Vahana Module-Environment

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Vahana Module-Environment

1. Introduction

1.1 Document Purpose

The purpose of this document is to explain Vahana environment. Vahana cloud platform incorporates a dedicated module, which is referred to as "Environment". The environment module allows you to build and manage application development and runtime environment. In the environment module, this document discusses three components: **Variables**: **Environment**, and **VRT(s)** (Vahana Run Time).

1.2 Document Scope

The functional scope of this document contains two following sections:

Section1:- This section is the current section of the document, which provides the general information about the document as follows:

➢ **Purpose of the document**
➢ **Functional scope of the document (Current heading section)**
➢ **Audience that can access the content of document**
➢ **List of abbreviated terms along with their full description, and**
➢ **Reference document (If any)**

Section2:- This section contains technical and functional information about Vahana platform's environment module. In the broad level description of the environment module, it describes environment, variable, and VRT as entities. This section provides in-depth information on how create and manage variables, runtime environments, and others. To make the description interactive and informative, the document includes intuitive screen captures and easy-to-perform functional steps.

1.3 Intended Audience

This document is mainly written for the IT, IT support, infrastructure, and dev ops teams of the client organizations. Also software development team and technical professional can also access this document.

1.4 Acronyms and Abbreviation

The following table contains the abbreviated terms that are repeatedly used in the document, in addition to the full description of the respective term.

Term	Description
VRT	Vahana Runtime

1.5 Reference Document

In relation to the technical and/or functional information about the environment module of the Vahana cloud platform, this document does not reference any other Decimal proprietary or third party document.

Document Name	Version	Date	Company/Organization
N/A	N/A	N/A	N/A

2. Environment Overview

The Vahana cloud platform hosts several applications and services that include vDesigner application, vConnect portal, Access Policy, Environment, and others. Each application/service that is hosted on the Vahana platform is used for specific purpose. For instance: - You can use vDesigner application to design and develop mobile phone and the vConnect portal to deploy and publish web services and API(s).

Likewise, the Vahana platform hosts the environment module to build application development and runtime environment for the client-specific projects. After you build an environment for application development and testing purposes, you can perform two activities:
- **You can sync the native application environment with client specific environment.**
- **You can create special environment variables and then export them to the client application environment.**

While working on several project assignments, you can work with different client-specific requirements and application environment constraint. A few client organization do not want to provide the direct access to their servers, citing data-privacy and external protection threat. In that case where you cannot access the external servers, you can create environment variables and then export them to the client-environment so that you can carry application development activity and then provide delivery modules securely and timely.

If the client organization provides you the access to the server, you can sync your services with the client application environment. That is how the environment module provides the cohesive flexibility to build the environment following client-specific requirements.
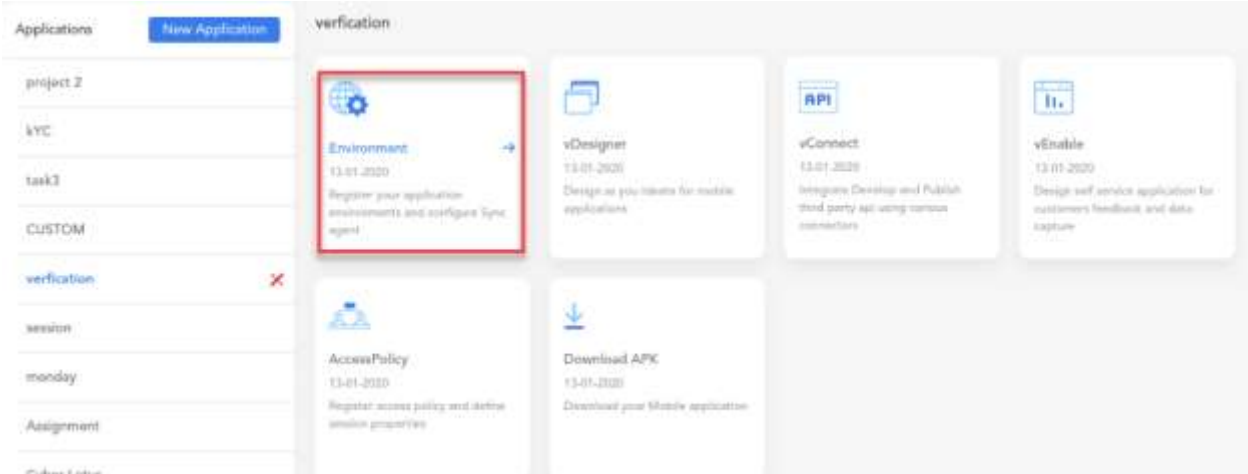
Constituently, the environment module allows you to create, configure, and manage three components: VRT(s), environment, and environment variables. You can configure and manage three components as follows:

The following section of the document starts with how to access the environment module.

2.1 Accessing Environment Module

To access the environment module:

1. On the Vahana portal's dashboard, locate the **Environment** tile **(Fig 2.1 (a))**.

(Fig 2.1 (a))

2. Click the **Environment** tile **(Fig 2.1 (a))**, the Vahana dashboard displays three components: **Variables**, **Environment**, and **VRTs** (Vahana Run Time).

(Fig 2.1 (b))

3. After you access the environment module, you can configure and manage these components as follows:

2.2 Configuring Vahana Run Time

VRT, which denotes Vahana Run Time, is a newly added feature in the Environment module. The functional benefit of this feature is that it allows you to export the environment variables to the client application environment. As described earlier in the document, the client-organization may deny to provide the access to the server as a result of security reasons. In this case, you can use the Vahana run time feature to export the environment variable to the client application environment.

Exporting variables to the client application environment allows you to provide services to the client organization without accessing their server machines. Through environment variables, you can provide development and UAT (User Acceptance Testing) environments to the client organization, in addition to the delivery modules and API(s).

To create an environment, you mandatorily need to create VRT. In the environment module, the VRT component allows you to allocate the virtual space to an environment at the time you create the respective environment.
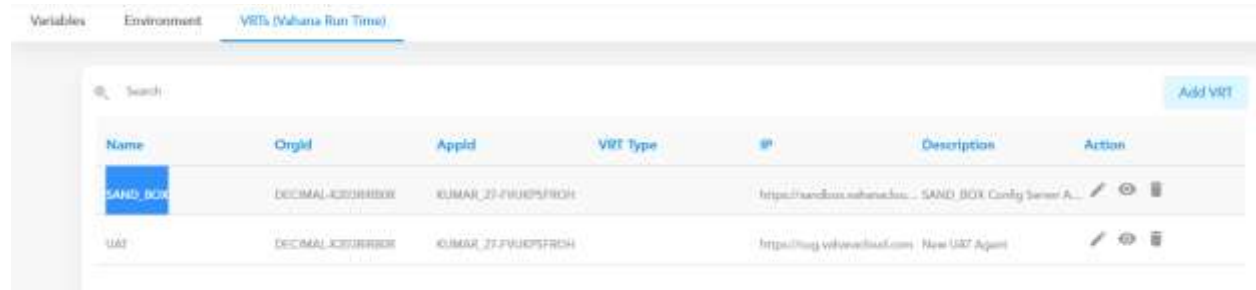
To configure Vahana run time:
1. On the Vahana dashboard, locate the **VRTs (Vahana Run Time)** tab **(Fig 2.2 (a))**.

(Fig 2.2 (a))

2. Click the **VRTs (Vahana Run Time)** tab **(Fig 2.2 (a))**, the Vahana dashboard displays the details of existing VRT(s).

(Fig 2.2 (b))

