

<b>Document No.</b>	RB-251114-02
<b>Date</b>	November 14th, 2025
<b>Classification</b>	External
<b>Attn</b>	Eutelsat OneWeb & Distribution Partners
<b>Related Products</b>	Flat Panel Enterprise and Compact Series and CNX Portfolio
<b>Subject</b>	Flat Panel Series Software Release Bulletin (i-ESA_2.0.7.2)

Dear valued customers,

The Release Bulletin includes details regarding the latest software bundle, i-ESA\_2.0.7.2 for the Intellian’s Flat Panel Series.

## 1. Software Release Summary

Software Release i-ESA\_2.0.7.2 is now available for use with Intellian’s Compact and Enterprise Series User Terminals, supporting land fixed, maritime, and land mobile applications. This release brings significant performance improvements to the flat panel user terminals and the CNX variants, including security improvements and enhanced LUI capabilities. Prior to applying this software bundle, please follow the instructions outlined in this document.

### 1.1 Software Release Details

**Table 1.0**

S/W Bundle File Name	Bundle Version
<a href="#">i-ESA_2.0.7.2_CNX-WIFI.tar.gz</a>	i-ESA_2.0.7.2
<a href="#">i-ESA_2.0.7.2_CNX-MOBILITY.tar.gz</a>	
<a href="#">i-ESA_2.0.7.2_CNX-RACK.tar.gz</a>	
<a href="#">i-ESA_2.0.7.2_CNX-BB.tar.gz</a>	
<a href="#">i-ESA_2.0.7.2_FX.tar.gz</a>	

**Table 1.1**

UT Component	Version	LUI Version Display
Antenna Interface Module	1.0.1.230	Antenna>Software Version
SSM BSP	6.1.14.1	Diagnostics>UT Status>Current Linux BSP Version
SSM Application	6.1.76	Diagnostics>UT Status>SSM Software Version
Modem	4.1.3	Modem>Modem Info>About This Modem>Current Software Version
FTM	1.22	Modem>GNSS Statistics> GNSS Receiver Info>Software Version
KIM	2.4.1	Antenna>Software Version

**Table 1.2**

CNX Component	Version	LUI Version Display
CNX-WIFI	420.204.2-034	Diagnostics>UT Status>CNX Software Version (current)
CNX-Mobility	434.204.2-031	
CNX-Rack	0.2.16	
CNX-BB	0.0.0	

## 1.2 Software Changes

Component	Title	Summary
AIM	Security Improvements	Signature verification to ensure package integrity prior to executing the upgrade process has been implemented.
	LUI Enhancements	The Self Diagnostics Page is now available in the Local User Interface (LUI). Includes UT information such as System Status, Module Status, Fault Alarms, and Sensor Information. Giving greater visibility into system health and a summary to share for any tickets submitted.
	Other Upgrades & Bug Fixes	SINR degradation and drops on mobility units at high scan elevation will now see stable SINR, improved pointing accuracy, and reliable performance.
		Resolved SINR degradation caused by residual tilt error, delivering smoother handovers, enhanced point accuracy and tilt calibration. Fan control is now more efficient, with proper hysteresis control.
SSM	SSM Updates	SSM BSP version 6.1.14.1 ensures smoother operation of software partitions during loading the application software.
		A bug showing incorrect uptime value in LUI has been resolved.
		Fixed conditions where LUI incorrectly reported an error during a local upgrade, even when successful.
CNX-Mobility & CNX-WIFI	Component Updates	MoCA SDK has been upgraded to support larger MTU to 2000 bytes.
	Security Improvements	Includes Linux Kernel updates (v5.4.213) that enhance overall system stability and address security vulnerabilities.
		Connections will now automatically redirect to HTTPS, providing an additional layer of security.
		Signature verification has been implemented on the CNXs to validate their respective packages and ensure package integrity.
	Local User Interface (LUI) Enhancements	Connected devices are now visible in the CNX LUI Connected Devices List when connected to the Mgmt SSID "Intellian" in Multi-APN Router work mode.
		Connected devices with unknown hostname now display "NA" instead of "?".
		The Status Overview Page now correctly updates all port status indicators. Previously disabled LAN ports were still shown as enabled in Switch/AP Mode.
		2.4 and 5Ghz SSID's are now correctly displayed in Multi-APN Router Work Mode when connected to Mgmt SSID "Intellian"
		Wi-Fi Configuration Page now allows standalone configuration of 5GHz and 2.4GHz.
		The Status Overview page now displays 5GHz status, including hidden/disabled SSIDs and channel numbers, when it differs from the 2.4GHz configuration.
		Port statistics data has been moved from the Status Overview page to Port Configuration page.
		The IP Configuration page now uses "End IP" instead of "IP Num" for setting IP ranges, enhancing the user experience.
	Other Upgrades & Bug Fixes	SSM IP addresses can now be configured via the CNX LUI.
		Introduced support for an Extended ICD.
Added support for the Mgmt SSID "Intellian" with a default password when the device's password is stored on flash.		
CNX-WIFI	Security Improvements	The Wi-Fi Configuration page now supports spaces, hyphens ("-"), and underscores ("_") in the SSID name.
		Default password added to MGMT SSID "Intellian" if none is created. Matches APN1 password printed on product label.
CNX-Rack	Component Updates	MoCA recovery mechanism has been implemented to resolve field issues related to MoCA disconnections.
	VLANS	CNX-Rack now comes with pre-installed VLAN configurations. Configuration outline in flat panel user guides.

