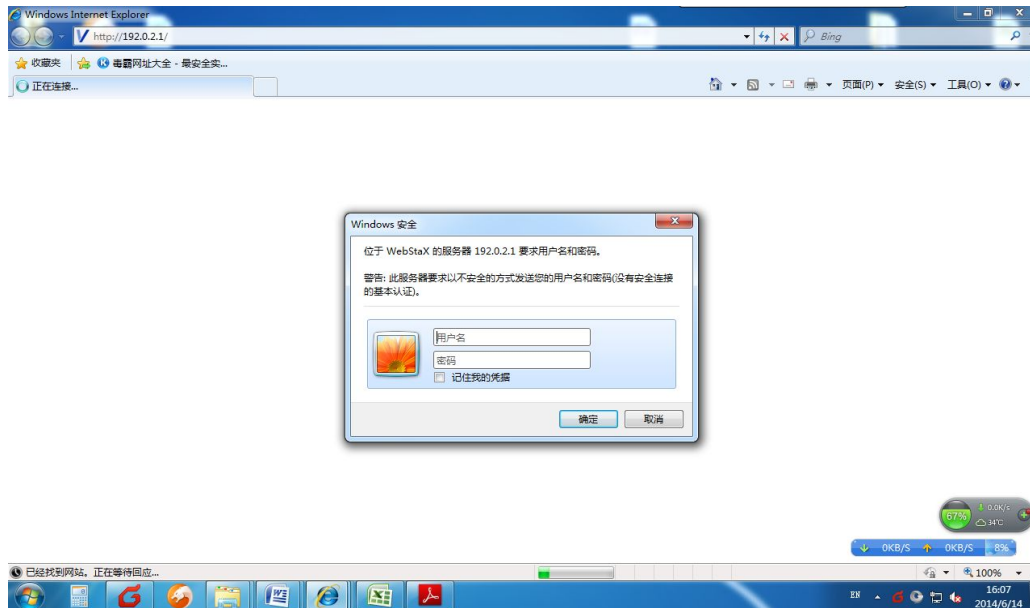


User Manual for Layer 2 Gigabit Managed PoE switch

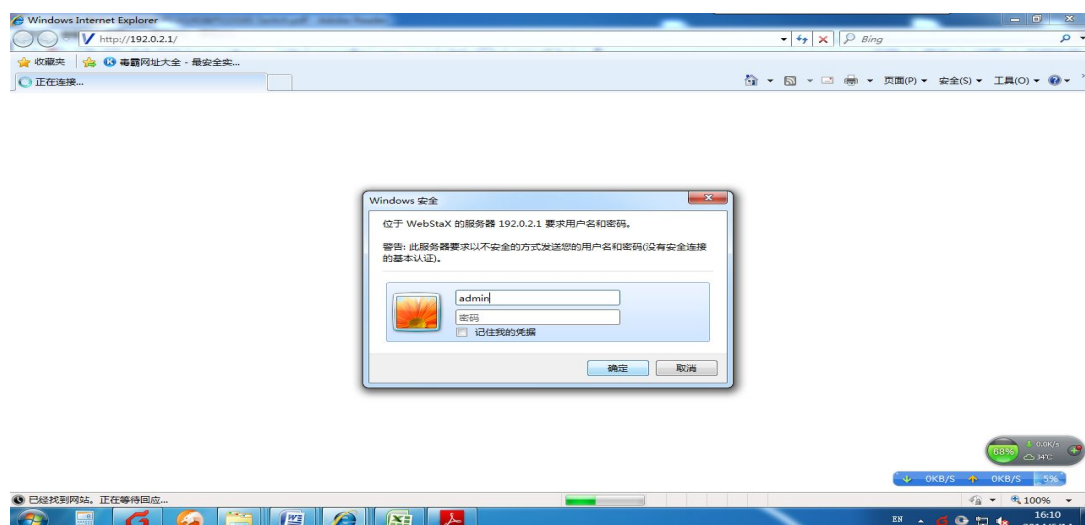
1. Login

▲ To log in to the switch, the IP address of your PC should be set in the same of subnet addresses of the switch. The IP address is 192.0.2.X (here "X" is any number from 2 to 254), Subnet Mask is 255.255.255.0.

1.1 To access the configuration utility, open a web-browser and type in the default address <http://192.0.2.1> in the address field of the browser, then press the Enter key.

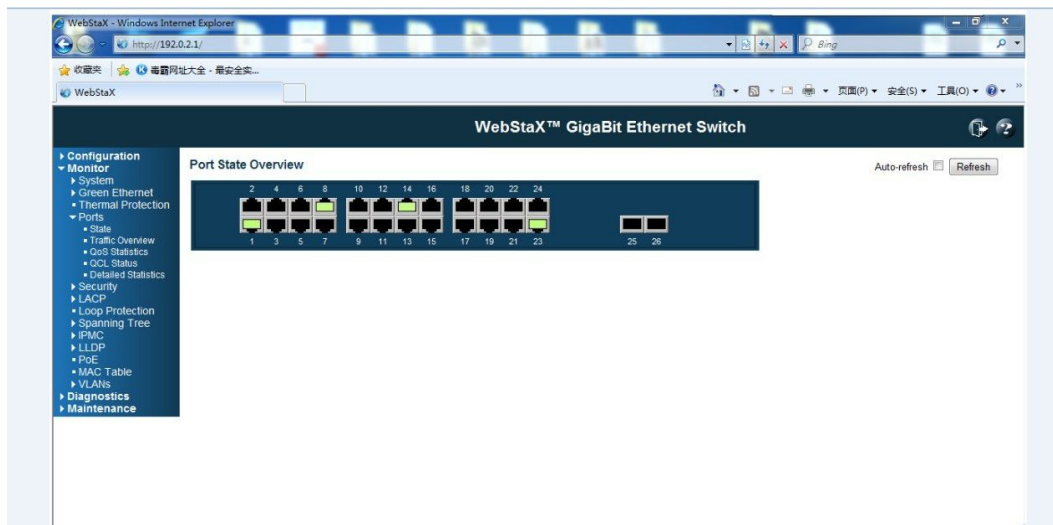


1.2 Type in the user name "admin", and here do not need a password



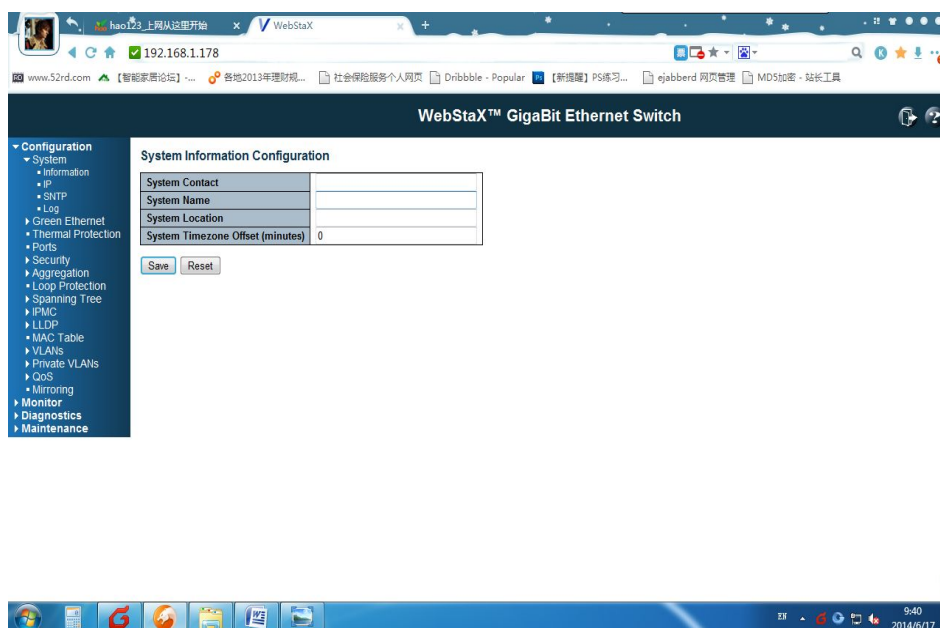
2. Port Connection

Users can see the port connection on this page,if port is connected,it will show as green.

