

# PingIdentity- PingAccess Lab Guide

## Base PingAccess Setup

Before we delve into specific practice scenarios, there are several initial PingAccess setup steps, along with our initial directory setup which will be used across multiple different use cases.

## The PingAccess Setup Wizard

The very first time you navigate to the PingAccess URL, there are some initial configurations that must be done before you can access the Administrative Console. Follow the below steps.

First, you must enter your **Base URL**, and press **Next**.

Select the license file and press **Import**.

## Import License

You do not have a valid license configured. To obtain a valid license, [contact us](#) or visit [Ping Identity Licensing](#). If you have already obtained a license, you may upload and install it into PingAccess.

Choose File

PingAccess-8.0-Development 2.lic

Remove

Import

Base setup is now complete. You should be redirected to the **Administrative Console**.

← ↻ Not secure | https://10.189.77.156:9000/login

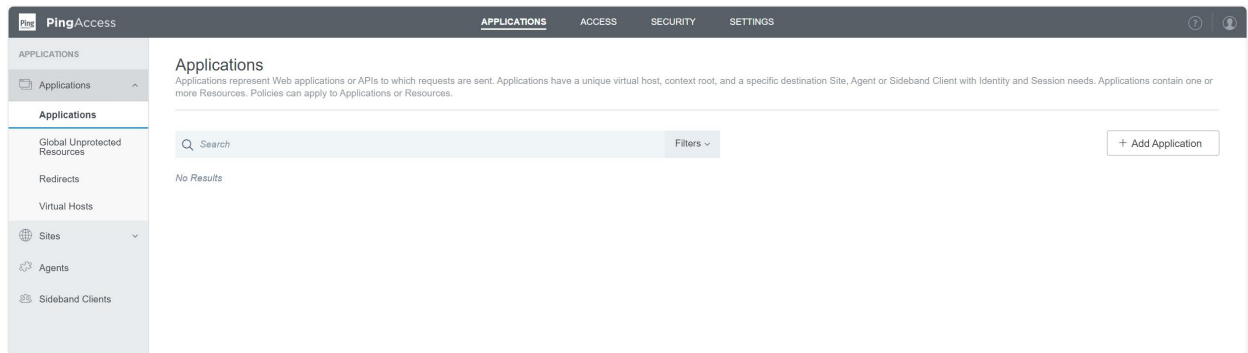
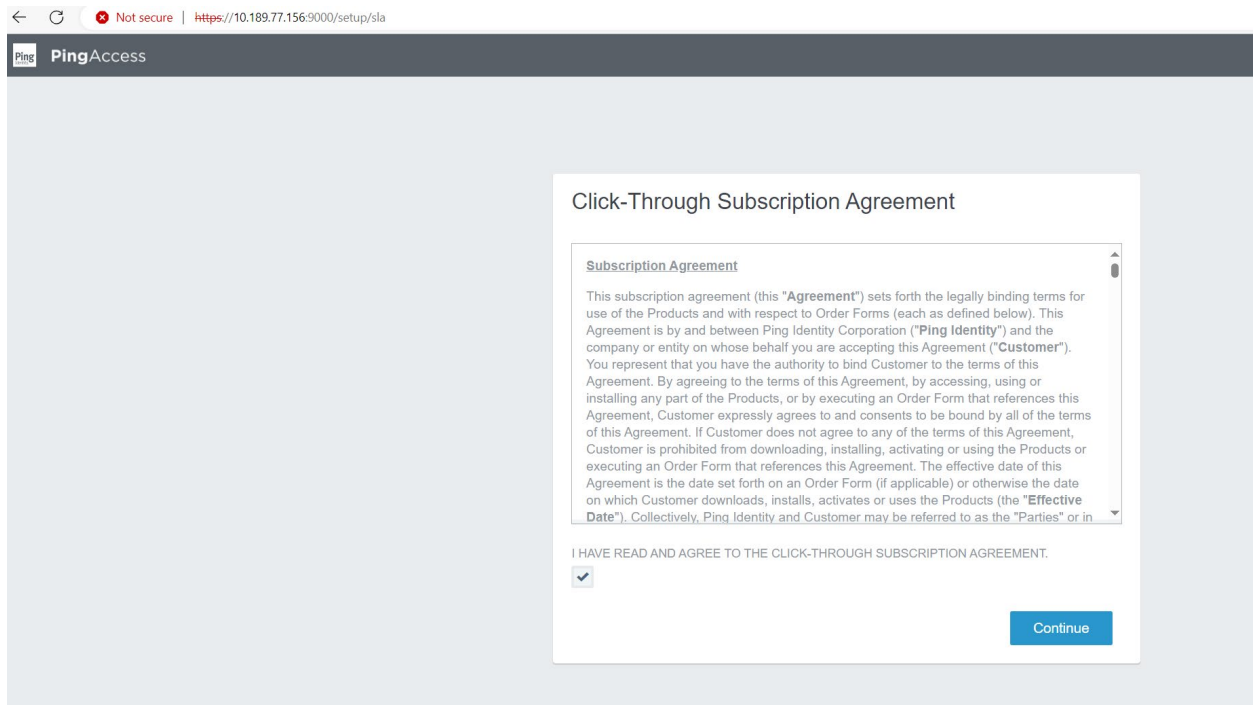
PingAccess

