Lifecare Exchange Services
Monitoring API

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Tieto Healthcare and Welfare AB
Education

Version 1.0
2015-01-30

Technical Specification

Monitoring API

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1 Introduction

The Monitoring API in Lifecare Exchange Services provides services that make it possible to get and set the students absence and presence. The services in the Monitoring API are accessed via URIs.

This document describes following:

- Which absence and presence information that a user can get and set via the Monitoring API.

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

1.1 Prerequisites

Before you can get access to the Monitoring 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
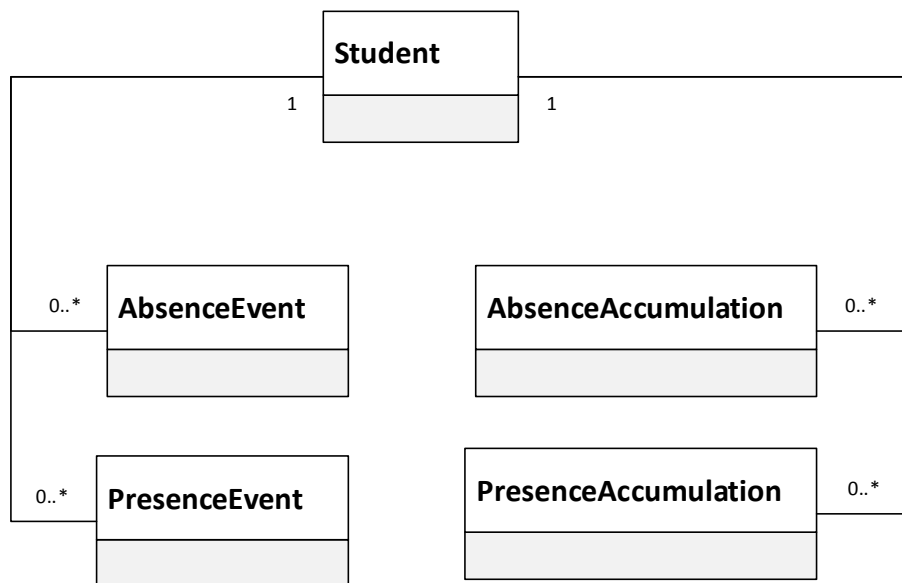
The table below describes the supported types of school.

School type	Description	Code
Compulsory School	Primary school organization for younger students	GR
Compulsory School For Learning Disabilities	Organization for compulsory school for learning disabilities	S
Upper Secondary School	Upper secondary school organization 3-4 years education	GY
Upper Secondary School For Learning Disabilities	Organization for upper secondary school for learning disabilities	GS
Swedish For Immigrants School	Organization for Swedish immigrants	SF
Adult School For Learning Disabilities	Organization for adult school for learning disabilities	SV
Municipal Adult School	Municipality school organization for adults	KV
Higher Vocational Education	Organizations for Higher Vocational Education	YH

3 Absence and presence

3.1 Description

This chapter describes absence and presence entities and their attributes.

3.2 Domain model

Student

AbsenceEvent 0..*

AbsenceAccumulation 0..*

PresenceEvent 0..*

PresenceAccumulation 0..*

3.3 Entities

3.3.1 Student

Name	Description	Read-only
id	Student identity. The id can be GUID or PID for the student.	No
name	Student name	Yes

3.3.2 AbsenceEvent

Name	Description	Read-only
student	Student	No
start	Start time	No
end	End time	No
reason	Reason for an absence.	No

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Name	Description		Read-only
	Valid	Indicates that the absence is valid	
	Invalid	Indicates that the absence is invalid	

3.3.3 PresenceEvent

Name	Description	Read-only
student	Student	No
start	Start time	No
end	End time	No

