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DT-TOOL USER-GUIDE MANUAL

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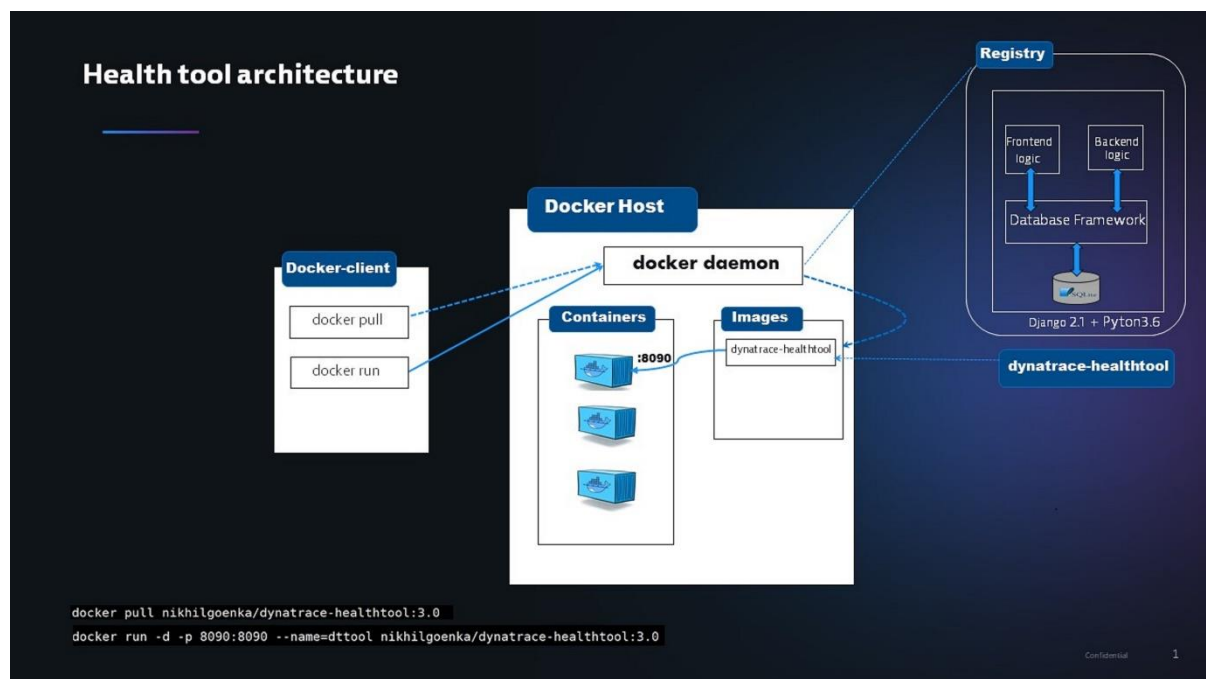
1.0 Architecture diagram

dt-tool is a tool developed to collect feature adoption details and other metrics that can be useful to identify the adaptability of the account.

The dt-tool stack consists of the following technology:

1. Python3
2. Django 2.1
3. dblite3

For convenience and easier maintainability, the dt-tool is bundled as a docker image and can be directly pulled from the docker-hub.



dt-tool internally uses requests python library to make multiple dynatrace-API calls (read-only) to pull out the data and compute the information to slice the data across various management zone. **As an important pre-requisite**, host the docker image on a host which has access to the cluster/tenant from where you wish to run the dt-tool on.

2.0 Getting started

2.1 Download docker-image for the dt-tool

To download the Dynatrace tool docker, run the below command:

```
docker pull nikhilgoenka/dynatrace-healthtool:3.0
```

```
[root@ip-172-31-1-4 ~]# docker pull nikhilgoenka/dynatrace-healthtool:3.0
Trying to pull repository docker.io/nikhilgoenka/dynatrace-healthtool ...
3.0: Pulling from docker.io/nikhilgoenka/dynatrace-healthtool
c87736221ed0: Pull complete
0feff54c887a: Pull complete
59551bd9de15: Pull complete
069358e213f0: Pull complete
b3e05f3babb6: Pull complete
a09041f265cd: Pull complete
dae755972b1b: Pull complete
ae32ed984108: Pull complete
aaddbf09806a8: Pull complete
464da8c771aa: Pull complete
d97e8bfbd179: Pull complete
3b33012b4878: Pull complete
c4bb868a2cdf: Pull complete
41257b4e9d2a: Pull complete
182f001fd840: Pull complete
Digest: sha256:6f41ab0c0d4f347b26a67c1a56f8002400e226ee9f194e6880382a8febd43d59
Status: Downloaded newer image for docker.io/nikhilgoenka/dynatrace-healthtool:3.0
[root@ip-172-31-1-4 ~]# docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
docker.io/nikhilgoenka/dynatrace-healthtool	3.0	f534047a3d24	7 days ago	898 MB

