



Version 1.0

INTEGRATION FOR FINGERPRINT

Fingerprint search (1-to-n)

Overview

- Fingerprints, distinguished by their unique patterns, are a singular and inherent feature for each individual. Fingerprint authentication, in a 1-to-N (one-to-many) comparison, entails capturing a user's fingerprint and cross-referencing it with a database to establish the user's claimed identity. The intricate ridges and grooves on human fingers form these distinctive impressions, creating a robust and reliable method for personalized identification.

1. Enroll :

Add fingerprint in database

Request URL:- <https://biometricapi.mxface.ai/api/fingerprint/enroll> Method Type :- POST

Headers :-

Content-Type : application/json Subscriptionkey : xxxxxxxxxxxxxx

Request Body

```
{
  "fingerprint": "string",
  "externalId": "string",
  "group": "string"
}
```

Response Body

```
{
  "code": 0,
  "message": "string",
  "errorMessage": "string"
}
```

Request Parameters

Fields	Type	Description
fingerprint	String	Base64 encoded string of fingerprint.
externalId	String	Unique External ID of fingerprint.
group	String	Unique group name. Only \, _,[,],(,),- special characters and space is allowed in group name. Maximum length of 255.

Sample Request

```
{
  "fingerPrint":
  "SUkqAC5IAQCAP+BQOCQWDQeEQmFQuGQ2HQ+IRGJROKRWLReMRmNRuOR2PR+QSGRSOSSWTSe
  USmVVSuWS2XS+
  YTGZTOaTWbTecTmdTueT2fT+gUGhUOiUWjUekUmlUumU2nU+oVGpVOqVWrVesVmtVuuV2vV+wWG
  xWOyWWzWe
  0Wm1Wu2W23W+4XG5XO6XW7Xe8Xm9Xu",
  "externalId": "EMP0001",
  "group": "Staff"
}
```

Sample Response

```
{
  "code": 200,
  "message": "success"
}
```

Response Parameters

Fields	Type	Description
code	int	Code.
message	string	message.
errorMessage	string	A human readable description of error.
matched	int	If both fingerprints matched, result will be 1 otherwise 0.

Errors

Error Code	Message
200	Success.
401	Access denied due to invalid subscription key or wrong API endpoint. Make sure to provide a valid key for an active subscription.
400	➤ Invalid request. Please pass valid json with all required parameters. ➤ Not valid biometric data or invalid format. ➤ Duplicate Biometric. ➤ Duplicate External Id. ➤ The input is not a valid Base-64 string.
500	Something went wrong, please try again later.

Sample Responses (in case of error)

```
{
  "code": 400,
  "errorMessage": "Invalid request. Please pass valid json with all required parameters."
}
```

```
{
  "code": 400,
  "errorMessage": "The input is not a valid Base-64 string."
}
```

2. Search :

Search similar looking Identities from registered Fingerprints in the database by uploading a Fingerprint (image). This API accepts only one Fingerprint.

Request URL:- <https://biometricapi.mxface.ai/api/fingerprint/search>

Method Type :- POST

Headers:Content-Type : application/json

Subscriptionkey : xxxxxxxxxxxx

Request Body

```
{
  "fingerPrint": "string",
  "group": "string"
}
```

Response Body

```
{
  "code": 0,
  "message": "string",
  "errorMessage": "string",
  "matchResult": [
    {
      "externalId": "string",
      "matchingScore": 0
    }
  ]
}
```

Request Parameters

Fields	Type	Description
fingerPrint	String	Base64 encoded string of fingerprint.
group	String	The search will be limited to fingerprints belonging to these group. If this is empty, fingerprint will be searched across all groups.

Sample Request

```
{
  "fingerPrint":
  "SUKqAC5IAQCAP+BQOCQWDQeEQmFQuGQ2HQ+IRGJROKRWLReMRmNRuOR2PR+QSGRSOSSWTSe
  USmVVSuWS2XS+
  YTGZTOaTWbTecTmdTueT2fT+gUGhUOiUWjUekUmlUumU2nU+oVGpVOqVWrVesVmtVuuV2VW+wWG
  xWOyWWzWe
  0Wm1Wu2W23W+4XG5XO6XW7Xe8Xm9Xu",
  "group": "Staff"
}
```

Sample Response

```
{
  "matchResult": [
    {
      "externalId": "11",
      "matchingScore": 704
    },
    {
      "externalId": "EMP0001",
      "matchingScore": 704
    }
  ]
}
```

Response Parameters

Param	Type	Description
code	int	Code.
message	string	message.
errorMessage	string	A human readable description of error.
matchResult	array	collection of matched fingerprints
externalId	string	unique id passed at the time of enrollment.
matchedScore	float	matching score of two fingerprints. If greater than zero, both fingerprints are from the same person.

Errors

Error Code	Message
200	Success.
401	Access denied due to invalid subscription key or wrong API endpoint. Make sure to provide a valid key for an active subscription.
400	➤ Invalid request. Please pass valid json with all required parameters. ➤ Not valid biometric data or invalid format. ➤ The input is not a valid Base-64 string.
500	Something went wrong, please try again later.

