

# $S_{\mathrm{wift}}\,E_{\mathrm{mail}}\,V_{\mathrm{erifier}\,\mathrm{API}\,\mathrm{Client}\,-\,\mathrm{MANUAL}}$

### Why use SEV API Client

SEV API Client is a simple java tool which is highly optimized to validate and scrub emails at speeds up to 1000 simultaneous connections. You do not need port 25 (SMTP port) to be open in your network in order to use the JAVA verifier. All you need is a good and stable internet connection. Please be advised that this JAVA email validation API client is suitable and optimized for validating moderate mailing list files containing less than 1 million email addresses in a single batch. If your mailing list is more than 1 million, it is advisable to break the list into several parts and verify them in multiple batches.

With SEV API Client you can easily import mailing lists containing email addresses and other custom fields or information such as names, addresses, phone numbers, zip codes etc for verification from CSV files which means the email verifier will ensure that you don't lose any contact information, such as first name, last name, company, phone, address, etc. It also provides you options to download emails according to various categories like valid, invalid, unknown and full results including any custom information contained in the original mailing list.

SEV API Client is totally fault tolerant and can take care of network failures and helps you save the results in between. After running the validation jobs, the results can be downloaded without internet connection.

## **Pre-requisites for SEV API Client**

Java Runtime Environment must be installed on your computer.

If you are not sure about the availability of Java on your system, please visit the <u>link</u>." http://www.java.com/en/download/installed.jsp"

Click on the button which says "Verify Java version" as shown below:

Verify Java version

You might get a warning which says Java™ needs your permission to run as below:

Java(TM) needs your permission to run. Run this time Always run on this site

Select Run this time.

If a message is shown as below, it means you have java installed on the system.

### Verified Java Version



Congratulations!

You have the recommended Java installed (Version 7 Update 21).

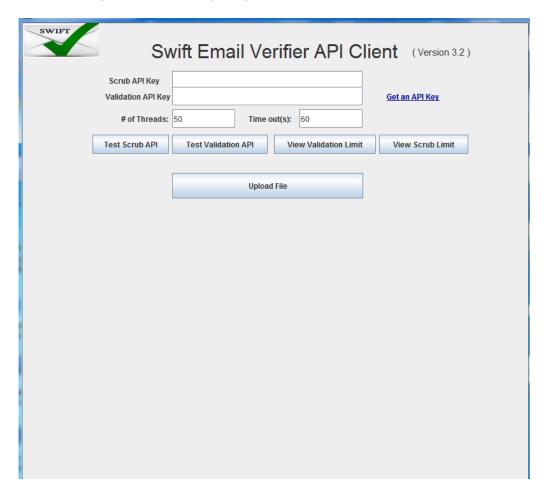
## **Operating System Requirements**

Swift Email Verifier API Client is based on JAVA therefore it works on all operating systems platforms such as Windows, MAC and Linux. The application does not require any complex installation. Simply download and run and you are ready to start validating your emails.



## **Starting SEV API Client**

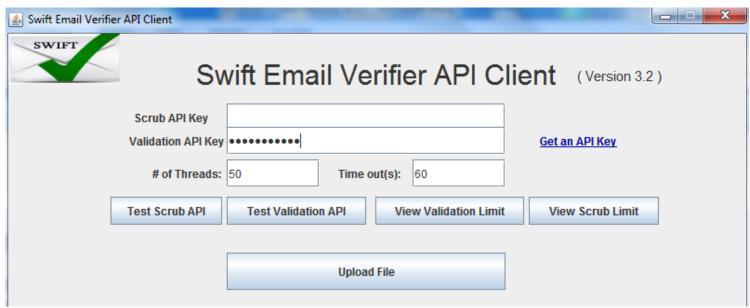
Double click the jar file and it will open up the below main screen:



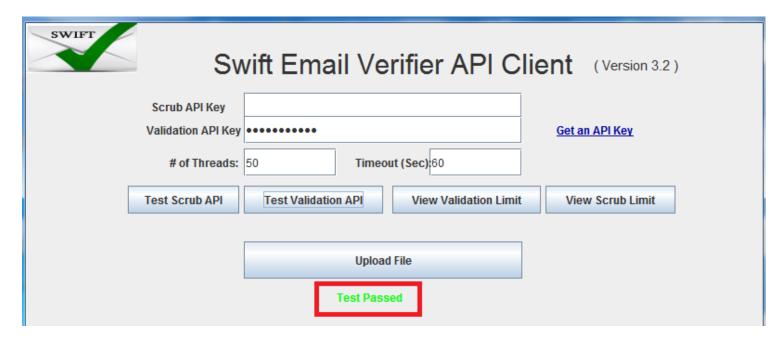
## **Using SEV API Client**

#### **Testing for API connectivity:**

Type the email validation or email scrubbing API key in the appropriate text box and click the Test API button.



The screen will show a success or a failure message depending upon the result of the test.

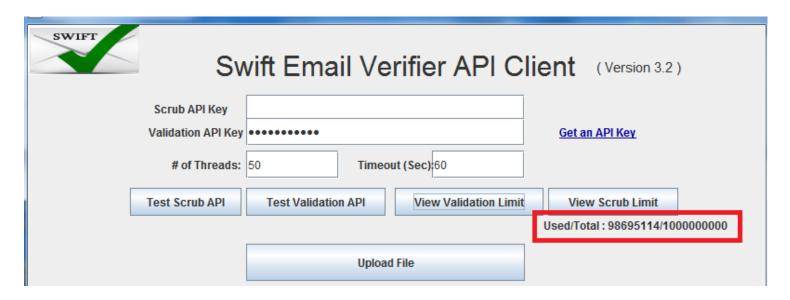


It is always recommended to test before starting a validation.

