

Taito-Valtti API

Terminology

Qvarn

Restful HTTP API for querying and storing business data of Vastuu Group Oy.

Taito-Valtti API

Taito-Valtti API is a restful HTTP service built on top of the the Qvarn API for querying competences of persons using their VALTTI card information. The idea is to gather person's competences / certifications from multiple sources into one place. The API also provides competence types related to the competences.

VALTTI card

VALTTI card is a personal ID card issued by Vastuu Group Oy.

Competence registry authority

An authority which issues competences or/and maintains a registry of all competences. The authority can also organize the training and certification or it be might be handled by a third party in which case competence is just issued by the centralized authority. Maintaining the registry of certificate/competence holders might also be handled by third parties.

Competence holder

A person who has gone through a training or certification and has earned a "competence".

Competence

An umbrella term used to denote that a person has gone through some training or certification and has thus acquired a competence.

Competence type

All competences are of a certain type. Competence type contains name and description information, registry logo and example images of the competence card.

Competence API - querying competences by Valtti card identifiers

API endpoints

```
GET /competences/by_valtti_barcode_id/<valtti_card_barcode_id>
GET /competences/by_valtti_uid/<valtti_card_uid>
```

The endpoints allow to get Valtti card owner's competences by either VALTTI card barcode id or uid. VALTTI barcode id is the barcode id visible on the card. VALTTI uid is an internal id stored into the card chip.

Authentication and authorization

The API follows Qvarn authentication and authorization. An OAuth 2.0 token with scope **taito_valtti** is needed in order to access the competence API endpoints. Token is obtained by making a token request to the authentication endpoint. OAuth 2.0 authentication specifics are not in the scope of this document. OAuth 2.0 **client_id** and **client_secret** (essentially username and password) are needed for the authentication. The account corresponding to the **client_id** needs to have permission to obtain tokens with the needed **taito_valtti** scope. The token is passed in the Authorization HTTP header. Passing the token as a URI query parameter is currently not supported.

Example requests

Search by Valtti card barcode id:

```
GET /competences/by_valtti_barcode_id/121146114869
```

Search by Valtti card uid:

```
GET /competences/by_valtti_uid/0123456789ABCE
```

Result JSON

The result object is the same from both endpoints:

```
{
  "person": {"id": "person resource id"},
  "competences": [
    {
      "id": "competence resource id",
      "valid_from_date": "2015-05-11",
      "valid_until_date": "2015-05-11",
      "competence_type": {
        "id": "competence type resource id",
        "competence_type_id": "competence type readable id",
        "names": [
          {
            "locale": "fi_FI",
            "name": "Tulityolupa"
          },
          {
            "locale": "en_GB",
            "name": "Fire work license"
          }
        ]
      }
    }
  ],
  "competence_card_id": "876",
  "competence_card_holder_names": [
    {
      "full_name": "James Bond"
    }
  ]
}
```

- **person** key contains data related to the card owner. Currently only the resource **id** is returned. Person **id** can be used to obtain full person information from Qvarn using the person resource endpoint.
- **competences** key contains a list of the card owner's competences. A single competence object is:

```

{
  "id": "id",
  "valid_from_date": "2015-05-11",
  "valid_until_date": "2015-05-11",
  "competence_type": {
    "id": "competence type resource id",
    "competence_type_id": "competence type readable id",
    "names": [
      {
        "locale": "fi_FI",
        "name": "Tulityolupa"
      },
      {
        "locale": "en_GB",
        "name": "Fire work license"
      }
    ]
  },
  "competence_card_id": "876",
  "competence_card_holder_names": [
    {
      "full_name": "James Bond"
    }
  ],
  "validation_status": "valid"
}

```

- **competence_type** key contains information about the competence. **id** key refers to the competence type Qvarn internal id which can be used to query Qvarn competence type endpoint for additional information about the competence type beyond what is returned here. **competence_type_id** is a human-readable key or code for the competence type which can be used to identify.
- **competence_card_id** refers to the card id (if any) printed on the physical card. The physical card in this case is not the VALTTI card but the card given to the competence holder by the competence registry holder as a proof of possession that the person has the competence in question. The semantics of the **competence_card_id** are beyond this API specification. Not all competence cards have an id and moreover not all competence registry holders offer a physical card to the competence holder.
- **competence_card_holder_names** refers to the name as printed on the physical card or the name for which the competence is registered in the internal database of the competence registry authority. The card holder name might be different than the person name in the Qvarn database for example if the person has married and has not renewed her/his card.
- **validation_status** contains the competence validation status. A validation status value of **valid** means that the competence is validated from the competence registry authority's master database. It is important to notice that the validation status attribute only marks whether the competence registry originates from the master database and is not related to the competence **valid_from_date** and **valid_until_date** fields. Competence **validation_status** can be **valid** but at the same time according to the **valid_from_date** or **valid_until_date** fields the competence can be expired.

External applications must always check **valid_from_date** and **valid_until_date** and validate whether the competence is expired.

Error messages

The following describes the different error conditions.

