Technical Guide

External Pages for Controller

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1. Introduction

Since every Service Zone has its own configuration profile and acts like a virtual gateway, administrators can customize or define their own portal pages utilized by users of that Service Zone.

The customizable pages of a Service Zone are divided into two parts: **Login Page Customization** and **Message Page Customization**. In Login Page Customization, administrators can modify the content within Service Disclaimer, General Login Page, Port Location Mapping Free Login, and Port Location Mapping Paid Access Login. In Message Page Customization, the Login Success Page, Login Succeeded Page. For On-Demand Users, Login Failed Page, Logout Page, Logout Succeeded Page, Logout Failed Page can be customized.

Main>System>Service Zone>Service Zone Configuration

For each customizable part, the available customization options are to use: **Default Page, Template Page, Uploaded Page,** or **External Page.**
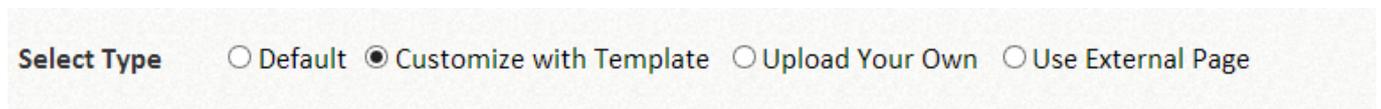
Main Menu>System>Service Zone>Service Zone Configuration>Login Page Customization

Default Page uses a web page stored within the system, its format and content cannot be changed.

Template Page also uses a web page stored within the system, but the contents such as text color, background color displayed text and logo can be configured according to your preferences.

Uploaded Page is to upload your self-defined web page into the system and use it as a portal page displayed to the user. You also can download the HTML sample file under this option. The sample page will base on your default page. For example, if you enable the social media authentication, you will also get the same content in the HTML sample file.

External Page uses a web page stored in an external web server as the portal page for your users. Because the pages are located on a remote server, therefore special efforts are required by these external pages to parse, process and send necessary URL parameters to and from the system.

Since External Pages needs more attention and care to set up, its HTML codes also need to include mechanisms for processing the necessary URL parameters in order to work properly with the Access Controller, please refer to further details regarding on external pages in the following sections.

2. How External Page Operates

The controller is a pre-integrated network appliance, which is built specifically for managing APs and authenticating users of a medium size hotspot deployment

Choose **External Page** if you desire to use external web pages for all your custom pages either in Login Page Customization or Message Page Customization. Simply enter the URL separately of your external web pages, click **Preview** button to check if it is reachable, take a look at how your external webpage will be displayed, then click **Apply** button.

Main Menu>System>Service Zone>Service Zone Configuration>Login Page Customization

When a user connects to this Service Zone, opens a web browser and attempts to access the internet, the system will redirect the user to the external login page configured. Controller while redirecting users to the external web page will also send URL parameters required for the operation, for instance, user authentication. Therefore, each self-defined external pages (*Login, Logout, Login Success, Logout Success,* etc.) requires codes to handle **URL parameters** to and from the Controller. A simple example is illustrated below for Login Page, please refer to **External Login Page Parameters** for URL parameter relating to other pages such as *Login Success Page* ... and etc.

Therefore it is important that your external pages are designed by someone with good knowledge of URL parameter utilization.

Diagram below explains how External Page operates using user login/logout flow as illustration:

Login:
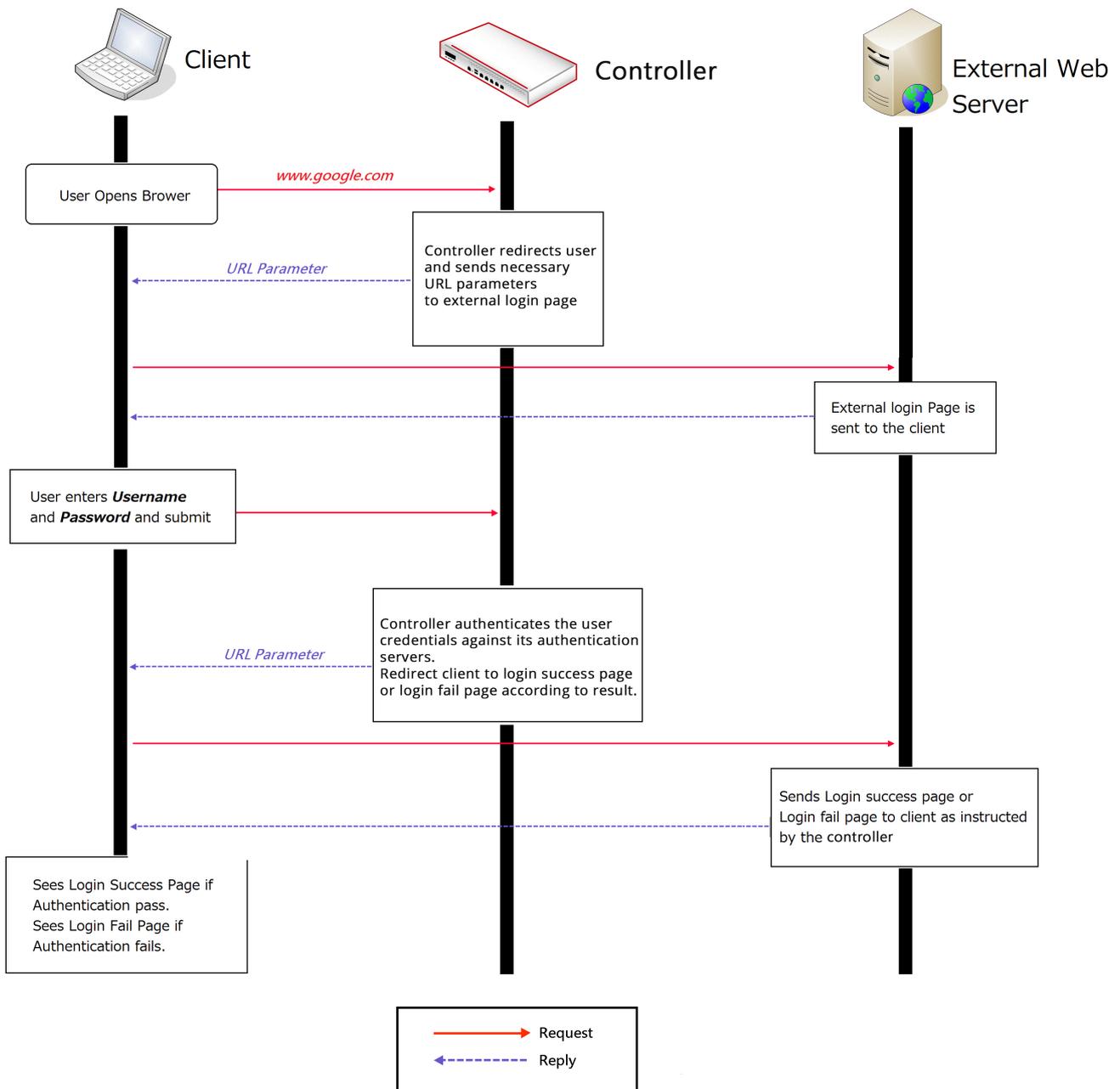
Logout:
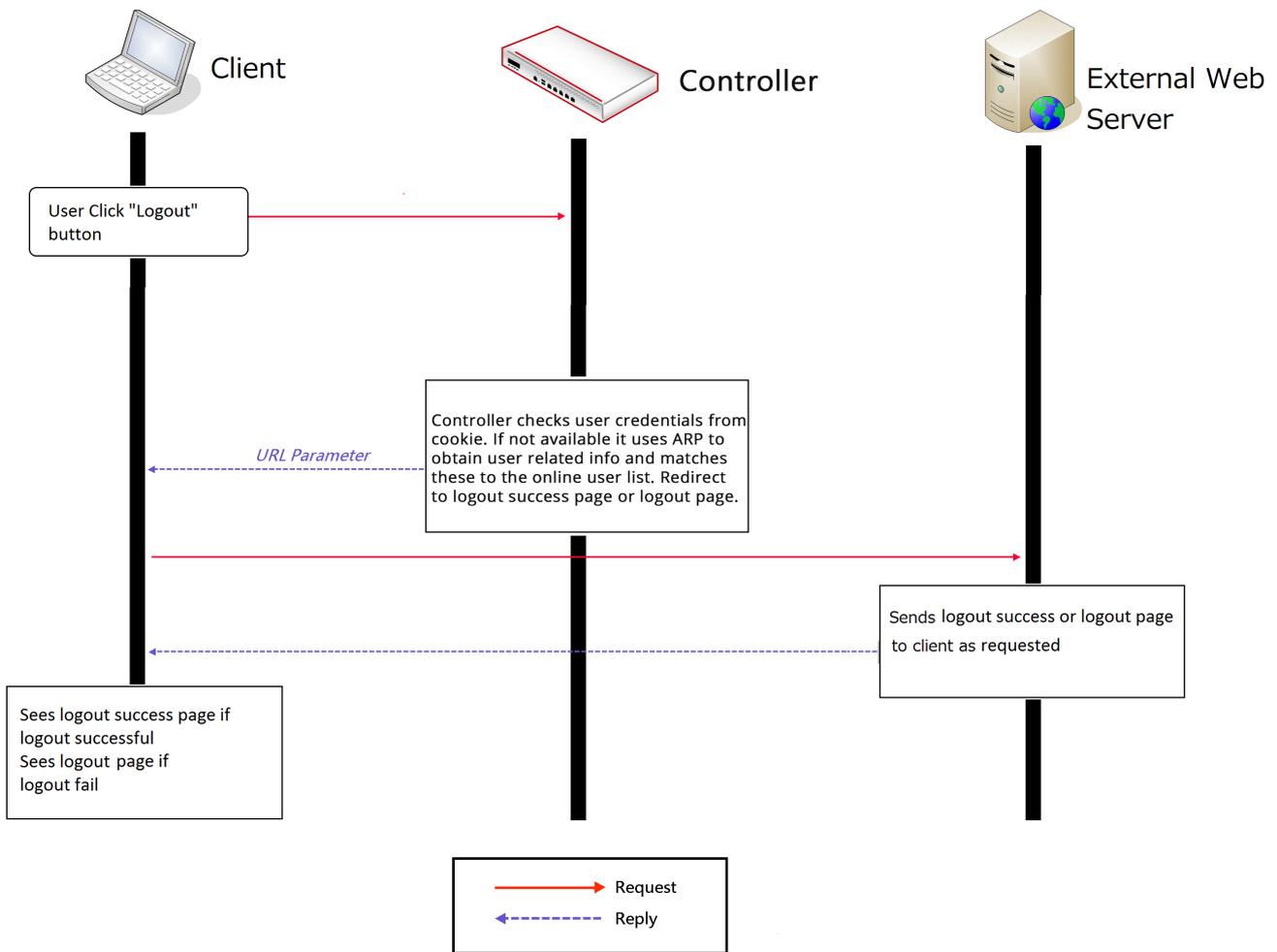
The URL parameters sent by the Controller to the external login page are as follows:

Field	Value	Description
loginurl	String (URL encoded)	The URL which shall be submitted when user login.
remainingurl	String (URL encoded)	The URL which shall be submitted when user want to get remaining quota.
vlanid	Integer (1 ~ 4096)	VLAN ID
iface	Integer (0~8)	Service Zone ID, 0 for default service zone
gwip	IP format	Controller activated WAN IP address
client_ip	IP format	Client IP address
ipv6_addr	IPv6 format	Client IPv6 address
umac	MAC format (separated by ':')	Client MAC address

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You will need to parse the required parameters in your html code. The following HTML code segment is an example of parsing *loginurl* parameter with a self define javascrip function:

```
<FORM action="" method="post" name="form">
<script language="Javascript">
form.action = getVarFromURL(window.location.href, 'loginurl');
</script>
<INPUT type="text" name="myusername" size="25">
<INPUT type="password" name="mypassword" size="25">
<INPUT name="button_submit" type="submit" value="Enter">
<INPUT name="button_clear" type="button" value="Clear">
</FORM>
```

The following shows the corresponding self-defined javascript function used to parse the *loginurl* parameter:

```
function getVarFromURL(url, name) {
     if(name == "" || url == "") { return ""; }
     name = name.replace(/[\[]/|"\\\[").replace(/[\]]/|"\\\]");
     var regObj = new RegExp("[\\?&]"+name+"=([^&#]*)");
     var result = regObj.exec(url);
     if(result == null) { return ""; }
     else { return decodeURIComponent(result[1]); }
}
```

An external page example that the user will see upon launching a browser, highlighted in red you can see the URL parameters sent from the system:

3. URL Variables from Controller

This section displays all the URL parameters that are sent from the Controller to the various external pages.

3.1 External Login Page

Variables:

Field	Value	Description
loginurl	String (URL encoded)	The URL which shall be submitted when user login.
remainingurl	String (URL encoded)	The URL which shall be submitted when user want to get remaining quota.
vlanid	Integer (1 ~ 4096)	VLAN ID
iface	Integer (0~8)	Return Service Zone ID when using IPv6, 0 for default service zone
gwip	IP format	Controller activated WAN IP address
client_ip	IP format	Client IP address
ipv6_addr	IPv6 format	Client IPv6 address
umac	MAC format (separated by ':')	Client MAC address

Extra Parameters:

For Port Location Mapping (PLM) scenario, additional parameters can be customized and sent from the Controller to the external login page. As the name implies, PLM is often used for integration of location-based services. The Controller provides configurable additional URL parameters for each PLM entry.

There are two types of PLM and the following section will introduce how the additional URL parameters can be configured.

The first type is a simple Location-VLAN-Service Zone mapping. This type of PLM can be configured on the *System > Port Location Mapping* page. As the example in the screenshot below shows, you can create a PLM entry that maps VLAN 1234 to Service Zone 1 (Guest-SZ). HTTP Parameter field can be configured for the PLM entry so that the additional parameters defined here will be sent to the external login page. In short, for the configuration in the screenshot example, the clients with VLAN ID 1234 will be mapped to Guest-SZ; when the client access the external login page, the HTTP Parameter "*loc=sample&lan=1*" will also be included in the URL.

Main Menu>System>Port Location Mapping>Port Location Mapping Setup

The other type of PLM is called "Tunnel Port Location Mapping". Tunnel PLM is only available for APs managed by Wide Area AP Management (WAPM) and enabling Complete Tunnel. To use Tunnel PLM, CAPWAP must be enabled first on both AP and Controller. A properly configured AP will be added to WAPM automatically. After applying a pre-configured template with Complete Tunnel, Tunnel PLM is available for the AP. As shown in the following screenshots, Tunnel PLM can be viewed and configured in the AP List page.

Main Menu>Device Management>Wide Area AP Management>AP List

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Main Menu>Device Management>Wide Area AP Management>AP List>Tunnel Config

Similar to simple PLM, Location ID, Location Description, and additional HTTP Parameter can be configured for a tunnel interface (VAP). To be more concrete, for the users associated to the VAP with Tunnel PLM configured, the extra URL parameters can be sent to the external login page.

Main Menu>Device Management>Wide Area AP Management>AP List>Tunnel Config>Tunnel Port Mapping Setup

3.2 External Login Successful Page

Variables:

Field	Value	Description
uid	String	User ID (postfix is included)

