



API Documentation

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What is VeriFi?

VeriFi is a web service for asking questions and receiving answers from human users over the phone with a single HTTP call. It can use voice calls, SMS or instant messaging (Google Talk).

The web service is accessed with a simple HTTP GET request – the request blocks while VeriFi places the voice call to the user, reads him the question, receives the spoken answer, translates the answer back to text using voice recognition and sends the resulting text as the response of the HTTP request. As far as the caller is concerned, VeriFi acts as a very slow web server – that's because this particular web server „runs” on a human being, not a machine.

We like to think of it as the world's first web server for humans 😊.

Why VeriFi?

VeriFi started out of our frustration with automated systems that try to guess or learn your preferences and assume that those preferences never change. Although other people may like machines doing everything for them, we at VeriFi think you should at least be given the option to provide your input on important matters.

If your credit card is being charged, you should be **ASKED** before the charge is approved, not **NOTIFIED** after the money has gone out of your account.

If your very private files and pictures are being looked at, the server should **ASK** you if you want to allow the download, not simply log the access for future review.

If someone is attempting to log in with administrative rights on your server, it's probably a good idea to **CALL** the admin on the phone and ask him if that is ok, even if the password is correct.

Some may call us „control freaks”, but we think the most natural human to machine interaction is to **ASK**, not **GUESS**. It is up to the user to decide how much he or she wants to leave to an automated learner and what events or scenarios require an explicit „yes” or „no” answer over the phone. These interactions only take seconds but could save you a lot of time and money in damage control later.

Quick Start

All VeriFi functions are sent as HTTP GET requests to

<https://verifi.fi/>

Please note the lack of **www** in front of the URL (we like our URLs short) and the use of HTTPS/SSL. While we do accept requests over plain HTTP, you should really consider the security of your question and answer and use HTTPS whenever possible.

Parameters are added as in any HTTP GET request:

<https://verifi.fi/?param1=value1¶m2=value2¶m3=value3>

The first thing you're going to need is an API key. You can get one in the Get Started section of our website (<https://www.verifi.fi/>). The API key is the **only** identifier you will ever use. We do not store your email or any other personally identifiable information. Your API key is associated to your subscription and has an associated balance in € (EUR or euros). All our prices are quoted in EUR and include all taxes.

Once you have your key and some balance in your account, the easiest way to get started is to go to

<https://www.verifi.fi/v.php>

and test the system with our visual interface.

The screenshot shows the VeriFi online interface. At the top, there is a navigation bar with 'VeriFi beta', 'Home', 'Pricing', and 'Contact'. Below this is the 'Online interface' section. A note says 'Mouse over the ⓘ signs for descriptions and hints.' The form contains several fields and options:

- API KEY ⓘ: DEMO
- Question ⓘ: Question or message
- Answers ⓘ: yes,no
- Thank you message (optional) ⓘ: Thank you!
- To (phone# or IM id) ⓘ: Destination
- Record call and email ⓘ (Enterprise): Email address
- CallerID (voice only) ⓘ (Enterprise): CallerID (digits only)
- Timeout (in seconds) ⓘ: Timeout (in seconds)
- OTP Token serial ⓘ (Enterprise): Serial number
- Input language ⓘ (Premium): Default (English)
- Output language ⓘ (Premium): Default (English)
- Method (how to contact the user) ⓘ: Default (Voice)
- Send response as JSON ⓘ
- Always confirm answer ⓘ
- Send anonymous response ⓘ
- Action (what to do with your query) ⓘ: Default (Execute)

At the bottom, there are two red warning messages:

- ▲ This form performs no client-side validation. This allows you to see the error responses from the server.
- ▲ The result will open in the same window and will come directly from the VeriFi server, unformatted, exactly as you would receive it during an API call. The API is synchronous, so your request will BLOCK until a response (or a timeout) is received.

Fill in your API key, the question you want to ask, the possible answers (comma separated), an optional „Thank you” message and the phone number you want VeriFi to call and press the

Send/Execute button at the bottom. Your call will block as our service places the call and reads the question to the person that answers the phone. It will then take the answer and send it back to you.

