QTS HTTP API – Authentication v5.1.0

Version	Date	Description of Changes
5.1.0	2024/1/9	Initial Release

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1. System API

1.1 Authentication

Description: Get sid for authentication by password.

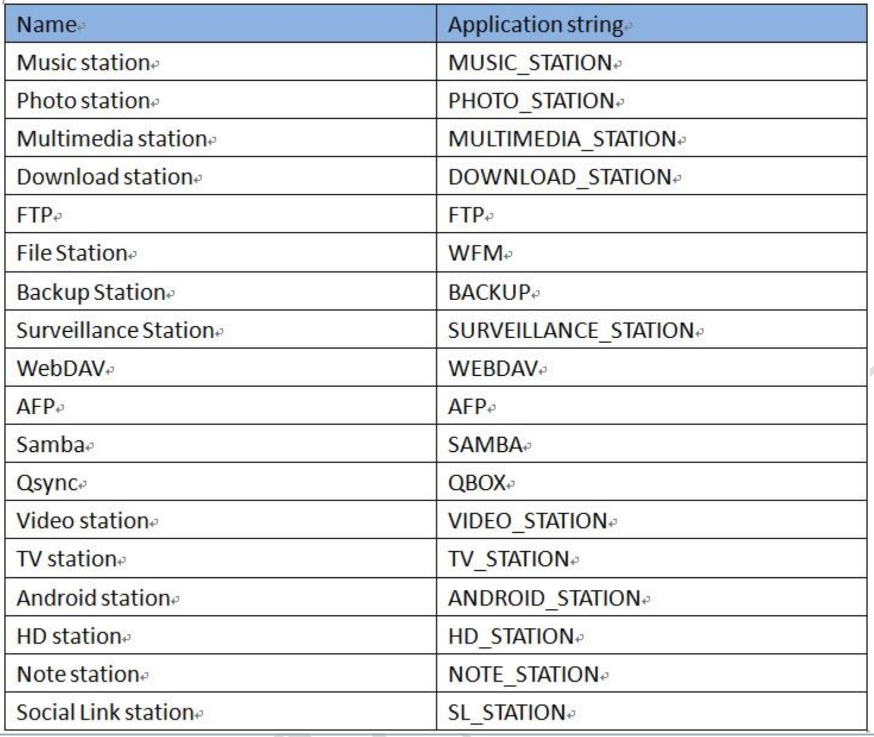
(use Remember me, get qtoken for authentication)

Command:

```
http://IP:8080/cgi-bin/authLogin.cgi?user=${username}&pwd=${encode_string}&remme=${remme}&service=${service}&remote_ip=${remote_ip}&device=${device}&force_to_check_2sv={force_to_check_2sv}&client_id=${client_id}&client_app=${client_app}&client_agent=${client_agent}&gen_client_id=${gen_client_id}&duration=${duration}
```

```
http://IP:8080/cgi-bin/authLogin.cgi?user=${username}&plain_pwd=${pwd_in_plain_text}&remme=${remme}&service=${service}&remote_ip=${remote_ip}&device=${device}&force_to_check_2sv={force_to_check_2sv}&client_id=${client_id}&client_app=${client_app}&client_agent=${client_agent}&gen_client_id=${gen_client_id}&duration=${duration}
```

Variable	Description
${username}	Login user name
${encode_string}	Password (Encode using Base64)
${pwd_in_plain_text}	Password in plain text
${remme}	Optional: 1:return qtoken 0:clean qtoken
${renew}	1:re-generate qtoken and return new qtoken 0:without return qtoken
${force_to_check_2sv}	Optional: 1: Force to check 2-step verification including query from 127.0.0.1 Others: no force
${service}	Username/ Password authentication by specifying service name. When the value>=100, sid will NOT be generated. 5: Qsync 101: Photo Station 102: Music Station 103: Video Station 100: Others 99: Force to check 2-step verification including query from 127.0.0.1
${remote_ip}	Optional; Only for localhost(127.0.0.1), specify the remote address
${device}	Optional; Specify the client' device name
${check_privilege}	Optional;

