



USER MANUAL

The Domain Manager Guide Version 1.0

User Manual

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This product is developed by the United States Department of Homeland Security (DHS).

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Introduction to Domain Manager

Domain Manager offers the following capabilities:

- Ability to manage the domain lifecycle from purchasing, making live, and taking down
- Generate nameservers
- Add and manage DNS records
- Retrieve a list of available domains, templates, and applications
- Use the GUI or CLI
- Setup S3 bucket, SSL certificate, CloudFront Distribution
- Categorize domains

Introduction

Over the last few years, Assessments recognized the need to better manage domains and created a new domain management process. We're sunsetting the old process of manually configuring and tracking domains and replacing it with the Domain Manager Tool. This tool provides Assessments with a centralized domain configuration environment and up-to-date domain availability. Within the new tool, Federal leads and operators will be able to establish reputable domains with appropriate categorization and website content. In addition to the DMT, Jennifer and Laura will be the administrative domain managers to help the branch purchase new domains, renew expiring domains, and manage the DMT by adding users, assigning domains to teams, working with your team's domain POCs, and more.

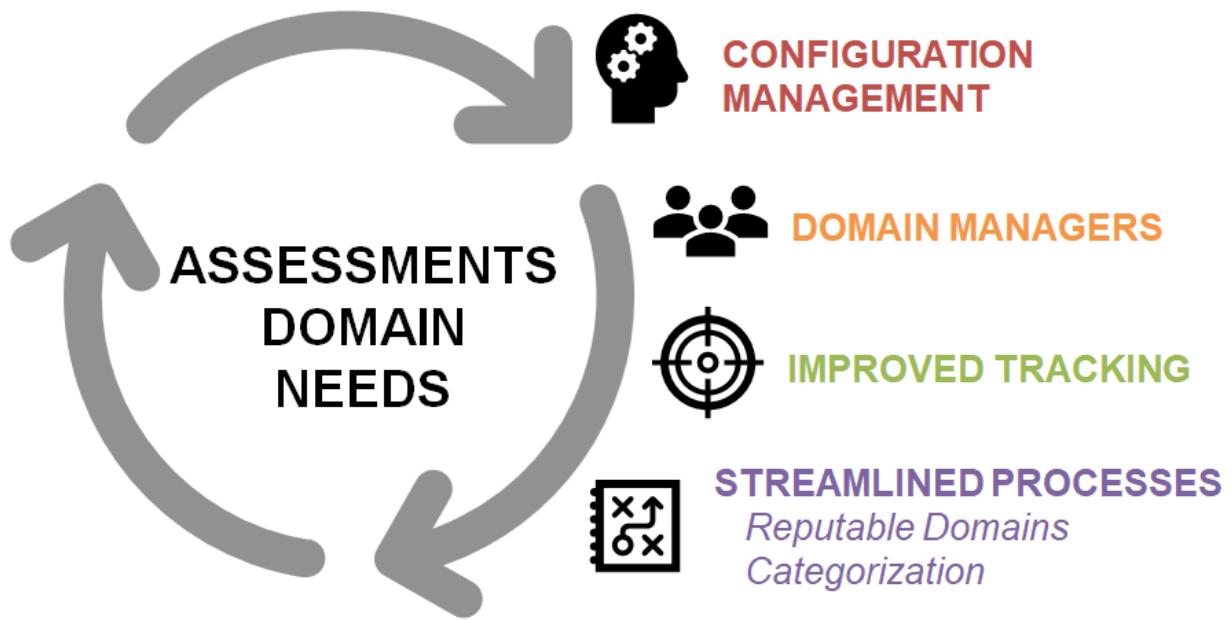


Figure: Domain Manager process

Domain Manager has several use cases. A user can:

- setup a domain
- upload templates
- choose from a selection of existing templates
- upload external web content
- launch and takedown websites
- categorize live websites on various categorization proxies
- manage DNS and Redirect records
- categorize websites that are not managed by Domain Manager

Overview

This section describes the common features in the Domain Manager application.

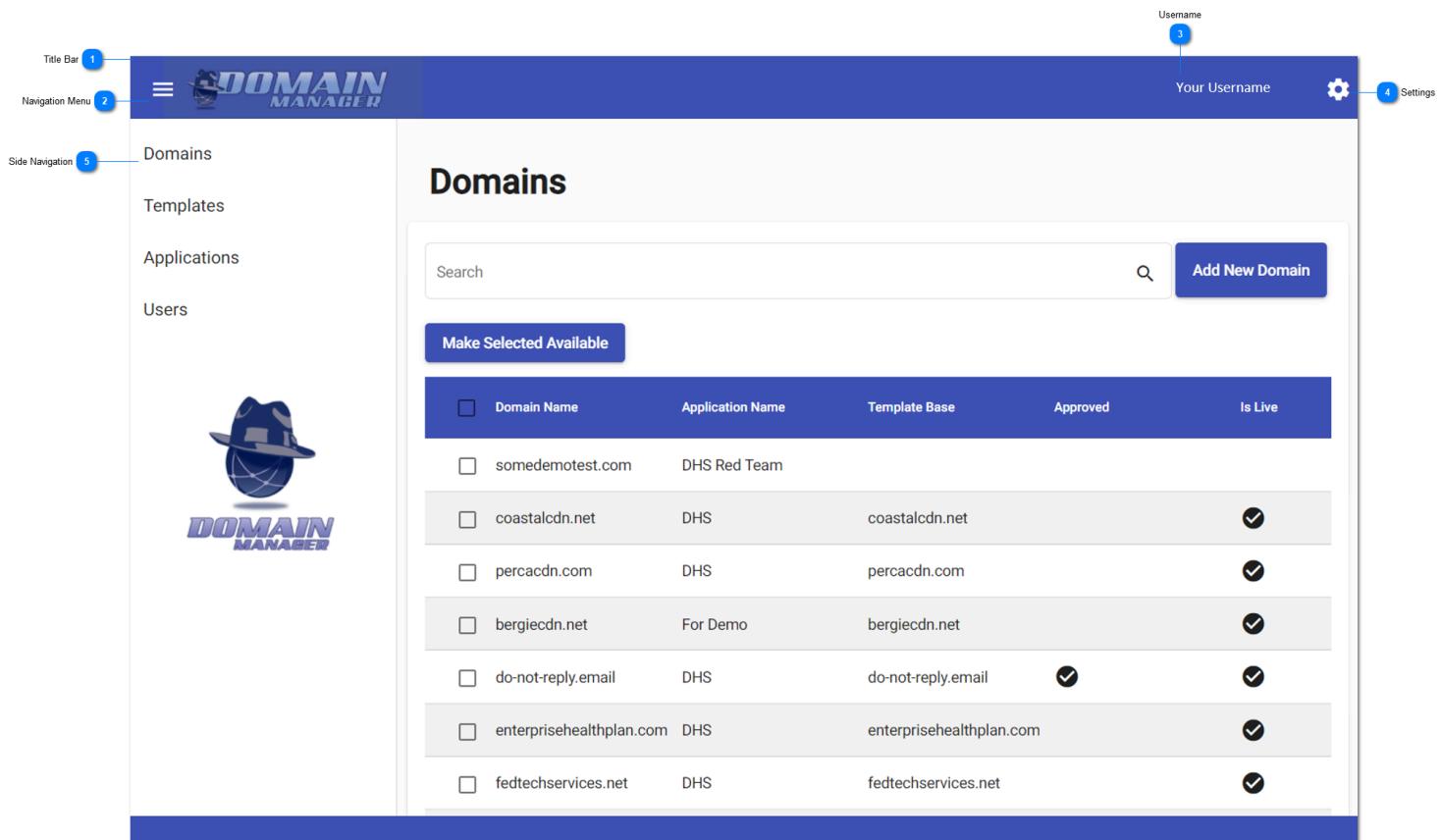


Figure: DM screen overview

1 Title Bar



Your Username



The title bar contains the navigation menu, welcome identifier, and settings menu.

2 Navigation Menu



The navigation menu icon opens and closes the side navigation.

3 Username

Your Username

This will display the logged-in user's name.

4 Settings



The gear icon displays a light/dark toggle to change the layout mode, help link (opens an HTML user's guide), and logout option. To learn more about [Settings](#), see the help section.

5 Side Navigation

Domains

Templates

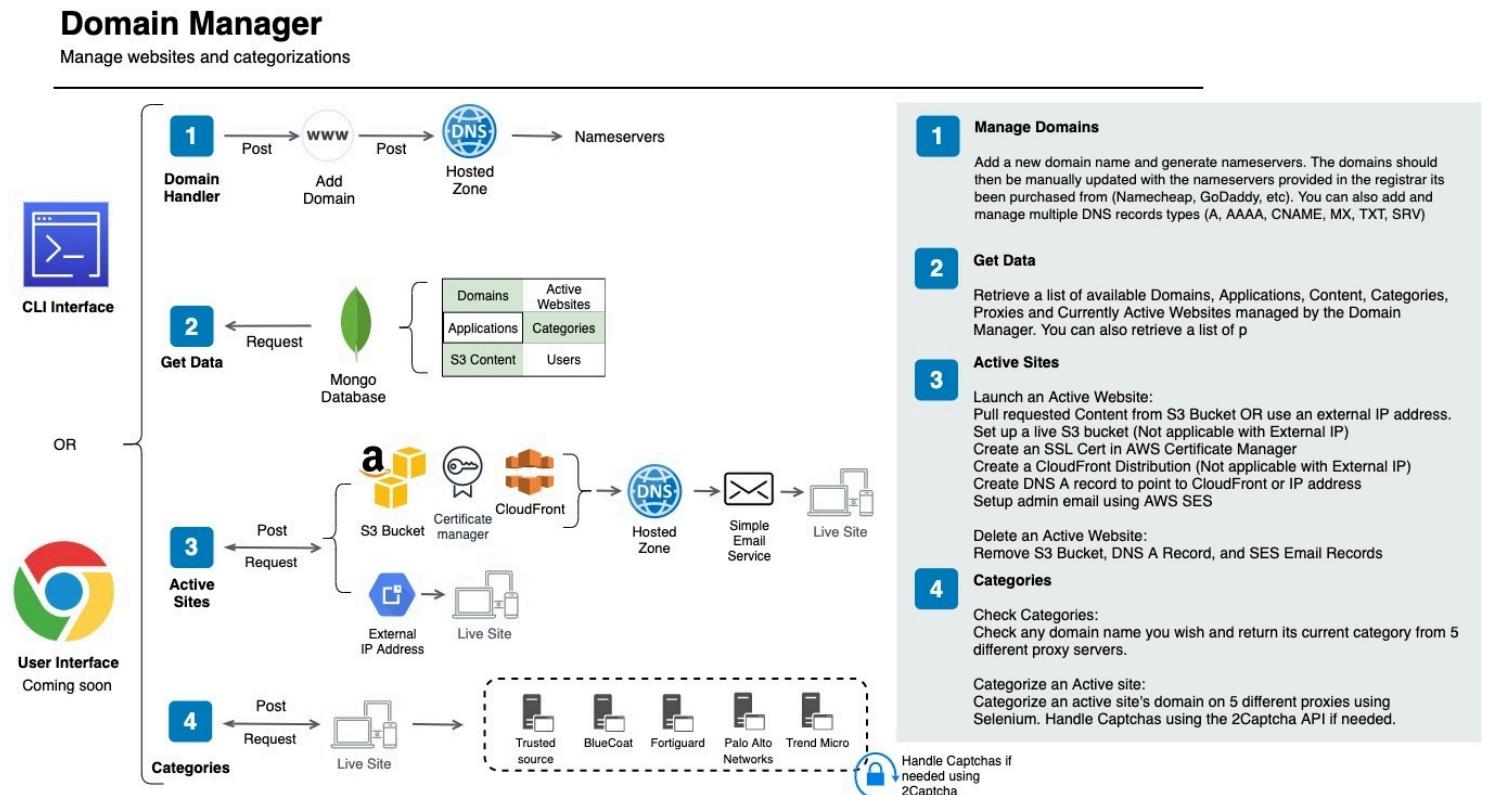
Applications

Users

Click on any of the links to be directed to the corresponding screens.

Domain Manager Workflow

The following image describes the Domain Manager workflow:



Create Account/Login

To begin using the Domain Manager application, you first need to create an account.

Navigate to <https://domain-manager.cool.cyber.dhs.gov/login> to get started.

You'll see the Login screen.

