Splunk Edge Hub SPLKEH201GL
User's Guide

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Figure 1: Splunk Edge Hub

1.0 Product Information and Specifications

This section provides an overview of the features and specifications of the Edge Hub. The Edge Hub is designed to be an OEM product and is not intended for user-upgrades or service. Adding, removing or changing system components can create a safety hazard and voids Actineon's warranty. This unit should only be serviced by trained personnel.

Processor	
SoM	Verdin iMX8M Plus Quad - 8GB RAM - 32GB eMMC - WiFi/BT - Extended Temp

IO Interfaces	
Display	AMOLED 720xRGBx1280, 4.97in (diagonal)
Touchscreen	5-points capacitive touch sensor
Ethernet	1 GbE
3.5mm Port	Can be used for External temperature and Leak-Rope Sensors
USB	2x USB 3.0
M.2 Port	Internal (optional)
Cellular	LTE w/external SMA antenna mount

Connectivity	
Wireless	Bluetooth, BLE, Wifi (2.GHz, 5GHz), 4G LTE, GNSS
Wired	1 GbE Ethernet

Sensors (internal)	
Accelerometer & Gyroscope	Bosch BMI270
Microphone	Vesper VM3000
Temp / Humidity / Pressure / VOC	Bosch BME688
Ambient Light Sensor	AMD TSL25911

Physical	
Dimensions	14.9 x 12.2 x 4 cm (WLH)
Weight	640 Grams (Excluding Packaging Materials/Mount)
Mounting	Wall mount / DIN rail support

User Interface	On/Off Button, LED Ring

Power Supply	
POE	48V, 30W (max)
USBC PD	100 to 240VAC/50 to 60Hz 0.8A (Input)
	15V, 30W (Output)

Environmental	
Operating Temp.	0C to 40C (Normal) -40C to 85C (Extended Environmental Operating Range)
Storage Temp.	-40C to 80C (in package) -20C to 60C (outside package)
Altitude	10,000 ft (operating) 30,000 ft (non-operating)
Humidity	5% to 90% RH, non-condensing
Vibration	1g per IEC 60068-2-64, 5 to 500 Hz, 1 octave/min., 3 axis (operating) 5g per IEC 60068-2-64, 5 to 500 Hz, 1 octave/min., 3 axis (non-operating)
Shock	20g per IEC 60068-2-27, half sine, 11ms duration, 3 axis (operating) 50g per IEC 60068-2-27, half sine, 11ms duration, 3 axis (non-operating in package)
IP Rating	IP66

2.0 Product Installation and Setup Instructions

This section provides an overview of how to setup and install the Edge Hub.

2.1 Unpacking the Edge Hub

To unpack the Edge Hub, please observer the following instructions:

1. **Remove from Outer Sleeve:** Start by removing the outer cardboard sleeve to reveal the main box containing the Edge Hub. Gently slide the main box out to prevent any abrupt movements that could shift the contents.
2. **Open the Main Box:** Carefully open the top of the main box. Avoid using sharp objects like knives or scissors that could potentially damage the contents inside.
3. **Retrieve the Quick Start Guide:** Before removing the Edge Hub, locate and remove the Quick Start Guide, which may be placed on top of or beside the Edge Hub within the box. Set this aside for reference during setup.
4. **Remove the Edge Hub:** The Edge Hub is securely nestled within a snug-fitting foam holder to prevent movement and reduce risk of damage. Carefully lift the Edge Hub out of the foam holder, ensuring that you support the device firmly as you remove it.

5. **Unpack the DIN Rail Mount:** Beneath where the Edge Hub was located, find the DIN Rail Mounting bracket enclosed in a translucent foam sleeve. Remove this carefully and set aside for installation.
6. **Remove Additional Accessories:** Check for an accessory flap within the same main box. Lift this flap to access additional components.

2.2 Standard Edge Hub Accessories

The following table describes the standard accessories included in the Edge Hub package:

Item	Description
USB-C Adapter and cable	A USB-C wall adapter with standard USB-C cable to charge the Edge Hub. Regional socket adapters are provided for markets outside North America.
Din-Rail Mounting Kit	A mounting bracket and screws for mounting the Edge Hub on a Din-Rail.
Rack Mounting Kit	A mounting bracket and screws for mounting the Edge Hub in a standard rack.
External Temperature and Humidity Sensor	A wired temperature and humidity sensor that can be connected to the Edge Hub via the 3.5mm jack connector.

2.3 Installation and Mounting Instructions

The Edge Hub can be rack mounted or placed free standing on a desk. The Edge Hub can be safely mounted in any orientation.

⚠️ The normal operating conditions during which it is safe for a human to operate the Edge Hub is 0° to 40^OC. However, the Edge Hub is functional at temperature ranges of -40° C to 85° C, and its sensors will continue to gather data from the environment. Do not physically touch, set up, or use the touch screen of the Edge Hub if the ambient temperature is above or below the normal operating temperature range. If the ambient temperature is above or below the normal operating range, only use remote monitoring or control systems to safely interact with the Edge Hub. If it is necessary to directly contact the edge Hub, wait for ambient temperatures to reach normal operating temperatures of 0° to 40^OC before directly interacting with the Edge Hub.

⚠️ If the Edge Hub was previously operating in ambient temperatures exceeding normal operating range, the unit may have become very hot. Wait at least one hour after the ambient temperature has returned to normal operating range before interacting with the device.

While no specific mounting orientation is required, the following mounting provisions promote long, trouble-free operation for the Splunk Edge Hub:

- Do not place anything directly against the Splunk Edge Hub cover, including cables, shelves, additional equipment, papers, etc.

- Keep the heatsink of the Splunk Edge Hub clean and free of physical obstructions, including loose cables, lint, dirt, etc. Interfering with the heat sink of the Splunk Edge Hub can cause overheating, which in turn could result in slower performance, malfunction, and even permanent damage to the Edge Hub.
- For ideal performance, orient the Edge Hub such that any external sources of airflow will flow in-line with the grooves of the heatsink.
- The Edge Hub will scale back performance if internal sensors indicate an overheated condition, and eventually may power off in the event of extreme temperature overloading.
- **Actineon recommends one inch (25mm) of relatively free space away from the sides on the Splunk Edge Hub. Failure to do so may cause overheating in higher ambient temperatures.**

Caution: Failure to provide adequate structural strength or proper mounting for this accessory can result in personal injury or damage to equipment! The Edge Hub should only be mounted on appropriately safe surfaces such as properly attached designated mounts (Monitor Mounts, Desk Mounts, Wall Mounts, Server Racks, Etc.), strong metal surfaces/walls, properly secured and strong horizontal surfaces, and load bearing wall studs. Do not attach the Edge Hub to thin, weak, or unsecured walls, mounts, or horizontal surfaces. Examples include but are not limited to: drywall, plaster, cardboard, phone mounts, foam, bulletin boards, thin plywood, or thin plastic surfaces. It is the installer's responsibility to make sure the structure to which this accessory is attached can support five times the combined weight of all equipment. Reinforce the structure as required before installing the Edge Hub.

2.3.1 Mounting Considerations

Do not place the Splunk Edge Hub in a location or position that might be dangerous. Consider the following factors when choosing a location to mount the Splunk Edge Hub:

- Ensure the location has minimal dust, dirt, and airborne contaminants.
- Review the environmental specifications listed above.
- Allow for adequate air flow and overall enclosure cooling.
- Attempt to minimize shock and vibration on the mounting surface.
- Consider cable lengths and cable routing provisions for attached devices.
- Consider proximity to a neighboring power supply.
- Consider the need for a surge protection device or uninterruptible power supply.
- For manual startup and shutdown, allow access to the power button.
- Ensure it is not difficult to plug in or remove the power adapter.

2.3.2 Instructions to Rack Mount the Edge in a 0u or 1u Orientation Using a Bracket

The Edge Hub can be rack mounted in 2 orientations using the provided brackets. Mounting the device on the side walls of an enclosure is called a 0u orientation. Mounting above or below a horizontal surface is called a 1u orientation:

The Splunk Edge Hub uses the following hardware for two mounting methods:

- 0u or 1u bracket mounting: 2x bracket pieces, 4x bracket screws, 2x or 3x rack bolts (not included).

