

REST Services Reference

NetIQ Self Service Password Reset

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This system has a set of [RESTful web APIs](#) to facilitate 3rd party application development.

Authentication

All web services are authenticated using [basic access authentication](#) utilizing the standard *Authorization* header.

The username portion of the authentication can either be a fully qualified LDAP DN of the user, or a username string value which the application will search for the user

Additionally, the application must be configured in such a way to allow web service calls. Not all functions may be enabled. Some operations which involve a third party (other than the authenticated user) may require additional permissions configured within the application.

Standard JSON Response

All JSON encoded responses are presented using a standard JSON object: Example:

```
{
  "error": true,
  "errorCode": 5004,
  "errorMessage": "Authentication required.",
  "errorDetail": "5004 ERROR_AUTHENTICATION_REQUIRED",
  "data": {}
}
```

field	type	description
error	boolean	true if the operation was successfull
errorCode	four-digit number	application error code
errorMessage	string	Localized error message string
errorDetail	string	Error Number, Error ID and debugging detail message if any, English only
successMessage	string	Localized success message string
data	object	Requested data

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Challenges

url </sspr/public/rest/challenges>

GET Method	Description	Retrieve users stored challenges. Location of read responses is determined by the application configuration. This interface cannot be used to read NMAS stored responses.
------------	-------------	---

Authentication	Required
Accept-Language Header	en <i>The request will be processed in the context of the specified language</i>
Accept Header	application/json
Content-Type Header	application/x-www-form-urlencoded
Parameter answers	answers=true <i>Boolean indicating if answers (in whatever format stored) should be returned in the result.</i>
Parameter helpdesk	helpdesk=true <i>Boolean indicating if helpdesk answers should be returned in the result.</i>
Parameter username	<i>Optional username or userDN of user to whom the responses will be read.</i>

Example 1

Request

```
GET /sspr/public/rest/challenges HTTP/1.1
Accept: application/json
Location: en
Authorization: Basic QWxhZGRpbjpvcmVudHJlc2FtZQ==
```

Response

```
{
  "error": false,
  "errorCode": 0,
  "data": {
    "challenges": [
      {
        "challengeText": "What is the name of the main
character in your favorite book?",
        "minLength": 4,
        "maxLength": 200,
        "adminDefined": true,
        "required": false
      },
      {
        "challengeText": "What is the name of your
favorite teacher?",
        "minLength": 4,
        "maxLength": 200,
        "adminDefined": true,
        "required": false
      },
      {
        "challengeText": "Who is your favorite author?",
        "minLength": 4,
        "maxLength": 200,
        "adminDefined": true,
        "required": false
      },
      {
        "challengeText": "What street did you grow up
```



```
"minLength": 4,
"maxLength": 200,
"adminDefined": true,
"required": false,
"answer": {
  "type": "SHA1_SALT",
  "answerHash": "3KhvS0YLV3qAsolQmtZzGiv36s0=",
  "salt": "a27P1ke4Z4qchdcjepIjSikF8JKNa50U",
  "hashCount": 100000,
  "caseInsensitive": true
}
},
{
  "challengeText": "Who is your favorite author?",
  "minLength": 4,
  "maxLength": 200,
  "adminDefined": true,
  "required": false,
  "answer": {
    "type": "SHA1_SALT",
    "answerHash": "N8VLF4UN6+7IvPN/LVwSfZhCjm4=",
    "salt": "oBulI5Y6u7JgrItFPbu8vMEJqhe3lq8o",
    "hashCount": 100000,
    "caseInsensitive": true
  }
}
],
"helpdeskChallenges": [
  {
    "challengeText": "Helpdesk Question 1",
    "minLength": 2,
    "maxLength": 100,
    "adminDefined": true,
    "required": true,
    "answer": {
      "type": "HELPDESK",
      "answerText": "Answer 1",
      "hashCount": 0,
      "caseInsensitive": false
    }
  },
  {
    "challengeText": "Helpdesk Question 2",
    "minLength": 2,
    "maxLength": 100,
    "adminDefined": true,
    "required": true,
    "answer": {
      "type": "HELPDESK",
      "answerText": "Answer 2",
      "hashCount": 0,
      "caseInsensitive": false
    }
  }
],
"minimumRandoms": 2
```

```
}  
}
```

Description	Set users stored challenge/response set
Authentication	Required
Accept-Language Header	en <i>The request will be processed in the context of the specified language</i>
Accept Header	application/json
Content-Type Header	application/json
JSON Parameter username	<i>Optional username or userDN of user to whom the responses will be written.</i>

