VTAP

VTAP Cloud
User Guide

VTAP Cloud

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DOT ORIGIN

If you need help to set up or use the VTAP Cloud, beyond what is contained in this User Guide, then please contact our support team.

Email: **vtap-support@dotorigin.com**

Download the latest documentation and firmware from **https://vtapnfc.com**

Telephone UK and Europe: +44 (0) 1428 685861

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If you have any feedback on setting up or using the VTAP Cloud or this documentation, then please contact our support team. The product is constantly being reviewed and improved and we value feedback about your experience.

Contents

1 Using this guide

This guide is for first-time users of the VTAP Cloud. It will help you understand how VTAP Cloud is used together with VTAP100 PRO readers, then help you to set up each VTAP reader. Information includes how to choose configuration and application, set up fleets, change Wi-Fi connections and add other VTAP Cloud users in your organisation.

If you need help beyond what is contained in this guide please contact **vtap-support@dotorigin.com**.

2   Introduction to the VTAP

The VTAP100 is a mobile pass NFC reader, certified compatible with Apple VAS and Google Wallet Smart Tap. It will extract and decrypt your NFC pass data from Apple or Google Wallet, and send this to the connected system, in your defined format.

The VTAP reader can be used with loyalty and rewards programmes, memberships, turnstile systems, and electronic ticketing. It is supplied as a PCB and antenna, for integration by OEM customers, or enclosed in a desktop or wall-mounted case.

Figure 2-1 VTAP100-PRO Cloud Connected Reader

Designed to support smooth migration from plastic to mobile NFC passes, the VTAP will also read UIDs or block data from many RFID or NFC smartcards and tags including MIFARE Classic and DESFire.

Since the VTAP reads **passes** from mobile wallet applications, it remains separate from traditional (EMV) payment mechanisms, although it can be used to implement stored-value and other closed-loop payment solutions. This simplifies data and security considerations, and the human interaction.

The VTAP100-PRO Cloud connected reader only needs a local power supply and a wireless network with Internet access. The VTAP PRO reader is configured through the companion online management platform, called VTAP Cloud. From the VTAP Cloud you can set configuration options for each reader, including your Wi-Fi details, Merchant IDs, Collector IDs and private keys.

Every time a pass is tapped, both pass data and the location of that tap will be sent to your chosen endpoint, defined by a reader's associated application. If your application requires immediate feedback to staff near the VTAP100, either a buzzer can be triggered or an LED signal on the device.

Any VTAP reader can be securely upgraded in the field, making it a flexible and future-proof component of any system that uses mobile NFC passes.

3 Examples of VTAP Cloud in use

Here are some potential uses of a VTAP100 PRO Cloud connected reader with the VTAP Cloud, showing how the VTAP Cloud facilitates both control of your VTAP readers and a simple API interface with your own IT infrastructure:
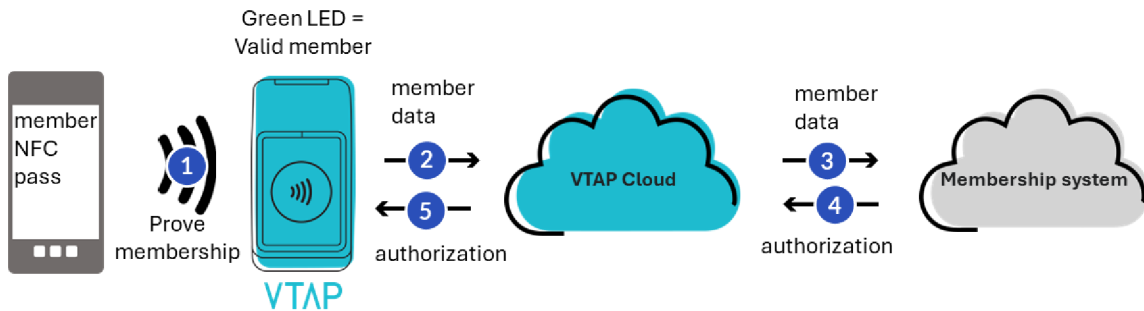