- DIN rail mounting: 1x DIN rail (not included), 1x DIN rail bracket, 3x DIN rail screws.

Only mount the Edge Hub to a server rack using the provided bracket and screws.

How to Assemble the Mounting Bracket in the 0u Orientation

Assembling the bracket and mounting the Edge Hub such that the screen faces outward is called a 0u rack mount, because it uses 0 unit space on a rack. See the following images to assemble the bracket and attach the Splunk Edge Hub to the bracket in the 0u orientation.

Align the 4 holes of the bracket in a square position and use the screws to attach the bracket pieces together according to the following image:

Figure 2: 0u Rack Mounting Bracket Assembly

Align the three holes with the corresponding ones on the Splunk Edge Hub and use the screws to attach the device to the bracket:
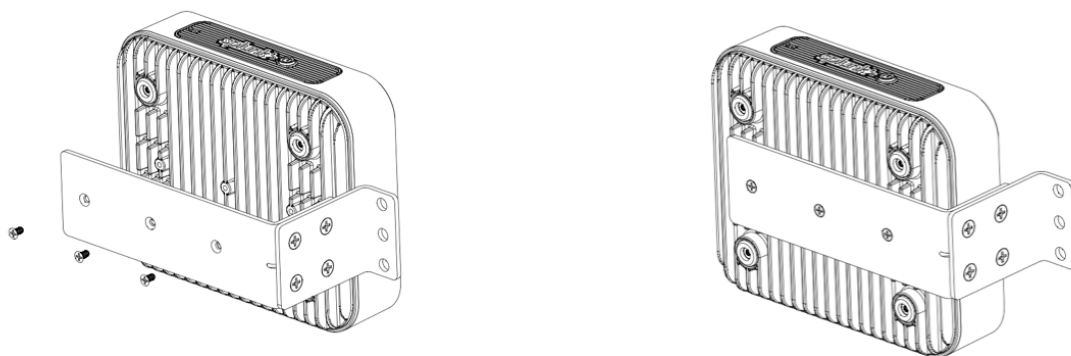

Figure 3: Edge Hub with 0u Mounting Bracket

How to Assemble the Mounting Bracket in the 1u Orientation

Assembling the bracket so that the device screen faces upward is called a 1u rack mount because it uses 1 unit of space on a rack. See the following images to assemble the bracket and attach the Splunk Edge Hub to the bracket in the 0u orientation.

Align the 4 holes in a square position and use the screws to attach the bracket pieces together:
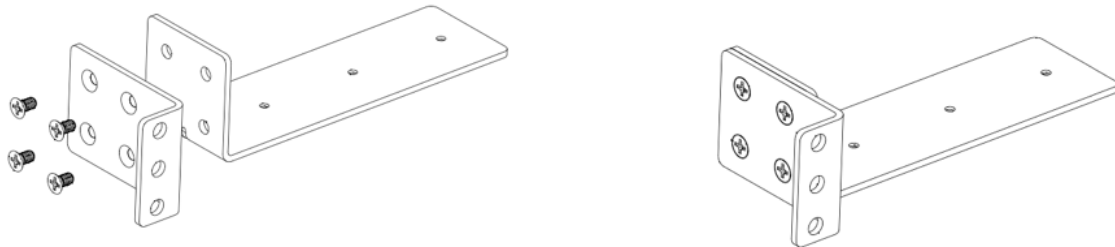

Figure 4: 1u Rack Mounting Bracket Assembly

Align the three holes with the corresponding ones on the Splunk Edge Hub and use the screws to attach the device to the bracket:
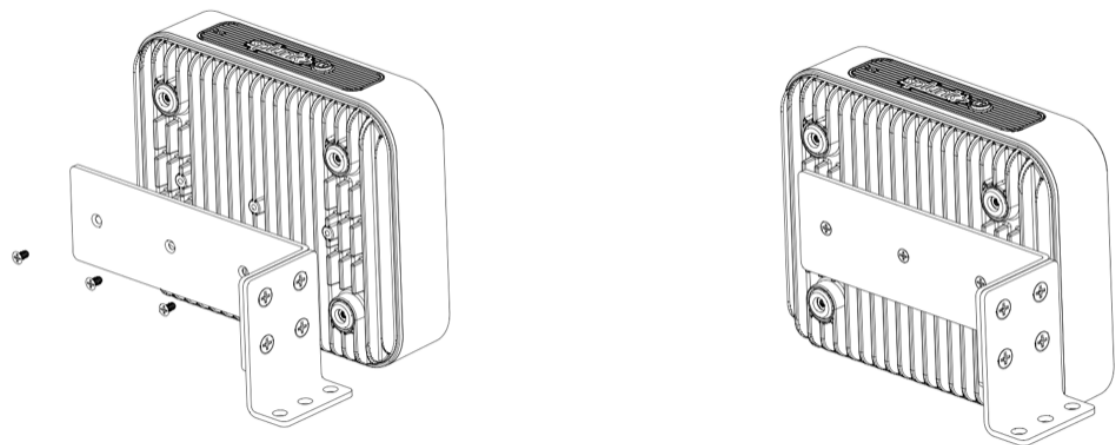

Figure 5: Edge Hub with 1u Mounting Bracket

How to Mount the Edge Hub on a Rack

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Most server racks come with standardized bolts to mount equipment. Use these bolts to mount the Edge Hub to a server rack. Use 2 or 3 bolts for both the 0u or 1u mounting method.

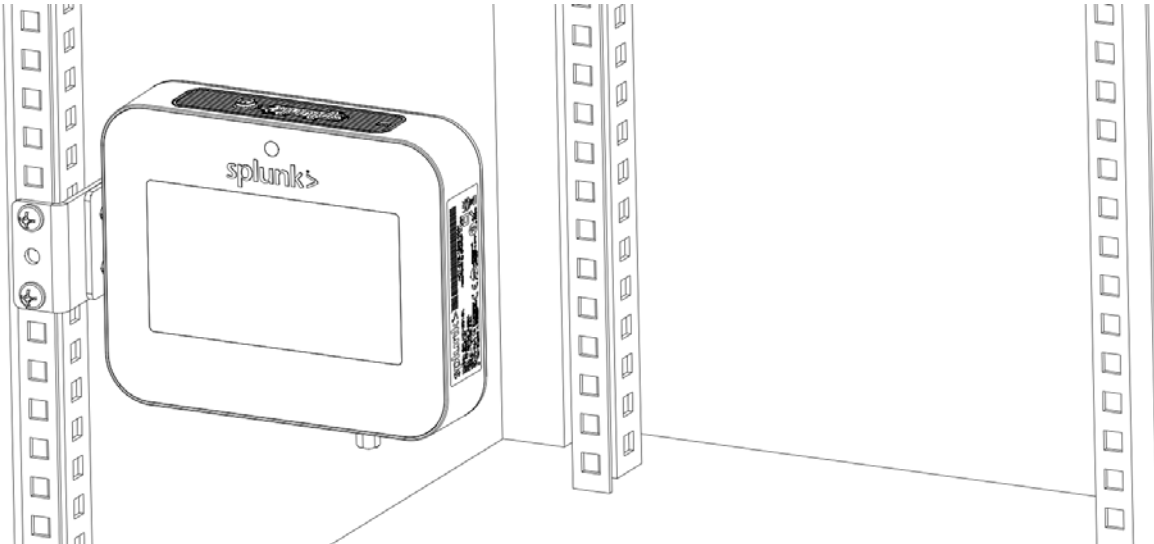The following diagram illustrates the Edge Hub mounted in a 0u orientation:

Figure 6: Edge Hub in 0u Orientation

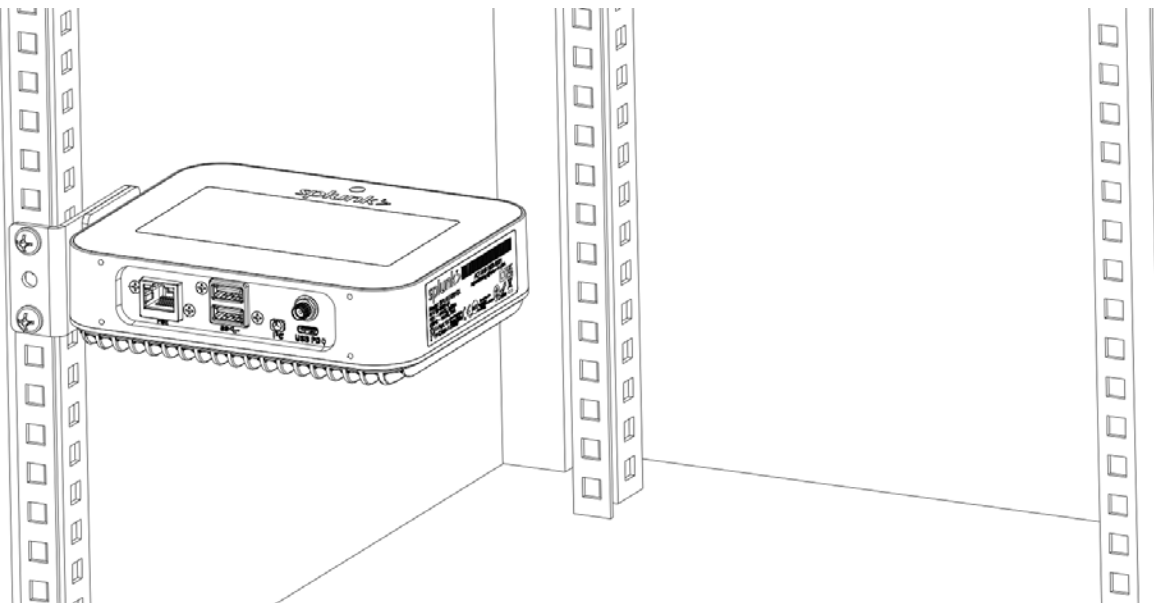The following diagram illustrates the Edge Hub mounted in a 1u orientation:

Figure 7: Edge Hub in 1u Orientation

2.3.2 Instructions to Mount the Edge Hub using a DIN Rail

The Edge Hub can be mounted using a DIN rail, as shown in the following image:
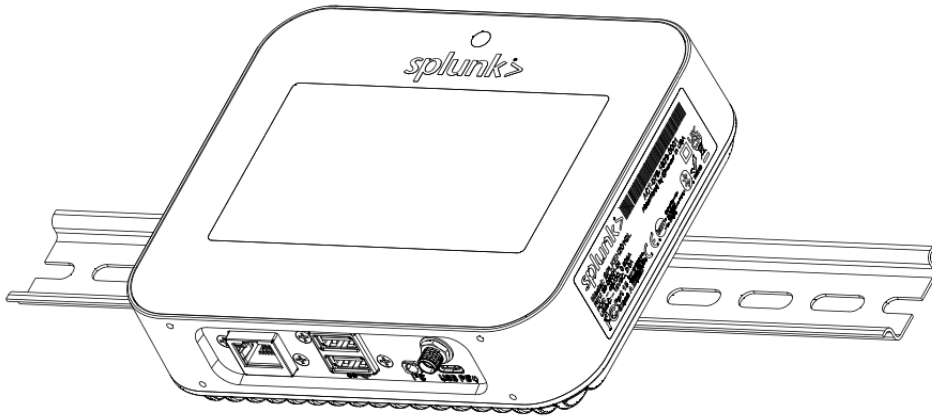
Figure 8: DIN Rail Mounted Edge Hub

To attach the Edge Hub to the DIN rail bracket, first align the 3 holes on the back of the device with the DIN rail bracket. Use the 3 DIN rail screws to attach the bracket to the device:
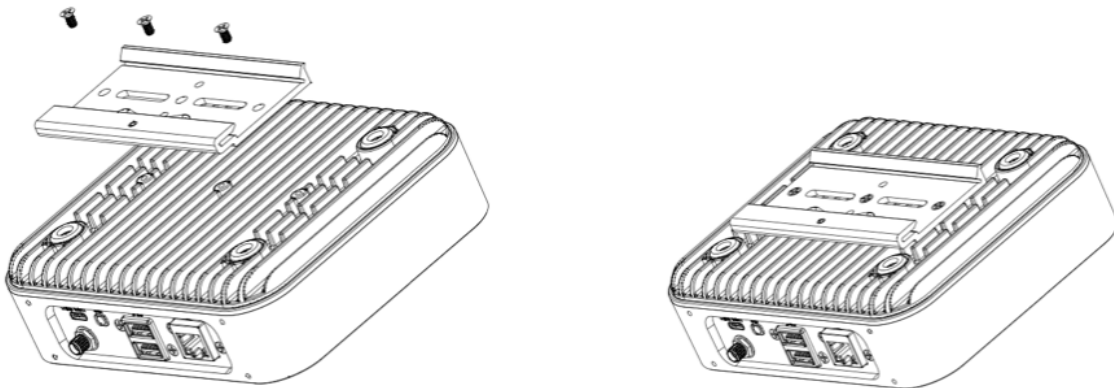

Figure 9: How to Assemble DIN Rail Bracket to Edge Hub

Next, attach the Edge Hub on the DIN rail by sliding the Edge Hub on the DIN rail so that the bracket spring compresses and snaps on the rail:
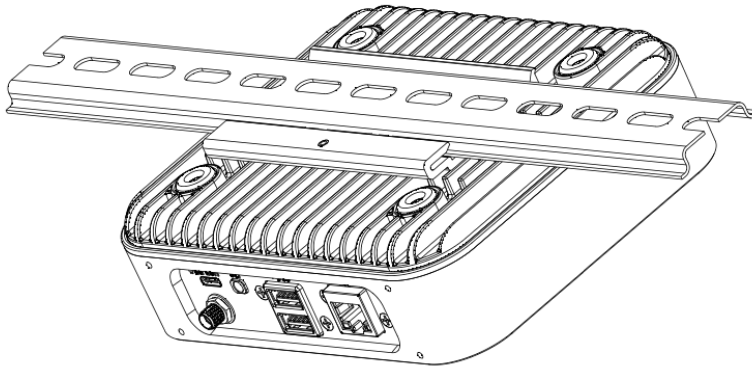
Figure 10: Mounting an Edge Hub on a DIN Rail

To remove the Edge Hub from the rail, push the springs again to release the device.

2.4 Configuring the Edge Hub for Cellular Data Usage

The Edge Hub has the capability to be configured to use cellular data. Such configuration requires purchasing a separate LTE antenna that is not provided in the Edge Hub package. To configure the Edge Hub for cellular functions, users must purchase a Quectel YE0007AA, dipole wide band antenna. **The Quectel YE0007AA is the ONLY ANTENNA with which the Edge Hub has been certified for cellular use**. Use of any other antenna does not conform to regulations. DO NOT USE ANY OTHER ANTENNA.

To install the Quectel YE0007AA, first unscrew the metal cap from the SMA connector on the back of the Edge Hub. Next screw the Quectel YE0007AA onto the exposed SMA connector. Ensure the antenna has been securely attached.

2.5 Optional Splash Guard Use and Installation instructions

The Edge Hub Splash Guard is an optional accessary that can be purchased separately from an Edge Hub distributor. The Splash Guard add additional water protection to the Edge Hub by lowering the chance for water to come in contact with the Edge Hub connectors. The Edge Hub is rated IP66. This means that the device can be subjected to powerful water jets without damage. HOWEVER, the device may still short if exposed to water while powered on and connected to external cables. The Splash guard provides additional water protection. Users should still ensure that the Edge Hub is powered off if exposed to water. For use cases that require cellular functionality, the Splash Guard can be configured with an SMA cable extender that provides access to connect the Quectel YE0007AA antenna.

The Splash Guard is mandatory for deployments in a hazardous location requiring UL Class I Division 2 (Class I Div 2) certification.

To install, the Splash guard on the Edge Hub, please follow the below instructions:

1. **Prepare the Workspace:**
   - Ensure you have all parts of the Splash Guard kit: Mounting Screws (4 Pcs), Splash Guard, Housing Gasket, and an optional Antenna Cable Extender (if using an external antenna).

