

# SpeechExec Enterprise App Interface service interface specification

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## Change history

Application version	Change date	Description
SEE 9.0	2024.06.13	SEE 9.0 release Support dictation attachment when uploading a new file (1.3.31.3.3.2, 1.3.4.3, 7.1) Provide detailed attachment information
SEE 8.8	2024.02.14	SEE 8.8 release
SEE 8.7	2023.06.15	<ul style="list-style-type: none"> <li>- Describe metadata caching</li> <li>- Support <code>delayResultReturningInMilliseconds</code> for <code>/app/getdictationinfolist</code></li> </ul>
SEE 8.1	2022.06.09	/app endpoints: <ul style="list-style-type: none"> <li>- Support dictation upload with SpeechKit-related properties</li> <li>- return SpeechKit SR user settings</li> </ul>
SEE 8.0	2022.01.24	<ul style="list-style-type: none"> <li>- Added spec. for 'x-sps-app-interface-authorization' custom header</li> </ul>
	2021.12.08	<ul style="list-style-type: none"> <li>- Added spec. and possible values for SR language codes</li> <li>- Added spec. for getting info for multiple dict. IDs</li> </ul>
	2021.11.29	<ul style="list-style-type: none"> <li>- Added description of generic authentication responses</li> <li>- For the uploaded file item, no longer require <code>Content-Type: application/octet-stream</code></li> </ul>
	2021.10.07	Initial version

# 1 Dictation API for mobile clients

## 1.1 Request authentication

### 1.1.1 POST /app/token: acquire an access token

#### 1.1.1.1 Request specification

**Purpose:**

Authenticates the Enterprise Author user with the provided username and password and returns an OAuth access token.

**HTTP method:**

POST

**URL template:**

/app/token

**Request headers:**

No special headers.

#### 1.1.1.2 Parameters

No special request parameters.

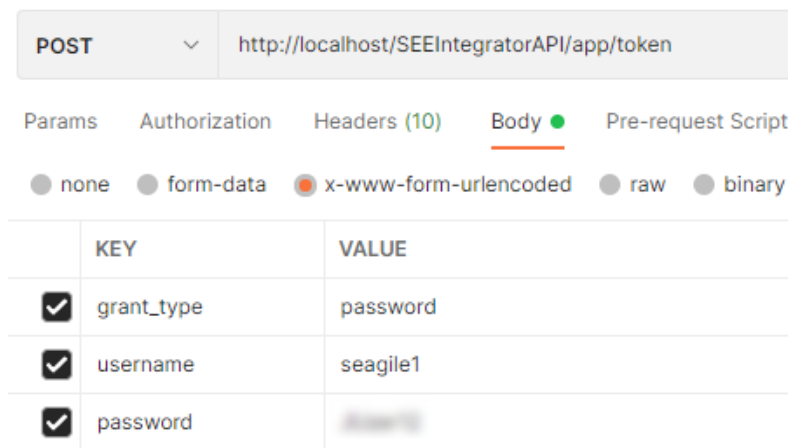
#### 1.1.1.3 Request body

The following items must be defined as x-www-form-urlencoded. All of them are mandatory.

Item name	Value
<b>grant_type</b>	password
<b>username</b>	<username>
<b>password</b>	<password>

#### 1.1.1.4 Request body example

The following example was created using Postman:



POST http://localhost/SEEIntegratorAPI/app/token

Params Authorization Headers (10) **Body** Pre-request Script

none form-data **x-www-form-urlencoded** raw binary

	KEY	VALUE
<input checked="" type="checkbox"/>	grant_type	password
<input checked="" type="checkbox"/>	username	seagile1
<input checked="" type="checkbox"/>	password	XXXXXXXXXX

#### 1.1.1.5 Responses

##### 1.1.1.5.1 Token request is successful

**Description:**

User authentication/login was successful, and an access token was generated.

**Code:**

200

**Response body / value:**

```
{
  "access_token": "<encoded_access_token_value>",
  "token_type": "bearer",
  "expires_in": <seconds_value>,
  "userName": "<user_name>",
  "roles": "<user_role_01>,<user_role_02>,...",
  "userAccountId": "<encoded_domain_and_username>",
  ".issued": "<UTC_issue_timestamp>",
  ".expires": "<UTC_expire_timestamp>"
}
```

**1.1.1.5.2 Error responses**

Code	Description	Response body / value
400	grant_type is not "password"	{ "error": "unsupported_grant_type" }
400	Username or password does not match	{ "error": "invalid_grant", "error_description": "Wrong_username_or_password" }
400	No such user found in SEERoot repository	{ "error": "invalid_grant", "error_description": "Enterprise_user_not_found" }
400	EMS license is not available for the user	{ "error": "invalid_grant", "error_description": "License_not_available" }

**1.1.2 Specifying the authentication token in a custom request header (x-sps-app-interface-authorization)**

Usually, the access token acquired via the POST /app/token (1.1.1) request is used as follows:

- Prepare a sub-sequent /app/\* http request
- Use access token as value of the Authorization header
- Send the request

In certain special scenarios, however, the Authorization header must be used for a different purpose. For example, to allow communication to go through an Azure App Proxy, the Authorization header of the request must contain the access token of the Azure App Proxy, effectively prohibiting successful authentication into Enterprise App Interface itself.



Since the `Authorization` header cannot contain multiple tokens, the access token of Enterprise App Interface must be stored in a special, custom request header as follows:

- Header name:  
`x-sps-app-interface-authorization`
- Header value:  
`Bearer <access_token_value>`

Whenever the Enterprise App Interface web service receives a HTTP request where the `x-sps-app-interface-authorization` header is present, the service will:

- Read the entire value of the `x-sps-app-interface-authorization` header
- overwrite the `Authorize` header value
- continue request processing and eventually perform authentication checks

## 1.2 Generic authentication error responses

The following error responses may occur in all dictation API endpoints (using OAuth authentication):

Code	Description	Response body / value
401	Invalid header in the request	{ "CRI": "<GUID>", "FailureCode": "Invalid_action_context_request_or_request_header" }
401	No Authorization header found in the request	{ "CRI": "<GUID>", "FailureCode": "Authorization_header_not_found_in_the_request" }
401	Authorization header is not Bearer in the request	{ "CRI": "<GUID>", "FailureCode": "Invalid_Authorization_header_value_in_the_request" }
401	The required user role is not found in the access token	{ "CRI": "<GUID>", "FailureCode": "Invalid_user_role" }
401	Unknown error occurred during authentication	{ "CRI": "<GUID>", "FailureCode": "Unknown_error" }

## 1.3 POST /app/dictations: upload new dictation file and optional attachment

### 1.3.1 Request specification

**Purpose:**

Upload a new dictation file and its metadata, then store it in the Finished folder of the authenticated Author user.

