

TIMEWELLSCHEDULED API DOCUMENTATION

Overview The TimeWellScheduled API allows you to call modules with the TimeWellScheduled service that respond in standard XML. Individual modules and their properties are detailed below.

The API URL is located at <https://api.timewellscheduled.com/response.asp>

The TimeWellScheduled API isn't your typical API in the way that it doesn't rely on different HTTP request methods (GET/PUT/INSERT/DELETE). Instead, we've decided to KISS and use only GET HTTP Requests over HTTPS (at this time), and to simply pass the desired method along with the variables for the request itself in a standard, well-formatted URI.

This has a number of advantages and will make your life easier when working with our API as:

- There is no need to switch between different HTTP request modes in your application
- You can convert your data straight to URI-formatted text in whatever language you are using
- Our 'Method' names are a bit more intuitive

REGISTER

We are handling all registrations internally. To get started please provide us with:

- Application Description – How you plan on using our API.
- Compliance w/ Terms – Acknowledgement that you have read and agree to our API.
- E-Mail – Send this information to us via e-mail at: api@timewellscheduled.com Upon receiving this information we will setup an key for you, that can be used in the development of your application.

BCRYPT ENCRYPTION

While you wait for your registration to be complete, you may want to also look into the bcrypt irreversible encryption algorithm. TimeWellScheduled utilizes bcrypt to store all passwords, and provide you with employee passwords in this encrypted format. Your application will need to verify passwords with these bcrypt hashes, meaning you will need to bcrypt-hash these on the client-end. To get comparable results, you will need the bcrypt

Salt which is unique to each company; we will pass you this information when your application authenticates for the first time.

For more information about bCrypt, and links to the various implementations (including Objective-C, PHP, Python, Perl, .NET, Ruby, and even JavaScript!), please visit: <http://codahale.com/how-to-safely-store-a-password/>

The staff at TimeWellScheduled strongly believe in the power of bCrypt, and our clients trust in our choice of using this algorithm to prevent reverse-engineering of hashes, and prevent man-in-the-middle attacks of clear-text passwords being transmitted across the network. If bCrypt implementation proves to be difficult, we're more than happy to help!

AUTHENTICATION

You'll need to register for an API Key first. Please contact api@timewellscheduled.com for registration and setup information.

Action 0:

Virtually all modules in our API require verification for access. This is the first module your application will call, upon launch. The Verification process purpose is to exchange an API Key for confirmation that your application will be accepted by our servers. Additionally, upon successful exchange, we will provide company information, and a company logo that the company has provided ahead of time, as well as a list of employees authorized to use your application and their data. Also, a bCrypt Salt Hash will be provided, which you can use for password verification processing.

Full details regarding modules can be found in Modules section; for now, bear with us as we discuss the procedure for authentication.

All request are made via HTTPS GET requests, and requires a series of variable and value pairs appended to the API URL. Here is the format of that URL, and we'll discuss each option below:

Request:

```
?c={YOUR_COMPANY_ID}&action=0&module=verify&appid={YOUR_APP_ID}
```

Variables:

action	This is the module being called. Verification module is 0
module	This is the module being called. Verification module is 'verify'
c	This is the company ID assigned to a company.

Response:

```
<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>1234</eventid>
  <message>
    <employees>
      <employee>
        <name>3030-Test Test</name>
        <id>3030</id>
      </employee>
      ...
    </employees>
    <branding logo="{URL_TO_LOGO}">{NAME_OF_COMPANY}</branding>
    <bcryptSalt>{BCRYPT_SALT}</bcryptSalt>
  </message>
</companyUpdate>12345</companyUpdate>
</response>
```

Upon successful validation, you will receive in the Message portion of the XML a series of values: a list of employees enclosed within `<employees>` tag, as well as a `<branding>` tag contains the name of the company, and a logo url as an attribute. Finally, the bcrypt Salt to use for local verification of passwords is provided for this company; this is not to be cached, as it may change at any time; store this temporarily in your client application to use for verification of typed passwords.

response	The entire response is enclosed in this tag
success	Success indicator; 1 if success, 0 if a problem occurred (such as invalid Company ID or API Key)
eventid	This is an internal number corresponding to this specific activity.
message	Contained in this tag, are some special tags specific to the Verification module, listed below:
employees	All employee is contained in this tag
employee	Each employee is contained in this tag, with <code><name></code> , <code><id></code> , and <code><pw></code> tags with Friendly Name, ID and password
branding	Contains branding info for your client; the Name of the company is in the tag; the Company Logo is a url to the company log, contained in the 'logo' attribute
bcryptSalt	This is the bcrypt salt string, used to verify a

	typed password (eg, 12345) against the bcrypt-hashed password for that employee. You will have to use this salt to bcrypt-hash the typed password, and compare the hashes to verify a correct password
companyUpdate	Latest update date

REQUESTS

The TimeWellScheduled API allows you to call modules with the TimeWellSchedule service that respond in standard XML.