```
[root@ip-172-31-1-4 ~]#
```

2.2 Running the dt-tool docker locally

Run the docker on local-port on localhost:

```
docker run -d -p <local-port>:8090 --name=dttool nikhilgoenka/dynatrace-healthtool:3.0
```

Replace local-port with the port that you would want the dt-tool to communicate with.

For example:

In the below example, the docker is bounded on 8090 on the localhost, so the dt-tool will be accessible on <http://localhost-ip:8090/>

```
[root@ip-172-31-1-4 ~]#
[root@ip-172-31-1-4 ~]# docker run -d -p 8090:8090 --name=dttool nikhilgoenka/dynatrace-healthtool:3.0
d70d31d241649237fe175c92a1d886563d29888ad7788d1b19e87ee59d42646c
[root@ip-172-31-1-4 ~]# docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
d70d31d24164	nikhilgoenka/dynatrace-healthtool:3.0	"entrypoint.sh"	5 seconds ago	Up 4 seconds	0.0.0.0:8090->
8090/tcp	dttool				

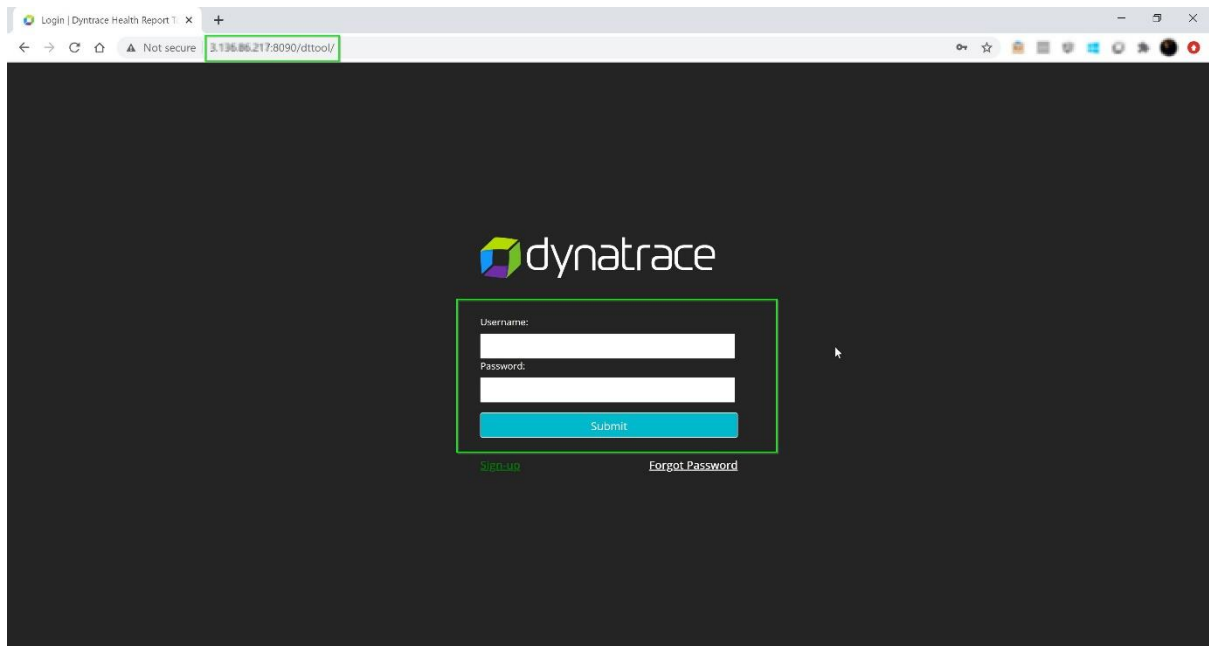
```
[root@ip-172-31-1-4 ~]#
```

2.3 Connecting to dttool on browser

The tool would run on the <localhost-ip>:<local-port>. To connect to the dt-tool, type the

URL : <http://<localhost-ip>:<local-port>/dttool/>

This will connect to the login page of the tool as below:



Use the credentials shared by the dynatrace team to login into the tool.

