

# API Starting Guide

HOW TO GET STARTED WITH THE AEMP2.0 OUTBOUND ON CNH  
INDUSTRIAL TELEMATICS PORTALS (CASE SITEWATCH AND NEW  
HOLLAND FLEETFORCE)

## Table of Contents

---

1. First, request Client ID and Client Secret to CNH industrial .....	2
1.1. How to get your ID and Secret?.....	2
1.2. Test environment.....	2
2. Then, create and enable a user dedicated to the AEMP requests on SiteWatch/FleetForce .....	2
2.1. Create a dedicated account for AEMP requests only .....	2
2.1.1. Create the account .....	2
2.1.2. Set up the password .....	4
2.2. Enable the account freshly created .....	6
3. Getting warmed up to do API's requests.....	8
3.1. How to get your token .....	8
3.1.1. Token request example .....	8
3.1.2. Answer from server .....	9
3.2. How to do an API request .....	9
3.2.1. API request .....	9
3.2.2. API answer .....	10
3.2.3. Find all the types of requests you can do on SiteWatch/FleetForce .....	11
3.3. Example of a refresh token request .....	12
3.3.1. Refresh token request .....	12
3.3.2. Refresh token answer .....	13
4. Annex .....	14
4.1. Equipment unique ID .....	14
4.2. Drawing for the password grant workflow .....	16
4.2.1. Authorization and resource request sequence diagram .....	17
4.3. Drawing for the refresh token flow .....	18
4.3.1. Sequence diagram .....	19

# 1. First, request Client ID and Client Secret to CNH industrial

To respect the OAuth2.0 authentication process, CNHi will need to create for you a **Client ID** and a **Client Secret**.

## 1.1. How to get your ID and Secret?

To get the Client ID and the Client Secret, please go to TSP portal (<https://telematics-ce.sdp.cnhind.com>) in “Request Support” section and send the following information:

- **Company Name** - the name of the company requesting the Client ID
- **System Name** - the name of the system that will access the SiteWatch AEMP Service
- **System Public IP Addresses** - the public IP address/s which the Client system will use to access SiteWatch AEMP Service. This is for troubleshooting purposes only and not used as Access Control List.
- **Referent Name** - the name of a referent of the System that will access SiteWatch AEMP Service
- **Referent Email Address** - the email address of the referent of the System that will access SiteWatch AEMP Service.

## 1.2. Test environment

The test environment is not yet available.

It will be released next year.

Thank you for your patience 😊

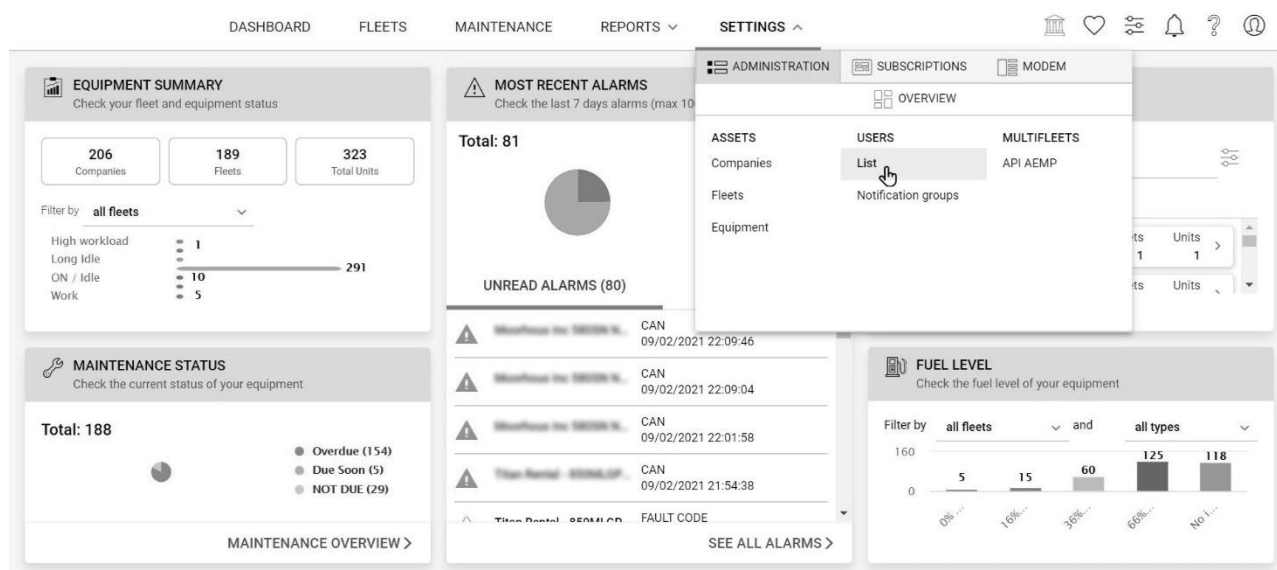
# 2. Then, create and enable a user dedicated to the AEMP requests on SiteWatch/FleetForce

Before you can start making API calls to SiteWatch/FleetForce AEMP2.0 outbound service, you need to create and to enable a user. The enabling will activate the SiteWatch/FleetForce AEMP Outbound.

## 2.1. Create a dedicated account for AEMP requests only

### 2.1.1. Create the account

1. Go to Settings/Administration/Users and click “List”:



## 2. Click Add users.

The screenshot shows the 'SETTINGS' page with a navigation bar at the top containing 'DASHBOARD', 'FLEETS', 'MAINTENANCE', 'REPORTS', and 'SETTINGS'. On the right side of the navigation bar are icons for a heart, a list, a bell, a question mark, and a user profile. Below the navigation bar, there are two tabs: 'LIST (460)' and 'NOTIFICATION GROUPS (132)'. In the top right corner of the main content area, there is a button labeled 'ADD USERS' with a plus icon. A mouse cursor is clicking on this button.

