Epson Connect API Print Guide

1. Overview
  This document summarizes how to print using the Epson Connect API. It only includes high-level descriptions of the Epson Connect API for printing. There are other available operations and features so please refer to the Epson Connect API Specification for more details.
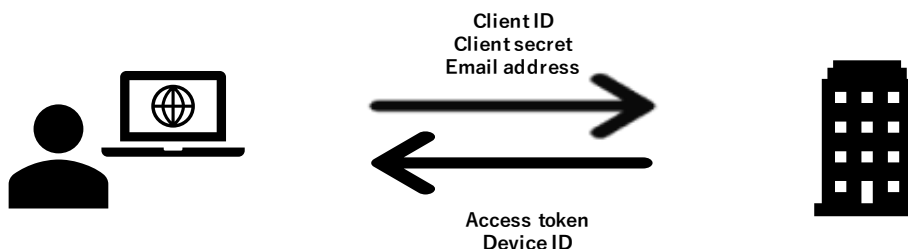
2. Printing flow
  You can execute printing with the following steps using the API:
① Authentication
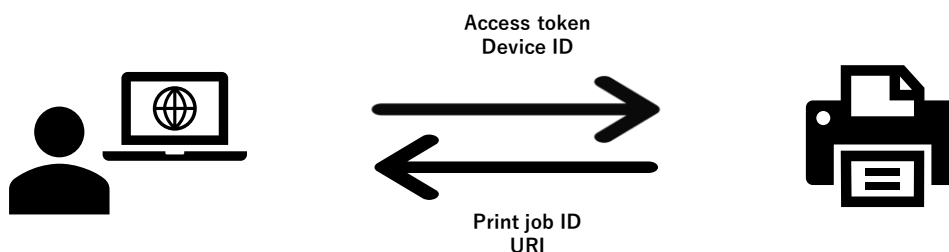② Print setting
③ Upload print file
④ Execute Print

2.1.   Authentication

  This is the first phase that authorizes you are an official user. Specify the correct ID (Client ID) and password (Client secret). Also specify by printer email address which device you want to use. If you are confirmed as the correct user, you will receive a string as Key string (Access token) and a device identification number (Device ID) to identify your device.
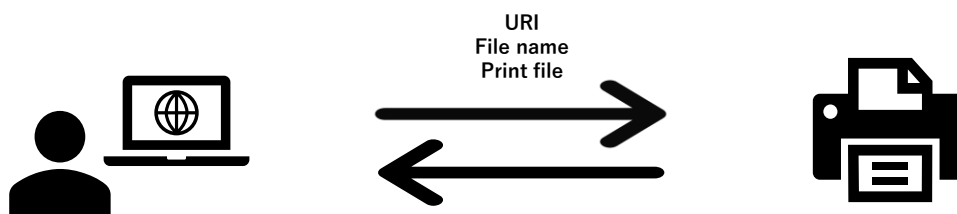
Client ID
Client secret
Email address

Access token
Device ID

2.2.   Print setting

  This is the phase that requests a device to prepare printing. Specify your access token and Device ID received in 「2.1 Authentication」 and get your device ready to print. If your access token and Device ID are verified, you will receive a serial number for printing (Print job ID) and URI to upload print data.
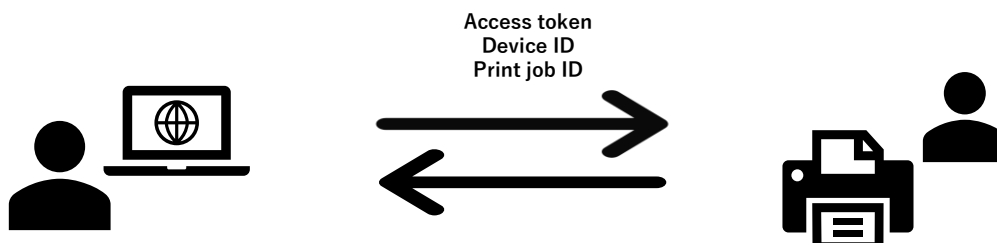
Access token
Device ID

Print job ID
URI

2.3.   Upload print file

  The is the phase to upload print file. Upload file(s) to URI you received in 「2.2 Print setting」. Please check the specification details for additional requirements such as having a file name with a number "1".pdf, etc. No response is returned if upload is successful.

