

# 教育體系身份認證服務 API

## 1. OPENID CONNECT 1.0 ENDPOINTS

- OpenID Connect 屬性檔 (OpenID configurations)

Url	<a href="https://oidc.tanet.edu.tw/.well-known/openid-configuration">https://oidc.tanet.edu.tw/.well-known/openid-configuration</a>		
用途	動態（即時）取得教育體系身分認證服務組態設定，例如：加解密、數位簽章公開金鑰或是各認證授權、API 服務端口（Endpoint）。		
Spec	OpenID Connect Discovery 1.0 # 4.1 ( <a href="http://openid.net/specs/openid-connect-discovery-1_0.html#ProviderConfigurationRequest">http://openid.net/specs/openid-connect-discovery-1_0.html#ProviderConfigurationRequest</a> )		
Method	Http Get	MIME Type	application/json
Response	<pre>{   "issuer": "https://oidc.tanet.edu.tw",   "subject_types_supported": [     "public"   ],   "jwks_uri": "https://oidc.tanet.edu.tw/oidc/v1/jwks",   "authorization_endpoint": "https://oidc.tanet.edu.tw/oidc/v1/azp",   "token_endpoint": "https://oidc.tanet.edu.tw/oidc/v1/token",   "userinfo_endpoint": "https://oidc.tanet.edu.tw/oidc/v1/userinfo",   "scopes_supported": [     "openid",     "email",     "profile",     "eduinfo",     "edurole",     "openid2"   ],   "response_types_supported": [     "code id_token token"   ],   "id_token_signing_alg_values_supported": [</pre>		