Optionally, upload a document attachment file and attach it to the main dictation file (see 1.3.3.2, 1.3.4.3, 7.1)

**HTTP method:**

POST

**URL template:**

/app/dictations

**Request headers:**

Header name	Value
<b>Authorization</b>	Bearer <encoded_access_token_value>
<b>Content-Type</b>	multipart/form-data;

### 1.3.2 Parameters

No special request parameters.

### 1.3.3 Request body contents

#### 1.3.3.1 Mandatory content

The following items must be defined as `form-data`. All of them are mandatory.

Item name	Value
<b>Content-Disposition</b>	<code>form-data;</code> <code>name="see_dictation_audio_file";</code> <code>filename="&lt;audiofile&gt;.&lt;ext&gt;"</code>
<b>DictationId</b>	string value
<b>Status</b>	int value
<b>Priority</b>	int value
<b>Worktype</b>	string value
<b>CreationDateTime</b>	datetime value
<b>Title</b>	string value
<b>Category</b>	string value
<b>Comments</b>	string value
<b>Department</b>	string value
<b>Keyword</b>	string value
<b>DPMBBarcode</b>	string value
<b>Custom1</b>	string value
<b>Custom2</b>	string value
<b>Custom3</b>	string value
<b>Custom4</b>	string value
<b>Custom5</b>	string value

#### 1.3.3.2 Optional content

The following items are optional.

Item name	Value
-----------	-------

<b>Content-Disposition</b>	form-data; name="see_dictation_attachment_file"; filename="<attachmentfile>.<ext>"
<b>NumberOfSpeakers</b>	int value
<b>SELiveSpeechRecLanguageCode6Char</b>	string value
<b>SpeechKitSRLanguageAndTopicID</b>	string value

### 1.3.4 Request body validation

#### 1.3.4.1 Mandatory dictation metadata items

DictationId:

- must not be empty
- must have a valid GUID structure
- must not be a null-GUID

Priority:

- must be an integer number

Status:

- must be an integer number between 0 and 14 (dictation state values)
- Note: more important dictation states:
  - o 2 (TRANSCRIPTION\_PENDING)
  - o 11 (QUEUED\_FOR\_TRANSCRIPTION\_SERVICE)
  - o 13 (QUEUED\_FOR\_SPEECHLIVE\_SPEECH\_RECOGNITION)

CreationDateTime:

- must be a valid DateTime with the following format:  
yyyy-MM-dd'T'HH:mm:ss.FFF

#### 1.3.4.2 Optional dictation metadata items

The optional items are only validated when provided:

Item name	Validation rules
<b>NumberOfSpeakers</b>	Must be one of: <ul style="list-style-type: none"> <li>- 1 (One)</li> <li>- 2 (Two)</li> <li>- 3 (Three)</li> <li>- 4 (FourToFive)</li> <li>- 5 (SixAndMore)</li> </ul>
<b>SELiveSpeechRecLanguageCode6Char</b>	Rules: <ul style="list-style-type: none"> <li>- must not be empty</li> <li>- its length must exactly be 7 characters</li> <li>- must have the following structure: &lt;3_chars&gt;-&lt;3_chars&gt; example: eng-GBR</li> </ul>
<b>SpeechKitSRLanguageAndTopicID</b>	Rules: <ul style="list-style-type: none"> <li>- if present, must be non-empty</li> <li>- must have the following structure: &lt;at_least_1_char&gt; &lt;at_least_1</li> </ul>

	char> example: de-AT_Surgery  The value specified for 'SpeechKitSRLanguageAndTopicID' must be one of the items returned by: <ul style="list-style-type: none"> <li>- GET /app/usersettings request, in the</li> <li>- SpeechKitSRAllowedLanguageAndT opicItems array</li> <li>- ID property</li> </ul>
--	--

#### 1.3.4.3 Optional dictation file attachment specification

The optional Content-Disposition for dictation file attachment item is only validated when provided:

Item name	Validation rules
<b>Content-Disposition</b> (attachment file)	Rules: <ul style="list-style-type: none"> <li>- name must be 'see_dictation_attachment_file'</li> <li>- filename must be specified in the following format: filename="&lt;attachmentfile&gt;.&lt;ext&gt;</li> <li>- the following invalid characters are prohibited for the entire filename part: \\ / : * ? " &lt; &gt;  </li> <li>- the &lt;ext&gt; attachment extension part must be specified. The list of disallowed extensions is listed in <i>Appendix 1: Prohibited attachment file extensions for files uploaded using POST /app/dictations</i></li> </ul>

#### 1.3.4.4 Special validation requirements

##### IMPORTANT!

When Status is 11 (QUEUED\_FOR\_TRANSCRIPTION\_SERVICE), the NumberOfSpeakers item must also be provided.

When Status is 13 (QUEUED\_FOR\_SPEECHLIVE\_SPEECH\_RECOGNITION), the SELiveSpeechRecLanguageCode6Char item must also be provided.

When SpeechKitSRLanguageAndTopicID is provided, Status must be 2 (TRANSCRIPTION\_PENDING)

### 1.3.5 Request body example

The following example was created using Postman:

The screenshot shows a Postman interface for a POST request. The URL is `http://localhost/SEIntegratorAPI/app/dictations...`. The 'Body' tab is selected, and the 'form-data' radio button is chosen. A table of key-value pairs is displayed below the tabs.