URI
File name
Print file

2.4.   Execute print

  Executing print is the last phase. Execute print by specifying your access token and Device ID received in 「2.1 Authentication」 and print job ID received in 「2.2 Print setting」. Print should start.

Access token
Device ID
Print job ID

3.   Sample codes

The API is called in the following format. "xxx.xxx.xxx" is replaced with the host name given to you when the license is issued.

Ex) Authentication API
      https://xxx.xxx.xxx/api/1/printing/oauth2/auth/token?subject=printer

3.1.   Authentication

  Authenticate and issue an access token for using the API. Please refer to Epson Connect API Specification 「4.3.1 Authentication」 for details.

```php
<?php

ini_set('xdebug.var_display_max_children', - 1);
ini_set('xdebug.var_display_max_data', - 1);
ini_set('xdebug.var_display_max_depth', - 1);

$host = 'xxxx.xxxxx.xxx'; // You will receive it when the license is issued
$accept = 'application/json;charset=UTF-8';
$proxy = 'xxx.xxx.xxx.xxx';
$protocol = '1.1';

$auth_uri = 'https://' . $host . '/api/1/printing/oauth2/auth/token?subject=printer';
$client_id = 'xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx'; // You will receive it when the license is issued
$secret = 'xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx'; // You will receive it when
the license is issued
$device = 'xxxxxxxxxxxxx@xxx.xxx.xxx'; // Specify printer email address

$auth = base64_encode("$client_id:$secret");

$query_param = array(
    'grant_type' => 'password',
    'username' => $device,
    'password' => ''
);
$query_string = http_build_query($query_param, '', '&');

$options = array(
    'http' => array(
        'method' => 'POST',
        'header' => 'Host: ' . $host . "¥r¥n" .
                    'Accept: ' . $accept . "¥r¥n" .
                    'Authorization: Basic ' . $auth . "¥r¥n" .
                    'Content-Length: ' . strlen($query_string) . "¥r¥n" .
                    'Content-Type: application/x-www-form-urlencoded; charset=utf-8' . "¥r¥n",
        'content' => $query_string,
        'proxy' => $proxy,
        'request_fulluri' => true,
        'protocol_version' => $protocol,
        'ignore_errors' => true
    )
);

$http_response_header = null;
$response = @file_get_contents($auth_uri, false, stream_context_create($options));

$auth_result = array();
$auth_result['Response']['Header'] = $http_response_header;
$auth_result['Response']['Body'] = json_decode($response, true);

var_dump('1', $auth_uri, $query_string, $auth_result);

$matches = null;
preg_match('/HTTP¥/1¥.[0|1|x] ([0-9]{3})/', $auth_result['Response']['Header'][0], $matches);

if ($matches[1] !== '200') {
    exit(1);
}
```

3.2.   Print setting

Create a print job to prepare for printing. Please refer to Epson Connect API Specification 「4.3.1 Print setting」 for details.

```php
<?php

$host = 'xxxx.xxxxx.xxx'; // You will receive it when the license is issued.
$accept = 'application/json;charset=UTF-8';
$proxy = 'xxx.xxx.xxx.xxx';
$protocol = '1.1';

$subject_id = $auth_result['Response']['Body']['subject_id'];
$access_token = $auth_result['Response']['Body']['access_token'];

$job_uri = 'https://' . $host . '/api/1/printing/printers/' . $subject_id . '/jobs';

$data_param = array(
    'job_name' => 'SampleJob1',
    'print_mode' => 'document'
);
$data = json_encode($data_param);

$options = array(
    'http' => array(
        'method' => 'POST',
        'header' => 'Host: ' . $host . "¥r¥n" .
                    'Accept: ' . $accept . "¥r¥n" .
                    'Authorization: Bearer ' . $access_token . "¥r¥n" .
                    'Content-Length: ' . strlen($data) . "¥r¥n" .
                    'Content-Type: application/json;charset=utf-8' . "¥r¥n",
        'content' => $data,
        'proxy' => $proxy,
        'request_fulluri' => true,
        'protocol_version' => $protocol,
        'ignore_errors' => true
    )
);

$http_response_header = null;
$response = @file_get_contents($job_uri, false, stream_context_create($options));

$job_result = array();
$job_result['Response']['Header'] = $http_response_header;
$job_result['Response']['Body'] = json_decode($response, true);

var_dump('2', $job_uri, $data, $job_result);

$matches = null;
preg_match('/HTTP¥/1¥.[0|1|x] ([0-9]{3})/', $job_result['Response']['Header'][0], $matches);

if ($matches[1] !== '201') {
    exit(1);
}
```

