

WX3401-B0 Generic

Firmware Release Note

V5.17(ABVE.1)C0

Date: July 14, 2021

Author: YenLing Liu

Reviewer: ChihWei Chen

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Revision History

Date	Release	Author	Description
2020/04/30	1.0	Joanna Su	FW release for V5.17(ABVE.0)b1
2020/06/10	1.1	Joanna Su	FW release for V5.17(ABVE.0)b2
2020/06/12	1.2	Joanna Su	FW release for V5.17(ABVE.0)b3
2020/07/14	1.3	Joanna Su	FW release for V5.17(ABVE.0)b4
2020/08/11	1.4	Joanna Su	FW release for V5.17(ABVE.0)b5
2020/09/11	1.5	Joanna Su	FW release for V5.17(ABVE.0)b6
2020/09/30	1.6	Joanna Su	FW release for V5.17(ABVE.0)b7
2020/10/16	1.7	Joanna Su	FW release for V5.17(ABVE.0)b8
2020/10/23	1.8	Joanna Su	FW release for V5.17(ABVE.0)C0
2021/02/19	2.0	ChihWei Chen	FW release for V5.17(ABVE.1)b1
2021/04/19	2.1	ChihWei Chen	FW release for V5.17(ABVE.1)b2
2021/05/07	2.2	ChihWei Chen	FW release for V5.17(ABVE.1)b3
2021/05/21	2.3	YenLing Liu	FW release for V5.17(ABVE.1)b4
2021/06/25	2.4	YenLing Liu	FW release for V5.17(ABVE.1)b5
2021/07/14	2.5	YenLing Liu	FW release for V5.17(ABVE.1)C0

WX3401-B0 Generic V5.17(ABVE.1)C0 Release Note

Date: July 14, 2021

Supported Platforms:

Zyxel WX3401-B0

Versions:

Bootbase version : V1.59 | 01/21/2021 17:32:28

Firmware version : V5.17(ABVE.1)C0

Kernel version: 4.1.52

WLAN code version: 17.10.99.27

app-agent: 3.0

netprobe: 3.0

zy1905: 3.0

Notes:

Public Domain Software Announcements

Open Source Used In Product	Version	From (Source)	License Terms	Modified / Used
atftp	0.7.1	https://sourceforge.net/projects/atftp/	GPLv2	Modified
bridge-Utils	1.5	https://git.kernel.org/pub/scm/linux/kernel/git/shemminger/bridge-utils.git/	GPLv2	Modified
busybox	1.20.1	https://busybox.net/	GPLv2	Modified
clinkc	2.4	https://sourceforge.net/projects/clinkc/	BSD	Modified
conntrack-tools	1.4.3	https://git.netfilter.org/conntrack-tools/	GPLv2	Used
dropbear	2018.76	https://github.com/mkj/dropbear	MIT	Modified
ebtables	2.0.10-4	https://git.netfilter.org/ebtables/	GPLv2	Modified
eventlog	0.2.10	https://github.com/balabit/eventlog	BSD	Used
expat	1.95.8	https://github.com/libexpat/libexpat	MIT	Used
gettext	0.16	http://www.gnu.org/software/gettext/	GPLv2	Used
glib	2.37.7	http://www.gtk.org/	LGPLv2	Used
iproute2	2.6.33	https://github.com/shemminger/iproute2	GPLv2	Modified
iptables	1.4.21	https://git.netfilter.org/iptables/	GPLv2	Modified
jpegsrcc	v9a	http://www.iijg.org/	IJG	Used
json-c	0.13.1	https://github.com/json-c/json-c/downloads	MIT	Modified
libedit	20080712-2.11	http://pkgs.fedoraproject.org/repo/pkgs/libedit/libedit-20080712-2.11.tar.gz/	BSD	Modified
libffi	3.0.11	http://pkgs.fedoraproject.org/repo/pkgs/libffi/libffi-3.0.11.tar.gz/	MIT	Used
libiconv	1.11.1	http://www.gnu.org/software/libiconv/	LGPLv2	Modified
libnetfilter_conntrack	1.0.4	https://git.netfilter.org/libnetfilter_conntrack/	GPLv2	Used
libnetfilter_queue	1.0.2	https://git.netfilter.org/libnetfilter_queue/	GPLv2	Used
libnfnethlink	1.0.1	https://git.netfilter.org/libnfnethlink/	GPLv2	Used
libnl-tiny	0.1	https://github.com/openwrt/openwrt/tree/master/package/libs/libnl-tiny	GPLv2/LGPLv2.1	Used