Figure 11: Splash Guard Kit

2. **Remove Existing Components from the Splash Guard:**
   - Unscrew and remove the six existing screws and nuts from the Splash Guard.
3. **Setup for External Antenna (if applicable):**
   - If using an external antenna, remove the large plug from the Splash Guard. Otherwise, leave it in.
   - Remove the nut and washer from the Antenna Extender Cable SMA.
   - Insert the SMA end of the Antenna Extender through the designated hole in the Edge Hub from the inside.
4. **Secure the Antenna Extender:**
   - Replace the washer and nut on the SMA end and tighten securely.
5. **Attach the Housing Gasket:**
   - Remove the release liner from the Housing Gasket.
   - Apply the sticky side of the Gasket to the Edge Hub, ensuring the holes in the gasket align with those on the Edge Hub.
6. **Install the Splash Guard Lower Housing:**
   - Position the lower housing of the Splash Guard over the Edge Hub.
   - Secure it using two of the provided Mounting Screws.
7. **Connect Cables:**
   - Install all cables that will be used with the Edge Hub.
   - Use the Cable Plugs to cover any unused cable exits.
8. **Secure the Antenna Cable Extender (if applicable):**

- Thread and tighten the receptacle end of the Antenna Cable Extender to the Antenna SMA connector on the Edge Hub, being careful not to overtighten.

9. **Install the Splash Guard Upper Housing:**
   - Place the upper housing of the Splash Guard over the lower part.
   - Fasten it using the remaining two Mounting Screws.
10. **Final Assembly:**
    - Replace and tighten the six Splash Guard screws and nuts to ensure everything is secured.
11. **Install External Antenna (if applicable):**
    - Connect the external antenna to the SMA connector on the Splash Guard.

The following figure demonstrates how the Edge Hub looks when configured with a Splash Guard:

Figure 12: Edge Hub with Splash Guard Assembled

3.Product Operations Instructions

This section provides instructions and notes on the proper operation of the Edge Hub. Please note that the Edge Hub can only be operated using Splunk Software. For instructions on configuring the Edge Hub software and operating the Edge Hub software, please refer to Splunk Edge Hub software documentation (https://docs.splunk.com/Documentation/Edge).

3.1 Powering on the Edge Hub

The Splunk Edge Hub can be powered with the provided AC adaptor and USB-C cable or via Power-Over-Ethernet (PoE) by connecting a 4 Pair CAT5E or better PoE cable. The PoE and USB-C cables may both be connected simultaneously, so that one cable is a backup power source in case the other is unplugged. The following image displays where the USB-C and PoE ports used to power the Splunk Edge Hub are located:
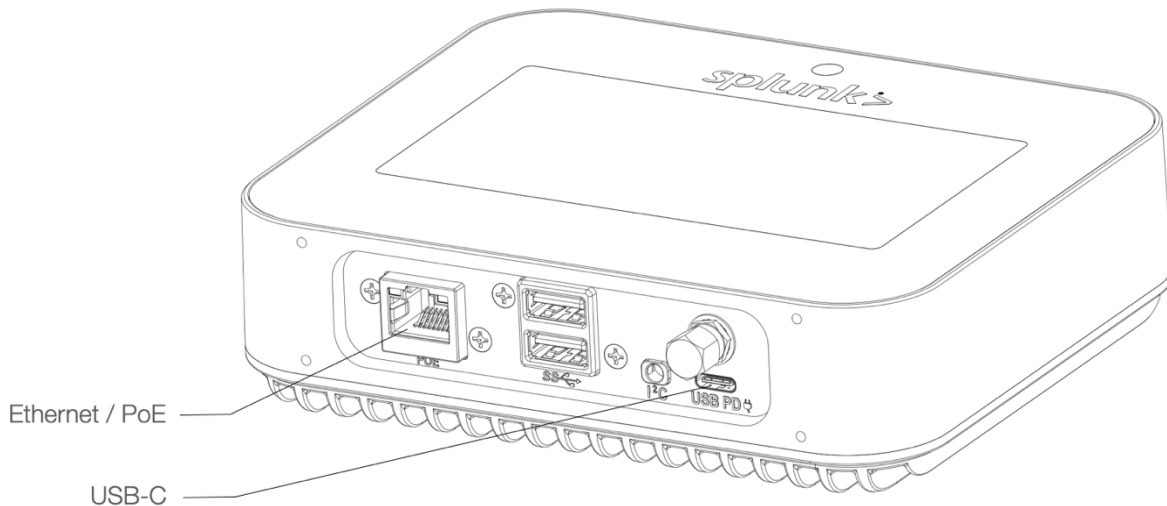

Figure 13: Edge Hub Power Connectors

To power the Edge Hub via USB-C, first connect the AC adapter provided in the Edge Hub box to an AC electrical outlet. Use regional adapters, also provided, as needed. Next connect the provided USB-C cable from the AC adapter to the USB-C port on the Edge Hub. Either end of the provided USB-C cable can be connected to either the Edge Hub or adapter. The AC adapter is a 30W adapter and will provide 15V/2A to the Edge Hub. **The adapter provided in the Edge Hub box is the *ONLY* USB-C adapter with which the Edge Hub is certified for regulatory compliance**. If a replacement adapter is needed, please contact an Edge Hub distributor to obtain a certified replacement.

To power the Edge Hub via PoE, please ensure that the Edge Hub is connected via a 4-pair PoE cable that is CAT5E or better. Ensure that the PoE cable is connected to a powered PoE switch. Please note that the Edge Hub can be connected via an ethernet cable to a non-powered RJ45 connector for the purposes of networking data. But the Edge Hub will only be powered if connected to a source capable compliant to the standards of PoE 802.3bt (PoE++) that is capable of supplying 40W.

If the Edge Hub is connected to both a PoE and USB-C cable, the default power source is the USB-C cable. If the USB-C cable is removed, the Edge Hub will switch to the PoE cable for power without interruption.

In most cases, the Edge Hub will automatically power on when connected an appropriate power source. But if the Edge Hub is shut down, users can press the power button to power the Edge Hub back on. The following image displays where the power button is located:
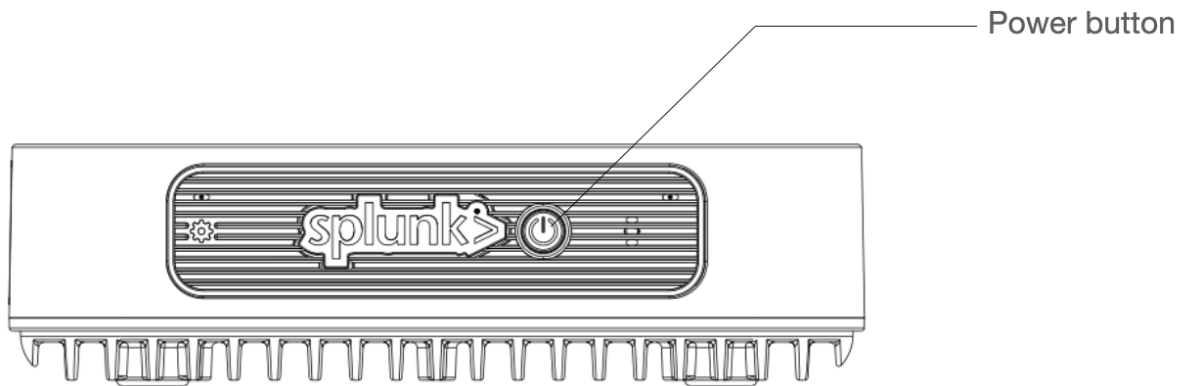
Power button

Figure 14: Power Button Location

3.2 Shutting Down the Edge Hub

It is not advisable remove power to the Edge Hub by disconnecting power. It is best practice to shut down the device using the Splunk Edge mobile app or from the device screen.

To shut down the Edge Hub using a mobile device:

1. In the Splunk Edge app, select the name of the Splunk Edge Hub that you want to shut down.
2. Tap the gear icon to navigate to Settings.
3. Tap Shut down Edge Hub.