The API URL is located at <https://api.timewellscheduled.com/response.asp>

All requests to the TimeWellScheduled API must be packaged as encoded URI Strings, and appended to the API URL in a well-formed GET HTTP Request Method. Virtually all requests require an API Key and Application ID. There are additional requirements for most API calls, as follows:

action	This is the module being called
apikey	This is your API Key
c	This is the company ID assigned to the company you're working with
Year, Month, Day, Hour, Minute, Second	Date stamp variables. Please use integers to specify the client's current date value as each value, eg: Year=2015&Month=3&Day=30&Hour=14&Minute=1&Second=56

Remember that any data passed to the API must be in a URI string, and properly encoded (eg, %20 in place of spaces). Here is an example of how this can look in PHP:

```
$requestURI =
https://api.timewellscheduled.com/response.asp?c=ABC&action=0&module=verify&appid=\$2a\$12\$x48C/IbH/cEvEfzsSGdysYyjIAhqwm
```

Responses

Upon your application sending a properly-formed request, with an appropriate value for action, the server will return an XML response:

Eventid contain appid

```
<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>1234</eventid>
  <message> </message>
</response>
```

The returned values are explained as follows:

success	Boolean value; '1' for success, '0' for failure
ontime	Boolean value '1' is returned when the employee assigned to this event is on-time; '0' when they are not.
eventid	For login purposes; all requests are logged in a database; if you want to track these responses, use the supplied Event ID
message	Any additional messages returned for this request. With the exception of the verification module (action=0), you may display the text in this value to the employee

MODULES

The following modules are support at this time, and are to be passed in the 'a' attribute of each request

action	module	description
0	verify	<p>This is the Authentication Module; indicates that the application is wishing to authenticate; expects the Application ID, the API Key in the 'u' and 'p' field, and Company ID.</p> <p>RETURNS: Company Logo and Name, Employees, and bCrypt Salt</p>
1	begin	<p>This is the "Begin Shift" Module; use this module to allow an employee to record the beginning of their shift.</p> <p>RETURNS: A custom message waiting for this employee</p>
2	end	<p>This is the "End Shift" Module; use this module to allow an employee to record the end of their shift. Assumes the employee is not on a break or meal.</p> <p>RETURNS: A custom message waiting for this employee</p>
3	break	<p>This is the "Begin/End Break" Method; use this module to allow the employee to record the beginning or end of their regular paid break. Assumes the employee is not on a meal, and has not Ended their shift. If the employee has already recorded a "Begin/End Break" activity, the server will take them off their break;</p> <p>RETURNS: A custom message waiting for this employee</p>
5	meal	<p>This is the "Begin/End Meal" Module; use this module to allow the employee to record the beginning or end of their regular paid break. Assumes the employee is not on a break, and has not Ended their shift. Acts like "Begin/End Break"</p>
20	admin	<p>This is the "Admin" Module; use this module to allow an administrator to be directed to their administrative dashboard; Assumes the Admin ID/Passkey has been provided and will be challenged against the server records;</p> <p>RETURNS: the URL to the Admin Dashboard in the 'message' field of the XML</p>

schedule_list	schedule_list	This is the 'list schedule' module; use this module to request an employees schedule. Requires the schedule to be published. Requires a StartDate and EndDate be passed in (ex. 2016-08-01)
role_list	role_list	This is the "role_list" module, use this module to obtain the active role list.
department_list	department_list	This is the "department_list" module, use this module to obtain a list of the active departments.
employee_list	employee_list	This is the "employee_list" module, use this module to obtain the list of active employees
employee_details	employee_details	This is the "employee_details", use this module to obtain an employee's specific details, the eCode corresponding to the employee code is required.
message_list	message_list	This is the "message_list" module use this module to obtain a specific employee's unread messages. The eCode corresponding to the employee code is required.
messages_mark_read	messages_mark_read	This is the "messages_mark_read" module, use to mark a message as read, the MessageID is required.

