USER MANUAL

The Domain Manager Guide Version 1.0

User Manual

May 2021

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

Table of contents

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.

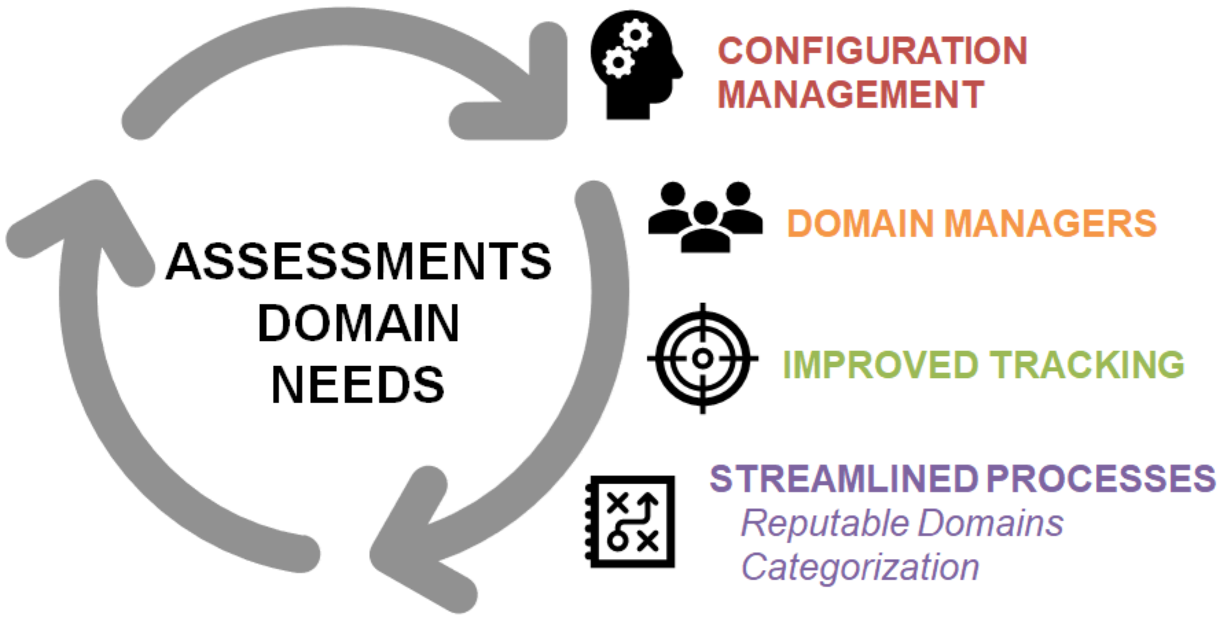


Figure: Domain Manager process

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.

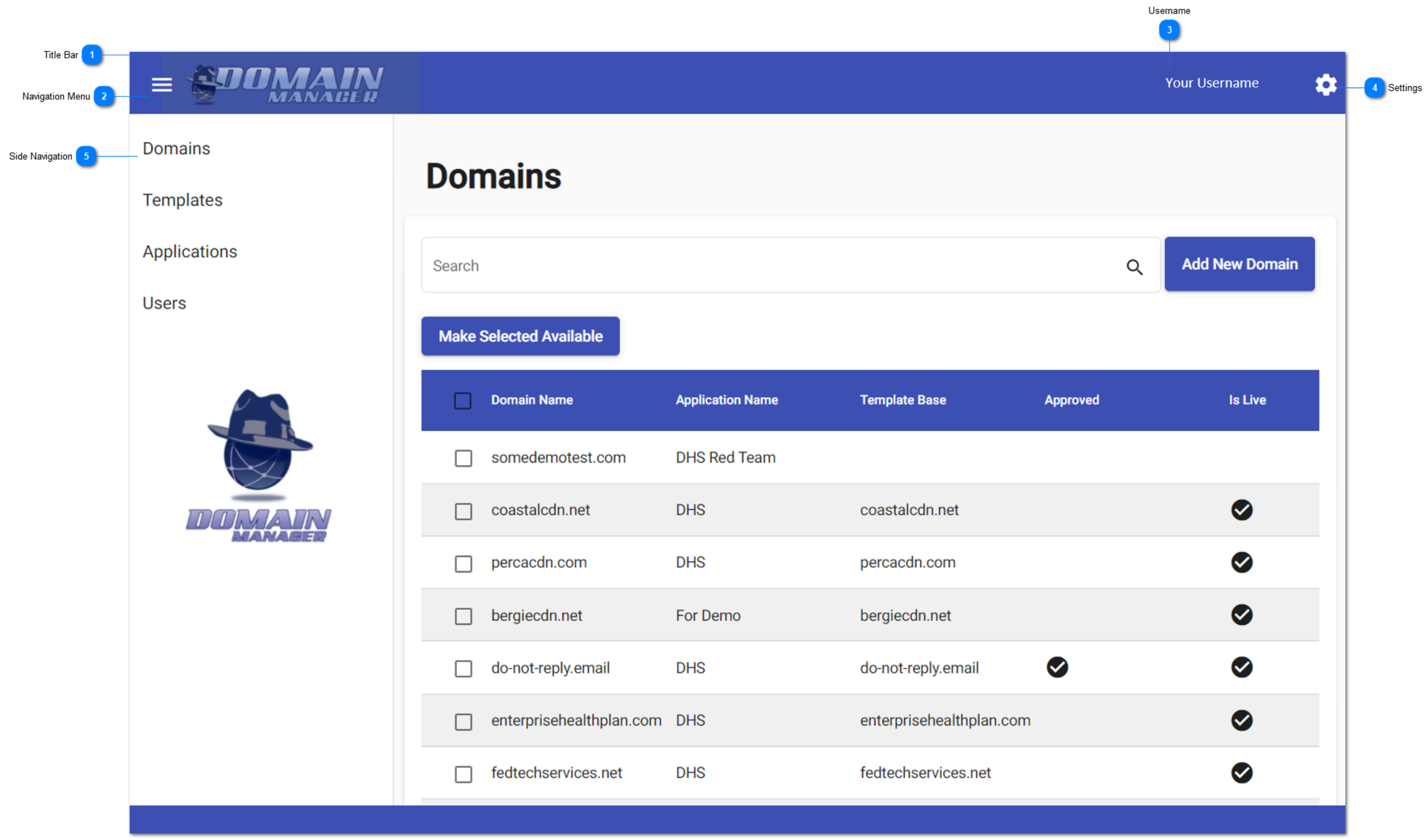


Figure: DM screen overview

1 Title Bar

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

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:

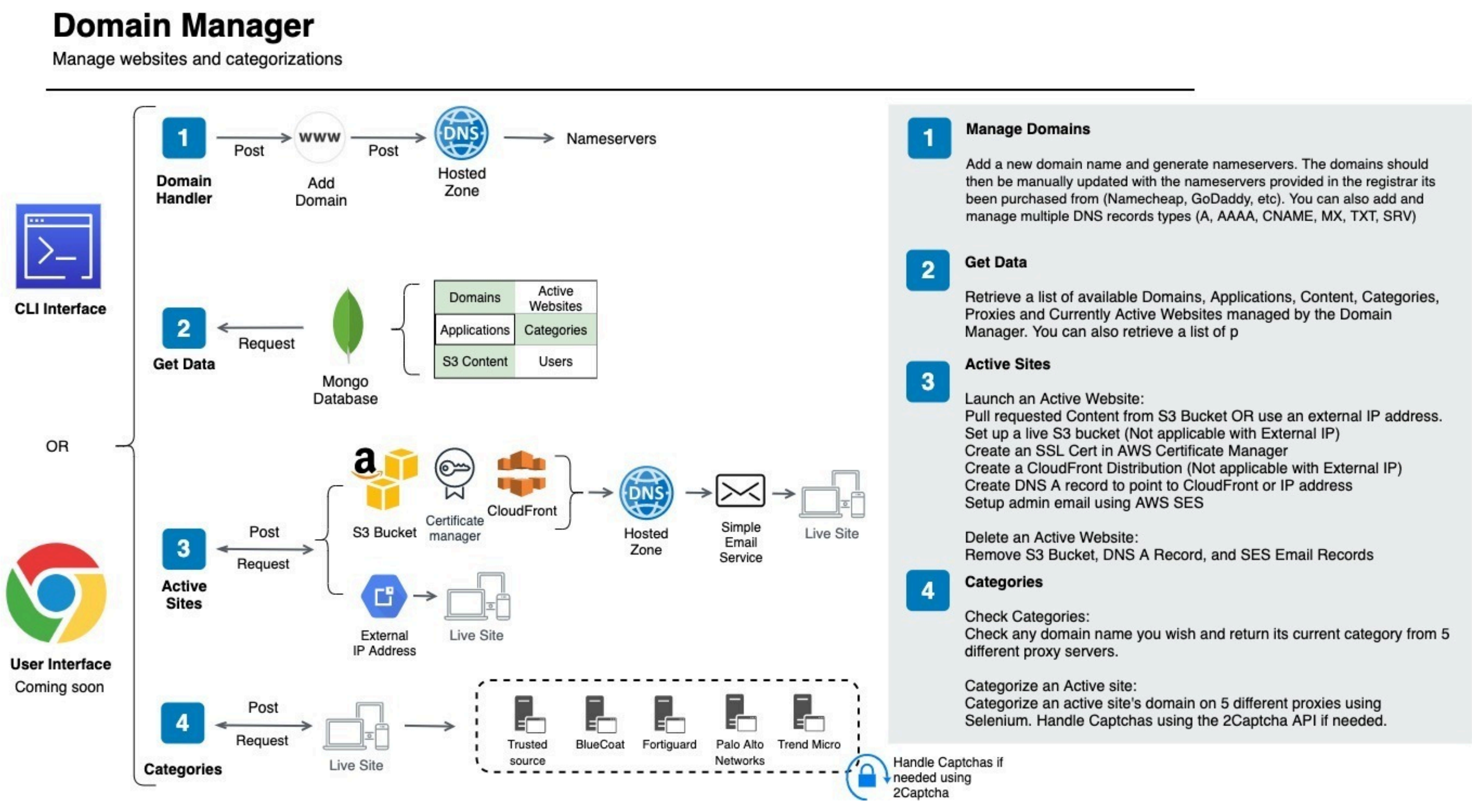


Figure: Domain Manager processes

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.

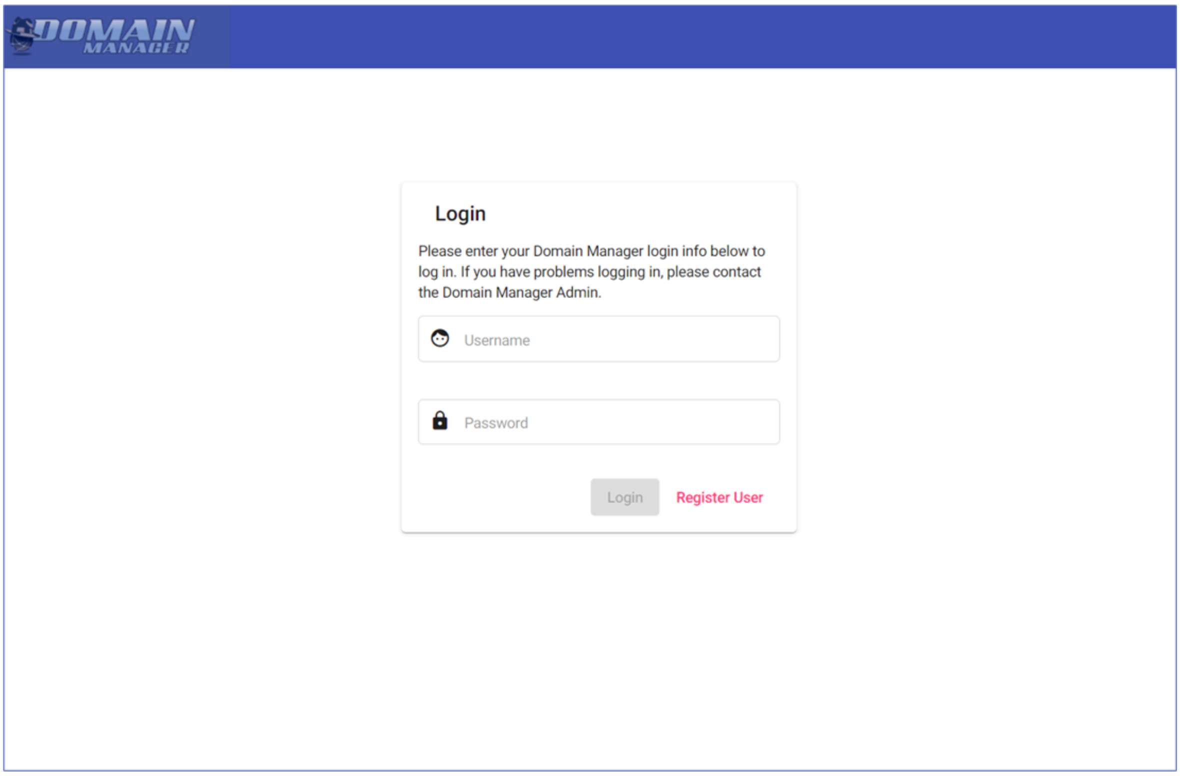


Figure: Domain Manager login

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

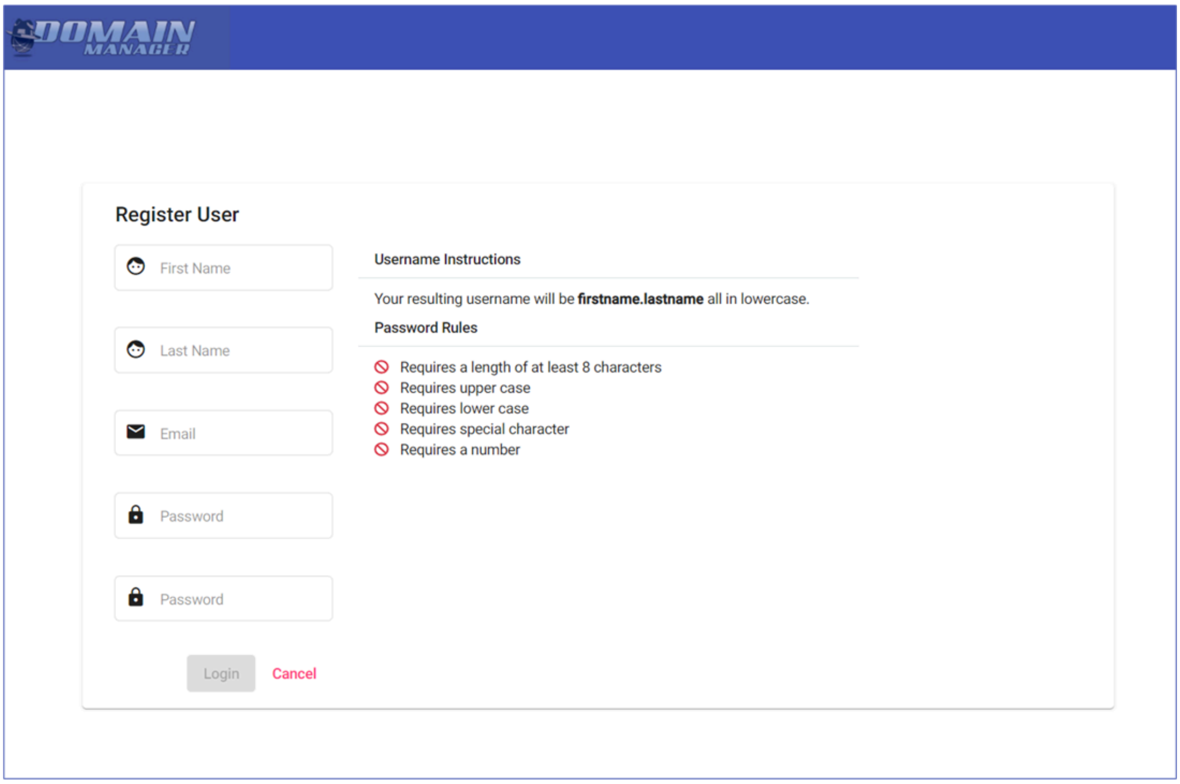


Figure: Register User

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.

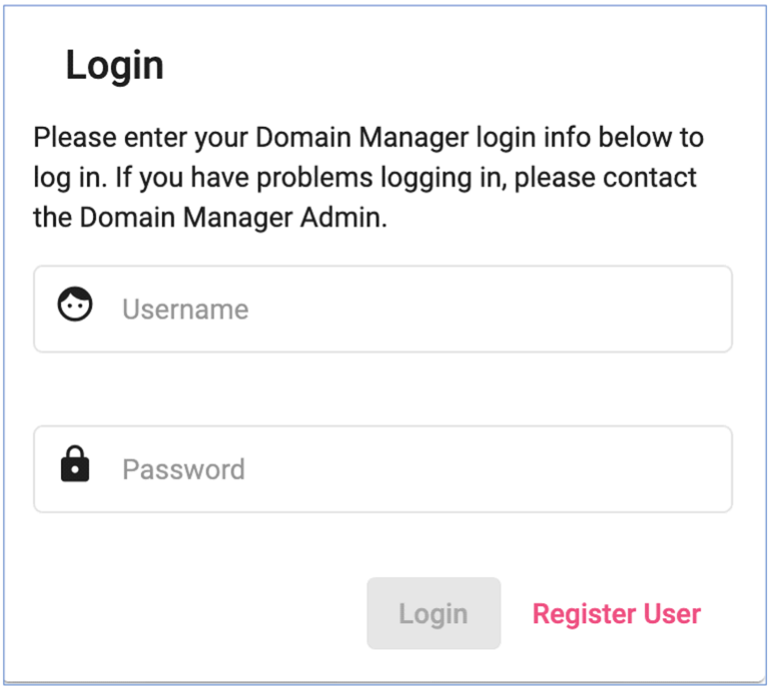


Figure: Login via browser

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

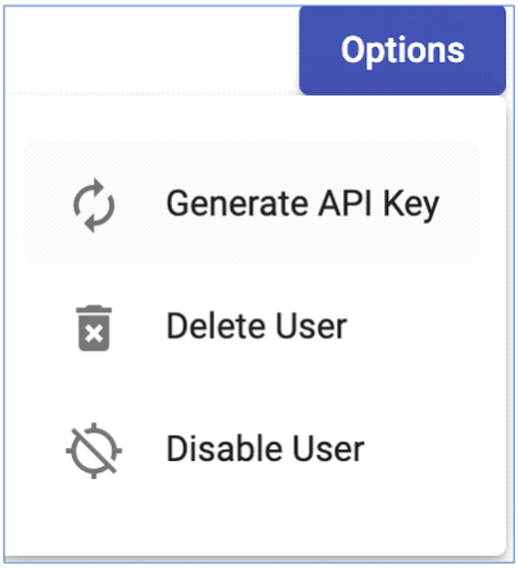


Figure: Options menu

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.