3.3.4 AbsenceAccumulation

Name	Description		Read-only
student	Student		No
hours	Total amount of hours of presence or absence		No
minutes	Total amount of minutes of presence or absence		No
start	The start date for the accumulation period		No
end	The end date for the accumulation period		No
code	Course code. Only used for SFI.		No
reason	Reason for an absence.		No
	Valid	Indicates that the absence is valid	
	Invalid	Indicates that the absence is invalid	

3.3.5 PresenceAccumulation

Name	Description	Read-only
student	Student	No
hours	Total amount of hours of presence or absence	No
minutes	Total amount of minutes of presence or absence	No
start	The start date for the accumulation period	No
end	The end date for the accumulation period	No
code	Course code. Only used for SFI.	No

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4 Services

All network services are based on HTTP REST technology and organized in school types to match each school structure. Importing information is using the method HTTP POST and export information is using the method HTTP GET.

4.1 AbsenceEvents

4.1.1 Export

The services below give absence events for a student or absence events created within a specified date interval. The output is XML information with absence events.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Monitoring/V1/Monitoring.svc

Parameters – Alternative 1:

Parameter	Mandatory	Description
Id	Yes	Student identity. The id can be GUID or PID for the student.

Parameters – Alternative 2:

Parameter	Mandatory	Description
StartDate	Yes	Start date in the format YYYY-MM-DD.
EndDate	Yes	End date in the format YYYY-MM-DD. The maximum allowed difference between start date and end date is one year.

Services:

Service	Description
GetCompulsorySchoolAbsenceEvents	Get absence events for compulsory schools student
GetCompulsorySchoolForLearningDisabilitiesAbsenceEvents	Get absence events for compulsory school with learning disabilities student
GetUpperSecondarySchoolAbsenceEvents	Get absence events for upper secondary school student
GetUpperSecondarySchoolForLearningDisabilitiesAbsenceEvents	Get absence events for upper secondary school with learning disabilities student
GetSwedishForImmigrantsSchoolAbsenceEvents	Get absence events for Swedish for immigrants student
GetMunicipalAdultSchoolAbsenceEvents	Get absence events for municipal adult school student
GetAdultSchoolForLearningDisabilitiesAbsenceEvents	Get absence events for adult school with learning disabilities student

Service	Description
GetHigherVocationalEducationAbsenceEvents	Get absence events for higher vocational education student

4.1.2 Import

The services below update or add new absence events. The services take no parameters.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Monitoring/V1/Monitoring.svc

Services:

Service	Description
UpdateCompulsorySchoolAbsenceEvents	Update or add new absence events for compulsory schools student
UpdateCompulsorySchoolForLearningDisabilitiesAbsenceEvents	Update or add new absence events for compulsory school with learning disabilities student
UpdateUpperSecondarySchoolAbsenceEvents	Update or add new absence events for upper secondary school student
UpdateUpperSecondarySchoolForLearningDisabilitiesAbsenceEvents	Update or add new absence events for upper secondary school with learning disabilities student
UpdateSwedishForImmigrantsSchoolAbsenceEvents	Update or add new absence events for Swedish for immigrants student
UpdateMunicipalAdultSchoolAbsenceEvents	Update or add new absence events for municipal adult school student
UpdateAdultSchoolForLearningDisabilitiesAbsenceEvents	Update or add new absence events for adult school with learning disabilities student
UpdateHigherVocationalEducationAbsenceEvents	Update or add new absence events for higher vocational education student

4.2 PresenceEvents

4.2.1 Export

The services below give presence events for a student or presence events created within a specified date interval. The output is XML information with presence events.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Monitoring/V1/Monitoring.svc

Parameters – Alternative 1:

Parameter	Mandatory	Description
Id	Yes	Student identity. The id can be GUID or PID for the student.

Parameters – Alternative 2:

Parameter	Mandatory	Description
StartDate	Yes	Start date in the format YYYY-MM-DD.
EndDate	Yes	End date in the format YYYY-MM-DD. The maximum allowed difference between start date and end date is one year.