Note: The Admin Module(20) was not implemented yet

RESPONSE CODES

At this time, the following response codes are supported, and will be supplied in the 'success' return value in any of the module responses.

1	Boolean value; indicates that the current action was successful; all you have to do is display the returned message text, and reset your UI for the next event.
0	Boolean value; indicates that the last action was not successful due to an inconsistency with the request (eg, wrong password, etc...). The reason for the failure is explained in the message text, and regards only an action that the employee has to take.
-1	The current API Key or other information is not valid; again, a message value will be returned and you may display this to the employee, but with this result code, your verification may have expired; you will have to invoke the Authentication module again, or check your application settings. This may also mean that the company is no longer authorized to use a third-party app.

SAMPLE WORKFLOW

To help you better understand how our API works we've provided a brief example of a 'real world' workflow of making calls to various modules of the TimeWellScheduled API.

The API URL is located at <https://api.timewellscheduled.com/response.asp>

Step 1:

Your application launches, and sends the first initial request to authenticate/verify:

[https://api.timewellscheduled.com/response.asp?c=ABC_123&action=0&module=verify&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfsSGdysYyjIAhqwm](https://api.timewellscheduled.com/response.asp?c=ABC_123&action=0&module=verify&appid=$2a$12$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfsSGdysYyjIAhqwm)

The server response with XML code provided the Application ID (appid), Company ID (c) and API Key (p) match:


```

<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    1234
  </eventid>
  <message>
    <employees>
      <employee>
        <name>Bill Benton</name>
        <id>995</id>
      </employee>
      <employee>
        <name>Brad Rosendal</name>
        <id>4040</id>
      </employee>
    </employees>
    <branding logo="https://d3vu277a17ttgi.cloudfront.net/timewellscheduled.com/images/company_logo/CompanyUniqueCode/ABC_123/201561212567/MainLogo.png">Your company name</branding>
    <bcryptSalt>$2a$05$wzjnhnHZh3teE4AZfHGDY.</bcryptSalt>
  </message>
</companyUpdate>12345</companyUpdate>
</response>

```

Success is equal to 1, meaning our request was successful. We've been given an EventID, and in the message, we've been given a XML list of employees to store temporarily, some branding information, and the bCrypt Salt used to hash typed passwords and to compare against

Step 2:

Employee punches in for his or her shift to start:

```

https://api.timewellscheduled.com/response.asp?c=ABC_123&u=user&
p=password
&action=1&module=begin&appid=1234&Year=2015&Month=3&Day=25&Hour=
8&Minute=0&Second=56

```

The server responds with XML code, indicating that this employee is on--time, and displays a confirmation message.

```
<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    $2a$129g8C/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <message>Your action has been recorded successfully</message>
</response>
```

This is a successful response

```
<success>1</success>
```

If the action is performed within the grace period

```
<ontime>1</ontime>
```

1=>on time 2=>earlier 3=>delayed

Response message will be displayed in:

```
<message></message>
```

Step 3:

Employee punches in for his or her shift to start:

```
https://api.timewellscheduled.com/response.asp?c=ABC_123&u=user&p=password&action=3&module=break&appid=$2a$12$x4Den9g8C/IbH/cEvEfzsSGdysYyjIAhqwm&Year=2015&Month=3&Day=25&Hour=8&Minute=10&Second=56
```

The server responds:

```
<response>
  <success>0</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <message>
    Have a great break.You need to be back in 15 minutes.
    That means punch back by 8:25 AM
  </message>
</response>
```

Employee returns from break (after 15 minutes)

```
<response>
  <success>1</success>
  <ontime>0</ontime>
  <eventid>
    $2a$12$x4yL/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <message>
    Your action has been recorded successfully
  </message>
</response>
```

Step 4:

Employee needs to punch in to begin their meal:

```
https://api.timewellscheduled.com/response.asp?c=ABC_123&u=user&p=password&action=5&module=meal&appid/IbH/cEvEfzsSGdysYyjIAhqwm&Year=2015&Month=3&Day=25&Hour=8&Minute=30&Second=56
```

The server responds:

```
<response>
  <success>1</success>
  <ontime>0</ontime>
  <eventid>
    $2a$12$x4yL/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <message>
    Have a great meal.You need to be back in 30 minutes.
    That means punch back by 9:00 AM
  </message>
</response>
```