2.4 Generate Report

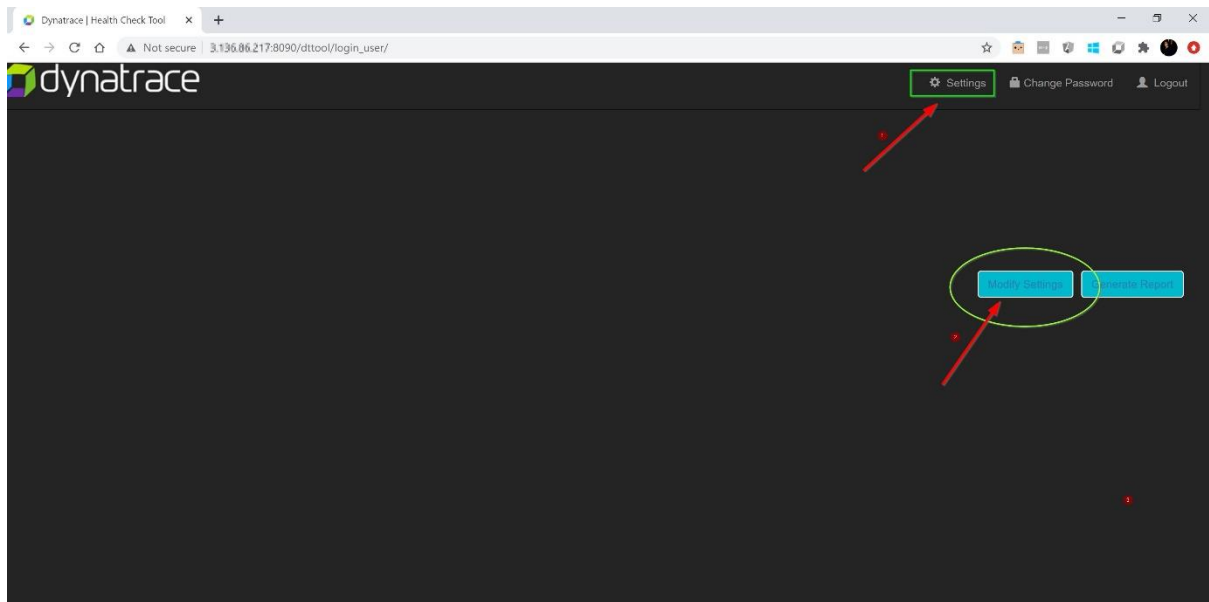
To generate the report, you will need to configure the below:

1. Email details
2. Tenant details
3. SMTP Server details

For more details on how to configure, refer to section (3.0 Settings).

3.0 Settings

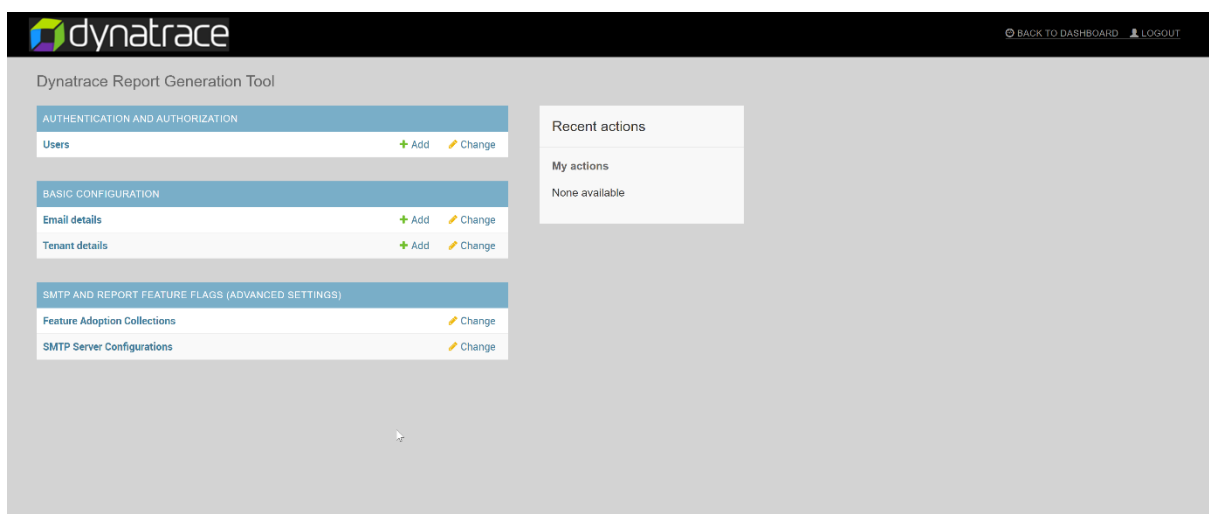
Landing page in the tool has a button to navigate into settings (select either of the button below to navigate to the settings page) and setup the configurables to enable dt-tool to collect the different metrics.



