API Guide

Version 2.0
1. Overview

Falconide is an SMTP relay service that delivers highly personalized transactional emails to the inbox within seconds of your customer’s transaction. Falconide helps you focus on your business without the cost and complexity of owning and maintaining an email infrastructure. It manages all the technicalities like scaling the infrastructure, ISP outreach, reputation monitoring, whitelist services and real-time analytics. Falconide offers world class deliverability expertise to ensure that your emails get delivered on time and into the inbox.

1.1 Falconide API

Falconide APIs enable you to connect Falconide to a CMS, blog platform, e-commerce shopping cart and more for instant sending of transactional mails.

2. Get started with Falconide API

Falconide APIs use REST architecture in which you initiate Key authenticated JSON calls over HTTPS.

The procedure to use an API is:

1. Enable API access in Falconide’s panel.
2. Submit a request via HTTPS POST to Falconide. For best results, use HTTPS POST.
3. Submit a call for each function. You can combine multiple calls in one HTTP request. (The maximum number of requests depends on the HTTP payload, the limit being 5 MB).

Falconide APIs support JSON as well as REST formats. In this document, JSON samples are given for your understanding.

2.1. API Structure

Each API Call consist of three parts:

1. API URL
2. API Key: You can obtain the unique API key from your Falconide panel, at Settings -> API.
3. Input Data: comprise raw parameters like email, templateid, fromname, subject, etc.

2.2 Syntax for an API call

The general syntax of an API call is shown here:

```xml
<API URL> [value] </API URL>
<API key> [value] <API key/>
<INPUT>
<Parameter 1> [value] </parameter1>
<Parameter 2> [value] </parameter2>
</INPUT>
```
3. Falconide API Library

Here is the list of APIs offered by Falconide. These are explained in detail later in the document.

1. Sending (email)
2. Templates: Add, Edit, Preview
3. Domain
4. Jobs: View (status), Update, Delete
5. Reports

3.1 Module: Sending

Falconide can receive emails through SMTP and HTTP as well. After processing the email, it sends the email to the target server via Internet through SMTP only.

SMTP is a standard protocol, relatively simpler to implement, and it sends one email per API call.

HTTP API is custom-developed by Falconide, is more sophisticated, and can send up to 1000 emails per API call.

You can use the HTTP API in cases where the same email needs to be sent to multiple recipients.

If you wish to send the same content to multiple recipients, you can use a single API. One API call can suffice for multiple email addresses, helping in significant saving of bandwidth costs.

**SMTP based API Call for email Sending:**

SMTP API allows you to deliver custom handling instructions for email. You can categorize your emails with tags like Sign up, Confirmation emails, etc. to get detailed statistics on each tag. You can tag the emails by inserting **X-TAGS** in the header of the message.

You can also track each message with an identifier. Pass the required tracking data under the **X-APIHEADER**. The **X-APIHEADER** header is a JSON-encoded associative array.

Here is a sample:

**X-APIHEADER:** `{ transid => ['282747328'], };`

**X-TAGS:** Account Deactivation, Verification;

SMTP is a fast way to get started since it requires very few changes.
To set up SMTP API call:

a. Change your SMTP user name and password as per the credentials provided to you.
b. Set the server host name to `smtp.falconide.com`.
c. Use port number 25 or 587 for sending emails over SSL connections.

**HTTP based API Call for Email Sending:**

Input Parameters for email Sending API:

a. **API key** [Required]: API credentials provided by Falconide to be used while sending an email.
b. **Email details** [Required]: are the basic details of the email to be used while sending an email. The details comprise the following fields:
   i. **Fromname** [Optional]: From name to be used in the email. It needs to be raw URL encoded.
   ii. **from** [Required]: The From email address to be used in sending an email. The From Domain must be authenticated first.
   iii. **replytoid** [Optional]: Reply to email address to be used in the email. You need to provide a value to this field in cases when you are expecting recipient’s responses on an email id which is different from the From Email Address.
   iv. **subject** [Required]: Subject to be used in the email.
   v. **content** [Required]: Content to be used in the email.