The employee returns from meal.

```
<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$x4yL/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <message>
    Your action has been recorded successfully
  </message>
```

```
</response>
```

Step 5:

Employee has already successfully punched out for a regular break, attempts to punch in immediately for lunch:

```
https://api.timewellscheduled.com/response.asp?c=ABC_123&u=user&p=password&action=5&module=meal&appid=$2a$12$x4/IbH/cEvEfzsSGdysYyjIAhqwm&Year=2015&Month=3&Day=25&Hour=9&Minute=06&Second=57
```

This employee tapped 'Meal,' but was already out on break; the server responds:

```
<response>
  <success>0</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <message>
    Your last action was Break Out So you need to press Break In
    Thank you
  </message>
</response>
```

The employee confirms the message, and attempts to return from break:

```
https://api.timewellscheduled.com/response.asp?c=ABC_123&u=user&p=password&action=3&module=break&appid=/IbH/cEvEfzsSGdysYyjIAhqwm&Year=2015&Month=3&Day=25&Hour=9&Minute=06&Second=58
```

The server responds:

```
<response>
  <success>1</success>
  <ontime>0</ontime>
  <eventid>
    $2a$12$x4yL/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <message>
    Your action has been recorded successfully
  </message>
```

```
</response>
```

The employee can now punch out for their meal.

NOTE: It would be in your best interest to track and control balancing meal/break pairs within your application. However, understanding synchronization between devices may not occur as quickly as possible, we will still handle these events for you. However, should the server's response indicate that the employee is already on a meal/break, consider that information to be correct.

Step 6:

Employee punches out to leave their shift for the day:

```
https://api.timewellscheduled.com/response.asp?c=ABC_123&u=user&p=password&action=2&module=end&appid/IbH/cEvEfzsSGdysYyjIAhqwm&Year=2015&Month=3&Day=25&Hour=9&Minute=10&Second=58
```

The server responds:

```
<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$x4yL/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <message>
    Your action has been recorded successfully
  </message>
</response>
```

The employee then confirms their message.

OPTIONAL MODULES

Reason:

Una watch – dog event : allow the employee insert additional information at the moment of doing the punch. For example when the employee is late for their punch. If your APP are certificated to handle Whatchdog module, each response from the server contains a value <ontime> 0, also it will contain a <watchdog> tag, like the one below

```

<response>
<success>0</success>
<ontime>0</ontime>
<eventid>
$2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
</eventid>
<message>You are 107 minutes late</message>
<watchdog>
  <message>Select a reason.</message>
  <reasons>
    <reason ID="2233">Accident de route</reason>
    <reason ID="153">Car problems</reason>
    <reason ID="157">Computer issues</reason>
    <reason ID="1482">Default reason code</reason>
    <reason ID="159">Finished early</reason>
    <reason ID="154">Not feeling well</reason>
    <reason ID="156">Other (Please explain)</reason>
    <reason ID="1983">Personal emergency</reason>
    <reason ID="2231">Rendez-vous chez le medecin</reason>
    <reason ID="158">Traffic</reason>
    <reason ID="2232">Urgence</reason>
    <reason ID="155">Weather</reason>
  </reasons>
</watchdog>
</response>

```

You should have a watchdog <message> contain a modal window and each <reason> set it on a drop-down list, after you have the value that the user select you must generate another call to the API

[https://api.timewellscheduled.com/response.asp?c=ABC_123&u=user&p=password&action=1&module=begin&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm&Year=2016&Month=4&Day=28&Hour=14&Minute=47&Second=56&reason=2223](https://api.timewellscheduled.com/response.asp?c=ABC_123&u=user&p=password&action=1&module=begin&appid=$2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm&Year=2016&Month=4&Day=28&Hour=14&Minute=47&Second=56&reason=2223)

The server to this answer must return a <ontime> in 1.

Attachment module a:

This variable will allow you to send the name of a file that is related to the registration of the punch, we use this to send the name of the photo that was taken at the moment of making the punch

GeoLocation module lat y lng:

If you are collecting GPS location data at the time of the Punch, you can pass this information in each HTTPS GET request (the latitude value as a long, and longitude value as a long).

