ADVANTECH

ICR-OS

Firmware 6.3.7

RELEASE NOTES

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Abstract

This document describes:

- Firmware update instructions.
- Description of all new features, fixes, and other changes implemented in the firmware.
- Known issues related to a firmware version

Firmware Details

- **Firmware version**: 6.3.7
- **Release date**: September 27, 2022
- **Compatibility**: Advantech routers; see the Firmware Distribution Overview

Please note that not all new Advantech routers are produced and shipped with the latest release of the firmware. The reason for this is usually an existing certification valid for a specific carrier or a region. For more information about the latest version of the firmware for your router, see the *Firmware Distribution Overview* document.

For current and detailed information about the router configuration see the latest version of the Configuration Manual for your router.

Product-related documents and applications including the firmware can be obtained on *Engineering Portal* at icr.advantech.cz address.

Advantech Czech s.r.o., Sokolska 71, 562 04 Usti nad Orlici, Czech Republic
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Part I

Firmware Update Instructions

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General Update Instructions and Notices

HTTPS certificates: The HTTPS certificate format in the router was updated in FW 5.3.5 to improve the security. Existing HTTPS certificates on previously manufactured routers will not automatically be updated with the firmware update! It is possible to update the HTTPS certificates by deleting the files within `/etc/certs/https*` in the router (e.g. via SSH). The certificates will be re-created automatically during the router's next start.

Specific Update Instructions

New filename: If the firmware filename for your router was changed, as listed in Table 1, you will get an issue during the manual or automatic firmware update. The following warning message will appear: *You are trying to upload file "xx.bin" but "yy.bin" is expected. Are you sure to continue?*

To go ahead with the **manual** firmware update, check the table below for details about recent firmware filename changes and make sure you have the correct firmware file for your router. Now, you can confirm the displayed warning message.

To go ahead with the **automatic** firmware update, rename the new firmware file (*.bin and *.ver) to the filename valid before the filename change. This should allow the router to pass through the process of automatic firmware update. Next time, the automatic firmware update feature will work as expected with no need to rename the file.

Router model	FW ver.	New filename	Original filename
SmartMotion ST352 SmartMotion ST355	6.0.2	SPECTRE-v3T-LTE.bin	BIVIAS-v3LL.bin
SmartStart SL302	6.0.3	SPECTRE-v3L-LTE-US.bin	SPECTRE-v3L-LTE-AT.bin

Table 1: Recent Firmware Filename Changes

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Updating Firmware Version Earlier than 5.3.0

It is necessary to follow specific update instructions below only if you are updating from firmware older than 5.3.0.

Due to a bug in the firewall (now fixed) when a WAN device is part of a bridged interface, caution should be taken when updating in the following case:

Condition:	When a WAN device is part of a bridged interface, access to that WAN device (HTTPS, SSH) is always granted regardless of configuration.
Problem:	If this is your configuration, it is highly likely that you are not aware of this, so the undesired effect of the bridge firewall fix may make the router inaccessible.
Recommended Action:	Enable access to both, the web and ssh services, before updating if you want to keep the current behavior (access to the WAN interface). This can be done on the *NAT* page in the *Configuration* section of the router's Web interface.

Change the root's password:

It is necessary to change the password of the *root* user when updating to the firmware version 5.3.0 or newer. The reason for this is an update of the authentication system (encryption algorithm *crypt* was changed to *MD5*; passwords are now stored in the `/etc/shadow` file instead of `/etc/passwd` file). The change of the password is required before setting up the remote access on the *NAT Configuration* page.

Please note that when downgrading from 5.3.0+ to an earlier firmware version, the password of the *root* user is reset to the default one, which is *root*.

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Part II

Changelog

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Legend: Affected products are marked as shown below for every changelog item:

Affected product | Not affected product

Live Data in GUI

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

All status pages of the web interface can now display live data. To enable this feature, click on the *refresh* button in the top right corner of one of the status pages. To stop the data update and to limit the amount of data transferred, disable automatic data updates by clicking the *pause* button again.

Added HTTP and SSH Login Banner

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

There is a new configuration field called *Login Banner* in the HTTP and SSH configuration pages. The text specified within this optional field is displayed on the HTTP login page respectively in the console when login in by SSH.

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License List Enhancement

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

The licenses list, which can be opened by the *Licenses* link under *Status -> General -> System Information* page, was enhanced with the package's version. The list is split into *Bootloader* and *Firmware* sections. In addition, this license list now supports displaying the installed Router Apps licenses, if supported by the Router App.

Enhanced `gsmat` Program

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

The `gsmat` is a program that can send an AT command to the cellular module. This command now supports the timeout option, as shown in the syntax below. Note that the default timeout remains 10 seconds.

Syntax:

```
gsmat [-t <timeout>] <AT command>
```

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Fixed Cellular Module Configuration

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have changed the internal IP address of *Unitac ML620* cellular modules from 10.0.0.1 to 192.168.254.254 to resolve potential collisions in a private APN.

Unprivileged Mode

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

Some network services now run in the unprivileged mode having restricted access to system resources. We have made this measure due to security reasons.

