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Zyxel XGS4600-32F V4.40(ABBI.1)C0

Release Note/Manual Supplement

Date: Dec.28, 2016

This document describes the features in the XGS4600-32F for its 4.40(ABBI.1)C0 release.

Support Platforms:

Zyxel XGS4600-32F V4.40(ABBI.1)C0 supports models: Zyxel XGS4600-32F

Version:

ZyNOS Version	: V4.40(ABBI.1) | 12/28/2016 11:10:20
Bootbase Version	: V1.00 | 09/12/2016 09:33:29

Main Features:

[General]

1. Complies with IEEE802.3, IEEE802.3u, IEEE802.3z/ab, IEEE802.3x, IEEE802.3af, IEEE802.3at, IEEE802.3az, IEEE802.1p
2. 24 x 1G copper (XGS4600-32), 24 x SFP (XGS4600-32F)
3. 4GE Combo port
4. 4 SFP+ 10G ports (Support DDMI).
5. Local console : D-sub 9 pin Female (DCE)
6. 1 port out of band management (10/100/1000 BASE-T)
7. Fan control
8. Hardware monitor
9. 32K layer 2 MAC addresses table
10. 256 IP routing domains
11. 8K IP address table
12. 12K routing path
13. 1K multicasting group
14. 4MB packet buffer.
15. IEEE 802.1D transparent bridging

16. Port-based VLAN
17. IEEE 802.1Q tag-based VLAN
18. Protocol-based VLAN
19. IP subnet based VLAN
20. MAC-based VLAN
21. Private VLAN
22. Voice VLAN
23. VLAN Trunking
24. GVRP
25. Port Security
26. Layer 3 IP filtering
27. Layer 4 TCP/UDP socket filtering
28. Static MAC forwarding
29. 802.1x VLAN and bandwidth assignment by RADIUS
30. VRRP
31. IEEE802.1ad Double tagging
32. Selective QinQ
33. MAC filtering
34. Management through console, telnet, SNMP or web management
35. Firmware upgrade by FTP/TFTP
36. TFTP client / server
37. Configuration saving and retrieving
38. Overheat detection
39. LED indications for link status
40. 9K jumbo frame
41. Filtering/Mirroring by L2/L3/L4 rules
42. Bandwidth control by L2/L3/L4 rules
43. Egress traffic shaping per port at 64Kbps step
44. BPDU transparency.
45. SSHv1/SSHv2/SSL
46. Intrusion Lock
47. DHCP snooping
48. DHCP Client
49. DHCP relay per VLAN
50. ARP Inspection
51. Port Isolation

52. Broadcast Storm Control
53. 802.3x flow control
54. DiffServ
55. SNMP v1,v2c, v3
56. SNMP trap group
57. Clustering, up to 24 units can be managed by one IP
58. RFC 3164 Syslog
59. IGMP filtering
60. MVR
61. IGMP v1/v2/v3 snooping
62. IGMP snooping fast leave
63. IGMP snooping statistics
64. IGMP throttling
65. Static multicast
66. Administration user management
67. Multiple RADIUS server
68. Multiple TACACS+ servers
69. IEEE 802.1w RSTP
70. Zyxel MRSTP
71. IEEE 802.1s MSTP
72. IEEE 802.3ah OAM
73. SNMPv3 support
74. 1K IP source guard
75. TRTCM
76. MAC authentication
77. Authentication & accounting by RADIUS / TACACS+
78. Loopguard
79. Daylight saving time support
80. IEEE 802.1AB LLDP
81. LACP algorithm of source/destination IP address
82. MAC search
83. VLAN search
84. VLAN translation
85. VLAN MAC limit
86. Support transceiver DDMI information(including MIB)
87. Authorization on TACACS+