Sign On

administrator

.....

Sign On

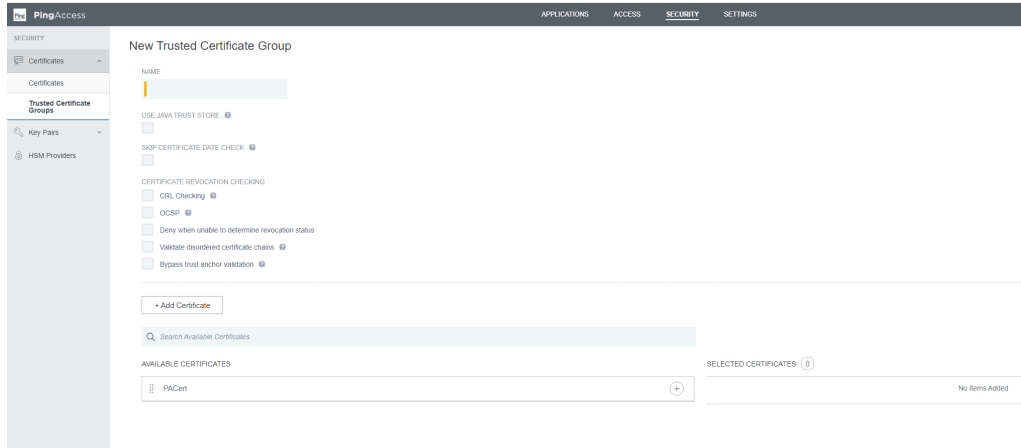


## Configuring the Token Provider

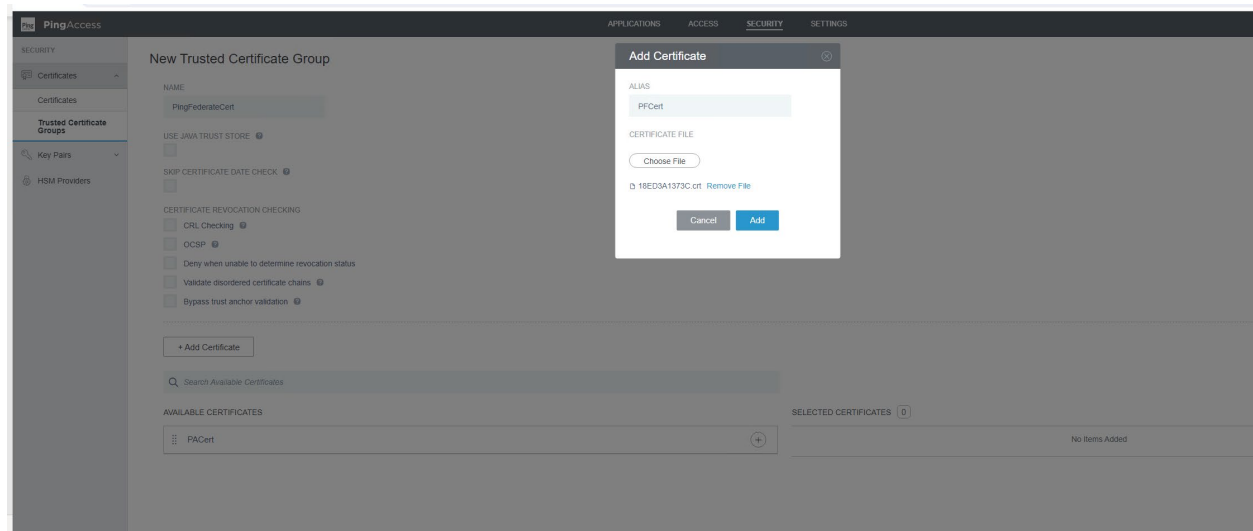
1. Create a Trusted Certificate Group
2. Configure PingFederate runtime
3. Configure PingDFederate administration
4. Configure an OAuth resource server