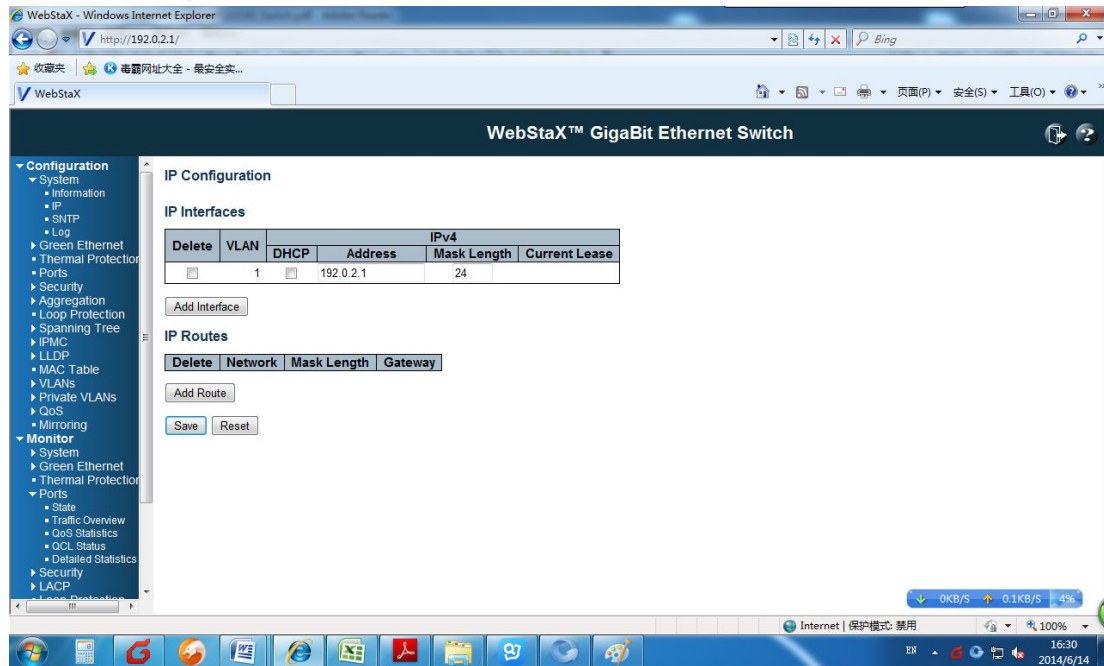


3. System Configuration:

3.1 System Information Configuration

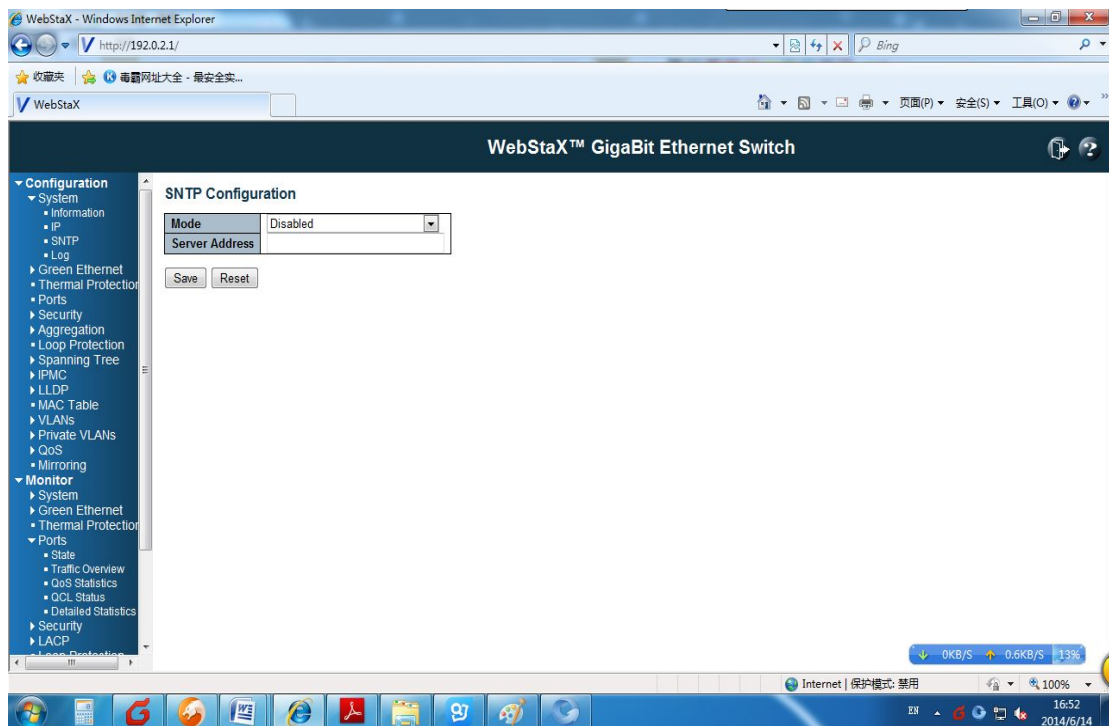


3.2 IP Configuration

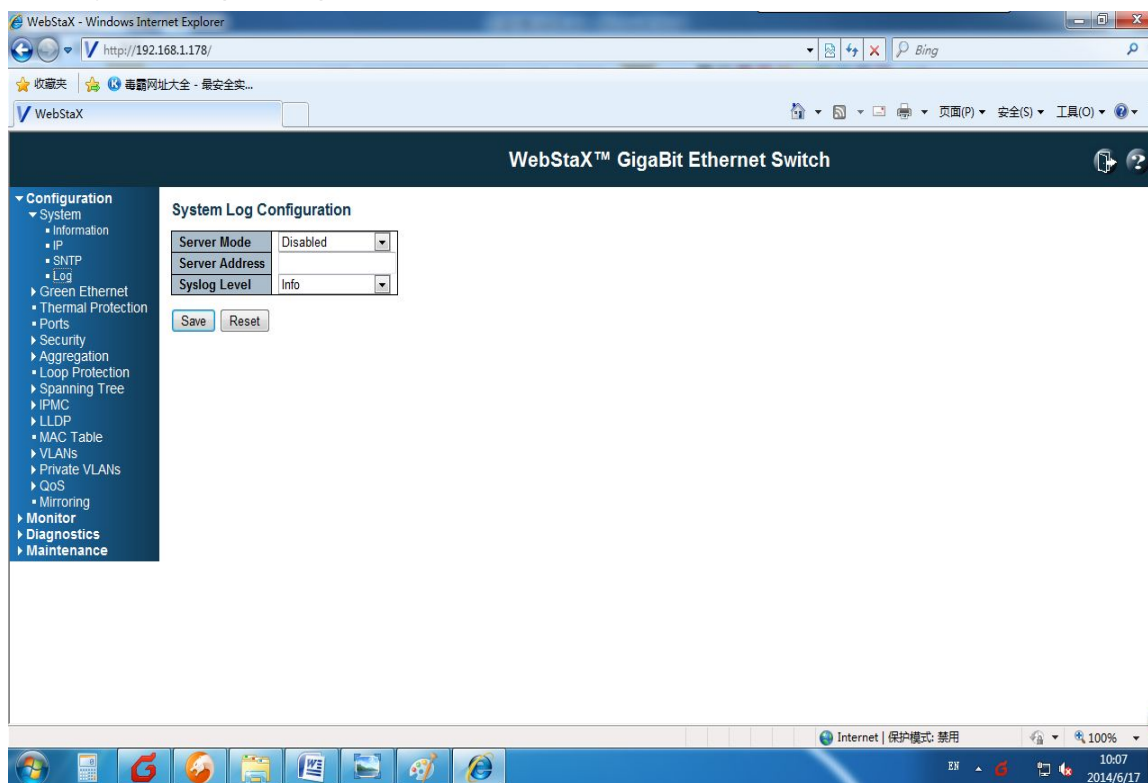


3.3 SNTP Configuration

Configuration of system time and SNTP synchronously



3.4 System Log Configuration

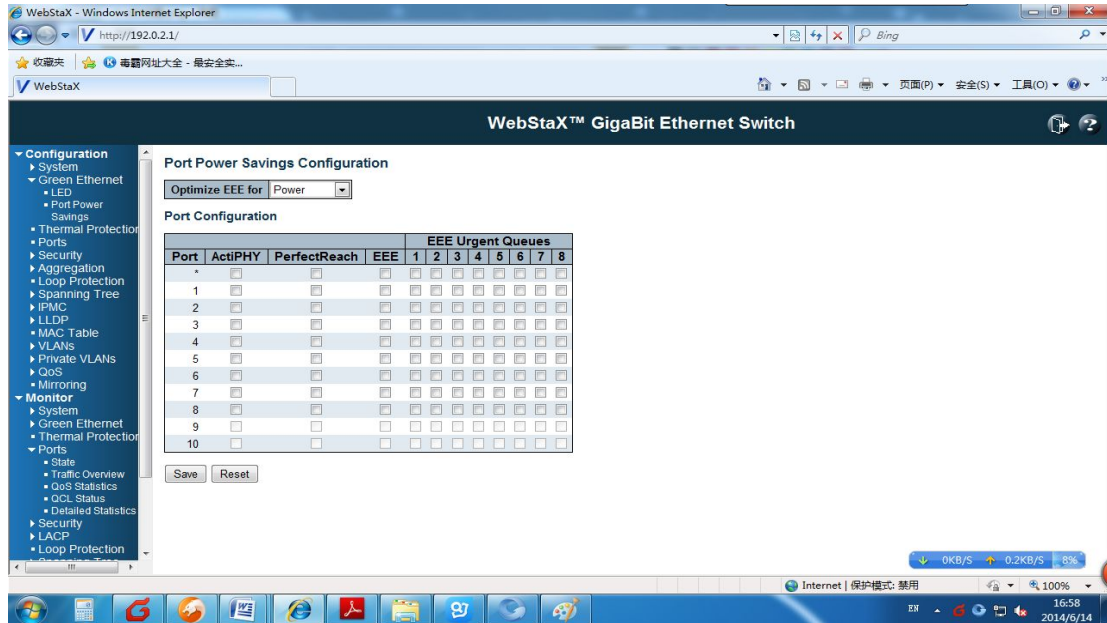


4. Power Reduction Configuration

4.1 LED Power Reduction Configuration

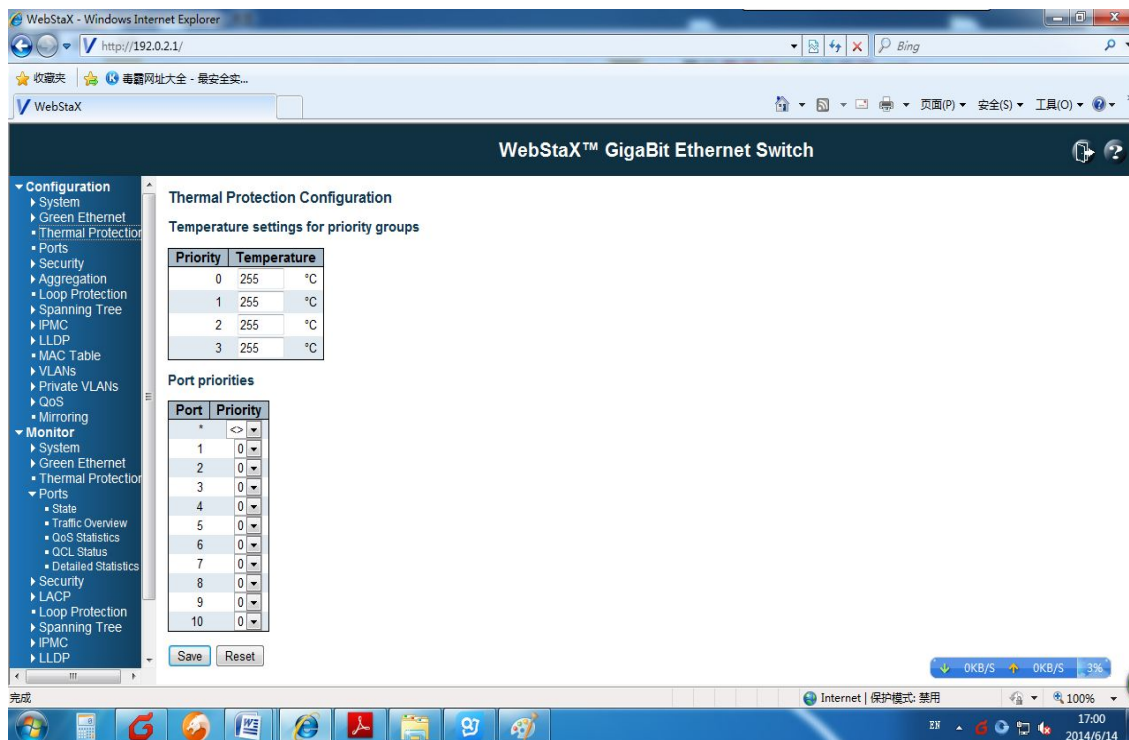


4.2 Port Power Savings Configuration



5. Thermal Protection Configuration

Users can set protective temperature for each port and it's priority, show as below:



6. Port Configuration

Configuration of Port Bandwidth and Date frames

The screenshot displays the WebStaX GigaBit Ethernet Switch configuration page in a web browser. The left sidebar shows a navigation tree with 'Configuration' expanded. The main content area is titled 'Port Configuration' and contains a table with 10 ports. The table has columns for Port, Link, Speed (Current and Configured), Flow Control (Current Rx, Current Tx, Configured), Maximum Frame Size, and Excessive Collision Mode. A 'Refresh' button is located at the top right of the table. Below the table are 'Save' and 'Reset' buttons.

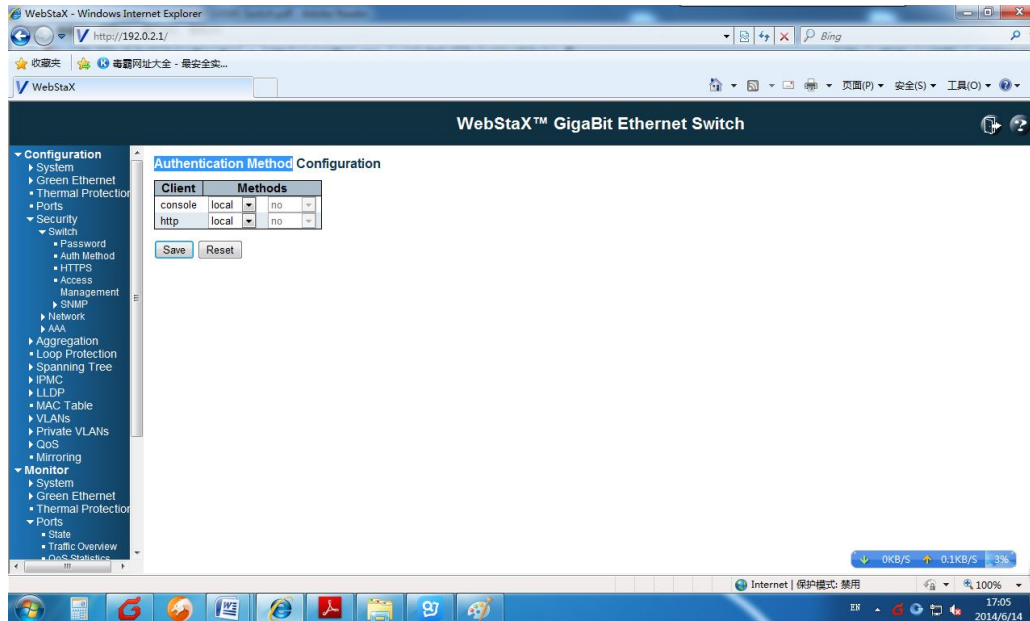
Port	Link	Speed		Flow Control			Maximum Frame Size	Excessive Collision Mode
		Current	Configured	Current Rx	Current Tx	Configured		
1	Down	Auto	Auto	X	X		9600	Discard
2	100fdx	Disabled	Auto	X	X		9600	Discard
3	Down	10Mbps HDX	Auto	X	X		9600	Discard
4	Down	10Mbps FDX	Auto	X	X		9600	Discard
5	Down	100Mbps HDX	Auto	X	X		9600	Discard
6	Down	100Mbps FDX	Auto	X	X		9600	Discard
7	Down	1Gbps FDX	Auto	X	X		9600	Discard
8	100fdx	Auto	Auto	X	X		9600	Discard
9	Down	Auto	Auto	X	X		9600	Discard
10	Down	Auto	Auto	X	X		9600	Discard

7. Security Configuration

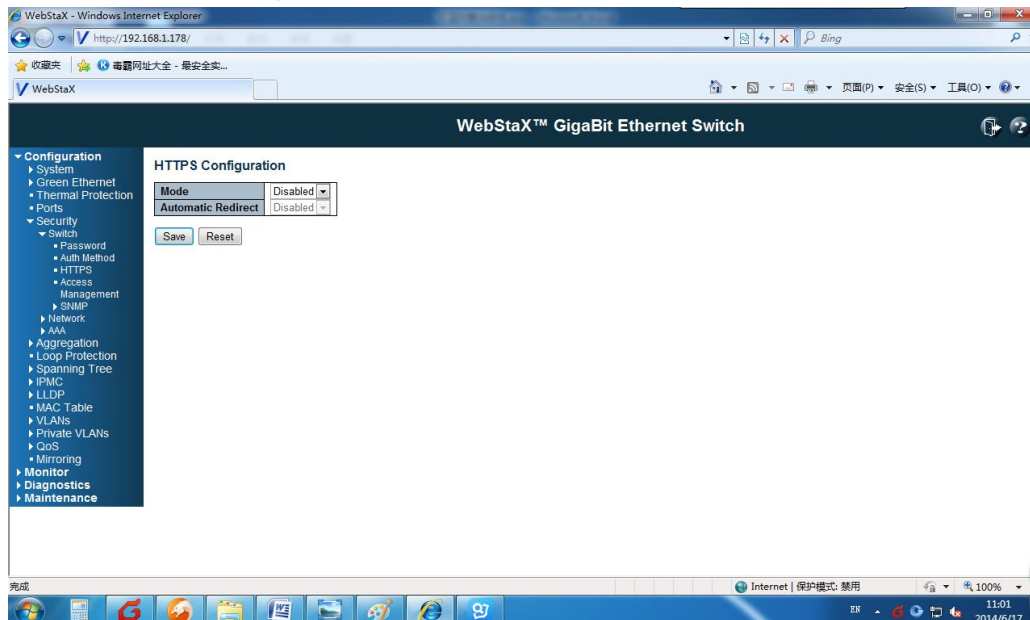
7.1 System Login Password Configuration

The screenshot displays the WebStaX GigaBit Ethernet Switch configuration page in a web browser, specifically the 'System Password' section. The left sidebar shows a navigation tree with 'Configuration' expanded and 'System' selected. The main content area is titled 'System Password' and contains three input fields: 'Old Password', 'New Password', and 'Confirm New Password'. A 'Save' button is located below the input fields.

7.2 Authentication Method Configuration

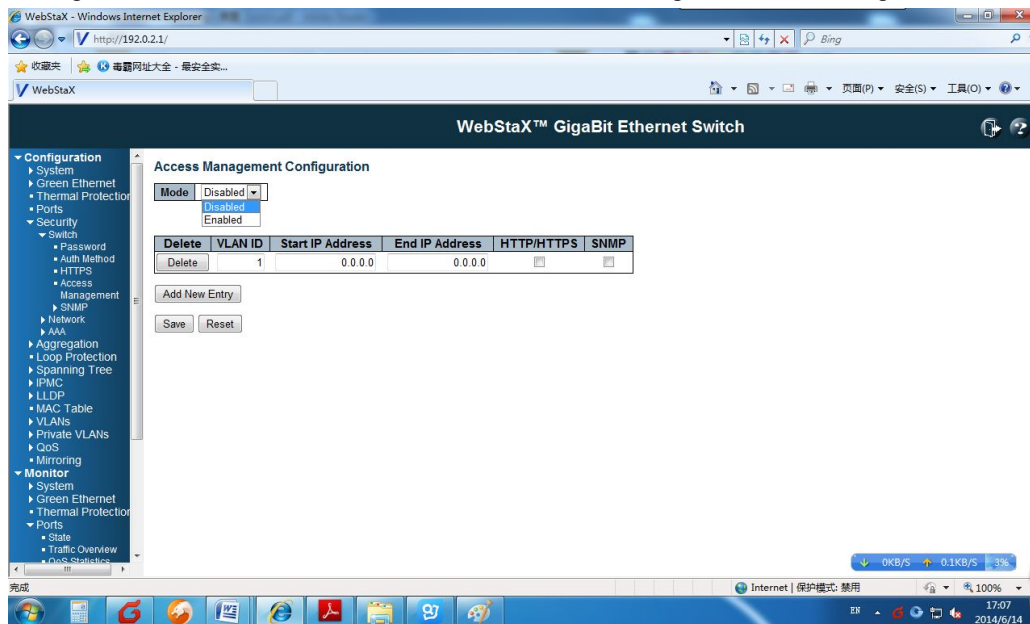


7.3 HTTPS Configuration



7.4 Access Management Configuration.

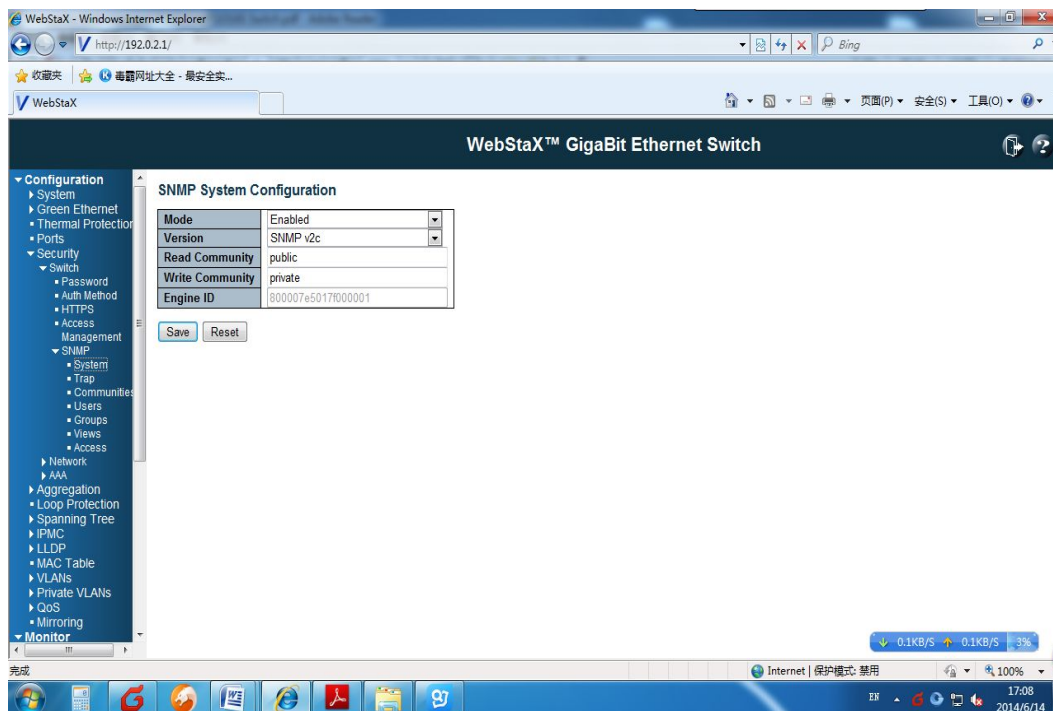
Configuration of visit and access authentication, including VLAN ID, IP Segment.