## **Checking Remaining Credits:**

Type the Validation or Scrubbing API key in the appropriate text box and click the View Limit button.

It might take a while to appear and you will see the available limits adjacent to the button in the format "Used/Total: XXXX/YYYY" for the email validation API or "UsageLeft:XXXX" for the scrubbing API as shown in the screenshots below:



SWIFT	vift Email Ve	rifier API C	lient (Version 3.2	)
Scrub API Key Validation API Key	•••••	•••••	<u>Get an API Key</u>	
# of Threads:	50 Timeo	ut (Sec):60		
Test Scrub API	Test Validation API	View Validation Limit	View Scrub Limit	
			Usage Left: 92039	•
	Upload	1 File		

Please always view limits before initiating the Validation to avoid unnecessary waste of time. Please note also that each remaining quota check will deduct 1 credit from your remaining quota when checking the scrubbing API quota.

## What is Checked by Email Validation API:

- **✓ Email syntax:** This checks the email addresses syntax and ensures that they conforms to IETF standards
- ✓ Mail Server Existence Check: This checks the availability of the email address domain using DNS MX records.
- √ Mail Existence Check: This checks if the email address really exists and can receive email
- ✓ Catch-All Domain Email Check: This checks if the email domain will receive all of the email messages addressed to that domain, even if their addresses do not exist in the mail server.
- ✓ **Disposable Email Address Check:** This checks if the email is provided by a known Disposable Email Address (DEA) provider such as Mailinator, 10MinuteMail, GuerrillaMail and about 2000 more.

### WHAT IS REQUIRED TO USE THE PROGRAM:

To validate or scrub your email addresses using the application, you will need the following:

- 1. Your Email validation API Key or email scrubbing API key (APIKey)
- 2. The mailing list in the proper and supported format.

#### API KEY AUTHENTICATION and RESTRICTIONS:

Clients must authenticate to the API by providing their API key. Care must be taken to secure the key from unauthorized access. It is your responsibility to keep your API key secure at all times and ensure that unauthorized users do not have access to it.

The API keys can be top-up at any time and will remain valid until all credits have been used up. The API key can also be used by multiple persons from unlimited devices or computers at the same time without any restrictions.



### **Validating Emails:**

This is a multi-step process as described in the following steps below.

#### Step 1: Upload Mailing List File

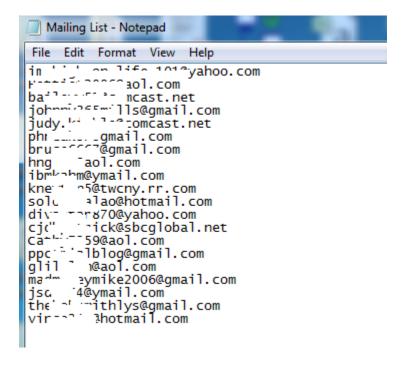
#### **Supported Mailing List Formats:**

You can upload csv or txt format files to add mailing list to the program. Swift Email Verifier API client only supports 2 types of mailing list file formats as follows:

- TEXT (.txt)
- CSV (.csv)

The mailing list can be uploaded in either .txt or .csv formats. Custom fields or information such as names, zip codes, addresses or phone numbers are supported and may be present in the mailing lists. If the mailing lists contain extra information, the validation results will also retain the extra information.

Samples screenshots for the mailing lists in both TXT and CSV formats are shown below:



Mailing List in .txt format



	А	В
1	i _' ` ^n_life_101@yahoo.com	
2	Ho. <sup></sup> 6@aol.com	
3	bar' , `@comcast.net	
4	joh^cr_mills@gmail.com	
5	j···', '···`:≥@comcast.net	
6	μ' '.3r@gmail.com	
7	brucefff7@gmail.com	
8	hns@aol.com	
9	ib~m@ymail.com	
10	kr ' '@twcny.rr.com	
11	sol lao@hotmail.com	
12	div''0@yahoo.com	
13	cjdk, ' @sbcglobal.net	
14	Cath, ¯	
15	ppc+	
16	gli' ı@aol.com	
17	ma ' , п ≥2006@gmail.com	
18	js_i ^1@ymail.com	
19	the' hlys@gmail.com	
20	vir '34a@hotmail.com	
21		

