# 8 chatwork

**ChatWork API Documentation** 

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## Chat Work API Documentation

#### What's ChatWork API?

ChatWork API is an API provided for developers to programmatically interact with ChatWork's services. It enables you to integrate ChatWork's features into your own web application and business system. ChatWork API can be used to make a web server notify the administrator when an error occurs, or make a project management tool send out messages to other ChatWork users when tasks status are updated.

## **About Open**<sup>®</sup>

ChatWork Webhook and OAuth is now available as Open beta. Please aware that there still are restrictions and limitations on functionality.

#### **Before You Start**

If you are using Business or Enterprise plan, you need to have a permission from admin user to use APIs. Please submit your request from the link below.

**Submit Your Request** 

1/26/2017 - ChatWork API update announcement



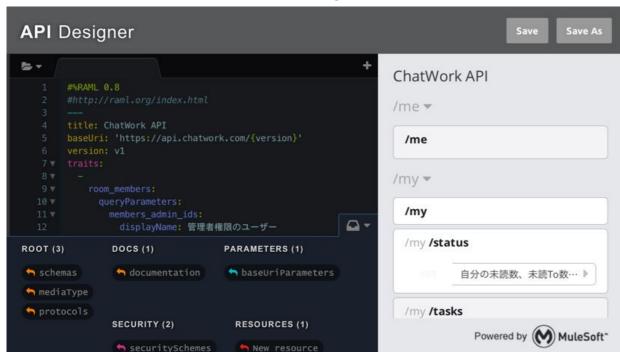
# **ChatWork API Endpoints**

#### RAML

ChatWork API's architecture is designed and maintained in <u>RAML</u> (RESTful API Modeling Language). API gateway, application interface, and this API documentation are all automatically generated from one RAML document to maintain consistency among each other.

RAML is a YAML based specification to describe and model RESTful APIs. There are various tools you can use to easily generate API documentation from a RAML document (<a href="https://example.com/here-are-some-RAML related-projects">here are various tools you can use to easily generate API documentation from a RAML document (<a href="https://example.com/here-are-some-RAML related-projects">here are various tools you can use to easily generate API documentation from a RAML document (<a href="https://example.com/here-are-some-RAML related-projects">here are various tools you can use to easily generate API documentation from a RAML document (<a href="https://example.com/here-are-some-RAML related-projects">here are some-RAML related-projects</a>).

## Example Tool: RAML API Designer



#### CharWork API's RAML Document

RAML document for ChatWork API is open to the public on <u>GitHub</u>. Please use the repository to check for updates in our API specification.

## Chat Work API Documentation

## **ChatWork API Endpoints**

ChatWork API is designed according to the <u>REST</u> architectural style. In ChatWork API, a unique URI is given to each of the API resource. These are called API endpoints. You can interact with the ChatWork API by passing parameters through HTTP request methods such as GET, POST, PUT, and DELETE.

The base URI for the API endpoint is <a href="https://api.chatwork.com/v2">https://api.chatwork.com/v2</a>.

You will need to add the unique endpoint path to the base URI path to use the desired API method (for example, to use "/me" you will write "https://api.chatwork.com/v2/me").

In the future, when the API version is updated, "/v2" part of the path will be modified.

You will be given a certain transition time to accommodate the change when an API version is updated.

## Chat Work API Documentation

## **HTTP Request**

ChatWork API requires that connection to the API endpoint is made with **https** (secure protocol). Using http will result in a connection error.

As it was discussed earlier in the Authentication section, every HTTP request must include the API token in its header field. The key name used to set the value of the API token in the HTTP header field is "X-ChatWorkToken".

PUT or DELETE method must be used to update or delete a resource. For systems that do not support these methods, it is also possible to specify the HTTP mehod in the URL's query string (i.e. "?method=PUT" or "?method=DELETE").

[important] Since API tokens do not have expiration date, it is important to keep the API token secure. Be sure to set the API token in the HTTP header field and NOT in the URL query string.

## **HTTP Response**

The HTTP response you get back from the ChatWork API will be in JSON format. The response body in JSON format will not include any information to indicate whether or not the request was processed successfully. To find out if you have a successful response, you can check the HTTP status code in the response header.

The output below shows the result from executing "GET /my/status" which returns you information about how many unread messages you have and more.

## HTTP Response Header

```
HTTP/1.1 200 OK
Content-Type: application/json
```

## **HTTP Response Body**

```
{
  "unread_room_num": 2,
  "mention_room_num": 1,
  "mytask_room_num": 3,
  "unread_num": 12,
  "mention_num": 1,
  "mytask_num": 8
}
```

## **HTTP Response**

If an error occurs, the response header will contain the corresponding HTTP status code and the response body will contain the error message in JSON format.

Below is a case where the API token was not valid.

## HTTP Response Header

```
HTTP/1.1 401 Unauthorized
Content-Type: application/json
```

## HTTP Response Body

```
{
  "errors": ["Invalid API token"]
}
```

Error message will be returned in array format under key name "errors"

## **API Usage Limits**

Number of API requests you can make in 5 minutes is limited to 100 times (This limit could possibly change in the future). Number of remaining API calls and the reset time can be obtained from the response header.

## **Example Response Header**

HTTP/1.1 200 OK

Content-Type: application/json

X-RateLimit-Limit: 100

X-RateLimit-Remaining: 44

X-RateLimit-Reset: 1390941626

Each field has the following meaning:

X-RateLimit-Limit: Maximum number of calls you can make in the time frame

X-RateLimit-Remaining: Remaining number of calls you can make

X-RateLimit-Reset: Time at which the limit will next be reset (Unix time)

If you exceed the limit, the API will return response with status code: 429 Too Many Request error.

