

IntelliNet[®] Network Control Center (INCC)

Installation, Configuration, and Operations Manual

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NOTICE TO USERS, INSTALLERS, AUTHORITIES HAVING JURISDICTION, AND OTHER INVOLVED PARTIES

This product incorporates field-programmable software. In order for the product to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.

Program Feature or Option	Permitted in UL 864 (Y/N)	Possible Settings	Settings Permitted in UL 864
Alarm Automation (Heartbeat Signal Frequency: Serial or IP)	Y	0–90	As configured by UL 1981, Central-Station Automation Systems Requirements
Data Type	Y	Security, GPS, USDI (others in pull-down menu)	Security
Old Alarm Delivery Options	Y	All, Subscriber controlled, Never	All
Radio Packet Life	Y	0–99	0 (No Time Out for Alarm, Trouble or Restoral)

Software Version

The instructions in this manual correspond to version 10.00.01 of the INCC software. To verify which version of the software you have, go to <u>Software Receiver Identification</u>.

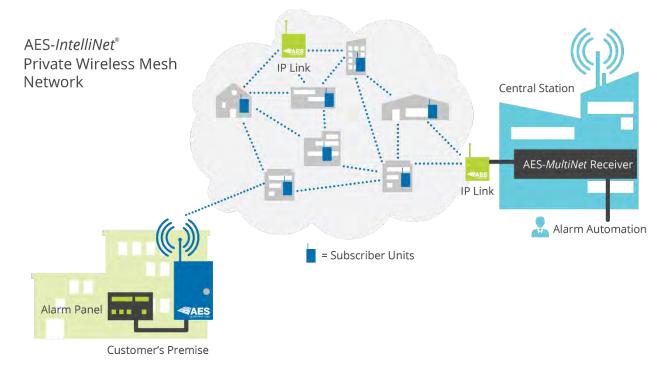
Notes

- 1. INCC operates with alarm mode and in manual mode.
- 2. For Alarm Automation references throughout this manual, Alarm Automation output must be connected to a UL 1981 Listed Alarm Automation System. Automation system must have a redundant system.
- 3. For UL Central Station Burglar Alarm applications, opening/closing signals shall be sent using an alternate communication means that provides for premises acknowledgement (ring back).
- 4. Alarm Automation is not allowed for proprietary monitoring centers, manual mode only. (According to UL 2610.)
- 5. This product shall be installed in accordance with NFPA 72, NEC (NFPA 70 National Electric Code), UL 827 and all applicable local codes.

6. For compliance with UL Central Station Fire/ Burglar Alarm applications, a computer workstation is required to be able to determine subscriber status. The workstation shall be UL-listed ITE equipment.

1. Introduction

The AES IntelliNet is a patented two-way data radio network used for monitoring alarms and transmitting specialized data packets. The system is faster and more reliable than telephone and cellular systems, both of which are subject to tampering and general failure. Phone lines may still be used for backup.



The system's unique "smart" radio communicators, called subscriber units, are each connected to an alarm panel or specialized data port. Alarm information or data is transmitted by radio to the central receiver. If a subscriber unit is too far away to reach the central station directly, its message is relayed by another subscriber unit closer to or in better communication with the central station or other closer units. This unique built-in "repeater" capability creates a highly rugged, adaptive security network. The system self-adjusts to ensure that messages are forwarded via the shortest and best available route. This "smart routing" capability is automated, requiring no special programming. Also, the AES system eliminates the need for dedicated repeaters and towers, significantly reducing setup and operating costs.

AES IntelliNet® Network Control Center (INCC) Installation, Configuration, and Operations Manual

2. Product Compliance Statements

AES IntelliNet Network Control Center software, version 10.00.xx, meets UL 864 and UL 2610 when used with UL 60950 or UL 62368 listed ITE equipment, meeting the minimum hardware requirements.

California State Fire Marshall Listing Number	Please visit AES Website for latest listing #
City of New York Fire Department Certificate of	Please visit AES website for
Acceptance (COA) Number	latest certificate #

All AES products are compatible with the INCC receiver, but applications that have been tested to be compliant with UL 864 and UL 2610 are limited to the following:

Model Number	Туре
7744F	Fire
7788F	Fire
7706 ULF	Fire
7707	Fire
7007	Burg
7177	Hybrid
7170	IP Link

3. Hardware and Software Requirements

Server

Minimum Hardware Requirements

The minimum hardware requirements for operating the AES software receiver system are as follows:

- 1 TB disk drive storage
- Intel[®] Xeon[®] quad core microprocessor with minimum speed of 2.4 GHz, or similar specification x64 Intel[®] compatible microprocessor
- 8 GB RAM
- USB Type-A or Type-C (USB 2.0/3.0)
- 100 Mb Ethernet connection
- Operating System Ubuntu 20.04,

Ubuntu 22.04, 23.04, 23.10, 24.04

Other requirements that must be considered for the installation:

- Primary and secondary servers are redundant machines.
- All servers must be operating non-stop, including monitors.
- Every workstation requires a keyboard, mouse, monitor, and network connected to the primary/secondary server.
- Do not use a screen saver on any INCC server.

All network switches, routers, hubs, and the like, shall be Listed Information Technology Equipment in accordance with UL 60950 and/or UL 62368.

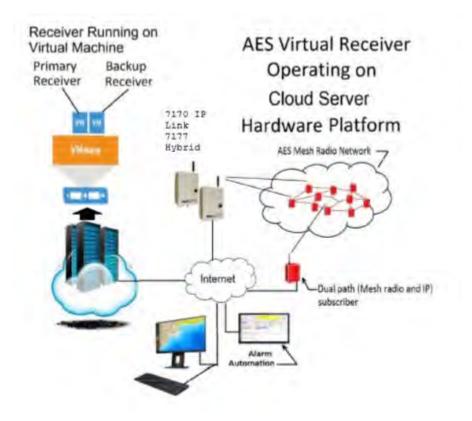
Software Requirements

The customer is responsible for installing Ubuntu on either a server or virtual machine.

Install Ubuntu 20.04 LTS (64 bit), which is available at https://releases.ubuntu.com/20.04/.

Important: No other software other than the operating system software and anti-virus/security protection software shall be installed on the primary and backup computer/servers.

Note: Customers can use a cloud server if it adheres to UL 872A, "Hosted Central Station Services," as shown below.



Virtual Machine

The hardware requirements for each server installation are as follows:

- 8 GB RAM
- 512 GB Hard Drive
- 4 CPU's per VM
- Intel[®] Xeon[®] quad core microprocessor with minimum speed of 2.4 GHz, or similar specification x86 Intel[®] compatible microprocessor

The software requirements are as follows:

- Ubuntu server 20.04.4 (64 bit), 22.04, 23.04, 23.10, 24.04
- Compatible software alarm automation system for signal processing
- Web-enabled device for browser access to the AES software receiver

Note: The INCC does not support Internet Explorer.

Other Hardware Considerations

• Supply line transient protection is required that complies with the Standard for Surge Protective Devices, UL 1449, with a maximum marked rating of 330V. This applies to 120/220 V AC single-phase systems.

- The source of power for the equipment shall be within the rated voltage range of the signal processing equipment.
- Network (Ethernet) cabling requires transient protection complying with the Standard for Protectors for Data Communications and Fire Alarm Circuits, UL 497B, with a maximum marked rating of 50V.
- The communication circuits and network components connected to the telecommunications network must be protected by secondary protectors for communication circuits. These protectors must comply with the Standard for Secondary Protectors for Communications Circuits, UL 497A, with a marked rating of 150V or less. These protectors must be used only on the protected side of the telecommunications network.
- Supervising station processing control equipment or the enclosure housing the control equipment be provided with a permanent means for connection to the branch-circuit supply which shall include provision for installing the supply conductors in conduit.
- Any telecommunication interface lines must be protected by secondary protectors that comply with the Standard for Secondary Protectors for Communications Circuits, UL 497A, with a maximum marked rating of 150V.
- The equipment used must be installed in a temperature-controlled environment that can be maintained between 13–35°C (55–95°F) by the HVAC system. The monitoring station must have an HVAC maintenance contract for the equipment providing the controlled environment.
- Twenty-four hours of standby power must be provided for the HVAC system, which may be supplied by an engine-driven generator alone. A standby battery is not required to be used.
- In addition to the main power supply and secondary power supply (120V AC/240V AC), an uninterruptable power supply (UPS) with sufficient capacity to operate the computer equipment for a minimum of 15 minutes is required. If more than 15 minutes is required for the secondary power supply to supply the UPS input power, the additional UPS required must be capable of providing input power for at least that amount of time.
- The UPS used must comply with the Standard for Uninterruptible Power Systems, UL 1778, or the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864.
- To allow for maintenance and repair service, a means for disconnecting the input to the UPS while maintaining continuity of power to the receiving equipment must be provided.
- If a power conditioner is used, the receiving equipment must comply with the applicable requirements in the Standard for Power Units Other Than Class 2, UL 1012.

• To allow for maintenance and repair service, a means for disconnecting the input to a power conditioner and output from a power conditioner while maintaining continuity of power to the automation system shall be provided.

4. INCC Software Installation

The following instructions describe how to install a new AES central station system. Upgrades and replacements are not covered in this document.

Important: AES customers are provided with a Linux installation package file **only** and are required to build and prepare a virtual machine prior to the installation.

Note: Please pay attention to partition allocation when installing the operating system. All space required to root a partition must be allocated. You will modify this allocation when checking the LVM group.

When changing the IP address for the INCC, please verify that the IP addresses are not currently being used inside your network scope.

Prerequisites

Software Distribution Media

: The INCC software is available from AES as a web download or USB.

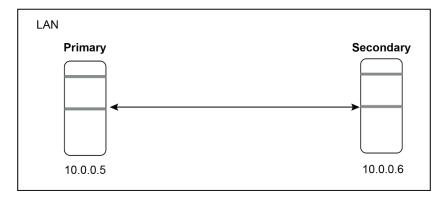
Note: Estimated completion time to install a new AES central station system is approximately 20–30 minutes, depending on the Internet service provider (ISP).

Before installing the INCC software, complete the following steps so that the virtual machine can access the VNET PC transfer application:

1. Ensure that the software and hardware for the virtual machine meets the minimum requirements specified in Section 3, Hardware and Software Requirements.

Model Number	Туре
7744F	Fire
7788F	Fire
7706 ULF	Fire
7707	Fire
7007	Burg
7177	Hybrid
7170	IP Link

- 2. Configure static IP addresses for both the primary and secondary servers, then run both servers (<u>https://en.wikipedia.org/wiki/Private_network</u>).
- 3. Network connectivity between VMs must be configured.



AES IntelliNet® Network Control Center (INCC) Installation, Configuration, and Operations Manual

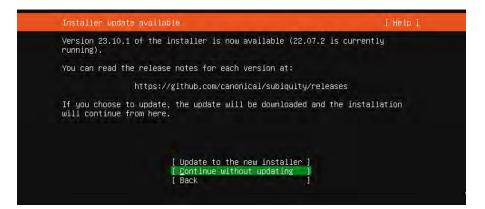
5. INCC Software Installation

Installing Ubuntu Operation System

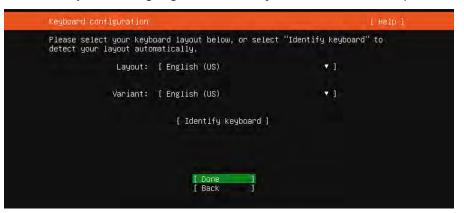
1. Please select a language of your choice:

Wilikommen: Sienvenue: Welcome: Добро пожаловать: Welkom!	Г нетр Л
Use UP, DOWN and ENTER keys to select your language.	
[Asturianu	41
[Bahasa Indonesia	
[Català	► İ
[Deutsch	
[English	
[English (UK)	10.1
[Español	• 1
[Français	⇒ i
[Galego	• 1
[Hrvatski	+ 1
[Latviski	*1
[Lietuviškai	• 1
[Magyar	• 1
[Nederlands	
[Norsk bokmål	
[Polski	
[Português	
[Suomi [Svenska	
[Čeština	
[Ελληνικά	54
(Беларуская	
(Русский	
[Српски	e î
[Українська	+ i

It is recommended that you continue without updating:



2. Select a keyboard language from the Layout and Variant dropdown lists:



 Configure at least one interface the server can use to communicate with other machines. Start by clicking eth > Edit IPv4.

Network connections	(Help)
and which preferably provides suffi	is server can use to talk to other machines, clent access for updates. (close) Info Edit IPv4 Edit IPv6 Add a VLAN tag
	Done] Back]

4. Define the IP address by selecting Manual:

Network connections		[Heip]
	ne interface this server can use to taik to oth provides sufficient access for updates.	
NAME TYPE NOTES [ens160 eth - DHEPV4 10.0.3,39/1 0010c:29:c7:45:66		
Create bond =		
	Edit ens160 IPv4 configuration	
	Edit Chistoo in ve Connigaration	
IPv4 Method:	Automatic (DHCP)	
IPv4 Method:		
IPv4 Method:	Automatic (DHCP) ◄ Manual	
IPv4 Method:	Automatic (DHCP) Manual Disabled	
IPv4 Method:	Automatic (DHCP) Manual Disabled	
IPv4 Method:	Automatic (DHCP) Manual Disabled	

5. Add your static network values into the form, then click **Save** and **Done**:

Net	work connections		[Help]
		— Edit ens160 IPv4 configuration ————	
	IPv4 Method: [Manual 🔻]	
	Subnet:	10.0.0/8	
	Address:	10.0.74.151	
	Gateway:	10.0.1.7	
	Name servers:	8.8.8.8 IP addresses, comma separated	
	Search domains:	Domains, comma separated	
		[Save] [Cance1]	

6. Keep the default proxy settings, then click **Done**:



7. Keep the default mirror values, then click **Done**:

Configure Ubuntu	archive mirror	į dielų į
If you use an al	lternative mirror for Ubuntu, enter its deta	ails here.
Mirror address:	http://us.archive.ubuntu.com/ubuntu You may provide an archive mirror that wil the default.	ll be used instead of
	[Done] [Back]	

8. In the Guided Storage section, set up the disk as an LMV group. Keep all other settings in default mode.



9. In the FILE SYSTEM SUMMARY section, you will need to define a maximum volume for the server. Begin by selecting **ubuntu-lv** under USED DEVICES, then click **Edit**.

[/dev/sda local disk 512.0006 partition 1 new, BIOS grub spacer 1.000M partition 2 new, to be formatted as ext4, mounted at /boot 2.0006 •	storage con	Liguration				нацр]
<pre>[/ 100.000G new ext4 new LVM logical volume +] [boot 2.000G new ext4 new partition of local disk +] AVAILABLE DEVICES DEVICE [ubuntu-vg (new)</pre>	FILE SYSTEM	SUMMARY				
NEW rel Intervention Intervention Intervention Intervention [ubuntu-vg (new) EVM volume group 509.9966 + 1 409.9966 + 1 [presse software FAID model] EVM volume group 509.9966 + 1 [presse software FAID model] EVM volume group 509.9966 + 1 [presse volume v	17	100.000G	new ext4 ne	w LVM logical volume	k ▶]	
[ubuntu-vg (new) free space LVM volume group 509.9966 + 1 409.9966] pretre space [pretre space 409.9966 +] pretre space [pretre space 509.9966 +] pretre space [pretre space 509.9966 + USED DEVICES [pretre space 509.9966 + [ubuntu-vg (new) LVM volume group 509.9966 + [devise [ubuntu-vg (new) LVM volume group 509.9966 + [devise [devise [local disk 512.0006 + [/devise [local disk 512.0006 + + [/devise [local disk 512.0006 + + [/devise [local disk 512.0006 + +	AVAILABLE D	EVICES				
USED DEVICES DEVICE I ubuntu-vg (new) I dbuntu-vg (new) I dbuntu-v	[ubuntu-vg				509.996G	
DEVICE TWE SIZE Luburtu-vg (new) LVM volume group 509.9966 + (c) uburtu-iv new, to be formatted as ext4, mounted at / 100.0006 + [/dev/sda partition 1 new, BIOS grub spacer local disk 512.0006 + partition 2 new, to be formatted as ext4, mounted at /boot 2.0006 +						
[ubuntu-vg (new) LVM volume group 509.9966 ubuntu-iv new. To be formatted as ext4, mounted at / 100.0006 [/dev/sda local disk 512.0006 partition 1 new. BIOS grub spacer local disk partition 2 new. to be formatted as ext4, mounted at /boot 2.0006						
[/dev/sda local disk 512.0006 ► partition 1 new, BIOS grub spacer 1.000M ► 2.0006 ►	USED DEVICE	0				
partition 3 new, PV of LVM volume group ubuntu-vg 509.997G 💌	DEVICE Lubuntu-vg	(new)	formatten as	LVM volume group	509.9966	- (clos

10. In the Size field, enter the maximum size, then click Save:

Storage contigu	ration			(Heip)
FELE SYSTEM SUM	MARY			
Мацит ғадит /////			NEVICE TYPE New 1944 Howical volum New new 1110m 01 Joca	
i e	— Editing	logical v	∕olume ubuntu−lv of ubu	ntu-vg
	Name:	ubuntu-	-1v	
Size (max	509.9966)	509.996	5G	
	Format	: [ext4		
	Mount	e itz	* 1	
			Save j Cancel l	
			L Dóm I I I Milsen I I	
			Encl.	

11. Confirm the storage space and click **Done**. Then approve the format and click **Continue**.

a rou age court 18	uration					Help (
FILE SYSTEM SU	IMMARY					
MDUNT RDINT [/ [/boot	ST2E 509.996G 2.000G		NEVICE TYPE new LVM logica new partition (►] sk ►]	
AVAILABLE DEVI	ICES					
Wh availahis	. 06%1/6s					
I Create volum		(M) = 1				
USED DEVICES						
USED DEVICES DEVICE [ubuntu-vg (n ubuntu-1v		: formattec	Type LVM vo l as ext4, mounte	olume group ad at ∕	509.996G 509.996G	* 1
LENTCE [ubuntu-vg (n ubuntu-1v [/dev/sda	new, to be		LVM vo l as ext4, mounte iocai	ed at 7	509.996G 512.000G	*1
DENTE [ubuntu-vg (n ubuntu-lv [/dev/sda partition 1	new, to be new, BIOS	grub space	LVM vo l as ext4, mounte local er	ed at 7 disk	509,996G 512.000G 1.000M	
DENTEE [ubuntu-vg (n ubuntu-lv [/dev/sda partition 1 partition 2	new, to be new, BIOS new, to be	grub space formattec	LVM vo l as ext4, mounte iocai	ed at ∕ disk ed at ∕boot	509.996G 512.000G	1
LEDUCE [ubuntu-vg (n ubuntu-lv [/dev/sda partition 1 partition 2	new, to be new, BIOS new, to be	grub space formattec	LVM va 1 as ext4, mounta iocal r 1 as ext4, mounta	ed at ∕ disk ed at ∕boot	509.996G 512.000G 1.000M 2.000G	***
DENTEE [ubuntu-vg (n ubuntu-lv [/dev/sda partition 1 partition 2	new, to be new, BIOS new, to be	grub space formattec	LVM va 1 as ext4, mounta iocal r 1 as ext4, mounta	ed at ∕ disk ed at ∕boot	509.996G 512.000G 1.000M 2.000G	***
LEDUCE [ubuntu-vg (n ubuntu-lv [/dev/sda partition 1 partition 2	new, to be new, BIOS new, to be	grub space formattec LVM volum	LVM vo l as ext4, mounte iocal r l as ext4, mounte e group ubuntu-v	ed at ∕ disk ed at ∕boot	509.996G 512.000G 1.000M 2.000G	***
LEDUCE [ubuntu-vg (n ubuntu-lv [/dev/sda partition 1 partition 2	new, to be new, BIOS new, to be	grub space formattec LVM volum [[LVM va 1 as ext4, mounta iocal r 1 as ext4, mounta	ed at ∕ disk ed at ∕boot	509.996G 512.000G 1.000M 2.000G	***

12. On the Profile page, enter your VM profile information:

	password you will use to log in to the system. You can o the next screen but a password is still needed for
Your name:	AES DEVOPS
Your server's name:	incc-primary The name it uses when it talks to other computers.
Pick a username:	aesadmin
Choose a password:	Nolosiolojojek
Confirm your password:	adological de la companya de la comp

13. On the SSH Setup page, check Install OpenSSH server and click Done:

SSH Setup	[Help
You can choose to ins access to your server	stall the OpenSSH server package to enable secure remote
[X]	Install OpenSSH server
Import SSH identity:	[No
	Allow possing authorized in
	[Done]

14. Click **Done** *without* making any selections (the INCC does not have any additional packages).

Featured Server Snaps	[Не1р]
	in server environments. Select or deselect with SPACE details of the package, publisher and versions	1
<pre>[] microk8s [] nextcloud [] wekan [] kata-containers [] docker [] canonical-livepatch [] rocketchat-server [] mosquitto [] etcd [] powershell [] sabnzbd [] wormhole [] aws-cli [] google-cloud-sdk [] slcli [] doctl [] conjure-up [] postgresql10 [] heroku [] heroku [] poingtheus [] juju</pre>	Kubernetes for workstations and appliances Nextcloud Server - A safe home for all your data Open-Source kanban Build lightweight VMs that seamlessly plug into the c Docker container runtime Canonical Livepatch Client Rocket.Chat server Eclipse Mosquitto MQTT broker Resilient key-value store by CoreOS PowerShell for every system! SABnzbd get things from one computer to another, safely Universal Command Line Interface for Amazon Web Servi Google Cloud SDK Python based SoftLayer API Tool. The official DigitalOcean command line interface Package runtime for conjure-up spells PostgreSQL is a powerful, open source object-relation CLI client for Heroku High availability VRRP/BFD and load-balancing for Lin The Prometheus monitoring system and time series data Juju - a model-driven operator lifecycle manager for	
	[Done] [Back]	

15. Once the installation and update are finished for the Ubuntu Operating System, the **Reboot Now** button will appear. When ready, click **Reboot Now**.

Install complete!	[Help]
<pre>configuring apt configuring apt installing missing packages configuring iscsi service configuring raid (mdadm) service installing kernel setting up swap apply networking config writing etc/fstab configuring multipath updating packages on target system configuring pollinate user-agent on target updating initranfs configuration configuring target system bootloader installing grub to target devices finalizing installation running 'curtin hook' curtin command hook executing late commands final system configuration configuring extra packages to install installing openssh-server curtin command system-install downloading and installing security updates curtin command in-target restoring apt configuration curtin command in-target restoring apt configuration curtin command in-target subiquity/Late/run</pre>	×
[View full log] [<u>R</u> eboot Now]	

Installing the Package Files

Requirements for installing the INCC software are as follows:

- PuTTY or other third-party SSH client
- WinSCP or other file transfer client
- Install package file (File will be provided by AES in incc-instal-xx.xx.xx.xx. vxx.run format.)
- Sudo user in Ubuntu The sudo user should be created while the operating system is
 installed, or you can create a new sudo user with the following command (you must replace
 the bold text aesadmin with your new user):

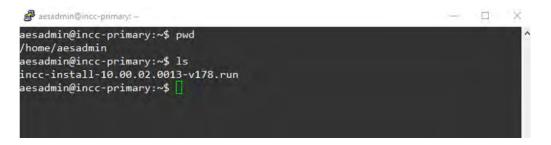
USERNAME=**aesadmin** && sudo useradd -m -d /home/\${USERNAME} \${USERNAME} && sudo usermod -aG sudo \${USERNAME} && sudo usermod -s /bin/bash \${USERNAME} && sudo passwd \${USERNAME}

Note: The INCC installation requires that the primary instance be installed first. Once the primary instance has been successfully installed, the secondary instance can be installed. Currently, the INCC supports only two instances—primary and secondary.

1. Before starting the installation, update and upgrade Ubuntu using the following commands on all Ubuntu operating systems:

sudo apt-get update && sudo apt-get upgrade -y

2. Transfer the install package file with WinSCP (or other tools) to the home folder of sudo users for all instances (if you created **aesadmin** user, the folder will be /home/aesadmin).