## 3. Fill in the fields

Example for information purposes only:

- Name: AEMP\_DealerMaria
- Last name: AEMP\_DealerMaria
- Login: AEMP\_DealerMaria
- E-mail: [dealermaria@dealermaria.com](mailto:dealermaria@dealermaria.com)
- Role: Dealer Technician (you can select any role you want to create this account)
- Language: English
- User settings: International (*Liters, kilometers, ...*)
- Company: Test company dealer

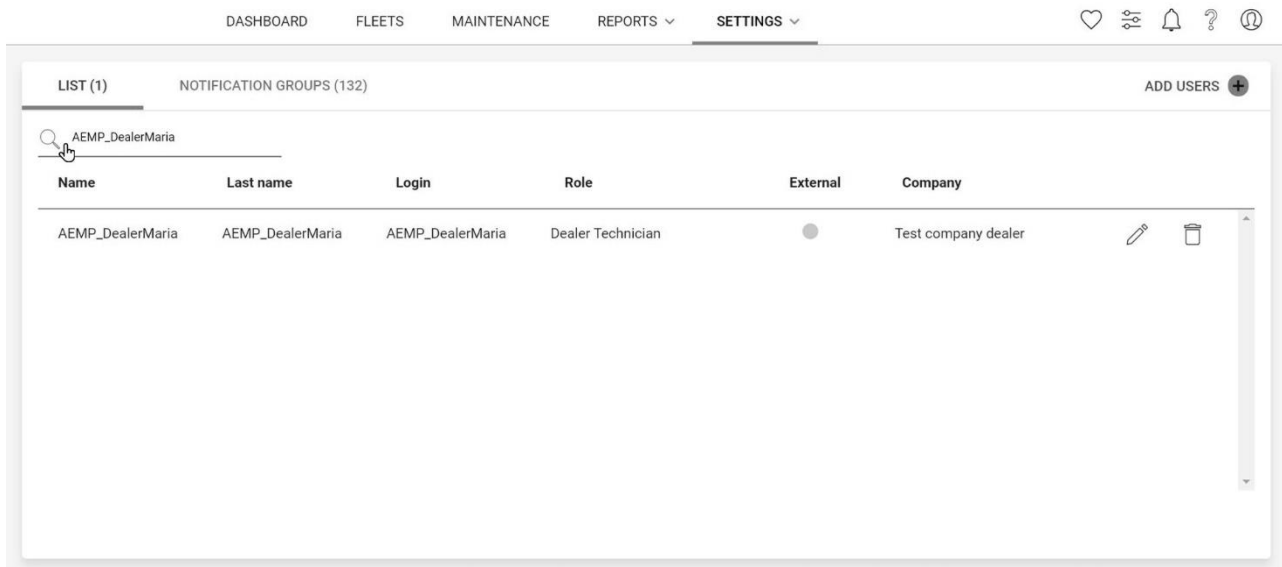
The screenshot shows the 'ADD USERS' form. The background is a dimmed version of the 'SETTINGS' page. The form has a close button (X) in the top right corner. It contains the following fields:
 

- Role:** A dropdown menu with 'Dealer Technician' selected.
- Mobile Phone:** An empty text input field.
- Office Phone:** An empty text input field.
- Language:** A dropdown menu with 'English' selected.
- User settings:** A dropdown menu with 'International' selected.
- Company:** A dropdown menu with 'Test company dealer (Italy)' selected.
- External user:** An unchecked checkbox.
- Visible in notification list:** An unchecked checkbox.
- Is multiple dealer user:** An unchecked checkbox.

 At the bottom of the form, there are two buttons: 'CANCEL' and 'SAVE'. A mouse cursor is clicking on the 'SAVE' button.

Don't forget to click Save

- Look for the account you've just created by typing the name in the search bar (just to be sure, you actually did it :)

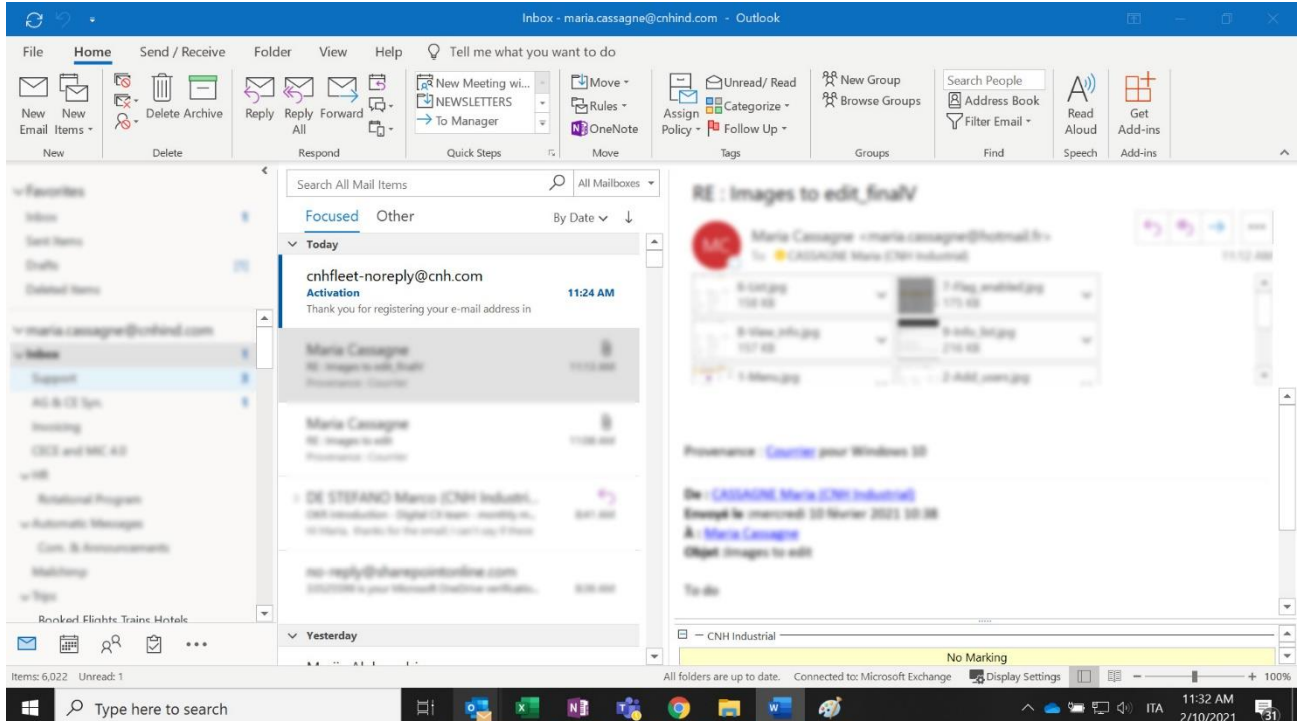


Good job, you now have an account for AEMP API requests!