## 1.3 Known Issues

Component	Summary
AIM	Missing gain updates stats in mm_owext stats, which may result in minimal latency/jitter spikes. No intervention required. UT will recover on its own.
	Occasional modem_timing_error_detected faults were observed during warm-start, resulting in seconds of delay in acquisition. No intervention required. UT will recover on its own.
	UT Software upgrade fails occasionally on first attempt and upgrade may require another upgrade attempt. This issue may occur in less than 5% of the user terminals.
SSM / MDM	Modem_ephemeris_info_is_missing_or_corrupted may occur and result in service outage. New ephemeris must be loaded to the UT.
	MDM resets due to csi_internal_error will cause a service outage of 30-45 seconds. No intervention required. UT will recover on its own.
	MDM4.1.3 stuck idle & no recovery by SSM will result in a service outage. The UT will require a reboot to recover.
	On rare occasions, if all bundle downloads from DH attempts fail, it results in UT losing all configuration and loss of service. Recovery requires LUI bundle update to restore the cfg files and restore service.
	Unable to launch mm_owextension; exceeded max consecutive restart count = 5 results in an outage, and requires a reboot to recover.

## 2. Preparing the User Terminal for an OTA Software Bundle Update

It is recommended that software updates for all Eutelsat OneWeb User terminals are performed from Device Hub via the Over-the-Air process. Device Hub will now ONLY display the following bundle:

- i-ESA\_2.0.7.2

### 2.1. Determine if a Transition Bundle is required

When initiating an OTA upgrade, Device Hub will display only the software bundle that is required for the user terminal being upgraded.

If no software bundle is visible, the UT is running significantly older software and requires a local upgrade. If the SSM is running version 5.0.65 or older, the transition bundle, i-ESA\_2.0.0.9T, is necessary to locally upgrade the terminal to the latest available software bundle.

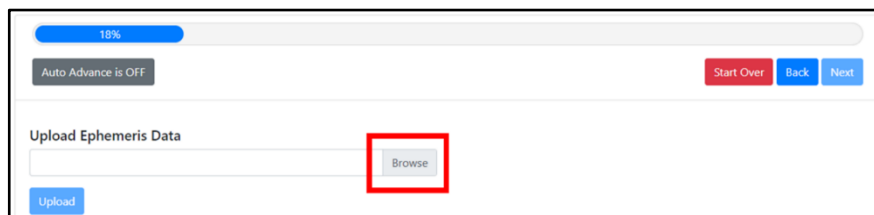
See Section 3 for more details. Once the transition bundle is successfully installed, local upgrade to the latest version, 2.0.7.2 can be performed.