### 1. Create Trusted Certificate Group

- a) Goto Security > Trusted Certificate Groups > +Add Trusted Certificate Group



1. Import PingFederate server certificate or a CA certificate that anchor's trust to PingFederate server's certificate
  - a) Click +Add Certificate



2. Add certificates to the Trusted certificate group
 

Double click the certificate or click the + sign next to Available certificates to add them to Selected Certificates

New Trusted Certificate Group

NAME

PingFederateCert

USE JAVA TRUST STORE ⓘ

☐

SKIP CERTIFICATE DATE CHECK ⓘ

☐

CERTIFICATE REVOCATION CHECKING

☐ CRL Checking ⓘ

☐ OCSP ⓘ

☐ Deny when unable to determine revocation status

☐ Validate disordered certificate chains ⓘ

☐ Bypass trust anchor validation ⓘ

• Add Certificate ⓘ

Q Search Available Certificates

AVAILABLE CERTIFICATES

⋮

PACert

+

SELECTED CERTIFICATES 1

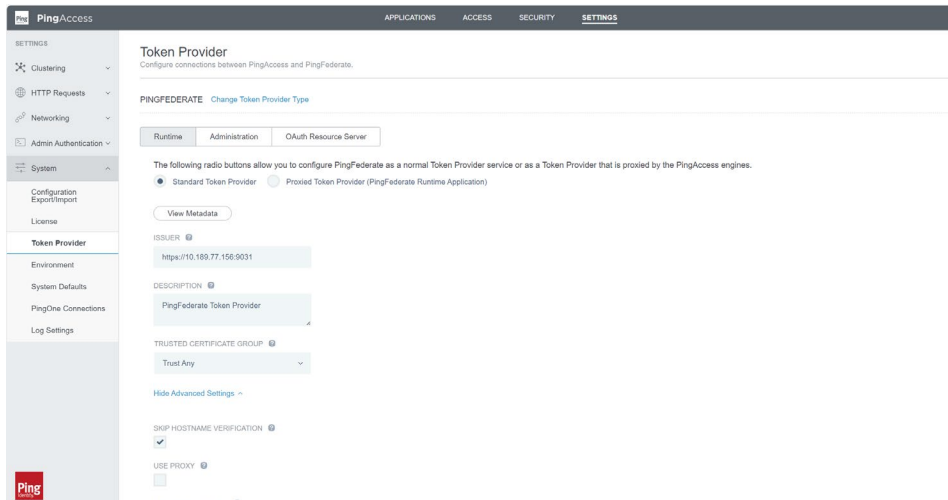
⋮

PF Cert

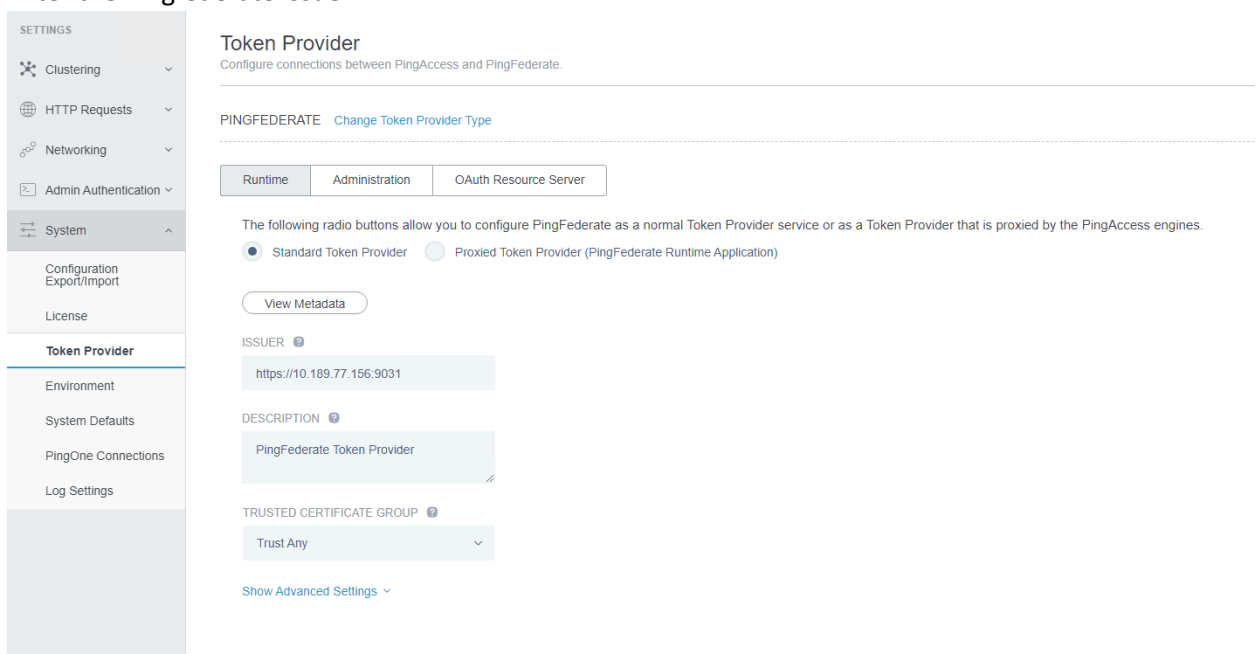
−

## 2. Configuring PingFederate Runtime

### 1. Goto Settings > System > Token Provider > Runtime



### 2. Enter the Pingfederate issuer



### 3. Select a certificate group that includes PingFederate in the **Trusted Certificate Group** list.

PingAccess

SETTINGS

Clustering

HTTP Requests

Networking

Admin Authentication

System

Configuration

Export/Import

License

Token Provider

Environment

System Defaults

PingOne Connections

Log Settings

APPLICATIONS

ACCESS

SECURITY

SETTINGS

Token Provider

Configure connections between PingAccess and PingFederate.

PINGFEDERATE

Change Token Provider Type

RuntimeAdministrationOAuth Resource Server