Example 1

POST
Method

Request

```
Accept-Language: en  
POST /sspr/public/rest/challenges HTTP/1.1  
Accept: application/json  
Content-Type: application/json  
Authorization: Basic QWxhZGRpbjpvYVUHNlc2FtZQ==  
  
{  
  "challenges": [  
    {  
      "challengeText": "What is the name of the main  
character in your favorite book?",  
      "minLength": 4,  
      "maxLength": 200,  
      "adminDefined": true,  
      "required": false,  
      "answer": {  
        "answerText": "Answer 1"  
      }  
    },  
    {  
      "challengeText": "What is your least favorite film  
of all time?",  
      "minLength": 4,  
      "maxLength": 200,  
      "adminDefined": true,  
      "required": false,  
      "answer": {  
        "answerText": "Answer 2"  
      }  
    },  
    {  
      "challengeText": "What street did you grow up  
on?",  
      "minLength": 4,  
      "maxLength": 200,  
      "adminDefined": true,  
      "required": false,  
      "answer": {  
        "answerText": "Answer 3"  
      }  
    }  
  ]  
}
```

```

    },
    {
      "challengeText": "Who is your favorite author?",
      "minLength": 4,
      "maxLength": 200,
      "adminDefined": true,
      "required": false,
      "answer": {
        "answerText": "Answer 4"
      }
    }
  ],
  "helpdeskChallenges": [
    {
      "challengeText": "Helpdesk Question 1",
      "minLength": 2,
      "maxLength": 100,
      "adminDefined": true,
      "required": true,
      "answer": {
        "answerText": "Answer 5"
      }
    },
    {
      "challengeText": "Helpdesk Question 2",
      "minLength": 2,
      "maxLength": 100,
      "adminDefined": true,
      "required": true,
      "answer": {
        "answerText": "Answer 6"
      }
    }
  ],
  "minimumRandoms": 2
}

```

Response

```

{
  "error": false,
  "errorCode": 0,
  "successMessage": "Your secret questions and answers have been successfully saved. If you ever forget your password, you can use the answers to these questions to reset your password."
}

```

Example 2

Request

```

POST /sspr/public/rest/challenges HTTP/1.1
Accept-Language: en
Accept: application/json
Content-Type: application/json
Authorization: Basic QWxhZGRpbjpvcmVudGVuIHhlc2FtZQ==

{
  "challenges": [
    {
      "challengeText": "Who is your favorite author?",

```

```

    "minLength":4,
    "maxLength":200,
    "adminDefined":true,
    "required":false,
    "answer":{
      "answerText":"Answer 1"
    }
  },
  "minimumRandoms":1,
  "username":"otherUser",
}

```

Response

```

{
  "error": false,
  "errorCode": 0,
  "successMessage": "Your secret questions and answers
have been successfully saved. If you ever forget your
password, you can use the answers to these questions to
reset your password."
}

```

Description Clear users saved responses

Authentication Required

Accept Header application/json

Content-Type Header application/x-www-form-urlencoded

Parameter username *Optional username or userDN of user to whom the responses will be deleted.*

Example 1

DELETE Method

```

DELETE /sspr/public/rest/challenges HTTP/1.1
Accept-Language: en
Accept: application/json
Content-Type: application/json
Authorization: Basic QWxhZGRpbjpvcmVudVlHbnlc2FtZQ==

```

Response

```

{
  "error": false,
  "errorCode": 0,
  "successMessage": "Your secret questions and answers
have been successfully saved. If you ever forget your
password, you can use the answers to these questions to
reset your password."
}

```

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Check Password

url </sspr/public/rest/checkpassword>

POST Method

Description Check a password value(s) against user policy

Authentication Required

Accept-Language en

Header	<i>The request will be processed in the context of the specified language</i>
Accept Header	application/json
Content-Type Header	application/json application/x-www-form-urlencoded
Parameter password1	<i>password value</i>
Parameter password2	<i>password value confirmation</i>
Parameter username	<i>Optional username or userDN of user's password policy to check against</i>

Example 1

Request

```
POST /sspr/public/rest/checkpassword HTTP/1.1
Accept-Language: en
Accept: application/json
Content-Type: application/json
Authorization: Basic QWxhZGRpbjpvGVuIHhlc2FtZQ==

{
  "password1": "newPassword",
  "password2": "newPasswOrd"
}
```

