

# Pervasive Nation Platform v1.1 User Guide

**Revision History** 

Version	Date	Author	Description
0.1	11/05/17	Brian Murphy	Initial Draft
0.2	31/07/17	Brian Murphy	Update to v1.1

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Rev 0.2

# **Release Notes**

## **New Features:**

- New Navigation Paradigm inserted
- Login Page rebranded to ConnecThing
- User admin + API token mgmt ported to new UI
- CRUD for new application
- Control to add pages to application
- Create application tile list landing page
- Styling and branding controls for application
- LoRa device admin, Device type admin and DSL functions admin ported to new UI
- Global query filter bar allows users to select a device and timerange
- Create a widget browser/selector pane.
- Create a metric selector listing.
- Create application view/read only mode
- Add line charts, Area Charts and column charts to the widget catalogue.
- Edit + delete widgets.
- Page layout + dragging, dropping and resizing widgets.
- UI switch to switch between old UI and new UI.
- Add export and annotation to charts.

## Limitations:

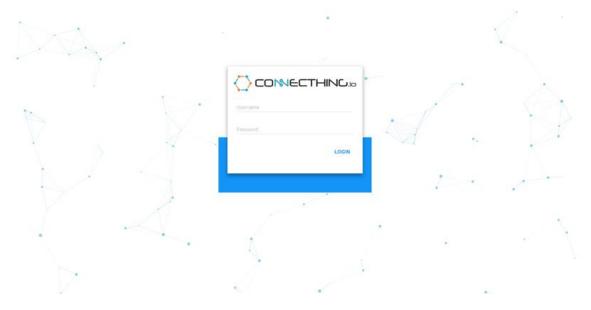
- IE 10: Not supported.
- Mobile phone view not supported.
- More optimisation needed for experience on regular 3G.

#### **Known Issues:**

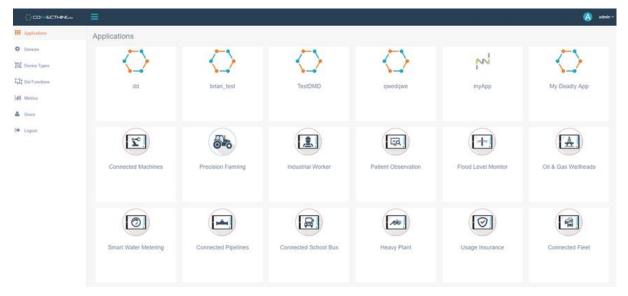
• Creating devices with ABP, the user must provide DevAddr prefixed with '0x' or the HEX value will be converted to decimal.

# 1 Login

Navigate to the *url* provided to you for your specific tenant. i.e. <u>tcd.pervasivenation.com</u> and enter your credentials.



Once logged in successfully, you should be brought to this landing page.



Should you have any issues with logging in, please contact <a href="mailto:support@pervasivenation.freshdesk.com">support@pervasivenation.freshdesk.com</a>

To logout of your account, simply click logout in the left-side menu or the user drop-down in the upper right-hand side.

CONCETHING						(A) #3
Applications	Applications					
Device Types Del Functione Methos Users	da	brian_test	TestDMD	qwedqwe	туАрр	My Deadly App
Legout	Connected Machines	Precision Farming	Industrial Worker	Patient Observation	Flood Level Monitor	Oil & Gas Wellheads
	Smart Water Metering	Connected Pipelines	Connected School Bus	Heavy Plant	Usage Insurance	Connected Fleet

# 2 Administration

Administration for the Connecthing platform is available on the left-hand side of the page.

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III Application	Applications					
Devices     Device Types     IDel Functions	dd	brian_test	TestDMD	dweqdwe	myApp	My Deadly App
lat stretce & Unors Ge Logod	Connected Machines	Precision Farming	Industrial Worker	Patient Observation	Flood Level Manitor	OII & Gas Wellheads
	Smart Water Metering	Connected Pipelines	Connected School Bus	Heavy Plant	Usage Insurance	Connected Fleet

Menu items include:

**Devices** - Create and delete devices on the network

Device Types - Create payload decoders for specific devices

DSL Functions - (Domain Specific Language) Functions for use in payload decoders

Metrics - Configure the metrics that are specified in the payload decoders for devices

**Users** - Creation of users with admin or operator permission rights, as well as API Token creation for API usage

Logout - Logout of your account

# 3 Users

Users allows an administrator to add, delete, reset passwords and generate API tokens for users.