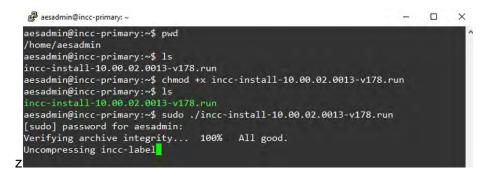


3. Make the install package file executable using the following command:

sudo chmod +x instal-xx.xx.xx.xxx.run

4. Install the primary instance using the following command:

sudo ./ instal-xx.xx.xx.xxx-vxx.run



While installing the primary instance, you will be asked the following questions:

• Do you accept AES Corp Software License Agreement? (yes/no):

Type **yes** and press the **Enter** key.

• Is this VM primary? (yes/no):

Type **yes** and press the **Enter** key.

• Is this VM replacement with old one? (yes/no): (syntax needs to be adjusted)

If you installed the INCC primary first, type **no**.

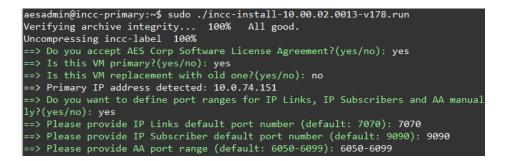
If your INCC primary instance corrupted and you want to replace it with a new one, type **yes** and press the **Enter** key.

 Do you want to define port ranges for IP Links, IP Subscribers and AA manually? (yes/no):

Default ports have been set for IP Links, IP Subscribers, and AA. If you wish to go with default ports, you can type **no**; otherwise, type **yes** to define it manually.

- IP Link default port: **7070**
- IP Link default port ranges: 7000-7099
- IP Subscriber default port: 9090
- IP Subscriber default port ranges: 9000-9099

AA default port ranges: 6050-6099



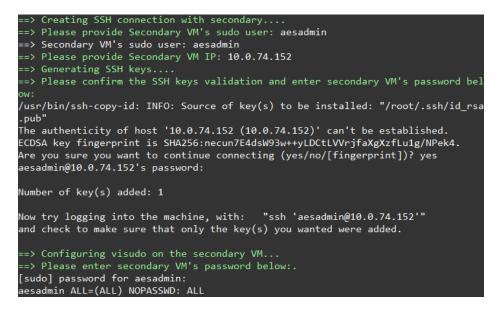
Note: Keep in mind that your firewall should allow ports 80, 443, and the ports that you defined above for IP Links, IP subscribers, and AA.

• Please provide Secondary VMs sudo user:

Enter **sudo user** that you created on secondary instance.

• Please provide Secondary VM IP:

Enter the **IP address** of the secondary instance. Press the **Enter** key and accept the SSH connection, then enter the secondary instance sudo user's password.



Wait until you see the success message, as shown below:

🚱 aesadmin@incc-primary: ~	_	\times
		^
•••••		
==> Start SymmetricDS		
incc_symmetric scaled to 1		
overall progress: 1 out of 1 tasks		
1/1: running verify: Service converged		
==> Wait until Tables will be ready		
==> Import SymmetricDS configuration		
==> Stop SymmetricDS		
incc symmetric scaled to 0		
overall progress: 0 out of 0 tasks		
verify: Service converged		
==> Start SymmetricDS		
incc symmetric scaled to 1		
overall progress: 1 out of 1 tasks		
1/1: running		
verify: Service converged		
==> Update Primary DB with new IP address		
==> Installation completed successfully		
aesadmin@incc-primary:~\$		~

Note: Installing package files may take time, depending on the speed of your host (VM) resources.

You are now ready to install the secondary instance. (Before running the install package file, you need to update and upgrade the Ubuntu operating system, as you did for the primary instance.) While installing the secondary instance, you will be asked the following questions:

• Do you accept AES Corp Software License Agreement? (yes/no):

Type **yes** and press the **Enter** key.

• Is this VM primary? (yes/no):

Type **no** and press the **Enter** key.

• Is this VM replacement with old one? (yes/no):

If you installed the INCC secondary first, type **no** and press the **Enter** key.

If your INCC secondary instance corrupted and you want to replace it with a new one, type **yes** and press the **Enter** key.

• Please provide VM sequence number [2,3..8]:

Since the INCC supports only two instance at this time, type 2

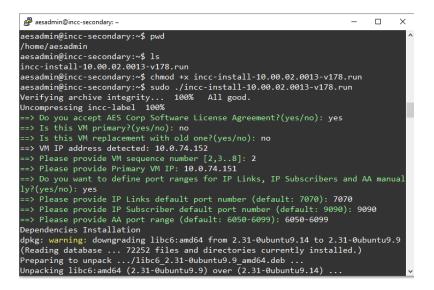
Please provide a Primary VM IP:
 Provide the primary instance's IP address and press the Enter key.

 Do you want to define port ranges for IP Links, IP Subscribers and AA manually? (yes/no):

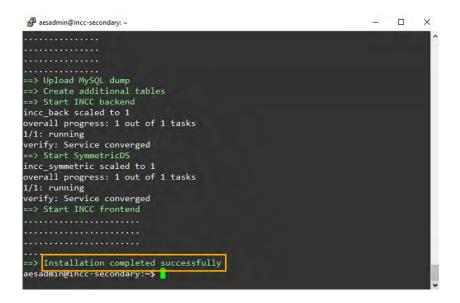
We have set default ports for IP Links, IP Subscribers, and AA. If you wish to go with default ports, type **no**; otherwise, type **yes** to define it manually.

- IP Link default port: 7070
- IP Link default port ranges: 7000-7099
- IP Subscriber default port: 9090
- IP Subscriber default port ranges: 9000-9099

AA default port ranges: 6050-6099



Once the success message is displayed, as shown below, the installation is complete.



AES IntelliNet® Network Control Center (INCC) Installation, Configuration, and Operations Manual

Logging in to the INCC Web Interface

Once the installation is complete, you can access the receiver's INCC web interface using HTTPS.

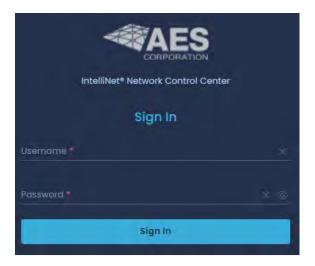
1. Enter the IP address of the primary server into a web browser.

Example: <u>https://10.0.77.220</u>

7. Click Advanced, then proceed to the IP address.



- 8. Enter the default credentials:
 - Username: Admin
 - Password: peabody



Upgrade/Rollback Procedure

Requirements for upgrading (rollback) the INCC software are as follows:

- PuTTY or other third-party SSH client
- WinSCP or other file transfer client
- Upgrade (rollback) package file (the file will be provided by AES in incc-upgradexx.xx.xxxxvxx.run format)

Note: Upgrade (rollback) package file must be run *only* from the primary instance, and it will upgrade (rollback) all instances.

Before starting the upgrade, go to the **sudo user's home folder** that was used during the INCC software installation. Create a new directory inside it (creating a directory name with the current date is recommended) using the following command:

mkdir 01.01.2023

Transfer the upgrade package file with WinSCP (or other tools) to the new folder of the primary instance's sudo user that was created (e.g., the folder will be home/aesadmin/01.01.2023 if you created a "01.01.2023" folder and you have a sudo user named **aesadmin**).

Navigate to the new folder:

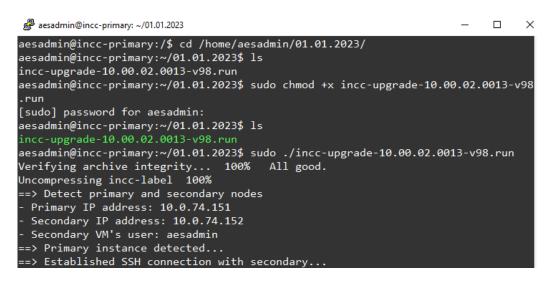
cd /home/aesadmin/01.01.2023

Make the upgrade package file executable using the following command:

sudo chmod +x upgrade-xx.xx.xx.xxx.run

You are now ready to upgrade instances:

sudo ./ upgrade-xx.xx.xx.xx.run



After running the upgrade package file, you will be asked to perform several actions on the console to proceed:

• Please type **start** to start upgrade/rollback process:

You must type **start** to start the process.

• Do you want to roll back? (yes/no):

For doing the upgrade, you must type **no** here. If you finish the upgrade process and see that the software doesn't work as expected, you will need to run the upgrade package file again and type **yes** in this section. It will roll back both instances.

• AA state is down on primary. Do you want to continue? (yes/no):

You will be asked to confirm if AA is down.

- UnAcknowledged Events are present on primary. Do you want to continue? (yes/no):
 You will be asked to confirm if UnAcknowledged Events are present on primary
- AA state is down on secondary. Do you want to continue? (yes/no): You will be asked to confirm if AA is down
- UnAcknowledged Events are present on secondary. Do you want to continue? (yes/no):

You will be asked to confirm if UnAcknowledged Events are present on secondary

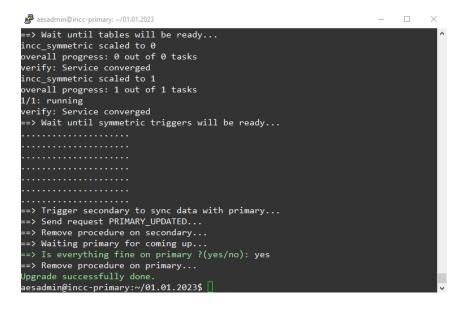
• Is everything fine on secondary? (yes/no):

The upgrade package will upgrade secondary first and when upgrade on secondary completed, you will be asked to check the secondary instance and confirm the health. If you type **yes** here, it will continue the upgrade. If you type **no**, it will start the rollback process for the secondary instance

• Is everything fine on primary? ((yes/no):

The upgrade package will upgrade the primary after you confirm that everything is fine with secondary, and when the upgrade on the primary is completed, you will be asked to check the primary instance and confirm the health. If you type **yes** here, it will complete the upgrade process. If you type **no**, it will start the rollback process for all instances.

After you confirm that everything is fine with the primary, the upgrade process is finished:



Note: For keeping the INCC software up and running, the upgrade (rollback) package will upgrade the secondary instance first, then it will upgrade the primary. If you see any issues after the upgrade, you can run the package file again and go with the **rollback** step.

Troubleshooting

If you see any issue while doing installing INCC software, you can navigate to the install package file location and run the following script:

sudo ./clean.sh

This script will clear the corrupted install, and you may run the install package file to start the install process again.

Run this "clean.sh" file twice if you see any error.

While transferring package files through WinSCP (or other third-party tools), you may see some errors like "permission denied". This means that you have lost the permission to the user's home folder. To fix this issue, navigate to the home folder and correct the permissions:

cd /home

sudo chown -R aesadmin aesadmin/

The INCC software primary and other instances will communicate with each other with specific ports, so keep in mind that the following ports must be allowed between the instances from the firewall:

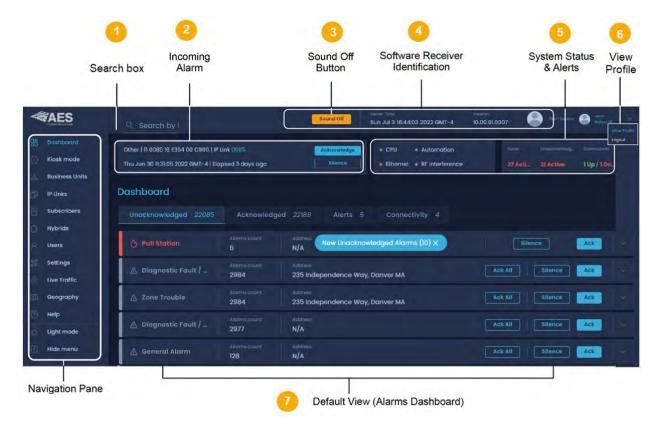
- 22 (SSH)
- 3306 (MySQL)
- 31415 (SymmetricDS)

Note: AES recommends the use of a firewall and that only the necessary ports be allowed.

6. Exploring the IntelliNet Control Center

Overview

The Control Center dashboard is used for configuring the IntelliNet system, viewing information about the system, viewing your profile, and processing alarms. Detailed information about each component of the dashboard is described on the following pages.



Search by Unit

The search box at the top left can be used to search for IP links, subscribers, and hybrids across the system.

W	AES	Stearch by UL Search 2 Search
88	Dashboard	
0	Kiosk mode	Fire 19 9999 18 E115 50 C0C5 Subscriber D004
4	Business Units	Thu Apr 4 10:35:59 2024 Elapsed 2 days ago Silence 5 Act., 25990 A., 0 Up / 4 D.,
d)	IP Links	Dashboard Export Report
白	Subscribers	The second
Ó	Hybrids	Unacknowledged 25990 Acknowledged 22189 Alerts 5 Connectivity 4
8	Users	Pull Station Address 6 N/A New Unacknowledged Alarms (4) × Silence Ack
(1 9)	Dealers	Zone Trouble Advers Silence Ack Advers Advers Silence Ack
22	Settings	

Incoming Alarm

F 		CID Code	Unit Triggering Alarm	- 				
l I	Supervisory ala	rm P307 00 C807	Subscriber 1554	Acknowledge	CPU Automation	Alèrts		Sonnectvily
1	Mon Sep 13 11:05	9:20 2021 GMT-4 Eld	apsed 04:50:02	Silence	Ethernet • RF Interference	0	45 Active	0
 L	 Date the Event Occurred		 Elapsed Time	 				

This panel provides detailed information about the most recent alarm, including the alarm type, the alarm ID code, and the subscriber associated with the alarm. The date and time zone of the subscriber, as well as how much time has elapsed, are also displayed. The **Acknowledge** and **Silence** buttons are used for processing incoming alarms manually.

Sound Off Button

The **Sound Off** button is a visual indicator of the **System sound in OFF** (or ON) setting in the system settings. Refer to the description in the <u>System Tab</u>.



Software Receiver Identification

The Software Receiver Identification banner provides information about the software and the server.

v10.01.	00.4116
Official Release IntelliNet Product	System-Generated
Designator Code	ID Number
Significant Changes	Minor Changes
New features	Bug fixes (P2 or lower)
Bug fixes (P0 or P1) Noticeable UI changes	Insignificant UI changes

• Server Time: The current time and time zone of the location of the servers. (The server can be manually adjusted using the **Settings** option in the left navigation bar.)

• Server IP: The IP address for the primary instance of the server.

- Version: The current version of the software; see the <u>Version Control Schema</u> on page 119 for a detailed explanation on the versioning control syntax for the INCC software.
- INCC Instance: This field reflects the software receiver that is currently supporting the system. (If the primary receiver goes down, the secondary receiver automatically takes over.)

Server Time	Server ID V I	ersion	INCC Instar	ice 		
Server Time	Server IP	Version	INCC Instance		Admin	
Sun Jan 8 10:35:20 2023	10.0.1.61	10.00.01.0011	Primary		Admin Admin	

System Status & Alerts

The four LED lights in the System Status & Alerts panel convey information about the status of the system. The alert indicators at the right of this panel provide information about alarm activity and connectivity issues.

Note: Status LEDs that turn red indicate a failure. Once the failure has been corrected, the LED returns to its normal state (green).

Fire 19 9999 18 E115 0B C0C2 Subscriber D004	Acknowledge	• CPU	Automation			Connectivity
Wed Mar 27 11:25:27 2024 Elapsed 3 days ago	Silence	Ethernet	RF Interference	5 Ac	83396	1Up/3-

LED	Issues That Trigger Red	Result
CPU	Server issues (e.g., buffering issues, catastrophic failure with the server)	The INCC stops processing signals.
Ethernet	Missing check-in from a 7170 IP-Link	No connection between the INCC to the Model 7170 IP Link; the INCC will not receive subscriber signals.
		The time next to each issue indicates how long it will be before the LED is triggered.
		 Default IP Link: 60 seconds Default IP Subscriber: 180 seconds Default AA: 30 seconds
Automation	Unable to get Acknowledgements from a designated alarm monitoring system	Alarms must be processed in manual mode due to alarm automation not processing.
RF Interference	An RF interference condition exists	Signals may not be received.

Alerts

Fire 19 9999 18 E115 0B C0C2 Subscriber D004	Acknowledge	• CPU	Automation	A/erts	UnacknowL_	Connectivity
Wed Mar 27 11:25:27 2024 Elapsed 3 days ago	Silence	• Ethernet	RF Interference	5 Ac	83396	1Up/3

- *Alerts* are incoming signals that require immediate attention.
- Unacknowledged refers to alerts that have not been acknowledged.
- Connectivity refers to IP Links that are not connected.

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View Profile

Weekly reports can be enabled from within the profile page (click the top right corner at any time from within the INCC).

	Server Time Search Sound Off Sat Mar 30 2024 21:13:30	Server IP Version IVCC 172.31.21.1 10.00.03.00 Instance Primary Robyn W
B Dashboard		
🕕 Kiosk mode	Fire 19 9999 18 E115 0B C0C2 Subscriber D004 Acknowledge	CPU Automation Alerts UnacknowL Cannectivity
A Business Units	Wed Mar 27 11:25:27 2024 Elapsed 3 days ago Silence	• Ethernet • RF Interference 5 Ac. 83461 A. 1 Up / 3 .
👘 IP Links	Profile	
Subscribers		
📋 Hybrids	General Information Change Password	License Details
R Users		Tier 2 Unlimited
P Dealers		
% Settings		
Julie Traffic		Add-ons
Geography	First Name X Last Name X	Self Monitoring: inactive Request
(?) Help	Émail 🕺	
O Light mode	Time Zone	
K Hide menu	Display time in 24h format	
6	- Display arre in 24 normat	
Software Receiver 35PB	Save	

Provide the recipient's name and email address. The report will be sent as a CSV file to the provided email address.

Name	Last modified	File size
Jerry Seinfeld_events.csv	Mar 23, 2024	3 MB

Alarms Dashboard

The Alarms Dashboard is the default view of the INCC Control Center dashboard (see image below).

Alarms that haven't been processed due to a failure in alarm automation are displayed in the Alarms Dashboard. These alarms will remain active until they are acknowledged. Once alarm automation restarts, alarms will automatically be moved and cleared from the system and will be visible from the Acknowledged tab. See <u>Processing Alarms</u> for more information on processing alarms.

Note: No alarms will be present on the Alarms Dashboard if alarm automation is active.

Unacknowledged 37672 Ac	cnowledged 11	Alerts 0	Connectivity 1				
🛆 General Alarm	Alarma count 6268			Date & Time Sun Feb 13 11:39:39 2022 GMT-5	Silence	Acknowledge	
🛆 General Alarm	Alarms count 6268			Dote & Time Sun Feb 13 11:39:39 2022 GMT-5	Silence	Acknowledge	
🛆 General Alarm	Marms count 6268			Date & Time Sun Feb 13 11:39:38 2022 GMT-5	Silence	Acknowledge	
🛆 General Alarm	Algrms count 6268			Dote & Time Sun Feb 13 11:39:38 2022 GMT-5	Silence	Acknowledge	

7. INCC Navigation Pane

	Sound Off	Server Time Sun Dec 4 10:0		erver IP Version INCC Instance 0.0.1.61 10.00.01.0008 Primary	Admin Robyn Wright	
Dashboard	Supervisory 19 BA09 18 P307 00 C801 Sut Fri Nov 18 09:19:50 2022 Elapsed 16 days c			CPU • Automation Ethernet • RF Interference	Aler_ Unacknowledg_ Connect D 41378 Acti_ O Up / 1	
Business Units	Dashboard	vledged 7 Ale	erts 0 Connectiv	ity 1	Export Re	port
 Hybrids Users 	▲ Diagnostic Fault / Low battery	83 (B)	abscriber Businees Unit AD9 orphon	Date & Time Sun Dec 4 08:51:16 2022	Silence Acknowledge	*
Settings	 ▲ Watchdog or PBS reset ▲ Diagnostic Fault / RAM Chip R/ 		ubscriber Business Unit AD9 orphan ubscriber Business Unit AD9 orphan	Date & Time Thu Dec 1 03:56:32 2022 Date & Time Wed Nov 30 12:53:26 2022	Silence Acknowledge	*
Geography Help	🛆 Diagnostic Fault / RAM Chip R/		ibscriber Business Volt 056 orphan	Date & Time Thu Nov 24 02:54:56 2022	Silence	*
Light mode	 No Faults or Restore of all prior Charger Fault 	2028 5 Alarms count Su	ibscriber Business Unit 055 orphan ibscriber Business Unit 056 orphan	Date & Time Thu Nov 24 02:47:41 2022	Silence Acknowledge	4 4

Dashboard

The Alarms Dashboard is the default view of the INCC Control Center dashboard (the <u>alarms</u> <u>dashboard</u> is described on page 39).

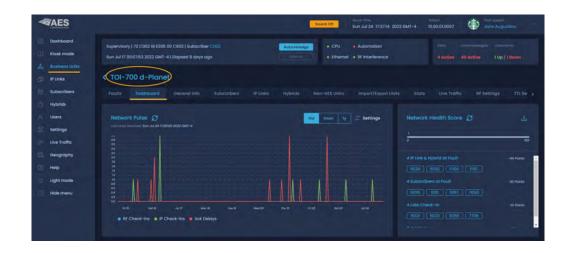
Kiosk mode

The information included on the kiosk is pulled from other areas of the INCC interface.

- The first three screens (Current alert, Recent alarm, and LED panel) are pulled from the top of the screen (the header).
- The Network Pulse and Network Health Score (yellow boxes below) are pulled from the business unit selected from the Business Unit Name dropdown.
 - The Network Health Score is a quick indicator of network performance. The score is calculated based on the number of Ack Delays, IP Link and subscriber faults, and the number of late check-in messages.
 - The Health Score range is a number from 1–100. A higher score suggests a healthy network, and a lower score suggests that improvements can be made to the network.



To view the network pulse and network health score for a business unit, navigate to Business Unit, select the business unit, then select the Dashboard tab. AES IntelliNet® Network Control Center (INCC) Installation, Configuration, and Operations Manual



Business Units

Introduction

Business units are a collection of common subscribers grouped together for the purpose of controlling them via a specific cipher code access. Dealers and other people using the business unit can control the system and manage it through this interface.

Due to site-specific particulars, you will need to create at least one business unit to continue. The Multi-Net receiver does not come with business units from the factory.

Note: To view the details of a business that has already been created, click the business unit name. See <u>Business Units</u> for detailed information.

AES	Q Search by Unit ID 👘 Transh Sound C	solver Time Sot Mor 2 2024 11:16:09	56/ver/P version ///CC 172.31.21.1_ 10.00.03.00_ Prime	The second
Dashboard C Klosk mode L Business Units	Fire 43 9999 18 El15 08 C0C2 Subscriber D004 Wed Feb 21 1347:26 2024 Elapsed 10 days ago	Acknowledge Silence	CPU Automotion Ethernet RF Interference	Alers Unochnowledg, Connectwor 5 Acti
IP Links	Business units			l≣ Sort 〒 Filters Add new
Hybrids	se Aams Status Down		AA Contguraner IP: 50.221.173.139, Port: 5050	Matwork Asserts acore 0
R Users	BUT- Peabody MA Status		AA Conteguration IP: 50.221.173.139, Port: 6066	Nutrion filositi) econu 100
Settings	Buz Assmal Status BU2 - TS Down		AA Configuentier IP: 50.221.173.139, Port: 2	Metwork fleater) score

Note: Some systems have only one type of application data and one access point, and thus require only one business unit. If you have multiple types of data and need multiple remote access locations, define a business unit for each data type and/or remote user. For example, if you have subscriber units that send GPS data and subscriber units that send alarm data, define two business units.

Note: Business units can also be used to separate elements of your operation. If you have networks that are independent, you may find it helpful to create separate business units for them.