3. On the Vahana dashboard, click **Add VRT (Fig 2.2 (b))**, the **Create VRT** dialog box **(Fig 2.2 (c))** opens.
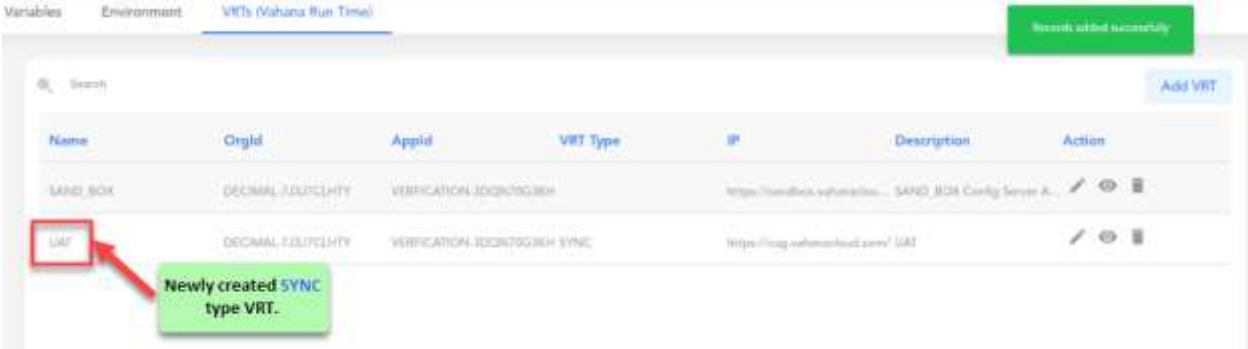

(Fig 2.2 (c))

4. In the **Create VRT** dialog box, enter or select the values in the respective boxes as follows:

Box/List	Description
VRT Name	In this box, enter the name of new VRT (For example: - UAT1).
VRT Type	Click this list to select any of the following values: ➤ **SYNC** Select this value if you want to sync environment-hosted applications and services with the client application environment. You choose this value when you have access to the client's server.

	➢ **EXPORT** Select this value if you want to export the environment variable to the client application environment. You choose this value if you do not have the access to the client's server machine.
Enter IP	In this box, enter the web location/IP address where you want to host newly created environment.
Description	In this box, enter a brief description about new VRT that you are creating.

5. After you enter/select values in the respective box, click **Create**, the new VRT is successfully created.

(Fig 2.2 (d))

2.2.1 Viewing Details of VRT

You can view the details of newly created and existing VRT(s) on the Vahana dashboard. By viewing the configuration details of VRT, you can observe VRT configuration and then modify the current configuration details as per requirement.
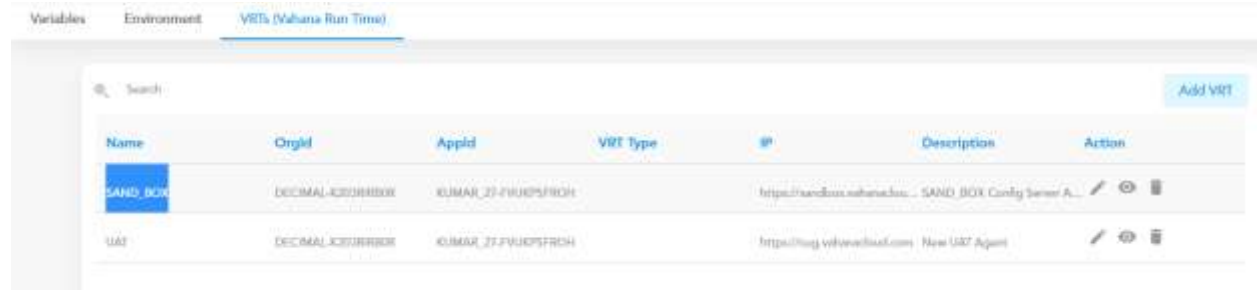
To view the details of VRT:

1. On the Vahana dashboard, locate the **VRTs (Vahana Run Time)** tab **(Fig 2.2.1 (a))**.

(Fig 2.2.1 (a))

2. Click the **VRTs (Vahana Run Time)** tab **(Fig 2.2.1 (a))**, the Vahana dashboard displays the details of existing VRT(s).