The following radio buttons allow you to configure PingFederate as a normal Token Provider service or as a Token Provider that is proxied by the PingAccess engines.

Standard Token Provider

Proxied Token Provider (PingFederate Runtime Application)

Note: You cannot change types while editing the current configuration. Please save or discard your changes if you would like to change the type.

View Metadata

ISSUER

https://193.169.77.136/9031

DESCRIPTION

PingFederate Token Provider

TRUSTED CERTIFICATE GROUP

PingFederateCert

Show Advanced Settings

### 3. Configuring PingFederate Administration

1. Goto Settings > System > Token Provider > Administration
2. Edit the details as below:
  - A. **Host:** Provide the IPAddress or hostname of the PingFederate server
  - B. **Port:** Enter the port number for access to PingFederate Administrative API
  - C. **Admin User:** Pingfederate Admin user
  - D. **Admin Password :** PingFederate admin password
  - E. **Secure:** If Pingfederate is expecting HTTPS connections, select yes
  - F. **Trusted Certificate Group:** Select the group of certificates to use when authenticating to PingFederate

### 4. Configure an OAuth resource server

1. Goto Settings > System > token Provider > OAuth Resource Server
2. Enter the **OAuth Client ID** and **Client Secret** when creating the PingAccess OAuth client in PingFederate
3. In the subject Attribute Name field, enter the attributes you want to use from OAuth access token as the subject for auditing purposes



## Token Provider

Configure connections between PingAccess and PingFederate.

