

EX3600-T0 Generic

Firmware Release Note

V5.70(ACIF.1)C0

Date: Feb 21, 2025

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Reviewer:

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Revision History

Date	Release	Author	Description
2023/06/30	1.0	Frank Chang	FW release for V5.70(ACIF.0)b1
2023/08/21	2.0	Frank Chang	FW release for V5.70(ACIF.0)b2
2023/09/05	3.0	Frank Chang	FW release for V5.70(ACIF.0)b3
2023/09/08	4.0	Frank Chang	FW release for V5.70(ACIF.0)b4
2023/09/19	5.0	Frank Chang	FW release for V5.70(ACIF.0)b5
2023/10/11	6.0	Frank Chang	FW release for V5.70(ACIF.0)b6
2023/10/27	7.0	Frank Chang	FW release for V5.70(ACIF.0)b7
2023/11/03	8.0	Frank Chang	FW release for V5.70(ACIF.0)C0
2023/11/22	9.0	Frank Chang	FW release for V5.70(ACIF.0.1)b1
2023/11/24	10.0	Frank Chang	FW release for V5.70(ACIF.0.1)C0
2024/05/27	11.0	Frank Chang	FW release for V5.70(ACIF.0.2)b1
2024/05/28	12.0	Frank Chang	FW release for V5.70(ACIF.0.2)C0
2024/07/04	13.0	Frank Chang	FW release for V5.70(ACIF.0.3)b1
2024/07/10	14.0	Frank Chang	FW release for V5.70(ACIF.0.3)C0
2024/11/01	15.0	Jack Yeh	FW release for V5.70(ACIF.1)b2
2025/01/10	16.0	Jack Yeh	FW release for V5.70(ACIF.1)b3
2025/02/21	17.0	Jack Yeh	FW release for V5.70(ACIF.1)C0

EX3600-T0 Generic V5.70(ACIF.1)C0 Release Note

Date: Feb 21, 2025

Supported Platforms:

Zyxel EX3600-T0 Generic

Versions:

Bootbase version : V3.0 | 10/30/2024 14:46:12

Firmware version : V5.70(ACIF.1)C0

Kernel version: 5.4.171

WLAN code version: 7.6.2.5

3G WWAN package version: 1.26

Notes:

Public Domain Software Announcements

Open Source Used (3rd party software)	Version	From (Source)	Licensing Term	Modified / Used
alsa-lib	1.2.4	https://ftp.osuosl.org/pub/blfs/conglomeration/alsa-lib/alsa-lib-1.2.4.tar.bz2	LGPLv2.1	Used
alsa-ucm-conf	1.2.4	https://www.alsa-project.org/files/pub/lib/alsa-ucm-conf-1.2.4.tar.bz2	BSD 3-Clause	Used
alsa-utils	1.2.4	https://ftp.osuosl.org/pub/blfs/conglomeration/alsa-utils/alsa-utils-1.2.4.tar.bz2	GPLv2	Used
argp-standalone	1.3	http://sources.buildroot.net/argp-standalone/argp-standalone-1.3.tar.gz	LGPLv2	Used
atftp	0.8.0	https://sourceforge.net/projects/atftp/	GPLv2	Modified
attr	2.4.48	http://savannah.nongnu.org/projects/attr	GPLv2	Used
binutils	2.35.1	https://sourceware.org/pub/binutils/releases/	GPLv2	Used
bridge-utils	1.7	http://www.linuxfromscratch.org/blfs/view/svn/basicnet/bridge-utils.html	GPLv2	Modified
busybox	1.31.1	https://busybox.net/	GPLv2	Modified
bwm-ng	0.6.1	http://www.grobb.org/?id=projects&sub=bwm-ng	GPLv2	Modified
bzip2	1.0.8	http://sources.buildroot.net/bzip2/bzip2-1.0.8.tar.gz	BSD-style license	Modified
ca-certificates	20210119	http://ftp.debian.org/debian/pool/main/c/ca-certificates/ca-certificates_20210119.tar.xz	GPLv2	Used
c-ares	1.30.0	https://c-ares.haxx.se/download	c-ares license	Modified
cgi-io	44447	https://firmware.download.immortalwrt.eu.org/package-sources/cgi-io-2021-09-08-98cef9dd.tar.xz	ISC	Used
clinkc	2.4	https://sourceforge.net/projects/clinkc/	BSD	Modified
conntrack-t	1.4.6	https://git.netfilter.org/conntrack-tools/	GPLv2	Used