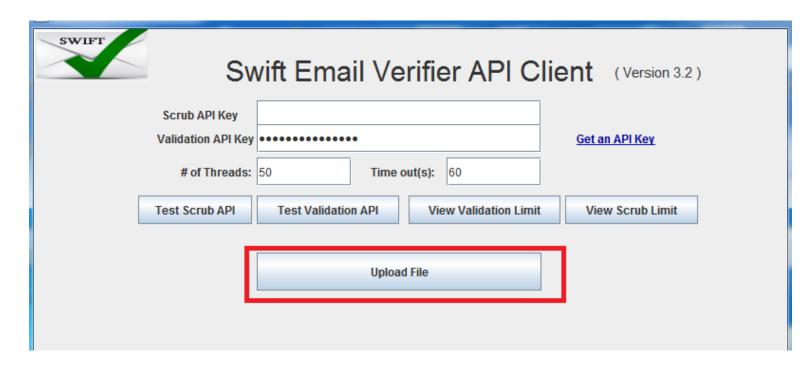
Mailing list in .csv format



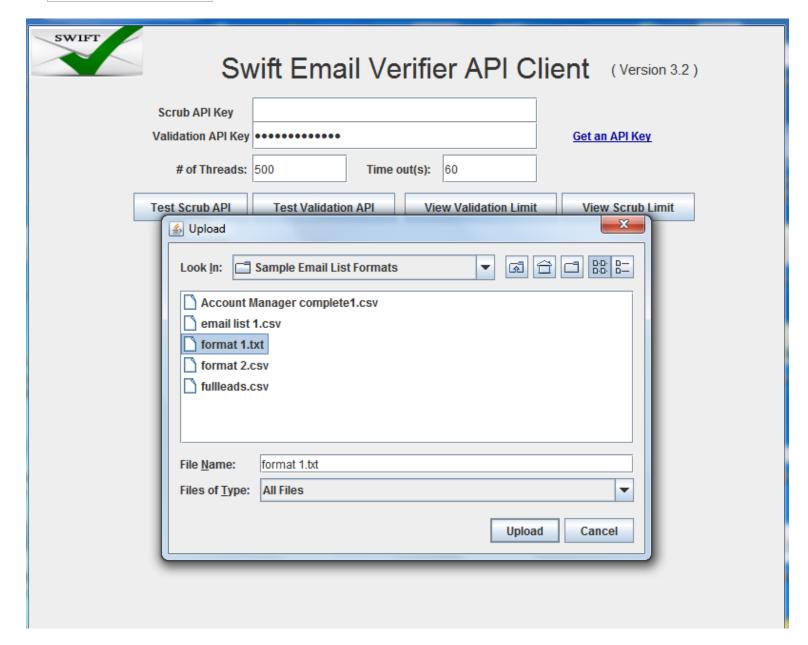
Tallumoercunes	@yahoo.com	2125 Gwene Ln	PORT ALSWORTH	AK	99653 1
ti i soci i	occ:- ' s@labor.state.ak	1111 W 8th St	Juneau	AK	99801-180
Ke - De Jist	II k12.ak.us	148 N Binkley St	Soldotna	AK	99669-752 \
J E	`:@nycmail.com	12110 Business Blvd - Eagle	EAGLE RIVER	AK	99577 9
V	' @graphics.com.com	2209AinakaheleSt.	ANCHORAGE	AK	99503 /
L Div	v··· ' _ ' -@state.ak.us	330 Willoughby Ave	Juneau	AK	99801-172 \
P	' @audax.net	7645 King St # A	Anchorage	AK	99518-305 \
Shipman and the same of the sa	ొ @sadiecove.com	2001 Seward Hwy	Seward	AK	99664 0000
	d' /@hotmail.com	PO Box 101504	ANCHORAGE	AK	99509
U ting	@hughesair.com	PO Box 770437	EAGLE RIVER	AK	99577
I	; _ @akrdc.org	null	ANCHORAGE	AK	99501
Ist and Some 5	@Island-Services	PO Box 214	Unalaska	AK	99685-021 [
Y or	,, '	4700 Business Park Blvd # E	Anchorage	AK	99503-712
		2301 Peger Rd	Fairbanks	AK	99709-539 \
Isomura.	ifat _ incl:@nnorthwind-inc.cc	235 E 8th Ave # 210	Anchorage	AK	99501-365 \
I	@alaskapacificbank.con	2094 Jordan Ave;	Juneau	AK	99801 1
L	@kidsarepeople.org	851 Westpoint Dr # 104	Wasilla	AK	99654-718
Lucu Lelitary	e ' '@northstar.k12.ak.u	601 F St	Fairbanks	AK	99701-380 \
V	@awt.alaska.net	401 East Northern Lights Blv	ANCHORAGE	AK	99503 1
····· - ···· ··· ··· ··· ··· ··· ra			Anchorage	AK	99503-743 \
§ imer		2001 Seward Hwy	Seward	AK	99664 0000
Matariuska Erectino	@matanuska.com		Palmer	AK	99645-670
c - ·			ANCHORAGE	AK	99503 [

#### Mailing list in .csv format with extra information

To begin uploading the mailing list file into the program, click on the Upload File button and choose the file to be uploaded.







Depending on the size of the file you may see a progress monitor which displays the file upload activity followed by a *File Upload Successful* message and the number of emails that was successfully uploaded.



Swift Email Verifier API Client (Version 3.2)				
Scrub API Key				
Validation API Key	,	Get an API Key		
# of Threads:	500 Time out(s): 60			
Test Scrub API	Test Validation API View Validation Limit	View Scrub Limit		
	Upload File			
	File Upload Successful: 32041 emails uploade	d		
	Validate Emails Scrub Emails			

If the file is small, the application will directly show a *File Upload Successful* message.

A Validate Emails and Scrub and Emails buttons appears after the file is successfully uploaded.

#### Step2: Press the "Validate Emails" or "Scrub Emails" button to begin

If you have an email validation API key and you wish to validate your emails click on the "Validate Emails" button to start the validation process. If you have the email scrubbing API key and you are interested in using the email scrubbing function of the application, click on the "Scrub Emails" button .