PINGFEDERATE [Change Token Provider Type](#)

Runtime

Administration


OAuth Resource Server

CLIENT ID 

pa\_rs

CLIENT CREDENTIALS TYPE 

☒ Secret ☐ Mutual TLS ☐ Private Key JWT

CLIENT SECRET 

\*\*\*\*\*

CACHE TOKENS 

☒ No ☐ Yes

SUBJECT ATTRIBUTE NAME 


uid

SEND AUDIENCE 

☐

USE TOKEN INTROSPECTION ENDPOINT 

☒

DPOP TYPE 

Off

REQUIRE NONCE 

☐

DPOP PROOF LIFETIME (SEC.) 

120

## Protect APIs using PingAccess

In this section, we protect a public api. We have used <https://cat-fact.herokuapp.com/facts/> as an example.

### 1. Pre-requisites

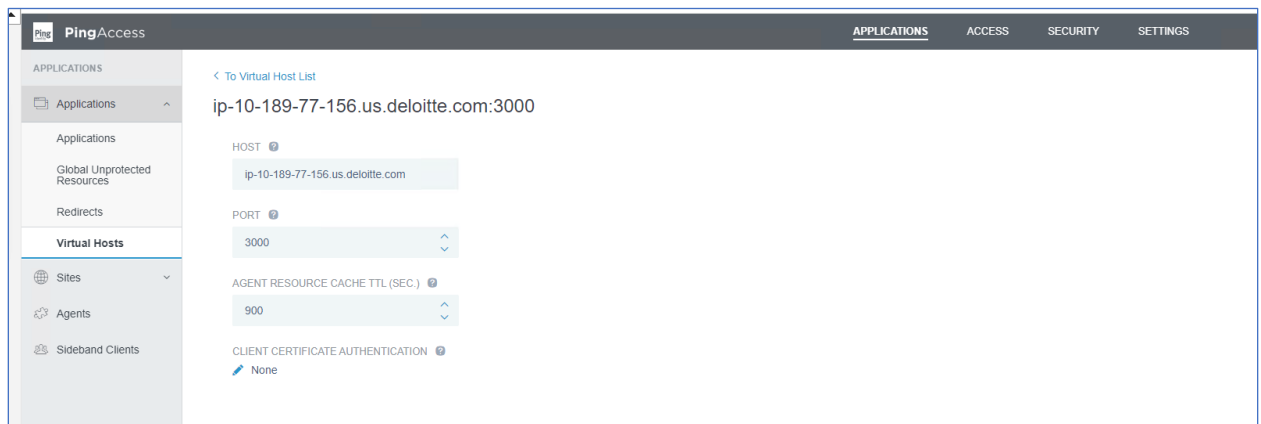
- PingFederate is setup as Token Provider
- Client Credentials client is created in PingFederate
- Postman is setup

Note: Follow PingFederate Lab Guide to create OAuth Client to test the protected api.

### 2. Configuration

#### 1. Virtual Host

#### 1. Goto Applications > Virtual Hosts



## 2. Site

Add the host and port of the protected API. In this case, it is <https://cat-fact.herokuapp.com/>

The screenshot shows the PingAccess web interface for configuring a site named 'APIPlatform'. The left sidebar contains navigation links: Applications, Sites (selected), Site Authenticators, Third-Party Services, Agents, and Sideband Clients. The main content area is titled 'APIPlatform' and includes a back link 'To Site List'. A message states 'This site is used by 1 Application. View on the applications page.' The configuration fields are as follows:

- NAME:** APIPlatform
- TARGETS:** A list containing 'cat-fact.herokuapp.com:443' with an '+ ADD TARGET' button below it.
- SECURE:** Radio buttons for 'No' and 'Yes', with 'Yes' selected.
- TRUSTED CERTIFICATE GROUP:** A dropdown menu currently showing 'Trust Any'.
- SITE AUTHENTICATORS:** An empty list with a '+ Create Site Authenticator' button below it.
- USE TARGET HOST HEADER:** A checked checkbox.
- Show Advanced Settings:** A dropdown arrow.