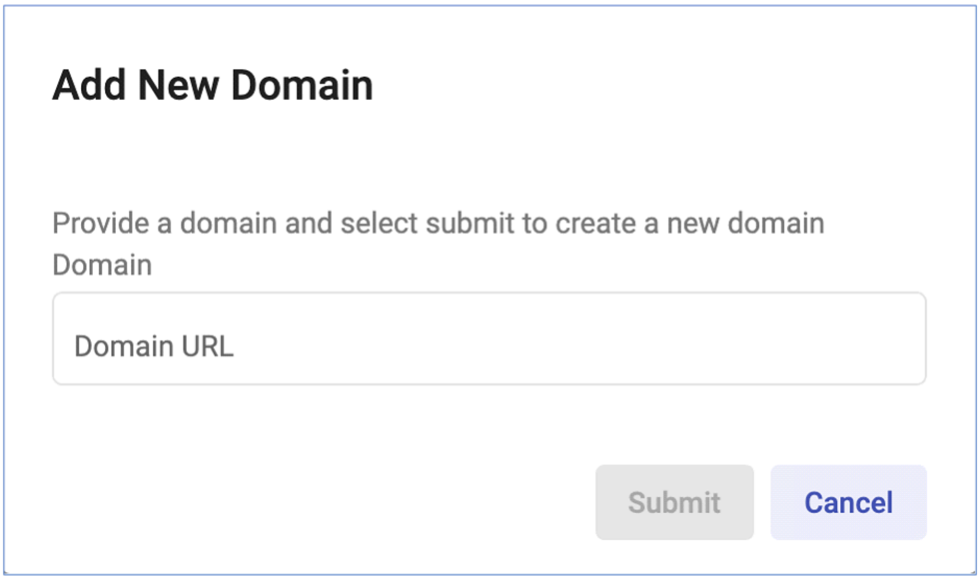


Figure: Add domain dialogue

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

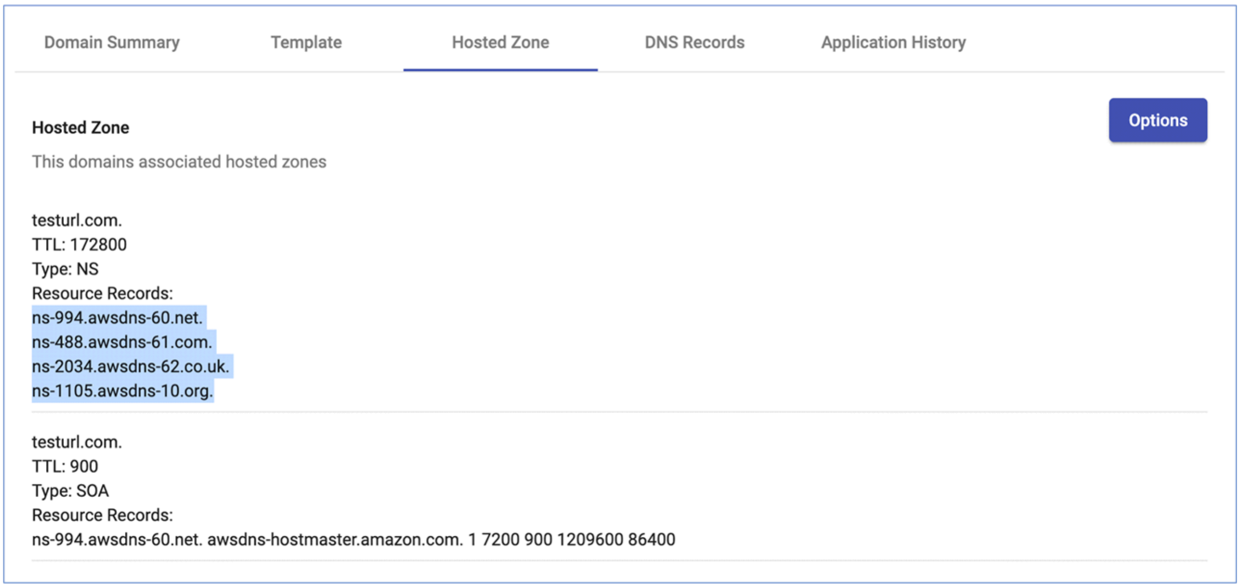


Figure: Hosted Zone tab

• 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:

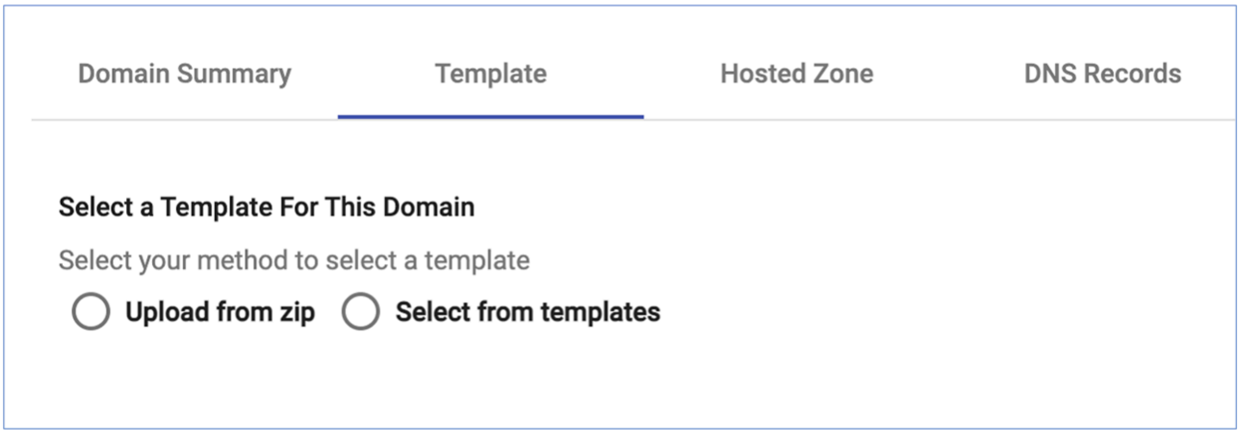


Figure: Upload content

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.

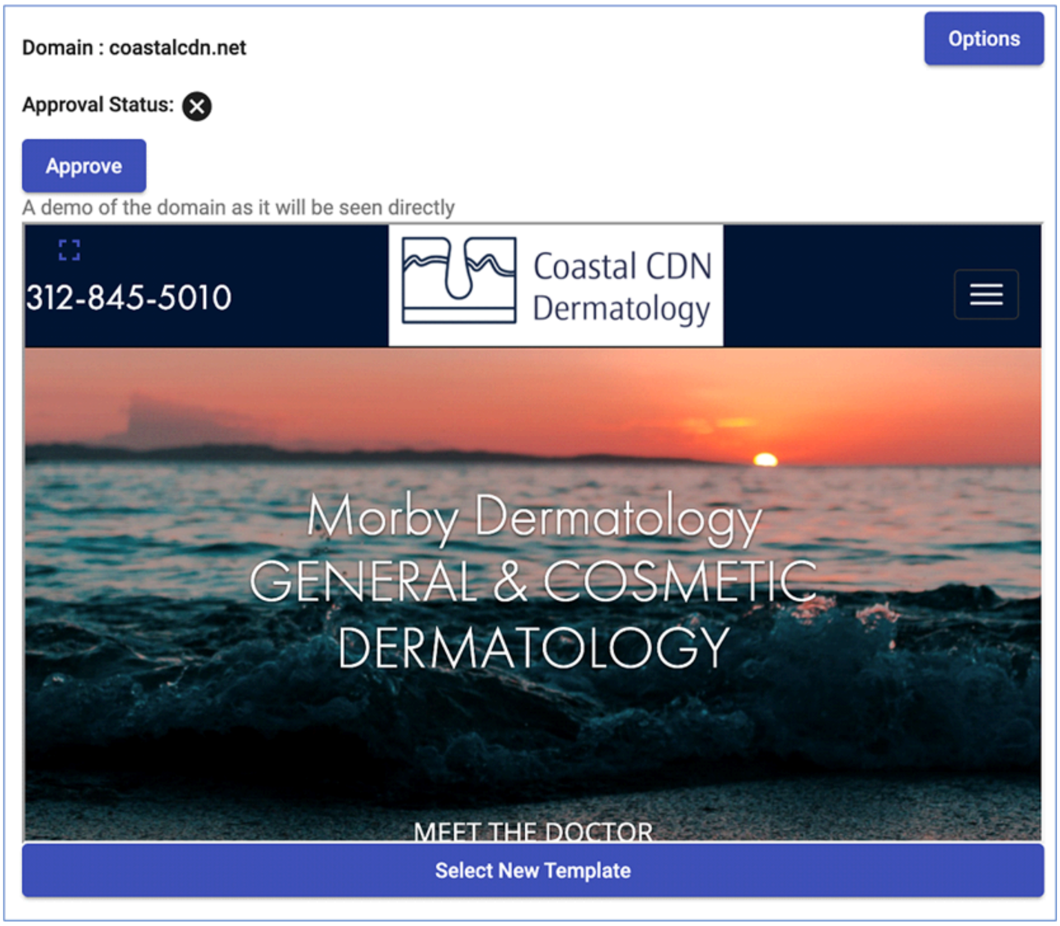


Figure: Content review screen

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

5. Launch website

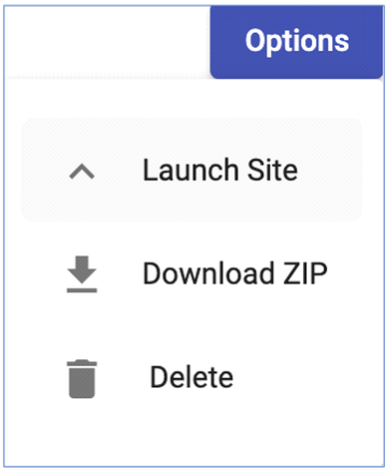


Figure: Option to Launch Site

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

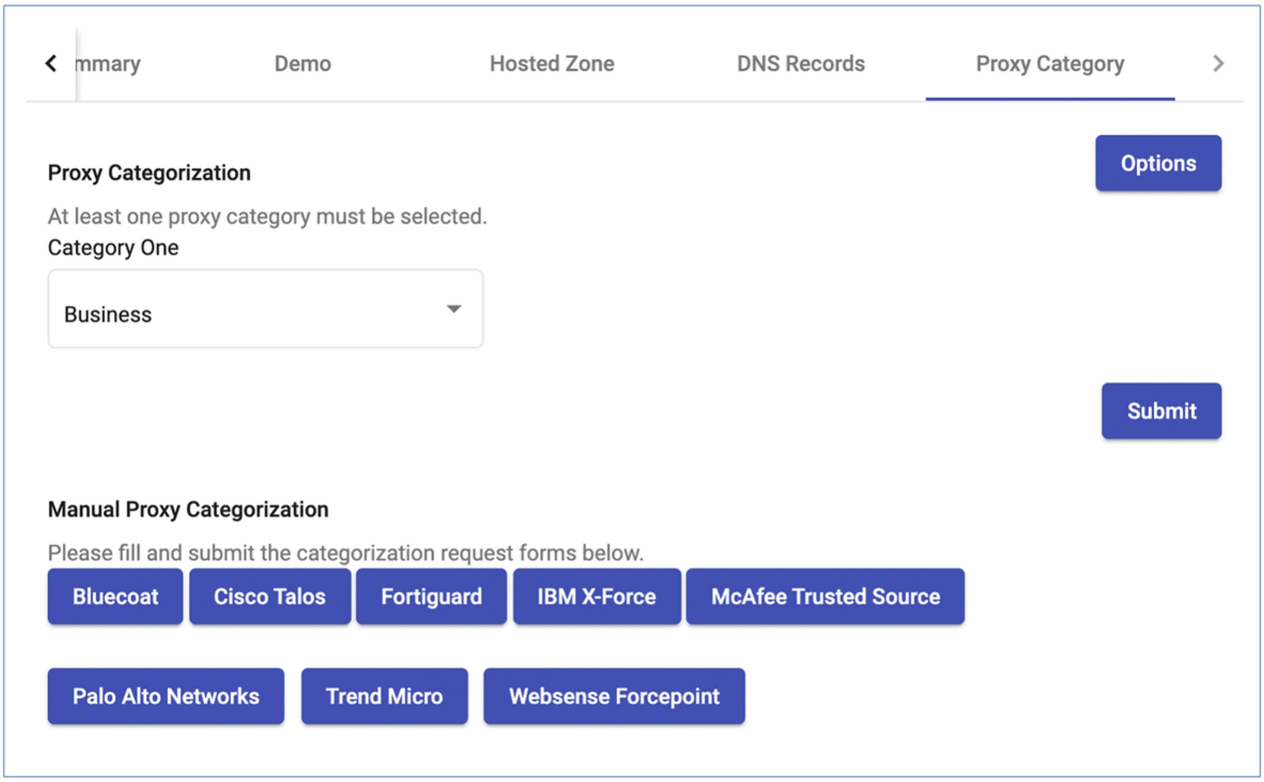


Figure: Proxy Category tab

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.

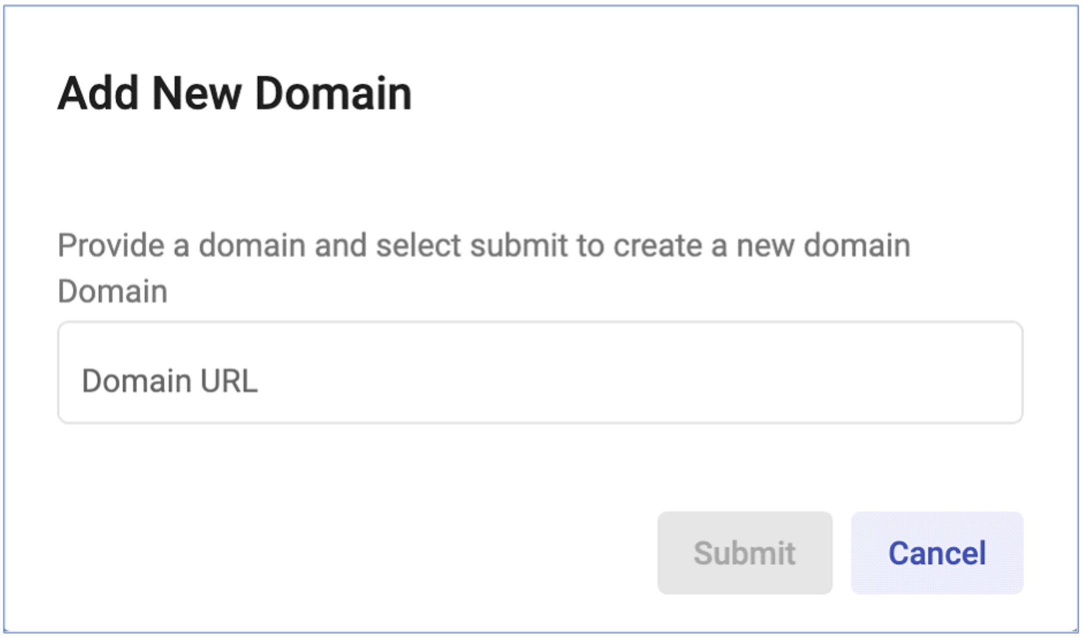


Figure: Add New Domain dialogue

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.

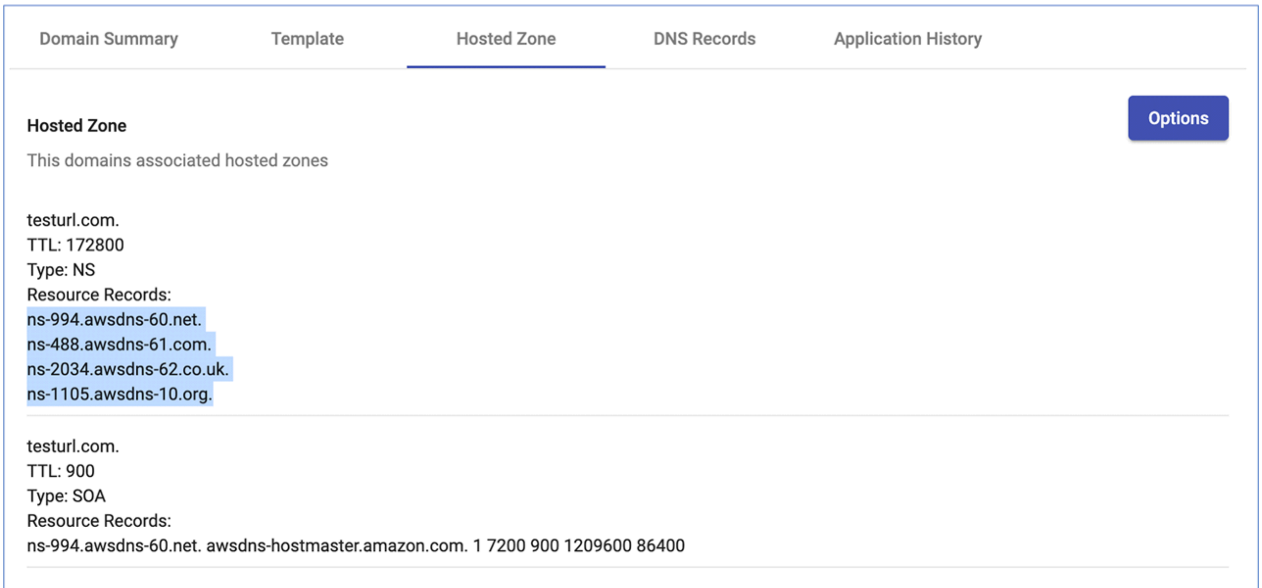


Figure: Hosted Zone tab

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.

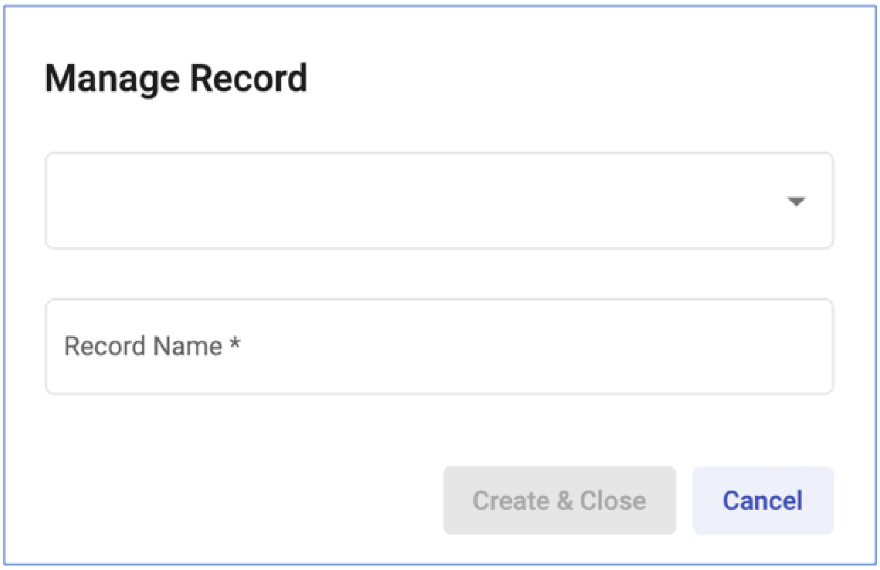


Figure: Manage Record dialogue

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.