   **Note:** Fromname, subject, and content need to be raw URL encoded.

c. **Files** [Optional]: are the attachments to be used in sending an email. You can send raw files as an attachment. Name and content of the files must be provided. The file content needs to be base64 encoded or raw URL encoded, preferably, base64 encoded to avoid performance issues. Multiple file attachments are allowed.

d. **Settings** [Optional]: Email settings to be used while sending an email. If no settings are specified, then default setting configured in your Falconide panel is used. You can overwrite default settings for an API call. Following settings can be specified in an API call:
   i. **Footer**: Set the value to zero or one to disable or enable the footer respectively.
   ii. **Template**: Specify template Id to be used while sending an email. Only one template id can be specified.
   iii. **Attachmentid**: Specify already uploaded attachments id. Multiples allowed.
   iv. **Clicktrack**: Set click-track value to zero or one to disable or enable the click-track respectively.
iv. **Opentrack**: Set the opentrack value to zero or one to disable or enable the opentrack respectively.

v. **Bcc**: Specify BCC email address to be used while sending an email.

i. **Unsubscribe**: Set unsubscribe value to zero or one to disable or enable unsubscribe respectively.

e. **Recipients** [Required]: Specify list of targeted users to be used while sending an email. Multiple recipients are allowed.

f. **cc feature** [Optional]: Specify one or more CC Id per recipient while sending an email.

g. **Attributes** [Optional]: Specify attributes for recipients to send personalized email. Multiple attributes are allowed.

h. **X-APIHEADER** [Optional]: User-defined unique identifier for each email. The length of X-APIHEADER cannot be more than 255 characters.

i. **Tags**: Mark the emails send through Falconide with these unique identifiers. You can search specific emails from email logs like Sign up, Confirmation, Thank You mailers, etc based on these tags. Length of tags cannot be greater than 255 characters.

Samples are provided here for JSON as well as REST API call.
HTTP based API Call for email Sending:

- **JSON**

```json
https://api.falconide.com/falconapi/web.send.json?data=
{
    "api_key":"34565475778678678678678678678678",
    "email_details":{
        "fromname":"Testing@Falconide",
        "subject":"Welcome to our Falconide product",
        "from":"weeklystats@nstest.com",
        "replyto": "customer@nstest.com",
        "tags": "Account Deactivation, Verification",
        "content": "Dear [NAME],",
        "settings":{
            "footer": "1",
            "clicktrack": "1",
            "opentrack": "1",
            "unsubscribe": "1",
            "bcc": "sac@test.com",
            "attachmentid": "1,3,4",
            "template": "101",
            (Optional)
            "recipients": ["xyz@gmail.com", "abc@hotmail.com"],
            "X-APIHEADER": ["ACC123", "SE2532"],
            (Optional)
            "recipients_cc": ["sample3email@xyz.com", "sample4email@xyz.com", "sample5email@xyz.com", "sample6email@xyz.com"],
            "attributes":{
                (Optional)
                "NAME": ["SION1", "SION2"],
                "REGID": ["RSION1", "RSION2"]
            }
        }
    }
    "files": {  
        (Optional)
        "mdata.pdf": "%3Cp%3EDear%20%EInFO%20Systems%3C%2Fp%3E",
        "pub.jpg": "%3Cp%3EDear%20%EInFO%20Systems%3C%2Fp%3E",
        "dump.txt": "%3Cp%3EDear%20%EInFO%20Systems%3C%2Fp%3E"
    }
}
```
**REST**

&fromname=rawurlencode("Info Stats")
&from=weeklystats@nsfleximail.com
&replytoid=customer@nsfleximail.com
&tags="Account Deactivation, Verification"
&content=rawurlencode(" Email content here")
&recipients=sach2@gmail.com,sach3@gmail.com

&X-APIHEADER="ACC123,SE2532"

&recipients_cc=a@gmail.com|b@yahoo.com,c@gmail.com|b@yhaoo.com

Optional

&footer=1&template=109 (Optional if content provided)
&bcc=sac@ymail.com
&attachmentid=12,14
&clicktrack=1
&ATT_NAME=rawurlencode(SAC1,SAC2)
&ATT_CONTACT=rawurlencode(CON1,CON2)
&ATT_ACCOUNTNO=rawurlencode(ACC1,ACC2)
&ATT_REGID=rawurlencode(REG1,REG2)
&ATT_ADDRESS=rawurlencode(ADD1,ADD2)

### 3.2 Module Template

This module enables you to create and manage your email templates. The activities associated with this module are: Add, Edit, and Preview templates.