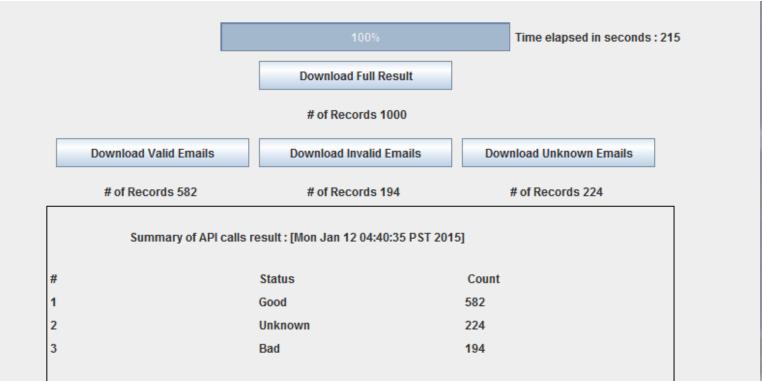
Swift Email Verifier API CI	ient (Version 3.2)
Scrub API Key	
Validation API Key	Get an API Key
# of Threads: 500 Time out(s): 60	
Test Scrub API Test Validation API View Validation Limit	View Scrub Limit
Upload File	
File Upload Successful: 32041 emails uploaded	
Validate Emails Scrub Emails	

A progress bar will appear in a while and it will display the progress of the validation process.

After the progress is 100% complete, download buttons will appear to enable downloading of the results. The application is network failure tolerant and will automatically attempt to re-connect to start the validation process in case where your internet connection is lost. The program will retry to automatically re-connect up to 10 times before giving an "InternalError" status for the emails being verified during the network failure.

At the completion of the validation, 3 different result groups will be provided and the emails for each group can be downloaded as illustrated in the screenshot below.





In addition, the "Full Result" can be downloaded which will contain all the results of the emails in a single file. A sample of the full result file in excel format is shown below:



4	А	В	С	D	Е
1		Valid			
2	dyincess29646@yahoo.com	Valid			
3	w'' ylr@yahoo.com	Valid			
4	mili@aol.com	Valid			
5	n "s@hotmail.com	Valid			
6	*, *4@aol.com	Valid			
7	ı ··· · · _ 1@hotmail.com	Valid			
8	C ⁻″ 7@hotmail.com	Invalid	${\sf MailboxDoesNotEx}$		
9	rt@mycravings.net ب	Invalid	${\sf MailboxDoesNotEx}$		
10	ເ,່ ງo@hotmail.com	Valid			
11	^*a@hotmail.com	Valid			
12	N''''' NY@yahoo.com	Valid			
13	' j ' ' , ' ')@gmail.com	Invalid	${\sf MailboxDoesNotEx}$		
14	ı 😁 l@hotmail.com	Valid			
15	l '@yahoo.com	Valid			
16	ו "בר" @yahoo.com	Valid			
17	c', i@gmail.com	Valid			
18	; ' · · ' y@cosmo.com	Valid			
19	; ''j@vozjln.com	Invalid	DomainDoesNotEx		
20	s ı@yahoo.com	Valid			
21	r 'jahar . !@yahoo.com	Valid			
22	t ~@mhdorf.com	Invalid	DomainDoesNotEx		
23	s' . 3@ymail.com	Valid			
24	k' 'j h@gmail.com	Invalid	MailboxDoesNotEx		
25	t: nk@vahoo.com	Valid			

## **Scrubbing Emails:**

In addition to the email validation capability of the JAVA verifier, the program also allows for scrubbing email addresses. The Email Scrubbing API is a real time email cleaning system that allows you to scrub email addresses against our millions of undesirable and bad email database such as bogus/stale email addresses, role accounts, disposable email addresses (DEA), publicly harvested/extracted email addresses and blacklisted emails/email domains.

By using our scrubbing API, you can detect and scrub out any known bad/bogus emails, stale emails, disposable emails, blacklisted emails and publicly extracted/harvested emails from your mailing lists which can damage your email marketing reputation or gets you blacklisted. By cleaning your email lists through our scrubbing service, you can avoid high email bounces which are key criteria in deliverability and sender reputation scoring.

The email scrubbing service is particularly useful to email marketers that have an old email lists or have recerementally and the service of the lists of the lists.



before using them for email marketing campaigns. Purchased or rented lists could contain bad or stale

publicly harvested/extracted emails (potential honeypots/spamtraps). The outcome of using such lists without proper scrubbing could be a high number of bounces and abuse complaints.

#### Important Information!: What this email scrubbing service is not for

This email scrubbing service is not intended to help spammers detect Spamtraps or Honeypots setup by Anti-SPAM organizations. Note that we do not assist in the detection of spam traps setup by ISPs and Anti-SPAM agencies.

In compliance with anti-spam laws and to avoid aiding and abetting spammers, we do not allow the use of our service to verify extracted or harvested email lists or for harvesting email addresses for SPAMMING purposes. The validations of rented or purchased mailing lists from reputable sources are permitted.

#### What is Checked by the Email Scrubbing API:

- ✓ Bad/Bogus Email: Bad or bogus email addresses can be detected.
- ✓ Publicly Harvested/Extracted Email Check: All known publicly harvested addresses can be detected.
- ✓ **Disposable Email Address Check:** This checks if the email is provided by a known Disposable Email Address (DEA) provider such as Mailinator, 10MinuteMail, GuerrillaMail and about 2000 more.
- ✓ Role Accounts such as admin@domain.com, webmaster@domain.com, support@domain.com etc.
- ✓ Known Blacklisted/Bogus emails and Email Domains Check: All records matching our millions of known spammers emails, malicious or bogus emails and emails belonging to known spam domains emails database can be used to scrub your mailing lists and any matches are removed using our scrubbing API.. Please note that we do not assist in the detection of spam traps setup by ISPs and anti-SPAM agencies.

**Note:** Our scrubbing API helps to protect your list from damaging (could be deliverable) email addresses such as fake/bogus emails, emails, blacklisted emails and publicly extracted/harvested emails etc. However, it does not check if the email address actually exists in the mail server. If you need an email validation API that checks for actual mailbox existence, please visit our <a href="website">website</a> to learn more. For a thorough email cleaning solution, we recommend the use of both APIs.