This will result in the following URL being called:

<https://verifi.fi/?k=DEMO&q=This+is+a+test+question%2C+please+reply+with+yes+or+no.+Should+we+go+ahead+with+this%3F&a=yes%2Cno&ty=Thank+you%21&to=15551234567>

Your request will block for a few seconds (as the call is being placed). You will receive a call from

+1-403-800-9412

! You may want to add that number to your contact list and give it a name like VeriFi so that you know who's calling next time you use the service.

Pick up the phone when it rings, answer the question (yes or no, as you indicated in the answers box). As soon as the system confirms your answer, the HTTP request will return and display:

15551234567:yes

This indicates that the phone number 15551234567 has answered yes to your question. The answer is returned as plain text, so you can integrate this with any application that can do an HTTP request and read back a plain text answer. The system also supports JSON responses, see below.

Note: You might wonder why we also return the phone number that was called (since you already know it – you've told VeriFi what to call in the „to” field). The reason is that Enterprise users can put multiple recipients in that field and all of them will be called simultaneously and their answers will be streamed back to the caller as they are received (so you will see the results appearing one by one as

the called people answer). Prefixing each answer with the phone number allows you to link people to their answers.

Saving a query

As mentioned above, we like to keep our URLs short and to the point. Inspired by the countless URL shorteners out there (goo.gl, bit.ly, etc) we've also integrated one into our service. This allows you to save a particular query under a short name (called a „token“) and then call that token without having to enter all the data you've already provided when you saved the token.

Another big advantage of saving a query is that your API key is no longer visible and we only allow a caller to override parameters that were originally left empty when the token was saved. For instance, if you provide a destination (in the *to* field) and a question and possible answers, you can give the shortened URL to anyone and all they would be able to do is ask you that specific question and get your answer. If you want to give someone the ability to ask you any question (but not ask anyone else), only fill in the destination in the *to* field and leave everything else empty. You get the point 😊.

In order to get a token, fill in the fields as you normally would, but select **Save** from the *Action* dropdown (instead of *Execute*). The server will save your parameters and return an 8 lowercase letter token (i.e. *dzofmpau*). If, at a later time, you want to execute this query, just go to

<https://veri.fi/dzofmpau>

You can leave out any parameters you've already filled in when you created the query (you can't override them anyway, so the system will ignore them if you add them). You can customize any of the empty parameters from the original query (so if *question* was left empty, you could do

<https://veri.fi/dzofmpau?q=this+is+another+question>

).

API Parameters

API Key	
Parameter name	k
Parameter type	MANDATORY
Parameter description	The API Key issued by the VeriFi server. It consists of 32 letters and numbers. The key is used to authenticate the API call and charge your corresponding account, so keep it private. If you wish to grant third parties the ability to ask you questions via VeriFi, create an API token (see above) instead of giving them your API key.
Example call	https://veri.fi/?k=DEMO&to=...

Question	
Parameter name	q
Parameter type	MANDATORY
Parameter description	<p>The question you want to ask your user over the phone. If you want to give your users a list of possible answers (if they are not obvious such as yes/no), please include them in the question. The question can include multiple phrases.</p> <p>If your question has parameters that can be customized, you can add them as tokens %1, %2, etc: For instance: „Temperature in the room has exceeded %1 degrees, should I turn cooling system %2?“. These tokens will be replaced with the values found in the q1, q2, q3, ... query (&q1=value1&q2=value2...) parameters. %1 will become the value of q1, %2 will become the value of q2 and so on. This allows you to have a fixed question, save the query for future use, then only customize the %x parameters without changing the question.</p> <p>If you wish to include pre-recorded prompts or other sounds in the conversation, simply insert the URL to the sound file (MP3 or WAV) into the question text. For instance „Good morning, this is a call from http://ourcompany.com/companyjingle.mp3 . How are you today?“ .</p>
Example call	https://veri.fi/?k=DEMO&to=...&q=Are+you+sure