### 2.2. Loading the Ephemeris File

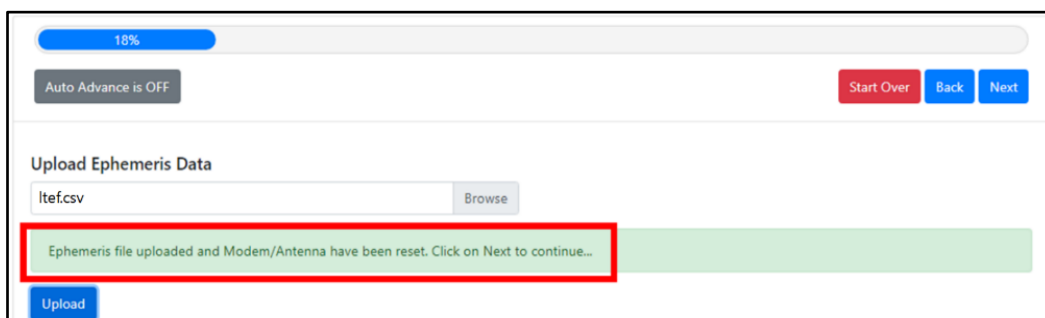
In the case of new installations or updating user terminals that have not come online in over 30 days, the Ephemeris File may require updating. Ephemeris Data contains current information about the orbits of the satellites in the Eutelsat OneWeb constellation. The User Terminal uses ephemeris data to determine the positions of the satellites in the sky at any given time.

If updating the Ephemeris file is required, the following steps should be followed to complete the commissioning process and allow the UT to connect to the Eutelsat OneWeb network:

- 1) From a web browser, navigate to <https://ephemeris.oneweb.net/itef/>
- 2) Select the **itef.csv** file to download.
- 3) Go to the LUI main page and select **Install** from the menu.
- 4) Select the **Next** button skip to the step where you can upload the Ephemeris Data.
- 5) Select the **Browse** button on the Upload Ephemeris page.



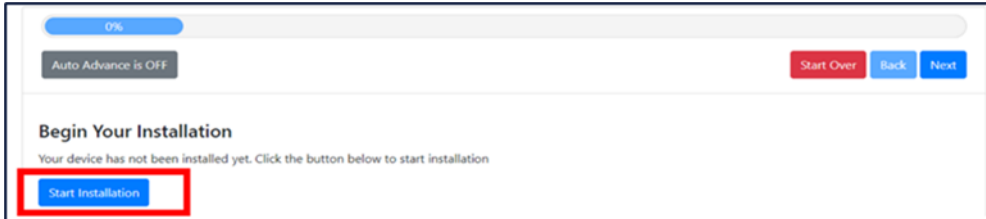
- 6) Select the **itef.csv** file and click **Open**.
- 7) Select the **Upload** button.
- 8) When the upload has completed, a message will display that Ephemeris file uploaded.
- 9) The UT is now ready to go OTA.



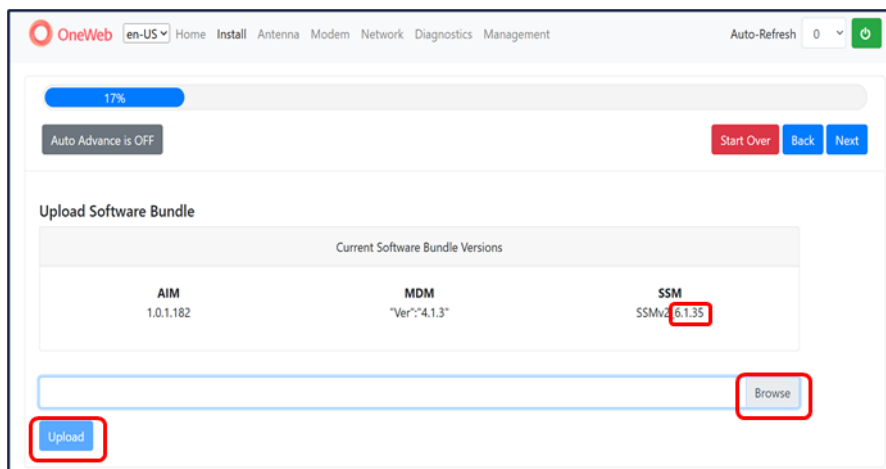
### 3. Performing a Local Bundle Upgrade

The software bundle on the user terminal may also be updated using the Local User Interface (LUI). This process is recommended for recovery purposes only. It can also be followed for new installations if desired.

