ZyXEL GS1920-24HP

This document describes the features in the GS1920-24HP product for its 4.10

Support Platforms:

ZyXEL GS1920-24HP V4.10(AAOC.5)C0 supports models: ZyXEL GS1920-24HP.

Default Bootbase Setting:

ZyNOS Version	V4.10(AAOC.5) | 05/05/2015 16:46:07
Bootbase Version	V1.00 | 03/21/2014 09:54:55
Serial Number	xxxxxxxxxxxxxxx
Vendor Name	ZyXEL
Product Model	GS1920-24HP
ZyNOS Code Model	GS1920
ZyNOS ROM address	b40a0000
System Type	8
First MAC Address	0019CB000001
Last MAC Address	0019CB00001D
MAC Address Quantity	29
Default Country Code	FF
Boot Module Debug Flag	00
CPLD Version	N/A
RomFile Version	27
RomFile Checksum	1bc5
ZyNOS Checksum	bfe2
SNMP MIB level & OID	060102030405060708091011121314151617181920
Main Feature Bits	C0
Other Feature Bits	
02 53 00 00 00 00 00 00-00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00-00 13 00 00 00 00	

Main Features:

1. 24 Auto MDI/MDI-X 10Base-T/100Base-TX/1000Base-T
2. 4 dual personality GbE
3. PWM Fan module
4. Locator LED
5. 24 PoE ports with 802.3af and 802.3at compliant.
6. 16K layer 2 MAC addresses table
7. Jumbo frame length 9K
8. IEEE 802.1w , RSTP
9. IEEE 802.1s , MSTP
10. ZyXEL MRSTP

11. Rule-based bandwidth control
12. Port-based egress traffic shaping
13. IEEE 802.3x flow control.
14. DSCP to 802.1p priority mapping
15. Port-based VLAN
16. Protocol-based VLAN
17. IP subnet based VLAN
18. IEEE 802.1Q Static VLANs
19. IEEE 802.1Q dynamic VLANs
20. VLAN trunking
21. GVRP
22. IEEE 802.3ad LACP
23. Port mirroring
24. Support rate limiting, minimum step 64K both ingress and egress
25. Broadcast Storm Control
26. Layer 2 MAC filtering
27. Layer 3 IP filtering
28. Layer 4 TCP/UDP socket filtering
29. DHCP snooping
30. DHCP client
31. DHCP relay/DHCP relay per VLAN
32. DHCP option 82
33. IGMP v1/v2/v3 snooping
34. Static multicast forwarding
35. 802.1x port authentication
36. Port Security
37. Static MAC filtering/forwarding
38. Multiple RADIUS servers
39. Multiple TACACS+ servers
40. AAA by RADIUS / TACACS+
41. Intrusion Lock
42. MAC Freeze
43. ARP Inspection
44. Static IP/MAC/Port binding
45. Policy-based security filtering
46. IEEE 802.1Q VLAN port isolation
47. IP Source Guard
48. Guest VLAN
49. ACL packet filtering
50. PPPoE IA and option 82
51. CPU protection
52. Recovery mechanism for Error disable port/reason
53. Loop guard
54. Dual configuration files
55. Dual images
56. IGMP snooping fast leave
57. IGMP snooping statistics
58. IGMP throttling
59. SNMP v1, v2c, v3
60. SNMP trap group
61. Interface related trap can be enable/disable by port
62. ICMP echo/echo reply
63. Syslog
64. DHCPv6 client and relay
65. NDP: host
66. IPv6 address stateless auto-configuration
67. ZyXEL clustering management
68. Management through SNMP or Web management
69. Firmware upgrade by WEB / FTP
70. Configuration saving and retrieving by WEB / FTP

71. Configure Clone
72. Daylight Saving
73. NTP
74. Service Access Control Timeout
75. IEEE 802.1AB LLDP
76. IEEE 802.1AB LLDP-MED
77. Password encryption
78. User access right
79. ZyXEL ESBU common MIB
80. Green Ethernet
81. Cable diagnostics
82. Support PoE Fault Trap
83. MAC aging time
84. MAC-based VLAN
85. Voice VLAN
86. Private VLAN
87. MLD snooping proxy
88. ZyXEL One Network (ZON)
89. ZyXEL Neighbor Management

Enhanced Features:

1. PoE Power Up Mode command

Bug Fix:

1. **[System]** Copy running-config cause DUT CPU high and records lots of port link down/up logs.
2. **[System]** "Show tech-support" that will make switch crash or hang.
3. **[System]** "Show tech-support" or "show tech-support memory" via ssh (uses putty) will cause DUT crash.
4. **[System]** System crash with exception on eventCmdProc or Memory cookies destroyed.
5. **[System]** System will encounter socket error, when socket leakage.
6. **[System]** Run RompagerPOCCookie, RompagerPOCCookies2 will cause DUT crash.
7. **[System]** When all port's transceiver-ddmi inserts, the switch may happen CPU High every hours.
8. **[System]** "Show tech-support" cannot display "show run config" via web
9. **[MGMT]** Ping to switch but no response when doing firmware upgrade.
10. **[MGMT]** Switch cannot access via HTTPs by Chrome.
11. **[MGMT]** Cpu threshold cannot be set over 20.
12. **[WebGUI]** Configure VLAN Port Setting by WebGUI, selecting one of acceptable frame types to "*", the selected item cannot be applied for all ports.
13. **[Port]** When enable igmp-snooping, traffic may not be able to forward on port 28.
14. **[LLDP]** Fix the incompatibility issue with some IP Phones that will cause the switch loss of management.
15. **[802.1x]** Dynamic VLAN Assignment approved for VLAN10 in the Juniper server, but VLAN100 approved in the switch.
16. **[STP]** Fix switch may drop BPDU packets.
17. **[PoE]** Fix PoE classification mode calculated incorrect total allocated power issue.

Known Issue:

1. Ingress rate limit of TCP traffic might have inaccuracy with some criteria.
2. Fake IP traffic cannot be filtered when a static IP binding existed.
3. The cable length resolution of Cable Diagnostic is about +-15 meter.
4. The fault distance of Cable Diagnostic displays wrong information when no cable inserted.
5. When RSTP is enabled with ring topology, LACP can't be activated at the same ports.

Limitation of Settings:

1.	802.1Q Static VLANs	1K
2.	Static MAC forwarding entry	256
3.	MAC filtering entry	256
4.	Cluster member	24
5.	Protocol based VLAN entries per port	7
6.	Port-security max address-limit number	16K
7.	Syslog server entry	4
8.	IP source guard entry	512
9.	IP subnet based VLAN entry	16
10.	DHCP snooping binding table	16K
11.	Multicast group	1024
12.	ACL	256
13.	DHCP relay Entry	16
14.	Trunk groups	8
15.	Per trunk group port number	8
16.	MSTP instance	0-15
17.	MAC-based VLAN	28
18.	Voice VLAN OUI entry	6
19.	ZON neighbor per-port maximum clients	10

Firmware Upgrade:

The GS1920-24HP uses FTP to upgrade firmware in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Firmware:

```
C:\> ftp <GS1920-24HP IP address>
User : admin
Password: 1234
230 Logged in
ftp> put 410AAOC5C0.bin ras-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC5C0.bin: the name of firmware file you want to upgrade.
- ras-0: the internal firmware name in GS1920-24HP (store at first flash).
- ras-1: the internal firmware name in GS1920-24HP (store at second flash).

Configuration Upgrade:

The GS1920-24HP uses FTP to upgrade configuration in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Configuration:

```
C:\> ftp <GS1920-24HP IP address>
User name: admin
Password: 1234
```

```
230 Logged in
ftp> put 410AAOC5C0.rom rom-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC5C0.rom: the name of configuration file you want to upgrade.
- rom-0: the internal configuration name in GS1920-24HP.

ZyXEL GS1920-24HP V4.10

Release Note/Manual Supplement

This document describes the features in the GS1920-24HP product for its 4.10

Support Platforms:

ZyXEL GS1920-24HP V4.10(AAOC.4)C0 supports models: ZyXEL GS1920-24HP.

Default Bootbase Setting:

ZyNOS Version	V4.10(AAOC.4) | 09/16/2014 16:04:59
Bootbase Version	V1.00 | 03/21/2014 09:54:55
Serial Number	xxxxxxxxxxxxxx
Vendor Name	ZyXEL
Product Model	GS1920-24HP
ZyNOS Code Model	GS1920
ZyNOS ROM address	b40a0000
System Type	8
First MAC Address	0019CB000001
Last MAC Address	0019CB00001D
MAC Address Quantity	29
Default Country Code	FF
Boot Module Debug Flag	00
CPLD Version	N/A
RomFile Version	27
RomFile Checksum	1bc5
ZyNOS Checksum	32e8
SNMP MIB level & OID	060102030405060708091011121314151617181920
Main Feature Bits	C0
Other Feature Bits	
02 53 00 00 00 00 00 00-00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00-00 13 00 00 00 00	