Create a Business Unit

1. Click **Business Units** from the left navigation pane and select **Add new**.

*	AES		Sound Off	Surver Time Sun Oct 30 16:26	:36 2022 GM	Semale 80 Steel 17-4 10.0.1.57 10.0	ion incomence 00.01.0008 Primary	a Sana Augu	
18.	Dashboard Klosk mode	Supervisory 19 8023 18 6307 00 Fri Oct 28 13:01:20 2022 GMT-4			Wiedge		omation hterference		
A 10	Business Units IP Links	Business units						i≓ Sort ⊤ Filters	Add new
由.	Subscribers Hybrids	at were orphan	Down	w of intrins/in Groups D/D	in M Subjections 60	AA Configuration IP: null, Port: null		- Hoster beats of a O	
19. 28	Users Settings	U Norm BUtest	Stotus Down			AA Configuration IP: null, Port: null		Network NeoNh score. 100	

- 2. Populate the General settings:
 - **Business Unit Name**: Create an alphanumeric string that you will use to refer to the business unit. The string must be less than 32 characters and can include spaces as well as characters that are considered invalid in Linux directory names (the string is casein sensitive).

AES	Sun Oct 30 1730:50 2022 G	MT-4 10.01.157 10.00.01.0008 Primary Or Jone Augustina
Dashboard	Supervisory I 19 8023 18 F307 00 C807 I Subscriber 8023	CPU + Automation Automation Children Automation Children Automation Automation Automation Automation Automation
💩 Ilusiness Units	< Add Business Unit	Säve
Subscribers	General	Alarm automation settings
Hybrids R Users	Business Unit Norva	TCP Server Parameters
🐇 Settings	60 varne *	ICP how
Live Traffic Geography	Set business unit as default.	 Create a new AA Configuration
Help	Universal IP Units/IP Groups	Alarm Automation Settings Automation Settings
C Light mode		Ademico, 1
Hide menu		Old Alarm Delivery O Deliver all old alarms for this Business Unit. (default)
		Individual Subscriber Linit settings control delivery of old alarms.
		O Never deliver old alarms for this Business Unit.

• Enable Universal IP Links/IP Groups (checkbox): Check this option if you have only one business unit and want all subscribers to be associated with this business unit (even if you do not manually add them to a subscriber database).

- If the checkbox is *not* checked, you will need to manually add each new subscriber to a subscriber database assigned to a business unit. Any signals received from a subscriber not in a database will force it to be handled by the pre-configured business unit named "orphan."
- If the checkbox *is* checked, any new subscriber not in a database that sends data will automatically use this business unit.



Note: Once the **Enable Universal IP Links/IP Groups** has been checked, the screen at the left is displayed.

Enter the ID of the IP-Link transceiver that will handle all subscribers.

3. Populate the Alarm Automation settings:

Alarm automation settings TCP Server Parameters TCP Server*	Add Alarm Automation Configuration
Create a new AA Configuration Alarm Automation Settings Automation format: Receiver number	Part number O Allowed range: 8050 - 8099 Primary IP address *
Ademco I Old Alarm Delivery Deliver all old alarms for this Business Unit. (default) O Individual Subscriber Unit settings control delivery of old alarms O Never deliver old alarms for this Business Unit.	Add IF Address Cancel Submit

• **TCP Server Parameters**: For the TCP server, enter the IP address of the Alarm Automation system. The default is blank and should have an entry only if communication to Alarm Automation via TCP/IP is desired.

Port Number: The IP port that the INCC receiver sends alarm automation messages on (default is blank).

 Automation Format: Select the emulation to use for messages using these settings. Select either Ademco or Radionics according to the configuration of the alarm monitoring system. See the AES website (AES-Corp.com) for a listing of generated messages. **Receiver Number**: Select the number to place within the character(s) that represent the receiver number in the Alarm Automation message (default is 1). Range is Blank, 0 to 9 and A to F (0 and Blank are selectable options but may not be valid entries for all alarm Automation systems). Some Alarm Automation systems may ignore or be set to ignore this parameter.

Unless you know that you need or want something different, use the default and suggested value of 1.

Old Alarm Delivery

• Alarms are reported by AES subscribers when a zone that has gone into alarm in the past has not yet restored to its non-alarm condition at the time the subscriber is sending a Check-In or a Status report.

Note: Compliant configuration to UL 864 requires the setting to be "Deliver all old alarms for this Business Unit." See <u>NOTICE TO USERS, INSTALLERS,</u> <u>AUTHORITIES HAVING</u> JURISDICTION at the beginning of this document for details.

Some Alarm Automation systems may not be configured to properly report these types of messages. There may be reasons not to send these signals to automation but be aware that these messages may indicate important conditions such as zone inputs that are possibly stuck, improperly configured, improperly wired, or in an alarm condition and may not be able to report a new event. Options are:

- Deliver all old alarms for this Business Unit (default)
- Individual Subscriber Unit settings control delivery of old alarms (configuration for each subscriber set in the subscriber unit setting)
- Never deliver old alarms for this Business Unit (ignores subscriber configuration and will not report all old alarms to automation)

Business Units Dashboard

Business units that have been created on the system are displayed on the Business Units dashboard, along with a snapshot of information for each business unit, including:

- The status of the business unit
- Number of IP Links, IP groups, and subscribers associated with the business unit
- The business unit's alarm automation receiver number
- The network health score

				Sound Off	Server Tim Sun Jul			nsion .00.01.0007	Tech support Jane Augustina
	Dashboard Klosk mode Business Units				Acknowle		CPU Aut Ethernet RF II	omedon	Nerts UndeknowL ConnectM IAC_ 0 1 Up / 1_
а. С	IP Links	Busi	ness units					l≓ Sort	T Filters Add new
自由	Subscribers Hybrids	4	BU Name orphan	Status Up	# of IP Units/IP_ 0/0	# of Subs. 9	AA Configuration IP: 10.0.3.59, Port: 6	AA Receiver Nu	Network health score 0
	Users	,۵,	BU Name BUI	Statur Down	e of PLInks/P. 0/0	# of Subs.	AA Configuration IP: 121.5.3.3, Port: 6	AA Receiver No	Network health score 100
	Settings	Å	BU Name TOI-700 d-Planet	Stotus Up			AA Configuration IP: 10.0.3.59, Port: 6		Network health score
	Live Traffic	*	80 Norme	Statue			AA Contiguration IP: 10.0.3.59, Port: 6	AA Receiver Nu	Network health score

Sorting and Filtering

Business units can be sorted and filtered from the dashboard.

• To sort, click **Sort** to display the sorting options, then select your criteria and click **Ok**. The selected sort criteria are displayed at the top left of the list of business units.

Sort selection	Result					
1	Sort Business units	X Clear all				17 Sort T Filters Add new
by Business Unit Name	12 Source A Removed over Manual 15	X Clear an				
by Status	A Tony	Down		44 Configuration IP: 10.0.3.105, Port: 6066	AA Alecehren Nomber	
by # of IP Links	17					
by # of IP Groups by # of Subscribers	4F	Stortur Down		44 Configuration IP: 10.0.3.59, Port: 6051		
by AA Configuration	if Tony	time Down		AA Configuration IP: 10.0.3.59, Port: 6088	A4 Receiver Nucriour 1	
by AA Receiver number by Health Score	LF LF A BUT	Stetlas Down		84 Configuration IP: 10.0.3.59, Port: 6051		Justissori Paralliti scove Q
Reset		Protus Down		AA Configuration IP: null, Port: null		

To filter out some of the business units, click Filter, then enter your data into the desired • filtering fields. Click Apply Filters at the bottom right.



Viewing Individual Business Units

To view detailed information about a specific business unit, click the name of the business unit.	•
	•

		Sound Off	Server Tin Sun Jul			ension 0.00.01.0007	Jane Augustina
Dashboard			Acknowld	edge	• CPU • Aut	tomation	
() Kiosk mode			Silone		• Ethernet • RF	Interference	1Ac. 0 1Up/1-
a, Business Units							
IP Links	Business units					l≣ so	ort 🍸 Filters Add new
Subscribers	s. BU Name						
Hybrids	orphan	• Up			IP: 10.0.3.59, Port: 6_		
A Users	BU Name sõe BU1	Status Down			AA Configuration IP: 121.5.3.3, Port: 6		Network health score 100

Each individual business unit has 17 tabs. (To view the tabs further to the right, click into any one of the other tabs and you will see an arrow icon at the right.)

	AES	Search by Unit (D)	Sound Off	Sarvar Timo Sat Mar 18 2023 1	0:39:12	Sorver /P 10.0.1	Vertion 10.00.02.00_	instance Primary	9	Tech support		8
譜 ① 人	Dashboard Klosk mode Business Units	Supervisory 11 111 18 P307 00 Fri Mar 17 09:15:50 2023 Elap:			lence	CPU Ethernet	 Automation RF Interfere 					
đ	IP Links	< orphan								T Filters	C Refres	
自由	Subscribers Hybrids	Faults Dashboard	General info	Subscribers	Mesh	IP Links	Hybrids	Non-AES Ur	lits	Import/Exp	ort Units	>
8	Users	🖹 Modem Chip	Event code E307 00 C805	Subscriber 10 0524	Geoletis) N/A	# at Depen 0 / 0		ima b 9 13:26:37 20	23		1	
÷.	Declare											

Faults Tab

The Faults screen allows you to view faults based on product type. Use the toggle buttons at the bottom right to switch between **Subscribers & Hybrids** and **IP Links**.

W		Q. Search by Unit Search	Sound On	Server Time Sat Mar 2 2024 11:3	31:52	Server IP Versi 172.31.21.1 10.0	on INCC 0.03.00 ^{Instance} Primary		Admin Justin Mit	chell
95 () &	Dashboard Kiosk mode Business Units	Fire 43 9999 18 E115 0B COC Wed Feb 21 13:47:26 2024 EI			nowledge Silenc≥	• CPU • Au • Ethernet • RF	itomation Interference	Alerts 5 Act	Unacknowle_ 52094 A	Connectivity O Up / 10 D
山白	IP Links Subscribers	< orphan							T Filters	C Refresh
Ó	Hybrids	Faults Dashboard	General info	Subscribers	Mesh	IP Links Hyb	orids Non-AES U	-	Import/Expo	
R %	Users Dealers		Event code P307 00 C815		Dealer(s) N/A	# of Dependents 0 / 0	Date & Time Fri Mar 1 04:45:05 20			
Se (6	Settings Live Traffic	NetCon	Event code P354 00 C915	Hybrid ID FB01	bealer(s) N/A	# of Dependents 0 / 0	Date & Time Tue Dec 19 13:56:03 2	2023		

Both types of faults include the following information:

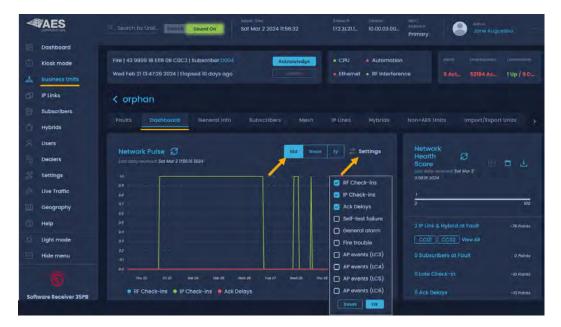
- Event code: Event code associated with each fault (the event code triggers the fault)
- Subscriber ID:
- Dealer(s):
- # of Dependents: The number of dependent subscribers
- Date & Time: The occurrence of the fault

1	AES	Search by Unit. Guarch	Sound On	Sat Mar 2 2024 11:	31:52	Server P Viel 172.31.21.1_ 10.0	Non Wed 90.03.00 Primary		Justin Mit	chell	
œ	Dashboard Kiosk mode Business Units	Fire 43 9999 18 E115 08 COC2 Wed Feb 2) 13:47:26 2024 Ela			nowledge		utomation Interference		Decembration	Connectivity 0 Up / 10 J	
	IP Links	< orphan							T Filters	C Refres	n.
	Subscribers Hybrids	Faults Dashboard	General info	Subscribers	Mesh	IP Links Hyl	brids Non-AES U		Import/Expo		
R.	Users	Subscribers & Hybrids						Sub	oscribers & Hyb	rids IP Lin	uks
-34	Dealers	Panel Interface	P307 00 C815	European D	HAD DEV(N)	e of Dependents	Parts & Time Fri Mar 1 04:45:05 20:	24			
	Settings Live Traffic	NetCon	Pyent.code P354 00 C915	Hystria Io. FBO1	Dealer(s) N/A	= of Lepondents 0 / 0	Dess & 7hyse Tue Dec 19 13:56:03 2				

Dashboard Tab

The **Dashboard** tab displays a color-coded line graph (i.e., the network pulse) that depicts network operation information, a network health score, and fault messages for subscribers.

- To switch between daily, monthly, or yearly data for the network pulse history, toggle between **10d**, **1mon**, and **1y**.
- Use the **Settings** dropdown to select the data to include in the network pulse grapic.
- The network health score ranges from 0–100 and is based on four event categories. For more details on the network health score, please refer to the AES website.
 - IP Link/hybrid subscriber fault
 - Subscriber fault
 - Subscriber late check-in
 - Subscriber Ack delay



General Info Tab

The **General info** tab displays information that was populated at the time the business unit was created, including the status of the business unit, the name of the business unit, any IP Links and groups associated with the business unit, and alarm automation (refer to <u>Alarm Automation</u>)

In addition, the Geography Page Center Location Coordinates setting (at the bottom right in the image below) allows you to specify where each BU is geographically located. For example, the coordinates for the BU shown below (QA BU1) correspond to those same coordinates on a map.

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AES	Saver Here S	172.31.21.1. 10.000.03.00. Primary Jane Augustina -
Dashboard		
(i) Klosk mode	Fire 43 9999 18 El15 0B COC2 Subscriber D004 Acknowledge	CPU Automation Automation Automation
& Business Units	Wed Feb 21 13:47:26 2024 Elopsed 10 days ago	Ethernet • RF Interference 5 Act. 53791 Act. 1 Up / 9 D.
IP Links	< orphan	Delete Edit
Subscribers		IP Links Hybrids Non-AES Units Import/Export Units
Hybrids	Faults Dashboard General Info Subscribers Mesh	IP Links Hybrids Non-AES Units Import/Export Units
A. Users	General	Alarm automation settings
Dealers		TCP Server Parameters
	• Down	
Settings		
Live Traffic		Alorm Automation Settings
Geography		
3 Help		Ademco I
 Light mode 		
	ell Acome : orphan	Deliver all old alarms for this Business Unit. (default)
Hide menu		
	🔲 Enable Universal IP Links/IP Groups	Geography Page Center Location Coordinates
Software Receiver 35PB		united and and
		42.5514936 -70.982122

Subscribers Tab

The Subscribers tab displays a list of all subscribers associated with a business unit.

Subscribers can be filtered based on signal activity: top talkers, top repeaters, late check-ins, frequent check-ins, service log, and others (see Table 1, <u>Network Analysis Tools</u> for more details).

The **Subscribers** tab displays missed check-in alerts, which are notifications of faults on the subscribers. If subscribers don't check in at the set interval time, faults are triggered. Refer to the Radio Check-in Interval setting in the subscriber's <u>Settings Tab</u> to view the timing settings that impact faults.

AES	Server /Ime Server /IP Version, INCC Instance Tech support Sound Off. Tue Nov 8 18:21:32 2022 GMT-5 10.01.61 10.00.01.0008 Primary AES-CORP intellinet
Dashboard	
Kiosk mode	Supervisory 62 5055 18 R307 00 C800 Subscriber 5055 Acknowledge • CPU • Automation Aler_ Unacknowled_ Connectivity
,ද්රු Business Units	Tue Nov 8 10:09:03 2022 GMT-5 08:12:28 Silentian Ethernet RF Interference 0 28:23 Active 0 Up / 4 Do
ji IP Links	< ENG BU
Subscribers	
📋 Hybrids	Faults Dashboard General info Subscribers Mesh IP Links Hybrids Non-AES Units Import/Export Units >
D Users	All Subscribers
Settings	Sub ID Sub Type Status It check-in 1001 Burg Normal Tue Nov 1 08:48:59 2022 GMT-4 Missied Check-in
Live Traffic	Sub 10 Sub Type Status Last check-in Missid Check-in
Geography	1002 Burg • Normal Tue Nov 1 08:49:25 2022 GMT-4
Help	Sub IV Sub Type Status Last check-in 5055 Fire • Normal Tue Nov 1 08:52:30 2022 GMT-4
O Light mode	Sub ID Sub Type Status Last check-in 5057 Burg • Normal Tue Nov 8 09:20:03 2022 GMT-5
Hide menu	

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AES		Unit. Search	Sound On	Server Time Sat Mar 2 2024 19:30	:34	Sorver IP 172.31.21.1	Version 10.00.03.00	INCC Instance Primary		Augustina	
Dashboard											
Kiosk mode	Fire 43 999	9 18 E115 OB COC2	Subscriber D004	Ackno	wledge	• CPU	Automati	on	Alerts Unockno		
Business Units	Wed Feb 211	3:47:26 2024 Ela	ipsed 10 days ago			e Etherne	t 🔹 RF Interfe	rence	5 Act. 53828	A 0 Up /	10 D_
IP Links											
II LIINS	< orpha	n									
Subscribers	< orpha	n									
	< orpha Faults	n Dashboard	General info	Subscribers	Mesh	IP Links	Hybrids	Non-AES L	Jnits Import/I	Export Units	
Subscribers		Dashboard	Тор	Subscribers	Mesh Frequent	t Check-	Hybrids Service Log	Non-AES L Recently Added	Jnits Import/I Non- Recommended	Export Units	
Subscribers Hybrids	Faults	Dashboard	Тор	Late Check-ins	Frequent	t Check-	Service	Recently	Non-		

To access a specific subscriber, click the subscriber from the list of subscribers. Subscribers are described in detail on page 68 (<u>Subscribers</u>).

AES	Source Coll Sun Nov 13 11:08:06 2022 GMT-5 10.0.161 10.00.010008 Primary Ricovyn Wrighe
Dashboard Klosk mode <u>A</u> <u>Husiness Units</u> IP Links	Supervisory I 62 5055 18 8307 00 C800 Subscriber 5055 4.ctrowlodge • CPU • Automation • Unextrawedged • CPU • Automation • CPU • Automation • CPU • Automation • CPU • CPU • Automation • CPU • CPU • Automation • CPU • Automation • CPU • CPU • CPU • Automation • CPU • CPU • Automation • CPU • Automation • Conversity • Ethervit • RF Interference • O Up / 4 Down • Automation • Conversity • Conversity • C
Subscribers Hybrids Users Settings Live Traffic	Poults Dashboard Generat info Subsetibers Mesh IP Links Hybrids Non-ASS Units Import/Export Units IP Link / Hybrid Load Live Traf y All Subactibers All Tap Talkers Tap Talkers Tap Talkers Tap Expendence Lale Check-ins (87) Frequent Check-ins So C Sto Frage Sto Frage Sto Frage Store frage Service Lage So C Sto Frage Store frage Instrument N/A
Covernment Geography Help Light mode Hide menu	Image: Section of the section of th
	Punks Subscribers Faults General Settings Messages Live Traffic Zone Configuration Event History Hybrids Users

Table 1.	Network Analysis Tools
Top Talkers	Ideally, all subscribers in the network should generate roughly equal numbers of RF packets. Excess RF traffic from a single subscriber may reduce network efficiency by consuming airtime.
	To reduce excess activity on a subscriber:
	Ensure the subscriber is installed properly.
	Ensure the subscriber is free of faults.

Table 1. N	etwork Analysis Tools
	 Ensure the alarm panel connected to the subscriber is configured and connected properly.
	 Ensure the alarm panel connected to the subscriber is free of faults.
	 Ensure all zone, power, and communication wires are secured properly.
Top Repeaters	Repeating the packets of other subscribers is a normal function of the mesh network; however, excessive packet forwarding by a single subscriber may reduce network efficiency and cause delays, although unlikely. To improve efficiency:
	 Install an IP Link or a hybrid near any subscriber that repeats packets for many dependent subscribers.
	 Consider changing the antenna height or replacing with a higher or lower gain antenna.
Late Check-ins (RF)	Late Check-ins displays the list of subscribers currently late checking in, the length of time each is late, and the last time it checked in.
	Each subscriber normally transmits check-in messages at regular, pre-set intervals. If the INCC does not receive a check-in message at the expected time, there might be a problem with the subscriber; alternatively, there might be a problem with network performance, which may be explained by an environmental factor such as weather conditions. Once subscribers transmit three check-ins on schedule, they are removed from the Late Check-ins list.
	To improve network performance:
	Ensure the subscriber is installed properly.
	Ensure the subscriber is free of faults.
	 Ensure the subscriber is connected to the network by watching the LEDs on the subscriber PCB.
	 Ensure the <u>subscriber settings</u> on page 75 are up to date.
	 Consider changing the antenna height or replacing with a higher or lower gain antenna.
	Consider installing an IP Link to improve network performance.
Frequent Check-ins	Frequent Check-ins displays the list of subscribers currently transmitting frequent check-ins and the number of check-ins per the recommended 24-hour period.

Table 1. N	etwork Analysis Tools
	Each subscriber normally transmits check-in messages at regular, pre-set intervals. The recommended number of check-ins per 24 hours is one; this meets the requirements of UL 864 for Commercial Fire and is appropriate for virtually all applications. A higher number of check-ins per 24-hour period can unnecessarily increase RF traffic on the network. AES recommends setting the subscriber Check-in interval to 23:45. A shorter time interval increases RF traffic in the network.
	To improve network performance:
	Ensure that the subscriber is installed properly.
	Ensure that no subscribers have mis-configured check-in intervals.
Service Log	Subscribers may occasionally require service; the service log identifies all subscribers that are currently in need of service.
Recently Added	Subscribers that have been added to the network within the last 10 days are displayed in the Recently Added list.
	Yeartistic Dashboard General info Bubscribers Mesh IP Links Hybrids Non-AES Linits Import/Export Units > I Recently Added All Top Top Top Top Tep Ins Service Recently Non- Added Non- Recently Non- Recently
Non- Recommended	Subscribers that fall outside the default TTL settings (referenced in the 7707 User Manual) are displayed in this list, triggering a notification so that customers are aware that these subscribers could potentially be harming the network.
Inactive	Subscribers are considered inactive if more than 10 days have lapsed since the subscriber's last check-in. This page is helpful for troubleshooting changes that have occurred on the network. These changes also appear on the Geography page, which can be used as confirmation.
NCT	NCT (an abbreviation for Network Connectivity Tool) is a diagnostic tool that lets you check whether a radio has two active paths at a particular site. This tool is used for setting up subscribers only.
	Customers use NCT when checking sites for NetCon 5. It does this by creating traffic by ID. If this option is enabled, it will block the ID from impacting health scores or run jobs. For example, late to check reports.

AND I		Sound	H Off	ar Time Jan 8 10:44:50 2023	Server IP 10.0.1.61	Version 10.00.01.0011	INCC Instance Primary	1.00	^{Admin} Admin Admin	*
	Dashboard Kiosk mode	Subscriber C	11 CC03 18 E307 CC03 :48:26 2023 Elap		Acknowledge Silence		Automation RF Interference	Alerts 2 A	Unacknowl 244206	Connecti
å. Ö	Business Units IP Links	< orpha	'n							
ē o	Subscribers Hybrids	Faults Ack-Delay	Dashboard	General info	Subscribers	Mesh	IP Links Hybi	rids Ack-Del	Non-AES Unit	S >
8	Users	ACK-Deluy					1	ACK DE	нора	Net-con
26 26	Dealers Settings									

Mesh Tab

- Ack-Delay: When any subscriber transmits an RF packet, the subscriber recipient of the
 packet returns a message to the sender acknowledging receipt of the packet. An Ack
 Delay is triggered if a subscriber does not receive an acknowledgement message of a
 transmitted signal within the configured Communication Timeout Delay period. Ack
 Delays could indicate a service requirement for a subscriber or may be explained by
 some environmental factor such as the weather. It may be advisable to locate or install
 additional IP links near subscribers that remain on the list for extended periods.
- Hops: When a subscriber transmits an RF packet, that packet travels through the mesh
 network to an IP Link or a hybrid subscriber before reaching a MultiNet receiver. If the IP
 Link is within direct reach, the subscriber sends the packet to the IP Link; otherwise, it
 sends the packet to another subscriber along a route leading to the IP Link.

Each step in the route from subscriber to IP Link or hybrid subscriber is called a hop. As network conditions evolve, the route, and consequently the number of hops from a given subscriber to an IP Link, can change.