## Example Response Header

HTTP/1.1 200 OK

Content-Type: application/json

X-RateLimit-Limit: 100

X-RateLimit-Remaining: 44

X-RateLimit-Reset: 1390941626

## **ChatWork API Endpoints**

- /me
  - o GET: /me
- /my
  - o GET: /my/status
  - o GET: /my/tasks
- /contacts
  - o GET: /contacts
- /rooms
  - o GET: /rooms
  - o POST: /rooms
  - GET: /rooms/{room\_id}
  - o PUT: /rooms/{room id}
  - o DELETE: /rooms/{room\_id}
  - o GET: /rooms/{room\_id}/members
  - PUT: /rooms/{room\_id}/members
  - o GET: /rooms/{room\_id}/messages
  - POST: /rooms/{room\_id}/messages
  - GET: /rooms/{room id}/messages/{message id}
  - GET: /rooms/{room\_id}/tasks
  - o POST: /rooms/{room\_id}/tasks
  - GET: /rooms/{room\_id}/tasks/{task\_id}
  - o GET: /rooms/{room\_id}/files
  - GET: /rooms/{room\_id}/files/{file\_id}

## **Endpoints:/me**

Used to access your account information.

## [GET] /me

Get your account information curl -X GET -H "X-ChatWorkToken: Your API token" "https://api.chatwork.com/v2/me"

```
"account_id": 123,
"room_id": 322,
"name": "John Smith",
"chatwork_id": "tarochatworkid",
"organization id": 101,
"organization_name": "Hello Company",
"department": "Marketing",
"title": "CMO",
"url": "http://mycompany.com",
"introduction": "Self Introduction",
"mail": "taro@example.com",
"tel organization": "XXX-XXXX-XXXX",
"tel extension": "YYY-YYYY-YYYY",
"tel_mobile": "ZZZ-ZZZZ-ZZZZ",
"skype": "myskype id",
"facebook": "myfacebook id",
"twitter": "mytwitter_id",
"avatar_image_url": "https://example.com/abc.png"
```

## **Endpoints: /my**

Used to access your data on the account.

## [GET] /my/status

Get the number of: unread messages, unread To messages, and unfinished tasks.

curl -X GET -H "X-ChatWorkToken: Your API token" "https://api.chatwork.com/v2/my/status"

```
"unread_room_num": 2,
"mention_room_num": 1,
"mytask_room_num": 3,
"unread_num": 12,
"mention_num": 1,
"mytask_num": 8
}
```

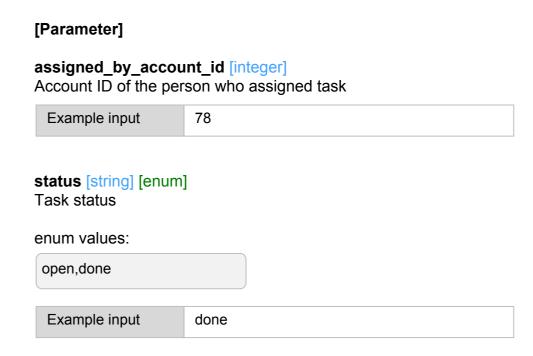
## **Endpoints: /my**

## [GET] /my/tasks

Get the list of all unfinished tasks (\*This method returns up to 100 entries. We are planning to implement pagination to support larger number of data retrieval)

curl -X GET -H "X-ChatWorkToken: Your API token"

"https://api.chatwork.com/v2/my/tasks?assigned\_by\_account\_id=78&status=done"



## **Endpoints: /contacts**

Used to access the list of your contacts

## [GET] /contacts

Get the list of your contacts

curl -X GET -H "X-ChatWorkToken: Your API token" "https://api.chatwork.com/v2/contacts"

```
[
    "account_id": 123,
    "room_id": 322,
    "name": "John Smith",
    "chatwork_id": "tarochatworkid",
    "organization_id": 101,
    "organization_name": "Hello Company",
    "department": "Marketing",
    "avatar_image_url": "https://example.com/abc.png"
}
]
```

Used to access information such as messages, members, files, and tasks associated to a specific conversation. The conversation can be Group chat, Direct chat, or My chat.

## [GET] /rooms

Get the list of all chats on your account

curl -X GET -H "X-ChatWorkToken: Your API token" "https://api.chatwork.com/v2/rooms"

```
[
    "room_id": 123,
    "name": "Group Chat Name",
    "type": "group",
    "role": "admin",
    "sticky": false,
    "unread_num": 10,
    "mention_num": 1,
    "mytask_num": 0,
    "message_num": 122,
    "file_num": 10,
    "task_num": 17,
    "icon_path": "https://example.com/ico_group.png",
    "last_update_time": 1298905200
}
```

Used to access information such as messages, members, files, and tasks associated to a specific conversation. The conversation can be Group chat, Direct chat, or My chat.

## [POST] /rooms

Create a new group chat

```
curl -X POST -H "X-ChatWorkToken: Your API token" -d

"description=group+chat+description&icon_preset=meeting&members_admin_ids=123%2C542%2C1001&members_m

ember_ids=21%2C344&members_readonly_ids=15%2C103&name=Website+renewal+project"

"https://api.chatwork.com/v2/rooms"
```

```
{
    "room_id": 1234
}
```

## [POST] /rooms

#### [Parameter]

#### description [string]

**Chat Description** 

Description of the group chat

Example input

group chat description

#### icon\_preset [string][enum]

Icon Type

Type of the group chat icon

#### enum values:

group, check, document, meeting, event, project, business, study, security, star, idea, heart, magcup, beer, music, sports, travel

Example input

meeting

#### members\_admin\_ids [integer] [list] [reqired]

**Group Chat Administrators** 

List of user IDs who will be given administrator permission for the group chat. At least one user must be specified as an administrator.

Example input

123,542,1001

#### members\_member\_ids [integer] [list]

**Group Chat Members** 

List of user IDs who will be given member permission for the group chat.

| Example input | 21,344 |
|---------------|--------|
|---------------|--------|

#### members\_readonly\_ids [integer] [list]

**Group Chat Read-only Users** 

List of user IDs who will be given read-only permission for the group chat.