ools				
curl	8.7.1	https://curl.askapache.com/download/	GPLv2	Modified
Berkeley DB	4.7.25.NC	https://src.fedoraproject.org/lookaside/extras/nss_db/db-4.7.25.NC.tar.gz/073ab7f20d24b3872a51ca762f5090e7/db-4.7.25.NC.tar.gz	Sleepycat	Modified
dnsmasq	2.85	http://www.thekelleys.org.uk/dnsmasq/doc.html	GPLv2/GPLv3	Modified
dropbear	2024.85	https://github.com/mkj/dropbear	MIT	Modified
ebtables	2018-06-27-48cff25d	https://git.netfilter.org/ebtables/	GPLv2	Modified
elfutils	0.18	https://fedorahosted.org/elfutils/	GPLv2/GPLv3/LGPLv3	Modified
ethtool	5.10	http://www.kernel.org/pub/software/network/ethtool/	GPLv2	Used
eventlog	0.2.10	https://github.com/balabit/eventlog	BSD	Used
expat	2.6.2	https://github.com/libexpat/libexpat	MIT	Used
ez-ipupdate	3.0.11b8	http://ez-ipupdate.com/	GPLv2	Modified
ffmpeg	7.1	https://ffmpeg.org/releases/	GPLv2/GPLv3/LGPLv2.1/LGPLv3	Modified
flac	1.3.3	https://downloads.xiph.org/releases/flac/	GPLv2/LGPLv2.1	Modified
fstools	2021-01-04-c53b1882	https://sources.openwrt.org/fstools-2021-01-04-c53b1882.tar.xz	GPLv2	Modified
fwtool	2019-11-12-8f7fe925	https://openwrt.org/packages/pkgdata/fwtool	GPLv2	Used
gdbm	1.18.1	https://www.gnu.org/software/gdbm/	GPLv3	Modified
gettext	0.19.8.1	http://www.gnu.org/software/gettext/	GPLv3	Used
glib	2.68.4	http://www.gtk.org/	LGPLv2.1	Used
gmp	6.2.1	http://gmplib.org/	GPLv3	Used
gnutls	3.8.0	http://www.gnutls.org/	GPLv2 + LGPLv2.1	Modified
i2c-tools	4.3	https://i2c.wiki.kernel.org/index.php/I2C_Tools	GPLv2 + LGPL	Used

			v2.1	
iproute2	5.11.0	https://github.com/shemminger/iproute2	GPLv2	Modified
iptables	1.8.7	https://git.netfilter.org/iptables/	GPLv2	Modified
iw	5.9-8fab0c9e	http://wireless.kernel.org/en/users/Documentation/iw	ISC	Modified
json-c	0.15	https://github.com/json-c/json-c/downloads	MIT	Modified
jsonfilter	2018-02-04-c7e938d6	http://git.openwrt.org/?p=project/jsonpath.git	ISC	Modified
kmod	27	https://www.kernel.org/pub/linux/utils/kernel/kmod/	LGPL2.1	Used
lame	3.1	http://sourceforge.net/projects/lame	LGPLv2	Used
libcap	2.43	https://www.kernel.org/pub/linux/libs/security/linux-privs/libcap2/	GPLv2	Modified
libcap-ng	0.8.1	https://people.redhat.com/sgrubb/libcap-ng/index.html	GPLv2+LGPL2.1	Used
libdbi	0.9.0	http://libdbi.sourceforge.net/	LGPL2.1	Used
libedit	20210419-3.1	http://pkgs.fedoraproject.org/repo/pkgs/libedit/libedit-20080712-2.11.tar.gz /	BSD	Modified
libexif	0.6.22	https://libexif.github.io/	LGPL2.1	Modified
libffi	3.3	http://pkgs.fedoraproject.org/repo/pkgs/libffi/libffi-3.0.11.tar.gz/	MIT	Used
libgcrypt	1.8.7	https://www.gnupg.org/related_software/libgcrypt/	GPLv2+LGPL2.1+ BSD_3Clause+ X License+Public domain+ OCB license 1	Used
libgpg-error	1.42	https://www.gnupg.org/related_software/libgpg-error/	GPLv2+LGPL2.1	Modified
libgpod	1.4.4	https://git.kernel.org/pub/scm/libs/libgpod/libgpod.git	LGPL2.1	Used
libiconv	1.16	https://ftp.gnu.org/gnu/libiconv/libiconv-1.16.tar.gz	GPLv3/LGPLv2	Modified
libid3tag	0.15.1b	http://mad.sourceforge.net/	GPLv2	Used
libjpeg-turb	2.0.6	https://www.libjpeg-turbo.org/	IJG License + BSD	Used

