

Services Quick Start Up Guide

How to accept remote user login and CRUD operations.

In this guide, we will:

1. Install the [Services module](#)
2. Configure a REST server
3. Obtain CSRF Token
4. Use this CSRF Token to login
5. List your Nodes
6. Update a Node

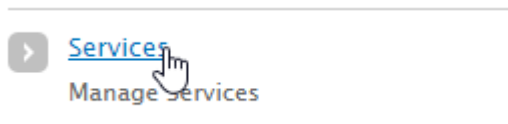
Install Services Module

Installing the Services module is like any other contributed module within the Drupal ecosystem. Learn more about the [installation of contributed modules](#).

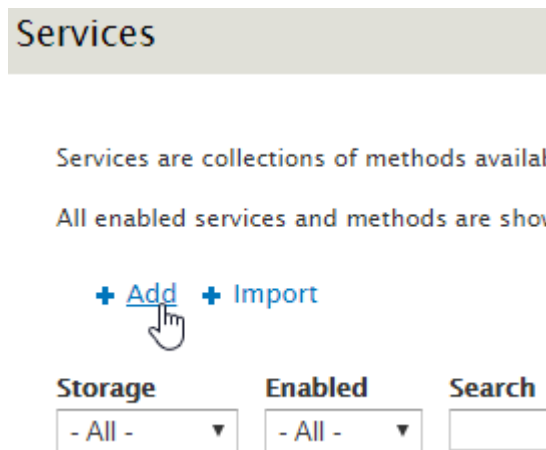
Once you have completed the installation, activate the core Services module and the included REST Server module.

Configure a REST Service

Let's configure the Services module by adding a server endpoint. Located under Structure, **select Services**.



Next, we're going to add a service. Do this **by clicking add**.



You will see a number of fields. (Not all fields will be represented but the form will appear similar to what you see below.)

Add a new endpoint

Machine-readable name of the endpoint *

The endpoint name can only consist of lowercase letters, underscores, and numbers.

Server *

Select the server that should be used to handle requests to this endpoint.

Path to endpoint *

☐ Debug mode enabled

Useful for developers. Do not enable on production environments

Authentication

☐ Session authentication

☐ OAuth authentication

Choose which authentication schemes that should be used with your endpoint. If no authentication is chosen, the endpoint will be public.

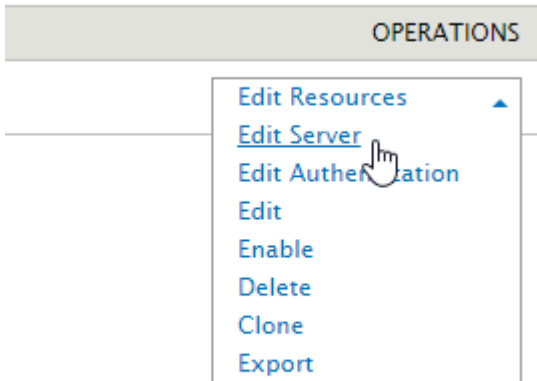
Save

Use these settings:

- **Machine-readable name of the endpoint:** (Give this a cool name.)
- **Server:** REST
- **Path to endpoint:** rest
- **Authentication:** Session authentication

Save your new endpoint. After saving your endpoint, we want to configure it. To do this, we can review our services list (which you should be taken to once you've saved your new server.)

On the Services page, you will see a list of your endpoints. On the right hand side, you will see **Edit Resources** with a drop down arrow. Select the arrow and choose **Edit Server**.



User these settings:

- **Response formatters:** Choose "json".
- **Request parsing:** Select "application/json".

Of course, you may not want to use JSON exclusively. You may add other formatters for your purposes.

You will now want to configure the settings for node, user, or other resources under the **Resources tab**.