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"RS256"
],
"id_token_encryption_alg_values_supported": [
  "A256KW"
],
"id_token_encryption_enc_values_supported": [
  "A256CBC-HS512"
],
"claim_types_supported": [
  "aggregated",
  "distributed",
  "normal"
],
"claims_supported": [
  "aud",
  "email",
  "exp",
  "iat",
  "iss",
  "name",
  "sub"
],
"claims_parameter_supported": false,
"request_parameter_supported": false,
"request_uri_parameter_supported": true,
"require_request_uri_registration": false
}
```

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● 授權端口 (Authorization Endpoint)

<b>Url</b>	https://oidc.tanet.edu.tw/oidc/v1/azp			
<b>用途</b>	允許 Client 進行認證授權呼叫之服務端口			
<b>Spec</b>	OpenID Connect 1.0 # 3.1.2 ( <a href="http://openid.net/specs/openid-connect-core-1_0.html#AuthorizationEndpoint">http://openid.net/specs/openid-connect-core-1_0.html#AuthorizationEndpoint</a> )			
<b>Method</b>	Http Get	<b>MIME Type</b>	<b>Flow</b>	Authorization Code (Implicit Flow)
<b>Request parameters</b>	clientid , scope, response_type , redirect_uri , state, nonce			
<b>Sample Request</b>	https://oidc.tanet.edu.tw/oidc/v1/azp?response_type=code&client_id=client_id&redirect_uri=https%3A%2F%2Foidc.tanet.edu.tw%2Fserviceclient%2Fclient-service-back&scope=openid+email+profile&state=mdu09QmEXXYhEQpVrIiI2sNUqbIXgqphPqzpRgOArww&nonce=_pFWU8VbN43yfGIOGgutRZODR6iCp_10LN8aa4IMy-s			
<b>Successful Response</b>	https://oidc.tanet.edu.tw/serviceclient/client-service-back?code=9jgyuEWt6oiLzH5gnWmXk7agIZOB6wktfOGnN4fgBgc&state=Ynnc1GNAPmHI4wik_mBTr1VmFqQptV3PkzRGEyVfBPk			
<b>Error Response</b>	https://client.example.org/cb? error=invalid_request&error_description=Unsupported%20response_type%20value&state=af0ifjsldkj			

● Token 端 口 (Token Endpoint)

<b>Url</b>	https://oidc.tanet.edu.tw/oidc/v1/token				
<b>用途</b>	Client 用來取得 Token (AccessToken、RefreshToken、IDToken) 的服務端口				
<b>注意事項</b>	目前在核發 Token 時，有經過數位簽章，因此 Client 取得後，可以經由驗證的程序，確認 Token 是否是由教育體系身分認證服務所核發				
<b>Spec</b>	OpenID Connect 1.0 # 3.1.3 ( <a href="http://openid.net/specs/openid-connect-core-1_0.html#TokenEndpoint">http://openid.net/specs/openid-connect-core-1_0.html#TokenEndpoint</a> )				
<b>Method</b>	Http POST	<b>MIME Type</b>	application/x-www- form-urlencoded	<b>Flow</b>	Authorization Code
<b>Request</b>	HTTP Basic Auth with grant_type , code , redirect_uri HTTP Basic Post with additional fields client_id and client_secret				
<b>Sample Request</b>	POST /oidc/v1/token HTTP/1.1 Host: oidc.tanet.edu.tw Content-Type: application/x-www-form-urlencoded Authorization: Basic czZCaGRSa3F0MzpnWDFmQmF0M2JW grant_type=authorization_code&code=SplxIOBeZQQYbYS6WxSbIA &redirect_uri=https%3A%2F%2Fclient.example.org%2Fcb				
<b>Successful Response</b>	HTTP/1.1 200 OK Content-Type: application/json Cache-Control: no-store Pragma: no-cache { "access_token": "aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc", "refresh_token": "arTlGvTxnshKRZnZu_y5HR5RvBe3BisX4zP_3_9n4rA", "scope": "openid profile email openid2", "id_token": "eyJhbGciOiJIub251In0.eyJzdWIiOiJlODNkNTMzNi0zYjg1LTQ2Y2QtODU0My1jM WZiZjk1NTBkZTIiLCJhdWQiOiJiYTZhMTk5NDg1ZGY3YjM1YzY1MTMwZmVhNmI3 MzAzMjg2MyIsImVhbnQ6Imh0dHBzOlwvXC9vaWRjLnRhbmV0LmVkdS50dyIsImV4 cCI6MywiaWF0IjoxNDg0MTE5NDA1fQ.", "token_type": "Bearer", "expires_in": 3600 }				
<b>Error</b>	HTTP/1.1 400 Bad Request				

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<b>Response</b>	Content-Type: application/json Cache-Control: no-store Pragma: no-cache { "error": "invalid_request" }
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● Refresh Token 端⼝ (Refresh Token Endpoint)

<b>URL</b>	https://oidc.tanet.edu.tw/moeresource/api/v1/oauth2/token		
<b>用途</b>	Client 用來取得 RefreshToken 的服務端⼝		
<b>注意事項</b>	使用 RefreshToken 更換新的 AccessToken 時，若原有的 AccessToken 尚未過期，則會回送 400 Invalid_Request；否則會取回與原 AccessToken 相同 scope 的新 AccessToken，有效期限同樣為 3600 秒。		
<b>Spec</b>	OpenID Connect 1.0 # 3.1.3 ( <a href="http://openid.net/specs/openid-connect-core-1_0.html#TokenEndpoint">http://openid.net/specs/openid-connect-core-1_0.html#TokenEndpoint</a> )		
<b>Method</b>	Http POST	<b>Grant Type</b>	refresh_token
<b>Scope</b>	not required	<b>MIME Type</b>	application/x-www-form-urlencoded
<b>Request</b>	HTTP Basic Auth (client_id and client_secret) with grant_type , refresh_token		
<b>Sample Request</b>	POST /moeresource/api/v1/oauth2/token HTTP/1.1 Host: oidc.tanet.edu.tw Content-Type: application/x-www-form-urlencoded Authorization: Basic czZCaGRSa3F0MzpnWDFmQmF0M2JW grant_type=refresh_token&refresh_token=SplxlOBcZQQYbYS6WxSbIA		
<b>Successful Response</b>	HTTP/1.1 200 OK Content-Type: application/json Cache-Control: no-store Pragma: no-cache { "access_token": "aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc", "refresh_token": " SplxlOBcZQQYbYS6WxSbIA", "token_type": "Bearer", "expires_in": 3600 }		
<b>Error Response</b>	HTTP/1.1 400 Bad Request Content-Type: application/json Cache-Control: no-store Pragma: no-cache { "error": "invalid_request" }		

● JWKSet Endpoint 服務公鑰端口

Url	<a href="https://oidc.tanet.edu.tw/oidc/v1/jwks">https://oidc.tanet.edu.tw/oidc/v1/jwks</a>
用途	可取得教育體系身分認證服務加解密、數位簽章的公開金鑰
注意事項	目前是所有 Client 共用一組加解密及數位簽章公鑰，未來會朝向每個 Client 有不同的公鑰方向前進，以進一步確保資料安全
Spec	<p>OpenID Connect 1.0 # 10 (<a href="http://openid.net/specs/openid-connect-core-1_0.html#SigEnc">http://openid.net/specs/openid-connect-core-1_0.html#SigEnc</a>)</p> <p>OpenID Connect Discovery 1.0 #4.2 (<a href="http://openid.net/specs/openid-connect-discovery-1_0.html#ProviderConfigurationResponse">http://openid.net/specs/openid-connect-discovery-1_0.html#ProviderConfigurationResponse</a>)</p> <p>JSON Web Key (<a href="https://tools.ietf.org/html/rfc7517">https://tools.ietf.org/html/rfc7517</a>)</p> <p>JSON Web Token (<a href="https://tools.ietf.org/rfc/rfc7519.txt">https://tools.ietf.org/rfc/rfc7519.txt</a>)</p> <p>JSON Web Signature (<a href="https://tools.ietf.org/html/rfc7515">https://tools.ietf.org/html/rfc7515</a>)</p> <p>JSON Web Encryption (<a href="https://tools.ietf.org/html/rfc7516">https://tools.ietf.org/html/rfc7516</a>)</p> <p>JSON Web Algorithms (<a href="https://tools.ietf.org/html/rfc7518">https://tools.ietf.org/html/rfc7518</a>)</p>
Successful Response	<pre>{   "keys": [     {       "kty": "RSA",       "e": "AQAB",       "use": "sig",       "kid": "MOESIGN",       "alg": "RS256",       "n": "mzzA8UMrmiFxqA4fCQWx_BGwxkpZ5QrTBkQkHBpQ0piISte7VS- xbvcgFdrT6Gzsq- f36HgSO8pwHPkioJaklo_4ro_VgIWStBd2Jjd6kDEa5Kzbyc_9_FRDtjXA_giiMwTIq HqwYsAWgOrNw7a_J9DGOPhtwfnHNRu30iAtWMga3iGh1vcWOVSZyl_xzFBuL b0hYdaKG8beJ-qp-hiSQqxCAcEapeXoMwAVomlpaQDsHwyNigW- CxTVSNfbZxLCmMabEPqBJSnAkiHaSrv8_ATBHi- LAF3JIzD5qGUgp1vVDVKEm9HrllvOO7spyyCw_I4CdSZXS2vERyMSTitvQ"     },     {       "kty": "RSA",       "e": "AQAB",       "use": "enc",       "kid": "MOEENC", </pre>

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```
"alg": "RS256",  
  "n": "n7ZK5I46lbjGUFX6tCOEXyM6tW-ipAMI4eUzMpCKYxH-  
Qp4RJdCJOLNit7mt_pJsBIgT5wryFPJliFY-  
jVPD30OjlLbKQ73Ztv75yrPc1iX0EgwZeju pz_WD_hmdZ5YmNu5XPEv45HrHAT2  
xhu_GDqtivr132m7cxfBg3ahqlnnPjaBC5qUlbyep_dRmf0G-SJHoU2KMyZrbjM-  
Ecp5Zf5o7-WmtE9toME9YjC0yxEbCCRwZJakbH0xwwUTYT8-  
jY_YTHMlCNtlCfz-Ev3fQL8sphTZqFmUuTrO-  
kdbpaqQ8x4DrjkuZYhCYF7VHPtTrQbYETfR19UjVKQxvcvaXw"  
}  
]  
}
```