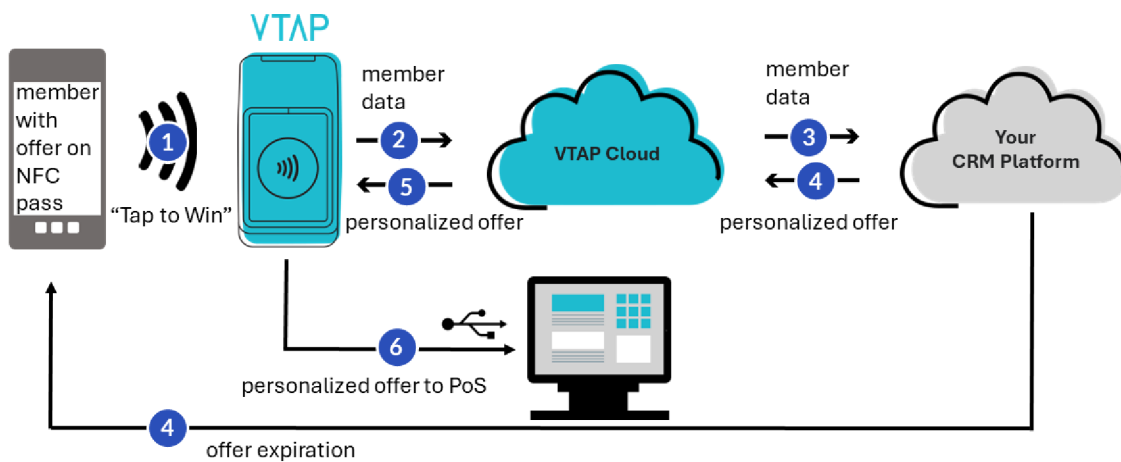**Figure 3-1 Example use of VTAP100-PRO and VTAP Cloud in proving membership**

Figure 3-2 Example use of VTAP100-PRO and VTAP Cloud in Tap to Win promotion

You will see from these examples that the VTAP PRO reader needs a configuration, which describes which mobile passes it should read from mobile passes, and an application, describing how to forward data from a pass read and any user feedback LEDs or beeps required. The management of readers is all done through the VTAP Cloud, which ensures updates can easily be distributed to a whole fleet of readers, regardless of their locations, as long as they have internet connection.

4   First steps with VTAP Cloud

You will have been taken through a **VTAP100 Cloud onboarding** process by Dot Origin Sales staff, to identify the essential elements of configuration for your VTAP100 readers. At that time you will have supplied details for a **primary user** to receive a VTAP Cloud account invitation to set up an account password.

Step 1: Go to **https://vtap.dotorigin.cloud/** and use your VTAP Cloud primary user login details to open the VTAP Cloud platform. (If you experience any difficulty contact **vtap-support@dotorigin.com**.)

You will start on the **Readers page**, where you should see all your VTAP Cloud Connected readers listed by their unique serial numbers.

Serial number

The unique serial number for each VTAP100-CLOUD reader is on a sticker on the base:

Online status

The online status of each reader is described on the VTAP Cloud platform by a red, amber, green or grey dot.

- Green - currently online and connected to the VTAP Cloud

- Amber - last connected to the VTAP Cloud more than 10 minutes ago

- Red - last connected to the VTAP Cloud more than 1 hour ago

- Grey - details entered manually, this reader has not yet connected to the VTAP Cloud

If you have powered your VTAP Cloud Connected readers and they have successfully connected to VTAP Cloud the readers themselves will show a steady blue LED, and you should see them listed on the Readers page of the Cloud platform, with a green status dot

alongside. (Refer to the VTAP100-PRO-BW User Guide if you have any trouble connecting your VTAP Cloud Connected readers.)

Step 2: Choose the grey 'Edit Properties' button 🖉 and record the **Location**, and optionally a **Parameter 1** and **Parameter 2** for each VTAP reader. Along with SSID and IP address, these are all pieces of information that this reader could later be required to send in response to a tap.

Location

Location is a free text field for each VTAP reader. Describe the location in a way that someone else in your organisation could find.

It is helpful to describe the location differently for readers that need to connect using different Wi-Fi details, typically where they are in different buildings, using different routers.

Step 3: If you have just a few readers, choose the grey 'Edit Properties' button 🖉 for each in turn and select their **Configuration** and their **Application** from those available in the drop down menus.

Configuration

Controls **which passes can be read** by a VTAP reader. Includes one or more Wi-Fi settings and Apple and Google Wallet IDs and keys or slot numbers. You can add or change the configurations available for your organisation on the **Configurations page**.

Apple Wallet and Google Wallet defaults will ensure you can use Dot Origin demo passes. To work with your own Apple or Google passes you will need to add their details to the configuration.

It is very important that your VTAP PRO in Cloud mode can always connect to Wi-Fi, so do add up to 4 Wi-Fi Networks to your Configuration. This should ensure it will always be able to join a Wi-Fi network. The VTAP PRO reader will try each option in turn, until it finds a network available for it to connect through.

Application

Controls the **actions that follow a pass read** by a VTAP reader. This can include both user feedback actions via the VTAP reader, such as beeps or LED flashes, and sending that pass read data on in a defined format to another system.

You will only be able to select from applications stored on the VTAP Cloud by your organisation. Dot Origin will provide or collaborate on public or private scripts to suit your intended application, based on your onboarding form. This results in one or more application types available to your organisation.

Through the **Applications page** you create one or more applications, based on an available application type. Each application is set up by the defining values for the parameter(s) that can be changed in your application type.