<table>
<tr><td></td><td>Specify the application string to check

<table>
<tr><th>Name</th><th>Application string</th></tr>
<tr><td>Music station</td><td>MUSIC_STATION</td></tr>
<tr><td>Photo station</td><td>PHOTO_STATION</td></tr>
<tr><td>Multimedia station</td><td>MULTIMEDIA_STATION</td></tr>
<tr><td>Download station</td><td>DOWNLOAD_STATION</td></tr>
<tr><td>FTP</td><td>FTP</td></tr>
<tr><td>File Station</td><td>WFM</td></tr>
<tr><td>Backup Station</td><td>BACKUP</td></tr>
<tr><td>Surveillance Station</td><td>SURVEILLANCE_STATION</td></tr>
<tr><td>WebDAV</td><td>WEBDAV</td></tr>
<tr><td>AFP</td><td>AFP</td></tr>
<tr><td>Samba</td><td>SAMBA</td></tr>
<tr><td>Qsync</td><td>QBOX</td></tr>
<tr><td>Video station</td><td>VIDEO_STATION</td></tr>
<tr><td>TV station</td><td>TV_STATION</td></tr>
<tr><td>Android station</td><td>ANDROID_STATION</td></tr>
<tr><td>HD station</td><td>HD_STATION</td></tr>
<tr><td>Note station</td><td>NOTE_STATION</td></tr>
<tr><td>Social Link station</td><td>SL_STATION</td></tr>
</table></td></tr>
<tr><td>${client_id}</td><td>uuid from client side generated</td></tr>
<tr><td>${client_app}</td><td>client application
Name of the QPKG, 、PC/MAC Utility, Mobile App, etc. The value is "Web Login" when login with the web login screen. e.g. Qmanager</td></tr>
<tr><td>${client_agent}</td><td>client agent
By referring to HTTP header, User-Agent: / (), the format is defined as {app_name}/{app_version} ({OS_name} {OS_version}, {device_name or model_name}) ex. Qmanager/2.18.1 (Android 11, Google Pixel 5)</td></tr>
<tr><td>${gen_client_id}</td><td>server side will response uuid and client need reuse the response uuid</td></tr>
<tr><td>${duration}</td><td>support custom token duration if parameter with client_id
(Unit: day)
default:90, minimum:1, -1:never expire</td></tr>
<tr><td>${vtoken}</td><td>vtoken for don't verify 2sv authentication</td></tr>
</table>

Note: encode_string = ezEncode(utf16to8('${real_password}'))

Example:
http://IP:8080/cgi-bin/authLogin.cgi?user=admin&pwd=YWRtaW4%3D&remme=1
(if real_password is "admin", it will be encoded as "YWRtaW4%3D")

Authentication by service
http://127.0.0.1:8080/cgi-bin/authLogin.cgi?plain_pwd=admin&user=admin&remote_ip=172.17.20.49&device=richardnb

Return value:

Example of successful authentication:

```
<?xml version="1.0" encoding="UTF-8" ?>
      <QDocRoot version="1.0">
      <qtoken><![CDATA[1e29b890910e8135f1692ed4030256fe]]></qtoken>  <= here is 
qtoken, if remme=0 hide
      <authPassed><![CDATA[1]]></authPassed>
      <authSid><![CDATA[ral08opo]]></authSid>           <= here is sid, 
generated when service>=100 was not set
      <isAdmin><![CDATA[1]]></isAdmin>
      </QDocRoot>
```

Example of failed authentication:

```
       <QDocRoot version="1.0">
        <qtoken>1e29b890910e8135f1692ed4030256fe</qtoken>
      <authPassed>0</authPassed>
      <errorValue>-1</errorValue>
      </QDocRoot>
```

Below are the tags inside process list.

Tag name	Description
authPassed	1: Success, 0: fail
en_qrlogin	0/1, user qrcode login enabled
force_qrlogin	0/1, user force qrcode login enabled
user_pw_expiry	0/1, user pw expiry
force_2sv	0/1, need force_2sv

Authorization by service

http://${ip}:8080/cgi-bin/authLogin.cgi?plain_pwd=admin&user=aix&remote_ip=172.17.20.49&service=104&device=aixchou&check_privilege=VIDEO_STATION

Return value:

`Example of permission deny:`

```
<?xml version="1.0" encoding="UTF-8" ?>
        <QDocRoot version="1.0">
        <doQuick><![CDATA[]]></doQuick>
        <is_booting><![CDATA[0]]></is_booting>
        <mediaReady><![CDATA[1]]></mediaReady>
        <SMBFW><![CDATA[0]]></SMBFW>
        <PermissionDeny><![CDATA[1]]></PermissionDeny>    <= permission deny
        <authPassed><![CDATA[0]]></authPassed>
        <errorValue><![CDATA[-1]]></errorValue>
        <username><![CDATA[aix]]></username>
        <ts><![CDATA[85022350]]></ts>
        <fwNotice><![CDATA[0]]></fwNotice>
        <title><![CDATA[]]></title>
        <content><![CDATA[]]></content>
        <psType><![CDATA[1]]></psType>
        <showVersion><![CDATA[0]]></showVersion>
        <show_link><![CDATA[1]]></show_link>
        </QDocRoot>
```

Below are the tags inside process list.