Answers

Parameter name	a
Parameter type	OPTIONAL
Parameter description	<p>A comma separated list of possible answers.</p> <p> Premium and Enterprise users can specify [any] in this field to indicate that a freeform answer is expected. VeriFi will send the recording of the answer to a transcription service, so the answer may be delayed by 20-30 seconds. <i>The freeform answers only work for the English language and may not be 100% accurate.</i></p> <p>If no answers are provided, VeriFi will assume that the provided question is simply a message and will just read it to the user without expecting any answers. In this case, the server will immediately return the string OK (since no answer is expected from the user).</p> <p>Answer aliasing: for each answer in the comma separated list, you can add a value that is sent in its place if that particular answer is received from the user. For instance: yes=1&no=0 means „send a 1 if the answer was yes and send a 0 if the answer is was no”. Or, if you want to send the caller a secret password if you say yes and tell them to go away if you say no, do yes=secretpass&no=goaway.</p> <p>Another important use of Answer Aliasing is for DTMF tones – in your answer list, if you do something like 1=yes,2=no it will tell VeriFi that a press on the 1 key on the keypad (DTMF tone) means yes, while the DTMF tone for 2 means no.</p>

Example call	<p>https://veri.fi/?k=DEMO&q=Are+you+sure&a=yes,no</p> <p> https://veri.fi/?k=DEMO&q=Let+us+know+what+you+think.&a=[any]</p>
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Thank you message

Parameter name	ty
Parameter type	OPTIONAL
Parameter description	<p>A thank you message to be played to the user at the end of the call (or sent as a separate message in the case of SMS or IM). If this is left empty, no message will be sent.</p> <p>Important note: For SMS, sending a Thank You message will double the cost of the communication since it is sent as a separate text message. For voice and IM the cost is not impacted by the use of a Thank You message.</p>

Example call	https://veri.fi/?k=DEMO&q=Are+you+sure&ty=Thank+you!
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To (destination)

Parameter name	to
Parameter type	MANDATORY
Parameter description	<p>A comma separated list of possible destinations for the call or message.</p> <p> Only Enterprise users can specify multiple recipients to be called at the same time. The VeriFi server will return the answers as they are received, in a „streaming” fashion. The connection will be kept alive until all the calls have completed (either successfully or timed out). Basic and Premium users can only specify one destination per call (and Basic users are further restricted to one call at a time – no multiple simultaneous calls).</p> <p>The syntax depends on the type of destination: for SMS and voice calls, enter the phone number in international format, starting with the country code, without the leading + sign. For instance „12126353636” for +1-212-6353636 in the United States or „40722537196” for +40722537196 in Romania. For IM, enter the username (usually the email address) on the Google Talk system.</p> <p><i>Note: the VeriFi test page at https://www.verifi.fi/v.php has a link to the right of the Destination field called „Call this computer”. The link currently works with the latest versions of Google Chrome and sets up a softphone so that VeriFi can call your computer directly instead of a phone line. These calls are free and they allow you to test your application by using headphones and a microphone on your computer.</i></p>
Example call	<p>https://verifi.fi/?k=DEMO&q=Are+you+sure&to=40722537196</p> <p> https://verifi.fi/?k=DEMO&q=Let+us+know+what+you+think.&to=40722537196,12126353636</p>

Timeout

Parameter name	timeout
Parameter type	OPTIONAL
Parameter description	<p>The number of seconds to wait for an answer from the human user. The recommended value (and the default) is 30 seconds, this should be enough for the system to read the question to the user and receive a spoken answer. If your question is very long or if you expect a freeform answer from your user, adjust this parameter accordingly. The maximum value is 60 (1 minute).</p>
Example call	<p>https://verifi.fi/?k=DEMO&q=Are+you+sure&timeout=40</p>