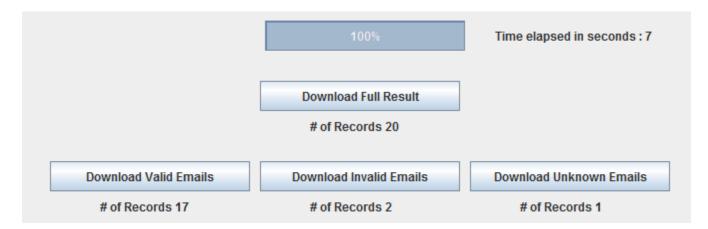
## **How the Scrubbing API Works:**



500 million) of email database of Role accounts, Disposable Email Address (DEA), Bogus/fake Emails and blacklisted, and bots emails. If the email address or email domain is found in the database, the email is marked "bad". If no match is found, it is marked "Good".

Please note that the email scrubbing API do not check if the emails actually exists on the mail server. If you need an email validation API that checks whether an email address actually exists on the mail server, please use our email validation API.

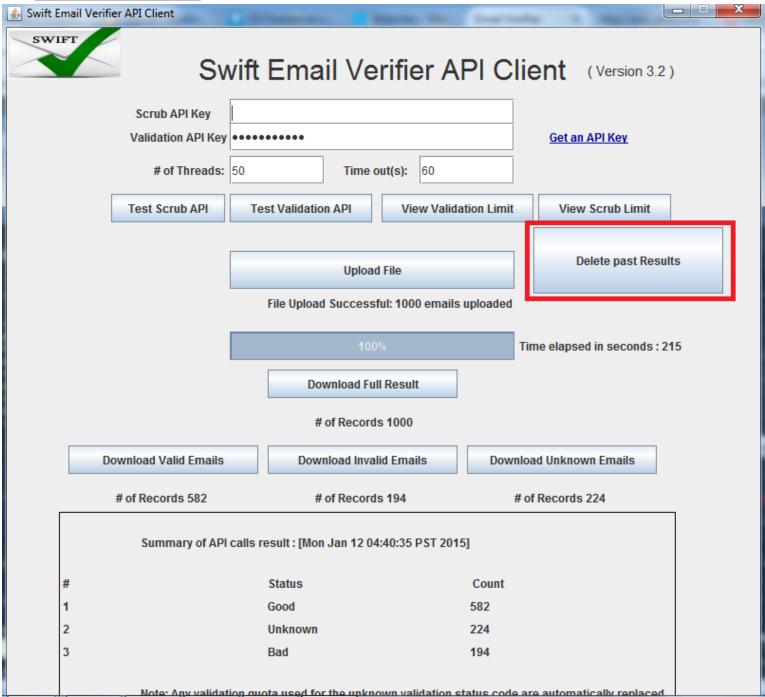
Click on the respective buttons to save the required group of emails. Once the validation is complete the download button appears on the program main interface. The results can be downloaded without an internet connection as well.



## Flushing Results from Memory

Each time you upload a list to the program, the files are saved in the program memory. The files are only deleted when you close the program. So each time you upload a file and you have downloaded the results, you need to click on the "Delete Past Results" button in case you wish to begin another validation immediately while the program is still open. This is required in order to flush all the emails it has saved in its memory.





#### **Unknown Results**

The Unknown results are those emails which could not be verified due to one reason or the other. These unknown results in most cases results from Greylisting which is technology that reduces spam by rejecting initial email delivery attempts. The Greylisting works by returning a "Temporarily Unavailable" message to the sending mail server the first (and only the first) time a message is received from a given sender. Hence, it makes sense to retry these validations again after some time has elapsed.



Also unknown results can also result from the inability to verify the emails by simulating a message sending to the recipient email server because the recipient email server requires that a REAL message is sent. Thus, it is impossible to verify whether the address is good or not. You won't know definitively until the message bounce because these mail servers won't cooperate or cannot be checked without sending a real message to them.

However, please be aware that some emails which return unknown results could be valid. Examples of such emails which are determined unknown by our API and which may be valid are:

- Disposable Email Addresses from email address providers, like Mailinator, 10MinuteMail, GuerrillaMail, etc.
- Catch-all email addresses
- Temporarily Unavailable emails (Graylisting) and soft bounces

In order to minimize the number of unknown emails results returned by the program, the JAVA verifier uses an intelligent automatic multiple re-validation of unknown emails up to 5 times until a possible valid or invalid result is obtained. By doing

this, the number of unknowns is greatly minimized. However, since it is impossible to have zero unknown, we recommend the use of a separate bounce processing program that can be used to process the bounced emails to the remaining unknown results list. Simply download the unknown results mailing list and send your campaign to the list using a bounce-to email address. Thereafter, use the bounce handling module to connect to the bounce-to email address and process the bounced emails which will then be subtracted from the unknown mailing list. You can run the Bounce Handler to process bounced emails during 2-5 days after you send your email campaign because bounced emails may arrive within 2-5 days.

## **Automatic Replacement of API Credits Used for Unknown Results**

With the new JAVA email verifier API client, all credits used for unknown results are now automatically replaced while performing validation jobs in real-time. All used credits for unknown emails will be automatically refunded to your API key quota without any action from you. Therefore you do not need to contact us to replace the credits anymore.