Tag name	Description
authPassed	1: Success, 0: fail
errorValue	0: success -1: Fail -2: not administrator -3 administrator password expired -4 password expired

1.2 Authentication with qtoken

Description: Get sid for authentication by qtoken.

Command:
http://IP:8080/cgi-bin/authLogin.cgi?user=${username}&qtoken=${qtoken}&remme=${remme}&client_id=${client_id}&client_app=${client_app}&client_agent=${client_agent}&gen_client_id=${gen_client_id}&duration=${duration}

Variable	Description
${username}	Login user name
${qtoken}	qtoken
${remme}	Optional: 1:when login by qtoken without return qtoken tag 0:clean qtoken
${client_id}	uuid from client side generated
${client_app}	client application Name of the QPKG,、PC/MAC Utility, Mobile App, etc. The value is "Web Login" when login with the web login screen. e.g. Qmanager
${client_agent}	client agent By referring to HTTP header, User-Agent: <product>/<product-version> (<comment>), the format is defined as {app_name}/{app_version} ({OS_name} {OS_version}, {device_name or model_name}) ex. Qmanager/2.18.1 (Android 11, Google Pixel 5)

${gen_client_id}	server side will response uuid and client need reuse the response uuid
${duration}	support custom token duration if parameter with client_id (Unit: day) default:90, minimum:1, -1:never expire
${vtoken}	token for don't verify 2sv authentication

Example:
http://IP:8080/cgi-bin/authLogin.cgi?user=admin&qtoken=1e29b890910e8135f1692ed4030256fe&remme=1

Return value:

Example of successful authentication:

```
<?xml version="1.0" encoding="UTF-8" ?>
      <QDocRoot version="1.0">
      <authPassed><![CDATA[1]]></authPassed>
      <authSid><![CDATA[ral08opo]]></authSid>           <= here is sid
      <isAdmin><![CDATA[1]]></isAdmin>
      </QDocRoot>
```

Example of failed authentication:

```
       <QDocRoot version="1.0">
      <authPassed>0</authPassed>
      <errorValue>-1</errorValue>
      </QDocRoot>
```

Below are the tags inside process list.

Tag name	Description
user_pw_expiry	0/1, user pw expiry
force_2sv	0/1, need force_2sv
authPassed	1: Success, 0: fail
user_enable	1: enable, 0: disable
user_account_expiry	1: expired, 0: not expired
user_expiry_year	which year to expired
user_expiry_month	which month to expired (1-12)
user_expiry_day	which day to expired (1-31)
errorValue	0: success -1: Fail -2: not administrator -3 administrator password expired -4 password expired

1.3 Authentication with 2 step verification

Description:
If 2-step verification enabled, get sid for 1st authentication by password and 2nd authentication by security code(6 digits) / emergency security code(8 digits) / emergency answer.

In 4.2.0, only support QTS system / File Station login.

HTTP Request from 127.0.0.1 can get sid without 2-step verification.

1.3.1 1st verification

Description: 1st verification

Command:
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=${encode_string}&r=0.802557202605028&remme=${remme}&serviceKey=1&user=${username}&client_id=${client_id}&client_app=${client_app}&client_agent=${client_agent}&gen_client_id=${gen_client_id}&duration=${duration}

Variable	Description
${username}	Login user name
${encode_string}	Password
${remme}	Optional: 1:return qtoken 0:clean qtoken
${client_id}	uuid from client side generated
${client_app}	client application Name of the QPKG, PC/MAC Utility, Mobile App, etc. The value is "Web Login" when login with the web login screen. e.g. Qmanager
${client_agent}	client agent By referring to HTTP header, User-Agent: <product>/<product-version> (<comment>), the format is defined as {app_name}/{app_version} ({OS_name} {OS_version}, {device_name or model_name}) ex. Qmanager/2.18.1 (Android 11, Google Pixel 5)
${gen_client_id}	server side will response uuid and client need reuse the response uuid
${duration}	support custom token duration if parameter with client_id (Unit: day) default:90, minimum:1, -1:never expire
${vtoken}	token for don't verify 2sv authentication