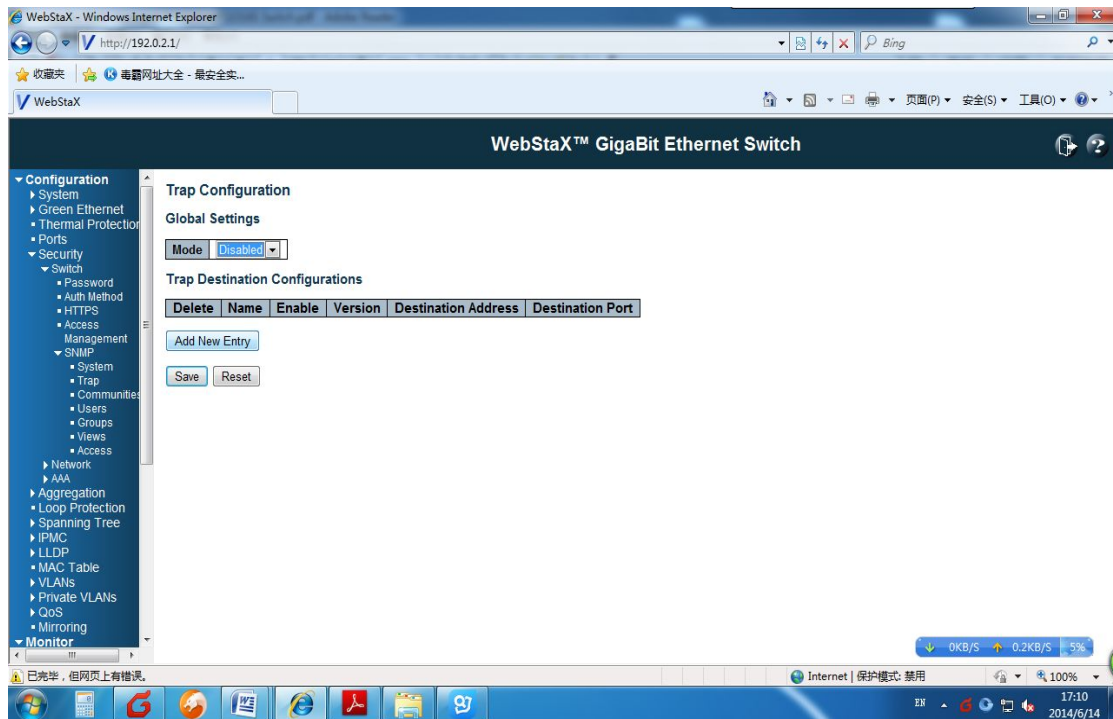
8. SNMP

8.1 SNMP SYSTEM

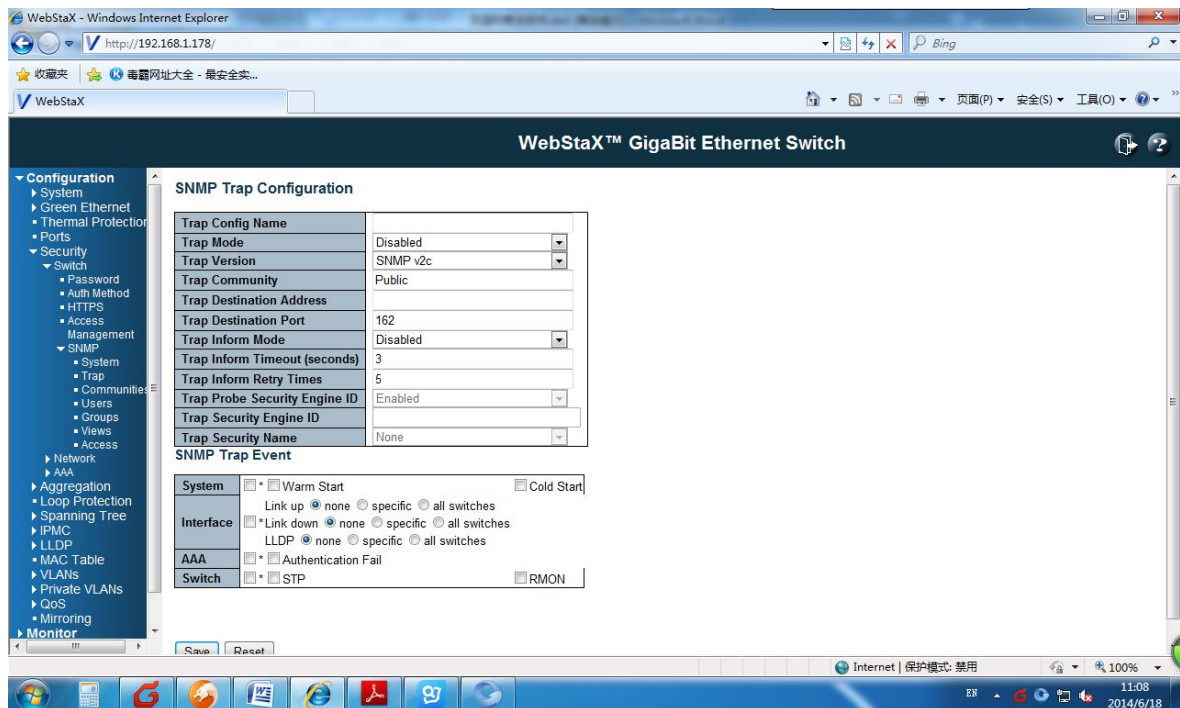
Configuration of SNMP Enabled or Disabled, Version, Read&Write Community



8.2 Trap Configuration

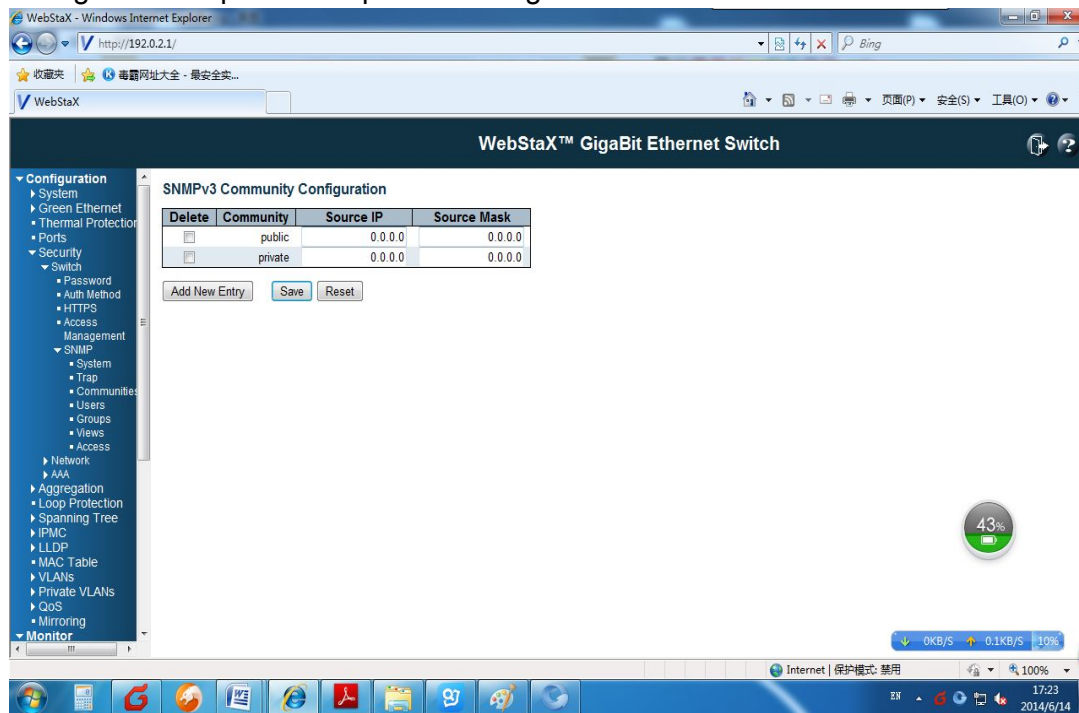


Click “ADD NEW ENTRY” to add new SNMP Trap Configuration as below:



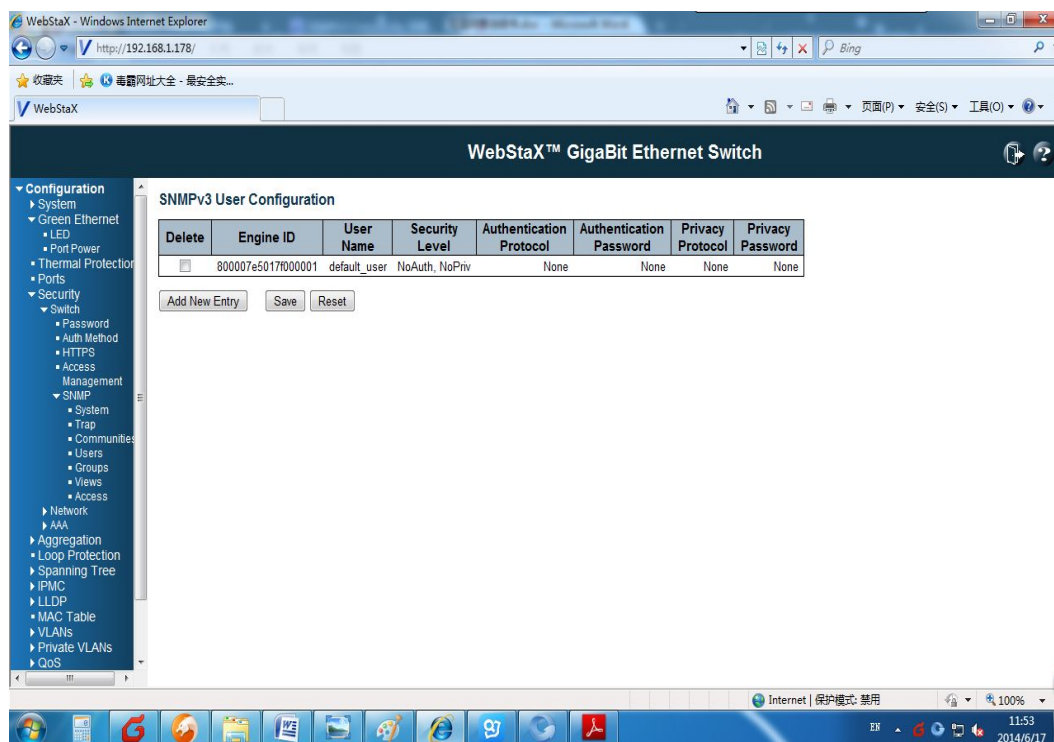
8.3 SNMPv3 Community Configuration

Configuration of public and private IP segment and subnet mask.



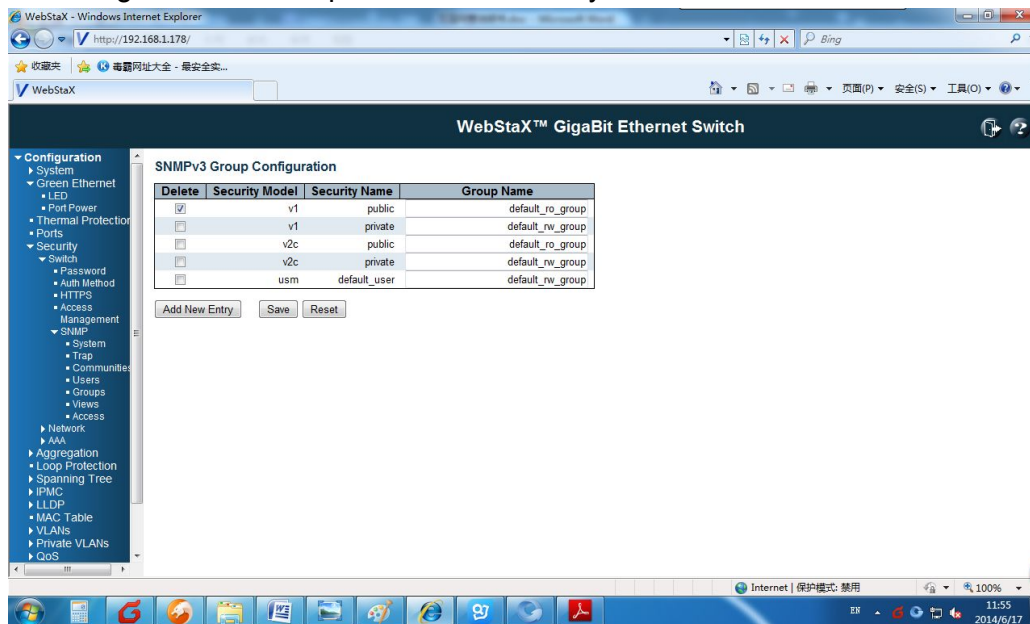
8.4 SNMPv3 User Configuration

Configuration of ID,Username, Security Level and Authentication protocol as followed:



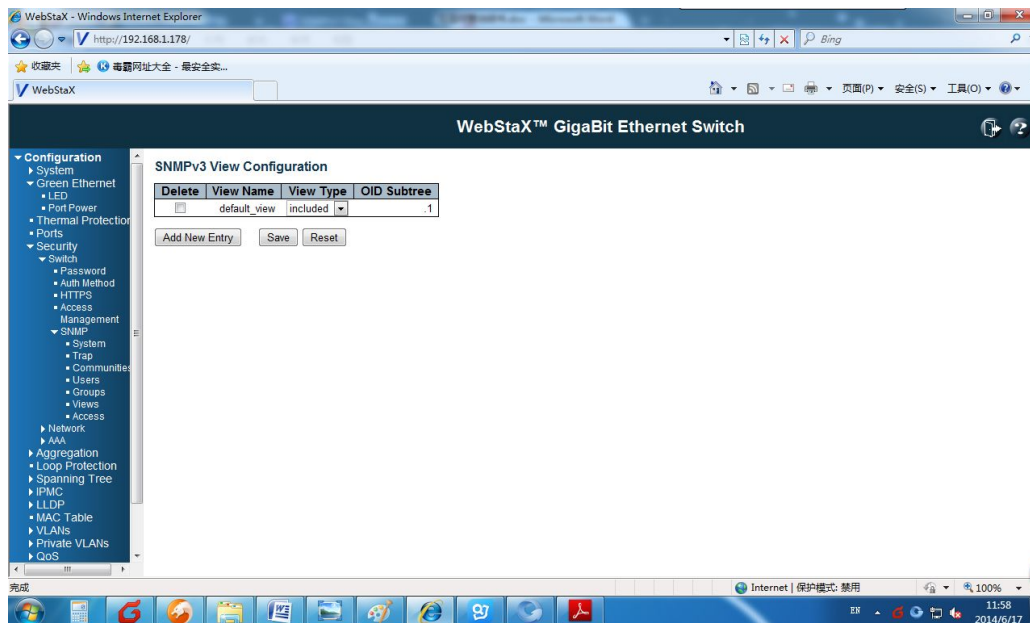
8.5 SNMPv3 Group Configuration

Configuration of Group Name and Security Mode



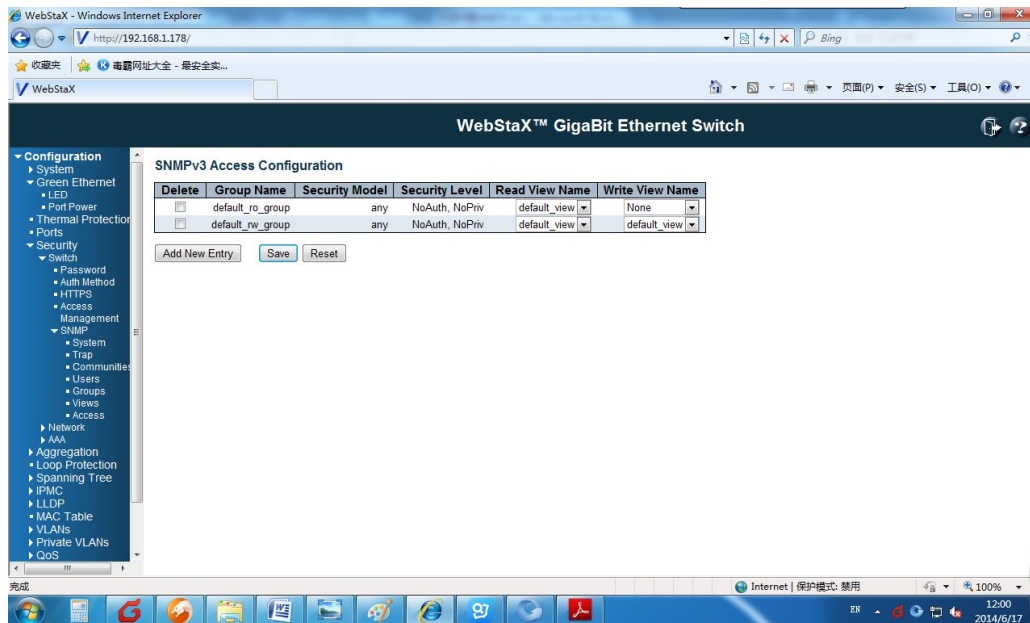
8.6 SNMPv3 View Configuration

Configuration of View Name and Type.



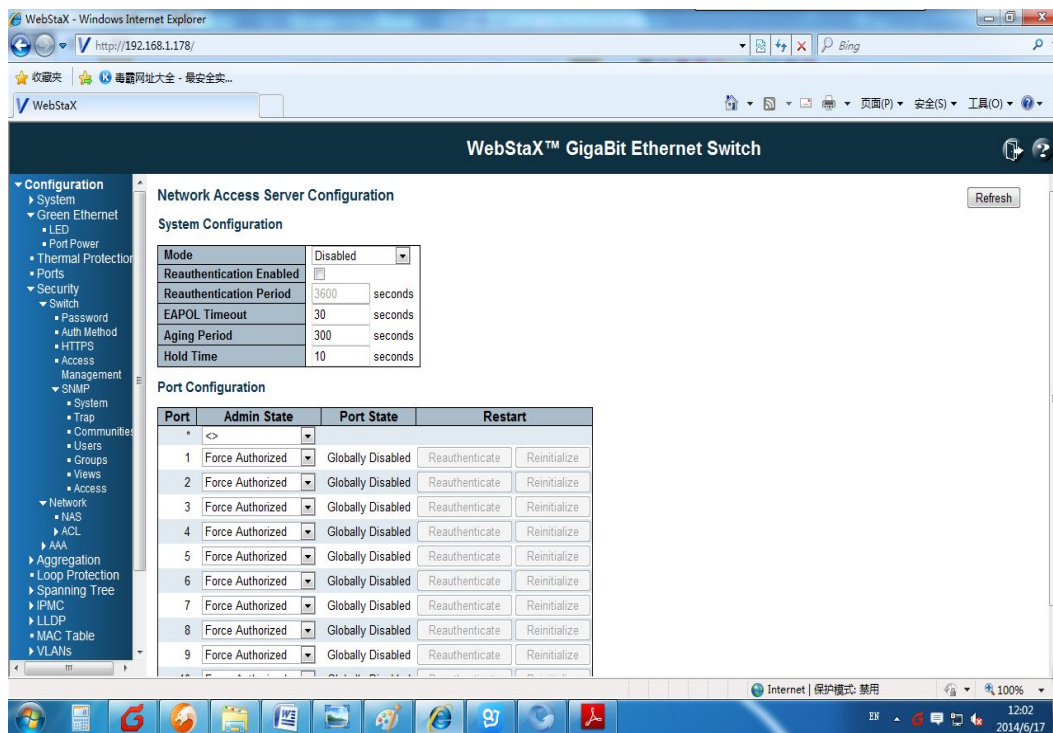
8.7 SNMPv3 Access Configuration

Configuration of Security Mode ,Security Level and View name in Access Item.



9. Network Access Server Configuration

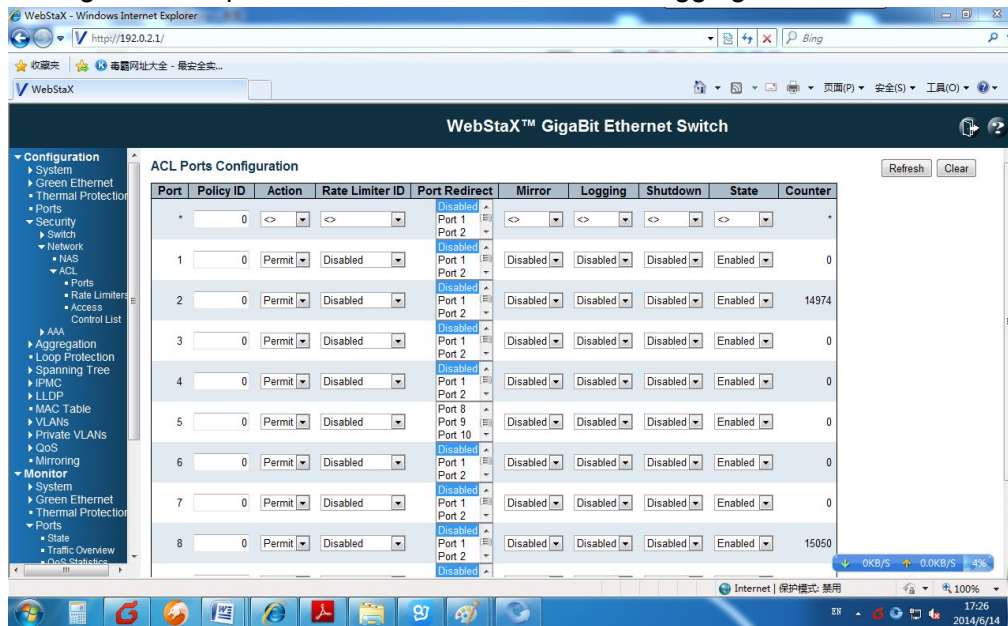
Configuration of access authentication, authorization and access function.



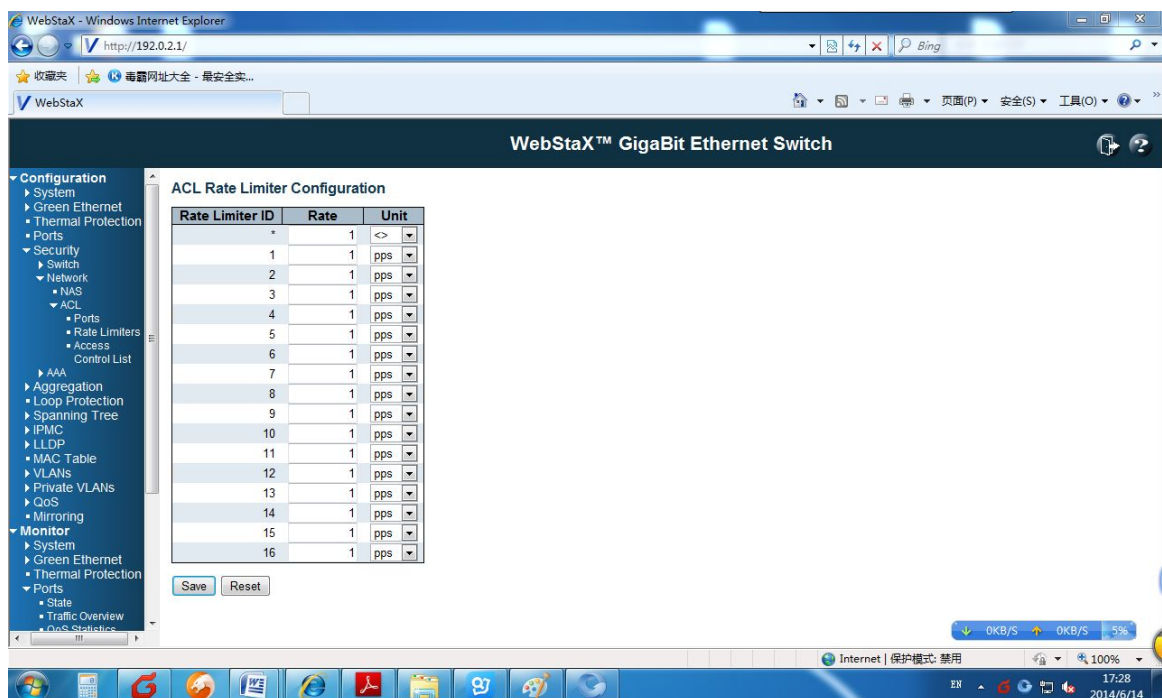
10. ACL Configuration

10.1 ACL Ports Configuration

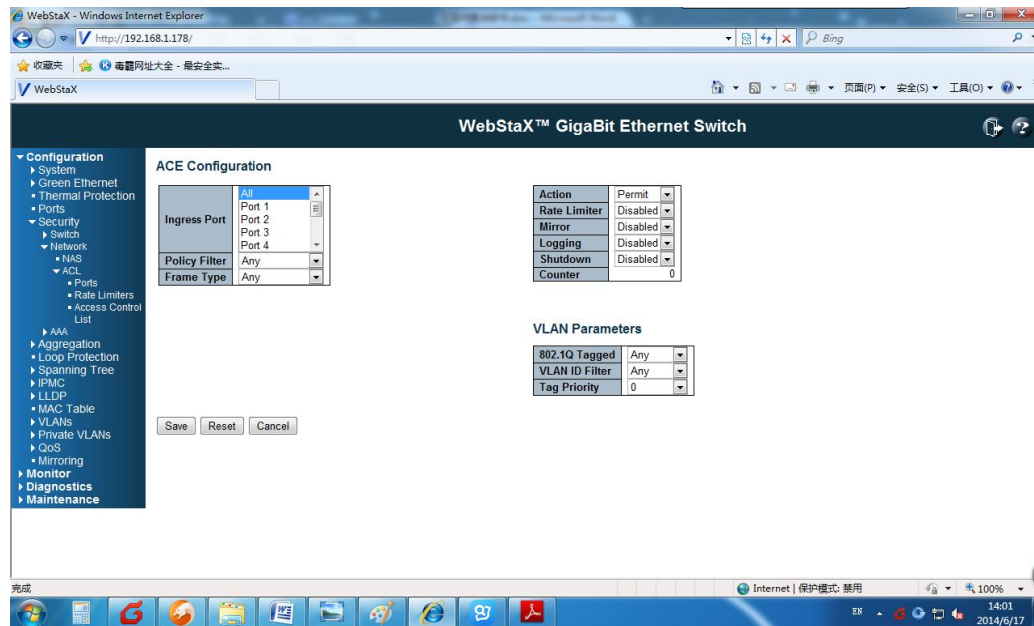
Configuration of port authorization, redirect, mirror, logging and shutdown as followed:



10.2 ACL Rate Limiter Configuration

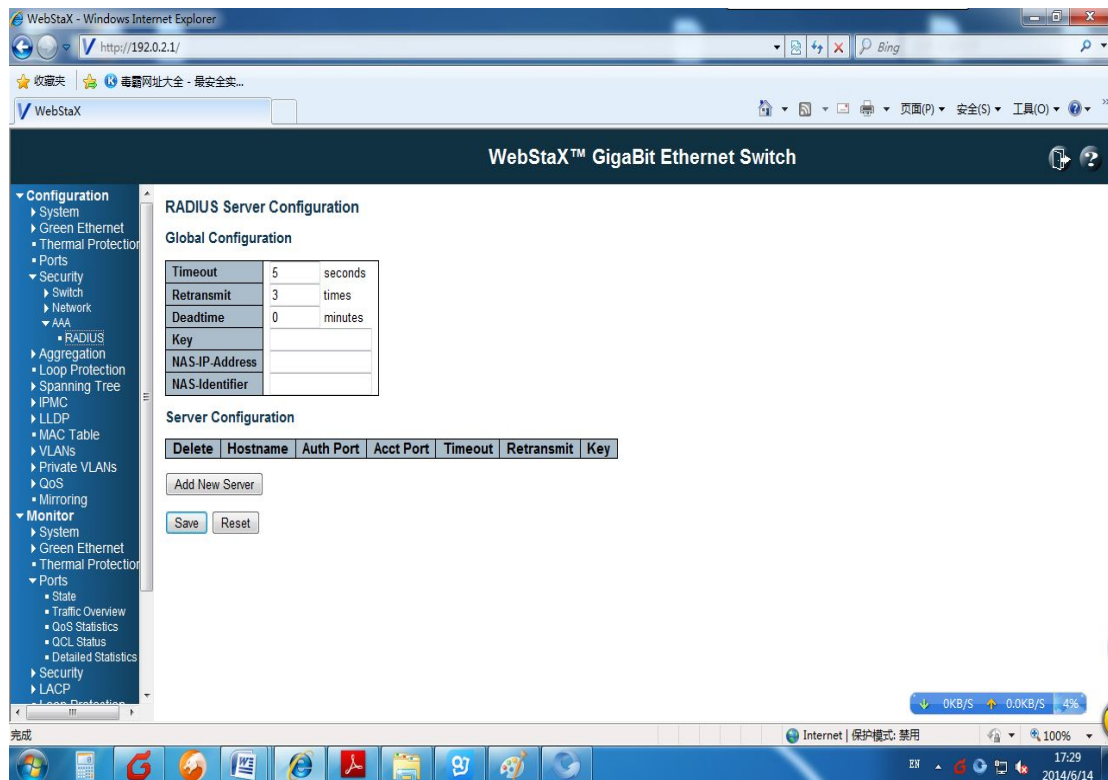


10.3 ACL Configuration



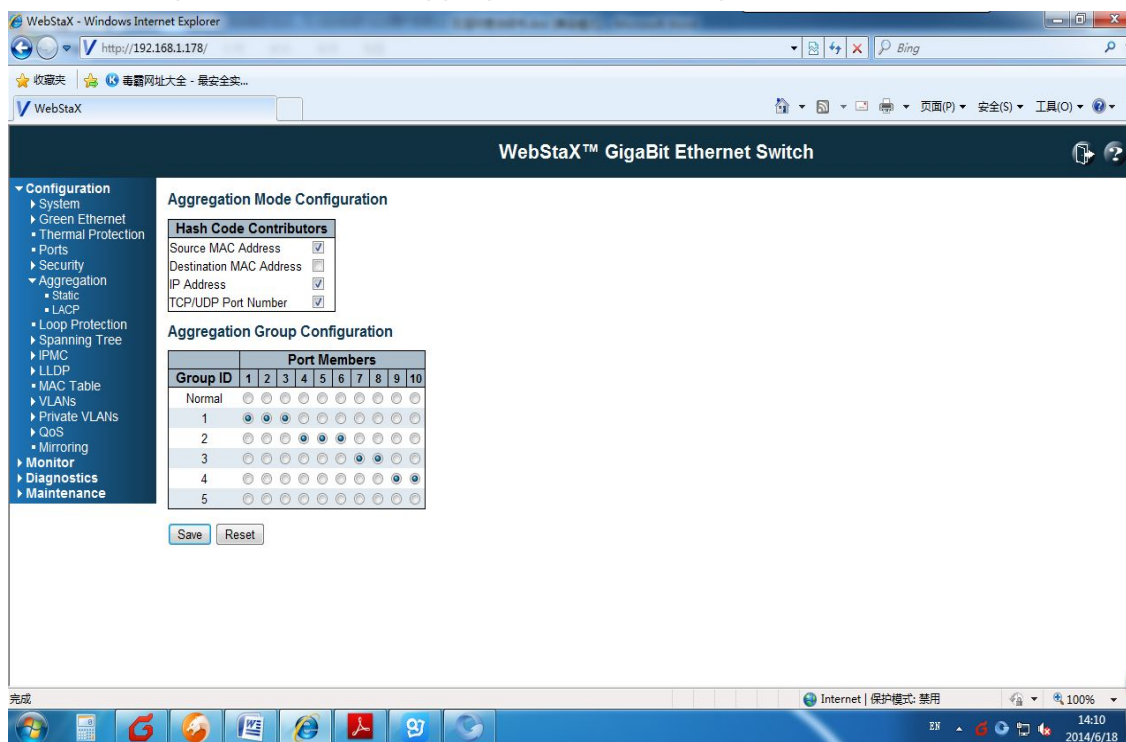
11. RADIUS Server Configuration

Configuration of mainframe name of RADIUS, authorization port, timeout, retransmit and Key