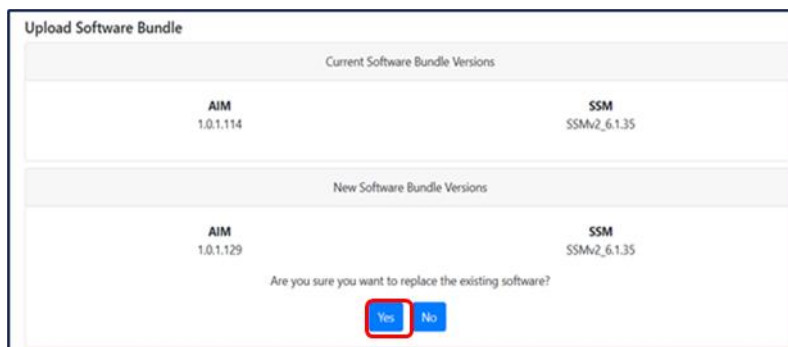
1. Go to the LUI main page (192.169.100.1) and select Install from the top menu. Select the Start Installation button on the Begin Your Installation page



2. The Current Software Bundle Versions will display. If the SSM version is older than 5.0.65 then a Transition Bundle is required.



3. Select the desired file using the Browse button and then select the Upload button on the Upload Software Bundle page.
  - i. The Transition Bundle is available here: [i-ESA\\_2.0.0.9T](#).
  - ii. Prior to selecting the i-ESA\_2.0.7.2 bundle, ensure you have selected the appropriate release based on the CNX version.
4. Verify the New Software Bundle Versions, and to continue the software installation, select Yes.



5. The screen will display the progress of the update and application of new software.
6. Once the software has been updated, a "Software has been updated!" message will display. The system will automatically reboot. The page will automatically refresh, when complete.

## 4. Upgrading the CNX

There is no need to perform a local upgrade to the CNX, if the CNX is set to managed on the UT Configuration page. Starting with software version i-ESA\_2.0.6.1, the CNX is set to 'managed' by default, which enables the CNX upgrade with the i-ESA bundle. Units upgrading from bundles earlier than i-ESA\_2.0.6.1 that want the CNX upgrade to occur must manually set the CNX to 'managed' before directly installing the i-ESA\_2.0.7.2 bundle.

To determine if the CNX is set to 'managed', navigate to the UT Configuration tab via the antenna's LUI Homepage > Diagnostics Tab > Configuration > Search "Managed". If the Value is false, select true.

### UT Configuration

Save
Reload

manage

Group	Name	Value	Source
ut_component	aim_is_managed	true	cfg_ces.json
ut_component	cnx_is_managed	true	cfg_adv.json
ut_component	egr_is_managed	false	cfg_ces.json
ut_component	mdm_is_managed	true	cfg_ces.json
ut_component	mdm_is_managed_safegua...	true	cfg_default.json
ut_component	mim_is_managed	false	cfg_default.json

The CNX-WIFI and CNX-Mobility can also be locally upgraded. The process is identical across OW10Hx, OW11Fx, CNX-WIFI and CNX-Mobility. Reference the associated User Guides for detailed instructions on this process.

- [CNX-WIFI - 420.204.2-034](#)
  - Section 9.6.6 of the [OW10Hx User Guide](#), and Section 9.6.6 of the [OW11Fx User Guide](#).
- [CNX-Mobility- 434.204.2-31](#)
  - Section 12.7.6 of the [OW10Hx User Guide](#) and [OW11Fx User Guide](#).

Currently, the CNX-Rack does not support a local upgrade, and should be done via the bundle upgrade process.

## 5. Downgrading the Software Bundle or the CNX Firmware

Due to the enhanced security features introduced in the CNX versions included in the i-ESA 2.0.7.2 bundle, performing OTA downgrades is no longer supported. The latest versions of CNX-WIFI v34 and CNX-Mobility v31 bundled in i-ESA\_2.0.7.2 software release, include security enhancements that introduce downgrade restrictions. As a result, downgrades to earlier firmware versions are no longer supported.

