Technical Guide

User Bandwidth Throttling

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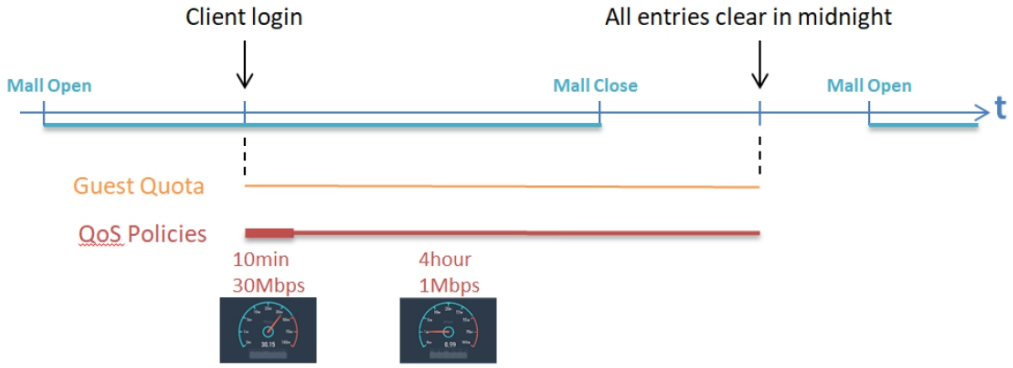
1 Introduction

The article is aimed at explaining the practical setup flow of “User Bandwidth Throttling”, which is a new feature available in version 3.43 for all EWS series. The newly added feature allows network administrators to enforce double QoS policies on users, providing greater flexibility in traffic control especially for guest users. For all authentication options, especially Guest Authentication and Social Media Login for now, time-based bandwidth throttling feature as a part of the policy profile is the win-win solution for providing free Wi-Fi service in public areas.

This technical guide should help network administrators to easily setup and configure bandwidth limitation for all users in the network. We will be using Guest Authentication in this document as an example to illustrate this new feature.

2 Configurations

1.1 User Flow

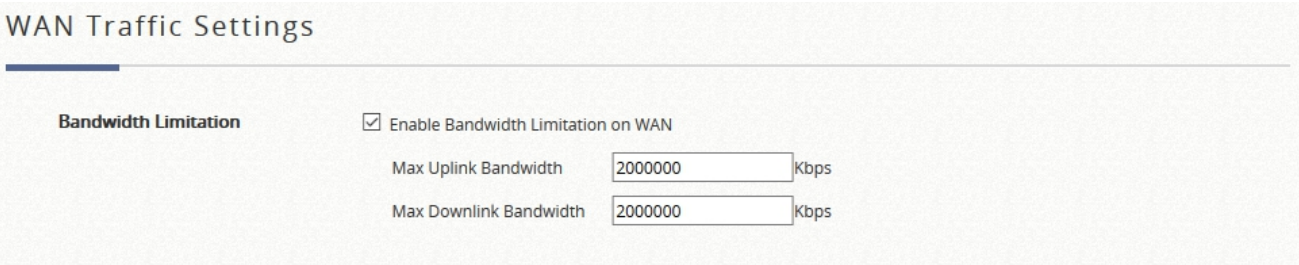


The first 10 minutes of 4 Hours is maximum bandwidth control (QoS1), while the remaining quota is limited by lower throughput (QoS2).