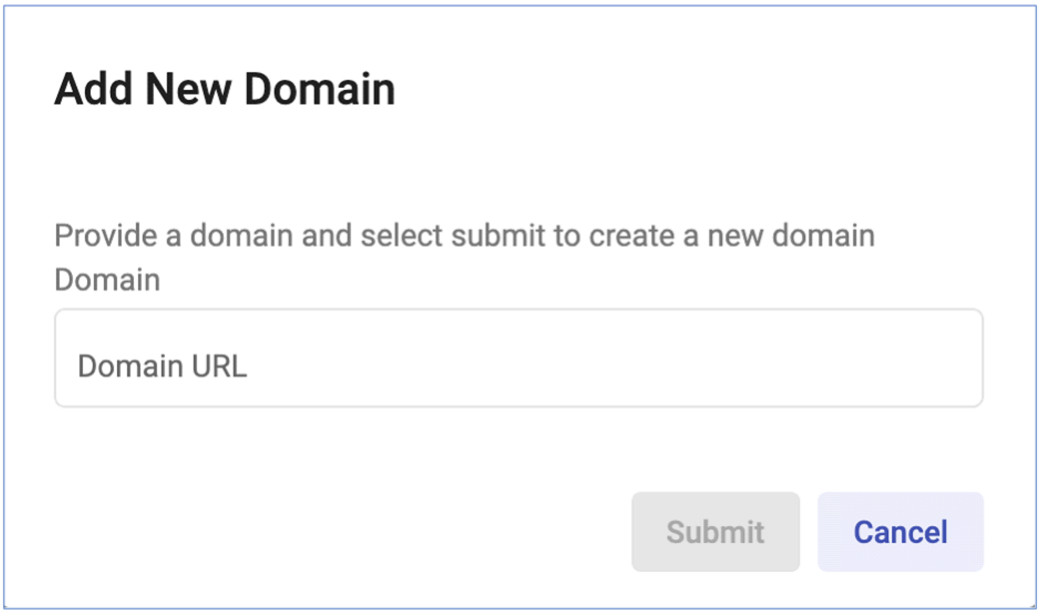


Figure: Add New Domain dialogue

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

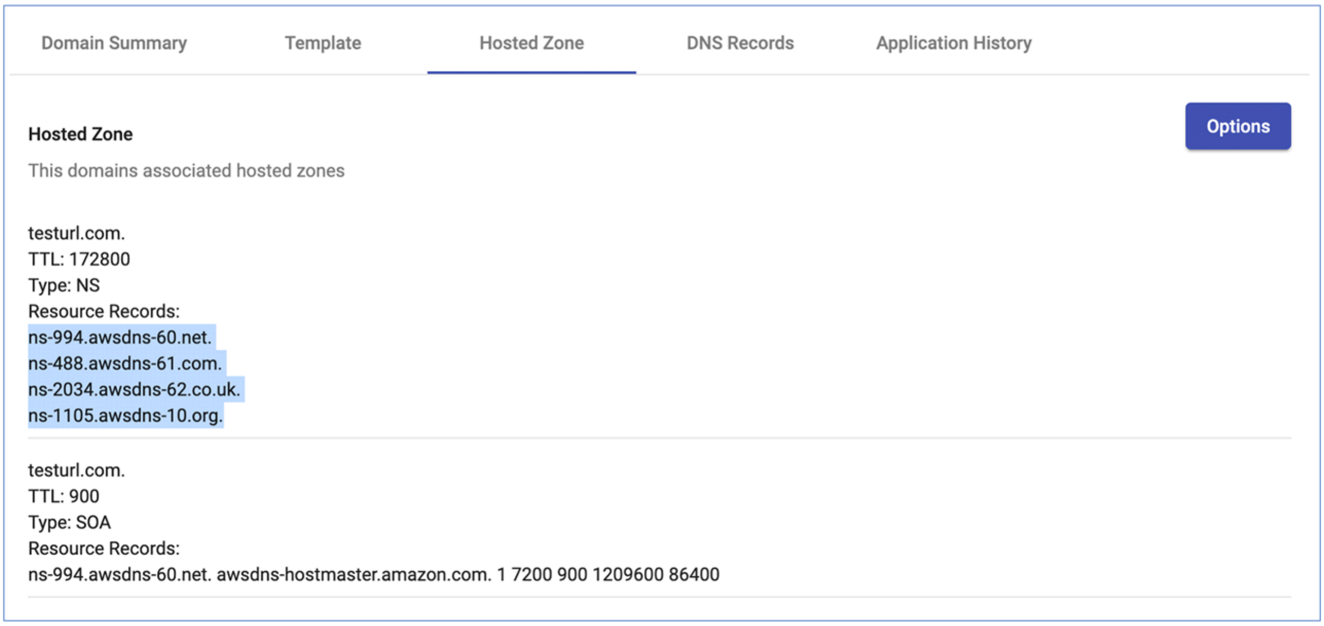


Figure: Hosted Zone tab

• 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.

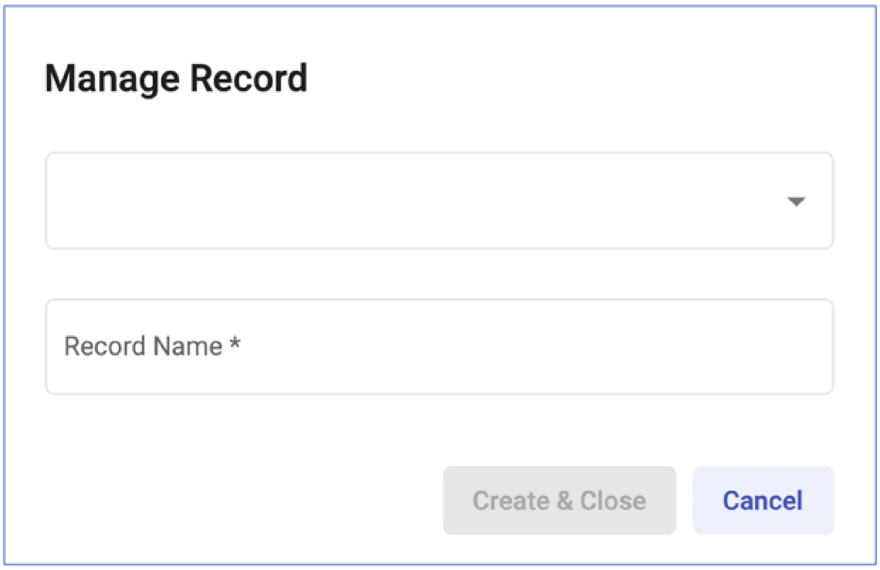


Figure: Manage Record dialogue

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.

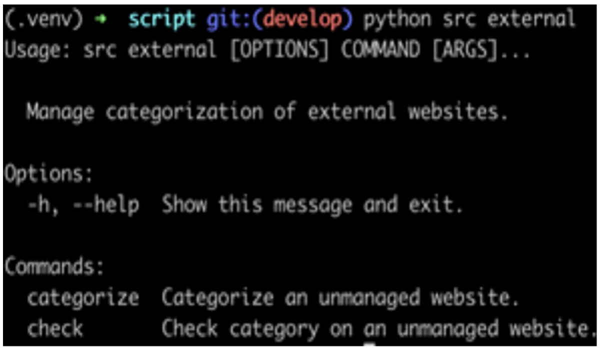


Figure: Command Line Interface

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.

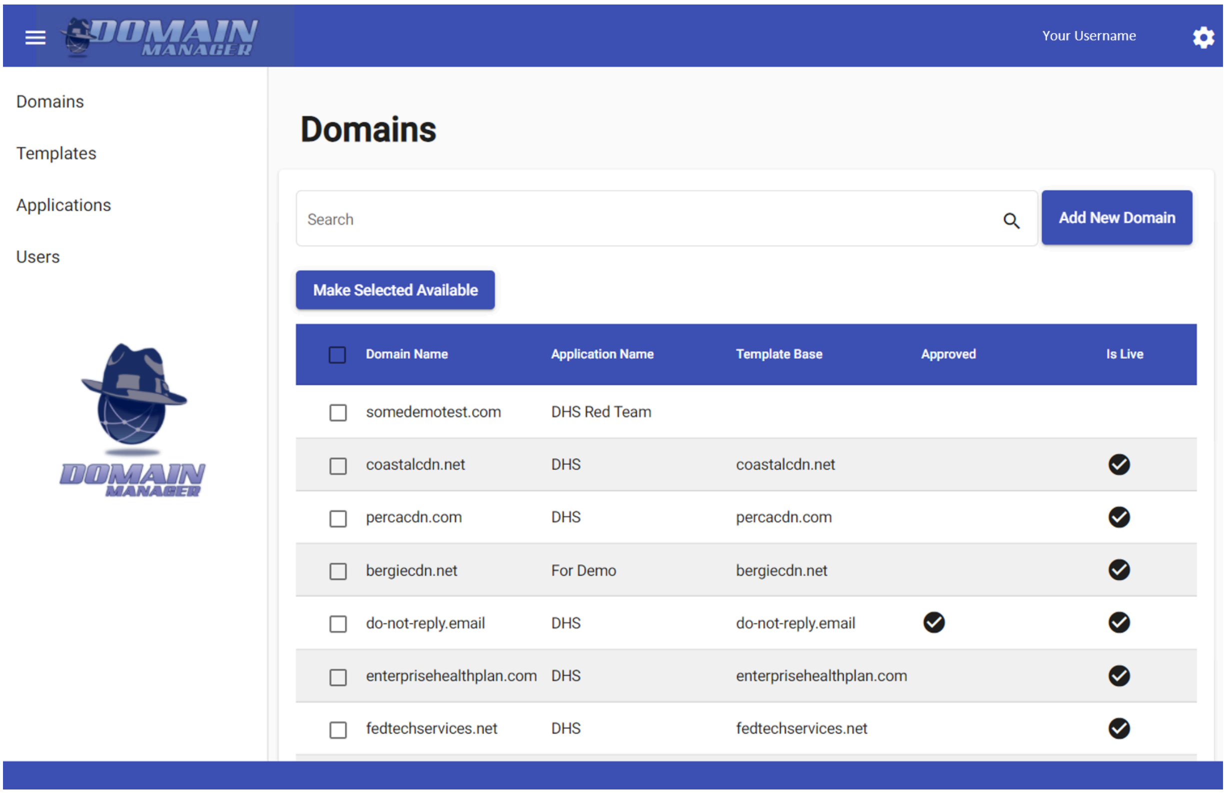


Figure: Admin view

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

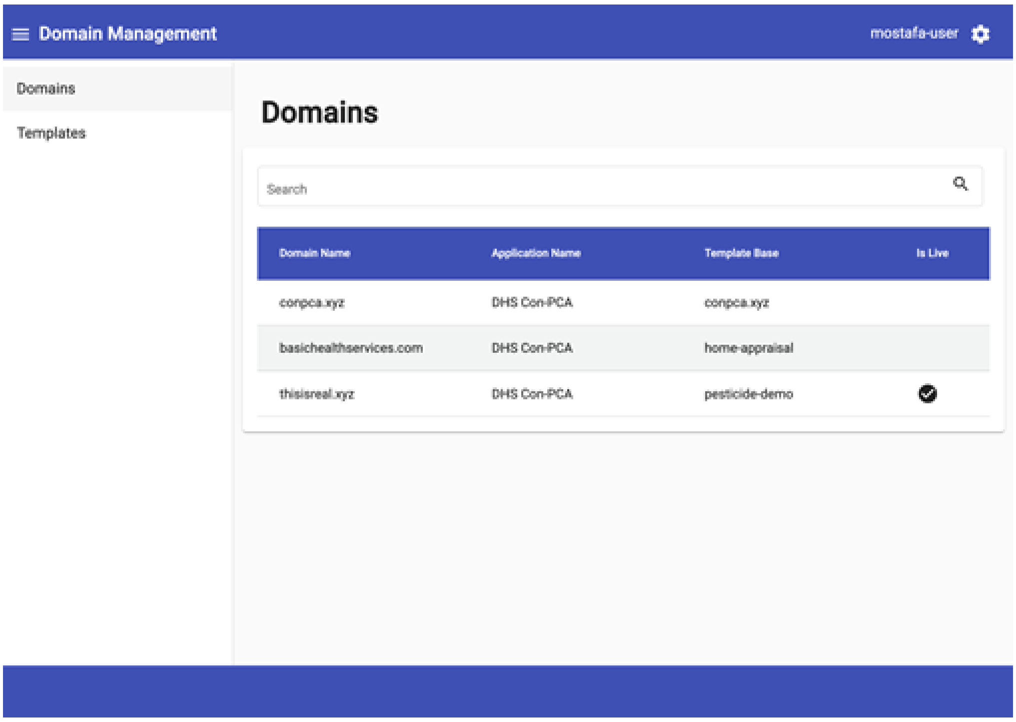


Figure: User View

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.

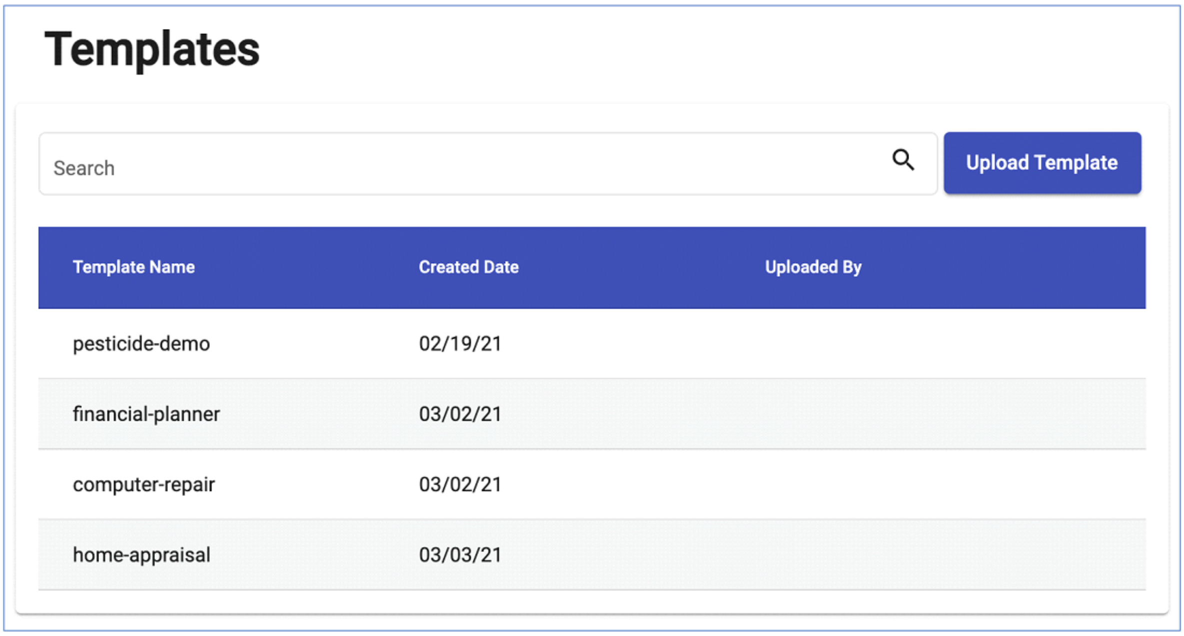


Figure: Template approval

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.

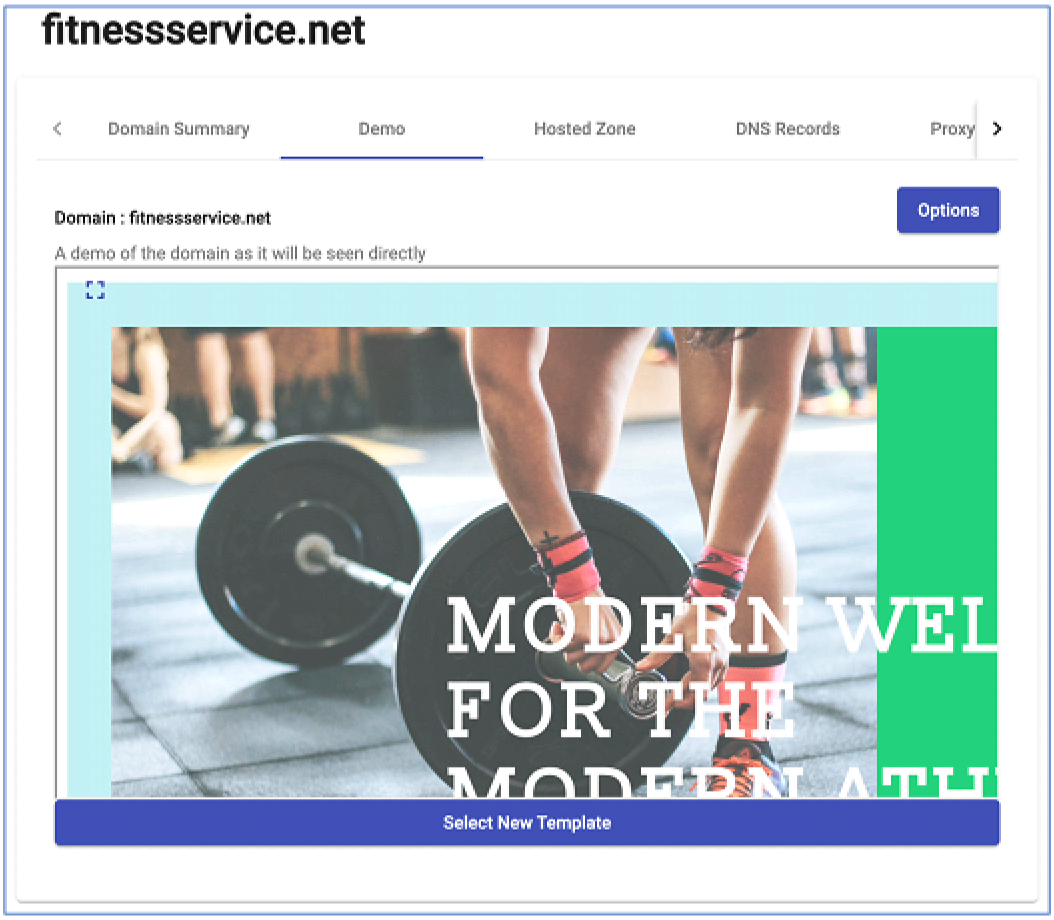


Figure: Review site content

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

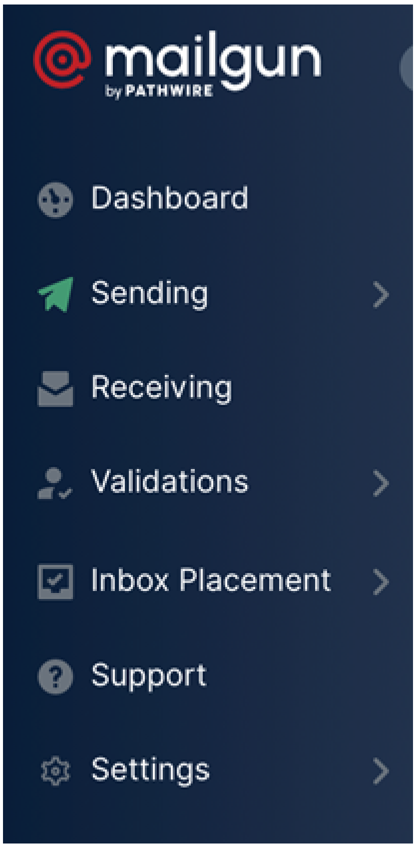
This is a step-by-step guide on how to setup your domain to send emails using Mailgun, mailgun.org.