### Reason for Downgrade Restrictions

The compatibility restrictions on downgrades are driven by the security enhancements which include:

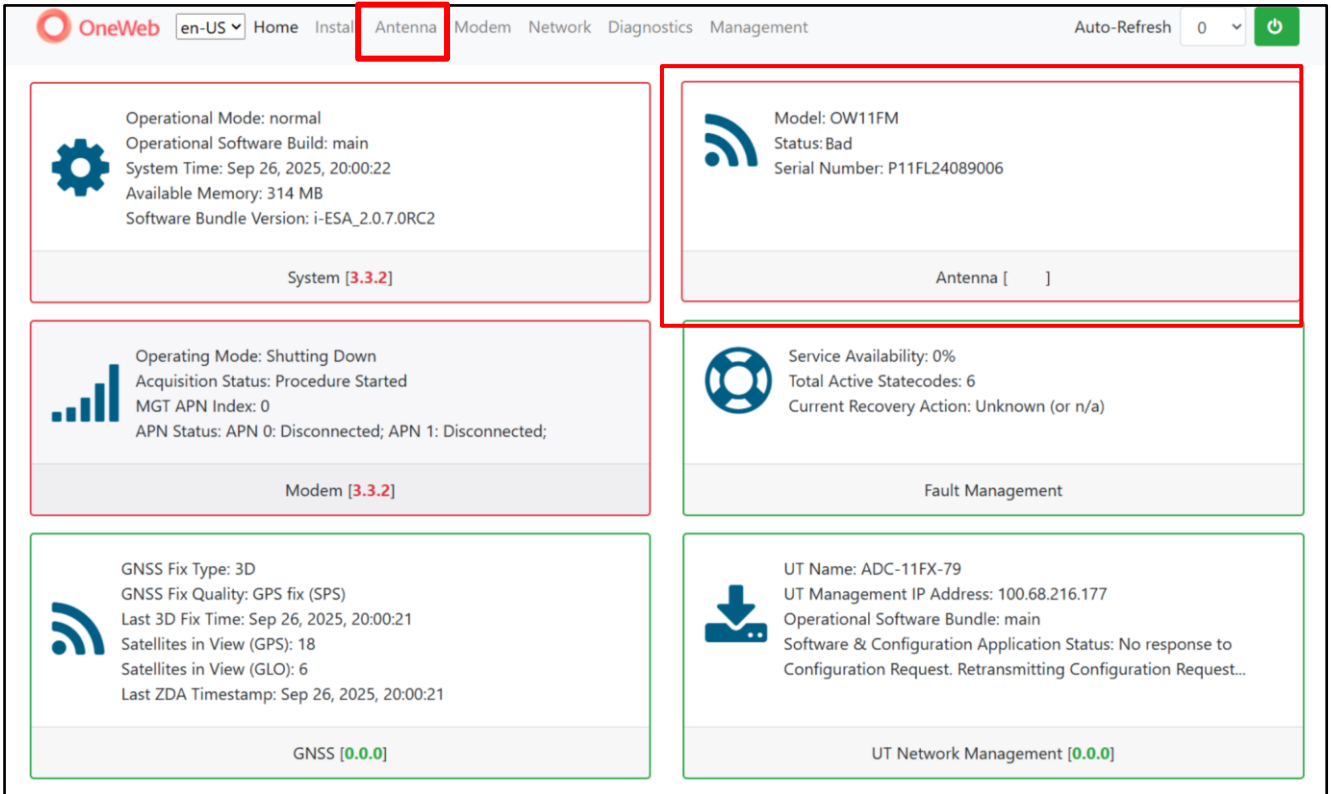
- Linux kernel update for security robustness
- Cryptographic signature to verify the firmware's integrity

However, if a downgrade is absolutely required, please contact OneWeb CTAC or Intellian Technical Support for further assistance.