### 3. Applications

PingAccess

APPLICATIONS

Applications

Applications

Global Unprotected Resources

Redirects

Virtual Hosts

Sites

Agents

Sideband Clients

WebAPI

PropertiesResourcesAPI Policy

NAME

WebAPI

DESCRIPTION

CONTEXT ROOT

/facts

CASE-SENSITIVE PATH

VIRTUAL HOST(S)

10.189.77.156:3000

ip-10-189-77-156.us.dellotite.com:3000

Create

APPLICATION TYPE

API

SPA SUPPORT

ACCESS VALIDATION

Token Provider

Create

API IDENTITY MAPPING

None

Create

OVERRIDE DPOP SETTINGS

DESTINATION

Site

SITE

APIPlatform

Edit

REQUIRE HTTPS

APPLICATIONS

ACCESS

SECURITY

SETTINGS

WebAPI

PropertiesResourcesAPI Policy

NAME

WebAPI

DESCRIPTION

CONTEXT ROOT

/facts

CASE-SENSITIVE PATH

VIRTUAL HOST(S)

10.189.77.156:3000

ip-10-189-77-156.us.dellotite.com:3000

Create

APPLICATION TYPE

API

SPA SUPPORT

ACCESS VALIDATION

Token Provider

Create

API IDENTITY MAPPING

None

Create

OVERRIDE DPOP SETTINGS

DESTINATION

Site

SITE

APIPlatform

Edit

REQUIRE HTTPS

## 4. Resources

The screenshot shows the PingAccess console interface. On the left is a sidebar with navigation links: Applications, Sites, Agents, and Sideband Clients. The main area is titled 'Root Resource' and contains several configuration sections: 'NAME' with a text field containing 'Root Resource'; 'PATH PATTERNS' with a text field containing '/'; 'RESOURCE AUTHENTICATION' with radio buttons for 'Standard' (selected), 'Anonymous', and 'Unprotected'; 'OVERRIDE DPOP SETTINGS' with a checkbox; 'METHODS' with a text field containing '\*'; 'AUDIT' with a checked checkbox; 'RESOURCE TYPE' with a dropdown menu set to 'Standard'; and 'RESPONSE GENERATOR' with a 'TYPE' dropdown menu set to 'Select ...'.

## 3. Testing

### 1. Create a new HTTP request

Launch Postman and create a new GET request as below. Note here that PingAccess is being used as gateway, so the url has the PingAccess hostname: 10.189.77.156 (please use your own hostname) and PingAccess runtime port: 3000

The screenshot shows a Postman HTTP request configuration. The top bar indicates the request is for 'ProtectedAPI'. The method is 'GET' and the URL is 'https://10.189.77.156:3000/facts'. Below the URL bar are tabs for 'Params', 'Authorization', 'Headers (9)', 'Body', 'Pre-request Script', 'Tests', and 'Settings'. The 'Params' tab is active, showing a table for 'Query Params' with two columns: 'Key' and 'Value'. The table contains two rows, both with 'Key' in the 'Key' column and 'Value' in the 'Value' column.

Key	Value
Key	Value
Key	Value

## 2. Configure New Token in Postman

Before we access the protected API, we need the access token. In this case, we are using the access token generated from the client credentials grant type.

Click on the **Authorization tab** of the POSTMAN request and configure New Token.

Provide the values as below:

- A. **Grant type** : Client Credentials  
B. **Access Token URL** : <https://10.189.77.156:9031/as/token.oauth2>  
C. **Client ID**: cc\_client  
D. **Client Secret** : 2Federate

GET

▼

https://10.189.77.156:3000/facts

Params

Authorization •

Headers (6)