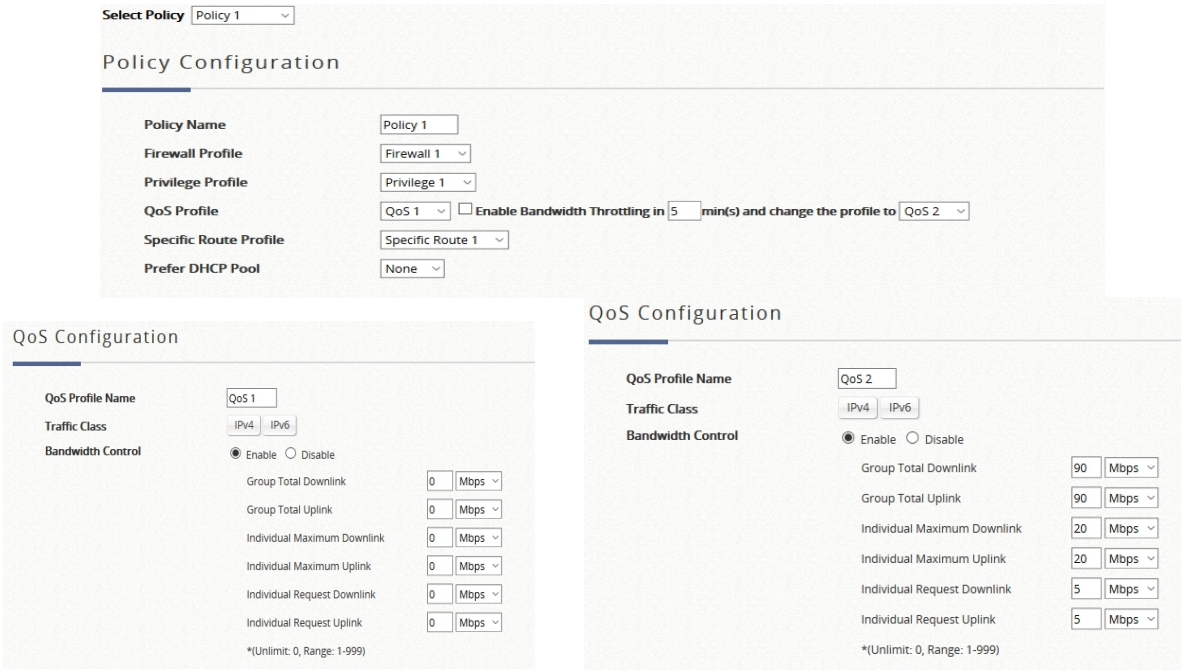
a. Clients can access the login page after connecting to the SSID
b. Clients can access the Internet after submitting their email and answers to a questionnaire (if configured) asking for information such as name, phone and postal code. They can enjoy the Internet service for 4 hours, and for the first 10 minutes, their maximum bandwidth is governed by QoS profile 1 (30 Mbps), while for the remainder of the time, it is governed by QoS profile 2 (1 Mbps).
c. The Guest account will be automatically cleared at midnight.

1.2 WLAN Controller Configuration

a. Go to *System>WAN* to enable "Bandwidth Limitation"



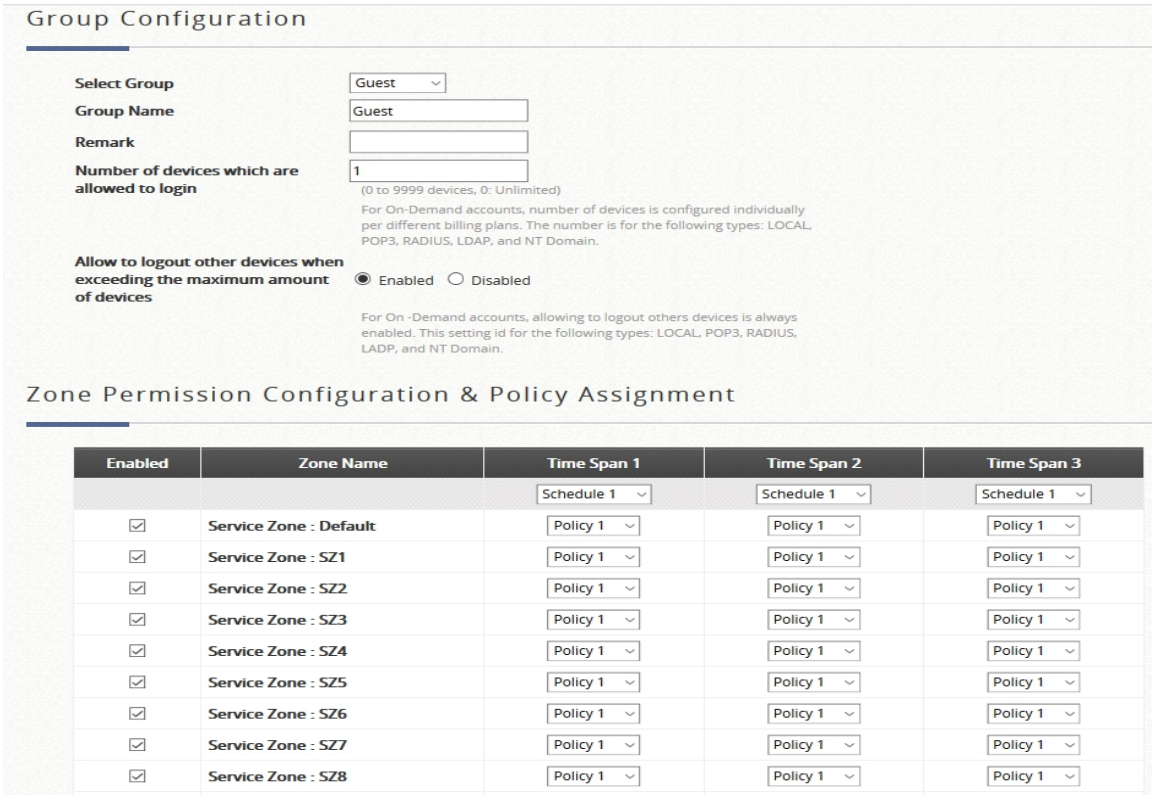
b. Go to *Users>Policies>Policies* to select a desired policy profile and do the necessary configurations for the QoS Profile