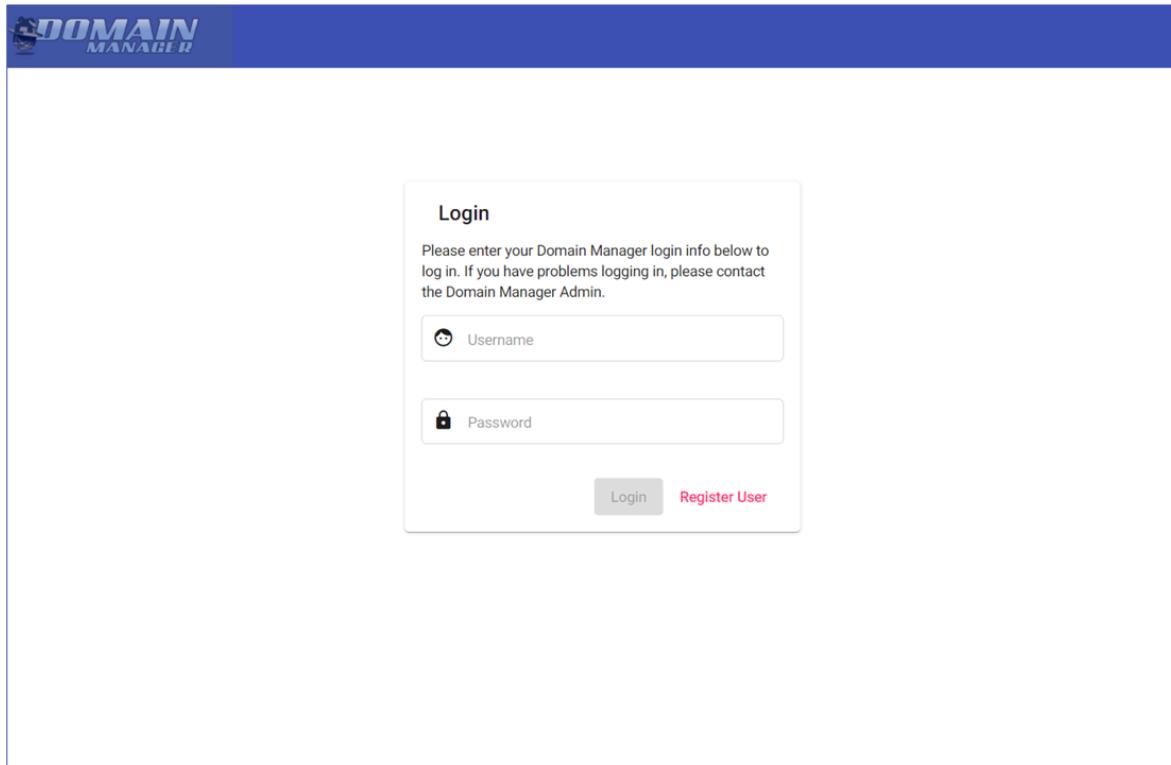


Figure: Domain Manager login

Enter your username and password to log in or select Register User to create an account.

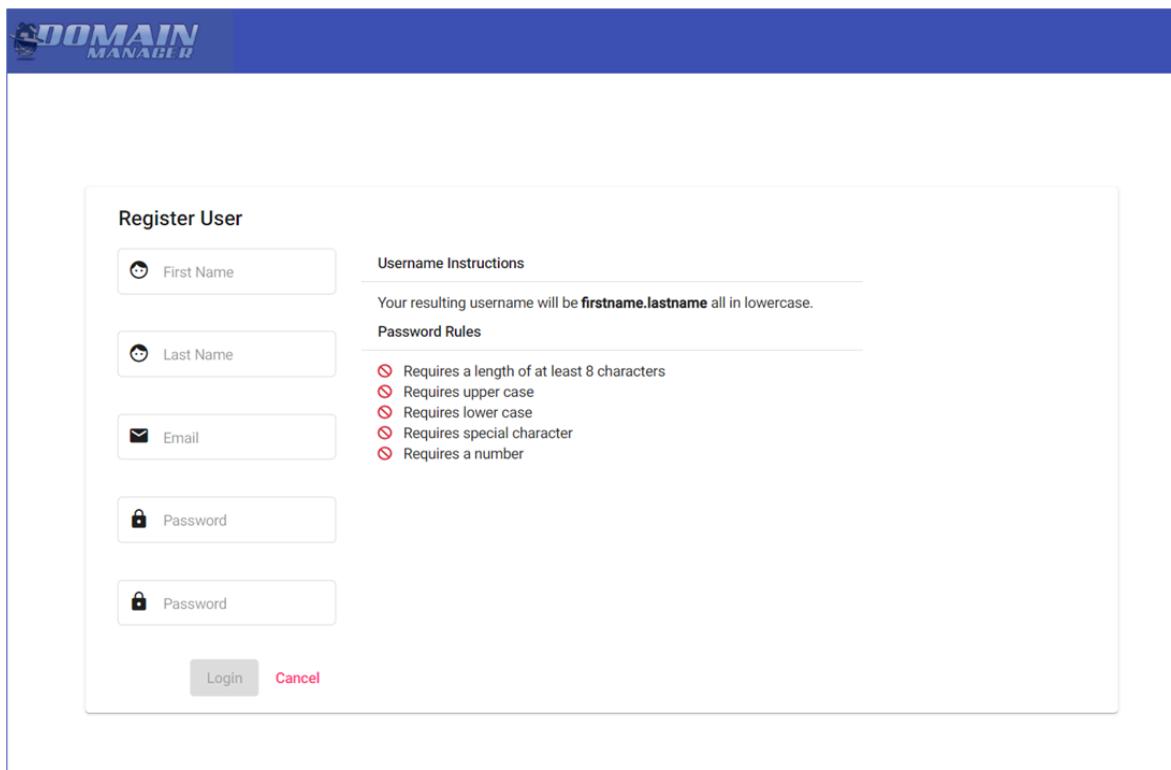


Figure: Register User

Add your username, email address, and password. Your password must satisfy the password rules.

If you are an admin user, you can find more about adding users in the [Users](#) section.

Access

There are two ways to access the Domain Manager tool. You can access via browser or Command Line Interface. To learn more follow below:

Access via the browser:

1. Connect to the COOL and visit: <https://domain-manager.cool.cyber.dhs.gov/>
2. Log in to the Domain Manager.
3. If you don't have an account, click **Register User** and an admin will approve your account and set your user role accordingly.

The screenshot shows a login form titled "Login". The instructions say: "Please enter your Domain Manager login info below to log in. If you have problems logging in, please contact the Domain Manager Admin." There are two input fields: "Username" with a user icon and "Password" with a lock icon. Below the fields are two buttons: "Login" (gray) and "Register User" (red).

Figure: Login via browser

Access via the Command line Interface (CLI):

1. Connect to the COOL and visit: <https://domain-manager.cool.cyber.dhs.gov/>
2. Log in to Domain Manager.
 - If you don't have an account, click **Register User** and an admin will approve your account
3. Click the cog on the top right
 - In the dropdown, click on **My Profile**
4. Click on the **Options** button.
 - In the dropdown, click on **Generate API Key**

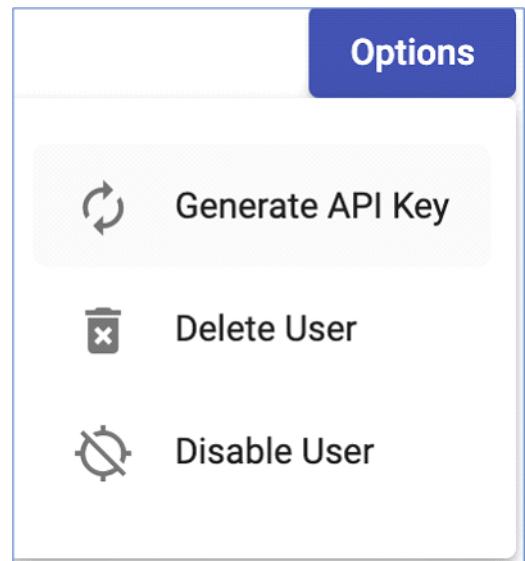


Figure: Options menu

5. Save your generated API Key as you'll need it to use the CLI.
6. Please proceed to [Case 2: Command Line Interface](#), within the Use Case section.

Use Cases

The Domain Manager application has several use cases. A user can:

- set up a domain
- set up email records for a domain
- manage static templates
- choose from a selection of existing templates
- upload external web content
- launch and takedown websites
- categorize live websites on various categorization proxies
- manage DNS and Redirect records
- categorize websites that are not managed by Domain Manager.

These functionalities can be done via a browser or the command line interface. Step-by-step instructions on each use case are detailed in the following sections.

Set up, Launch, and Categorize a Website

1. Log in to Domain Manager and click on Domains on the left.
2. Select a domain from the list.

For Admins:

- If you haven't already, purchase your domain at a registrar (i.e., NameCheap, GoDaddy, etc.).
- Click on Add New Domain button on the top right and type in the domain you've purchased.

For User Roles:

- Search for the domain you'd like to set up and launch. If the domain doesn't exist, reach out to an admin to add the domain into Domain Manager.

The above steps will create a hosted zone for your domain so that Domain Manager can manage your domain's DNS records and content.

The screenshot shows a modal dialog titled "Add New Domain". The instructions inside say "Provide a domain and select submit to create a new domain". Below this is a "Domain" field containing "Domain URL". At the bottom are two buttons: "Submit" (gray) and "Cancel" (purple).

Figure: Add domain dialogue

3. Once your domain has been created, click on your domain and then click the Hosted Zone tab.

The screenshot shows the "Hosted Zone" tab selected in a Domain Manager interface. The tabs at the top are "Domain Summary", "Template", "Hosted Zone" (highlighted in blue), "DNS Records", and "Application History". On the left, under "Hosted Zone", it says "This domains associated hosted zones" and lists "testurl.com.". Below this, there are two entries: one for "testurl.com." with resource records for NS and SOA types, and another for "testurl.com." with a single SOA record. A blue box highlights the first entry's resource records.

Figure: Hosted Zone tab

- You'll find four nameservers (NS) similar to the ones highlighted in the picture above.
- Provide these nameservers, without the . (period) at the end of each line, to your team's domain POC to paste them into the registrar under the purchased domain.

4. Upload content:

Figure: Upload content

As shown above, there are two ways to upload content for your website:

- You can upload your own web content in a zip file, or
- select from a list of existing templates.

Templates that have not yet been approved by an admin will not be displayed.

Notes:

- For your own custom web content, the homepage html file must be named **home.html**
- Custom content must be reviewed and approved by an admin

The following is an example of an admin's view for content review and approval. This can be found in a domain's detail section under the demo tab.

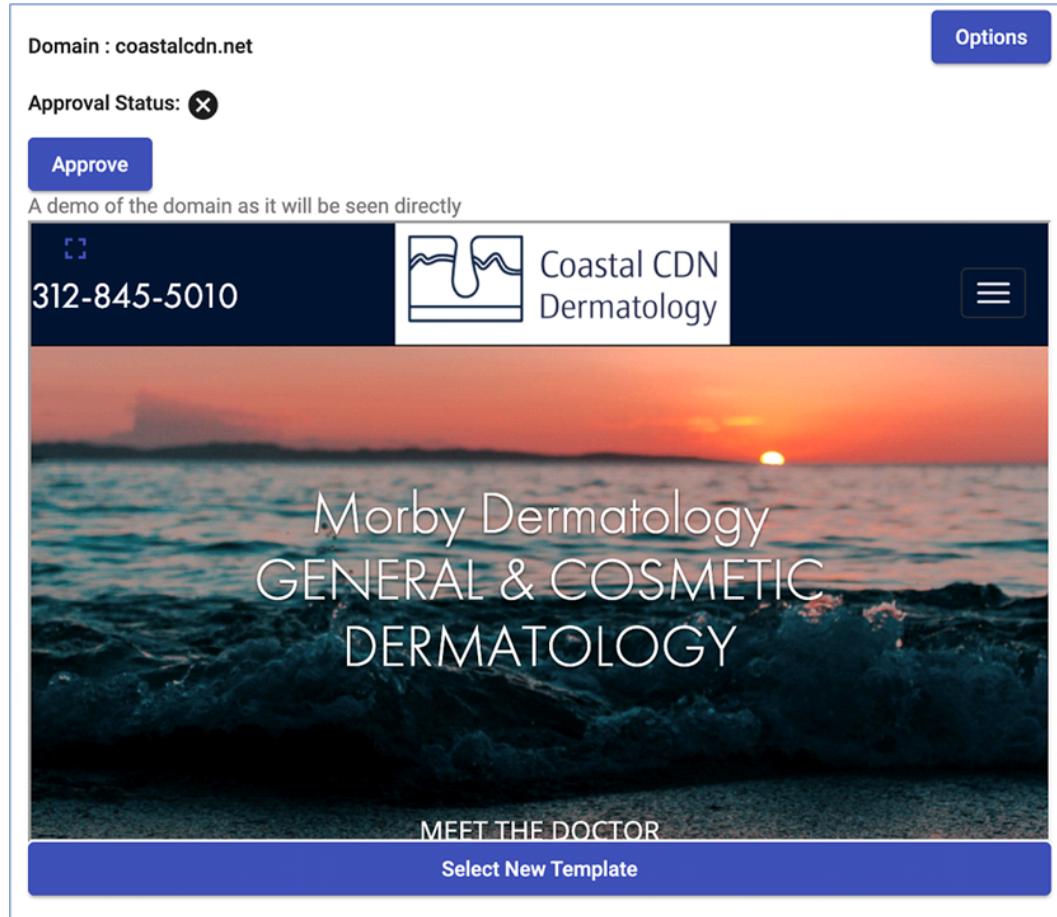


Figure: Content review screen

Once you have successfully upload web content, you'll be able to launch your website.