 Net-Con: Net-Con is an abbreviation for Network Connectivity and is a rating of the number of radio frequency (RF) paths from a subscriber to other subscribers installed in the mesh network. The mesh refers to all the subscriber units on a network of the same frequency and cipher code. Only fire subscribers report their Net-Con statuses, as either high or low, in messages sent to the MultiNet/INCC receiver.

IP Links Tab

The IP Links tab displays a list of all IP Links associated with a subscriber. Each IP Link displays general information:

- IP Link ID
- Model
- Revision

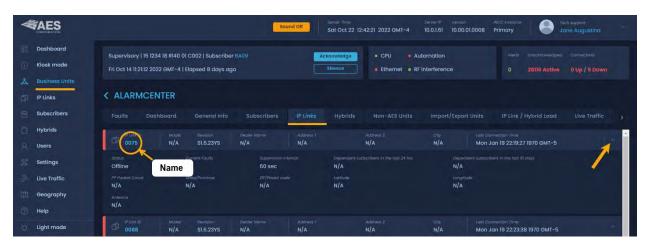
- Dealer name
- Address
- Last connection time

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To expand the details for an IP Link, click the dropdown at the right. The additional information includes:

- Status
- The number of current faults
- Supervision interval
- Dependent subscribers in the last 24 hours
- Dependent subscribers in the last 10 days
- PP packet count
- State/province
- ZIP/postal code
- Latitude
- Longitude
- Antenna

To view further information about the IP Link, click the name of the IP Link (see Name below).



This takes you to the **IP Links** page, which is accessible from the navigation menu. See <u>IP Links</u> to view this information.

	Sound Off	Server Time Sun Nov 13 12:08:06 2022 GMT-5	Server IP Version INCC In 10.0.1.61 10.00.01.0008 Prime		right
🔠 Dashboard	Supervisory 62 5055 18 R307 00 C800 Subscriber 5055 Fri Nov 11 04:2213 2022 GMT-5 Elapsed 2 days ago	Acknowledge • CPU Silence • Ethernet	Automation RF Interference	Alerts Unacknowledg. 30 Acti 16706 Acti	Connectivity O Up / 4 Do
Business Units	< IP Link ID 0077 Faults General				C Refresh
Hybrids	Event code # of Dependents: Dot	te & Time It Nov 12 21:14:18 2022 GMT-5			Restore
% Settings					

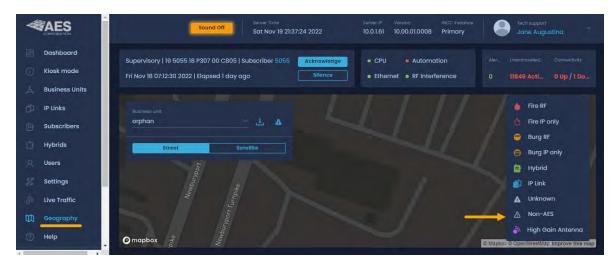
Hybrids

A hybrid fire subscriber offers dual functionality, combining full data module with IP Link. It also helps improve network health and makes it easy to expand and start a new network. See Hybrids section for detailed information on INCC configurations.



Non_AES Units

A non-AES unit is a unit that is not on the AES network. Adding your non-AES equipment gives you the ability to track the equipment from the **Geography** tab.



To add a non-AES piece of equipment, click Add new.

4	AES	Sound Off Sat Nov 19 21:34-20 2022	sterver # Version MCC Instance Tech support
盟 ①	Dashboard Kiosk mode	Supervisory 19 5056 18 P370 00 C009 Subscriber 5056 Acknowledge Fri Nov 18 07:12:33 2022 Elapsed 1 day ago Silence	CPU Automation Alec. Unactinowled. Connectivity Ethernet RF Interference O 11830 Acti. O Up / 1 Do
4	Business Units	< orphan	Add new
自力	Subscribers Hybrids	Faults Dashboard General Info Subscribers Mesh	n IP Links Hybrids Non-AES Units Import/Export UI >
R	Users		

The information on this screen enables you to track where this unit is located.

Note: A unit ID can consist of any character type (e.g., number, alpha, free text).

AES	Secure Time Sat Nov 19 21:45:10 2022	Server IP Version INCC Instance Frich support Jon 10.0.161 10.00.01.0008 Primary Jane Augustina
Dashboard	Supervisory 19 5055 18 P307 00 C805 Subscriber 5055	CPU Automation Mar. Unacknowled. Connectivity
 Kiosk mode 	Fri Nov 18 07:12:30 2022 Elapsed 1 day ago	• Ethernet • RF Interference 0 11886 Acti 0 Up / 1 Do
్రద్ద Business Units		
IP Links	< Add Non-AES Unit	Save
Subscribers	Non-AES Unit Details	
Hybrids	Unit ID	
Q Users		
🐕 Settings	Unit ID.* X	
Live Traffic	Other Details	
([]] Geography		
Help		
O Light mode	City X State/Province X	
Hide menu		
m		
Software Receiver 35PB	Elevation (m.) 🕺 Antenna 🛛 💥	
	Notes	
	Notes(up to 250 characters) X	

Import/Export Units

To import addresses for units:

- 1. Click **Download XLS template** to download the Address File template.
- 2. Populate columns A through N of the template. Save the file.
- 3. Export the Excel file to CSV.
- 4. Upload the CSV file by clicking Select CSV file.

AES	Sound by Unit ID Sound Co. Satt Mar 9 2024 19:36-49	10.0.741. 10.00.03.00. Primary
Dashboard		
Klosk mode	Supervisory F) 4321 IB E305 00 C901 Subscriber 4327	CPU Automotion
A. Businesi Units	Thu Mar 7 13:38:15 2024 (Elapsed 2 days ago Sidenice	Ethernet + RF Interference 28 Actu. 1246 Active 1 Up / 2 Do.
D IP Unks	< orphan	
Subscribers	Foults Dashboard General In/a Subscribers Mesh IF	
I Hybrids		
S Users	Import Addresses for AES Units	Export Addresses for AES Units
Dealers		Select Unit Type
Settings	Download XLS template Open G6 template	Subscriber C IP Link C Hybrid
Uve Traffic	Address File Temploie	Export Address File
Geography	Select CSV Re to upload	Export CSU Min
() нер	Selact CSV lite	
Ught mode		
Pecce monu	Import Addresses for Non-AES Units	Export Addresses for Non-AES Units
Ō		Export Address File
Software Receiver 35PB	Deveload XLS template Open GS template	Export CSV file
	Address File Templato	
	select CSV file to upload	
	Select CSV file	

To export addresses for units:

- 1. Check each box next to the unit types you would like to export.
- 2. Click the **Export CSV file** button to download the file. The Excel file consists of the data that was selected:

Export Addresses for	xport Addresses for Units														
Select Unit Type	Select Unit Type														
Subscriber 📄 IP Link	Subscriber IP Link Non-AES Unit Hybrid														
· · · · · · · · · · · · · · · · · · ·		Α	В	с	D	E	F	G	н	1	J	К	L	M	N
Export CSV file	1	Unit ID,Ur	nit Type, Ad	dress 1,A	dress 2,Ci	ty,State/Pi	rovince,Zip	/Postal Co	de,Countr	,Dealer,Cu	ustomer, Li	atitude,Lor	ngitude,Ele	vation (ft)	Antenna
	2	1388	Subscribe	r											
	3	5022	Subscribe	r						Α					
	4	5023	Subscribe	r											
	5	BA09	Subscribe	r											
	6	5024	Hybrid												

The Import Unit's Notification settings allows you to pull the options that are available on the NMS and bring them into the INCC.

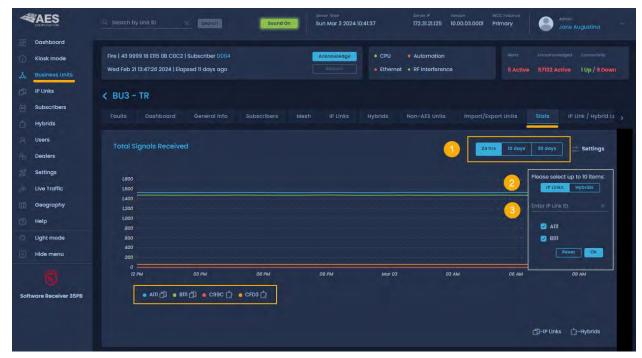
Import Triggers File	Download XLS template	
Select CSV file to upload		
Select CSV file		
Import Recipients File	Download XLS template	

Stats

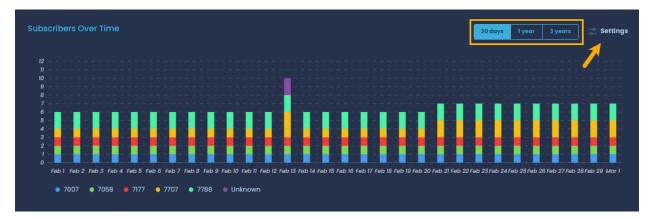
The Stats tab displays the total signals received based on filter selections:

- 1. To view the total signals received based on time period, select **24 hrs**., **15 days**, or **30 days**.
- 2. To limit the results to IP Links or hybrids, click **Settings** and check the appropriate option (IP Links or Hybrids).
- 3. To limit the results to specific IP Link(s), enter each IP Link ID into the search box.

The legend below the graph indicates which signals are being received by the IP Links and hybrids.



Subscriber activity can also be displayed based on different periods: 30 days, 1 year, and 3 years. Click **Settings** to limit the results to IP Links or hybrids.



IP Link/Hybrid Load

The **IP Link/Hybrid Load** view displays a list of IP Links at the left. Analytical details include the number of packets received by each IP Link and the distribution of packets among all the IP Links on the network. Ideally, all IP Links in the network should handle roughly equal volumes of RF traffic. This generalization does not apply when the antennas of two IP Links are deliberately placed within RF range of each other such as at a Central Monitoring Station.

W	AES	Search by Unit ID	<u>*</u> (Search	Sound On	Server Time Sun Mar 3 2024 11:35:50	Server IP 172.31.21.125		rimary	Admin Jane August	lina
顓	Dashboard										
Ð	Klosk mode	Firo 43 9999 18 E1	15 08 C0C2 Subs	criber D004		Acknowledge	CPU Automation				
å.	Business Units	Wed Feb 21 13:47:26	3 2024 Elapsed 1	1 days ago		Silence	thernet 🔹 RF Interferenc	e .		8 Active 0 Up	
山	IP Links	K BU3 - TR									
白	Subscribers		iboard Gei	neral info	Subscribers Mesh	IP Links Hybrid	Is Non-AES Units	Import/Expo	rt Units Stats	IP Link / H	
白	Hybrids									-	
R	Users	IP Link / Hybrid L	oad ())								
Abi	Dealers		Type IP Link	Dealer(s) N/A	Address I 285 Newbury st	Address 2 N/A	aity Peabody	ZP/Postal Code	Country United States	Packets count 368945	Distribution 50.96%
200	Settings									Packets	
đ	Live Traffic		Type IP Link	Dealer(s) N/A	Address 1 500 Broadway	Address 2 N/A	<i>City</i> Chelsea	JIP/Postal Catle MA	Country United States	abunt 347161	Distribution 47.95%
m	Geography									Packets	Distribution
0	нөр		Hybrid		11 Newbury ST	N/A	Danvers	01923	United States	7869	1.09%
Ø.	Light mode	e c99c	Type Hybrid	Deater(s)	Acidness I	Address 2 N/A	CRY N/A	ZIP/Postal Cade	Country N/A	Pockets count	0/st/ibution
6	Hide menu		Hybrid	MA	N/A	N/A.	NIA	MIN	NA	N/A	0.00%

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AES		Second Off Sur Jul 10 10.50.27 2022 BMT-4 10.00	al.0007
Dashboard Klosk mode		CPU Automation Ethernet e RF Interference	Jactive O TUp/TDown
IP Links Subscribers	Corphan Icon	Subactions IP Links Hybrids Non-ALS Units Import/Expert Units s	tats Live Traffic Ki Settings 3
Color	() P_CHKIN 7005	Summer (1977) - Som & Virus Jag darm: - Som Aul 10 10:50:23 2022 GMT-4	
Sottings	() D_CHKIN	Automa Unit Doord J Time orphoin Sun Jul 10 10:50:22 2022 GMT-4	
Live Traffic		Junitem (Jan Sone & Time McChari Sun Jul 10 1050/20 2022 GMT-4	
Geography Help	·스 D_CHKIN 2004	Rothwest 1997 Dotte 1 (1999) comphotin Skun Juli 10 10:5019 2022 GMT-4	
Light mode	▲ P_CHKH 7094	Confine Form Confine The Sam Jul 10 10:5018 2022 GMT-4	
Hide menu	A D CHKIN Salesone II	Textment Text: (Proping Textme	

Live Traffic

The **Live Traffic** tab provides a live visual representation of the traffic load across subscriber links.

Alarm indications (colors and icons) are shown below:

Color	lcon	Alarm/Event
Red	Ł	Fire alarm
Orange	⊕	Burglary alarm
Green	\land	Restoral event from devices
Grey	(j	All other cases

RF Settings

Subscribers can be turned on or off based on their RF status. Subscribers with no RF status can be changed via the checkboxes at the right.

AES		Sum Sun Jul 10 10:51:52 2022 DM		lon unor lone Augustina
Doshboard		• CPU • Automotion		
Elosk mode		Ethernet & R/ Interferen		
A. Duritoria Units				-
() Pilnks	< orphan			Refresh Smee
📋 Subscribers			tota Uve Troffic RF Sett	ings Tti Settlogs
🗋 Hybrida				
P Users			Subscribers with No stat	
🐰 Settings				
Dive Treffic	/	/		Turn selected OfT
Deography			Select of	and the second second
🛞 Help			C 5856 C 7083	0 7094
D Light mode			0 7095 0 7096	2099
Hide menu			C 7100 C883	C CFD3
High menu		- A	The second second	

TTL Settings

Subscribers include the "Time-To-Live" (TTL) function. Like the Internet, AES IntelliNet uses a packet-based technology. The Time-to-Live concept in the Internet is based on the fact that all data has a useful life.



The benefits of TTL are best exhibited when the IP-Link goes off-line due to a lightning hit or some other unlikely, catastrophic event. While the IP-Link is off-line, messages traveling through the system are stored in the individual subscriber units for later delivery. Under the default TTL settings, unimportant test timer messages (typically 95+% of the traffic) are deleted from the subscriber unit memory after 30 minutes of being delayed in the network. Thus, the system will not have to handle the message when the IP-Link Receiver comes back on-line. All other messages, such as alarm, etc., speed their way to the IP-Link as they normally do.

Important: UL864 requires a setting of 0 for Alarm, Trouble, and Restoral.

	Sound Off	Server Time Version Sun Jul 10 11:14:11 2022 GMT-4 10.00.01.0007 Proh suggest Jone Augusting
Dashboard	No Data Silánes	CPU Automation Alerts Linacknowledged Committivity Ethermet: RF Interference TActive 0 1Up / 1Down
IP Links	< orphan	Save
🖞 Hybrids	General Info Subscribers IP Links Hybrids Non-AES Units General Info Subscribers IP Links Hybrids Non-AES Units IP Info Info Inf	Import/Export Units Stats Live Traffic RF Settings TTL Settings
& Users	Subscribers Selection List 🦪	TTL of selected Subscribers 🦪
Live Traffic	Select all	TIL Check-in TIL Status TIL Adum 10 ∞ 10 ∞ 10-1440 min 10-1440 min 16-1440 min
 Help Light mode 	- 5156 7093 7094 7095 - 7096 7099 7100 CB13 - CF03	TTL Treadout TTL Productoral TTL Install/Gop 180 180 180 10-1440 milin 10-1440 milin 10-1440 milin
III Hide menu		17i. Speciele 10 ≫ 10-1440 min
		Time range:
		from 15. 00:00 O.00

The default Time-to-Live can be customized and assigned to specific subscriber(s). Defaults are shown in the TTL Time box at the right. To customize these settings, enter new values, then select the subscriber(s) you want to update from the subscribers list at the left. Once these settings have been saved, all subscribers will use the new time.

Notes

• TTL Check-in: Note that even when a check-in packet is deleted due to a delay, the objective of that message has already served its purpose: the late or missing signal should have been flagged at the central station (see Automatic Test Supervision section).

- Under the default (factory) settings, only test timer messages are subject to the TTL function. If you want TTL for other message types, YOU must activate it when you program the subscriber unit.
- The TTL time is included in packets generated by TTL capable subscribers. This feature is available in subscribers with firmware Version 2.1 and later which was first released in late 2000.
- The timeout function works when a packet is stored for forwarding in any subscriber with TTL capability, which will decrement the TTL time for the packet it is storing. When TTL time has expired, the packet is aborted. This function does not work with non-TTL (pre-Version 2.1) subscribers. The TTL feature works best when the majority of subscribers, or the subscribers that are most heavily used, have the feature in the firmware. Call your AES representative for upgrade information.
- Default time for Check-In Packets is 00 hours, 30 minutes. DO NOT enter a value greater than 24 hours 00 minutes. Entering a time of 00 hours and 00 minutes deactivates the time-to-live function for that packet type. The shortest allowed TTL time is 00 hours, 10 minutes. TTL can also be set for other packet types:
 - TTL Alarm
 - TTL Trouble
 - TTL Restoral
 - TTL IntelliTap
 - TTL Specials
- The default time for the five packet types above is 00, i.e., the time-to-live function is deactivated for these packets. Entering anything greater than 00 hours and 10 minutes enables the Time-to-Live function. Enter the data for each type, then click **Save**.
- To confirm the data, press **<Alt>+<N>** to query the subscriber for Packet Life settings. Once the TTL parameters packet has been received back, check this screen again.

NetCon Settings

NetCon is a measurement calculated by a subscriber to determine the confidence level that transmissions will reach an IP Link. Only fire subscribers report NetCon status, as either high or low, in messages sent to the INCC. To modify the NetCon data, click the icon at the bottom right (see image below).

	ES	Secret Sound Off Soun
88 Dash	hboard	
() Kiosk	sk mode	Supervisory 11 1111 18 P307 00 C801 Subscriber 1111 Acknowledge • CPU • Automation Ale Unitarnewles. Connectivity
ade Busir	iness Units	Fri Mar 17 09:15:50 2023 Elapsed 1 day ago Silence Ethernet RF Interference 0 4874 Act. 0 Up / 6 D.
(1) IP Lin	nks	< orphan
📄 Subs	scribers	
Hybr	orids	 c +ort/Export Units IP Link / Hybrid Load Live Traffic RF Settings TTL Settings NetCon Settings Notifications
R User	rs	Subscriber NetCon Overview
Deal	ilers	In Model Average Failure threshold 1
🌮 Setti	lings	

From here, you can enable or disable NetCon on a subscriber and make other adjustments.

4	AES						
12 A	Dashboard Niask mode Quijiness Units			Acknowledge stillence			
đ.							
			Modify 5043 NetC	on Data			NetiCon Settin
R			Business Lint				
			Model 7707				
2	Settings		NetCon Supervis	ion enabled			
\overline{D}_{0}			Method 1				
13							
10.							
(tec)				Cancel	Modify		

AES IntelliNet® Network Control Center (INCC) Installation, Configuration, and Operations Manual

Subscribers with a NetCon value of 6 or higher are displayed in the **Faults** tab of the business unit.

W	AES	Q. Search by Unit ID	× Search	Sound Off	Server Time Sat Apr 6 2024	4 11:46:45	Server IP Version 172.31.21.125 10.00.03.0002	NCC Instance Primary		*
88	Dashboard									
0	Kiosk mode	Fire 19 9999 18 E115 50 C0C5	Subscriber D004		Acknow	vledge • CPU	Automation			
<i>"</i> å,		Thu Apr 4 10:35:59 2024 Elap	osed 2 days ago		Sile	e Ether	rnet • RF Interference			
ø	IP Links	< orphan							Filters	C Refresh
ē	Subscribers									
ů.	Hybrids	Faults Dashboard		Subscribers	Mesh	IP Links Hyb		Import/Export Units	Stats	
.,Я,	Users	Subscribers & Hybrids						Su	bscribers & Hyl	orids IP Links
	Dealers	NetCon	Event code P354 00 C915	Subscriber ID 5043	Dealer(s) N/A	# of Dependents 0 / 0	Date & Time Sat Apr 6 07:15:45 2024			
	Settings	RF Comm	Event cade	Subscriber ID	Dealer(s)	# of Dependents	Date & Time			
	Live Traffic		P356 00 C903		N/A	0 / 0 # of Dependents	Sat Apr 6 07:15:45 2024			
	Geography	Modem Chip	E307 00 C805		N/A	er or bependents 0 / 0	Fri Apr 5 07:35:22 2024			
0	Help	Timing	Event code P307 00 C806		Dealer(s) N/A	# of Dependents 0 / 0	Date & Time Thu Apr 4 08:32:35 2024			
Q	Light mode	IP Comm	Event code E356 00 C904		Deater(s) N/A	# of Dependents 0 / 0	Date & Time Thu Apr 4 08:15:47 2024			
	Hide menu						and the second second			

Note: When a fire subscriber reports low NetCon, it's important to ensure that the other subscribers communicating with it are operating normally and are free of faults. In may be advisable to relocate the subscriber or to relocate or change its antenna.

Bad Packets

The Bad Packets tab displays events that involve the rejection of a bad packet (e.g., bad check stub, corrupt data, non-deciphering data).

			Version INCC. 10.00.03.00 Instance Primary	Admin Jane Augustina
Dashboard C Kiosk mode C Business Units	Fire 43 9999 18 E115 08 COC2 Subscriber D004 Wed Feb 21 13:47:26 2024 Elapsed 17 days ago	Acknowledge • CPU • Auto Silence • Ethernet • RF In		Unacknowledg_ Cannectivity i 45414 Acti 1 Up / 9 Do
IP Links	< orphan			
Hybrids	د nits Stats IP Link / Hybrid Load Live Traff Bad Packets	c RF Settings NetCon Settings	Bad Packets Notifice	ations Units Notifications
Q Users				
Settings				

Notifications

The Notification function enables users to monitor their AES-*IntelliNet* network from anywhere at any time. Users can configure automatic alerts based on a change to the network health score, a fault with any subscriber or IP links, or when traffic drops on IP links.

Separate dropdown menus enable users to easily create the list of personnel to be notified by both SMS and email, define the fault criteria to be reported, and create associations between the alert triggers and personnel to optimize response.

-		Server Little Sun Jon 15 09:39:01 2023 10.00.01.09 10.00.01.00 Primary International Jone Av	^{port} ugustino
88 (C)	Dashboard Kiosk mode	Supervisory Cl 5056 IB P370 00 C009 Subscriber 5056 Acknowledge • CPU • Automation Am Min. Innecisourage Thu Dec 29 18:33:12 2022 Elapsed 17 days ago Silence • Ethernet • RF Interference 0 203973 Act.	0 Up / 10 Do
命	Business Units IP Links	< orphan	
е ф	Subscribers Hybrids	K Hybrids Non-AFS Units Import/Export Units IP Link / Hybrid Load Live Traffic RF Settings TTI Settings Recipients Add New Recipients	Notifications
8 15	Users Dealers		1

To create a list of Recipients:

1. Click the **Recipients** button, then click **Add New**.

AES	Sound Off Savar (mix Savar (mix) Sound Off Sun Jon 15 10:06:36 2023 10:01:59 10:00:0104	MCC Instance Primary Jone Augustina
Dashboard	Supervisory I C1 5056 18 P370 00 C009 I Subscriber 5056 CFU Automation Thu Dec 29 I8:33:12 2022 I Elapsed 17 days ago SHence Ethernet • RF Interference	
🙏 Business Units	< orphan	
Subscribers	Faults Dashboard General Info Subscribers Mesh IP Links Hybrids Non	-AES Units Import/Export Units IP >
📋 Hybrids	Recipients	Add New Recipients Triggers
A Users		

2. Enter the recipient's name and email address, then enter a description.

A	AES		Sound Off Sun Jan 15 10:08:27		rinsonae 🕘 Yach support Jane Augustina
B D	Dashboard Klosk mode	Supervisory Cl 5056 18 P370 00 C00 Thu Dec 29 18:33:12 2022 Elopsed 17			
*	Business Units				
ø	IP Links	< Recipient create			Create
岜	Subscribers	and the second s			
Ċ	Hybrids	General		Additional details	
18	Users	And and a		Description	
1.15	Dealers	First Name *		Up to 200 characters	
Sp.	Settings	Email :	Phone Number		
<u>A</u>	Live Traffic			Status	
110	Geography			Disable	

To define the fault criteria to be reported:

- 1. Click the **Triggers** button, then click **Add New**.
- 2. Click the **Notify when** dropdown at the right, then select a trigger from the list.