o			3-clause License + zlib License	
libmnl	1.0.4	http://www.netfilter.org/projects/libmnl/	LGPLv2.1	Modified
libnetfilter_ conntrack	1.0.8	https://git.netfilter.org/libnetfilter_conntrack/	GPLv2	Used
libnetfilter- cthelper	1.0.0	http://www.netfilter.org/projects/libnetfilter_cthelper/	GPLv2	Used
libnetfilter_ cttimeout	1.0.0	http://www.netfilter.org/projects/libnetfilter_cttimeout/	GPLv2	Used
libnetfilter_ queue	1.0.5	https://git.netfilter.org/libnetfilter_queue/	GPLv2	Used
libnfnetlink	1.0.1	https://git.netfilter.org/libnfnetlink/	GPLv2	Used
libnl	3.5.0	http://www.infradead.org/~tgr/libnl/	LGPLv2.1	Modified
libnl-tiny	2020-08-05- c291088f	https://github.com/openwrt/openwrt/tree/master/package/libs/libnl-tiny	LGPLv2.1	Modified
libogg	1.3.4	https://downloads.xiph.org/releases/ogg/	BSD 3-Clause	Used
libpcap	1.9.1	www.tcpdump.org	BSD 3-Clause	Used
libselinux	3.2	https://github.com/SELinuxProject/selinux/releases/download/3.2	public domain	Used
libsepol	3.2	https://github.com/SELinuxProject/selinux/releases/download/3.2	LGPLv2.1	Used
libsrtp	1.6.0	http://oss.metaparadigm.com/json-c/	BSD	Modified
libstrophe	0.12.2	https://codeload.github.com/strophe/libstrophe/tar.gz/	GPLv3	Modified
libtirpc	1.3.2	http://libtirpc.sourceforge.net/	BSD	Modified
libtool	2.4.6	http://www.gnu.org/software/libtool/	GPLv2	Used
libubox	2021-05-16- b14c4688	http://mirror.greenwavereality.com/openwrt/	ISC	Used
libusb	1.0.24	https://sourceforge.net/projects/libusb/	LGPL 2.1	Used
libvorbis	1.3.7	http://downloads.xiph.org/releases/vorbis/	BSD	Used
libxml2	2.9.12	http://xmlsoft.org/sources/	MIT	Used
Linux/Arm	5.4.171	http://ftp.ntu.edu.tw/pub/linux/kernel/v5.x/	GPLv2	Modified

Kernel				fied
logrotate	3.22.0	https://launchpad.net/ubuntu/hardy/i386/logrotate/	GPLv2	Modi fied
lua	5.1.5	http://www.tecgraf.puc-rio.br/lua/ftp/	MIT	Modi fied
lua	5.3.5	http://www.tecgraf.puc-rio.br/lua/ftp/	MIT	Modi fied
luasocket	2019-04-21- 733af884	https://github.com/diegonehab/luasocket	MIT	Modi fied
lucihttp	2021-06-11- 3dc89af4	https://github.com/jow-/lucihttp.git	MIT	Used
lxc	2.0.4	https://linuxcontainers.org/lxc/downloads/	LGPLv2.1/GPLv2	Modi fied
mailsend	1.19	https://github.com/muquit/mailsend/	BSD	Modi fied
mbedtls	2.16.11	https://codeload.github.com/ARMmbed/mbedtls/tar.gz/v2.16.11	GPLv2	Modi fied
minidlna	1.3.0	https://sourceforge.net/projects/minidlna/files/minidlna/1.3.0/	GPLv2/BSD	Modi fied
musl-fts	1.2.7	https://github.com/pullmoll/musl-fts.git	BSD 3-Clause	Used
nbtscan	1.7.2	http://ftp.debian.org/debian/pool/main/n/nbtscan/	GPLv2	Used
ncurses	6.2	http://ftp.gnu.org/pub/gnu/ncurses/	MIT with exception	Modi fied
net-snmp	5.9.4	http://www.net-snmp.org/	BSD/BSD-like	Modi fied
nettle	3.9.1	https://ftp.gnu.org/gnu/nettle/	GPLv2/LGPLv3	Modi fied
nghttp2	1.57.0	https://osdn.net/projects/immortalwrt/storage/sources/nghttp2-1.43.0.tar.xz/	MIT	Used
ntfs-3g	2022.10.3	http://ntfs-3g.org	GPLv2/LGPLv2	Used
ntpcient	2015_365	http://doolittle.icarus.com/ntpcient/	GPLv2	Modi fied
omcproxy	2018-12-14- 722151f0	https://osdn.net/projects/immortalwrt/storage/sources/omcproxy-2018-12-14-722151f0.tar.xz/	Apache License v2	Modi fied
openssl	3.2.0	http://www.openssl.org	OpenSSL	Modi fied

