add a Source

Use

No one

Select **GitHub**.

Filter sources by name or type...



Confluence

Create, organize, and discuss work with your team.

Configure



Confluence (Server)

Confluence, hosted on your server.

Configure



Dropbox

Cloud file storage and syncing.

Add



GitHub



GitHub Enterprise



Google Drive

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Then follow the screens. If you are already logged into GitHub, it will try to use those credentials. So, logout of GitHub.

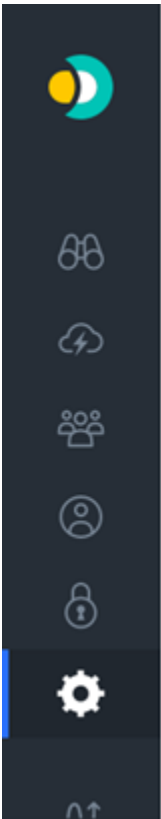


Connect to GitHub

GitHub will be available for all of Default Organization's users.

I understand

Fill in the client ID and secret. You don't put the URL like github.com/(your organization). Instead GitHub locates your repository by your client ID.



Connect GitHub

ⓘ You will need administrative access to GitHub to make the connection. [Read the guide](#) for a visual, step-by-step walkthrough.

Client ID

1abc7e863b5c0b0906ea


Client Secret

aff4997489b7451feb4a9b4a2853db224cc9c725


As you would see if you are logging into some application using Facebook or Google, GitHub asks you for permission to connect the two. If you get any error message here, check the callback URL you put above. GitHub needs to be able to reach that from the GitHub servers.




Authorize BMC ES Oauth




BMC ES Oauth by walkerrowe
wants to access your werowe account

 **Organizations and teams**
Read-only access

 **Repositories**
Public and private

Organization access

 walkerrowe ✓

Click through

this screen.



Connect to GitHub

Select GitHub organizations to sync

walkerrowe



Continue





GitHub connected!

Your content is currently being synced, and will be available for search as soon as the initial syncing process is complete.

[Connect Another Content Source](#)

or [manage your sources](#)

Changing configuration and handling debug errors

If you make a mistake, don't click on "Add a source" again. Instead, go into settings in Enterprise Search, also located on the left-hand menu.



Enterprise Search



Overview



Sources



Groups



Users



Security



Settings

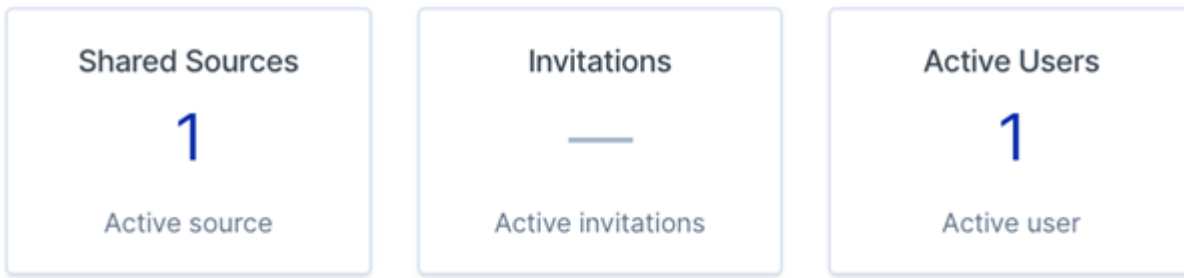
Then select the **configure** button shown

below



Verifying your connection works

You should see some activity now:



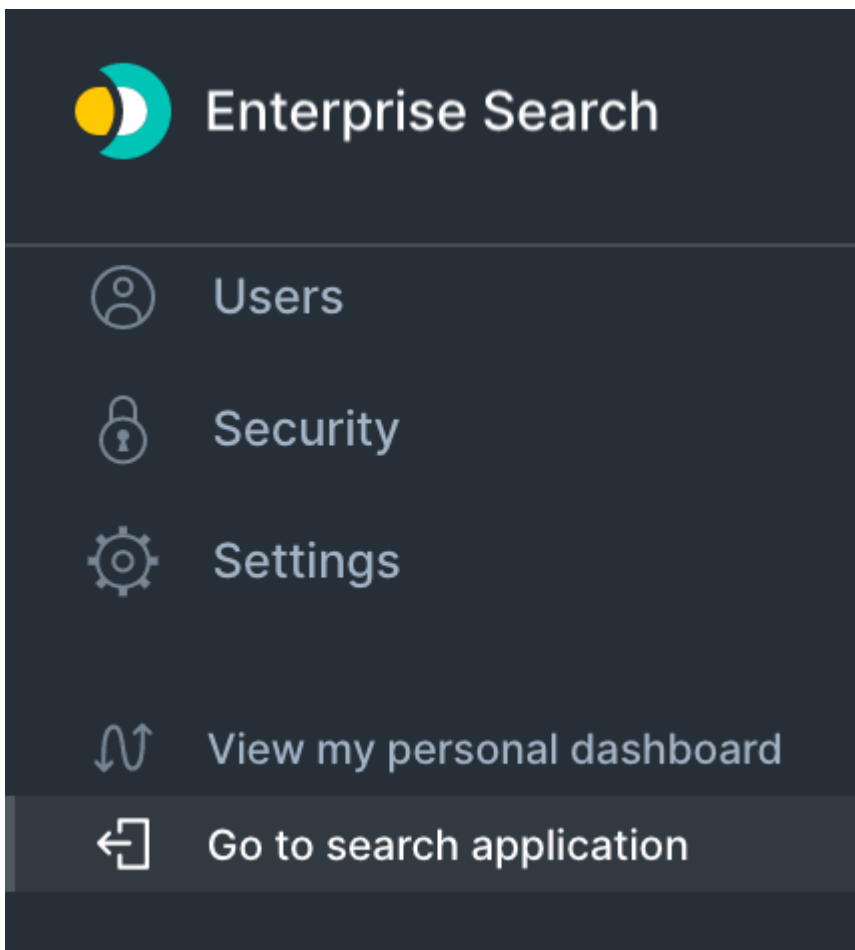
Recent Activity

GitHub synced successfully

GitHub was successfully connected

Searching

Oddly enough, the search screen in Enterprise Search is hidden. It's not on the main landing [http://\(your server\):3002](http://(your server):3002). Instead, look on the left-hand side for **Go to Search Application**.



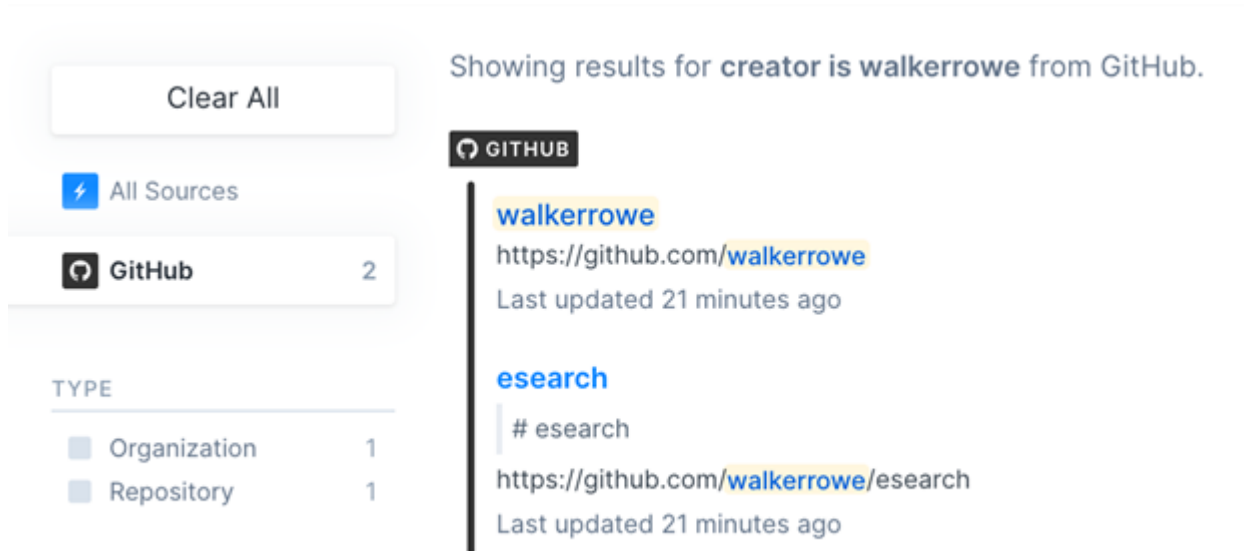
Their search syntax is natural language, but you do need to use certain keywords (see [Help with the Search Syntax](#)). It's not well