Response

```
{
  "error": false,
  "errorCode": 0,
  "data": {
    "version": 2,
    "strength": 37,
    "match": "NO_MATCH",
    "message": "New password is using a value that is not allowed",
    "passed": false,
    "errorCode": 4034
  }
}
```

Example 2

Request

```
POST /sspr/public/rest/checkpassword HTTP/1.1
Accept-Language: en
Accept: application/json
Content-Type: application/x-www-form-urlencoded
Authorization: Basic QWxhZGRpbjpvGVuIHhlc2FtZQ==

password1=dsa32!dabed&password2=dsa32!dabed&username=user1234
```

Response

```
{
  "error": false,
  "errorCode": 0,
  "data": {
    "version": 2,
    "strength": 21,
    "match": "MATCH",
    "message": "New password accepted, please click change password",
    "passed": true,
  }
}
```

```
    "errorCode":0
  }
}
```

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Health

url </sspr/public/rest/health>

Description	Read the health of the application
Authentication	Not Required
Accept-Language Header	en <i>The request will be processed in the context of the specified language</i>
Accept Header	application/json text/plain
Parameter refreshImmediate	refreshImmediate=true <i>Indicates if the server should refresh the health status before calling this service. Only available if logged in with administrative rights.</i>

Example 1

Request

```
GET /sspr/public/rest/health HTTP/1.1
Accept-Language: en
Accept: application/json
```

GET Method

Response

```
{
  "error":false,
  "errorCode":0,
  "data":{
    "timestamp":"Mar 27, 2013 6:15:04 PM",
    "overall":"CONFIG",
    "records":[
      {
        "status":"CONFIG",
        "topic":"Configuration",
        "detail":"LDAP Directory -> LDAP Proxy Password strength of password is weak (21/100); increase password length/complexity for proper security"
      },
      {
        "status":"CONFIG",
        "topic":"Configuration",
        "detail":"PWM is currently in configuration mode. Anyone accessing this site can modify the configuration without authenticating. When ready, lock the configuration to secure this installation."
      },
      {
        "status":"CONFIG",
        "topic":"Configuration",
```



```
"errorCode": 0,
"data": {
  "profile": {
    "title": "Genious",
    "description": "Genious User",
    "telephoneNumber": "555-1212"
  },
  "formDefinition": [
    {
      "name": "telephoneNumber",
      "minimumLength": 3,
      "maximumLength": 15,
      "type": "text",
      "required": true,
      "confirmationRequired": false,
      "readonly": false,
      "labels": {
        "": "Telephone Number"
      },
      "regexErrors": {
        "": ""
      },
      "description": {
        "": ""
      },
      "selectOptions": {
      }
    },
    {
      "name": "title",
      "minimumLength": 2,
      "maximumLength": 15,
      "type": "text",
      "required": true,
      "confirmationRequired": false,
      "readonly": false,
      "labels": {
        "": "Title"
      },
      "regexErrors": {
        "": ""
      },
      "description": {
        "": ""
      },
      "selectOptions": {
      }
    },
    {
      "name": "description",
      "minimumLength": 1,
      "maximumLength": 50,
      "type": "hidden",
      "required": false,
```

```
    "confirmationRequired": false,
    "readonly": false,
    "labels": {
      "": "Descr"
    },
    "regexErrors": {
      "": ""
    },
    "description": {
      "": ""
    },
    "selectOptions": {
    }
  }
]
}
```

Description	Set profile data
Authentication	Required
Accept-Language Header	en <i>The request will be processed in the context of the specified language</i>
Accept Header	application/json
Content-Type Header	application/json

Example 1

POST Method

```
POST /sspr/public/rest/profile HTTP/1.1
Accept-Language: en
Accept: application/json
Content-Type: application/json
Authorization: Basic QWxhZGRpbjpvYVUyIHNlc2FtZQ==

{
  "profile":{
    "title":"Genious",
    "description":"Genious User",
    "telephoneNumber":"555-1212"
  }
}
```

Request

Response

```
{
  "error":false,
  "errorCode":0,
  "successMessage":"Your user information has been successfully updated."
}
```

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Random Password

url </sspr/public/rest/randompassword>

Description Read a single random password value

Authentication Optional

Accept-Language en
Header *The request will be processed in the context of the specified language*

Accept Header text/plain

Parameter username=username=user1234
Optional username or ldap DN of a user on which to base the random password generation on. The user's policies will be applied to the random generation.

GET Method

Parameter strength=50
Optional number (0-100) specifying the minimum strength of the generated password.