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Enabled HSTS Policy

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have added the HSTS (HTTP Strict Transport Security) header to the HTTPS responses in case the HTTP access is disabled in the configuration. This security measure will prevent the downgrade of HTTPS protocol to HTTP protocol. To work correctly, a certificate signed by a certification authority must be uploaded and a domain account must be used for router logging.

Disabled Obsolete TLS Versions

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

The TLS (Transport Layer Security) versions 1.0 and TLS 1.1 are now disabled in the default configuration. Using versions lower than 1.2 is unsafe and, therefore, not recommended. In the future, the use of these versions will be prohibited.

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Configuration Parameter Length Lifted

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have removed the limitation of configuration parameter length that could be passed to an application in the console. The length of parameters was limited to 8 KB until now.

Fixed VRRP Service

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have fixed the occasional crashing of the VRRP (Virtual Router Redundancy Protocol) service.

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IPsec/OpenVPN Script Fix

SPECTRE 3G SPECTRE RT SPECTRE LTE-AT SPECTRE LTE-VZ
ER75i v2 UR5i v2 XR5i v2 LR77 v2 CR10 v2 UR5i v2L RR75i v2 LR77 v2L XR5i v2E
Bivias v2HC Bivias v2LC Bivias v2LL Bivias v2LH Bivias v2HH
SmartFlex SR300 SmartFlex SR303 SmartFlex SR304 SmartFlex SR305 SmartFlex SR306 SmartFlex SR307
SmartFlex SR308 SmartFlex SR309 SmartFlex SR310 SmartStart SL302 SmartStart SL304 SmartStart SL305
SmartStart SL306 SmartMotion ST352 SmartMotion ST355 ICR-320x ICR-321x ICR-323x ICR-324x
ICR-203x ICR-241x ICR-243x ICR-253x ICR-263x ICR-270x ICR-273x ICR-383x
ICR-443x ICR-445x

We have fixed the calling of IPsec and OpenVPN up/down scripts in alternative profiles.

Fixed SIM1 LED Indication

SPECTRE 3G SPECTRE RT SPECTRE LTE-AT SPECTRE LTE-VZ
ER75i v2 UR5i v2 XR5i v2 LR77 v2 CR10 v2 UR5i v2L RR75i v2 LR77 v2L XR5i v2E
Bivias v2HC Bivias v2LC Bivias v2LL Bivias v2LH Bivias v2HH
SmartFlex SR300 SmartFlex SR303 SmartFlex SR304 SmartFlex SR305 SmartFlex SR306 SmartFlex SR307
SmartFlex SR308 SmartFlex SR309 SmartFlex SR310 SmartStart SL302 SmartStart SL304 SmartStart SL305
SmartStart SL306 SmartMotion ST352 SmartMotion ST355 ICR-320x ICR-321x ICR-323x ICR-324x
ICR-203x ICR-241x ICR-243x ICR-253x ICR-263x ICR-270x ICR-273x ICR-383x
ICR-443x ICR-445x

We have fixed an issue with the SIM 1 LED delayed indication when the router resets.

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Enabled PIE Generation

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have enabled the generation of position-independent executables (PIE) for all affected router platforms. Position Independent Executables can be loaded anywhere in memory, much like shared libraries. This method increases the security of executable files.

Security Fixies

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have fixed CVE-2022-28391 (high) in *BusyBox* software and CVE-2022-37434 (critical) in *zlib* library. Furthermore, this update has fixed the Linux kernel's CVE-2022-1012 (critical), CVE-2022-32296 (low), CVE-2022-36946 (high), and CVE-2022-20368 (high).

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Replaced `ndppd` Library

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have replaced the *ndppd* library, software to support proxy NDP packets, with the *ndproxy* library. We have made this replacement to reduce the size occupied by this software.

Replaced `inetutils` Software

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have replaced `inetutils` software, a collection of network programs, with `Pure-FTPd` software to support an FTP server functionality. The rationale for this replacement was to reduce the required system resources and provide the required security. For more details about this software, see the Pure-FTPd webpage.

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Updated OpenSSL Library

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have updated the OpenSSL library to version 1.1.1q. This update has fixed CVE-2022-2068 (critical). For more details about this release, see the OpenSSL Changes webpage.

Updated glibc Library

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have updated the *Glibc* library to version 2.35. This update has fixed CVE-2010-4756 (N/A), CVE-2019-25013 (medium), CVE-2019-1010022 (critical), CVE-2019-1010024 (medium), CVE-2019-1010025 (medium), CVE-2020-1752 (high), CVE-2020-6096 (high), CVE-2020-10029 (medium), CVE-2020-27618 (medium), CVE-2020-29562 (medium), CVE-2021-3326 (high), CVE-2021-35942 (critical), CVE-2022-23218 (critical), and CVE-2022-23219 (critical). For more details about this release, see the GNU C Library version 2.35 webpage.

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Updated `Net-SNMP` Software

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have updated the `Net-SNMP` software to version 5.9.3. This update has fixed CVE-2022-24805 (N/A), CVE-2022-24806 (N/A), CVE-2022-24807 (N/A), CVE-2022-24808 (N/A), CVE-2022-24809 (N/A), and CVE-2022-24810 (N/A).