	≡					🔕 admin*
III Applications	Users Admin					
Devices					Search:	
Device Types	User Name	11	Reset Password	Administrator	API Token	
Dsl Functions	\Lambda admin		-		+ Generate	
LMI. Metrics	C can this be chaged		-		+ Generate	•
📥 Users	O operator		<u> </u>		+ Generate	0
E Logout	Showing 1 to 3 of 3 antires					Previous 1 Next
						•

As seen above, we can create a new user by clicking on the green + icon to bring up the create a new user modal.

Fill in the username and password for the new user. Click on the checkbox to make that user an administrator if required and then hit Create.

	≡					💧 admin 🛩
III Applications	Users Admin	Create New User		×		
O Devices		Username	Enter user name			
Device Types		Password	Enter password	ator		
11 Dal Functions	🙆 admin	Is an Administrator			+ Generate	
Lal Metrics	can this be chaged	X Cancel	Creat		+ Generate	8
🔺 Users	operator	- Carco		2	+ Generate	•
🕒 Logout						
						0

You can reset the password of a user.

	≡		×			💧 admin 🛩
III Applications	Users Admin	Reset Password	<u>^</u>			
O Devices		New Password	Enter new password			
Device Types		Confirm Password	Confirm new password	ator		
및 Dsl Functions	🔕 xemin				+ Generate	
M Metrics	🕒 can this be chaged	X Cancel	Set New Password		+ Generate	8
👗 Users	O operator	•			+ Generate	
🕑 Logout						Project 1 Not
						0

Or generate an API token for them which can be used to access the Connecthing API which is discussed in <u>8 Connecthing API & API Tokens</u>

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EE Applications	Users Admin				• Takan Generated Success	*
O Devices					Search.	
BE Davice Types	User Name	11	Reset Password	Administrator	APETokon	
TT Dist Functions	💧 adrier		<u>0</u>		+ Generate	
Life Matrice	C can this be chaged		-		Generate	0
Luers	O operator				EDK156A2U0DKkonpR8q1	0
5+ Logast	Diversity 1 in 3 of 3 antines					Partial Red
						0

# 4 Device Types & DSL Functions

## **Device Types:**

#### Proceed to the **Device Types** page.

	=		🕑 pn_admin +
III Applications	Device Type Manag	ement	
O Devices	Search	Adeunis FTD v1 0	
Device Types	Adeune F1D v1.0	- Decoders: Encoders	
Cal Punctions	Adrums LoRaWAN Putter		
LAI Merrics	Raintal Tipper	Step 1. Build Decoder Step 2. Select Payload Step 3. Confirm Result	
	Libelium Smart Parking	1* disease rit becoder	
📥 then	Passiniougn	Greated by Taw Farrell.	
(+ Logout	GlobalSafLT100	6 Oppright # Pervariae Mation 2017 5 v/	
	Sinart Ag	9 30 ver payload « new Buffer(context.payload, "houses");	
	Envis ERS	12 13 une metrica - []:	
	Dendsometer	15 var header - pajSoaf.readUInt8(0); 16 var stært = 1; 17	
	Davra Test Mote	18 19 : If(()eader & 120) (== 0){ 20 : metrics.publ((neme: "Advants_temporature", value: payload.read(int@(start)));	
	Ascori Door CMIBBILRTH	11 statist 12 j 13 statist 14 j 15 statist 15 statist 16 statist 16 statist 17 statist 17 statist 18 statist 19 sta	
	Raintak Adeunis Putte	14 15 16 var temp - payland, read/int8(start);	
	million Philase	<ul> <li>21 (a) (a) (a) (a) (a) (a) (a) (a) (a) (a)</li></ul>	
	New	in in in in in in in in in in	

Here you can create your own decoder for any device that you wish to add to the network and returns its values.

Click on **New** to create a new decoder. This also provides the ability to Select the payload for your device in the **Device Type Management** page

There will be example decoders already present in the **Device Type Management** page. These are built using JavaScript, not the JSON type that will populate a new decoder like the screenshot below. So when creating a new decoder, just discard the pre-populated code.