12. Aggregation Mode Configuration

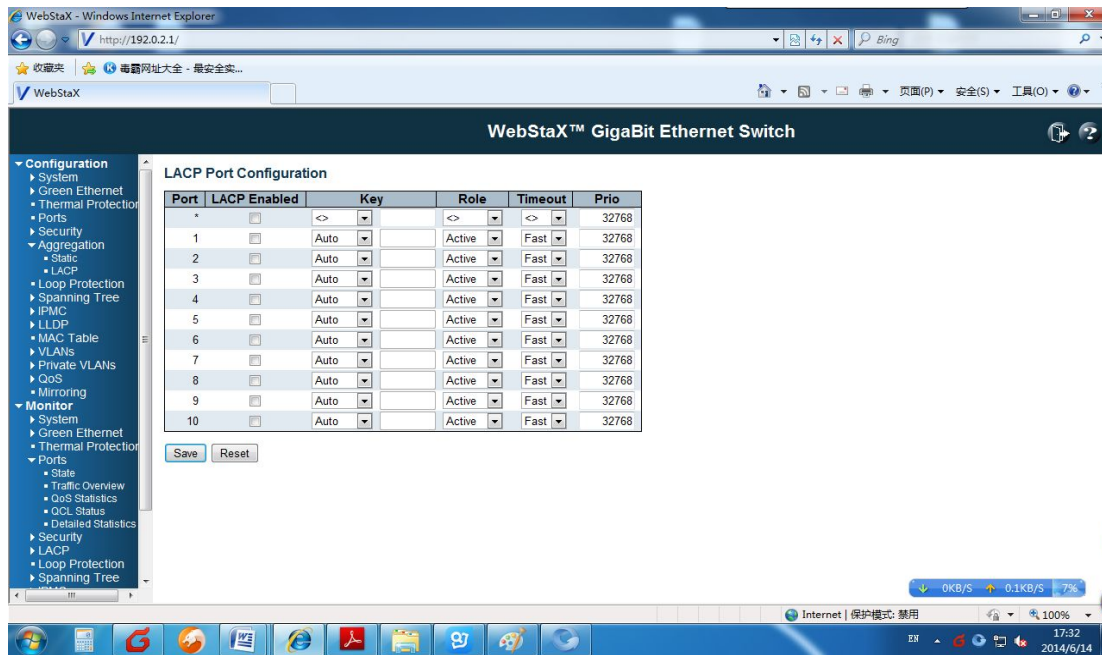
12.1 Configuration of static aggregation mode and groups



Remarks:

1. Only one port can be in an aggregation group. If the port has been a member of other LAG ports, or has been aggregated a member of LACP, then the port is flashing and can not be checked.
2. Calculation of LAG Bandwidth: When LAG is consisted of four full-duplex 1000Mbps ports, the bandwidth of per port is 2000Mbps because the upstream and downstream of each port is 1000Mbps. Thus, the max total bandwidth can be 8000Mbps since they aggregate together through LAG technique.
3. The LAG flow will be assigned evenly to each member port based on routing algorithm. The flow of ports will be transferred to other LAG ports that link normally when one or some ports of LAG is disconnected .That is link redundancy backup function.

12.2 LACP Port Configuration



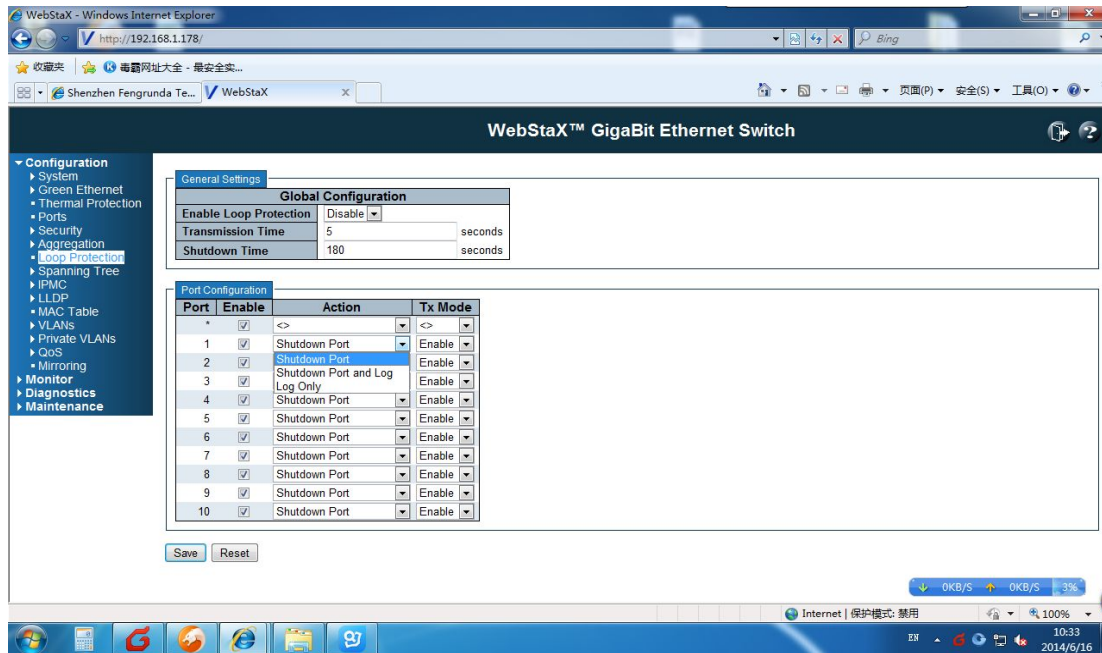
Explanations:

When LACP port enabled, the opposite port will be notified of system priority, system MAC, port priority, port number and operation key(decided by port physical property, upper layer protocol and management Key). The port with higher device priority will lead and decode aggregation and device priority is determined by the system priority and system MAC. The smaller value of system priority, the higher device priority. Base on the same value of system priority, the smaller of system MAC, the higher device priority. The aggregation port will be selected by the port that higher device priority according to port priority ,port number and operation key. The port with same operation Key will be selected the same aggregation group. The port that small value of port priority will be priority selection in the same aggregation group. And small port number will be given priority choice when the same port priority. The selected port that be full of mutual and aggregation information will be aggregated together to send and receive data.

Remarks:

1. To avoid broadcast storm during the process of LACP function, kindly advise enable spanning tree.
2. The member ports belonged to LAG group can not be enabled LACP function.
3. The value of management Key can not be the same as the group number that has enabled static LAG group , vice versa.

13. LOOP Protection Configuration



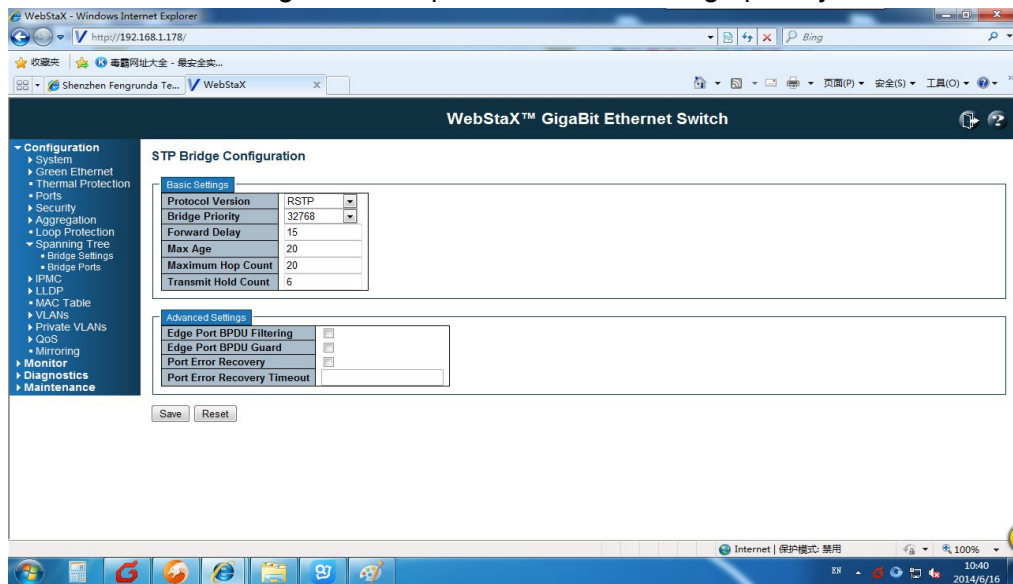
Remarks:

When network topology is stable, the switch will keep each port status by constantly receiving BPDU message from the upstream switch. The switch located at downstream can not receive BPDU message and then will recalculate the spanning tree and reselect the port roles when the occurrence of link congestion or unidirectional link failures. At this time, blocked port will be removed to forward state and result in loops on the network. Then loop protection function will restrain this loop. As the port that enabled loop protection, this will be always set as blocked state no matter what port role is when the switch can not receive BPDU message from the upstream switch and result in STP recalculation.

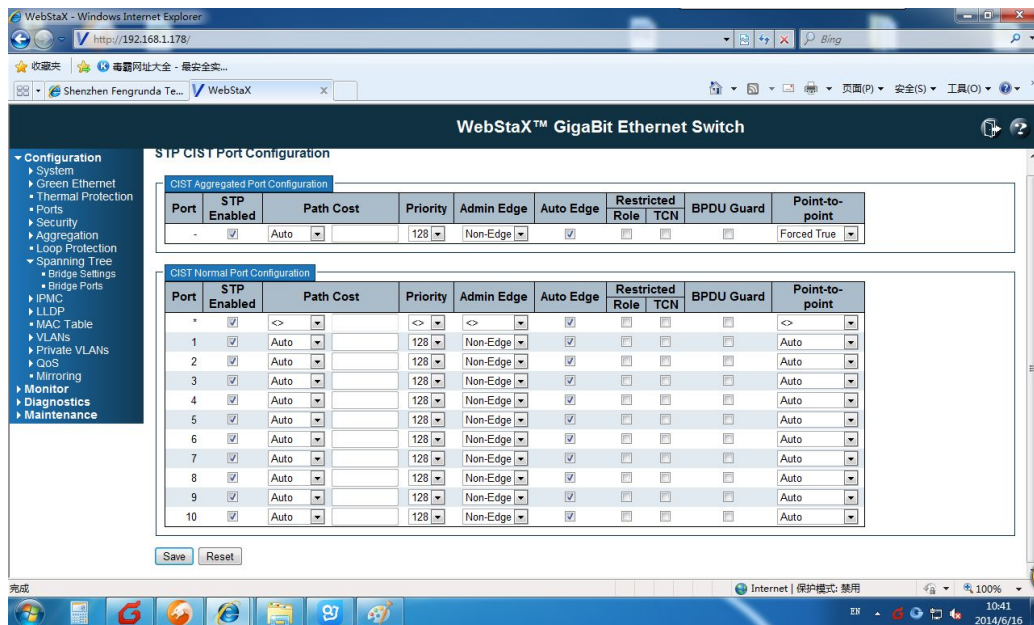
14. STP Bridge Configuration

14.1 STP Configuration

Below is STP configuration as protocol version, bridge priority and forward delay.



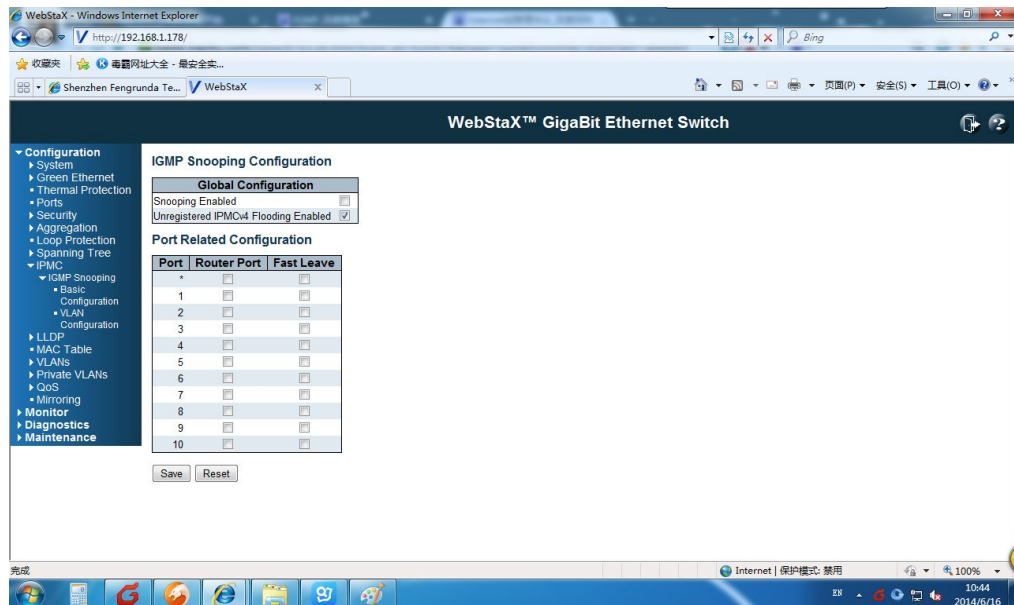
14.2 STP Port Configuration



15.IGMP Snooping

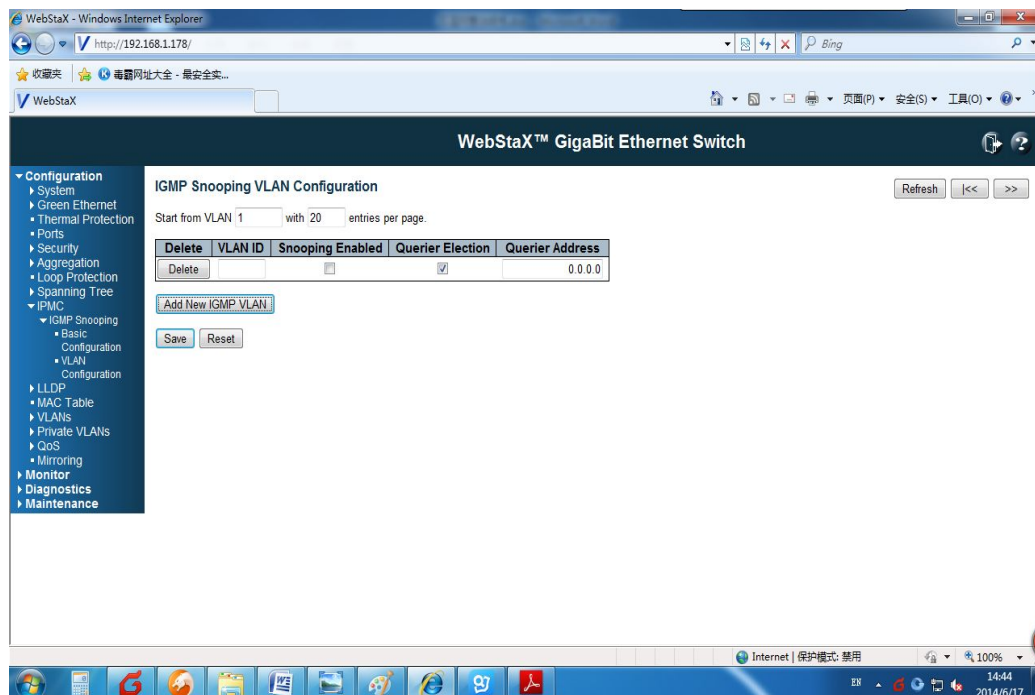
15.1 IGMP Basic Configuration

Configuration of global parameter,router port and fast leave.