original_uid	String	Original User ID
utype	String (LOCAL, RADIUS, ONDEMAND, POP3, LDAP, SIP, NT Domain)	Authentication server name
umac	MAC format (separated by ':')	Client MAC address
sessionlength	Integer (Sec.)	RADIUS user session length (Only available for RADIUS user)
byteamount	Integer (Bytes)	RADIUS user volume limit (Only available for RADIUS user)
idletimeout	Integer (Sec.)	Idle timeout
acct-interim-interval	Integer (Sec.)	RADIUS accounting interim update interval (Only available for RADIUS user)
logouturl	String (URL encoded)	The URL which shall be submitted when user want to logout.
change_passwd_url	String (URL encoded)	The URL which shall be submitted when user want to change password. (Only available for LOCAL user)
ondemand_creation_url	String (URL encoded)	The URL which shall be submitted when user want to create on-demand user. (Only available for LOCAL user)
vlanid	Integer (1~4096)	VLAN ID
gwip	IP format	Controller activated WAN IP address
client_ip	IP format	Client IP address
ipv6_addr	IPv6 format	Client IPv6 address
sz	Integer	Service Zone ID
group	Integer	Group index
policy	Integer	Policy index
available_plan	billing plan:usage	For local user to create on demand user
max_uplink	Integer (b/s)	Maximum up-link rate
max_downlink	Integer (b/s)	Maximum down-link rate
req_uplink	Integer (b/s)	Minimum up-link rate
req_downlink	Integer (b/s)	Minimum down-link rate
next_page	String	Client redirection URL
CLASS	String	RADUIS CLASS attribute (Only available for RADIUS user)
custom	String	Customization parameter
WISPR-REDIRECTION-URL	String	Client redirection URL
WISPR-SESSION-TERMINATE-TIME	String, format: YYYY-MM-DDThh:mm:ssTZD	WISPr Session-Terminate-Time attribute (Only available for RADIUS user)
WISPR-SESSION-TERMINATE-END-OF-DAY	Integer (0/1)	WISPr Session-Terminate-End-Of-Day attribute, 0 or 1 to indicate termination rule. (Only available for RADIUS user)
WISPR-BILLING-CLASS-OF-SERVICE	String	WISPr Billing-Class-Of-Service attribute (Only available for RADIUS user)
WISPR-LOCATION-ID	String	WISPr Location-ID attribute (Only

		available for RADIUS user)
WISPR-LOCATION-NAME	String	WISPr Location-Name attribute (Only available for RADIUS user)
WISPR-BILLING-TIME	String, format: HH:MM	WISPr Billing-Time attribute (Only available for RADIUS user)
split_tunnel	String	If the client is from split tunnel=1, else 0

3.3 External Failed Page

Variables:

Field	Value	Description
loginurl	String (URL encoded)	The URL which shall be submitted when user login.
remainingurl	String (URL encoded)	The URL which shall be submitted when user want to get remaining quota.
vlanid	Integer (1 ~ 4096)	VLAN ID
iface	Integer (0~8)	Return Service Zone ID when using IPv6, 0 for default service zone
gwip	IP format	Controller activated WAN IP address
client_ip	IP format	Client IP address
ipv6_addr	IPv6 format	Client IPv6 address
umac	MAC format (separated by ':')	Client MAC address
msg	String, includes: The system is busy. Please try again later. Cannot find session related information. Please enable the Cookie in the browser setting or open a website to get a Cookie. Invalid IP address. Please check the IP address and try again. Invalid MAC address. Please check the MAC address and try again. Sorry, your account is not usable, because the authentication option is currently disabled. Please contact your network administrator. Sorry, your account is not usable, because the authentication option (associated with the postfix) is not found. Please contact your network administrator. Sorry, you are not allowed to log in, because your account is currently on the Black List.	Error message

Sorry, you are not allowed to log in, because it is currently not the service hour for your account.

You have already logged in.

Sorry, there is a system problem checking the information of your account (XXX).
Please contact your network administrator.

Invalid username or password.
Please check your username and password and try again.

Cannot identify the policy for your account.
Please contact your network administrator.

User of this device (the MAC address) is not allowed to use this account.
Please contact your network administrator.

Sorry, the external authentication server is currently unreachable.
Please contact your network administrator.

Sorry, you are not allowed to create a remote VPN connection.

