# 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.**
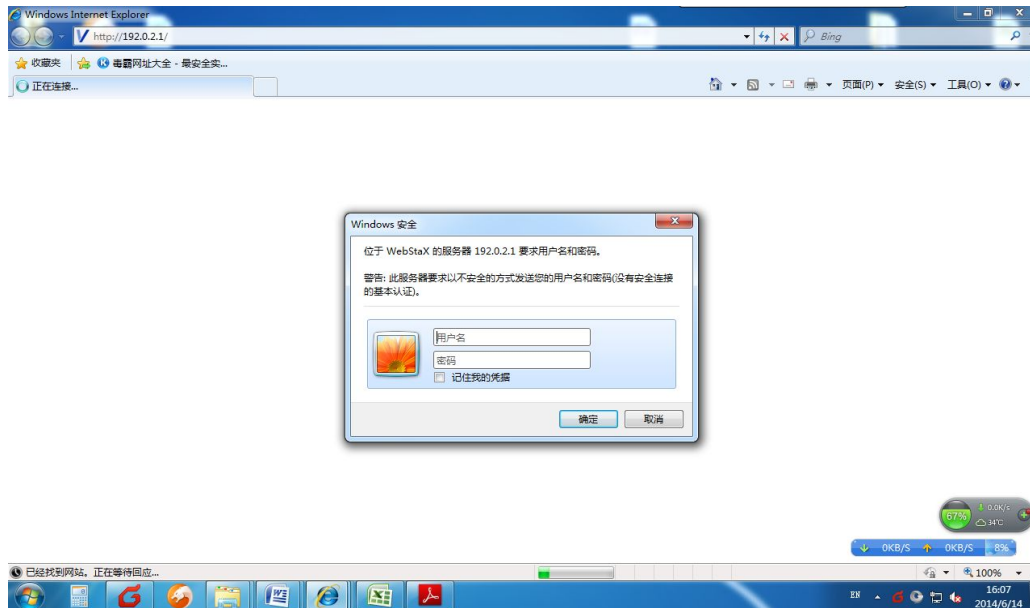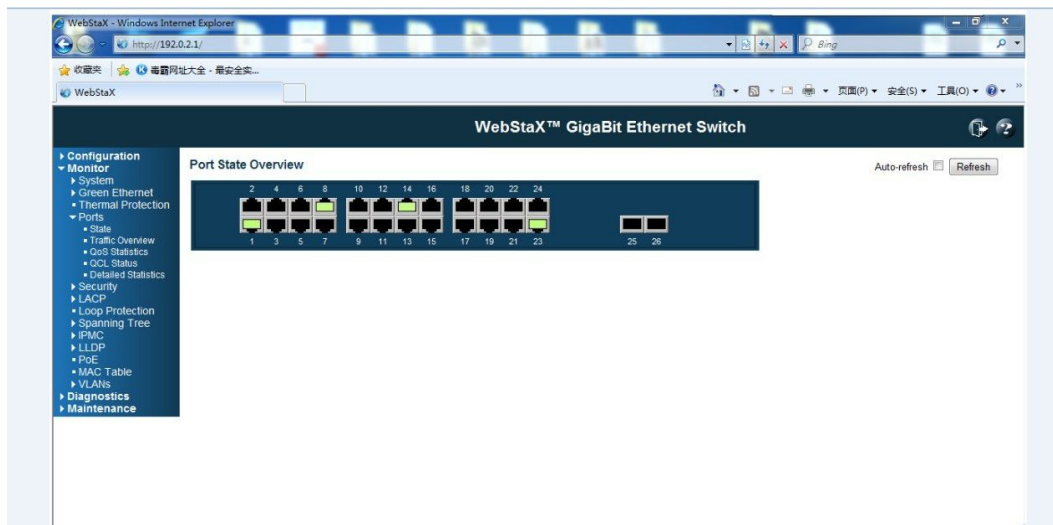
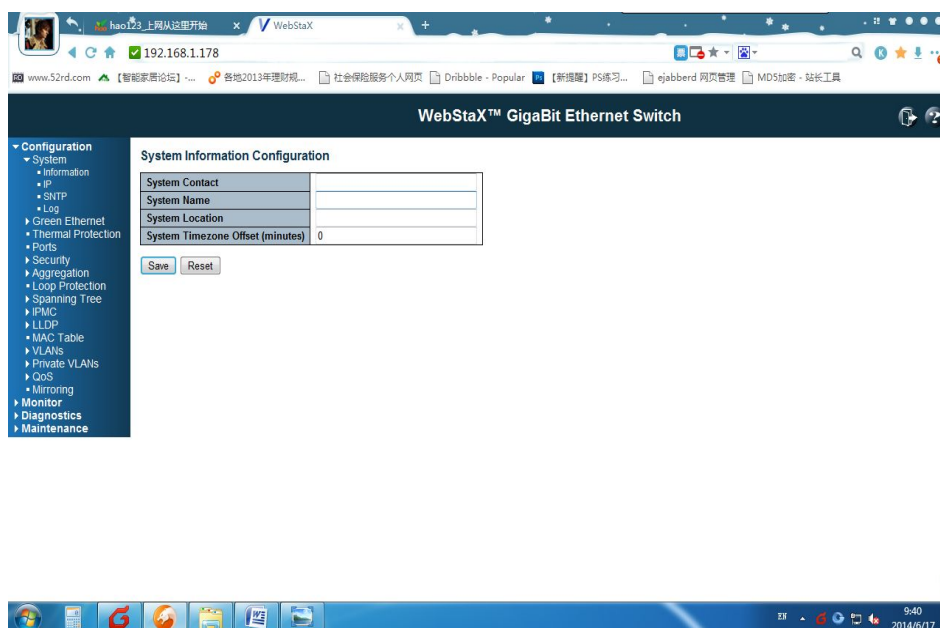1.2   Type in the user name  "admin"，and here do not need a password
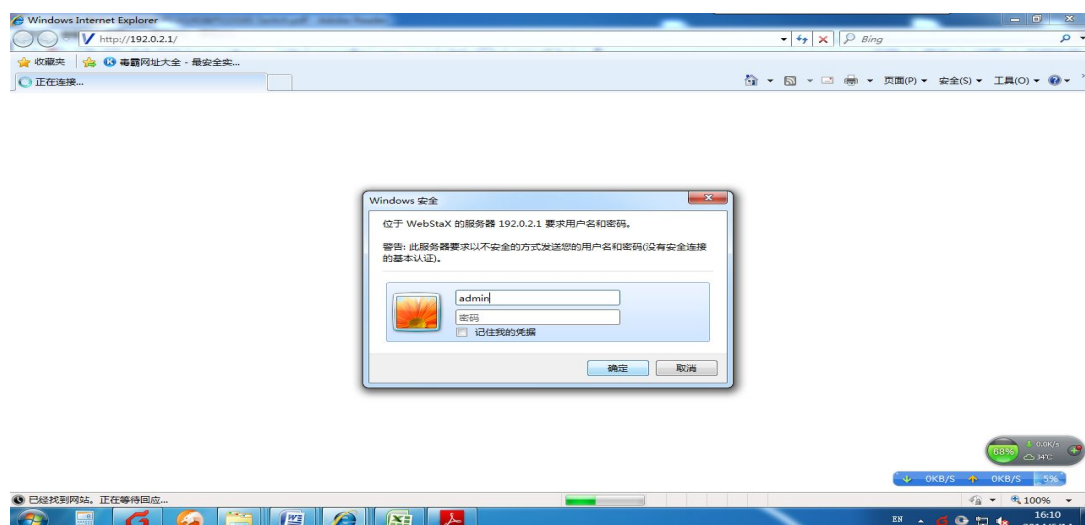
## 2. Port Connection

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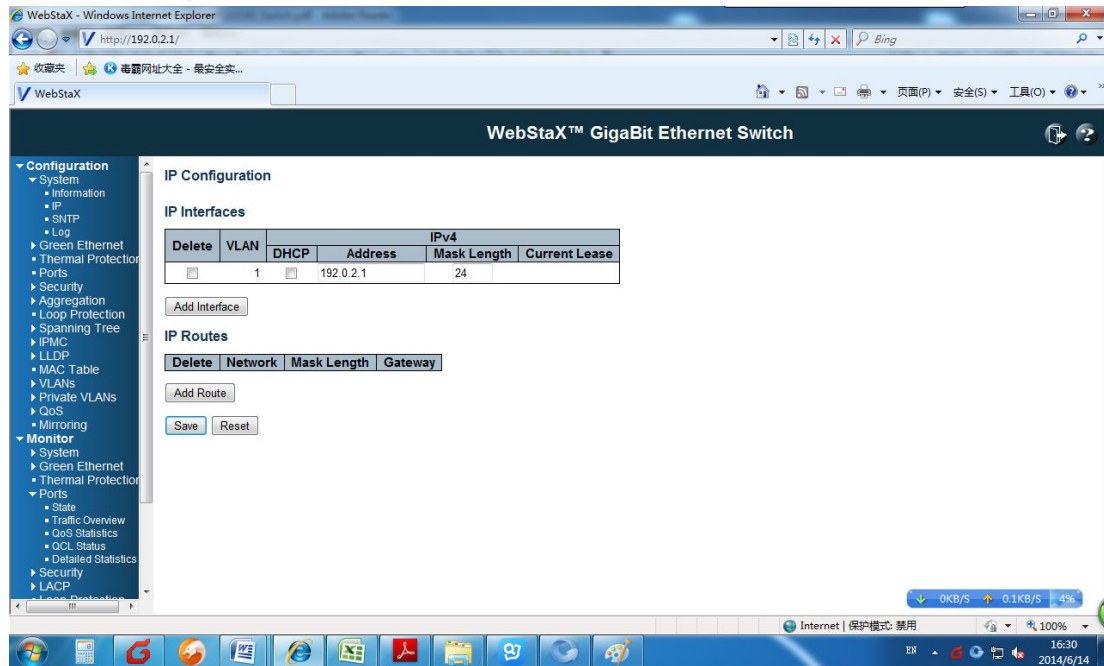


## 3. System Configuration:
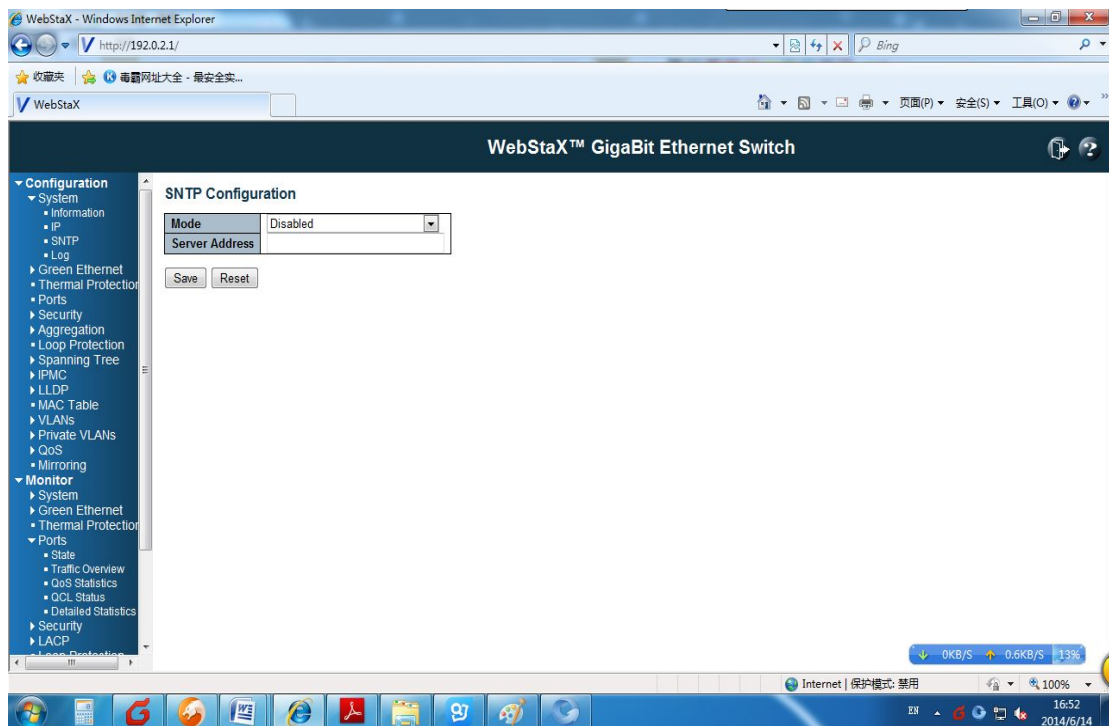
**3.1** System Information Configuration
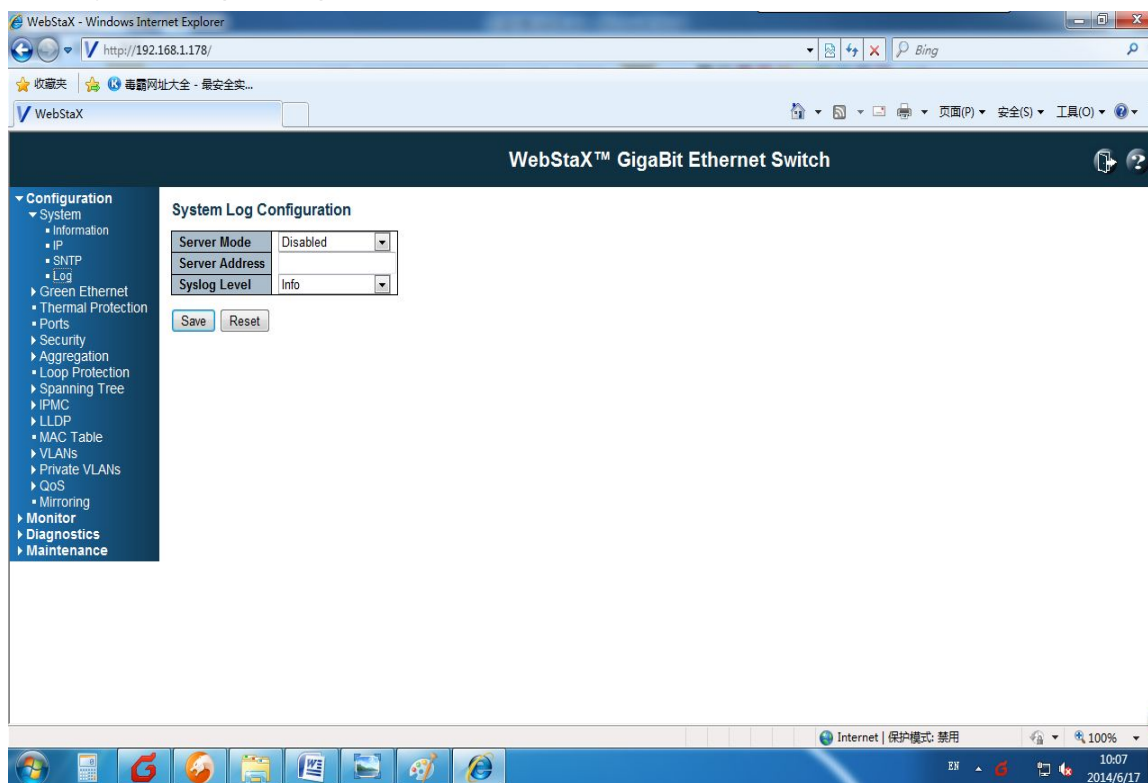
## 3.2 IP Configuration