#### 3.2.1 Add Template

This API enables you to add email templates.

a. **API key** [Required]: API credentials provided by Falconide to be used while sending an email.

j. **Template name** [Required]: Template name required while creating a template.

b. **Content** [Required]: Content to be used while sending an email. Content needs to be raw URL encoded.
Sample JSON Input:

https://api.falconide.com/api/falcon.domains?data=
{
"apikey": "<api_key>",
"type": "templateadd",
"templatename": "<sample_template_name>",
"content": "<template_content>"
}

Output:

Success

{
"status": "success",
"templateid": "1922",
"message": "Data added successfully in Falconide."
}

Failure

{
"status": "error",
"message": "error adding template" // If Template name already exists
}

3.2.2 Edit Template

This API enables you to edit the templates. The input parameters are:

a. **API key** [Required]: API credentials provided by Falconide to be used while sending an email.

b. **template name** [Required]: Template name required while creating a template.

c. **content** [Required]: Content to be used while sending an email. Content needs to be raw URL encoded.

d. **template id** [Required]: Specify the template ID to be used while editing the template content. Only one template id can be specified.
**3.2.3 Preview Template**

This API enables you to preview the templates. The input parameters are:

a. **API key** [Required]: API credentials provided by Falconide to be used while sending an email.

b. **Template id** [Required]: ID of the template which needs to be previewed/downloaded.

Sample JSON Input:

```json
https://api.falconide.com/api/falcon.domains?data=
{
  "apikey": "<api_key>",
  "type": "templateadd",
  "templatename": "<sample_template_name>",
  "content": "<template_content>",
  "templateid": "<template_id>"
}
```

Output:

**Success**

```json
{
  "status": "success",
  "message": "Data updated successfully in Falconide."
}
```

**Failure**

```json
{
  "status": "error",
  "message": "error adding template //If Template id or Template name is missing"
}
```
Sample JSON Input:

```json
https://api.falconide.com/api/falcon.domains?data=
{
    apikey:<api_key>,
    type:<templatedownload>,
    templateid:<template_id>
}
```

Output:

Success:

```json
{
    "status": "error",
    "message": "No template found for you"  // Invalid Template id
}
```

Failure:

```json
{
    "status": "error",
    "message": "Missing template id"   // Missing Template id}
```

3.3 Module Domain
This API module enables you to add domains which can be used for sending emails. The input parameters are:

a. **api_key** [Required]: API credentials provided by Falconide to be used while sending an email.

b. **domain name** [Required]: Domain name to be mentioned which needs to be created.
**Sample JSON Input:**

```json
https://api.falconide.com/api/falcon.domains?data=
{
  "apikey":"<api_key>",
  "type" : "domadd",
  "domainname" : "<sample_domain>"
}
```

**Output:**

**Success**

```json
{
  "status": "success",
  "message": "Data updated successfully in Falconide."
}
```

**Failure**

```json
{
  "status": "error",
  // domain already exists
  "message": "Domain is already in use"
}
```

### 3.4 Module Job

These APIs enable you to perform activities associated with Jobs.

#### 3.4.1 View Status

You can view the status of a particular job ID. The input parameter is:

**JobID** [Required]: Job Id for which status is to be checked.
Sample Input XML

```xml
<DATASET>
  <CONSTANT>
    <ApiKey>Value</ApiKey>
  </CONSTANT>
  <INPUT>
    <JOBID>Value</JOBID>
  </INPUT>
</DATASET>
```

Output XML

```xml
<DATASET>
  <TYPE>success</TYPE>
  <OUTPUT>
    <JOBID>Value</JOBID>
    <Status>Value</Status>
    <Entered>Value</Entered>
  </OUTPUT>
</DATASET>
```

Sample Input JSON

```json
{
  "CONSTANT": {
    "ApiKey": "a69f7b0524e9fd527c90928b6ba63037"
  },
  "INPUT": {
    "JOBID": "1"
  }
}
```
Output:

**JOBID**: Job id requested.
**Status**: Status of the job.
**Entered**: Date when the job was added.

### 3.4.2 Update

This API enables you to update an existing job. The input parameters are:

**JOBID** [Required]: ID of the job whose details need to be updated.

**NotifyEmail**: Specify the email address to which you want to receive the notification of the job status. You can provide multiple email addresses, separated by commas.