\*Use commas to separate each entry in the list

| Example input | 15,103 |  |
|---------------|--------|--|
|               |        |  |

#### members\_admin\_ids [string] [reqired]

**Group Chat Name** 

Title of the group chat.

| Example input Website renewal project |  |
|---------------------------------------|--|
|---------------------------------------|--|

## [GET] /rooms/{room\_id}

Get chat name, icon, and Type (my, direct, or group)

curl -X GET -H "X-ChatWorkToken: Your API token" "https://api.chatwork.com/v2/rooms/{room\_id}"

```
{
"room_id": 123,
"name": "Group Chat Name",
"type": "group",
"role": "admin",
"sticky": false,
"unread_num": 10,
"mention_num": 1,
"mytask_num": 0,
"message_num": 122,
"file_num": 10,
"task_num": 17,
"icon_path": "https://example.com/ico_group.png",
"last_update_time": 1298905200,
"description": "room description text"
}
```

## [PUT] /rooms/{room\_id}

Change the title and icon type of the specified chat

curl -X PUT -H "X-ChatWorkToken: Your API token" -d
"description=group+chat+description&icon\_preset=meeting&name=Website+renewal+project"

"https://api.chatwork.com/v2/rooms/{room\_id}"

## Response:

```
{
    "room_id": 1234
}
```

#### [Parameter]

description [string]
Chat Description
Description of the group chat

Example input

group chat description

icon\_preset [string] [enum]

Icon Type

Type of the group chat icon

enum values:

group, check, document, meeting, event, project, business, study, security, star, idea, heart, magcup, beer, music, sports, travel

Example input

meeting

name [string]
Group Chat Name

Title of the group chat.

Example input

Website renewal project

| <b>Endpoints:</b> / | rooms |
|---------------------|-------|
|---------------------|-------|

## [DELETE] /rooms/{room\_id}

Leave/Delete a group chat

curl -X DELETE -H "X-ChatWorkToken: Your API token" -d "action\_type=leave" 
"https://api.chatwork.com/v2/rooms/{room\_id}"

## Response:

none

#### [Parameter]

action\_type [string] [enum] [reqired]

**Chat Description** 

Description of the group chat

enum values:

leave, delete

Example input

group chat description

## [GET] /rooms/{room\_id}/members

Get the list of all chat members associated with the specified chat

curl -X GET -H "X-ChatWorkToken: Your API token" "https://api.chatwork.com/v2/rooms/{room\_id}/members"

```
[
    "account_id": 123,
    "role": "member",
    "name": "John Smith",
    "chatwork_id": "tarochatworkid",
    "organization_id": 101,
    "organization_name": "Hello Company",
    "department": "Marketing",
    "avatar_image_url": "https://example.com/abc.png"
}
]
```

## [PUT] /rooms/{room\_id}/members

Change associated members of group chat at once

curl -X PUT -H "X-ChatWorkToken: Your API token" -d "members\_admin\_ids=123%2C542%2C1001&members\_member\_ids=21%2C344&members\_readonly\_ids=15%2C10 3" "https://api.chatwork.com/v2/rooms/{room\_id}/members"

## Response:

```
{
    "admin": [123, 542, 1001],
    "member": [10, 103],
    "readonly": [6, 11]
}
```

#### [Parameter]

#### members\_admin\_ids [integer] [list] [reqired]

**Group Chat Administrators** 

List of user IDs who will be given administrator permission for the group chat. At least one user must be specified as an administrator.

Example input 123,542,1001

#### members\_member\_ids [integer] [list]

**Group Chat Members** 

List of user IDs who will be given member permission for the group chat.

Example input 21,344

#### members\_readonly\_ids [integer] [list]

Group Chat Read-only Users

List of user IDs who will be given read-only permission for the group chat.

Example input 15,103

## [GET] /rooms/{room\_id}/messages

Get all messages associated with the specified chat (returns up to 100 entries). If the parameter is not set, it returns the next 100 entries from previous call.

curl -X GET -H "X-ChatWorkToken: Your API token" "https://api.chatwork.com/v2/rooms/{room\_id}/messages"

## Response:

```
[
    "message_id": "5",
    "account": {
        "account_id": 123,
        "name": "Bob",
        "avatar_image_url": "https://example.com/ico_avatar.png"
    },
    "body": "Hello Chatwork!",
    "send_time": 1384242850,
    "update_time": 0
}
```

#### [Parameter]

#### force [boolean]

Flag which forces to get 100 newest entries regardless of previous calls.

\*\*Set to 1 to start from the beginning regardless of previous calls (0 is the default value)

Example input 0

## [POST] /rooms/{room\_id}/messages

Add new message to the chat

curl -X POST -H "X-ChatWorkToken: Your API token" -d "body=Hello+ChatWork%21&self\_unread=0" "https://api.chatwork.com/v2/rooms/{room\_id}/messages"

## Response:

```
{
    "message_id": "1234"
}
```

#### [Parameter]

#### body [string] [required]

message body

Example input Hello ChatWork!

#### self\_unread [boolean]

Make the messages you posted unread %By setting this as 1, the messages you posted is turned to unread (0 is the default value: read)

Example input 0

## [GET] /rooms/{room\_id}/messages/{message\_id}

Get information about the specified message

curl -X GET -H "X-ChatWorkToken: Your API token"
"https://api.chatwork.com/v2/rooms/{room\_id}/messages/{message\_id}"

```
{
"message_id": "5",
"account": {
  "account_id": 123,
    "name": "Bob",
    "avatar_image_url": "https://example.com/ico_avatar.png"
},
  "body": "Hello Chatwork!",
  "send_time": 1384242850,
  "update_time": 0
}
```

## [GET] /rooms/{room\_id}/tasks

Get the list of tasks associated with the specified chat (\*This method returns up to 100 entries. We are planning to implement pagination to support larger number of data retrieval)

curl -X GET -H "X-ChatWorkToken: Your API token"

"https://api.chatwork.com/v2/rooms/{room\_id}/tasks?account\_id=101&assigned\_by\_account\_id=78&status=done"