Input language

Parameter name	in
Parameter type	OPTIONAL
Parameter description	<p>The two letter code of the language that the question and the answers are written in. Supported languages are: English (en), French (fr), Spanish (es), German (de), Danish (da), Dutch (nl), Finnish (fi), Swedish (sv), Greek (el), Italian (it) and Polish (pl).</p> <p> Premium and Enterprise users can use the automatic translation feature of the VeriFi service to ask their questions and receive answers in a different language. This is done by setting the Output Language (see below) to a different language.</p>
Example call	<p>https://veri.fi/?k=DEMO&q=Are+you+sure&in=en</p> <p> https://veri.fi/?k=DEMO&q=Let+us+know+what+you+think.&in=en&out=fr</p>

Output language

Parameter name	out
Parameter type	OPTIONAL
Parameter description	<p>The two letter code of the language that the human user will hear and respond in. Supported languages are: English (en), French (fr), Spanish (es), German (de), Danish (da), Dutch (nl), Finnish (fi), Swedish (sv), Greek (el), Italian (it) and Polish (pl).</p> <p> Premium and Enterprise users can use the automatic translation feature of the VeriFi service to ask their questions and receive answers in a different language. Setting the Output Language to something other than the Input Language will trigger the automatic translation system. For instance, adding &in=de&out=fr will take a question written in German (language code de) and translate it to French (fr) before reading it to the user. The answer will then be translated back from French to German before being sent as a response to the HTTP request.</p>
Example call	<p>https://veri.fi/?k=DEMO&q=Are+you+sure&in=en</p> <p> https://veri.fi/?k=DEMO&q=Let+us+know+what+you+think.&in=en&out=fr</p>

Contact method

Parameter name	m
Parameter type	OPTIONAL
Parameter description	<p>This parameter indicates how VeriFi should contact the user. Valid values are voice , sms and im .</p> <p>If the method is voice , VeriFi will call the number indicated by the to field and read the question and expect a spoken answer.</p> <p>If the method is sms , VeriFi will text the number in the to field with the question and expect an answer via text.</p> <p>If the method is im , VeriFi will send the question as an instant message (Google Talk) to the address specified in the to field and expect an answer via another instant message.</p> <p><i>Note: if you wish to use IM / Google Talk, make sure you add bot@verifi.fi to your contact list. All VeriFi messages will come from this address.</i></p> <p><i>Note 2: all messages sent via SMS or Google Talk are case insensitive (so an answer of „Yes” or „YES” will be accepted even if you have only listed „yes” as a possibility). The answer will be returned to you in lowercase (i.e. „yes”), regardless of the case actually used in the message.</i></p>
Example call	<p>https://verifi.fi/?k=DEMO&q=Are+you+sure&to=12126353636&m=voice</p> <p>https://verifi.fi/?k=DEMO&q=Are+you+sure&to=12126353636&m=sms</p> <p>https://verifi.fi/?k=DEMO&q=Are+you+sure&to=me@my.com&m=im</p>

Action

Parameter name	action
Parameter type	OPTIONAL
Parameter description	<p>This parameter indicates what action you would like VeriFi to perform with your parameters. This is normally omitted (the default is „execute the query”).</p> <p>Possible values are:</p> <ul style="list-style-type: none">• send (execute the query – call or text the user)• save (do not execute the query but save it in the database for later use and return a token. See the Saving a Query section above for an example on how to use this feature.)• checkprice (check how much the query would cost if

executed and return the cost to the caller)

- **getbalance** (return the balance that the specified API key has in the VeriFi system and the type of subscription (BASIC/PREMIUM/ENTERPRISE). *Please note that for this action all parameters (except the API key) are ignored!*

Example call

<https://veri.fi/?k=DEMO&q=Are+you+sure&to=12126353636&action=send>
<https://veri.fi/?k=DEMO&q=Are+you+sure&to=12126353636&action=save>
<https://veri.fi/?k=DEMO&q=Are+you+sure&to=12126353636&action=checkprice>
<https://veri.fi/?k=DEMO&action=getbalance>

Advanced options

Return response as JSON

Parameter name	json
Parameter type	OPTIONAL
Parameter description	<p>This parameter indicates that the answer from the server should be encoded as JSON. The response will look like this:</p> <pre>{ „phonenummer_1”: „response 1”, „phonenummer_2”: „response 2”, ... „phonenummer_n”: „response n” }</pre>
Example call	https://veri.fi/?k=DEMO&q=Are+you+sure&to=12126353636&json=1