Services:

Service	Description
GetCompulsorySchoolPresenceEvents	Get presence events for compulsory schools student
GetCompulsorySchoolForLearningDisabilitiesPresenceEvents	Get presence events for compulsory school with learning disabilities student
GetUpperSecondarySchoolPresenceEvents	Get presence events for upper secondary school student
GetUpperSecondarySchoolForLearningDisabilitiesPresenceEvents	Get presence events for upper secondary school with learning disabilities student
GetSwedishForImmigrantsSchoolPresenceEvents	Get presence events for Swedish for immigrants student
GetMunicipalAdultSchoolPresenceEvents	Get presence events for municipal adult school student
GetAdultSchoolForLearningDisabilitiesPresenceEvents	Get presence events for adult school with learning disabilities student
GetHigherVocationalEducationPresenceEvents	Get presence events for higher vocational education student

4.2.2 Import

The services below update or add new presence events. The services take no parameters.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Monitoring/V1/Monitoring.svc

Services:

Service	Description
UpdateCompulsorySchoolPresenceEvents	Update or add new presence events for compulsory schools student
UpdateCompulsorySchoolForLearningDisabilitiesPresenceEvents	Update or add new presence events for compulsory school with learning disabilities student
UpdateUpperSecondarySchoolPresenceEvents	Update or add new presence events for upper secondary school student
UpdateUpperSecondarySchoolForLearningDisabilitiesPresenceEvents	Update or add new presence events for upper secondary school with learning disabilities student
UpdateSwedishForImmigrantsSchoolPresenceEvents	Update or add new presence events for Swedish for immigrants student
UpdateMunicipalAdultSchoolPresenceEvents	Update or add new presence events for municipal adult school student
UpdateAdultSchoolForLearningDisabilitiesPresenceEvents	Update or add new presence events for adult school with learning disabilities student
UpdateHigherVocationalEducationPresenceEvents	Update or add new presence events for higher vocational education student

4.3 AbsenceAccumulation

4.3.1 Export

The services below give accumulated absence for a student or accumulated absence created within a specified date interval. The output is XML information with accumulated absence.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Monitoring/V1/Monitoring.svc

Parameters – Alternative 1:

Parameter	Mandatory	Description
Id	Yes	Student identity. The id can be GUID or PID for the student.

Parameters – Alternative 2:

Parameter	Mandatory	Description

Parameter	Mandatory	Description
StartDate	Yes	Start date in the format YYYY-MM-DD.
EndDate	Yes	End date in the format YYYY-MM-DD. The maximum allowed difference between start date and end date is one year.

Services:

Service	Description
GetCompulsorySchoolAbsenceAccumulation	Get accumulated absence for compulsory schools student
GetCompulsorySchoolForLearningDisabilitiesAbsenceAccumulation	Get accumulated absence for compulsory school with learning disabilities student
GetUpperSecondarySchoolAbsenceAccumulation	Get accumulated absence for upper secondary school student
GetUpperSecondarySchoolForLearningDisabilitiesAbsenceAccumulation	Get accumulated absence for upper secondary school with learning disabilities student
GetSwedishForImmigrantsSchoolAbsenceAccumulation	Get accumulated absence for Swedish for immigrants student
GetMunicipalAdultSchoolAbsenceAccumulation	Get accumulated absence for municipal adult school student
GetAdultSchoolForLearningDisabilitiesAbsenceAccumulation	Get accumulated absence for adult school with learning disabilities student
GetHigherVocationalEducationAbsenceAccumulation	Get accumulated absence for higher vocational education student

4.3.2 Import

The services below update or add new accumulated absence. The services take no parameters.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Monitoring/V1/Monitoring.svc

Services:

Service	Description
UpdateCompulsorySchoolAbsenceAccumulation	Update or add new accumulated absence for compulsory schools student
UpdateCompulsorySchoolForLearningDisabilitiesAbsenceAccumulation	Update or add new accumulated absence for