	KEY	VALUE
<input checked="" type="checkbox"/>	see_dictation_audio_file	Tim_0006.DS2 ×
<input checked="" type="checkbox"/>	DictationId	A1387477-1C7F-4E5D-90E9-7724E3C4A4E6
<input checked="" type="checkbox"/>	Status	2
<input checked="" type="checkbox"/>	Priority	0
<input checked="" type="checkbox"/>	Worktype	Memo
<input checked="" type="checkbox"/>	CreationDateTime	2021-08-03T13:55:15.666
<input checked="" type="checkbox"/>	Title	My first dictation
<input checked="" type="checkbox"/>	Category	
<input checked="" type="checkbox"/>	Comments	
<input checked="" type="checkbox"/>	Department	
<input checked="" type="checkbox"/>	Keyword	
<input checked="" type="checkbox"/>	DPMBarcode	
<input checked="" type="checkbox"/>	Custom1	
<input checked="" type="checkbox"/>	Custom2	
<input checked="" type="checkbox"/>	Custom3	
<input checked="" type="checkbox"/>	Custom4	
<input checked="" type="checkbox"/>	Custom5	

### 1.3.6 Responses

#### 1.3.6.1 Dictation upload is successful

**Description:**

Dictation upload is completed; the dictation file is created.

**Code:**

201

**Response body / value:**

No response body.

#### 1.3.6.2 Error responses

Code	Description	Response body / value
------	-------------	-----------------------

400	DictationId form-data is empty, missing or otherwise invalid	{ "CRI": "<GUID>", "FailureCode": "ID_not_valid" }
400	One of the required ContentDisposition items is invalid	{ "CRI": "<GUID>", "FailureCode": "ContentDisposition_not_valid" }
400	One of the required ContentDisposition items is empty	{ "CRI": "<GUID>", "FailureCode": "ContentDisposition_empty" }
400	Audio file name or extension is invalid or not supported	{ "CRI": "<GUID>", "FailureCode": "Audio_filename_not_valid" }
400	Attachment file name or extension is invalid or not supported	{ "CRI": "<GUID>", "FailureCode": "Attachment_filename_not_valid" }
400	One of the required form-data fields is invalid or missing	{ "CRI": "<GUID>", "FailureCode": "Metadata_not_valid_or_missing" }
400	Service could not construct a valid Enterprise dictation object from the received audio and XML file	{ "CRI": "<GUID>", "FailureCode": "Invalid_dictation_files" }
401	Unauthorized	{ "Message": "Authorization has been denied for this request." }
409	Target folder contains a dictation file with the same name	{ "CRI": "<GUID>", "FailureCode": "Dictation_file_already_exists" }
409	Service cannot create the target folder for dictations	{ "CRI": "<GUID>", "FailureCode": "Cannot_create_final_directory" }
415	Content-Type is not "multipart/form-data" in the request header	{ "CRI": "<GUID>", "FailureCode": "" }
500	Any other error encountered during request processing	{ "CRI": "<GUID>", "FailureCode": "Generic_error" }

		}
--	--	---

## 1.4 GET /app/dictations/{DictationID}: get information for one dictation

### 1.4.1 Request specification

**Purpose:**

Retrieve metadata information of the dictation having {DictationID}.

**HTTP method:**

GET

**URL template:**

/app/dictations/{DictationID}

**Request headers:**

Header name	Value
<b>Authorization</b>	Bearer <encoded_access_token_value>

### 1.4.2 Parameters

Parameter name	Description
<b>DictationID</b>	URL path parameter. The dictation is searched by this ID. This parameter is mandatory.

### 1.4.3 Request body

No request body is needed.

### 1.4.4 Request URL example

/app/dictations/3D8A776F-86FF-4050-96EA-1C325DBF8834

### 1.4.5 Responses

#### 1.4.5.1 Dictation information is found

**Description:**

Dictation information for the passed DictationID is found.

**Code:**

200

**Response body / value:**

```
{
  "CRI": "<GUID>",
  "data": [
    {
      "files": [ "only 1 <cache_item> entry" ]
    }
  ]
}
```

The cache item entry has the following JSON structure:

```
{
  "DictationID": "<GUID>",
```

```

"AudioFileName": "DictFileName.ext",
"DictationState": "<CurrentDictState>",
"HasAttachment": true|false,
"AttachmentInfo":
{
  "FileExtension": ".ext",
  "FileSizeInBytes": 1234,
  "LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
}
"IsArchive": true|false,
"SubfolderHierarchy":
"\sub\folder\hierarchy\under\finished\or\archive",
"LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
}

```

If HasAttachment = FALSE, then the value of AttachmentInfo will be NULL.

#### 1.4.5.2 Error responses

Code	Description	Response body / value
400	DictationID is empty, missing or otherwise invalid in request URL	{ "CRI": "<GUID>", "FailureCode": "ID_not_valid" }
401	Unauthorized	{ "Message": "Authorization has been denied for this request." }
404	Dictation information cannot be found for the specified DictationID	{ "CRI": "<GUID>", "FailureCode": "Dictation_id_not_found" }
500	Any other error encountered during request processing	{ "CRI": "<GUID>", "FailureCode": "Generic_error" }

## 1.5 GET /app/dictations: get information for all dictations in a folder

### 1.5.1 Request specification

**Purpose:**

Retrieve metadata information of all dictations found in the folder specified by {isArchive}.

**HTTP method:**

GET

**URL template:**

/app/dictations?[isArchive=false|true]

**Request headers:**

Header name	Value
Authorization	Bearer <encoded_access_token_value>



### 1.5.2 Parameters

Parameter name	Description
<b>isArchive</b>	<p>Query parameter.</p> <p>Specify the folder from which to retrieve dictation metadata.</p> <ul style="list-style-type: none"> <li>• <b>true</b>: the authenticated user's Archive folder</li> <li>• <b>false</b>: the authenticated user's Finished dictations folder</li> </ul> <p>This parameter is optional. Default if omitted: FALSE</p>

### 1.5.3 Request body

No request body is needed.

### 1.5.4 Request URL example

/app/dictations?isArchive=true

### 1.5.5 Responses

#### 1.5.5.1 *Querying dictations is successful*

**Description:**

There were no errors when retrieving dictation metadata. Even if the required folder is empty and no dictation metadata was found, a success result is returned with an empty list.

