臺北市教育人員統一身份驗證服務

資料介接手冊

壹、資料介接專案申請流程

請以電子郵件與專案聯絡人申請資料介接，並填寫申請表。

專案聯絡人：謝琪文

電子郵件：chiwen168@gmail.com

貳、授權模式：

本系統所提供之資料，包含：學校公開資訊、個人資訊等兩種不同保密要求之資料，依照資料的分類及允許處理資料的方式，共提供三種不同授權方式，應用程式開發者應在不同場合，使用不同授權模式進行資料介接。

一、專案授權：

讀取學校公開資訊，請使用此授權模式。審核通過之專案，可以憑藉專案代號（client\_id，為專案流水號）及專案密碼（client\_secret，為雜湊字串），向伺服器交換授權金鑰（access\_token）即可進行相關資料查詢，無需使用者介入。

二、個資授權：

讀取學校人員資訊，須由個資當事人進行授權，若個資當事人未滿 13 歲，應先取得家長之書面同意後，始可使用此模式進行存取。進行使用者授權時，將由使用者依據應用程式想要存取的資料欄位，自行決定是否同意提供該資料給應用程式，並可於事後隨時取消授權。

三、代理授權：

進行學校資料維護操作，例如：新增、刪除、修改學校或人員之資料，必須由各校管理人員於本系統管理介面，預先製作授權金鑰，然後將金鑰交予應用程式，應用程式可以代理該管理人員，使用金鑰介接系統並進行資料操作。

参、資料授權範圍：

|  |  |  |  |
| --- | --- | --- | --- |
| **Scope** | 授權模式 | 資料操作 | 資料內容 |
| oauth | - | 取得、交換授權碼及金鑰 | 授權碼、金鑰 |
| me | 個資授權 | 讀取（相容於 OIDC SP） | 目前登入者的姓名與電子郵件信箱 |
| email | 個資授權 | 讀取 | 目前登入者的電子郵件信箱 |
| user | 個資授權 | 讀取，修改電子郵件與手機號碼，啟用或關閉替代登入功能 | 使用者之唯一編號、姓名、電子郵件、手機號碼等四個欄位 |
| idno | 個資授權 | 讀取 | 使用者之身分證字號 |
| profile | 個資授權 | 讀取 | 使用者之角色、性別、生日、所屬學校、單位、職稱、就讀班級、座號等八個欄位 |
| account | 個資授權 | 修改自訂帳號及密碼 | 不提供任何資料 |
| school | 專案授權 | 讀取 | 移除個資之後的各項學校資料 |
| schoolAdmin | 代理授權 | 讀取全校所有人員資料，修改學校單位、職務、班級資料，新增、刪除、修改學校教師或學生資料 | 提供取得授權學校之所有資料 |