[https://api.timewellscheduled.com/response.asp?c=ABC_123&action=2&module=end&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm&&u=kk0166&p=password&Hour=15&Minute=15&Second=18&Month=04&Day=28&Year=2016&a=13222F23-C76A-7781-0C12-0293E3B34398.jpg&lat=+42.997450&lng=7444957](https://api.timewellscheduled.com/response.asp?c=ABC_123&action=2&module=end&appid=$2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm&&u=kk0166&p=password&Hour=15&Minute=15&Second=18&Month=04&Day=28&Year=2016&a=13222F23-C76A-7781-0C12-0293E3B34398.jpg&lat=+42.997450&lng=7444957)

Access restriction:

The application has 2 types of Access

1. IP: you can register your IP in TWS, if it is not register it will display this message

```
<response>
  <success>0</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <message>
    Failure to authenticate. Password to access the application
    is incorrect Or IP is not Valid - 200.58.74.137
  </message>
</response>
```

2. Password administrator (pws): this is the encrypted password from an administrator.

[https://api.timewellscheduled.com/response.asp?c=ABC_123&u=5502&p=\\$2a\\$05\\$wzjnhnHZh3teE4AZfHGDY./1Sni1dQTK2VmPguglth/xY3dfz5NUO&action=1&module=begin&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm&Year=2016&Month=4&Day=28&Hour=14&Minute=47&Second=56&pws=passwordadmin](https://api.timewellscheduled.com/response.asp?c=ABC_123&u=5502&p=$2a$05$wzjnhnHZh3teE4AZfHGDY./1Sni1dQTK2VmPguglth/xY3dfz5NUO&action=1&module=begin&appid=$2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm&Year=2016&Month=4&Day=28&Hour=14&Minute=47&Second=56&pws=passwordadmin)

Modulo schedule_list

https://api.timewellscheduled.com/response.asp?c=ABC_123&eCode=256&module=sched

[ule_list&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
&StartDate=2016-06-01&EndDate=2016-06-30](https://api.timewellscheduled.com/response.asp?c=ABC_123&module=role_list&appid=$2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm&StartDate=2016-06-01&EndDate=2016-06-30)

- Use the following format for the date yyyy-mm-dd
- The employee code, company code and appid are required.

```
<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <schedules>
    <schedule date="2016-6-1">
      <time>7:00 AM-2:00 PM</time>
      <type>Regular Hours</type>
      <deptName>Office</deptName>
      <roleBelong>Cash Balancing</roleBelong>
      <comment></comment>
    </schedule>
    <schedule date="2016-6-2">
      <time>7:00 AM-2:00 PM</time>
      <type>Regular Hours</type>
      <deptName>Office</deptName>
      <roleBelong>Cash Balancing</roleBelong>
      <comment></comment>
    </schedule>
  </schedules>
</response>
```

Role_list module

[https://api.timewellscheduled.com/response.asp?c=ABC_123&module=role_list&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm](https://api.timewellscheduled.com/response.asp?c=ABC_123&module=role_list&appid=$2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm)

- It will only list active roles
- The company code and appid are required.

```
<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <roles>
    <role roleID="15">
      <roleName>Business Owner</roleName>
      <roleLevel>1</roleLevel>
    </role>
    <role roleID="2">
      <roleName>Store Manager</roleName>
      <roleLevel>2</roleLevel>
    </role>
  </roles>
</response>
```

Department_list module

- It will only list active departments
- It requires the company code and appid.

[https://api.timewellscheduled.com/response.asp??c=ABC_123&module=department_list&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm](https://api.timewellscheduled.com/response.asp??c=ABC_123&module=department_list&appid=$2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm)

```
<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <departments>
    <department departmentID="2002">
      <departmentName>Adjusting</departmentName>
      <departmentCode>18</departmentCode>
      <departmentCodePrefix></departmentCodePrefix>
      <departmentCodeSuffix></departmentCodeSuffix>
    </department>
    <department departmentID="1">
      <departmentName>Automotive Parts</departmentName>
      <departmentCode>2</departmentCode>
      <departmentCodePrefix></departmentCodePrefix>
      <departmentCodeSuffix></departmentCodeSuffix>
    </department>
  </departments>
</response>
```

Employee_list module

[https://api.timewellscheduled.com/response.asp??c=ABC_123&module=employee_list&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm](https://api.timewellscheduled.com/response.asp??c=ABC_123&module=employee_list&appid=$2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm)

