



Technical Guide

One Time Password

Released: 2018-02-01

Doc Rev. No: R1

Copyright Notification

Edgecore Networks Corporation

© Copyright 2019 Edgecore Networks Corporation.

The information contained herein is subject to change without notice. This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered by Edgecore Networks Corporation. Edgecore Networks Corporation shall not be liable for technical or editorial errors or omissions contained herein.

Table of Contents

- 1 Introduction 2
- 2 Configurations..... 2
 - 2.1 Enable OTP Authentication for the desired Service Zone..... 2
 - 2.2 Configure OTP 3
- 3 **OTP Login Flow and Client Information** 8
 - 3.1 OTP login flow (demonstration based on an iPhone)..... 8
 - 3.2 Client Information..... 9
- 4 Remarks 9

1 Introduction

One Time Password (OTP) is an authentication mechanism that enables users to obtain a login password (PIN code) via SMS so they can enter this code on the login page to login for Internet access. OTP also allows hotspot venues to collect user information with the integrated questionnaire for security and marketing purposes. This guide describes how to configure OTP and demonstrates a sample OTP login flow.

2 Configurations

2.1 Enable OTP Authentication Option for the desired Service Zone

- a. Go to *Main Menu > SYSTEM > Service Zones*, in this sample case, “Default” Service Zone is selected:

Status	Service Zone Name	IP Address	IPv6 Address	VLAN Tag	Default Auth. Option	Network Alias	DHCP Pool
<input checked="" type="checkbox"/>	Default	192.168.1.254	N/A	N/A	Server 1	N/A	192.168.1.1 – 192.168.1.100
<input type="checkbox"/>	SZ1	172.21.0.254	N/A	1	Server 1	N/A	172.21.0.1 – 172.21.0.100
<input type="checkbox"/>	SZ2	172.22.0.254	N/A	2	Server 1	N/A	172.22.0.1 – 172.22.0.100

Figure 2.1a - To Configure Default Service Zone

- b. Scroll down to Authentication Options of Default Service Zone and ensure the option entry of “One Time Password” is enabled.

Auth. Option	Auth. Database	Postfix	Default	Enabled
Server 1	LOCAL	local	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
Server 2	RADIUS	radius	<input type="radio"/>	<input checked="" type="checkbox"/>
Server 3	NTDOMAIN	ntdomain	<input type="radio"/>	<input checked="" type="checkbox"/>
Server 4	LDAP	ldap	<input type="radio"/>	<input checked="" type="checkbox"/>
Server 5	POP3	pop3	<input type="radio"/>	<input checked="" type="checkbox"/>
On-Demand	ONDEMAND	ondemand	<input type="radio"/>	<input type="checkbox"/>
SIP	SIP	N/A	<input type="radio"/>	<input type="checkbox"/>
Guest	FREE	N/A	<input type="radio"/>	<input type="checkbox"/>
Social Media Login	SOCIAL	N/A	<input type="radio"/>	<input type="checkbox"/>
One Time Password	OTP	N/A	<input type="radio"/>	<input checked="" type="checkbox"/>

Figure 2.1b - To Enable Auth. Option of “One Time Password”

2.2 Configure OTP Settings

- a. Go to OTP Authentication Page: *Main Menu > USERS > Internal Authentication > One Time Password*.

The screenshot shows a web interface with a navigation menu on the left and a main configuration area. The navigation menu includes: Groups, Authentication Servers, Internal Authentication (highlighted), Local, On-Demand, Guest, One Time Password (highlighted), External Authentication, On-Demand Accounts, Schedule, Policies, Blacklists, Privilege Lists, and Additional Controls. The main area is titled 'One Time Password Authentication' and contains the following settings:

Group	Group 1
OTP Client Information	View
Default Country Code	AF - AFGHANISTAN (+93) <input type="checkbox"/> only display default country code
Length of Mobile Phone	0 *(0: Unlimited)
Quota	0 day(s) 0 hour(s) 30 minute(s) *
Questionnaire	Configure
SMS Gateway	Configure
Web Page Customization	Configure

At the bottom of the configuration area are 'Apply' and 'Cancel' buttons.