Note: encode_string = ezEncode(utf16to8('${real_password}'))

Example:
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=YWRtaW4%3D&r=0.022977258475666645&remme=1&serviceKey=1&user=admin
(if real_password is "admin", it will be encoded as "YWRtaW4%3D")

Return value:
Example of successful for 1st authentication:

```
<QDocRoot version="1.0">
	<doQuick></doQuick>
	<is_booting>0</is_booting>
	<mediaReady>1</mediaReady>
	<SMBFW>0</SMBFW>
	<authPassed>0</authPassed>
	<need_2sv>1</need_2sv>
	<lost_phone>1</lost_phone>
	<emergency_try_count>0</emergency_try_count>
	<emergency_try_limit>5</emergency_try_limit>
	<username>admin</username>
	<groupname>administrators</groupname>
	<ts>88323841</ts>
	<fwNotice>0</fwNotice>
	<title></title>
	<content></content>
	<psType>0</psType>
	<showVersion>0</showVersion>
	<show_link>1</show_link>
</QDocRoot>
```

Below are the tags inside process list.

Tag name	Type	Description
authPassed	int	authentication result 0:fail 1:success
errorValue	int	0: success -1: Fail -2: not administrator -3 administrator password expired -4 password expired
need_2sv	int	whether user need 2-step verification 1:need 2-step verification if need_2sv not return, please refer general Authentication

need_2_step_verification	int	user need new 2-step verification 1:need 2-step verification New API refer New 2sv API
lost_phone	int	click "Verify another way" will lead to the following Optional: 1:send emergency e-mail that contains emergency security code(8 digits) 2:emergency question handler
emergency_try_count	int	if "lost_phone" is 1, it means the number of send emergency mail if "lost_phone" is 2, it means the number of answer incorrectly
emergency_try_limit	int	if "lost_phone" is 1, it means the maximum number of send emergency mail if "lost_phone" is 2, it means the maximum number of answer incorrectly so far, we define "emergency_try_limit" is 5

1.3.2 2nd verification

Description: verify security code(6 digits) or emergency security code(8 digits)

Command:

```
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=${encode_string}&r=0.3938051044582034&remme=${remme}&security_code=${security_code}&serviceKey=1&user=${username}&client_id=${client_id}&client_app=${client_app}&client_agent=${client_agent}&gen_client_id=${gen_client_id}&duration=${duration}
```

Variable	Description
${username}	Login user name
${encode_string}	Password (Please refer to attached 「get_sid.js」 to get ezEncode function)
${remme}	Optional: 1:return qtoken 0:clean qtoken
${dont_verify_2sv_again }	0 for disable, 1 for enable. you must provide this parameter
${security_code}	security code(6 digits) • while emergency handler is "Send emergency e-mail", it can be emergency security code(8 digits)
${client_id}	uuid from client side generated
${client_app}	client application Name of the QPKG, 、PC/MAC Utility, Mobile App, etc. The value is "Web Login" when login with the web login screen. e.g. Qmanager

${client_agent}	client agent By referring to HTTP header, User-Agent: <product>/<product-version> (<comment>), the format is defined as {app_name}/{app_version} ({OS_name} {OS_version}, {device_name or model_name}) ex. Qmanager/2.18.1 (Android 11, Google Pixel 5)
${gen_client_id}	server side will response uuid and client need reuse the response uuid
${duration}	support custom token duration if parameter with client_id (Unit: day) default:90, minimum:1, -1:never expire

Note: encode_string = ezEncode(utf16to8('${real_password}'))

Example:
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=YWRtaW4%3D&r=0.3938051044582034&security_code=215238&serviceKey=1&user=admin
(if real_password is "admin", it will be encoded as "YWRtaW4%3D")

Return value:

Example of successful for 2nd authentication:

```
<QDocRoot version="1.0">
      <doQuick></doQuick>
      <is_booting>0</is_booting>
      <mediaReady>1</mediaReady>
      <SMBFW>0</SMBFW>
      <authPassed>1</authPassed>
      <authSid>mxz01een</authSid>
      <need_2sv>1</need_2sv>
      <lost_phone>1</lost_phone>
      <emergency_try_count>0</emergency_try_count>
      <emergency_try_limit>5</emergency_try_limit>
      <isAdmin>1</isAdmin>
      <username>admin</username>
      <groupname>administrators</groupname>
      <ts>88323841</ts>
      <fwNotice>0</fwNotice>
      <title></title>
      <content></content>
      <psType>0</psType>
      <showVersion>0</showVersion>
      <show_link>1</show_link>
</QDocRoot>
```