Parameter minLength=minLength=5
Optional number specifying the minimum length of the generated password.

Parameter chars=chars=ABCDEFGH12345690
Optional list of characters to use for generating the password.

Example 1

Request

```
GET /sspr/public/rest/randompassword HTTP/1.1
Accept-Language: en
Accept: text/plain
```

Response

```
cLi2mbers
```

Description Read a single random password value

Authentication Optional

Accept-Language en
Header *The request will be processed in the context of the specified language*

Accept Header application/json

Content-Type Header application/json

POST Method

Parameter username=username=user1234
Optional username or ldap DN of a user on which to base the random password generation on. The user's policies will be applied to the random generation.

Parameter strength=strength=50
Optional number (0-100) specifying the minimum strength of the generated password.

Parameter minLength=minLength=5
Optional number specifying the minimum length of the generated

password.

Parameter chars chars=ABCDEFGH12345690
Optional list of characters to use for generating the password.

Example 1

```
Request GET /sspr/public/rest/randompassword HTTP/1.1
Accept-Language: en
Accept: application/json
Content-Type: application/json

{
  "chars": "abcdefgh123456",
  "strength": 5
}

Response {
  "error": false,
  "errorCode": 0,
  "data": {
    "password": "bbf535"
  }
}
```

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Set Password

url </sspr/public/rest/setpassword>

Description	Set a user's password value
Authentication	Required
Accept-Language Header	en <i>The request will be processed in the context of the specified language</i>
Accept Header	application/json
Content-Type Header	application/json application/x-www-form-urlencoded
Parameter username	username=user1234 <i>Optional username or ldap DN of a user on which to set the password.</i>
Parameter password	password=newPassword <i>Required value of new password.</i>
Parameter random	random=true <i>Generate a random password (when random=true, no value for 'password' should be supplied).</i>

POST Method

Example 1

```
Request POST /sspr/public/rest/setpassword HTTP/1.1
Accept-Language: en
Accept: application/json
Content-Type: application/json
Authorization: Basic QWxhZGRpbjpvYVUyIHNlc2FtZQ==
```

```
{
  "password": "newPassword"
}
```

Response

cLi2mbers

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Statistics

url

</sspr/public/rest/statistics>

Description	Read system statistics
Authentication	Not Required
Accept-Language Header	en <i>The request will be processed in the context of the specified language</i>
Accept Header	application/json
Content-Type Header	application/json application/x-www-form-urlencoded
Parameter statKey	<i>Statistic key to return</i>
Parameter statName	<i>Name of statistic to retrieve.</i>
Parameter days	days=20 <i>Number of days to return statistics for.</i>

GET

Method

Example 1

```
GET
/sspr/public/rest/statistics?days=14&statName=PASSWORD_CHANGES
HTTP/1.1
Accept-Language: en
Accept: application/json
Authorization: Basic QWxhZGRpbjpvcmVudHl2FtZQ==
```

Request

Response

```
{
  "error":false,
  "errorCode":0,
  "data":{
    "EPS":{
      "AUTHENTICATION_DAY":"0.000",
      "AUTHENTICATION_HOUR":"0.000",
      "AUTHENTICATION_MINUTE":"0.000",
      "AUTHENTICATION_TOP":"100",
      "INTRUDER_ATTEMPTS_DAY":"0.000",
      "INTRUDER_ATTEMPTS_HOUR":"0.000",
      "INTRUDER_ATTEMPTS_MINUTE":"0.000",
      "INTRUDER_ATTEMPTS_TOP":"100",
      "PASSWORD_CHANGES_DAY":"0.000",
      "PASSWORD_CHANGES_HOUR":"0.000",

```



```
        "PASSWORD_CHANGES_MINUTE": "0.000",
        "PASSWORD_CHANGES_TOP": "100",
        "PWMDB_READS_DAY": "0.001",
        "PWMDB_READS_HOUR": "0.020",
        "PWMDB_READS_MINUTE": "0.492",
        "PWMDB_READS_TOP": "1800",
        "PWMDB_WRITES_DAY": "0.004",
        "PWMDB_WRITES_HOUR": "0.083",
        "PWMDB_WRITES_MINUTE": "2.152",
        "PWMDB_WRITES_TOP": "7800"
    },
    "nameData": {
        "Mar 19": "0",
        "Mar 17": "0",
        "Mar 18": "0",
        "Mar 20": "0",
        "Mar 21": "1",
        "Mar 22": "0",
        "Mar 23": "0",
        "Mar 15": "0",
        "Mar 24": "0",
        "Mar 16": "0",
        "Mar 25": "0",
        "Mar 26": "2",
        "Mar 14": "0",
        "Mar 27": "4"
    }
}
}
```