Figure 2.2a - OTP Configuration Page

To configure OTP, select each setting and specify necessary parameters:

Group: Set the group to which the OTP users belong.

OTP Client Information: Displays the information of all logged-in OTP users (Login Time, Phone number, MAC address, Answers to Questionnaire)

Default Country Code: Set the country code of phone to be used in the login page

Length of Mobile Phone: Set the length of digits of the phone number

Quota: Set the usage quota after users' login

Questionnaire: Add additional questions for users to answer during login flow

SMS Gateway: Configure SMS Gateway

Web Page Customization: Customize the OTP related webpages during login flow

- b. Configure the basic settings based on the hotspot venue's needs; for example:

Group: Group 1

OTP Client Information: View

Default Country Code: TW - TAIWAN (+886) only display default country code

Length of Mobile Number: 0 *(0: Unlimited)

Quota: 0 day(s) 3 hour(s) 0 minute(s) *

Questionnaire: Configure

SMS Gateway: Configure

OTP Page Customization: Configure

Figure 2.2b - Basic OTP Settings

- c. Edit and enable the Questionnaire; for example:

Main > Users > Internal Authentication > Guest Authentication > Guest Questionnaire

When Guest Questionnaire is enabled, the controller collects information from the clients. Please enable Disclaimer or customized login page to include claims and reminders.

Guest Questionnaire

No.	Active	Question
1	<input checked="" type="checkbox"/>	Gender:
2	<input checked="" type="checkbox"/>	Comments:
3	<input type="checkbox"/>	

Figure 2.2c - Enter the questions which will be used in Login Flow

- d. Edit and enable the SMS Gateway:

(1) Two options of SMS Gateway are available: [Clickatell](#) and [SMS API](#).

Setting up the SMS Gateway with Clickatell would be easier if the hotspot venue already has a Clickatell account since the API parameters have been integrated into the controller and do not have to be specified.

SMS Gateway

Selection: Clickatell SMS API

Version: Old (Prior to November 2016) New

Send SMS for: Account Registration

API key: [Redacted]

API URL: https://platform.clickatell.com/messages

Buttons: Apply, Cancel

Figure 2.2d1a - Two SMS Gateway Options

Note: This SMS Gateway configuration page is a common page which is used for both

“On-Demand” and “One Time Password” authentication options. Therefore, to correctly display the authentication options in the login page, we have to specify the setting “Send SMS for” to indicate how to use SMS Gateway for On-Demand authentication option.

Auth. Option	Auth. Database	Postfix	Default	Enabled
Server 1	LOCAL	local	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
Server 2	RADIUS	radius	<input type="radio"/>	<input checked="" type="checkbox"/>
Server 3	NTDOMAIN	ntdomain	<input type="radio"/>	<input checked="" type="checkbox"/>
Server 4	LDAP	ldap	<input type="radio"/>	<input checked="" type="checkbox"/>
Server 5	POP3	pop3	<input type="radio"/>	<input checked="" type="checkbox"/>
On-Demand	ONDEMAND	ondemand	<input type="radio"/>	<input checked="" type="checkbox"/>
SIP	SIP	N/A	<input type="radio"/>	<input type="checkbox"/>
Guest	FREE	N/A	<input type="radio"/>	<input type="checkbox"/>
Social Media Login	SOCIAL	N/A	<input type="radio"/>	<input type="checkbox"/>
One Time Password	OTP	N/A	<input type="radio"/>	<input checked="" type="checkbox"/>

Figure 2.2d1b - Two additional auth. options displayed at the bottom of the Login Page

SMS Gateway Setting specifically for On-Demand Auth. Option

Selection: Clickatell SMS API

Send SMS for: **Both**

API URL: [Empty]

Registration before Accounts Expired: Allow Block

"Account Registration" or "Both" selected:

Register Accounts by SMS On-Demand Accounts will be sent via SMS

"Account purchases via Payment Gateway" selected:

Buy Accounts Online

Figure 2.2d1c - “Send SMS for” setting will enable/disable the On-Demand auth. option in default login page

- (2) In this sample case, however, we use the generic option of SMS API, by which we are able to customize the API parameters (to be sent to the SMS Gateway via the API) on this configuration page.