## 3.3 SNTP Configuration

Configuration of system time and SNTP synchronously
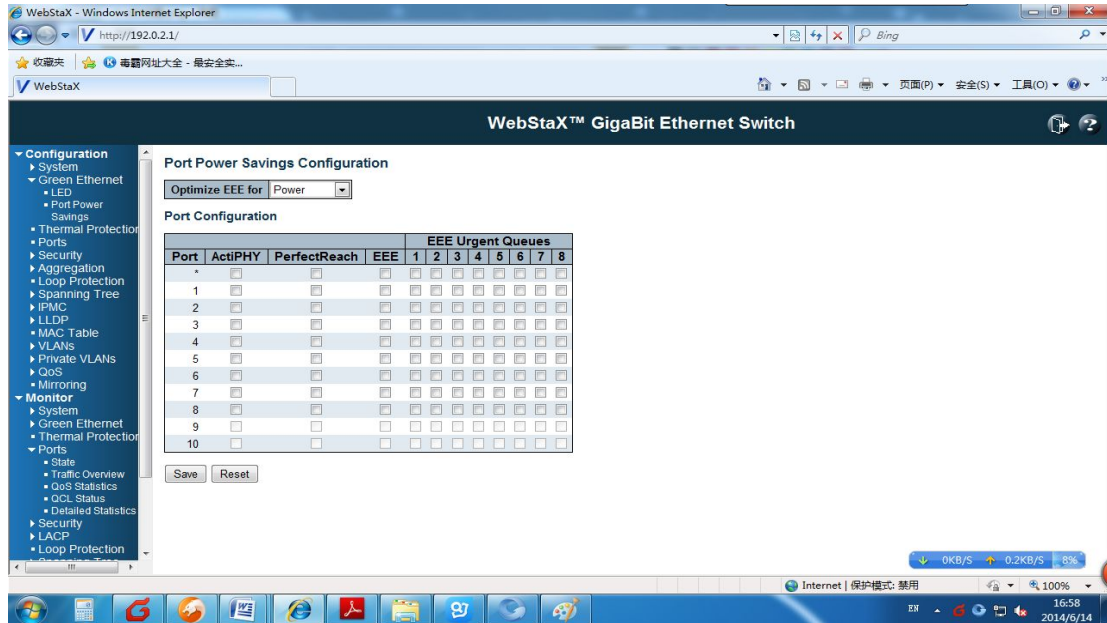
### 3.4 System Log Configuration



## 4. Power Reduction Configuration

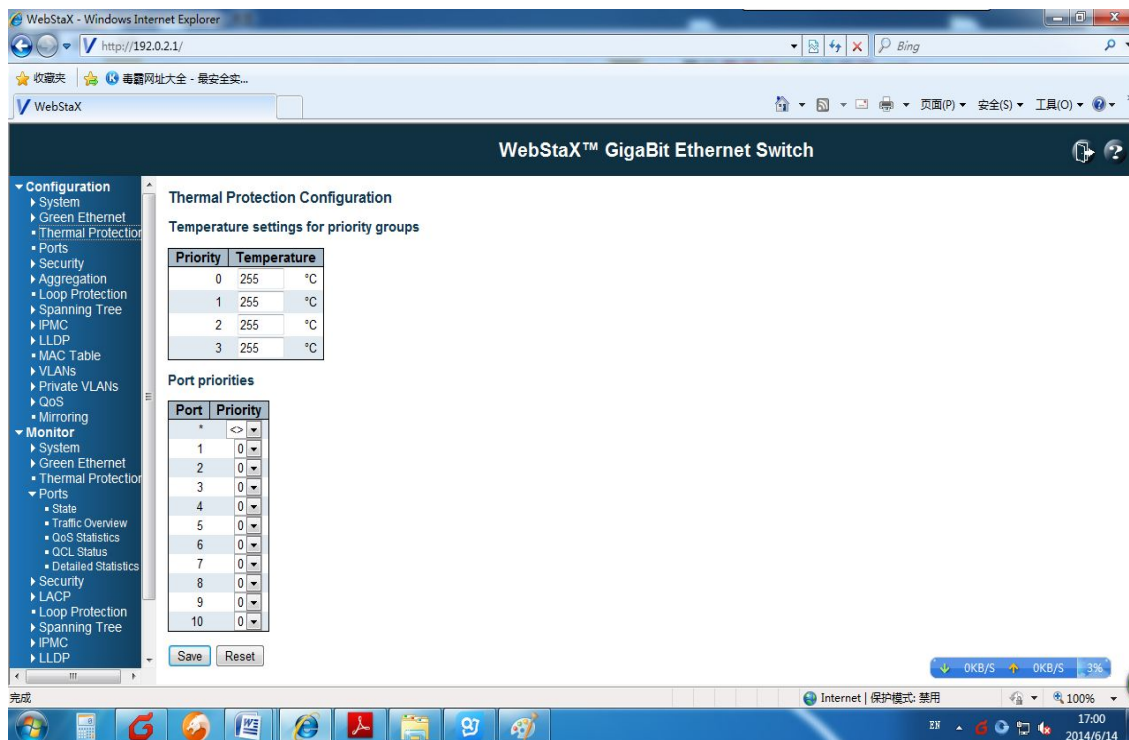### 4.1 LED Power Reduction Configuration

## 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



# 7. Security Configuration

## 7.1  System Login Password Configuration

## 7.2 Authentication Method Configuration
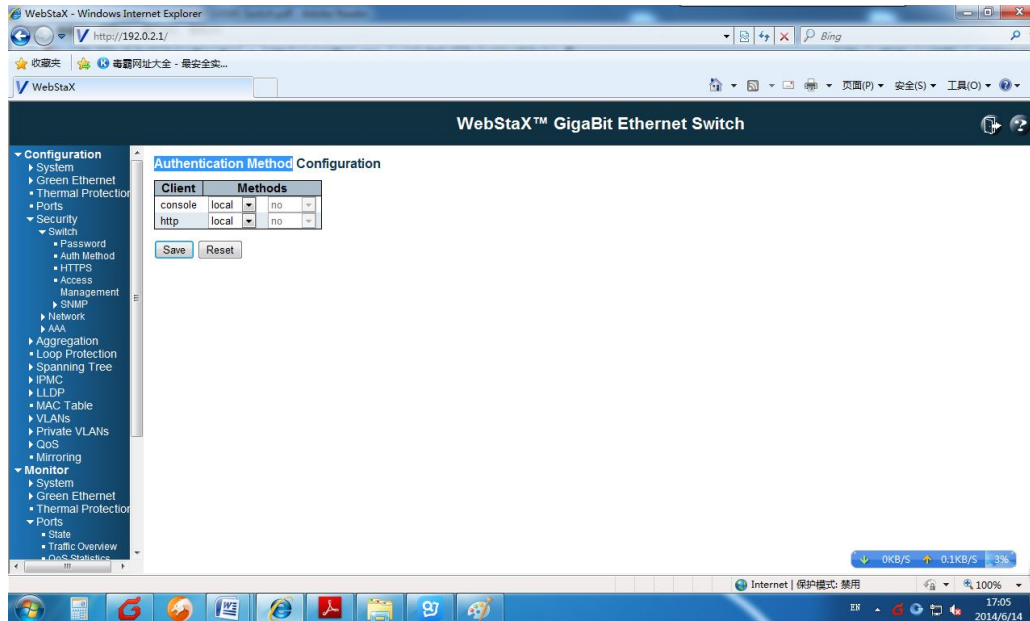


## 7.3 HTTPS Configuration
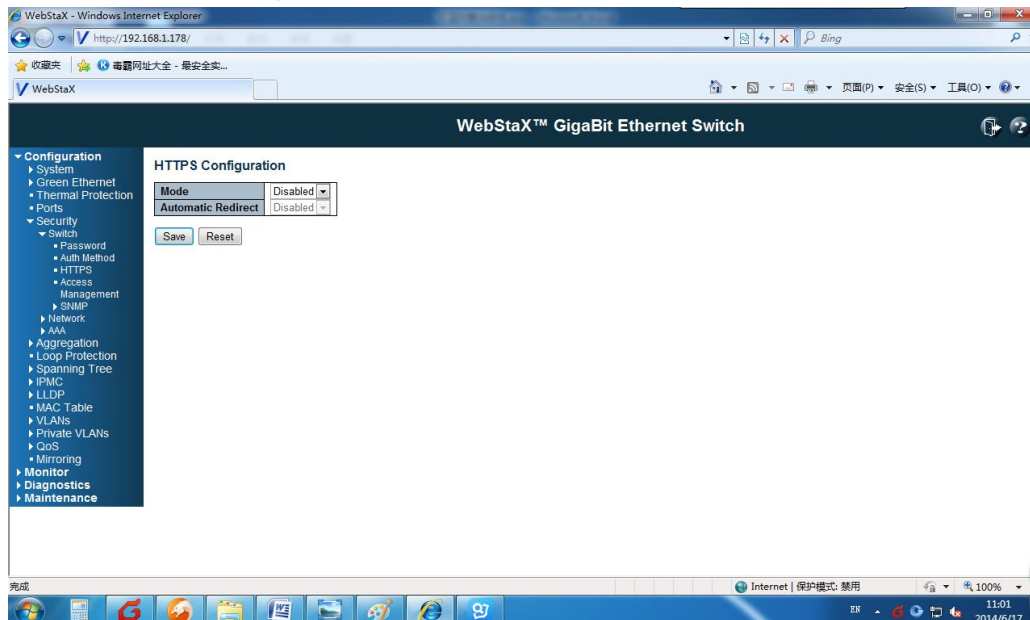
## 7.4 Access Management Configuration.

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
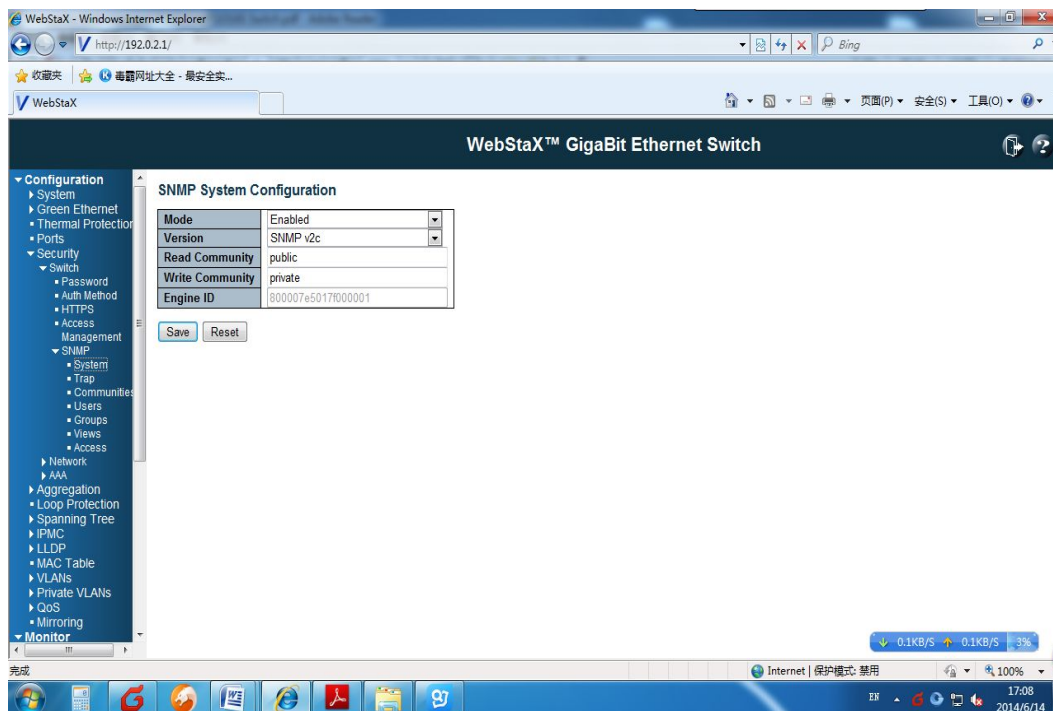
## 8.2 Trap Configuration
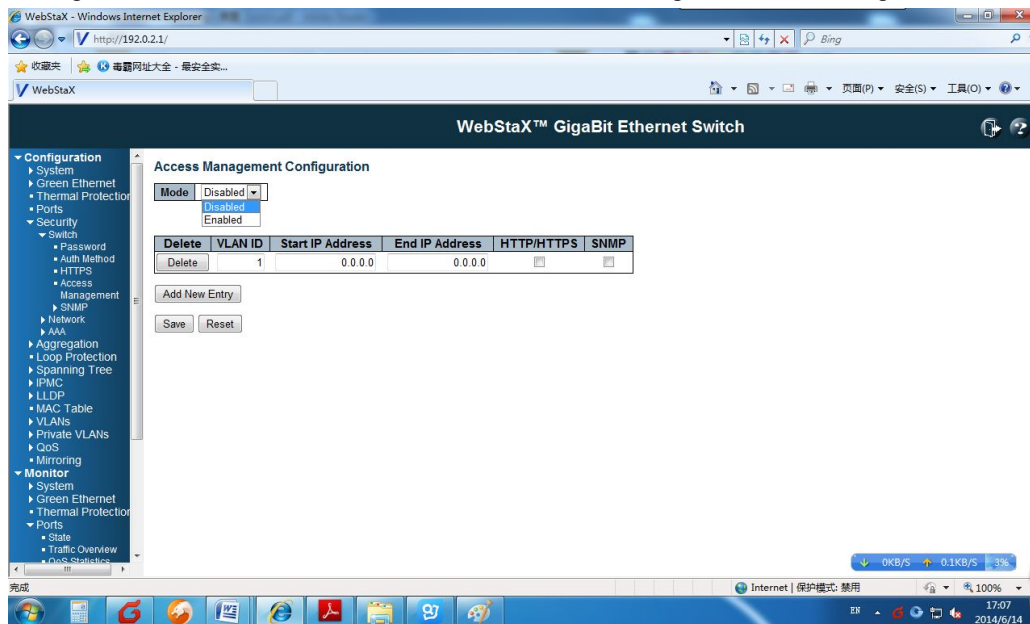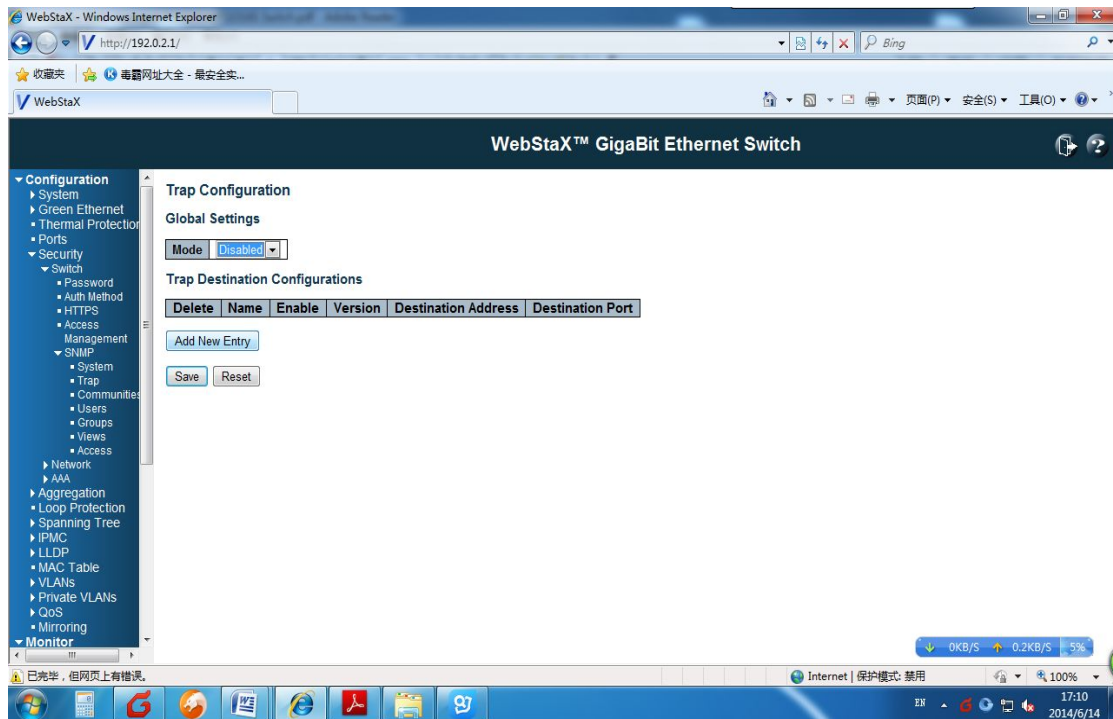