5. Launch website

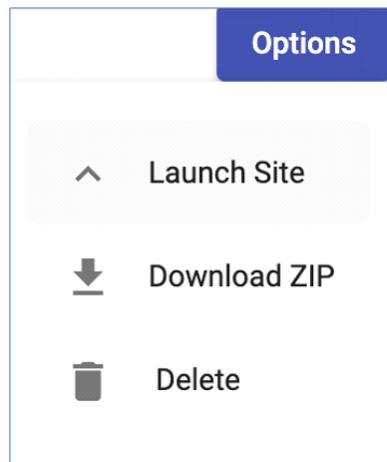


Figure: Option to Launch Site

Click on the options button.

In the dropdown, click **Launch Site**

This process may take up to a few minutes until your website is live.

6. Categorize live website

Proxy Categorization

At least one proxy category must be selected.

Category One

Business

Submit

Manual Proxy Categorization

Please fill and submit the categorization request forms below.

Bluecoat Cisco Talos Fortiguard IBM X-Force McAfee Trusted Source

Palo Alto Networks Trend Micro Websense Forcepoint

Figure: Proxy Category tab

On your Domain Details page, click **Proxy Category** tab.

There's a dropdown of Categories to choose from, choose the category that closely relates to your website content and click **Submit**.

If you encounter any errors when attempting to categorize your website, you can also manually submit categorizations yourself by clicking the available proxy buttons. These buttons will redirect you to the proxy's categorization page where you can fill out the forms manually.

In most cases, websites will be categorized within hours. However, keep in mind it might take up to a couple of days before they get categorized for each proxy.

Once submitted, check back later in the **Proxy Category** tab to check on the domain's categories.

Set up a Domain with Email Records

A user can utilize Domain Manager to set up a domain for sending emails.

1. Log in to Domain Manager and click on **Domains** on the left.

For Admins:

- If you haven't already, purchase your domain at a registrar (i.e. NameCheap, GoDaddy, etc.).
- Click on **Add New Domain** button on the top right and type in the domain you've purchased.

The screenshot shows a modal dialog titled "Add New Domain". Inside, there is a text input field labeled "Domain URL" with the placeholder "Domain". Below the input field are two buttons: "Submit" and "Cancel".

Figure: Add New Domain dialogue

For User Roles:

- Search for the domain you'd like to set up. If the domain doesn't exist, reach out to an admin to add the domain into Domain Manager.

2. Once your domain has been created, click on your domain and then click the **Hosted Zone** tab.

The screenshot shows the "Hosted Zone" tab selected in the Domain Manager interface. The tab bar includes "Domain Summary", "Template", "Hosted Zone" (which is underlined), "DNS Records", and "Application History".

Hosted Zone section:

- This domain's associated hosted zones
- testurl.com.**
 - TTL: 172800
 - Type: NS
 - Resource Records:
 - ns-994.awsdns-60.net.
 - ns-488.awsdns-61.com.
 - ns-2034.awsdns-62.co.uk.
 - ns-1105.awsdns-10.org.
- testurl.com.**
 - TTL: 900
 - Type: SOA
 - Resource Records:
 - ns-994.awsdns-60.net. awsdns-hostmaster.amazon.com. 1 7200 900 1209600 86400

Figure: Hosted Zone tab

You'll find four nameservers (NS) similar to the ones highlighted in the picture above. Provide these nameservers, without the . (period) at the end of each line, to your team's domain POC to paste them into the registrar under the purchased domain.

This will create a hosted zone for your domain so that Domain Manager can manage your domain's DNS records and content.

3. You can now manage DNS records for the domain under the **DNS Records** tab.

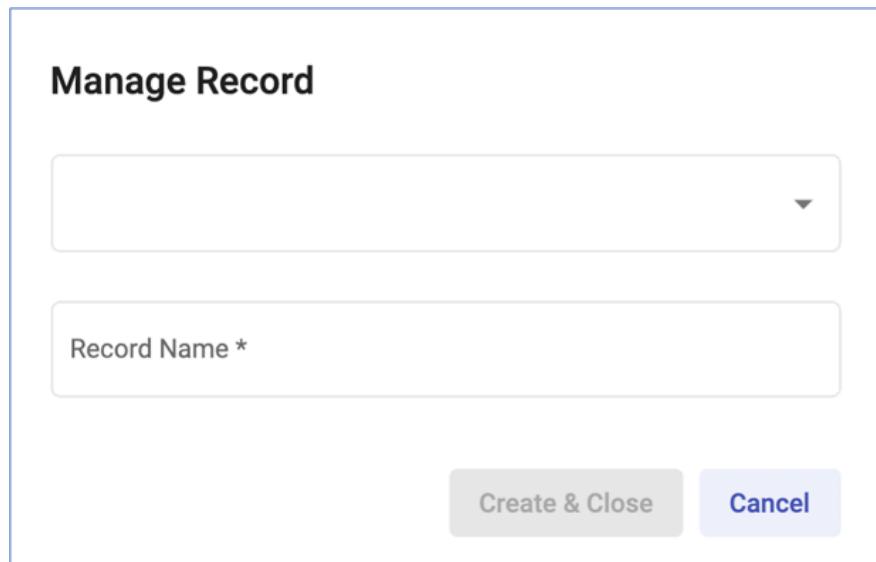


Figure: Manage Record dialogue

You can add Email records that can be used in conjunction with other applications.

4. You will have to create redirects to the Landing Page URL:
gp.pr.somedomain.net -> con-pca.cool.cyber.dhs.gov

Manage External Websites

Domain Manager can submit categories and allow management of DNS records for websites with content set up externally, independent of Domain Manager.

DNS Records

For users interested in having DNS records controlled in Domain Manager:

1. Log in to Domain Manager and click on **Domains** on the left.

For Admins:

- If you haven't already, purchase your domain at a registrar (i.e. NameCheap, GoDaddy, etc.).
- Click on **Add New Domain** button on the top right and type in the domain you've purchased.

For User Roles:

- Search for the domain you'd like to set up. If the domain doesn't exist, reach out to an admin to create the domain for you.

The screenshot shows a modal dialog titled "Add New Domain". Inside the dialog, there is a text input field labeled "Domain URL" with the placeholder "Domain". At the bottom right of the dialog are two buttons: "Submit" and "Cancel".

Figure: Add New Domain dialogue

2. Once your domain has been created, click on your domain and then click the **Hosted Zone** tab.

Hosted Zone

This domains associated hosted zones

testurl.com.
TTL: 172800
Type: NS
Resource Records:
ns-994.awsdns-60.net.
ns-488.awsdns-61.com.
ns-2034.awsdns-62.co.uk.
ns-1105.awsdns-10.org.

testurl.com.
TTL: 900
Type: SOA
Resource Records:
ns-994.awsdns-60.net. awsdns-hostmaster.amazon.com. 1 7200 900 1209600 86400

Options

Figure: Hosted Zone tab

- You'll find four nameservers (NS) similar to the ones highlighted in the picture above.
- Provide these nameservers, without the . (period) at the end of each line, to your team's domain POC to paste them into the registrar under the purchased domain.

3. The user can now manage DNS records for the domain under the **DNS Records** tab.

Manage Record

Record Name *

Create & Close Cancel

Figure: Manage Record dialogue

Categorization

Currently, a user can have external sites submitted for categorization and categories checked using the CLI interface application. Please refer to the [Command Line](#) section for more information.

```
(.venv) + script git:(develop) python src external
Usage: src external [OPTIONS] COMMAND [ARGS]...

    Manage categorization of external websites.

Options:
    -h, --help  Show this message and exit.

Commands:
    categorize  Categorize an unmanaged website.
    check        Check category on an unmanaged website.
```

Figure: Command Line Interface

When the CLI application is set up and ready to go, you can run the following commands:

Submit an external website for categorization

```
python src external categorize -d <domain-name>
```

Check an external website's categorization

```
python src external check -d <domain-name>
```

Admin vs. User Roles

General users will only see the domains of applications that they are assigned to. Admin users can see all domains.

Admin

- This role has access to all functionalities, including all capabilities for the User role.
- Admins can create and delete domains, applications, templates, content, and other users.
- Admins can review and approve template and website content.

The screenshot shows the 'Domains' section of the Domain Manager admin interface. On the left sidebar, there are links for 'Domains', 'Templates', 'Applications', and 'Users'. The main area has a search bar and a button to 'Add New Domain'. A blue button labeled 'Make Selected Available' is visible above the domain list. The domain list table has columns for 'Domain Name', 'Application Name', 'Template Base', 'Approved', and 'Is Live'. Each row contains a checkbox and a link to edit the domain details. All domains listed have their 'Approved' and 'Is Live' status checked.

| <input type="checkbox"/> | Domain Name | Application Name | Template Base | Approved | Is Live |
|--------------------------|--------------------------|------------------|--------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> | somedemotest.com | DHS Red Team | | | |
| <input type="checkbox"/> | coastalcdn.net | DHS | coastalcdn.net | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | percacdn.com | DHS | percacdn.com | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | bergiecdn.net | For Demo | bergiecdn.net | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | do-not-reply.email | DHS | do-not-reply.email | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | enterprisehealthplan.com | DHS | enterprisehealthplan.com | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | fedtechservices.net | DHS | fedtechservices.net | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Figure: Admin view

User

- This role has a much more limited access
- Users can generate template content
- Upload and download website content
- Manage DNS and Redirect records
- Launch and categorize websites

The screenshot shows the 'Domain Management' application interface. At the top, there's a blue header bar with the title 'Domain Management' on the left and a user profile 'mostafa-user' with a gear icon on the right. Below the header, there are two navigation tabs: 'Domains' (selected) and 'Templates'. The main content area is titled 'Domains' and contains a search bar at the top. Below the search bar is a table with four columns: 'Domain Name', 'Application Name', 'Template Base', and 'Is Live'. The table has three rows of data:

| Domain Name | Application Name | Template Base | Is Live |
|-------------------------|------------------|----------------|-------------------------------------|
| conpca.xyz | DHS Con-PCA | conpca.xyz | |
| basichealthservices.com | DHS Con-PCA | home-appraisal | |
| thisisreal.xyz | DHS Con-PCA | pesticide-demo | <input checked="" type="checkbox"/> |

Figure: User View

Note: For Users, the following will require approval from an admin:

- Uploading content to a website
- Uploading a newly created template

Admin users will see the [Applications](#) and [Users](#) screens, see those sections for more information.

Content Authorization

To prevent unapproved content from being used on Domain Manager, Admins will be able to review and approve website and template content that are uploaded by Users. Admins will have the ability to upload all content without any approval.

Templates

The Templates view will have a column to mark templates that are pending approval. An admin can click on a pending template, review the content and click an “Approve” button. This will allow the template to be available for use for all Domain Manager user roles.

| Templates | | |
|-------------------|--------------|-------------|
| Template Name | Created Date | Uploaded By |
| pesticide-demo | 02/19/21 | |
| financial-planner | 03/02/21 | |
| computer-repair | 03/02/21 | |
| home-appraisal | 03/03/21 | |

Figure: Template approval

Websites

For content upload directly to websites by Users, it will automatically be in the pending state. In the Website’s list view, a column marking websites with content pending for review will be added.

For Admins to review content, they can visit the website details page and click on the Demo tab. An Admin can then review the content and click an “Approve” button.

fitnessservice.net

< Domain Summary Demo Hosted Zone DNS Records Proxy >

Domain : fitnessservice.net

Options

A demo of the domain as it will be seen directly



Figure: Review site content

Best Practices

The following section describes best practices related to using the Domain Manager tool.

Domain Manager Categorization

Most organizations have policies when it comes to web browsing. They will use a web content filter to block websites that are not business-related. Web content filters are provided by various providers that scan and categorize websites based on their content across the internet. In some cases, some websites are not yet discovered by the web content filter providers and will need someone to submit a request to have their website categorized. In most cases, simply submitting a request to categorize a website is sufficient. However, there are various things to look out for when categorizing your websites.

Domain Age

When submitting a categorization request for a newly registered domain, it may trigger an additional, manual review of the website's content before they decide to approve or deny the request. Unfortunately, there is no specified length of time that is optimal for a domain's age. But generally, the longer an owner has owned the domain, the better the chances of successful categorization.

Avoid "Typosquatting"

1. "Typosquatting" or what is sometimes called URL hijacking are domains that look very similar to big brands and popular websites. They consist of slightly modified letters and rely on mistakes when users are inputting the URL of a legitimate domain.
2. The following can be considered a form of typosquatting:
 - a. A common misspelling of the intended domain
 - b. Typographical error or other misspelling
 - c. A different top-level domain (.com instead of .org)
 - d. An abuse of country code top-level domains (.cm instead of .com)
 - e. Appending a period between letters in the brand name of a popular site (go.ogle.com)
3. In the US, the "Anticybersquatting Consumer Protection Act" contains a clause that is specifically aimed at combatting cybersquatting to protect legitimate brands.
4. In some cases, typosquatting domains will immediately be flagged as malicious or spam.

Avoid Previously Burned Domains

A domain's reputation may be compromised by a previous owner. If this happens, the purchased domain will have a higher risk of not being easily categorized successfully as it may have already been flagged.