W	AES	Sound Off Sun Jan 15 10:32:33 2023	Lanuar V. Vancol) Accompany (Vancol) (accompany) 10.03.59 10.00.03.0014 Primary Octov Augustina
	Dashboard Klosk mode Business Units	Supervisory C1 5056 18 P370 00 C008 Subscriber 5056 Actnowledge Thu Dec 28 18:3312 2022 Elapsed 17 days ago Blinnes	CPU Automation Mor, Lincolnowedge, Connective, Ethernet = RF Interference Q 289471 Acti D Up / 10 Do
中国	IP Links Subscribers	< Trigger create	Crecte
Ċ.	Hybrids	General	Trigger settings
8	Users		Analy when
R.	Dealers		
35	Settings		Subscriber Event
3	Live Traffic		IP Link Event Network Health Score
Ŵ	Geography		IP/Hybrid Traffic

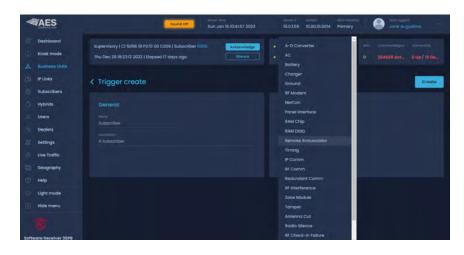
Once a trigger has been selected, the **Name** and **Description** fields on the left side of the screen automatically become populated.

AES	Sound Off Sun Jon 15 10:51:58 2	2023 10.0.1.59 10.0.0014 Primary Joine Augustina
Klosk mode	Supervisory I C1 5096 18 P370 00 C009 Subscriber 5059 Cathoode Thu Dec 29 18:33:12 2022 Elapsed I7 days aga	
D IP Links	< Trigger create	Create
Hybrids	General	Trigger settings
Users	subscriber	Subscriber Event
Dealers		
Settings	A Subscriber	of type
Live Traffic		occurry and from them
Geography		

3. From the **type** dropdown, select the fault criteria to be reported.

W	AES	Sound Dff Sun Jan 15 10:51:58 2023	Lavier III Vervion RECEIVentatice. S fact support 10.01.059 10.00.01.0014 Primary John Augustina
11 (1) (2) (2)	Dashboard Klosk mode Business Units	Supervisory I CI 5056 18 P370 00 C009 Subscriber 5056 Actificategy Thu Dec 29 18:3312 2022 Elapsed 17 days ago Silence	CPU + Automation Allow Understanding Comparison Ethernet + RF Interference 0 284648 Act. 0 Up / 10 Doc
四 四	IP Links Subscribers	< Trigger create	Create
ŵ	Hybrids	General	Trigger settings
.R	Users	News Subscriber	Subscriber Event
be:	Dealers		
35	Settings		of type ×
(Ko	Live Traffic		assus in root port
m	Geography		

Important: Only the **Subscriber Event** and **IP Link Event** triggers have an additional dropdown. The triggers for **Network Health Score** and **IP/Hybrid Traffic** do not rely on data associated with faults.



4. When finished, click **Create**.

Triggers are listed on the Triggers page.

*	AES	Server Time Salyer 7 Velson MCC Instance Tradit support
	Dashboard Kiosk mode	Supervisory C1 5056 18 P370 00 C008 Subscriber 5058 Acknowledge • CPU • Automation Allo Unschowledge Convectivity Thu Dec 29 18.3312 2022 Elapsed 17 days ago Silience • Ethernet • RF Interference 0 284615 Acti_ 0 Up / 10 Do_
	Business Units IP Links Subscribers	< orphan
	Hybrids	Faults Dashboard General Info Subscribers Mesh IP Links Hybrids Non-AES Units Import/Export Units IP 5 Triggers Recipients Triggers
	Dealers	Notice Association Asociation Asociation

5. To edit or delete a trigger, click the trigger. The **Edit** and **Delete** butons are at the top right.

W	AES	sound off Same Final Sun Jon 15 11.04	Service Withold MCC Institution MCC Institution	
	Dashboard Klosk mode Business Units		onleage • CPU • Automotion lence • Ethernet • RF Interference	Aler_ Disconsistential Connectivity 0 284765 Act_ 0 Up / 10 De
	IP Links Subscribers	Subscriber "Remote Annunciator" > 0		Edit
	Hybrids	General	Trigger settings	1 1
	Users	Norme Subscriber "Remote Annunciator" > 0	Monty when Subscriber Event	
	Dealers			
	Settings	A Subscriber "Remote Annunciator" Event has occurred on more than	0 unit. Remote Annunciator	
	Live Traffic			
	Geography			

IP Links

IP Links displays a list of all IP Links on the system. Active links are marked by a green bar, and offline links are marked in red. To view faults and general information for an IP Link, click the name of the IP Link.

	AES		Sound Off	Surver Time Sun Nov 13 12:42:5		ervel IP Version 0.0.1.61 10.00.01.0008	NGC Instance Primary Admin Robyn Wright
	Dashboard Kiosk mode	Supervisory 62 5055 18 R307 Fri Nov 11 04:22:13 2022 GMT-5		Acknowledge Silence		Automation RF Interference	Alierte Unachroneledg, Connectivey 30 Acti
د. 10	Business Units	IP Links					₹ Sort 寸 Filters
Ð	Subscribers	Pline ID Model					last Connection Time
	Hybrids	Blink D Month	S1.6.23YS N/A		N/A Acciness 2		Mon Jan 19 22:21:28 1970 GMT-5
	Users	0030 N/A	\$1.6.23YS N/A	N/A	N/A		Mon Jan 19 22:19:58 1970 GMT-5
	Settings	DO31 N/A	Nevhion Dealer Name S1.6.23YS N/A	Address T N/A	Aldonese 2 N/A	city N/A	tast Convection Time Mon Jan 19 22:26:45 1970 GMT-5

Faults Tab

The Faults screen shows the type of fault, the event code, the number of dependents, and the date and time the event occurred.

		Q. Seards.	Search Sou	nd Off Sun Ma	ne r 19 2023 07:47:16	Server IP 10.0.1	10.00.02.00	NCC nstance Primory	8	Tech support AES Corp
88	Dashboard									
Ō	Kiosk mode	Supervisory	11 1111 18 P307	00 C801 Subscriber	Acknowledge	• CPU	Automation			Connectivity
<i>.</i> 26.	Business Units		15:50 2023 El	apsed 2 days ago	Silence	Ethernet	RF Interference	0	8609 A	0 Up / 6
Ö	IP Links	< IP Link	ID 0039							C Refresh
自	Subscribers									
Ċ	Hybrids	Faults	General	Event History	Notifications					
8	Users	È TCP/IP		Event code E354 00 C906	# of Dependents 0 / 0	Date & Time Thu Dec 8 21:	01:53 2022			Restore
85	Dealers	-								

IP Link fault types include:

Fault Name	Event Code
A-D Converter	E307 00 C804
AC	E307 00 C912
Antenna Cut	E357 00 C916
Battery	E302 00 C911
Charger	E309 00 C910
Duplicate ID	E353 00 C906
Loopback	E307 00 C808
NVRAM Battery	E307 00 C803
PSTN Modem	E354 00 C908

		-
Fault Name	Event Code	
Radio Silence	E355 00 C906	
RAM Clip	E307 00 C807	
RAM Data	E307 00 C802	
RF Interference	E350 00 C906	
RF Modem	E307 00 C805	
RF Offline	E354 00 C907	
Tamper	E145 00 C906	
TCP/IP	E354 00 C906	See
Timing	E307 00 C806	

See example above

General Tab

- **General**: Displays the IP Link ID, status (online/offline), Business Unit affiliation, model, and software version.
- **Details**: Provides details on the IP Link dealer, geographic location, and installed antenna.
- **Dependents and Connection**: Displays IntelliNet subscribers that have used the IP Link. Other message packet-related statistics are also displayed.
- Notes: Information on the IP Link can be stored here in free form text.

*		O, Searci Search	Server Sound Off Sun N	Time Aar 19 2023 07:53:56	Server IP Version INCC 10.0.1 10.00.02.00 Instance Primary	Tech support AES Corp
	Dashboard					
	Kiosk mode	Supervisory 11 1111 18 P3	07 00 C801 Subscriber	IIII Acknowledge	CPU Automation	
	Business Units	Fri Mar 17 09:15:50 2023	Elapsed 2 days ago	Silence	Ethernet • RF Interference	0 8627 Acti 0 Up / 6 D
đ	IP Links	< IP Link ID 003	9			Reset Delete
	Subscribers					
	Hybrids	Faults General	Event History	Notifications		
8	Users	General 🖉			Dependents and Connection	on C
.9 <u>.</u>	Dealers	IP Link ID 0039	Status Offline	Business Unit VancouverPortla	Dependent Subscribers in the last 10 days 0 as of Sat Mar 18 22:00:01 2023	View All
2ª	Settings				Dependent Subscribers in the last 24 hours	
3	Live Traffic	N/A	\$1.6.23YS		0 as of Sat Mar 18 22:00:01 2023	View All
m	Geography					Supervision Interval 60 sec
	Help	Details 🖯		Edit		
105	Light mode					Tue Jun 9 17:19:38 2020
					Last connection Fri May 27 09:59:48 2022	Last Packet Sat Mar 18 22:00:01 2023
C	Hide menu					
-						
Soft	ware Receiver 35PB					
		02155			Notes 🖯	Edit

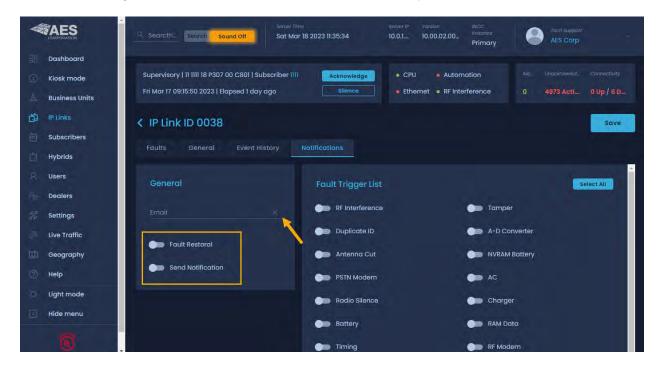
Events History Tab

Event history enables users to receive a 10- or 30-day event history. Click **Export** to download a CSV file.

	Source: Source Sound Off Sound Off Sound Off Sound Off	10.0.1
Dashboard		
1 Klosk mode	Supervisory 11 111 18 P307 00 C801 Acknowledge	CPU Automation M_ Unacknew_ ConnectMity
Business Units	Fri Mar 17 09:15:50 2023 Elapsed 1 day ago	• Ethernet • RF Interference 0 4952 A 0 Up / 6
D IP Links	< IP Link ID 0038	Export 10-Days 30-Days
Subscribers		
📋 Hybrids	Faults General Event History Notifications	
TEN_DAYS_Event_Hcsv		

Notification Tab

The Notification function enables users to monitor their INCC network from anywhere, anytime. Users can configure automatic alerts based on a fault with any subscriber or IP Link.



Activating Notifications

- 1. Define the fault criteria by clicking the fault(s) from the list of faults at the right.
- 2. Enter the email address of the user monitoring these triggers.
- 3. Click Save.

	Sever //: Version Sever /:: Version Sever /: Version Seve
 Dashboard Klosk mode Business Units 	Supervisory 11 1111 18 P307 00 C801 Subscriber 1111 Acknowledge • CPU • Automation Ale
Di IP Links	K IP Link ID 0038 Save Faults General Event History
🖉 Users Dealers	General Fault Trigger List Select All
Settings	RF Interference Tamper

Subscribers

Subscribers automatically appear in the subscriber view once signals are sent to the AES IntelliNet network (subscribers do not need to be manually added).

- The status of a subscriber is indicated by the green and red vertical lines to the left of each row.
- Subscriber types include fire/burg products (please see the AES website for full list of AES supported products by the INCC).

-	AES				Sound	off Sun /			indon 1.00.01.0007	1	foch support Jane Augus	ting
	Dashboard				Subscriber C001	Acknowledge		CPU • Automatic	n			
	Kiosk mode	Subsci	riber ty	pe A Elaps	ed 22 days ago	Silence	1 .	Ethernet RF Interfer	ence			10p/10_
	Business Units											
	IP Links	Subscribe	rs									T Filters
自	Subscribers	- Sup II/										
	Hybride	0990	7788	2.64Z				N/A				1 ×
	Status		ame	Merezion 2.64Z				RF Chock-in Inter N/A				
	Settings	0 0992	140dal	2.64Z				85 Chinar-In Inter: N/A				4
	Live Traffic											_
	Geography	0 0993	Atodel 7788	Revision 2.64Z				17 Chack-Vi Inser. N/A				1
	Help	0 500 m	Mode 7788	Prevention 2.64Z				RF Chack-in Inter: N/A				1.5

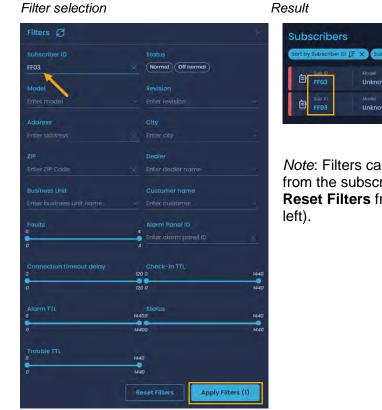
Sorting and Filtering

Subscribers can be sorted and filtered from the dashboard.

• To sort, click **Sort** to display the sorting options, then select your criteria and click **Ok**. The selected sort criteria is displayed at the top left of the list of subscribers.

부 Sort	Subscriber	S			IF Sort T Filters
by Subsenbur IG	e eros	Unknow. Unknow		P LOST O TOUR	
by Model by Revision		Unknow. Unknow		le creat interest N/A	
by Address I		Unknow_ Unknow		N' Church in Immed	
by City by ZIP	1 moz	Unknow_ Unknow		N/A	
by RF Check-In Interval	O 1983	7707 v7.2.04		In Chuck in Previol N/A	

• To filter out some of the subscribers, click **Filter**, then enter your data into the desired filtering fields. Click **Apply Filters** at the bottom right.



 Subscribers

 Sert by Subscriber ID: [F x)
 Subscriber ID: FF03 x)
 x Clear all

 Subscriber
 Model
 Revision
 Address /
 City

 FF03
 Unknown
 Unknown

 Subsrip:
 Model
 Revision
 Address /
 City

 FF03
 Unknown
 Unknown

 Unknown
 Unknown

Note: Filters can be cleared using either **Clear all** from the subscriber dashboard (shown above) or **Reset Filters** from the Filters dropdown (shown at left).

Viewing Subscriber Details

Click the name of the subscriber to view subscriber details (e.g., faults, general, settings, messages, live traffic, zone configuration, and event history).

	AES			Sound	ioti Sun Aug	7 16:21:27 2022 GMT-4	10.00.01.0007	1	Jone August	na
0	Dashboard Klask mode Business Units		72 C001 18 P307 00 CE 8:00 2022 GMT-4 EI		Adanowledge	CPU Auto Ethernet RF In	omation Iterference		Waternawat	connectivity
	Business Units IP Links	Subscribe	rs						i≣ Sort	T Filters
-	Subscribers Hybrids	0 0990 0990	Moal Rolei Kon 7788 2.642			Se NA Children Intel - N/A				
.8. 1	Users	0 0991	lame ³ 2.64z			n N/A	e Metal hi			-
26 :	Settings	0 0992	Model Reviewon 7788 2.642			Er Af Choca-minis				-

Faults Tab

The Faults view shows the type of fault, the event code, the number of dependents, and the date and time the event occurred. The Faults view can simplify planning for routine service of subscribers, enabling it to be scheduled cost effectively within normal workflows.

AES	Server Time Server Time Server Time Server Time Network 10.00.01.000 Primary	Jane Augustina
Dashboard	Supervisory 12 BA09 18 P307 00 C801 Subscriber BA09 Acknowledge • CPU • Automation Fri Oct 7 05:49:16 2022 GMT-4 Elapsed 15 days ago Silence • Ethernet • RF Interference	Alw_ Unacknowledg, Connectivity 0 26113 Active 0 Up / 5 Do.,
Business Units	< Subscriber ID 0008	C Refresh
Subscribers Hybrids	Faults General Settings Messages Live Traffic Zone Configuration Event History Event code # of Dependents Date & Time	
P Users	NetCon E354 00 C915 0 / 0 Thu Oct 6 07:51:41 2022 GMT-4	

Subscriber fault types include:

Fault Name	Event Code
A-D Converter	E307 00 C804
AC	E307 00 C809
Antenna Cut	E357 00 C916
Battery	E307 00 C801
Charger	E370 00 C009
Ground	E370 00 C010
IP Check-in Failure	E354 00 C902
IP Comm	E356 00 C904
Loopback	E307 00 C808
NetCon	E354 00 C915
Panel Interface	E307 00 C815
Radio Silence	E355 00 C906

Fault Name	Event Code
RAM Chip	E307 00 C807
RAM Data	E307 00 C802
Redundant Comm	E350 00 C915
Remote Annunciator	E307 00 C813
RF Check-in Failure	E354 00 C906
RF Comm	E356 00 C903
RF Interference	E350 00 C906
RF Modem	E307 00 C805
Tamper	E145 00 C906
Timing	E307 00 C806
Zone Module	E307 00 C817

General Tab (Buttons and Icons)

AES	Search by B2 Search Sound Off Sun Mar 31 2024 19:52:28	Server IP Version IVCC 172.31.21.1
Dashboard		Subscriber general info updated 🛛 🗙
🕦 Kiosk mod	Fire 19 9999 18 E115 0B C0C2 Subscriber D004 Acknowledge	CPU Automation Alerts Unacknowle Connectivity
Business U	Wed Mar 27 11:25:27 2024 Elapsed 4 days ago Silence	Ethernet • RF Interference 5 Act 88111 Acti 1 Up / 3 D
j IP Links	 ✓ Subscriber ID 0367 	Turn NCT on Inactivate Delete AHJ Report
Subscriber		
Hybrids	Faults General Settings Messages Live Traffic	Zone Configuration Event History Notifications
Q Users		
Dealers	General 🧭 Last Upg 24 wed Feb 14 05:50:43 2024	Hardware 🖉 Lost Updated: Fil Juli 3 15:47:32 2018
Settings	Wheel Subscriber ID Status Business Unit	Madul Revision Setjal nurriber Type
S 15.0 - 10-	0367 • Off normal AES Sales Demo	7707 5.1.09 N/A Fire

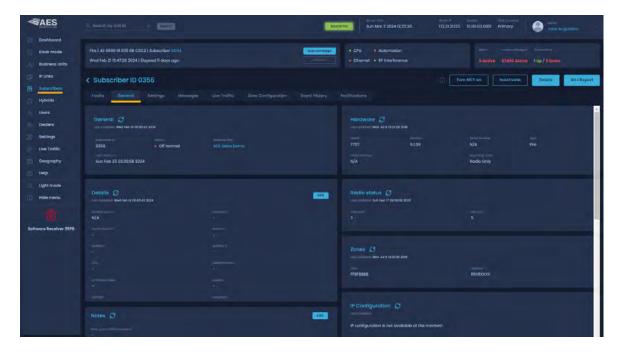
	Descriptions of Buttons and Icons
Refresh (wheel) icon	If the refresh icon is clicked, the INCC pings the subscriber with an outbound request for the most recent information. The green callouts at the top right indicate that the request has been acknowledged (first image). As the subscriber information is updated, notifications appear at the top right (second image).
Turn NCT on	Assigns a subscriber/hybrid as inactive to prevent impacting the <u>network</u> <u>health score</u> . Once Turn NCT on has been enabled, the subscriber ID is removed from all business unit dashboard calculations (e.g., signals and health score), and signals are no longer sent to the dashboard page or alarm automation. This tool is for setting up subscribers only.
Inactivate	Inactivates the subscriber ID.
Delete	Deletes the subscriber ID.
AHJ Report	Submits a request to receive an AHJ report via email within minutes. For a sample of the report, see <u>Authority Having Jurisdiction (AHJ) Report.</u>

As subscriber information is updated, notifications appear at the top right (green box).

General Tab (Settings)

The General tab provides access to the following information:

- General Subscriber ID and business unit affiliation.
- Details Information on the dealer and location of the subscriber.
- Notes A space for adding free-form text about the subscriber.
- Hardware Subscriber model and panel interface information.
- Radio Status Link layer and NetCon information.
- Zones Zone and restoral status information.
- IP Configuration Information on the IP configuration associated with the subscriber. The IP Configuration pane displays the IP addresses and ports for the primary and secondary receiver, as well as the MAC address of the primary server and the business unit group that the subscriber belongs to. For reporting routing, 2.0 subscribers can deliver signals using five different reporting options (legacy subscribers are limited to radio only).
 - Radio Only
 - Radio and Internet
 - Radio and Internet Backup
 - Internet and Radio Backup
 - Internet Only



 Routes – A total of four display screens are available to show the routing table. Up to eight peers, subscribers, or IP Links may be listed in the table. Each screen displays two subscribers. The total number of display screens varies depending on the total number of peers listed (a number from 1 to 8). Press the MENU button once to advance to the next routing table screen.

	Ammin Saure P Karlan ACC rolance Sun Mar 3 2024 11:5435 172:31:21:125 10:00:03:0001 Primary Saure Saure Saure Saure Saure Saure Saure Saure Saure P Karlan Acc rolance Saure Saure Saure P Karlan Acc rolance Saure S
Dashboard	
Klosk mode	Fire 43 9999 18 EII5 08 COC2 Subscriber D004
👌 Business Units	Wed Feb 2113:47:26 2024 Elapsed II days ago Silense Ethernet • RF Interference 57363 Active 1 Up / 9 Down
iP Links	
Subscribers	Foults General Settings Messages Live Traffic Zone Configuration Event History Notifications
Hybrids	
A Users	Routes <i>G</i>
Dealers	Lange Lange Lange Use could Date & The
% Settings	0356 0357 000 000 000 3 Sun Feb 25 092008 2024
Juve Traffic	0356 7409 1022 CC06 Ibsecoult Date & three 1 Sat Feb 24 09:5153 2024 1 Sat Feb 24 09:5153 2024 1
Geography	0356 0378 CC06 1 Fifeb 23102357 2024
Help	Peers C
G Light mode	Last Updatod: Thu sep 28 11:28:48 2022
Hide menu	1 Init layer Incon Quality 1 0357 2 5 • Good (3)
	2 2 8556 2 6 Cool (3)

• Peers – Displays all subscribers in communication with the subscriber. Peers are pulled from the AES mesh packet structure. The INCC lists up to eight peers. A peer is any subscriber or IP Link that can communicate with a single path from a single subscriber.

Routing Table ID#: A routing table lists up to eight other subscriber ID#'s or IP Links. The purpose of the list is to select a peer for passing off data packets. The table is sorted with the best quality subscriber placed at preference location 1 (see image below). Quality is a measure of the neighbor subscriber's ability to pass data packets.

- L: Link Layer as reported by last transmission from the peer ID# shown.
- N: NetCon (NETwork CONnectivity) An internal rating used in the automatic positioning of this unit in the network. A NetCon value of 5 is required for a subscriber that is compliant with UL-864, 10th Edition.
- Q: Signal Quality The first digit is either an 8 or a 0 (zero). The second digit is a measure of how old the data is (a 3 is assigned to the newest data; a 1 is assigned to older data). Routing preference is given to strong, recently heard subscribers (3) versus weaker subscribers heard a long time ago (131).