Click "ADD NEW ENTRY"to add new SNMP Trap Configuration as below:
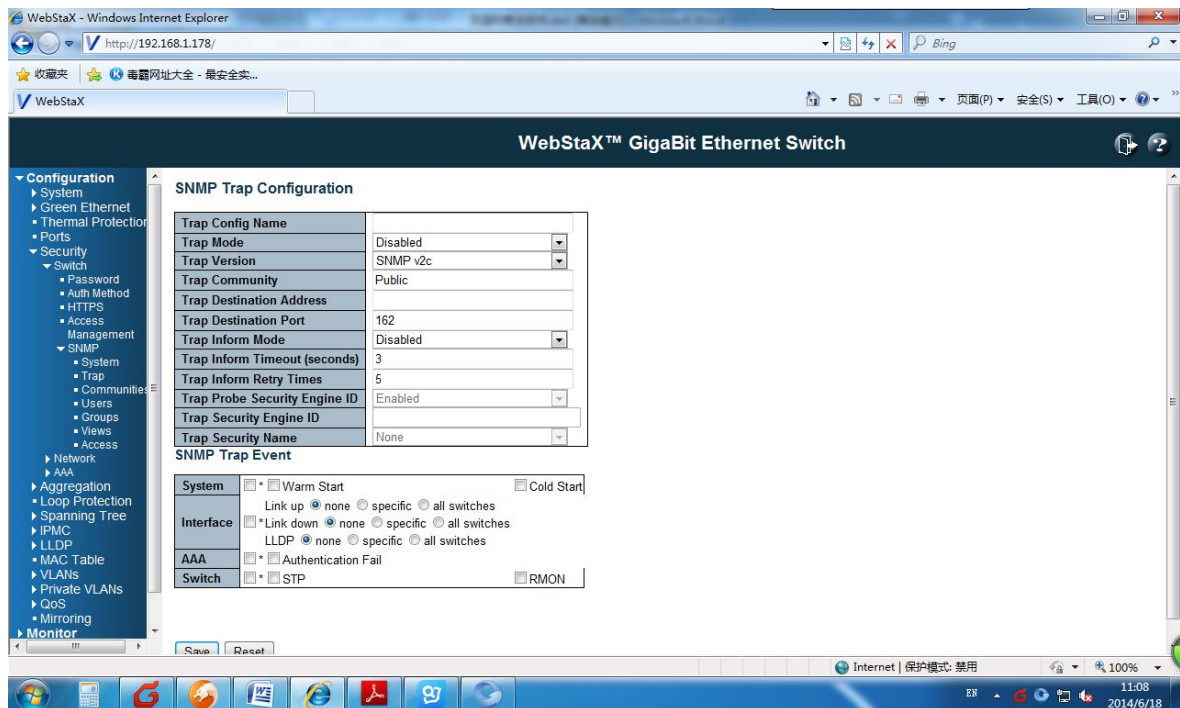
## 8.3 SNMPv3 Community Configuration

Configuration of public and private IP segment and subnet mask.
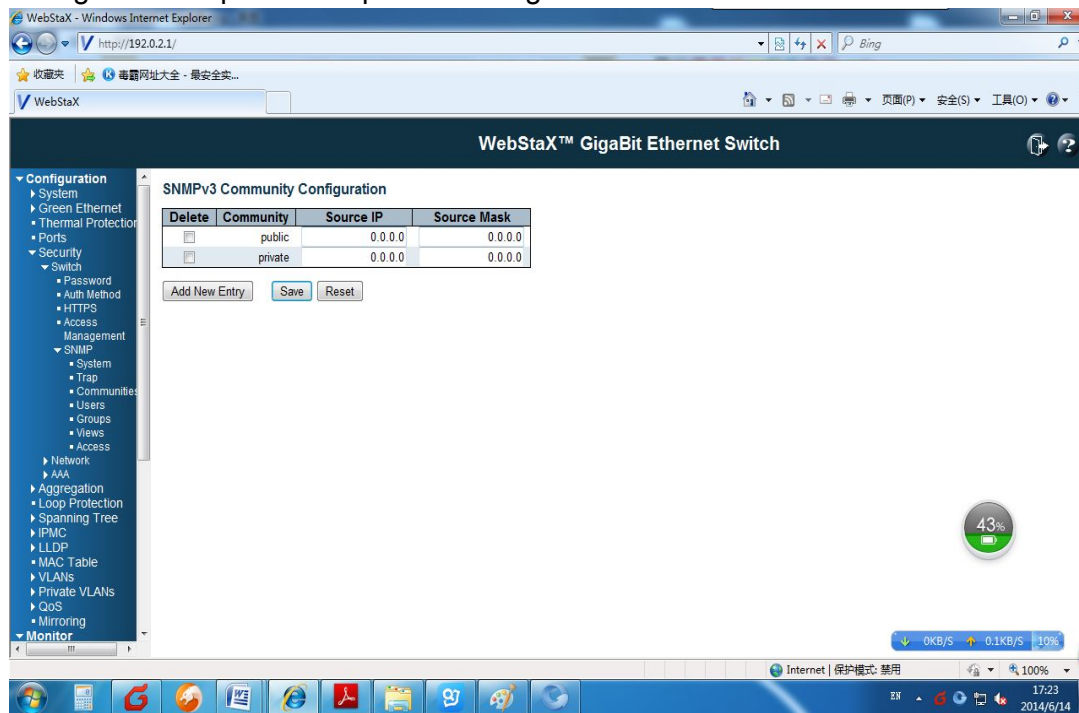


## 8.4 SNMPv3 User Configuration

Configuration of ID,Username, Security Level and Authentication protocol as followed:
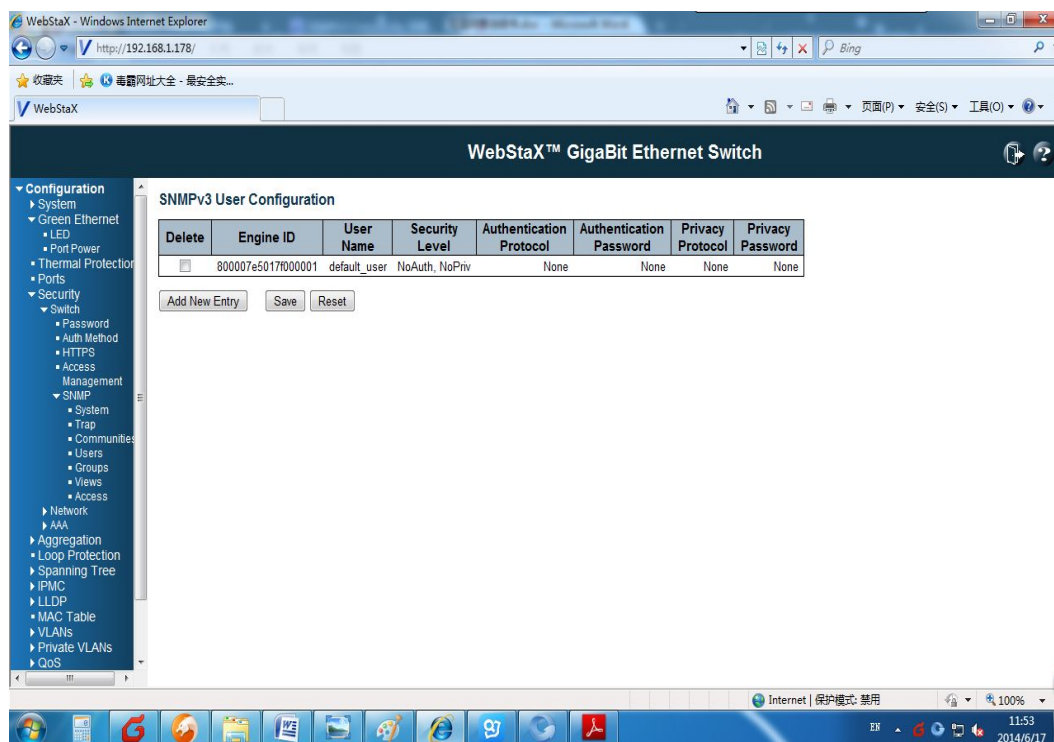
## 8.5 SNMPv3 Group Configuration

Configuration of Group Name and Security Mode
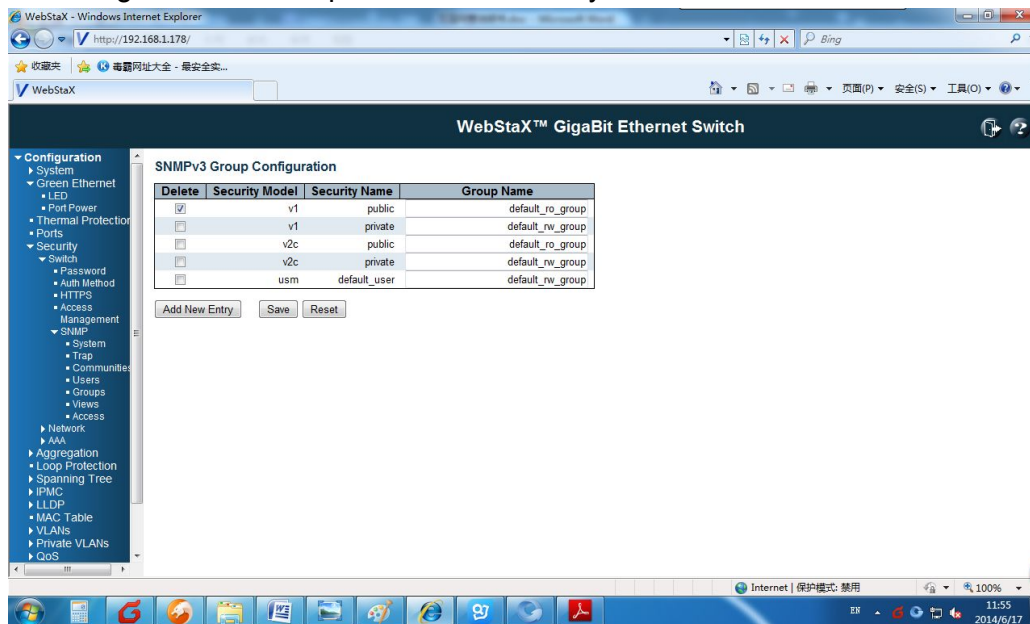