- a. To check on a domain for any potential reputation issues before purchasing it:
 - i. Search for "site:domain.com" in Google's search bar. This will usually give you the results of any previous content used with that domain.
 - ii. Visit Archive.org and search for the domain of interest. This website will show you previous versions of what the site looked like and what it was used for. This can give a potential owner a good idea if the domain has a history of spamming or malicious activity.
- b. Keep in mind some web content filters may still allow you to categorize the domain after submitting a request for reconsideration. They will usually ask for more information relating to why you believe your website is legitimate.

Maintain the Same Category for a Domain

When using the same domain for different content over time, it's best to maintain the same category for that website. If the category changes, this may raise a flag for some content filter providers and will have the domain burned.

Web Content Should Match the Domain Name

The website content should match the domain name as close as possible. In case your website is selected for additional review, it may be reviewed by a human for categorization. If the logo, name, or content do not match the domain name, this may get your website flagged and your domain burned.

Mail Server Setup

This is a step-by-step guide on how to setup your domain to send emails using Mailgun, mailgun.org.

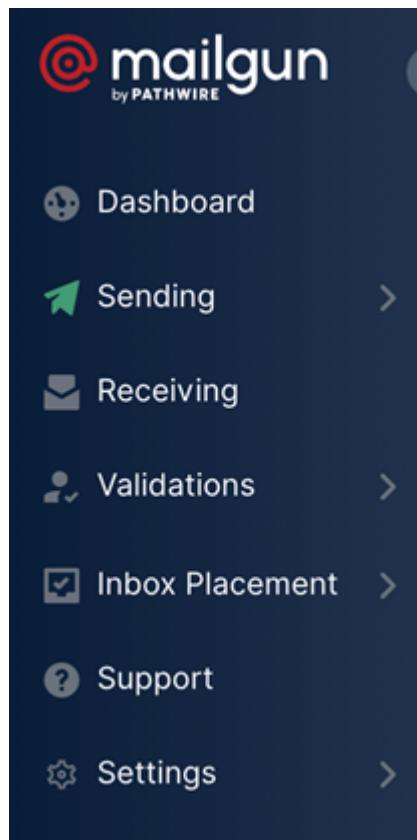
Prerequisites:

- Mailgun account access
- A domain managed by Domain Manager

Setup your domain to send emails:

1. Login to your Mailgun Dashboard

2. Click on "Sending" on the left panel



3. Click on "Add New Domain" on the top right

4. Input your domain

[Back to all domains](#)[Add new domain](#)

Domain name*

mg.example.com

Domain region ?

 US
 EU

IP assignment option

Dedicated IP(s)

Dedicated IPs to assign

143.55.224.98 Select IPs[Advanced settings \(DKIM\)](#) Create DKIM Authority

DKIM key length ?

 1024
 2048[Add Domain](#)

- Add the domain you'd like to use for sending emails which is currently being managed by Domain Manager
 - i. It's highly recommended to use a subdomain. The common subdomain used with Mailgun is "mg".
- Select "US" for Domain region
- Select "Dedicated IP(s)" for IP assignment option
 - i. Mailgun will automatically assign an IP address available with your Mailgun account
 - ii. Dedicated IPs decrease the chances of the domain's reputation being damaged
 - iii. Reputability is important to ensure email deliverability
- Enable DKIM
 - i. DKIM adds additional protection to your domain's reputation
- Enable "Create DKIM Authority"
 - i. It's recommended to set the "DKIM key length" to 2048. This makes it more difficult for spammers to send emails that represent themselves as your domain.
- When finished, click the "Add Domain" button

Add email DNS records to your domain:

Once your domain is added on your Mailgun account, you'll be redirected to all domain's DNS records.

1. Go to your DNS provider

2. Add DNS records for sending

| Type | Hostname | Enter This Value | Current Value |
|------|--|---|---|
| !TXT | mg.thisisanexample.com | v=spf1 include:mailgun.org ~all | None found |
| !TXT | smtp._domainkey.mg.thisisanexample.com | k=rsa; p=MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIIBCgKCAQEAxzfNFoyneS2LBexLbKtFyCAAaVvA8/06sjT6RQ1q7/Gvf4lGyQILscPGsEusZmHrFsHnmuvyHtd3f07iGt7EiSZjHdpwYU0GgU0RKDhJ2ZTB/K9KyoY65wwBaF9MsJ5ko | None found |

MX records are recommended for all domains, even if you are only sending messages. Unless you already have MX records for this domain pointing to another email provider (e.g. Gmail), you should update the following records. More info on MX records [\[?\]](#).

| Type | Hostname | Priority | Enter This Value | Current Value |
|------|-------------------------|----------|------------------|---|
| ?MX | mg.thisisanexample.co m | 10 | mxa.mailgun.org | None found |
| ?MX | mg.thisisanexample.co m | 10 | mxb.mailgun.org | None found |

1. Ignore section 1 "Go to your DNS provider"

- You do not need to go to a provider as your DNS will be managed by Domain Manager

Add your domain's email DNS records to Domain Manager:

1. On Domain Manager, click [Domains](#) in the left-side navigation panel
2. Find and click on your domain in the Domain list
3. Click on the "[DNS Records](#)" tab in your [Domain Details](#) page
4. Click the "Add New DNS Record" button
5. Click on the corresponding DNS record type for each record on Mailgun and add them to your domain
 - Don't forget to add your subdomain (e.g. mg) to your subdomain field
 - You can keep the TTL at the default value 60
 - You can add both MX records that Mailgun provided for the values (mxa.mailgun.org and mxb.mailgun.org) as shown. Don't forget to add the priority value as well.

Manage Record

- A
- AAAA
- CNAME
- MX
- PTR
- NS
- SRV
- TXT
- REDIRECT

mg.thisisanexample.com

To route traffic without a subdomain, such as example.com, then leave this field blank.

TTL

60

Recommended values: 60 to 172800 (two days)

Value *

10 mx.a.mailgun.org.
10 mx.b.mailgun.org.



[priority] [hostname]

Create & Close

Cancel

6. Once all the DNS records for your domain have been created on Domain Manager, go back to your Mailgun dashboard.

Verify DNS on Mailgun:

1. Click on "Verify DNS Settings" button in your Mailgun dashboard account

- If verified, the updated value will be displayed under the "Current Value" column for each DNS record.
- In most cases, the DNS records will be updated immediately. However, keep in mind it may take up to a few hours for all DNS values to be updated.

Your domain is now setup to send emails.

Command Line Interface

The Domain Manager Command Line Interface (DM CLI) allows you to access and manage the Domain Manager Application programmatically. The user can do much of the same operations that are done on the Graphical User Interface. The CLI also doubles as an example on how Domain Manager's available API endpoints are accessed and used. You can access the command line application here: <https://github.com/cisagov/domain-manager-script>

CLI Requirements and Setup

Requirements

The following is a list of prerequisites to run the command line app. You may have to reach out to a Domain Manager Developer for some of these requirements:

- Python 3.8
- A virtual environment
 - a. We recommend using the built-in python tool: Venv
 - i. `python3 -m venv.venv`
- Domain Manager API URL
- Your DM user's API key

Setup

- 1. Clone the repo to your local environment**
 - a. Git clone <https://github.com/cisagov/domain-manager-script>
- 2. Install and activate your virtual environment in the root folder of the project**
 - a. `python3 -m venv.venv`
 - b. `source .venv/bin/activate`
- 3. Install package requirements**
 - a. `pip install -r requirements.txt`
- 4. Generate and copy your user API key**
 - a. Login to Domain Manager

Please enter your Domain Manager login info below to log in. If you have problems logging in, please contact the Domain Manager Admin.

Username

Password

Login Register User

Figure: DM login

- Click on the cog on the top right and then click My Profile

The screenshot shows the 'Domains' section of the Domain Manager application. At the top right, there is a dropdown menu with options: 'Your Username' (with a gear icon), 'My Profile' (highlighted in yellow), 'Help', and 'Logout'. Below the menu is a search bar with the placeholder 'Search' and a magnifying glass icon. A blue button labeled 'Add New' is visible. On the left, a button labeled 'Make Selected Available' is shown. The main area displays a table with columns: 'Domain Name', 'Application Name', 'Template Base', 'Approved', and 'Is Live'. The data in the table is as follows:

| Domain Name | Application Name | Template Base | Approved | Is Live |
|--------------------------|------------------|--------------------------|----------|---------|
| somedemotest.com | DHS Red Team | | | |
| coastalcdn.net | DHS | coastalcdn.net | ✓ | |
| percacdn.com | DHS | percacdn.com | ✓ | |
| bergiecdn.net | For Demo | bergiecdn.net | ✓ | |
| do-not-reply.email | DHS | do-not-reply.email | ✓ | |
| enterprisehealthplan.com | DHS | enterprisehealthplan.com | ✓ | |
| fedtechservices.net | DHS | fedtechservices.net | ✓ | |

Figure: My Profile

c. Click on the Options button and then click Generate API key

The screenshot shows the 'User Details' page. At the top right, there is a dropdown menu with options: 'Your Username' (with a gear icon), 'Options' (highlighted in blue), 'Generate API Key' (highlighted in yellow), 'Delete User', and 'Disable User'. Below the menu is a table with columns: 'User Summary', 'Groups', and 'History'. The 'User Summary' tab is selected. The data in the table is as follows:

| User Summary | Groups | History |
|---|--------|---------|
| <p>User :</p> <p>A summary of the user's account.</p> <p>User Status Enabled</p> <p>Confirmation Status CONFIRMED</p> <p>Email Address test</p> <p>Created Date 01/13/21</p> <p>Last Modified Date 01/13/21</p> <p>Admin Status <input checked="" type="checkbox"/> Is Admin</p> <p>API Key generated False</p> | | |

Figure: Generate API Key

d. Copy your API key

5. Create a .env file in your root directory
 - a. cp etc/env.dist.env
6. Update the variables in the newly generated .env file with the Domain Manager API URL and your API key
7. Run the CLI application by running this command : make run
 - a. If you see the returned text below, you're ready to go!

```
(.venv) ➜  script git:(develop) make run
python src

Usage: src [OPTIONS] COMMAND [ARGS]...
      Domain manager command line application.

Options:
  -h, --help  Show this message and exit.

Commands:
  categories      Manage proxy categorizations of active websites.
  external        Manage categorization of external websites.
  get-data        Get available data.
  manage-sites    Manage domains and websites.
  manage-templates Manage go templates.
```

Figure: CLI make run

Commands

The following are commands within the CLI application.

You can access all commands by running this: python src [command] [subcommand]

There are 5 top-level commands in the CLI:

- categories
- external
- get-data
- manage-sites
- manage-templates

Categories

Categories has a single subcommand called "categorize". "Categorize" allows you to categorize existing websites that are currently live in Domain Manager. It requires a single argument, -d or --domain and the domain name you wish to categorize. You'll be prompted for adding a category you wish to categorize the site with. Make sure the category is an existing category supported by Domain Manager.

```
(.venv) ➜ script git:(develop) python src categories
Usage: src categories [OPTIONS] COMMAND [ARGS]...

    Manage proxy categorizations of active websites.

Options:
    -h, --help Show this message and exit.

Commands:
    categorize Categorize an active site.
```

Figure: CLI command categories

External

External contains two subcommands: categorize and check. These allow you to categorize and check a website's category that are NOT managed by Domain Manager.

```
(.venv) ➜ script git:(develop) python src external
Usage: src external [OPTIONS] COMMAND [ARGS]...

    Manage categorization of external websites.

Options:
    -h, --help Show this message and exit.

Commands:
    categorize Categorize an unmanaged website.
    check      Check category on an unmanaged website.
```

Figure: CLI command external

Get-data

Get-data contains multiple subcommands that allow you to return data from the Domain Manager database. You can get information on active websites launched from Domain Manager, applications, categories available for use when categorizing websites, list of all domains managed by Domain Manager, inactive websites, available templates, and a list of users.

```
(.venv) ➜  script git:(develop) python src get-data
Usage: src get-data [OPTIONS] COMMAND [ARGS]...

Get available data.

Options:
  -h, --help  Show this message and exit.

Commands:
  active-sites    Returns domains that are currently live.
  applications    Returns a list of applications.
  categories      Return all categories for proxy submission.
  domains         Returns all domains.
  inactive-sites  Returns domains that are available for use.
  templates       Returns all templates.
  users           Returns all users.
```

Figure: CLI command get-data

Manage-sites

Manage-sites contain multiple subcommands that allow you to launch and manage a website. You can launch an inactive site, upload a zipped website file, takedown an active site and delete the content completely from the domain.

In order to upload website content, you must place your zipped file at this location: src/uploads/

```
(.venv) ➜  script git:(develop) python src manage-sites
Usage: src manage-sites [OPTIONS] COMMAND [ARGS]...

Manage domains and websites.

Options:
  -h, --help  Show this message and exit.

Commands:
  delete    Delete content from a domain.
  launch    Launch an inactive website.
  takedown  Takedown an active website.
  upload    Upload a zipped website file.
```

Figure: CLI command manage-sites

Manage-templates

Manage-templates allow you to upload a GO template compatible for use in Domain Manager.