## **Recommended Practices for Dealing with Unknown Results**

The following recommended practices are strongly recommended to deal with the unknown results reported by the API:

- 1. Since a majority of the unknown results are caused by temporary issues (Soft Bounces) such as SMTP server timeout or downtime, Greylisting, Mailbox size Exceeds quota, temporary mailbox suspension/deactivation, and temporary blockings due to IP reputation, it is strongly recommend to re-validate the entire unknown list again at a later time. Please allow several hours to elapse before re-validating the unknown emails again. We do not recommend deleting the unknown list immediately after running your verification job. Chances are that previous emails which previously tested as unknown could test valid after re-validating the list.
- 2. Review all the failure status codes for the unknown emails and filter out all the unknown emails. Doing this will allow you to know why each email address in the unknown list could not be verified as valid or invalid. You may use your discretion to delete only those emails belonging to a status code which are more likely to indicate invalid emails and leave the rest.



Please be advised that the following unknown status codes below strongly indicate that the emails are invalid even though the status returned is "unknown". Therefore any email that returns these status codes should be regarded as invalid.

- MailboxConnectionFailure
- MailboxValidationTimeout
- SmtpConnectionFailure
- SmtpConnectionTimeout
- 3. After pruning the unknown list as explained above, you may then proceed to download the unknown list. This pruned unknown list can be later used for your email campaigns. We strongly recommend the use of a separate automated bounce handler application to process any emails that may bounce and have these removed from the list.

#### **Email Validation Statuses and Status Codes**

Our email validation API is a web service API and uses status codes to indicate API success or errors.

The email validation API defines the validity of an email address as follows using only 3 statuses:

Status	Description/Meaning
Valid	Mailbox exists and not handled by Catch-all
	domains or known to be a DEA
Invalid	Mailbox does not exists
Unknown	Mailbox could not be verified or is determined to
	be handled by a Catch-all domain, DEA, Greylisted,,
	SMTP/Mailbox timeouts, Temporary mailbox
	unavailability. Specific reason for failure is
	provided in the status codes.

Each of these Statuses is linked to the following status Codes:

Status Codes	Meaning
Success	The email was successfully verified as Valid
InvalidCharacterInSequence	This failure means that an invalid character
	has been detected in the provided email
	address, like in the following example:
	me@ex@mple.com



InvalidWordBoundaryStart	This failure means that a new word boundary start has been detected at an invalid position, like in the following example:  hi.\\there@example.com
UnmatchedQuotedPair	This failure means that a quoted pair within a quoted word in the provided email address is not closed properly.
UnexpectedQuotedPairSequence	This failure means that an unexpected quoted pair sequence has been found within a quoted word in the provided email address, like in the following example:  "find it in \§ 3"@example.com
UnbalancedCommentParenthesis	This failure means that the number of parenthesis used to open comments in the provided email address is not equal to the one used to close them.
DoubleDotSequence	This failure means that an invalid sequence of two adjacent dots has been found in the provided email addres, like in the following example:  where.isit@example.com
InvalidLocalPartLength	This failure means that the local part of the email address has an invalid length, according to the IETF standards.
InvalidFoldingWhiteSpaceSequence	This failure means that an invalid folding white space (FWS) sequence has been found.
AtSignNotFound	This failure means that the at sign symbol (@), used to separate the local part from the domain part of the address, has not been found, like in the following example:  me-at-example.com
InvalidEmptyQuotedWord	This failure means that an invalid quoted word with no content has been found, like in the



	following example:
	freddy."".krueger@example.com
InvalidAddressLength	This failure means that the provided email address has an invalid total length.
DomainPartCompliancyFailure	This failure means that the domain part of the email address is not compliant with the IETF standards, like in the following example:  michael@example."hi there".com
DnsQueryTimeout	This failure means that a timeout has occurred while querying the DNS server(s) for records about the email address domain.
DnsConnectionFailure	This failure means that the verification failed because of a socket connection error occured while querying the DNS server.
DomainIsInexistent	This failure means that the domain of the email address does not exist, like in the following example (at the time of this writing):  alice@i-do-not-exist.xyz
DisposableEmailAddress	This failure means that the email address is provided by a well-known disposable email address provider (DEA) such as mailinator.com
SmtpConnectionTimeout	This failure means that a timeout has occured while connecting to the mail exchanger which serves the domain for the provided email address.
SmtpConnectionFailure	This failure means that a socket connection error occured while connecting to the mail exchanger which serves the domain for the provided email address.
MailboxDoesNotExist	This failure means that the mailbox for the provided email address does not exist.



MailboxConnectionFailure	This failure means that a connection error occurred while validating the mailbox for the
	email address
UnhandledException	This failure means that the external mail exchanger refused the SMTP connection.
LocalSenderAddressRejected	This failure means that the external mail
	exchanger rejected the local sender address or the incoming connecting IP.
MailboxValidationTimeout	This failure means that a timeout occured
	while verifying the existence of the mailbox for the provided email address.
MailboxTemporarilyUnavailable	This failure means that the requested mailbox
	is temporarily unavailable; this is not an indicator that the mailbox actually exists or
	not but, often, a message sent by external
	mail exchangers with greylisting enabled.
ServerDoesNotSupportInternationalMailboxes	This failure means that the external mail
	exchanger does not support international mailbox names, while the provided email
	address uses a non-ASCII encoding for its local
	part.
ServerIsCatchAll	This failure means that the external mail exchanger under test accepts fake, non existent, email addresses; therefore the provided email address MAY be inexistent too. In most cases, these Catch-all domains are
	now setup by ISPs and ESPs as Catch-all Spam Trap domains specifically targeted to catch spammers using Dictionary Spam Attacks.
CatchAllValidationTimeout	This failure means that a timeout occurred while verifying fake email address rejection for the mail server. Note that emails which returns this status are marked Valid because it
	already passed the mailbox existence test.