libpcap	1.1.1	www.tcpdump.org	BSD	Used
libtool	2.4	http://www.gnu.org/software/libtool/	GPLv2	Used
libstrophe	0.10.0	https://github.com/strophe/libstrophe	GPLv3	Used
Linux/Arm Kernel	4.1.52		GPLv2	Modified
logrotate	3.7.1	https://launchpad.net/ubuntu/hardy/i386/logrotate/	GPLv2	Modified
ncurses	5.7	http://ftp.gnu.org/pub/gnu/ncurses/	MIT	Modified
ntfs-3g	2013.1.13	http://ntfs-3g.org	GPLv2/LGPLv2	Used
ntpclient	2007_365	http://doolittle.icarus.com/ntpclient/	GPLv2	Modified
openssl	1.1.1b	http://www.openssl.org	OpenSSL	Modified
popt	1.16	http://rpm5.org/files/popt/	MIT	Modified
pure-ftpd	1.0.30	http://pureftpd.org	ISC/BSD	Modified
radvd	1.8	http://www.litech.org/radvd/	BSD	Used
readline	5.2	http://cnswww.cns.cwru.edu/php/chet/readline/rltop.html	GPLv2	Used
sqlite	3.6.23.1	http://www.sqlite.org/	Public Domain License	Used
syslog-ng	2.0.10	https://github.com/balabit/syslog-ng	GPLv2	Used
tcpdump	4.2.1	http://www.tcpdump.org/	BSD	Used
udhcp	0.9.8	http://udhcp.busybox.net/	GPLv2	Modified
util-linux	2.21.2	https://github.com/karelzak/util-linux/	GPLv2	Used
wide-dhcpv6	20080615	https://sourceforge.net/projects/wide-dhcpv6/	BSD	Modified
zlib	1.2.7	https://github.com/madler/zlib	zlib	Used

Known issues

Modules	Issue	Risk Impact Information
WLAN	1. Not support TR98 for "InternetGatewayDevice.LANDevice.{i}.WLANConfiguration.{i}."	Not support the data model
	2. [#130878][Wireless] WX3401 5G uplink and downlink will disconnect after 64 client connect (RP mode, AP mode have same issue)	WX3401 cannot work normally after multi-clients are connected.
	3. [#132250][Stress] WX3401 will disconnect with EX5501 after 27 2.4G pi client start to connect.	Need upgrade driver to 17.10.121.37
	4. [#147734][Wireless] WX3401 connect to gateway is un-stable	
	5. [#144094][Wireless] Testing WX3401-B0 wireless throughput by IxChariot, the performances are bad on 2.4G and 5G Tx/Rx/BI	
	6. [#148131][MPro Mesh_Agent] WAP_RPC onboarding Extender-RP_Agent via twin pack during sync process and launch APP, it lead WAP_RPC to reboot	
	7. [#150654][MPro Mesh_Agent] WAP_APC onboarding Extender-RP_Agent via twin pack during sync process and launch APP, it will lead "zcmd" daemon crash then WAP_APC to reboot (rate :3/10)	
	8. [#151049][MPro Mesh] On the controller connectivity page, wifi host IP cannot be displayed	
	9. [#150798][MPro Mesh] WX3401-B0 cannot get MESH topology via TR-069	

	10. [#150824][MPro Mesh_Agent]After modify wifi setting sometime one extender does not sync with controller (rate : 1/10)	
System	1. [#143807][System] Downgrade firmware from 1b1 to latest FCS 0C0, user can't login GUI and Wifi client can't connect successful.	
TR-069	1. [#143817][MGMT] WX3401 Downgrade to 0C0, XMPP can't work 2. [#150655][TR069] Connect request of XMPP can't work by default with dns srv query.	

Modifications in 5.17(ABVE.1)C0

Based on V5.17(ABVE.1)b5 to release V5.17(ABVE.1)C0

Modifications in 5.17(ABVE.1)b5

● Feature Enhancement

Modified Modules	Features Enhancement List
TR-069	1. [#144547][eITS Ticket #210300682] WX3401, opt60

● Bug Fixed

Modified Modules	Bug Fixed List
WLAN	1. [#146706][MPro Mesh] Controller and all extenders stay idle overnight, it will cause "wbd_master" daemon to disappear (happened 3 time) 2. [#147576][MPro Mesh] In Mesh Stress environment, it will cause "wbd_master" daemon to disappear 3. [#147802][MPro Mesh] All information of steering status is empty, If WX3401 is controller.