In order to upload a template content, you must place your zipped file at this location: src/uploads

```
(.venv) ➜  script git:(develop) python src manage-templates
Usage: src manage-templates [OPTIONS] COMMAND [ARGS]...

Manage go templates.

Options:
  -h, --help  Show this message and exit.

Commands:
  upload    Upload a zipped template file.
```

Figure: CLI command manage-templates

Domains

The Domains list shows all available domains, the template they're based on, created date, and whether or not they're live.

The screenshot shows the 'Domains' page of the Domain Manager tool. At the top, there's a search bar with a magnifying glass icon and a blue button labeled 'Add New Domain'. Below the search bar is a button labeled 'Make Selected Available'. The main area is a table with the following columns: Domain Name, Application Name, Template Base, Approved, and Is Live. The table contains the following data:

| <input type="checkbox"/> | Domain Name | Application Name | Template Base | Approved | Is Live |
|--------------------------|--------------------------|------------------|--------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> | somedemotest.com | DHS Red Team | | | |
| <input type="checkbox"/> | coastalcdn.net | DHS | coastalcdn.net | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | percacdn.com | DHS | percacdn.com | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | bergiecdn.net | For Demo | bergiecdn.net | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | do-not-reply.email | DHS | do-not-reply.email | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | enterprisehealthplan.com | DHS | enterprisehealthplan.com | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | fedtechservices.net | DHS | fedtechservices.net | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | govfiles.org | DHS | govfiles.org | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Figure: Domains list

You can use the search bar to filter the Domains list on name, template base, and created date (the day the domain was added to the DM tool).

From the Domains page you can upload a domain and edit the domain's details.

Click the Add New Domain button to [upload a new domain](#).

Click a domain in the list to go to the [Domain Details](#) screen and edit.

Upload a New Domain

After selecting the Add New Domain button on the [Domains](#) page, you will see a dialogue.

The screenshot shows a modal dialog titled "Add New Domains". Inside, there is a text instruction: "Please enter one or more domains to add, separated by new lines." Below this is a text input field labeled "Domain" containing "Domain URL's". At the bottom of the dialog are three buttons: "Upload CSV List" (highlighted in blue), "Submit", and "Cancel".

Figure: Add Domain dialogue

Add the domain URL(s) (separated by new lines) and select Submit to add the new domain(s) to the [Domains](#) list.

You can also use the Upload CSV List button to upload multiple domains.

Note: Domains are added after they've been purchased. In the future this will be admin functionality.

Domain Details

To view the Domain Details screen, click the site you'd like to view/edit on the [Domains](#) page.

The screenshot shows the 'Domain Details' interface for the domain 'conpca.xyz'. At the top, there's a blue header bar with the 'DOMAIN MANAGER' logo, a 'Your Username' field, and a gear icon. Below the header, the domain name 'conpca.xyz' is displayed. A navigation bar at the top of the main content area includes tabs for 'Domain Summary' (which is selected), 'Demo', 'Hosted Zone', 'DNS Records', 'Proxy Category', and 'Application History'. To the right of the tabs is a blue 'Options' button. The main content area contains several configuration sections. One section is titled 'Domain: conpca.xyz' with the sub-subtitle 'Detailed information for the domain'. It lists the 'Domain Name' as 'conpca.xyz'. Another section shows 'Domain Is Launched' as 'true'. A third section shows 'Domain Deployment Status' as 'Deployed'. At the bottom of this section is a dropdown menu labeled 'Applications Using' which currently displays 'DHS Con-PCA'. The entire interface has a clean, modern design with a white background and blue accents for buttons and links.

Figure: Domain Details

Domain Details begins with the Domain Summary tab. Here you will find the domain name, the template assigned (if there is one), and the applications that are using the site.

Click the Options button to make the domain live or take it down. You can also download a zip file which contains the template and all information associated with the site. Select delete to remove the domain from the list. This action will delete the site's history.

The following tabs are also associated with the Domain Details screen: [Template](#), [Hosted Zones](#), [Redirects](#), and [History](#).

Template/Demo

To edit templates associated with a domain, click the Template tab on the [Domain Details](#) screen.

Note: If the site isn't live you'll see "Template", if the site is live you'll see "Demo".

Template

The screenshot shows the 'Domain Details' page from a 'DOMAIN MANAGER' interface. At the top, there's a navigation bar with tabs: 'Domain Summary', 'Template' (which is underlined, indicating it's active), 'Hosted Zone', 'DNS Records', and 'History'. To the right of the tabs, there are links for 'Your Username' and a gear icon for settings. Below the tabs, a section titled 'Select a Template For This Domain' contains the instruction 'Select your method to select a template' and two options: 'Upload from zip' and 'Select from templates'. A blue 'Options' button is located to the right of the selection area. The main body of the page is currently empty, showing a light gray background.

Figure: Template tab

On the Template tab you can either upload a template from a zip file or select from the current list of [templates](#).

Upload from Zip

Clicking upload from zip opens a dialogue for you to select your files.

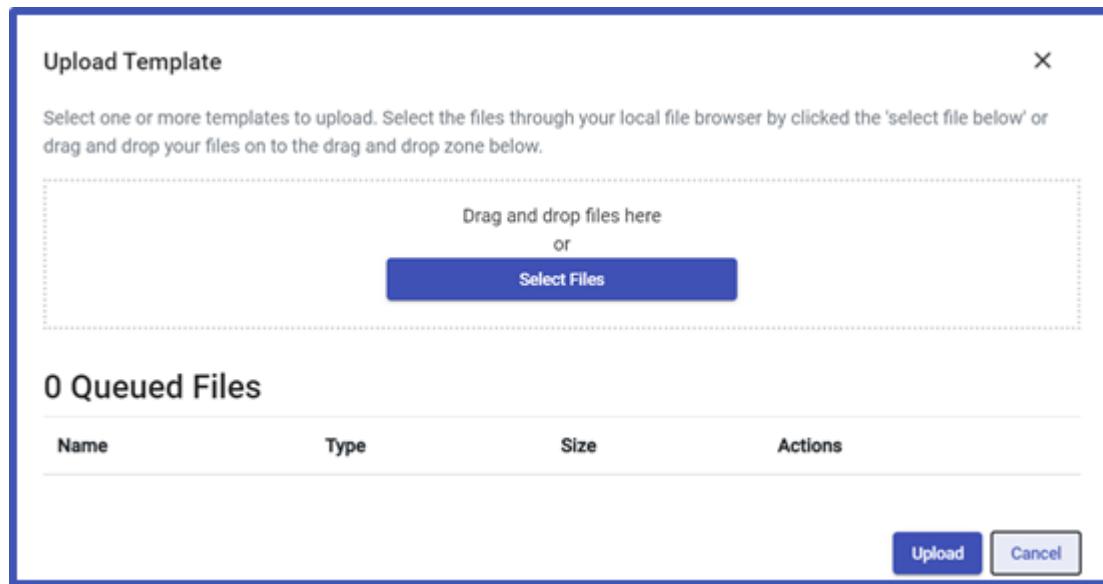


Figure: Template Upload dialogue

You can upload one or many files. View the Queued Files to check the status of your download.

Select from Templates

The screenshot shows the 'Domain Management' interface with the 'Template' tab selected. At the top, there's a navigation bar with 'Domain Management', 'Your Username', and a gear icon. Below the navigation is a section titled 'Domain Details'. Under this, there are tabs for 'Domain Summary', 'Template' (which is active), 'Hosted Zone', 'DNS Records', and 'History'. A sub-section titled 'Select a Template For This Domain' asks 'Select your method to select a template' with options 'Upload from zip' (unchecked) and 'Select from templates' (checked). An 'Options' button is to the right. Another section, 'Select a Template Base', asks 'Select a template base that will be used to generate your domain.' It features a search bar and a table of available templates:

| Template Name | Created Date | Selected Template |
|-------------------|--------------|-------------------|
| TemplateTestOne | 01/22/21 | Select |
| pesticide | 01/22/21 | Selected |
| pesticide-mostafa | 02/04/21 | Select |

At the bottom, there's a 'Why Choose Us?' section with a list of icons and a 'Contact Us' button.

Figure: Select from Template

Clicking select from templates will open the [Templates](#) screen for you to pick from. Select any template to view in a window. Click the select button for the template you want to associate with your domain.

Enter description, domain, email, name, and phone attributes to populate the fields within the template.

Select Create Website HTML to create the site with your entered attributes.

After a template is assigned the site is available to go live.

Demo

The screenshot shows the 'Domain Manager' interface with a blue header bar. On the left is a logo with three horizontal bars. To the right of the logo is the text 'DOMAIN MANAGER'. Further right is a 'Your Username' field and a gear icon. Below the header, the domain 'basichealthservices.com' is displayed in large bold letters. A navigation bar below the domain name has tabs: 'Domain Summary', 'Demo' (which is underlined), 'Hosted Zone', 'DNS Records', and 'Application History'. To the right of the navigation bar is a 'Options' button. The main content area shows a preview of the website. At the top of the preview, it says 'Domain : basichealthservices.com' and 'Approval Status: ✘'. There is a blue 'Approve' button. Below this, a note says 'A demo of the domain as it will be seen directly'. The preview itself shows a website with a phone number (123-456-7890) and email (test@basichealthservices.com). The website's header includes the 'rochester home health care' logo, a 'HOME' link, a 'SERVICES' link, and an 'ABOUT US' link. The main content of the website features a photo of an elderly man and woman smiling.

Figure: Demo tab

This tab will display the domain with its assigned template and attributions in the window. If you'd like to change the template, click select new template.

A dialogue will come up to confirm the change. Changing the template will lose all the changes you made to the attributes. The Demo tab will revert to the Templates tab and you will need to start the process of selecting a template again. See the beginning of this section for more details.

Hosted Zone

To view hosted zones associated with a domain, click the Hosted Zone tab on the [Domain Details](#) screen.

The screenshot shows the Domain Manager interface for the domain `basichealthservices.com`. The top navigation bar includes links for Domain Summary, Demo, Hosted Zone (which is underlined in blue), DNS Records, Application History, and a gear icon for settings. The main content area is titled "Hosted Zone" and displays two entries:

- basichealthservices.com.**
TTL: 172800
Type: NS
Resource Records:
ns-380.awsdns-47.com.
ns-1410.awsdns-48.org.
ns-911.awsdns-49.net.
ns-1638.awsdns-12.co.uk.
- basichealthservices.com.**
TTL: 900
Type: SOA
Resource Records:
ns-380.awsdns-47.com. awsdns-hostmaster.amazon.com. 1 7200 900 1209600 86400

A blue "Options" button is located in the top right corner of the content area.

Figure: Hosted Zone tab

This tab displays a list of all DNS records associated with the domain. This output comes from AWS Route 53. Once hosted zones are populated, your domain POC can customize the DNS to specify how the domain's traffic is routed.

DNS Records

The DNS record tab gives you the ability to view existing DNS records and add custom DNS records to managed domains.

Once you create a new domain, you have two record types automatically generated for you:

- NS (Nameservers)
- SOA (State of Authority)

The initial generated nameservers (NS) are generated by AWS and are used to connect your website content to your domain URL. This is done by adding the nameserver values to your purchased domain.

The initial State of Authority (SOA) record provides admin information about your hosted zone.

You can find a list of existing DNS records under the [Hosted Zone](#) tab on your Domain's detail page.

You can also create custom records for your domain. Here are the current Record types supported:

- A (Address Mapping)
- AAAA (IP v6 Address)
- CNAME (Canonical Name)
- MX (Mail Exchanger)
- PTR (Reverse lookup Pointer)
- NS (Nameservers)
- SRV (Service Location)
- TXT (Text Record)
- REDIRECT (Redirect Record)

[Creating a DNS record](#)

To edit/add DNS records associated with a domain, click the DNS Records tab on the [Domains Details](#) screen.



Your Username 

inltesting.xyz

- Domain Summary
- Demo
- Hosted Zone
- DNS Records**
- Proxy Category
- Application History

| Name | Type | Options |
|------------------------------|----------|---|
| gp.inltesting.xyz | REDIRECT |   |
| devgp.inltesting.xyz | REDIRECT |   |
| gp.staging.inltesting.xyz | REDIRECT |   |
| gp.pr.mg.inltesting.xyz | REDIRECT |   |
| gp.staging.mg.inltesting.xyz | REDIRECT |   |
| cool.test.inltesting.xyz | NS |   |
| gp.dev.mg.inltesting.xyz | REDIRECT |   |

Add New DNS Record

Figure: DNS Records tab

The table shows all current DNS records associated with the site.

Click the Add New DNS Record button to open a dialogue.

Manage Record

A
 AAAA
 CNAME
 MX
 PTR
 NS
 SRV
 TXT
 REDIRECT

.testingaccount.xyz

To route traffic without a subdomain, such as example.com, then leave this field blank.

TTL Recommended values: 60 to 172800 (two days)

Create & Close
Cancel

Figure: Manage Record dialogue

Select from the list to create a new DNS record. Each record type has unique custom inputs expected.