(Fig 2.2.1 (b))

3. The configuration details **(Fig 2.2.1 (b))** of VRT are briefly described as below:

Column	Description
Name	This column displays the name of VRT.
Orgid	This column displays the unique org ID of the project/application/app under which you have created the VRT.
Appid	This column displays the unique app ID of the project/application/app under which you have created the VRT. **Note:-** On the Vahana platform, when you create a new application, Vahana automatically creates a unique org ID and app ID and then assign them to the new application. **The app id and org ID are not the part of configuration details of VRT. These values only denote the application under which VRT is created**.
VRT Type	This column displays: ➢ **SYNC** if VRT is configured to sync the services with the client application environment. ➢ **EXPORT** if VRT is configured to export the environment variables to the client application environment.
IP	This column displays the location where the environment is hosted.
Description	This column displays the brief description of the VRT.
Action	This column displays three icons, which are described as below: ➢ (🖊): This icon is used to modify the configuration details of VRT. ➢ (👁): This icon is used to view the configuration details of VRT. ➢ (🗑): This icon is used to delete the profile of the VRT.

2.3 Configuring Environment

In the "Environment module", the environment component is used to host product applications and services. These applications and services include web based product applications, portals, mobile apps, RESTful API (Web APIs), python based database procedures as dedicated web services, etc. In the environment module, an environment is created and configured to build a development environment, testing environment, and production-ready environment.

In the development environment, the product is developed and tested. For testing related activity, a new and dedicated environment (For example: - UAT) can be created, in which only testing related activities are performed.

When you access the environment module, it provides **SAND_BOX** as in-built environment. You can use the **SAND_BOX** environment for product development and testing that includes the development of a proto type for demo purposes, full-fledged product development, functional and performance testing, and client-specific UAT (User Acceptance Testing).

To develop and test a product, you can use **SAND_BOX** or create a new dedicated environment. Usage of the existing environment or a newly created environment depends on client-specific requirements.

While configuring an environment, you choose a VRT on the Vahana dashboard. The workflow of an environment depends on how a VRT has been configured. If you have configured a VRT to sync applications and services, the environment is used to sync the application and services.

If you have configured a VRT to export environment variable, the environment is used to export the environment variable to the client-application environment.
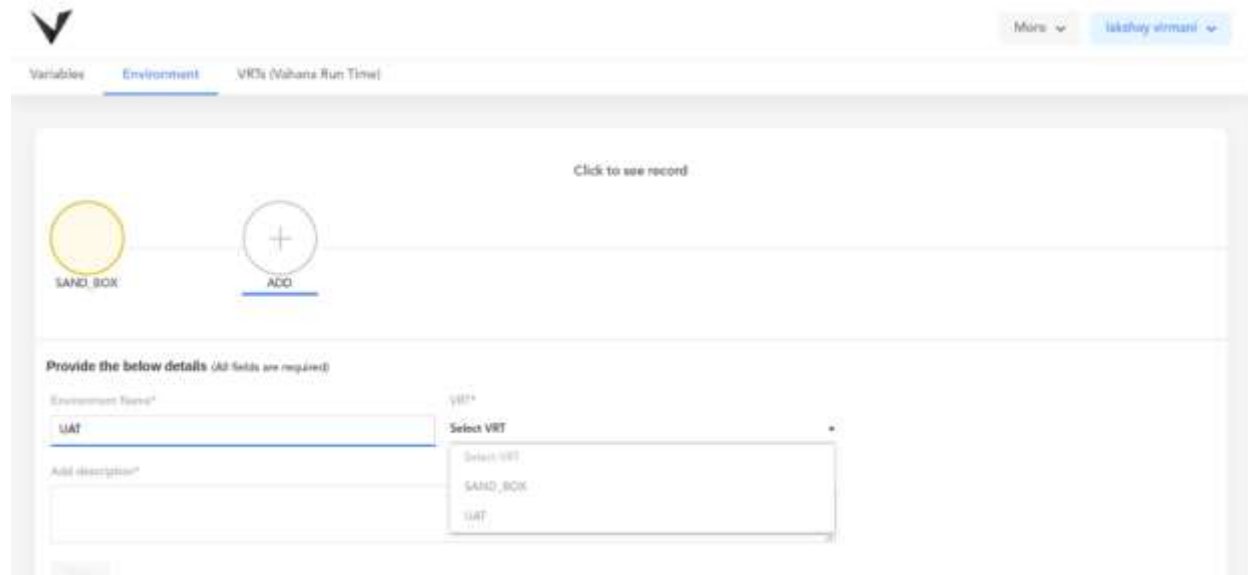
To configure the environment:
1. On the Vahana dashboard, locate the **Environment** tab **(Fig 2.3 (a))**.
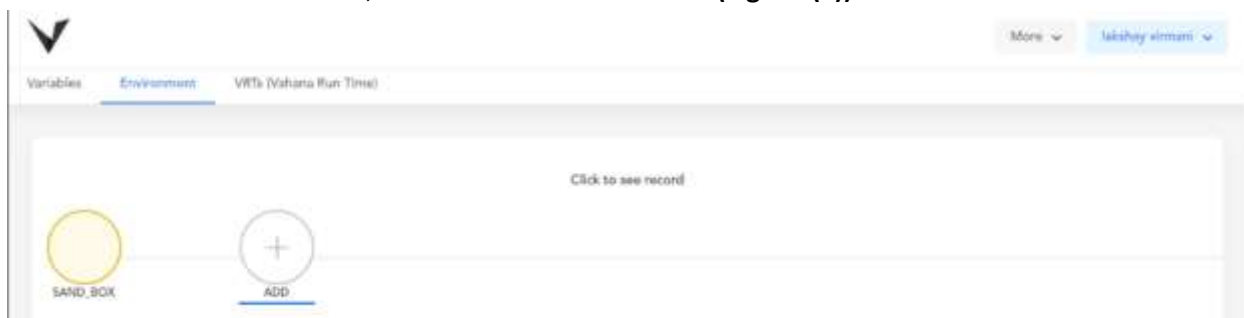
(Fig 2.3 (a))