CatchAllConnectionFailure	This failure means that a connection error occurred while verifying the external mail exchanger rejects inexistent email addresses  Note that emails which returns this status are
	marked Valid because it already passed the mailbox existence test.
InvalidToken	An invalid API key was used. Please check the API key and make sure it is correct
NoMoreQueries	The allocated # of queries or requests for the API key has been exhausted.
InternalError	There was an unexpected error on our server.

## **Email Scrubbing Statuses and Status Codes**

Swift Email Verifier defines the reputation of an email address as follows using only 2 statuses:

Status	Meaning
Good	The reputation of the email is clean and no match
	was found in our database. This means that the email
	is not a DEA, Role account, not blacklisted nor bogus
	and does not match any email in our blacklist
Bad	The email is undesirable. The specific reason is listed
	in the status code.

Each of these Statuses is linked to the following status Codes:

Status Codes	Meaning
RoleAccount	The email is a role account which is an email address not associated with a specific person, but rather with an office, position, group or task such as admin@domain.com



DisposableEmailAddress	The email is a known disposable email address such as johndoe@mailinator.com
EmailBlacklist	Email is known to be blacklisted in all known Real- Time blacklists database
EmailDomainBlacklist	Email belongs to a known blacklisted domain
Bogus	Email is a known fake/malicious email or used by bots
InternalError	This error can occur when no response was received from our API server within the set Timeout. This can happen when using too high threads and low timeouts



### **Using Your Cleaned Emails in Third Party Email Delivery Services**

Many companies and email marketers are now using third party email delivery services to handle the delivery of their transactional and marketing emails. By using a professional third party email delivery service, a higher inbox placement or delivery rate can be achieved. These third party email delivery services have relationships with various ISPs/ESPs and also provide strict acceptable "Bounce Rate" threshold for those who use their service to avoid being labeled as a server that delivers spam.

Although, the benefits of using a third party email delivery service is obvious, extreme care must be taken in order not to exceed the acceptable or permitted "Bounce Rate" for any email campaign you send through their platforms. Bounce rate is simply the percentage of emails that is returned undelivered when you send out your campaign. Although most third party email services do not explicitly specify their bounce rate limit, as a rule of thumb, anything between 10-15% may be considered high.

The Bounce Rate is expressed as a percentage and is calculated as follows:

$$Bounce\_Rate = \frac{No.\_of\_Bounces}{Total\ No.\ Emails\ Sent} x100$$

Undeliverable emails, email "bouncebacks" or "bounces" are becoming more and more of a challenge for email marketers these days. Hence, all third party email delivery services has a specific allowed or permitted bounce rate for every email campaign you send using their services. If you exceed this rate, your account may be suspended or deactivated. In most cases, these third party email delivery services are required by ISPs/ESP and Spam Advisory Groups such as Spamhaus to enforce the bounce rate thresholds and suspend any account that exceeds these thresholds in order to prevent Spam.

In order to avoid your third party email delivery service account suspension or deactivation, it is important that you review and adopt the following best practices before importing your cleaned emails into your third party email delivery service as follows:

- 1. After validating your list, save the VALID emails marked by the verifier. Do NOT add the emails marked as Unknown to the valid emails. As a rule, never upload the unknown emails to your third party email delivery service.
- 2. After saving the VALID emails, download our "Role/One-way communication" emails suppression list from this <u>link</u> and use the List Suppression feature of our verifier to delete all matching role accounts and one-way communication emails from the valid email list that you have downloaded from the verifier. Role/one-way

communications emails include such emails as service@domain.com, support@domain.com , donotreply@domain.com etc.



Note that it is very important to delete role accounts/one-way communication emails from your list before importing them into your third email delivery service because the presence of such emails in your list is normally regarded as an indication that your list may be purchased or scraped. Hence, if you upload such list containing such emails, the list will be flagged and your account may be suspended.

3. Some email addresses marked as Valid by the verifier may not be Valid in reality. This false positive is caused by a strict anti-spam technology employed by some ISPs notably Yahoo. With Yahoo in particular, deactivated/suspended/expired emails are marked as Valid by the verifier because Yahoo regards these emails as valid or "existent" even though such emails are not active and cannot receive emails. Hence when you attempt to send your campaigns to such emails, they will bounce because the emails are not active.

Thus, before using the valid emails downloaded from the verifier, it is strongly advisable to remove all Yahoo emails from the list. You can save the yahoo emails to a separate file and add them to the unknown emails and use an automated bounce processing program to process the bounces to such emails using a private bounce-to email address of your mail server

4. As we indicated above, never upload the emails marked as unknown by our email validation API to your third party email delivery service provider platform. You must process all potential bounces to the unknown emails using a private mail server with the help of a bounce handler or a dedicated bounce handling service. Using the bounce handler, you can then extract these emails and delete them from the unknown list before importing the list into your third party email delivery service.

Approximately 24-72 hrs, the bounce handler can be used to connect to the bounce-to email address which will enable it login to the email account, read all bounced emails and extract the emails and collect them in a text file. You can then download the file and subtract them from the unknown list you downloaded from the verifier. In addition, if you have alternate contact information such as postal address or phone number for the subscribers whose emails has bounced, call or mail them a postcard to let them know their email bounced

and you'd like to get an updated one. Also, it is recommended to offer your subscribers a way to update their email address and other account details somewhere on your website.



#### Frequently Asked Questions on Email Validation API

Question 1: How does your email validation API work?