Here is an example decoder for a Rainfall Sensor.

```
//Example payload for this device would be a 7 byte message:
//01 0d ff 00 0c 01 02
//Declare payload variable and load the payload into a buffer converting from //base64
var payload = new Buffer(context.payload, "base64");
var metrics = [];
//Decode Status Byte, present in all messages
var header = payload.readUInt8(0); //Select first byte = 01
var battery = payload.readUInt16BE(1); //2 bytes Big Endian at byte 1 = 0d ff
var tip_counter = payload.readUInt16BE(3); //2 bytes Big Endian at byte 3 = 00 0c
var tip_occurances = payload.readUInt8(5); //1 byte at byte 5 = 01
var tipper_type = payload.readUInt8(6); //1 byte at byte 6 = 02
var rainfall;
    (tipper_type == 1) {
     rainfall = tip_occurances / 10;
            (tipper_type == 2) {
     rainfall = tip_occurances / 5;
             (tipper_type == 3) {
     rainfall = tip_occurances / 2;
//Push the variable values to the array with the metric name
metrics.push({ name: "battery", value: battery });
// battery = 3583
metrics.push({ name: "tip_counter", value: tip_counter });
// tip_counter = 12
metrics.push({ name: "tip_occurances", value: tip_occurances });
metrics.push({ name: "rainfall", value: rainfall });
// rainfall = tip_occurances/5; (1/5) = 0.2
metrics.push({ name: "tipper_type", value: tipper_type });
// tipper_type = 02
context.value =
     metrics: metrics,
     gps: {
          latitude: null,
          longitude: null
```

	=		📔 pn_admin ~
III Applications	Device Type Manag	gement	
Oevices	Search	Name	
Device Types	Adeunis FTD v1.0	Decoders Encoders	
Dsl Functions	Adeunis LoRaWAN Pulse		
Metrics	Rainfall Tipper	Step 1. Build Decoder Step 2. Select Payload Step 3. Confirm Result	
	Libelium Smart Parking	1-{ 2- "preprocessing": {	
📥 Users	Passthrough	3 "call": "payloadTones"	
0+ Logout	GlobalSat LT100	5 - <sup>5</sup> processing", ( 6 - Style", 1 7 - ( 7 - ( 7 - Style", 1,	
	Smart Ag	* "sis":1;     * "comment's "ignore first byte"     * "     * "	
	Elsys ERS		
	Dendrometer		
	Davra Test Mote		
	Ascoel Door CM868LRTH		
	Rainfall Adeunis Pulse		
	Manthan Photos		
	New		
		Save	

Please view a list of decoders for various device types at help.pervasivenartion.com Decoders

## **DSL Functions:**

Domain Specific Language (DSL) functions are functions created for use in the device type decoders. For example, the received payload is stored in a Node JS buffer. Create a function to read 2 bytes Little Endian of the payload.

			🥑 pn_admin v
Applications	Dsl Management		
Devices	Search	1 * /* 2 Read 2 bytes little endian	
Device Types	readUint8	3 * function resultation (context) { 5 context.value = context.currentBytes.resdUtition(0); 6 )}	
Dsl Functions	readint1608		
all Metrics	payloadToBase64		
	readInt16LE		
📥 Users	readUInt16LE		
G Logout	payloadToHex		
	decode24B8GpsLongitude		
	decode24B8GpsLatitude		
	twosComplement		
	writeUInt16LE		
	decode32B#GpsLatLongScaled		
	base64ToPayload	Update Delete	
	payloadFromBase64	upone Dece	
	payloadToBase64v2		
	readUInt32LE		
	readFloatLE		
	New		

A full list of buffer properties and methods can be viewed here.

# 5 Devices

Enter the **Device** page and you will see options to create, bulk import, delete, edit and send downlinks to all devices. You will also see a list of all devices present on your tenant. This were you will manage all device creation and editing.