肆、資料存取端口

網址：https://ldap.tp.edu.tw

| **endpoint** | **scope** | **HTTP**協定 | 功能說明 |
| --- | --- | --- | --- |
| /oauth/authorize | oauth | GET | 應用程式請求個資授權，將導向到使用者登入頁面以及授權頁面，授權成功後，將授權碼傳送到專案之重導向網址（redirect\_uri） |
| /oauth/token | oauth | POST | 應用程式傳送授權碼向伺服器請求金鑰，系統將產生存取金鑰與交換金鑰，並回傳金鑰給 client。 |
| 應用程式在存取金鑰過期（1天）後，可以傳送交換金鑰以取得更新後之存取金鑰，交換金鑰可使用期限為30天。 |
| 應用程式傳送專案代號及密碼，並取得專案授權之存取金鑰。 |
| /api/v2/logout | 任意 | POST | 登出使用者，並移除授權金鑰 |
| /api/v2/email | email | GET | 取得目前登入者的電子郵件信箱 |
| /api/v2/me | me | GET | 取得目前登入者的姓名與電子郵件信箱 |
| /api/v2/user | user | GET | 取得目前登入者的UUID、身份別、姓名、電子郵件信箱、手機號碼、登入設定 |
| /api/v2/user | user | PATCH | 修改目前登入者的身份別、電子郵件信箱、手機號碼、取用或取消使用電郵或手機登入 |
| /api/v2/idno | idno | GET | 取得目前登入者的身分證字號 |
| /api/v2/profile | profile | GET | 取得目前登入者的身份識別資料，包含：身份別、隸屬機構、隸屬單位、職稱、配課資訊、特殊身份註記、就讀班級、班級名稱、座號等。 |
| /api/v2/account | account | PATCH | 修改目前登入者的自訂帳號或密碼 |
| /api/v2/school | school | GET | 取得臺北市所有學校之列表或搜尋學校 |
| /api/v2/school/{dc} | school | GET | 取得指定學校之詳細資訊，參數{dc}為學校代號 |
| /api/v2/school/{dc}/teachers | school | GET | 取得指定學校之所有教師列表，參數{dc}為學校代號 |
| /api/v2/school/{dc}/ou | school | GET | 取得指定學校之行政部門列表，參數{dc}為學校代號 |
| /api/v2/school/{dc}/ou/{ou} | school | GET | 取得指定部門之資訊，參數{dc}為學校代號，{ou}為部門代號 |
| /api/v2/school/{dc}/ou/{ou}/teachers | school | GET | 取得指定部門之在職人員列表，參數{dc}為學校代號，{ou}為部門代號 |
| /api/v2/school/{dc}/ou/{ou}/role | school | GET | 取得指定部門之職稱列表，參數{dc}為學校代號，{ou}為部門代號 |
| /api/v2/school/{dc}/ou/{ou}/role/{ro} | school | GET | 取得指定職稱之資訊，參數{dc}為學校代號，{ou}為部門代號，{ro}為職稱代號 |
| /api/v2/school/{dc}/ou/{ou}/role/{ro}/teachers | school | GET | 取得指定職稱之在職人員列表，參數{dc}為學校代號，{ou}為部門代號，{ro}為職稱代號 |
| /api/v2/school/{dc}/class | school | GET | 取得指定學校之班級列表，參數{dc}為學校代號 |
| /api/v2/school/{dc}/class/{cid} | school | GET | 取得指定班級之名稱，參數{dc}為學校代號，{cid}為班級代號 |
| /api/v2/school/{dc}/class/{cid}/teachers | school | GET | 取得指定班級之授課教師列表，參數{dc}為學校代號，{cid}為班級代號 |
| /api/v2/school/{dc}/class/{cid}/students | school | GET | 取得指定班級之學生列表，參數{dc}為學校代號，{cid}為班級代號 |
| /api/v2/school/{dc}/class/{cid}/subjects | school | GET | 取得指定班級之授課科目列表，參數{dc}為學校代號，{cid}為班級代號 |
| /api/v2/school/{dc}/subject | school | GET | 取得指定學校之教學科目列表，參數{dc}為學校代號 |
| /api/v2/school/{dc}/subject/{sid} | school | GET | 取得指定科目之詳細資料，參數{dc}為學校代號，{sid}為科目代號 |
| /api/v2/school/{dc}/subject/{sid}/teachers | school | GET | 取得指定科目之授課教師列表，參數{dc}為學校代號，{sid}為科目代號 |
| /api/v2/school/{dc}/subject/{sid}/classes | school | GET | 取得指定科目之授課班級列表，參數{dc}為學校代號，{sid}為科目代號 |
| /api/v2/school/{dc}/people | school | GET | 搜尋符合條件之人員列表，參數{dc}為學校代號 |
| /api/v2/school/{dc} | schoolAdmin | PATCH | 修改指定學校之資訊，參數{dc}為學校代號 |
| /api/v2/school/{dc}/people | schoolAdmin | POST | 新增一位學校教育人員（教師或學生），參數{dc}為學校代號 |
| /api/v2/school/{dc}/people/{uuid} | schoolAdmin | GET | 取得指定人員之詳細資訊，參數{dc}為學校代號，{uuid}為人員唯一編號 |
| /api/v2/school/{dc}/people/{uuid} | schoolAdmin | PATCH | 修改指定人員之資訊，參數{dc}為學校代號，{uuid}為人員唯一編號 |
| /api/v2/school/{dc}/people/{uuid} | schoolAdmin | DELETE | 修改指定之人員，參數{dc}為學校代號，{uuid}為人員唯一編號 |

伍、資料介接流程說明

ㄧ、專案授權

Request: POST <https://ldap.tp.edu.tw/oauth/token>

格式：form-data 或 json

欄位範例：

{

"grant\_type": "client\_credentials",

"client\_id": 3,

"client\_secret": "kpvnkKpqTsziTLq6EdQE81BUCPzeGfQiDJdc6qMg",

"scope": "school"

}

Response:

{

"token\_type": "Bearer",

"expires\_in": 86400,

"access\_token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsImp0aSI6IjA0MjgwNTliNzE5YTUzZjQ3OGY3NDhmZmNmN2YzODFkNTlkNTcyMmRhOGM4NjdiNjE1Y2I4ZGYyYmZmMGU1YmJmMjZmMmI2YTgyNTI4MTM2In0.eyJhdWQiOiIxIiwianRpIjoiMDQyODA1OWI3MTlhNTNmNDc4Zjc0OGZmY2Y3ZjM4MWQ1OWQ1NzIyZGE4Yzg2N2I2MTVjYjhkZjJiZmYwZTViYmYyNmYyYjZhODI1MjgxMzYiLCJpYXQiOjE1MTk1Mzg0OTcsIm5iZiI6MTUxOTUzODQ5NywiZXhwIjoxNTE5NjI0ODk3LCJzdWIiOiIiLCJzY29wZXMiOltdfQ.e5NQmSCcb7EkJtk9yftEnir2iRrEpVELDV6N8jXM9PVplcRjB9UGYKRlt9t7zZ7kZHZY6XpXFKdPsWXBP1R5tnNVL7QR4FNsgpBBYFls7X8qVivcnNChJz89xppomzdc9fa-GDifEJVnhNy3zcugSYhZXPyWxtKSIr0caUeExy-oxGDYbSGlDEom0ZdqNEqExwcTat9lQDWNX5pkyvdPQsXzmwli4ebwI7e1QZZfH4YSwPLvcZ9lneipy4t1rO0xzHCB2EEJBt5aUL8\_oUmlgrFOIyH7iP1NPiJkFUgWjQT52Tzb7tt70I1BmBwzkQxp-KAfvNbS5OQXIFmtgCvH9s7th2BdhJX9eIqy2LaMnsSc\_kvqzjXBqxrXTzTmixEZhWtRVJCHlwgmEkyMlXL2FfoPurHd0qajFwR5STl1HcGlB0d1fW1zZFLHXKT7c-EkBKEtPc6iS2Hqc50W6zBDC8J4yo3Sm7Zp3K9Kl6iS7nh7DGyt8vDNXBY9X1F13IyoENzYIBcQGkWqPP7oLW5WcDFz7hvvS9oR7rmrXBuZSzem0XbWkkMh4vQqMnTWHXruZqpAP687uN4ASXfFgM7c0ul1pF-1YoRE0zQ8vOZujjYv2zAkJBPN-NzHbde4MPfarUdqmCF\_61mRT02dYX1vnSN1A3jKSGoMsAF2o4Z3xkI"

}

二、個資授權

步驟一：

Request: GET https://ldap.tp.edu.tw/oauth/authorize?client\_id=3&redirect\_uri=https://yourapp.com/api/callback&response\_type=code&scope=user%20profile

格式：query string

Response:

https://yourapp.com/api/callback?code=授權碼

步驟二：

Request: POST <https://ldap.tp.edu.tw/oauth/token>

格式：form-data 或 json

欄位範例：

{

"grant\_type": "authorization\_code",

"client\_id": 3,

"client\_secret": "kpvnkKpqTsziTLq6EdQE81BUCPzeGfQiDJdc6qMg",

"redirect\_uri": "https://yourapp.com/api/callback",

"code": "步驟一所取得之授權碼"

}

Response:

{

"token\_type": "Bearer",

"expires\_in": 86400,

"access\_token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsImp0aSI6IjJkZmQxNGFiNDRhNGI5MGQzOThjZmU5MzU1ZDViZTIyN2UzMmQ5ZTgwZjU5OGE5ZDlkYzY0ZWExYWViNTAzYTk2MjgwZWMzOGZhODhhM2NlIn0.eyJhdWQiOiIyIiwianRpIjoiMmRmZDE0YWI0NGE0YjkwZDM5OGNmZTkzNTVkNWJlMjI3ZTMyZDllODBmNTk4YTlkOWRjNjRlYTFhZWI1MDNhOTYyODBlYzM4ZmE4OGEzY2UiLCJpYXQiOjE1MTk2NTcxNDQsIm5iZiI6MTUxOTY1NzE0NCwiZXhwIjoxNTE5NzQzNTQ0LCJzdWIiOiIyIiwic2NvcGVzIjpbIioiXX0.CSGq4vQ7HjNyfhC3h5kEYOilAntmluLAijIE0-tR7zUCmWhBdfgqw8gZuFBDUbZ1TMOpmZEmRY-ccW\_M3sD4ukS7ZWvljAVjZOYSUFgo3pULzxYAstTHns7sukohcuzgiKcELT7BwnMyV61AT8Hr7oRwkffKPnK0e0aeDoF3jjxXFuMcgTe5FsfbGR9FgBFfdyvFK4JmH4oH\_D-Q9MNXGx9YjSl0P\_Se9rZ4yX3UHjI6Z-uD8gOlv4KcNVSslzIT09EMoOjSGIM7p7SNxxEGIU692Zl7tdXk9av4UMkkVpUAaKTatuNsDD0ARnNrhP5tG0U\_1TvLJygZwsCzGq16BaP1BVwy6jDaFppr5Q-B-1d2Jtwz5NA1TSgjImSCMuFft8v5mYPJqVTWoif0b\_kI2zhjHhoj\_HOYdpaeIbqTiY7PEJ2BmkWC8aC3noqx5GzHRzCR4Y33x4jYxXi\_C8TrgjzYR\_Ha340wuosoM82jVa0v0U7ZKMmrvgdapuOe9ALLBMUNsyjTYdgmM3jhaX5kIm8mlDIbvLDukAoeO\_1T13Uzxt1DwvqTfANVkGbUIZD7UtR6YkJw0RasV-fXdnTDvoS-Y78NG2iw3xujQpF-a5fs4U34wCFEqLrGtkQnodEp0O09nN\_JlKg1uJJczVSe4gCw5aCnxBGOXcf9TbmS7MU",

"refresh\_token": ""

}

步驟三：存取金鑰過期之處理方式

Request: POST <https://ldap.tp.edu.tw/oauth/token>

格式：form-data 或 json

欄位範例：

{

"grant\_type": "refresh\_token",

"refresh\_token": “步驟二所取得之refresh token",

"client\_id": 3,

"client\_secret": "kpvnkKpqTsziTLq6EdQE81BUCPzeGfQiDJdc6qMg",

"scope": "user"

}

Response:

同上

三、代理授權

****學校管理員登入 <https://ldap.tp.edu.tw/oauth> 金鑰管理介面，建立個人存取金鑰。



四、**REST** 資料存取請求

Request: [GET|POST|PATCH|DELETE] https://ldap.tp.edu.tw/api/….略....