Example of failed for 2nd authentication:

```
<QDocRoot version="1.0">
```

```
        <doQuick></doQuick>
        <is_booting>0</is_booting>
        <mediaReady>1</mediaReady>
        <SMBFW>0</SMBFW>
        <authPassed>0</authPassed>
        <need_2sv>1</need_2sv>
        <lost_phone>1</lost_phone>
        <emergency_try_count>0</emergency_try_count>
        <emergency_try_limit>5</emergency_try_limit>
        <date_time>
                <timezone>(GMT+08:00) Taipei</timezone>
                <timestamp>1432803710</timestamp>
                <date_format_index>1</date_format_index>
                <time_format>24</time_format>
        </date_time>
        <username>admin</username>
        <groupname>administrators</groupname>
        <ts>97469902</ts>
        <fwNotice>0</fwNotice>
        <SUID>6801bd1901459a79a9a39eb6c24da8fb</SUID>
        <title></title>
        <content></content>
        <psType>1</psType>
        <showVersion>0</showVersion>
        <show_link>1</show_link>
</QDocRoot>
```

Most parameters can refer 1st verification

Below are the other tags inside process list.

Tag name	Type	Description
authPassed	int	1: Success, 0: Fail
need_2sv	int	1: need 2-step verification 0: no need 2-step verification
emergency_try_count	int	emergency try count, it should not exceed emergency_try_limit
emergency_try_limit	int	emergency try limit. It will reply authentication fail if exceed the limit.
timezone	string	Time Zone, ex."(GMT+08:00) Taipei"
timestamp	int	seconds since Jan 01 1970
date_format_index	int	date format index 1 : year/month/day, 2 : year.month.day, 3 : year-month-day,

		4 : month/day/year, 5 : month.day.year, 6 : month-day-year, 7 : day/month/year, 8 : day.month.year, 9 : day-month-year
time_format	int	time format : 24 / 12
vtoken	string	token for don't verify 2sv

1.3.3 Send Emergency E-mail

Description: Send emergency e-mail request (while 1st verification or 2nd verification return value "lost_phone" is 1)

Command:
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=${encode_string}&r=0.3938051044582034&remme=${remme}&send_mail=1&serviceKey=1&user=${username}

Variable	Description
${username}	Login user name
${encode_string}	Password (Please refer to attached 「get_sid.js」 to get ezEncode function)
${remme}	Optional: 1:return qtoken 0:clean qtoken

Note: encode_string = ezEncode(utf16to8('${real_password}'))

Example:
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=YWRtaW4%3D&r=0.3938051044582034&send_mail=1&serviceKey=1&user=admin
(if real_password is "admin", it will be encoded as "YWRtaW4%3D")

Return value:

```
<QDocRoot version="1.0">
      <doQuick></doQuick>
      <is_booting>0</is_booting>
      <mediaReady>1</mediaReady>
      <SMBFW>0</SMBFW>
      <send_result>1</send_result>
      <emergency_try_count>3</emergency_try_count>
      <emergency_try_limit>5</emergency_try_limit>
      <username>admin</username>
      <groupname>administrators</groupname>
```

```
       <ts>88323841</ts>
       <fwNotice>0</fwNotice>
       <title></title>
       <content></content>
       <psType>0</psType>
       <showVersion>0</showVersion>
       <show_link>1</show_link>
</QDocRoot>
```

Below are the tags inside process list.

Tag name	Type	Description
send_result	int	send mail result 1:success 0:fail -1:the email notification service is not enabled
emergency_try_count	int	it means the number of send emergency mail
emergency_try_limit	int	it means the maximum number of send emergency mail so far, we define "emergency_try_limit" is 5

1.3.4 Get Security Question

Description: Get security question (while 1st verification or 2nd verification return value "lost_phone" is 2)

Command:
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=${encode_string}&r=0.3938051044582034&remme=${remme}&get_question=1&serviceKey=1&user=${username}

Variable	Description
${username}	Login user name
${encode_string}	Password (Please refer to attached 「get_sid.js」 to get ezEncode function)
${remme}	Optional: 1:return qtoken 0:clean qtoken

