API REFERENCE DOCUMENT

For

Reverie NMT API

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1. Reverie NMT API

Reverie NMT API, a state-of-art translation solution for Indic language, is power-driven by machine learning and artificial intelligence inventions. It will automate localization and boost human efforts, taking the friction out of the content supply chain and delivering reckonable value to the business.

The real-time, robust translation solution that translates content available on any channels (websites, mobile applications, etc.).

Example:

The example below demonstrates how the API will translate the content from across different domain:

Source Language – English	Target Language – Hindi
Play all Hindi movies at www.voot.com. Thank you!	www.voot.com में सभी हिंदी मूवीज़ चलाएं धन्यवाद!
Reverie **plays** a vital role in language services.	रीवेरी भाषा सेवाओं में महत्वपूर्ण भूमिका निभाता है।
This year Indians are **playing** Asia-Cup football	इस वर्ष भारतीय एशिया - कप फूट्बॉल खेल रहे हैं।

In the above statements, the word Play is used in all the sentences. The Reverie NMT API will localize the word with context to domain/ industry.

1.1. Supported Language Pairs

The Reverie NMT will support automatic translation of the language pairs:

1. English to Hindi

2. Hindi to English

☐ *We are continuously working to support other Indic languages and will be released accordingly.*

1.2. Key Features of Reverie NMT

▪ **Quality/Customization:**

API supports the glossary customization offering high-quality machine translation for Indic language. This solution is built with the collaboration of linguists' experts, engineers, and domain experts across multiple industries.

▪ **Word-sense Disambiguation:**

Our API will successfully identify which context of a word used in the source language and the content localization is processed accordingly. This feature will decrease the editorial work as it is capable of recognizing the meaning of the word and helps the native language users to consume the content in the right order.

Example 1:

Consider Source Language = English & Target Language = Hindi

Source Content	1st main, 3rd **St.**, **St.** Johns Road
Transliterated Content	फर्स्ट(1st) मेन, थर्ड(3rd) स्ट्रीट, सेंट. जॉन्स रोड
Explanation	In the above source content example, you can view the word combination **St** is used thrice as a suffix for 1, as an acronym for Street, and Saint, respectively. However, our API has successfully identified the meaning of the context and has localized accordingly.

- **Cost-effective scalability:**

Reverie NMT fits within the business applications across multiple business verticals, and content flows seamlessly to increase productivity and efficiency. The more massive amount of data is localized in a shorter interval with high-quality and consistency. The solution is reliable and requires minimal administrative skillsets to maintain service levels.

- **Security & Deployment Flexibility:**

Security is one of the primary goals of our solution. The solution can be deployed either on-premises or in a private cloud that restricts data exposure.

2. Getting Started

The Reverie NMT API is organized around REST and uses standard HTTP response codes, and verbs. On calling the API:

1. Specify the API Headers

2. Enter the character codes for the source and target languages you wish to use

3. Pass the content to translate

3. The API will automatically convert and provide the content in the specified target language

3. Sample Code

3.1.   *Localization in Single Language*

Request

```
curl -X POST \
  https://hackapi.reverieinc.com/nmt\
  -H 'Content-Type: application/json' \
  -d '{
        "data": [
                "Reverie Language Technologies was established in 2009.","The
company head office is located in Bangalore."
        ],
        "src": "en",
        "tgt": "hi",
        "n_best": 1,
        "mask": true,
        "mask_terms": ["Reverie Language Technologies"],
        "segment_after": 0
},
```

Response

```
{
   "took": 0.121,
   "result": [
     [
        "रेवरी लॅग्वेज टेक्नोलॉजीस की स्थापना 2009 में हुई थी।"
     ],
     [
        "कंपनी मुख्यालय बैंगलोर में स्थित है।"
     ]
   ],
   "masked": [
     "2009",
     "Reverie Language Technologies"
   ],
   "status": "ok",
   "mask_failed": []
}
```

3.2.   *Localization Response in case of Invalid JSON*

```
{
        {
   "took": 0.001,
   "error": "'dict' object has no attribute 'lower'",
   "status": "error"
```

```
            }
```

4. API Reference

4.1. HTTP Request URL

Verb/ method: POST

URL Elements:

Example:

https://hackapi.reverieinc.com/nmt

4.2. Headers

Header Name	Description	Value
Content-Type	The format of the data to be posted.	application/JSON
Accept	The format of the data to be returned.	application/JSON

4.3. API Body

Element	Type	Is Mandatory?	Description
Data	array of contents to localize	Yes	The list of content to be translated from the source to target language.
src	string	Yes	The source language code The language code for: 1. English is en 2. Hindi is hi
tgt	string	Yes	The target language code to which the content is translated The language code for: 3. English is en 4. Hindi is hi
n_best	integer	No	The number of translation suggestions should be displayed. ☐ *The default noOfsuggestions value is 1.* ☐ *The maximum translation suggestion allowed is 15.*

Element	Type	Is Mandatory?	Description
mask	boolean	No	Specifies to screen the non-dictionary words used in a sequence. In other words, the mask indicates which words should not be translated. ☐ *The default mask value is false.* ☐ *The key-value pair can be set to True only when the source language is English*
mask_term	array	No	List of words that are to be masked or to be replaced by another word in a sentence. ☐ *On defining the terms that are to be masked in a sentence, the element mask is set to true* **Example:** 1. **Replacing a word with another:** "mask_terms": {"Bangalore": "Bengaluru"} In the above example, the API will replace the mask the term Bangalore and will replace it with Bengaluru 2. **Masking a term** "mask_terms": {"Reverie Language Technologies"} In the above example, the API will mask the term Reverie Language Technologies if found in the source content and will transliterate the word.
Segment_after	number	No	Number of characters after which the content has to be segmented into sentences before translation ☐ *The default value is Zero. This indicates that segmentation will be performed by the API in the backend if the given content is vast.*

4.4. API Response

Element 1st Level	Type	Description
masked	array	The list of words that are masked in the target language. The list includes the terms mentioned in the element **"mask_terms"** defined in the request.
took	float	The time consumed by the API to translate the content
status	string	The translation status.
mask_failed	array	Will be displayed only when the element "mask" is set to True. The list of non-dictionary words that were not masked by the API is displayed.
result	array	The content in the target language