格式：header

欄位範例：

Authorization: Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsImp0aSI6Ijc3MjYwZWUw……

Accept: application/son

五、**REST** 資料存取回應

Request: POST https://ldap.tp.edu.tw/api/v2/logout

Response:

HTTP 204

Request: GET https://ldap.tp.edu.tw/api/v2/email

Response:

{"email":"leexxxxxxxne@gmail.com"}

Request: GET https://ldap.tp.edu.tw/api/v2/me

Response:

{"name":"李XX","email":"leexxxxxxxne@gmail.com"}

Request: GET https://ldap.tp.edu.tw/api/v2/user

Response:

{"role":"教師","uuid":"a4bcbfba-a678-1037-952c-15429bf75900","name":"李XX","email":"leexxxxxxxne@gmail.com","email\_login":false,"mobile":"09xxxxxxx8","mobile\_login":false}

Request: PATCH https://ldap.tp.edu.tw/api/v2/user

{

"role":"教師",

"email": "shane@tc.xxps.tp.edu.tw",

"mobile": "09xxxxxxx2",

"email\_login": "true",

"mobile\_login": "true"

}

可修改以上四個欄位，不修改的欄位整欄省略，若給空字串，會顯示錯誤訊息。

email\_login 用來開啟使用電子郵件登入之功能，mobile\_login 用來開啟使用手機號碼登入之功能，可在不同載具上應用。

Request: GET https://ldap.tp.edu.tw/api/v2/idno

Response:

{"idno":"P1xxxxxxx6"}

Request: GET https://ldap.tp.edu.tw/api/v2/profile

Response:

{  
"role":"教師",  
"gender":"1",  
"birthDate":"19690118",  
"o":"meps",  
"organization":{"meps":"臺北市國語實驗國民小學"},  
"unit":{"meps":{  
 "meps,dept07":"科任教師",  
 "meps,dept02":"教務處"}},  
"title":{"meps":{  
 "meps,dept07,role022":"科任教師",  
 "meps,dept02,roleC17":"系統管理師",  
 "meps,dept07,roleC46":"資訊領域教師"}},  
"teachClass":{"meps":{  
 "meps,509,subj16":"五年九班彈性資訊",  
 "meps,510,subj16":"五年十班彈性資訊",  
 "meps,603,subj16":"六年三班彈性資訊",  
 "meps,604,subj16":"六年四班彈性資訊",  
 "meps,605,subj16":"六年五班彈性資訊",  
 "meps,606,subj16":"六年六班彈性資訊",  
 "meps,607,subj16":"六年七班彈性資訊",  
 "meps,608,subj16":"六年八班彈性資訊",  
 "meps,609,subj16":"六年九班彈性資訊",  
 "meps,610,subj16":"六年十班彈性資訊"}}  
}

Another Response:

{  
"role":"學生",  
"gender":"1",  
"birthDate":"19690118",  
"o":"meps",  
"organization":{"meps":"臺北市國語實驗國民小學"},  
"studentId":"105307",  
"class":"301",  
"className":"三年一班",  
"seat":"13",  
"character":"一般學生,午餐費(學期繳),本土語言課程-閩"  
}

Request: PATCH https://ldap.tp.edu.tw/api/v2/account

{

"account": “newaccount"

"password": "xxxxxxxxxxxxx"

}

可修改以上兩個欄位，不修改的欄位整欄省略，若給空字串，會顯示錯誤訊息。

帳號只能接受英文字母或數字，密碼若有特殊符號需要在前面加\，例如：\\ 代表一個反斜線。

Request: GET https://ldap.tp.edu.tw/api/v2/school

Response:

[  
{“o”:”bureau”,”tpUniformNumbers”:”399999”,"description":"臺北市政府教育局"},  
{"o":"yfes","tpUniformNumbers":"423612","description":"臺北市北投區義方國民小學"},  
{"o":"ssps","tpUniformNumbers":"313601","description":"臺北市松山區松山國民小學"},  
{"o":"sups","tpUniformNumbers":"313602","description":"臺北市松山區西松國民小學"},  
......  
]

欄位 o 為學校或機構代號，tpUniformNumbers 為會計統一編號，description 為學校全銜。

Request: GET https://ldap.tp.edu.tw/api/v2/school?sid=353604

Response:

[  
{“o":"meps","st":"中正區","tpUniformNumbers":"353604","description":"臺北市中正區國語實驗國民小學"}  
]

使用統計代碼搜尋學校。

Request: GET https://ldap.tp.edu.tw/api/v2/school?area=中正區

Response:

[  
{"o":"meps","st":"中正區","tpUniformNumbers":"353604","description":"臺北市中正區國語實驗國民小學"},  
{"o":"ck","st":"中正區","tpUniformNumbers":"353301","description":"臺北市立建國高級中學"},{"o":"fg","st":"中正區","tpUniformNumbers":"353303","description":"臺北市立第一女子高級中學"},  
{"o":"ches","st":"中正區","tpUniformNumbers":"353607","description":"臺北市中正區忠孝國民小學"},  
{"o":"cips","st":"中正區","tpUniformNumbers":"353603","description":"臺北市中正區忠義國民小學"},  
{"o":"cksh","st":"中正區","tpUniformNumbers":"353302","description":"臺北市立成功高級中學"},{"o":"esut","st":"中正區","tpUniformNumbers":"353608","description":"臺北市立大學附設實驗國民小學"},  
{"o":"htjh","st":"中正區","tpUniformNumbers":"353504","description":"臺北市立弘道國民中學"},{"o":"htps","st":"中正區","tpUniformNumbers":"353602","description":"臺北市中正區河堤國民小學"},  
{"o":"ktjh","st":"中正區","tpUniformNumbers":"353502","description":"臺北市立古亭國民中學"},{"o":"nmes","st":"中正區","tpUniformNumbers":"353605","description":"臺北市中正區南門國民小學"},  
{"o":"nmjh","st":"中正區","tpUniformNumbers":"353503","description":"臺北市立南門國民中學"},{"o":"tmps","st":"中正區","tpUniformNumbers":"353606","description":"臺北市中正區東門國民小學"},  
{"o":"yces","st":"中正區","tpUniformNumbers":"353601","description":"臺北市中正區螢橋國民小學"},  
{"o":"ycjh","st":"中正區","tpUniformNumbers":"353501","description":"臺北市立螢橋國民中學"},{"o":"ccjhs","st":"中正區","tpUniformNumbers":"353505","description":"臺北市立中正國民中學"},{"o":"knvs","st":"中正區","tpUniformNumbers":"351402","description":"台北市私立開南高級商工職業學校"}  
]

使用行政區搜尋學校。

Request: GET https://ldap.tp.edu.tw/api/v2/school?name=博

Response:

[  
{“o":"baps","st":"信義區","tpUniformNumbers":"323609","description":"臺北市信義區博愛國民小學"},  
{"o":"bjps","st":"文山區","tpUniformNumbers":"383611","description":"臺北市博嘉實驗國民小學"}

]

使用名稱搜尋學校。

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps

Response:

{  
"entryUUID":"2c22f33a-6464-1038-8e37-1fefb3256d5d",  
"modifyTimestamp":"20190426102005Z",  
"o":"meps",  
"businessCategory":"國民小學",  
"st":"中正區",  
"description":"臺北市國語實驗國民小學",  
"facsimileTelephoneNumber":"(02)23093736",  
"telephoneNumber":"(02)23033555",  
"postalCode":"100",  
"street":"臺北市中正區南海路58號",  
"postOfficeBox":"043",  
"wWWHomePage":"http:\/\/www.meps.tp.edu.tw\/",  
"tpUniformNumbers":"353604",  
"tpSims":"alle",  
"tpIpv4":"163.21.228.0\/24",  
"tpIpv6":"2001:288:12ce::\/48"  
}

以上資料欄位，依各校資料提供情形，會有資料量不一致的情形。欄位 businessCategory 為學程分類，st 為行政區，PostalCode 為郵遞區號，street 為郵遞地址，wWWHomePage 為學校網址。

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/teachers

Response:

[

"a4bcbfba-a678-1037-952c-15429bf75900",

……

]

列出全校所有教職員 UUID

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/ou

Response:

[  
{“ou":"dept01","description":"校長室"},  
{"ou":"dept02","description":"教務處"},  
{"ou":"dept03","description":"學務處"},  
{"ou":"dept04","description":"總務處"},  
{"ou":"dept05","description":"輔導室"},  
......  
]

欄位 ou 為部門代號，description 為部門名稱。

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/ou/dept02

Response:

{“ou":"dept02","businessCategory":"行政部門","description":"教務處"}

欄位 businessCategory 為單位分類。

Request: GET https://ldap.tp.edu.tw/api/school/meps/ou/dept02/role

Response:

[  
{"cn":"role002","description":"教務處主任"},  
{"cn":"role003","description":"教學組長"},  
{"cn":"role005","description":"資訊組長"},  
{"cn":"role006","description":"設備組長"},

......  
]

欄位 cn 為職稱代號。

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/ou/dept02/role/roleC17

Response:

{“ou”:"dept02","cn":"roleC17","description":"系統管理師"}

Request: GET https://ldap.tp.edu.tw/api/school/meps/class

Response:

[  
{"ou":"101","description":"1年1班"},  
{"ou":"102","description":"1年2班"},  
{"ou":"103","description":"1年3班"},