	<ol style="list-style-type: none"> [#147916][MPro Mesh_Agent] End devices always keep in Devices list page via repeated disconnect and reconnect status when client disconnected that end devices [#148013][OPAL Generic][MPro Mesh] All information of steering status is empty, If WX3401 is controller. [#144653][MPro Mesh] ZyPark Multy Pro stress test environment, it will cause "zyMAPSteer" daemon to Disappear
TR-069	<ol style="list-style-type: none"> [#149237][eITS Ticket #210500951] WX3401 - No XMPP JABBER ID created

Modifications in 5.17(ABVE.1)b4

● Feature Enhancement

Modified Modules	Features Enhancement List
GUI	<ol style="list-style-type: none"> [#143823] [System] GUI Diagnostic page not support used domain address [#148283][eITS Ticket #210500419] Selection language should be "Deutsch" instead of DEU [#148285] Multi-language GUI for WX3401-B0
WLAN	<ol style="list-style-type: none"> [#144641] Device name instead of MAC addresses

● Bug Fixed

Modified Modules	Bug Fixed List
WLAN	<ol style="list-style-type: none"> [#144632] [Vulnerability] [WX3401-B0] BRCM "DeAgg & DeFrag Attacks"

Modifications in 5.17(ABVE.1)b3

● Feature Enhancement

Modified Modules	Features Enhancement List
GUI	<ol style="list-style-type: none"> [#146701] [DT] German language web-GUI for the WX3401

● Bug Fixed

Modified Modules	Bug Fixed List
WLAN	<ol style="list-style-type: none"> [#143697] [MPro Mesh_Agent] Some clients did not display in APP when client connected to extender [#143722] [MPro Mesh_Agent] Extender_RP will be repeated disappeared in APP Home page [#146539] [MPro Mesh] WX3401 RP_agent is often disconnected from the controller [#146542] [[MPro Mesh] RP_Controller or Agent in GUI card page, Connectivity shows there is no internet [#146551] [MPro Mesh_Agent] According APP 2.2 Feature Enhancement, Generic FW does not support MESH Up/Down [#146730] [MPro Mesh] Sometimes online extender "stale=Yes" [#146734] [MPro Mesh] WX3401 Controller disable / enable 5G will cause the device to reboot [#147576] [MPro Mesh] In Mesh Stress environment, it will cause "wbd_master" daemon to disappear
System	<ol style="list-style-type: none"> [#142951] WX3401-B0 memory leakage
GUI	<ol style="list-style-type: none"> [#146674] [Wireless] WX3401 will disconnect to gateway, after login GUI, Channel Status, 5G Operating Modes.... [#146807] [Wireless] AP List can't scan SSID immediately when change page. [#146809] [Wireless] Connection Status of Operating Modes always display not connected after connect to gateway.

Modifications in 5.17(ABVE.1)b2

● Feature Enhancement

Modified Modules	Features Enhancement List
GUI	<ol style="list-style-type: none"> [#144376] [eITS Ticket # 210300193] NodeName is not displayed on main page

	2. [#144642] [eITS Ticket # 210300770] One Web-GUI (Controller) for the mesh 3. [#144687] [eITS Ticket # 210300852] DNS redirect
System	1. [#144380] [eITS Ticket # 210300300] FW-Update (FDS) Firmware Download Service
DHCP	1. [#144272] [eITS Ticket # 210300101] WX3401, ACS URL via DHCP opt

● Bug Fixed

Modified Modules	Bug Fixed List
WLAN	1. [#143625] [MPro Mesh_Agent] All Extender name display the same in APP 2. [#143781] [Wireless] Changing the 5G's Bandwidth is 20/40/80MHz and Channel is 100~112, GUI will logout and change unsuccessfully 3. [#143902] [Wireless] Click WPS button from WX3401-B0 GUI, but uplink connection will fail and console show ERROR code 4. [#144653] [MPro Mesh] ZyPark Multy Pro stress test environment, it will cause "zyMAPSteer" daemon to Disappear 5. [#144653] [MPro Mesh] ZyPark Multy Pro stress test environment, it will cause "zyMAPSteer" daemon to Disappear 6. [#145514] [MPro Mesh] Onboarding WX3401_Agent, but it frequent disconnection to controller 7. [#145295] Disable non 11v clients steering 8. [#144979] WX3401 Steering-log stops updating after 50 entries 9. [#144094] [Wireless] Testing WX3401-B0 wireless throughput by IxChariot, the performances are bad on 2.4G and 5G Tx/Rx/BI 10. [#143727] [MPro Mesh_Agent] If end client connect to extender, that client's Max Speed and RSSI keep in updating status