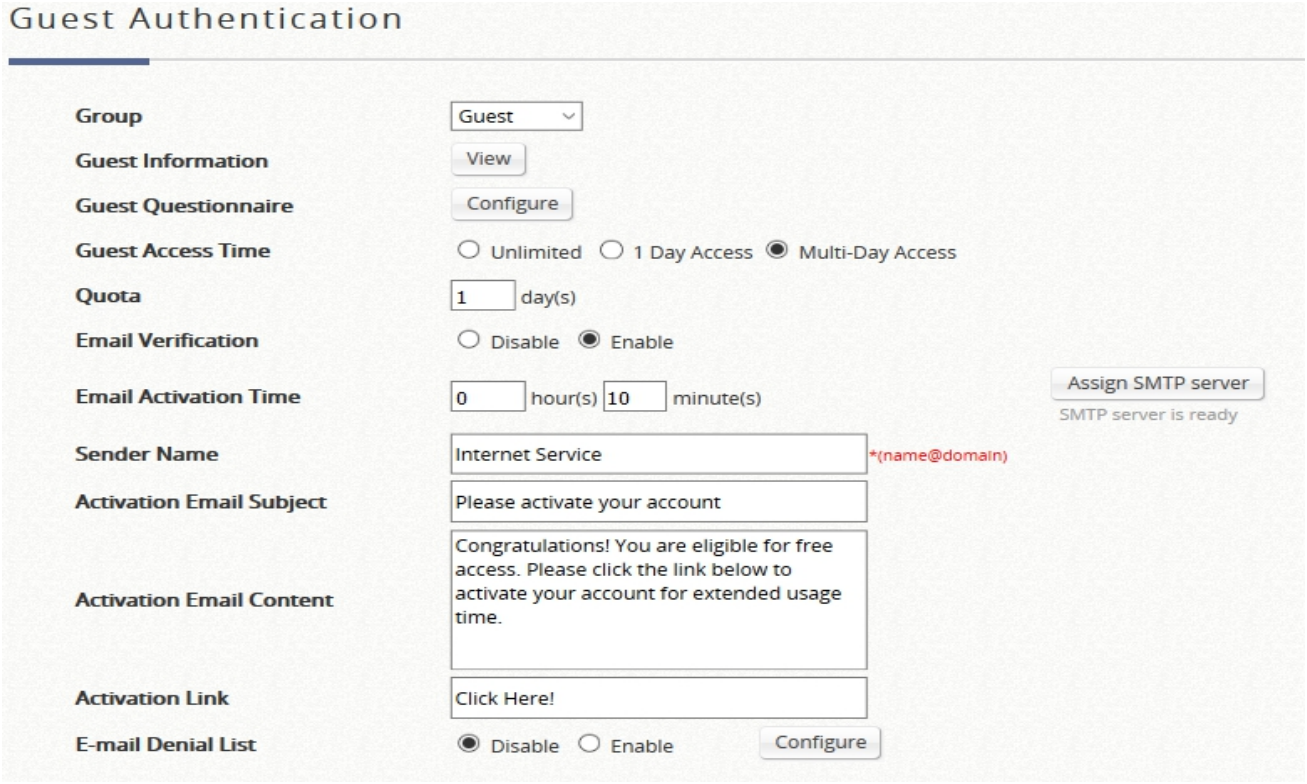
A new field in “User Policy Configuration”