The settings page is broadly classified in the following sections:

- 2.1 Authentication and Authorization
 - 3.1.1 Users
- 2.2 Basic Configuration
 - 2.2.1 Email details
 - 2.2.2 Tenant details
- 2.3 SMTP and REPORT FEATURE FLAGS (ADVANCED SETTINGS)
 - 2.3.1 Feature Adoption Collection
 - 2.3.2 SMTP Server Configuration

The settings page looks as below:



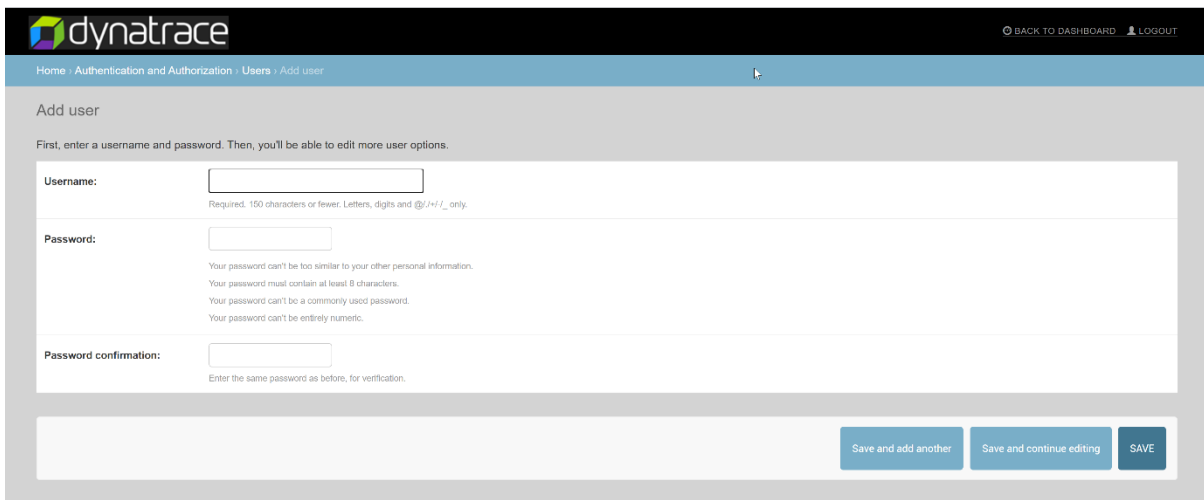
3.1 Authentication and Authorization

3.1.1 Users

3.1.1.1 Add a user

To add an user, click on “Users” in Authentication and Authorization section. This will take you to the users settings page. Once navigated to user-settings page, click on “Add user” on the top-right of the screen.

Further, give basic information of the user like username and assign a password as seen in the screenshot below.

The screenshot shows the 'Add user' form in the Dynatrace interface. At the top, there's a navigation bar with the Dynatrace logo and links for 'BACK TO DASHBOARD' and 'LOGOUT'. Below the navigation bar, the breadcrumb trail reads 'Home > Authentication and Authorization > Users > Add user'. The main heading is 'Add user'. A sub-heading states: 'First, enter a username and password. Then, you'll be able to edit more user options.' The form contains three input fields: 'Username:', 'Password:', and 'Password confirmation:'. The 'Username' field has a placeholder text: 'Required. 150 characters or fewer. Letters, digits and @/./+/_ only.' The 'Password' field has four lines of placeholder text: 'Your password can't be too similar to your other personal information.', 'Your password must contain at least 8 characters.', 'Your password can't be a commonly used password.', and 'Your password can't be entirely numeric.' The 'Password confirmation' field has a placeholder text: 'Enter the same password as before, for verification.' At the bottom right of the form, there are three buttons: 'Save and add another', 'Save and continue editing', and 'SAVE'.