## Response:

## [Parameter] account\_id [integer] Account ID of the person responsible to complete the task Example input 101 assigned\_by\_account\_id [integer] **Group Chat Members** Account ID of the person who assigned the task Example input 78 status [integer] [enum] Status of the task enum values: open, done Example input done

## [POST] /rooms/{room\_id}/tasks

Add a new task to the chat

curl -X POST -H "X-ChatWorkToken: Your API token" -d "body=Buy+milk&limit=1385996399&to\_ids=1%2C3%2C6" <a href="https://api.chatwork.com/v2/rooms/{room\_id}/tasks"">https://api.chatwork.com/v2/rooms/{room\_id}/tasks</a>"

## Response:

```
{
    "task_ids": [123,124]
}
```

#### [Parameter]

#### body [string] [required]

Task description

Example input Buy milk

#### limit [integer]

When the task is due

\* Use Unix time as input

Example input 1385996399

#### to\_ids [integer] [list] [required]

Account ID of the person/people responsible to complete the task If multiple, IDs must be separated by comma

Example input 136

## [GET] /rooms/{room\_id}/tasks/{task\_id}

Get information about the specified task

```
curl -X GET -H "X-ChatWorkToken: (Your API Token)"
   "https://api.chatwork.com/v2/rooms/{room_id}/tasks/{task_id}"
```

```
{
"task_id": 3,
"account": {
   "account_id": 123,
   "name": "Bob",
   "avatar_image_url": "https://example.com/abc.png"
},
"assigned_by_account": {
   "account_id": 456,
   "name": "Anna",
   "avatar_image_url": "https://example.com/def.png"
},
"message_id": "13",
"body": "buy milk",
"limit_time": 1384354799,
"status": "open"
}
```

## [GET] /rooms/{room\_id}/files

Get the list of files associated with the specified chat (\*This method returns up to 100 entries. We are planning to implement pagination to support larger number of data retrieval)

curl -X GET -H "X-ChatWorkToken: (Your API Token)"

"https://api.chatwork.com/v2/rooms/{room\_id}/files?account\_id=101"

## Response:

```
[
    "file_id": 3,
    "account": {
        "account_id": 101,
        "name": "Bob",
        "avatar_image_url": "https://example.com/ico_avatar.png"
    },
    "message_id": "22",
    "filename": "README.md",
    "filesize": 2232,
    "upload_time": 1384414750
    }
]
```

#### [Parameter]

#### account\_id [integer]

Account ID of the person who uploaded the file

Example input 101

## [GET] /rooms/{room\_id}/files/{file\_id}

Get information about the specified file

```
curl -X GET -H "X-ChatWorkToken: (Your API Token)"

"https://api.chatwork.com/v2/rooms/{room_id}/files/{file_id}?create_download_url=1"
```

## Response:

```
{
  "file_id":3,
  "account": {
    "account_id":123,
    "name":"Bob",
    "avatar_image_url": "https://example.com/ico_avatar.png"
},
  "message_id": "22",
  "filename": "README.md",
  "filesize": 2232,
  "upload_time": 1384414750
}
```

#### [Parameter]

#### create\_download\_url [boolean]

whether or not to create a download link
If set to true, download like will be created for 30 seconds.

Example input

1

## **Endpoints: /incoming\_requests**

You can access contact approval requests you received

## [GET] /incoming\_requests

You can get the list of contact approval request you received (\*This method returns up to 100 entries. We are planning to implement pagination to support larger number of data retrieval)

```
curl -X GET -H "X-ChatWorkToken: (Your API Token)" "https://api.chatwork.com/v2/incoming requests"
```

```
[
    "request_id": 123,
    "account_id": 363,
    "message": "hogehoge",
    "name": "John Smith",
    "chatwork_id": "tarochatworkid",
    "organization_id": 101,
    "organization_name": "Hello Company",
    "department": "Marketing",
    "avatar_image_url": "https://example.com/abc.png"
}
]
```

## **Endpoints: /incoming\_requests**

## [PUT] /incoming\_requests/{request\_id}

You can approve a contact approval request you received

```
curl -X PUT -H "X-ChatWorkToken: (Your API Token)"
"https://api.chatwork.com/v2/incoming_requests/{request_id}"
```

```
{
  "account_id": 363,
  "room_id": 1234,
  "name": "John Smith",
  "chatwork_id": "tarochatworkid",
  "organization_id": 101,
  "organization_name": "Hello Company",
  "department": "Marketing",
  "avatar_image_url": "https://example.com/abc.png"
}
```

## **Endpoints: /incoming\_requests**

## [DELETE] DELETE/incoming\_requests/{request\_id}

You can decline a contact approval request you received

curl -X DELETE -H "X-ChatWorkToken: (Your API Token)"
"https://api.chatwork.com/v2/incoming\_requests/{request\_id}"

Response:

none



## **OAuth**

## **Chat Work API Documentation**

## **Authorization flow**

Of the authorization flows (authorization grants) described in RFC6749, you can only use the **Authorization Code Grant** type.

## **Features**

All of the current ChatWork APIs are available.

## How to use a ChatWork API from a client program

## 1. Client registration

You can register clients from the OAuth client creation screen.

Register the following parameters as client information.

| Parameter                | Required | Description   |  |
|--------------------------|----------|---|--|
| Client name              |          | The name of the client.   |  |
| URL of the client's logo |          | This logo is displayed on the consent screen and in other locations. If no URL is specified, the default logo is shown.   |  |
| Redirect URIs            |          | Register at least one redirect URI. You can register up to five redirect URIs. Redirect URIs must use https.              |  |
| Scope                    |          | Register at least one scope. The scopes you need to call all ChatWork APIs are listed in the <u>Appendix scope list</u> . |  |

## 2. Obtaining an authorization code

To obtain an authorization code, you need to access the consent screen via a web browser.

#### How to access the consent screen

The consent screen is displayed after you set the necessary query parameters and access the consent screen (URL: <a href="https://www.chatwork.com/packages/oauth2/login.php">https://www.chatwork.com/packages/oauth2/login.php</a> ).