## 8.6 SNMPv3 View Configuration

Configuration of View Name and Type.
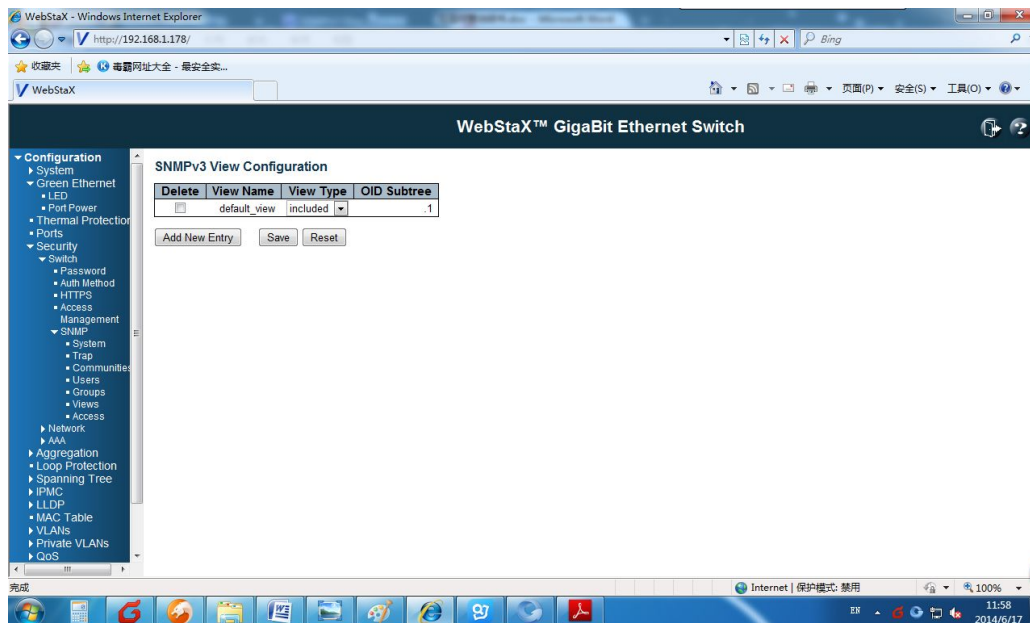
## 8.7    SNMPv3 Access Configuration

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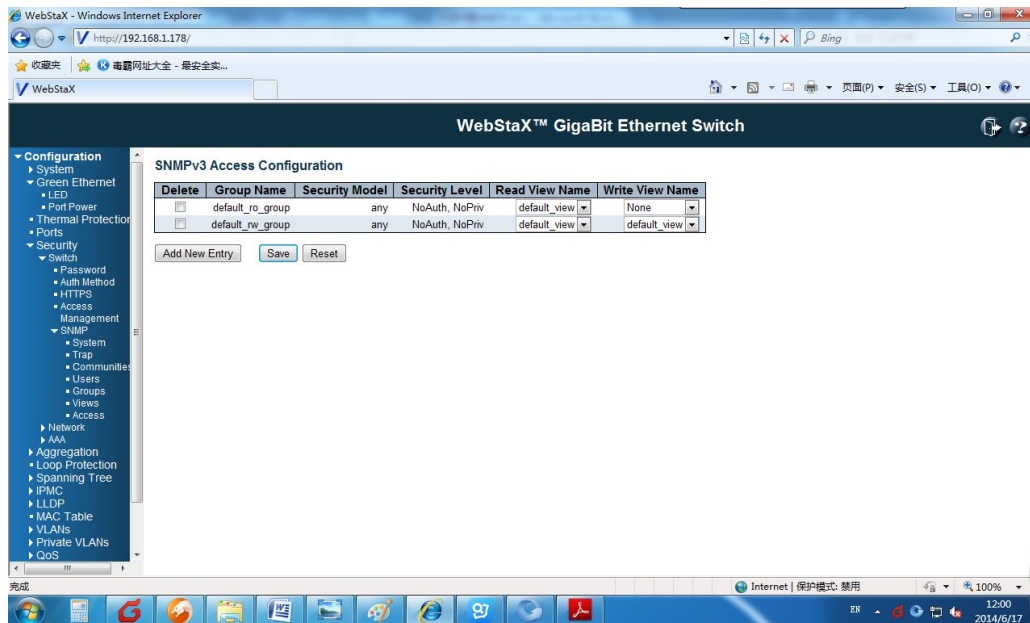


# 9. Network Access Server Configuration

Configuration of access authentication,authorization and access function.
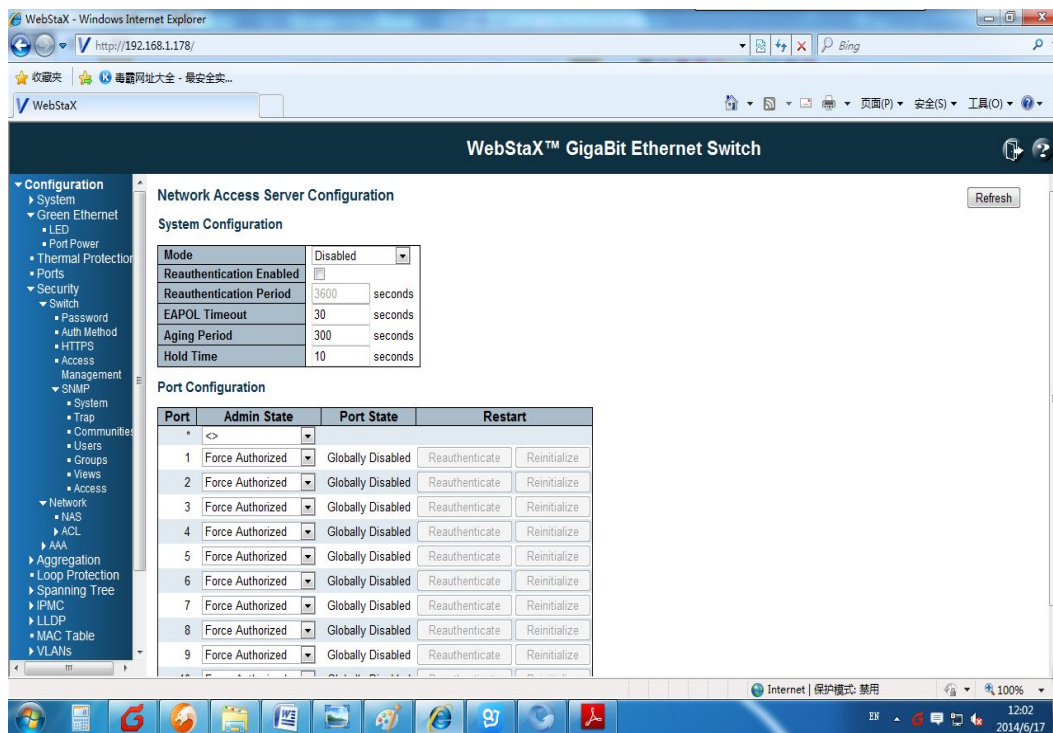
# 10. ACL Configuration

## 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:

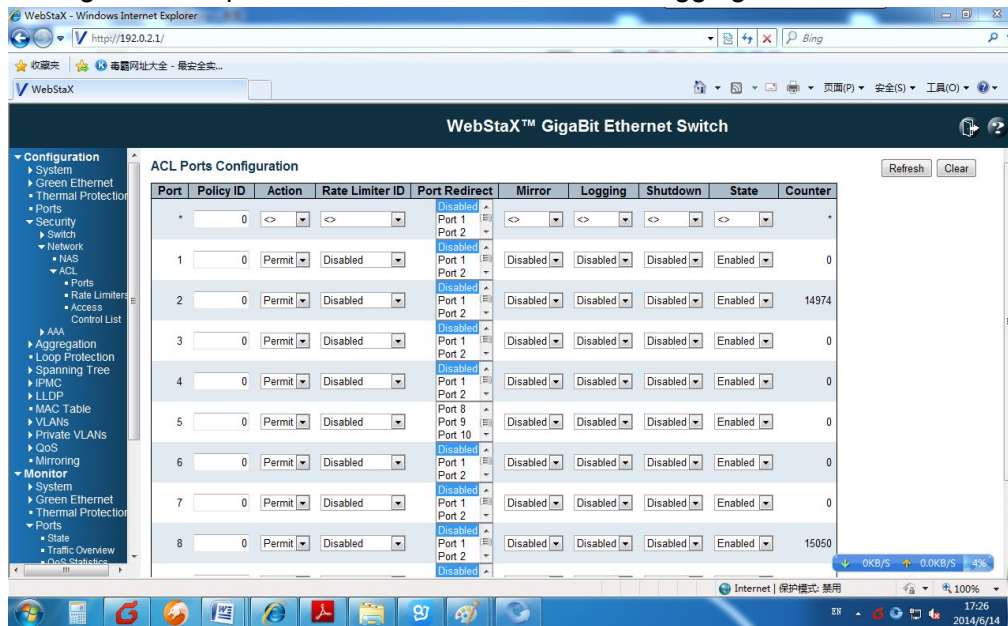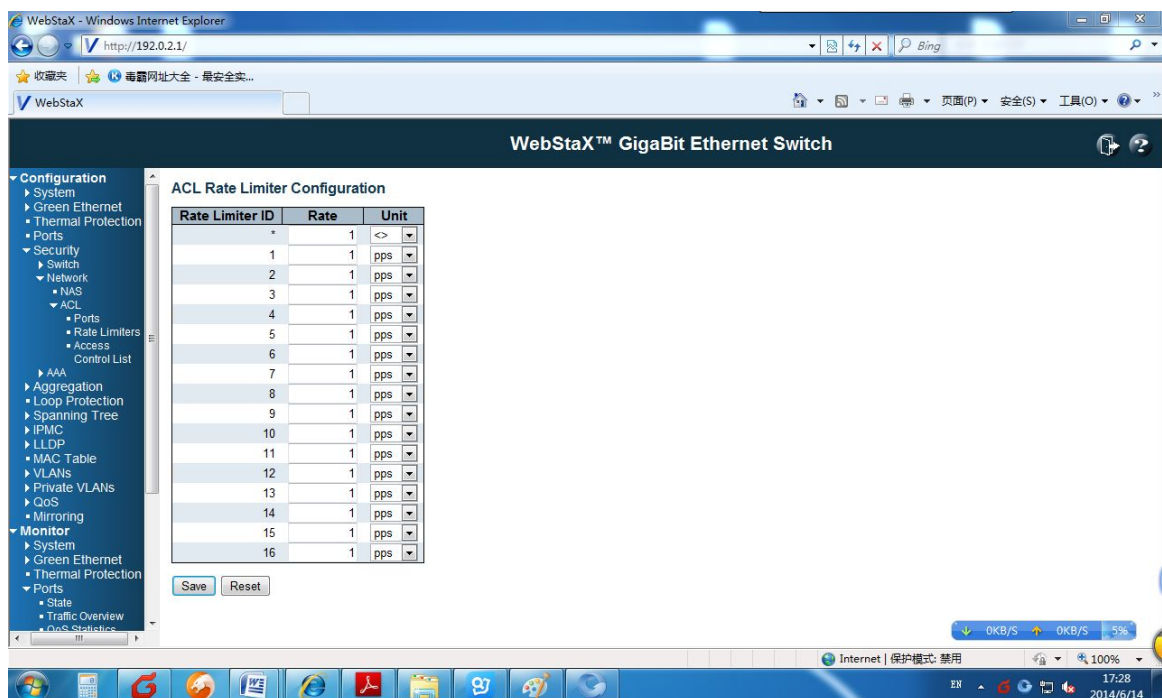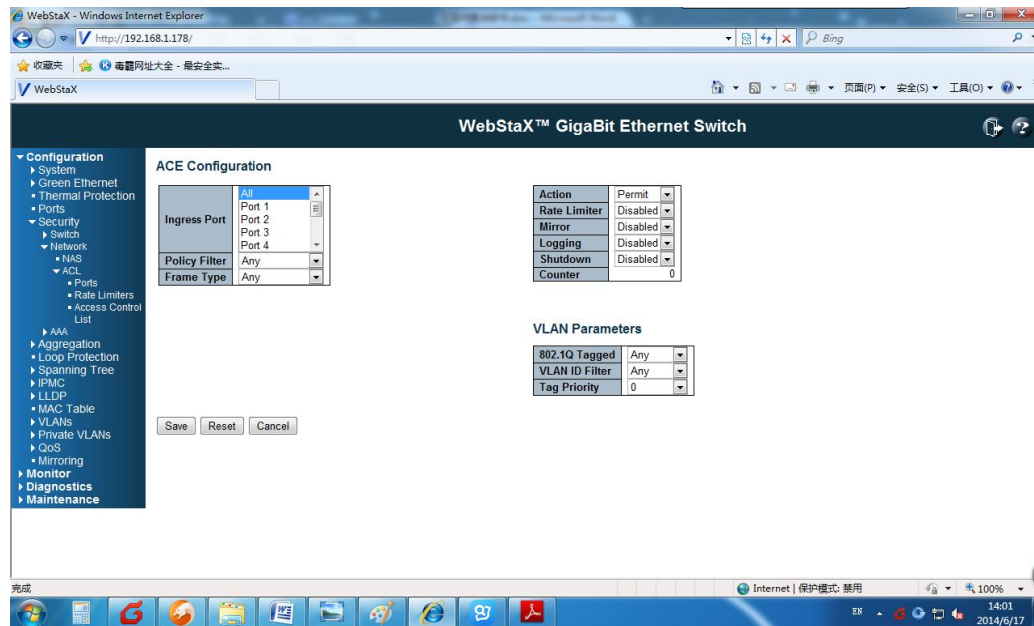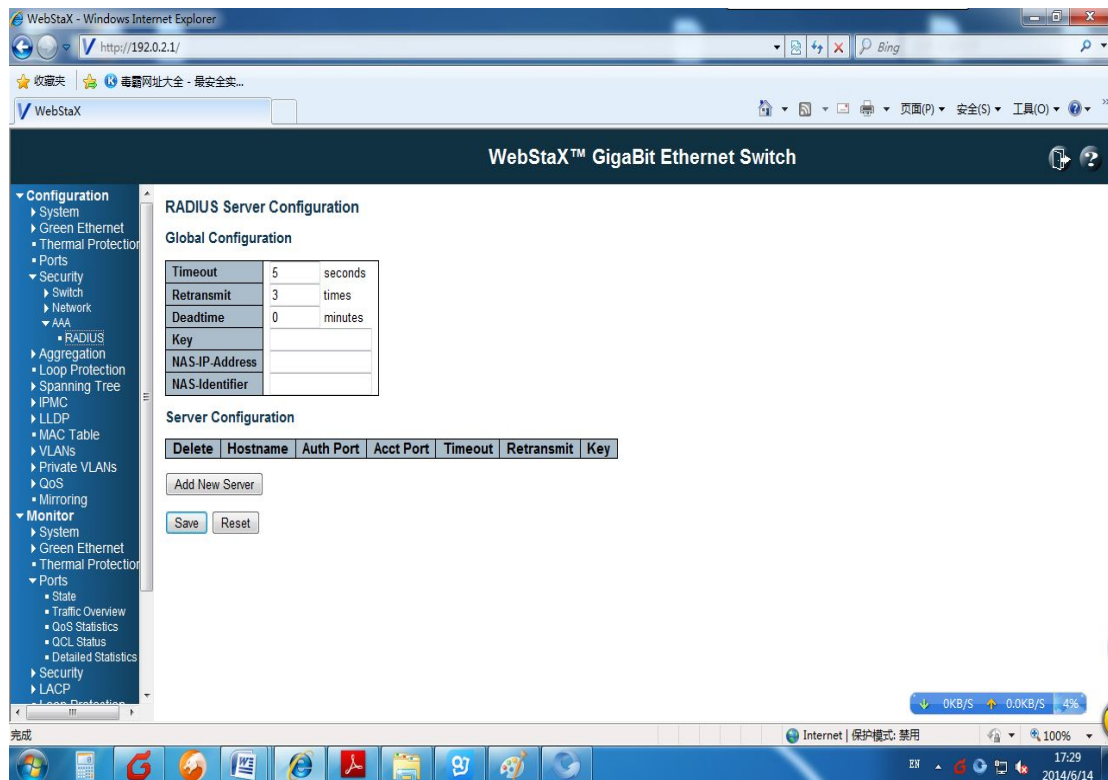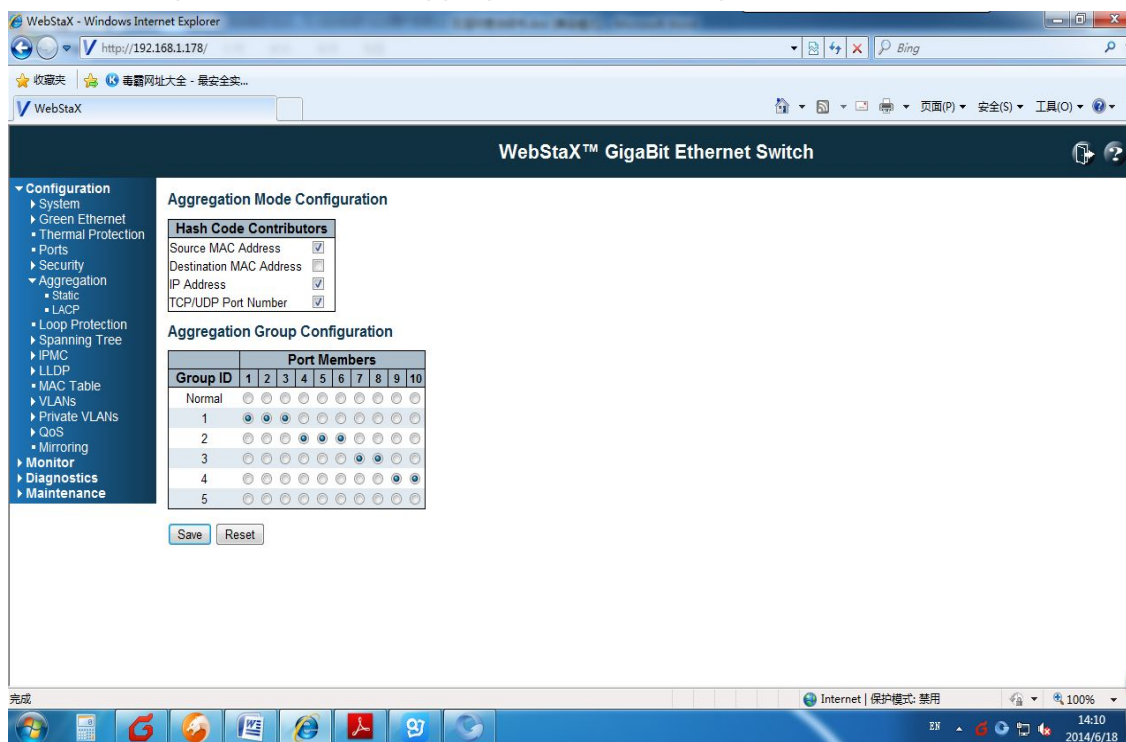   1. Only one port can be in an aggregation group. If the port has been a member of other LAG ports,