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Status

url </sspr/public/rest/status>

Description	Read users status data
Authentication	Required
Accept-Language Header	en <i>The request will be processed in the context of the specified language</i>
Accept Header	application/json username=user1234

GET Method Parameter username *Optional username or ldap DN of a user of which to read the status.*

Example 1

Request

```
GET /sspr/public/rest/status HTTP/1.1
Accept: application/json
Accept-Language: fr
Authorization: Basic QWxhZGRpbjpvGVuIHhlc2FtZQ==
```

Response

```
{
  "error": false,
  "errorCode": 0,
  "data": {
```

```
"userDN": "cn=user,ou=users,o=data",
"userID": "user",
"userEmailAddress": "user@example.com",
"passwordLastModifiedTime": "Apr 1, 1970 6:59:43 PM",
"requiresNewPassword": false,
"requiresResponseConfig": false,
"requiresUpdateProfile": false,
"passwordStatus": {
  "expired": false,
  "preExpired": false,
  "violatesPolicy": false,
  "warnPeriod": false
},
"passwordPolicy": {
  "MaximumNumeric": "0",
  "MinimumSpecial": "0",
  "AllowLastCharSpecial": "true",
  "ADComplexity": "false",
  "RegExNoMatch": ".*%.*",
  "AllowSpecial": "true",
  "MaximumSpecial": "0",
  "MinimumLowerCase": "0",
  "MinimumUnique": "0",
  "MinimumNumeric": "0",
  "MinimumLength": "2",
  "DisallowedValues": "test\npassword",
  "CaseSensitive": "true",
  "RegExMatch": "",
  "DisallowCurrent": "true",
  "AllowFirstCharSpecial": "true",
  "MinimumLifetime": "0",
  "ExpirationInterval": "0",
  "UniqueRequired": "false",
  "MaximumSequentialRepeat": "0",
  "AllowNumeric": "true",
  "AllowFirstCharNumeric": "true",
  "EnableWordlist": "false",
  "MaximumLength": "64",
  "DisallowedAttributes": "sn\ncn\ngivenName",
  "AllowLastCharNumeric": "true",
  "PolicyEnabled": "true",
  "MaximumUpperCase": "0",
  "MinimumUpperCase": "0",
  "ChangeMessage":
"sdsadasd\ndsadsadsa\ndsadsa\ndsadsad\nsadasda",
  "MaximumLowerCase": "0"
},
"passwordRules": [
  "Le mot de passe est sensible à la casse",
  "Doit comporter au moins 2 caractère",
  "Ne peut contenir l'une des valeurs suivantes: test
password",
  "Ne doit pas contenir une partie de votre nom ou
identifiant."
]
}
```

```
}
```

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Verify Responses

url </sspr/public/rest/verifyresponses>

Description	Validate supplied challenge response answers against a user's stored responses. <i>Note this service will not work properly if the user's responses are stored only in the NMAS repository.</i>
Authentication	Required
Accept-Language Header	en <i>The request will be processed in the context of the specified language</i>
Accept Header	application/json
Content-Type Header	application/json
Parameter username	username=user1234 <i>Optional username or ldap DN of a user on which to verify the responses.</i>
Parameter challenges	challenges=[list of challenges] <i>List of challenge objects including answers with an answerText property. Retrieve challenge objects using the challenges service to discover the proper object formatting.</i>

POST Method

Example 1

```
POST /sspr/public/rest/verifyresponses HTTP/1.1
Accept-Language: en
Accept: application/json
Content-Type: application/json
Authorization: Basic QWxhZGRpbjpvYVUyIHNlc2FtZQ==

{
  "challenges": [
    {
      "challengeText": "What is the name of the main
character in your favorite book?",
      "minLength": 4,
      "maxLength": 200,
      "adminDefined": true,
      "required": false,
      "answer": {
        "answerText": "Answer 1"
      }
    },
    {
      "challengeText": "What is your least favorite film
```

```
of all time?",
  "minLength":4,
  "maxLength":200,
  "adminDefined":true,
  "required":false,
  "answer":{
    "answerText":"Answer 2"
  }
]
}
```

Response

```
{
  "error": false,
  "errorCode": 0,
  "successMessage": "The operation has been successfully
completed.",
  "data": true
}
```