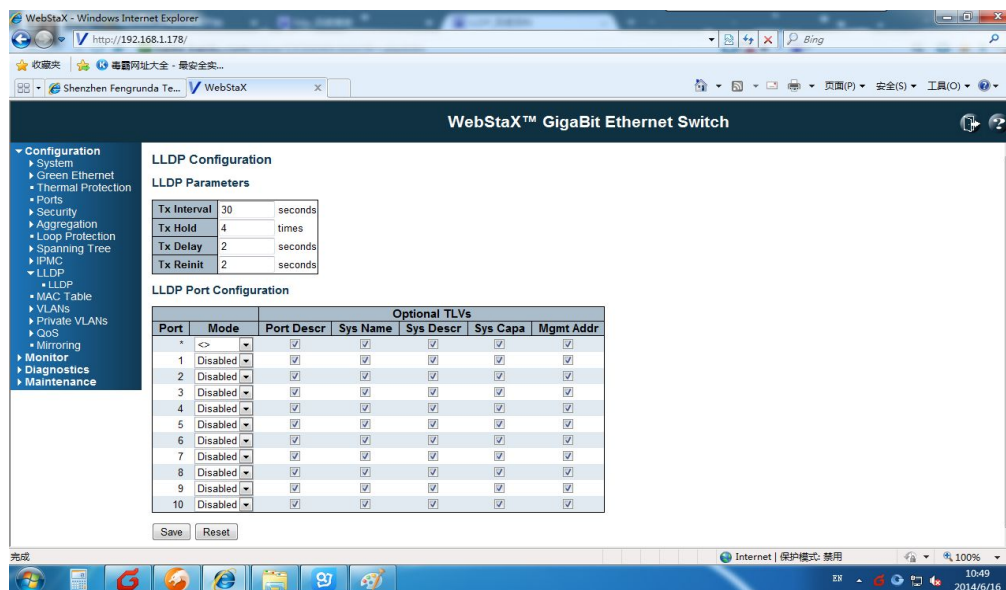
15.2 IGMP VLAN Configuration

Configuration of VLAN ID and groups when groups sending.



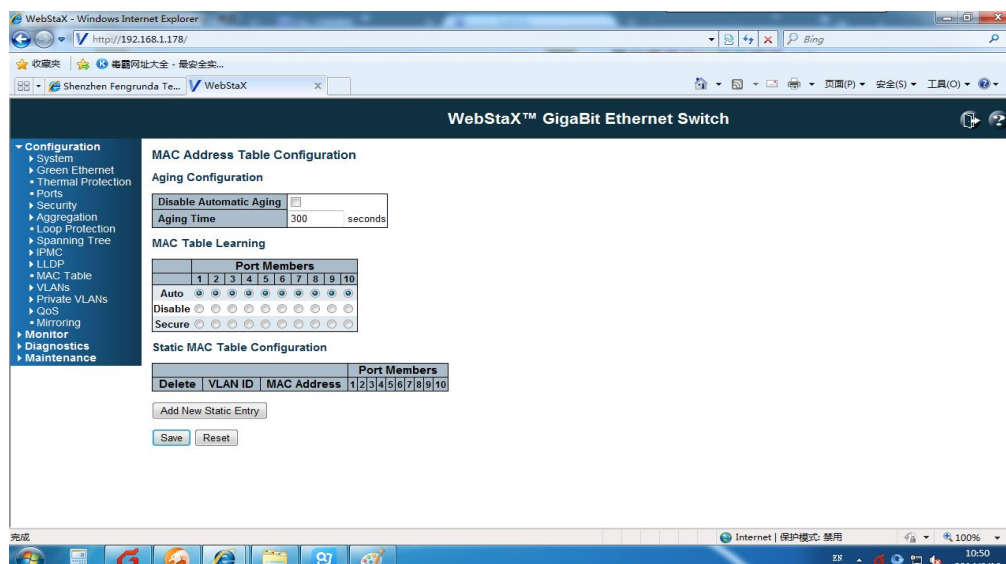
16.LLDP Configuration(Link Layer Discovery Protocol)

Configuration of LLDP basic parameters, like TX Interval, TX Hold, TX Delay and LLDP TLVS (Type/Length/Value)



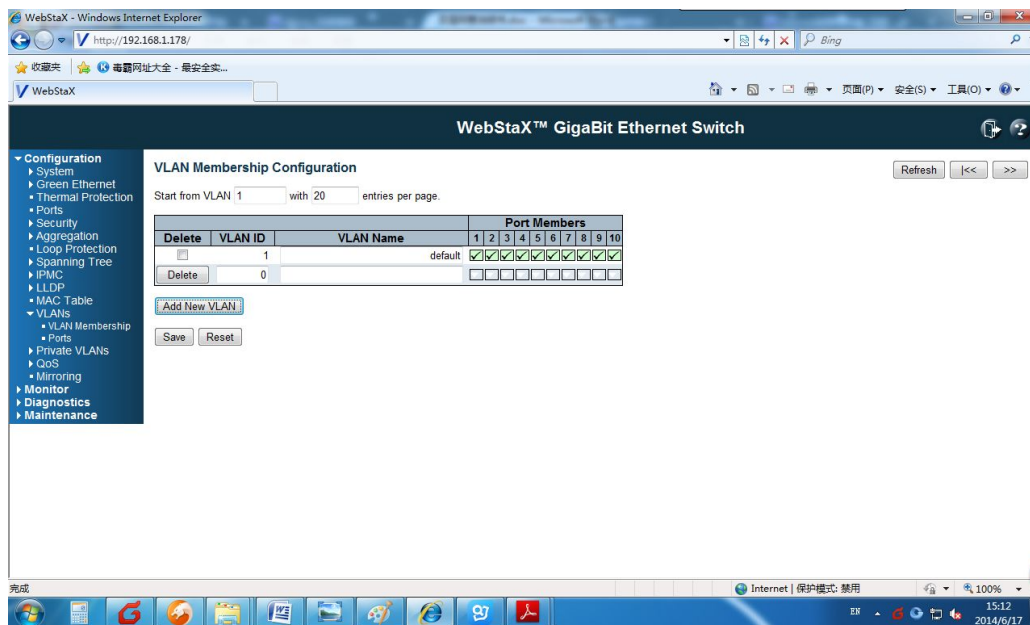
17. MAC Address Table Configuration

Configuration of aging-time(this period will not automatically update MAC Table), MAC Table Learning, Static MAC Address



