Technical Guide

On-Demand API

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# Table of Contents

1. *Introduction* .......................................................................................................................... 2  
2. *Implementation Examples* ................................................................................................... 2  
3. *API Parameters* .................................................................................................................... 3  
   3.1 Creating Accounts with random generated Username and Password .......................................... 5  
   3.2 Creating Accounts with specific Username and Password ......................................................... 6  
   3.3 Query for an already created On-Demand Account ..................................................................... 7  
   3.4 Delete an On-Demand Account ................................................................................................... 8  
4. *Admin Setup for On-Demand API* .......................................................................................... 9
1. Introduction

The Controller offers complete solution to many applications. The On-Demand API is one of the powerful features that can be utilized for Hotspot services. Instead of tickets, clients would be able to obtain On-Demand accounts through third-party POS Systems (such as a Kiosk or PMS). This Application Note aims to give network administrators better understanding of the concept behind this feature and how it can be integrated with third-party POS Systems.

On-Demand Accounts can be created/ deleted with external API without the Management UI. This is convenient especially for integration with POS systems. Below are a few implementation examples with the On-Demand API.

2. Implementation Examples

- Implementation Example 1 – Obtaining an On-Demand account at a kiosk

Client A with a Notebook computer can apply for an On-Demand account at the kiosk. The kiosk prompts client to enter the desired information to register for an account. Upon registration, the kiosk transmits the url parameters to the controller, which then displays the Username, Password and all related information.

- Implementation Example 2 – Surfing the Internet on a public station

Clients without a notebook computer or mobile device can apply for an On-Demand account at a public station or Kiosk and use the station for internet access. The station prompts the client to enter particulars (such as a cell phone number) to register for an account. Upon registration, the station transmits the url parameters to the controller, which in turn creates a set of Username and Password for the client to go online.

There are of course several implementations from extensions that can be achieved with Third
3. API Parameters

The system utilizes parameters in the URL to create accounts and these parameters are to be defined on the Third Party System. Other than the required fields, there will be a default value when optional parameters are not specified.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adm</td>
<td>Admin Username</td>
</tr>
<tr>
<td>Pwd</td>
<td>Admin Password</td>
</tr>
<tr>
<td>Type</td>
<td>Function of use (create, query, delete)</td>
</tr>
<tr>
<td>Phone</td>
<td>Cell phone number (0 if not required)</td>
</tr>
<tr>
<td>Plan</td>
<td>Billing Plan in use (1~10)</td>
</tr>
<tr>
<td>Unit</td>
<td>Unit of selected Billing Plan</td>
</tr>
<tr>
<td>Auto</td>
<td>Account/Password automatic creation</td>
</tr>
<tr>
<td></td>
<td>1: System generated</td>
</tr>
<tr>
<td></td>
<td>0: Created Manually (to include parameters uname, upwd)</td>
</tr>
<tr>
<td>Unname (optional)</td>
<td>Manually created Username (system generated if left empty)</td>
</tr>
<tr>
<td>Upwd (optional)</td>
<td>Manually created Password</td>
</tr>
</tbody>
</table>

Table 1. Parameters for On-Demand API
Notes:
The Phone number parameter will be recorded in User logs for reference under the “External ID” column.
The Parameter can be entered in any order
3.1 Creating Accounts with random generated Username and Password

The kiosk transmits the following url parameter to the Controller as such:

http://(ControllerIP)/Utilities/sms.shtml?adm=xxx&pwd=xxx&type=create&phone=xxxxxx&plan=x&unit=x&auto=1

In this example, the Controller’s IP address is 10.2.40.5

We would like to create an On-Demand Account with 1 unit of Billing Plan 1 and system created Username/Password.