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● UserInfo 端點 (UserInfo Endpoint) \*

<b>Url</b>	https://oidc.tanet.edu.tw/oidc/v1/userinfo	<b>Scope</b>	profile
<b>用途</b>	包含更詳細的使用者資訊 (例如: 姓名), 同樣會以JWT 及JWS (數位簽章) 或JWE (加密) 方式送出。		
<b>Spec</b>	OpenID Connect 1.0 # 5.3 ( <a href="http://openid.net/specs/openid-connect-core-1_0.html#UserInfo">http://openid.net/specs/openid-connect-core-1_0.html#UserInfo</a> ) JSON Web Token ( <a href="https://tools.ietf.org/rfc/rfc7519.txt">https://tools.ietf.org/rfc/rfc7519.txt</a> ) JSON Web Signature ( <a href="https://tools.ietf.org/html/rfc7515">https://tools.ietf.org/html/rfc7515</a> ) JSON Web Encryption ( <a href="https://tools.ietf.org/html/rfc7516">https://tools.ietf.org/html/rfc7516</a> )		
<b>Method</b>	Http Get	<b>CORS</b>	Enable
		<b>Flow</b>	Authorization Code
		<b>Content Type</b>	application/json
<b>Header</b>	Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc		
<b>Sample Request</b>	GET /userinfo HTTP/1.1 Host: oidc.tanet.edu.tw Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc		
<b>Successful Response</b>	HTTP/1.1 200 OK Content-Type: application/json { "sub": "my_uuid", "name": "我的名字" }		
<b>Error Response</b>	HTTP/1.1 400 Bad Request { "error_description": "Invalid request", "error": "invalid_request" }		
<b>*備註</b>	此 API 預期會在之後的版本更新中取消, 請使用下一頁的新 endpoint		