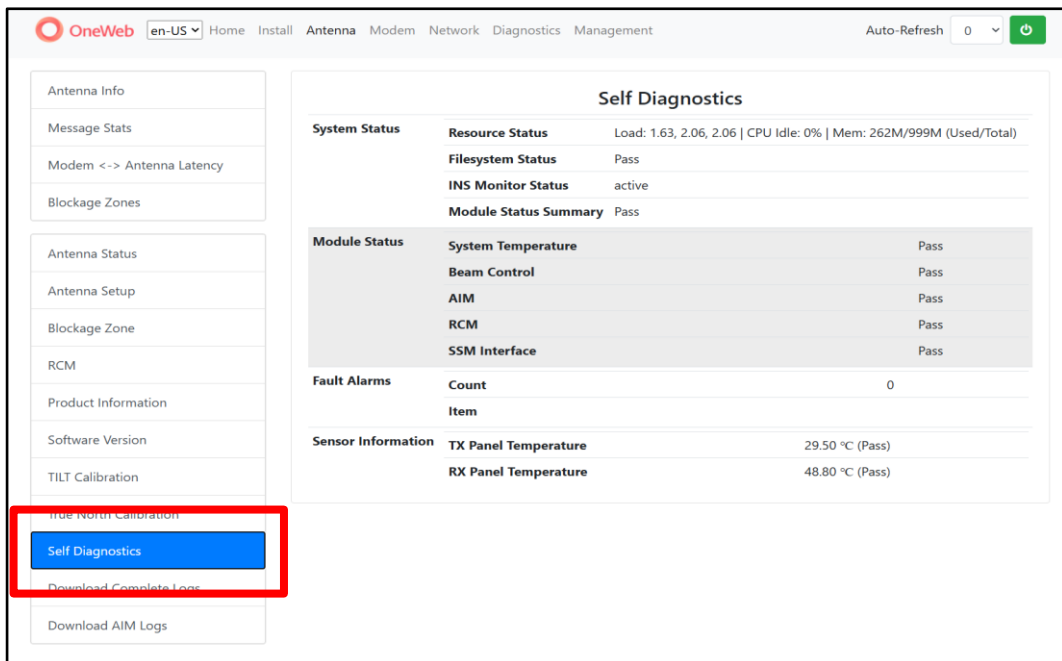
## 6. New Features

### 6.1. Self Diagnostics Page

A new Self Diagnostic Page is now available in the LUI to further assist in troubleshooting. This page is primarily intended for use by the Intellian TS team or the OneWeb CTAC, as it provides insight into the UT status. The Self Diagnostics Page provides details on System Status, Module Status, Fault Alarms, and Sensor Information.



In the case that the UT status on the Antenna card on the LUI homepage (192.169.100.1) displays "Status: bad", navigate to Antenna -> Self Diagnostics. If a "Fail" status is encountered, the users can power cycle the UT and if that does not solve the issue please contact OneWeb CTAC or Intellian Technical Support for further assistance.



## Contact Information

If any issues or difficulties are encountered during this process, please submit a ticket to [support@intelliantech.com](mailto:support@intelliantech.com) for assistance.

Please contact your regional product management team, if you have any questions or require any additional information regarding this document.

H.Q.	EMEA	AMERICAS
Pangyo Office	Rotterdam Office	Maryland Office
Intellian Technologies, Inc. 5F IDIS Tower, 344, Pangyo-ro Bundang-gu, Seongnam-si, Gyeonggi-do, 17709 Korea	Intellian B.V. Tempelhof 12, 3045 PV Rotterdam, The Netherlands	Intellian Technologies USA, Inc. 2600 Tower Oaks Blvd Rockville, MD 20852 U.S.A.
T +82 2 511 2244 F +82 2 511 2235 <a href="mailto:Support@intelliantech.com">Support@intelliantech.com</a>	T +31 1 0820 8655 F +31 1 0820 8656 <a href="mailto:Support@intelliantech.com">Support@intelliantech.com</a>	T +1 949 727 4498 F +1 949 271 4183 <a href="mailto:Support@intelliantech.com">Support@intelliantech.com</a>