3.3. Upload print file

  Upload file(s) to URI obtained in「3.2 Print setting」. Please refer to Epson Connect API Specification「4.3.1 Upload print file」for details.

```php
<?php

$host = 'xxxx.xxxxx.xxx'; // You will receive it when the license is issued.
$accept = 'application/json;charset=UTF-8';
$proxy = 'xxx.xxx.xxx.xxx';
$protocol = '1.1';

$job_id = $job_result['Response']['Body']['id'];
$base_uri = $job_result['Response']['Body']['upload_uri'];

$local_file_path = './SampleDoc.pdf';
$content_type = 'application/octet-stream';

$file_name = '1.' . end(explode('.', $local_file_path));
$upload_uri = $base_uri . '&File=' . $file_name;

$data = file_get_contents($local_file_path);

$options = array(
    'http' => array(
        'method' => 'POST',
        'header' => 'Host: ' . $host . "¥r¥n" .
                    'Accept: ' . $accept . "¥r¥n" .
                    'Content-Length: ' . strlen($data) . "¥r¥n" .
                    'Content-Type: ' . $content_type . "¥r¥n",
        'content' => $data,
        'proxy' => $proxy,
        'request_fulluri' => true,
        'protocol_version' => $protocol,
        'ignore_errors' => true
    )
);

$http_response_header = null;
$response = @file_get_contents($upload_uri, false, stream_context_create($options));

$upload_result = array();
$upload_result['Response']['Header'] = $http_response_header;
$upload_result['Response']['Body'] = json_decode($response, true);

var_dump('3', $upload_uri, $upload_result);

$matches = null;
preg_match('/HTTP¥/1¥.[0|1|x] ([0-9]{3})/', $upload_result['Response']['Header'][0], $matches);

if ($matches[1] !== '200') {
    exit(1);
}
```

3.4. Execute Print

Start printing using print job ID in 「3.2 Print setting」 and file uploaded in 「3.3 Upload print file」. Please refer to Epson Connect API Specification 「4.3.1 Authentication」 for details.

```php
<?php

$host = 'xxxx.xxxxx.xxx'; // You will receive it when the license is issued.
$accept = 'application/json;charset=UTF-8';
$proxy = 'xxx.xxx.xxx.xxx';
$protocol = '1.1';

$print_uri = 'https://' . $host . '/api/1/printing/printers/' . $subject_id . '/jobs/' . $job_id . '/print';

$options = array(
    'http' => array(
        'method' => 'POST',
        'header' => 'Host: ' . $host . "¥r¥n" .
                    'Accept: ' . $accept . "¥r¥n" .
                    'Authorization: Bearer ' . $access_token . "¥r¥n",
        'proxy' => $proxy,
        'request_fulluri' => true,
        'protocol_version' => $protocol,
        'ignore_errors' => true
    )
);

$http_response_header = null;
$response = @file_get_contents($print_uri, false, stream_context_create($options));

$print_result = array();
$print_result['Response']['Header'] = $http_response_header;
$print_result['Response']['Body'] = json_decode($response, true);

var_dump('4', $print_uri, $print_result);
```