A Record:

- Record name
- IPv4 address

AAAA:

- Record name
- IPv6 address

CNAME:

- Record name
- Domain name

MX:

- Record name
- Record values
 - a. Add one hostname per line

PTR:

- Record name
- IPv4 address

NS:

- Record name
- Nameserver values
 - a. Add one nameserver per line

SRV:

- Record name
- Values
 - a. Add each priority, weight, port, and hostname per line

TXT:

- Record name
- Text values
 - a. Can be multiple lines

Redirect:

- Record name
- Protocol
 - a. HTTP
 - b. HTTPS
- Domain name

Note: Redirect records can either direct you to an HTTP or HTTPS enabled target domain. However, Domain Manager does not provide support for HTTPS redirects at the moment and would have to be set up externally.

Click the trash icon to delete and the pen icon to edit current records. Clicking the pen will open a dialogue to manage the subdomain and URL.

Proxy Category

WAITING FOR TABLE. MANUAL CHECK ETC

To view/edit proxy categorization associated with a domain, click the Proxy Category tab on the [Domain Details](#) screen.

Note: You will only see this if the domain is live.

The screenshot shows the 'Domain Manager' interface for the domain 'intesting.xyz'. The top navigation bar includes links for 'Domain Summary', 'Demo', 'Hosted Zone', 'DNS Records', 'Proxy Category' (which is underlined, indicating it's the active tab), and 'Application History'. On the right side of the header are 'Your Username' and a gear icon. Below the header, the domain name 'intesting.xyz' is displayed. The main content area has a heading 'Proxy Categorization' followed by the sub-instruction 'A proxy category must be selected.' Below this is a dropdown menu with a downward arrow. To the right of the dropdown is a blue 'Options' button. At the bottom right of the content area is a grey 'Submit' button.

Figure: Proxy Categorization tab

When you initially get to the screen only one dropdown is available. You only need to select one category, but can choose up to 3.

The categorization will tell filters how to categorize the domain. This helps emails get through filters and firewalls and not end up in spam folders. It also helps domains maintain good reputation scores.

The process of categorization takes 2-3 days and is usually successful when checking the domain's categorization with Blue Coat, McAfee, Fortiguard, and Palo Alto. Check back on this page for updates.

If domain categorization is in process or has been categorized, you'll see the following table:

| Domain Summary | Demo | Hosted Zone | DNS Records | Proxy Category | Application History |
|---|----------------------|-----------------------------------|-------------|-------------------------------------|-------------------------|
| Proxy Categorization | | | | | Options |
| Domain categorization in process. | | | | | |
| The domain has had a category submitted and is in the process of applying the category to the multiple proxies. Please allow for 2-3 days for this process to complete. Check back on this page for any status updates. | | | | | |
| Categorization Status | | | | | |
| Proxy | Submitted Category | Status | | Manually Categorize | |
| Trusted Source | Business | Success | | Manually Categorize | |
| Blue Coat | Business/Economy | Success | | Manually Categorize | |
| Fortiguard | Business | Manually Submitted | | Manually Categorize | |
| Palo Alto Networks | Business and Economy | Error | | Manually Categorize | |
| Trend Micro | Business / Economy | Error | | Manually Categorize | |
| Cisco Talos | | Auto Categorization Not Supported | | Manually Categorize | |
| IBM X Force | | Auto Categorization Not Supported | | Manually Categorize | |

Figure: Proxy categorization table

The Categorization table displays proxy, submitted category for the domain, and status. It also provides the ability to manually categorize a domain.

| Domain Management | | Check Results | Check Categories |
|-------------------|--------------------|---------------------------|----------------------------------|
| Domains | | | |
| Templates | Proxy | Category | |
| Applications | Trusted Source | - Marketing/Merchandising | Manually Check |
| Users | Blue Coat | Health | Manually Check |
| | Fortiguard | | Manually Check |
| | Palo Alto Networks | | Manually Check |
| | Trend Micro | Newly Observed Domain | Manually Check |
| | Websense | Business | Manually Check |
| | Cisco Talos | | Manually Check |
| | IBM X Force | | Manually Check |

History

To view a website's history, click the History tab on the [Domain Details](#) screen.

The screenshot shows the 'consultinghub.tech' domain details page in the Domain Manager application. The 'Application History' tab is selected, showing the following table:

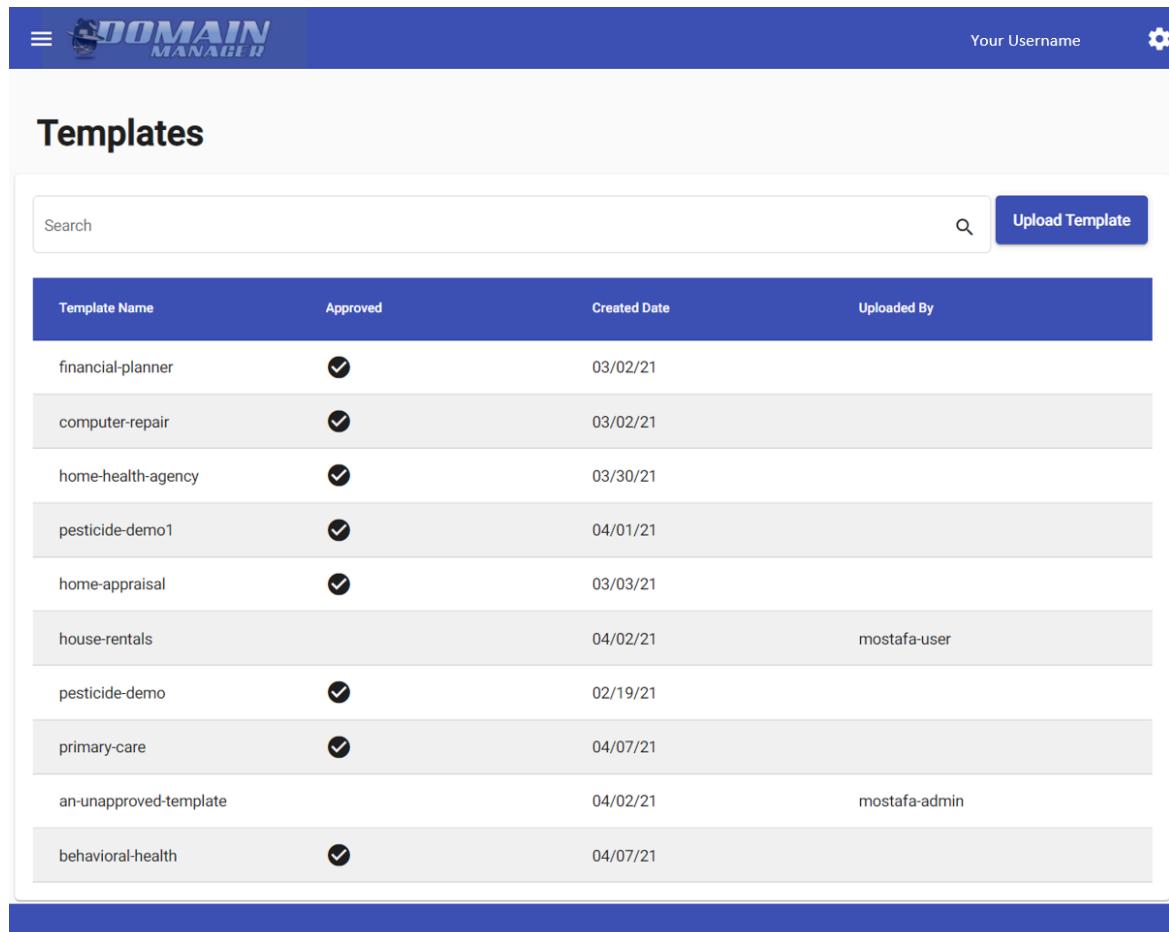
| Application | Start Date | Stop Date |
|--------------|------------|-----------|
| DHS Con-PCA | 03/30/21 | 03/30/21 |
| DHS Red Team | 03/30/21 | 03/30/21 |
| For Demo | 03/30/21 | 03/30/21 |
| DHS Lie-PCA | 03/30/21 | 03/30/21 |
| Test Demo | 03/30/21 | 03/30/21 |
| put test | 03/30/21 | |

Figure: Domain History

This tab will show any time the domain has been used, when it was used, which application used it, and when it was taken down. This information is helpful when selecting domains before you begin an assessment. For example, if the domain has been used multiple times for an assessment type that is more likely to burn a domain, a lead may not choose the domain since it may have a bad reputation.

Templates

The Templates list shows all current templates, the created date, and the user who uploaded it.



The screenshot shows the 'Templates' section of the Domain Manager interface. At the top, there's a search bar with a magnifying glass icon and a blue 'Upload Template' button. The main area is a table with columns: 'Template Name', 'Approved', 'Created Date', and 'Uploaded By'. The data rows are:

| Template Name | Approved | Created Date | Uploaded By |
|------------------------|----------|--------------|---------------|
| financial-planner | ✓ | 03/02/21 | |
| computer-repair | ✓ | 03/02/21 | |
| home-health-agency | ✓ | 03/30/21 | |
| pesticide-demo1 | ✓ | 04/01/21 | |
| home-appraisal | ✓ | 03/03/21 | |
| house-rentals | | 04/02/21 | mostafa-user |
| pesticide-demo | ✓ | 02/19/21 | |
| primary-care | ✓ | 04/07/21 | |
| an-unapproved-template | | 04/02/21 | mostafa-admin |
| behavioral-health | ✓ | 04/07/21 | |

Figure: Template list

Templates contains the structure of your site. It will determine what styling and look the site has. For example: pest control, law, health industry.

Much like the [Domains](#) list you can use the search bar to filter the Template list based on all items listed on the screen.

Click the Upload Template to [upload a new template](#).

Click a template in the list to view/edit [Template Details](#).

Note: More on the template approval process can be found in the [Content Authorization](#) section.

Upload a New Template

After selecting the Upload Template button on the [Templates](#) page, you will see a dialogue.

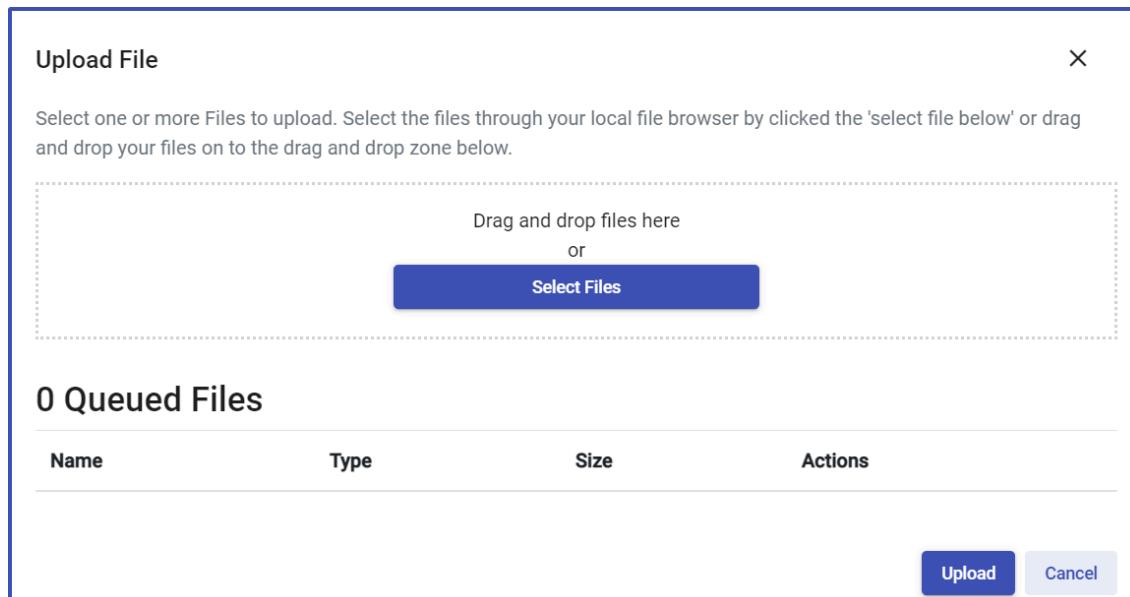


Figure: Template Upload dialogue

You can upload one or many files. View the Queued Files to check the status of your download.

Template Details

To view the Template Details screen, click the template you'd like to view/edit on the [Templates](#) page.

The screenshot shows the 'Template Demo' tab selected in the navigation bar. The main content area displays a demo of a template titled 'Template : financial-planner'. A note indicates it's a demo of the template as it will be seen prior to attribute substitutions. On the right, there's an 'Options' button. The demo content includes a logo for 'CALE FINANCIAL Planning', a placeholder text 'Located in {{ .Address }} {{ .Phone }}', and a section titled 'We Are Here For You' with a message about navigating volatile markets. A large image of a pink piggy bank is visible in the background of the demo content.

Figure: Template Details screen

Template Details begins with the Template Demo tab. Here you will find a demonstration of what the template looks like prior to attribute substitutions.

Click the Options button to download a zip file which contains the template. Select delete to remove the template from the list. This action will delete the history.

The [Domains Using](#) tab is also associated with this screen.

Domains Using

To view which domains are using a template, click the Domains Using tab on the [Template Details](#) screen.