Main Features:

90. 24 Auto MDI/MDI-X 10Base-T/100Base-TX/1000Base-T
91. 4 dual personality GbE
92. PWM Fan module
93. Locator LED
94. 24 PoE ports with 802.3af and 802.3at compliant.
95. 16K layer 2 MAC addresses table
96. Jumbo frame length 9K
97. IEEE 802.1w , RSTP
98. IEEE 802.1s , MSTP
99. ZyXEL MRSTP
100. Rule-based bandwidth control
101. Port-based egress traffic shaping

102. IEEE 802.3x flow control.
103. DSCP to 802.1p priority mapping
104. Port-based VLAN
105. Protocol-based VLAN
106. IP subnet based VLAN
107. IEEE 802.1Q Static VLANs
108. IEEE 802.1Q dynamic VLANs
109. VLAN trunking
110. GVRP
111. IEEE 802.3ad LACP
112. Port mirroring
113. Support rate limiting, minimum step 64K both ingress and egress
114. Broadcast Storm Control
115. Layer 2 MAC filtering
116. Layer 3 IP filtering
117. Layer 4 TCP/UDP socket filtering
118. DHCP snooping
119. DHCP client
120. DHCP relay/DHCP relay per VLAN
121. DHCP option 82
122. IGMP v1/v2/v3 snooping
123. Static multicast forwarding
124. 802.1x port authentication
125. Port Security
126. Static MAC filtering/forwarding
127. Multiple RADIUS servers
128. Multiple TACACS+ servers
129. AAA by RADIUS / TACACS+
130. Intrusion Lock
131. MAC Freeze
132. ARP Inspection
133. Static IP/MAC/Port binding
134. Policy-based security filtering
135. IEEE 802.1Q VLAN port isolation
136. IP Source Guard
137. Guest VLAN
138. ACL packet filtering
139. PPPoE IA and option 82
140. CPU protection
141. Recovery mechanism for Error disable port/reason
142. Loop guard
143. Dual configuration files
144. Dual images
145. IGMP snooping fast leave
146. IGMP snooping statistics
147. IGMP throttling
148. SNMP v1, v2c, v3
149. SNMP trap group
150. Interface related trap can be enable/disable by port
151. ICMP echo/echo reply
152. Syslog
153. DHCPv6 client and relay
154. NDP: host
155. IPv6 address stateless auto-configuration
156. ZyXEL clustering management
157. Management through SNMP or Web management
158. Firmware upgrade by WEB / FTP
159. Configuration saving and retrieving by WEB / FTP
160. Configure Clone
161. Daylight Saving

162. NTP
163. Service Access Control Timeout
164. IEEE 802.1AB LLDP
165. IEEE 802.1AB LLDP-MED
166. Password encryption
167. User access right
168. ZyXEL ESBU common MIB
169. Green Ethernet
170. Cable diagnostics
171. Support PoE Fault Trap
172. MAC aging time
173. MAC-based VLAN
174. Voice VLAN
175. Private VLAN
176. MLD snooping proxy
177. ZyXEL One Network (ZON)
178. ZyXEL Neighbor Management

Enhanced Features:

None

Bug Fix:

1. [MGMT] The switch crashes when getting the IPv6 address with max length and clicking IPv6 index via the web GUI.
2. [MGMT] Fix the incompatibility issue with Microsoft Windows OS 8.1 LLDP that will cause the switch loss of management.
3. [MGMT] Fix the web loss of management on the switch.

Known Issue:

1. Ingress rate limit of TCP traffic might have inaccuracy with some criteria.
2. Fake IP traffic cannot be filtered when a static IP binding existed.
3. The cable length resolution of Cable Diagnostic is about +-15 meter.
4. The fault distance of Cable Diagnostic is less than 1 meter without cable inserted.
5. When RSTP is enabled with ring topology, LACP can't be activated at the same ports.