CONSECTION						🙆 admin+
II Applications	Device Management					
Devices	Create Device	X Delete Selected A Send downlink to se	lected devices			
Device Types						
T Dsl Functions					Sean	.h
	Name	Dev Eul	Last Seen	Signal Strength	Action	0
Metrics	dummy dev 817	0c170c4300000331			Action*	
Users	dummy dev 864	0c170c4300000360			Action*	
Logout	dummy dev 929	0c170c43000003a1			Action+	
	dummy dev 681	0c170c43000002x9			Action*	
	dummy dev 548	0c170c4300000224			Action+	
	dummy dev 93	0c170c430000005d			Action+	
	dummy dev 646	0c170c4300000286			Action*	
	dummy dev 859	0c170c430000035b			Action*	0
	dummy dev 403	0c170c4300000193			Action+	
	dummy dev 673	0c170c43000002a1			Action*	0
	dummy dev 255	0c170c43000000ff			Action*	
	dummy dev 733	0c170c43000002dd			Action+	0

## **Create Device:**

## Click on Create Device

	≡					A	admin ~
Applications	Device Management						
Devices		ete Selected A Send downlink to selected devi	ices				
Device Types							
Dsl Functions					Search		
	Name	Dev Eui	Last Seen	Signal Strength	Action		
all Metrics	dummy dev 817	0c170c4300000331			Action		
Lusers	dummy dev 864	0c170c4300000360			Action-		

A modal should appear. Fill in the appropriate information for the device. Here you must enter the **Name**, **Dev EUI** and **Device Type**. **Device type** refers to the decoder used for that device. You can read more about Device Type in section <u>4 Device Types & DSL Functions</u>. Then choose whether the device is using **Over-The-Air Activation** (**OTAA**) or **Activation by Personalization** (**ABP**).

For **OTAA** devices, choose the **OTAA** tab and provide the **App Key**.

×

#### **Create Device**

lame	Network Policy		Device Class:	
	Standard	•	• A • B • C	
ev EUI	RX Slot 2		Device Properties:	
	SF12	•	Not Specified	•
cpected Duty Cycle			Device Type	
				•
OTAA ABP				
ОТАА АВР Арр Кеу				

For ABP devices, choose the ABP tab and provide the NetSKey, AppSKey and the Dev Addr\*\*.

\*\*Please note that the DevAddr must be converted to HEX otherwise the system will interpret the DevAddr as decimal if the are no letters in the DevAddr and will not work. To do this, simply prefix your DevAddr with '**Ox**'.

For example, 03ff8123 will become 0x03ff8123

	Network Policy	Device Class:	
	Standard	• • A • B • C	
Nev EUI	RX Slot 2	Device Properties:	
	SF12	* Not Specified	
xpected Duty Cycle		Device Type	
ABP AATO			
Арр5Кеу			
NwkSKey			
Dev Addr			

Once the all details have been entered, click Create

The created device should now be listed on the **Device Management** page

	≡				4	admin.~
III Applications	Device Management					
Oevices	Create Device 🕲 Import Devices 🗙 D	elete Selected Al Send downlink to selected dev	Aces			
Device Types					Search	
Dsl Functions						
all Metrics	Name	Dev Eul	Last Seen	Signal Strength	Action	
	dummy dev 817	0c170c4300000331			Action+	
A Users	dummy dev 864	0c170c4300000360			Action	
🕀 Logout	dummy dev \$29	0c170c43000003a1			Action+	
	dummy dev 681	0c170c43000002x9			Action•	
	dummy dev 548	0c170c4300000224			Action+	
	dummy dev 93	0c170c430000005d			Action+	
	dummy dev 646	0c170c4300000286			Action-	
	dummy dev 859	0c170c430000035b			Action*	
	dummy dev 403	0c170c4300000193			Action+	
	dummy dev 673	0c170c43000002a1			Action+	
	dummy dev 255	0c170c43000000#			Action+	0
	dummy dev 733	0c170c43000002dd			Action+	

## Import Devices:

You can import bulk devices using a CSV file. The format of which is:

deveui	appkey	comment	lora_device_class	lora_rx2_sf	lora_fcnt_32bit
<deveui></deveui>	<appkey></appkey>	dummy dev 0	0	sf12	TRUE

# 6 Metrics

Metric configuration allows the user to configure the metrics that are available to the user from the decoded devices. Here you can alter the **Label**, **Description** and **Units** payload decoders from the user created devices.