- It will only list employees that are active on TWS
- The company code and appid are required

```

<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <employees>
    <employee>
      <name>Abed</name>
      <lastName>Mart</lastName>
      <employeeCode>394</employeeCode>
      <payrollType>Hourly</payrollType>
      <internalStatusName>No longer employed</internalStatusName>
      <street>119 Moore Avenue</street>
      <postalCode>N5H 2Z8</postalCode>
      <birthday>1995-02-08</birthday>
      <hireDate>2013-03-25</hireDate>
      <terminationDate></terminationDate>
      <phone1>000-000-0000</phone1>
      <phone2>000-000-0000</phone2>
    </employee>
    <employee>
      <name>Adam</name>
      <lastName>Thomson</lastName>
      <employeeCode>371</employeeCode>
      <payrollType>Hourly</payrollType>
      <internalStatusName>No longer employed</internalStatusName>
      <street>49300 Lyons Line, RR #2</street>
      <postalCode>N0L 2J0</postalCode>
      <birthday>1994-02-22</birthday>
      <hireDate>2011-03-02</hireDate>
      <terminationDate>2015-08-28 5:37:49 PM</terminationDate>
      <phone1>000-000-0000</phone1>
      <phone2>000-000-0000</phone2>
    </employee>
  </employees>
</response>

```

Employee_details module

[https://api.timewellscheduled.com/response.asp??c=ABC_123&module=employee_details&eCode=2&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm](https://api.timewellscheduled.com/response.asp??c=ABC_123&module=employee_details&eCode=2&appid=$2a$12$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm)

- Employee code is required
- Company code and appid are required

```

<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>

```

```

<employee>
  <name>Maureen</name>
  <lastName>Martin</lastName>
  <employeeCode>2</employeeCode>
  <payrollType>Salaried</payrollType>
  <internalStatusName>Active</internalStatusName>
  <street>270 Caverly Road</street>
  <postalCode>N5H 2V3</postalCode>
  <birthday>2013-08-30</birthday>
  <hireDate>1988-08-10</hireDate>
  <terminationDate></terminationDate>
  <phone1>000-000-0000</phone1>
  <phone2></phone2>
</employee>
</response>

```

Message_list module

[https://api.timewellscheduled.com/response.asp??c=ABC_123&module=message_list&eCode=51&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm](https://api.timewellscheduled.com/response.asp??c=ABC_123&module=message_list&eCode=51&appid=$2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm)

- The employee code is required
- Company code and appid are required

```

<response>
  <success>1</success>
  <ontime>1</ontime>
  <eventid>
    $2a$12$x4yLqN1yWaNfg2qbw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
  </eventid>
  <messages>
    <message dateTime="2015-08-20 4:45:02 PM" MessageID="1111675">
      <subject>
        LIMITED EDITION
      </subject>
      <body>
        TO: Please see the boards for the details of the auction. You can
        pick up a ballot from Shirley beginning Monday, August 24th. The
        winning bid will be donated to Jump Start Charity. The hat can be
        seen by request.
      </body>
    </message>
  </messages>
</response>

```

Messages_mark_read module

- MessageID is required
- Company code and appid are required

[https://api.timewellscheduled.com/response.asp??c=ABC_123&module=messages_mark_read&MessageID=xxx&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm](https://api.timewellscheduled.com/response.asp??c=ABC_123&module=messages_mark_read&MessageID=xxx&appid=$2a$12$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm)

```
<response>
<success>1</success>
<ontime>1</ontime>
<eventid>
$2a$12$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm
</eventid>
<message>Your action has been recorded successfully</message>
</response>
```

Inbox_count module

- The employee code is required
- Company code and appid are required

[https://api.timewellscheduled.com/response.asp?response.asp?c=E8C1FD67&module=inbox_count&eCode=2&appid=\\$2a\\$12\\$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm](https://api.timewellscheduled.com/response.asp?response.asp?c=E8C1FD67&module=inbox_count&eCode=2&appid=$2a$12$x4yLqN1yWaNfg2qbzw6GDen9g8C/IbH/cEvEfzsSGdysYyjIAhqwm)

```
<response>
<success>1</success>
<ontime>1</ontime>
<eventid>
$2a$05$7dBQtak.BLaAAAnCoQL765uC55LABdWqihGJlAcp2zXCMAoRQupDPu
</eventid>
<messages>
<message>
<inbox>1</inbox>
</message>
</messages>
</response>
```