**Code:**

200

**Response body / value:**

```
{
  "CRI": "GUID",
  "data": [
    {
      "files": [ "array of <cache_item> entries" ]
    }
  ]
}
```

The cache item entry has the following JSON structure:

```
{
  "DictationID": "<GUID>",
  "AudioFileName": "DictFileName.ext",
  "DictationState": "<CurrentDictState>",
  "HasAttachment": true|false,
  "AttachmentInfo":
  {
    "FileExtension": ".ext",
    "FileSizeInBytes": 1234,
    "LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
  }
  "IsArchive": true|false,
```

```

"SubfolderHierarchy":
"\sub\folder\hierarchy\under\finished\or\archive",
"LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
}

```

If HasAttachment = FALSE, then the value of AttachmentInfo will be NULL.

#### 1.5.5.2 Error responses

Code	Description	Response body / value
401	Unauthorized	{ "Message": "Authorization has been denied for this request." }
500	Any other error encountered during request processing	{ "CRI": "<GUID>", "FailureCode": "Generic_error" }

## 1.6 POST /app/getdictationinfolist: get information for a list of dictations

### 1.6.1 Request specification

**Purpose:**

Retrieve metadata information for all dictations specified in the request. An optional delay time can be specified to allow the cache maintainer background process perform a (quick) update before the service starts retrieving results from the metadata cache.

**HTTP method:**

POST

**URL template:**

/app/getdictationinfolist

**Request headers:**

Header name	Value
<b>Authorization</b>	Bearer <encoded_access_token_value>

### 1.6.2 Parameters

No special request parameters.

### 1.6.3 Request body

The request body is a JSON string, like:

```

{
  "CRI": "GUID",
  "dictationIds": [
    "3fa85f64-5717-4562-b3fc-2c963f66afa6"
  ],
  "requestOptions": {
    "delayResultReturningInMilliseconds": 0_OR_POSITIVE_INTEGER
  }
}

```

### 1.6.4 Request body validation

CRI:

- optional, used for server logging
- recommended to be specified

dictationIds:

- must not be empty
- must contain at least 1 item

requestOptions:

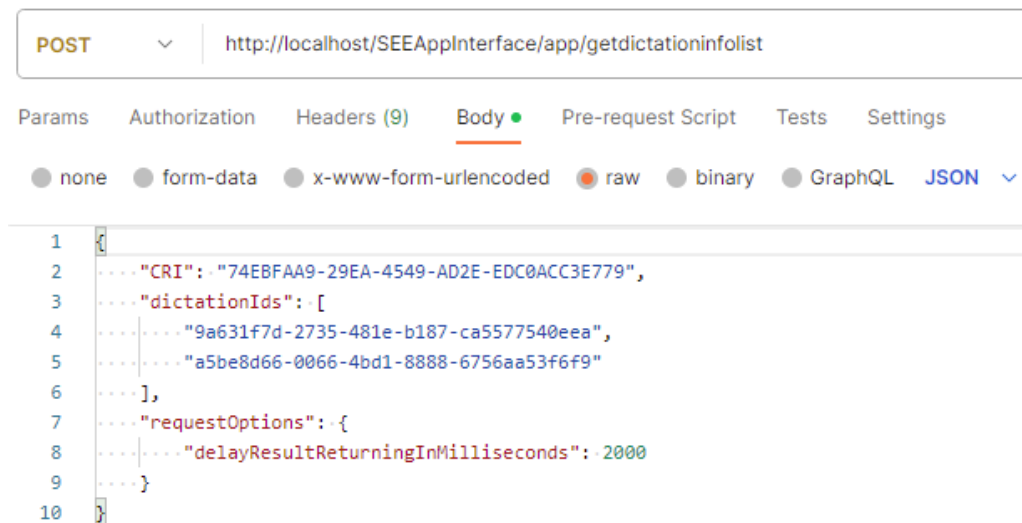
- optional, can be null

delayResultReturningInMilliseconds:

- optional, can be null
- specifies the delay time (in milliseconds) before the service returns the results
- when defined, its value must be between 0 – 10000
- in case of invalid value, the value of the service setting `DelayResultReturningInMilliseconds` is used

### 1.6.5 Request body example

The following example was created using Postman:



### 1.6.6 Responses

#### 1.6.6.1 Querying dictations is successful

**Description:**

There were no errors when retrieving dictation metadata. Even if no dictation metadata was found, a success result is returned with an empty list.

**Code:**

200

**Response body / value:**

```
{
  "CRI": "GUID",
  "data": [
```

```
{
  "files": [ "array of <cache_item> entries" ]
}
```

The cache item entry has the following JSON structure:

```
{
  "DictationID": "<GUID>",
  "AudioFileName": "DictFileName.ext",
  "DictationState": "<CurrentDictState>",
  "HasAttachment": true|false,
  "AttachmentInfo":
  {
    "FileExtension": ".ext",
    "FileSizeInBytes": 1234,
    "LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
  }
  "IsArchive": true|false,
  "SubfolderHierarchy":
  "\sub\folder\hierarchy\under\finished\or\archive",
  "LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
}
```

If HasAttachment = FALSE, then the value of AttachmentInfo will be NULL.

#### 1.6.6.2 Error responses

Code	Description	Response body / value
400	dictationIds list is empty, missing or otherwise invalid in the request	{       "CRI": "<GUID>",       "FailureCode": "ID_not_valid"     }
401	Unauthorized	{       "Message": "Authorization has been denied for this request."     }
500	Any other error encountered during request processing	{       "CRI": "<GUID>",       "FailureCode": "Generic_error"     }

## 1.7 GET /app/dictations/{DictationID}/attachment/download: download attachment of one dictation

### 1.7.1 Request specification

**Purpose:**

Download attachment of the dictation having {DictationID}.

**HTTP method:**

GET

**URL template:**

/app/dictations/{DictationID}/attachment/download

**Request headers:**

Header name	Value
<b>Authorization</b>	Bearer <encoded_access_token_value>

## 1.7.2 Parameters

Parameter name	Description
<b>DictationID</b>	URL path parameter. The dictation is searched by this ID.

## 1.7.3 Request body

No request body is needed.

## 1.7.4 Request URL example

/app/dictations/3D8A776F-86FF-4050-96EA-1C325DBF8834/attachment/download

## 1.7.5 Responses

*1.7.5.1 Attachment download is successful***Description:**

Attachment file of the dictation having DictationID is found and downloaded.