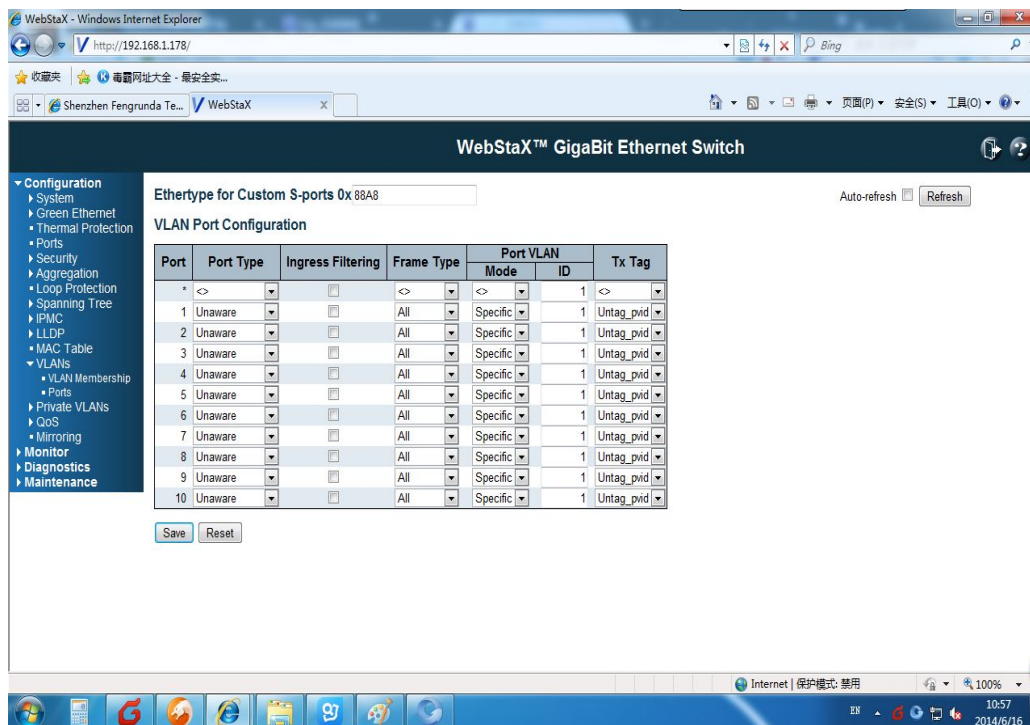
18. VLAN Configuration

18.1 VLAN Membership Configuration



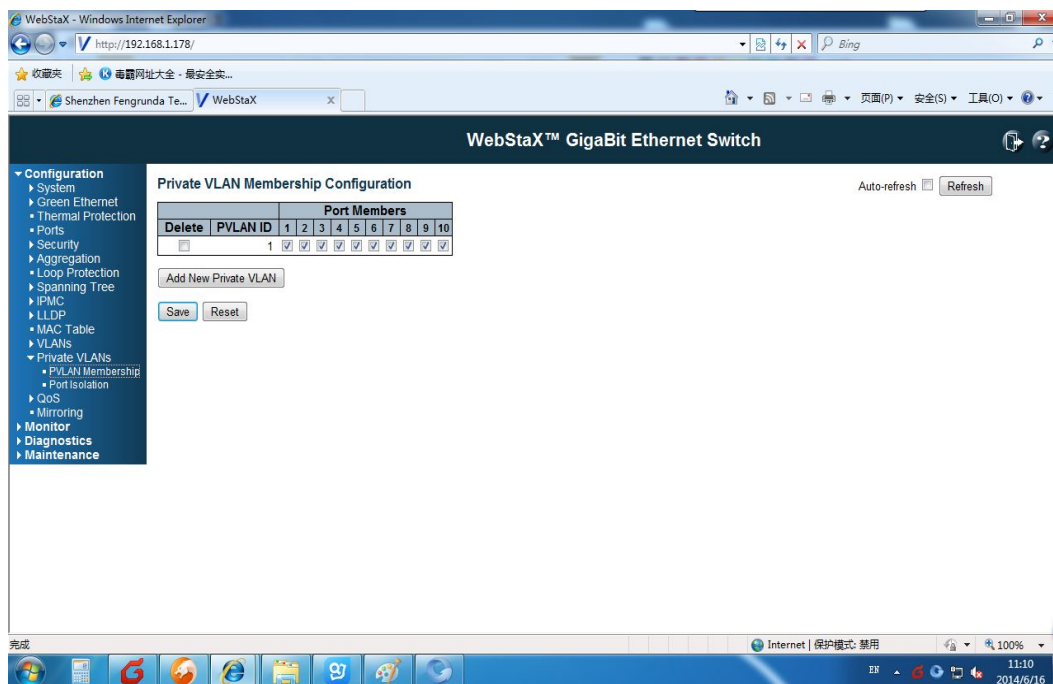
18.2 VLAN Port Configuration

Configuration of VLAN Port Type, Ingress Filtering and Frame Type

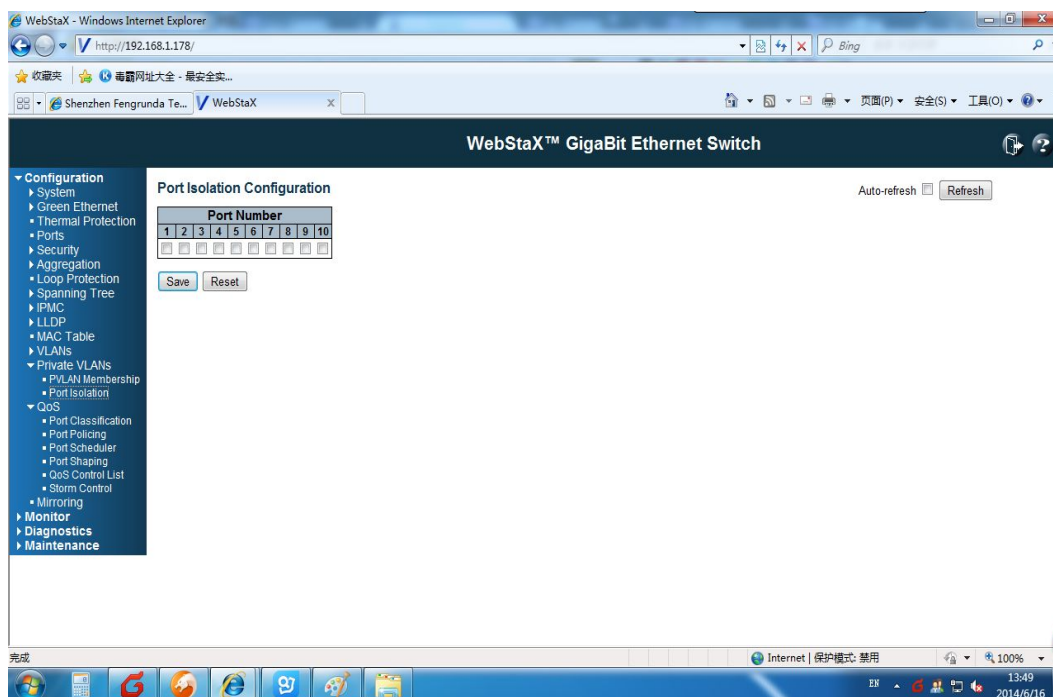


19.Private VLAN Configuration

19.1 Private VLAN Membership Configuration

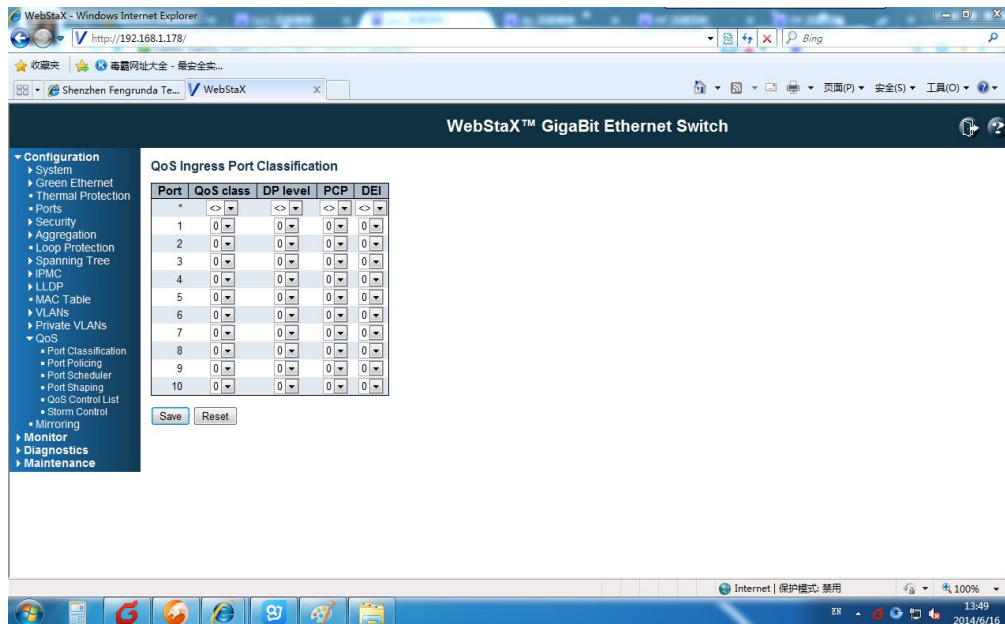


19.2 Port Isolation Configuration

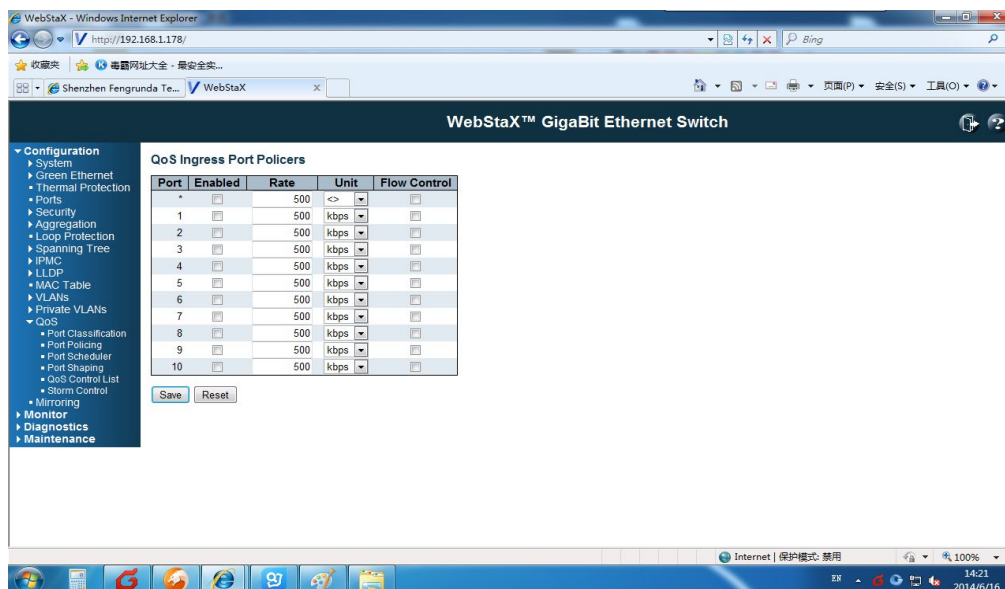


20. QoS (Quality of Service)

20.1 QoS Ingress Port Classification



20.2 QoS Ingress Port Policing



20.3 Qos Egress Port Schedulers

The screenshot shows the WebStaX GigaBit Ethernet Switch configuration interface. The left sidebar contains a navigation menu with categories: Configuration, Monitor, Diagnostics, and Maintenance. Under Configuration, there are sub-items: System, Green Ethernet, Thermal Protection, Ports, Security, Aggregation, Loop Protection, Spanning Tree, IPMC, LLDP, MAC Table, VLANs, Private VLANs, QoS, Port Classification, Port Policing, Port Scheduler, Port Shaping, QoS Control List, Storm Control, and Mirroring. The main content area is titled 'QoS Egress Port Schedulers' and displays a table with 10 ports, each configured with 'Strict Priority' mode and a weight of 1.

Port	Mode	Q0	Q1	Q2	Q3	Q4	Q5
1	Strict Priority	-	-	-	-	-	-
2	Strict Priority	-	-	-	-	-	-
3	Strict Priority	-	-	-	-	-	-
4	Strict Priority	-	-	-	-	-	-
5	Strict Priority	-	-	-	-	-	-
6	Strict Priority	-	-	-	-	-	-
7	Strict Priority	-	-	-	-	-	-
8	Strict Priority	-	-	-	-	-	-
9	Strict Priority	-	-	-	-	-	-
10	Strict Priority	-	-	-	-	-	-

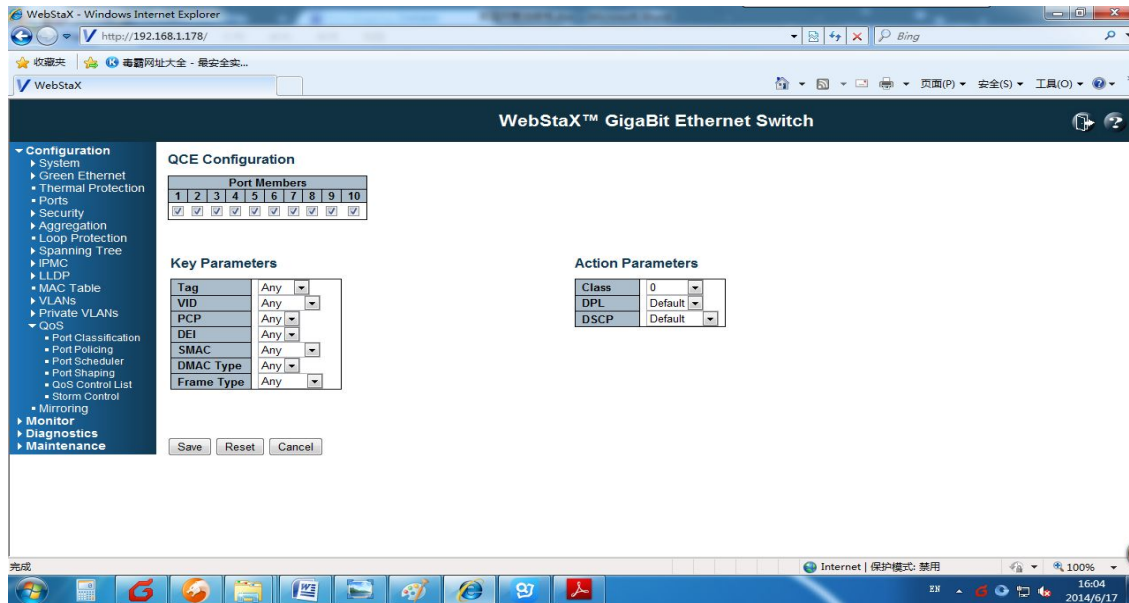
20.4 Qos Egress Port Shapers

Enter into Port Shaping and displayed as followed:

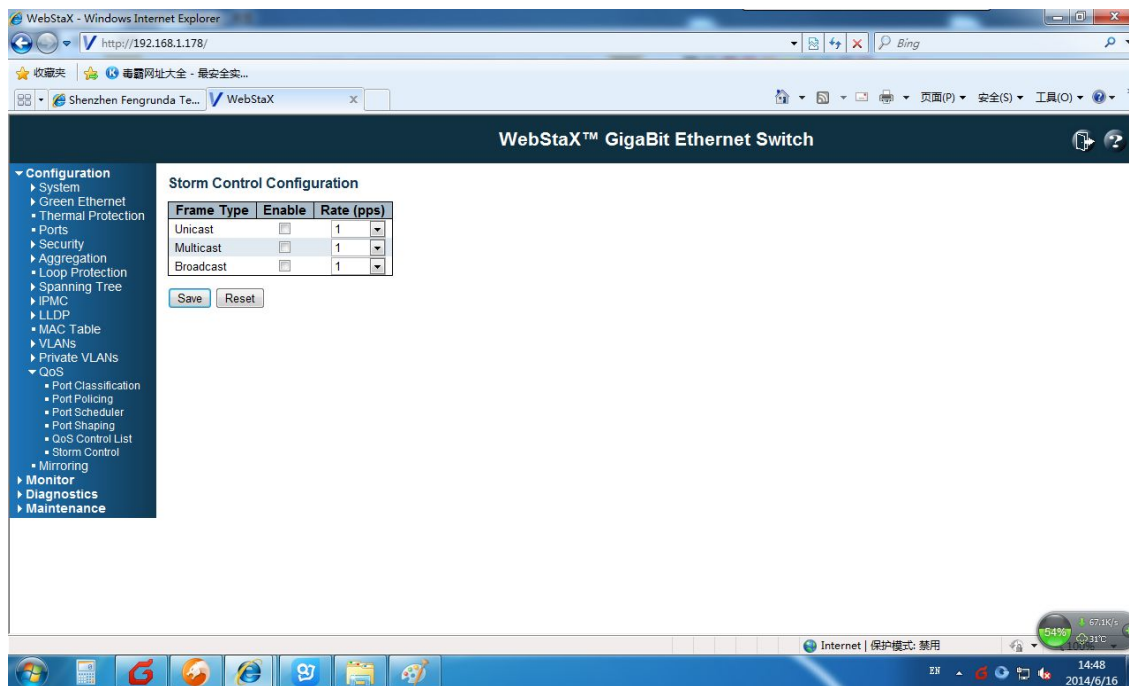
The screenshot shows the WebStaX GigaBit Ethernet Switch configuration interface, specifically the 'QoS Egress Port Shapers' section. The left sidebar is identical to the previous screenshot. The main content area displays a table with 10 ports, each configured with 'disabled' shapers for all queues (Q0 through Q7) and a 'disabled' port shaper.

Port	Q0	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Port
1	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled
2	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled
3	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled
4	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled
5	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled
6	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled
7	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled
8	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled
9	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled
10	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled	disabled