● New UserInfo 端口 (New UserInfo Endpoint) \*

<b>Url</b>	https://oidc.tanet.edu.tw/moeresource/api/v1/oidc/userinfo	<b>Scope</b>	profile
<b>用途</b>	包含更詳細的使用者資訊 (例如: 姓名), 同樣會以JWT 及JWS (數位簽章) 或JWE (加密) 方式送出。		
<b>Spec</b>	OpenID Connect 1.0 # 5.3 ( <a href="http://openid.net/specs/openid-connect-core-1_0.html#UserInfo">http://openid.net/specs/openid-connect-core-1_0.html#UserInfo</a> ) JSON Web Token ( <a href="https://tools.ietf.org/rfc/rfc7519.txt">https://tools.ietf.org/rfc/rfc7519.txt</a> ) JSON Web Signature ( <a href="https://tools.ietf.org/html/rfc7515">https://tools.ietf.org/html/rfc7515</a> ) JSON Web Encryption ( <a href="https://tools.ietf.org/html/rfc7516">https://tools.ietf.org/html/rfc7516</a> )		
<b>Method</b>	Http Get	<b>CORS</b> Enable	<b>Flow</b> Authorization Code <b>Content Type</b> application/json
<b>Header</b>	Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc		
<b>Sample Request</b>	GET /userinfo HTTP/1.1 Host: oidc.tanet.edu.tw Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc		
<b>Successful Response</b>	HTTP/1.1 200 OK Content-Type: application/json <pre>{   "sub": "my_uuid",   "name": "我的名字",   "email": "myaccount@mymail.com" }</pre>		
<b>Error Response</b>	HTTP/1.1 400 Bad Request <pre>{   "error_description": "Invalid request",   "error": "invalid_request" }</pre>		
<b>*備註</b>	此 API 已開通, 建議使用此 API 取得 UserInfo		

● EDUInfo Endpoint (使用者就學/任職資料)

<b>Url</b>	https://oidc.tanet.edu.tw/moeresource/api/v1/oidc/eduinfo <b>Scope</b> <b>eduinfo</b>				
<b>用途</b>	用來取得使用者的就學/任職資料，例如：年級班級別 (classinfo)、單位職稱別 (titles)、單位代碼 (schoolid) 等。				
<b>Spec</b>	OAuth 2.0 Accessing Protected Resources ( <a href="https://tools.ietf.org/html/rfc6749#section-7">https://tools.ietf.org/html/rfc6749#section-7</a> ) JSON Web Token ( <a href="https://tools.ietf.org/rfc/rfc7519.txt">https://tools.ietf.org/rfc/rfc7519.txt</a> ) JSON Web Signature ( <a href="https://tools.ietf.org/html/rfc7515">https://tools.ietf.org/html/rfc7515</a> ) JSON Web Encryption ( <a href="https://tools.ietf.org/html/rfc7516">https://tools.ietf.org/html/rfc7516</a> )				
<b>Method</b>	Http Get	<b>CORS</b>	Enable	<b>Flow</b>	Authorization Code、Implicit
<b>Content Encoding</b>	<b>gzip</b>				
<b>Header</b>	Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc				
<b>Sample Request</b>	GET https://oidc.tanet.edu.tw/moeresource/api/v1/oidc/eduinfo HTTP/1.1 Host: oidc.tanet.edu.tw Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc				
<b>Successful Response</b>	HTTP/1.1 200 OK Content-Type: application/json <pre>{   "schoolid": "173626",   "sub": "my_uuid",   "titles": [     {       "schoolid": "173626",       "titles": [         "組長",         "教師"       ]     },     {       "schoolid": "064723",       "titles": [         "其他"       ]     }   ] }</pre>				

	<pre> ], "classinfo": [   {     "schoolid": "173626",     "year": "105",     "semester": "02",     "grade": "01",     "class": "02",     "classtitle": "電機一乙"   },   {     "schoolid": "064723",     "year": "105",     "semester": "02",     "grade": "06",     "class": "02",     "classtitle": "6 年 2 班"   } ] } </pre>
<b>Error Response</b>	<pre> HTTP/1.1 400 Bad Request {   "error_description": "Invalid request",   "error": "invalid_request" } </pre>

● EduCloudRoles (教育雲客制化角色)

Url	https://oidc.tanet.edu.tw/moeresource/api/v1/oidc/educloudroles				Scope	educloudroles
用途	用來取得教育雲及子網所需的客制化角色名					
Spec	OAuth	2.0	Accessing	Protected	Resources	
	(https://tools.ietf.org/html/rfc6749#section-7)					
	JSON Web Token (https://tools.ietf.org/rfc/rfc7519.txt)					
	JSON Web Signature (https://tools.ietf.org/html/rfc7515)					
	JSON Web Encryption (https://tools.ietf.org/html/rfc7516)					
Method	Http Get	CORS	Enable	Flow	Authorization Code、Implicit	
Content Encoding		gzip				
Header	Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc					
Sample Request	GET https://oidc.tanet.edu.tw/moeresource/api/v1/oidc/educloudroles HTTP/1.1 Host: oidc.tanet.edu.tw Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc					
Successful Response	{ "usage": "教育雲", "roles": [ { "appname": "edumail", "schoolid": "553612", "titles": [ "學生" ] } ] }					
Error Response	HTTP/1.1 400 Bad Request { "error_description": "Invalid request", "error": "invalid_request" }					