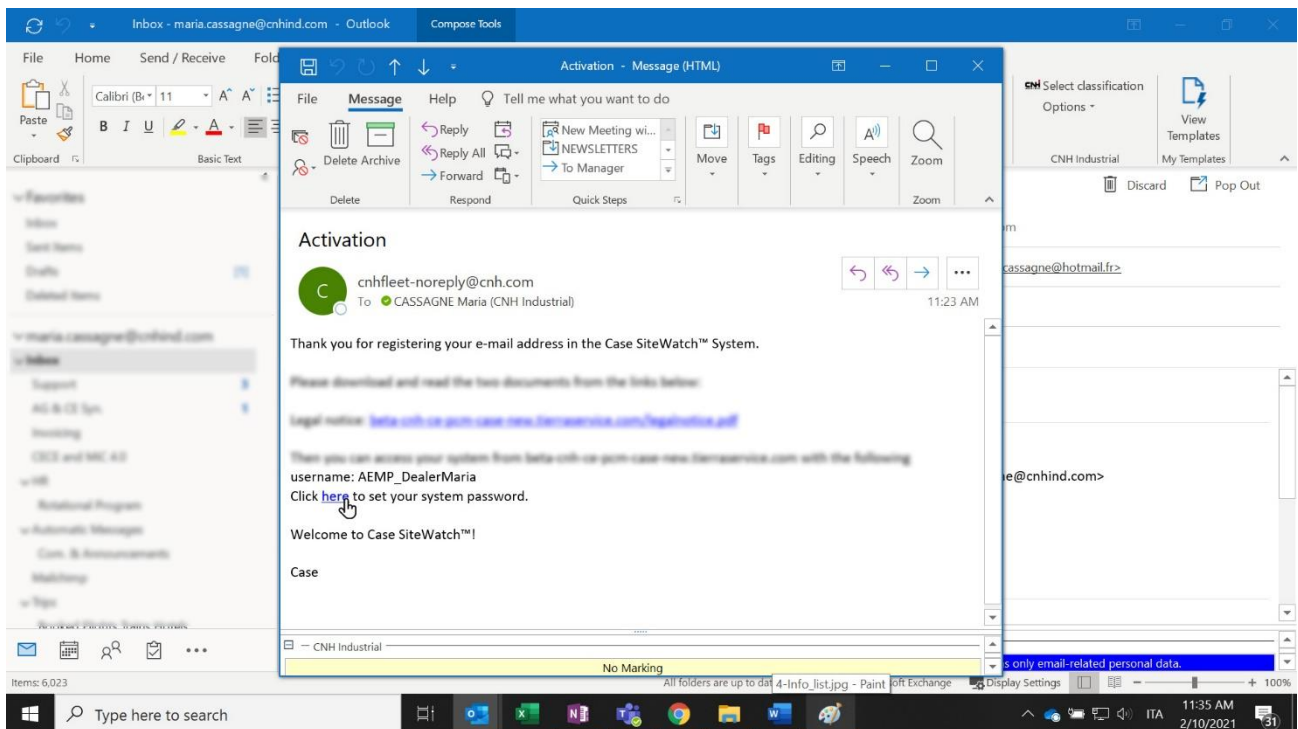
## 2.1.2. Set up the password

Set up a password for the new account created.

- Check your mailbox:



## 2. Click to setup password



## 3. Setup the password by filling following form:

A screenshot of the "Case SiteWatch" "Reset Password" form. The form is overlaid on a background image of a Case Construction logo. The form includes the following elements: the "CASE SiteWatch" logo, the title "Reset Password", a instruction "Please insert your new password and confirm it.", a password requirement note: "The password must be between 8 and 30 characters, must contain at least one uppercase, or capital, letter (ex: A, B, etc.), at least one lowercase letter, at least one special character.", two input fields labeled "Password \*" and "Confirm Password \*", and a "RESET" button. The background image shows a close-up of a Case Construction logo with the text "SINCE 1842" and "CASE CONSTRUCTION".

You're all set to go!

**Nota bene:** Don't forget that, you'll need to remember the name of the account (username) and the password to do the requests.

## 2.2. Enable the account freshly created

**Nota bene:** you can enable users, only if your role on SiteWatch is **Dealer Administrator** or **Customer Manager**.

**Nota bene:** You need to enable users even if you do not implement directly the authentication –for example if you are relying on a third party multifleet service.

If you are a multifleet provider: do not forget to ask your customers to enable their user on SiteWatch 😊

Here is how to proceed:

1. Go to Settings/Administration/Multifleets and click “API AEMP”:

The screenshot shows the SiteWatch dashboard with the 'SETTINGS' menu open. The 'MULTIFLEETS' option is highlighted, and the 'API AEMP' sub-option is selected. The dashboard includes sections for 'EQUIPMENT SUMMARY', 'MOST RECENT ALARMS', 'MAINTENANCE STATUS', and 'FUEL LEVEL'.

2. Search (1) or spot directly in the list (2) the user you want to enable in the list and click the pen to edit:

The screenshot shows the 'API AEMP (210)' page. It features a search bar (1) and a table of users. The table has columns for Name, Last name, Login, Company, Enabled, and External. A pen icon (2) is visible next to the first user, indicating the edit function.