Confirm answer

Parameter name	confirm
Parameter type	OPTIONAL
Parameter description	<p>This parameter is only valid for voice calls and tells VeriFi to always doublecheck that it has understood what the user replied. VeriFi does this by first asking the question, then taking the answer and asking again „<i>You said xxx, are you sure?</i>” (to which you would answer „<i>yes</i>” or „<i>no</i>”).</p> <p>VeriFi normally does this only if its confidence level is low (if the line is noisy or it can't recognize what you said). If you set the confirm</p>

parameter, it will always do this check.

Please note that activating the mandatory confirmation will delay the answer to your application by a few seconds (since the system needs to ask again and get another yes/no answer from the user). It is usually safe to leave this off unless you are calling very noisy destinations.

Example call <https://veri.fi/?k=DEMO&q=Are+you+sure&to=12126353636&confirm=1>

Privacy settings

Parameter name	anon
Parameter type	OPTIONAL
Parameter description	<p>This parameter tells the server if the response should contain the phone numbers of the people that have been called.</p> <p>A value of 0 tells VeriFi to show the phone numbers. A value of 2 tells VeriFi to omit the phone numbers (you will only receive the answer as text)</p> <p>A value of 1 tells VeriFi to use a hashing algorithm: Instead of phonenumber_n:response_n pairs, the server will return hash_n:response_n pairs, where hash_n is a one way hash derived from the phone number and the API key.</p> <p>hash_n = SHA-1(„phonenumber_n:apikey“)</p> <p>For instance, for a phone number of 12126353636 and an API key of DEMO, the system will return</p> <p>1460ff95c735bcead3b7e35717c18490fafbf00a:response</p> <p>instead of</p> <p>12126353636:response</p> <p>This allows the owner of the account to still associate answers with people (by simply prehashing their phone numbers) but protects the identify of those people if the API is called by an authorized third party that has no access to the list of destinations in the „to“ field.</p>
Example call	https://veri.fi/?k=DEMO&q=Are+you+sure&to=12126353636&anon=1

OTP Hardware token serial

Parameter name	otptoken
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Parameter type	OPTIONAL
Parameter description	 Enterprise users can additionally authenticate the persons they are calling using hardware one time password tokens. The system will require the user to authenticate himself by speaking or dialing the 6 digit code that the OTP token displays at the end of the call. Any hardware token that uses the TOTP protocol can be used as long as you have access to the seed (secret key) of that token. That key must be added to our database together with the serial number of the token before it can be used. Please email us at contact@veri.fi for further inquiries or if you wish to purchase OTP tokens directly from us.
Example call	<code>https://veri.fi/?k=DEMO&q=Are+you+sure&to=12126353636&otptoken=12345678</code>

Caller ID	
Parameter name	callerid
Parameter type	OPTIONAL
Parameter description	 Enterprise users can set the caller ID to be used for outgoing voice calls and texts. The phone number to use must be entered in international format (starting with the country code, no leading + sign), for instance „12126353636” for „+1-212-6353636”. For SMS (text), alphanumeric sender IDs of up to 11 characters are also accepted. Please note that an alphanumeric sender ID will prevent any replies from the user, so it can only be used for text notifications, not questions.
Example call	<code>https://veri.fi/?k=DEMO&q=Are+you+sure&to=12126353636&callerid=12126353636</code>

Record and email	
Parameter name	rec
Parameter type	OPTIONAL
Parameter description	 Enterprise users can ask the VeriFi server to record the entire voice call (including the voice input from the user) and email it to a certain address once the call is complete. The „rec” parameter activates this option and contains the email address to send the recordings to. The recordings are in MP3 format and are attached to the message together with a timestamp indicating when the call took place and what number was called. Please note that we do not store these recordings, they are emailed directly to you as the call is complete.
Example call	<code>https://veri.fi/?k=DEMO&q=Are+you+sure&to=12126353636&rec=recordings@mycompany.com</code>