Note: encode_string = ezEncode(utf16to8('${real_password}'))

Example:
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?get_question=1&pwd=YWRtaW4%3D&r=0.3938051044582034&serviceKey=1&user=admin
(if real_password is "admin", it will be encoded as "YWRtaW4%3D")

Return value:

```
<QDocRoot version="1.0">
	<doQuick></doQuick>
	<is_booting>0</is_booting>
	<mediaReady>1</mediaReady>
	<SMBFW>0</SMBFW>
	<security_question_no>4</security_question_no>
	<security_question_text>how are you?</security_question_text>
	<username>admin</username>
	<groupname>administrators</groupname>
	<ts>88323841</ts>
	<fwNotice>0</fwNotice>
	<title></title>
	<content></content>
	<psType>0</psType>
	<showVersion>0</showVersion>
	<show_link>1</show_link>
</QDocRoot>
```

Below are the tags inside process list.

Tag name	Type	Description
security_question_no	int	question no 1: frontend will show "What is your pet's name?" 2: frontend will show "What is your favorite sport?" 3: frontend will show "What is your favorite color?" 4: Custom question
security_question_text	string	Custom question (only for "security_question_no" is 4)

1.3.5 Get Security Question for Mobile App

Description: Get security question for Mobile App (while 1st verification or 2nd verification return value "lost_phone" is 2)

Command:
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=${encode_string}&r=0.3938051044582034&remme=${remme}&get_question=1&serviceKey=1&user=${username}&q_lang=${q_lang}

Variable	Description
${username}	Login user name
${encode_string}	Password (Please refer to attached 「get_sid.js」 to get ezEncode function)

${remme}	Optional: 1:return qtoken 0:clean qtoken
${q_lang}	Languages for seucruty question {CZE, DAN, DUT, ENG, ESM, FIN, FRE, GER, GRK, HUN, ITA, JPN, KOR, NOR, POL, POR, ROM, RUS, SCH, SPA, SWE, TCH, THA, TUR}

Note: encode_string = ezEncode(utf16to8('${real_password}'))

Example:
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?get_question=1&pwd=YWRtaW4%3D&r=0.3938051044582034&serviceKey=1&user=admin&q_lang=ENG
(if real_password is "admin", it will be encoded as "YWRtaW4%3D")

Return value:

```
<QDocRoot version="1.0">
      <doQuick></doQuick>
      <is_booting>0</is_booting>
      <mediaReady>1</mediaReady>
      <SMBFW>0</SMBFW>
      <security_question_no>4</security_question_no>
      <system_question_text>how are you?</system_question_text>
      <security_question_text>how are you?</security_question_text>
      <username>admin</username>
      <groupname>administrators</groupname>
      <ts>88323841</ts>
      <fwNotice>0</fwNotice>
      <title></title>
      <content></content>
      <psType>0</psType>
      <showVersion>0</showVersion>
      <show_link>1</show_link>
</QDocRoot>
```

Below are the tags inside process list.

Tag name	Type	Description
security_question_no	int	question no 1: frontend will show "What is your pet's name?" 2: frontend will show "What is your favorite sport?" 3: frontend will show "What is your favorite color?" 4: Custom question
system_question_text	string	security question text (for mobile app)
security_question_text	string	Custom question (only for "security_question_no" is 4)

1.3.6 Security Question Authentication

Description:
verify security answer (while 1st verification or 2nd verification return value "lost_phone" is 2)

Command:
```
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=${encode_string}&r=0.3938051044582034&remme=${remme}&security_answer=${security_answer}&serviceKey=1&user=${username}&client_id=${client_id}&client_app=${client_app}&client_agent=${client_agent}&gen_client_id=${gen_client_id}&duration=${duration}
```

Variable	Description
${username}	Login user name
${encode_string}	Password (Please refer to attached 「get_sid.js」 to get ezEncode function)
${remme}	Optional: 1:return qtoken 0:clean qtoken
${dont_verify_2sv_again}	Optional: 0 for disable, 1 for enable. you must provide this parameter
${security_answer}	string
${client_id}	uuid from client side generated
${client_app}	client application Name of the QPKG,、PC/MAC Utility, Mobile App, etc. The value is "Web Login" when login with the web login screen. e.g. Qmanager
${client_agent}	client agent By referring to HTTP header, User-Agent: <product>/<product-version> (<comment>), the format is defined as {app_name}/{app_version} ({OS_name} {OS_version}, {device_name or model_name}) ex. Qmanager/2.18.1 (Android 11, Google Pixel 5)
${gen_client_id}	server side will response uuid and client need reuse the response uuid
${duration}	support custom token duration if parameter with client_id (Unit: day) default:90, minimum:1, -1:never expire