Step 4: If you have many readers, choose the **Fleets page** from the side menu.
Use the button **+ Add Fleet**. Give your new Fleet a name (free text) and select the associated **Configuration** and their **Application** from those available in the drop down menus then use the button **Create Fleet**.
Next choose the white 'Manage Fleet' button ⋯ beside your new Fleet. Select the 'Available Readers' tab and check boxes next to the readers you want to include in that Fleet. (To help you find the readers you need to include, you can sort that list by Location, Serial No. or Online status, just select the word to sort on that property, or toggle sort direction.)
Repeat this step if you need to create more Fleets.

Fleet

A group of readers that should behave identically. They all use the same configuration and application pair.

You can add or change the fleets available, and the readers that belong to each, on the **Fleets page**.

Note: Any changed reader properties will be sent to affected online VTAP readers immediately, and to offline readers when they next connect to the VTAP Cloud.

5   Check on reader operation

The **Readers page** is where you should see all your VTAP Cloud Connected readers listed by their unique serial numbers.

If you have powered your VTAP Cloud Connected readers and they have successfully connected to VTAP Cloud the readers themselves will show a steady blue LED, and you should see them listed on the Readers page of the Cloud platform, with a green status dot alongside. (Refer to the VTAP100-PRO-W Installation Guide if you have any trouble connecting your VTAP Cloud Connected readers.)

If you select the blue button 👁 next to a reader you are interested in, you can view details about its settings, reader health and information about the most recent reader activity.
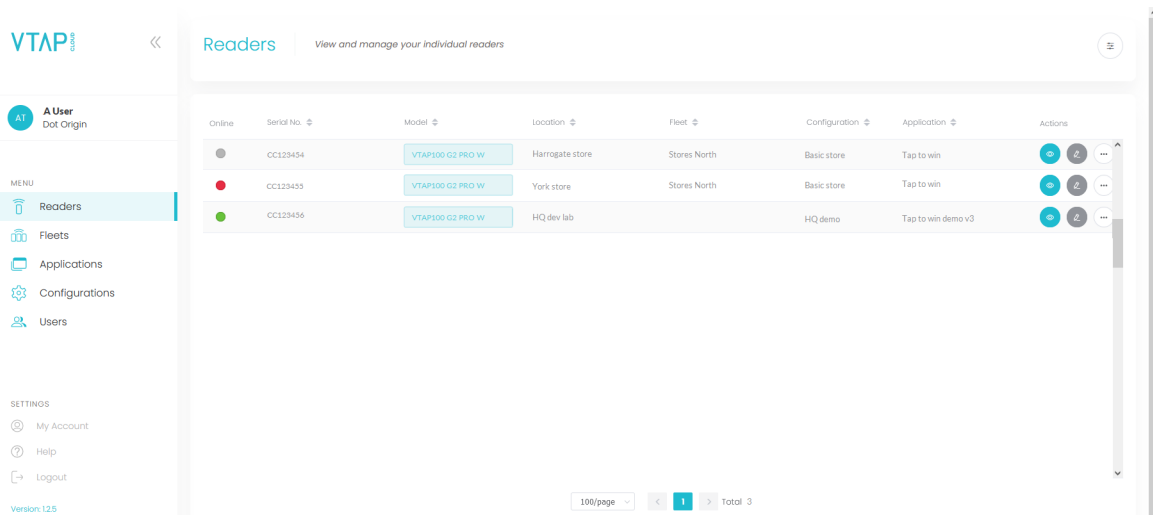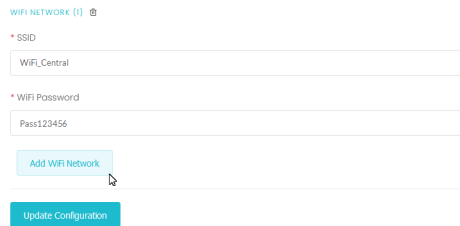

Figure 5-1 Example Readers page on the VTAP Cloud platform

6 Change Wi-Fi network

If you no longer have a network with the SSID or password that was initially configured for your readers, or you need them to use a different network, it is easiest to change their configuration if you do it before you remove the old network they are currently using.

When the old network is still in place:

Go to the **Configurations page** and choose the grey 'Edit Configuration' button ✎ . At the end of the configuration choose the **Add WiFi network** button. Type in the extra SSID and WiFi Password for your new network, then use the blue **Update Configuration** button.

WIFI NETWORK (1) 🗑

* SSID

WiFi_Central

* WiFi Password

Pass123456

Add WiFi Network

Update Configuration

Figure 6-1 Use 'Add WiFi Network' button on the Configurations Page

Do not remove the old network until your readers have all updated their configuration.