88. Layer 2 protocol tunneling
89. MLD snooping proxy
90. DHCPv6: client and relay
91. ICMPv6
92. IPv6 Path MTU
93. NDP: host and router
94. IPv6 address stateless auto-configuration: host and router
95. IPv6 static route
96. Guest VLAN
97. Password encryption
98. User access right
99. PPPoE IA and option 82
100. ECMP
101. 1K ACL
102. 64 Policy route
103. Configurable ARP learning mode
104. Recovery mechanism for error-disabled port/reason.
105. CPU protection
106. sFlow
107. Authorization on console
108. ARP Freeze
109. MAC Freeze
110. Static ARP setting
111. MAC pinning
112. Interface related trap can be enable/disable by port
113. ECMP support default route
114. 802.1AB LLDP-MED
115. DHCP option 82 profile
116. Port mirroring
117. Remote port mirroring
118. Zyxel new private MIB
119. Zyxel common MIB
120. VLAN stacking
121. Dual image
122. Dual configuration files
123. DHCP Option82 per VLAN and per Port

124. Support stacking
125. ACL 2.0
126. Time Range
127. Reload factory default
128. Zyxel One Network
129. ZDP 1.7 (including ZDP tagged packet handling)
130. DHCPv6 server
131. BPDU Guard(V4.30)
132. Anti-ARP scan
133. CPU protection- MGMT IP priority enhancement
134. Root Guard
135. ZULD
136. Broadcast/Multicast storm control log
137. Default IP setting- DHCP
138. DHCPv6 Trust/Untrust server
139. IPv6 source guard
140. DHCPv6 snooping
141. Update ES-Common MIB to latest version
142. Web GUI Enhancement
143. Per VLAN Mac authentication
144. RIPV1/V2
145. OSPF V2
146. OSPF summary address
147. IGMP V1/V2
148. DVMRP
149. Loopback interface
150. 4 SFP+ 10G ports (Support DDMI)
151. Port-based VLAN
152. Default IP setting- DHCP
153. Cluster management

[Stacking Mode]

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21. Private VLAN
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137. Default IP setting- DHCP
138. DHCPv6 Trust/Untrust server
139. IPv6 source guard
140. DHCPv6 snooping
141. Update ES-Common MIB to latest version

142. Web GUI Enhancement
143. Per VLAN Mac authentication
144. 2 SFP+ 10G ports (Support DDMI), 2 SFP+ 10G ports dedicated for Stacking

Enhanced Features:

none

Bug fix:

[General]

4.40(ABBI.1)C0:

1. eITS# 161200492
   [Access control] Fix misjudged invalid IP in Remote Management IP address.
2. eITS# 161200327
   [MGMT] Deny non-Administrator to download config file.
3. **[MGMT]** Fix the using ACL to cause the telnet service lost issue.
4. **[MGMT]** Enhance to avoid the continuous login attack let the web cannot be login.
5. **[MGMT]** The outband IP cannot be ping.
6. **[CLI]** The value of "refresh time" should be empty when it is disable in "show ipv6 dhcp vlan 1".
7. **[DHCP]** Fix misjudged invalid IP in DHCP server setting via web.
8. **[Routing]** Ping the IPv6 default gateway will be timeout sometimes when continuously ping it.
9. **[WebGUI]** The next hop address will show reverse.
10. **[WebGUI]** The summary address will show reverse.
11. **[Loopback interface]** Add "loopback" option to the interface type to let the loopback interface feature work.
12. **[Loopback interface]** When enabling loopback interface and OSPF routing protocol at same time, the configuration will be garbled after reboot.

[Stacking Mode]

4.40(ABBI.1)C0:

1. **[LLDP]** The captured lldp packets of trunk ports carry the wrong "aggregation port ID".

Known Issue:

[General]

4.40(ABBI.0)C0:

1. ACL policy rule's priority and queue action should be combined
2. Ports don't support half mode on XGS4600-32/XGS4600-32F
3. Combo ports fiber mode don't support 10M on XGS4600-32/XGS4600-32F
4. OSPF only can learn 11968 routing entry
5. ACL cannot support Configuration update Layer 4 socket port range when using IPv6.