   or has been aggregated a member of LACP, then the port is ashing 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
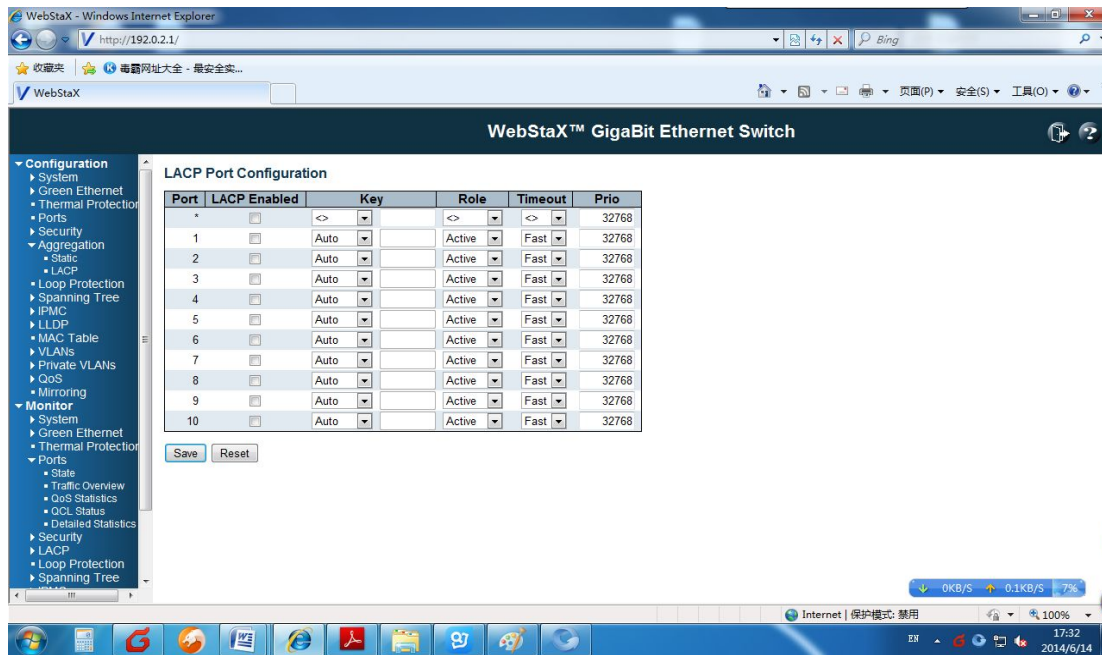


**Explanations:**

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
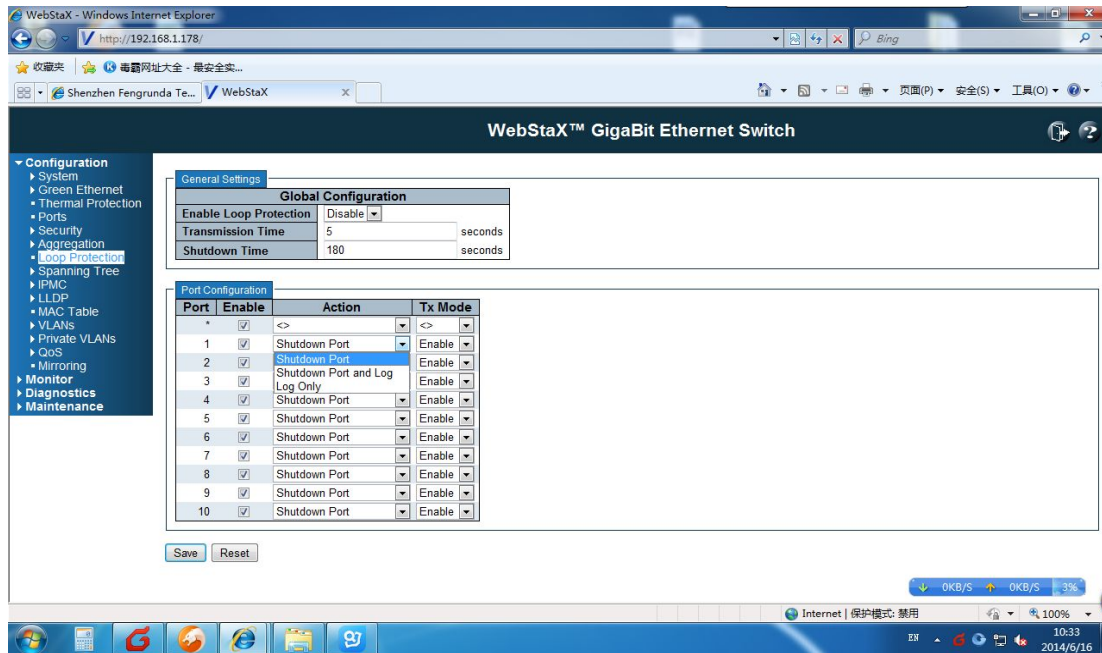


## Remarks:

When network topology is stable,the switch will keep each port status by constantly receiving BPDU message from the upstream switch. The switch loacated at downstream can not receive BPDU message and then will recalcualte 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.
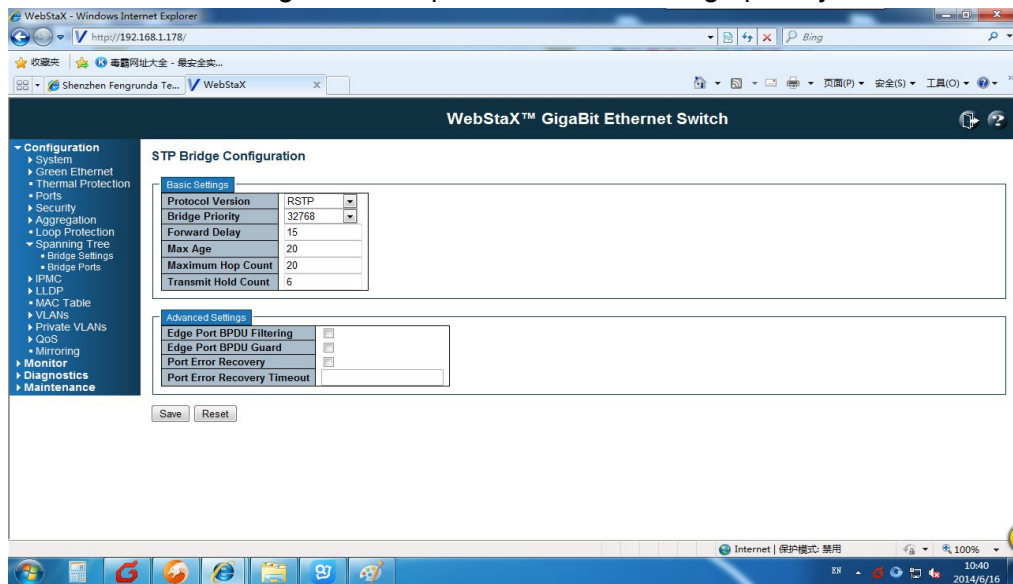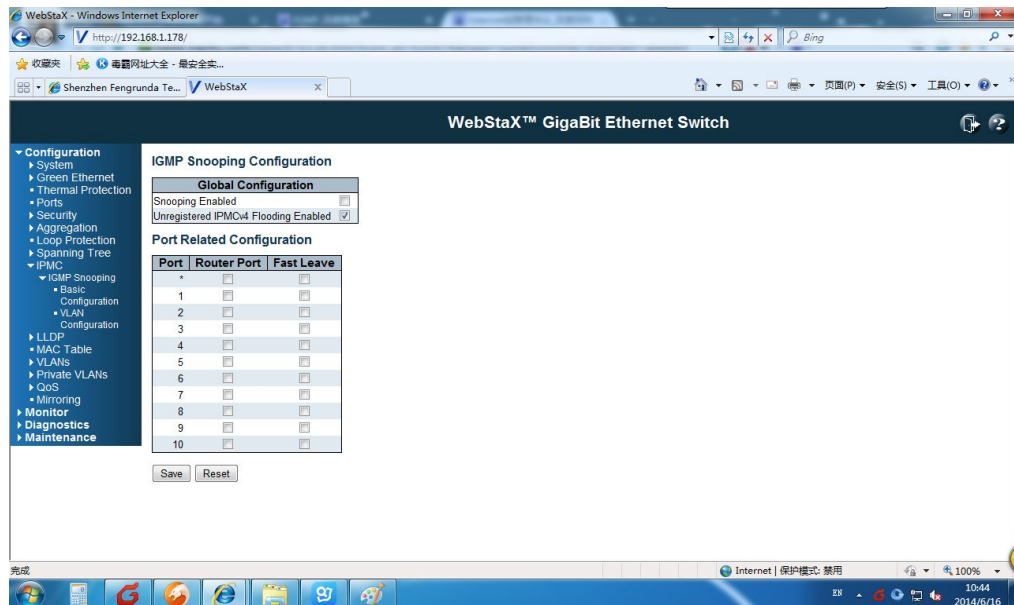