2. If not selected, click the **Environment** and then click **Add**, the dashboard displays the following fields **(Fig 2.3 (b))**:

➢ **Environment Name**

➢ **VRT**

➢ **Add Description**

(Fig 2.3 (b))

3. In these boxes/list, enter values as follows:

Box/List	Description
Environment Name	In this box, enter the name of the environment (For example: - UAT).
VRT	Click this list to select the VRT (For example: - UAT). Selecting VRT can have two cases: **Case1:-** (If the selected VRT has been configured to sync services) The environment component will display **Sync** button **(Fig 2.3 (c))** to sync applications and services. **Case2:-** (If the selected VRT has been configured to export variables) The environment component will display **Export** button **(Fig 2.3 (d))** to export environment variable.
Add Description	In this box, enter brief description about the environment.

4. After you enter or select value in the respective box/list, click **Save**, the environment is successfully created.

(Fig 2.3 (c))

The availability of this SYNC button specifies that the UAT environment has been configured by using SYNC type VRT and this environment can only be used to sync environment hosted applications and services.

(Fig 2.3 (d))

The availability of this Export button specifies that the UATONE environment has been configured by using EXPORT type VRT and this environment can only be used to export environment variables.

2.4 Configuring Environment Variables

In the "Environment" module, variables, which are also referred to as "**Environment Variables**", are used to provide the access of Vahana resources to the client application environment. After environment variables are created, you can export them to client application environment.

On the Vahana cloud platform, environment variables are created and exported if the client organization does not want to provide the direct access to servers, citing security reasons. Many client organizations may ask for other alternative solutions to share resources, deliverables, builds, and other project related artifacts for ongoing or future software development projects.

In that critical case, the Vahana technical team first creates EXPORT type VRT and therefore uses it to configure an environment. **When you configure an environment by using the EXPORT type VRT**, **you can only use that environment to export environment variables**. You cannot use that environment to sync the resources.

Therefore you can add as many as environment variables to the EXPORT type environment. After you add environment variables to the environment, you can export them by clicking **Export** button on the dashboard of the respective environment.

> **Note:-**
> In the Environment module, adding variable to an environment means configuring variables.

When you add the environment variable to an environment, you configure the environment variable. The configuration details of the environment variable contain the details of resource (server, database repository, application service) that you want to share with the client application environment. You can share applications, services, and other resources by exporting the environment variable to the client application environment.