{"ou":"104","description":"1年4班"},  
{"ou":"105","description":"1年5班"},  
{"ou":"106","description":"1年6班"},  
......  
]

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/class/101

Response:

{"ou":"101","businessCategory":"教學班級","description":"1年1班"}

Request: GET https://ldap.tp.edu.tw/api/school/meps/class/101/students

Response:

[  
"a4c4513a-a678-1037-955a-15429bf75900",  
"a4c473ae-a678-1037-955b-15429bf75900",  
"a4c496ae-a678-1037-955c-15429bf75900",  
"a4c4b95e-a678-1037-955d-15429bf75900",

......  
]

Request: GET https://ldap.tp.edu.tw/api/school/meps/class/101/subjects

Response:

[  
"subj001",  
"subj002",  
"subj003",  
"subj004",  
......  
]

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/subject

Response:

[  
{"subject":"subj001","description":"國語"},  
{"subject":"subj002","description":"英語"},  
......  
]

欄位 subject 為科目代號，domain 為學科領域，description 為科目名稱。

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/subject/subj001

Response:

{"subject":"subj001","domain":"語文","description":"國語"}

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/subject/subj001/teachers

Response:

[

"a4bcbfba-a678-1037-952c-15429bf75900",

……

]

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/subject/subj001/classes

Response:

[

"101",

"102",

"103",

"104",

"105",

……

]

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/people?idno=A123456789

Response:

["080327de-06e2-1038-9451-e52b910af178"]

使用身分證字號搜尋人員

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/people?role=學生&sysid=102100

Response:

["a4bcbfba-a678-1037-952c-15429bf75900"]

使用學號搜尋學生

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/people?role=教師&name=李&gender=1&tel=0988xxxxxx&email=gmail.com

Response:

[“080327de-06e2-1038-9451-e52b910af178"]

人員複合搜尋可以使用的條件，包含：身分證字號、身份別、學號、姓名、性別、電話、電子郵件，共七個欄位。

Request: PATCH https://ldap.tp.edu.tw/api/v2/school/meps

{

"area":"中正區",

"name": "臺北市中正區國語國民小學",

"fax": "(02)23093736",

"tel": "(02)23033555",

"postal": "100",

"address": "臺北市中正區南海路58號",

"mbox": "043",

"www": "http://www.meps.tp.edu.tw",

"uno": "353604",

"ipv4": "163.21.228.0/24",

"ipv6": "2001:288:12ce::/48",

"admins": ["A123456789", "B223456789"],

"ous":   
[  
{"id":"dept01","name":"校長室","roles":[{"role001":"校長"}]},  
{"id":"dept02","name":"教務處","roles":[{"role002":"教務處主任"},{"role003":"教學組長"}...]},

…...  
],

"subjects":   
[  
{"id":"subj001","domain":"語文","title":"國語"},  
......  
],

"classes":   
[  
{"101":"一年一班"},  
......  
]

}

Response:

修改後之完整 school 物件，但不包含 ous、subjects、classes 子物件，例如：

{"o":"meps","businessCategory":"國民小學","st":"中正區","description":"臺北市中正區國語國民小學","facsimileTelephoneNumber":"(02)23093736","telephoneNumber":"(02)23033555","PostalCode":"100","postOffice":"043","street":"臺北市中正區南海路58號","wWWHomePage":"http:\/\/www.meps.tp.edu.tw\/","tpUniformNumbers":"353604","tpIpv4":"163.21.228.0/24","tpIpv6":"2001:288:12ce::/48","tpAdministrator":["A123456789","B223456789"]}

修改學校資訊，可修改以上15個欄位，可使用陣列表徵的複數資料欄位，包含：fax、tel、ipv4、ipv6、admins、ous、subjects、classes，其餘欄位只允許單一資料。

ous 欄位為該校所有組織職稱列表，為資料物件集合，請使用 [{ }] 語法，包含三個欄位:id（部門代號）、name（單位全銜）、roles（職稱列表）。roles 欄位也是資料物件集合，索引為職稱代號，值為該職稱中文頭銜。

subjects 欄位為該校所有教學科目列表，為資料物件集合，包含三個欄位:id（科目代號）、domain（學科領域）、title（科目名稱）。

classes 欄位也是資料物件集合，索引為班級代號，值為該班級中文名稱。

不修改的欄位整欄省略。

Request: POST https://ldap.tp.edu.tw/api/v2/school/meps/people

{

"idno": "A123456789",

"password": "my\_password",

"type": "教師",

"lastname": "姓",

"firstname": "名字",

"unit": "meps,dept002",

"role": "meps,dept002,roleC17",

"tclass": "meps,501,subj12",

"memo": "特殊身份註記",

"gender": 1,

"birthdate": "19790208",

"mail": "teacher@mail.xxps.tp.edu.tw",

"mobile": "0911000001",

"fax": "(02)23096737",

"otel": "(02)23096737",

"htel": "(02)23096737",

"address": "臺北市中正區龍光里1鄰南海路58號",

"conn\_address": "臺北市南海路58號",

"www": "http://stu.meps.tp.edu.tw/sean/",

}

another Request:

{

"idno": "A123456789",

"password": "my\_password",

"type": "學生",

"lastname": "姓",

"firstname": "名字",

"stdno": "106001",

"class": "101",

"seat": "10",

"memo": "特殊身份註記",

"gender": 1,

"birthdate": "19790208",

"mail": "teacher@mail.xxps.tp.edu.tw",

"mobile": "0911000001",

"fax": "(02)23096737",

"otel": "(02)23096737",

"htel": "(02)23096737",

"address": "臺北市中正區龍光里1鄰南海路58號",

"conn\_address": "臺北市南海路58號",

"www": "http://stu.meps.tp.edu.tw/sean/",

}

Response:

新增後之完整 person 物件，例如：

{"cn":"A123456789","o":"meps","sn":"姓","givenName":"名字","displayName":"姓名字","ou":"meps,dept002","title":"meps,dept002,roleC17","tpCharacter

":"特殊身份註記","gender":1,"birthDate":"19790208000000Z","email":"teacher@mail.xxps.tp.edu.tw","mobile":"0911000001","facsimileTelephoneNumber":"(02)23096737","telephoneNumber":"(02)23096737","homePhone":"(02)23096737","registeredAddress":"臺北市中正區龍光里1鄰南海路58號","homePostalAddress":"臺北市南海路58號","wWWHomePage":"http://stu.meps.tp.edu.tw/sean/"}

新增學校人員，包含兩種不同身份：學生、教職員。身份不同欄位也會有些許差異。教職員部分，必填欄位包含：idno、type、lastname、firstname，可以使用陣列表示之複數資料欄位包含：unit、role、tclass。學生部分，必填欄位包含：idno、type、lastname、firstname、stdno、class、seat，沒有複數資料欄位。

Request: GET https://ldap.tp.edu.tw/api/v2/school/meps/people/a4c4513a-a678-1037-955a-15429bf75900

Response:

{  
“entryUUID":"ae780de2-06e1-1038-8e5d-e52b910af178",  
"modifyTimestamp":"20190127024023Z",  
"cn":"F222241978",  
"uid":"meps222241978",  
"o":"meps",  
"school":{"meps":"臺北市國語實驗國民小學"},  
"ou":"meps,meps,dept07",  
"department":{  
 "meps":{"meps,dept07":"科任教師"}  
},  
“title":[  
 "meps,dept07,role022",  
 "meps,dept07,roleC37"  
],  
"titleName":{  
 "meps":{  
 "meps,dept07,role022":"科任教師",  
 "meps,dept07,roleC37":"英語領域教師"  
 }  
},  
"tpTeachClass":[  
 "meps,201,subj02",  
 "meps,202,subj02",  
 "meps,203,subj02",  
 "meps,406,subj02",  
 "meps,407,subj02",  
 "meps,408,subj02",  
 "meps,409,subj02"  
],  
"teachClass":{  
 "meps":{  
 "meps,201,subj02":"二年一班英語",  
 "meps,202,subj02":"二年二班英語",  
 "meps,203,subj02":"二年三班英語",  
 "meps,406,subj02":"四年六班英語",  
 "meps,407,subj02":"四年七班英語",  
 "meps,408,subj02":"四年八班英語",  
 "meps,409,subj02":"四年九班英語"  
 }  
}  
"info":"{\"sid\":353604,\"role\":\"教師\"}",  
"gender":"2",  
"birthDate":"19671229000000Z",  
“sn":"姓",  
"givenName":"名",  
"displayName":"姓名",  
"employeeType":"教師",  
"employeeNumber":"325",  
"inetUserStatus":"active",  
"email\_login":false,  
"mobile\_login":false,  
"adminSchools":false,  
}

Another Response:

{  
"entryUUID":"2ebb2f90-06e0-1038-8334-e52b910af178",  
"modifyTimestamp":"20181220110142Z",  
"cn":"A131019941",  
"o":"meps",  
"school":{"meps":"臺北市國語實驗國民小學"}  
"uid":"meps102200",  
"info":"{\"sid\":353604,\"role\":\"學生\"}",  
"gender":"1",  
"birthDate":"20060929000000Z",  
"sn":"丁",  
"givenName":"XX",  
"displayName":"丁XX",  
"homePhone":"(02)2303xxxx",  
"registeredAddress":"臺北市中正區萬華區xx鄰和平西路x段xx號x樓",  
"homePostalAddress":"臺北市和平西路x段xx號x樓",  
"employeeType":"學生",  
"employeeNumber":"102200",  
"tpClass":"605",  
"tpClassTitle":"六年五班",  
"tpSeat":"2",  
"tpCharacter":"一般學生,午餐費(學期繳),本土語言課程-閩",  
"inetUserStatus":"active",  
"email\_login":false,  
"mobile\_login":false,  
"adminSchools":false,  
}

Request: PATCH https://ldap.tp.edu.tw/api/v2/school/meps/people/a4c4513a-a678-1037-955a-15429bf75900

