

# Setup Web Services API

## Introduction

This guide describes how to connect to ChargePoint’s web services via an API connection with samples.

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## Process Overview

ChargePoint Web Services APIs accepts a minimum of TLS 1.2 for connections, and to use it you will need to:

- [Get a Valid ChargePoint API Account](#)
- [Download API Documentation and WSDL](#)
- [Generate an API License Key and Password](#)

## Get a Valid ChargePoint API Account

If your organization owns ChargePoint charging stations, then it will have a service plan and a “Network Manager” with access to the ChargePoint APIs. To set up other users who can access the APIs, your Network Manager needs to do the following:

1. Log in to [ChargePoint](#) and click **Organizations > Admins**.
2. Click **New Admin**.



3. The **Organization** field contains your organization and cannot be edited.
4. Enter the **First Name** and **Last Name** of your new API user.
5. Enter the unique **Email** address to identify your new API user.
6. From the **Role** dropdown, select *API User*.
7. Click **Add New Admin**.  
The new administrator (in this case “API User”) then receives an email from ChargePoint with a link used to finish setting up the new user account.
8. When the account is set up, the new API user can log in and click **Help > API Docs**.

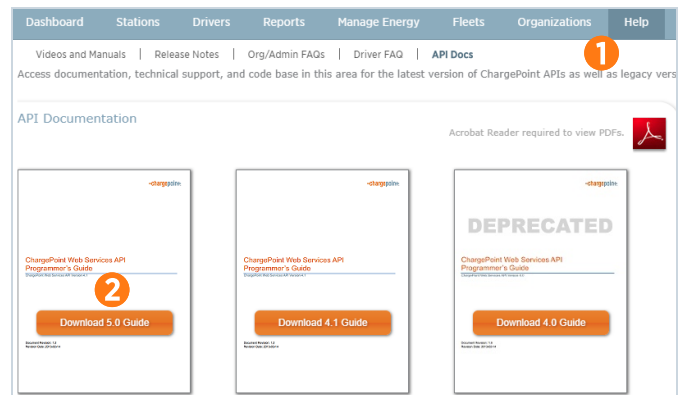


## Download API Documentation and WSDL

To download ChargePoint’s Web Services API Programmer’s Reference Guide and WSDL (Web Service Definition Language), follow these steps:

1. Log in to [ChargePoint](#) and click **Help > API Docs**.
2. Click on the most recent version.

**Note:** The Developer Area has multiple versions of the documentation and WSDL. Always download and use the most recent version.



## Generate an API License Key and Password

The ChargePoint Web Services API uses WS-Security to authenticate accounts that make SOAP requests. Your license key and password must be included in the SOAP Header of every message. To get your license key and generate a password, do these steps:

1. Log in to [ChargePoint](#) and click **Organizations > API Info**.



- Copy your **API License Key** by clicking near the front of the first character and dragging your mouse to the end of the License key. Right-click on the License Key and select *Copy*. Then paste into a text file.

You will need to include this in the SOAP header of each API call.

Org Name	Admin Name	Admin Role	API License Key
ChargePoint Headquarters	Erik Obrien	API User	0ce43d30292ff1949c1678a9fd56df5d49a1949969091301944649
ChargePoint Headquarters	John Holloway	API User	6f050ff258009e2b8d69134f9d44c524e7cfdc5687e41316814277
ChargePoint Headquarters	Raymond Wood	API User	0f3d461383a63fd845ea4e0ef47d7314ea069333f2821319135539
ChargePoint Headquarters	Neil Doyle	API User	6dc733440503895c3f2e21bb1032204f3ae44aa78881329259594

- Click anywhere on the row of your license key and select **Generate Password**.

On the confirmation pop-up, click **Generate Password**.

Org Name	Admin Name	Admin Role	API License Key
ChargePoint Headquarters	John Holloway	API User	6f050ff258009e2b8d69134f9d44c524e7cfdc5687e41316814277
ChargePoint Headquarters	Raymond Wood	API User	0f3d461383a63fd845ea4e0ef47d7314ea069333f2821319135539

- A pop-up displays your new password. Double-click anywhere on this password to select it. Right-click on the License Key and select *Copy*. Then paste into a text file.

You will need to include this in the SOAP header of each API call.

**Generate Password**

Password Generated : da2f8dcadd453cba715a4ddd95ebbe33

Close

**Note:** Save your license key and password for future reference. If you lose your password and need to generate a new one, the old password becomes obsolete, and you will need to update any existing API calls with the new password.

For further assistance, please contact Developer Support at [devsupport@chargepoint.com](mailto:devsupport@chargepoint.com).