pciutils	3.7.0	https://github.com/yifengyou/pciutils-3.7.0	GPLv2	Modified
pcrc	8.44	https://sourceforge.net/projects/pcrc/files/pcrc/8.44/	PCRE LICENCE	Used
popt	1.16	http://rpm5.org/files/popt/	MIT	Modified
ppp	2.4.3	http://www.roaringpenguin.com/pppoe	GPLv2/BSD	Modified
pptp	1.7.1	https://sourceforge.net/projects/pptpclient/files/pptp/pptp-1.7.1/	GPLv2	Used
procd	2021-02-23-37eed131	https://downloads.openwrt.org/releases/21.02.1/targets/arc770/generic/openwrt-21.02.1-arc770-generic-default.manifest	LGPL v2.1	Modified
pure-ftpd	1.0.50	http://pureftpd.org	ISC/BSD	Modified
radvd	1.8	http://www.litech.org/radvd/	BSD	Used
readline	8.2	http://cnswww.cns.cwru.edu/php/chet/readline/rltop.html	GPLv3	Used
resolveip	2	https://github.com/openwrt/openwrt/tree/openwrt-21.02/package/network/utils/resolveip	GPLv2	Used
rp-pppoe	3.14	https://dianne.skoll.ca/projects/rp-pppoe/download	GPLv2	Modified
samba	3.6.25	https://download.samba.org/pub/samba/samba-3.6.25.tar.gz	GPLv3	Modified
sqlite	3460000	http://www.sqlite.org/	Public Domain License	Used
swconfig	12	https://github.com/openwrt-mirror/openwrt/blob/master/target/linux/generic/files/drivers/net/phy/swconfig.c	GPLv2	Used
syslog-ng	4.7.1	https://github.com/balabit/syslog-ng	GPLv2	Used
tcpdump	4.99.4	http://www.tcpdump.org/	BSD	Used
u-boot	2021.01	https://source.denx.de/u-boot/u-boot	BSD 2-clause / BSD 3-clause /eCos-2.0 / GPLv2 / ibm-pibs / ISC / LGPLv2.0 / LGPLv2.1 / MIT / OFL / X11 License / Others	Used

ubox	2020-10-25-9ef88681	https://git.openwrt.org/project/ubox.git	GPLv2	Used
ubus	2021-06-30-4fc532c8	https://git.openwrt.org/?p=project/ubus.git;a=shortlog	LGPLv2.1	Used
uci	2020-10-06-52bbc99f	https://git.openwrt.org/project/uci.git	LGPLv2.1	Used
uclient	2021-05-14-6a6011df	https://git.openwrt.org/project/uclient.git	ISC	Used
udhcp	0.9.8	http://udhcp.busybox.net/	GPLv2	Modified
unbound	1.14.0	https://nlnetlabs.nl/downloads/unbound/	BSD 3 Clause	Modified
urandom-seed	3	https://github.com/ntlf9t/openwrt-1/blob/master/package/system/urandom-seed/files/etc/init.d/urandom_seed	GPLv2	Used
urngd	2020-01-21-c7f7b6b6	http://mirror.greenwavereality.com/openwrt/	GPLv2	Used
usb-modeswitch	2.1.0	http://www.draisberghof.de/usb_modeswitch/	GPLv2	Used
usign	2020-05-23-f1f65026	https://download.iopsys.eu/iopsys/mirror/usign-2020-05-23-f1f65026.tar.xz	ISC	Used
ustream-ssl	2020-12-10-68d09243	https://github.com/KoWming/Openwrt-LEDE-dl/blob/main/ustream-ssl-2020-12-10-68d09243.tar.xz	ISC	Used
util-linux	2.36.1	https://github.com/karelzak/util-linux/	GPLv2	Used
vim	9.0	http://ftp.vim.org/pub/vim/unix	VIM LICENSE	Modified
wide-dhcpv6	20080615	https://sourceforge.net/projects/wide-dhcpv6/	BSD	Modified
wireless-regdb	2021.08.28	https://git.kernel.org/pub/scm/linux/kernel/git/sforshee/wireless-regdb.git/	ISC	Modified
wireless-tools	29	https://hewlettpackard.github.io/wireless-tools	GPLv2	Modified
wolfssl	4.8.1-stable	http://www.wolfssl.com/	GPLv2	Modified
wsdd2	2021-08-09-bcc51c3e	https://github.com/Netgear/wsdd2	GPLv3	Used