To shut down the Edge Hub directly using the device screen:

1. Press the settings icon.
2. Press Shut down.

3.3 Setting Up Edge Hub Software

After powering on the Edge Hub, follow the on-screen prompts to configure the device. It is also recommended to refer to the quick start guide included in the Edge Hub package. For more information about configuring the Splunk Edge Hub software, please refer to Splunk's Edge Hub software documentation which is available online at https://docs.splunk.com/Documentation/Edge.

3.4 Splunk Edge Hub Indicator Ring

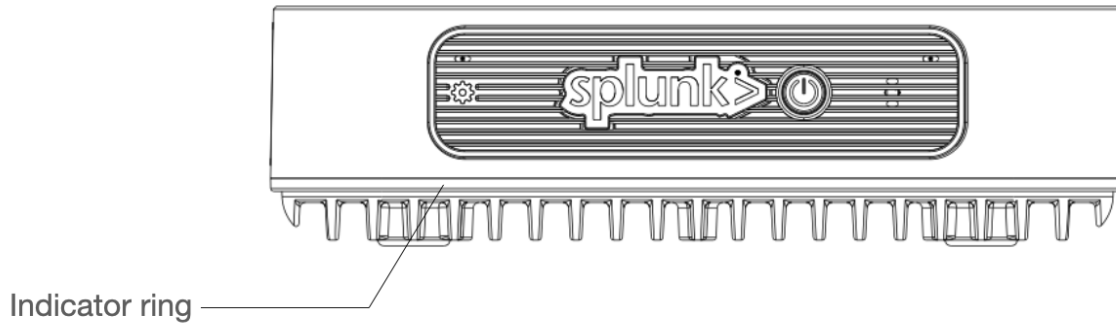The Edge Hub has an indicator ring that illuminates in different colors to indicate the status of the device.

Figure 15: Edge Hub Indicator Ring

The following table describes the meaning of each indicator ring color:

Indicator Ring Color	Meaning
Blue	The device is unregistered.
Red	The Splunk App for Edge Hub cannot be reached.
Green	The device has network connection.

Note: It is possible that additional statuses may be added. For the most updated information, please refer to https://docs.splunk.com/Documentation/Edge.

3.5 Troubleshooting the Edge Hub

The following documentation provides troubleshooting steps for if you encounter issues with the Splunk Edge Hub hardware.

Unable to load sensor readings ("-" value on screen)

Perform a soft reset from the settings menu or press the power button and check if the sensor readings load. If you are still unable to load sensor readings, perform a hard reset by removing and reconnecting the USB-C or PoE cable. If the issue still persists, perform a factory reset.

Unable to Register Edge Hub or Connect to Network

On first launch, follow the on-screen instructions to register your Hub. If registration is unsuccessful, try the following troubleshooting steps:
- Make sure that you have entered the WiFi network name and password correctly in the Splunk Edge mobile app.
- If you get the message "Error: Unable to register your Edge Hub. Please try again", make sure that your device is not using VPN and does not have Private Relay enabled.
- If the issue still persists, perform a factory reset.

Touch Screen is Unresponsive or Other Hardware Issue

Perform a soft reset from the settings menu or press the power button. If the hardware issue doesn't resolve, perform a hard reset by removing and reconnecting the USB-C or PoE cable.
If the issue still persists, perform a factory reset.

Troubleshoot Edge Hub Sensors

If you don't see sensor data coming in, try the following:

- Make sure you have network connectivity.
- Validate the HEC endpoint address. Use the **Test Connection** button in the Splunk App for Edge Hub.
- If you are testing with a Splunk platform instance without static IP, make sure the HEC instance hostname and IP didn't change.

If the temperature reading is higher than expected, check both sensors. The Edge Hub comes with an onboard sensor and an external sensor that connects with a 3.5mm auxiliary plug. The onboard sensor readings might be higher due to heat generated by hardware and should not be used for ambient readings. For ambient readings, use the external sensor.

3.6 Perform a factory reset on the Edge Hub

Complete the following steps to reset the device to its original factory settings (Note: This will not unregister the Edge Hub):

1. Locate the reset pinhole on the Edge Hub which is located on the front of the device (see diagram below).

2. Using a < 3mm diameter pin-shaped tool, press and hold the reset button for more than 6 seconds.
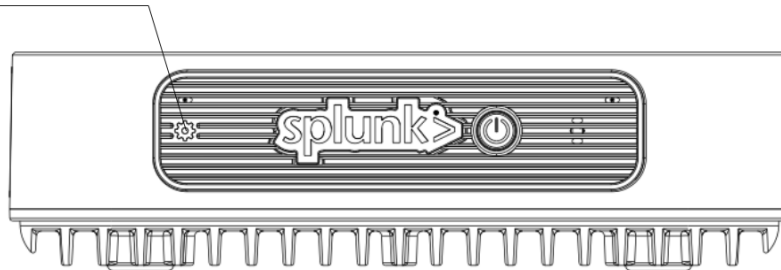
3. Wait for the factory reset to complete.

Figure 16: Reset Pinhole Location

4.0   Important Safety Information

Customer safety is of foremost importance to Actineon. Actineon's products are developed to be safe and effective products for deployment by a variety of customers, including original equipment manufacturers, system integrators and value-added resellers. However, PC products, network devices,

and gateways are electronic devices that can cause both personal harm and property damage, especially when misused. To reduce these risks, please read and follow the safety advice provided for this equipment. By following this advice you create a safer work environment for those that may be influenced by use of this equipment.

4.1 Safety and Advisory Conventions

There are four types of safety and advisory conventions used in this guide. These conventions include: WARNING, CAUTION, EMISSIONS and NOTES. Graphical representations of these conventions accompanied by their meaning in context of this guide are provided in the table below:

Symbol	Meaning	Explanation (EN)	Explication (FR)
	WARNING / AVERTISEMENT	A WARNING symbol indicates the potential for personal harm or injury and advises the user how to avoid such harm.	Un symbole d'AVERTISSEMENT indique le potentiel de dommages corporels ou de blessures et conseille à l'utilisateur comment éviter de tels dommages.
	CAUTION / ATTENTION	A CAUTION symbol indicates the potential for equipment damage and advises the user how to avoid such damage.	Un symbole ATTENTION indique le potentiel de dommages à l'équipement et conseille à l'utilisateur comment éviter de tels dommages.
	RADIATED EMISSIONS / ÉMISSIONS RAYONNÉES	A RADIATED EMISSIONS symbol indicates the potential for excessive electromagnetic emissions and advises the user how to avoid such emissions.	Un symbole d'ÉMISSIONS RAYONNÉES indique le potentiel d'émissions électromagnétiques excessives et conseille à l'utilisateur comment éviter de telles émissions.
	HIGH TEMPERATURE / HAUTE TEMPÉRATURE	A HIGH TEMPERATURE symbol indicates the potential for excessive heat and advises the user how to avoid such injury or equipment damage caused by high temperatures	Un symbole HAUTE TEMPÉRATURE indique le potentiel de chaleur excessive et conseille à l'utilisateur comment éviter de telles blessures ou dommages matériels causés par des températures élevées.
	NOTES / REMARQUE	A NOTE symbol helps make important information stand out.	Un symbole REMARQUE permet de faire ressortir les informations importantes.

4.2 Warning Against Use in High-Risk Activities

The Edge Hub is NOT intend for use in life support systems; in the operation, navigation or traffic control of aircraft; in monitoring or control of nuclear power plants; or for any other use where failure of the system could lead to the death or personal injury of its users or those influenced by its use, or severe environmental damage.

Le Edge Hub n'est PAS destiné à être utilisé dans des systèmes de survie ; dans l'exploitation, la navigation ou le contrôle du trafic des avions ; dans la surveillance ou le contrôle des centrales nucléaires ; ou pour toute autre utilisation où une défaillance du système pourrait entraîner la mort ou des blessures corporelles de ses utilisateurs ou de ceux influencés par son utilisation, ou de graves dommages environnementaux.