To access these resources, the client-specific server can import these environment variables. You can configure the environment variable as follows:

To configure environment variable:

1. On the Vahana dashboard, locate the **Variables** tab **(Fig 2.4 (a))**.
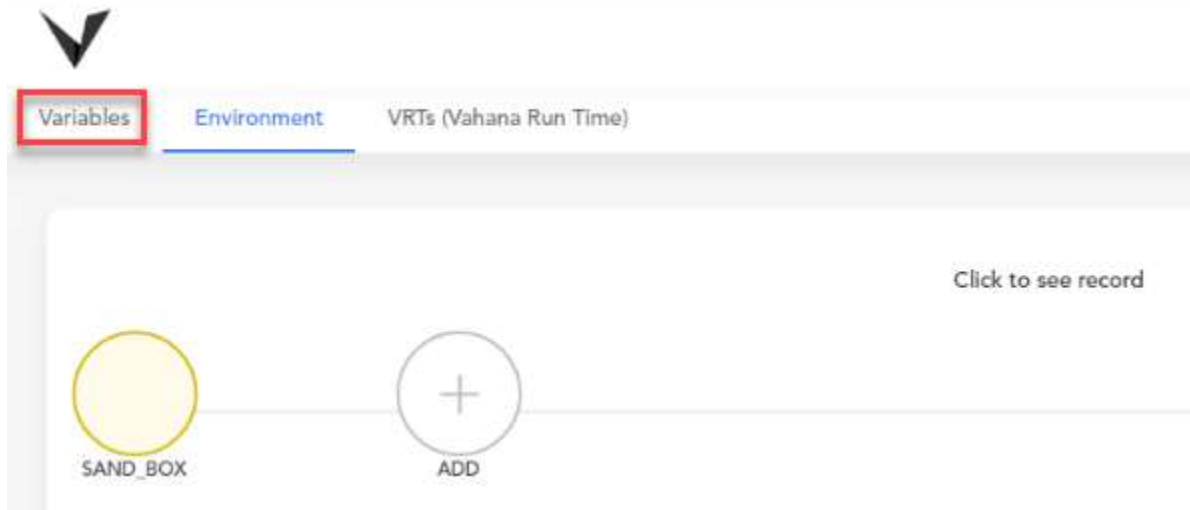
(Fig 2.4 (a))

2. Click the **Variables** tab **(Fig 2.4 (a))**, the dashboard displays the list of earlier created variables.

(Fig 2.4 (b))

3. On the dashboard, click **Add Variables (Fig 2.4 (b))**, the **Create Variable** dialog box **(Fig 2.4 (c))** opens.

Create Variable

Please provide the below details to add variable.

Variable Name

Variable Name

Variable Scope

Server Only ▼

Variable Declaration Source ⓘ

CLOUD ▼

SAND_BOX

Variable Value

UAT

(Fig 2.4 (c))

4. On the **Create Variable** dialog box, enter or select values in the respective boxes/lists as follows:

Box/List	Description
Variable Name	In this box, enter the name of variable (For example:- Demo_Var1)
Variable Scope	Click this list to select any of the following values: ➢ **Server Only** Select this option to grant access to the exported variables on the server machine only. ➢ **Server and Mobile** Select this option to grant access to the exported variables on the server machine and mobile phone device.
Variable Declaration Source	Click this list to select any of the following values: ➢ **Cloud** Select this value if you want to give the access of the environment variable on the global level. Access on the global level means that the resources from the external domain can access the environment variable based on the importing rights and permission.