Note: encode_string = ezEncode(utf16to8('${real_password}'))

Example:
```
http://172.17.20.20:8080/cgi-bin/authLogin.cgi?pwd=YWRtaW4%3D&r=0.4000929836850201&security_answer=fine&serviceKey=1&user=admin
```
(if real_password is "admin", it will be encoded as "YWRtaW4%3D")

Return value:

Example of successful for security question authentication:

```
<QDocRoot version="1.0">
        <doQuick></doQuick>
        <is_booting>0</is_booting>
        <mediaReady>1</mediaReady>
        <SMBFW>0</SMBFW>
        <authPassed>1</authPassed>
        <authSid>m9x71gxw</authSid>
        <emergency_try_count>1</emergency_try_count>
        <emergency_try_limit>5</emergency_try_limit>
        <isAdmin>1</isAdmin>
        <username>admin</username>
        <groupname>administrators</groupname>
        <ts>88323841</ts>
        <fwNotice>0</fwNotice>
        <title></title>
        <content></content>
        <psType>0</psType>
        <showVersion>0</showVersion>
        <show_link>1</show_link>
</QDocRoot>
```

Example of failed for security question authentication:

```
<QDocRoot version="1.0">
        <doQuick></doQuick>
        <is_booting>0</is_booting>
        <mediaReady>1</mediaReady>
        <SMBFW>0</SMBFW>
        <authPassed>0</authPassed>
        <emergency_try_count>1</emergency_try_count>
        <emergency_try_limit>5</emergency_try_limit>
        <username>admin</username>
        <groupname>administrators</groupname>
        <ts>88323841</ts>
        <fwNotice>0</fwNotice>
        <title></title>
        <content></content>
        <psType>0</psType>
        <showVersion>0</showVersion>
        <show_link>1</show_link>
</QDocRoot>
```