documented, yet.

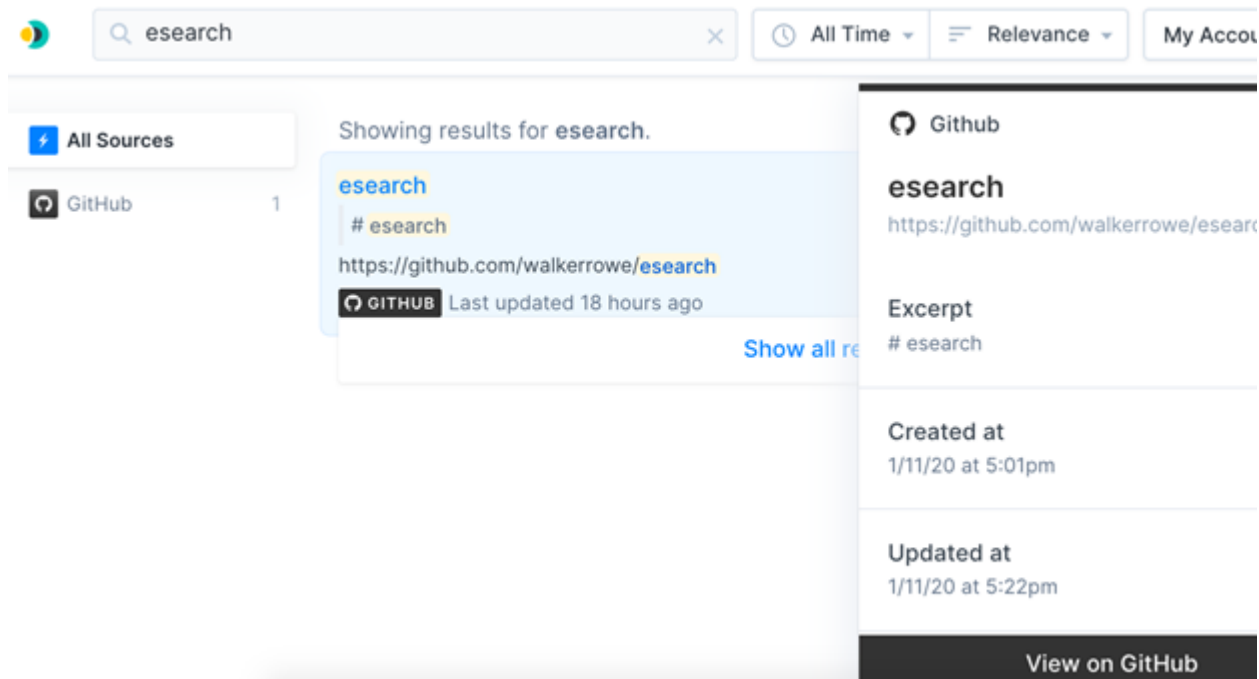
When I type:

creator is walkerrowe

It shows these objects:



Then I typed the name of a repository I created, **esearch**. It presented this screen. Click on the item and it gives you the chance to look at it in GitHub.



Advice on search syntax

You can refer to the [Enterprise Search Searcher's Manual](#) for search syntax, but it gives very few examples. For example, it says that, as you type a search question, it highlights words that it finds in blue. That did not work for me using Chrome on Mac. It also seems to search files but not the

content of files. In other words, it's not indexing every word in your Google docs or Sheets.

Since the documentation is sparse, consider asking questions on the [Enterprise Search community](#).