Name	Last name	Login	Company	Enabled	External
Portal	Administrator	ADMIN	Titan Machinery Inc. (DE...	●	●
John Kraling	Al corn clean Fuel	Jkraling	AL CORN Clean Fuel (S.A...	●	●
Allen Marion Steed	Allen Marion Steed	Asted	Allen Marion Steed (NPL)	●	●
Damen	Anderson	Damenanderson	Anderson Rock & Lime L...	●	●
Michelle	Anderson	MichelleAnderson	Quail Tools	●	●
Rick Aupperle	Aupperle Plumbing & Htg	Raupperle	Aupperle Plumbing & Ht...	●	●

3. Flag the field Enabled (1) and click Save (2):

DASHBOARDFLEETSMaintenanceREPORTSSETTINGS

API AEMP (210)

Search

Name	Last name	Login	Company	Enabled
Portal	Administrator	00000	Titan Machinery Inc. (S...	<input checked="" type="checkbox"/>
John Kraling	Alcorn Clean Fuel	Jkraling	AL CORN Clean Fuel (S.A...	<input type="checkbox"/>
Allen Marion Steward	Allen Marion Steward	Asteward	Allen Marion Steward (NPL)	<input type="checkbox"/>
Darren	Anderson	Dammanderson	Anderson Rock & Lime L...	<input type="checkbox"/>
Michelle	Antonsen	MichellAntonsen	Quail Tools	<input type="checkbox"/>
Rock Ruppelle	Ruppelle Plumbing & Htg	Rruppelle	Ruppelle Plumbing & HE...	<input type="checkbox"/>

Edit Portal Administrator

Name  
Portal

Last name  
Administrator

Last name  
00000

E-mail  
rock\_mccoy@titanmachinery.com

Company  
Titan Machinery Inc. (201210)

☒ Enabled  
☐ External user

CANCEL

SAVE

## 3. Getting warmed up to do API's requests

---

For more details about the protocol OAUTH, click <https://tools.ietf.org/html/rfc6749>.

Your system makes request to API /oauth/token with given ClientId/SecretID and user credentials in order to get access token.

Note that the access tokens will be valid for 6 hours after which your software needs to get a new token either using the refresh token or calling again the /oauth/token api to get a complete set of tokens.

The refresh token will be valid for 24 hours.

### 3.1. How to get your token

#### 3.1.1. Token request example

```
> POST https://api.cnhfleet.com:4600/oauth/token?grant_type=password&scope=read HTTP/1.1
> Host: localhost:8081
> Authorization: Basic MmI5NzFiMTctZGM3Mi01Njk4LTk3ZTkYzY2NTdhYjc5MzMxOm1vY2tQYXNzd29yZA==
> User-Agent: insomnia/6.0.2
> Content-Type: application/x-www-form-urlencoded
> Accept: */*
> Content-Length: 42
| username=mockUser&password=mockPassword
```

The "Authorization" header contains the BASE64 encoded value of ClientID:ClientSecret

Use User and Password from SiteWatch/FleetForce you've just created in paragraph: [2. Then, create and enable a user dedicated to the AEMP requests on SiteWatch/FleetForce](#)



### 3.1.2. Answer from server

Token to do API calls.  
(The token is valid for 6 hours)

```
< HTTP/1.1 200
< Pragma: no-cache
< Cache-Control: no-store
< X-Content-Type-Options: nosniff
< X-XSS-Protection: 1; mode=block
< X-Frame-Options: DENY
< Content-Type: application/json; charset=UTF-8
< Transfer-Encoding: chunked
< Date: Fri, 22 Mar 2019 11:45:34 GMT

Body content:

{
  "access_token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJhdWQiOiJlbGVldF7hZWlwl0sInVzZXJfbmFtZSI6ImRjb2xlbGxhIiwic2NvcGU0s1cmVhZCJdLCJleHAiOiE1NTMzNDE1MzMsImFldGhvcml0aWVzIjpbIlJPTEVfVFNfUiJdLCJqdGkiOiI4OTc0MDQ3OC03MzBjLTRjZDgtODQ0NS0xZTM5NDYwMGNmMzNiYWQ0IiwiaXNjaW50IjpbIlN2JlNzgzNzEifQ.iUjpnq9C5kg_vTxdWXP5G9XCDfSret6FH",
  "token_type": "bearer",
  "refresh_token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJhdWQiOiJlbGVldF7hZWlwl0sInVzZXJfbmFtZSI6ImRjb2xlbGxhIiwic2NvcGU0s1cmVhZCJdLCJleHAiOiE1NTMzNDE1MzMsImFldGhvcml0aWVzIjpbIlJPTEVfVFNfUiJdLCJqdGkiOiI4OTc0MDQ3OC03MzBjLTRjZDgtODQ0NS0xZTM5NDYwMGNmMzNiYWQ0IiwiaXNjaW50IjpbIlN2JlNzgzNzEifQ.iUjpnq9C5kg_vTxdWXP5G9XCDfSret6FH",
  "expires_in": 86399,
  "scope": "read",
  "jti": "18740478-730c-4cd8-8445-1e3244cca0b4"
}
```

Refresh token is valid for 24 hours.  
Check [3.3. Refresh token](#) to understand how to use the refresh token.

## 3.2. How to do an API request

Now that you have an access token you can start to make API requests. You will find hereunder an example.

**Nota bene:** the API responds with 10 minutes request-rate-limit.

### 3.2.1. API request

Refer to [4.1. Equipment unique ID](#) to find out where you can get the equipment unit ID code.

```
> GET https://api.cnhfleet.com:4600/Fleet/Equipment/3519 HTTP/1.1
> Host: localhost:8080
> User-Agent: insomnia/6.0.2
> Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJhdWQiOiJlbGVldF7hZWlwl0sInVzZXJfbmFtZSI6ImRjb2xlbGxhIiwic2NvcGU0s1cmVhZCJdLCJleHAiOiE1NTMzNDE1MzMsImFldGhvcml0aWVzIjpbIlJPTEVfVFNfUiJdLCJqdGkiOiI4OTc0MDQ3OC03MzBjLTRjZDgtODQ0NS0xZTM5NDYwMGNmMzNiYWQ0IiwiaXNjaW50IjpbIlN2JlNzgzNzEifQ.iUjpnq9C5kg_vTxdWXP5G9XCDfSret6FH
> Accept: */*
```

The token was given previously in:  
[3.1.2. Answer from server](#)