Sample Responses (in case of error)

```
{
  "code": 400,
  "errorMessage": "Invalid request. Please pass valid json with all required parameters."
}
```

```
{
  "code": 400,
  "errorMessage": "The input is not a valid Base-64 string."
}
```

3. Delete :

Remove Fingerprints from the database by ExternalId.

Request URL:- <https://biometricapi.mxface.ai/api/fingerprint/delete>

Method Type :- POST

Headers :Content-Type : application/json

Subscriptionkey :xxxxxxxxxxxx

Request Body

```
{
  "externalId": "string"
}
```

Response Body

```
{
  "code": 0,
  "message": "string",
  "errorMessage": "string"
}
```

Request Parameters

Fields	Type	Description
externalId	String	unique external id of fingerprint

Sample Request

```
{
  "externalId": "EMP0001"
}
```

Sample Response

```
{
  "code": 200,
  "message": "success"
}
```

Response Parameters

Param	Type	Description
code	int	Code.
message	string	message.
errorMessage	string	A human readable description of error.

Errors

Error Code	Message
200	Success.
401	Access denied due to invalid subscription key or wrong API endpoint. Make sure to provide a valid key for an active subscription.
400	➤ Invalid request. Please pass valid json with all required parameters. ➤ External Id not found.
500	Something went wrong, please try again later.

Sample Responses (in case of error)

```
{
  "code": 400,
  "errorMessage": "Invalid request. Please pass valid json with all required parameters."
}
```

```
{
  "code": 400,
  "errorMessage": "External Id not found."
}
```

Fingerprint verify (1-to-1)

Overview

- Fingerprints are like personal signatures, each one distinct and unique to an individual. These impressions, formed by the patterns on our fingers, play a crucial role in confirming identity. When we compare two fingerprints in a 1-to-1 match, we're checking if they belong to the same person. It's a straightforward but highly reliable way to confirm someone's identity.

Request URL:- <https://biometricapi.mxface.ai/api/fingerprint/verify>

Method Type :- POST

Headers :Content-Type : application/json

Subscriptionkey : xxxxxxxxxxxx

Request Body

```
{
  "fingerPrint1": "string",
  "fingerPrint2": "string"
}
```

Response Body

```
{
  "code": 0,
  "message": "string",
  "errorMessage": "string",
  "matched": 0
}
```

Request Parameters

Param	Required	Type	Description
fingerPrint1	Yes	String	Base64 encoded string of fingerprint.
fingerPrint2	Yes	String	Base64 encoded string of fingerprint.

Sample Request

```
{
  "fingerPrint1":
  "SUKqAC5IAQCAP+BQOCQWDQeEQmFQuGQ2HQ+IRGJROKRWLReMRmNRuOR2PR+QSGRSO
  SSWTSeUSmVSuWS2XS+
  YTGZTOaTWbTecTmdTueT2fT+gUGhUOiUWjUekUmlUumU2nU+oVGpVOqVWrVesVmtVuuV2v
  V+wWGxWOyWWzWe
  0Wm1Wu2W23W+4XG5XO6XW7Xe8Xm9Xu.....",

  "fingerPrint2":
  "n5+vr7+/z8/f3+/v//AAABAQICAwMEBAUFBgYHBwglCQkKCgsLDAwNDQ4ODw8QEBEREhITeX
  QUFRUWFhcXG
  BgZGRoaGxscHB0dHh4fHyAgISeiliMjJCQlJSymJycoKCkpKiorKywsLS0uLi8vMDAxMTIyMzM0ND
  U1NjY3N
  zg4OTk6Ojs7PDw9PT4+Pz9AQEFBQkJDQ0RERUVGRkdHSEhJSUpKS0tMTE1NTk5PT1BQUVFSU
  INTVFRVVZWW
  1dYWFIZWlpbW1xcXV1eXl9fYGBhYWJi....."
}
```

Response Parameters

Param	Type	Description
code	int	Code.
message	string	message.
errorMessage	string	A human readable description of error.
matched	int	If both fingerprints matched, result will be 1 otherwise 0.

Errors

Error Code	Message
200	Success.
401	Access denied due to invalid subscription key or wrong API endpoint. Make sure to provide a valid key for an active subscription.
400	➤ Invalid request. Please pass valid json with all required parameters. ➤ Not valid biometric data or invalid format. ➤ The input is not a valid Base-64 string.
500	Something went wrong, please try again later.

Sample Response (fingerprints matched)

```
{  
  "matched": 1  
}
```

Sample Response (fingerprints not matched)

```
{  
  "matched": 0  
}
```

Sample Responses (in case of error)

```
{  
  "code": 400,  
  
  "errorMessage": "Invalid request. Please pass valid json with all required  
parameters."  
}
```

```
{  
  "code": 400,  
  "errorMessage": "The input is not a valid Base-64 string."  
}
```



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