Proceed to the **Metrics** page. There should be a listing of your created device's output parameters. To edit any of the information, simply click on the pencil icon.

	=					😢 po_admin +
III Applications	Metrics					
O Devices						
II Cevice Types					Search	
Tall Dist Functions	Name	11. Label	() Description	() Units	[] Activity	
(all Metrics						1000
A thes	40040_100	Memory	Memory used on the IoT galeway	25		
6 Logoal	43040_101	anu	CPU Utilization on the IUT galeway	s		1
	40040_102	TXBytes	Total number of transmitted bytes	8		1
	430.40_103	Rochylers	Tutal number of transmitted bytes			1
	43040_104	Echo	3G cellular quality	đĐ		1
	43040_105	RBR	Received signal strength indicator	a0		1
	adc.gan	adc_gam	undefined			1
	Adeums_temperature	Adeonis_temperature	undefined			/
	Alarmitiatus	Alarevintatus	undefined			1
	battery	battery	undefined			1

## Fill in the **Label**, **Description** or **Units** fields in the modal and press Update.

C) co-scherke		i i i				🚯 bilana i
III Assonon	Metrics	Edit Metric (43040)	_100)			
O Comm.		Label	Memory			
In Design Space .		Description	Memory used on the IoT gateway			
Tel commune	Name	Units	5	at More	Activity	
Life reverse			These options can be accessed twough the pencil acm on highl			8
A ; one			Gancel Update			1
De Lagrad :						×
						1
						×
						2
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						2
						1
						1
						×

Editing the **Label** parameter will help distinguish the metrics when creating applications or forwarding any data.

# 7 Applications

Click on the Applications tab on the Menu. It will display all apps that have been created and allow the user to create apps.

Please note that in this release, you must have administrator rights to create and application.

CONNECTHING	=	🕑 pn_admin~
## Applications	Applications	
O Devices	<u>/-1</u>	
Device Types		
Dsl Functions	Tom_Test	
Late Metrics	Add Application	
👗 Users		
🕪 Logout		

## Create an application

Click on the 'Add Application' tab and you will be presented with options to create your application.

Application Name: Enter a name for your application

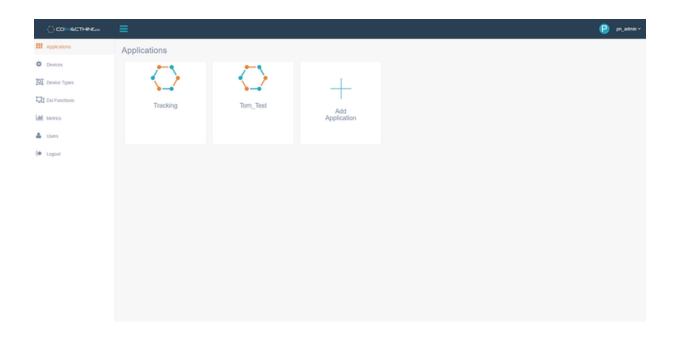
**Description:** Describe your application

**Custom URL:** Will provide you with a url for yor specific application. If you enter 'test' as a name here, it will autofill the url to https://<yourtenant>/apps/test. This can be copied here or via the 'Share app' button.

**Enable Geolocation:** If active, the application will have a mapping function to replay GPS data from GPS enabled devices only.

	Create a New App	lication ×
	Create a New App	lication
<u> </u>	Application Name	New Application Name
	Description	A description of your new application
	Custom URL	Custom URL for App Custom URL for App
		-
		These options can be accessed through the settings menu*
		Cancel Create

Once created, the application will appear on the Application Menu.

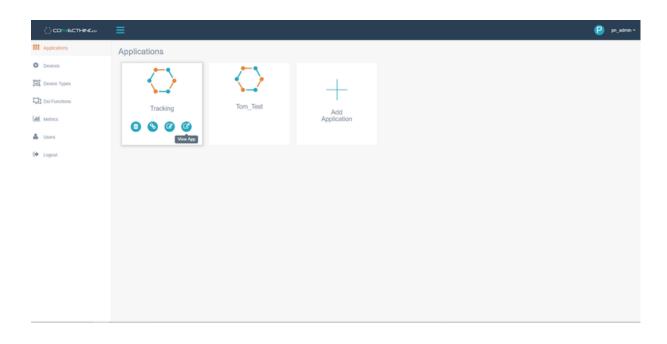


### View an application:

To view an application, simply click on the right most icon of the application. If you are an administrator, you have options to:

## From left to right: Delete App, Share App, Edit App, View App

An operator will only have the option to 'View App'.