Once added, you will be automatically navigated to fill additional details of the user like First-name, Last name, Email address (it is likely the username and email address may be the same for the user).

Staff status: If staff status checkbox is selected, the user will have access to settings page and will be treated as admin. Please unselect staff status for users who are likely to just generate the report.

The screenshot shows the 'Change user' interface in the Dynatrace admin console. At the top, the breadcrumb is 'Home > Authentication and Authorization > Users > user@abc.com'. A green notification bar states: 'The user "user@abc.com" was added successfully. You may edit it again below.' The form is titled 'Change user' and includes a 'HISTORY' button. The 'User information' section contains the following fields:

- Username:** user@abc.com (Required: 150 characters or fewer. Letters, digits and @/./+/-_ only.)
- Password:** algorithm: pbkdf2_sha256 iterations: 36000 salt: tyR9hJ***** hash: Q+pufg***** (Raw passwords are not stored, so there is no way to see this user's password, but you can change the password using this form.)
- First name:** (empty)
- Last name:** (empty)
- Email address:** (empty)
- Staff status:** ☐ (Designates whether the user can log into this admin site.)

At the bottom, there are four buttons: 'Delete' (red), 'Save and add another' (blue), 'Save and continue editing' (blue), and 'SAVE' (blue).

3.1.1.2 Delete a user

To delete a user, select the user from Settings > Users screen and click on the delete button. Once deleted, the user will not be able to login.

This screenshot shows the 'Change user' interface for the user 'admin@dynatrace.com'. The breadcrumb is 'Home > Authentication and Authorization > Users > admin@dynatrace.com'. The form fields are:

- Username:** admin@dynatrace.com
- Password:** algorithm: pbkdf2_sha256 iterations: 36000 salt: rYwewS***** hash: gYKHAt*****
- First name:** (empty)
- Last name:** (empty)
- Email address:** dynatrace@dynatraceone.com
- Staff status:** ☒ (Designates whether the user can log into this admin site.)

The 'Delete' button (red) is highlighted with a green rectangle. Other buttons at the bottom include 'Save and add another', 'Save and continue editing', and 'SAVE'.

3.2 Basic Configuration

3.2.1 Tenant details

Select **Tenant-details** to navigate into tenant settings and add/remove tenants from your dt-tool instance. Once navigated to tenant settings, click on the “Add tenants” on the top-right of the screen.



The “add tenants” screen has below configurables:

1. Tenant-name: Tenant-name is a string object and accept any string.
Typically values of tenant-name would be similar to Production, Non-production, Staging or any string value.
2. Tenant URL: Configure the tenant-URL from which you plan to retrieve the data from.
For managed environment, the URL would look like:
<https://managed-server/e/<environment-id>/api/v1/>
Replace managed-server with your managed-server details and environment-id with the environment from which you plan to retrieve data from.

For SaaS, URL would look like:
<https://xxx.live.dynatrace.com/api/v1/>
Replace xxx by the tenant-id.
3. Tenant-token: Configure the token-id which the dt-tool would use to pull the data from tenant. The token configured should have the below permissions as below:
 - a. Access problem and event feed, metrics, and topology
 - b. Read synthetic monitors, locations and nodes
 - c. Read configuration
 - d. User sessions
 - e. Read metrics using API V2
 - f. Read entities using API V2

The screenshot shows the 'Add tenant detail' form in the Dynatrace interface. The form has three input fields: 'Tenant Name' with the value 'Non-prod', 'Tenant URL' with the value 'https://stg99002.live.dynatrace.com/api/v1/', and 'Tenant Token' with a masked value '*****'. A green box highlights these three fields. At the bottom right, there are three buttons: 'Save and add another', 'Save and continue editing', and 'SAVE'.

To save your configuration, click on “Save”.

Please note that an API call is made in the background when you click on save to validate the token and tenant-id combination.

Once successful, you will be able to view the tenant-details as below:

The screenshot shows the 'Tenant details' page. A green banner at the top states 'The tenant detail "Non-prod" was added successfully.' Below this, there is a section titled 'Select tenant detail to change' with a dropdown menu and a 'Go' button. A table below shows one tenant detail: 'Non-prod'. A green box highlights the table header and the first row. At the bottom right, there is a button labeled 'ADD TENANT DETAIL'.