**Code:**

200

**Response headers:**

Header name	Value
<b>Content-Type</b>	application/octet-stream
<b>Content-Disposition</b>	see_dictation_attachment; filename=<AudioFilename>.<ext1>.<ext2>
<b>Content-Length</b>	<Attachment_filesize_in_bytes>

**Response body / value:**

The response body contains the file content of the attachment in binary format.

*1.7.5.2 Error responses*

Code	Description	Response body / value
<b>400</b>	DictationID is empty, missing or otherwise invalid in request URL	{ "CRI": "<GUID>",&br/>  "FailureCode": "ID_not_valid" }
<b>401</b>	Unauthorized	{ "Message": "Authorization has been denied for this request." }
<b>404</b>	Dictation information cannot be found for the specified DictationID	{ "CRI": "<GUID>",&br/>  "FailureCode": "Dictation_id_not_found" }

<b>404</b>	Dictation information is available, but the dictation has no attachment	{ "CRI": "<GUID>", "FailureCode": "Attachment_not_found" }
<b>500</b>	Any other error encountered during request processing	{ "CRI": "<GUID>", "FailureCode": "Generic_error" }

## 1.8 GET /app/usersettings: Retrieve user settings

### 1.8.1 Request specification

**Purpose:**

Retrieve the SpeechService user settings of the authenticated Author user.

**HTTP method:**

GET

**URL template:**

/app/usersettings

**Request headers:**

Header name	Value
<b>Authorization</b>	Bearer <encoded_access_token_value>

### 1.8.2 Parameters

No special request parameters.

### 1.8.3 Request body

No request body is needed.

### 1.8.4 Request URL example

/app/usersettings

### 1.8.5 Responses

#### 1.8.5.1 User settings are found

**Description:**

SpeechService user settings of the authenticated Author user have been found.

**Code:**

200

**Response body / value:**

```
{
  "IsNdevSrEnabled": true|false,
  "PreferredNdevLanguageCodes": "AllowedSRLanguageCodes_list",
  "SupportedNdevLanguageCodes": "AllowedSRLanguageCodes_list",
  "IsTranscriptionServiceEnabled": true|false,
  "IsMultiSpeakerTranscriptionEnabled": true|false,
  "SpeechKitSRSettings": {
    "IsSpeechKitSREnabledForUser": true|false,
    "SpeechKitSRAllowedLanguageAndTopicItems":
```

```
[
  {
    "ID": "%LangCodeIETF%_%TopicID%",
    "LanguageDisplayedName": "%languageDisplayedName%",
    "TopicName": "%topicName%"
  },
  {
    "ID": "de-AT_Surgery",
    "LanguageDisplayedName": "German-Austria",
    "TopicName": "Surgery"
  }
]
```

#### 1.8.5.1.1 Returned SpeechLive speech recognition language codes

The "PreferredNdevLanguageCodes" and "SupportedNdevLanguageCodes" lists:

- Are semi-colon (";") separated
- Contain the same values

Values that can be returned are shown in the '6 char' column of the following table:

Language	6 char *
Czech	ces-CZE
Danish	dan-DNK
Dutch	nld-NLD
English (Australia)*	eng-AUS
English (GB)*	eng-GBR
English (US)*	eng-USA
Finnish	fin-FIN
French (Canada)	fra-CAN
French (France)*	fra-FRA
German*	deu-DEU
Hungarian	hun-HUN
Italian	ita-ITA
Norwegian	nor-NOR
Polish	pol-POL
Portuguese (Portugal)	por-PRT
Russian	rus-RUS
Slovak	slk-SVK
Spanish (Spain)	spa-ESP
Spanish (LatAm)	spa-XLA
Swedish	swe-SWE
Turkish	tur-TUR

#### 1.8.5.2 Error responses

Code	Description	Response body / value
401	Unauthorized	{ "Message": "Authorization has been denied for this request." }
500	Any other error encountered during request processing	{ "CRI": "<GUID>", "FailureCode": "Generic_error" }



## 2 MasterData API

### 2.1 POST /masterdata/dataitems: insert new master data into database

#### 2.1.1 Request specification

**Purpose:**

Insert a new row into the master data SQL database.

**HTTP method:**

POST

**URL template:**

/masterdata/dataitems

**Request headers:**

Header name	Value
x-sps-api-key	<API_key>

#### 2.1.2 Parameters

No special request parameters.