Once inside the application, one can view the components of the application as it was designed. In this case, we have a simple application with a table view.

All components will default with sample data unless they are specifically tied to a device. To view your data, simply click on the 'All Devices' dropdown, find your device either by scrolling or using the search function. Once the device is selected the table will update with values.

You can then choose a time range from the datepicker dropdown on the far right and the table will update again.

There are options on the table itself to export to Excel, CSV, PDF, etc.

NC = Tom_Test				🕮 😑 🚥
			All Devices • 💼 💈	2017-11-07 11:25 - 2017-11-08
Widget 1				
Copy Excel CSV PDF Print				
Date	LF	Temperature	]¢ Pressure	Sample D
Wed Nov 08 2017 10:25:42 GMT+0000		28	138	
Wed Nov 08 2017 09:25:42 GMT+0000		19	141	
Wed Nov 08 2017 08:25:42 GMT+0000		20	189	
Wed Nov 08 2017 07:25:42 GMT+0000		35	170	
Wed Nov 08 2017 06:25:42 GMT+0000		21	102	
Wed Nov 08 2017 05:25:42 GMT+0000		24	170	
Wed Nov 08 2017 04:25:42 GMT+0000		32	163	
Wed Nov 08 2017 03:25:42 GMT+0000		24	139	
Wed Nov 08 2017 02:25:42 GMT+0000		35	98	
Wed Nov 08 2017 01:25:42 GMT+0000		33	168	
Wed Nov 08 2017 00:25:42 GMT+0000		23	176	
Tue Nov 07 2017 23:25:42 GMT+0000		21	98	
Tue Nov 07 2017 22:25:42 GMT+0000		22	129	
Tue Nov 07 2017 21:25:42 GMT+0000		37	188	
Tue Nov 07 2017 20:25:42 GMT+0000		28	113	
Tue Nov 07 2017 19:25:42 GMT+0000		38	163	

# 8 Connecthing API & API Tokens

If you wish to access the Connecthing API or forward any data to another application, you must first need to create an API Token. Navigate to the **Users** page and click + **Generate** button that will create an API token for that user.

You can highlight to select the token or click on the file icon to the right to copy to the clipboard

Сочестные	=					(A) admin.
III Applications	Users Admin				Concerned Succe	nethdy
O Devices					Search	
Tel Device Types	User Name	11	Reset Password	Administrator	API Tokon	
TI Dial Functions	(A) admin		<u>A</u>		+ Conversite	
AM Mattice	C can this be chaged		<b>a</b>		Generate	0
Luers	O operator		<u>⊜</u>		EDK15bA2000KinepR8qt	0
6 Logoot	Shearing 1 to 3 of 3 antinas					Partial I Red
						0
						17

## Davra Networks API:

You can use the existing API documentation available here.