● Relation (師生資料)

Url	https://oidc.tanet.edu.tw/moeresource/api/v2/oidc/relation				Scope	relation
用途	當使用者為教師身分時，可取得該師所授課程之學生清單					
注意事項	本 API 為非同步機制，若超過 5 秒沒有取得師生資料，會回傳稍候可以取得資料的新 REST 資源 (https://oidc.tanet.edu.tw.edu.tw/moeresource/api/v2/oidc/worker/#workerid) 。					
Spec	OAuth	2.0	Accessing	Protected	Resources	
	(https://tools.ietf.org/html/rfc6749#section-7)					
	JSON Web Token (https://tools.ietf.org/rfc/rfc7519.txt)					
	JSON Web Signature (https://tools.ietf.org/html/rfc7515)					
	JSON Web Encryption (https://tools.ietf.org/html/rfc7516)					
Method	Http Get	CORS	Enable	Flow	Authorization Code、Implicit	
Content Encoding		gzip				
Header	Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc					
Sample Request	GET https://oidc.tanet.edu.tw/moeresource/api/v2/oidc/relation HTTP/1.1 Host: oidc.tanet.edu.tw Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc					
Successful Response	{ "sub": "1ab38161", "relation": [ { "schoolid": "084652", "year": "109", "semester": "01", "grade": "04", "classno": "0000000001", "classtitle": "四年甲班", "curriculum": [ { "courseid": "A00_00_00-0", "coursename": "國語文", "students": [ "0449-435a-8f93d",					