**CallbackUrl**: Specify the URL to which output is to be posted.

#### Sample Input XML

```xml
<DATASET>
  <CONSTANT>
    <ApiKey>Value</ApiKey>
  </CONSTANT>
  <INPUT>
    <JOBID>Value</JOBID>
    <NotifyEmail>Value</NotifyEmail>
    <CallbackUrl>Value</CallbackUrl>
  </INPUT>
</DATASET>
```

#### Output XML

```json
{
  "CONSTANT": {
    "ApiKey":"a69f7b0524e9fd527c90928b6ba63037"
  },
  "INPUT": {
    "JOBID":"1",
    "NotifyEmail":"lubanasachin@gmail.com",
    "CallbackUrl":"http://xyz.com/test.php"
  }
}
```

**Response Description (Output):**

**JOBID**: Job ID to be updated.
**Output XML**

```xml
<DATASET>
  <TYPE>success</TYPE>
  <OUTPUT>
    <JOBID>Value updated.</JOBID>
  </OUTPUT>
</DATASET>
```

### 4.3 Delete

This API enables you to delete the jobs. The input parameter is:

**JOBID [Required]**: Job Id(s) which are to be removed / deleted. You can provide multiple job ids, separated by commas.

**Input XML**

```xml
<DATASET>
  <CONSTANT>
    <ApiKey>Value</ApiKey>
  </CONSTANT>
  <INPUT>
    <JOBID>Value</JOBID>
  </INPUT>
</DATASET>
```

**Output XML**

```xml
<DATASET>
  <TYPE>success</TYPE>
  <OUTPUT>
    <RECORD>
      <JOBID>48</JOBID>
      <Status>Deleted</Status>
    </RECORD>
  </OUTPUT>
</DATASET>
```
3.5 Module Report
This API enables you to download the report of each email transaction happening through Falconide. The input parameters are:

a. **StartDate** [Optional]: Used for searching reports within a date range.
   
   b. **EndDate** [Optional]: Used for searching reports within a date range. If no date criteria is defined last one year data is retrieved.
   
   c. **Processed**: Number of mails in processed state. The value of this parameter can be 0 or 1.
   
   d. **Sent**: Number of mails in sent state. The value of this parameter can be 0 or 1.
   
   e. **Open**: Number of mails in opened state. The value of this parameter can be 0 or 1.
   
   f. **Click**: Number of mails in clicked state. The value of this parameter can be 0 or 1.
   
   g. **Unsubscribe**: Number of mails in unsubscribe state. The value of this parameter can be 0 or 1.
   
   h. **Bounce**: Number of mails in bounce state. The value of this parameter can be 0 or 1.
   
   i. **SoftBounce**: Number of mails in soft bounce state. The value of this parameter can be 0 or 1.
   
   j. **HardBounce**: Number of mails in hard bounce state. The value of this parameter can be 0 or 1.
   
   k. **Spam**: Number of mails in spam state. The value of this parameter can be 0 or 1.
   
   l. **Invalid**: Number of mails in invalid state. The value of this parameter can be 0 or 1.
   
   m. **Dropped**: Number of mails in dropped state. The value of this parameter can be 0 or 1.
**Note**: If the parameters from (c) to (m) are optional. If not defined, then the API call searches for all the emails sent in the specified timespan.

n. **NotifyEmail**: Specify the email address to which the report download link has to be sent.

o. **CallbackUrl**: Specify the call back URL to which the downloaded report file is to be posted. The callback URL can be either http(s) or ftp.

---

**Sample Input XML**

```xml
<DATASET>
<CONSTANT>
<ApiKey>Value</ApiKey>
</CONSTANT>

<CRITERIA>
<StartDate>Value</StartDate>
<EndDate>Value</EndDate>
</CRITERIA>

<INPUT>
<Processed>1/0</Processed>
<Sent>1/0</Sent>
<Open>1/0</Open>
<Click>1/0</Click>
<Unsubscribe>1/0</Unsubscribe>
<Bounce>1/0</Bounce>
<SoftBounce>1/0</SoftBounce>
<HardBounce>1/0</HardBounce>
<Spam>1/0</Spam>
<Invalid>1/0</Invalid>
<Dropped>1/0</Dropped>
<NotifyEmail>Value</NotifyEmail>
<CallbackUrl>Value</CallbackUrl>
</INPUT>
</DATASET>
```

**Response Description (Output):**

**Jobid**: This tag provides the job id using which the status and other information on the job can be fetched.

**Output XML**

```xml
<DATASET>
<TYPE>success</TYPE>
<RECORD>
<Jobid>Value</Jobid>
</RECORD>
</DATASET>
```
Sample Input JSON:

```
"CRITERIA":
 {
   "StartDate":Value,
   "EndDate": Value
 },
"INPUT":
 {
   "Processed":"1/0",
   "Sent":"1/0",
   "Open":"1/0",
   "Click":"1/0",
   "Unsubscribe":"1/0",
   "Bounce":"1/0",
   "SoftBounce":"1/0",
   "HardBounce":"1/0",
   "Spam":"1/0",
   "Invalid":"1/0",
   "Dropped":"1/0",
   "NotifyEmail":Value,
   "CallbackUrl":Value
 }
```

Output JSON

```
{"DATASET":
 {
   "TYPE":"success",
   "RECORD":
   {
      "JobId":Value
   }
 }
}
```

Format of the downloaded Report

Report download is available in zip format and the job id for the report request is the report file name. The zip file comprises a CSV file with the requested data.