The screenshot shows the 'Template Details' page with the 'Domains Using' tab selected. The page header includes the 'DOMAIN MANAGER' logo and a 'Your Username' dropdown. The main content area displays a table titled 'Template : pesticide-demo' with a subtitle 'A list of all domains that are currently using this template'. The table has three columns: 'Domain Name', 'Application Using', and 'Download'. It lists two domains: 'thisisreal.xyz' and 'aws-box.com', both associated with 'Application'. Each row contains a blue 'Download' button.

| Domain Name | Application Using | Download |
|----------------|-------------------|--------------------------|
| thisisreal.xyz | Application | Download |
| aws-box.com | Application | Download |

Figure: Domains Using tab

This tab will show which domains are currently using the template. Under Template Attributes you will see all assigned attributes. Within the table you will see the domain name displayed along with which application is using the site. Click the download button to download a zip file that includes the domain and template attribute information.

Template Resources

This section covers finding available templates and creating GO templates.

Available Templates

If you are looking for additional templates that are compatible with Domain Manager, you'll find them in a private repository on GitHub: <https://github.com/cisagov/domain-manager-templates>

In order to access this repo, you'll have to reach out to a Domain Manager admin.

Available templates are in the Templates folder of the repo. If you are interested in using any of the templates available, download and compress into a zip file. You can then upload your zipped template file on the [Templates](#) screen. See [upload a new template](#).

Creating a GO Template

Domain Manager utilizes GO Templates. You can find more information via the following links:

- <https://golang.org/pkg/text/template/>
- <https://golang.org/pkg/html/template/>

Refer to the Domain Manager templates repository for examples on Domain Manager-ready templates.

To create a GO template follow these steps:

1. Find or create website static files (HTML, CSS, JS)
2. Break up the files into a similar structure as the image below:

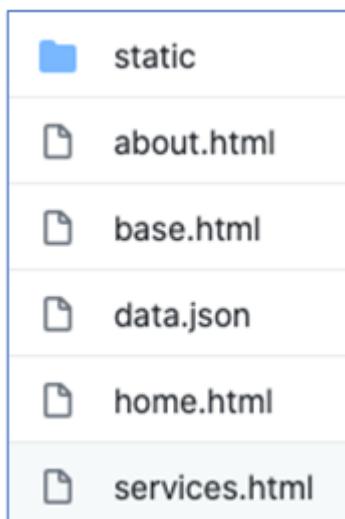


Figure: File structure example

3. Add required template file names.

base.html

- This file will contain the common elements that will be inherited in all or most of your website html pages. This includes the headers, footers, navigation bars, etc.
- You'll need define this as a base by adding `{{ define "base" }}` at the top of your file. You'll need to add an `{{ end }}` at the end of the file as well.
- To inherit html content from other files, you'll need to place `{{ template "content" . }}` anywhere in your base file that you plan to pull in dynamic content. This is usually in the body of your html.

[home.html](#)

- This file is intended to be the homepage of your website. It contains content that you plan to display on your homepage. It will be the only content file that will be required to have this name in every template.
- You'll need to define this home content file by adding `{{ define "content" }}` at the top of your file. Don't forget to add an `{{ end }}` at the end of your file as well.
- This file will be one of as many content files as you'd like that will be inherited into your base.html file.

4. Add any other additional HTML files (optional)

- You can add as many optional files (which can represent pages on your website) as you'd like. For example, these can be pages containing about us, contact, pricing, etc.
- All optional files will need `{{ template "content" . }}` placed at the top of the file just like the home file. Don't forget to add `{{ end }}` at the end of your file as well.

5. Create template tags

- You can pull dynamic data into your templates using a template tag. Domain Manager requires up to 5 specific tags:

1. Description: `{{ .Description }}`
2. Domain: `{{ .Domain }}`
3. Email: `{{ .Email }}`
4. Name: `{{ .Name }}`
5. Phone: `{{ .Phone }}`
6. Address: `{{ .Address }}`

- You can add these tags anywhere in your HTML template files that you'd like to display dynamic information.

6. Dealing with static files

- All static files (css, images, javascript) will be directly copied over when websites are generated from your GO template.
- It's recommended to place your static files into a folder called **static/**.

Testing and Verifying Your New GO Template

If you'd like to test out your template files, you'll need to download the latest executable file compatible with your OS in the domain-manager-templates repository. Create a **templates/** and place all your GO templates you wish to test in that directory. Place the executable file in the same directory where your **templates/** folder lives. Run your executable file with a `-t` tag followed by the name of your template.

Here's an example: `./main -t pest-services`

The program will generate a **public/** folder with your website content generated from your specified GO template.

Applications

Only admin users see the Applications screen. To learn more about roles, see the [Admin vs. User Roles](#) section.

The Applications list shows all current applications and how many domains they are using.

| Application Name | Domain Used Count | | |
|------------------|-------------------|--|--|
| DHS Con-PCA | 3 | | |
| For Demo | 0 | | |
| DHS Red Team | 1 | | |
| put test | 2 | | |
| DHS Lie-PCA | 0 | | |
| Test Demo | 4 | | |
| New Testing App | 0 | | |
| DHS | 7 | | |
| Zach Testing | 0 | | |

Figure: Applications screen

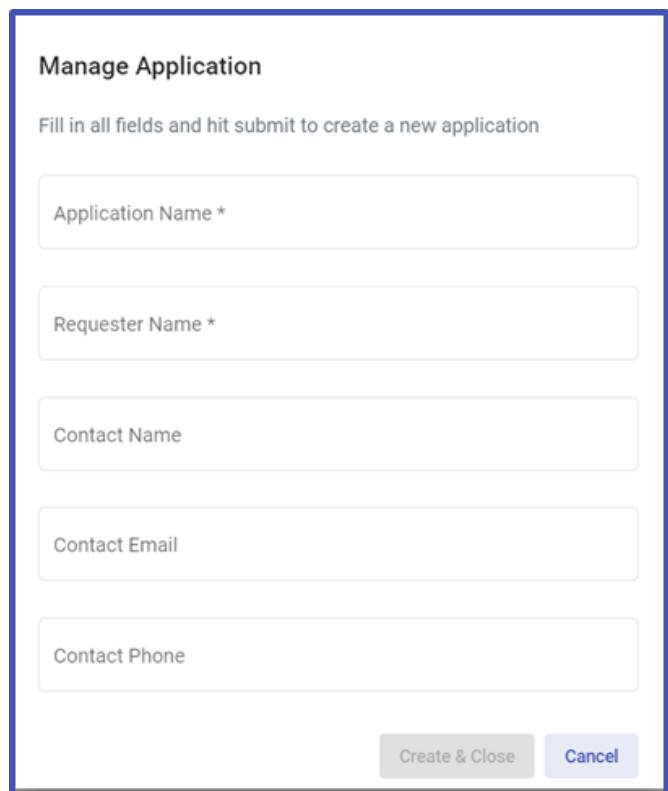
You can use the search bar to search on name and number of domains used.

Click the Add New Application button, to [add a new application](#).

Click an application in the list to [manage the application](#).

Add a New Application

To add a new application, click the Add New Application button on the [Applications](#) screen. This will open a dialogue to manage applications.



The image shows a 'Manage Application' dialogue box with a blue border. Inside, there is a header 'Manage Application' and a sub-instruction 'Fill in all fields and hit submit to create a new application'. Below this are five input fields: 'Application Name *', 'Requester Name *', 'Contact Name', 'Contact Email', and 'Contact Phone'. At the bottom right are two buttons: 'Create & Close' and 'Cancel'.

| Field | Description |
|--------------------|--|
| Application Name * | Required field for the new application name. |
| Requester Name * | Required field for the requester's name. |
| Contact Name | Optional field for the contact person's name. |
| Contact Email | Optional field for the contact person's email address. |
| Contact Phone | Optional field for the contact person's phone number. |

Figure: Manage Application dialogue

Enter the application name, requester name, and contact information and then click Create and Close.

This will add a new application to the list and allow for domains to be assigned.

Manage Application

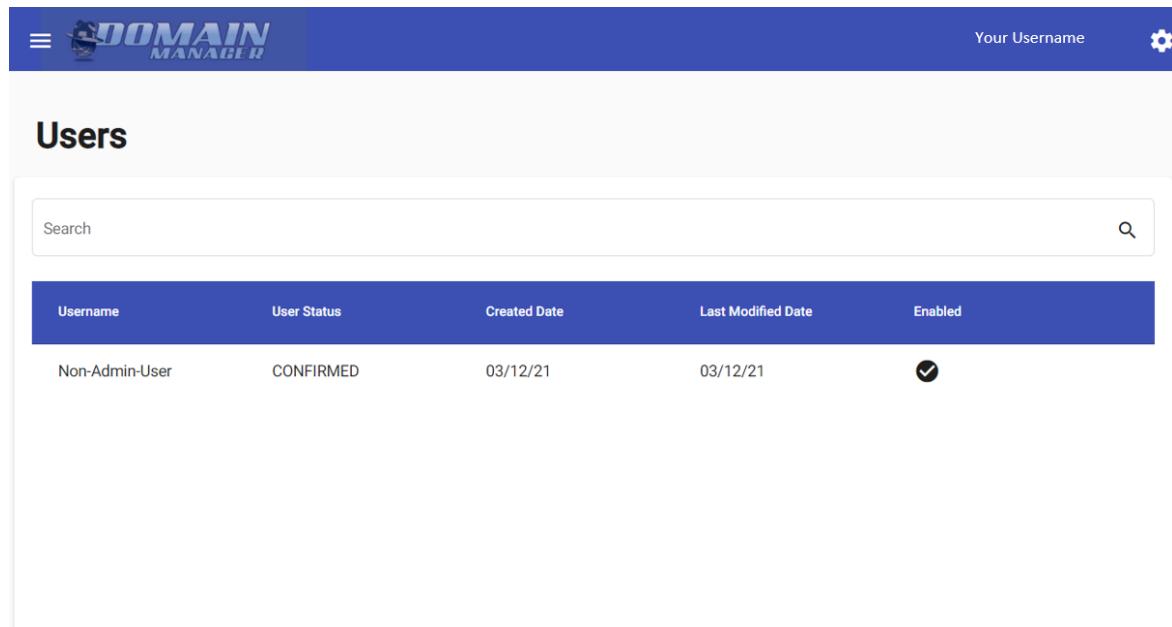
Click the application or the pencil icon to edit an existing application. This action opens the Manage Application dialogue, seen in the [Add New Application](#) section.

Make any changes required and hit Edit & Close to leave the dialogue and save changes.

Users

Only admin users see the Users screen. To learn more about roles, see the [Admin vs. User Roles](#) section.

The Users list shows all Domain Manager users, their status, when they were created/modified, and whether they are enabled.



The screenshot shows the 'Users' tab in the Domain Manager interface. At the top, there is a blue header bar with the 'DOMAIN MANAGER' logo, a search bar, and user information ('Your Username'). Below the header is a table with the following columns: 'Username', 'User Status', 'Created Date', 'Last Modified Date', and 'Enabled'. A single row is visible in the table, showing 'Non-Admin-User' as the username, 'CONFIRMED' as the status, '03/12/21' for both creation and modification dates, and an enabled status indicated by a checked checkbox.

| Username | User Status | Created Date | Last Modified Date | Enabled |
|----------------|-------------|--------------|--------------------|-------------------------------------|
| Non-Admin-User | CONFIRMED | 03/12/21 | 03/12/21 | <input checked="" type="checkbox"/> |

Figure: Users tab

You can use the search bar to search on name and status.

Click a user in the list to [edit user details](#).

Confirm a User

A user that is registered will show up in the Users list. Users that have yet to be approved by an admin will show "unconfirmed" as their status. Select the user to open their details and click "Confirm User" to approve and give the user access to Domain Manager.

User Details

[User Summary](#)[Groups](#)[History](#)

User : test.user

A summary of the user's account.

[Options](#)

User needs to be confirmed before the account can be used

[Confirm User](#)

User Status Enabled

Confirmation Status UNCONFIRMED

Email Address testuser@xyz.com

Created Date 04/07/21

Last Modified Date 04/07/21

Admin Status  Is not an Admin

API Key generated False

Figure: Confirm user

User Details

To view the User Details screen, click the user you'd like to view/edit on the [Users](#) page.

The screenshot shows the 'User Details' page from a web application. At the top, there's a blue header bar with the 'DOMAIN MANAGER' logo on the left and 'Your Username' with a gear icon on the right. Below the header, the title 'User Details' is centered. Underneath the title, there are three tabs: 'User Summary' (which is underlined, indicating it's active), 'Groups', and 'History'. On the left side of the main content area, there's a section titled 'User :'. It contains a summary of the user's account. To the right of this summary is a blue 'Options' button with a white outline. Below the summary, there are several data rows, each consisting of a label on the left and its corresponding value on the right. The data includes:

| | |
|---------------------|--|
| User Status | Enabled |
| Confirmation Status | CONFIRMED |
| Email Address | test |
| Created Date | 01/13/21 |
| Last Modified Date | 01/13/21 |
| Admin Status | <input checked="" type="checkbox"/> Is Admin |
| API Key generated | False |

Figure: User Details screen

User Details begins with the User Summary tab. Here you will find whether the user is enabled, status, when their account was created and modified, and whether they have admin privileges. Select the toggle to give or remove user admin privileges.