Reply-message form radius server. (radius attribute: Reply-Message)

original_uid	String	Original User ID
custom	String	User customization

3.4 External Logout Successful Page

Variables:

Field	Value	Description
uid	String	User ID (postfix is included)
original_uid	String	Original User ID
vlanid	Integer (1~4096)	VLAN ID
gwip	IP format	Controller activated IP address
used_time	Integer	User's Used time

3.5 External On-demand/Guest login successful page

Variables:

Field	Value	Description
uid	String	User ID (postfix is included)

original_uid	String	Original User ID
utype	String (LOCAL, RADIUS, ONDEMAND, FREE, POP3, LDAP, SIP, NT Domain)	Authentication server name
umac	MAC format (separated by ':')	Client MAC address
sessionlength	Integer (Sec.)	On-demand user's quota of time type
byteamount	Integer (byte)	On-demand user's quota of volume type
chargetype	String	On-demand User Accounting Type
idletimeout	Integer (Sec.)	Idle timeout
logouturl	String (URL encoded)	Logout URL
redeemurl	String (URL encoded)	Redeem URL
vlanid	Integer (1~4096)	VLAN ID
gwip	IP format	Controller activated WAN IP address
client_ip	IP format	Client IP address
sz	Integer	Service Zone ID
group	Integer	Group index
policy	Integer	Policy index
next_page	String	Client redirection URL
max_uplink	Integer (b/s)	Maximum up-link rate
max_downlink	Integer (b/s)	Maximum down-link rate
req_uplink	Integer (b/s)	Minimum up-link rate
req_downlink	Integer (b/s)	Minimum down-link rate

3.6 External Port Location Mapping Pages

There are two pages used in hotel applications.
1. **Free Login Page** is used when a hotel does not charge its customer for the Internet access.
2. **Charge Login Page** is used when a hotel does charge its room guests for Internet access.

The URL and variables are the same as Login page. Please refer to the section 3.1.

4. URL Variables to Controller

This section displays all the URL parameters that are sent from various external pages to the Controller.

4.1 User Login

Path:

(LAN IP address or Internal Domain Name) /loginpages/userlogin.shtml

Input:

Field	Required	Value	Description
myusername alternative variables: (username, user, account)	Required	String	User ID
mypassword alternative variables (passwd, password, pass)	Required	String	User password
displayName	Optional	String	Return username which enter by user
nullname	Optional		
mobile_phone	Optional		
myutype	Optional		
openid_mode	Optional		
social_type	Optional		
email_verification	Optional		
userID			
userEmail	Optional		
userGender	Optional		
userBirthday	Optional		
userLocation	Optional		
email	Optional		
email_verification	Optional		
custom	Optional		User customize field

(LAN IP address or Internal Domain Name) /servlets/user.userlogin only accept (username,passwd)

Output:
No output, redirect user to login successful page.

4.2 User Logout

Path:

(LAN IP address or Internal Domain Name) /loginpages/logoff.shtml

Input:

Field	Required	Value	Description
uid	Optional	String	User ID, default is taken from cookie

Output:
No output, redirect user to logout successful page.

4.3 Remaining quota (Credit balance)

Path:
(LAN IP address or Internal Domain Name) /loginpages/reminder.shtml

Input:

Field	Required	Value	Description
myusername alternative variables: (username, user, account)	Required	String	User name
mypassword alternative variables (passwd, pass)	Required	String	Password
ret_url	Optional	String (URL encoded)	Returned URL, default is pop_reminder.shtml
command	Optional	String	getValue: If command is set to "getValue", the return URL would be ignored, and the page would only print out the available quota.

Output:
If command is set to "getValue", the output is simply "value".(secs. or bytes according to user type)
If command is not set and there is no ret_url is presented, client would be redirected to pop_reminder.shtml page, which shows remaining quota in our UI style. If ret_url is presented, client would be redirected to ret_url, and Controller would add these four variables in URL.

Field	Value	Description
msg	String, including: Sorry, this account or password is incorrect. Sorry, this feature is available for on-demand user only. Sorry, this username: XXX is out of quota. Sorry, this username: XXX is expired. Sorry, this username: XXX is redeemed.	Error messages
Value	Integer (Sec. Or Byte) or error no.	Remaining quota, if user is time type, the value is remaining seconds, if user is volume type, the value

-1: Account not found.
-2: Out of quota.
-3: Expired.
-4: Redeemed.

remaining bytes.

uname	String	User name
type	String, includes: TIME: Time type DATA: Volume type CUTOFF: Cut-off type	On-demand user billing type

5 Remarks

For more information, please contact our Technical Support team.