{

"idno": "A123456789",

"password": "my\_password",

"type": "教師",

"lastname": "姓",

"firstname": "名字",

"unit": "meps,dept002",

"role": "meps,dept002,roleC17",

"tclass": "meps,501,subj12",

"memo": "特殊身份註記",

"gender": 1,

"birthdate": "19790208",

"mail": "teacher@mail.xxps.tp.edu.tw",

"mobile": "0911000001",

"fax": "(02)23096737",

"otel": "(02)23096737",

"htel": "(02)23096737",

"address": "臺北市中正區龍光里1鄰南海路58號",

"conn\_address": "臺北市南海路58號",

"www": "http://stu.meps.tp.edu.tw/sean/",

}

another Request:

{

"idno": "A123456789",

"password": "my\_password",

"type": "學生",

"lastname": "姓",

"firstname": "名字",

"stdno": "106001",

"class": "101",

"seat": "10",

"memo": "特殊身份註記",

"gender": 1,

"birthdate": "19790208",

"mail": "teacher@mail.xxps.tp.edu.tw",

"mobile": "0911000001",

"fax": "(02)23096737",

"otel": "(02)23096737",

"htel": "(02)23096737",

"address": "臺北市中正區龍光里1鄰南海路58號",

"conn\_address": "臺北市南海路58號",

"www": "http://stu.meps.tp.edu.tw/sean/",

}

Response:

修改後之完整 person 物件，例如：

{"cn":"A123456789","o":"meps","sn":"姓","givenName":"名字","displayName":"姓名字","ou":"meps,dept002","title":"meps,dept002,roleC17","tpCharacter

":"特殊身份註記","gender":1,"birthDate":"19790208000000Z","email":"teacher@mail.xxps.tp.edu.tw","mobile":"0911000001","facsimileTelephoneNumber":"(02)23096737","telephoneNumber":"(02)23096737","homePhone":"(02)23096737","registeredAddress":"臺北市中正區龍光里1鄰南海路58號","homePostalAddress":"臺北市南海路58號","wWWHomePage":"http://stu.meps.tp.edu.tw/sean/"}

修改學校人員，包含兩種不同身份：學生、教職員。身份不同欄位也會有些許差異。教職員部分，有需要修改的欄位才填寫，可以使用陣列表示之複數資料欄位包含：unit、role、tclass。學生部分，有需要修改的欄位才填寫，沒有複數資料欄位。

Request: DELETE https://ldap.tp.edu.tw/api/v2/school/meps/people/a4c4513a-a678-1037-955a-15429bf75900

Response:

HTTP 410 The people has been deleted!

附錄、client 程式設計範例：

<?php  
session\_start();

if (!isset($\_GET['code']) && !isset($\_SESSION['token'])) {  
 $param = [  
 'client\_id' => '3',  
 'redirect\_uri' => 'redirect\_uri=https://yourapp.com/api/callback',  
 'response\_type' => 'code',  
 'scope' => 'user profile',  
 ];  
 http\_redirect('https://ldap.tp.edu.tw/oauth/authorize', $param);  
 exit;  
} elseif (!isset($\_SESSION['token'])) {  
 $param = [  
 'grant\_type' => 'authorization\_code',  
 'client\_id' => '3',  
 'client\_secret' => '5uyghc0DpeRJHsv43Di567fjasuy083kf6hiDAT',  
 'redirect\_uri' => 'redirect\_uri=https://yourapp.com/api/callback',  
 'code' => \_GET[‘code’],  
 ];  
 $response = http\_post\_fields('https://ldap.tp.edu.tw/oauth/token', $param);  
 $token = json\_decode($response);  
 ini\_set("session.gc\_maxlifetime", $token->expires\_in);  
 $\_SESSION['token'] = $token->access\_token;  
 $\_SESSION['refresh'] = $token->refresh\_token;  
 $\_SESSION['expire'] = time() + $token->expires\_in;  
} elseif (time() > $\_SESSION['expire']) {  
 $param = [  
 'grant\_type' => 'refresh\_token',  
 'refresh\_token' => $\_SESSION['refresh'],  
 'client\_id' => '3',  
 'client\_secret' => '5uyghc0DpeRJHsv43Di567fjasuy083kf6hiDAT',  
 'scope' => 'user profile',  
 ];  
 $response = http\_post\_fields('https://ldap.tp.edu.tw/oauth/token', $param);  
 $token = json\_decode($response);  
 ini\_set("session.gc\_maxlifetime", $token->expires\_in);  
 $\_SESSION['token'] = $token->access\_token;  
 $\_SESSION['refresh'] = $token->refresh\_token;  
 $\_SESSION['expire'] = time() + $token->expires\_in;  
}

$header = [  
 'Authorization' => 'Bearer '.$\_SESSION['token'],  
];  
$response = http\_get('https://ldap.tp.edu.tw/api/user', $header);  
$user = json\_decode($response);  
$response = http\_get('https://ldap.tp.edu.tw/api/profile', $header);  
$profile = json\_decode($response);  
?>