After the reader configurations have all been updated, and when your new network is in place, you may want to change their configuration again to remove the old network option. This would speed up initial connection of new readers using this configuration, but it is not essential.

> **Note:** There is no need to delete the old Wi-Fi settings from the VTAP configuration in order to add a new set. If the VTAP reader has multiple possible Wi-Fi configurations it will try them all, in numerical order, until connection to the VTAP Cloud is achieved. And even when the SSID=vtap and WiFi Password=passreader combination is deleted, the reader will still try that option if nothing else works.

If the old network has already been removed:

Your readers will be unable to connect to the Cloud platform and they will need to be individually reconfigured using their Hotspot Mode function. Refer to the VTAP100-PRO-W Installation Guide for details.

7   Other VTAP Cloud users

The **Users page**, the fifth item on the VTAP Cloud menu, is the place to allow other people in your organisation to view or manage your VTAP readers, by giving them access to the VTAP Cloud platform.

To add a user

Select the blue **+Add User** button. You can then enter the name and email address for the new user, and select a user role from the dropdown menu, to suit the level of access that would be appropriate. Then choose the blue **Create User** button.

> **User roles**
>
> The following user roles are available for VTAP Cloud platform users:
>
> - Admin - the default for the **primary user** of VTAP Cloud in an organisation, you can see and manage VTAP reader behaviour and manage access for other users of the VTAP Cloud in your organisation.
>
> - Manage - these users can see and manage VTAP reader behaviour, but not user accounts.
>
> - View - these users can see VTAP reader settings and status, but cannot make changes.

The new user will receive an email asking them to log in to the site and set a password.

The **Users page** is also the place manage the account details for these users and manage password resets.

To change user name, email or role

Choose the grey 'Edit Properties' button 🖉 for user whose details need changing. Make your changes, then use the blue **Update User** button.

To reset a user password

Choose the white 'Reset Password' button ⋯ next to the appropriate user.

That user will receive an email asking them to log in to the site and reset their password.

> **Note:** If you want to change your own user details or reset your own password, go to the **My Account page** rather than the **Users page**.

8   VTAP Cloud subscription

After a reader is activated, which means it has connected to the VTAP Cloud platform over Wi-Fi for the first time, it will attract a subscription fee (on a monthly or annual basis, as agreed). This means that you can operate a small number of readers during an initial demonstration phase, at lower cost, before deploying a larger number of readers or starting a phased roll-out, even if you take delivery of all the readers together.

Company details, which are used for billing by Dot Origin, can be checked by selecting your **Name and organisation**, at the top of the left hand menu on the VTAP Cloud platform. If there are any changes please contact **vtap-support@dotorigin.com**

9 Troubleshooting

Here are a few problems that could occur when using the VTAP Cloud platform, with help to resolve them.

No applications to choose

You will only be able to select from applications stored on the VTAP Cloud by your organisation. Dot Origin will provide or collaborate on public or private scripts to suit your intended application, based on your onboarding form. This results in one or more application types available to your organisation.

Only when you have added applications on the **Applications page** will they appear in dropdown menus to choose for your readers or fleets.

So if you can't see any applications on the **Applications page**, please get in touch with us at **vtap-support@dotorigin.com.**

No fleets to choose

You can add or change your own fleets on the **Fleets page**.

Only when you have added fleets on the **Fleets page** will they appear in dropdown menus to choose for your readers.

No configurations to choose

One or more initial configurations for your readers may have been created from your onboarding information, but you can then add or change the configurations available for your organisation on the **Configurations page**.

Only when you have added configurations on the **Configurations page** will they appear in dropdown menus to choose for your readers or fleets.

LED on my reader appears to flicker periodically

The LED will flicker approximately once per minute, to provide visual confirmation that it is making contact with the VTAP Cloud.

10 Terminology

Application
Controls the actions that follow a pass read by a VTAP reader. This can include both user feedback actions via the VTAP reader and sending that pass data in a certain format to another system.

Collector ID
An Google Wallet identifier for your organisation, used to issue NFC passes that work with the Smart Tap protocol

Configuration
Controls which passes can be read by a VTAP reader. Includes Includes Apple and Google Wallet IDs and keys, and one or more Wi-Fi settings.

Fleet
A group of readers that should behave identically. They all use the same configuration and application pair.

Key
A public key linked to your Merchant ID or Collector ID

Key version
Google's Smart Tap protocol requires a key version number in addition to the key itself

Location
Location is a free text field for each VTAP reader. Describe the location in a way that someone else in your organisation could find.

Merchant ID
An Apple Wallet identifier for your organisation, used to issue NFC passes that work with the Apple VAS protocol

Primary User
The first VTAP Cloud platform user set up for your company. They can set up and manage accounts for other users in your organisation.

Serial No.
A unique identifier for your VTAP reader. It is recorded on a sticker on the base of the reader.