Peers C Last Updated:	Thu Sep 29 11:26:48 2022	1		
0		link layer 2	NetCon 5	Quality Good (3)
				Quality Good (3)
				Quality Marginal (131)

Turn NCT on

- Navigate to the subscriber page (General tab) and enable NCT mode.
- Once enabled, the subscriber ID will be removed from all business unit dashboard calculations (e.g., signals and health score), and signals will no longer be sent to the dashboard page or alarm automation.

	C. Search by Unit ID X Sound Co Sound Co Sun Mar 10 2024 1153:54	172.31.21.1 10.00.03.00 In	cc stance rimary Jane Augustina
Dashboard			
Kiosk mode	Fire 43 9999 18 E115 0B C0C2 Subscriber D004	CPU Automation	
ွစ် Business Units	Wed Feb 21 13:47:26 2024 Elapsed 18 days ago	Ethernet RF Interference	5 Acti 48593 Act 1 Up / 9 Do
i IP Links	< Subscriber ID 0230	() Turn NCT on	nactivate Delete AHJ Report
Subscribers	Faults General Settings Messages Live Traffic Zone Ca	nfiguration Event History	
Hybrids		ingeration creterinetory	
R Users	General C	Hardware	
Dealers	Last Updated: Wed Feb 14 05:50:43 2024	Last Updated: Mon Mar 11-17-31:54 2019	
Settings			Serial number Type
J Live Traffic	0230 Off normal AES Sales Demo	7744F 2.64ZK	N/A Fire
[]]] Geography	Last check-in Sun Mar 3 22:40:27 2024	Panel Interface N/A	Reporting route Radio Only
Help			
	Sever Time Sun Mar 10 2024 1249:41	172.31.21.1 10.00.03.00	Noc neizone Primary Jone Augustina
Dashboard	Tan anna catalana anna		
Kiosk mode	Fire 43 9999 18 El15 0B COC2 Subscriber D004 Acknowledge Wed Feb 21 13:47:26 2024 Elapsed 18 days ago Silance	CPU Automation Ethernet RF Interference	Alerts Undcknowledg_ Connectivity
مُن Business Units	Wed reb 2/16/97/20 2024 (clupsed ib duys dyo		5 Acti 48580 Act 1 Up / 9 Do
IP Links	< Sample - Municipality		
Subscribers			
📋 Hybrids	< tits Stats IP Link / Hybrid Load Live Traffic RF Settings	NetCon Settings Bad Packet	ts Notifications Units Notifications
୍ୟ Users	Subscriber NetCon Overview ①	1	
Dealers	Subscriber NetCon Overview		
Settings	NETCON: (NETwork CONnectivity) is an internal ratim positioning of this unit in the radio network being te		
Live Traffic	5-7, 5 being best and validates a minimum of 2 act communications from the specific radio site to the	ive paths of emergency dispatch	
Geography	(monitoring) center. Note that while a low number to 7 may indicate problem with this unit or a unit in its receiver.		
(2) Help			
Q Light mode		Dk	
Hide menu			

Authority Having Jurisdiction (AHJ) Report

The AHJ (Authority Having Jurisdiction) report includes relevant AES subscriber settings to provide to the AHJ. To request a copy of the report, navigate to the subscriber's General tab, click the **AHJ Report** button, then enter an email address.

A.	1) Search's Search Sour	ad on Sun Mor 3 2024 14:43:02	Server I ^e Vetilion 172.31.21.1 10.00.0			Admin Jane Augustina
88						
Đ		2 Subscriber D004 Acknowledge				
4.						
din -	< Subscriber ID 03	56			ate Del	ete AHJ Report
ė						
Đ.						
А.						
4		Enter Email Address to request AHJ I	eport			
35		Email Address *				Type
.08	0356 0					Fire
tm	Sun Feb 25 03 2.08 2	After submission, you will receive AHJ report e	mail in few minutes.			
(7)						
0		Cancel	Submit			
团	Details Last Updates Wed Feb 14 05:50:43			3 Dec 17 09:20:08 2023		

A sample of the AHJ report is shown below:

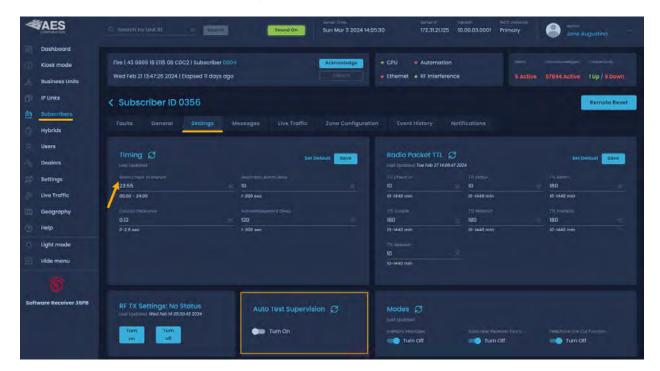
	CORPORATION
The following report inc	udes relevant AES Subscriber settings to provide to the Authority Having Jurisdiction (AHJ):
Subscriber ID:	1234
Address:	
Reporting Route:	Radio and Internet (2024-02-09T15:18:22-05:00[America/New York])
NetCon:	5 (2024-02-09T16:57:26-05:00[America/New York])
Routing Table:	4321 (2024-02-09T16:57:26-05:00[America/New York])
RF Check-in Interval:	N/A
IP Check-in Interval:	N/A
Check-in TTL:	N/A
Status TTL:	N/A
Alarm TTL:	N/A
Restoral TTL:	N/A
IntelliTap TTL:	N/A
Special TTL:	N/A
Faults:	N/A

Settings Tab

The **Settings** tab provides access to the following information:

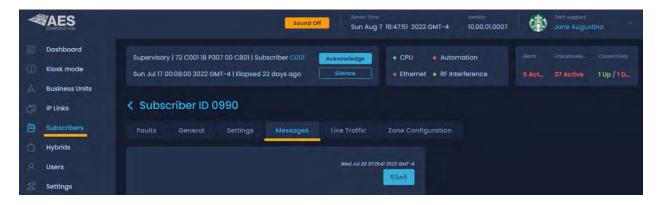
Timing	Radio check-in interval, communication timeout delay, secondary alarm delay, and acknowledgement delay settings
RF TX Settings	Allows RF transceiver turn on and off
Radio Packet TTL	Packet time to live settings
Modes	On/off status for IntelliTap messages, subscriber repeater function, and telephone line card function

The **Auto Test Supervision** setting enables the INCC to monitor automatic test timer check-ins. When enabled, it alerts an operator if a subscriber unit fails to check in within the programmed interval, plus 10% + 2 minutes as programmed in the subscriber's timing parameters function (see the **Radio Clock in interval** setting in the image below). A missed check-in is reported to alarm automation if the Auto Test Supervision is enabled.



Messages Tab

The **Messages** tab provides an interface for sending a text message to a subscriber configured to receive text messages.



Live Traffic Tab

The **Live Traffic** tab provides information on the type of message traffic and details about the subscriber traffic.

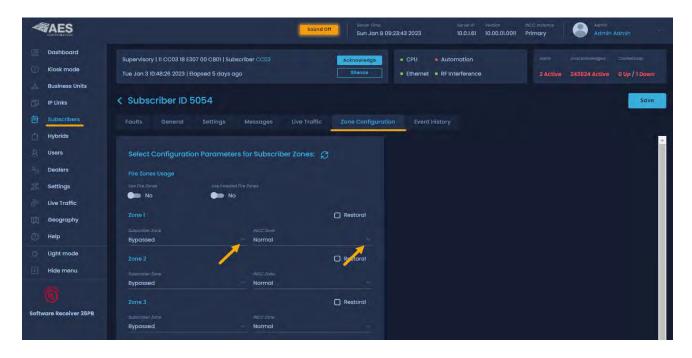
-		Sound Off Sound Off Sun Aug 7 16:49:17 2022 GMT-4 10:00.010007 Jane Augustina
	Dashboard Kiosk mode	Supervisory 72 C001 18 P307 00 C801 Subscriber C001 Acknowledge • CPU • Automation Alerts Unacknowle Connectivity Sun Jul 17 00:08:00 2022 GMT-4 Elopsed 22 days ago Silence • Ethernet • RF Interference 5 Act 37 Active 1 Up / 1 D
A D D	Business Units IP Links Subscribers	Subscriber ID 0990 Faults General Settings Messages Live Traffic Zone Configuration
С А	Hybrids Users	
38 B	Settings Live Traffic	

Zone Configuration Tab

The **Zone Configuration** tab allows for subscriber zone assignment. Zone usage is account or ID specific and enables users to receive a 10- or 30-day event history, including CID events that are set by a subscriber.

Following is a list of INCC fault statuses and trouble zone assignments that can be used during configuration. This information helps to explain or clarify received messages. You can also use this information to create templates in your alarm automation specifically for subscribers. (These AES custom codes can be found in the CID document on the AES website.)

Fault Statuses	Description	Event Code
918	Symmetric Failure Between Primary & Secondary.	E307
919	Hard-disk Full.	E623
920	IP Compromise, Duplicate IP Packets Detected.	E145
921	Peer IP Ping Failure.	E997
922	CPU Trouble	E307
923	Memory Issue.	E307



To configure the parameters for subscriber zones:

- 1. Click the **Subscriber Zone** dropdown and select from the following options:
 - Supervised
 - Bypassed
 - Normally Open
 - Normally Closed

ire Zones Usage		
se Fire Zanes	Use Inverted fire Zones	
No No	No No	
one l	No No	C Restoral
	INCC Zane	C Restoral

- 2. Click the INCC Zone dropdown, and select from the following options:
 - Burglary

- Fire
- System Trouble
- Supervisory

Normal

• A/C Failure

Fire Zones Usage		
Use Fire Zones	Use Inverted Fire Zo	
No No	No No	
Zone I		Burglary
Subscriber Zone		System Trouble
Bypassed	<u>*</u>	Normal
Zone 2		Fire
		Supervisory
Bypassed		A/C Failure

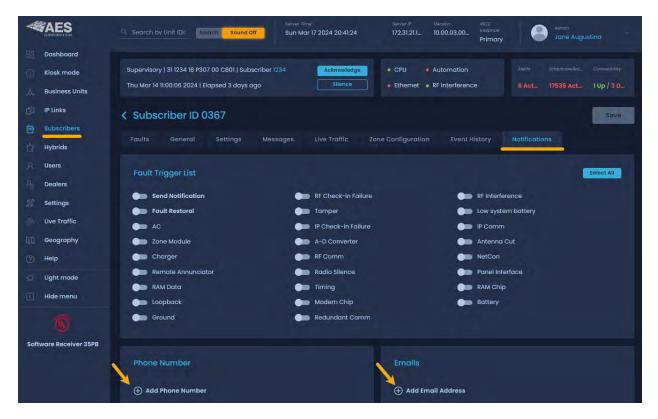
Event History

Event history enables users to receive a 10- or 30-day event history, including CID events that are set by a subscriber. Click **Export** to download a CSV file.

	AES	C Search Sound Off	server fime Sat Mar 18 2023 12:05:20	10.0.1 10.00.02.00	vcc Istance Primary	Tech support AES Corp
	Dashboard					
0	Kiosk mode	Supervisory 11 1111 18 P307 00 C801 Se	ubscriber Acknowledge	CPU Automation		Connectivity
4	Business Units	Fri Mar 17 09:15:50 2023 Elapsed 1 day	y ago Silence	Ethernet • RF Interference	0 5063 Ac	0 Up / 6
ø	IP Links	 Subscriber ID 3989 		Expo	t 10-Days	30-Days
ē.	Subscribers				-	
Ċ	Hybrids	Faults General Setting	is Messages Live Tro	affic Zone Configuration	Event History	Notifications
8	Users					

Notifications

The Notifications tab displays a list of fault triggers. To add a phone number, select the carrier (the carrier will depend on which server is used for sending messages to the phone), then enter a phone number.



Hybrids

The Hybrids tab displays a list of all hybrid subscribers associated with a business unit. Each hybrid displays general information about the unit.

Sub ID •

Address

Model •

RF check-in interval •

Revision •

Notes (text entry) •



A hybrid is a fire unit with the ability to switch to IP and act as an IP Link, enabling the unit to send an alarm from the customer premises to the central monitoring station (CMS) via RF and/or IP and transmit peer signals via IP.

			Sound Off	Server Time Sun Jan 15	08:04:23 2023			Version 10.00.01.00		nstance ary	0	Jane Aug	
Dashboard Kiosk mode			1 5056 18 P370 00 C009 3:12 2022 Elapsed 17 d		Acknowle		CPU Ethernet	Autor RF Inte	nation erference			Unacknowledg 263087 Ac	Connectivity
Business Units													
	Livb	de											
IP Links	Hybi	rids											
IP Links Subscribers	Hybi	sub 10	Business Unit	Model	Rovision	Address I		City	ZIP	IP Chec	k-in Intervo	al RF Check	-in Interval
	Hybi		Business Unit ENG BU	Modal 7177	Revision a8.2.02							al RF Chack	-in Interval
Subscribers Hybrids	o	Sub ID 5056 Sub ID	ENG BU Business Unit	7177 Model	a8.2.02	- Addross I					:k-in Interv	- W RF Check	-in Intern
Subscribers	Hybr	sub ID 5056	ENG BU	7177	a8.2.02						:k-in Interv		-in Interna

To expand the details for a hybrid, click the dropdown at the right. The additional information includes:

Comm timeout delay

Customer

Check-in TTL

Status TTL

•

•

•

• Status

•

- Business unit •
- Current faults
- Last check-in
- Alarm panel ID Dealer name
- Alarm TTL
- Trouble TTL •

To view the details about a specific unit, click the name of the hybrid.

4	CORPORATION			Sound Off	Server Time Sun Jan 15	08:04:23 202	13		Version 10.00.01.001	INCC Insta 4 Primary	nca 🧧	Toch support Jane Augustina	÷
	Dashboard Kiosk mode			1 5056 18 P370 00 C009 3:12 2022 Elapsed 17 c		Acknow		CPU Ethernet	Autom RF Intel			acknowledg. Connecti 3087 Ac 0 Up / 1	
а Ö	Business Units IP Links	Hyb	rids										
	Subscribers Hybrids	0	sub ID 5056	Business Unit ENG BU	Model 7177	Revision a8.2.02						RF Check∸in Interval −	
R 4	Users Dealers	0	sub ID 5059	Business Unit ENG BU	Model 7177	Revision v8.1.2							

Hybrid units share the same settings as subscribers. For configuration details, go to Viewing Subscriber Details.

	Cound Off	ch support ine Augustina
Dashboard Kiosk mode	Supervisory Cl 5056 18 P370 00 C009 Subscriber 5056 Acknowledge • CPU • Automation Me Undelin Thu Dec 29 18:33:12 2022 Elapsed 17 days ago Silence • Ethernet • RF Interference 0. 29385	nowled Connectivity 31 Ac O Up / 10 D
IP Links	K Hybrid ID 5056 Faults General Settings Messages Live Traffic Zone Configuration Event History	C Refresh
Hybrids Ousers	Event code # of Dependents Date 6. Time P370.00.C009 0 / 0 Sun Jan 15.09:02:06.2023	
A Dealers		

Users

All Users Tab

The **All Users** tab displays general information about users who have access to the INCC software. It also shows when a user last logged on and the length of the session. The **Force logout** button allows you to log a user out:

- Username: The red/green color coding to the left of the username indicates whether a user is logged on or off.
- *Email*: You can email a user by clicking the email link.
- *Role*: Tiers 1, 2, and 3.
- Business units: Indicates which business unit the user has access to.
- Last login and Last session duration provides login history.
- To log a user out of the INCC software, click **Force logout**.

W	AES		Sound Off	Sarver 1956 Sat Oct 15 17:41:			mary	Tane Augustina		
50	Dashboard	Fire 19 FFFF 18 El10 01 CO	01 Subscriber 5022		Acknowledge	CPU Automation				
	Klosk mode	Thu Oct 6 09:55:57 2022			and a second	Ethernet RF Interference		53 Active 0 Up / 2 Do		
,Å.,	Business Units									
ø	IP Links	Users						Create		
B	Subscribers All Users Users History Import/Export IF Sort T Filters									
Ó	Hybrids									
R	Users	Admin		Admin		Fri Oct 14 10:27:11 2022 GMT-4	Lost setsion duration	Force logout		
20	Settings							1		
de.	Live Traffic	A lg	1mav N/A	Admin		Fri Oct 14 11:28:03 2022 GMT-4	3 hours 31 minutes 4	Force logout		
άū	Geography	-					seconds	1		
0	Help	Viacheslav	Brindil N/A	Admin		Thu Oct 13 08:31:11 2022	Lost lession duration N/A	Force logout		
0	Light mode					GMT-4				

Users History Tab

The **Users History** tab displays a list of actions the user performed (e.g., logging in, adding a business unit) and the date and time on which these actions occurred.

	Sound Off	Sat Oct 15 17:57:21 2022 GMT-4	Servel IF Version INCC Instance 10.0.1.61 10.00.01.0008 Primory	Jane Augustina
Dashboard	Fire 19 FFFF 18 E110 01 C001 Subscribe Thu Oct 6 09:55:57 2022 GMT-4 Elaps		CPU Automation Ethernet RF Interference	Wr. Unachrowidd. Connectivity) B192 Active O Up / 2 Do
👌 Business Units	Users			
Subscribers Hybrids	All Users Users History	Import/Export	Date & Time	l∉ Sort 🕆 Filters
R Users	Litter decision		Sat Oct 15 17:30:49 2022 GMT-4	-
	AES_Admin Login		Date & Time	

Import/Export Tab

To import a list of users:

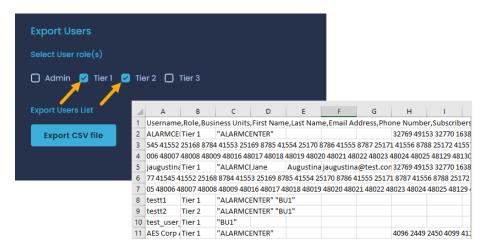
- 1. Click **Download XLS template** to download the template.
- 2. Populate columns A through N in the template. Save the file.
- 3. Export the Excel file to CSV.
- 4. Upload the CSV file by clicking **Select CSV file**.

	Sound off Sat Oct 15 18:05:52 2022 GMT-4	Server IP Version INCC Instance Tech support 10.0.1.61 10.00.01.0008 Primary Jane Augustina
Dashboard	Fire 19 FFFF 18 E110 01 C001 Subscriber 5022 Acknowledge	CPU Automation Aler_ Unacknowled_ Connectivity
Kiosk mode	Thu Oct 6 09:55:57 2022 GMT-4 Elapsed 9 days ago	Ethernet RF Interference 0 B215 Active 0 Up / 2 Do
్లద్ద Business Un	ts	
i IP Links	Users	
Subscribers	All Users Users History Import/Export	
📩 Hybrids		
A Users	Import Users	Export Users
Settings	Users List Template	Select User role(s)
Live Traffic	Download XLS template	Admin D Tier 1 D Tier 2 D Tier 3
Geography	Upload Users List	Export Users List
⑦ Help	Select CSV file to upload	Export CSV file
O Light mode	Select CSV file	the second se
Hide menu		

Export Users

To export user data:

- 1. Check each box next to the roles you would like to collect data for.
- 2. Click the **Export CSV file** button to download the file. The Excel file consists of the data that was selected:



View User Details

To view details about a specific user, click the username.

퍫	Dashboard	Supervisory alarm 12 5151 18 P	140 00 C002 Subscriber		Acknowledge	· CPU	Automation		
,Å,	Business Units	Sun Feb 13 16:49:37 2022 GMT-	5 00:01:01		Silence • Ethernet • RF Interference				0 Up / 1 Down
ø	IP Links								
E	Subscribers	Users							Create
8	Users	Usemame							
The second	Settings	🦉 jaugustina		Admin				N/A	Force logout
3	Live Traffic								

- General: Displays user details, the user's role, and the business units that the individual has access to.
- 1. Permissions: Contains a set of user-toggleable operations. Many of these operations are implemented as special permissions.

< Jane Augustina			Detate
Cieneral Usar tintnite		Perrolasians Distributed	en kanadege
Jane Jane jougudingatest.com	Anguatina		FiperTreport
Role		international and the second s	Change ket/(tel) excess
Belimine utilit default (s), opnor	_		Addunt 📰

Create a User Account

1. Click the **Create** button.

Fire 19 FFFF 18 R110 01 C0 Thu Oct 6 09:55:45 2022	001 Subscriber 5022 2 GMT-4 Elapsed 4 days a	go (Henrowieuge	CPU Automation Ethernet RF Interference	Alerts Unocknow 24 Act 3542 Ac	
Users All Users Users	History Import/Exp	ort			, Jë s	Create
Username Admin		Role Admin		Last login N/A	Last session duration	Force logout
R lg	Email N/A	_{Role} Admin		Last login Fri Oct 7 08:52:52 2022 GMT-4	Last session duration 3 minutes 31 seconds	Force logout

2. Fill out the user information and select a role.

Note: Each user role provided by the INCC has a specific set of access. The actions associated with a user role were chosen to match the tasks that different team members may be responsible for. To view an overview of each role, click the **Role** icon.

3. Add a business unit to the tier-level users by clicking **Add Business Unit** at the bottom left and selecting a business unit from the dropdown list.

Committee 1 day		Sound On Sun Mor 3 2	024 15:03:50 172.31.21.125 10.00.03.0	a01 Primary Jone Augustina
Dashboard				
Klosk mode	Fire 43 9999 18 EI15 08 COC2	Subscriber 0004	Redge CPU Automotion	
. Business Units	Wed Feb 2113:47:26 2024 Elo	ipsed II days ago	Ethernet + RF Interference	S Active 56054 Active 1 Up / 9 Down
19 Unks	< Add User			Save
Subscribers		User Role		
Hybrids	General			
D Users	User antalia	Admin users can create, read, update, dek users can see all Business Units and all equip		
Dealers		Acknowledge		
Settings	alice kelly	I users can see assigned Business Units and Tier 2 (Manager) users can create, read, up	pdate, delete Tier 3. Tier 2 users	
Live Traffic	Alice	 can see assigned Business Units and assigne Tier 3 (Operator) users can not create, rep 3 users can see assigned Business Unit (one of the second /li>	d, update, delete any users. Tier	Export report
Geography	alice kelly geompany.com	equipment.	ang only one/ and assigned	
) Help	1			
Light mode	Role O		Ok ju	Change last/first name
Hidemenu	O Admin () Tier1 () Tier 2 Q Tier 3 Q Klosk mode	Storage settings	License details
			Change password	
		View All Equipment		
oftware Receiver 35PB	ALS BUT	(+) Add Business Unit		
	ALS DUI		View page	Add unit
		Aasign Units	Edit unit	View live traffic tab
		Assign IP Links	Set default Business unit	
		Assign Dealer	Set Desous ousness unit	

4. To add subscriber(s) to the business unit, click the subscriber icon, as shown below, then select the subscribers that you would like to associate with this business unit.

5. When you are finished setting up the business unit, click **OK**.



6. When you're finished setting up the user account, click **Save** at the top right (see main image above). Once the user account has been saved, an onscreen message alerts you that the user will be forced to change the password upon initial login. INCC#2023 is the default password for the initial login.



Edit a User Account

To edit the information in a user account, click the **Edit** button.



To restrict the user's access to specific business units and subscribers to prevent users from viewing other business units and subscribers, follow these steps:

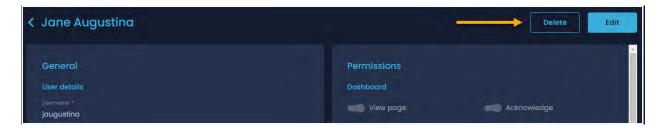
- 1. Click the business unit dropdown to view a list of business units.
- 2. Click the subscriber icon to view a set of subscribers. Click the subscribers you would like to add, then click **OK**.