These parameters can be referred to 1st verification

1.4 Login with sid

Description: Login with sid

Command:
http://IP:8080/cgi-bin/authLogin.cgi?sid=${sid}

Example:
http://IP:8080/cgi-bin/authLogin.cgi?sid=pr4i5et6

Return value:

```
<?xml version="1.0" encoding="UTF-8"?>
<QDocRoot version="1.0">
   <doQuick />
   <is_booting>0</is_booting>
   <mediaReady>1</mediaReady>
   <SMBFW>0</SMBFW>
   <authPassed>1</authPassed>
   <isAdmin>1</isAdmin>
   <user>admin</user>
   <username>admin</username>
   <groupname>administrators</groupname>
   <userid>0</userid>
   <userType>local</userType>
   <force_change_pw>1</force_change_pw>
   <pw_expiry_date>2017/01/29</pw_expiry_date>
   <model>
      <modelName>TS-670</modelName>
      <internalModelName>TS-670</internalModelName>
      <platform>TS-NASX86</platform>
      <platform_ex>X86_SANDYBRIDGE</platform_ex>
      <customModelName />
      <displayModelName>TS-670 Pro</displayModelName>
      <sas_model>0</sas_model>
      <storage_v2>1</storage_v2>
      <encryptfsSupported>1</encryptfsSupported>
   </model>
   <firmware>
      <version>4.4.0</version>
      <number>0614</number>
      <build>20160614</build>
      <patch>0</patch>
      <buildTime>2016/06/14</buildTime>
   </firmware>
   <rfs_bits>64</rfs_bits>
   <sp>ALPHA</sp>
   <specVersion>1.0</specVersion>
   <hostname>SAMSON-TS670</hostname>
   <DemoSiteSuppurt>no</DemoSiteSuppurt>
   <customLogo>
      <customFrontLogo />
      <customLoginLogo />
   </customLogo>
   <gqMaster>-1</gqMaster>
   <HTTPHost>172.17.20.124</HTTPHost>
   <webAccessPort>8080</webAccessPort>
   <QWebPort>80</QWebPort>
   <webFSEnabled>1</webFSEnabled>
   <QMultimediaEnabled>0</QMultimediaEnabled>
   <MSV2Supported>0</MSV2Supported>
   <MSV2WebEnabled>1</MSV2WebEnabled>
   <MSV2URL>/MSV2/</MSV2URL>
   <QDownloadEnabled>0</QDownloadEnabled>
   <DSV2Supported>0</DSV2Supported>
   <DSV3Supported>1</DSV3Supported>
   <DSV2URL>/downloadstation/?ssid=</DSV2URL>
   <QWebEnabled>1</QWebEnabled>
   <QWebSSLEnabled>1</QWebSSLEnabled>
   <QWebSSLPort>8081</QWebSSLPort>
   <NVREnabled>0</NVREnabled>
   <NVRURL>/cgi-bin/camera_view.cgi</NVRURL>
   <NVRVER>1</NVRVER>
   <WFM2>1</WFM2>
   <wfmPortEnabled>0</wfmPortEnabled>
   <wfmPort>8080</wfmPort>
   <wfmSSLEnabled>0</wfmSSLEnabled>
   <wfmSSLPort>443</wfmSSLPort>
   <wfmURL>/filestation/</wfmURL>
   <QMusicsEnabled>1</QMusicsEnabled>
   <QMusicsURL>/musicstation/</QMusicsURL>
   <QVideosEnabled>1</QVideosEnabled>
   <QVideosURL>/videostation/</QVideosURL>
   <QPhotosEnabled>1</QPhotosEnabled>
   <QPhotosURL>/photo/</QPhotosURL>
   <stunnelEnabled>1</stunnelEnabled>
   <stunnelPort>443</stunnelPort>
   <forceSSL>0</forceSSL>
   <HDAROOT_ALMOST_FULL>0</HDAROOT_ALMOST_FULL>
   <passwdConstraints>
      <passwdConstraint01>0</passwdConstraint01>
      <passwdConstraint02>0</passwdConstraint02>
      <passwdConstraint03>0</passwdConstraint03>
      <passwdConstraint04>0</passwdConstraint04>
   </passwdConstraints>
   <quickStart>1</quickStart>
   <connet_info>
      <connet_ip>172.17.20.90</connet_ip>
   </connet_info>
   <ts>29225615</ts>
   <fwNotice>0</fwNotice>
   <SUID>6801bd1901459a79a9a39eb6c24da8fb</SUID>
   <title />
   <content />
   <psType>1</psType>
   <standard_massage />
   <standard_color>#ffffff</standard_color>
   <standard_size>12px</standard_size>
   <standard_bg_style>fill</standard_bg_style>
   <showVersion>0</showVersion>
   <show_link>1</show_link>
   <role_delegation>
      <role>
         <name>
            <![CDATA[user_group_management]]>
         </name>
         <desc>
            <![CDATA[User and Group Management Desc]]>
         </desc>
         <id>
            <![CDATA[5]]>
         </id>
      </role>
      <role>
         <name>
            <![CDATA[shared_folder_management]]>
         </name>
         <desc>
            <![CDATA[Shared Folder Management Desc]]>
         </desc>
         <id>
            <![CDATA[6]]>
         </id>
      </role>
      <role>
         <name>
```

```
            <![CDATA[backup_management]]>
         </name>
         <desc>
            <![CDATA[Backup Management Management Desc]]>
         </desc>
         <id>
            <![CDATA[7]]>
         </id>
      </role>
   </role_delegation>
</QDocRoot>
```

Response format:

Tag name	Description
authPassed	1: Success, 0: Fail
connet_ip	source ip
role_delegation id	System Management = 1, Application Management = 2, Access Management = 3, System Monitoring = 4, User and Group Management = 5, Shared Folder Management = 6, Backup Management

1.5 Logout

Description: logout with sid

Command:
http://IP:8080/cgi-bin/authLogout.cgi?sid=${sid}

Example:
http://IP:8080/cgi-bin/authLogout.cgi?sid=pr4i5et6

Return value:

```
<QDocRoot version="1.0">
    <authPassed><![CDATA[0]]></authPassed>
</QDocRoot>
```

Parameter:

Tag name	Description
logout	1: do logout
sid	sid to logout

del_user_session	1: delete sid and qtoken belong to user 2: delete sid only 3: delete sid and qtoken except qnap_authenticator
del_client	verify qtoken and remove qtoken from specified user and client_id
qtoken	qtoken to delete (use with del_client)
client_id	qtoken of client_id to delete (use with del_client)
user	username of client_id to delete (use with del_client)

Response format:

Tag name	Description
authPassed	1: auth pass