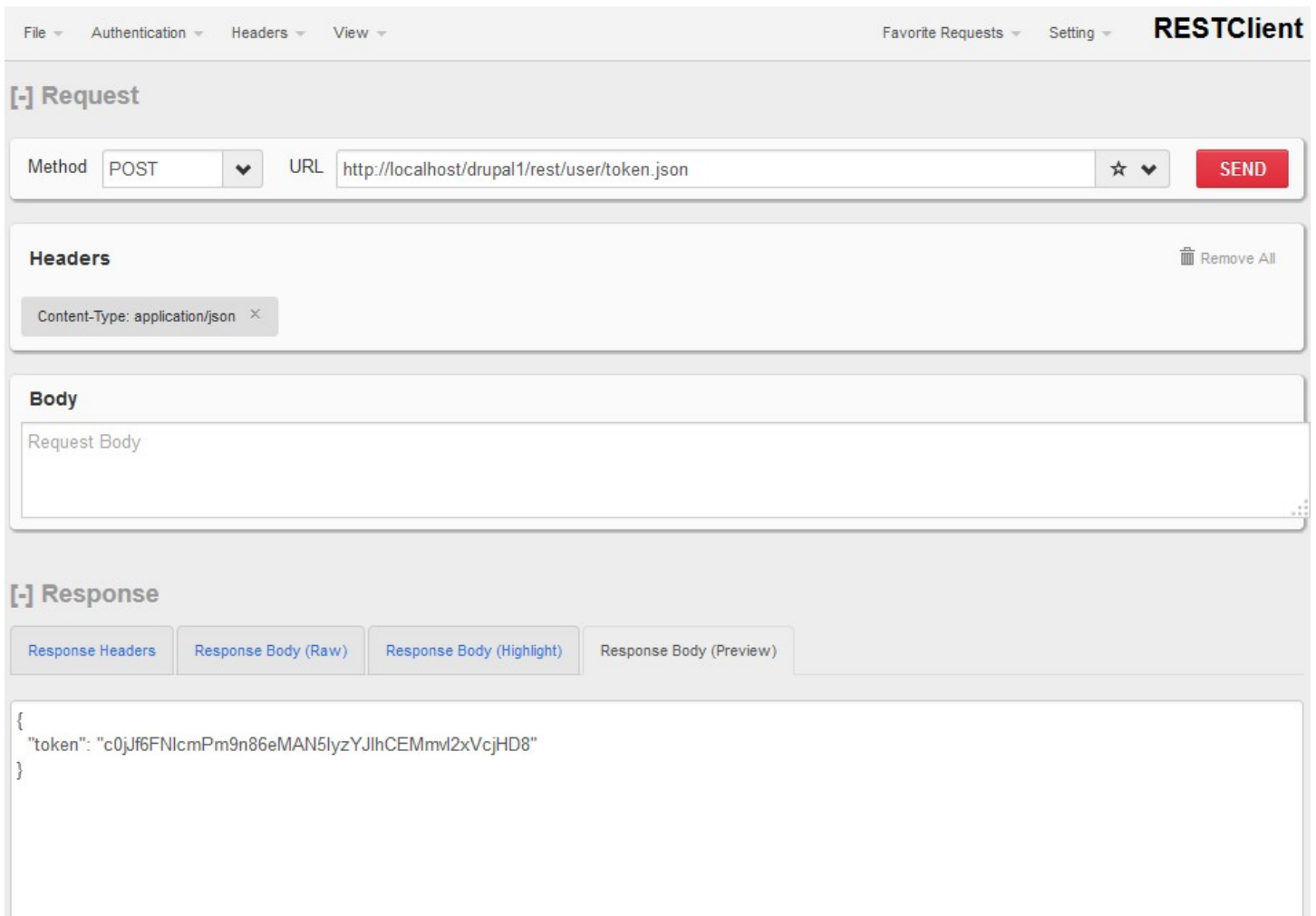
Obtain CSRF Token

To explore your new REST API, you can use a browser REST client (i.e REST client addon for Firefox browser). See screenshots for better understanding.

Add Content-Type: application/json as a header.

POST to the "user/token" endpoint to obtain the CSRF token:

```
POST {host}/{service_path_to_endpoint}/user/token.json
```



Use this CSRF Token to login

Add this CSRF token as the value for a "X-CSRF-Token" header, e.g.

X-CSRF-Token: TB394t1B1E2n81f93uWYuA7BInaYzs5kA0jem_aZjQg

Add a body to the POST request:

```
{
  "username": "joe",
  "password": "000000"
}
```

And login: POST {host}/{service_path_to_endpoint}/user/login.json

The screenshot shows the RESTClient interface. At the top, there are tabs for File, Authentication, Headers, and View. On the right, there are links for Favorite Requests, Setting, and the RESTClient logo. The main section is titled "[+] Request". It has a Method dropdown set to POST and a URL field containing "http://localhost/drupal1/rest/user/login.json". A red SEND button is on the right. Below the request section is the Headers section, which contains two headers: "Content-Type: application/json" and "X-CSRF-Token: c0jl f6FNlcmPm9n86e...". The Body section contains a JSON object: {"username": "joe", "password": "000000"}. Below the request section is the Response section, which has four tabs: Response Headers, Response Body (Raw), Response Body (Highlight), and Response Body (Preview). The Response Body (Raw) tab is selected, showing a JSON object with session information: {"sessid": "F-UkD0NXmiMOcjjlHTEP81IX4FCDY9nRfooAHbLyc6k", "session_name": "SESS9690a3996c84ec9b369a8c216f27208c", "token": "zKSiU-3yY2RZMo5BUOi5FLy8X-24uJOrrrmO7rV_dcE", "user": {"uid": "3", "name": "joe", "mail": "joe123@nyu.edu", "theme": "", "signature": "", "signature_format": "filtered_html", "created": "1423709928", "access": "1423726837", "login": "1423726918", "status": "1", "timezone": "UTC", "language": "", "picture": null, "data": false}}

Grab the "session_id" from the response of the login request, as you'll need that in the next step.