Updated `curl` Program

SPECTRE 3G | SPECTRE RT | SPECTRE LTE-AT | SPECTRE LTE-VZ
ER75i v2 | UR5i v2 | XR5i v2 | LR77 v2 | CR10 v2 | UR5i v2L | RR75i v2 | LR77 v2L | XR5i v2E
Bivias v2HC | Bivias v2LC | Bivias v2LL | Bivias v2LH | Bivias v2HH
SmartFlex SR300 | SmartFlex SR303 | SmartFlex SR304 | SmartFlex SR305 | SmartFlex SR306 | SmartFlex SR307
SmartFlex SR308 | SmartFlex SR309 | SmartFlex SR310 | SmartStart SL302 | SmartStart SL304 | SmartStart SL305
SmartStart SL306 | SmartMotion ST352 | SmartMotion ST355 | ICR-320x | ICR-321x | ICR-323x | ICR-324x
ICR-203x | ICR-241x | ICR-243x | ICR-253x | ICR-263x | ICR-270x | ICR-273x | ICR-383x
ICR-443x | ICR-445x

We have updated the `curl` program to version 7.84.0. This update has fixed CVE-2022-32205 (medium), CVE-2022-32206 (medium), CVE-2022-32207 (critical), CVE-2022-32208 (medium), and CVE-2022-35252 (N/A). For more details about this release, see the Curl Changelog webpage.

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Updated TPM Software

SPECTRE 3G SPECTRE RT SPECTRE LTE-AT SPECTRE LTE-VZ
ER75i v2 UR5i v2 XR5i v2 LR77 v2 CR10 v2 UR5i v2L RR75i v2 LR77 v2L XR5i v2E
Bivias v2HC Bivias v2LC Bivias v2LL Bivias v2LH Bivias v2HH
SmartFlex SR300 SmartFlex SR303 SmartFlex SR304 SmartFlex SR305 SmartFlex SR306 SmartFlex SR307
SmartFlex SR308 SmartFlex SR309 SmartFlex SR310 SmartStart SL302 SmartStart SL304 SmartStart SL305
SmartStart SL306 SmartMotion ST352 SmartMotion ST355 ICR-320x ICR-321x ICR-323x ICR-324x
ICR-203x ICR-241x ICR-243x ICR-253x ICR-263x ICR-270x ICR-273x ICR-383x
ICR-443x ICR-445x

We have updated the Trusted Platform Module (2.0) software for security reasons. The `tpm2-tools` package was updated to version 5.2 to fix the CVE-2021-3565 (medium) and `tpm2-tss` to version 3.2.0 due to the CVE-2020-24455 (medium).

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Part III

Known Issues

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Firmware Update – Unexpected Filename

If the filename of firmware for your router was changed, you could have an issue during manual firmware update or with Automatic Update feature. This warning message will appear: *"You are trying to upload file "xx.bin" but "yy.bin" is expected. Are you sure to continue?"* To fix this issue follow instructions in Part I - Firmware Update Instructions.

Automatic Update – Update to Version 6.1.10

The feature of automatic firmware update will not recognize the firmware version 6.1.10 as a new version in case the installed version of firmware is from 6.1.0 to 6.1.8. To fix this issue, either update the firmware by the automatic update to version 6.1.9 first or update it manually directly to the version 6.1.10.

WiFi Configuration – Lost After Firmware Downgrade

If the firmware is downgraded to the version earlier than 6.2.0, the WiFi configuration will be lost completely.

ICR-3200 – Country Code for WiFi

The first version of the firmware for the WiFi module does not support the settings of the country code. Due to this issue, the settings of the country code made on the configuration page has no effect at all. The country code is set up during the manufacturing process according to the product destination region.

SmartStart – Cellular Network Registration

It is necessary to use router's firmware version 6.1.5 or higher if the *Telit* cellular module installed in your SmartStart router has following version of the firmware:

- *Telit LE910-EU V2* cellular module with firmware version 20.00.403 or newer,
- *Telit LE910-NA1* cellular module with firmware version 20.00.014 or newer.

Note: The model name and firmware version of the cellular module can be found on router's web GUI at *Mobile WAN Status* page in *Mobile Network Information* section.

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SmartStart SL302 – Cellular Network Authentication

It is not possible to use username and password when connecting to Mobile WAN network (on *Mobile WAN Configuration* page) if your SmartStart SL302 router has the 20.00.522 firmware version inside the Telit LE910-NA1 cellular module. The version of cellular module firmware can be found at *Mobile WAN Status* page in *Mobile Network Information* section.

SmartStart SL302 – SMS in *Verizon* Network

SmartStart SL302 router (equipped with the *Telit* modules *LE910-SV1* or *LE910-NA1*) supports sending and receiving of SMS in *Verizon* cellular network since the firmware version 6.1.4. Please note that to support SMS receiving, cellular module with *Verizon* firmware version higher than 20.00.012 is required.

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