	<p>11. [#135955] [MPro Mesh][GUI] Please hide Steering status page on GUI if WX3401 is not Controller mode.</p> <p>12. [#135880] [MPro Mesh_Agent] Client should not access APP and controller GUI when client connected controller or agent Guest WiFi</p> <p>13. [#136820] [MPro Mesh] AP_Agent be listed in WiFi category in Connectivity page after RP_Agent reboot then connect Controller WiFi_Backhaul.</p> <p>14. [#136827] [MPro Mesh] The host type are incorrect for AP_Agent & RP_Agent in TR.</p> <p>15. [#136921] [MPro Mesh_Agent] Extender-AP connection type is show wrong when after reboot controller</p> <p>16. [#137454] [MPro Mesh] Controller wifi setting auto sync to extender, Console will display all wifi SSID and passwords</p> <p>17. [#137883] [MPro Mesh] AP_Agent will display in WiFi category after onboarding RP_Agent.</p> <p>18. [#137891] [MPro Mesh] GPV: Device.Hosts. , some of value return incorrect.</p>
Vulnerability	<p>1. [#144600] [Vulnerability] [WX3401-B0] UPnP protocol can be abused to perform DDoS and/or data exfiltration via SUBSCRIBE capability</p> <p>2. [#144628] [Vulnerability] [WX3401-B0] Dnsmasq multiple vulnerabilities (DNSPooq)</p> <p>3. [#144629] [Vulnerability] [WX3401-B0][Openssl]Correctly compare EdiPartyName in GENERAL_NAME_cmp()</p> <p>4. [#144630] [Vulnerability] [WX3401-B0] Unsafe Storage of Sensitive Data</p> <p>5. [#144631] Vulnerability [WX3401-B0][CVE-2020-1971][Openssl]Correctly compare EdiPartyName in GENERAL_NAME_cmp()</p> <p>6. [#145268] [Vulnerability][WX3401-B0] VMG8623-T50B - CVE-2019-11358 vulnerability</p>

Modifications in 5.17(ABVE.1)b1

● Bug Fixed

Modified Modules	Bug Fixed List
WLAN	<ol style="list-style-type: none"> 1. [#137305] [eITS Ticket # 201000137] AP will not pass traffic, 5G backhaul disappear 2. [#132250] [Stress] WX3401 will disconnect with EX5501 after 27 2.4G pi client start to connect. 3. [#130878] [Wireless] WX3401 5G uplink and downlink will disconnect after 64 client connect (RP mode, AP mode have same issue)

Modifications in 5.17(ABVE.0)C0

Based on V5.17(ABVE.0)b8 to release V5.17(ABVE.0)C0

Modifications in 5.17(ABVE.0)b8

● Bug Fixed

Modified Modules	Bug Fixed List
WLAN	<ol style="list-style-type: none"> 1. [eits #201000137] repeater failed to connect back to gateway

Modifications in 5.17(ABVE.0)b7

● Bug Fixed

Modified Modules	Bug Fixed List
WLAN	<ol style="list-style-type: none"> 1. [#134721][eits #200801674] WX3401, pairing fails 2. [#134258][eits #200800925] WX3401 - Mpro Mesh App

Modifications in 5.17(ABVE.0)b6

● Feature Enhancement

Modified	Features Enhancement List
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Modules	

- **Bug Fixed**

Modified Modules	Bug Fixed List

Modifications in 5.17(ABVE.0)b5

- **Feature Enhancement**

Modified Modules	Features Enhancement List

- **Bug Fixed**

Modified Modules	Bug Fixed List

Modifications in 5.17(ABVE.0)b4

- **Feature Enhancement**

Modified Modules	Features Enhancement List

- **Bug Fixed**

Modified Modules	Bug Fixed List

Modifications in 5.17(ABVE.0)b3

● Feature Enhancement

Modified Modules	Features Enhancement List

● Bug Fixed

Modified Modules	Bug Fixed List

Modifications in 5.17(ABVE.0)b2

● Feature Enhancement

Modified Modules	Features Enhancement List

● Bug Fixed

Modified Modules	Bug Fixed List

Modifications in 5.17(ABVE.0)b1

● Feature Enhancement

Modified Modules	Features Enhancement List

● Bug Fixed

Modified Modules	Bug Fixed List
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Modules	