4.3 Do Not Open the Edge Hub

The Edge Hub contains no field serviceable or upgradeable parts. DO NOT OPEN THE PRODUCT. Only qualified service personnel should open the Edge Hub. Any attempt to open the enclosure and access the interior may create a personal hazard, cause damage to this or other equipment, or create excessive electronic emissions.

In addition, opening the Edge Hub voids the product warranty.

Le Edge Hub ne contient aucune pièce réparable sur site ou évolutive. NE PAS OUVRIR LE PRODUIT. Seul un personnel de service qualifié doit ouvrir le Edge Hub. Toute tentative d'ouverture du boîtier et d'accès à l'intérieur peut créer un danger personnel, endommager cet équipement ou un autre équipement, ou créer des émissions électroniques excessives.

De plus, l'ouverture du Edge Hub annule la garantie du produit.

4.4 Common Safety and Use of the Edge Hub

Read and understand all safety related material furnished with the system before using the system. Use of procedures other than those specified in this documentation may create a personal hazard, cause damage to this or other equipment, or create excessive electronic emissions.

Lisez et comprenez tous les documents relatifs à la sécurité fournis avec le système avant d'utiliser le système. L'utilisation de procédures autres que celles spécifiées dans cette documentation peut créer un danger personnel, endommager cet équipement ou un autre équipement, ou créer des émissions électroniques excessives.

Safety Instruction (EN)	Instruction de Sécurité (FR)
The AC power cord and PoE cable must be unplugged or the source of the AC power to the system must be	Le cordon d'alimentation secteur et le câble PoE doivent être débranché ou la source

removed to completely remove power from the system. Even when the system appears to be off, if the AC power cord is plugged in and an AC power source is available, voltage and current within the system may create a personal hazard or cause damage to this or other equipment.	d'alimentation en courant alternatif du système doit être retirée pour couper complètement l'alimentation du système. Même lorsque le système semble éteint, si le cordon d'alimentation secteur doit est branché et qu'une source cordon d'alimentation secteur doit est disponible, la tension et le courant à l'intérieur du système peuvent créer un danger personnel ou endommager cet équipement ou tout autre équipement.
At higher ambient temperatures and/or if the cooling system is blocked or faulty, the metal chassis of this unit may become too hot to touch. Do not touch until power is removed and unit has cooled down.	À des températures ambiantes plus élevées et/ou si le système de refroidissement est bloqué ou défectueux, le châssis métallique de cet appareil peut devenir trop chaud au toucher. Ne touchez pas jusqu'à ce que l'alimentation soit coupée et que l'appareil ait refroidi.
Do not install this product or make any electrical or cabling connections during an electrical storm.	N'installez pas ce produit et n'effectuez aucune connexion électrique ou de câblage pendant un orage électrique.
Connect all AC power cords to this equipment and any attached peripherals to a properly wired and grounded electrical outlet.	Connectez tous les cordons d'alimentation secteur de cet équipement et tous les périphériques connectés à une prise électrique correctement câblée et mise à la terre.
The normal operating conditions during which it is safe for a human to operate the Edge Hub is 0° to 40^OC. However, the Edge Hub is functional at temperature ranges of -40^OC to 85^OC, and its sensors will continue to gather data from the environment. Do not physically touch, set up, or use the touch screen of the Edge Hub if the ambient temperature is above or below the normal operating temperature range. If the ambient temperature is above or below the normal operating range, only use remote monitoring or control systems to safely interact with the Edge Hub.	Les conditions de fonctionnement normales pendant lesquelles il est sûr pour un humain d'utiliser le Edge Hub sont de 0° à 40^OC. Cependant, le Edge Hub est fonctionnel dans des plages de température allant de -40°C à 85°C, et ses capteurs continueront à collecter des données sur l'environnement. Ne touchez pas, n'installez pas et n'utilisez pas physiquement l'écran tactile du Edge Hub si la température ambiante est supérieure ou inférieure à la plage de température de fonctionnement normale. Si la température ambiante est supérieure ou inférieure à la plage de fonctionnement normale, utilisez uniquement des systèmes de surveillance ou de contrôle à distance pour interagir en toute sécurité avec le Edge Hub.
If the Edge Hub was previously operating in ambient temperatures exceeding normal operating range, the unit may have become very hot. Wait at least one hour after the ambient temperature has returned to normal operating range before interacting with the device.	Si le Edge Hub fonctionnait auparavant à des températures ambiantes dépassant la plage de fonctionnement normale, l'unité peut être devenue très chaude. Attendez au moins une heure après que la température ambiante soit

	revenue à la plage de fonctionnement normale avant d'interagir avec l'appareil.
Avoid exposing the Edge Hub and attached cables to excessive moisture, liquids (including water), extreme temperature, excessive vibration, or excessive radiated emissions. The Edge Hub is rated IP66, but may still experience an electrical short if exposed to water while plugged into external cables and powered on. If necessary to expose the Edge Hub to water, first power off the Edge Hub. Do not power on until ensuring the Edge Hub and any connected cables are fully dry.	Évitez d'exposer le Edge Hub et les câbles connectés à une humidité excessive, à des liquides (y compris de l'eau), à des températures extrêmes, à des vibrations excessives ou à des émissions rayonnées excessives. Le Edge Hub est classé IP66, mais peut toujours subir un court-circuit électrique s'il est exposé à l'eau alors qu'il est branché sur des câbles externes et sous tension. S'il est nécessaire d'exposer le Edge Hub à l'eau, éteignez d'abord le Edge Hub. Ne mettez pas l'appareil sous tension avant d'être sûr que le Edge Hub et tous les câbles connectés sont complètement secs.
Do not restrict air flow in, out, or around the front and rear ventilation openings of the Edge Hub chassis. Do not allow anything to come in direct contact with the extruded aluminum lid on the Edge Hub.	Ne limitez pas le flux d'air entrant, sortant ou autour des ouvertures de ventilation avant et arrière du châssis Edge Hub. Ne laissez rien entrer en contact direct avec le couvercle en aluminium extrudé du Edge Hub.
Follow the recommended guidelines for orientation, clearance and airflow surrounding the chassis included in this manual.	Suivez les directives recommandées pour l'orientation, le dégagement et la circulation de l'air autour du châssis incluses dans ce manuel.
Ensure that nothing unintended rests on cables attached to the Edge Hub, and that the attached cables are not located where they can be stepped on or tripped over.	Assurez-vous que rien d'inattendu ne repose sur les câbles connectés au Edge Hub et que les câbles connectés ne sont pas situés à un endroit où l'on peut marcher dessus ou trébucher.
Use a surge protector, line protector, or uninterruptable power supply to help protect your system from sudden increases or decreases in electrical power.	Utilisez un parasurtenseur, un protecteur de ligne ou une alimentation sans interruption pour protéger votre système contre les augmentations ou diminutions soudaines de la puissance électrique.
When inserting or removing cables attached to the Edge Hub, do so by gripping the connector associated with the cable firmly and pulling or pushing on the connector. Do not insert or remove cables attached to the Edge Hub by pushing or pulling on the cable or cord. When possible, use only one hand in connecting or disconnecting power and signal cables.	Lorsque vous insérez ou retirez les câbles attachés au Edge Hub, faites-le en saisissant fermement le connecteur associé au câble et en tirant ou en poussant sur le connecteur. N'insérez pas et ne retirez pas les câbles attachés au Edge Hub en poussant ou en tirant sur le câble ou le cordon. Lorsque cela est possible, utilisez une seule main pour connecter ou déconnecter les câbles d'alimentation et de signal.
Only use the AC power cable supplied with the Edge Hub, or a cable that has been authorized as a	Utilisez uniquement le câble d'alimentation secteur fourni avec le Edge Hub ou un câble

replacement cable by Actineon, or a safety certified 4 Pair CAT5E or better cable for PoE power.	autorisé comme câble de remplacement par Actineon, ou un câble CAT5E à 4 paires certifié de sécurité ou supérieur pour l'alimentation PoE.
Refer service and repair to a qualified professional.	Confiez l'entretien et la réparation à un professionnel qualifié.