### 3.2.2. API answer

```
< HTTP/1.1 200
< X-Content-Type-Options: nosniff
< X-XSS-Protection: 1; mode=block
< Cache-Control: no-cache, no-store, max-age=0, must-revalidate
< Pragma: no-cache
< Expires: 0
< X-Frame-Options: DENY
< Content-Type: text/xml
< Content-Length: 852
< Date: Fri, 22 Mar 2019 11:52:40 GMT

Body content:

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Fleet
  xmlns="http://standards.iso.org/iso/15143/-3" version="1" snapshotTime="2019-03-22T11:52:39Z">
  <Equipment>
    <EquipmentHeader>
      <OEMName>New Holland</OEMName>
      <Model>Undefined</Model>
      <EquipmentID>test-32145 - AM50 Rev2 - 462012 - 18000</EquipmentID>
      <SerialNumber>SN_NC1C32D839BAEUGB</SerialNumber>
      <PIN>3519</PIN>
    </EquipmentHeader>
    <AverageLoadFactorLast24 datetime="2019-03-22T11:00:00Z">
      <Percent>0.0</Percent>
    </AverageLoadFactorLast24>
    <CumulativeOperatingHours datetime="2012-11-12T11:56:42Z">
      <Hour>2.00</Hour>
    </CumulativeOperatingHours>
    <Distance datetime="2012-11-12T10:56:42Z">
      <OdometerUnits>kilometre</OdometerUnits>
      <Odometer>0.0</Odometer>
    </Distance>
    <FuelUsedLast24 datetime="2019-03-22T11:52:39Z">
      <FuelUnits>litre</FuelUnits>
      <FuelConsumed>0</FuelConsumed>
    </FuelUsedLast24>
  </Equipment>
</Fleet>
```

### 3.2.3. Find all the types of requests you can do on SiteWatch/FleetForce

The example above is one of many API requests you can do.

On SiteWatch/FleetForce you can find a list with all the API requests available.

Here is how to get to this list:

1. Go to Settings/Administration/Multifleets and click “API AEMP”:

The screenshot shows the SiteWatch/FleetForce dashboard with the 'SETTINGS' menu open. The 'ADMINISTRATION' sub-menu is selected, and the 'MULTIFLEETS' option is highlighted, with 'API AEMP' being the target selection.

**Dashboard Overview:**

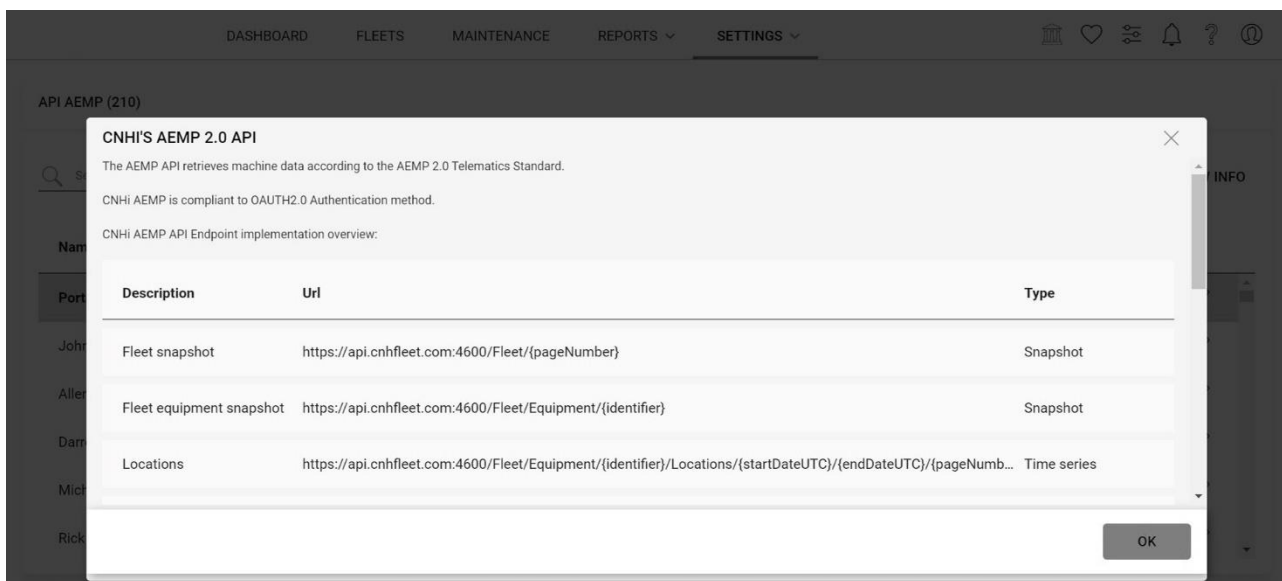
- EQUIPMENT SUMMARY:** 206 Companies, 189 Fleets, 323 Total Units. Filter by all fleets. High workload: 1, Long Idle: 291, ON / idle: 10, Work: 5.
- MAINTENANCE STATUS:** Total: 188. Overdue (154), Due Soon (5), NOT DUE (29).
- MOST RECENT ALARMS:** Total: 81. UNREAD ALARMS (80). List of alarms with details like 'Warning Inc. 00000 N.' and 'CAN 09/02/2021 22:09:46'.
- FUEL LEVEL:** Check the fuel level of your equipment. Filter by all fleets and all types. Bar chart showing fuel levels for different fleets.

1. Click Info in the top right corner:

The screenshot shows the 'API AEMP (210)' page. It features a search bar and a 'VIEW INFO' button. Below is a table listing users with columns for Name, Last name, Login, Company, Enabled, and External.

Name	Last name	Login	Company	Enabled	External
Portal	Administrator	00000	Titan Machinery Inc. (IL)	●	●
John Kraling	Al corn clean Fuel	Jkraling	AL CORN Clean Fuel (S.A.)	●	●
Allen Marion Steed	Allen Marion Steed	Asteed	Allen Marion Steed (NPL)	●	●
Darren	Anderson	Darrenanderson	Anderson Rock & Lime L.	●	●
Michelle	Antkowiak	MichelleAntkowiak	Quail Tools	●	●
Rick Apperle	Apperle Plumbing & Htg	RApperle	Apperle Plumbing & Htg.	●	●

2. Then you will find the list with all the requests you can do:



### 3.3. Example of a refresh token request

As we saw previously, access tokens are valid for a limited amount of time and will expire after 6 hours. When an access token expires, an invalid token error will be returned to your application. In this case Client Applications should generate a new set of tokens making a "refresh token call" to the SiteWatch OAUTH Authorization Service.