Body

Pre-request Script

Tests

Settings

Configure New Token

Token Name

Token Name

Grant type

Client Credentials ▼

Access Token URL ⓘ

https://10.189.77.156:9031/as/token.oauth2

Client ID ⓘ

cc\_client ⚠

Client Secret ⓘ

2Federate ⚠

Scope ⓘ

e.g. read:org

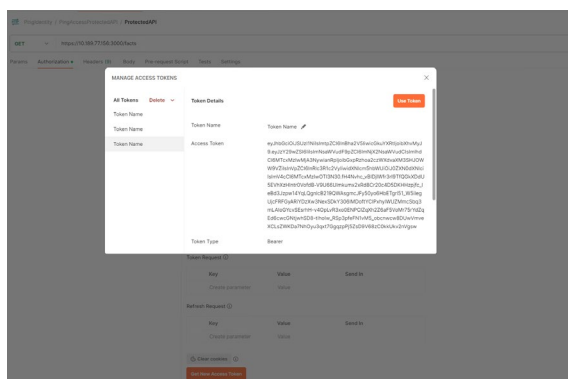
Client Authentication ⓘ

Send as Basic Auth header ▼

▼ Advanced

### 3. Access protected api using token

- a) In postman, once the New Token configuration is done, scroll to the bottom and click **Get New Access Token**



b) Click on **Use Token** and then hit Send to access the api. A successful response with Status 200 OK is received.

PingIdentity / PingAccessProtectedAPI / ProtectedAPI

GET https://10.189.77156:3000/facts Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Header Prefix Bearer

Body Cookies (2) Headers (11) Test Results Status: 200 OK Time: 1989 ms Size: 2.66 KB Save as example

Pretty Raw Preview Visualize XML

```
1 [{"status":{"verified":true,"sentCount":1},"_id":"58e00b5f0aac31001185ed24","user":{"58e007480aac31001185ecef","text":"When asked if her husband had any hobbies, Mary Todd Lincoln is said to have replied \"cats. \\",\"_v\":\"0\",\"source\":\"user\",\"updatedAt\":\"2020-08-23T20:20:01.611Z\",\"type\":\"cat\",\"createdAt\":\"2018-02-19T21:28:03.434Z\",\"deleted\":false,\"used\":false,\"status\":{\"verified\":true,\"feedback\":\"\",\"sentCount\":1,\"_id\":\"5807e1085073e0011836809\",\"user\":{\"58e9e10c7478010eac006301\",\"text\":\"Cats make about 100 different sounds. Dogs make only about 10.\"},\"_v\":\"0\",\"source\":\"user\",\"updatedAt\":\"2020-09-03T16:39:39.570Z\",\"type\":\"cat\",\"createdAt\":\"2018-01-15T21:20:00.003Z\",\"deleted\":false,\"used\":true,\"status\":{\"verified\":true,\"sentCount\":1,\"_id\":\"58e008788aac31001185ed05\",\"user\":{\"58e007480aac31001185ecef\",\"text\":\"Owning a cat can reduce the risk of stroke and heart attack by a third.\"},\"_v\":\"0\",\"source\":\"user\",\"updatedAt\":\"2020-08-23T20:20:01.611Z\",\"type\":\"cat\",\"createdAt\":\"2018-03-29T20:20:03.044Z\",\"deleted\":false,\"used\":false,\"status\":{\"verified\":true,\"sentCount\":1,\"_id\":\"58e009390aac31001185ed10\",\"user\":{\"58e007480aac31001185ecef\",\"text\":\"Most cats are lactose intolerant, and milk can cause painful stomach cramps and diarrhea. It's best to forego the milk and just give your cat the standard: clean, cool drinking water.\"},\"_v\":\"0\",\"source\":\"user\",\"updatedAt\":\"2020-08-23T20:20:01.611Z\",\"type\":\"cat\",\"createdAt\":\"2018-03-04T21:20:02.979Z\",\"deleted\":false,\"used\":false,\"status\":{\"verified\":true,\"sentCount\":1,\"_id\":\"58e00af0aac31001185edid\",\"user\":{\"58e007480aac31001185ecef\",\"text\":\"It was illegal to slay cats in ancient Egypt, in large part because they provided the great service of controlling the rat population.\"},\"_v\":\"0\",\"source\":\"user\",\"updatedAt\":\"2020-09-16T20:20:04.164Z\",\"type\":\"cat\",\"createdAt\":\"2018-01-15T21:20:02.945Z\",\"deleted\":false,\"used\":true}]}
```