SMS Gateway

Selection: Clickatell SMS API

Send SMS for: Account Registration

API URL: <https://api.smsglobal.com/http-api.php>

Parameter	No.	Parameter	Parameter Value	Remark
	-	to		Phone Number
	-	text		SMS Content
	1	user	<input type="text" value="username"/>	API username
	2	password	<input type="text" value="password"/>	API password
	3	from	OTP Test	Sender ID or Text
	4	action	sendsms	Action to be taken via the API
	5			
	6			
	7			
	8			
	9			
	10			

Response Format: JSON HTML

Return Value of Successful Request:

Send Test Message:

Message Content:

Message Editor

Parameter	<input type="text" value="\$One_Time_Password"/> <input type="button" value="Insert Parameter"/>
	One Time Password

Your One Time Password is: \$One_Time_Password

Figure 2.2d2 - SMS Gateway Configuration

Note: For detailed information on configuring SMS Gateway, please refer to the other guide: [TEC_SMS_API_Integration_R2_20171122.pdf](#)

- e. Edit and customize OTP related web pages, as needed:

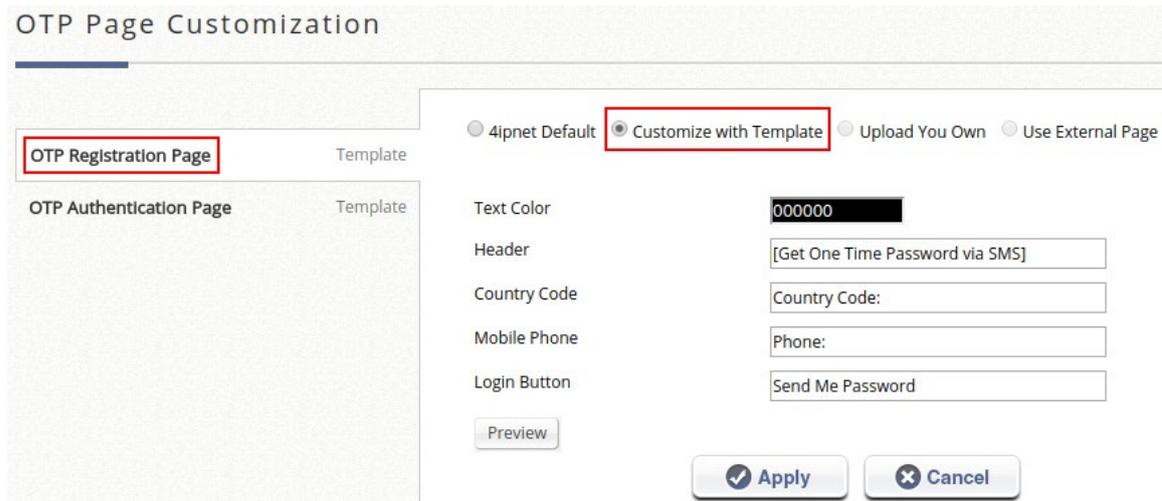


Figure 2.2e1 - Template OTP Registration Page

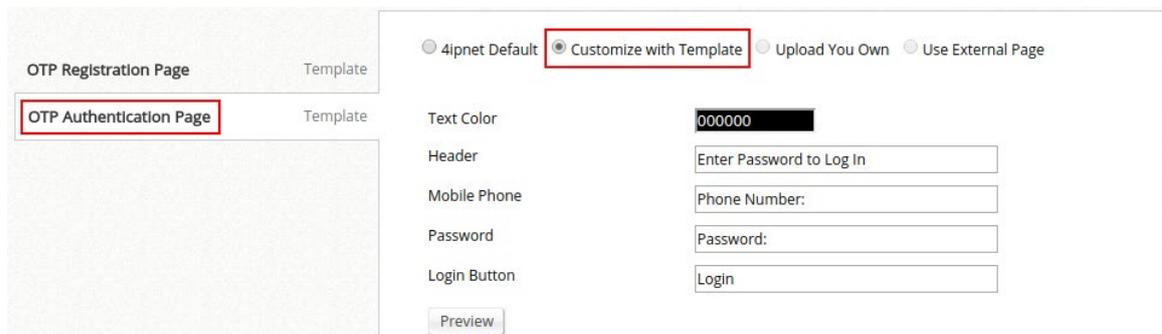