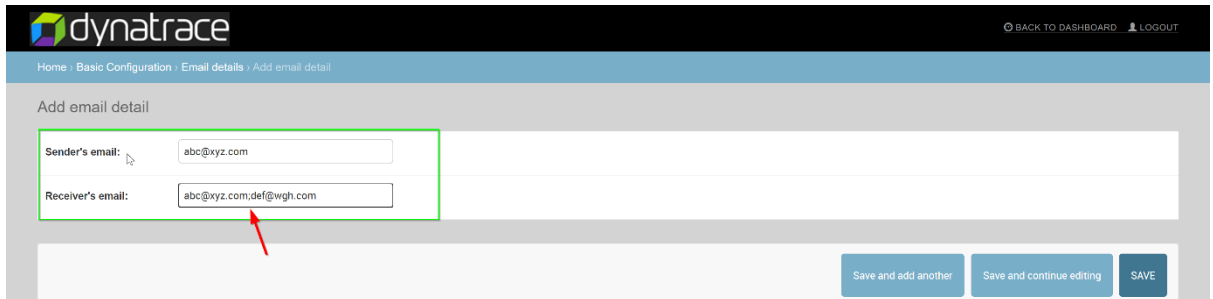
3.2.2 Email details

Select **Email Details** to navigate into email settings and add/remove email-ids from your dt-tool instance. Once navigated to email settings, click on the “Add Email Detail” on the top-right of the screen.

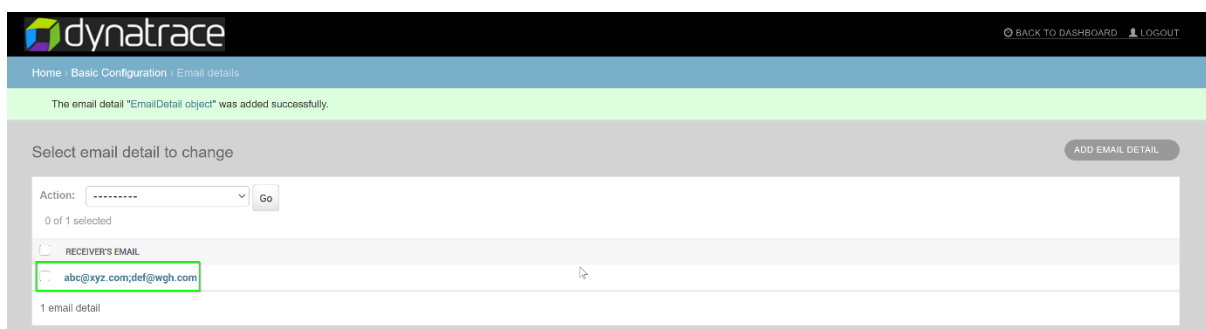
The screenshot shows the 'Email details' page. At the top right, there is a button labeled 'ADD EMAIL DETAIL' which is highlighted with a green box and a red arrow. Below this, there is a section titled 'Select email detail to change' with a dropdown menu and a 'Go' button. A table below shows 0 email details.

The “add email details” screen has below configurables:

1. Sender's email: Sender's email is the email-id which would appear as sender on the email containing the report.
2. Receiver's email: Configure the email-addresses where you would like to receive the email. In case of multiple emails, separate the email-address with ; as seen below



To save your email-detail configuration, click on “Save”. Once successful, you will be able to view the email-details as below:



3.3 SMTP and Report Feature Flags (Advanced Settings)

3.3.1 Feature Adoption Collections

Feature Adoption Collection consists of the salient features in Dynatrace which are useful to get full advantage of Dynatrace. Please find below advantage of the different adoption flags:

Title of each adoption feature flags has a link to the online help documentation to give additional insights on it.

Applications: Applications count would highlight if the Real User Monitoring has been enabled on your applications.

Synthetic Browsers: Enabling Synthetic Browsers will help to monitor your application performance from

AWS instance hosted in different geographical locations.

HTTP Browsers: HTTP monitors will try to reach the end point and collect results.

Host Groups: Setting up Host-group would help to organize the environment better.

Process Groups: Setting up process-group will provide fine tuning to the automatically identified process groups.

Tags: Tags help to maintain large environments and view in a way to suit your team(s).