House  RESTAPI v1 Resources  Jump 16 *  API Tokens  API Tokens  API Tokens  API Tokens  API Tokens  API Tokens  API Calls must be authenticated with an API token when the cats are made by thirdparty application. RuBAM supports HTTP Dearer Tokens, an OAvin 2.9 sock-appendixation for the transmission of crederates a token from the RuBAM system administrator on behalf of a view account in RuBAM, is granted an operational builder call perform on the user interface is now given to the API token bearer. Click here for more delates on granting tokens to users in RuBAM, Are example request to RuBAM using CURE, would look like that:  EVI -17 "Arthorization; bearer: #BCORRMediaELCig77" http:////apUvid.cpi exdpoters.  Element Discovery Provides access to the listing, searching and management of assets and sensors. Click here for more delate.  Rescure Description	davra networks	Platform Resources About Blog Contact Us Request a Demo
API Tokens All API cairs must be authenticating with an API token when the cairs are made by thirdparty application. RuBAM supports HTTP Dearer Tokens, an OAum 2.0 solo-specification for the transmission of credentials. One obtains a token from the RuBAM system administrator on behalf of a user account in RuBAM, (i.e. when a token is grainted at operations that user can perform on the user interface is now given to the API token bearer. Click here for more details on granting tokens to users in RuBAM. An exampler request to RuBAM using cURs, would look the this: cur1 - ft "Auchor/satistion: bearer. #NeVEXENBER/LEGG7R" http:////api.ytt/spi.edgstmt. Element Discovery Provides access to the fating, searching and management of assets and sensors. Click here for more details.	Hame	
All API calls must be authenticated with an API taken when the calls are made by thirdparty application. BuBAN supports HTTP Bearer Tokens, an CAuth 2.0 sub-application for the transmission of credential. One obtains a taken from the RuBAN system administrator on behalf of a user account in RuBAN, is when a taken is granted at operations that user can perform on user interface is now given to the API token bearer. Click here for more details on granting takens to users in RuBAN. An example request to RuBAN using cURR, would look like this: cur1 -ft "Archerization: Bearer. HistOttRebellistorg77* http:///wpU/d/api endpotots Element Discovery Provides access to the fating, searching and management of assets and sensors. Click here for more details.	REST API v1 Resour	Ces Jump To +
2.0 such appendication for the transmission of credentials. One obtains a token from the FuelBAN system administrator on behalf of a user account in RuBAN, is when a taken is granted at operations that user can perform on the user interface is now given to the API token bearsr. Calck here for more defails on granting tokens to users in RuBAN, using cURB, would look the that: cur1 -# "Aethorization: Bearsr #BicURBNBHBICLOGTR" http:////apI/ru/cupi endpoints: Element Discovery Provides access to the taking, searching and management of assets and sensors. CBK here for more defails.	API Tokens	
cur1 -H "Authorization: Bearer #BeCVERNBeelDickyS70" http://s/api/vi/sepi endpoint: Element Discovery Provides access to the listing, searching and management of assets and sensors. Click here for more details.	<ol> <li>0 sub-specification for the transmission of credentials.</li> <li>i.e. when a token is granifed all operations that user can</li> </ol>	One obtains a token from the RuBAN system administrator on behalf of a user account in RuBAN,
Element Discovery Provides access to the listing, searching and management of assets and sensors. Click here for more details.	An example request to RutIAN using cURs, would look I	iter tres:
Provides access to the listing, searching and management of assets and sensors. Click here for more details.	curl -W "Authorization: Bearer #BufVEEthbeditcloy51	76" http://:/apl/vE/capl endpoints
Provides access to the listing, searching and management of assets and sensors. Click here for more details.		
Resource Description	Provides access to the esting, searching and manageme	ent of assets and sensors. Cack here for more details
	Resource D	lescription
GET aprivi lidevices List the devices in the system	GET apiv1/devices U	ist the devices in the system
GET apply tildevices/ deviced Gets a device object for the specified kit	GET apply1/devices/deviceld G	lets a device object for the specified id
POST /api/v1/devices Creates/updates a device in RullAN	POST Japiv1ldevices O	inates/updates a device in RuBAN
PUT rapivirilevices/deviceid-attachment_nume> Attaches a file to the device. This is useful for associating an image with a particular device	PUT /api/vhitevices/deviceid=attachment_name> At	daches a file to the device. This is useful for associating an image with a particular device
GET /apuv fildovices/ devicel/drivaturchment_name> Gets an attachment associated with a device	GET /apivitidevices/devices/attachment_name> G	iets an attachment associated with a device
	InT Sansor Data	
IoT Sensor Data	to i Selisoi Data	

You can then use something like <u>Postman</u> to query the API calls you wish to make.

For example:

- Use **GET**
- http://<*yourtenantaddress*>/api/v1/devices
- In the header use *Key* = *Authorization* with the *Value* = *Bearer* <*generatedAPIToken*>
- Should return a list of all the devices on your system

# 10 Help

As well as the Pervasive Nation Resource pages for any help and support that you need, you can also contact us at <a href="mailto:support@pervasivenation.freshdesk.com">support@pervasivenation.freshdesk.com</a> should you wish to report any bugs with the platform