Edit Jane Au	ugustina			Silva
General User details Usemans jaugustina		Dasi	missions hboard View page	Acknowledge
First nome Jane Email address jaugustina@test.co	Augustina Mugustina m A Phone number	- Subscribers) Silence	Export report
Role O Admin O Ti Business units	rzs4567860 (7-16 digits) er 1 (Ö) Tiler 2 (Ö) Tiler 3	5000 20514	20515 20516	47625 OK
Bueiness Unit) * uusmess unit 3 * BUI	Role O Admin O Tier 1 O T Business unit Business Unit 1	er 2 O Tier 3 eusinesse Unit 2 ALARMCENTER	- 8 1	View live traffic tab
	Businoss Unit 3 d BUI	🗇	ess Unit Reset Password	

Delete a User Account

Click the user from the list of users, then click the **Delete** button.

Us	ers					Create
	All Users Users Histo	ory Import/Expo	ort			F Sort 👕 Filters
	Admin		_{Role} Admin	Last login	Last session duration	Force logout
I	A jaugustina	Email jaugustina	Rola Tier 1	Last login N/A	Last session duration	Force logout



Dealers Page

A dealer is an aggregation entity that consists of a set of subscribers. You can add dealers to the INCC either by importing them via a CSV file or by manually adding them to the system. The dealer can then be assigned to a user, in which case the user will be able to access all subscribers belonging to that dealer.

To Add a Dealer Manually

1. Click Add new.

-	AES	Q. Sec	aroc Search		erver Time un Mar 19 2023 09		Gerver IP Ver 0.0.1 10.0	ion INCC 00.02.00 ^{Instanc} Prima		Tech support AES Corp	4
	Dashboard Kiosk mode Business Units			307 00 C801 Subsc 3 Elapsed 2 days aç	_	cknowledge Silence	CPU Ethernet	Automation RF Interference		Unacknowle	Connectivity O Up / 6 D
向 自	IP Links Subscribers	Deal	lers							Import	Add new
	Hybrids	ዲ	Name BUI		ss Unit _bu_18740	Account # 552			Assigned Users O		ks 🗸
	Users Dealers	Pa	Nome BU44			Account # 552			Assigned Users O		ks - c
	Settings Live Traffic	ዲ	_{Name} Hybrids						Assigned Users O		ks -

- 2. Enter the deal name and account number.
- 3. Click the **Business Unit** dropdown, and select a business unit.
- 4. Click Save.

	Second Sound Off Second Sound Sound Off Second Sound Sou	Server IP Vension INCC 10.0.1 10.00.02.00 (Instance) Primary AES Corp.
Dashboard		
Kiosk mode	Supervisory 11 1111 18 P307 00 C801 Subscriber 1111 Acknowledge	CPU Automation Ale. Unacknowle Connectivity
Business Units	Fri Mar 17 09:15:50 2023 Elapsed 2 days ago	Ethernet • RF Interference 0 8918 Acti 0 Up / 6 D
IP Links	< Add Dealer	Save
Subscribers		
Hybrids	General	· · · · · · · · · · · · · · · · · · ·
Users	Dealer details	
Dealers		
Settings	DealerName X Account # 12345	Salala Muscat
Live Traffic	UHUSI	VancouverPortland
ave frame		
	Business Unit	sswwi
	Business Unit *	SSWW1 TBU1 temp_bu_11378

To Add a Dealer Using CSV

- 1. Click the **Import** button.
- 2. Click **Select file**, then navigate to the Excel file and double-click it.
- 3. Click **Import** to upload the file.

W	AES	Q Searc	soare	sound Off	Server: Time Sun Mar 19 2023 05		Server IP Versio 10.0.1 10.00	n INCC 0.02.00 Instance Prima		Technaupport AES Corp	3
86											
٢						cknowledge					
"А.											
<u>an</u>		Deale	rs						E	Import	Add new
回											
ġ.											1 (m)
R				Import De	alers						
2											
38				Dealers.xlsx	X Select file						1.1
ē,				/				_			
m						Cano	cel Im	port			
(7)	Help			0							

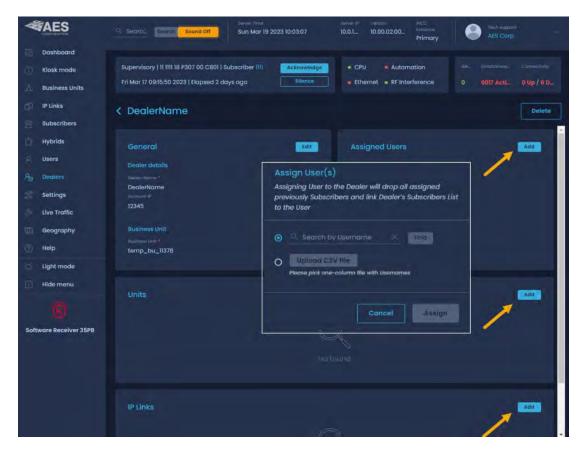
To Add Subscribers to the Dealer

1. From the **Dealer** page, click the name of the dealer.

-	AES	O, Sec	aros. Search Sound	Server Time Off. Sun Mar 19 2023 09:	Server IP 58:11 10.0.1	Version INCC 10.00.02.00 Instance Prima		Tech support AES Corp	÷
	Dashboard Kiosk mode Business Units		rvisory 11 1111 18 P307 00 ar 17 09:15:50 2023 Elap	_	knowledge • CPU Silence • Ethe	Automation Arnet RF Interference		Unacknowle_ Connect 9002 Act_ 0 Up /	
ته ف	IP Links Subscribers	Deal	lers					Import Add	new
	Hybrids	ମ୍ବ	Name BUI	Business Unit temp_bu_18740	Account # 552		Assigned Users O		1 1
R 8	Users Dealers	A	Name BU44		Account # 552		Assigned Users 0		4
82 IS	Settings Live Traffic	P	Name DealerName	Business Unit temp_bu_11378	Account # 12345	Active Units 0	Assigned Users 0		

From the dealer main page, you can add users, business units, and IP Links.

Note: Assigning a user to the dealer will drop all previously assigned subscribers and link the dealer's subscribers list to the user.



To Add Users

Assigning a user to a dealer drops all previously assigned subscribers and links the dealer's subscribers list to the user.

- 1. Click Add.
- 2. Click **Find** to locate the user (the user list is generated from the user list in the INCC), then click **Assign**.

Note: You can also add users via a CSV file.

C DealerName		Dalate
Commercal Gradier Generation Development Development Totalo Francesant Links Journy, Link, 11578	Assigning User to the Dealer will drop all assigned there proviously Subscribers and link Dealer's Subscribers List to the User Subscribers and link Dealer's Subscribers List to the User	
Bent	Cancel	CA00

The user appears in the Assigned Users list.

< DealerName			Delete
General	() () () () () () () () () ()	Assigned Users	Add
Dealer details			
Coder Name DealerName Happort # 12345			
Business Unit			
illeansakki käyi * temp_bu_ll378			

To Add Business Units

- 1. Click Add.
- 2. Click **Find** to locate the business unit, then click **Assign**.

Note: You can also add business units via a CSV file.

Business Unit Business Unit	Assign Unit(s)	
temp_bu_1137B	<u>Q</u> search by ID × Ima	
Units	Upload CSV file Please pict one-column file with ID Select from list	
	Cancel Assign	

To Add IP Links

- 1. Click Add.
- 2. Click **Find** to locate the IP link, then click **Assign**.

Note: You can also add IP links via a CSV file.

Business Unit	Assign IP Link(s)	
	Search by ID Find Upload CSV file Flease pick one-column file with D'x Select from list	aat 📝
	Cancel	

Settings

System Tab

- Unit Settings: Toggle between metric and imperial.
- Import Addresses for Units: Data from the NMS will be imported into the INCC.
- Sound Settings: The Sound off button can no longer be used to control the sound of the INCC. The button is just a visual indicator of the System sound in OFF (or ON) setting (as shown below). This gives the admin full control and prevents other users from accidentally turning the sound off with a single click.

AES	10, Search by Millio 😒 Search Sound On Survey Fine	13:10:54 172:31:21:125 10:00:03:0001 Primary Same Augustina
Dashboard Kiosk mode Business Units	Fire 43 9999 18 E115 08 COC2 Subscriber 1004	CPU + Automotion Autor Development Ethernet + RF Interference B Active 48876 Active 1 Up / 9 Down
Subscribers Hybrids Users Dealers	System Settings System Server Network Alarm Automation Tech Options Subtool Unit Settings	s Check-in Grace Period Antennia FCG Maintenance Database migration To migrate the database from existing MNR instance please click the button below;
Settings Live Traffic Geography Help	Import Addresses for Units	Migrate data
Light mode	Select CSV Me B upload Select CSV Me	Create now
Software Receiver 35PB	Sound Settings	

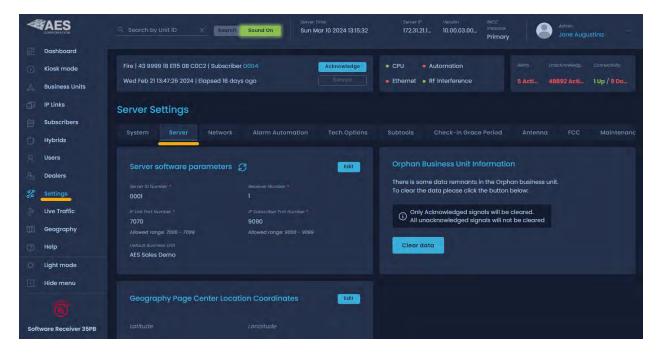
• Database Migration: Database migration allows a seamless transition from an existing MNR to the INCC. During migration, the MNR database dump data is transformed and entered into the INCC database.

• Database Dumps: A database dump can be shared with technical support to solve an issue. It can also be used to import the data to another VM by sharing the database dump with yourself.

Server Tab

The Server tab contains server software parameters:

- Server ID number the identification number for the server instance associated with the installation.
- Receiver number the customer-defined identification number.
- IP Link port number the port number for the INCC IP Link associated with the installation. This number must be within the 7000 7099 range.
- IP Subscriber port number the port on the 2.0 Hybrid. This number must be within the 9000 9099 range.
- Default Business Unit the name of the business unit orphan.



Network Tab

Network connectivity settings include the local IP Address, netmask, gateway address, and the DNS server address. This information is automatically populated.

W	AES			501	and Off	Sun Jul 24 18:24:40 2022 GMT-4	10.00.01.0007	Jane Augustina	
10 10	Dashboard Kiosk mode Business Units	Supervisory 72 C002 18 E305 00 C96 Sun Jul 17 00:07:53 2022 GMT-4 Elop		Acknowledge	CPU Ethemet	Automation RF Interference			
0 0	IP Links Subscribers	Network Settings	k Alarm Automation Tech O	ptions Subtools					
і я	Hybrids Users	Network settings							
22	Settings Live Troffic								
00 00	Geography Help		DNS Server Address						
10 E	Light mode Hide menu								

Alarm Automation Tab

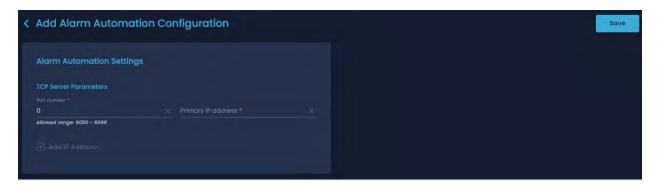
This tab displays the status information for alarm automation software that the INCC is configured to use.

W	AES				- Á	Sound Off	Sumer /Inco Sun Jul 24 18:25:44 2022 GMT-4	10.00.01.0007	ne Augustina
111 (1) ±	Dashboard Klosk mode Business Units	Supervisory 72 C002 Sun Jul 17 00:07:53 2022			Acknowledge Thereit		Automation RF Interference		Carried Willy
đ	IP Links	Alarm Automat	ion Setting		_				Add new
回口	Subscribers Hybrids	System Server	Network	Alarm Automation	REAL PROVIDENT ADDRESS				Deleto
36 36	Users Settings	6051 Fert Asambar 6052	Down stellar Up	121.5.3.3 Primary # Address 10.0.3.59	BUI) Test_bu_l, automation_bu_ automation_bu_ orphan, TQI-700 d-Planet Gio	1657643011, Oman			Delete
tti Sv	Live Traffic Geography								
0	Help Light mode								
	Hide menu								

To enter information for configuration settings for an alarm automation system, click the **Add new** button.

Subtools	m Automatic	on Setting	S		
		Network	Alarm Automation	Subtools	
	ver	Network	Alarm Automation	Subtools	

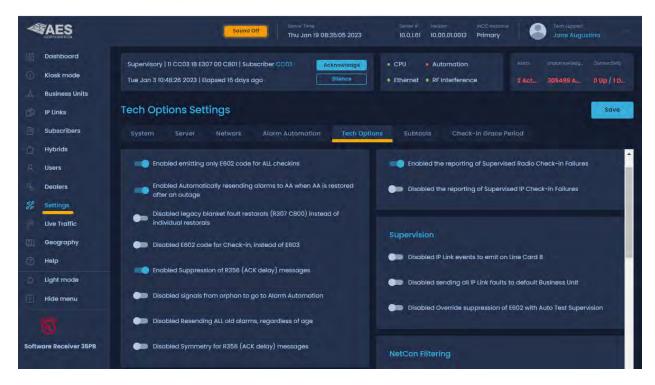
Enter the port number and primary IP address. Additional IP addresses may be entered if the automation software supports this. Use the **Add IP** address control. Click **Save** to store the information.



Important: The allowable range for port numbers is 6050-6099.

Tech Options Tab

Listed below are all the options available on the ...



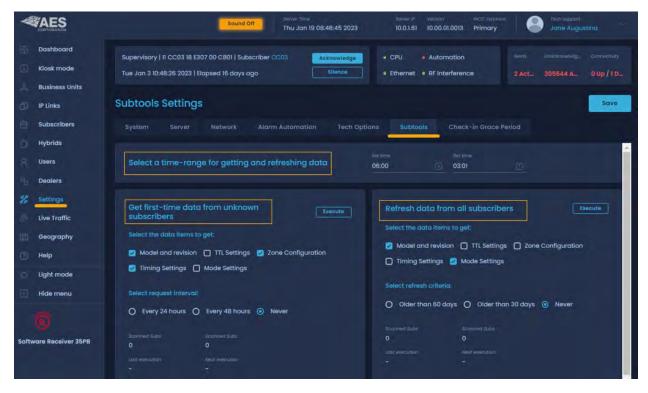
Options	Enable?
Enabled emitting only E602 code for ALL checkins	
This feature will eliminate E603 & E608 and combine to only #E602	
Enabled Automatically resending alarms to AA when AA is restored after an outage	Yes
This feature allows the INCC/MultiNet Receiver to automatically resend messages to Automation when Automation is restored after a connection loss or outage. On previous INCC/MultiNet versions, all messages reported on the LCD screen were acknowledged manually one after the other and were never offered to Automation again.	
The Automation LED on the front panel of the MultiNet turns on if a message does not reach Automation. This indicates that Automation is down. The Automation LED turns off only when a new message is acknowledged by Automation after a connection has been restored. A new message coming in after automation is restored is required to recognize or test its return to operation. When this feature is set as Yes, any queued messages that are one day old (24 hrs.) or less are resent. All older queued messages are discarded. Messages are resent at a maximum rate of 30 messages per minute to help control a possible runaway condition.	
Enabled legacy blanket fault restorals (R307 C800) instead of individual restorals	
This Feature will not send individual restoral. Enable and Disable this feature for subscriber faults	
Enabled E602 code for Check-in, instead of E603	
By default E603 and this feature will enable E602	
Enabled Suppression of R356 (ACK delay) messages	
Suppress R356 ACK delay	
Enabled signals from orphan to go to Alarm Automation	Optional
By default, the Orphan Business Unit (BU) does not deliver messages to automation or to the printer. Messages are only displayed in IPCtrl accessed using VNC Viewer for Orphan on Display :1. With this option set to Yes, the Orphan Business Unit becomes a "catch all" and delivers any messages to automation. To allow a distinction between an Orphan Subscriber and a normal Main BU Subscriber, Orphan messages will be sent to automation, using the main BU number, using Line Card 9.	Yes or No
Enabled Resending ALL old alarms, regardless of age	No
With this Tech Option set to Yes, all old messages will be resent to automation, regardless of how old they are. Not recommended to use this option especially if resend to AA is enabled.	
Enabled Symmetry for R356 (ACK delay) messages	
Enable and Disable Feature E/R. By default system will only generate R, this feature will add E	
Deduplication	
Enabled IP packet deduplication	Yes/No

Options	Enable?
2.0 MCT Subscribers will receive RF and IP packets. Enable/Disable receiving single or dual packets	
Line Card	
Enabled LC==1 for Tap message account takeovers	
Several versions of the INCC/MultiNet suite of software attempted to address the incorrect reporting of Line Card from IntelliTap/Pro generated messages. The primary issue is that when the IntelliPro/Tap reports that it detected a line cut, the Line Card should be reported as 1 because the detection is from an AES device or module but is reported as a 3 indicating that the AP is reporting the line cut.	
Setting this option to Yes corrects the Line Card for Line Cut from the Tap/Pro to 1. A message from the AP reports as 3 in suite 1067. Problem introduced is that using Account Override on an IntelliPro will cause all CID messages with the Account Override marker to also report on Line Card 1 instead of the correct Line Card 3.	No
If Account Override is never used, this Option set to Yes will result in the IntelliPro Line Cut detection to be correctly reported. Since you can never for sure know that Account Override is used, the safest option is to leave this at No and understand that an IntelliPro Line Cut message will look like it is being reported by the alarm Panel.	
Enabled IPSub packet using different receiver linecard group	
Setting this to Yes will result in different line cards being used for signals received by RF and TCP/IP.	
Default Line Card Assignments for origin of message.	
1 = AES Device, Subscriber, IP-Link, Receiver	
3 = Alarm Panel through IntelliTap Protocol in CID	
4 = Alarm Panel through IntelliTap Protocol in 4+2	
Selecting (Yes) will result in the following Line Card assignment for messages that are received from Subscribers directly over TCP/IP.	
2 = AES Device, Subscriber, IP-Link, Receiver	
5 = Alarm Panel through IntelliTap Protocol in CID	
6 = Alarm Panel through IntelliTap Protocol in 4+2	
Supervision	
Enabled IP Link events to emit on Line Card 8	
Will enable IP Link Faults to line card 8	
Enabled sending all IP Link faults to default Business Unit	
Enable all IP Links Faults to be sent to default Business Unit	
NetCon Filtering	
Enabled Bad NetCon Filtering for selected models and firmware revisions	No

Options	Enable?
The filtering of Bad or corrupted packets is on by default in versions that offer this feature. The filter examines IntelliTap Type I packet data. Packet data that fails the criteria of the filter is sent to the Bad Packet Log and not sent to Automation, Printer or IPCtrl. The filter is examining the CID or 4+2 Tap data strings.	
There are instances where legitimate IntelliTap Packets are being filtered. If after reviewing the Bad Packet Log, it is determined that legitimate data is filtered, the filter would need to be disabled or turned off to allow these through. This will expose the system to rare and real bad packets should they ever occur.	

Subtools Tab

The **Subtools** tab includes a set of subscriber maintenance tools for executing automated maintenance operations, allowing you to retrieve subscriber configuration information on all or select subscribers in an AES network. The information is reported back to the INCC through the IntelliNet network.



Configuring first-time data from unknown subscribers

These settings are associated with subscribers that come onto the network for the first time.

- 1. Select a time range for getting and refreshing data.
- 2. Select the data that you would like to get from the subscribers, all or single types of data.

This tool queries every subscriber in all business units for the following data. This is useful for NMS since it displays the above data for each subscriber on the dashboard.

- Model and Revision
- Timing Settings
- TTL Settings
- Mode Settings
- Zone Configuration
- 3. Select how frequently you would like the query to run, every 24 or 48 hours.
 - Every 24 hours
 - Every 48 hours
 - Never

Every 24 or 48 hours, outbound packets will be sent to subscribers with unknown data. During this process, there will be 2 packets sent out every 60 seconds. If there are no subscribers with unknown data, then no packets will be sent out.

4. Click Execute.

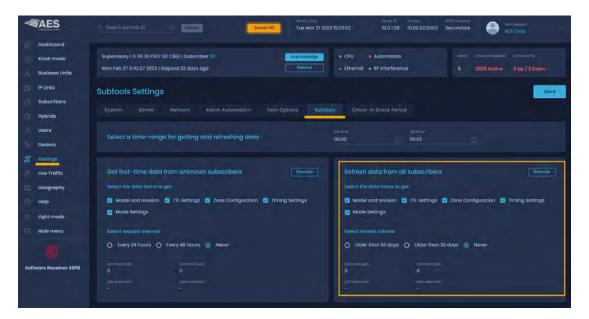
Refresh data from all subscribers

When a subscriber comes onto the network for the first time (refer to the configuration settings), the only details that are automatically populated from the alarm table are as follows:

- Unit ID
- BU

You can utilize the individual general settings under subpage to ping data for each unit.

The **Refresh data from all subscribers** option in the **Subtools** tab gives customers the ability to ping all subscribers to grab additional data.

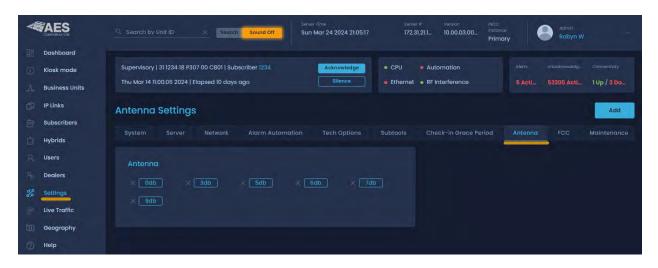


Check-in Grace Period

The **Check-in Grace Period** tab has two settings (minutes and percentage) that allow the user to set the grace period for supervising check-ins from the MultiNet receiver. Although the use of this feature is not recommended, if it is used, a grace period is needed. The suggested grace period is 20, which is 20 x 0.1 minutes (this equates to two minutes plus Check-In Percentage of 10%). The default is 20 and 0%, so this should be modified to 10% on any configuration unless the user has specific alternate needs.

	Server Time Server IP Version MCC Instance Server IP Tech support
Dashboard Kiosk mode Business Units	Supervisory II CC03 IB E307 00 CB01 Subscriber CC03 Acknowledge • CPU • Automation Aliente: Undethiswindig: Connectivity Tue Jan 3 10:48:26 2023 Elapsed 16 days ago Silence • Ethernet • RF Interference 2 Act 306508 A 0 Up / 1 D
 IP Links Subscribers Hybrids 	Check-in Grace Period Settings System Server Network: Alarm Automation Tech Options Subtools Check-in Grace Period
9 Users 9 Dealers 9 Settings	Edit Check-in Grace Period
 Live Traffic Geography Help 	20 D Supervised units will now be allowed a 20 minute grace period.
Uight mode	grace period (of programmed check-in Interval) after expiry, before being declared dead. Inter Check-in Percent. 10 Supervised units will now be
Software Receiver 35PB	allowed 10 percent extra grace period, in addition to the 20 minute grace period.