Limitation of Settings:

20.	802.1Q Static VLANs	1K
21.	Static MAC forwarding entry	256
22.	MAC filtering entry	256
23.	Cluster member	24
24.	Protocol based VLAN entries per port	7
25.	Port-security max address-limit number	16K
26.	Syslog server entry	4
27.	IP source guard entry	512
28.	IP subnet based VLAN entry	16
29.	DHCP snooping binding table	16K
30.	Multicast group	1024
31.	ACL	256
32.	DHCP relay Entry	16
33.	Trunk groups	8
34.	Per trunk group port number	8
35.	MSTP instance	0-15
36.	MAC-based VLAN	28
37.	Voice VLAN OUI entry	6
38.	ZON neighbor per-port maximum clients	10

Firmware Upgrade:

The GS1920-24HP uses FTP to upgrade firmware in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Firmware:

```
C:\> ftp <GS1920-24HP IP address>
User : admin
Password: 1234
230 Logged in
ftp> put 410AAOC4C0.bin ras-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC4C0.bin: the name of firmware file you want to upgrade.
- ras-0: the internal firmware name in GS1920-24HP (store at first flash).
- ras-1: the internal firmware name in GS1920-24HP (store at second flash).

Configuration Upgrade:

The GS1920-24HP uses FTP to upgrade configuration in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Configuration:

```
C:\> ftp <GS1920-24HP IP address>
User name: admin
Password: 1234
230 Logged in
ftp> put 410AAOC4C0.rom rom-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC4C0.rom: the name of configuration file you want to upgrade.
- rom-0: the internal configuration name in GS1920-24HP.

ZyXEL GS1920-24HP

This document describes the features in the GS1920-24HP product for its 4.10(AAOC.3)C0 release.

Support Platforms:

ZyXEL GS1920-24HP V4.10(AAOC.3)C0 supports models: ZyXEL GS1920-24HP.

Default Bootbase Setting:

ZyNOS Version	V4.10(AAOC.3) | 08/20/2014 10:50:09
Bootbase Version	V1.00 | 03/21/2014 09:54:55
Serial Number	xxxxxxxxxxxxxxx
Vendor Name	ZyXEL
Product Model	GS1920-24HP
ZyNOS Code Model	GS1920
ZyNOS ROM address	b40a0000
System Type	8
First MAC Address	0019CB000001
Last MAC Address	0019CB00001D
MAC Address Quantity	29
Default Country Code	FF
Boot Module Debug Flag	00
CPLD Version	N/A
RomFile Version	27
RomFile Checksum	1bc5
ZyNOS Checksum	3af5
SNMP MIB level & OID	060102030405060708091011121314151617181920
Main Feature Bits	C0
Other Feature Bits	
02 53 00 00 00 00 00 00-00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00-00 13 00 00 00 00	

Main Features:

1. 24 Auto MDI/MDI-X 10Base-T/100Base-TX/1000Base-T
2. 4 dual personality GbE
3. PWM Fan module
4. Locator LED
5. 48 PoE ports with 802.3af and 802.3at compliant.
6. 16K layer 2 MAC addresses table
7. Jumbo frame length 9K
8. IEEE 802.1w , RSTP
9. IEEE 802.1s , MSTP
10. ZyXEL MRSTP
11. Rule-based bandwidth control

12. Port-based egress traffic shaping
13. IEEE 802.3x flow control.
14. DSCP to 802.1p priority mapping
15. Port-based VLAN
16. Protocol-based VLAN
17. IP subnet based VLAN
18. IEEE 802.1Q Static VLANs
19. IEEE 802.1Q dynamic VLANs
20. VLAN trunking
21. GVRP
22. IEEE 802.3ad LACP
23. Port mirroring
24. Support rate limiting, minimum step 64K both ingress and egress
25. Broadcast Storm Control
26. Layer 2 MAC filtering
27. Layer 3 IP filtering
28. Layer 4 TCP/UDP socket filtering
29. DHCP snooping
30. DHCP client
31. DHCP relay/DHCP relay per VLAN
32. DHCP option 82
33. IGMP v1/v2/v3 snooping
34. Static multicast forwarding
35. 802.1x port authentication
36. Port Security
37. Static MAC filtering/forwarding
38. Multiple RADIUS servers
39. Multiple TACACS+ servers
40. AAA by RADIUS / TACACS+
41. Intrusion Lock
42. MAC Freeze
43. ARP Inspection
44. Static IP/MAC/Port binding
45. Policy-based security filtering
46. IEEE 802.1Q VLAN port isolation
47. IP Source Guard
48. Guest VLAN
49. ACL packet filtering
50. PPPoE IA and option 82
51. CPU protection
52. Recovery mechanism for Error disable port/reason
53. Loop guard
54. Dual configuration files
55. Dual images
56. IGMP snooping fast leave
57. IGMP snooping statistics
58. IGMP throttling
59. SNMP v1, v2c, v3
60. SNMP trap group
61. Interface related trap can be enable/disable by port
62. ICMP echo/echo reply
63. Syslog
64. DHCPv6 client and relay
65. NDP: host
66. IPv6 address stateless auto-configuration
67. ZyXEL clustering management
68. Management through SNMP or Web management
69. Firmware upgrade by WEB / FTP
70. Configuration saving and retrieving by WEB / FTP
71. Configure Clone