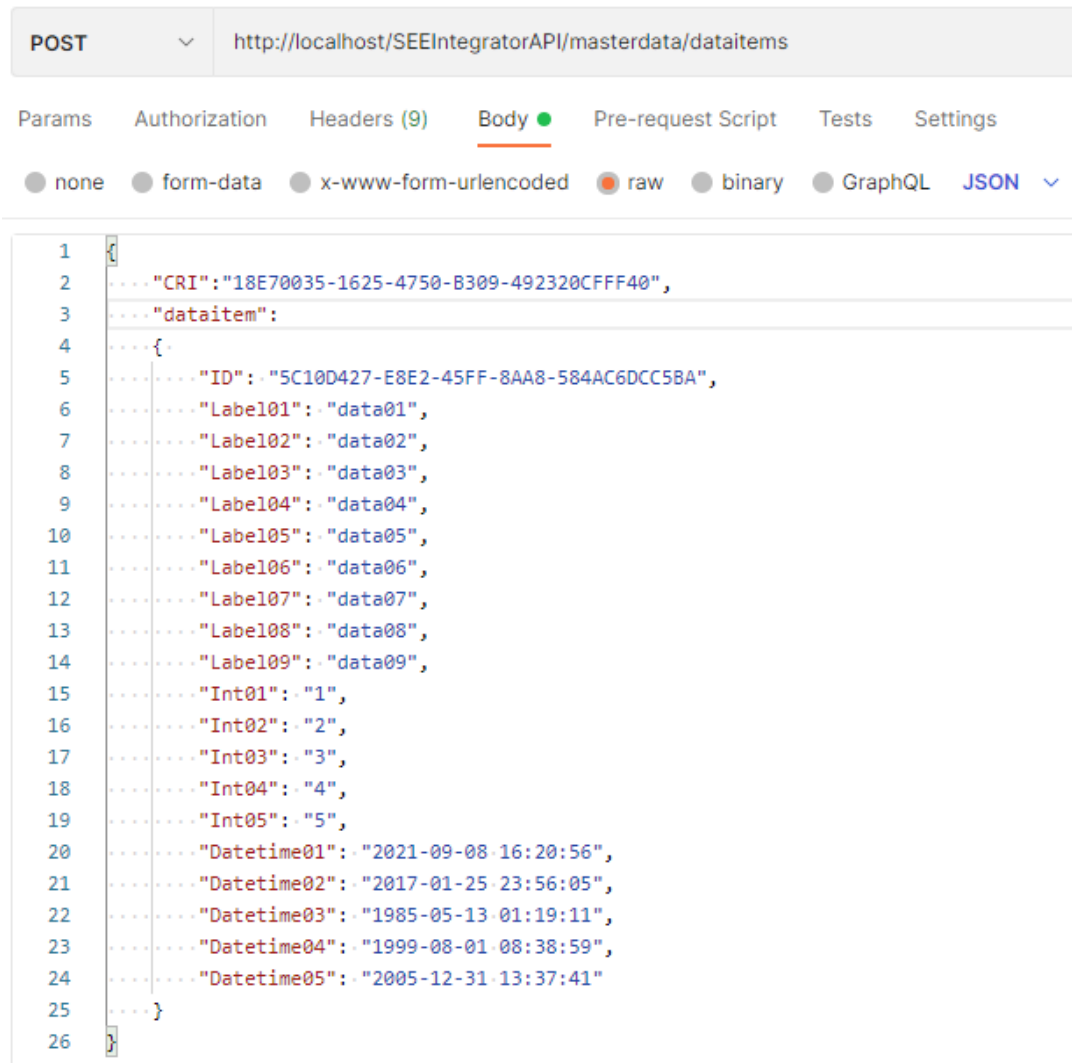
#### 2.1.3 Request body

The request body must have the following JSON structure:

```
{
  "CRI": "GUID",
  "dataitem":
  {
    "ID": "New_ID_string",
    "Label01": "Label01Value",
    "Label02": "Label02Value",
    "Label03": "Label03Value",
    "Label04": "Label04Value",
    "Label05": "Label05Value",
    "Label06": "Label06Value",
    "Label07": "Label07Value",
    "Label08": "Label08Value",
    "Label09": "Label09Value",
    "Int01": Int01Value,
    "Int02": Int02Value,
    "Int03": Int03Value,
    "Int04": Int04Value,
    "Int05": Int05Value,
    "Datetime01": "Datetime01Value",
    "Datetime02": "Datetime02Value",
    "Datetime03": "Datetime03Value",
    "Datetime04": "Datetime04Value",
    "Datetime05": "Datetime05Value"
  }
}
```

### 2.1.4 Request body example

The following example was created using Postman:



### 2.1.5 Responses

#### 2.1.5.1 Insert master data is successful

**Description:**

Insert operation was successful, the new master data record is added to the database.

**Code:**

201

**Response body / value:**

No response body.

#### 2.1.5.2 Error responses

Code	Description	Response body / value
400	ID is empty, missing or otherwise invalid in the request	{           "CRI": "<GUID>",           "FailureCode": "ID_not_valid"         }
400	Any DateTimeX value is non-empty and has wrong format	{           "CRI": "<GUID>",

		<pre>"FailureCode": "DateTime_value_not_valid" }</pre>
<b>401</b>	Unauthorized	<pre>{   "CRI": "&lt;GUID&gt;",   "FailureCode":   "Invalid_api_key" }</pre>
<b>409</b>	ID already exists in database (primary key violation)	<pre>{   "CRI": "&lt;GUID&gt;",   "FailureCode":   "ID_already_exists" }</pre>
<b>409</b>	Any other SQL error not handled in a specific way	<pre>{   "CRI": "&lt;GUID&gt;",   "FailureCode":   "Generic_database_error" }</pre>
<b>500</b>	Any other error encountered during request processing	<pre>{   "CRI": "&lt;GUID&gt;",   "FailureCode": "Generic_error" }</pre>

## 3 Document Management System API

### 3.1 GET /dms/users: Retrieve all author users

#### 3.1.1 Request specification

**Purpose:**

Retrieve all existing author users including the ones **not** assigned an EMS CAL license.

**HTTP method:**

GET

**URL template:**

/dms/users

**Request headers:**

Header name	Value
x-sps-api-key	<API_key>

#### 3.1.2 Parameters

No special request parameters.

#### 3.1.3 Request body

No request body is needed.

#### 3.1.4 Request URL example

/dms/users

#### 3.1.5 Responses

##### 3.1.5.1 Querying users is successful

**Description:**

There were no errors when retrieving the list of users. Even if no users were found, a success result is returned with an empty list.

**Code:**

200

**Response body / value:**

```
{
  "CRI": "GUID",
  "users": [
    {
      "username": "UsernameX",
    }
  ]
}
```

## 3.1.5.2 Error responses

Code	Description	Response body / value
401	Unauthorized	{ "CRI": "<GUID>", "FailureCode": "Invalid_api_key" }
500	Any other error encountered during request processing	{ "CRI": "<GUID>", "FailureCode": "Generic_error" }

## 3.2 GET /dms/dictations/{AuthorName}: get information for all dictations belonging to a specific author

## 3.2.1 Request specification

**Purpose:**

Retrieve metadata information of all dictations which

- belong to {AuthorName}
- have Transcription finished state
- have attached document

**HTTP method:**

GET

**URL template:**

/dms/dictations/{AuthorName}

**Request headers:**

Header name	Value
x-sps-api-key	<API_key>

## 3.2.2 Parameters

Parameter name	Description
AuthorName	URL path parameter. Those dictations are retrieved where the Author dictation property equals with this parameter.

## 3.2.3 Request body

No request body is needed.

## 3.2.4 Request URL example

/dms/dictations/user01

## 3.2.5 Responses

## 3.2.5.1 Querying dictations is successful

**Description:**

There were no errors when retrieving the list of dictations. Even if no dictations were found, a success result is returned with an empty list.