**Answer:** Our email validation API is a simple and REST based API which can be used to validate emails effectively using the following order of validation processing:

- **Syntax Check:** This checks the email addresses and ensures that they conforms to IETF standards using a complete syntactical email validation engine
- Mail Server Existence Check: This checks the availability of the email address domain using DNS MX records
- Mail Existence Check: This checks if the email address really exists and can receive email via SMTP connections and sending email emulation techniques.
- Catch-All Domain Email Check: This checks if the email domain will receive all of the email messages addressed to that domain, even if their addresses do not exist in the mail server
- **Disposable Email Address Check:** This checks if the email is provided by a known Disposable Email Address (DEA) provider such as Mailinator, 10MinuteMail, GuerrillaMail and about 2000 more

#### Question 2: What do I need to start using your API in the JAVA program to validate emails?

Answer: First you must obtain the API key which allows you to authenticate to the API service. To obtain your API key, simply click go to <a href="https://www.bpsocks.com/member/signup.php">https://www.bpsocks.com/member/signup.php</a>. Once you have obtained your key, you can simply enter your key to activate the API. We offer a very flexible and affordable API pricing system. Our pricing plan is based on \$0.001 per email address validation.

#### Question 3: How is your email validations performed? Does it send out any email?

Answer: Email validations carried out through the API is done using 3 progressive levels automatically as follows:

- **Syntax**: This checks the email addresses and ensures that they conforms to IETF standards using a complete syntactical email validation engine
- Email Server Existence: This level checks the availability of the email address domain using DNS MX records
- Mailbox Existence: This is a deep level verification which attempts to check if the email address really exists and goes a
  step further to check if the email domain is a Catch-all domain (a domain that will receive all of the email messages
  addressed to that domain, even if their addresses do not exist in the mail server). The Mailbox verification establishes
  SMTP dialogs with external SMTP servers and this level usually requires longer time depending on multiple network
  factors.

The API employs DNS and SMTP protocol functionalities to perform email address validations and absolutely avoids sending any email message to external mail servers.



# Question 4: Is it possible to verify all emails with your email verifier API service? How does the system handle Unknown emails?

**Answer:** It is not possible to validate all emails due to multiple factors beyond our control. The Unknown results are those emails which could not be verified due to one reason or the other. These unknown results in most cases results from Greylisting which is technology that reduces spam by rejecting initial email delivery attempts. The Greylisting works by returning a "Temporarily Unavailable" message to the sending mail server the first (and only the first) time a message is received from a given sender. Hence, it makes sense to retry these validations again after some time has elapsed.

In addition, unknown results can also result from the inability to verify the emails by simulating a message sending to the recipient email server because the recipient email server requires that a REAL message is sent. Thus, it is impossible to verify whether the address is good or not. You won't know definitively until the message bounce because these mail servers won't cooperate or cannot be checked without sending a real message to them.

Question 5: Can I achieve low bounce rates with the email validation API?

Answer: One of the main reasons why you must validate your emails regularly is to ensure that you avoid high bounce rates when you send your campaign to your lists. When you send emails to invalid emails, the message will bounce. A bounced message is one that has been rejected by the recipient's email server. If your emails get bounce rates of over 10-15%, your email marketing service provider may likely disable your account until you can determine the cause of the bounces. This is because high bounce rates can get your email marketing service provider IPs blacklisted and will also negatively affect your sender reputation which will result to poor inbox deliverability. There are two types of bounces as follows:

 Hard bounces: These are bounces caused as a results of permanent failure during delivery (typically 5.x.x / Mailbox does not exist at the domain)

Please see: http://www.basics.net/index.php/2011/07/27/e-mail-smtp-error-codes/

• Soft Bounces: These are bounces caused by temporarily failure such as Mailbox full errors ((beginning with a 4.x.x code as seen in above link)

With our email validation API, you will be able to verify your emails and detect a good number of emails that would have bounced (hard bounces) and these will be marked "Invalid". Hence, you will be able to stay within the acceptable bounce rate limits typically permitted by email service providers. Emails with soft bounces will be marked "Unknown" and has be to revalidated. However, to identify emails with soft bounces which could turn out to become valid later, it is advisable to revalidate the unknown emails again after some days (1-3 days).

Question 6: Why are some invalid emails sometimes marked as Valid?

**Answer:** First, it is important to understand that our email validation technology uses the SMTP connection method to check whether a specific email address is valid or not by simulating email sending. However, due to certain multiple factors such as anti email harvesting technology, it is not possible to verify all emails with 100% success rate. This is because some mail servers such as public mail servers like Yahoo, AOL, etc have some measures in place which makes it impossible to



accurately determine whether the email is valid or invalid because the mail servers will not cooperate and as a result the email address will be marked as valid when validated.

For example, Yahoo will always mark disabled or discontinued emails as Valid when verified. However, when you try to send to such disabled or discontinued emails, it will return this error message:

Remote server replied: 554 delivery error. Sorry your message to <email\_address> cannot be delivered. This account has been disabled or discontinued.

For such mail servers, the only means to conclusively know if the email is valid or not is when the email bounce. Hence, it is recommended to use a suitable bounce handler to process the bounces for such non cooperating mail servers in order to obtain the invalid emails.

#### Question 7: How secure are my email addresses validated through your API servers?

**Answer:** We take your mailing lists confidentiality seriously. If using our API for email address validation via the verifier program, your email addresses are never stored on our servers. All checks are done in real-time. In addition, all API calls or requests are transmitted via Secure Socket Layer (SSL) technology to prevent any potential credential sniffing

#### Question 8: My question is not answered here. How can I get in touch with you?

Answer: Please contact us via our <u>support center</u> or email us at: service@bpsocks.com