## Appendix. Revision History

Version	Component	Item	Description
2.0.7.2	AIM	Security Improvements	Signature verification to ensure package integrity prior to executing the upgrade process has been implemented.
		LUI Enhancements	The Self Diagnostics Page is now available in the Local User Interface (LUI). Includes UT information such as System Status, Module Status, Fault Alarms, and Sensor Information. Giving greater visibility into system health, and a summary to share for any tickets submitted.
		Other Upgrades & Bug Fixes	SINR degradation and drops on mobility units at high scan elevation, will now see stable SINR, improved pointing accuracy and reliable performance.
			Resolved SINR degradation caused by residual tilt error, delivering smoother handovers, enhanced point accuracy and tilt calibration.
			Fan control is now more efficient, with proper hysteresis control.
	SSM	SSM Updates	SSM BSP version 6.1.14.1 ensures smoother operation of software partitions during loading the application software.
			A bug showing incorrect uptime value in LUI has been resolved.
			Fixed conditions where LUI incorrectly reported an error during a local upgrade, even when successful.
	CNX-Mobility & CNX-WIFI	Component Updates	MoCA SDK has been upgraded to support larger MTU to 2000 bytes.
		Security Improvements	Includes Linux Kernel updates (v5.4.213) that enhance overall system stability and address security vulnerabilities.
			Connections will now automatically redirect to HTTPS, providing an additional layer of security.
			Signature verification has been implemented on the CNXs to validate their respective packages and ensure package integrity.
			Includes Linux Kernel updates (v5.4.213) that enhance overall system stability and address security vulnerabilities.
		Local User Interface (LUI) Improvements	Connected devices are now visible in the CNX LUI Connected Devices List when connected to the Mgmt SSID "Intellian" in Multi-APN Router work mode.
			Connected devices with unknown hostname now display "NA" instead of "?".
			The Status Overview Page now correctly updates all port status indicators. Previously disabled LAN ports were still shown as enabled in Switch/AP Mode.
			2.4 and 5Ghz SSID's are now correctly displayed in Multi-APN Router Work Mode when connected to Mgmt SSID "Intellian"
			Wi-Fi Configuration Page now allows standalone configuration of 5GHz and 2.4GHz.
			The Status Overview page now displays 5GHz status, including hidden/disabled SSIDs and channel numbers, when it differs from the 2.4GHz configuration.
			Port statistics data has been moved from the Status Overview page to Port Configuration page.
			The IP Configuration page now uses "End IP" instead of "IP Num" for setting IP ranges, enhancing the user experience.
			SSM IP addresses can now be configured via the CNX LUI.
			Other Upgrades & Bug Fixes
Added support for the Mgmt SSID "Intellian" with a default password when the device's password is stored on flash.			
The Wi-Fi Configuration page now supports spaces, hyphens ("-"), and underscores ("_") in the SSID name.			
Introduced support for an Extended ICD.			
CNX-WIFI	Security Improvements	Default password added to MGMT SSID "Intellian" if none is created. Matches APN1 password printed on product label.	

Version	Component	Item	Description
	CNX-Rack	Component Updates	MoCA recovery mechanism has been implemented to resolve field issues related to MoCA disconnections.
		VLANS	CNX-Rack now comes with pre-installed VLAN configurations. Configuration outline in flat panel user guides.
		IUI-95	Short outages caused by spurious velocity while UT was stationary have been resolved.
2.0.6.1	AIM	IUI-108	Improved UT stability and performance for Maritime applications, where outages occurred when the vessel was anchored or docked.
		OWIT-2115/ OWIT2134	Users will no longer experience disruptions by implementing an automatic recovery mechanism for outages previously caused by MDM errors
		Tracking	Improved tracking performance in low or slow-motion movement conditions.
	UT	Configuration	The CNX component will be set to 'managed' after the upgrade to i-ESA_2.0.6.1, allowing future updates of CNX software via DH bundle update.
2.0.5.0 / 2.0.5.1	CNX	IUI-75	New CNX-WIFI firmware enables new modes of operation, including router mode and multi-apn support.
	AIM	IUI-36	Resolved GNSS uninitialized issue.
		IUI-44	Resolved blockage zone issue ensuring Tx Mute automatically enables.
		IUI-57	Modem reset issue resolved that was causing 2 ~ 3 minutes of outage.
		IUI-62	Addressed SINR drops due to incorrect motion detection during slow motion, which resulted in intermittent connection.
		IUI-63	Addressed high HARQ retransmissions due to fluctuating SNR which resulted in lower throughput.
		IUI-64	Resolved performance issues noticed at GEO arc.
		IUI-65	Addressed timing error issue that caused up to a minute of outage.
		IUI-66	Resolved timing error associated with KIM
		IUI-76	Updated velocity config inaccuracy in KIM
		IUI-77	Resolved calibration processing error that resulted in degradation of return SNR.
		IUI-78	Updated LUI to support user configurable R-GNSS setting
		IUI-79	Auto-detect support for R-GNSS support.
		IUI-81	Optimized AIM log download speed.
		IUI-83	Improvement to internal GNSS performance.
		IUI-84	Auto retry when 25 MHz PLL is not locked
		IUI-89	Resolved issue of delayed KIM convergence by presence of too many GNSS satellites in view
		IUI-90	Blockage Configuration Support added to LUI
		IUI-91	Resolved issue where UT was detecting false motion
		IUI-94	Resolved consecutive outages caused from aim_hw_fault
IUI-96	Resolved prolonged outages caused by timing / synchronization issue		
2.0.2.1	AIM	IUI-56	Enablement of 40Hz beam forming to optimize mobility performance.
		IUI-63	OW11Fx RTN SNR fluctuation causes high HARQ retransmissions and lower throughput.
		IUI-62	SINR drops due to incorrect motion detection during slow motion. When UT is slowly moved, connection can become intermittent.
		IUI-64	Improved tracking and performance in the GEO arch region
		IUI-44	Blockage zone detected and Tx Mute is automatically enabled upon entrance
		Improvements	Stability improvements to KIM
2.0.2.0	AIM	IUI-36	Resolved the need for a power cycle due to a GNSS uninitialized issue
		IUI-45	Resolved update failure of KIM GPX during bundle update
		IUI-48	Corrected the version string of CNX WiFi
		IUI-51	Resolved incorrect motion calculation which resulted in UT losing network acquisition
		IUI-52	Timing messages does not increment in time.
		IUI-53	Improved time it takes to download AIM log
		IUI-54	COTP improvements that caused mis-pointing
		KIM Improvements	GPS CN0 updates before 3D fix Optimized baseline constraints to improved convergence time Improved false detection of GPX GNSS receiver