	➢ **VRT** Select this value if you want to provide the access of the environment variable on the VRT level only.
Sand_box, UAT	The **Create Variable** dialog box displays the boxes **(Fig 2.4 (d))** of all the available environments. In these boxes, you can enter IP address/URL (detail of the resource) that you want to export to the client application environment. These boxes only become active after you choose **CLOUD** in the **Variable Declaration Source** list.
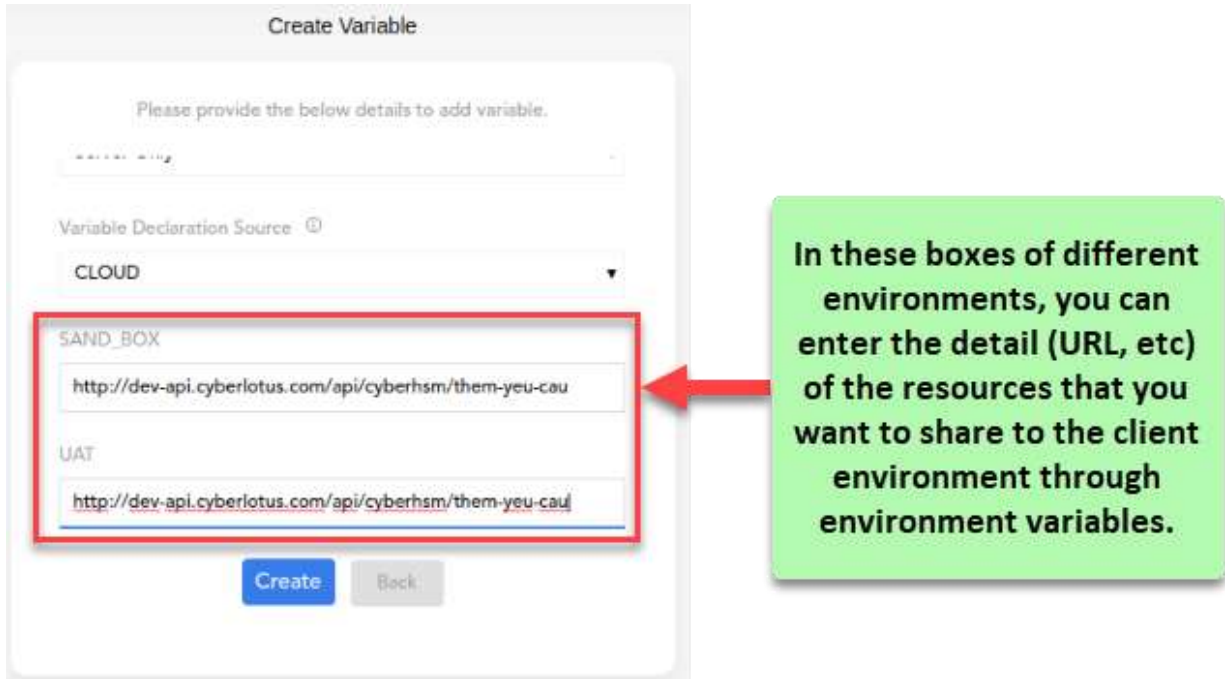
(Fig 2.4 (d))

5.   After you enter/select the values in the respective boxes/lists, click **Create (Fig 2.4 (d))**, the environment variable is configured.

2.4.1 Viewing Details of Environment Variables

On the Vahana dashboard, when you click the **Variables** tab, the dashboard displays the list **(Fig 2.4.1 (a))** of existing environment variables.

(Fig 2.4.1 (a))

The list displays the details of variables under different columns/fields that are described as follows:

| Field/Column	Description
Variable Name	This field displays the name of environment variable.
SAND_BOX, UAT, UATONE	These fields denote the name of existing environment. The field of specific environment displays any of the following icons: ➢ This icon specifies that the environment variable is configured for the respective environment. ➢ This icon specifies that the environment variable is not configured for the respective environment.
Action	This column displays three icons, which are described as below: ➢ ( ): This icon is used to modify the configuration details of the environment variable. ➢ ( ): This icon is used to view the configuration details of the environment variable. ➢ ( ): This icon is used to delete the profile of the environment variable.