Prerequisites:
- Mailgun account access
- A domain managed by Domain Manager

Setup your domain to send emails:

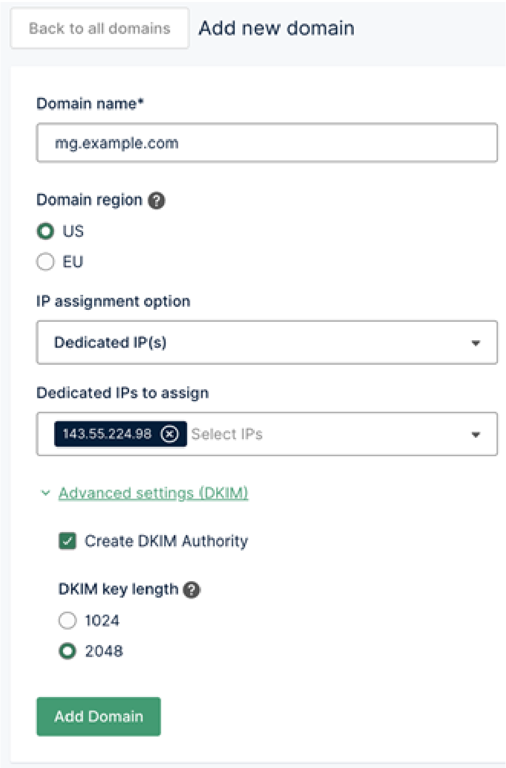
1. Login to your Mailgun Dashboard

2. Click on "Sending" on the left panel



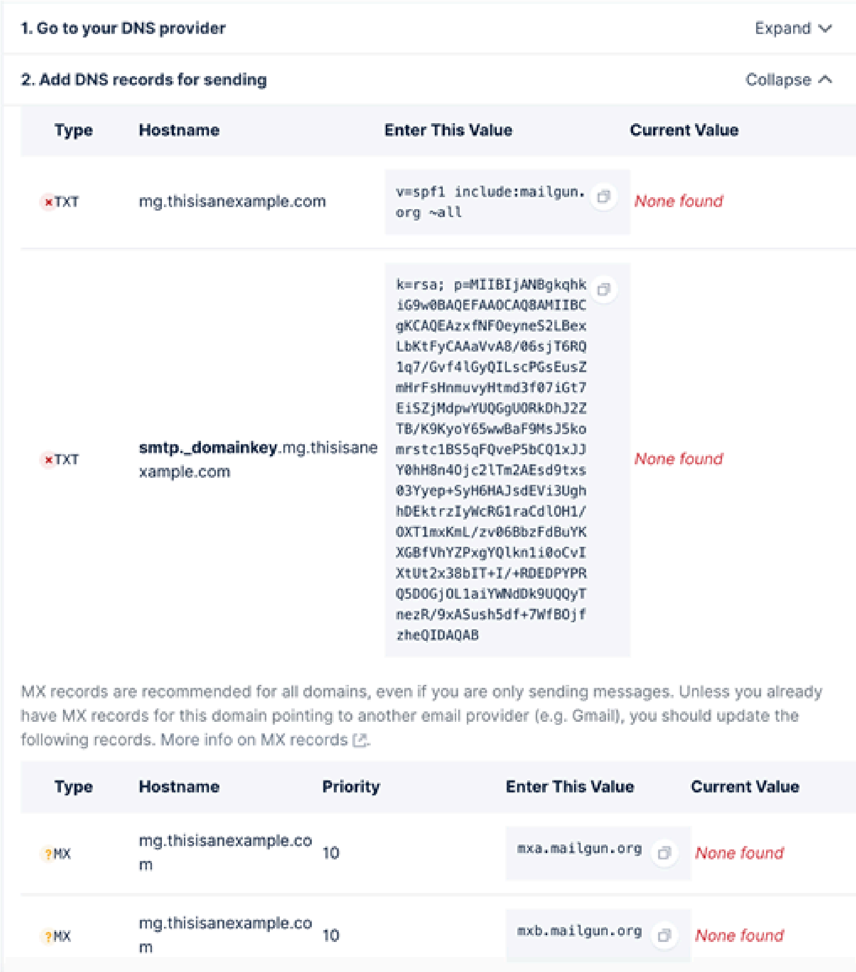
3. Click on "Add New Domain" on the top right

4. Input your domain



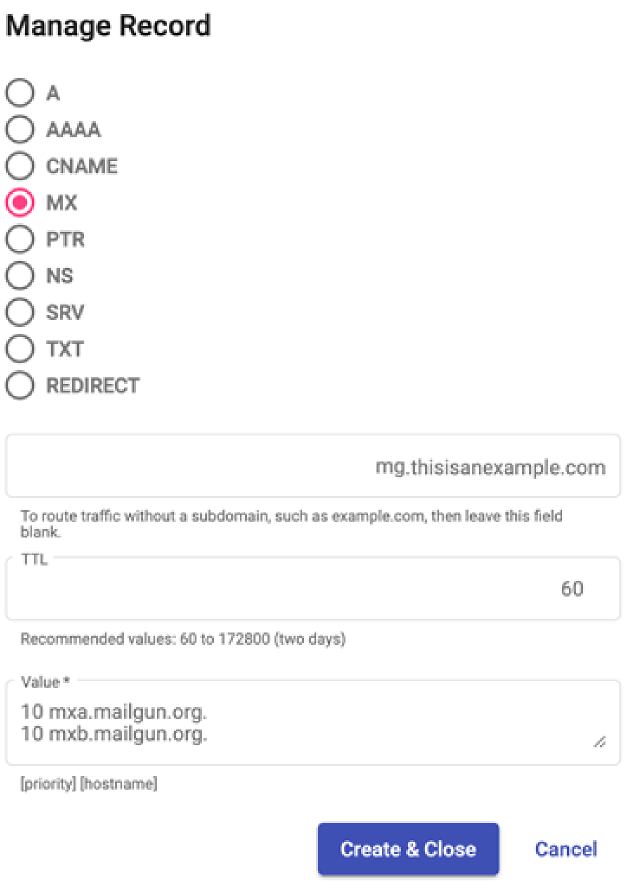
- Add the domain you'd like to use for sending emails which is currently being managed by Domain Manager
    i. It's highly recommended to use a subdomain. The common subdomain used with Mailgun is "mg".
- Select "US" for Domain region
- Select "Dedicated IP(s)" for IP assignment option
    i. Mailgun 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. 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.



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

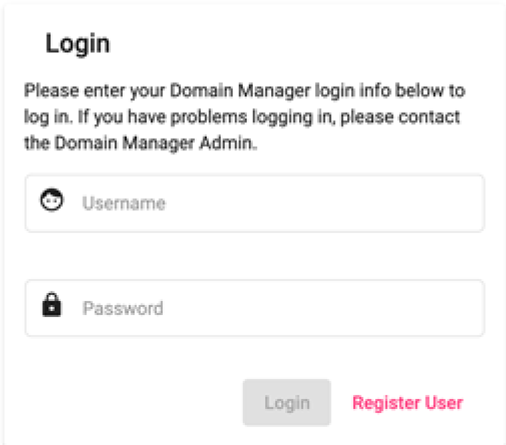


Figure: DM login

b. Click on the cog on the top right and then click My Profile

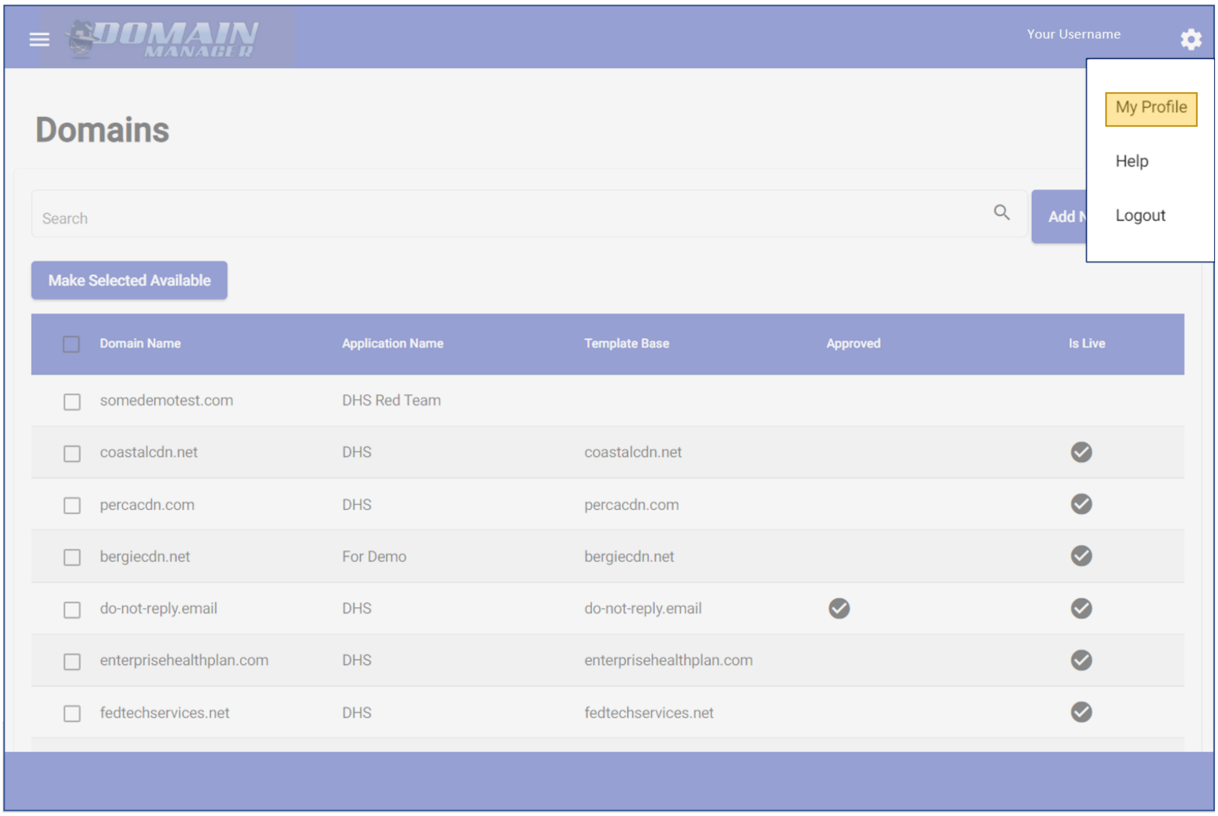


Figure: My Profile

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

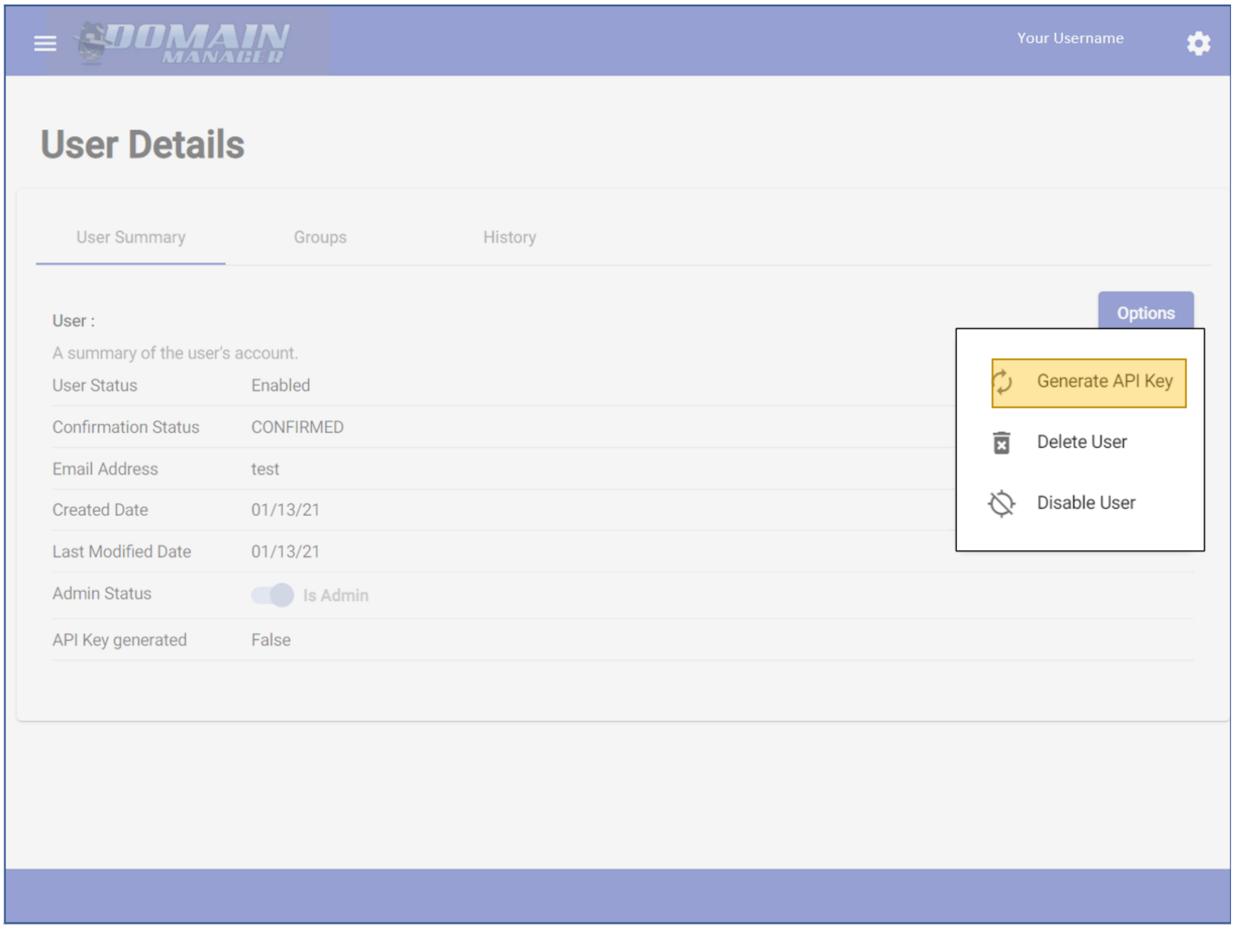


Figure: Generate API Key

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!

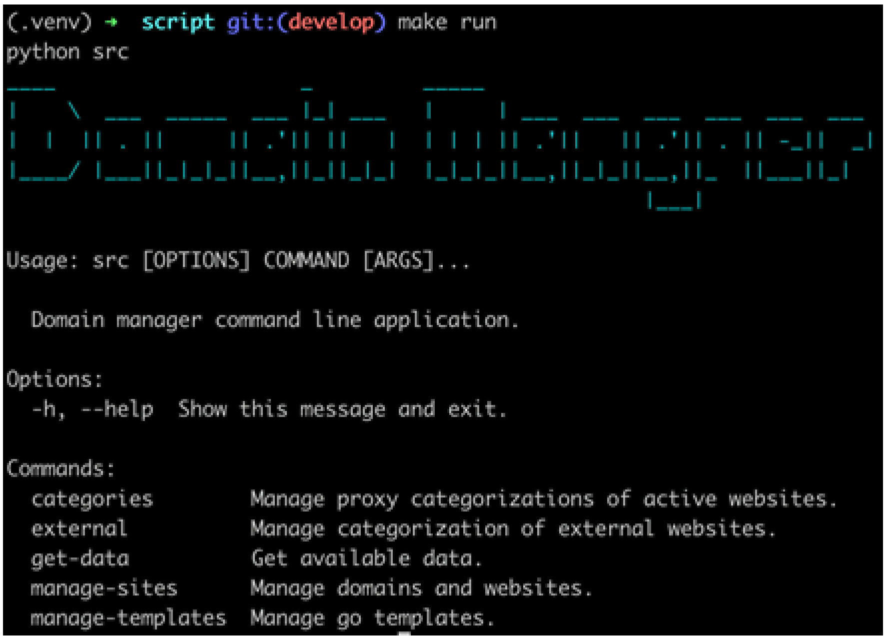


Figure: CLI make run

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.

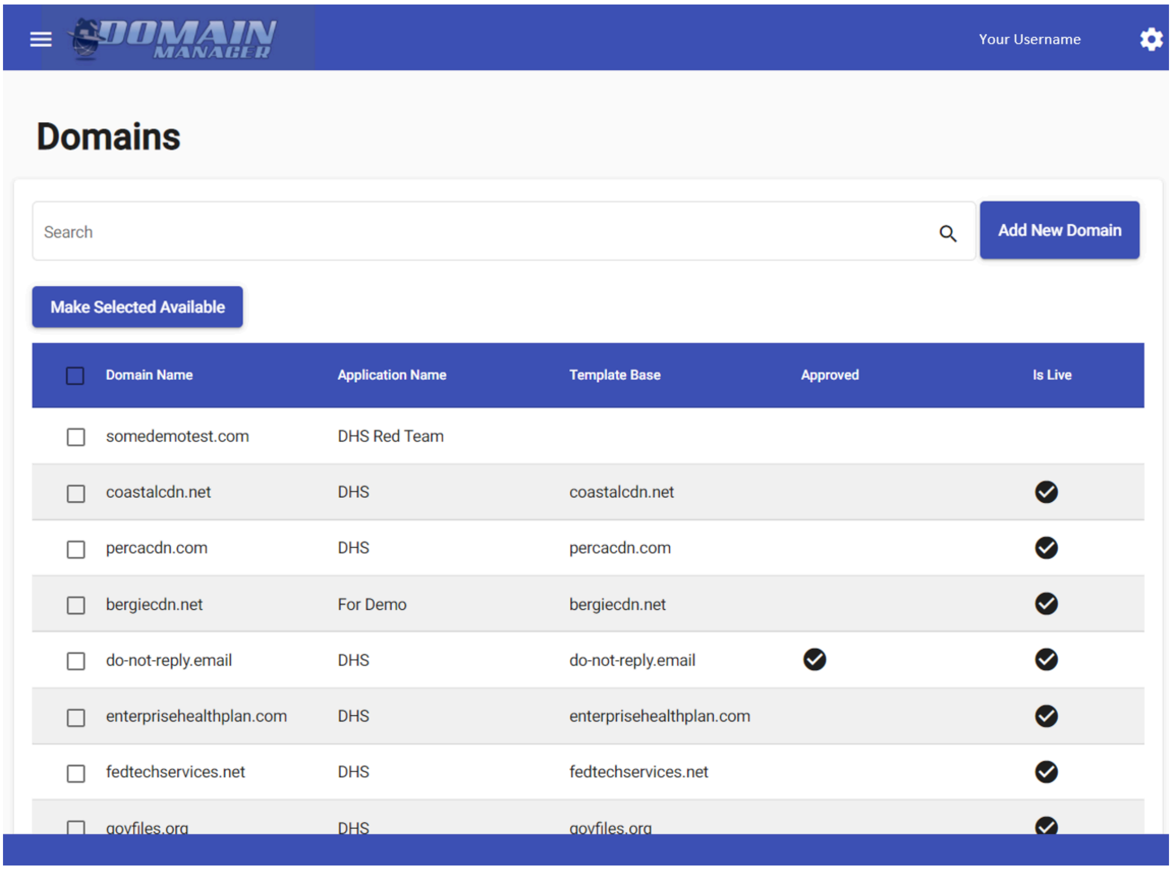


Figure: Domains list

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.

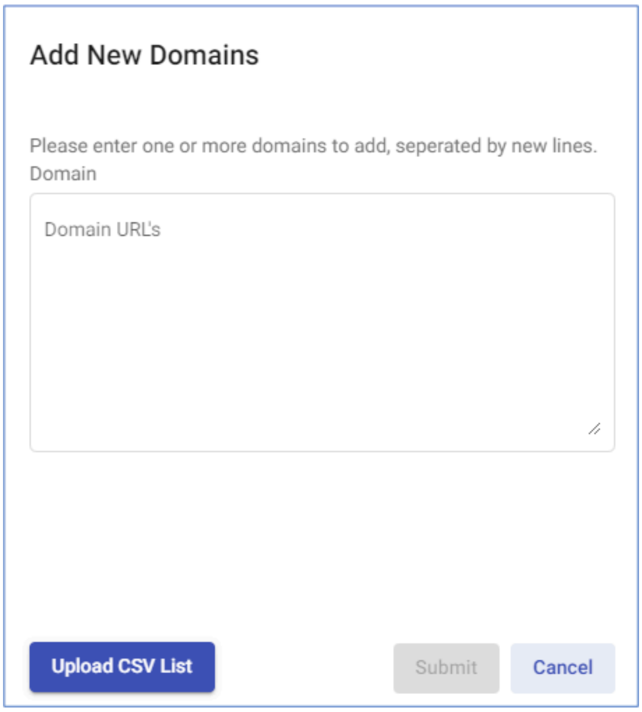


Figure: Add Domain dialogue

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.

