

MEDENT API Documentation

Medent API Terms Of Service: 06/20/2016 - MEDENT API TOS

Version: This document applies only to MEDENT version 23.0 and above.

Software Requirements:

Entities that wish to use the MEDENT API do not need to install any additional MEDENT affiliated software, nor do they need to configure any MEDENT affiliated software.

Entities that wish to use MEDENT API will need to create HTTPS POST requests.

They will also need to provide their own ability to obtain and store MEDENT Point of Care IDs and MEDENT Portal credentials (defined below).

They will also need to provide their own ability to resolve response data. This data will be in HL7 Clinical Document Architecture (CDA) R2 format and will be base64 encoded. Base64 decoding can be achieved with web languages such as PHP. The HL7 format standards can be found here:

http://www.hl7.org/implement/standards/product_brief.cfm?product_id=7.

No additional configuration is necessary.

Definitions:

MEDENT Point Of Care (POC) ID:

All MEDENT API POST transactions must contain a valid MEDENT affiliated point of care (POC) ID.

Third party apps must present a list of MEDENT affiliated POC location names to patients when registering to use their app. Patients will choose their POC location from this list and the app will store the POC ID that goes with it. The POC ID is required for all MEDENT API POST transactions on behalf of a patient.

Point of Care IDs will only be available from MEDENT clients with Version 23.0 and above which have MEDENT Portal installed.

MEDENT Portal Credentials (username and password):

MEDENT API POST transactions requesting patient data must contain valid MEDENT POC affiliated login credentials.

MEDENT POC locations subscribed to MEDENT Portal will provide each patient with a MEDENT Portal username and password. The MEDENT Portal username and password is unique to each MEDENT POC location. The MEDENT Portal username and password is required for all MEDENT API transactions to obtain patient data on behalf of a patient.

MEDENT Portal Credentials will only be available from MEDENT clients with Version 23.0 and above which have MEDENT Portal installed.

Usage Summary:

1. **Dynamic Application Registration:** Obtain a MEDENT API registration ID from: <https://medentmobile.com/mapi/register/>
2. **MEDENT Point of Care ID Acquisition:** Use API to obtain list of MEDENT Point of Care (POC) IDs.
3. **MEDENT Portal Credential Acquisition:** Obtain MEDENT Portal credentials from Patients per MEDENT POC location.
4. **Patient Token Acquisition:** Use API to obtain a patient token for given MEDENT Portal credentials and POC ID

5. Data Queries using Patient Token: Use patient token to obtain API supported patient data elements

1. Dynamic Application Registration:

All entities that wish to use the MEDENT API must first obtain a registration ID. Registration is automated. Registration IDs can be used immediately. All MEDENT API POST transactions must contain a valid registration ID. Registration is only required **once**.

To obtain a registration ID:

1. Fill out form at: <https://medentmobile.com/mapi/register/>
 2. Once form is successfully submitted the registration ID will be emailed to the address entered on the form.
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2. MEDENT Point of Care ID Acquisition:

To obtain the Medent affiliated POC locations POST to:

<https://www.medentmobile.com/mapi/services/pocquery.php>

Form parameters:

registration_id: string (**required**) - A valid MEDENT API application registration ID (see section above: Dynamic Application Registration)

Returns: (List of MEDENT affiliated POC locations in XML format)

Below is an explanation of the format and tags contained in MEDENT API POC XML response.

```
<?xml version="1.0" encoding="utf-8" ?>
```

```
# Output is wrapped in a single response.
```

```
<response>
```

```
#see status code responses at the end of this documentation for all possible status codes
```

```
<status>200</status>
```

```
#If status is 200 (SUCCESS), each POC will have entry containing name/ID as follows.
```

```
<poc>
```

```
  <pocname>Example Name 1</pocname>
```

```
  <pocid>IdExample1</pocid>
```

```
</poc>
```

```
<poc>
```

```
  <pocname>Example Name 2</pocname>
```

```
  <pocid>IdExample2</pocid>
```

```
</poc>
```

```
...
```

```
</response>
```

3. MEDENT Portal Credential Acquisition:

Third party apps must present a list of MEDENT affiliated POC location names, obtained above, to patients when registering to use their app. Patients will choose their POC location from this list and provide the MEDENT Portal credentials for this MEDENT POC.

The method of Acquisition is left up to the third party.

4. Patient Token Acquisition:

A patient token must be obtained prior to requesting patient data. To obtain patient tokens POST to:
<https://www.medentmobile.com/mapi/services/index.php>

Form parameters:

registration_id: string (required) - A valid MEDENT API application registration ID (see section above: Dynamic Application Registration)

poc_id: string (required) - A valid MEDENT affiliated POC ID (see section above: MEDENT Point Of Care (POC) ID:)

user_name: string (required) - A valid MEDENT Portal user name for the POC specified by poc_id

password: string (required) - A valid MEDENT Portal password for the POC specified by poc_id

Returns: A patient token that can be used for retrieving patient data or an error code. The patient token's lifetime is determined by the POC office of the patient. It will return a status code of EXPIRED when this lifetime has been met and a new one will be need to be acquired.