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```
        "7b22f035aef"
    ]
},
{
    "courseid": "A00_01_00-0",
    "coursename": "本土/新住民語文",
    "students": [
        "0449-435a-8f93d",
        "7b22f035aef"
    ]
},
{
    "courseid": "A02_00_00-0",
    "coursename": "數學",
    "students": [
        "0449-435a-8f93d",
        "7b22f035aef"
    ]
},
{
    "courseid": "A06_04_00-0",
    "coursename": "藝術與人文",
    "students": [
        "0449-435a-8f93d",
        "7b2f035aef",
        "7b235aef"
    ]
},
{
    "courseid": "A07_00_00-0",
    "coursename": "綜合活動",
    "students": [
        "0449-435a-8f3d",
        "7b22f035aef"
    ]
}
]
```

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	<pre>         }       ]     } </pre>
<b>Error Response</b>	<pre> HTTP/1.1 400 Bad Request {   "error_description": "Invalid request",   "error": "invalid_request" } </pre>



● Worker (背景執行緒工作狀態)

<b>Url</b>	https://oidc.tanet.edu.tw/moeresource/api/v2/oidc/worker/#id <b>Scope</b> worker				
<b>用途</b>	當師生資料 API 執行時間超過一定時間時，會先回傳可取得師生資料執行狀態的網址，可用來確認後續師生資料是否已可取得。				
<b>Spec</b>	OAuth	2.0	Accessing	Protected	Resources
	(https://tools.ietf.org/html/rfc6749#section-7)				
	JSON Web Token (https://tools.ietf.org/rfc/rfc7519.txt)				
	JSON Web Signature (https://tools.ietf.org/html/rfc7515)				
	JSON Web Encryption (https://tools.ietf.org/html/rfc7516)				
<b>Method</b>	Http Get	<b>CORS</b>	Enable	<b>Flow</b>	Authorization Code、Implicit
<b>Content Encoding</b>	gzip				
<b>Header</b>	Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc				
<b>Sample Request</b>	GET https:// oidc.tanet.edu.tw/moeresource/api/v2/oidc/worker/#id HTTP/1.1 Host: oidc.tanet.edu.tw Authorization: Bearer aFThU07c7iPcTANBs5A5nz2_BgTplQtAzh0AYSF_hcc				
<b>Successful Response</b>	<p>如果系統尚在擷取師生資料，會回傳</p> <pre>{   "workerid": "asdfas-asdfa-123129",   "workerstatus": "processing" }</pre> <p>如果已執行完畢，則會回傳如同師生資料 API 的內容。</p>				
<b>Error Response</b>	<p>HTTP/1.1 400 Bad Request</p> <pre>{   "error_description": "Invalid request",   "error": "invalid_request" }</pre>				

<b>用途</b>	當使用者登入成功，並且同意將資料授權給 Client 時，教育體系身分認證服務會以 IDToken 方式核發該員的身分識別資料，並以 JWT 及 JWS（數位簽章）或 JWE（加密）方式送出。
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<b>IDToken</b>	<pre> {   "sub": "my_uuid",   "aud": "clientid",   "iss": "https://oidc.tanet.edu.tw",   "preferred_username": "myaccount",   "exp": 1497843652,   "iat": 1497840052,   "nonce": "wJ1E1uPOH6W2YNyBrWPPqgSE_dnfU-o4cdOKzCUYa84" } . RSASSA-PKCS1-v1_5-SHA256-Digest </pre>
<b>Successful Response</b>	<pre> eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJzdWIiOiJmNDRlMDBkMS1jZTQ0LTQ1MTMtOWViNS0xYWl0eXZlZGVhZDQ1MTk5NDg1ZGY3YjM1YzM1MWZhNmI3MzAzMjg2MyIsImVzcyI6Imh0dHBzOlwvXC9vaWRjLnRhbG90LmVkdS50dyIsInByZWZlcnJlZi91c2VybWVtZSI6ImVkdGVzdGEiLCJleHAiOiE0OTc4NDM2NTIsImh0dCI6MTQ5Nzg0MDA1Miwibm9uY2UiOiJ3SjFFMXVQT0g2VzJZTnlCclldQUhFnU0VfZG5mVS1vNGNkT0t6Q1VZYTg0In0.TpCOdjssple6rLq2xqIpke3Udakit7kAri6FDMJnO23u7kHMF4WJlXmSVgpwlQPGMhxR6MT-bE_vR3TL_gGpUI5sl6DjjRjGa7bk6y8sLRivUXRpta3RQzJqebJoU5DN3Z-zQfM8RzutZzk1HhzFq5N42t093PniuNK3zeYGDt3m-zi9Ilc5qgMgOv70UyH4ouLeH3to8tuGl3oABWeC4hZ4HvOlOojB8g89sBXx_E9guGesZzsE-SAwhH5xIJf0vwDJEsVX0xMKZLyPiUenZ23DtHcqvmikJQLwJpFrBRpEQaUCibUfXOKQmOwUVs9xN2bI73omO0d4o2BAxUIuw </pre>

● IDToken (with email)

<b>用途</b>	當使用者登入成功，並且同意將資料授權給 Client 時，教育體系身分認證服務會以 IDToken 方式核發該員的身分識別資料，並以 JWT 及 JWS（數位簽章）或 JWE（加密）方式送出。