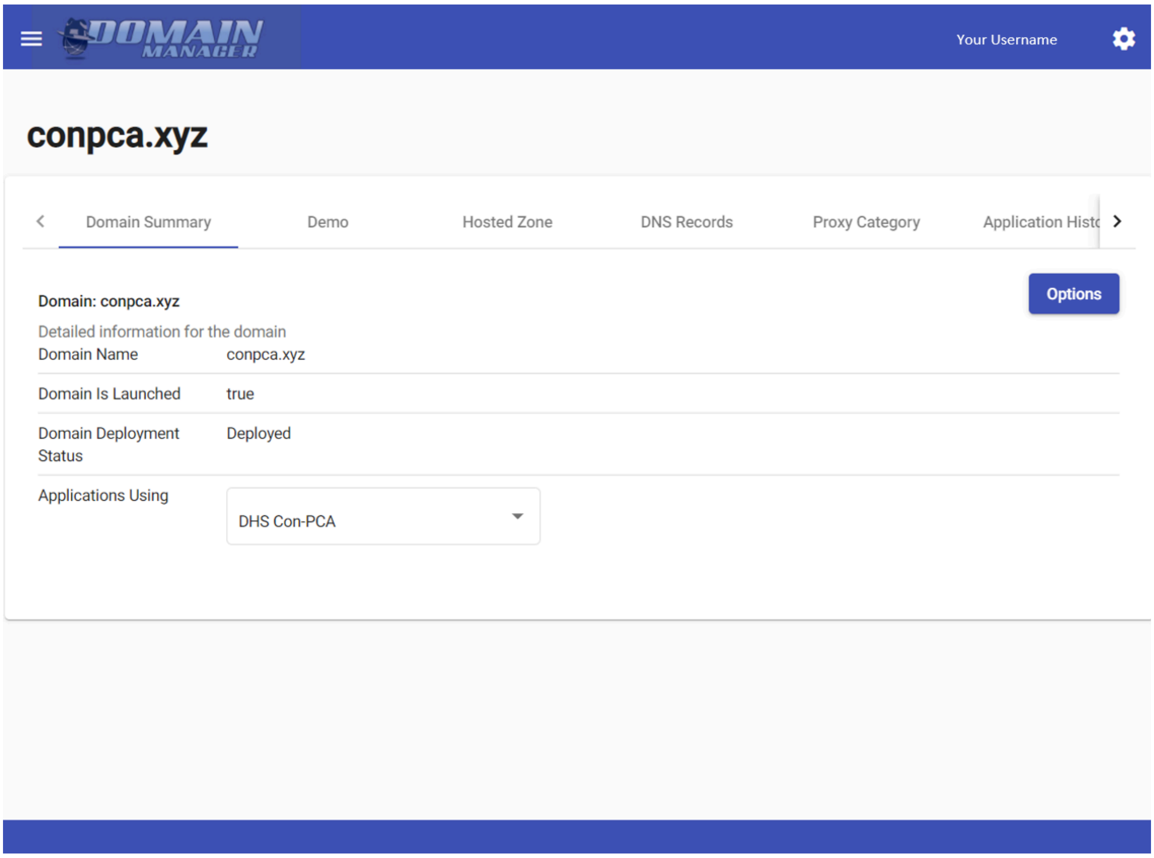


Figure: Domain Details

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

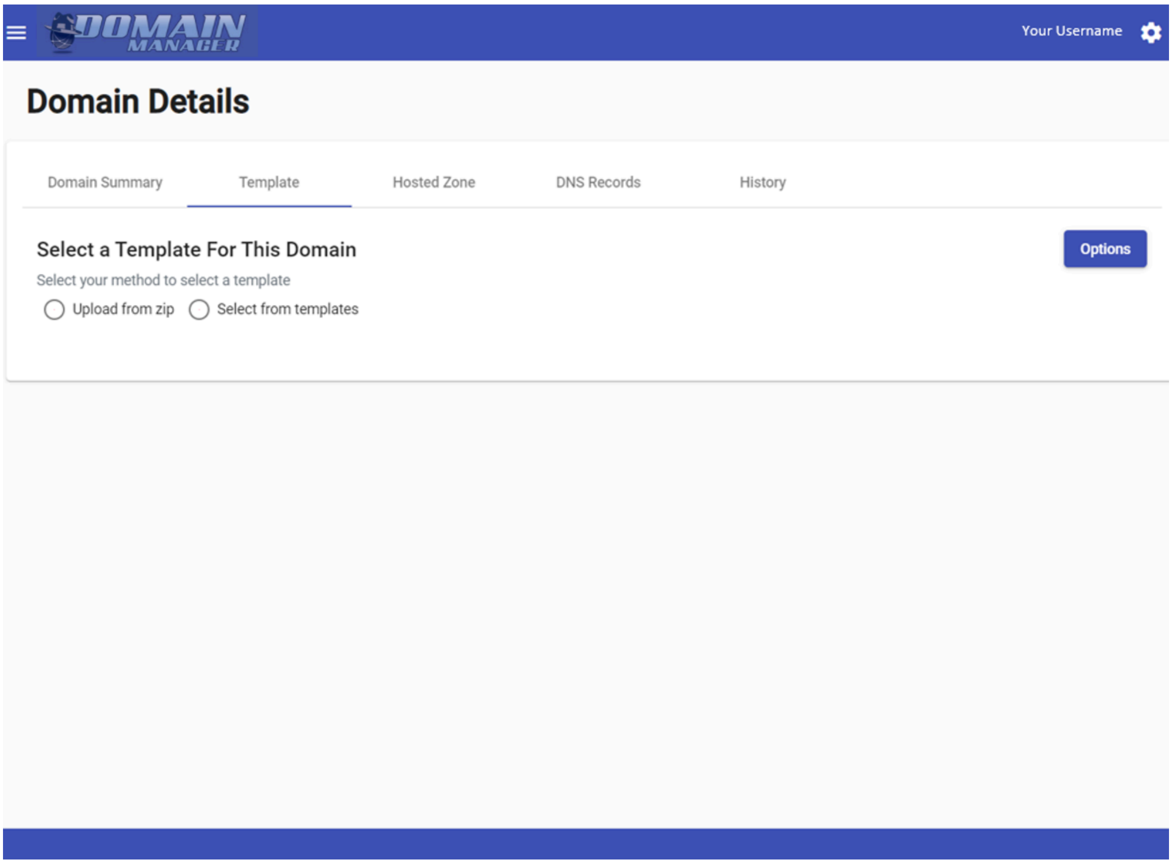


Figure: Template tab

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.

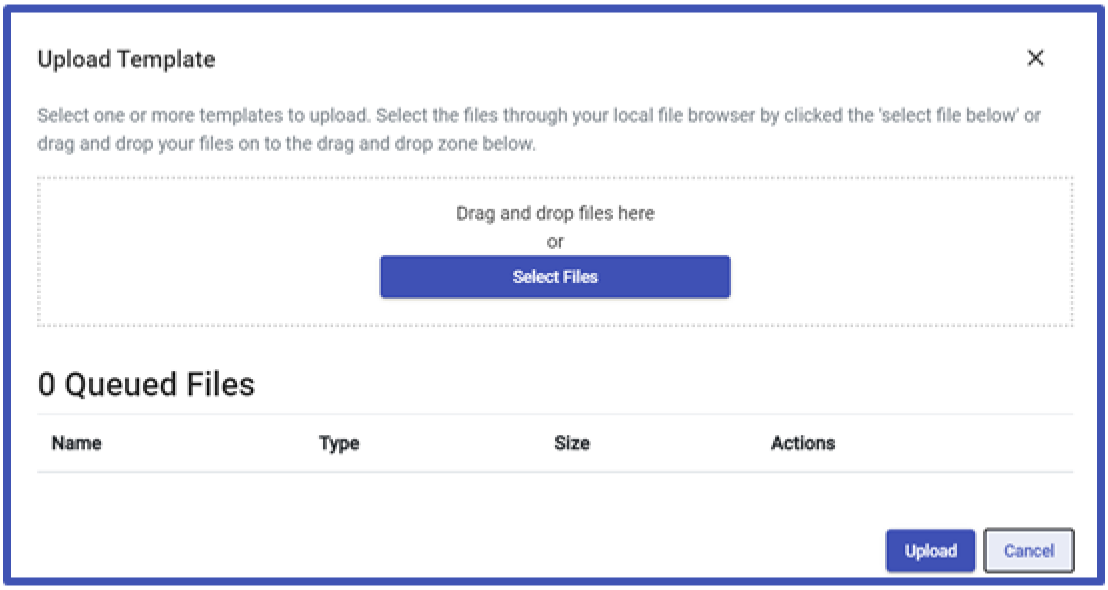


Figure: Template Upload dialogue

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

Select from Templates

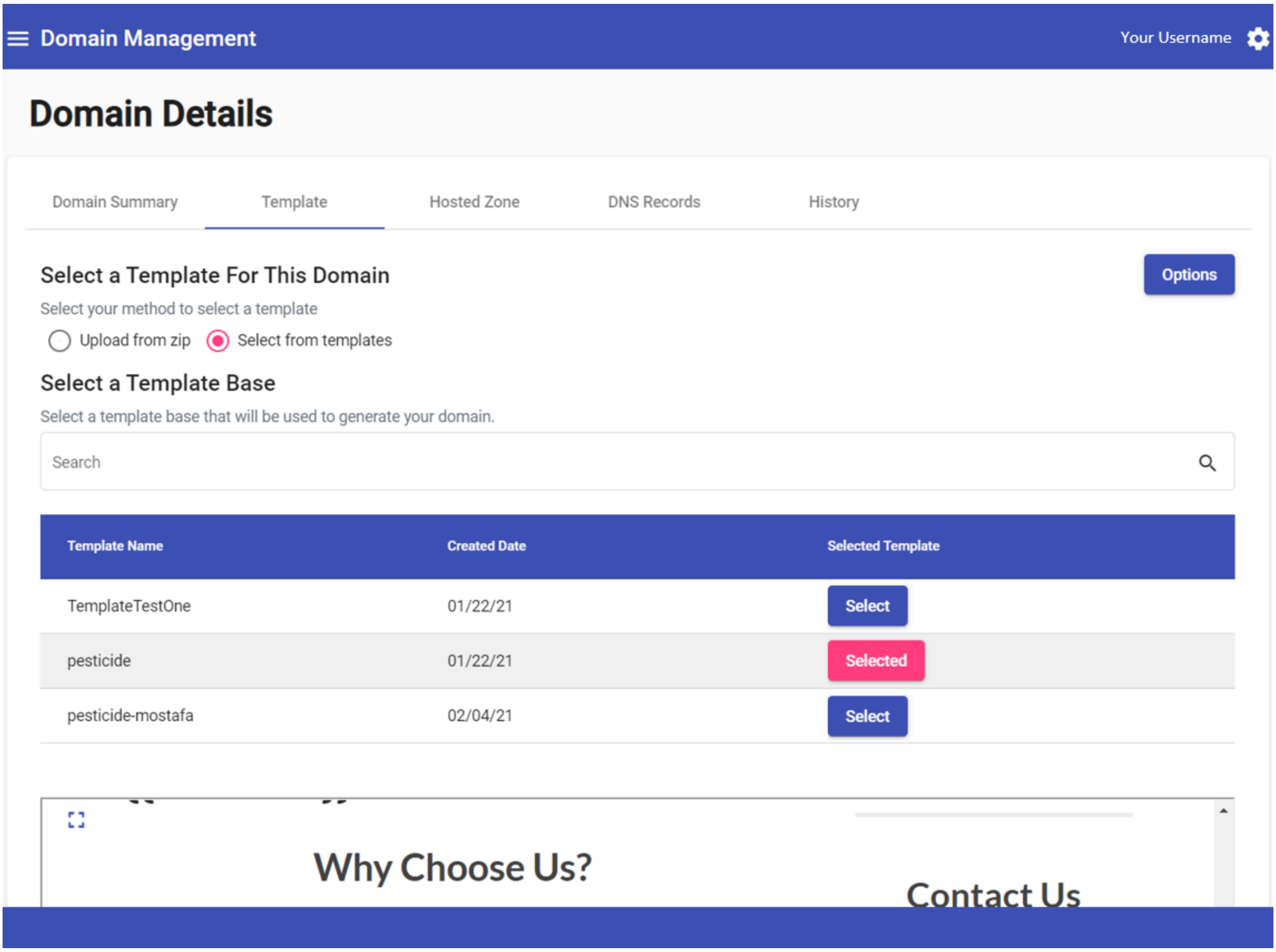


Figure: Select from Template

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

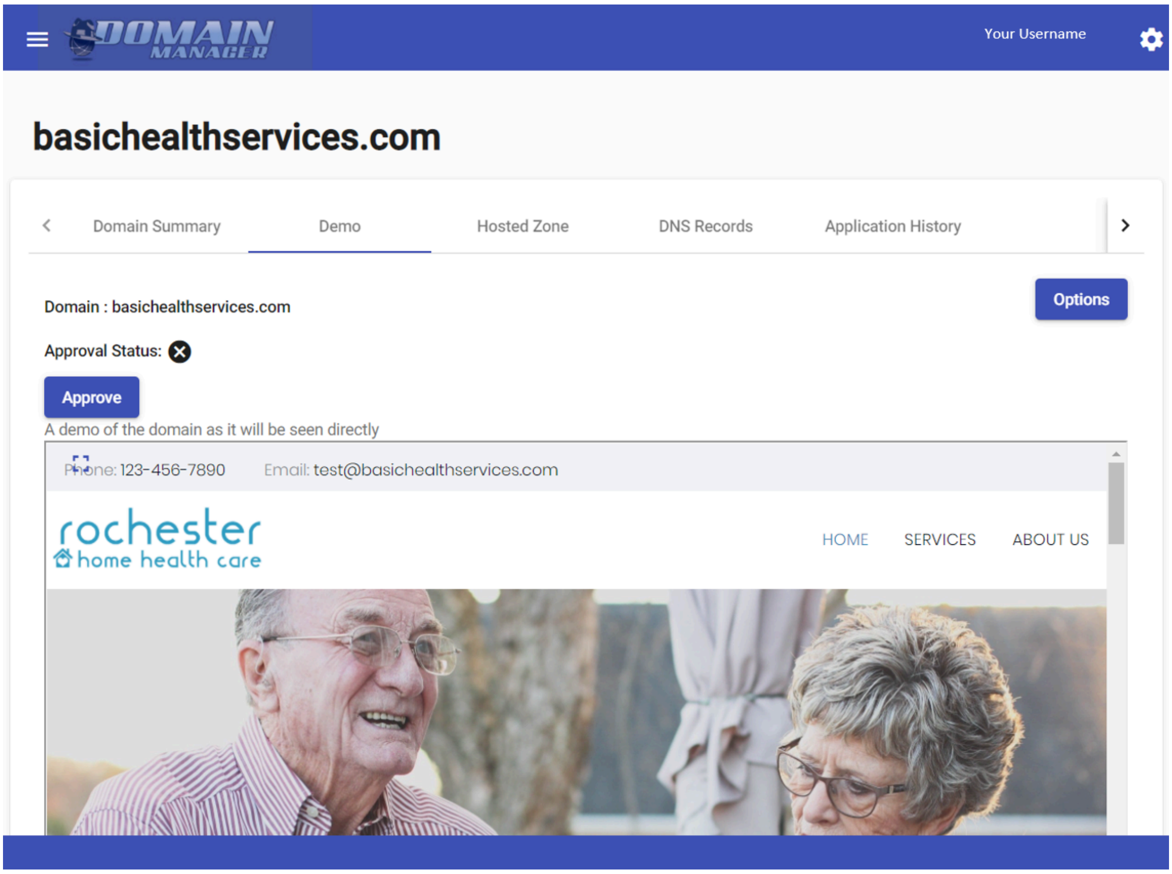


Figure: Demo tab

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.

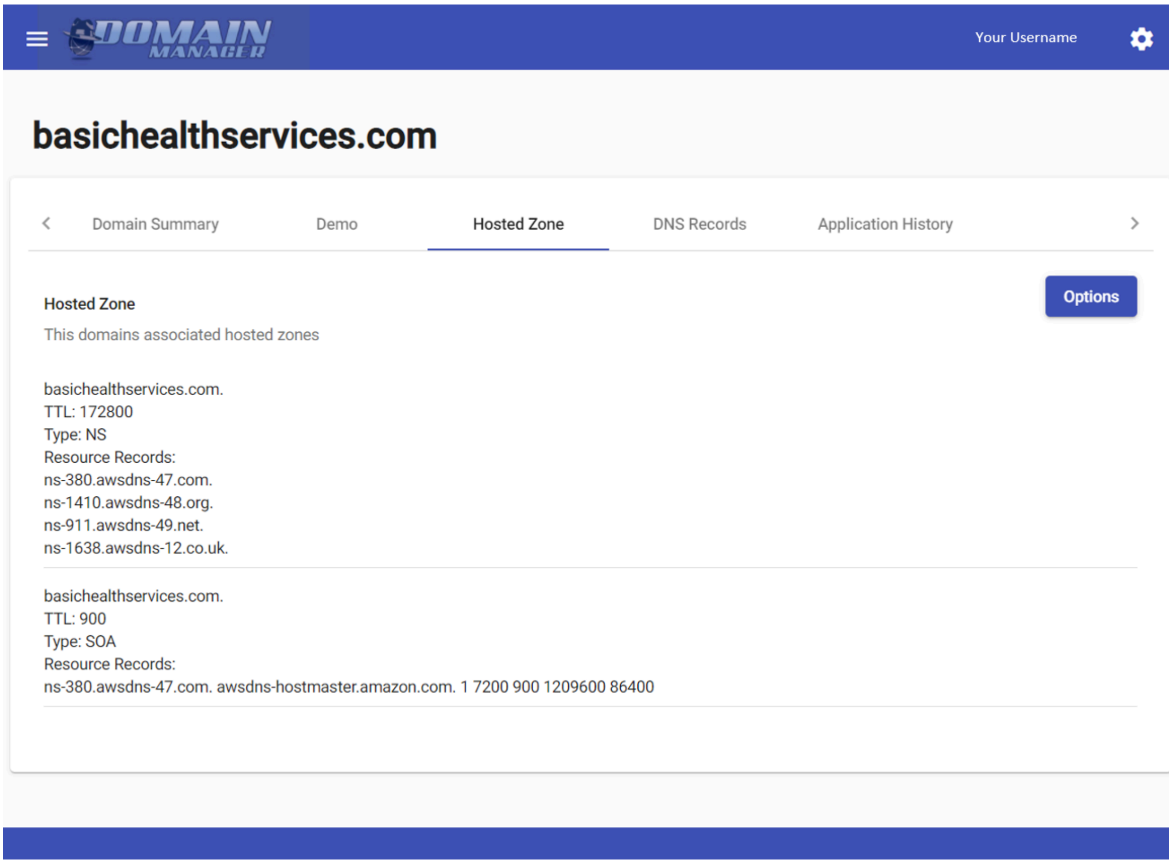


Figure: Hosted Zone tab

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.

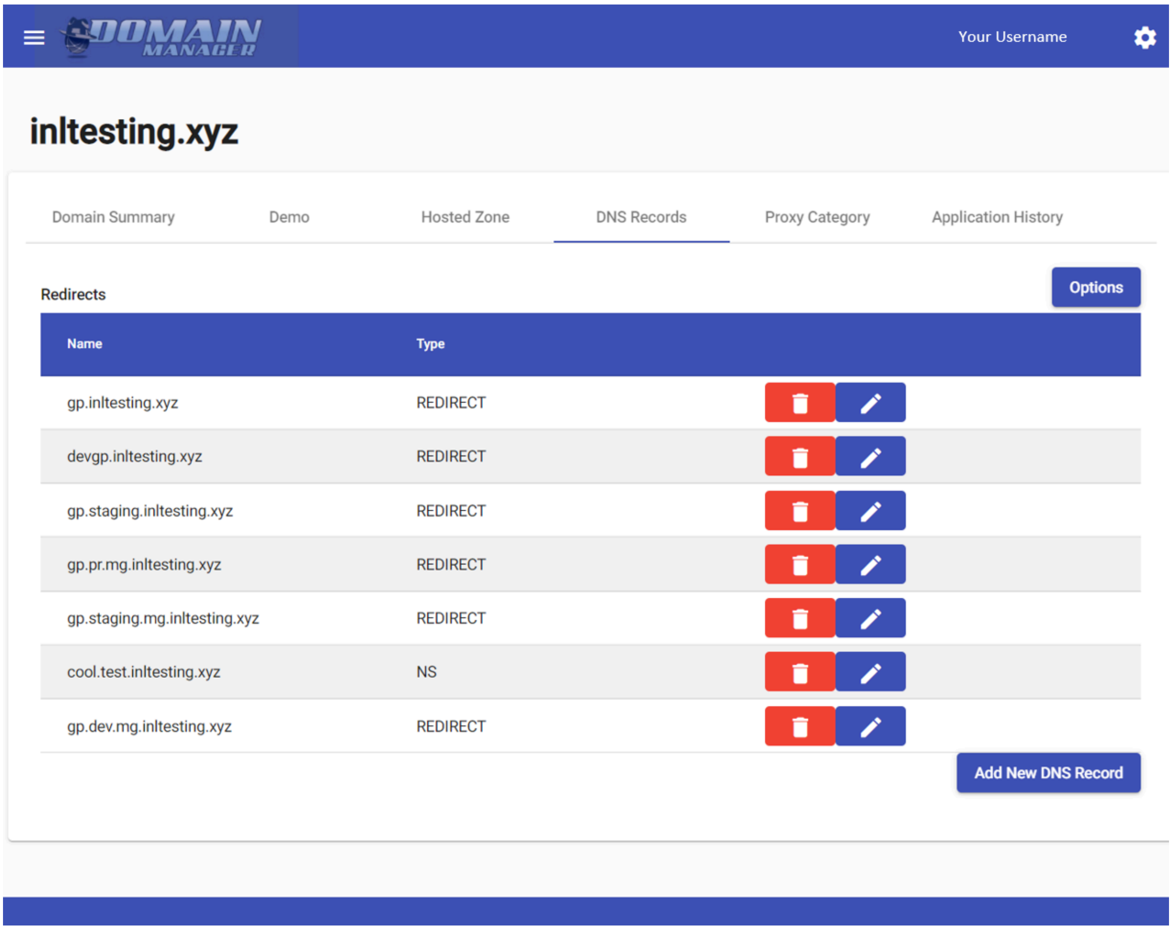


Figure: DNS Records tab

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

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

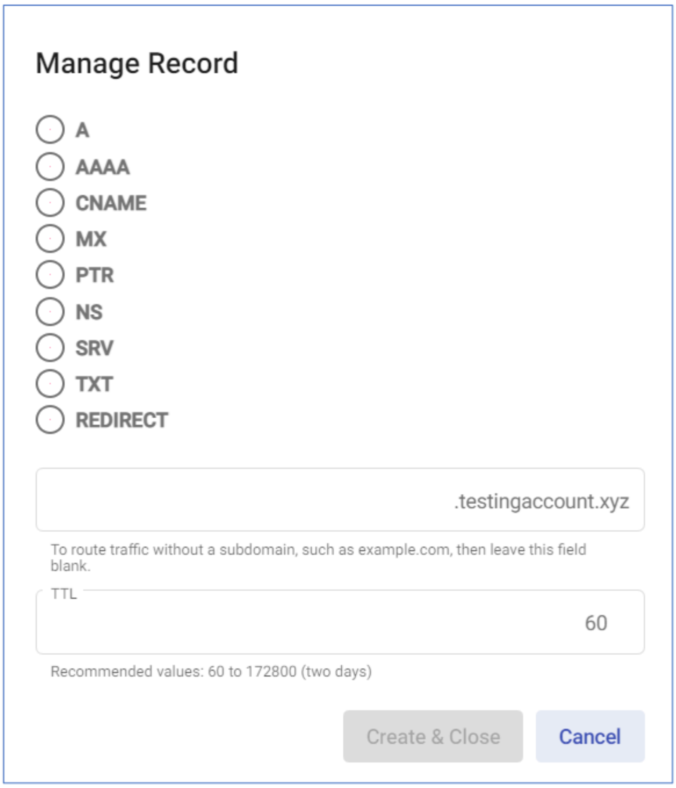


Figure: Manage Record dialogue

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.