Click the Options button to delete or disable the user.

The following tabs are also associated with the User Details screen: [Groups](#) and [History](#).

Groups

To view/ edit the groups a user is assigned to, click the Groups tab on the [User Details](#) screen.

The screenshot shows the 'User Details' screen with the 'Groups' tab selected. At the top, there is a navigation bar with 'Your Username' and a gear icon. Below the navigation bar, the title 'User Details' is displayed. Underneath the title, there are three tabs: 'User Summary', 'Groups' (which is highlighted in blue), and 'History'. A sub-section titled 'User:' is present, with a note 'Groups the user is assigned to.' and a 'Save Users Groups' button. A list of groups is shown with checkboxes next to each group name. The groups listed are: Application (selected), DHS Con-PCA, DHS Red Team, For Demo, Test App Dylan, and DHS Lie-PCA.

| Group | Selected |
|----------------|-------------------------------------|
| Application | <input checked="" type="checkbox"/> |
| DHS Con-PCA | <input type="checkbox"/> |
| DHS Red Team | <input type="checkbox"/> |
| For Demo | <input type="checkbox"/> |
| Test App Dylan | <input type="checkbox"/> |
| DHS Lie-PCA | <input type="checkbox"/> |

Figure: Groups tab

To add a user to a group select the checkbox by the application. Then select Save Users Groups to commit the change.

History

To view a user's history, select the History tab on the [User Details](#) screen.

| User Details | | | | |
|---|----------------------|----------------------|-------------------------|-------------------------|
| User Summary | Groups | History | Actions | Logs |
| User : User Name | Edit | View | Edit | View |
| A full history of the users actions | | | | |
| Path | Method | Status Code | Created | Last Modified |
| /api/users/ | GET | 200 | Mar 2, 2021, 9:07:29 PM | Mar 2, 2021, 9:07:29 PM |
| /api/domains/ | GET | 200 | Mar 2, 2021, 9:00:17 PM | Mar 2, 2021, 9:00:17 PM |
| /api/domains/ | GET | 200 | Mar 2, 2021, 9:00:17 PM | Mar 2, 2021, 9:00:17 PM |
| /api/domains/ | GET | 200 | Mar 2, 2021, 9:00:17 PM | Mar 2, 2021, 9:00:17 PM |
| /api/domains/ | GET | 200 | Mar 2, 2021, 9:00:17 PM | Mar 2, 2021, 9:00:17 PM |
| /api/domains/ | GET | 200 | Mar 2, 2021, 9:00:17 PM | Mar 2, 2021, 9:00:17 PM |
| /api/domains/ | GET | 200 | Mar 2, 2021, 9:00:17 PM | Mar 2, 2021, 9:00:17 PM |
| /api/domains/ | GET | 200 | Mar 2, 2021, 9:00:17 PM | Mar 2, 2021, 9:00:17 PM |
| /api/domains/ | GET | 200 | Mar 2, 2021, 9:00:17 PM | Mar 2, 2021, 9:00:17 PM |
| /api/applications/ | GET | 200 | Mar 2, 2021, 9:00:17 PM | Mar 2, 2021, 9:00:17 PM |
| | | | | |

Figure: History tab

This screen provides a full list of user actions, the method, status code, and when they occurred.

Settings

To access the Settings menu, click the gear icon in the top-right.

You'll see the following menu:

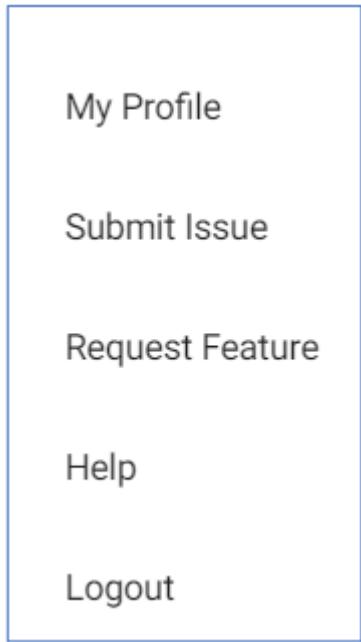


Figure: Settings menu

To learn more about [My Profile](#), [Submitting Issues](#), [Requesting Features](#), and [Help](#), see the linked sections.

My Profile

The My Profile link in the setting's menu directs to the User Details screen. See the [User Details](#) section, for more information.

Submit Issue

The Submit Issue button will redirect you to Github with an open bug report.

Add your title and description, steps to reproduce, expected behavior, and any other useful information to the bug report. If you're a project maintainer, you can [assign the issue to someone](#), [add it to a project board](#), [associate it with a milestone](#), or [apply a label](#).

Select the Submit New Issue button to add your bug report.

Issue: 🐛 Bug report

Create a report to help us improve. If this doesn't look right, [choose a different type](#).

The screenshot shows the GitHub 'New Issue' form. At the top left is a circular profile picture placeholder. To its right is a search bar with the placeholder 'Title'. Below the search bar are two tabs: 'Write' (selected) and 'Preview'. To the right of the tabs is a toolbar with icons for bold (B), italic (I), horizontal line (H), code block (pre), link (link), list (list), checkmark (checkmark), user mention (@), and file attachment (attachment). The main text area contains the following Markdown content:

```
## 🐛 Bug Report

A clear and concise description of what the bug is.

## To Reproduce

Steps to reproduce the behavior:

## Expected behavior

Attach files by dragging & dropping, selecting or pasting them.
```

At the bottom left of the text area is a note: "Styling with Markdown is supported". On the far right is a green 'Submit new issue' button. Below the text area is a note: "Remember, contributions to this repository should follow our [GitHub Community Guidelines](#)".

Figure: Bug Report

Request Feature

The Request Feature button will redirect you to Github with an open feature proposal.

Add your title and description, motivation for the request, an example, pitch, and any other useful information to the feature proposal. If you're a project maintainer, you can [assign the issue to someone](#), [add it to a project board](#), [associate it with a milestone](#), or [apply a label](#).

Issue: 🚀 Feature Proposal

Submit a proposal for a new feature. If this doesn't look right, [choose a different type](#).

The screenshot shows the GitHub issue creation interface. At the top, there's a title input field with "Title" placeholder text. Below it is a toolbar with "Write" and "Preview" buttons, and various rich text editing icons (bold, italic, etc.). The main content area has a heading "# Feature Proposal" followed by a description: "A clear and concise description of what the feature is." Below that is a section titled "## Motivation" with the instruction "Please outline the motivation for the proposal." Further down is a "## Example" section with the instruction "Attach files by dragging & dropping, selecting or pasting them." A note at the bottom left says "Styling with Markdown is supported". On the right side, there's a green "Submit new issue" button. At the very bottom, a note says "Remember, contributions to this repository should follow our [GitHub Community Guidelines](#)".

Figure: Feature Proposal

Help

Clicking the Help button in the Settings menu redirects you to the Help Menu.

Help Menu

Below are some options to help you use the Domain Manager application.

User Guide

The Domain Management application user guide contains detailed instructions on how to use the application. The user guide is available through an in browser version as well as a downloadable pdf format.

[Open User Manual](#)

[Download User Manual](#)

Video Tutorials

Below is a link to a page with all the video tutorials for the Domain Manager application

[Video Tutorials](#)

Submit A Bug

Below is a link that will take you to the Github 'Submit Bug' page for the Domain Manager application. Bugs Submitted here will be seen by the team and administration and will be addressed as quickly as possible.

[Report Bug](#)

Request Feature

Below is a link that will take you to the Github 'Request Feature' page for the Domain Manager application. Features requested here will be seen by the administration and reviewed for possible future addition to the application.

[Request Feature](#)

Figure: Help menu screen

User Guide: Click the links below to open an HTML version of the guide or download a pdf.

Video Tutorials: Click the link to redirect to the Video Tutorial page.

Submit a Bug: Click "Report Bug" to submit an issue. For more information, see the [Submit Issue](#) section.

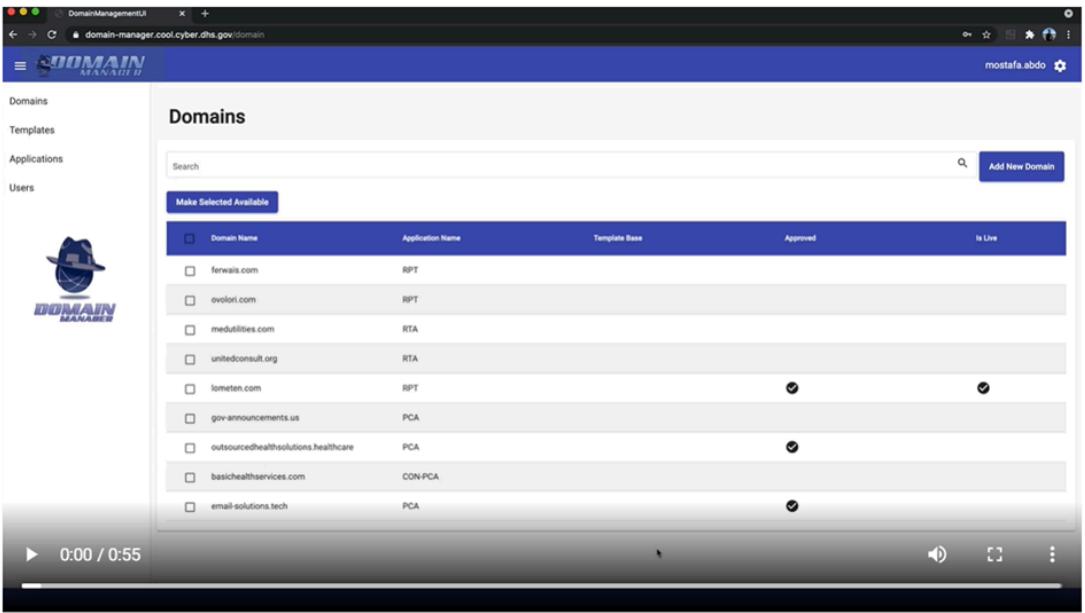
Request Feature: Click "Request Feature" to add a feature request to Github. For more information, see the [Request Feature](#) section.

Video Tutorials

The Video Tutorials page has tutorials for Domains, Templates, Applications, and Users. View the tutorials for short walkthroughs of the different Domain Manager features.

Video Tutorials

Below is a list of video tutorials to help you with using the Domain Manager application. Click one of the drop-down categories to view tutorial videos within the section. If the information you are looking for is not found in one of the videos below, please check the user guide by selecting the help option in the settings menu located in the upper right portion of all pages.



The screenshot shows a web browser window titled "DomainManagementUI" with the URL "domain-manager.cool.cyber.dhs.gov/domain". The main content area is titled "Domains" and displays a table of domain names, application names, template bases, approval status, and live status. A sidebar on the left lists "Domain Tutorials", "Template Tutorials", "Application Tutorials", and "User Tutorials". A video player at the bottom indicates a duration of 0:00 / 0:55. The interface includes a search bar, a "Make Selected Available" button, and a "Add New Domain" button. The "Is Live" column contains several checked checkboxes.

| Domain Name | Application Name | Template Base | Approved | Is Live |
|--------------------------------------|------------------|---------------|----------|---------|
| ferwais.com | RPT | | | |
| ovolori.com | RPT | | | |
| medutilities.com | RTA | | | |
| unitedconsult.org | RTA | | | |
| lometen.com | RPT | | ✓ | ✓ |
| gov-announcements.us | PCA | | | |
| outsourcedhealthsolutions.healthcare | PCA | | ✓ | |
| basichealthservices.com | CON-PCA | | | |
| email-solutions.tech | PCA | | ✓ | |

Figure: Tutorial page

Glossary

Key Terms

| Term | Explanation |
|--------------------|--|
| Applications | A defined user group that identifies who is using particular domains. |
| DNS Record | DNS records are instructions for DNS servers, so that they can identify which domain name that IP addresses are associated with. |
| Domain | The location of a website. |
| Hosted Zone | A hosted zone is a container for records, and records contain information about how traffic should be routed. |
| Proxy Category | |
| Template | Templates contain the structure of your site. It will determine what styling and look the site has. For example, pest control, law, health industry. |
| Template Attribute | Example: phone and email that can be substituted within a template. |

Domain Manager Revision History

| Document Revision | Date | Change Description |
|-------------------|------------|--------------------|
| 0 | March 2021 | Initial release |

Bugs and Missing Features

Release 1: Bugs and Missing Features

Bugs:

- # Proxy checking and categorizations aren't stable
 - All categorization actions rely on Selenium scripts which automate filling out and submitting to proxy websites.
 - Proxy websites actively try and make it difficult for a bot to fill out these forms.
 - Currently, in the process of purchasing IBM X-Force and Cisco Talos apis for a more stable process when checking website categories.
- # UI/UX design improvements needed
- # Improve existing approved GO templates

Missing Features:

- # Authorization of template and website content generated by User roles
- # Ability to TTL for DNS Records
- # Data dictionary