- QoS Profile: Administrators are able to enable/disable the bandwidth throttling feature by checking/unchecking the checkbox. If enabled, the user applied with this policy will use Qos 1 for the first 5 minutes, and be limited by QoS 2 since the 5th minute until session is expired. If the guest user logins following email verification, the bandwidth limitation will be refreshed in the moment of the email verification.
- This feature is also applicable when using Local, On-demand, RADIUS database and other external authentication databases supported by the EWS.

c. Go to *Users> Groups> Configuration* to apply the configured policy to the corresponding Group (Using Policy 1 for this example)



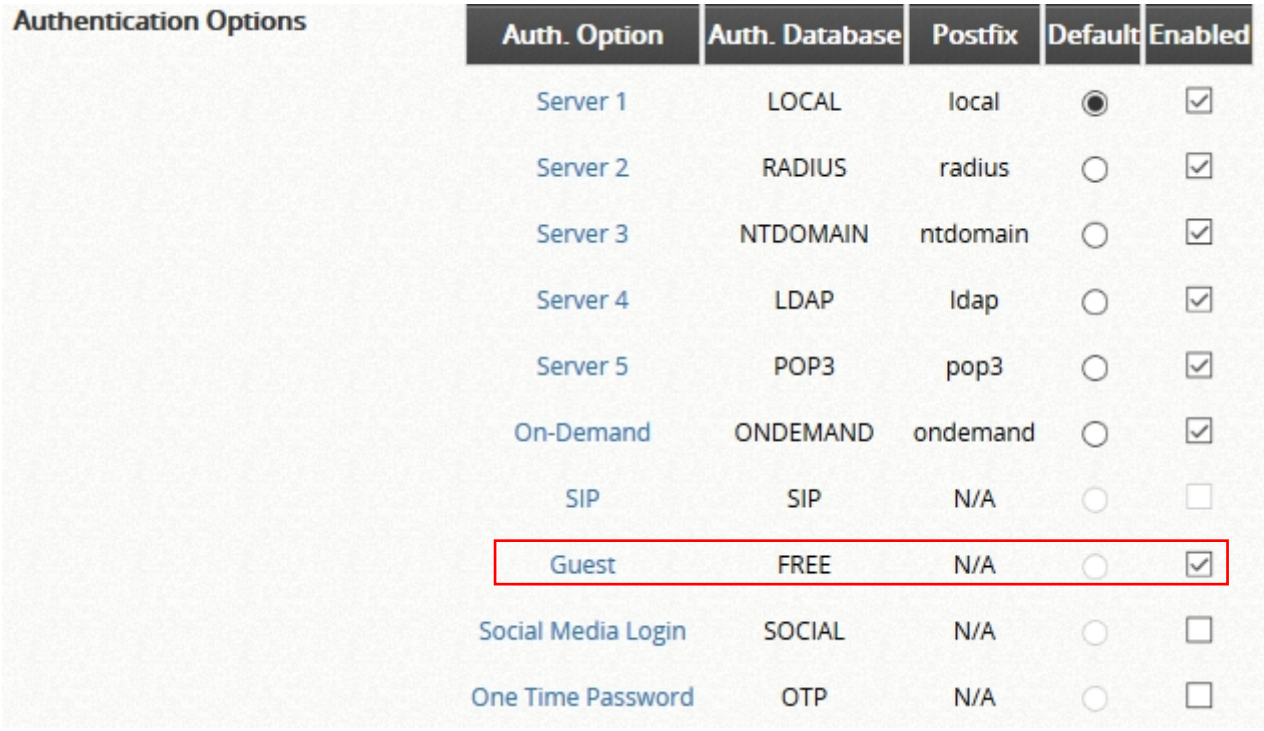
d. Go to *Users> Internal Authentication> Guest* to do the necessary configuration. In this page, chose the configured Group that uses policy 1 so that users login through this database will be applied with the configured QoS profile.