xl2tpd	1.3.16	https://github.com/xelerance/xl2tpd.git	GPLv2	Modified
xz	5.2.5	https://tukaani.org/xz	XZ Utils Licensing	Modified
zebra	0.95a	http://matt.ucc.asn.au/dropbear/releases/	GPLv2/LGPLv2	Modified
zlib	1.3.1	https://github.com/madler/zlib	zlib	Used
zoneinfo	2021a	https://www.iana.org/time-zones/repository/releases/tzcode2021a.tar.gz https://www.iana.org/time-zones/repository/releases/tzdata2021a.tar.gz	BSD 3-clause	Modified

Known issues

Modules	Issue	Risk Impact Information

Notification

1. OpenSSL 3.1.2 Upgrade Notification

The certificates signed using SHA1 or older/weaker hashes are no longer supported for authenticating servers or clients.

Before upgrading the firmware:

- Please ensure that certificates in your devices are not using weak hashes.
- If weak hashes are detected, kindly update and verify your certificates promptly with stronger hash
(The minimum recommended hash is SHA256)

Modifications in 5.70(ACIF.1)C0

Based on V5.70(ACIF.1)b3 to release V5.70(ACIF.1)C0

● Feature Enhancement

Modified Modules	Features Enhancement List

● Bug Fixed

Modified Modules	Bug Fixed List

Modifications in 5.70(ACIF.1)b3

Based on V5.70(ACIF.1)b2 to release V5.70(ACIF.1)b3

● Feature Enhancement

Modified Modules	Features Enhancement List
Security	1. [EN18031][CVE] Fixed CVE libxml2 : CVE-2022-23308, CVE-2022-40303, CVE-2024-25062 nghttp2 : CVE-2023-35945, CVE-2023-44487 ffmpeg : CVE-2020-35965, CVE-2021-38291, CVE-2022-3109, CVE-2022-48434, CVE-2024-22860, CVE-2024-22861, CVE-2024-22862 pppd : CVE-2006-2194, CVE-2014-3158, CVE-2015-3310, CVE-2018-11574, CVE-2020-8597

● Bug Fixed

Modified Modules	Bug Fixed List
Security	1. [CVE-2024-12009] Zyxel-SI-1591 [Vulnerability] Post-authentication command injection vulnerability in the function "ZyEE" 2. [CVE-2024-12010] Zyxel-SI-1592 [Vulnerability] Post-authentication command injection vulnerability in the email sending function

Modifications in 5.70(ACIF.1)b2

● Feature Enhancement

Modified Modules	Features Enhancement List

● Bug Fixed

Modified Modules	Bug Fixed List
Security	1. [CVE-2024-5412][Zyxel-SI-1557][Vulnerability] Unauthenticated heap buffer overflow in the libclinkc library 2. [CVE-2024-38266,38267,38268,38269][Zyxel-SI-1559][Vulnerability] Multiple authenticated buffer overflow vulnerabilities in VMG8825-T50 3. [CVE-2024-8748][Zyxel-SI-1576][Vulnerability] Unauthenticated buffer overflow in VMG8825-T50 4. [CVE-2024-20017] Improper input validation in wlan service 1. [CVE-2024-9197][Zyxel-SI-1583][Vulnerability] Buffer overflow and potential command injection vulnerabilities in VMG3625-T50B (Medium)

● Not a problem Issue

Modified Modules	Issue List

● Pending Issue

Modified Modules	Issue List