\*If the login screen is displayed, enter your authentication information and log in. The web browser is then redirected to the consent screen.

#### **Query parameters**

| Parameter     | Specified Value | Required | Description  |
|---------------|-----------------|----------|--|
| response_type | Strings         | $\circ$  | Currently, only "code" is supported.   |
| client_id     | Strings         | 0        | Specify the client ID.   |
| redirect_uri  | Strings         |          | Choose from the URLs set during client registration.  For example: https://example.com/callback This is required if more than one redirect_uri is set, but optional if only one redirect_uri is set.   |
| scope         | Strings         | 0        | rooms.all:read_write  • Appendix scope list  |
| state         | Strings         |          | This is a character string that is used as a countermeasure against CSRF attacks. It is managed by associating it with the resource owner's session. When the resource owner approves or rejects authorization, the state string set here is set as the query parameter and the web browser is redirected to redirect_uri.  After this, the state associated with the session is compared to the state string that was passed on as the query parameter. Always take countermeasures against CSRF attacks in production runs.  For example: 343ab3341331218786ef |

## For example: URL for displaying the consent screen

```
https://www.chatwork.com/packages/oauth2/login.php?
response_type=code
&redirect_uri=https://example.com/callback.php
&client_id=Lvo0YN92ga5kP
&state=811435b3683ae95c1cf3197deaf1bfe4b411f587
&scope=rooms.all:read_write%20users.profile.me:read
```

#### Generating the authorization code

When the resource owner clicks the "Authorize" button on the consent screen, an authorization code is generated. The web browser is then redirected to redirect\_uri after the authorization code is set as the query parameter.

#### For example: Redirect destinations when the authorization code is generated

- code
  - Authorization code with a validity period of 1 minute
- state
  - o The value of the state specified when the consent screen is displayed

```
https://example.com/callback.php?
code=a2f0c1fe96af8c3a46fa0
&state=811435b3683ae95c1cf3197deaf1bfe4b411f587
```

#### **Denying authorization**

When the resource owner clicks the "Deny" button on the consent screen, authorization is denied, and the web browser is redirected to redirect\_uri.

- error
  - Set to access\_denied
- state
  - The value of the state specified when the consent screen is displayed

```
https://example.com/callback.php?
error=access_denied
&state=811435b3683ae95c1cf3197deaf1bfe4b411f587
```

## Limitations of the login screen

Authentication using SAML is not supported via the dedicated OAuth2 login screen. Log in using SAML authentication via the regular login screen, then go to the consent screen again.

Login screen

## 3. Generating or regenerating an access token

## Request

#### **Endpoint**

Use HTTP POST to access the following endpoint.

https://oauth.chatwork.com/token

#### **Authentication**

In accordance with Basic Authentication, specify the client ID as the user name and the client secret as the password, join these with a colon (:), and encode the character string with Base64. You can obtain this information via the client administration screen.

Authorization: Basic THZvMFl100==

## Format of the request body

application/x-www-form-urlencoded

## **Body parameters**

When generating an access token with an authorization code

| Parameter    | Specified Value | Required | Description  |
|--------------|-----------------|----------|--|
| grant_type   | Strings         |          | Specify authorization_code.  |
| code         | Strings         |          | Specify the authorization code (Authorization Code) for authorization.   |
| redirect_uri | Strings         |          | Specify the value that was specified when the consent screen is displayed.  For example: https://example.com/callback This is required if more than one redirect_uri is set, but optional if only one redirect_uri is set. |

When regenerating an access token using a refresh token

| Parameter     | Specified Value | Required | Description   |
|---------------|-----------------|----------|---|
| grant_type    | Strings         |          | Specify refresh_token.  |
| refresh_token | Strings         |          | Specify the value of refresh_token that was generated when the token was generated. |
| scope         | Strings         |          | users.profile.me:read   |

## Response

# Format of the response body

| application/jsd | on |
|-----------------|----|
|-----------------|----|

# Response body (identical whether a token is being generated or regenerated)

| JSON Field Name   | JSON Value | nullable   | Ex              | Description  |
|-------------------|------------|------------|-----------------|--|
| access_token      | String     |            |                 | The validity period is 15 minutes.                                   |
| refresh_token     | String     |            |                 | The validity period is 14 days. (However, this is subject to change) |
| token_type        | String     | $\bigcirc$ | Bearer          |  |
| expires_in        | Int        | $\circ$    |                 | The validity period of the token. (In seconds)                       |
| scope             | String     | $\circ$    |                 |  |
| error             | String     | $\circ$    | "invalid_grant" | Field that is returned when an error occurs.                         |
| error_description | String     | 0          |                 | Field that is returned when an error occurs.                         |
| error_uri         | String     |            |                 | Field that is returned when an error occurs. Currently always null.  |

#### For example: Generating a token with the curl command

#### Request

```
curl -v --user 'Lvo0YN92ga5kP:secret' \
-X POST -d 'grant_type=authorization_code \
&code=26d13798facc9a0ca05a8cb7246020f15a311 \
&redirect_uri=https://127.0.0.1/callback' \
https://oauth.chatwork.com/token
```

#### Response

```
> POST /token HTTP/1.1
> Host: 127.0.0.1
> Authorization: Basic THZvMFl00TJnYTVrUDphYmNkZWZnaGlqa2xu
bW9wcXJzdHV2d3h5ejAxMjM0NTY30Dk=
> Accept: */*
> Content-Length: 199
> Content-Type: application/x-www-form-urlencoded
< HTTP/1.1 200 OK
< Cache-Control: no-store
< Pragma: no-cache
< Content-Type: application/json
< Content-Length: 989
{
    "access_token": "eyJjdHkiOiJKV1QiLCJ0eXAiOiJKV1QiL
    "access_token": "eyJjdHkiOiJKV1QiLCJ0eXAiOiJKV1QiL
CJhbGciOiJSUzI1NiIsImtpZCI6ImlOUVh0dFR2RHZhcDVkSW
dWQiOiJodHRwczovL2FwaS5jaGF0d29yay5jb20iLCJzdWIi
BnRlQOXvXqymGijQXgqDOo3LLFY_k62OoPYAQ3UXkaum8
6Al-DJM6iC-043kBINbYLLPo0uwwsolmjRDG5zBzPC0GtcjXiLy4Gqg",
  "token_type": "Bearer",
"expires_in": "1501138041000",
"refresh_token": "86277ab4fd9d111bd3225215d96d6
22c9ae6810d82cd6d0e9530bf35adda67ab7d3c24e2a0
052e9d3b442ce212ca17ecf07ddbd8c3477aa3abde15e4ebcf7b53",
   "scope": "rooms.all:read_write"
```