<b>Spec</b>	<p>OpenID Connect 1.0 # 2 (<a href="http://openid.net/specs/openid-connect-core-1_0.html#IDToken">http://openid.net/specs/openid-connect-core-1_0.html#IDToken</a>)</p> <p>OpenID Connect Discovery 1.0 # 3.1.3.6 (<a href="http://openid.net/specs/openid-connect-core-1_0.html#CodeIDToken">http://openid.net/specs/openid-connect-core-1_0.html#CodeIDToken</a>)</p> <p>JSON Web Token (<a href="https://tools.ietf.org/rfc/rfc7519.txt">https://tools.ietf.org/rfc/rfc7519.txt</a>)</p> <p>JSON Web Signature (<a href="https://tools.ietf.org/html/rfc7515">https://tools.ietf.org/html/rfc7515</a>)</p> <p>JSON Web Encryption (<a href="https://tools.ietf.org/html/rfc7516">https://tools.ietf.org/html/rfc7516</a>)</p>
<b>Scope</b>	openid+email
<b>Sample Raw IDToken</b>	<pre> eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9 . eyJzdWIiOiJmNDRlMDBkMS1jZTQ0LTQ1MTMtOWViNS0xYWlxYjRjZGVhZDYiLCJhdWQiOiJiYTNhMTk5NDg1ZGY3YjM1YzM1MWZhNmI3MzAzMjg2MyIsImlzcyI6Imh0dHBzOlwvXC9vaWRjLnRhbmV0LmVkdS50dyIsInByZWZlcnJlZF91c2VybWFnFTZSI6ImtodGVzdGEiLCJleHAiOiJlOTc4NDM2NTIsImlhdCI6MTQ5Nzg0MDA1MiwiYm9uY2UiOiJ3SjFFMXVQT0g2VzZjZTnlCldQUHFnU0VfZG5mVS1vNGNkT0t6Q1VZYTg0In0 . TpCOdjsspLe6rLq2xqIpke3Udakit7kAri6FDMJnO23u7kHMF4WJlXmSVgpwlQPGMhxR6MT-bE_vR3TL_gGpUI5sl6DjjRjGa7bk6y8sLRivUXRpta3RQzJqebJoU5DN3Z-zQfM8RzutZzk1HhzFq5N42t093PniuNK3zeYGDt3m-zi9Ilc5qgMgOv70UyH4ouLeH3to8tuGl3oABWeC4hZ4HvOlOojB8g89sBXx_E9guGesZzsE-SAwhH5xIJf0vwDJEsvX0xMKZLyPiUenZ23DtHcqvmikJQLwJpFrBRpEQaUCibUfXOKQmOwUVs9xN2bI73omO0d4o2BAxUIuw </pre>
<b>Parsed Raw IDToken</b>	<pre> {"typ": "JWT", "alg": "RS256"} . {   "sub": "my_uuid",   "aud": "client_id",   "iss": "https://oidc.tanet.edu.tw", </pre>



- IDToken (with Migrate from OpenID 2.0 to OpenID Connect)

用途	當使用者登入成功，並且同意將資料授權給 Client 時，教育體系身分認證服務會以 IDToken 方式核發該員的身分識別資料，並以 JWT 及 JWS（數位簽章）或 JWE（加密）方式送出。
Spec	OpenID Connect 1.0 # 2 ( <a href="http://openid.net/specs/openid-connect-core-1_0.html#IDToken">http://openid.net/specs/openid-connect-core-1_0.html#IDToken</a> ) OpenID Connect Discovery 1.0 # 3.1.3.6 ( <a href="http://openid.net/specs/openid-connect-core-1_0.html#CodeIDToken">http://openid.net/specs/openid-connect-core-1_0.html#CodeIDToken</a> ) OpenID 2.0 to OpenID Connect Migration 1.0 ( <a href="https://openid.net/specs/openid-connect-migration-1_0.html">https://openid.net/specs/openid-connect-migration-1_0.html</a> ) JSON Web Token ( <a href="https://tools.ietf.org/rfc/rfc7519.txt">https://tools.ietf.org/rfc/rfc7519.txt</a> ) JSON Web Signature ( <a href="https://tools.ietf.org/html/rfc7515">https://tools.ietf.org/html/rfc7515</a> ) JSON Web Encryption ( <a href="https://tools.ietf.org/html/rfc7516">https://tools.ietf.org/html/rfc7516</a> )
Scope	openid+openid2
Sample Raw IDToken	eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9 .eyJzdWIiOiJmNDRlMDBkMS1jZTQ0LTQ1MTMtOWViNS0xYWlxYjRjZGVhZDYiLCJhdWQiOiJiYTZhMTk5NDg1ZGY3YjM1YzM1MWZhNmI3MzAzMjc2MyIsImlycyI6Imh0dHBzOlwvXC9vaWRjLnRhbmV0LmVkdS50dyIsInByZWZlcmlJZF91c2VybmFtZSI6ImtodGVzdGEiLCJleHAiOiE0OTc4NDQ0OTUsImldhdCI6MTQ5Nzg0MDg5NSwibm9uY2UiOiIydwVSWw5M0cxZDN0MldYaU8yMm5GazdlUKZPaHJHUl94dTTh4R2FBWTI4Iiwib3BlbjlfYWQiOlsiaHR0cDpcL1wvb3BlbmlkLmt0LmVkdS50d1wvUzk5MjM3NzkiXX0. YBVbFAUCaAYqEX7-c2aMqMxyx0ZdKAEM1xg6oehQzYnGc1mLIr32LeCVFLdqGb6YwbhDONu_RtlibGTa02TLgenh-pFK6svpKp3pbJjkXOrMGoMXXMS7sgauZeghcy7LIAmya6iXgi26H4ZeK6Mo27fee a6ZJS-sAzoEQMXoDgifhHCwbGILM04gB6uHzbsU3wjHD_Li8TkSpB42LjT98MYNSMpOCK6bfA1sALRp2AJDNHTiFhy6XpSuS8mZlNEokcc597H9KxC9iOVpiiFKIXkSmo6ic4LO_acBoNQ-d6xqiHKRmbuVTbGQWE0ZOZVV0SN80q00ypN_mB_N5kKyCQ