List your Nodes

Keep your "Content-Type: application/json" and "X-CSRF-Token: {token}" headers in place, and add a third header:

Cookie: {session_id}

Now you should be all set to CRUD content through your Drupal API. Test it by listing some nodes:

GET {host}/{service_path_to_endpoint}/node

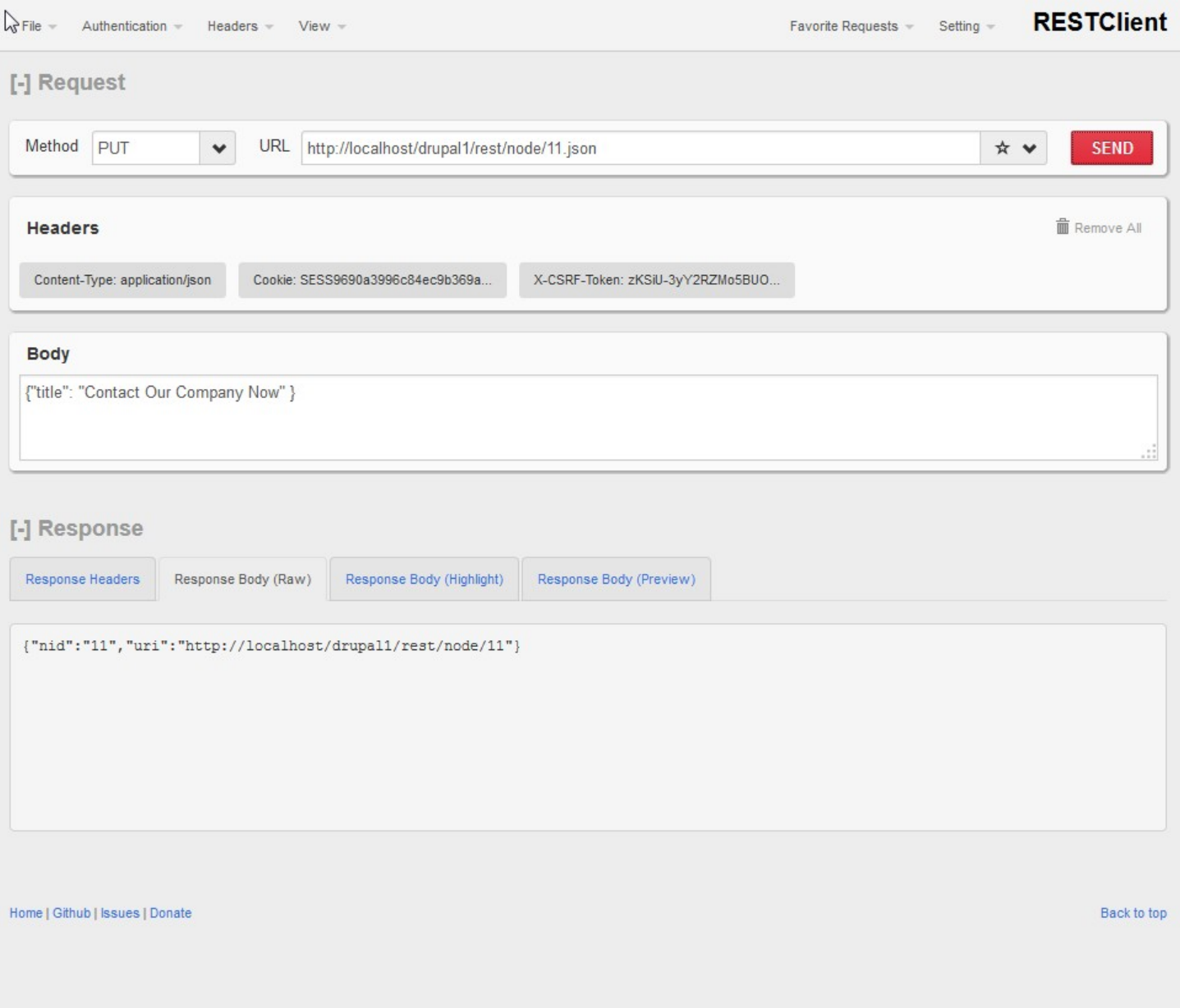
Or to get nodes of a particular content type:

GET {host}/{service_path_to_endpoint}/node?parameters[type]=page

Update a Node

Here, we update a basic page content.

In the screenshot below, the title of the basic page content with nid = 11, is updated. (Make sure the user that you login with has the appropriate permissions to edit basic page node types.)



Attachment	Size
ScreenHunter_01 Feb. 12 15.58.jpg	47.78 KB
ScreenHunter_02 Feb. 12 15.59.jpg	81.33 KB
ScreenHunter_03 Feb. 12 15.59.jpg	61.89 KB
2016-05-10-11-40-24-services.png	1.72 KB