**Code:**

200

**Response body / value:**

```
{
  "CRI": "<GUID>",
  "data": [
    {
      "user": "author_name",
      "role": "0",
      "files": [ "array of <cache_item> entries" ]
    }
  ]
}
```

The cache item entry has the following JSON structure:

```
{
  "DictationID": "<GUID>",
  "AudioFileName": "DictFileName.ext",
  "DictationState": "<CurrentDictState>",
  "HasAttachment": true|false,
  "AttachmentInfo":
  {
    "FileExtension": ".ext",
    "FileSizeInBytes": 1234,
    "LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
  }
  "IsArchive": true|false,
  "SubfolderHierarchy":
  "\sub\folder\hierarchy\under\finished\or\archive",
  "LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
}
```

If HasAttachment = FALSE, then the value of AttachmentInfo will be NULL.

**3.2.5.2 Error responses**

Code	Description	Response body / value
400	AuthorName is empty, missing or otherwise invalid in request URL	{       "CRI": "<GUID>",       "FailureCode":       "Username_not_valid"     }
400	User xml with author role is not available or not found	{       "CRI": "<GUID>",       "FailureCode":       "User_not_exists"     }
401	Unauthorized	{       "CRI": "<GUID>",       "FailureCode":       "Invalid_api_key"     }

500	Any other error encountered during request processing	{ "CRI": "<GUID>", "FailureCode": "Generic_error" }
-----	---	--

### 3.3 GET /dms/dictations: get information for all dictations belonging to all authors

#### 3.3.1 Request specification

**Purpose:**

Retrieve metadata information of all dictations belonging to all authors which

- have Transcription finished state
- have attached document

**HTTP method:**

GET

**URL template:**

/dms/dictations

**Request headers:**

Header name	Value
<b>x-sps-api-key</b>	<API_key>

#### 3.3.2 Parameters

No special request parameters.

#### 3.3.3 Request body

No request body is needed.

#### 3.3.4 Request URL example

/dms/dictations

#### 3.3.5 Responses

##### 3.3.5.1 Querying dictations is successful

**Description:**

There were no errors when retrieving the list of authors or the list of dictations. Even if no author or no dictations were found, a success result is returned with empty lists.

**Code:**

200

**Response body / value:**

```
{
  "CRI": "<GUID>",
  "data": [
    {
      "user": "AuthornameX",
      "role": "0",
      "files": [ "array of <cache_item> entries" ]
    }
  ]
}
```

The cache item entry has the following JSON structure:

```
{
  "DictationID": "<GUID>",
  "AudioFileName": "DictFileName.ext",
  "DictationState": "<CurrentDictState>",
  "HasAttachment": true|false,
  "AttachmentInfo":
  {
    "FileExtension": ".ext",
    "FileSizeInBytes": 1234,
    "LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
  }
  "IsArchive": true|false,
  "SubfolderHierarchy":
  "\sub\folder\hierarchy\under\finished\or\archive",
  "LastChangedDateTimeUtc": "yyyy-MM-dd HH:mm:ss.fffff"
}
```

If HasAttachment = FALSE, then the value of AttachmentInfo will be NULL.

### 3.3.5.2 Error responses

Code	Description	Response body / value
401	Unauthorized	{       "CRI": "<GUID>",       "FailureCode":       "Invalid_api_key"     }
500	Any other error encountered during request processing	{       "CRI": "<GUID>",       "FailureCode": "Generic_error"     }

## 3.4 GET /dms/dictations/{AuthorName}/{DictationID}/attachment: download attachment of one dictation

### 3.4.1 Request specification

**Purpose:**

Download attachment of the dictation which

- has {DictationID}
- belongs to {AuthorName}
- has Transcription finished state
- has attached document

**HTTP method:**

GET

**URL template:**

/dms/dictations/{AuthorName}/{DictationID}/attachment

**Request headers:**

Header name	Value
-------------	-------



<b>x-sps-api-key</b>	<API_key>
----------------------	-----------

### 3.4.2 Parameters

Parameter name	Description
<b>AuthorName</b>	URL path parameter. The dictation's Author property must match with this name.
<b>DictationID</b>	URL path parameter. The dictation is searched by this ID.

### 3.4.3 Request body

No request body is needed.

### 3.4.4 Request URL example

/dms/dictations/user01/3D8A776F-86FF-4050-96EA-1C325DBF8834/attachment

### 3.4.5 Responses

#### 3.4.5.1 Attachment download is successful

**Description:**

Attachment file of the dictation having {DictationID} and belonging to {AuthorName} is found and downloaded.

**Code:**

200

**Response headers:**

Header name	Value
<b>Content-Type</b>	application/octet-stream
<b>Content-Disposition</b>	see_dictation_attachment; filename=<AudioFilename>.<ext1>.<ext2>
<b>Content-Length</b>	<Attachment_filesize_in_bytes>

**Response body / value:**

The response body contains the file content of the attachment in binary format.

#### 3.4.5.2 Error responses

Code	Description	Response body / value
400	AuthorName is empty, missing or otherwise invalid in request URL	{ "CRI": "<GUID>", "FailureCode": "Username_not_valid" }
400	DictationID is empty, missing or otherwise invalid in request URL	{ "CRI": "<GUID>", "FailureCode": "ID_not_valid" }
400	User xml with author role is not available or not found	{ "CRI": "<GUID>", "FailureCode": "User_not_exists" }

401	Unauthorized	{ "CRI": "<GUID>", "FailureCode": "Invalid_api_key" }
404	Dictation information cannot be found for the specified DictationID	{ "CRI": "<GUID>", "FailureCode": "Dictation_id_not_found" }
404	Dictation information is available, but the dictation has no attachment	{ "CRI": "<GUID>", "FailureCode": "Attachment_not_found" }
409	Dictation with specified DictationID has wrong state	{ "CRI": "<GUID>", "FailureCode": "Dictation_state_not_valid_for_operation" }
500	Any other error encountered during request processing	{ "CRI": "<GUID>", "FailureCode": "Generic_error" }

## 4 Transcription Service API

*Implementation planned in a future iteration.*

## 5 Diagnostics endpoints

### 5.1 Request authentication

By default, incoming requests must be authenticated with Windows Authentication. For more information, please refer to the Administrator's guide.

### 5.2 GET /test/testconfig

#### 5.2.1 Request specification

**Purpose:**

Perform a validation test on the service configuration settings.

**HTTP method:**

GET

**URL template:**

/test/testconfig

**Request headers:**

No special headers.

#### 5.2.2 Parameters

No special request parameters.

#### 5.2.3 Request body

No request body is needed.