[Stacking Mode]

4.40(ABBI.0)C0:

1. Stacking system sometimes sync fail after reboot, it will success after another attempt.
2. Sometime switch may not send zyStackingChannelUP info to trap server.
3. When user switch IPTV channel and it may cause other IPTV happen pixel issue.
4. 10G port throughput can't reach full rate when the traffic is go through stacking port.

Limitation of Settings (Standalone Mode):

1.	VLAN 1Q static entry	4K
2.	Static MAC forwarding entry	256
3.	MAC filtering entry	256
4.	Cluster member	24
5.	IP routing domain	256
6.	IGMP Filtering entry	256
7.	IGMP MVR entry	256
8.	VRRP entry	64
9.	Protocol based VLAN entries per port	7

10.	Port-security max address-limit number	32K
11.	DHCP Server	16
12.	Syslog server entry	4
13.	IP source guard entry	1K
14.	IP subnet based VLAN entry	16
15.	MVR VLAN entry	5
16.	VLAN-stacking Selective QinQ entry	1K
17.	VLAN -mapping entry	1K
18.	MAC table	32K
19.	Routing table	12k
20.	DHCP snooping binding table	16K
21.	Multicast group	1K
22.	ACL	1K
23.	Policy route	64
24.	DHCP option 82 profile	130
25.	Remote port monitoring vlan	10
26.	trTCM DSCP profiles	max number of port
27.	static ARP entry	256
28.	Static route max entry	64
29.	MAC-based VLAN	1024
30.	Voice VLAN OUI entry	10
31.	ZON neighbor per-port maximum clients	10
32.	IPv6 source guard binding table	100

Limitation of Settings (Stacking Mode):

1.	VLAN 1Q static entry	4K
2.	Static MAC forwarding entry	256
3.	MAC filtering entry	256
4.	IP routing domain	256
5.	IGMP Filtering entry	256
6.	IGMP MVR entry	256
7.	VRRP entry	64
8.	Protocol based VLAN entries per port	7
9.	Port-security max address-limit number	32K
10.	DHCP Server	16

11.	Syslog server entry	4
12.	IP source guard entry	1K
13.	IP subnet based VLAN entry	16
14.	MVR VLAN entry	5
15.	VLAN-stacking Selective QinQ entry	1K
16.	VLAN -mapping entry	1K
17.	MAC table	32K
18.	Routing table	12k
19.	DHCP snooping binding table	16K
20.	Multicast group	1K
21.	ACL	1K
22.	Policy route	64
23.	DHCP option 82 profile	130
24.	Remote port monitoring vlan	10
25.	trTCM DSCP profiles	max number of port
26.	static ARP entry	256
27.	Static route max entry	64
28.	MAC-based VLAN	1024
29.	Voice VLAN OUI entry	10
30.	ZON neighbor per-port maximum clients	10
31.	IPv6 source guard binding table	100
32.	Max stacking device	4

Firmware Upgrade:

The XGS4600-32F 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 XGS4600-32F. The upgrade procedure is as follows:

Upgrade XGS4600-32F FW:

C:\> ftp <XGS4600-32F IP address>
User : admin
Password: 1234
230 Logged in
ftp> put 440ABBI1C0.bin ras-0

ftp> bye

Where

- User name : just press admin
- Password : the management password, 1234 by default
- 440ABBI1C0.bin : the name of firmware file you want to upgrade
- ras-0 : the internal firmware name in XGS4600-32F

Configuration Upgrade:

The XGS4600-32F 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 XGS4600-32F. The upgrade procedure is as follows:

Upgrade XGS4600-32F configuration:

C:\> ftp < XGS4600-32F IP address>
User : admin
Password: 1234
230 Logged in
ftp> put 440ABBI1C0.rom rom-0
ftp> bye

Where

- User name : just press admin
- Password : the management password, 1234 by default
- 440ABBI1C0.rom : the name of configuration file you want to upgrade
- rom-0 : the internal configuration name in XGS4600-32F