Alerting Profiles: Alerting profiles will enable to configure problem notifications based on different severity/teams.

Management Zones: Management zones allow to create logical boundaries to view and slice data for different teams.

Naming Rules: Naming rules enables to better refine request identities across services.

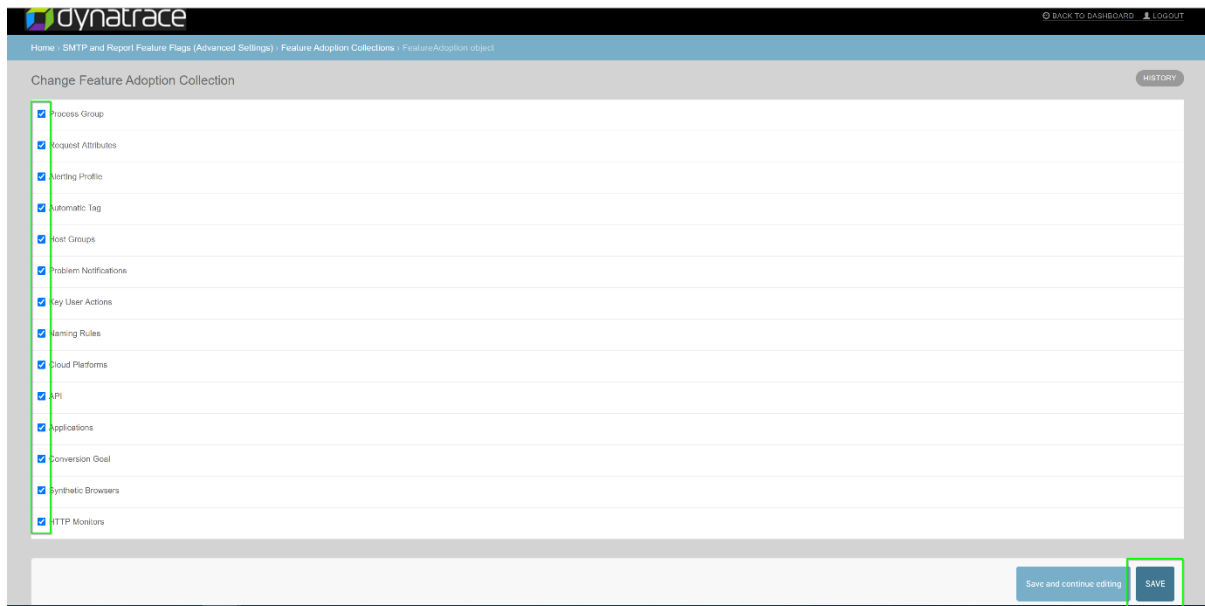
Problem Notification: Problem notification would enable to push problem to 3rd party platform like slack, email, etc..

Cloud Platform Integration: Dynatrace support cloud integration with various cloud technologies - configuring any cloud technologies would give additional visibility into them.

Key User Requests: Configuring a request as key-request enables to quickly access the request, have them pinned to dashboard and additional data retention.

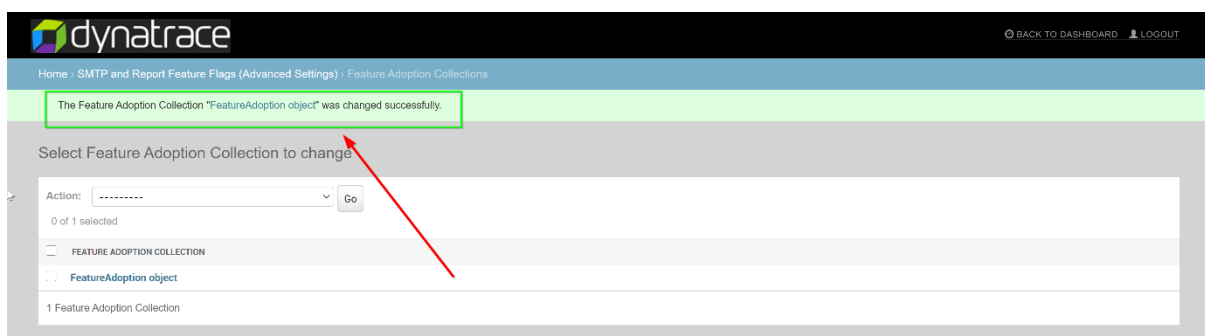
API Tokens: Dynatrace API is gateway to pull/push data into Dynatrace to automate your monitoring tasks or export into 3rd party reporting.