Billing Plan 1: 2 Hours Usage Time – account expire in 2 days

The generated string (gen_str) will be displayed:

Username: n2r3
Password: nr32
Validate Time: Linux clock in seconds (First login must be done before this time)
Activation Time: Linux clock in seconds (0 since account is not activated)
Expiration Time: Linux clock in seconds (0 since account is not activated)
Quota: 2hr(s) of usage time and expired in 2days (Quota per unit of Billing Plan)
Price: 2
Serial Number: 52
Duration: Total quota 172800 seconds (2 days)
Phone: 0 (N/A)
Unit: 1
Remaining Quota: 7200 seconds

The displayed contents of “gen_str” may be in turn used for integration with Third Party Systems. Besides, Controller will simultaneously present the creation as below figure.
3.2 Creating Accounts with specific Username and Password

- The Kiosk transmits the following url parameter to the Controller as such:
  
http://(ControllerIP)/Utilities/sms.shtml?adm=xxx&pwd=xxx&type=create&phone=xxxxxx&plan=x&unit=x&auto=0&uname=hello&upwd=Test

In this example, the same Controller (10.70.3.25) is used.

And we create an On-Demand Account with 3 units of Billing Plan 5, phone number is 0 and the Username is hello, Password is Test

Billing Plan 5: 2 days Duration Time – Elapsed Time, to be activated upon account creation

![Image](https://example.com/image.png)

The generated string (gen_str) will be displayed:

**gen_str**: Username, Password, Validate Time, Activation Time, Expiration Time, Quota, Price, Serial Number, Duration, Phone, Unit, Remaining Quota

Username: hello
Password: Test
Validate Time: Linux clock in seconds (0 since Account is activated upon creation)
Activation Time: Linux clock in seconds
Expiration Time: Linux clock in seconds
Quota: 2 days elapsed Time (Quota per unit of Billing Plan)
Price: 0
Serial Number: 20
Duration: Total quota 518400 seconds (6 days)
Phone: 0 (N/A)
Unit: 3
Remaining Quota: 518400 seconds
3.3 Query for an already created On-Demand Account

To query for a created account, only 4 parameters (adm, pwd, type, and uname) are needed.

- The kiosk transmits the following URL parameter to the Controller as such:
  \[ \text{http://(ControllerIP)/Utilities/sms.shtml?adm=xxx&pwd=xxx&type=query&uname=xxx} \]

Using this command to query for Account with Username “64s8”

![Query result](image)

The following information will be displayed:
Username, Password, Quota Type, Status, Available Quota, Validate Time, Expiration Time, Duration days, Duration seconds, Unit, Grace Period, Class, External ID, Activation Time, Sub Type, Reference, Max Multiple Users

Username: 64s8
Password: b6h5
Quota Type: Time based (Usage-time: TIME, Volume: DATA, Hotel Cut-off: CUTOFF, or Duration-time: TIME)
Status: 0 (active)
Available Quota: 172800 seconds
Validate Time: 0 (Account is activated upon creation)
Expiration Time: Linux Clock in seconds
Duration Days: 0
Duration Seconds: 172800
Unit: 1
Grace Period: 0 (applicable to Hotel Cut-Off only)
Class: User Group4
External ID: 0 (the entered phone number)
Activation Time: Linux Clock in seconds
Sub Type: Billing Plan sub-type (Elapsed Time, Begin-and-End Time, Cut-off Time for Duration)
Reference: editable from Billing Plan Configuration
Max Multiple Users: 3
3.4 Delete an On-Demand Account

To delete an On-Demand Account, only 4 parameters (adm, pwd, type, and uname) are needed.

- The Kiosk transmits the following URL parameter to the Controller as such:
  
  http://(Controller_IP)/Utilities/sms.shtml?adm=xxx&pwd=xxx&type=delete&uname=xxx

Using this command to delete Account with Username “hello”

Unlike “create” and “query”, deleting accounts will not return any confirmation.
4. Admin Setup for On-Demand API

Administrators need to have On-Demand API rights under Admin Permission Settings. This is found at Main Menu >> Utilities >> Administrator Accounts >> Access Permission.

By default, only “Super Group” and “OnDemand Manager” have the rights to create On-Demand Accounts through API (This is determined by the “adm” and “pwd” parameter).

Fig. 2 Administrator Account Setup

No additional configuration is needed on the Controller.