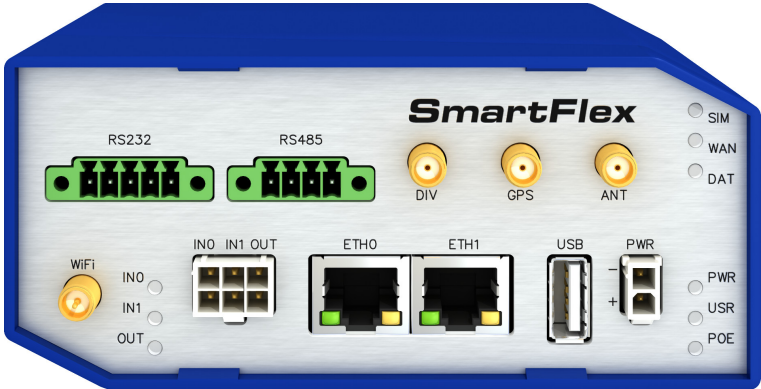




Firmware 6.3.2

RELEASE NOTES



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:** 6.3.2
- **Release date:** September 30, 2021
- **Hardware compatibility:** applicable to the Advantech routers

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.

Part I

Firmware Update Instructions

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

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*.

Part II
Changelog



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

Affected product Not affected product

WiFi WPA3 Support

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x				

Starting with this firmware release, we have added support for the new WPA-3 WiFi authentication. This option is available for both *Access Point* and *Station* mode configuration. WiFi protected Access 3 (WPA3) is the next-generation WiFi encryption protocol. WPA3 builds upon trusted WPA2 success to bring a new level of security for personal and enterprise environments.

SSID Isolation

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x				

There is a new option in the WiFi Access Point configuration, enabling the *SSID Isolation* feature. When enabled, a WiFi client connected to the Access Point cannot communicate with another WiFi client connected to another Access Point. However, this client can still communicate with a client connected to the same Access Point unless the *Client Isolation* is not enabled.

Docker Support

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

This firmware release contains updates to support the new [Docker Router App](#) supporting the [Docker](#) platform for the *Advantech* routers.

Docker is an open platform for developing, shipping, and running applications. *Docker* provides the ability to package and run an application in a loosely isolated environment called a container.

A *Docker* container image is a lightweight, standalone, executable package of software that includes everything needed to run an application: code, runtime, system tools, system libraries, and settings. See docker.com for the platform homepage or hub.docker.com for the container images repository.

Note: Models equipped with built-in eMMC memory are required to support the *Docker* Router App.

SNMP 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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

SNMP information for cellular band number, signal strength, CPU usage, and RAM usage is now available. See the [SNMP Object Identifiers](#) application note for detailed information.

Added shred 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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

We have added support for the `shred` program, which can delete a file from non-volatile memory entirely. This command overwrites the contents of a file multiple times, using patterns chosen to maximize the destruction of the residual data, making it harder for even costly hardware probing to recover it. See the [Commands and Scripts](#) application note for detailed information about this command.

Added sysctl 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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

We have added support for the `sysctl` program, which can list and modify kernel parameters at runtime. The parameters available are those listed under `/proc/sys/`. Check the [Commands and Scripts](#) application note for more information about this program.

New iptables Extension

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x				

Added support for the *addrtype* match extension to the *iptables* utility. This module matches packets based on their address type. Address types are used within the kernel networking stack and categorize addresses into various groups. Visit [Addrtype match](#) manual page for a detailed description of match extension or *iptables* manual pages eventually.

New ebttables Extension

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x				

Added support for the *mark* match extensions to the *ebtables* utility. The *mark* extension matches packets based on the marks they have set. For more information about *ebtables*, see the *ebtables* manual page.

Cellient Firmware Support

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x				

We have added support for the new firmware of the *Cellient MPL200* cellular module (version MPL200_08_0721). This new module firmware is incompatible with the router firmware of version earlier than 6.3.2. For an older router firmware, the LTE connection will not be established successfully.

SFTP File Access Logging

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x				

As a security enhancement, the SFTP configuration was changed to log the SFTP level file access.

TCP Fix Applied

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

We have enabled the protection against the TCP TIME-WAIT assassination hazard. See the [RFC 1337](#) for more details.

OpenSSL Security 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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

For security reasons, the compression and deprecated ciphers in OpenSSL were disabled.

Security Improvements

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

We have applied various kernel and userspace hardening techniques as a security enhancement. Some of the most significant improvements are:

- Enabled hardening of common `str/mem` functions in 1st party binaries.
- Enabled hardening of `str/mem` functions in Linux kernel.
- Enabled generating of position-independent code in 1st party binaries.
- Disabled `/dev/mem` device.
- Restricted `dmesg` access.
- Enabled strong stack protector in Linux kernel.
- Enabled hardening of memory copies between userspace and Linux kernel.
- Enabled PAN emulation in Linux kernel.
- Enabled Yama Linux Security Module.

HTTP Security Headers

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

New HTTP security headers *Content-Security-Policy*, *Referrer-Policy*, and *Permissions-Policy* were added to protect the HTTP against various attacks.

Session Cookie 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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

The session ID cookie is now protected with the *Secure*, *HttpOnly*, and *SameSite=Strict* attributes.

XC-CNT FW update 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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

We have fixed an issue that caused the malfunction of the *XC-CNT FW update* Router Apps in router firmware version 6.3.1.

GPRS Connection 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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

We have fixed an issue with the GPRS connection on *Telit LE910-EU V2* cellular modules with firmware 20.00.406.

AT&T 3G Sunset 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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x				

We have changed the cellular module’s configuration to work in LTE networks once the AT&T 3G shuts down as planned by February 22nd, 2022. The cellular modules were configured to be data-centric instead of voice-centric.

IPsec Security Improvement

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x				

We have improved the interoperability and security of IPsec by adding the *default* ciphers to the IKE and ESP proposals.

IPsec Configuration 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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x				

We had fixed an IPsec malfunction issue when the *PFS* was enabled and the *ESP Algorithm* was set to *auto*.

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

We have updated the OpenSSL library to version 1.1.1l. This update has fixed [CVE-2021-3711](#) (critical) and [CVE-2021-3712](#) (high). For more details about OpenSSL changes, see the [OpenSSL changes](#) webpage.

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-243x	ICR-253x	ICR-383x	ICR-443x	ICR-445x			

We have updated the curl program to version 7.79.1. This update has fixed [CVE-2021-22945](#), [CVE-2021-22946](#), and [CVE-2021-22947](#). For more details about this curl release, see the [curl changelog](#) webpage.

Part III
Known Issues

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.

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.