## Example SOAP Header

The following example shows you how to use your license key and password in the header:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:urn="urn:dictionary:com.chargepoint.webservices">
  <soapenv:Header xmlns:wss="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wss:Security soapenv:mustUnderstand="1">
      <wss:UsernameToken>
        <wss:Username>0123456789abcdef0123456789abcdef0123456789abcdef0123456</wss:Username>
        <wss:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#PasswordText"
>0123456789abcdef0123456789abcdef</wss:Password>
        </wss:UsernameToken>
      </wss:Security>
    </SOAP-ENV:Header>
```

Copying and pasting the example SOAP Header above can sometimes result in errors. Always validate these attributes:

Element	Attribute	Value
Header	wss	http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd
Security	mustUnderstand	1
Password	Type	http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#PasswordText

## Example API Call

### Request

The following request message will search for all public charging stations within *one mile* of *1692 Dell Avenue, Campbell, CA 95008*.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:urn="urn:dictionary:com.chargepoint.webservices">
  <soapenv:Header xmlns:wss="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wss:Security soapenv:mustUnderstand="1">
      <wsse:UsernameToken>
        <wsse:Username>0123456789abcdef0123456789abcdef0123456789abcdef0123456</wsse:Username>
        <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#PasswordText">0123456789abcdef0123456789abcdef</wsse:Password>
      </wsse:UsernameToken>
    </wss:Security>
  </soapenv:Header>
  <soapenv:Body>
    <urn:getPublicStations>
      <searchQuery>
        <Address>1692 Dell Avenue</Address>
        <City>Campbell</City>
        <State>CA</State>
        <postalCode>95008</postalCode>
        <Proximity>1</Proximity>
        <proximityUnit>M</proximityUnit>
      </searchQuery>
    </urn:getPublicStations>
  </soapenv:Body>
</soapenv:Envelope>
```

### Response

The response returns a list of charging stations matching the request criteria.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header>
    <wss:Security soapenv:mustUnderstand="1" xmlns:wss="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
      <wsu:Timestamp xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
        <wsu:Created>2013-03-05T21:48:15.053Z</wsu:Created>
        <wsu:Expires>2013-03-05T21:53:15.053Z</wsu:Expires>
      </wsu:Timestamp>
    </wss:Security>
  </soapenv:Header>
  <soapenv:Body>
    <ns1:getPublicStationsResponse xmlns:ns1="urn:dictionary:com.chargepoint.webservices">
      <responseCode>100</responseCode>
      <responseText>API input request executed successfully.</responseText>
      <stationData>
        <stationID>1:81203</stationID>
        <stationManufacturer>Coulomb</stationManufacturer>
        <stationModel>CT2025-HD-GW1-CCR</stationModel>
        <Address>1692 Dell Ave</Address>
        <City>Campbell</City>
        <State>California</State>
        <Country>United States</Country>
        <postalCode>95008</postalCode>
        <Port>
          <portNumber>1</portNumber>
          <stationName>CHARGEPOINT / HQ 5</stationName>
          <Geo>
            <Lat>37.261489868164060</Lat>
            <Long>-121.957534790039060</Long>
          </Geo>
          <Description>Front parking lot along Dell Ave.</Description>
          <Reservable>0</Reservable>
          <Level>L2</Level>
          <Connector>J1772</Connector>
          <Voltage>240</Voltage>
          <Current>30</Current>
          <Power>7.2</Power>
          <estimatedCost>0.00</estimatedCost>
        </Port>
      </stationData>
    </ns1:getPublicStationsResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

---

```
<Port>
  <portNumber>2</portNumber>
  <stationName>CHARGEPOINT / HQ 5</stationName>
  <Geo>
    <Lat>37.261489868164060</Lat>
    <Long>-121.957534790039060</Long>
  </Geo>
  <Description>Front parking lot along Dell Ave.</Description>
  <Reservable>0</Reservable>
  <Level>L2</Level>
  <Connector>J1772</Connector>
  <Voltage>240</Voltage>
  <Current>30</Current>
  <Power>7.2</Power>
  <estimatedCost>0.00</estimatedCost>
</Port>
<Pricing>
  <Type>None</Type>
  <startTime>00:00:00</startTime>
  <endTime>23:59:59</endTime>
  <minPrice>0.50</minPrice>
  <maxPrice>0.00</maxPrice>
  <unitPricePerHour>1.50</unitPricePerHour>
  <unitPricePerSession>0.00</unitPricePerSession>
  <unitPricePerKWh>0.00</unitPricePerKWh>
</Pricing>
<numPorts>2</numPorts>
<mainPhone>(888) 758-4389</mainPhone>
<modTimeStamp>2012-11-15T01:29:16Z</modTimeStamp>
<timezoneOffset>-08:00</timezoneOffset>
</stationData>
<stationData>
  ...
  ...
  ...
</nsl:getPublicStationsResponse>
</soapenv:Body>
</soapenv:Envelope>
```



[chargepoint.com/support](https://chargepoint.com/support)

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