### 3.3.1. Refresh token request

The refresh token was given previously in:

3.1.2. Answer from server

```
>POST https://api.cnhfleet.com:4600/oauth/token?grant_type=refresh_token&refresh_token=
eyJhbGciOiJIUzI1NiIsInR3cCI6IkpVXAJ9.
eyJhdWQiOiIsibXlmGVLvF9hZW1l10sInVzZXJfbmFtJSI6ImRjb2x1bGxhLiwiOiI2NvcGUlO1sicmVhZCJdLCJhdGkiOiI0ODc0MDQ
3OC03BzMyJTRjZDgtODQNSOxZTMmYyY2MyYyJmLCJleHAiOiE1NTMzNDU1MzMsImF1dGhvcml0aWVzIjpbIjJPTFVfVFNFUjJdLC
JqdGkiOiI0T0EzNTk5Yi01NzJmLHQ2N2AtOWQzZi01NDYwMGNmMzNiYWQlLCJjbGllbnRfYWQlOiIyYzZ5MWE3MS1jZDI3LTQyNjQto
Td0S1jNjY1N2JlNzgZnZEIFZ.pF5ROV4DPBOM6irjksODJ1E2CPGTD_wj7HS9Ur80UFq HTTP/1.1
> Host: localhost:8081
> Authorization: Basic MmI5NzFiMTctZGM3Mi01Njk4LTk3ZTktYzY2NTdhYjc5MzMxOmlvY2tQYXNzd29yZA==
> User-Agent: insomnia/6.0.2
> Content-Type: application/x-www-form-urlencoded
> Accept: */*
> Content-Length: 40
```

### 3.3.2. Refresh token answer

```
< HTTP/1.1 200
< Pragma: no-cache
< Cache-Control: no-store
< X-Content-Type-Options: nosniff
< X-XSS-Protection: 1; mode=block
< X-Frame-Options: DENY
< Content-Type: application/json; charset=UTF-8
< Transfer-Encoding: chunked
< Date: Thu, 21 Mar 2019 09:29:09 GMT

Body content:
{
  "access_token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJhdWQiOi0lsibXlmbGVldF7hZWlwIl0sInVzZXJfbmFtZSI6ImRjb2xlbGxhIiwic2NvcGUlOi0lsicmVhZCJdLCJleHAiOi0jE1NTMzNDElMzMsImF1dGhvcml0aWVzIjpbIlJPTEVfVFNfUiJdLCJqdGkiOi0xODc0MDQ3OC03MzBjLTRjZDgtODQ0NS0xZTM5NDRjY2MwYjUiLCJjbGllbnRfaWQiOi0iYyZzc5MWE3MS1jZDI3LTQyNjQtOTdlOS1jNjY1N2JlNzgzNzEifQ.iUjpnog9C5kg_vTxdWXP5G9XCDfSret6FH RtOrcvp4V",
  "token_type": "bearer",
  "refresh_token": "eyJhbGciOiJIUzI1NiIsInR3cCI6IkpVXAJ9.eyJhdWQiOi0lsibXlmbGVldF9hZWlwIl0sInVzZXJfbmFtZSI6ImRjb2xlbGxhIiwic2NvcGUlOi0lsicmVhZCJdLCJhdGkiOi0xODc0MDQ3OC03BzMjLTRjZDgtODQ0NS0xZTM5NDRjY2MwYjUiLCJleHAiOi0jE1NTMzNDElMzMsImF1dGhvcml0aWVzIjpbIlJPTEVfVFNfUiJdLCJqdGkiOi0iI4OTEzNTk5Yi01NzJmLTQ2NzAtOWQzZi01NDYwMGNmMzNiYWQiLCJjbGllbnRfaWQiOi0iYyZzc5MWE3MS1jZDI3LTQyNjQtOTdlOS1jNjY1N2JlNzgzNzEifZ.pF5ROV4DPBOM6irjksODJlE2CPGTD_wj7HS9Ur80UfQ",
  "expires_in": 86399,
  "scope": "read",
  "jti": "18740478-730c-4cd8-8445-1e3244cca0b4"
}
```

## 4. Annex

### 4.1. Equipment unique ID

To make a request on a specific piece of equipment you will need its ID pin.

Hereunder you will find the steps to get the unit ID pin on SiteWatch/FleetForce.

1. Go to Settings/Administration/Multifleets and click “Equipment”:

The screenshot shows the SiteWatch/FleetForce dashboard. The top navigation bar includes DASHBOARD, FLEETS, MAINTENANCE, REPORTS, and SETTINGS. The SETTINGS menu is open, showing sub-menus: ADMINISTRATION, SUBSCRIPTIONS, and MODEM. Under ADMINISTRATION, there are links for ASSETS (Companies, Fleets, Equipment), USERS (List, Notification groups), and MULTIFLEETS (API AEMP). The 'Equipment' link is highlighted with a mouse cursor. The dashboard also displays several widgets: EQUIPMENT SUMMARY (189 Companies, 196 Fleets, 527 Total Units), MOST RECENT ALARMS (Total: 100, UNREAD ALARMS (99)), MAINTENANCE STATUS (Total: 400), and FUEL LEVEL (Filter by all fleets and all types).

2. Find the unit in the list. Once you’ve spotted the unit click the eye (view) or the pen (edit) icon:

The screenshot shows the EQUIPMENT (542) list. The table has columns: Equipment ID, Brand, Type, Model, Machine S/N, Device S/N, Company, Default fleet, Country, and TDAC. The table lists several pieces of equipment, including Case Concretis Wheel Loaders and Tractor Loaders. Each row has icons for view (eye), edit (pen), and delete (trash) on the right side.