4.5 When to Remove Power from the Edge Hub

As outlined above, both the PoE cable and AC power cable to the Edge Hub must be unplugged or the AC source to the Edge Hub must be removed in order to completely remove power within the Edge Hub.

AC power should be removed from the Edge Hub if any of the following circumstances are true

- You intend to move the system
- The system is exposed to rain, sprinklers, or excessive moisture
- There is liquid spilled on or in the system
- You notice a cord or cable that has been cut or frayed, especially the AC power cord
- The enclosure is damaged or dented in some fashion beyond normal wear and tear
- You see or smell smoke coming from the system or components surrounding the system
- You suspect the system needs servicing for any other reason

Comme indiqué ci-dessus, soit le cordon d'alimentation secteur du Edge Hub doit être débranché, soit la source de courant alternatif du Edge Hub doit être retirée afin de couper complètement l'alimentation du Edge Hub.

L'alimentation secteur doit être coupée du Edge Hub si l'une des circonstances suivantes est vraie

- Vous avez l'intention de déplacer le système
- Le système est exposé à la pluie, aux gicleurs ou à une humidité excessive.
- Du liquide a été renversé sur ou dans le système.
- Vous remarquez un cordon ou un câble qui a été coupé ou effiloché, en particulier le cordon d'alimentation secteur.
- Le boîtier est endommagé ou bosselé d'une manière ou d'un autre au-delà de l'usure normale.
- Vous voyez ou sentez de la fumée provenant du système ou des composants entourant le système.
- Vous pensez que le système a besoin d'être réparé pour toute autre raison

4.6 Cleaning the Edge Hub

Routine cleaning or servicing of the Edge Hub is not required. Keep the Edge Hub and workspace around the Edge Hub clean and free of dust, dirt, and other particulate matter. If a buildup of dust or lint is noted on or in the machine, or if cleaning is required for the exterior case, please follow the guidelines provided below.

Things to avoid when cleaning the Edge Hub

- Do not spray any type of liquid or aerosol on or in the Edge Hub.
- Do not use solvents, abrasives or flammable materials on or around the Edge Hub.
- Avoid getting excessive amounts of moisture on or in the Edge Hub.

How to clean the Edge Hub

- Shut down the system.
- Unplug all cables and cords attached to the system.
- Vacuum the vent holes on the front and rear panels of the enclosure to draw out lint and other particulate matter that may have gathered inside.
- Spray a small amount of detergent or cleaning solution on a clean, lint-free cloth and use the cloth to wipe down the exterior of the system.

Le nettoyage ou l'entretien de routine du Edge Hub n'est pas requis. Gardez l'ordinateur et l'espace de travail autour de l'ordinateur propres et exempts de poussière, de saleté et d'autres particules. Si une accumulation de poussière ou de peluches est constatée sur ou dans la machine, ou si un nettoyage est nécessaire pour le boîtier extérieur, veuillez suivre les directives fournies ci-dessous.

Choses à éviter lors du nettoyage du Edge Hub

- Ne vaporisez pas tout type de liquide ou d'aérosol sur ou dans le Edge Hub.
- N'utilisez pas de solvants, d'abrasifs ou de matériaux inflammables sur ou à proximité du Edge Hub.
- Évitez toute humidité excessive sur ou dans le Edge Hub.

Comment nettoyer le Edge Hub

- Arrêtez le système.
- Retirez tous les câbles et cordons connectés au système.
- Passez l'aspirateur sur les trous d'aération sur les panneaux avant et arrière du boîtier pour aspirer les peluches et autres particules qui pourraient s'être accumulées à l'intérieur.
- Vaporisez une petite quantité de détergent ou de solution de nettoyage sur un chiffon propre et non pelucheux et utilisez ce chiffon pour essuyer l'extérieur du système.

4.7 USB Port Warning

USB Ports are capable of supplying +5VDC power to external devices. Make sure that the external devices and cables connected to the Edge Hub are in good working order and comply with USB standards. Actineon recommends the use of high-quality shielded cables for all external USB connections.

There are two type of devices defined in the USB 2.0 standard: low power and high power. A low power USB device may draw up to one unit load of 100mA, while a high-power device may draw up to five-unit loads or 500mA. Most peripherals such as touch screen controllers, self-powered printers, mice, keyboards, touch pads, headphones, and bar code readers are **low power** USB devices. Examples of **high power** USB devices include USB powered external hard disks and optical drives, and bus powered USB hub devices.

The blue USB 3.2 super speed ports on the Edge Hub are capable of supplying 0.9 amps at +5V to attached loads.

The USB 3.2 Gen 2 Type-C port is capable of supplying 1.5 amps at +5V to attached loads.

The USB 4/Thunderbolt 4 Type-C port is capable of supplying 3 amps at +5V to attached loads.

Les ports USB sont capables de fournir une alimentation +5 V CC aux appareils externes. Assurez-vous que les périphériques externes et les câbles connectés au Edge Hub sont en bon état de fonctionnement et sont conformes aux normes USB. Actineon recommande l'utilisation de câbles blindés de haute qualité pour toutes les connexions USB externes.

Il existe deux types de périphériques définis dans la norme USB 2.0 : faible consommation et haute puissance. Un périphérique USB à faible consommation peut consommer jusqu'à une charge unitaire de 100 mA, tandis qu'un périphérique à haute puissance peut consommer jusqu'à cinq charges unitaires ou 500 mA. La plupart des périphériques tels que les contrôleurs à écran tactile, les imprimantes auto-alimentées, les souris, les claviers, les tablettes tactiles, les écouteurs et les lecteurs de codes-barres sont des périphériques USB à faible consommation. Des exemples de périphériques USB haute puissance incluent les disques durs externes et les lecteurs optiques alimentés par USB, ainsi que les périphériques hub USB alimentés par bus.

Les ports USB 3.2 super rapides bleus du Edge Hub sont capables de fournir 0,9 ampère à +5 V aux charges connectées.

Le port USB 3.2 Gen 2 Type-C est capable de fournir 1,5 ampères à +5 V aux charges connectées.

Le port USB 4/Thunderbolt 4 Type-C est capable de fournir 3 ampères à +5 V aux charges connectées.

4.8 Contacting Support

For any other issues concerning the safe and effective use of this product, please contact your Edge Hub Central OEM, VAR or system integrator partner, or alternatively contact Edge Hub Central directly by email: ehcteam@edgehubcentral.com.

Pour tout autre problème concernant l'utilisation sûre et efficace de ce produit, veuillez contacter votre partenaire Edge Hub Central OEM, VAR ou intégrateur de système, ou bien contacter Edge Hub Central directement par e-mail : ehcteam@edgehubcentral.com.

5. Regulatory, Compliance and Safety Statements

5.1 US and Canadian Safety Standards

The Edge Hub is for use with safety certified products only.

The Splunk Edge Hub has met the safety requirements for UL61010-1/CSA C22.2 No. 61010-1, Third Edition: Safety of Electrical Equipment for Measurement, Control, and Laboratory Use for the US and Canadian markets. It also compliant to IEC 61010-1:2010, IEC 61010-1:2010/AMD:2016 and EN 61010-1L 2010 (3rd Edition) Corr 7-31-2011 Electical Equipment for Measurement, Control, and Laboratory Use.

5.2 Federal Communications Commission (FCC) Declaration of Conformity

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTES:

- Connecting this device to peripheral devices that do not comply with Class A requirements or using an unshielded peripheral data cable could also result in harmful interference to radio or television reception.
- The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- To ensure that the use of this product does not contribute to interference, it is necessary to use shielded I/O cables.