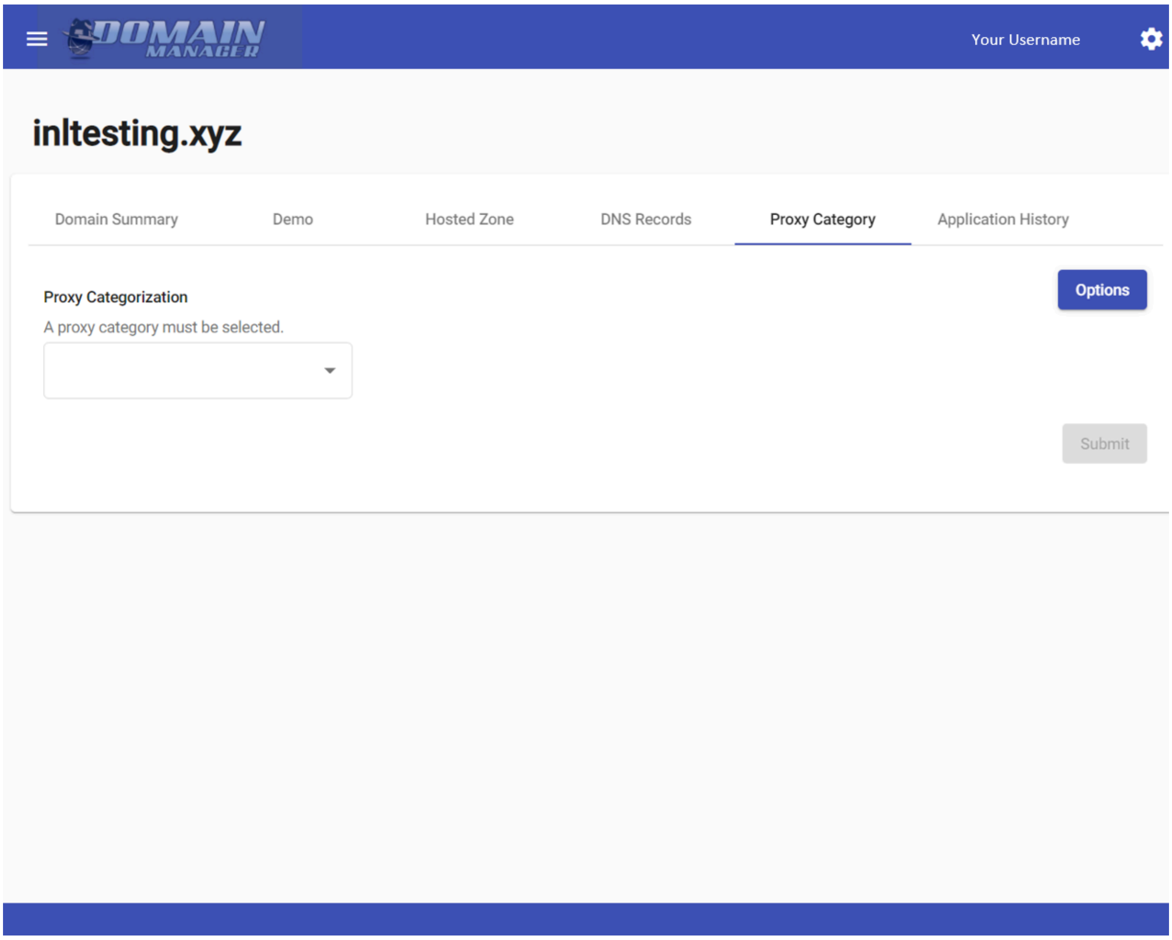


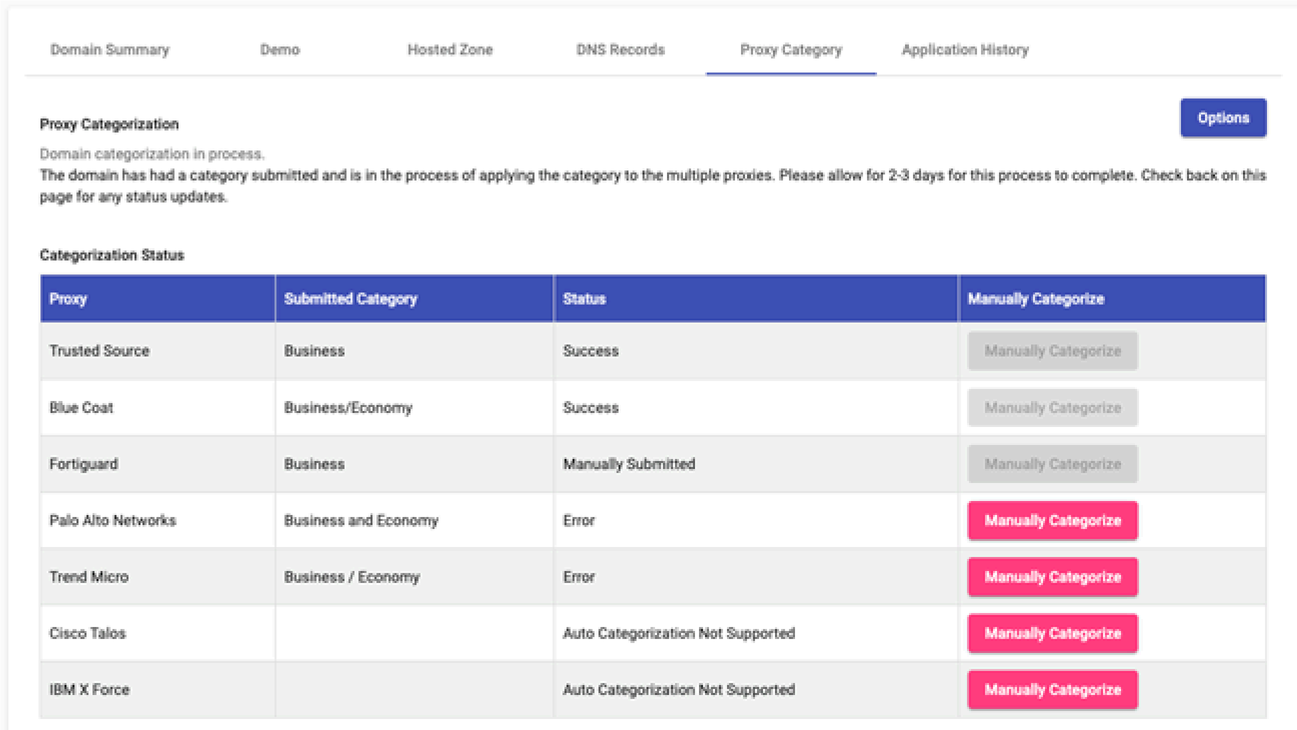
Figure: Proxy Categorization tab

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

Options

Proxy Categorization

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

Domains
Templates
Applications
Users

Check Categories

Check Results

Proxy	Category	
Trusted Source	- Marketing/Merchandising	Manually Check
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.

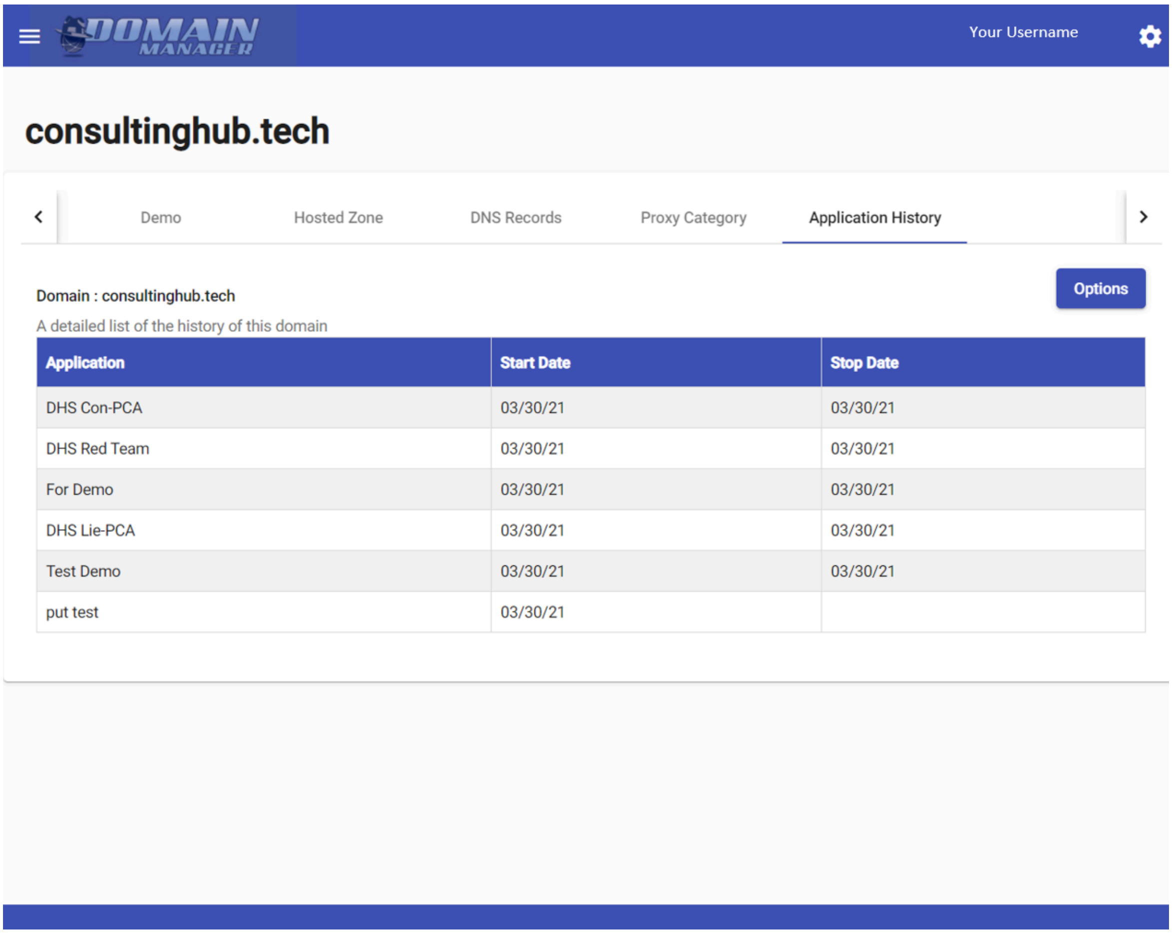


Figure: Domain History

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.

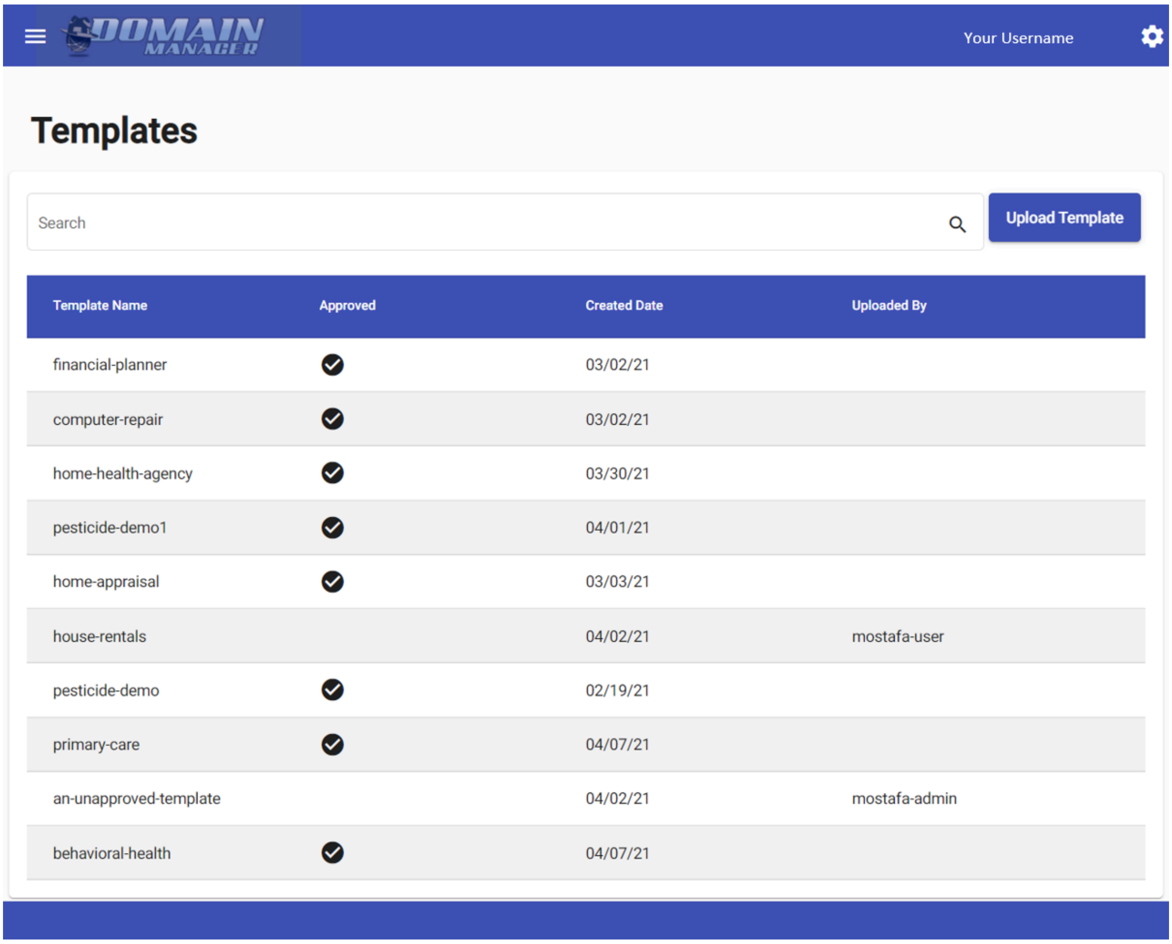


Figure: Template list

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.

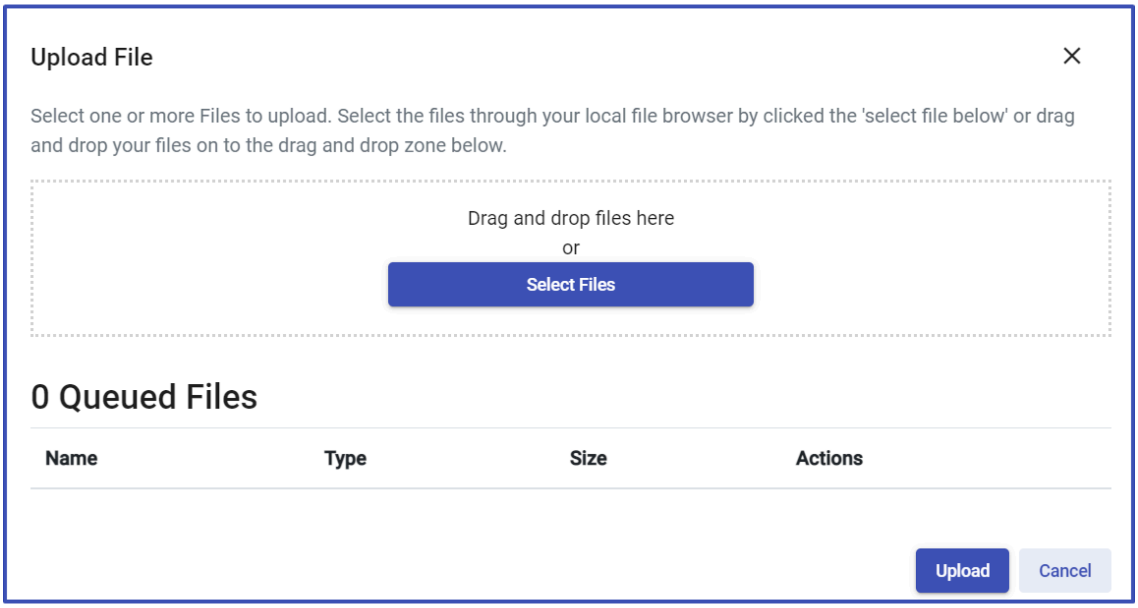


Figure: Template Upload dialogue

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.

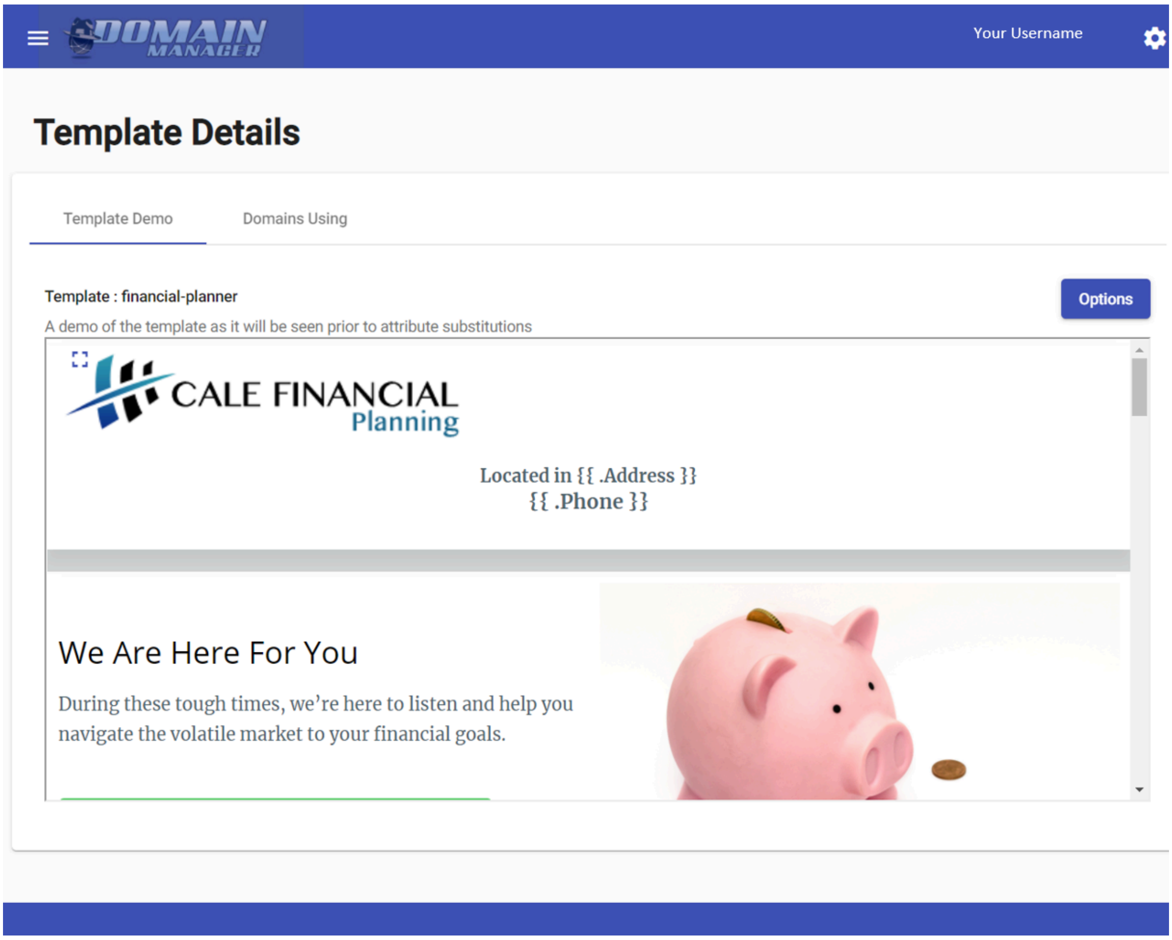


Figure: Template Details screen

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.