Version	Component	Item	Description
			Optimized compass tuning to improve convergence stability
2.0.0.9	AIM	IUI-4	MDM resets due to TOD Sync lost
		IUI-23	Erroneous status from UCM/DCM causing unnecessary soft resets in OW11Fx series
		IUI-25	Delay in the tune activation time
		IUI-26	RCMB task is scheduling delays, causing occasional tune activation error
		IUI-29	SPI beam resets due to an unknown reason
		IUI-30	SPI beam module crash
		IUI-47	Stop TN calibration upon motion detection and KIM convergence
		ESA1W-5089	HD Spibeam not allowing beamforming when missing ConfigSet from aim_manager
		ESA1W-5135	Remove RCM TX_ON always ON from release
		ESA1W-5119	VAIC low power mode for TX did not set complete.
		Auto Recovery	Added auto-recovery for invalid/missing time_sync messages from SSM
		Improved motion	Improved motion detection on non-stationary models
		Handover improvements	Fixed SINR drops during hard handovers
		Beamforming improvements	Optimized 50Hz beamforming
		YAW fixes	Fixed YAW drifting issue on stationary models.
GPX stability	Added a new cltool to fix GPX update failures.		
GPX issue	Fixed GPX version parsing issues		
Tilt Calibration improvements	Improved tilt calibration to avoid SINR drops during motion changes.		
2.0.0.7	MDM	Mobility Support	Half Duplex mobility support
	AIM	IUI-25	Delay in the tune activation time
		IUI-30	SPI beam module crash
1.0.0.10	AIM	IUI-23	Erroneous status from UCM/DCM causing unnecessary soft reset
		IUI-36	Fix for Fx/Hx GNSS uninitialized issue
		IUI-34	Fix for Fx throughput issue with better program track ability
		IUI-32	Fix for Fx pwr per RB variation (Power Headroom)
		IUI-31	Fix for Fx potential ConScan issue (RSRP,RSSI, SINR, Path loss Spikiness)
		IUI-29	Fix for Fx SPI beam resets due to unknown reason
		IUI-26	Fix for RCMB task scheduling delays cause occasional tune activation errors
		IUI-4	Fix for MDM resets due to KIM time being stuck causing ToD sync lost
1.0.0.7	AIM	IUI-27	Auto configuration error for mobility
1.0.0.6	AIM	IUI-1	SINR degradation for first beam at handover potentially impacting throughput
		IUI-2	The iESA software bundle is too large impacting OTA upgrade
		IUI-3	Sudden drift in motion when vehicle is parked causes outage on Mobile UT
		IUI-6	Constant GNSS error messages observed although they are cleared shortly, potentially impacting UT stability
		IUI-7	Multiple unexpected MDM resets observed impacting UT stability
		IUI-12	Incorrect AIM outage times observed (iESA99 vs iESA98)
		IUI-13	CNX-WIFI goes into non-responsive state
		IUI-14	Increased EIRP should be set to 0