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Technical Specification

Personnel API

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1 Introduction

The Personnel API provides services that make it possible to import and export personnel. The services in the Personnel API are accessed via URIs.

This document describes following:

- Which information that a user can import and export via the Personnel API.

- How the personnel information is divided into entities and how these entities are structured.

1.1 Prerequisites

Before you can get access to the Personnel API you must request a license key from Tieto. You should have basic knowledge on Swedish school system and W3C XML before you start using the API.

2 Supported school types

The table below describes the supported types of school.

School type	Description	Code
Pedagogical care	Childcare groups for children between 1-12 years	PC
Preschool	Childcare for children between 1-6 years	FS
Leisure time centre	Childcare for school-aged children over 6 years	F
Preschool class	Preschool class for children 6 years of age	FK
Compulsory School	Primary school for younger students	GR
Compulsory School For Learning Disabilities	Compulsory school for learning disabilities	S
Upper Secondary School	Secondary school. 3-4 years education	GY
Upper Secondary School For Learning Disabilities	Secondary school for learning disabilities	GS
Swedish For Immigrants School	Swedish for immigrants school	SF
Adult School For Learning Disabilities	School for adults with learning disabilities	SV
Municipal Adult School	Municipality school for adults	KV
Higher Vocational Education	Higher vocational education	YH

3 Domain model

The diagram below describes how the information is divided into entities and how these entities are structured. The domain object Unit can refer to either a real Unit, an Area or an Organization. These are all domain objects described in the Organization API v5, and are retrievable using the GetMunicipalOrganization service.
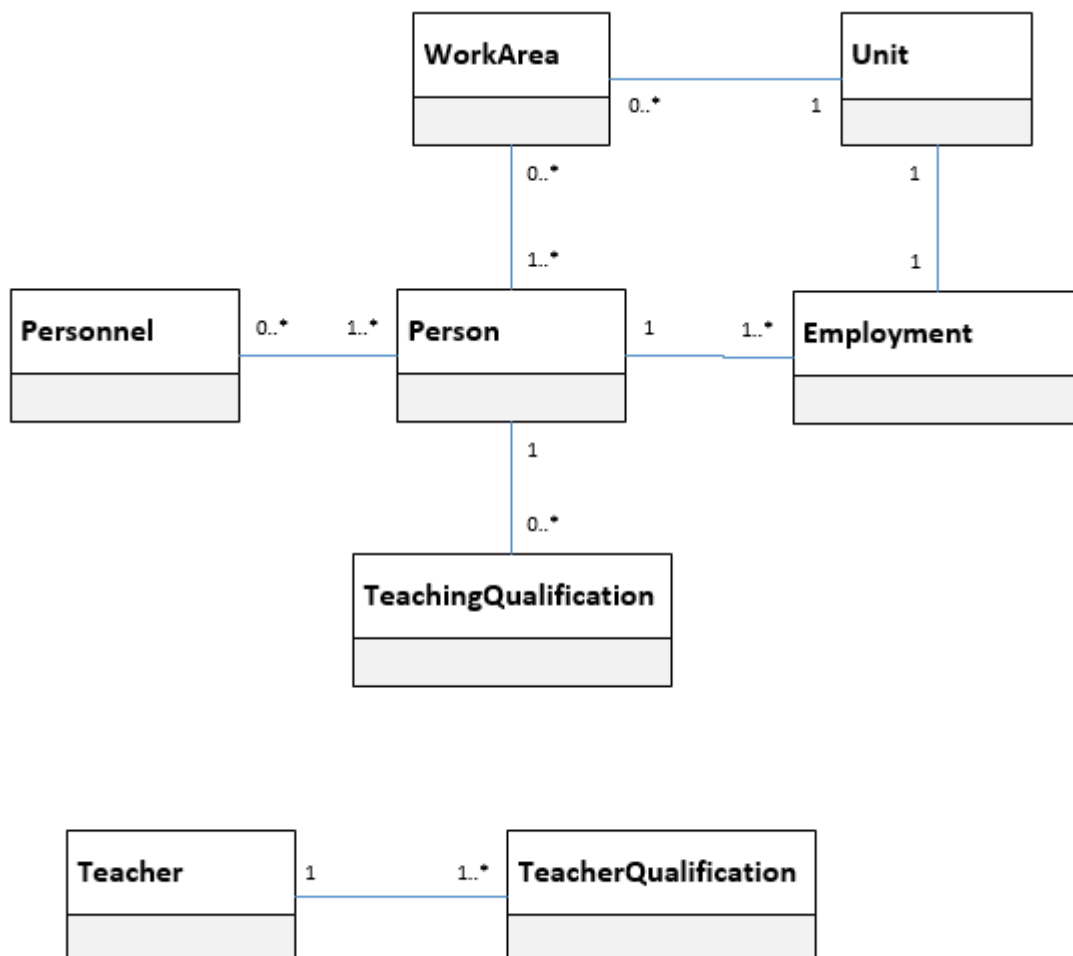
4 Entities

4.1 Properties

The delivery information of the Personnel data that is used to manage the exchange of data between source and target system.