#### 5.2.4 Request URL example

/test/testconfig

#### 5.2.5 Responses

##### 5.2.5.1 All test steps are successful

**Description:**

All validation tests passed.

**Code:**

200

**Response body / value:**

The response body is a list of items, each item has the following JSON structure:

```
{
  "StepID": "<step_id_name>",
  "StepResult": "SUCCESS|FAIL",
  "StepDescription": "<step_description_text>"
}
```

List of StepID items:

- 901\_ServerLocalTime
- 001\_SEERootFoundInConfig
- 005\_SEERootExists
- 010\_SEERootStructureCorrect
- 020\_SEELicenseServerAddressFoundInConfig
- 025\_SEELicenseServerPortFoundInConfig

- 030\_SEELicenseServerCanConnect
- 035\_TempRootFolderAccessible
- 101\_AccessTokenLifetimeFoundInConfig

#### 5.2.5.2 Error responses

Code	Description	Response body / value
566	The self-test of the service resulted in an error; the returned content must contain at least one "FAIL" item.	List of <code>StepID</code> items described above.

When a step fails, not all `StepID` items are returned, because the testing process is stopped at the failed step which will be the final one in the list.

## 6 Dictation metadata caching

The Enterprise App Interface service maintains an in-memory dictation metadata cache database. The cache database provides information about dictations located in the user's *Finished* and *Archive* folders. This cache stores the following data:

- dictation ID
- dictation file's physical location
- dictation file's last modification date
- additional dictation XML properties (required by the App Interface service for filtering)

### 6.1 Necessity of caching

As in general, the cache database serves the purpose of quickly accessing data that is frequently used. Moreover – due to the App Interface being an IIS service – unlike in SE clients, the App Interface service cannot run a file system watcher process in the background to keep the actual dictation list refreshed. The reason behind this behavior is that an IIS service is periodically shut down in case the service is inactive.

### 6.2 Dictation lookup

Dictation files are searched in the cache database by their dictation ID. This is a GUID type metadata field stored in the dictation metadata xml file, in property `DictationID`. When the dictation cache item is found in the cache database, the dictation file's physical location is constructed as follows:

folder path of cache items	+	subfolder hierarchy of dictation file	+	name of dictation file
\\FILESERVER\dict\ johndoe\finished\	+	2023- 07\Memo\	+	dict005.wav

### 6.3 Refreshing the cache

#### 6.3.1 Last modification date

During a cache refresh process, each found dictation *file's* modification timestamp is checked against the stored *cache item's* modification timestamp. If the file's modification timestamp is newer than the cached timestamp, then:

- the entire dictation metadata is re-constructed by reading and processing all files from the filesystem that make up a dictation "object" (audio file, XML metadata file, attachment file)
- the cached item is updated

This guarantees that changes made by SE clients are discovered by the App Interface service and accurate information is retrieved by the REST endpoints.

#### 6.3.2 Refresh schedules

Due to the IIS service limitations mentioned above, it is crucial to start refreshing the cache database as quickly as possible after an inactivity period, otherwise the client would receive no information or

outdated dictation information. To reduce the problem of cache staleness, the cache refresh process is started when the following REST endpoints are called:

- POST /app/token (i.e., login request from a client)
- GET /app/dictations/{DictationID}
- GET /app/dictations
- POST /app/getdictationinfolist

For the POST /add/getdictationinfolist endpoint an optional JSON parameter `delayResultReturningInMilliseconds` is available which aims to give the cache refresh process some extra time to complete before `getdictationinfolist` starts retrieving dictation information from the cache.

## 6.4 Cache and SpeechExec clients

When a new dictation is uploaded using the Enterprise App Interface service, the cache database is obviously updated with the new dictation. However, if another Enterprise application, for example Enterprise Dictate or Enterprise Transcribe creates a new / updates an existing dictation, the Enterprise App Interface service will not immediately be aware of the file changes. It is the cache refresh process – triggered by one of the above-mentioned REST endpoints – that will add or update the metadata to the cache database.

## 7 Appendices

### 7.1 Appendix 1: Prohibited attachment file extensions for files uploaded using POST /app/dictations

```

"dss", "ds2", "wav", "wma", "mp3", "xml", "dra", "dir", "sfd", "m4a"

"xsd", "xslt",

"0xe", "73k", "89k",

"a6p", "ac", "acc", "acr", "action", "actm", "ahk", "air", "apk", "app",
"application", "arscript", "as", "asb", "awk", "azw2",

"bat", "beam", "bin", "btm",

"cel", "celx", "chm", "cof", "com", "crt", "cmd", "command", "cpl", "csh",

"dek", "dld", "dll", "dmc", "docm", "dotm", "dxl",

"ear", "ebm", "ebs", "ebs2", "ecf", "eham", "elf", "es", "ex4", "exe",
"exopc", "ezs",

"fas", "fky", "fpi", "frs", "fxp",

"gadget", "gs",

"ham", "hms", "hpf", "hta",

"iim", "inf", "inf1", "ins", "inx", "ipa", "ipf", "isp", "isu",

"jar", "job", "js", "jse", "jsx",

"key", "kix", "ksh",

"lnk", "lo", "ls",

"mam", "mcr", "mel", "mpx", "mrc", "ms", "msc", "msh", "msh1", "msh2",
"mshxml", "msh1xml", "msh2xml", "msi", "msp", "mst", "mxe",

"nex",

"obs", "ore", "osx", "otm", "out",

"paf", "pex", "pif", "plx", "potm", "ppam", "ppsm", "pptm", "prc", "prg",
"ps1", "ps1xml", "ps2", "ps2xml", "psc1", "psc2", "pvd", "pwc", "pyc", "pyo",

"qpx",

"rbx", "reg", "rgs", "rox", "rpj", "run",

"s2a", "sbs", "sca", "scar", "scb", "scf", "scr", "script", "sct", "shb",
"shs", "sldm", "smm", "spr",

"tcp", "thm", "tlb", "tms",

```

```
"u3p", "udf", "upx", "url",  
"vb", "vbe", "vbs", "vbscript", "vlx", "vpm",  
"wcm", "widget", "wiz", "wpk", "wpm", "workflow", "ws", "wsc", "wsh", "wsf",  
"xap", "xbap", "xlam", "xlm", "xlsm", "xltm", "xqt", "xys",  
"z19"
```