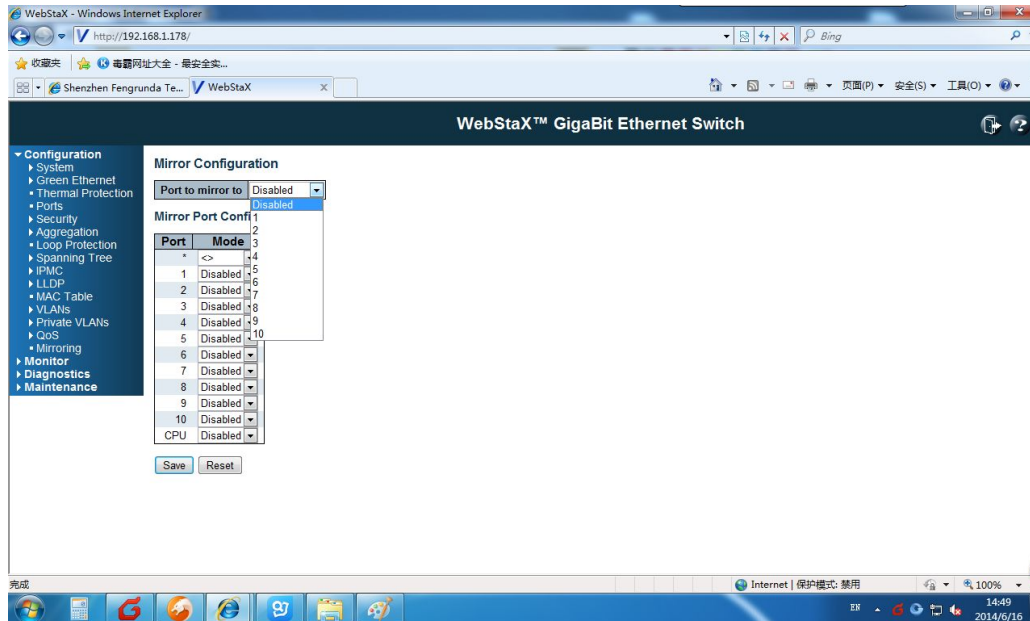
20.5 QoS Control List



20.6 QoS Storm Control.



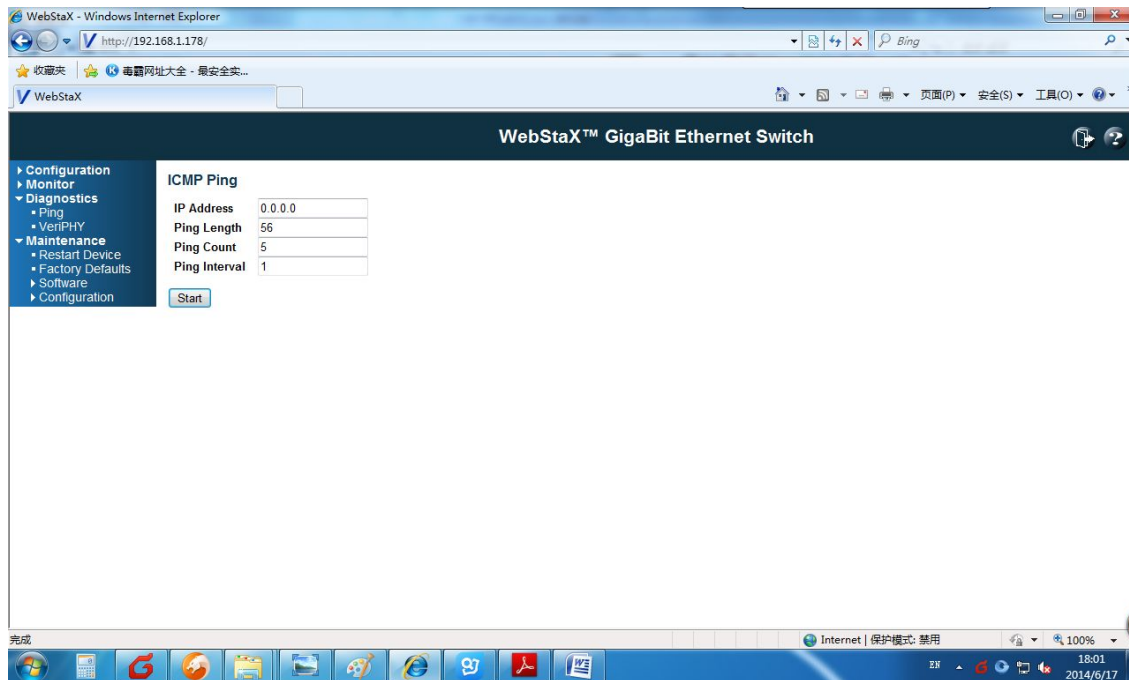
21. Mirror Configuration



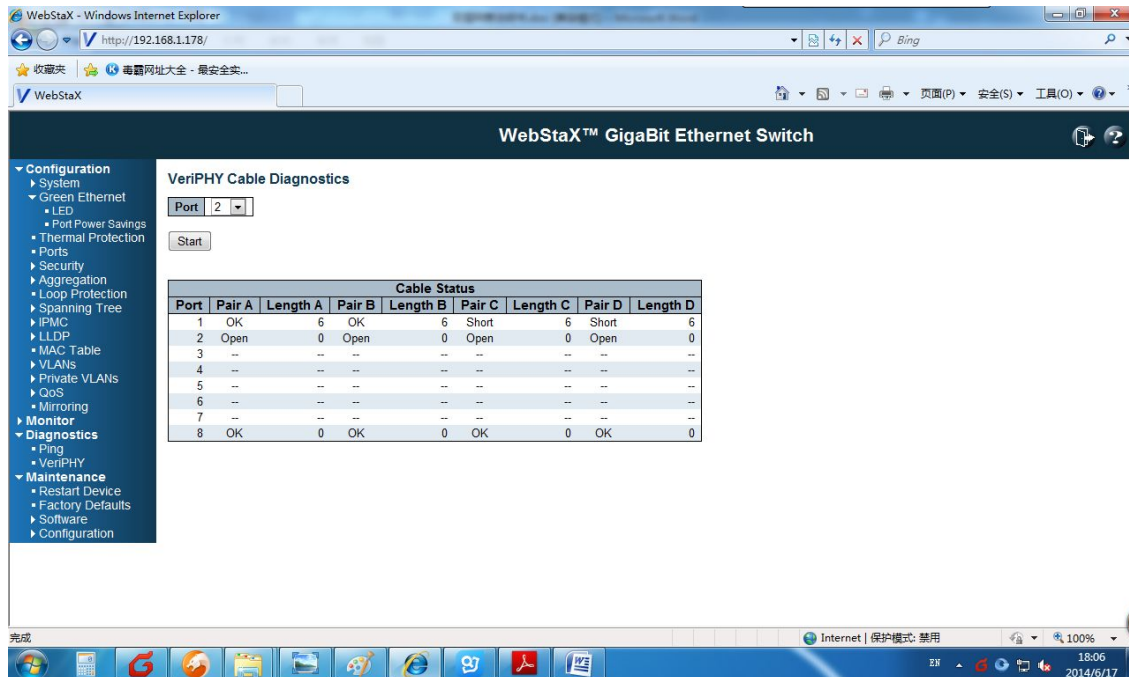
Explanations:

Enter port mirror on mirroring menu (mirror configuration), and map certain port's work or control message flow completely to the specified port. Named specified port as mirror destination port and mapped port as mirror origin port. It can be clearly analyzed the message of mirror origin port without disrupting the normal work of this port and port mirror is a convenient on-line monitoring function. All system ports can be configured to mirror origin port, but can only configure one mirror destination port. And when a port is configured as mirror port, the corresponding port can not be configured as origin port. The origin port is refer to mirrored port and can be configured multiples, but just be configured only one on mirror destination port.

22. Diagnostics

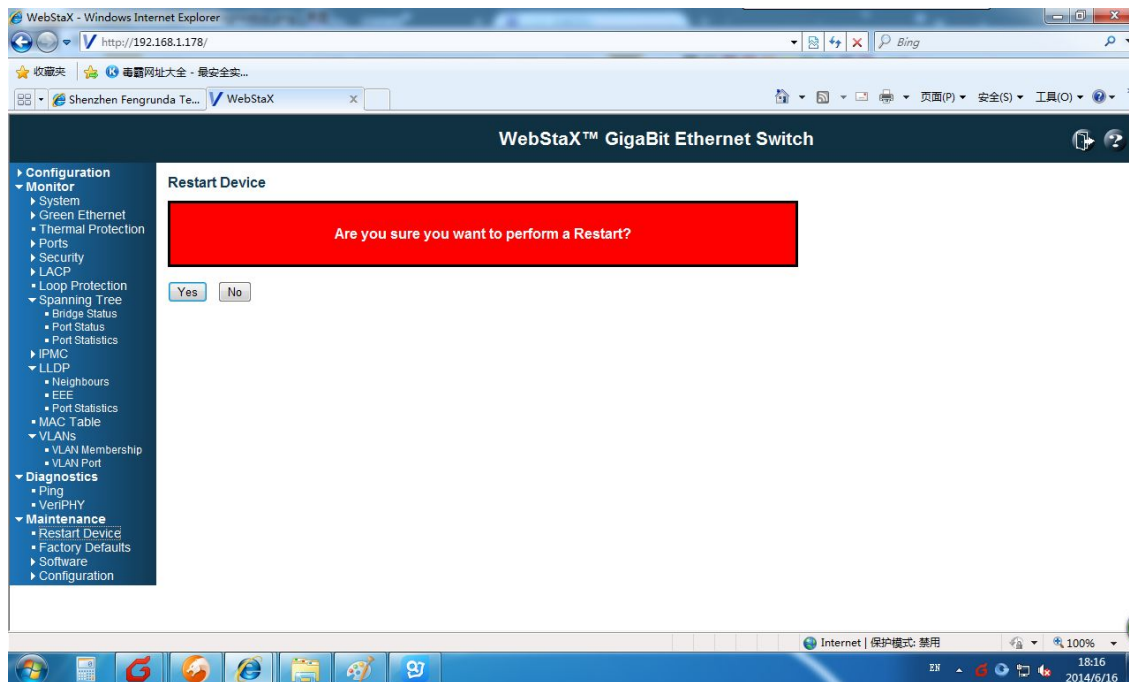


23. VeriPHY Cable Diagnostics

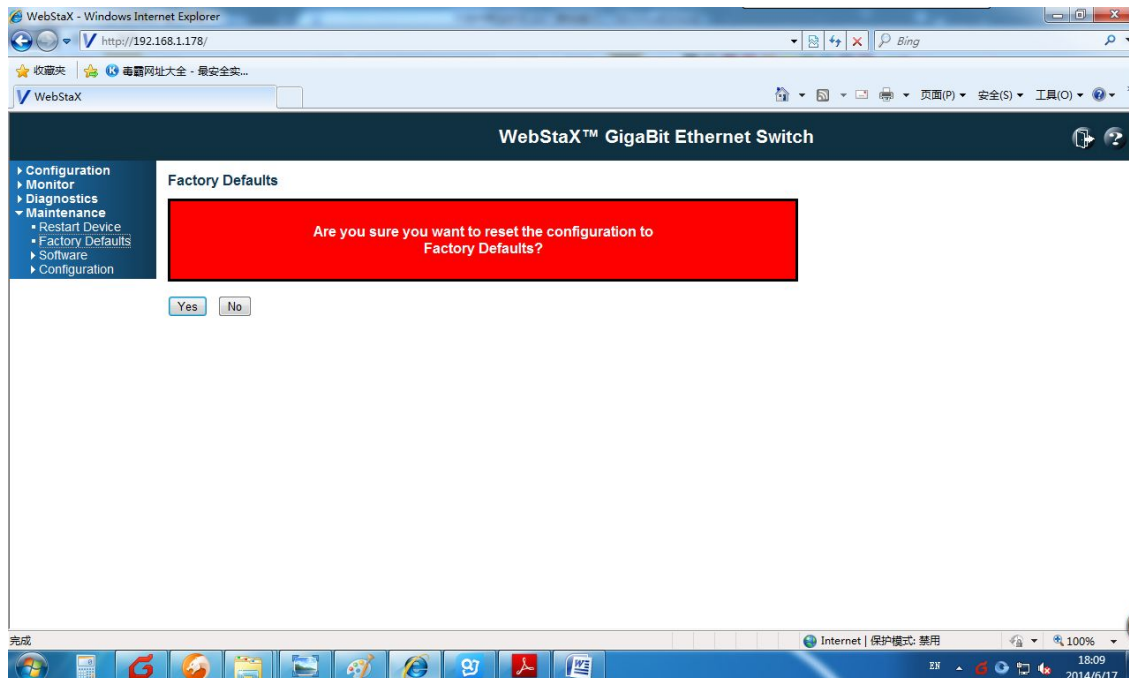


243 Maintenance

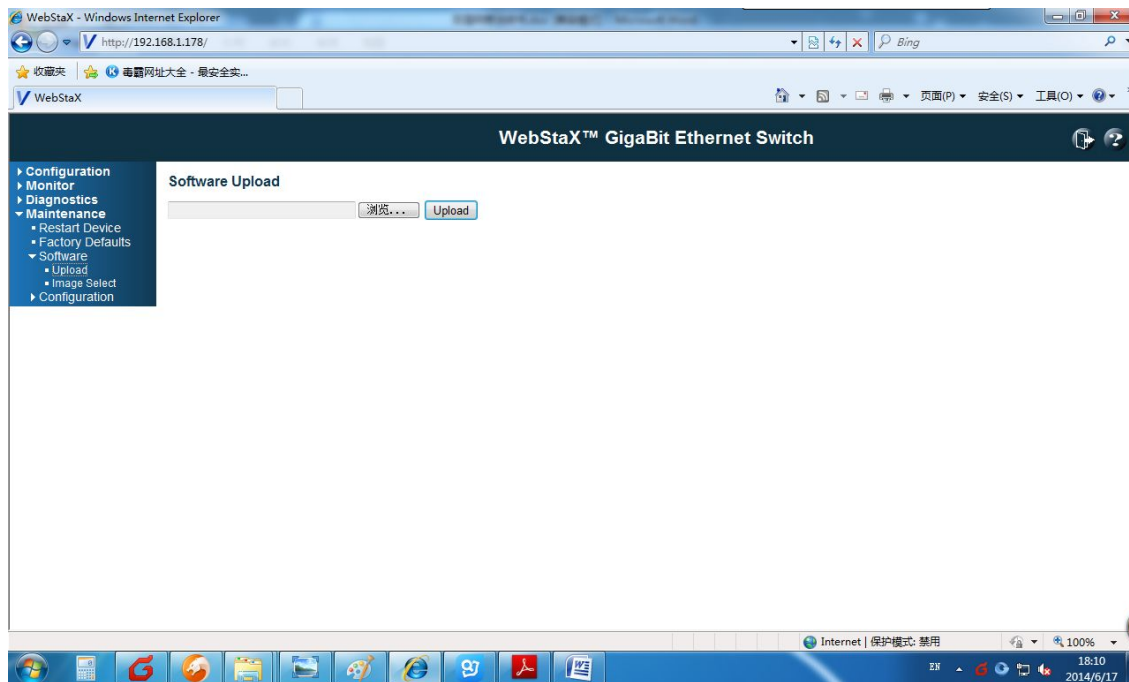
24.1 Restart Device



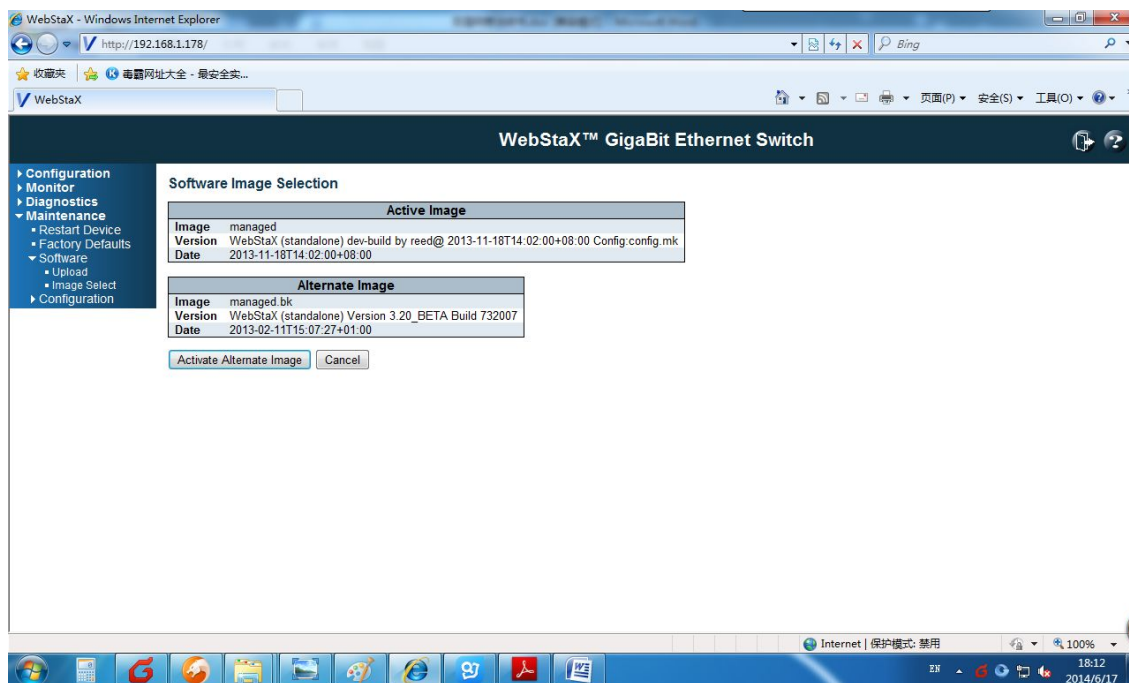
24.2 Factory Defaults



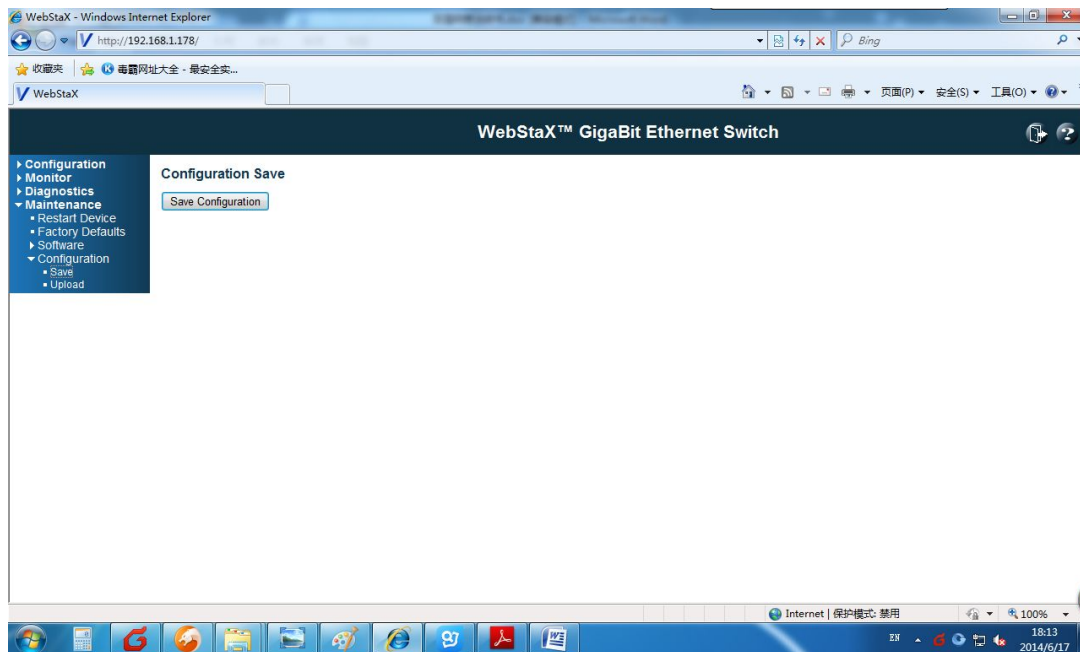
24.3 Software Updated



24.4 Software Image Selections



24.5 Configuration Save



24.6 Configuration Upload