Name	Description
datetime	The date and time the XML information were generated. The format is as [YYYY-MM-DDTHH:MM:SS]
datasource	This is the source identifier of data source, for export the datasource contains customer domain.
comments	Input values for the service, in free text format.
type	States the performed operation at export: • Complete personnel • Delta personnel Must be set as Delta personnel at import
schooltype	The schooltype of which the data is encompassing
timeframe	Time frame for the personnel data

4.2 Personnel

Name	Description	Read-only
person	A number a persons	Yes

4.3 Person

Name	Description	Read-only
id	GUID for the personnel	Yes
personid	Person id for the personnel	Yes
firstname	First name	Yes
middlename	Middle name	Yes
lastname	Last name	Yes
privacy	The person has restrictions. 　None　　　　None 　Level1　　　Privacy highlighted by the "Skatteverket".	Yes
status	Status for the person	Yes

Name	Description	Read-only
	Normal The person is alive and lives in Sweden Deceased The person has deceased Emigrated The person has emigrated	
employment	Employment	Yes
workarea	Work area	Yes
teachingqualification	Teaching qualification	Yes
change	This is only used in delta export of personnel. It indicates the type of change Add The person has been added Update The person has been updated Delete The person has been deleted	Yes
timestamp	Time when the person was added, updated or deleted.	Yes
tel	Phone numbers	No
tel.teltype	Identifies the type of telephone number. Enumerated as Voice, Mobile and Work where Voice is home phone.	No
emailwork	E-mail address for professional work	No
emailhome	Email home address	No
gender	The gender of the Person. This is enumerated as Unknown, Female and Male	Yes
bday	The birth date of the Person. The format is [YYYY-MM-DD]	Yes
adr.pobox	Not used.	Yes
adr.extadd	Not used.	Yes
adr.street	The actual street address	No
adr.locality	The locality component of the address e.g., the City	No
adr.region	Not used.	Yes
adr.pcode	The post identity number	No
adr.country	Not used.	Yes
geographickeycode	Geographic key code	Yes
municipalitycode	Municipality code, formatted [NNNN], for more information see www.skl.se	Yes
municipalityname	Municipality name	Yes
nativelanguage	Native language, formatted as longer a form of language name	Yes

4.4 Employment

Name	Description		Read-only
id	Id for the employment		Yes
start	Start date for the employment		Yes
end	End date for the employment		Yes
signature	Signature		Yes
email	Email		Yes
phone	Phone number		Yes
category	Category *TeachingPersonnel* *OtherPersonnel*	Teaching personnel Other personnel	Yes
unit	Unit		Yes
titlecode	Code for the title		Yes
titlename	Name for the title		Yes
type	Type of employment *Other* *Project* *UntilFurther* *Substitute* *CertainTime* *Unknown*	Other Project Until further Substitute Certain time Unknown	Yes

4.5 Unit

Name	Description	Read-only
id	The unit id	Yes
name	Name of the unit	Yes
schooltype	School type	Yes

4.6 TeachingQualification

Name	Description	Read-only
schooltype	A school type a personnel is qualified to teach in	Yes
fromschoolyear	The first school year a personnel is qualified to teach in	Yes
toschoolyear	The last school year a personnel is qualified to teach in	Yes
subjects	The subjects a personnel is qualified to teach in	Yes

4.7 WorkArea

Name	Description	Read-only
unit	The unit where the person is working in the area	Yes
start	Start date for the persons work in the work area	Yes
end	End date for the persons work in the work area	Yes
code	Code for the work area	Yes
name	Name for the work area	Yes
note	Note for the persons work in the work area	Yes
hours	Number of hours the person is planned to work in the area	Yes

4.8 Teachers

This structure – and the one in 4.9 Teacher's Qualification below – are identical with the structure defined by Skolverket in their export of teacher qualifications.