Note that if enabled “Email verification” it is necessary to configure the SMTP server. To

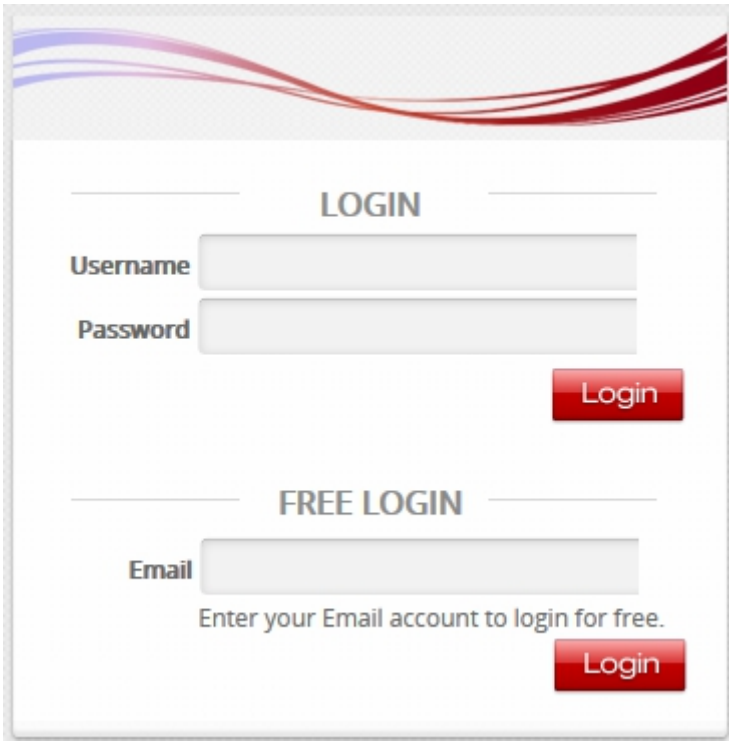
configure SMTP Server simply click on the Assign SMTP Server button to do the necessary configuration

e. Go to *System> Service Zones* and the desired zone to enable Guest for the authentication option.



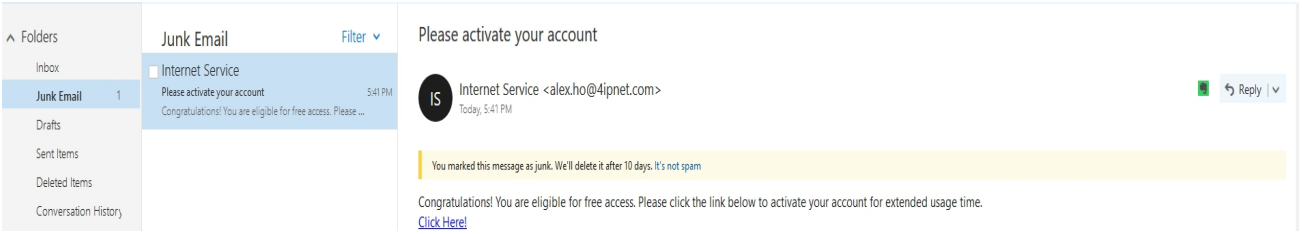
3 Testing Results

a. Client device associates to SSID and get the following login page



b. Fill in a valid email for the system to send Email verification. Go to the mailbox to open the verification Email and click on the hyperlink to be granted Internet access. Check the Spam folder if the verification Email is not found in the Inbox.

Note that before Email verification, the user will only have limited internet access depending on the activation time settings in Guest configuration page.



c. Once verified, the user will be have full bandwidth for the first 5 minutes (QoS 1). Starting from the 5th minutes, the user will only have a maximum bandwidth of 20 Mbps (QoS 2).

4 Logs and Reports for Guest and Social Users

There are related Logs and Reports for checking authenticated user status and information for troubleshooting or other marketing purposes.

Online Users List: Like in previous versions, it shows current logged in user information
User Event: Like in previous versions, it shows all event of every client during the login process and adds the new event when bandwidth throttling is enabled. Besides, Max Download/Max Upload fields will show the bandwidth limitation.

Type	Date	Name	IP	MAC	Event	Max Download	Max Upload
FREE	2018-01-22 16:56:32 +0800	[redacted]	172.21.0.11	D4:A3:3D:AE:ED:7B	Login	Unlimited	Unlimited
FREE	2018-01-22 17:02:08 +0800	[redacted]	172.21.0.11	D4:A3:3D:AE:ED:7B	Email-Verified		
FREE	2018-01-22 17:07:09 +0800	[redacted]	172.21.0.11	D4:A3:3D:AE:ED:7B	Bandwidth_Throttling	20mbit	20mbit
FREE	2018-01-22 17:10:10 +0800	[redacted]	172.21.0.11	D4:A3:3D:AE:ED:7B	Logout		

System Log: Like in previous versions.

5 Remarks

Please contact Technical Support Team for additional inquiries.