Below is an explanation of the format and tags contained in MEDENT API Patient Token XML response.

```
<?xml version="1.0" encoding="utf-8" ?>
```

```
# Output is wrapped in a single response.
```

```
<response>
```

```
#see status code responses at the end of this documentation for all possible status codes
```

```
<status>200</status>
```

```
#If status is 200 (SUCCESS), a patient token will be present
```

```
<patient_token>ExampleToken</patient_token>
```

```
</response>
```

5. Data Queries Using Patient Token:

After a valid patient token has been acquired it can be used to make one or more data queries. To make data queries POST to: <https://www.medentmobile.com/mapi/services/index.php>

Form parameters:

registration_id: string (required) - A valid MEDENT API application registration ID (see section above: Dynamic Application Registration)

poc_id: string (required) - A valid MEDENT affiliated POC ID (see section above: MEDENT Point Of Care (POC) ID:)

patient_token: string (required) - A valid patient token obtained using authenticated credentials

begin_date: string (optional) - Optional field used when date restricted data is required. When used it must be in the format of mm/dd/yyyy. If data is needed to be required for a specific date, use begin_date only (do not use end_date).

end_date: string (optional) - Optional field used when date range restricted data is required. When used must be in the format of mm/dd/yyyy. Note: begin_date is required when end_date is used.

`data_query`: string (required) - A string specifying which data element(s) to be retrieved. If more than one data element is being retrieved they must be separated by a pound sign (#). The following data elements may be specified:

- `patient_name`
- `patient_address`
- `patient_phone`
- `patient_sex`
- `patient_birth_sex`
- `patient_dob`
- `patient_race`
- `patient_ethnicity`
- `patient_preferred_language`
- `patient_smoking_status`
- `patient_problems`
- `patient_medications`
- `patient_allergies`
- `patient_lab_results`
- `patient_test_report_notes`
- `patient_vital_signs`
- `patient_procedures`
- `patient_care_team`
- `patient_immunizations`
- `patient_unique_device_ids`
- `patient_referral`
- `patient_assessment_plan`
- `patient_goals` (note: this goes with `patient_assessment_plan`. If selected, `patient_assessment_plan` will automatically be included with the results)
- `patient_health_concerns` (note: this goes with `patient_assessment_plan`. If selected, `patient_assessment_plan` will automatically be included with the results)
- `patient_tests_ordered` (note: this goes with `patient_assessment_plan`. If selected, `patient_assessment_plan` will automatically be included with the results)
- `patient_clinical_notes`
- `patient_all`

Note: `patient_all` includes **all** data elements

Example of a data query that would retrieve patient name, dob and medications:

```
patient_name#patient_dob#patient_medications
```

Returns: A patient data query will return a status code. If no errors occur it will also contain the patient summary data that was requested. This data will be in HL7 Clinical Document Architecture (CDA) R2 format and will be base64 encoded.

Below is an explanation of the format and tags contained in MEDENT API Data Query response.

```
<?xml version="1.0" encoding="utf-8" ?>
# Output is wrapped in a single response.
<response>
```

```
#see status code responses at the end of this documentation for all possible status codes
<status>200</status>
```

```
#If status is 200 (SUCCESS), patient summary data will be present
<patient_data>Base64EncodedCDA</patient_data>
```

</response>

Optional public CDA stylesheet that can be applied to the CDA in the response for viewing:
https://github.com/chb/sample_ccdas/blob/master/CDA.xsl

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Response Codes:

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General Status Response Codes:

SUCCESS	200	OK
AUTH_FAILED_NO_DATA	418	You have not provided auth data.
AUTH_FAILED	419	The auth data you have provided is invalid.
NOT_IMPLEMENTED	420	The method you are requesting is unsupported.
OVER_LIMIT	421	You have exceeded the request limit.
FIELD_EMPTY	422	Required field is empty.
FIELD_INVALID	423	Field has invalid format
NO_ACCESS	424	You do not have access to this resource.
KEY_EXISTS	425	The resource with this key already exists.
NOT_FOUND	426	The resource with this key is not found.
EXPIRED	427	Resource has expired.

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Patient Token Query Response Codes: (Possible response error codes when attempting to acquire a patient token)

INVALID_USER	428	Invalid user entered to obtain patient token
INVALID_PASSWORD	429	Invalid password entered to obtain patient token
PATIENT_NOT_ACTIVE	430	Patient not active on MEDENT Portal (Patient has not yet activated a MEDENT Portal account using a portal activation code obtained from the MEDENT point of care medical office.)
PATIENT_ACCOUNT_FROZEN	431	MEDENT Portal account frozen (Patient needs to contact their MEDENT point of care medical office to un-freeze the MEDENT Portal account)

Data Query Response Codes:

TOKEN_EXPIRED	432	Patient token is no longer valid
TOKEN_INVALID	433	Patient token is invalid