Name	Description	Read-only
socialsecuritynumber	The social security number of the teacher	No
firstname	First name	No
middlename	Middle name	No
lastname	Last name	No
givenname	Given name	No
warning	List of warnings for a teacher	No
warning.decisiondate	Date of decision to give the warning to the teacher	No
license	List of licenses for a teacher	No
license.typeoflicense	Type of license: TEACHER or PRESCHOOL_TEACHER	No
license.lecturertitle	Lecturer title	No
foreignexamtitle	List of foreign exam titles for a teacher	No
qualifications	List of qualification for a teacher describing items for which a teacher is qualified to teach	No

4.9 Teacher's Qualification

Name	Description	Read-only
typeofqualification	Type of qualification: SUBJECT, SCHOOL_TYPE or STUDY_PATH	No
typeofschooling	School type according to Skolverket, (see 4.9.1)	No
code	Code identifying subject or study_path	No

Name	Description	Read-only
subcode	Sub code for generic subjects, like MOD (Modern languages)	No
name	Name of the qualification	No
fromyear	The start year for which this qualification applies	No
toyear	The end year for which this qualification applies	No
specializationcode	Code indicating that a qualification is the result of special pedagogue degree	No
specializationname	Name of specialization	No
studypathcode	Code of studyPath	No
studypathname	Name of studyPath	No

4.9.1 School types according to Skolverket

Name	Description
LEISURE_TIME_CENTER	Fritidshemmet
PRE_SCHOOL	Förskolan
PRE_SCHOOL_CLASS	Förskoleklassen
SWEDISH_FOR_IMMIGRANTS	Utbildning i svenska för invandrare
COMPULSORY_SCHOOL	Grundskolan
EDU_FOR_PUPILS_WITH_LEARNING_DISABILITIES	Grundsärskolan
UPPER_SECONDARY_EDUCATION	Gymnasieskolan
EDU_FOR_ADULTS_WITH_LEARNING_DISABILITIES	Gymnasiesärskolan
BASIC_ADULT_EDUCATION	Kommunal vuxenutbildning på grundläggande nivå
BASIC_ADULT_EDUCATION_FOR_PUPILS_WITH_LEARNING_DISABILITIES	Särskild utbildning för vuxna på grundläggande nivå
ADULT_SECONDARY_EDUCATION	Kommunal vuxenutbildning på gymnasial nivå
ADULT_SECONDARY_EDUCATION_FOR_PUPILS_WITH_LEARNING_DISABILITIES	Särskild utbildning för vuxna på gymnasial nivå
SAMI_SCHOOL	Sameskolan
SPECIAL_SCHOOL_FOR_PUPILS_WITH_IMPAIRED_HEARING	Specialskolan
EDUCATION_FOR_CHILDREN_WITH_SEVERE_LEARNING_DISABILITIES	Träningsskolan

5 Services

All services are based on HTTP REST technology and organized in school types to match each school structure. "Update services" are using the method HTTP POST and "Get services" are using the method HTTP GET.

5.1 Complete export of personnel

The services below give personnel at a specified date. The output is XML information with personnel.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Personnel/V2/Personnel.svc

Parameters – Alternative 1:

Parameter	Mandatory	Description
SearchDate	No	The search date. Current date will be used if SearchDate is not specified. The oldest search date that can be used is current date minus ten years.

Parameters – Alternative 2:

Parameter	Mandatory	Description
UnitId	No	Id for the school unit. Personnel for all school units will be returned if UnitId is not specified.
SearchDate	No	The search date. Current date will be used if SearchDate is not specified. The oldest search date that can be used is current date minus ten years.

Parameters – Alternative 3:

Parameter	Mandatory	Description
PersonId	No	Id for the person. Personnel for all school units will be returned if PersonId is not specified.
SearchDate	No	The search date. Current date will be used if SearchDate is not specified. The oldest search date that can be used is current date minus ten years.

Services:

Service	Description
GetPedagogicalCarePersonnel	Get personnel for pedagogical care.
GetPreSchoolPersonnel	Get personnel for preschool.

Service	Description
GetLeisureTimeCentrePersonnel	Get personnel for leisure time centre.
GetPreSchoolClassPersonnel	Get personnel for preschool class
GetCompulsorySchoolPersonnel	Get personnel for compulsory schools
GetCompulsorySchoolForLearningDisabilitiesPersonnel	Get personnel for compulsory school with learning disabilities
GetUpperSecondarySchoolPersonnel	Get personnel for upper secondary school
GetUpperSecondarySchoolForLearningDisabilitiesPersonnel	Get personnel for upper secondary school with learning disabilities
GetSwedishForImmigrantsSchoolPersonnel	Get personnel for Swedish for immigrants
GetMunicipalAdultSchoolPersonnel	Get personnel for municipal adult school
GetAdultSchoolForLearningDisabilitiesPersonnel	Get personnel for adult school with learning disabilities
GetHigherVocationalEducationPersonnel	Get personnel for higher vocational education

5.1.1 Same data in different school types

In some cases, the same data might occur when requesting data from different school types. This is due to the fact that some employments and work tasks are not bound to a certain school type.