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Service	Description
	compulsory school with learning disabilities student
UpdateUpperSecondarySchoolAbsenceAccumulation	Update or add new accumulated absence for upper secondary school student
UpdateUpperSecondarySchoolForLearningDisabilitiesAbsenceAccumulation	Update or add new accumulated absence for upper secondary school with learning disabilities student
UpdateSwedishForImmigrantsSchoolAbsenceAccumulation	Update or add new accumulated absence for Swedish for immigrants student
UpdateMunicipalAdultSchoolAbsenceAccumulation	Update or add new accumulated absence for municipal adult school student
UpdateAdultSchoolForLearningDisabilitiesAbsenceAccumulation	Update or add new accumulated absence for adult school with learning disabilities student
UpdateHigherVocationalEducationAbsenceAccumulation	Update or add new accumulated absence for higher vocational education student

4.4 PresenceAccumulation

4.4.1 Export

The services below give accumulated presence for a student or accumulated presence created within a specified date interval. The output is XML information with accumulated presence.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Monitoring/V1/Monitoring.svc

Parameters – Alternative 1:

Parameter	Mandatory	Description
Id	Yes	Student identity. The id can be GUID or PID for the student.

Parameters – Alternative 2:

Parameter	Mandatory	Description
StartDate	Yes	Start date in the format YYYY-MM-DD.

Parameter	Mandatory	Description
EndDate	Yes	End date in the format YYYY-MM-DD. The maximum allowed difference between start date and end date is one year.

Services:

Service	Description
GetCompulsorySchoolPresenceAccumulation	Get accumulated presence for compulsory schools student
GetCompulsorySchoolForLearningDisabilitiesPresenceAccumulation	Get accumulated presence for compulsory school with learning disabilities student
GetUpperSecondarySchoolPresenceAccumulation	Get accumulated presence for upper secondary school student
GetUpperSecondarySchoolForLearningDisabilitiesPresenceAccumulation	Get accumulated presence for upper secondary school with learning disabilities student
GetSwedishForImmigrantsSchoolPresenceAccumulation	Get accumulated presence for Swedish for immigrants student
GetMunicipalAdultSchoolPresenceAccumulation	Get accumulated presence for municipal adult school student
GetAdultSchoolForLearningDisabilitiesPresenceAccumulation	Get accumulated presence for adult school with learning disabilities student
GetHigherVocationalEducationPresenceAccumulation	Get accumulated presence for higher vocational education student

4.4.2 Import

The services below update or add new accumulated presence. The services take no parameters.

Base path for services are: https://[host]/WE.Education.Integration.Host/LES/Monitoring/V1/Monitoring.svc

Services:

Service	Description
UpdateCompulsorySchoolPresenceAccumulation	Update or add new accumulated presence for compulsory schools student
UpdateCompulsorySchoolForLearningDisabilitiesPresenceAccumulation	Update or add new accumulated presence for

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Service	Description
	compulsory school with learning disabilities student
UpdateUpperSecondarySchoolPresenceAccumulation	Update or add new accumulated presence for upper secondary school student
UpdateUpperSecondarySchoolForLearningDisabilitiesPresenceAccumulation	Update or add new accumulated presence for upper secondary school with learning disabilities student
UpdateSwedishForImmigrantsSchoolPresenceAccumulation	Update or add new accumulated presence for Swedish for immigrants student
UpdateMunicipalAdultSchoolPresenceAccumulation	Update or add new accumulated presence for municipal adult school student
UpdateAdultSchoolForLearningDisabilitiesPresenceAccumulation	Update or add new accumulated presence for adult school with learning disabilities student
UpdateHigherVocationalEducationPresenceAccumulation	Update or add new accumulated presence for higher vocational education student

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5 Appendix

5.1 References

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

5.2 Vocabulary

Word	Description
Child	Children below 6 year
Student	School student 6 year and older
PID	Personal identity, formatted [YYYYMMDD-NNNN]
GUID	Global unique identifier