CardNotFound

CardNotFound error is returned when the given UID or barcode id is not found in the cards database. HTTP response code is 404 Not Found. In case the card is just recently been issued there might be a delay before it is available through this API.

```

{
  "error": "CardNotFound",
  "message": "The card with given id does not exist."
}

```

InactiveCard

InactiveCard error is returned when the given UID or barcode id refers to a VALTTI card which has either been closed or has been expired.

```
{
  "error": "InactiveCard",
  "message": "The card is inactive or has expired."
}
```

InactivePerson

VALTTI card is tied to a person and a company and single person can have several VALTTI cards for different companies. **InactivePerson** error is returned if the VALTTI card owner does not work anymore for the company to which the card was issued. This case can occur if the person's employment contract has been terminated but his/her VALTTI card has not yet been revoked.

```
{
  "error": "InactivePerson",
  "message": "The person does not work for the organisation for which the card is registered."
}
```

403 Forbidden

HTTP response code `403 Forbidden` is returned if the request contains a valid OAuth 2.0 bearer token but the token does not have the necessary `taito_valtti` scope.

HTTP response header `WWW-Authenticate` contains a more detailed error code.

401 Unauthorized

HTTP response code `401 Unauthorized` is returned if request does not contain a valid OAuth 2.0 bearer token in the `Authorization` header. It is also returned when trying to access the API using an expired token.

HTTP response header `WWW-Authenticate` contains a more detailed error code.

Also, HTTP response body contains a JSON error object describing the error message.

Test data

The test and beta environment contains the following data set which can be used to query competences and validate the client implementation.

Test data description	Test data
Name	Pekka Sähkömies
Company	Suomen Tilajavastuu Oy
Employment	Active
Card status	Active
Barcode id	21NLYU7XEU90

UID	QSBBOX42TOR9
Competences	CT-SFS6002-C valid
Name	Esko Eläkeläinen
Company	Suomen Tilajavastuu Oy
Employment	Active
Card status	Active
Barcode id	AGFSLXATKBZW
UID	B59PCBFL9TGR
Competences	CT-SFS6002-C expired
Name	Fatima Future
Company	Suomen Tilajavastuu Oy
Employment	Active
Card status	Active
Barcode id	VZYUIOOHVFTJ
UID	DOD64X2VSHFK
Competences	CT-SFS6002-C not yet valid
Name	Iiro Irtisanottu
Company	Suomen Tilajavastuu Oy
Employment	Terminated
Card status	Inactive
Barcode id	DPVP3Z71O9LO
UID	IKWBE9C0MGEX
Competences	CT-SFS6002-C valid
Name	Veijo Vuokranen
Company	Vuokrafirma 1 Oy, Vuokrafirma 2 Oy

Employment	Active, Active
Card status	Active, Active
Barcode id	BDUKX4XCQQ8I, IPM3ET915NRB
UID	A0M6CIBM56E9, P636M9YBS9O5
Competences	CT-SFS6002-C valid
Name	Marja Newton
Company	Vuokrafirma 1 Oy
Employment	Active
Card status	Active
Barcode idf	PBV9I56XOEE9
UID	C5KMSY2G499Y
Competences	CT-SFS6002-C valid
Name	Timo Tuunari
Company	Vuokrafirma 1 Oy
Employment	Active
Card status	Active
Barcode id	7EBD96YGC6KJ
UID	JB00L1SVSL6P
Competences	No competences
Name	Tero Terminaattori
Company	Vuokrafirma 1 Oy
Employment	Terminated
Card status	Active
Barcode id	9HVU2HY2LS40
UID	8WC80NCT5YUM
Competences	CT-SFS6002-C valid

Competence types API

This resource stores information about different types of competences.

Synopsis:

- GET /competence_types --- get a list all competence types.
- GET /competence_types/<id>/card_front --- get the card front image of a specific competence type.
- GET /competence_types/<id>/card_back --- get the card back image of a specific competence type.
- GET /competence_types/<id>/registry_logo --- get the registry logo image of a specific competence type.

Errors:

- There are no errors that are specific to this resource.

Example result for competence types:

```
{
  "resources": [
    {
      "id": "367e-6f66d07548370d55e6a56e0f67ad88a9-193e8bbc",
      "competence_type_id": "CT-FIAJOKT-6",
      "names": [
        {
          "locale": "fi_FI",
          "name": "Ajokortti T Suomi"
        },
        {
          "locale": "sv_SE",
          "name": "Körkort T Finland"
        },
        {
          "locale": "en_GB",
          "name": "Driving Licence T Finland"
        }
      ],
      "descriptions": [
        {
          "locale": "fi_FI",
          "description": "Maa- ja metsätaloustraktorit, moottorityökoneet ja moottorikelkat niihin kytkettävine hinattavine ajoneuvoineen"
        },
        {
          "locale": "sv_SE",
          "description": "Jordbruks- och skogsbrukstraktorer, motordrivna maskiner och snöskotrar som skall anslutas till släpfordonet."
        },
        {
          "locale": "en_GB",
          "description": "Agricultural and forestry tractors, motor machines, and snowmobiles to be connected to the towed vehicle."
        }
      ]
    }
  ]
}
```

Fields in the result:

- `competence_type_id` --- a user defined identification for this competence type
- `names` --- a list of names for the competence type, perhaps in different locales; there can be multiple names (aliases) in one locale; the fields for one entry are:
 - `locale` --- the locale code
 - `name` --- a name for the competence in the given locale
- `descriptions` --- a list of descriptions for the competence type; the description can be given in any locale, but only once per locale
 - `locale` --- the locale code
 - `description` --- the description for the competence in the given locale