Employments on Units in primary school types (GR, S, FK, FS, F, PC) are not registered on a specific school type. Therefor such employments are replicated on all school types present on that particular Unit.

Employments and work tasks on Areas are shown on all six primary school types, since such employments/work tasks have no relation to any school type whatsoever.

5.2 Delta export of personnel

These services give the personnel changes done within a specified timeframe. The output is XML information with changed personnel entities. For each changed entity the attribute "change" is used to indicate the type of change. The attribute "change" is enumerated as Add, Update and Delete. All changed entities have a timestamp stored in the extension attribute "timestamp" for all entities to secure information quality.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Personnel/V2/Personnel.svc

Parameters:

Parameter	Mandatory	Description
StartDate	Yes	Start date&time
EndDate	Yes	End date&time

Parameter value limitations:

- EndDate – StartDate >= 5 minutes

- EndDate – StartDate <= 24 hours

- Current time – EndDate >= 5 minutes

- Current time – StartDate <= 30 days

Services:

Service	Description
GetPedagogicalCarePersonnelDelta	Get personnel for pedagogical care.
GetPreSchoolPersonnelDelta	Get personnel for preschool.
GetLeisureTimeCentrePersonnelDelta	Get personnel for leisure time centre.
GetPreSchoolClassPersonnelDelta	Get personnel for preschool class
GetCompulsorySchoolPersonnelDelta	Get personnel for compulsory schools
GetCompulsorySchoolForLearningDisabilitiesPersonnelDelta	Get personnel for compulsory school with learning disabilities
GetUpperSecondarySchoolPersonnelDelta	Get personnel for upper secondary school
GetUpperSecondarySchoolForLearningDisabilitiesPersonnelDelta	Get personnel for upper secondary school with learning disabilities
GetSwedishForImmigrantsSchoolPersonnelDelta	Get personnel for Swedish for immigrants
GetMunicipalAdultSchoolPersonnelDelta	Get personnel for municipal adult school
GetAdultSchoolForLearningDisabilitiesPersonnelDelta	Get personnel for adult school with learning disabilities
GetHigherVocationalEducationPersonnelDelta	Get personnel for higher vocational education

5.2.1 Use Cases

Some use cases for delta export of personnel:

Personnel change	The XML information that is output from the service contains
Add a new person to the personnel (i.e. the person gets his/hers first employment/work task in actual school type)	- The new person with the attribute "change" set to "Add"
Remove the last employment/work task (even historical ditto) from a personnel in actual school type	- The removed person with the attribute "change" set to "Delete" - Only personal information are shown in the person-element

Personnel change	The XML information that is output from the service contains
Update of a person in the personnel	- The person with the attribute "change" set to "Update" - All actual and future employments/work tasks are shown, together with eventual changed items that are in the past

5.3 Update of personnel

The services update the personnel info at a school.

Using the services you can
- update personnel contact information

The services take no parameters.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Personnel/V2/Personnel.svc

Services:

Service	Description
UpdatePedagogicalCarePersonnel	Update personnel for pedagogical care.
UpdatePreSchoolPersonnel	Update personnel for preschool.
UpdateLeisureTimeCentrePersonnel	Update personnel for leisure time centre.
UpdatePreSchoolClassPersonnel	Update personnel for preschool class
UpdateCompulsorySchoolPersonnel	Update personnel for compulsory schools
UpdateCompulsorySchoolForLearningDisabilitiesPersonnel	Update personnel for compulsory school with learning disabilities
UpdateUpperSecondarySchoolPersonnel	Update personnel for upper secondary school
UpdateUpperSecondarySchoolForLearningDisabilitiesPersonnel	Update personnel for upper secondary school with learning disabilities
UpdateSwedishForImmigrantsSchoolPersonnel	Update personnel for Swedish for immigrants
UpdateMunicipalAdultSchoolPersonnel	Update personnel for municipal adult

Service	Description
	school
UpdateAdultSchoolForLearningDisabilitiesPersonnel	Update personnel for adult school with learning disabilities
UpdateHigherVocationalEducationPersonnel	Update personnel for higher vocational education

5.4 Update of teachers' qualifications

The service update the teachers' qualifications.

The services take no parameters.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Personnel/V2/Personnel.svc

Services:

Service	Description
UpdateTeachersQualifications	Updates the qualifications for the supplied teachers

6 Appendix

6.1 References

Name	Address
Personnel API XML schemas and examples	https://github.com/ExchangeServices

6.2 Vocabulary

Word	Description