#### 4. Accessing a ChatWork API

#### Request

When sending a request to a ChatWork API, use the Bearer authentication scheme to set the access token (access\_token) in the Authorization request header field instead of using the usual ChatWork API authentication method.

Authorization: Bearer eyJjdHkiOiJKV1QiLCJ0eXAiOiJKV1QiLCJh bGciOiJSUzI1NiIsImtpZCI6ImlOUVh0dFR2RHZhcDVkSWpGQzA5Z HZadHFXaGQ2WmFRb2pKenVuUS1vV28ifQ.eyJhdWQiOiJodHRwcz ovL2FwaS5jaGF0d29yay5jb20iLCJzdWIiOiIzIiwiYWNjb3VudF9pZC I6IjMiLCJzY29wZSI6WyJhbGwiXSwiaXNzIjoiaHR0cHM6Ly9vYXV0a C5jaGF0d29yay5jb20iLCJleHAiOjE1MDExMzgwNDEsImlhdCI6MTU wMTEzNzE0MSwianRpIjoiOTcwNDAwOWItNTdlNi00NDU5LTg5NzMt Njc3ZmM5YjA5MjgyIiwiY2xpZW50X2lkIjoiTHZvMFlOOTJnYTVrUCJ9. BIS8QvyTHz7KK\_fnmvc0fa8NQDOWy7v8Ni0LvLyuROE5UEi7l\_Hx DT8tHLTQLELIm3jOw4SiW94KPYwduRL467vJ2j2eNT-zTkCXtEN 8pxbA0HtnBrtCcp0dRJEMnfBegzkoAe8BTB6gee3rrXy6sQcLb19 WBrrHNbjICFL0--SG3IvPanOzABqiNMqfScnasTtj7xtIaNpbxf8LDIH3E F150Iif4BqSczJr-XppBTBYuP32UlBnRlQOXvXqymGijQXgqDOo3LLFY k62OoPYAQ3UXkaum86Al-DJM6iC-043kBINbYLLPo0uwwsolmjRD G5zBzPC0GtcjXiLy4Gqg

#### Response

Please see the documentation for the <u>endpoint</u> of each ChatWork API.

#### **Errors**

When the access token has been revoked or is invalid, error information is set in the **WWW-Authenticate** header field.

#### For example: When the access token has been revoked

```
HTTP/1.1 401 Unauthorized WWW-Authenticate: Bearer error="invalid_token", error_description="The access token expired"
```

#### For example: Accessing a ChatWork API using the curl command

```
curl -v -H 'Authorization: Bearer eyJjdHkiOiJKV1QiLCJ0eXAiOiJKV1
QiLCJhbGciOiJSUzI1NiIsImtpZCI6ImlOUVhOdFR2RHZhcDVkSWpGQz
A5ZHZadHFXaGQ2WmFRb2pKenVuUS1vV28ifQ.eyJhdWQiOiJodHR
wczovL2FwaS5jaGF0d29yay5jb20iLCJzdWIiOiIxNzMiLCJhY2NvdW5
0X21kIjoiMTczIiwic2NvcGUiOlsiYWxsIl0sImlzcyI6Imh0dHBzOi8vb2F1
dGguY2hhdHdvcmsuY29tIiwiZXhwIjoxNTAyMjUxNDU4LCJpYXQiOjE1
MDĬyNDk2NTgsImp0aSI6IjRlNzg5ZTAzLTk2NjAtNDc4MC1hYThkLTV
mZjk2YmU0MzMyNSIsImNsaWVudF9pZCI6Ikx2bzBZTjkyZ2E1a1AifQ.
Y14Sr0SmtgwLegwWPMeQ1Put2XmP74y3QdupCAN7Hc5Id10Qvgq-
csuYVxxAYStqZUO4sZ_j9SeE7-rqhuNowDMwqVaTGfDvAvtQLitPKD
Ub2g6x87c-lfffkJkIiL1xcH3lHrmQkBa H81- a3VFJila8hFptvygOp1
90SDSrUIlcq6PeHlfNQtXjs2VFREQydQNE2cdLe68Nh5F5V4HX20C4
49MKNWK4ybwmFrnX-o9KgERaP1rjrCcWYrZ-1K8TquHti9XMfSaj71e
DkfPVOLyCOe1 zBEEH8NRFtN2OcVQWJFPy09rz1yw7a1YARdsU4
DukrhWvWcVxIad8ygA' \
'https://api.chatwork.com/v2/me'
```

```
> GET /v2/me HTTP/1.1
> Host: api.chatwork.com
> Accept: */*
> Authorization: Bearer eyJjdHkiOiJKV1QiLCJ0eXAiOiJKV1QiLCJ
hbGciOiJSUzI1NiIsImtpZCI6ImlOUVh0dFR2RHZhcDVkSWpGQzA5Z
HZadHFXaGQ2WmFRb2pKenVuUS1vV28ifQ.eyJhdWQi0iJodHRwc
zovL2FwaS5jaGF0d29yay5jb20iLCJzdWIiOiIxNzMiLCJhY2NvdW50
X21kIjoiMTczIiwic2NvcGUiOlsiYWxsIl0sImlzcyI6Imh0dHBz0i8vb2F1
dGguY2hhdHdvcmsuY29tIiwiZXhwIjoxNTAyMjUxNDU4LCJpYXQi0jE
1MDIyNDk2NTgsImp0aSI6IjRlNzg5ZTAzLTk2NjAtNDc4MC1hYThkL
TVmZjk2YmU0MzMyNSIsImNsaWVudF9pZCI6Ikx2bzBZTjkyZ2E1a1
AifQ.Y14Sr0SmtgwLegwWPMeQ1Put2XmP74y3QdupCAN7Hc5Id10
Qvgq-csuYVxxAYStqZUO4sZ_j9SeE7-rqhuNowDMwqVaTGfDvAvtQ
LitPKDUb2g6x87c-lfffkJkIiL1xcH31HrmQkBa H81- a3VFJila8hFpt
vygOp190SDSrUIlcq6PeHlfNQtXjs2VFREQydQNE2cdLe68Nh5F5V4
HX20C449MKNWK4ybwmFrnX-o9KgERaP1rjrCcWYrZ-1K8TquHti9X
MfSaj71eDkfPVOLyCOe1_zBEEH8NRFtN2OcVQWJFPy09rz1yw7a1
YARdsU4DukrhWvWcVxIad8ygA
< HTTP/1.1 200 OK
< Content-Type: application/json; charset=utf-8</pre>
< Content-Length: 412
< Connection: keep-alive
< X-RateLimit-Limit: 100
< X-RateLimit-Remaining: 99
< X-RateLimit-Reset: 1502250163
< Vary: Accept-Encoding, User-Agent
{"account_id":1, ...(略)}
```