## 14.2 STP Port Configuration
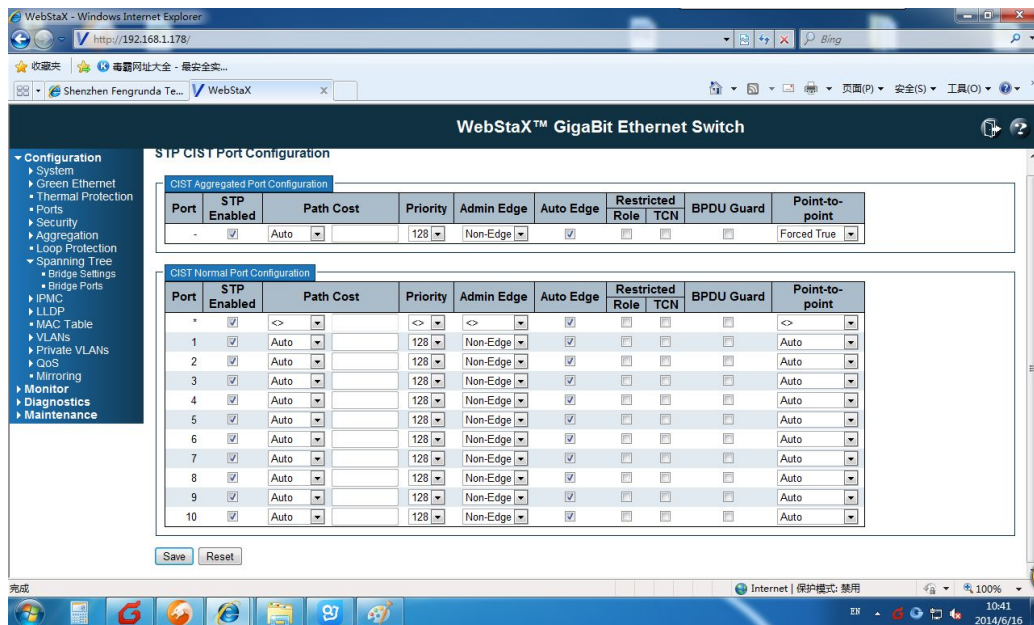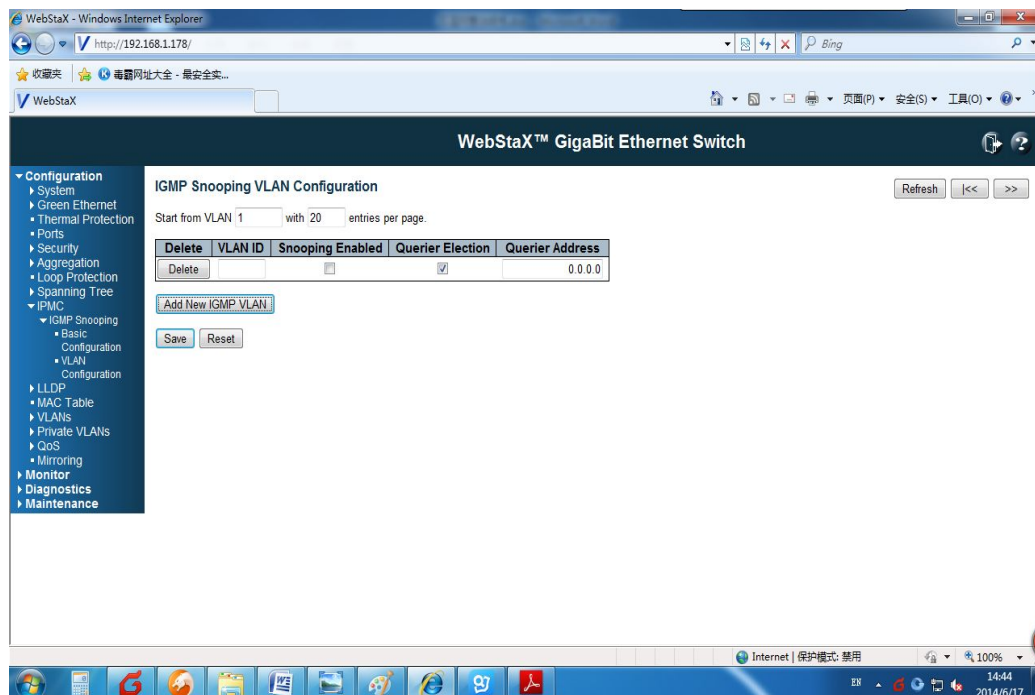
# 15.IGMP Snooping

## 15.1    IGMP Basic Configuration

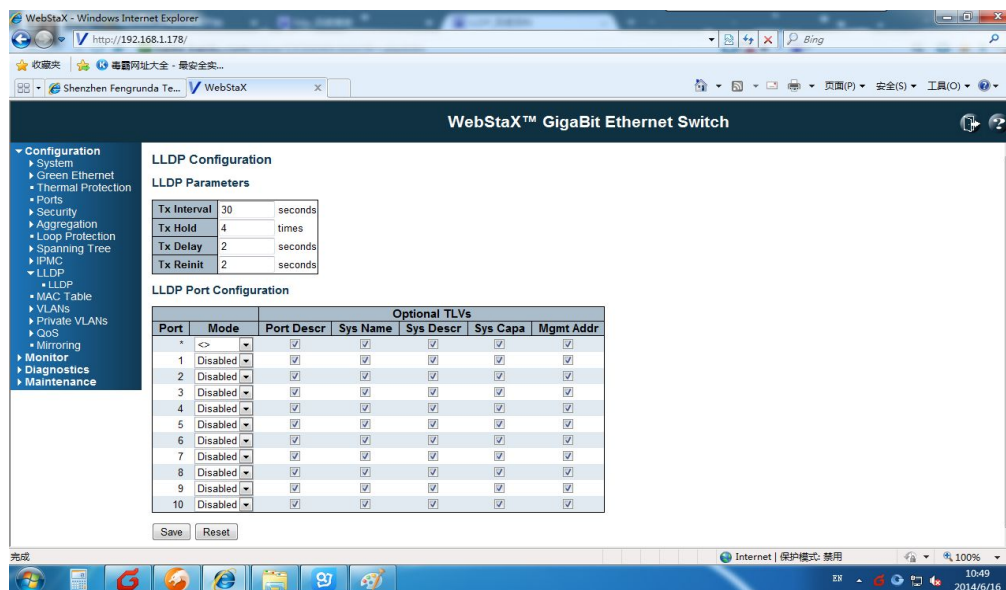Configuration of global parameter,router port and fast leave.



## 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
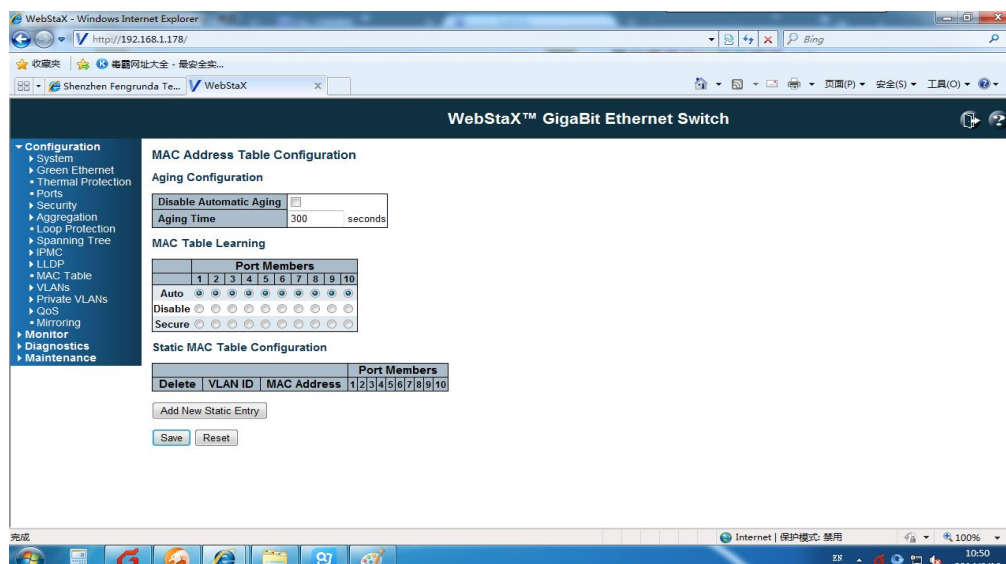
# 18. VLAN Configuration

## 18.1 VLAN Membership Configuration
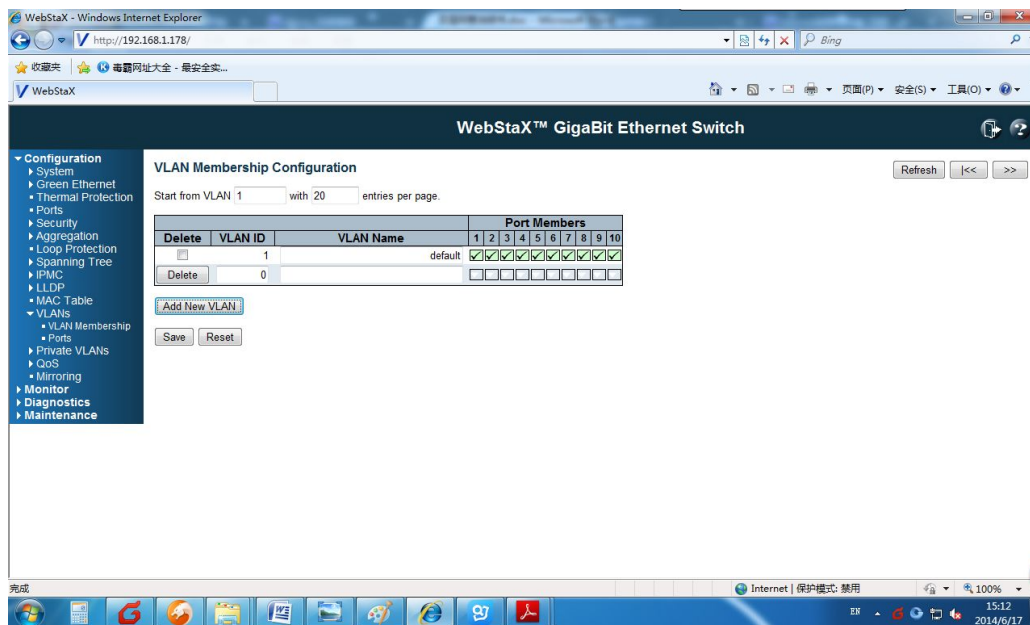


## 18.2 VLAN Port Configuration

Configuration of VLAN Port Type, Ingress Filtering and Frame Type
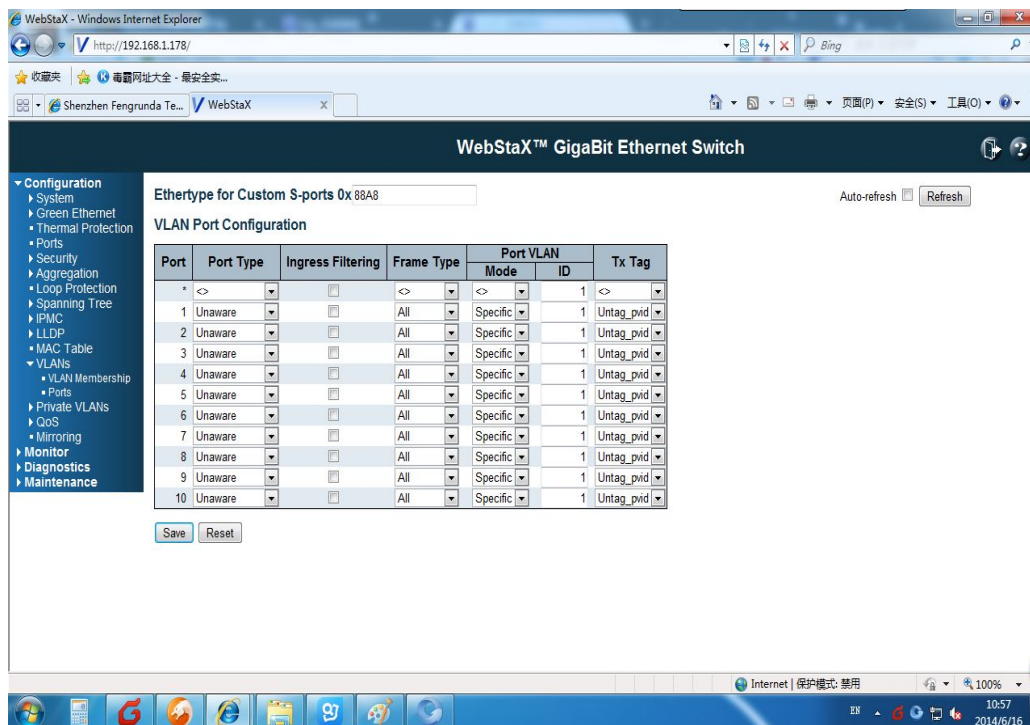
# 19.Private VLAN Configuration