5.3 Industry Canada Class A Emission Compliance Statement

This Class A digital apparatus complies with Canadian ICES-003.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1) This device may not cause interference.
2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1) L'appareil ne doit pas produire de brouillage;
2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

5.4 CE Power Cord Notice

The CE mark indicates that the Edge Hub complies with the relevant European Economic Area (EEA) directives. These include EN61010 for electrical safety under the low voltage directive. Relevant EMC standards include ETSI EN 301 489 -1/-3/-17/-19/-52 Class A, Radiated Emissions (30MHz – 6GHz: upper frequency range AC Conducted Emissions Power (150kHz – 30MHz, 230V 50Hz), Telecom Line Conducted Emissions (150kHz – 30MHz), EN 61000-3-2 Harmonic & EN 61000-3-3 Flicker, EN 61000-4-2; ESD, EN 61000-4-3; Radiated Immunity; 80Mhz-1GHz ,3V/m ;80% AM 1Khz, 1GHz-6GHz; 3V/m, EN 61000-4-4; EFT/B, EN 61000-4-5; Surges, EN 61000-4-6; Conducted Immunity, EN 61000-4-8; Magnetic Immunity, EN 61000-4-11; Voltage Interruptions. Relevant Wireless standards include EN 301 908-1– Intentional Radiator: LTE-CAT-M: B1, B3, B8, B20, B28 LTE-NB-IOT: B1, B3, B8, B20, B28; ETSI EN 301 893/ EN 302 502– Intentional Radiator WLAN (20/ 40/ 80 MHz) Frequency Range: 5180 MHz – 5825 MHz; EN 300 328 – Intentional Radiator WLAN B/G/N (20/ 40MHz) Frequency Range: 2412-2472 MHz; EN 300 328 – Intentional Radiator Bluetooth(BLE/EDR/BDR) Frequency Range: 2412-2472 MHz; GNSS EN 303 413.

5.5 Power Cord Notice

For your safety, Actineon provides a wall adapter and USB-C power cord with a grounded attachment plug to use with this product. To avoid electrical shock, always use the power cord and plug with a properly grounded outlet. The power cords provided by Actineon have been selected to uphold safety, emissions, and environmental regulations.

Actineon does not provide PoE cables with the Edge Hub, but the Edge Hub is capable of operating on PoE power. To safely power the Edge Hub over PoE, users must use a 4 Pair CAT5E or better cable. In all cases, users must only use power cables that have been certified to meet the appropriate safety standards for the country in which the Edge Hub will be installed.

Pour votre sécurité, Actineon fournit un adaptateur mural et un cordon d'alimentation USB-C avec une fiche de mise à la terre à utiliser avec ce produit. Pour éviter les chocs électriques, utilisez toujours le cordon d'alimentation et la fiche avec une prise correctement mise à la terre. Les cordons d'alimentation fournis par Actineon ont été sélectionnés pour respecter les réglementations en matière de sécurité, d'émissions et d'environnement.

Actineon ne fournit pas de câbles PoE avec l'Edge Hub, mais l'Edge Hub est capable de fonctionner sur alimentation PoE. Pour alimenter en toute sécurité le Edge Hub via PoE, les utilisateurs doivent utiliser

un câble CAT5E à 4 paires ou supérieur. Dans tous les cas, les utilisateurs doivent utiliser uniquement des câbles d'alimentation certifiés conformes aux normes de sécurité appropriées du pays dans lequel le Edge Hub sera installé.

5.6 Keep 20cm Distance between Radiator and Body

This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

5.7 Polyvinyl Chloride (PVC) Cable and Cord Notice

Warning: It has been asserted that handling electronic cables, wires and cords with polyvinyl chloride (PVC) insulation or jacketing may result in exposure to lead or other substances identified by the state of California to cause cancer or reproductive toxicity.

***Wash hands after handling*.**

Avertissement : Il a été affirmé que la manipulation de câbles, fils et cordons électroniques avec une isolation ou une gaine en polychlorure de vinyle (PVC) peut entraîner une exposition au plomb ou à d'autres substances identifiées par l'État de Californie comme provoquant le cancer ou une toxicité pour la reproduction.

Se laver les mains après manipulation.

The following statement applies to users in the state of California, U.S.A.

Perchlorate material: special handling may apply. Go to:
http://www.dtsc.ca.gov/hazardouswaste/perchlorate

5.8 Bluetooth Sig Mark

The Bluetooth mark indicates that the Edge Hub has been completed the Bluetooth Qualification Process under the Bluetooth Special Interest Group (SIG).

5.9 UKCA Mark

The UKCA mark indicates that the Edge Hub complies with the standards required to place products on the market in the United Kingdom.

5.10 Insulation Marking

The double insulation symbol ▣ indicates that the Edge Hub is protected throughout by double insulation or reinforced insulation as defined by IEC 60417-5172 (2003-02).

5.11 Directive 2017/2102 on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

Actineon, Inc. confirms that Edge Hub complies with the chemical concentration limitations set forth in the Directive 2017/2102/EC of the European Parliament (RoHS). The Edge Hub does not contain in excess homogenous material that:

- contain Cadmium (Cd) in excess of 0.01% by weight (100 ppm)
- contain Hexavalent Chromium (Cr VI) in excess of 0.1% by weight (1,000 ppm)
- contain Lead (Pb) in excess of 0.1% by weight (1,000 ppm) in any form
- contain Mercury (Hg) in excess of 0.1% by weight (1,000 ppm)
- contain Polybrominated Biphenyl (PBB) or Polybrominated Diphenyl Ether (PBDE) in excess of 0.1% by weight (1,000 ppm)
- contain Lead (Pb) in excess of 0.35% by weight (3,500 ppm) for Steel Alloys
- contain Lead (Pb) in excess of 4.0% by weight (40,000 ppm) for Copper Alloys
- contain Lead (Pb) in excess of 0.40% by weight (4,000 ppm) for Aluminum Alloys

Note: Lead usage in some components is exempted by the RoHS Annex until 21 Jul, 2024; therefore, higher lead concentration may be found in some modules (>0.1%).

5.12 Waste electrical and electronic equipment (WEEE) notices

Actineon encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed.

The WEEE mark applies only to countries within the European Union (EU) and Norway. Appliances are labeled in accordance with European Directive 2012/19/EU concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

Users of electrical and electronic equipment (EEE) with the WEEE marking per Annex IV of the WEEE Directive must not dispose of end of life EEE as unsorted municipal waste, but use the collection framework available to them for the return, recycle, and recovery of WEEE and minimize any potential effects of EEE on the environment and human health due to the presence of hazardous substances.

5.13 North America Class I Division 2 Hazardous Location

The Edge Hub has been investigated and certified in accordance with UL 121201- Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations, Ninth Edition, 2019 rev 2021, CSA C22.2 No. 213-17, Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified)

Locations, Third Edition, 2019 rev 2021. This allows for the Edge Hub to be deployed into North American (US and Canada) locations requiring Class I Div 2 Hazardous location certification. **Deployment in such a location requires attaching the Splash Guard to the Edge Hub.**

When deployed in a hazardous location, the Edge Hub is only rated for -20° – 40° C ambient temperature.

Hazardous Location Warnings

Please note the following safety warnings that apply to the Edge Hub when installed in a

1. Class I, Division 2, Groups A,B,C and D, T4, -20 ≤ Tamb ≤ 40

2. WARNING – EXPLOSION HAZARD. DO NOT CONNECT OR DISCONNECT WHEN ENERGIZED

3. WARNING – EXPLOSION HAZARD. DO NOT DISCONNECT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS.

Hazardous Location Labeling

If deployed in a location subject to Class I, Division 2, Groups A,B,C and D regulations, Edge Hub units,
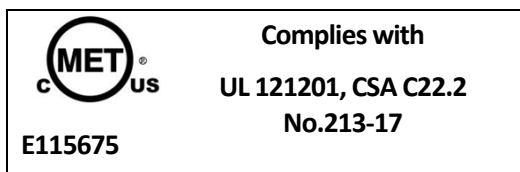
and the attached Splash Guard, must have a marking label with the symbol . This symbol shall be read as indicating the following warning:

WARNING – EXPLOSION HAZARD. DO NOT CONNECT OR DISCONNECT WHEN ENERGIZED

AVERTISSEMENT – RISQUE D'EXPLOSION. NE PAS CONNECTER OU DÉCONNECTER LORSQUE SOUS TENSION

Only Edge Hub units with the following marking are certified for deployment to hazardous locations.

	Complies with
(MET) cᵁˢ E115675	UL 121201, CSA C22.2 No.213-17

6.0 Disclaimers

and "Actineon" are trademarks of Actineon, Inc.

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Kind regards,

and thank you for

choosing Actineon