#### Regarding the offline\_access scope

Even when a resource owner is offline, the offline\_access scope allows for persistent API access.

If this scope is not specified, it is assumed by the resource owner that the client will use the service while online, and after a certain period of time a refresh token will become unavailable if that is not the case, making it impossible to update the access token.

This is the default behavior and is the generally recommended usage, but it is not suitable for things such as bots where the resource owner may be absent. In such cases, it is possible to use the offline\_access scope.

When the offline\_access scope is specified, the refresh token remains valid indefinitely, unless it is revoked. Until it is revoked, the access token can be renewed, even when the resource owner is absent.

Compared to online use, the refresh token can be used for long periods, so please give careful consideration to potential security risks before using.

# Appendix

# **A.List of Scopes**

| Name                  | API  | Description  |
|-----------------------|--|--|
| offline_access        | All API  | Allow permanent API access   |
| users.all:read        | users.profile.me:read<br>users.status.me:read<br>users.tasks.me:read                                 | Access your account information  |
| users.profile.me:read | GET /me  | Access your profile information  |
| users.status.me:read] | GET /my/status   | Access your unread messages  |
| users.tasks.me:read   | GET /my/tasks  | Access your task lists   |
| rooms.all:read_write  | rooms.all:read<br>rooms.all:write  | Access and modify your chatroom's messages, tasks, files, notes and member information |
| rooms.all:read        | rooms.info:read<br>rooms.members:read<br>rooms.messages:read<br>rooms.tasks:read<br>rooms.files:read | Access your chatroom's messages, tasks, files, notes and member information            |
| rooms.all:write       | rooms:write rooms.info:write rooms.members:write rooms.messages:write rooms.tasks:write              | Modify your chatroom's messages, tasks, files, and member information                  |

## Chat Work API Documentation

| Name                 | API   | Description                                    |
|----------------------|---|--|
| rooms:write          | POST /rooms DELETE /rooms/{room_id}   | Create new chatrooms and delete your chatrooms |
| rooms.info:read      | GET /rooms<br>GET /rooms/{room_id}  | Access your chatrooms list                     |
| rooms.info:write     | PUT /rooms/{room_id}  | Modify your chatroom's information             |
| rooms.members:read   | GET /rooms/{room_id}/members  | Access your chatroom's member information      |
| rooms.members:write  | PUT /rooms/{room_id}/members  | Modify your chatroom's member information      |
| rooms.messages:read  | GET /rooms/{room_id}/messages<br>GET /rooms/{room_id}/messages/{message_id}   | Access your chatroom's messages                |
| rooms.messages:write | POST /rooms/{room_id}/messages PUT /rooms/{room_id}/messages/{message_id} DELETE /rooms/{room_id}/messages/{message_id} PUT /rooms/{room_id}/messages/read PUT /rooms/{room_id}/messages/unread | Post messages to your chatrooms                |

## Chat Work API Documentation

| Name                    | API  | Description                                       |
|-------------------------|--|---|
| rooms.tasks:read        | GET /rooms/{room_id}/tasks GET /rooms/{room_id}/tasks/{task_id}            | Access your chatroom's tasks                      |
| rooms.tasks:write       | POST /rooms/{room_id}/tasks  | Create tasks in your chatrooms                    |
| rooms.files:read        | GET /rooms/{room_id}/files<br>GET /rooms/{room_id}/files/{file_id}         | Access file infomration in your chatrooms         |
| contacts.all:read_write | contacts.all:read<br>contacts.all:write                                    | Access and modify your contact information        |
| contacts.all:read       | GET /contacts GET /incoming_requests                                       | Access your contact information                   |
| contacts.all:write      | PUT /incoming_requests/{request_id} DELETE /incoming_requests/{request_id} | Modify your incoming contact requests information |

# B. List of errors that can occur during authorization

| Error Code | Error Description                       | Supplementary  |
|------------|---|--|
| 1001       | `response_type` parameter is missing.   | The response_type parameter is not specified when the consent screen is displayed. |
| 3001       | The resource owner denied the request.  | The resource owner refused permission on the login screen or consent screen.       |
| 4001       | `token` response type is not supported. | An unsupported response_type is specified when the consent screen is displayed.    |
| 4002       | `foo` response type is unknown.         | An undefined response_type is specified when the consent screen is displayed.      |
| 5001       | Scope is missing.                       | The scope is not specified.  |
| 5002       | The scope is unknown.                   | An undefined scope is specified.   |
| 11000      | `client_id` is missing.                 | The client_id is not specified.  |
| 13000      | `redirect_uri` is missing.              | A redirect_uri is not specified.   |
| 14000      | The redirect URI is malformed.          | The format of client_id is incorrect.  |
| 15000      | The redirect URI is unregistered.       | client_id is not registered.   |



# Webhook

#### Chat Work API Documentation

#### **About Webhook**

ChatWork Webhook sends you real-time notifications of events, such as sending and editing messages and you being mentioned, in chatrooms (group chat, direct chat, my chat) you are participating to a Webhook URL you specify.