2.5 Exporting Environment Variable

As it is described earlier in the document that you can export the environment variable by clicking the **Export** button on the dashboard of **Environment** module. On the dashboard, the Export button becomes available if you have configured the respective environment by using EXPORT type VRT. To know more about VRT, visit the heading section: Configuring Vahana Run Time.
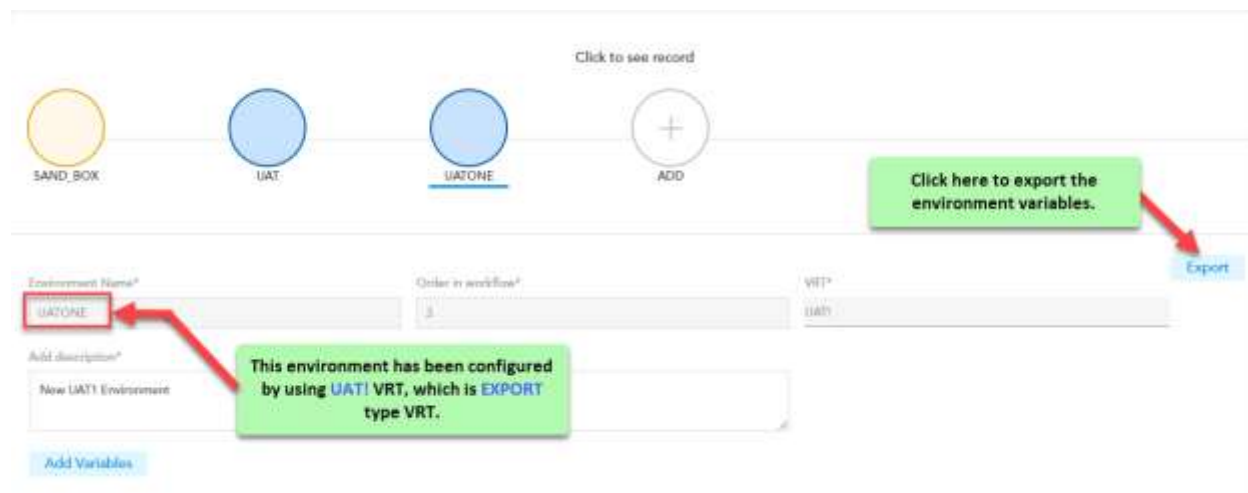
To export the environment variable:

1. On the Vahana dashboard, click the **Environment** tab, the dashboard displays currently available environments **(Fig 2.5 (a))**.
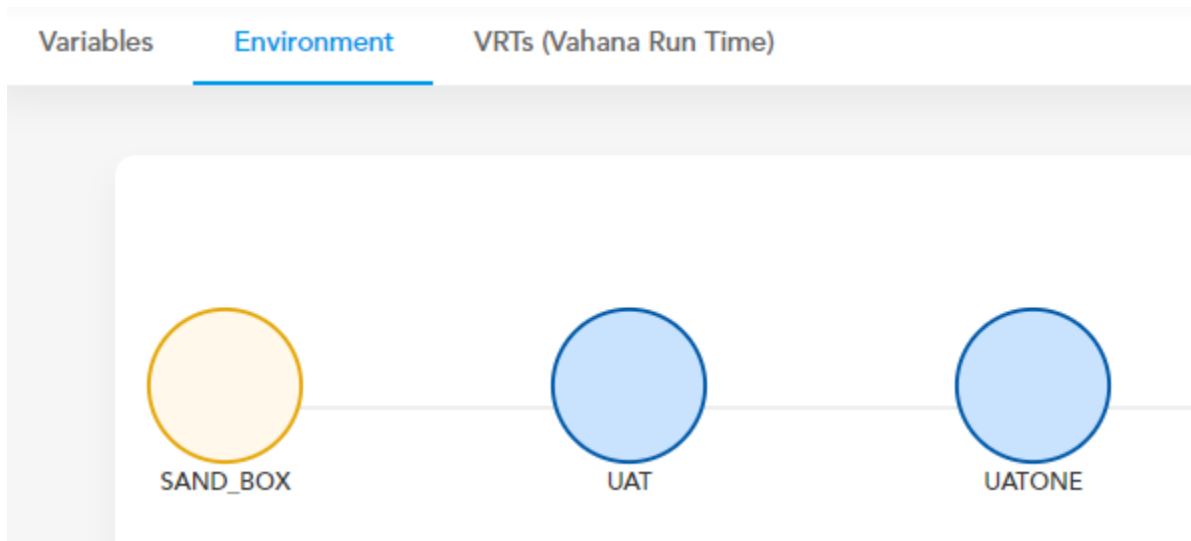
(Fig 2.5 (a))

2. Click the (EXPORT) type environment (For example: - UATONE), the dashboard displays the details of the environment.

(Fig 2.5 (b))

3. On the dashboard, click **Export (Fig 2.5 (b))**, the environment variables are exported to the client environment.

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