Equipment ID	Brand	Type	Model	Machine S/N	Device S/N	Company	Default fleet	Country	TDAC
11210 Myfly ..	Case Concretis..	Wheel Loader	11210	NHF240457	1225-09007E...	Titan Machine..	Titan Machine..	United States	C227AGCB17...
11210 TAG 2..	Case Concretis..	Wheel Loader	11210	NHF240554	1225-090084...	Titan Machine..	Titan Machine..	United States	C227ACDFCE...
11210 Wes M..	Case Concretis..	Wheel Loader	11210	JEN11210JF...	1225-090008...	Titan Machine..	Titan Machine..	United States	C22413C237...
1225-090008...	Case Concretis..	Excav	Not Available	NFDC20075	1225-090008...	3 Rivers Telep..	3 Rivers Telep..	United States	CC23055134...
1225-090008...	Case Concretis..	Tractor Load...	580 Super N	NFC720412	1225-090008...	Titan Machine..	Titan Machine..	United States	CT230444FT...
1225-090003...	Case Concretis..	Construction ..	Not Available	NH57M1585	1225-090003...	Titan Machine..	Titan Machine..	United States	CT279C8E82...
1225-090003...	Case Concretis..	Construction ..	Not Available	NH57M1272	1225-090003...	Pacific Steel ..	Pacific Steel ..	United States	CT279C8E82...

3. Refer to the URL. The last number is the ID of this unit (in this case the ID is **66697**).  
Use this ID to do API requests for this unit.

← → ↻ 2020.casesitewatch.com/administration/data/units/66697 ☆ ⌵ T ⋮

Apps CNH News San Mauro Sharepoints Tierra

DASHBOARD FLEETS MAINTENANCE REPORTS SETTINGS

EQUIPMENT (542)

Search

Equipment ID	Brand	Type	Model	Machine S/N	Device S/N	Company	Default fleet
11216 Mytty	Case Constra	Wheel Loader	11216	NH2340457	1223-090076	Titan Machine	Titan Machine
11216 TAG 2	Case Constra	Wheel Loader	11216	NH2340554	1223-090084	Titan Machine	Titan Machine
11216 Waa M	Case Constra	Wheel Loader	11216	JEDN11216JF	1223-090038	Titan Machine	Titan Machine
1223-090038	Case Constra	Exter	Not Available	NH2328075	1223-090038	3 Rivers Telep	3 Rivers Telep
1223-090038	Case Constra	Tractor Loader	580 Super N	NH2328412	1223-090038	Titan Machine	Titan Machine
1223-090063	Case Constra	Construction	Not Available	NH23411585	1223-090063	Titan Machine	Titan Machine
1223-090063	Case Constra	Construction	Not Available	NH23411272	1223-090063	Pacific Steel	Pacific Steel

11216 Mytty Excavating Inc

Last Update  
10/01/2020 08:50:21 pm

Equipment ID \*  
11216 Mytty Excavating Inc

Plate \*  
1223-09007630

Machine S/N  
NH2340457

Type Of Use  
Material Handling

Time Zone  
(GMT-07:00) Mountain Time (US & Canada)

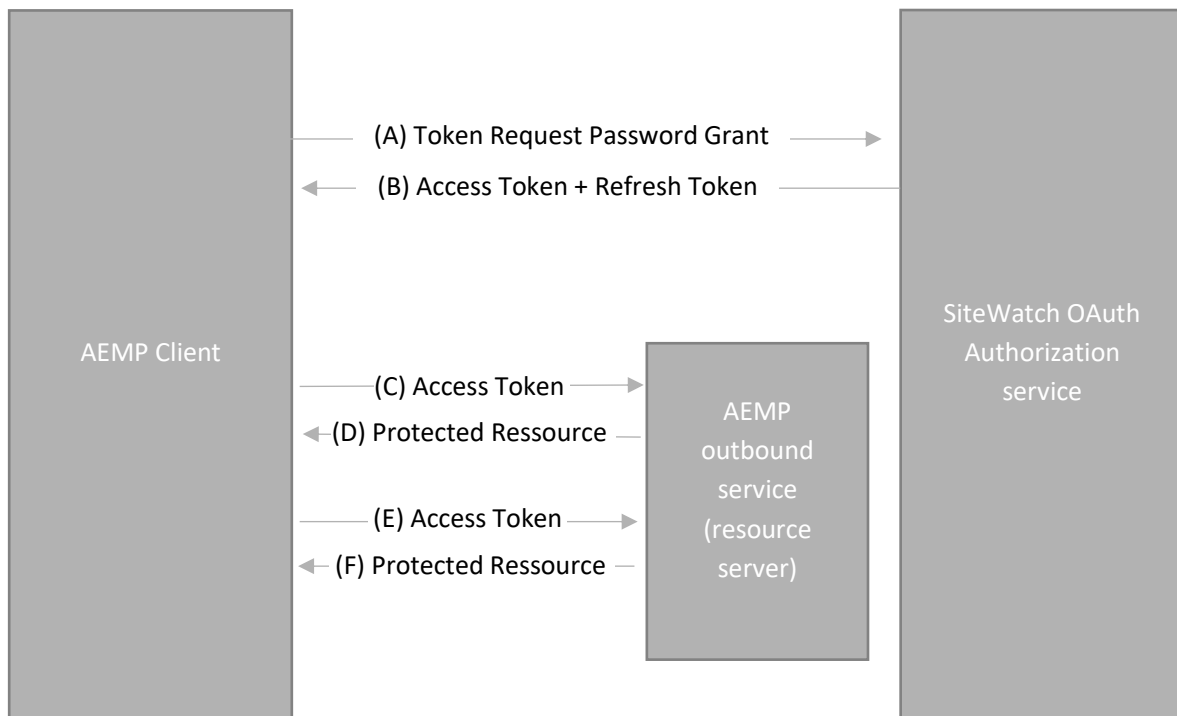
Engine Hours  
5622.4

GPS Based Odometer  
20019

CANCEL SAVE

## 4.2. Drawing for the password grant workflow

ACTOR	ACTION
AEMP Client System Admin	Make a "ClientID Request" to CNH in order to get a ClientID and Client Secret
SiteWatch Fleet 's owner admin	Enable at least one user in SiteWatch for AEMP access (you can have more than one user enabled for AEMP)
AEMP Client Application	Call API /oauth/token to get a set of valid TOKENS (Access token and Refresh Token) using Basic Authentication where ClientID and Client Secret are passed as credentials