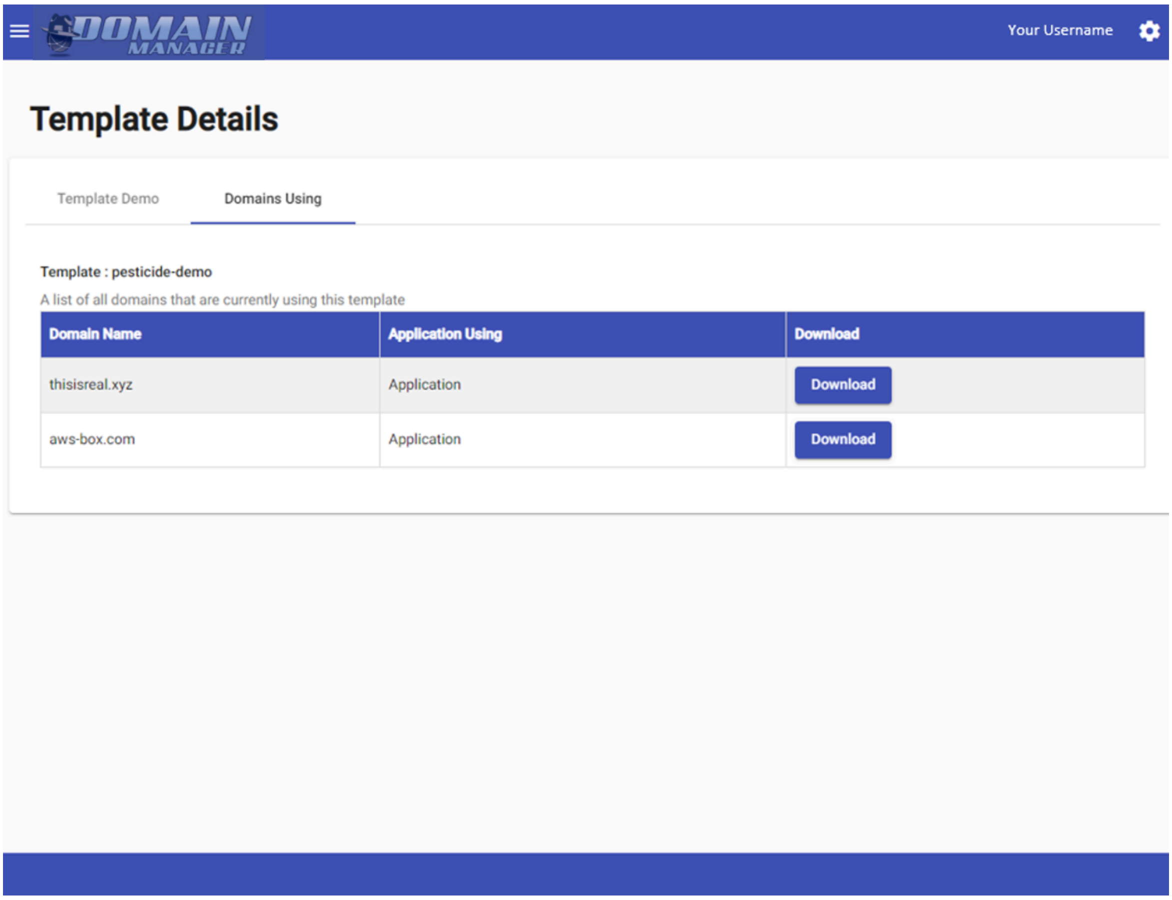


Figure: Domains Using tab

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:

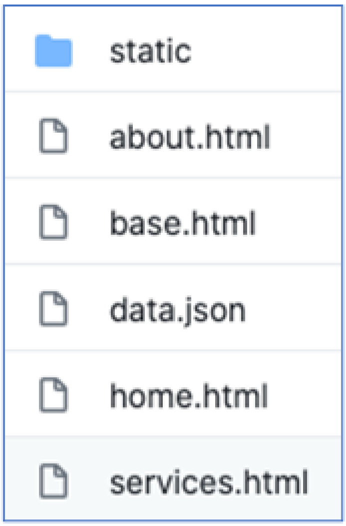


Figure: File structure example

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.

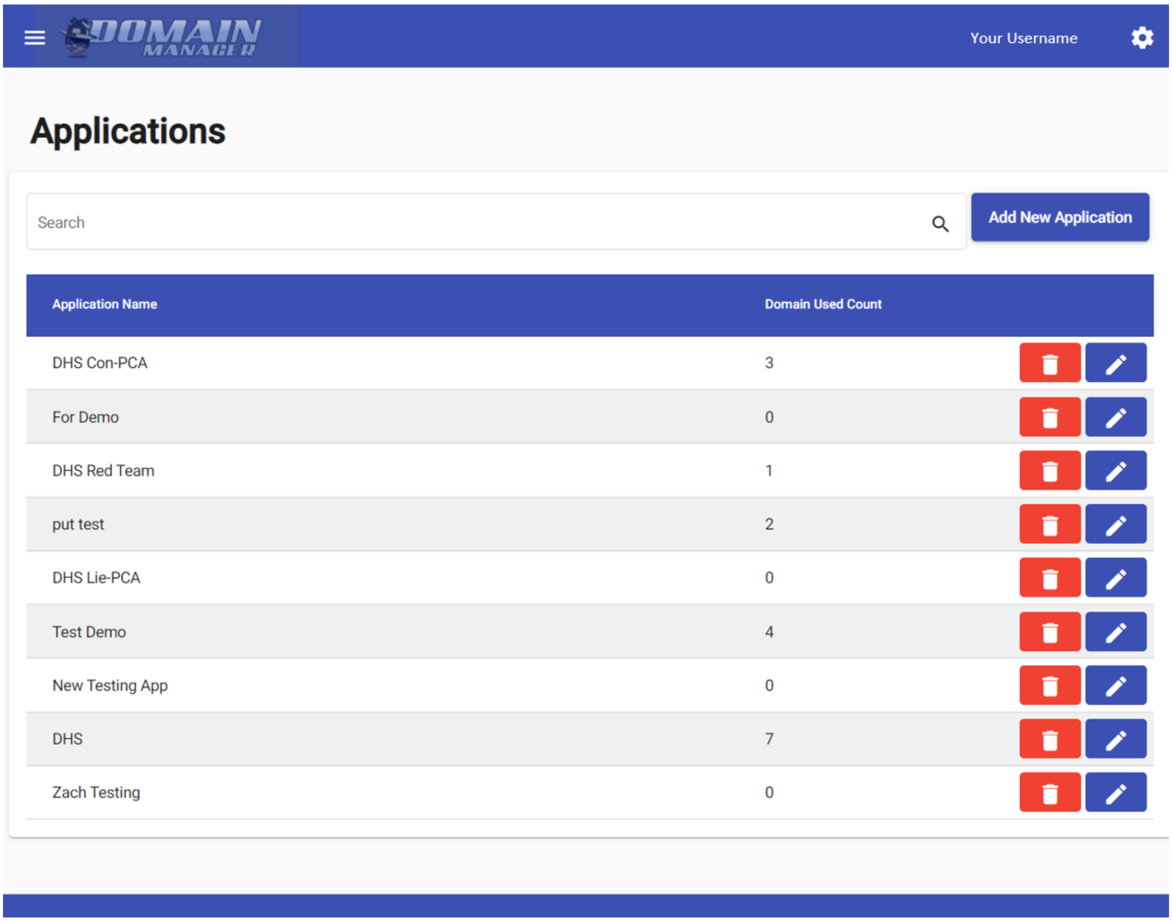


Figure: Applications screen

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.

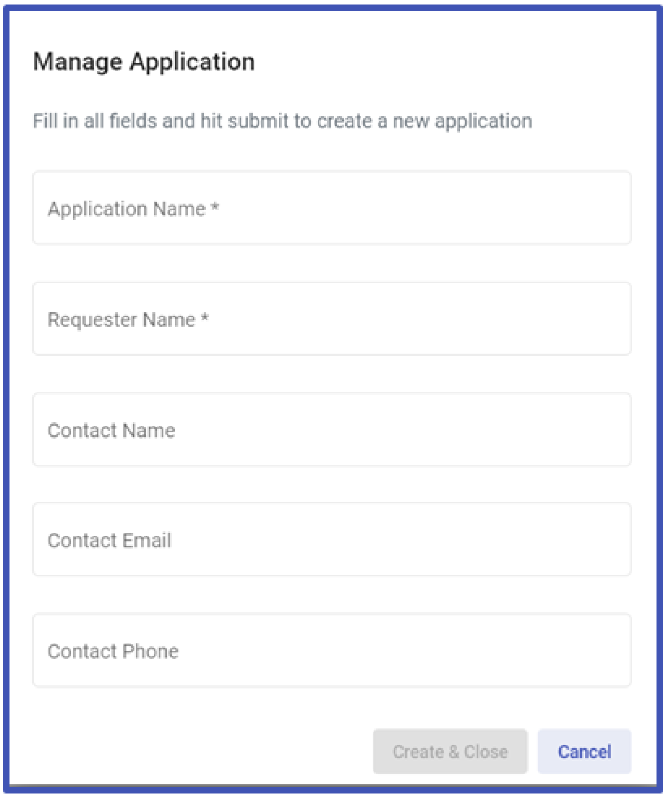


Figure: Manage Application dialogue

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.

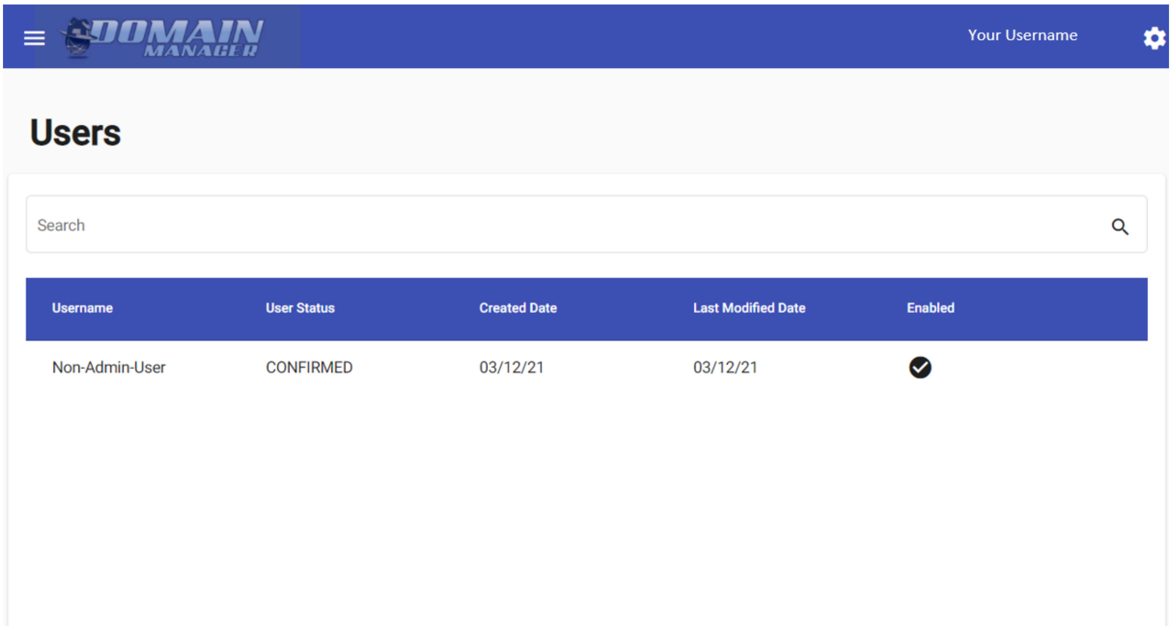


Figure: Users tab

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.

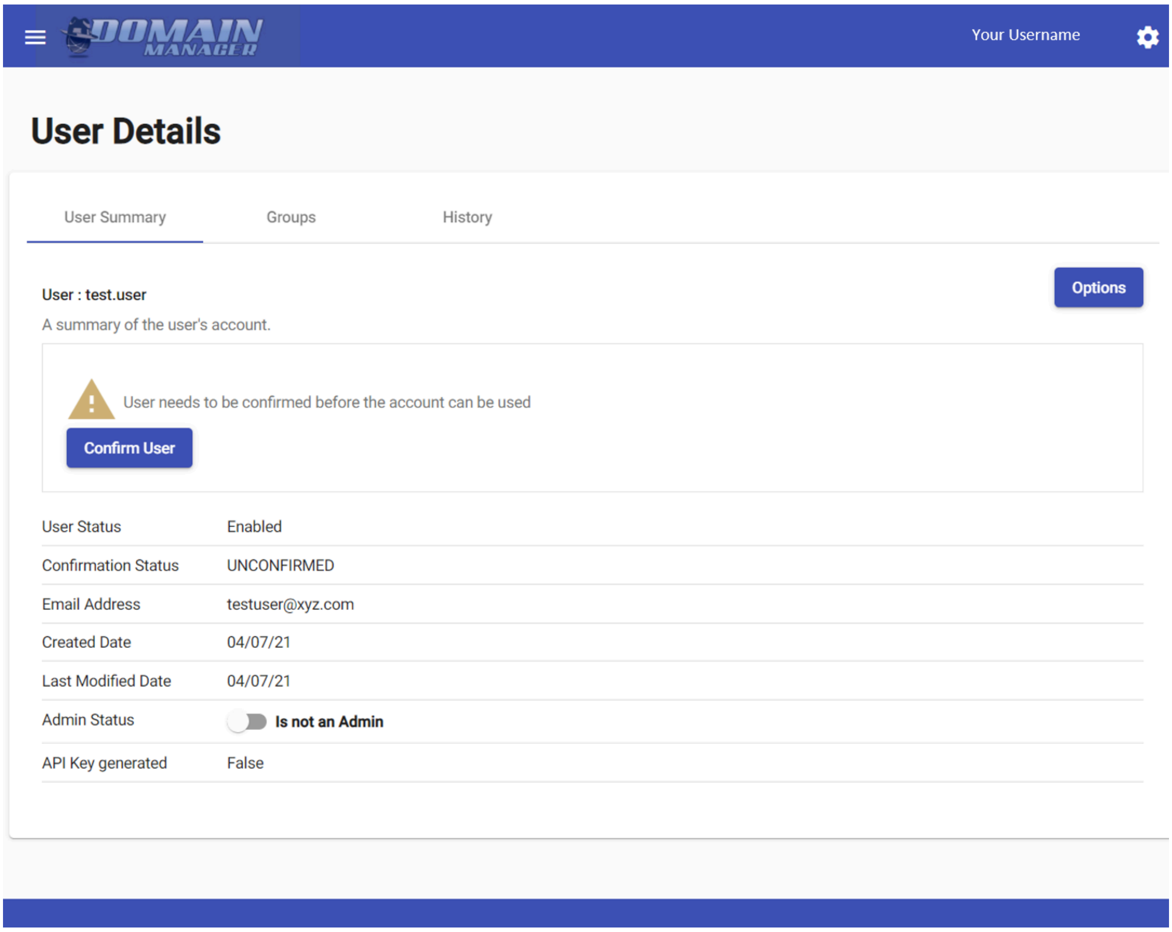


Figure: Confirm user

User Details

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

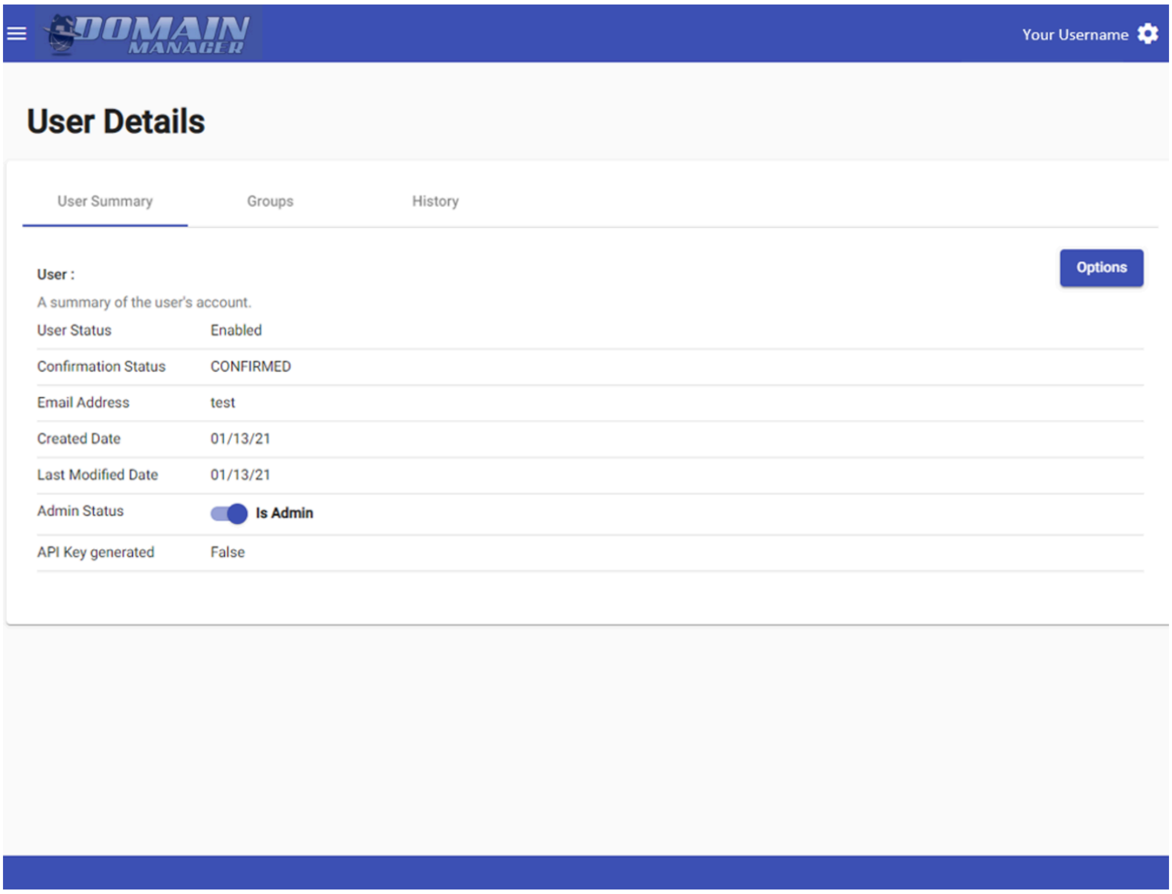


Figure: User Details screen

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.