72. Daylight Saving
73. NTP
74. Service Access Control Timeout
75. IEEE 802.1AB LLDP
76. IEEE 802.1AB LLDP-MED
77. Password encryption
78. User access right
79. ZyXEL ESBU common MIB
80. Green Ethernet
81. Cable diagnostics
82. Support PoE Fault Trap
83. MAC aging time
84. MAC-based VLAN
85. Voice VLAN
86. Private VLAN
87. MLD snooping proxy
88. ZyXEL One Network (ZON)
89. ZyXEL Neighbor Management

Enhanced Features:

None

Bug Fix:

1. Download tech-support all cause DUT crash.

Known Issue:

1. Ingress rate limit of TCP traffic might have inaccuracy with some criteria.
2. Fake IP traffic cannot be filtered when a static IP binding existed.
3. The cable length resolution of Cable Diagnostic is about +-15 meter.
4. The fault distance of Cable Diagnostic is less than 1 meter without cable inserted.
5. When RSTP is enabled with ring topology, LACP can't be activated at the same ports.

Limitation of Settings:

1.	802.1Q Static VLANs	1K
2.	Static MAC forwarding entry	256
3.	MAC filtering entry	256
4.	Cluster member	24
5.	Protocol based VLAN entries per port	7
6.	Port-security max address-limit number	16K
7.	Syslog server entry	4
8.	IP source guard entry	512
9.	IP subnet based VLAN entry	16
10.	DHCP snooping binding table	16K
11.	Multicast group	1024
12.	ACL	256
13.	DHCP relay Entry	16
14.	Trunk groups	8
15.	Per trunk group port number	8
16.	MSTP instance	0-15
17.	MAC-based VLAN	28
18.	Voice VLAN OUI entry	6
19.	ZON neighbor per-port maximum clients	10

Firmware Upgrade:

The GS1920-24HP uses FTP to upgrade firmware in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Firmware:

```
C:\> ftp <GS1920-24HP IP address>
User : admin
Password: 1234
230 Logged in
ftp> put 410AAOC3C0.bin ras-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC3C0.bin: the name of firmware file you want to upgrade.
- ras-0: the internal firmware name in GS1920-24HP (store at first flash).
- ras-1: the internal firmware name in GS1920-24HP (store at second flash).

Configuration Upgrade:

The GS1920-24HP uses FTP to upgrade configuration in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Configuration:

```
C:\> ftp <GS1920-24HP IP address>
User name: admin
Password: 1234
230 Logged in
ftp> put 410AAOC3C0.rom rom-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC3C0.rom: the name of configuration file you want to upgrade.
- rom-0: the internal configuration name in GS1920-24HP.

ZyXEL GS1920-24HP V4.10

Note/Manual Supplement

This document describes the features in the GS1920-24HP product for its 4.10(AAOC.2)C0 release.

Support Platforms:

ZyXEL GS1920-24HP V4.10(AAOC.2)C0 supports models: ZyXEL GS1920-24HP.

Default Bootbase Setting:

ZyNOS Version	V4.10(AAOC.2) | 07/18/2014 16:13:31
Bootbase Version	V1.00 | 03/21/2014 09:54:55
Serial Number	xxxxxxxxxxxxxxx
Vendor Name	ZyXEL
Product Model	GS1920-24HP
ZyNOS Code Model	GS1920
ZyNOS ROM address	b40a0000
System Type	8
First MAC Address	0019CB000001
Last MAC Address	0019CB00001D
MAC Address Quantity	29
Default Country Code	FF
Boot Module Debug Flag	00
CPLD Version	N/A
RomFile Version	27
RomFile Checksum	1bc5
ZyNOS Checksum	63cb
SNMP MIB level & OID	060102030405060708091011121314151617181920
Main Feature Bits	C0
Other Feature Bits	
02 53 00 00 00 00 00 00-00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00-00 13 00 00 00 00	

Main Features:

1. 24 Auto MDI/MDI-X 10Base-T/100Base-TX/1000Base-T
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39. Multiple TACACS+ servers
40. AAA by RADIUS / TACACS+
41. Intrusion Lock
42. MAC Freeze
43. ARP Inspection
44. Static IP/MAC/Port binding
45. Policy-based security filtering
46. IEEE 802.1Q VLAN port isolation
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52. Recovery mechanism for Error disable port/reason
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57. IGMP snooping statistics
58. IGMP throttling
59. SNMP v1, v2c, v3
60. SNMP trap group
61. Interface related trap can be enable/disable by port
62. ICMP echo/echo reply
63. Syslog
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65. NDP: host
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71. Configure Clone