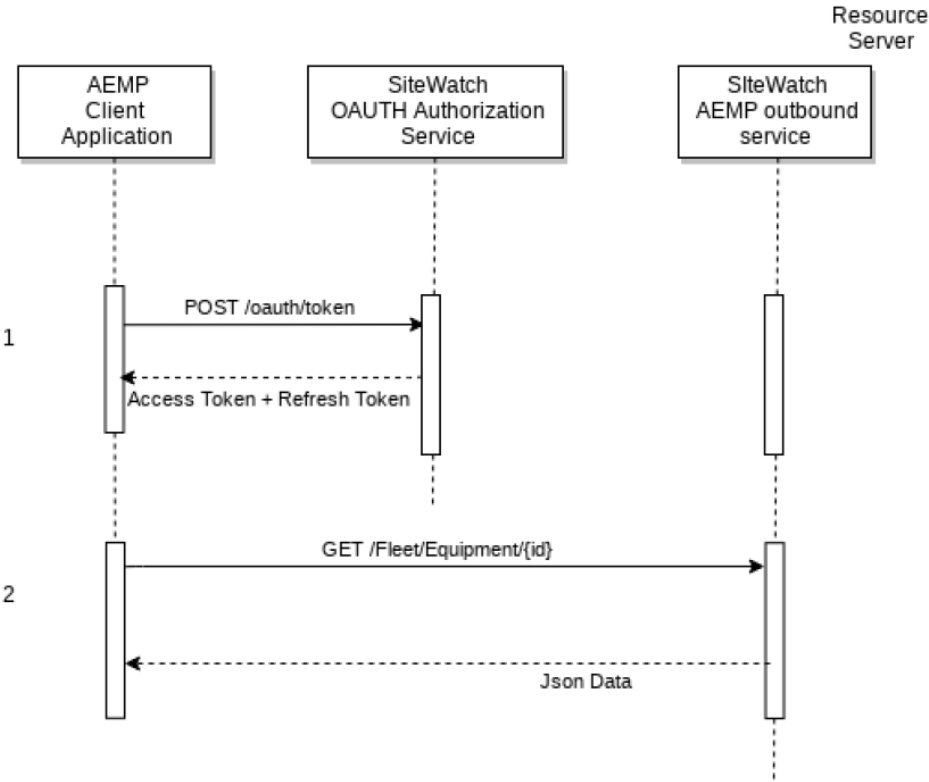


The flow illustrated above includes the following steps:

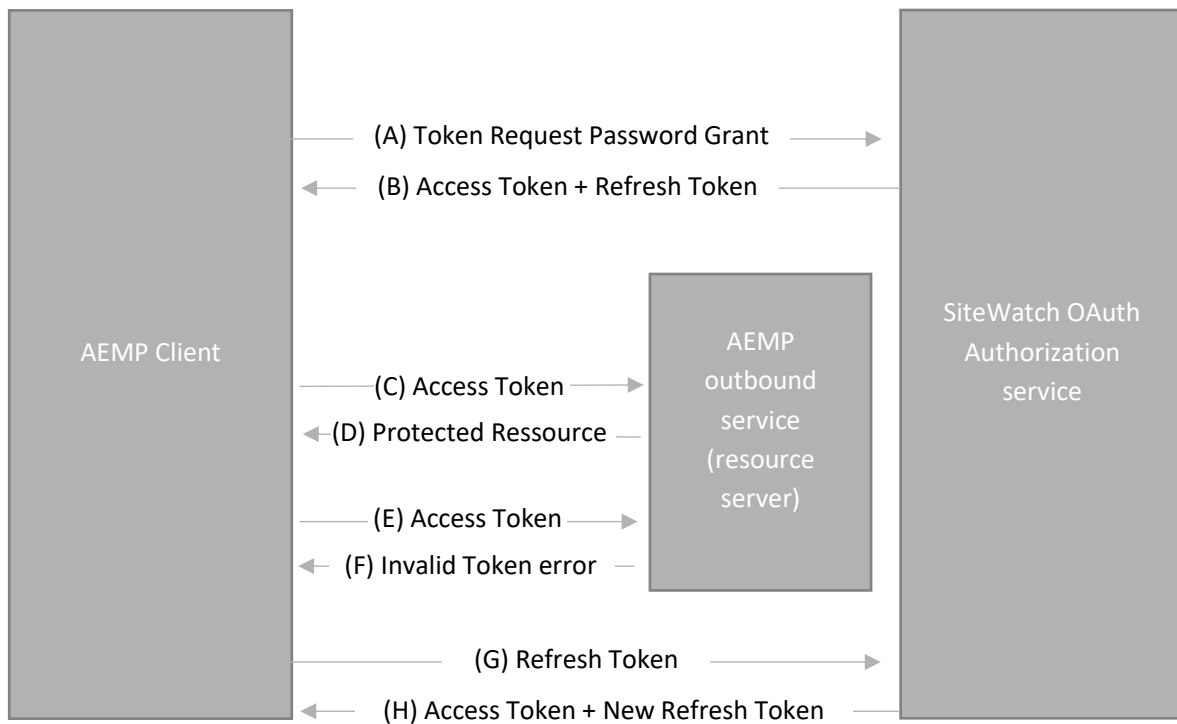
- (A) The client requests an access token by authenticating with the authorization server using ClientId and Client Secret and presenting the resource Owner credentials.
- (B) The authorization server authenticates the client and validates the authorization grant, and if valid, issues an access token and a refresh token.
- (C) The client makes a protected resource request to the resource server by presenting the access token.
- (D) The resource server validates the access token, and if valid, serves the request.
- (E) Steps (C) and (D) repeat until the access token expires.



4.2.1. Authorization and resource request sequence diagram



### 4.3. Drawing for the refresh token flow



The flow illustrated above includes the following steps:

- (A) The client requests an access token by authenticating with the authorization server using ClientId and Client Secret and presenting the resource Owner credentials.
- (B) The authorization server authenticates the client and validates the authorization grant, and if valid, issues an access token and a refresh token.
- (C) The client makes a protected resource request to the resource server by presenting the access token.
- (D) The resource server validates the access token, and if valid, serves the request.
- (E) Steps (C) and (D) repeat until the access token expires. If the client knows the access token expired, it skips to step (G); otherwise, it makes another protected resource request.
- (F) Since the access token is invalid, the resource server returns an invalid token error.

4.3.1. Sequence diagram