## 19.1 Private VLAN Membership Configuration
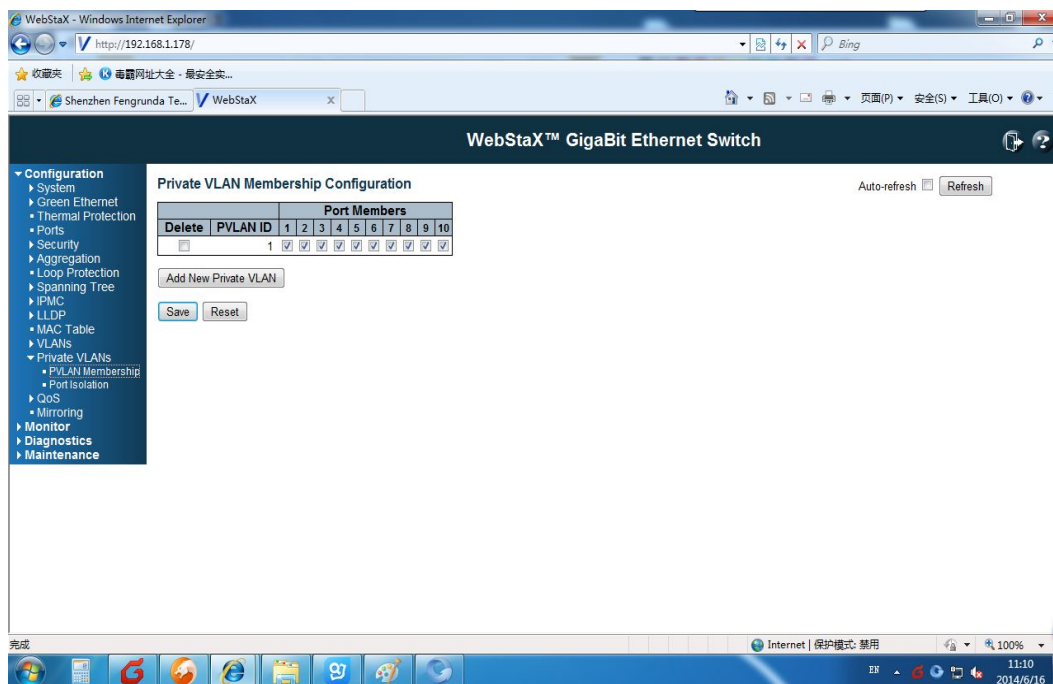


## 19.2 Port Isolation Configuration
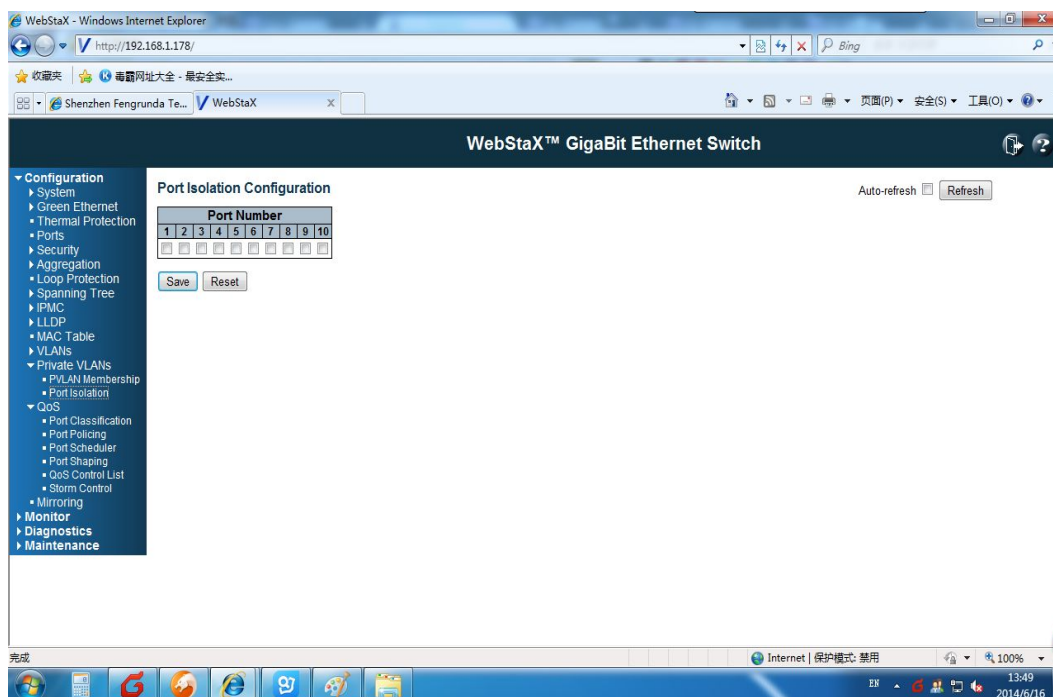
# 20. QoS ( Quality of Service)

## 20.1 QoS Ingress Port Classification
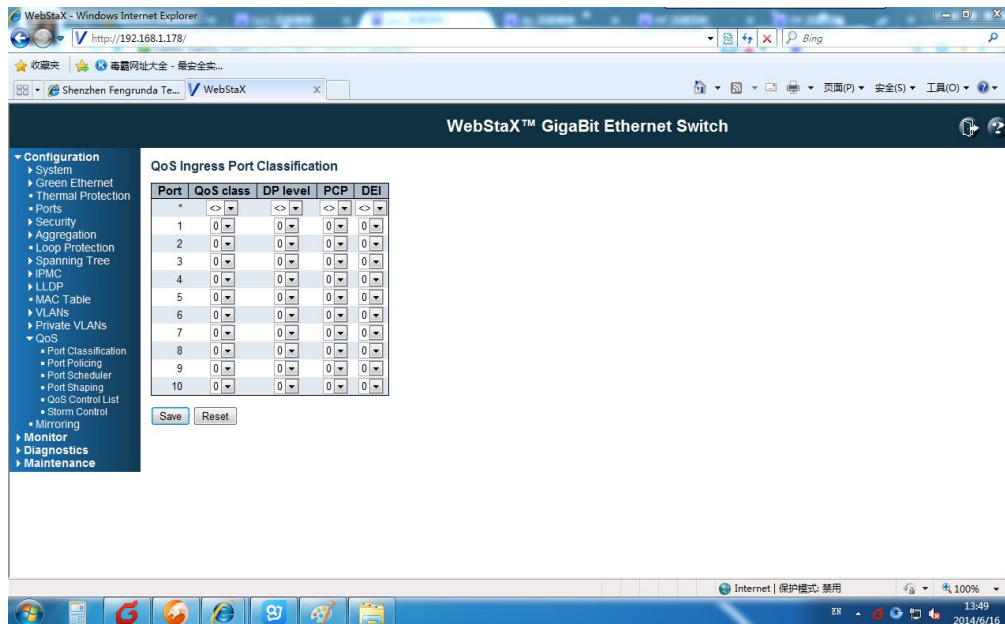


## 20.2 QoS Ingress Port Policing
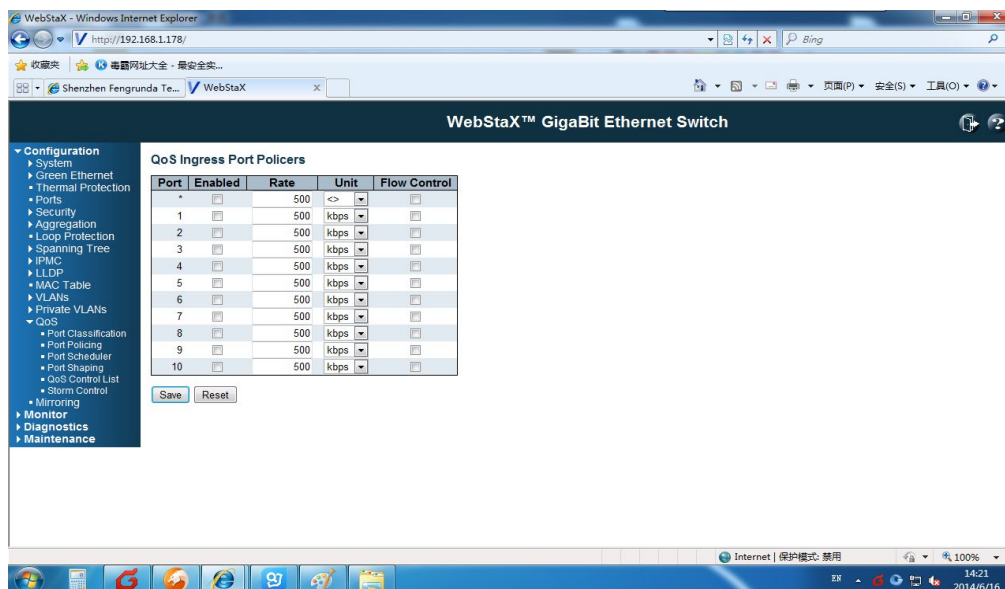
## 20.3    Qos Egress Port Schedulers



## 20.4    Qos Engress Port Shapers

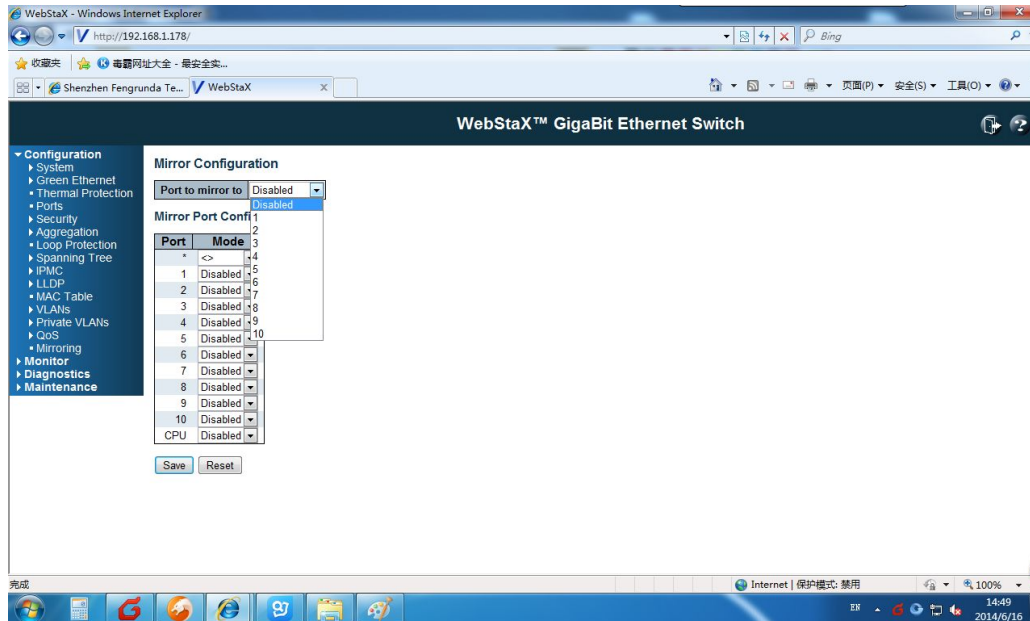Enter into Port Shaping and displayed as followed:

## 20.5  QoS Control List



## 20.6 QoS Storm Control.
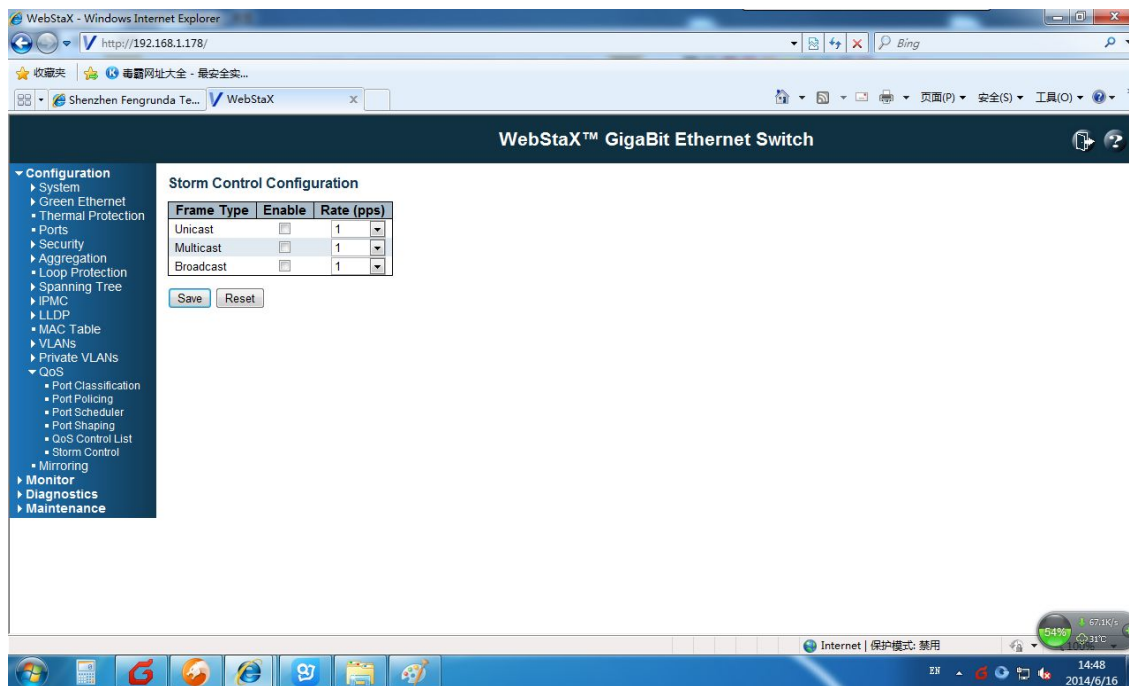
# 21. Mirror Configuration



**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 fuction. 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.
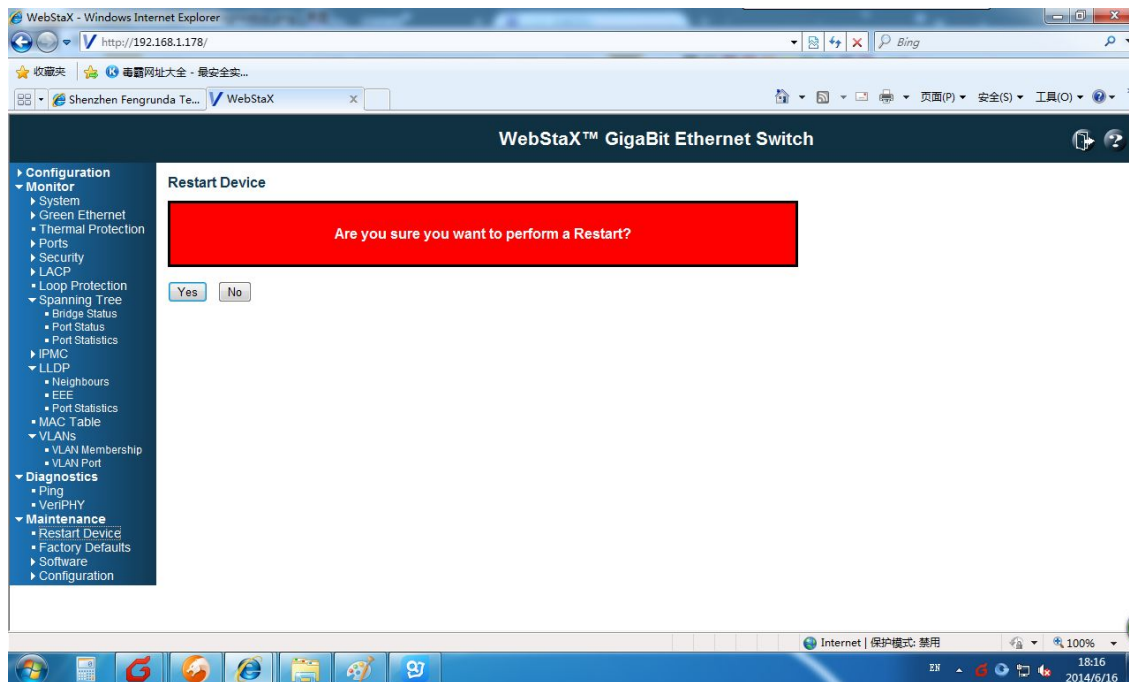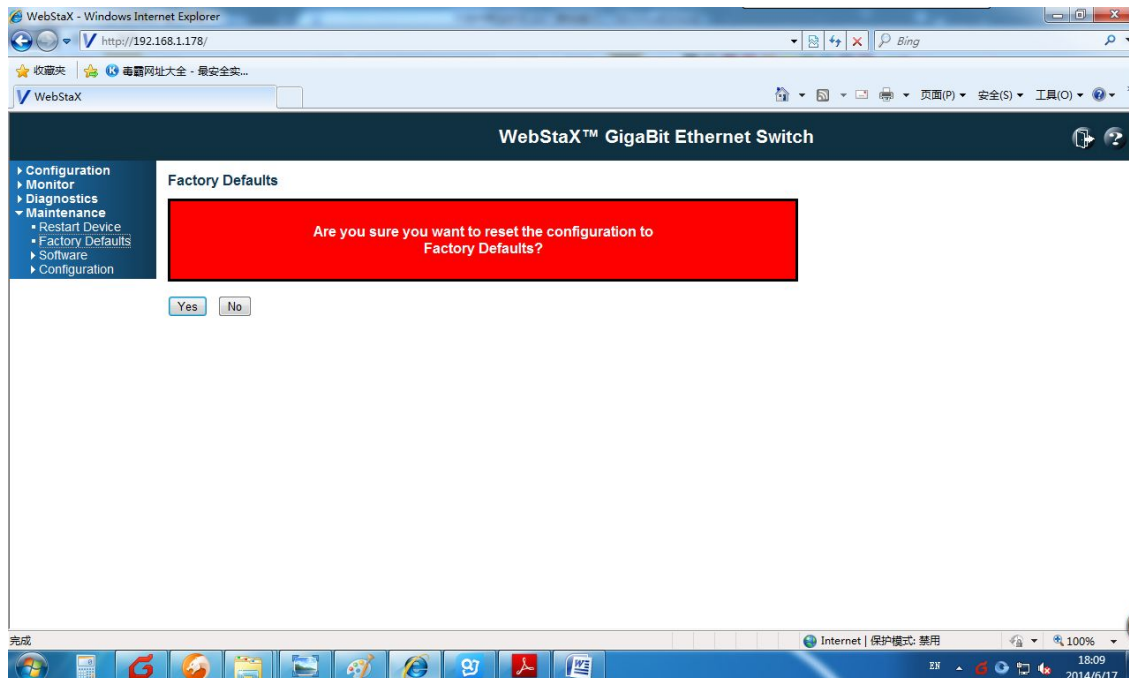
# 22. Diagnostics
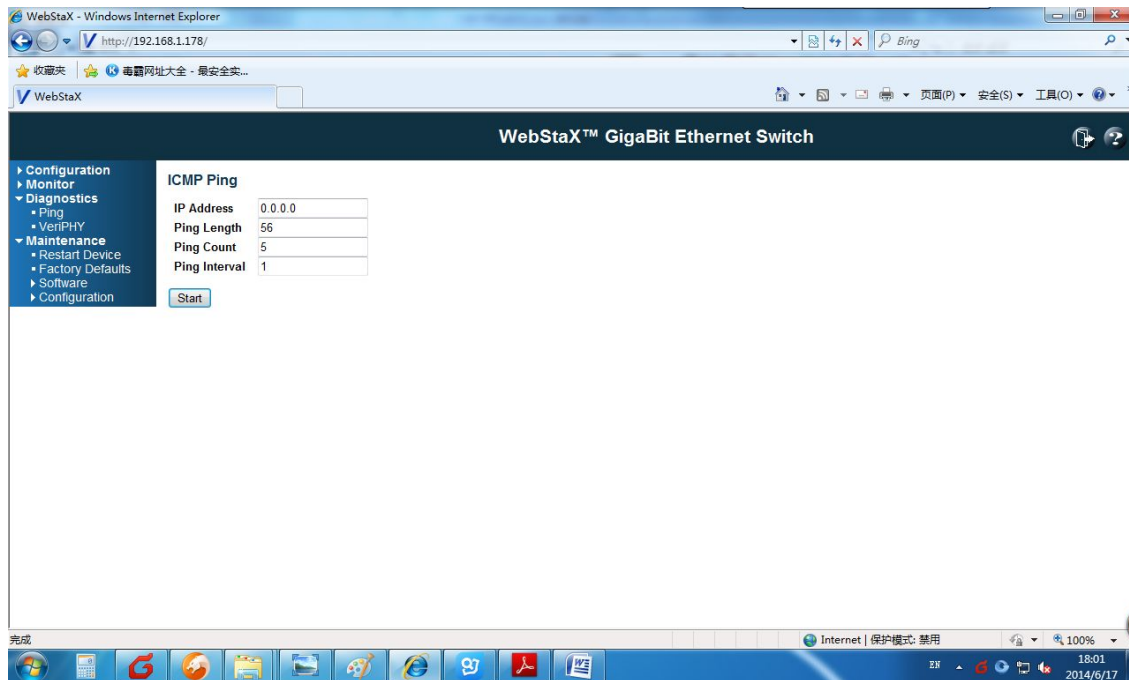


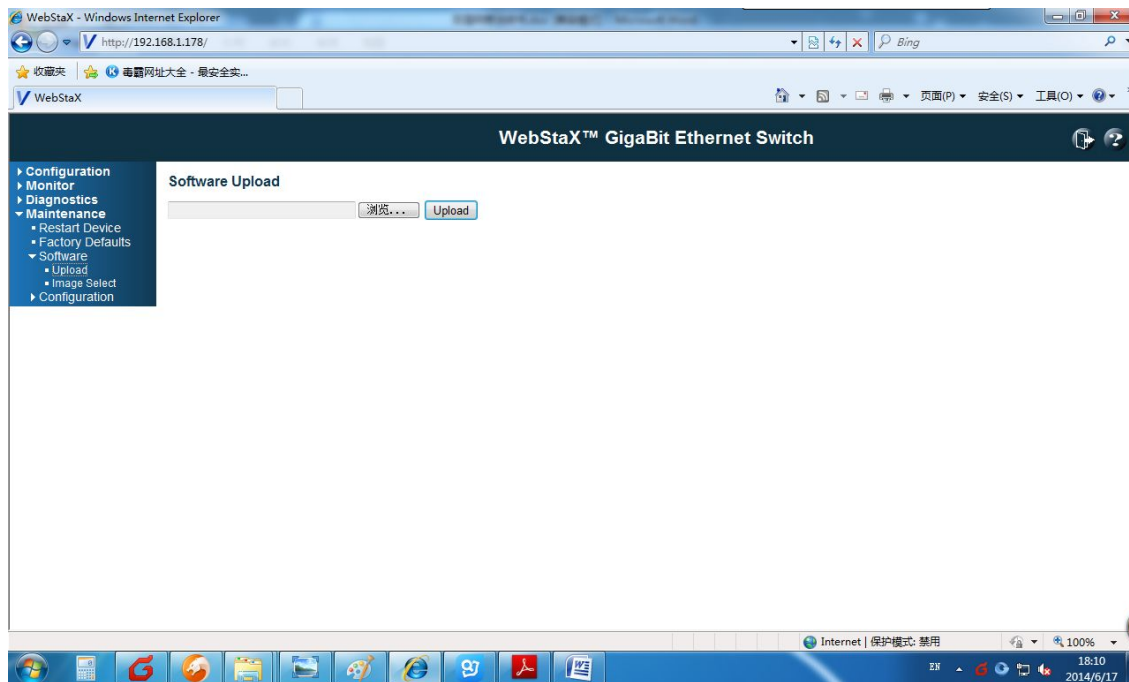# 23. VeriPHY Cable Diagnostics
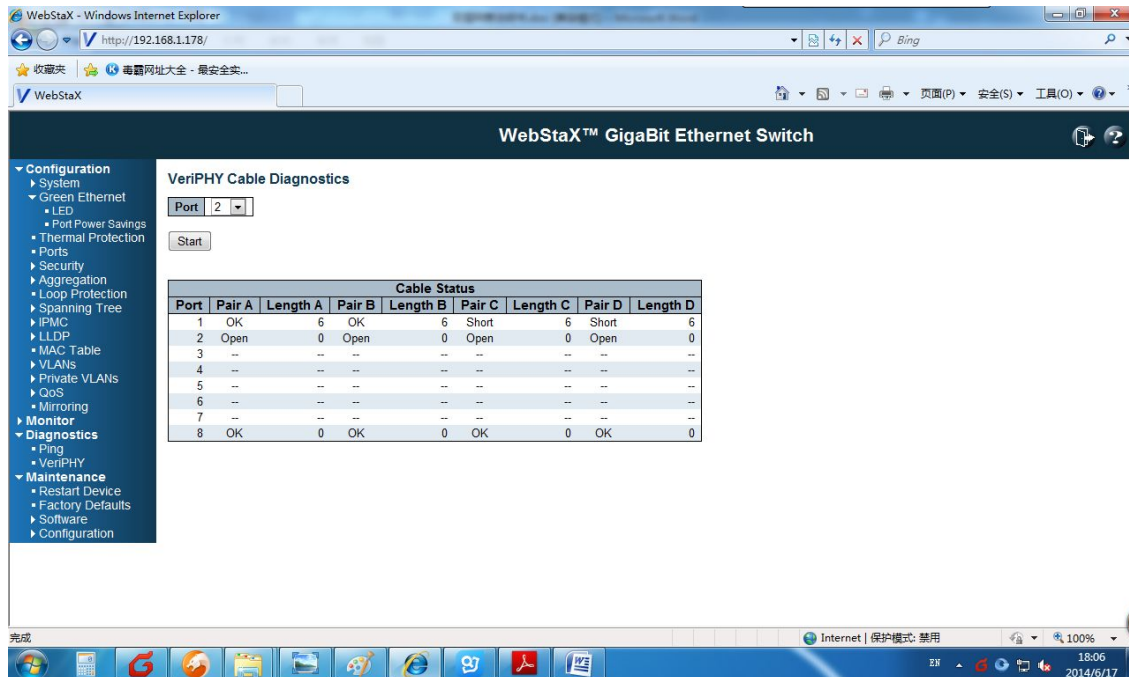
# 243 Maintenance

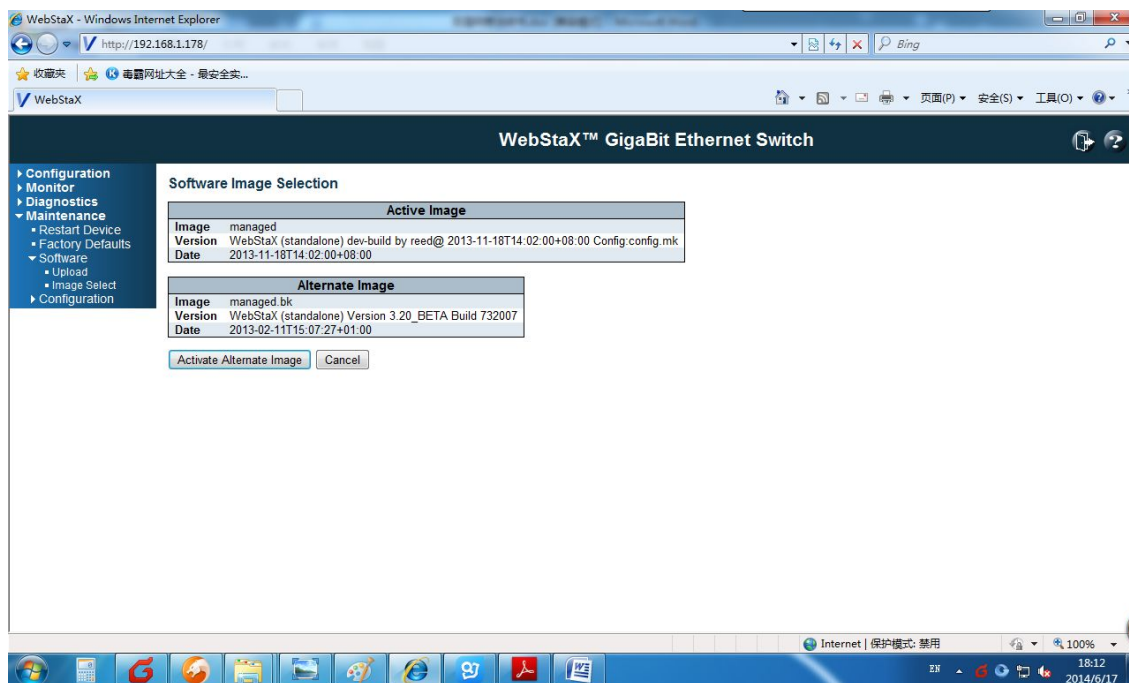## 24.1 Restart Device



## 24.2 Factory Defaults

## 24.3    Software Updated



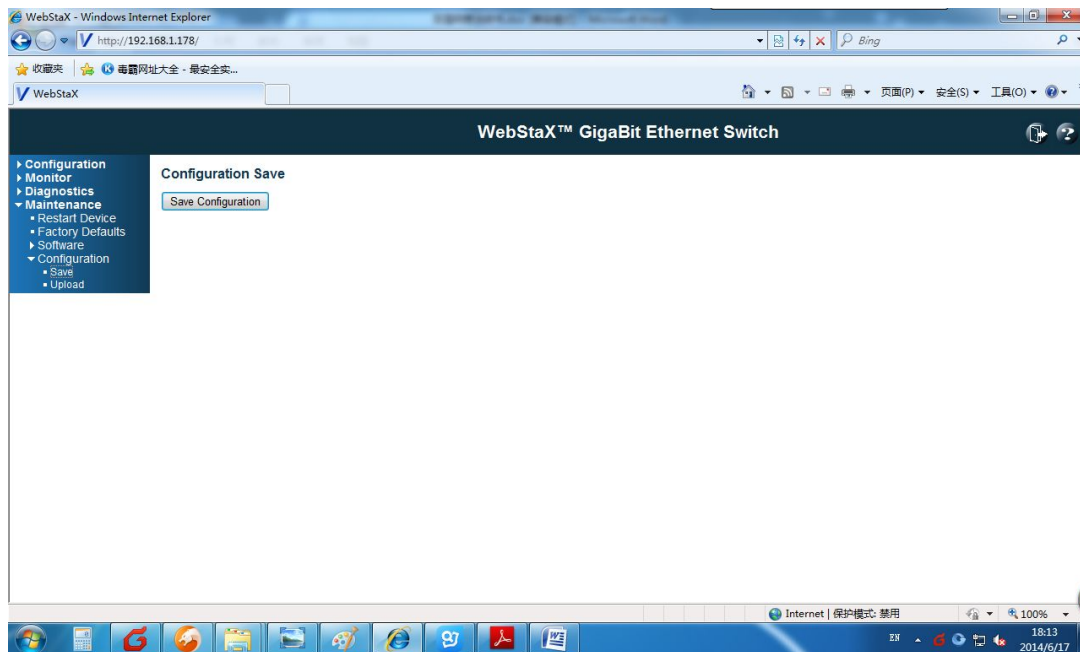## 24.4    Software Image Selections

## 24.5 Configuration Save



## 24.6 Configuration Upload