For example, if the job id for the report request is 4109, the zip file of the report is named as 4109.zip.
Below is the sample report format:

<table>
<thead>
<tr>
<th>Tr-ID</th>
<th>X-APIHEADER</th>
<th>To Email Address</th>
<th>From Email Address</th>
<th>Requested On</th>
<th>Modified Date</th>
<th>Mail Size (KB)</th>
<th>Status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>{&quot;3001&quot;}</td>
<td><a href="mailto:sa1@gmail.com">sa1@gmail.com</a></td>
<td><a href="mailto:info@ymail.com">info@ymail.com</a></td>
<td>2013-12-01 11:11:21</td>
<td>2013-12-01 11:11:22</td>
<td>4Kb</td>
<td>Sent</td>
<td>202.162.242.176 -&gt; 250 2.0.0 OK</td>
<td></td>
</tr>
<tr>
<td>{&quot;2001&quot;}</td>
<td><a href="mailto:sa2@gmail.com">sa2@gmail.com</a></td>
<td><a href="mailto:info@ymail.com">info@ymail.com</a></td>
<td>2013-12-01 11:01:10</td>
<td>2013-12-02 11:11:21</td>
<td>2Kb</td>
<td>Click</td>
<td>202.162.242.176 -&gt; 250 2.0.0 OK</td>
<td></td>
</tr>
<tr>
<td>{&quot;5001&quot;}</td>
<td><a href="mailto:sa3@gmail.com">sa3@gmail.com</a></td>
<td><a href="mailto:info@ymail.com">info@ymail.com</a></td>
<td>2013-12-01 11:00:11</td>
<td>2013-12-01 11:00:11</td>
<td>8Kb</td>
<td>Sent</td>
<td>202.162.242.176 -&gt; 250 2.0.0 OK</td>
<td></td>
</tr>
</tbody>
</table>

4. Error Codes
Here is the error code list:

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>IP address marked as blacklisted</td>
<td>If IP address is marked as blacklisted by FALCONIDE Team</td>
</tr>
<tr>
<td>104</td>
<td>API key not passed</td>
<td>API Key not available</td>
</tr>
<tr>
<td>105</td>
<td>Invalid API Key</td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>API call limit exceeded</td>
<td>Number of API calls exceeds allowed limit</td>
</tr>
<tr>
<td>107</td>
<td>Your IP address is not allowed</td>
<td></td>
</tr>
<tr>
<td>1102</td>
<td>Invalid API call</td>
<td>Generic error</td>
</tr>
<tr>
<td>1103</td>
<td>Invalid call Type specified (JSON/XML).</td>
<td>If call type is not defined as xml or json</td>
</tr>
<tr>
<td>1104</td>
<td>Invalid date format specified. Required format is &quot;Y-m-d&quot;</td>
<td>If start date and end date specified is not in required format</td>
</tr>
<tr>
<td>1105</td>
<td>Invalid date range specified</td>
<td>If start date is less than end date</td>
</tr>
<tr>
<td>1106</td>
<td>Response parameters not specified</td>
<td>If neither call back URL nor email-address is specified</td>
</tr>
<tr>
<td>1107</td>
<td>Invalid email address specified for handling response</td>
<td>If email address specified for response handling is invalid</td>
</tr>
<tr>
<td>1109</td>
<td>Error creating job. Please try again after some time</td>
<td>Generic error</td>
</tr>
<tr>
<td>Code</td>
<td>Error Description</td>
<td>Error Message</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>1111</td>
<td>Call back URL specified is not reachable</td>
<td>If call back URL is not reachable</td>
</tr>
<tr>
<td>1112</td>
<td>Invalid Job ID passed</td>
<td>If job ID to be queried is invalid</td>
</tr>
<tr>
<td>1113</td>
<td>Cannot delete job since not in queued state</td>
<td>If job id to be deleted is not in queued state</td>
</tr>
</tbody>
</table>

5. Support

If you have a question, call +91-(22)-66628081.

You may also submit a request online using your Falconide Account or else drop a mail to support@falconide.com.