Parsed Raw IDToken	{"typ":"JWT", "alg":"RS256"} . {



- IDToken (with Migrate from OpenID 2.0 to OpenID Connect and email)

用途	當使用者登入成功，並且同意將資料授權給 Client 時，教育體系身分認證服務會以 IDToken 方式核發該員的身分識別資料，並以 JWT 及 JWS（數位簽章）或 JWE（加密）方式送出。
Spec	OpenID Connect 1.0 # 2 ( <a href="http://openid.net/specs/openid-connect-core-1_0.html#IDToken">http://openid.net/specs/openid-connect-core-1_0.html#IDToken</a> ) OpenID Connect Discovery 1.0 # 3.1.3.6 ( <a href="http://openid.net/specs/openid-connect-core-1_0.html#CodeIDToken">http://openid.net/specs/openid-connect-core-1_0.html#CodeIDToken</a> ) OpenID 2.0 to OpenID Connect Migration 1.0 ( <a href="https://openid.net/specs/openid-connect-migration-1_0.html">https://openid.net/specs/openid-connect-migration-1_0.html</a> ) JSON Web Token ( <a href="https://tools.ietf.org/rfc/rfc7519.txt">https://tools.ietf.org/rfc/rfc7519.txt</a> ) JSON Web Signature ( <a href="https://tools.ietf.org/html/rfc7515">https://tools.ietf.org/html/rfc7515</a> ) JSON Web Encryption ( <a href="https://tools.ietf.org/html/rfc7516">https://tools.ietf.org/html/rfc7516</a> )
Scope	openid+openid2+email
Sample Raw IDToken	eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9 . eyJzdWIiOiJmNDRlMDBkMS1jZTQ0LTQ1MTMtOWViNS0xYWlxeYjRjZGVhZDYiLCJhdWQiOiJiYTZhMTk5NDg1ZGY3YjM1YzY1MTMwZmVhbmI3MzAzMjg2MjYsImlycyI6Imh0dHBzOlwvXC9vaWRjLnRhbWV0LmVkdS50dyIsInByZWZlcjllZlZkF91c2VybmFtZSI6ImtodGVzdGEiLCJleHAiOiJlOTc0NDQ0OTUsImhhdCI6MTQ5Nzg0MDg5NSwibm9uY2UiOiJldWlVSWw5M0cxeDN0MldYaU8yMm5GazdLUkZPaHJHUl94dTh4R2FBWTI4Iiwib3BlbjlfYWQiOlsiaHR0cDpcL1wvbmI3BlbmlkLmtoLmVkdS50d1wvUzk5MjM3NzkiXX0 . YBVbFAUCaAYqEX7-c2aMqMxyx0ZdKAEM1xg6oehQzYnGc1mLIr32LeCVFLdqGb6YwbhDONu_RtlibGTa02TLgenh-pFK6svpKp3pbJkXOrMGoMXXMS7sgauZeghcy7LIAmya6iXgi26H4ZeK6Mo27fee a6ZJS-sAzoeQMXoDgifhHCwbGILM04gB6uHzbsU3wJHD_Li8TkSpB42LjT98MYNSMpOCK6bfa1sALRp2AJDNHTiFhy6XpSuS8mZlNEokcc597H9KxC9iOVpiiFKIXkSmo6ic4LO_acBoNQ-d6xqiHKRmbuVTbGQWE0ZOZVV0SN80q00ypN_mB_N5kKyCQ
Parsed Raw IDToken	{"typ":"JWT", "alg":"RS256"} . {



	<pre> "sub": "my_uuid", "aud": "client_id", "iss": "https://oidc.tanet.edu.tw", "preferred_username": "myaccount", "email": "myaccount@mail.edu.tw", "exp": 1497844495, "iat": 1497840895, "nonce": "2uiUIl93G1x3t2WXiO22nFk7KRFOhrGR_xu8xGaAY28", "open2_id": [   "http://myoldopenid.openid.com" ] } . RSASSA-PKCS1-v1_5-SHA256-Digest </pre>
Successful Response	<pre> eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJzdWUiOiJmNDRlMDBkMS1jZTQ0L TQ1MTMtOWViNS0xYWlYyRjZGVhZDYiLCJhdWQiOiJiYTZhMTk5NDg1ZGY3 YjM1YzY1MjM1ZWZlbnI3MzAzMjg2MyIsImVudCI6Imh0dHBzOlwvXC9vaWRjLnRhb mV0LmVkdS50dyIsInByZWZlcnJlZi91c2VybmFtZSI6ImtodGVzdGEiLCJleHAiOiE 0OTc4NDQ0OTUsImh0dCI6MTQ5Nzg0MDg5NSwibm9uY2UiOiIyZWVlSWw5M0c xeDN0MldYaU8yMm5GazdLUkZPaHJHUl94dTh4R2FBWTI4Iiwib3BlbjIjfaWQiOls iaHR0cDpcL1wvbnI3BlbmlkLmtoLmVkdS50d1wvUzk5MjM3NzkiXX0.YBVbFAUCa AYqEX7- c2aMqMxyx0ZdKAEM1xg6oehQzYnGc1mLIr32LeCVFLdqGb6YwbhDONu_Rtlib GTa02TLgenh- pFK6svpKp3pbJkXOrMGoMXXMS7sgauZeghcy7LIAmya6iXgi26H4ZeK6Mo27fee a6ZJS- sAzoeQMXoDgfhHCwbGILM04gB6uHzbsU3wJHD_Li8TkSpB42LjT98MYNSMpO CK6bfA1sALRp2AJDNHTiFhy6XpSuS8mZlNEokcc597H9KxC9iOVpiiFKIXkSmo6i c4LO_acBoNQ-d6xqiHKRmbuVTbGQWE0ZOZVV0SN80q00ypN_mB_N5kKyCQ </pre>