Request Attributes: Request-attributes are key/value pairs that can be fetched at request-level. Request attributes once configured can help developers/business users additional data.



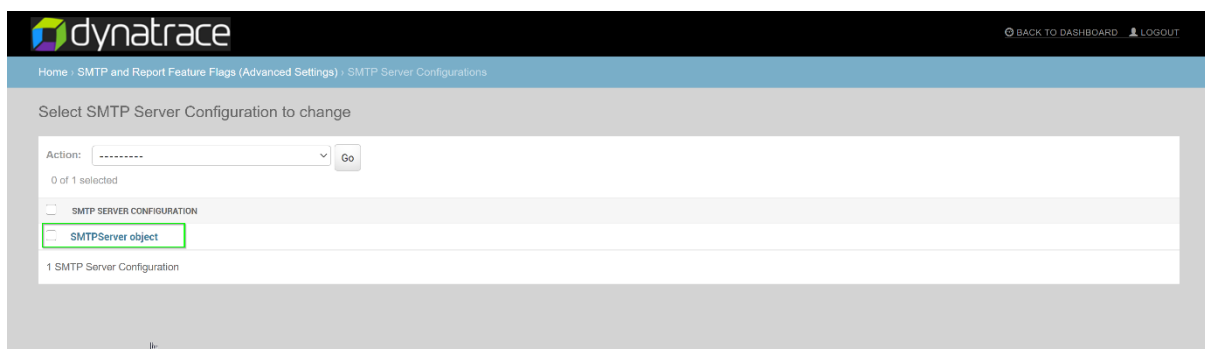
While it is possible to uncheck/not select a specific feature flag using the checkbox, it is highly recommended to have all the feature flags enabled while generating the report.

Once modified and save, you will be able to view the success message as below:



3.3.2 SMTP Server Configurations

Select **SMTP-Server** to navigate into SMTP server settings for your dt-tool instance. Once navigated to settings, click on the "SMTPServer Object".



Once you click on SMTPServer Object, you will navigate into the settings page for configuring SMTP Server details as seen below

The screenshot shows the 'Change SMTP Server Configuration' page in the Dynatrace interface. The page has a header with the Dynatrace logo and navigation links like 'BACK TO DASHBOARD' and 'LOGOUT'. Below the header, there is a breadcrumb trail: 'Home > SMTP and Report Feature Flags (Advanced Settings) > SMTP Server Configurations > SMTPServer object'. The main content area is titled 'Change SMTP Server Configuration' and contains a form with the following fields: 'SMTP User' (value: smtpuser.rfe@gmail.com), 'SMTP Server' (value: smtp.googlemail.com), 'SMTP PORT' (value: 587), and 'SMTP Password' (masked with dots). At the bottom right of the form, there are two buttons: 'Save and continue editing' and 'SAVE'. There is also a 'HISTORY' button in the top right corner of the form area.

The “Change SMTP Server Object” screen has below configurables:

1. SMTP User: SMTP User is the user-name which will be used to connect to the SMTP Server.
2. SMTP Server: SMTP Server is the SMTP server IP address.
3. SMTP Port: SMTP Port is the port number on which the SMTP server is running.
4. SMTP Password: SMTP Password is the password of the SMTP User.

4.0 Interpreting the generated report

The generated report slices the data across any configured management zones (if any) and the worksheets are generated as below:

1. **Management Zone Delta/Absolute values**: Adoption feature flag count are pulled using API calls along with license consumption details in the worksheet. Currently, license consumption in dt-tool reflects the license consumption in the past 15 days.
2. **App Dev - Application Health**: dt-tool pulls all the configured applications and their current apdex ratings which gives an insight on application performance. This is primarily useful for the developers to understand their application performance.
3. **Operation - Problem Health**: the problem-health worksheet highlights the number of problems in your environment

It is encouraged to share the report with the Product Specialist who can analyse the data generated and suggest next steps.

5.0 Accessing logs

If you are facing any issues with the tool, please share details along with the log file. The tool generates the log file at /app/log directory in the docker. To retrieve the log files, please follow the steps as below:

1. Connect to the docker running the dt-tool using command:
`docker exec -it dttool /bin/bash`
2. Once connected to the shell, look for the log file
“log_file_dynatrace_health_report.log” under /app/log/ directory.