Figure 2.2e2 - Template OTP Authentication Page



Figure 2.2e3 - OTP Registration Page Preview



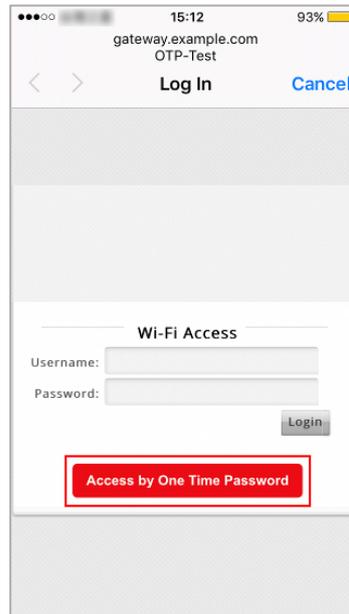
Figure 2.2e4 - OTP Authentication Page Preview

3 OTP Login Flow and Client Information

3.1 OTP login flow (demonstration based on an iPhone)



Figure 2.3a1 - Associate to the SSID



2.3a2 - Click 'Access by OTP' button



2.3a3 - Send Password to User via SMS

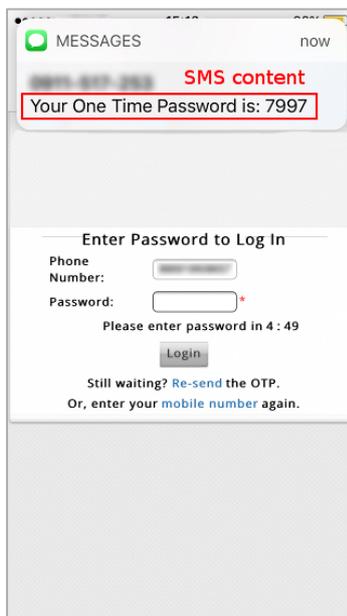
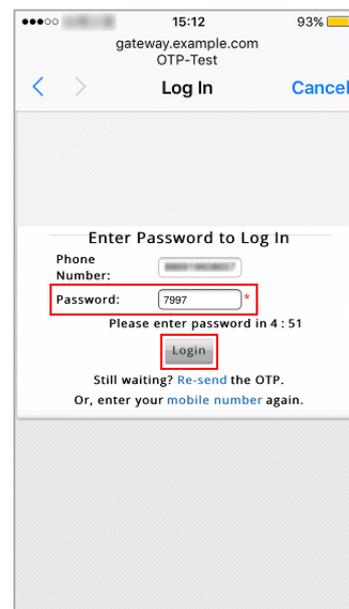
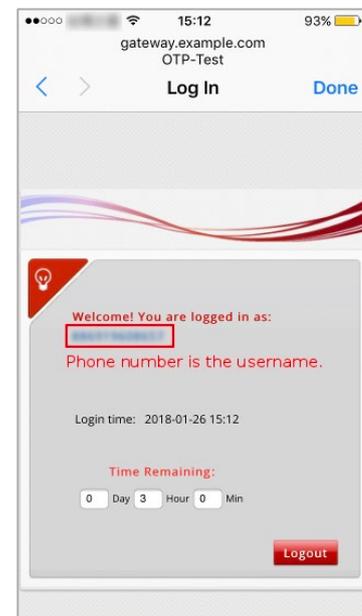


Figure 2.3a4 - Receives Password in the SMS message



2.3a5 - Enter Password to Log In



2.3a6 - Logged In Successfully

3.2 Client Information

- a. Client information is collected upon successful login and can be viewed at *Main Menu > USERS > Internal Authentication > One Time Password > OTP Client Information*

OTP Client Information

Download Delete All

Time	Mobile	MAC	Custom 1 (Gender:)	Custom 2 (Comments:)
2018-01-26 15:12:21	000000000000	00:00:00:00:00:00	M	Thanks for the free Wi-Fi.

Figure 2.3b - Information about all Logged-in Users

4 Remarks

Please contact Technical Support Team for additional inquiries.