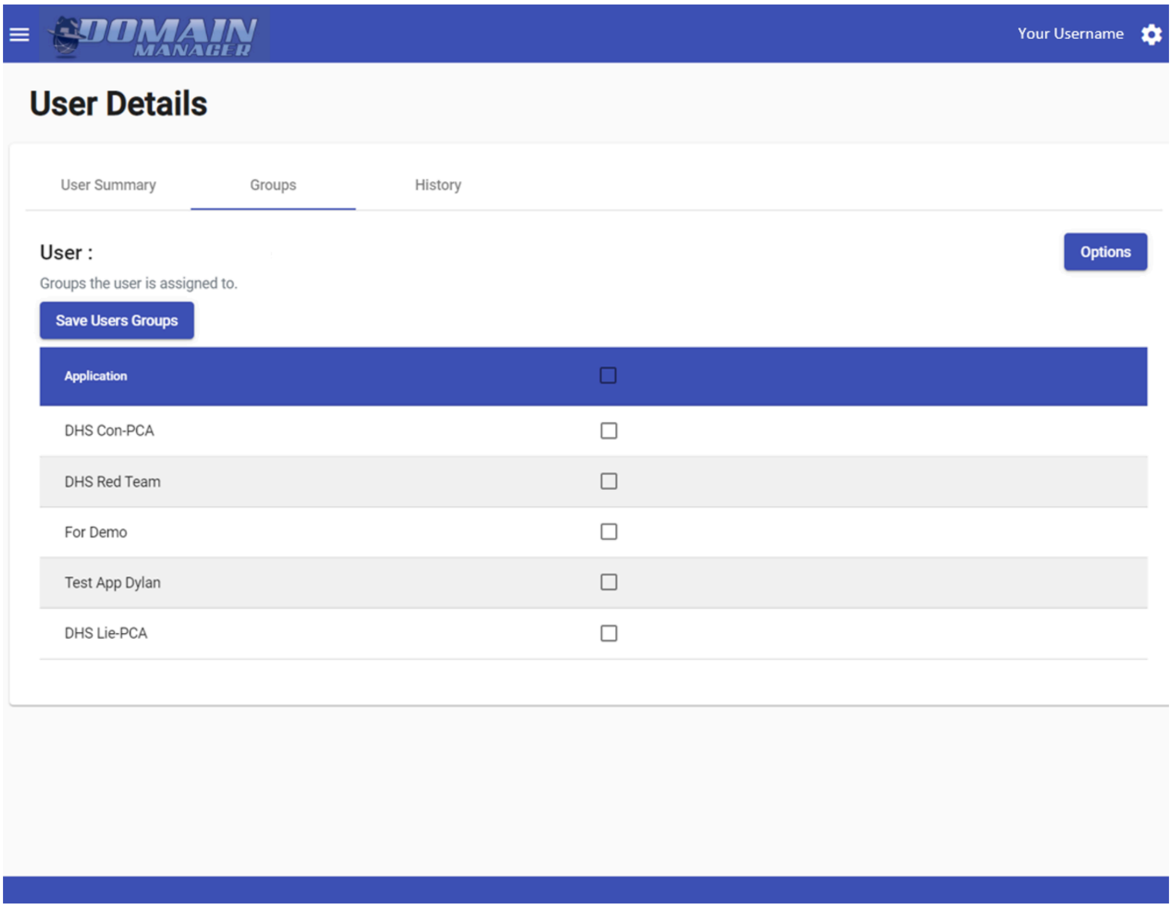


Figure: Groups tab

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.

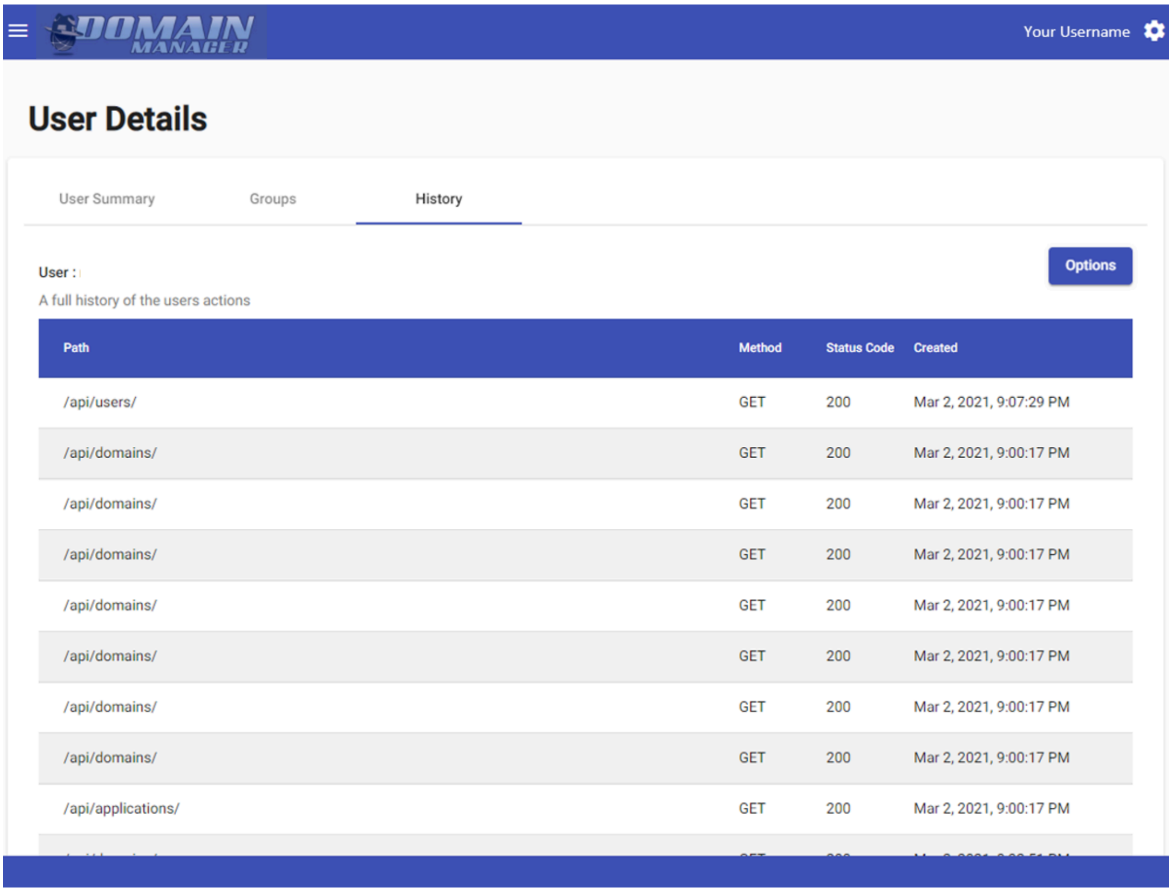


Figure: History tab

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:

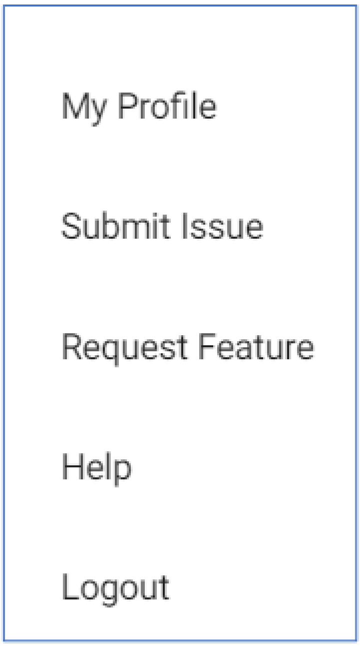


Figure: Settings menu

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.

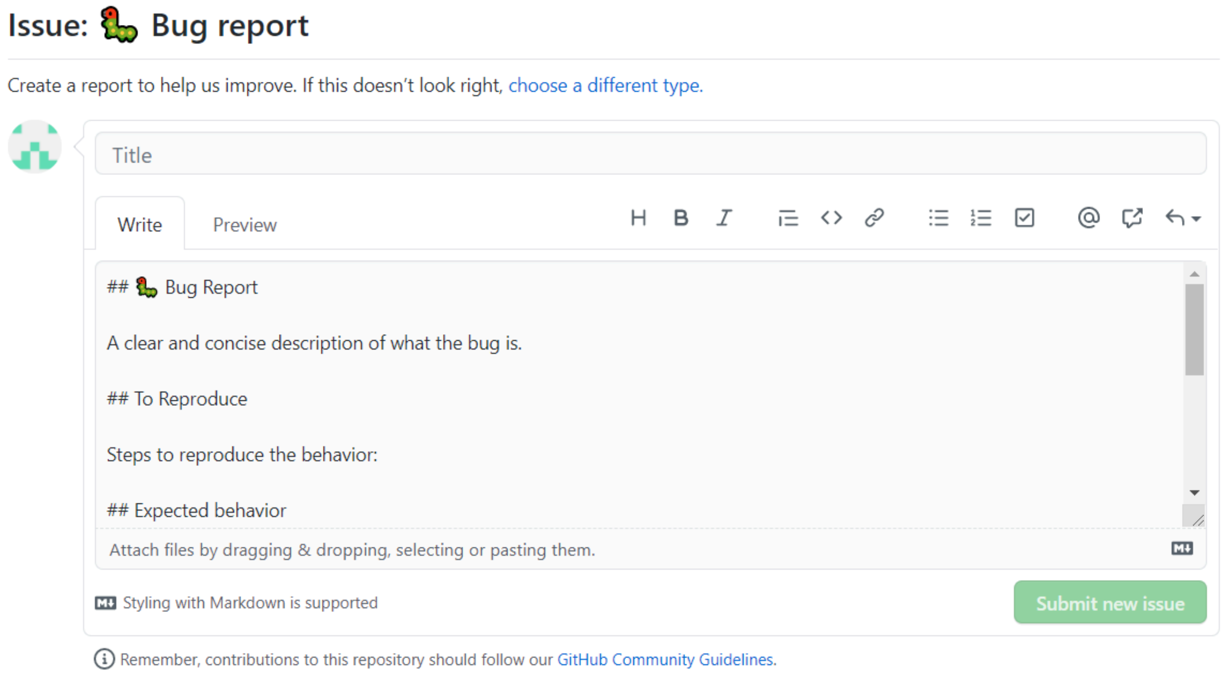


Figure: Bug Report

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.

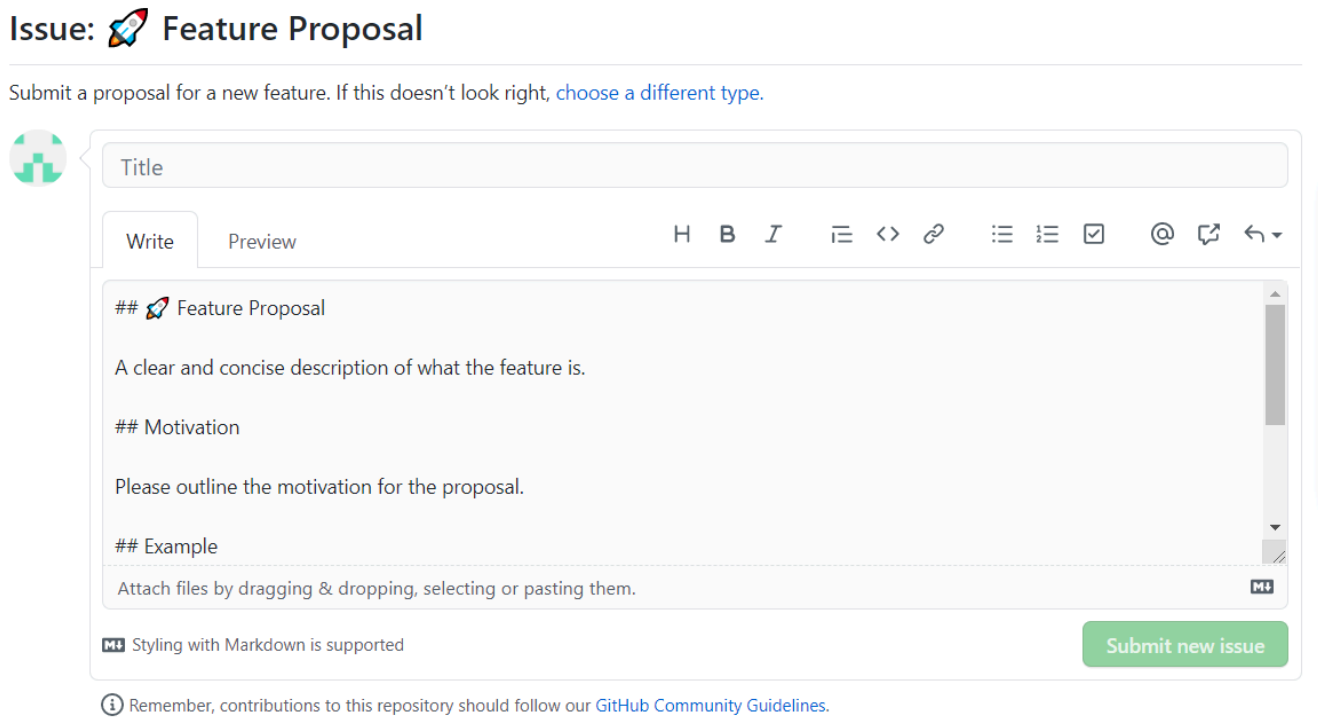


Figure: Feature Proposal

Help

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

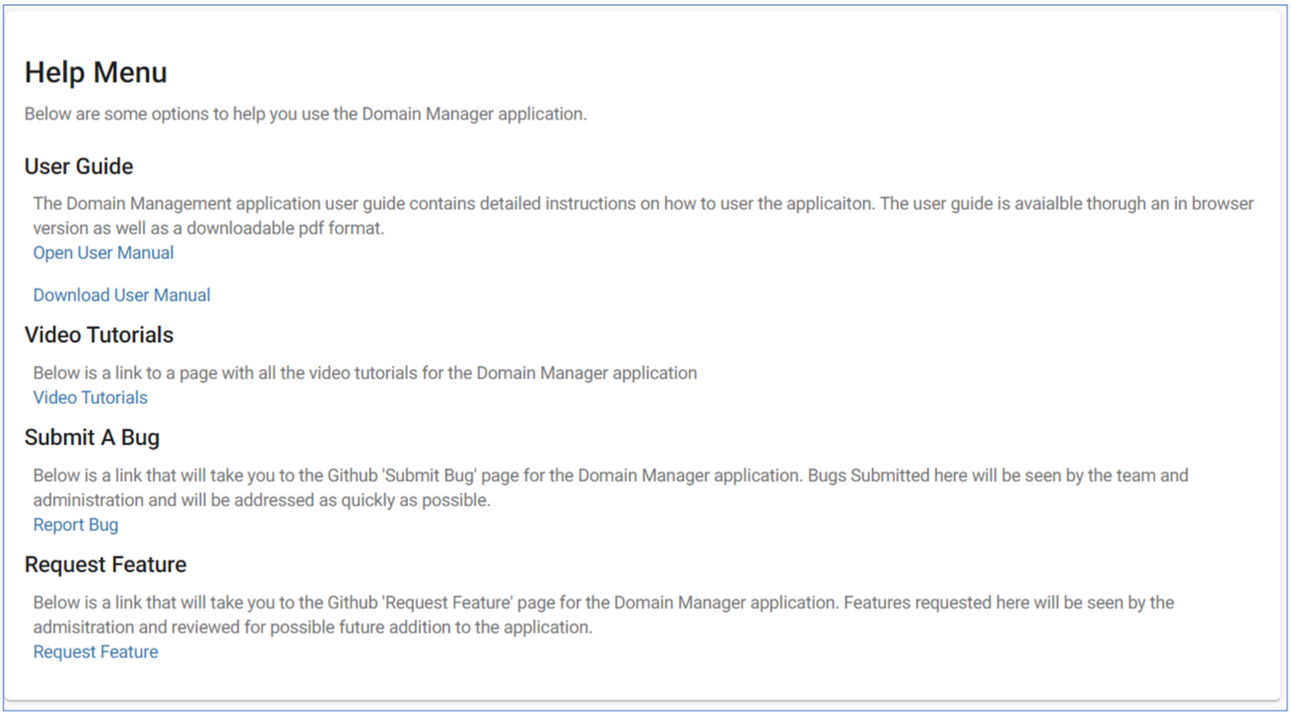


Figure: Help menu screen

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.

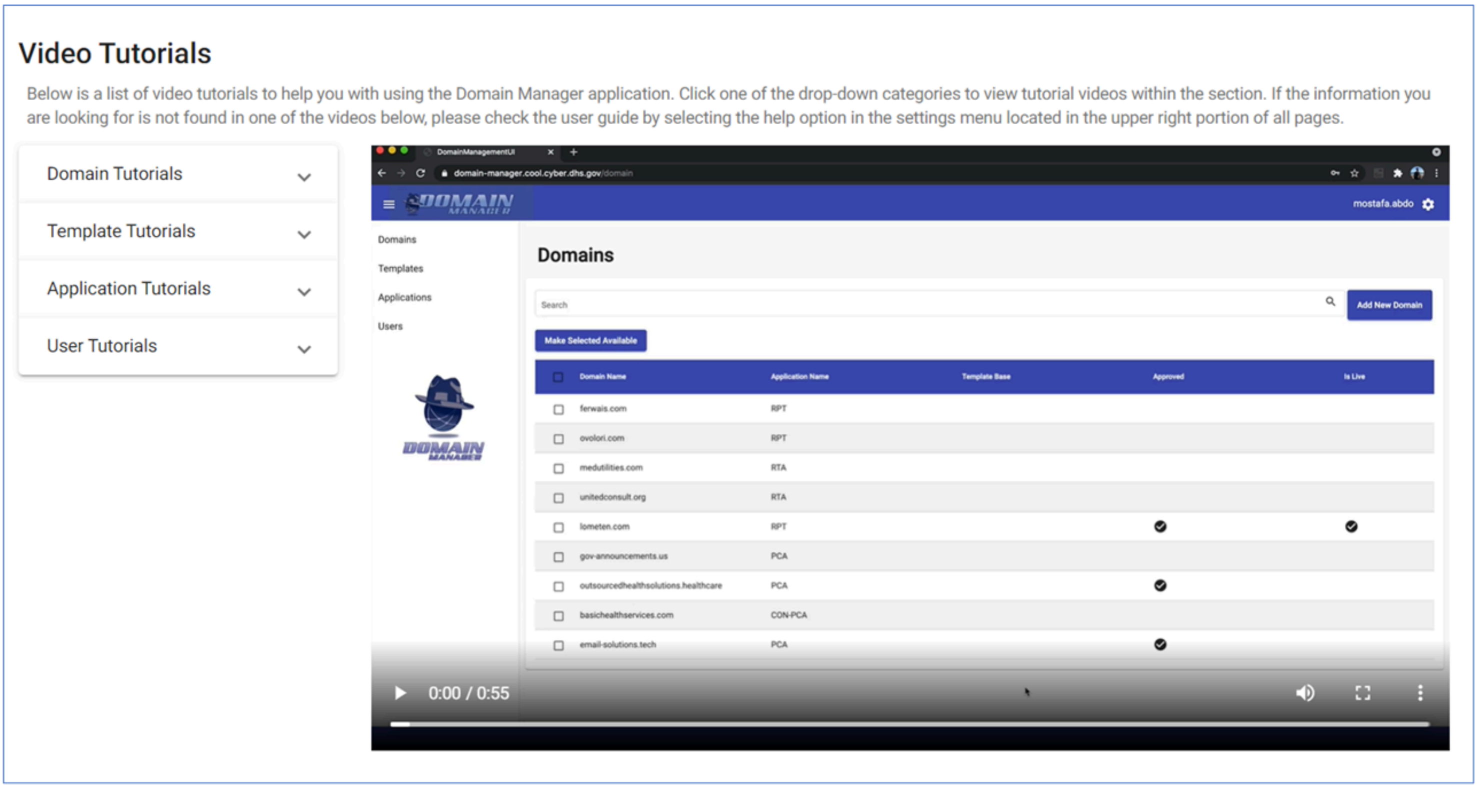


Figure: Tutorial page

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
  - o All categorization actions rely on Selenium scripts which automate filling out and submitting to proxy websites.
  - o Proxy websites actively try and make it difficult for a bot to fill out these forms.
  - o 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