By using ChatWork Webhook, you can receive real-time notifications without having to periodically call ChatWork API (by polling) to bring up events.

Please give it a try, as you will be able to easily create functions that can link with external services, such as an interactive bot that can operate inside of ChatWork.

Webhook URL can be set from the API control screen.

## **Chat Work API Documentation**

## Request

ChatWork Webhook sends event notifications by giving HTTPS POST requests to a Webhook URL specified on Webhook control screen. POST requests have the following structure:

## **Common request header**

| Field Name                 | Value                                 | Sample                                     |
|----------------------------|---------------------------------------|--|
| Content-Type               | application/json                      | Content-Type: application/json             |
| User-Agent                 | ChatWork-Webhook/ <version></version> | User-Agent:<br>ChatWork-Webhook/1.0.0      |
| X-ChatWorkWebhookSignature | Signature                             | X-ChatWorkWebhookSignature: 5202BF4B02772F |

## **Common request body**

It is a JSON object with the following items:

| Field Name         | Туре           | Required | Description  |
|--------------------|----------------|----------|--|
| webhook_setting_id | String         | $\circ$  | Set Webhool ID to notify this event.   |
| webhook_event_type | String         |          | Types of Webhook Event Object  |
| webhook_event_time | Value          |          | The time when the event was recorded on ChatWork Webhook system (epoch seconds). |
| webhook_event      | JSON<br>Object |          | Webhook event object suitable for webhook_event_type.                            |

#### Sample request body

```
{
    "webhook_setting_id": "12345",
    "webhook_event_type": "mention_to_me",
    "webhook_event_time": 1498028130,
    "webhook_event":{
        "from_account_id": 123456,
        "to_account_id": 1484814,
        "room_id": 567890123,
        "message_id": "789012345",
        "body": "[To:1484814]What do you like to eat?",
        "send_time": 1498028125,
        "update_time": 0
}
```

#### Response

- Always respond to an HTTPS request with a status code 200.
- The HTTPS POST Request sent from ChatWork Webhook will not be resent, even it fails.
- The maximum response body size is 512 bytes. Anything in excess will be considered as an error.

#### About the Failure Limit function for when the notification error rate is on the rise.

When an HTTPS POST Request causes an error for some reason, it is treated as a notification error. When the notification error rate becomes high, ChatWork Webhook automatically changes applicable Webhook settings to an "invalid" status. Users must explicitly validate his/her status. Please see Webhook editing screen for how to validate user status.

#### Signature verification for requests

In order to verify that the source of the request is indeed ChatWork, for each request, the signature must be verified on the user's server.

#### **Verification process is as follows:**

- 1. The digest value for the request body will be obtained through HMAC-SHA256 algorithm, using a byte string of a BASE64 decoded token as the secret key.
- 2. The string of BASE64 encoded digest value is verified that it matches the signature (X-ChatWorkWebhookSignature's header value). on the request header.

Token can be verified on Webhook editing screen.

## **Webhook Event Object**

- Create message (webhook event type = "message created")
- Edit message (webhook event type = "message updated")
- Getting mentioned (webhook event type = "mention to me")

## Create message(webhook\_event\_type = "message\_created")

| Field Name  | Туре   | Required   | Description   |
|-------------|--------|------------|---|
| message_id  | String | $\bigcirc$ | Message ID  |
| room_id     | Value  | $\bigcirc$ | Chatroom ID, where the message was sent.  |
| account_id  | Value  | $\bigcirc$ | Account ID, from which the message was sent.  |
| body        | String | $\circ$    | The content of the message.   |
| send_time   | Value  | $\circ$    | Time when the message was sent (epoch seconds).   |
| update_time | Value  |            | The last time the message was editied (epoch seconds).  Warining: the value is 0, when the message was created. |

Sample event object when creating a message:

```
{
  "message_id": "789012345",
  "room_id": 567890123,
  "account_id": 1484814,
  "body": "Please prepare your presentation slides up to 3 pages",
  "send_time": 1498028120,
  "update_time": 0
}
```

## Chat Work API Documentation

Edit message(webhook\_event\_type = "message\_updated")

Message edit event has the same structure as Create message event.

## Getting mentioned (webhook\_event\_type = "mention\_to\_me")

| Field Name      | Туре   | Required   | Description   |
|-----------------|--------|------------|---|
| from_account_id | Value  |            | Account ID of the user that mentioned another user.   |
| to_account_id   | Value  |            | Account ID of the user that got mentioned.  |
| room_id         | Value  |            | Chatroom ID, in which the user was mentioned.   |
| message_id      | String | $\bigcirc$ | Message ID, in which the user was mentioned.  |
| body            | String | $\bigcirc$ | The content of the message in which the user was mentioned.   |
| send_time       | Value  | $\bigcirc$ | Time when the message was sent (epoch seconds).   |
| update_time     | Value  |            | The last time the message was editied (epoch seconds).  Warining: the value is 0, when the message was created. |

## Sample event when getting mentioned:

```
{
   "from_account_id": 1234567890,
   "to_account_id": 1484814,
   "room_id": 567890123,
   "message_id": "789012345",
   "body": "[To:1484814] Can you prepare the presentation slide?",
   "send_time": 1498028125,
   "update_time": 0
}
```

## URLs you can use as Webhook URL

There are some restrictions for the URLs you can use for Webhook URL

- It should be starting with "https://".
- If the domain is IDN, it should be converted with ToASCII (4.1) based on RFC3490.
- It should be encoded based on RFC3986.