72. Daylight Saving
73. NTP
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75. IEEE 802.1AB LLDP
76. IEEE 802.1AB LLDP-MED
77. Password encryption
78. User access right
79. ZyXEL ESBU common MIB
80. Green Ethernet
81. Cable diagnostics
82. Support PoE Fault Trap
83. MAC aging time

Enhanced Features:

1. MAC-based VLAN
2. Voice VLAN
3. Private VLAN
4. MLD snooping proxy
5. ZyXEL One Network (ZON)
6. ZyXEL Neighbor Management
7. LLDP enabled by default

Bug Fix:

1. LACP sync fail but still can ping to device from LACP port.
2. Set MIB traceroute IP address entry, the IP address could not set successfully.
3. In web page, when setting ipv6 and dhcpv6 client information refresh minimum to 4294967295 seconds, it could not apply successfully.
4. In spanning tree and static trunk environment, the host's mac will be learned to wrong port.
5. Send two LLDP packets (with system description length = 255) to an LLDP enabled port will cause DUT crash.
6. User can't be authorized when privilege of account is Cisco attribute and privilege level is 15.
7. LLDP-MED doesn't work with some IP phones.
8. When enable trunk and group two or more ports, and then just link up one of these ports, DUT sends out those LLDP packets which is in the trunk group from the link-up port.
9. If subtype of remote Port ID is mac-address. It can't be showed on LLDP remote device information.
10. When we use ipv6 link-local URL to access the switch web UI on windows XP, pages with indirect URL are inaccessible. User cannot access the error.html when configuration is wrong.
11. When enabled IGMP snooping, IGMP general query received by DUT will be replaced with its own source mac.
12. Fix IGMP snooping group-specific queries(GSQ) with source MAC address 00: 00: 00: 00: 00: 00.

Known Issue:

1. Ingress rate limit of TCP traffic might have inaccuracy with some criteria.
2. Fake IP traffic cannot be filtered when a static IP binding existed.
3. The cable length resolution of Cable Diagnostic is about +-15 meter.
4. The fault distance of Cable Diagnostic is less than 1 meter without cable inserted.

Limitation of Settings:

1.	802.1Q Static VLANs	1K
2.	Static MAC forwarding entry	256
3.	MAC filtering entry	256
4.	Cluster member	24
5.	Protocol based VLAN entries per port	7

6.	Port-security max address-limit number	16K
7.	Syslog server entry	4
8.	IP source guard entry	512
9.	IP subnet based VLAN entry	16
10.	DHCP snooping binding table	16K
11.	Multicast group	1024
12.	ACL	256
13.	DHCP relay Entry	16
14.	Trunk groups	8
15.	Per trunk group port number	8
16.	MSTP instance	0-15
17.	MAC-based VLAN	28
18.	Voice VLAN OUI entry	6
19.	ZON neighbor per-port maximum clients	10

Firmware Upgrade:

The GS1920-24HP uses FTP to upgrade firmware in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Firmware:

```
C:\> ftp <GS1920-24HP IP address>
User : admin
Password: 1234
230 Logged in
ftp> put 410AAOC2C0.bin ras-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC2C0.bin: the name of firmware file you want to upgrade.
- ras-0: the internal firmware name in GS1920-24HP (store at first flash).
- ras-1: the internal firmware name in GS1920-24HP (store at second flash).

Configuration Upgrade:

The GS1920-24HP uses FTP to upgrade configuration in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Configuration:

```
C:\> ftp <GS1920-24HP IP address>
User name: admin
Password: 1234
230 Logged in
ftp> put 410AAOC2C0.rom rom-0
ftp> bye
```

Where

- User name: the management user name, admin by default.

- Password: the management password, 1234 by default.
- 410AAOC2C0.rom: the name of configuration file you want to upgrade.
- rom-0: the internal configuration name in GS1920-24HP.

ZyXEL GS1920-24HP V4.10

Note/Manual Supplement

This document describes the features in the GS1920-24HP product for its 4.10(AAOC.1)C0 release.

Support Platforms:

ZyXEL GS1920-24HP V4.10(AAOC.1)C0 supports models: ZyXEL GS1920-24HP.

Default Bootbase Setting:

ZyNOS Version	V4.10(AAOC.1) | 05/21/2014 10:44:52
Bootbase Version	V1.00 | 03/21/2014 09:54:55
Serial Number	xxxxxxxxxxxxxxx
Vendor Name	ZyXEL
Product Model	GS1920-24HP
ZyNOS Code Model	GS1920
ZyNOS ROM address	b40a0000
System Type	8
First MAC Address	0019CB000001
Last MAC Address	0019CB00001D
MAC Address Quantity	29
Default Country Code	FF
Boot Module Debug Flag	00
CPLD Version	N/A
RomFile Version	27
RomFile Checksum	1bc5
ZyNOS Checksum	a851
SNMP MIB level & OID	060102030405060708091011121314151617181920
Main Feature Bits	C0
Other Feature Bits	
02 53 00 00 00 00 00 00-00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00-00 13 00 00 00 00	

Main Features:

1. 24 Auto MDI/MDI-X 10Base-T/100Base-TX/1000Base-T
2. 4 dual personality GbE
3. PWM Fan module
4. Locator LED
5. 16K layer 2 MAC addresses table
6. Jumbo frame length 9K
7. IEEE 802.1w Rapid Spanning Tree Protocol, RSTP
8. IEEE 802.1s Multiple Spanning Tree Protocol, MSTP
9. ZyXEL MRSTP
10. Rule-based bandwidth control
11. Port-based egress traffic shaping

12. IEEE 802.3x flow control.
13. DSCP to 802.1p priority mapping
14. Port-based VLAN
15. Protocol-based VLAN
16. IP subnet based VLAN
17. IEEE 802.1Q Static VLANs
18. IEEE 802.1Q dynamic VLANs
19. GVRP
20. IEEE 802.3ad LACP
21. Port mirroring
22. Support rate limiting, minimum step 64K both ingress and egress
23. Broadcast Storm Control
24. Layer 2 MAC filtering
25. Layer 3 IP filtering
26. Layer 4 TCP/UDP socket filtering
27. Support rate limit per IP/TCP/UDP per port
28. DHCP client
29. DHCP relay/DHCP relay per VLAN
30. DHCP option 82
33. IGMP v1/v2/v3 snooping
34. Static multicast forwarding
35. 802.1x port authentication
36. Port Security
37. Static MAC filtering/forwarding
38. Multiple RADIUS servers
39. Multiple TACACS+ servers
40. AAA by RADIUS / TACACS+
31. 802.1x VLAN and bandwidth assignment by RADIUS
32. Intrusion Lock
33. MAC Freeze
34. DHCP snooping
35. ARP Inspection
36. Static IP/MAC/Port binding
37. Policy-based security filtering
38. IEEE 802.1Q VLAN port isolation
39. IP Source Guard
40. Guest VLAN
41. ACL packet filtering
42. PPPoE IA and option 82
43. CPU protection
44. Recovery mechanism for Error disable port/reason
45. Loop guard
46. Dual configuration files
47. Dual images
48. VLAN trunking
49. IGMP snooping fast leave
50. IGMP snooping statistics
51. IGMP throttling
52. SNMP v1, v2c, v3
53. SNMP trap group
54. Interface related trap can be enable/disable by port
55. ICMP echo/echo reply
56. Syslog
57. DHCPv6 client and relay
58. NDP: host
59. IPv6 address stateless auto-configuration
60. ZyXEL clustering management
61. Management through SNMP or Web management
62. Firmware upgrade by WEB / FTP
63. Configuration saving and retrieving by WEB / FTP

64. Configure Clone
65. Daylight Saving
66. NTP
67. Service Access Control Timeout
68. IEEE 802.1AB LLDP
69. IEEE 802.1AB LLDP-MED
70. Password encryption
71. User access right
72. ZyXEL ESBU common MIB
73. Green Ethernet
74. Cable diagnostics
75. Support PoE Fault Trap
76. MAC aging time

Enhanced Features:

None

Bug Fix:

1. Improve the manufacturing efficiency, no feature changed.

Known Issue:

1. Policy rule: for the ARP/RARP packet, policy rule qualifies the sender MAC address, not the source MAC address.
2. IP source guard: creates a legal static IP source binding first, and then send illegal IP traffic (the same MAC address but different IP address). DUT cannot filter the illegal IP traffic.
3. Green Ethernet: short reach does not support display short reach status.
4. Cable diagnostic: the accuracy of cable diagnostic is +15m ~ -15m. And plug out the cable line, the value of distance to fault would not be 0.00.

Limitation of Settings:

1.	802.1Q Static VLANs	1K
2.	Static MAC forwarding entry	256
3.	MAC filtering entry	256
4.	Cluster member	24
5.	Protocol based VLAN entries per port	7
6.	Port-security max address-limit number	16K
7.	Syslog server entry	4
8.	IP source guard entry	512
9.	IP subnet based VLAN entry	16
10.	DHCP snooping binding table	16K
11.	Multicast group	1024
12.	ACL	256
13.	DHCP relay Entry	16
14.	Trunk groups	8
15.	Per trunk group port number	8
16.	MSTP instance	0-15

Firmware Upgrade:

The GS1920-24HP uses FTP to upgrade firmware in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Firmware:

```
C:\> ftp <GS1920-24HP IP address>
User : admin
Password: 1234
230 Logged in
ftp> put 410AAOC1C0.bin ras-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC1C0.bin: the name of firmware file you want to upgrade.
- ras-0: the internal firmware name in GS1920-24HP (store at first flash).
- ras-1: the internal firmware name in GS1920-24HP (store at second flash).

Configuration Upgrade:

The GS1920-24HP uses FTP to upgrade configuration in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Configuration:

```
C:\> ftp <GS1920-24HP IP address>
User name: admin
Password: 1234
230 Logged in
ftp> put 410AAOC1C0.rom rom-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC1C0.rom: the name of configuration file you want to upgrade.
- rom-0: the internal configuration name in GS1920-24HP.

ZyXEL GS1920-24HP V4.10(AAOC.0)C0

Release Note/Manual Supplement

This document describes the features in the GS1920-24HP product for its 4.10(AAOC.0)C0 release.

Support Platforms:

ZyXEL GS1920-24HP V4.10(AAOC.0)C0 supports models: ZyXEL GS1920-24HP.

Default Bootbase Setting:

ZyNOS Version	V4.10(AAOC.0) | 03/27/2014 17:01:19
Bootbase Version	V1.00 | 03/21/2014 09:54:55
Serial Number	xxxxxxxxxxxxxxx
Vendor Name	ZyXEL
Product Model	GS1920-24HP
ZyNOS Code Model	GS1920
ZyNOS ROM address	b40a0000
System Type	8
First MAC Address	0019CB000001
Last MAC Address	0019CB00001D
MAC Address Quantity	29
Default Country Code	FF
Boot Module Debug Flag	00
CPLD Version	N/A
RomFile Version	27
RomFile Checksum	1bc5
ZyNOS Checksum	205a
SNMP MIB level & OID	060102030405060708091011121314151617181920
Main Feature Bits	C0
Other Feature Bits	
02 53 00 00 00 00 00 00-00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00-00 13 00 00 00 00	

Main Features:

1. 24 Auto MDI/MDI-X 10Base-T/100Base-TX/1000Base-T
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6. Jumbo frame length 9K
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51. IGMP throttling
52. SNMP v1, v2c, v3
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70. Password encryption
71. User access right
72. ZyXEL ESBU common MIB
73. Green Ethernet
74. Cable diagnostics
75. Support PoE Fault Trap
76. MAC aging time

Enhanced Features:

None

Bug Fix:

None

Known Issue:

1. Policy rule: for the ARP/RARP packet, policy rule qualifies the sender MAC address, not the source MAC address.
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16.	MSTP instance	0-15

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The GS1920-24HP uses FTP to upgrade firmware in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Firmware:

```
C:\> ftp <GS1920-24HP IP address>
User : admin
Password: 1234
230 Logged in
ftp> put 410AAOC0C0.bin ras-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC0C0.bin: the name of firmware file you want to upgrade.
- ras-0: the internal firmware name in GS1920-24HP (store at first flash).
- ras-1: the internal firmware name in GS1920-24HP (store at second flash).

Configuration Upgrade:

The GS1920-24HP uses FTP to upgrade configuration in run-time through its built-in FTP server. You can use any FTP client (for example, ftp.exe in Windows) to upgrade GS1920-24HP. The upgrade procedure is as follows:

Upgrade GS1920-24HP Configuration:

```
C:\> ftp <GS1920-24HP IP address>
User name: admin
Password: 1234
230 Logged in
ftp> put 410AAOC0C0.rom rom-0
ftp> bye
```

Where

- User name: the management user name, admin by default.
- Password: the management password, 1234 by default.
- 410AAOC0C0.rom: the name of configuration file you want to upgrade.
- rom-0: the internal configuration name in GS1920-24HP.