Antenna



FCC

AES	Second by Unit ID Second Off Second Off Second Off Second Off	
28 Dashboard		
Kiosk mode	Supervisory 31 1234 18 P307 00 C801 Subscriber 1234	CPU Automation Alerts Unacknowledg_ Connectivity
👌 🛛 Business Units	Thu Mar 14 11:00:06 2024 Elapsed 10 days ago	Ethernet • RF Interference 5 Acti 53219 Acti 1 Up / 3 Do
IP Links	FCC Settings	
Subscribers		
Hybrids	System Server Network Alarm Automation Tech Options	Subtools Check-in Grace Period Antenna FCC Maintenance
8 Users	FCC Data	
A _B Dealers		
% Settings		
J Live Traffic		
(1) Geography		
(7) Help		
O Light mode		
Hide menu		
6		
Software Receiver 35PB	Open FCC.gov	

Maintenance

	Server // Server // Come Server // Server // Come Server // Server // Come Version Miccl. Miccl. <thm< th=""><th></th></thm<>	
B Dashboard		
(i) Kiosk mode	Supervisory 31 1234 18 P307 00 C801 Subscriber 1234 Acknowledge • CPU • Automation Alerts Unacknowledg, Connect	
👌 🛛 Business Units	Thu Mar 14 11:00:06 2024 Elapsed 10 days ago Silence • Ethernet • RF Interference 5 Acti 53220 Acti 0 Up /	
📋 IP Links	Maintenance Settings	
Subscribers		
Hybrids	System Server Network Alarm Automation Tech Options Subtools Check-in Grace Period Antenna FCC Mainter	hance
A Users	SSI Contificate Signing Provent Classical Install SSL Certificate	
P _{EI} Dealers	SSL Certificate Signing Request 💬	
% Settings	Country * State/Province (Full Name) * Select Certificate file to upload (*.crt format only)	
J Live Traffic	Select CRT file	
()) Geography	Location Name (City) * × Organization Name (Company) * × SSL Key File	
() Help	Select SSL *key file to upload (if needed)	
Light mode	Unit Name (Department) × Email Address × Select Key file	
C Hide menu		
1	Common Name (Fully Qualified Domain Name) *	d
Software Receiver 35PB	Create CSR	

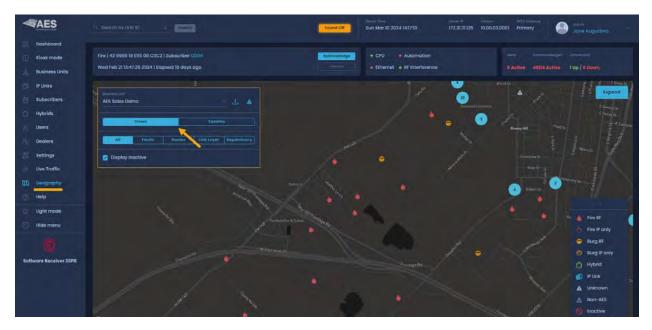
Live Traffic

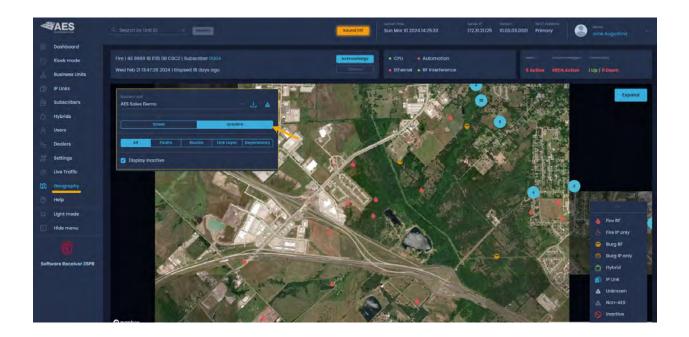
Live Traffic shows real-time information on communications between the INCC application and the installed AES subscribers. The traffic information and IP Link/Subscriber/Business Unit identification show where the traffic originated.

-	AES				Lound Citt Mon Feb 7 215313 2022 GMT-5 10.0 75.6 11.5180356: 4314el6c Primary Primary Admin Admin
	Dashboard Business Units				CPU + Automation + and Unsurramming Community Ethernet + RF Interference B Active 0 1 Up / 3 Down
	IP Links Subscribers	Live Traffic			
	Users Settings	Ф т	ваер	8899	Kore & Free Mon Feb 7 215531 2022 GMT-5
		0 99		Repp	Txee 5 Time Mon Feb 7 21:53:II 2022 GMT-5
	Geography	0 11		Basiyana (met BB9R	Test & Peee Mon Feb 7 2153:06 2022 GMT-5
	Help Light mode	0 99			Gata & Press Man Feb 7 2153:08 2022 GMT-5
	Hide menu	0 99	889 <u>0</u>	BBPD	1049 s 7049 Mon Feb 7 21:53:01 2022 GMT-5

Geography

The **Geography** tab has the option for Earth or satellite view. The **Street** view enables you to view and navigate through 360 degree horizontal and 290 degree vertical panoramic street level images. You can also view the types of faults, the routes, the link layers involved, or the dependencies.





Faults

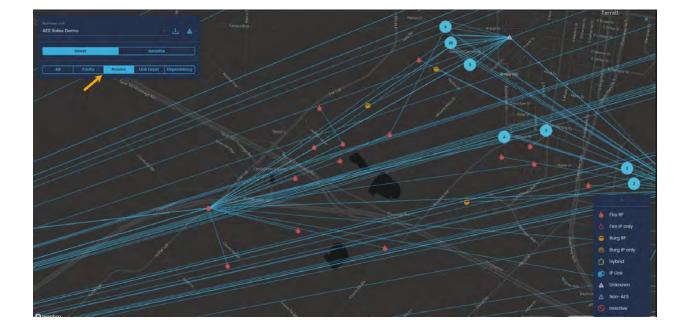
To view the active faults, click Faults then click the dropdown icon to view the codes.

Basiness unit AES Sales Demo	· 土 A		
Street	Sotellite		
All Faults Route	s Link Layet Dependency	By Unit Type	
		前 IP Link 5	
By Unit Type	0	E CC01	tcp/ip 🕑
🚺 IP Link 5		📄 CC02	tcp/ip 🔽
😑 Burg 2	6.	E CC03	TCP/IP
👌 Fire 103		CC04	tcp/ip 🔽
		<u>⊟</u> CC06	TCP/IP
By Code	O	By Code	D

Routes

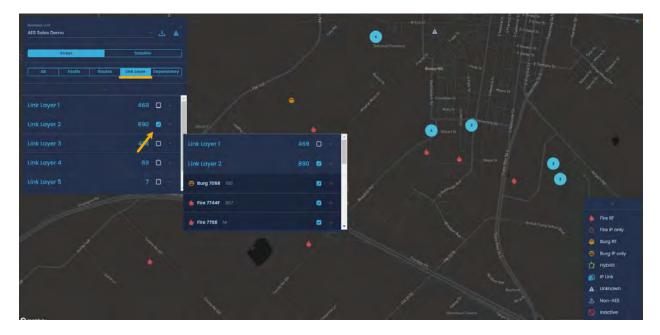
Click Routes to view the routes of the faults.





Link Layer

Link layer 2 indicates that it is directly connected. Link layers 3, 4, 5, and 6 refer to the number of hops required to get from the subscriber to the IP links.



Configuration

To view the Visualization feature of the INCC on Google Earth, you must first load the addresses of the Subscribers and IP Links (see steps below).

1. This step is done during the migration process. Click the download icon to download the .klm file with the Business Unit map information. (KML is a file format used to display geographic data in an Earth browser such as Google Earth.)

AES	Second Office Second Se
Dashboard	Supervisory (11 CC03 18 6307 00 C201 Subscriber C003 Controlling
Business Units	surest
🔄 Hybrids 🔉 Users	Street Sometime

2. Click the business unit .klm file at the bottom left of the screen.

O Light mode		in and the second s	~	i IP Link
Hide menu				L Unknown
Θ,				🛆 Non-AES
U /	pruha			🔊 High Gain Antenna
Software Receiver 35P	mapbox	Nid,		Mapbox OpenStreetMap Improve this map
BUtest.kml	^			Show all

As Google Earth begins to launch, you will be asked to enter a user name and password. The user name is the name of the business unit, and the password is the same password used for the *Operator Dashboard* password for that business unit.

3. Enter user name and password and click Sign In.

Invalid addresses – When addresses are not in the correct format, they will need to be adjusted.

AES	Depind Citt Zerrer France Zerrer France Serrer France MCC Relations MCC Relations France aspect Sum Jan 22 10:39:912 2023 10:0.0.01 10:00:01:0012 Primary Sanne Augustina	
Dashboard	Supervisory I n CC03 18 5307 00 C801 Subscriber CC03	
Kiosk mode	Tue Jan 3 10:48:28 2023 Elapsed 19 days ago Ethernet RF Interference 2 Acti_ 321792 Act_ 0 Up / 1	
🔬 Business Units		
🗇 🕫 Unks	Annual Contraction of the second seco	
Subscribers	BUtest L 🛆 < Invalid addresses	
Hybrids	Street Solville	
R. Users		
S. Dealers		

Help

The Help page allows access to technical assistance resources.

- User Manual: online access to the INCC user manual
- Frequently Asked Questions: questions and answers about INCC and AES IntelliNet.
- AES YouTube Channel: videos on technical material and configuration of AES IntelliNet products
- AES Technical Support: contact information for AES support services.

Light mode

The INCC user interface can be viewed in either light or dark mode.

AES	0. Search by Unit ID × New Source Search	Anne Free Same Same Same Same Same Same Same Sa
Dashboard Klosk mode		CPU • Self Monitoring Avera University Converting Finance Finance Finance Self Monitoring Self Monito
D IP Links	Dashboard Unocknowledged 77 Acknowledged 0 Alerts 0 Test Mode 0	Export Report
A Users Dealers	Automs Automs	NÁ Deserve de or
Settings	Radio Silence Zettimi rouri Admini Zetti Piococy St, Recoody MA Zetti Piococy St, Recoody MA Zetti Piococy St, Recoody MA	Companyon N/A Acti Stance Act of Designer Teet Sindia Alarm Act of Stance Act
Help Ught mode Hide menu	Actinowiedge DeL P Actino	Namentaria NAA Asia Salaman asia
AES Self Monitoring	O Persona Primama. 1 285 Peobody St, Peobody MA Of Normal Check 445mm cault Annual Annual Check 455mm cault Annual Check	N/A Example Act of Statement Act of Act o

AES	O, Search by Unit ID	Sedrich	Birrod Barrod Barrod Barrod P Bound Off Surn Mar 17 2024 19:08:51 172:33.80.1	35 10.00.03.0001 Primary Robyn W
Coshboard Coshboard Klosk mode	Supervisory 12 FB0 18 R307 (Fri Feb 16 10:29:26 2024 Elaps		Aktnowidge = CPU = Self Monitoring Silence = Ethernet = RF Interference	Kens Ministrovision 8 71 Active 0 Up / 1 Down
IP Links Subscribers Hybrids	Dashboard Unocknowledged 71	Acknowledged a Alerts a Test	Mode 0	Export Report
Users	A No Faults of Resta-	Amma count Address T 285 Peobody St, Peobody Ma	A N/A	wa es Silence Ack
Dealers Settings	A Watchdog or PBS _	Alama cours 1 265 Peabody St, Peabody MA	Gianzýstiny N/A	Ack All. Silence Ack
Uve Traffic	() Radio Silence	Access card Access 17 285 Peabody St, Peabody Ma	A N/A	Ack All Sliphce Ack
Geography	() NetCon 8 or 7 rep_	Atoms court Address 18 285 Peabody St, Peabody MA	A Test Smoke Alorm	Ack All Silance. Ack
B Help	() Acknowledge Del_	Alarma Sound Address 17 285 Peabody St, Peabody Ma	A N/A	Ack All Silence Ack
Hide menu	() Periodic transmis_	Access 1 285 Peabody St, Peabody Ma	A N/A	Acto Alt Sillence Ack
AES Self Monitoring	Off Normal Check	16 285 Peabody St, Peabody Mi	A N/A	Ack All Sitence Ack

Hide menu

Clicking **Hide menu** hides the text portion of the navigation bar, leaving just the icons.

	Sound	off Server	^{Time} Jan 19 08:15:02 2023	Server IP Version 10.0.1.61 10.00.01.0013	NCC Instance Primary	Tech support Jane Augustina	
Dashboard	Supervisory 11 CC03 18 E307 00 C801 Sub	oscriber CC03	Acknowledge	CPU Automation			
Business Units	Tue Jan 3 10:48:26 2023 Elapsed 16 days (ogc	Silence	Ethernet RF Interferen	nce 2 Act	305427 Ac 0 Up / 11	
🗊 IP Links	Dashboard					Export Repo	ort
Subscribers	Unacknowledged 305427 Ackno	owledged 20		Connectivity 1			
Hybrids	Diagnostic Fault / Low battery		S. New Lineskoowk	edged Alarms (24) X	Silence	Acknowledge	1
Q Users	Diagnostic Fault / Low Battery	4638	C. How officer lowe	08:11:31 202	23	Acknowledge	
Dealers	🖄 Diagnostic Fault / Low battery	Alarms count 277	Subscriber Business BA09 orphon		23 Silence	Acknowledge	
Settings	▲ No Faults or Restore of all prior	Alarms count	Subscriber Butiness		23 Silence	Acknowledge	
Live Traffic	A Destauration			Unit Date & Time			
Geography	🛕 Charger Fault	212		Tue Jan 17 09:17:54 20)23 Silence	Acknowledge	
) Help	▲ No Faults or Restore of all prior		Subscriber Business F056 BUtest	Unit Date & Fime Mon Jan 16 10:24:52 2	023	Acknowledge	
Light mode	🛆 Charger Fault	Alarms count	Subscriber Business 5056 BUtest	Unit Date & Time Mon Jan 16 09:54:30 2	Silence	Acknowledge	
🔄 Hide menu <							

To expand the navigation bar to its default state, click the **Hide menu** icon.

0	▲ No Faults or Restore of all prior		Subscilber F056	Date & Time Mon Jan 16 10:24:52 2023	Silence
Å.	Expand	Alarms count 4196		Date & Time Mon Jan 16 09:54:30 2023	Silence
\bigcirc					

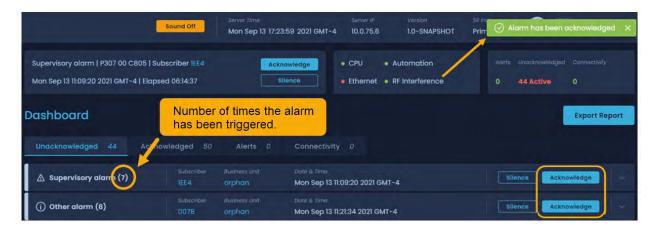
8. Processing Alarms

Clearing Alarms Manually

When alarm automation is enabled, no alarms display on the dashboard.

To clear an alarm manually, click the **Acknowledge** button. Once an alarm has been cleared, a green pop-up displays "Alarm has been acknowledged" as confirmation.

Note: The number next to the alarm indicates the number of times the alarm has been triggered.



Silencing Alarms

To silence an alarm, enable **System sound in OFF** (as shown below). Alarms can no longer be silenced by clicking **Sound Off**.

AES	Searce Trave Larger P (version WCC) instance (CC) instance
Dashboard Kiosk mode Business Units	Fire 43 9999 18 E115 08 COC 2 Subscriber DU04 Connections Weet Reb 21 13:47:28 2024 Bapsed 11 days ago Admin User can turn sound on/off in Settings Inco S Active 68107 Active 1 Up / 8 Down
 IP Unks Subscribers Hybrids 	System Server Network Alarm Automotion Tech Options Subtools Check-in Grace Period Antenna FCC Maintenance
Dealers	Unit Settings Database migration To migrate the database from existing MNR instance please click the button below. Migrate data
 Live Traffic Geography Help Light mode 	Import Addresses for Units Import Address File Severe CSV file to uptood
E Hidemenu	Select CSV file
Software Receiver 35PB	System sound in OFF

Onscreen Messages

While using the INCC application, the following messages may be displayed. These messages will help you understand the software operating status and the actions you can take.



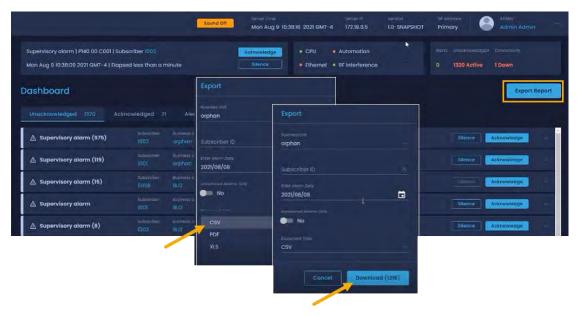
Exporting Reports

Reports can be exported to CSV, PDF, and XLS and can be customized based on the business unit and subscriber ID. A date range can also be set.

- 1. Click Export Report.
- 2. Use the **Business Unit** and **Subscriber ID** dropdown to specify what to include in the report.
- Use the calendar icon to specify how far back the report should go. To make your selection, click any earlier date. The days between that date and the current date will be included in the report. Click OK.



4. Select a document type, then click **Download**. The download file displays at the top right of the browser.



9. Glossary

Name	Definition
Admin	Admin users can create, read, update, and delete Tier 1, Tier 2, and Tier 3. Admin users can see all data in all BUs.
AES Admin	AES Admin users can create, read, update, and delete Admin, Tier 1, Tier 2, and Tier 3. AES Admin users can see all data in all BUs.
Alarm	A signal from a subscriber or hybrid displayed on the Alarms tab of Dashboard. Can be either Acknowledged or Unacknowledged that splits Alarms between corresponding Dashboard tabs.
Alert	A signal from IP Link displays on the Alerts tab of Dashboard.
BU Statistics	 Analysis tools under a particular business unit: Error! Hyperlink reference not valid.
	 Error! Hyperlink reference not valid. Error! Hyperlink reference not valid. Error! Hyperlink reference not valid.
Business Unit	An aggregation entity that keeps and proceeds data for the set of assigned units: subscribers, IP Links, hybrids, and Non-AES.
Check-In	Each AES unit performs "check-ins" with the INCC at least once every 24 hours, which complies with the UL 864 standard for commercial alarm communications. The supervision check-in time can be set to as often as needed for the application.
CID Event Code	Unique code for every event received with Alarm/Alert. A CID code contains info about the unit ID, event type, zone configuration, and other data required for event recognition.
Connectivity	Dashboard tab that displays status of alarm automation.
Dashboard	Dashboard provides visibility into radio signal traffic and overall operation of business unit to ensure a high quality of service on a real-time basis. This dashboard displays critical business unit information in a dynamic and intuitive format to enable a quick assessment of the network's performance and to quickly identify faults that could affect network operation and growth.
DB	Data Base that keeps all data for a particular INCC instance. DB data can be migrated from NMS/MNR.
Dealer	Aggregation entity that keeps a set of subscribers. The dealer can be assigned to a user, and then this user will have access to all subscribers belonging to that dealer.

Name	Definition
Default Business Unit	INCC instance should have at least two business units: Default to proceed data from assigned units, and Orphan to proceed data from unassigned units.
Check-in Grace Period	If set, supervised units checking in will be allowed the grace period after the expiry—before being declared dead.
Fault	Event sent by unit that has issues (antenna cut, battery, and so on).
Frequent Check-Ins	Each subscriber normally transmits check-in messages at regular, pre-set intervals. AES recommends setting the subscriber check-in interval to 23:45. A shorter time interval increases RF traffic in the network, which is why the INNC provides list of check-ins for all units.
Geo Page	Interactive map that displays all units that have coordinates. Geo Page can display data for one BU at a time.
Geocoding	INCC automatically checks and updates the units that have an address, but don't have latitude and longitude coordinates. Also, INCC can validate addresses (on demand).
Health Score	The Network Health Score quantifies overall network operational quality on a scale between 0–100.
Hybrid	An AES unit that can work as a subscriber and as an IP Link.
INCC	Intellinet Control Center. AES Application that can replace MNR and NMS both.
Installer	A software installation package that deploys INCC to a new instance.
IP Link	An AES unit that gets radio signals from subscribers and transmits them to the Internet.
IP Links / Hybrids Load	Ideally, all IP Links in the network should handle roughly equal volumes of RF traffic. (This generalization does not apply when the antennas of two IP Links are deliberately placed within RF range of each other; for example, at a Central Monitoring Station.) Tips for increasing RF traffic handled by an under-utilized IP Link are locate <u>here</u> .
IP Control	IP Control is an internal tool for viewing routing tables.
Kiosk Mode	A set of predefined widgets to visualize the current state of a business unit, usually on large screens.
Late Check-ins	Each subscriber normally transmits check-in messages at regular, pre-set intervals. If the MultiNet Receiver does not receive a check-in message at the expected time, there might be a problem with the

Name	Definition
	subscriber; alternatively, there might be a problem with network performance.
License	INCC license is provided for one instance (for both primary and secondary). A tier 1 license can keep up to 5000 units; a tier 2 license is unlimited.
Line Card	AES's Ademco 685 emulated output format can provide output using at least nine line cards. For example, the INCC can receive signals directly from subscribers via TCP/IP. This is referred to as MCT or Multiple Communication Technologies. To distinguish between messages that arrived via RF through an IP Link and directly through IP, a different line card is assigned.
Link Layer	The link layer defines how many hops a subscriber takes to reach an IP Link. A link layer of two indicates there is one subscriber between the subscriber the reading is being taken from and the IP Link.
Live Traffic	Live Traffic is a constantly updated list of all events produced by all units under an INCC instance. Also, every particular unit has a Live Traffic tab that displays its own events.
Mesh	Mesh networks built using patented AES-IntelliNet technology consist of many subscriber units installed in concentric rings around an IP Link, which is a major component.
Mesh Ack-Delay	Normally, after a subscriber transmits an RF packet, the recipient of the packet returns a message to the sender, acknowledging receipt of the packet. If the issuing subscriber does not receive the acknowledgement message within the configured Communication Timeout Delay period, then it indicates in a subsequent message that an Ack Delay has occurred.
Mesh Hops	When a subscriber transmits an RF packet, that packet travels through the mesh network to an IP Link or a hybrid subscriber before reaching a INCC/MultiNet receiver. If the IP Link is within direct reach, the subscriber sends the packet to the IP Link; otherwise, it sends the packet to another subscriber along a route leading to the IP Link.
	Each step in the route from subscriber to IP Link or hybrid subscriber is called a hop. As network conditions evolve, the route, and consequently the number of hops from a given subscriber to an IP Link, can change.
Mesh NetCon	NetCon is a measurement calculated by a subscriber to determine the level of confidence that its transmissions will reach an IP Link. Only fire

Name	Definition
	subscribers report their NetCon statuses, as either high or low, in messages sent to the INCC/MultiNet receiver.
	In general, NetCon is an abbreviation for Network Connectivity. It is a rating of the number of radio frequency (RF) paths from a subscriber to other subscribers installed in the mesh network. The mesh refers to all the subscriber units on a network of the same frequency and cipher code.
Migration	Database migration allows a seamless transition from an existing MNR to the INCC. During migration, MNR DB dump data is transformed and put into the INCC database.
MNR	AES MultiNet receivers are built to receive all alarm signals from the AES mesh network via IP Links, hybrid subscribers, and MCT subscribers. The receiver's robust hardware processes and forwards all alarm information to the central station alarm automation software.
Network Pulse	The Network Pulse dynamically tracks key performance indicators including subscriber check-ins and Acknowledgment delays over the most recent 10-day period.
NMS	Network Management System interfaces with the MNR to provide a complete end-to-end mesh radio network monitoring and management platform. Unlike other communication technologies, the NMS tool was developed to give users full visibility of a network and its performance via real-time dashboards, notification alerts, and map visualizations.
Non-AES Unit	Custom object that can be added under a particular business unit by the admin. Non-AES units can be displayed on Geo Page, but the INCC is not able to process any data from non-AES units.
Orphan	An INCC instance should have at least two BUs: Default to proceed data from assigned units, and Orphan to proceed data from unassigned units.
Path	Alarm signals transmitted from a subscriber will be repeated and acknowledged by other subscribers within its routing table. The signals will travel through the mesh network via the shortest path available to an IP Link. The IP Link receives and acknowledges the alarm signal.
Permission	All user roles have flexible permission settings that can be managed by admins.
Primary	Main INCC instance. All data is being constantly synced to the secondary.

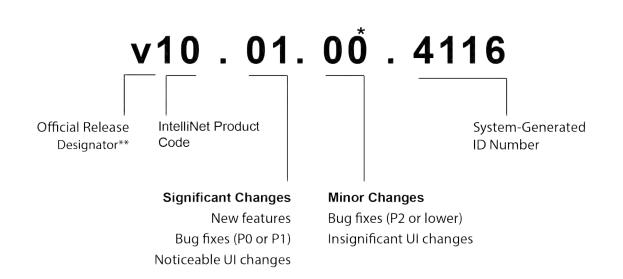
Name	Definition		
Recipient	The INCC supports sending notification to persons not registered as an INCC user. Notification is initialized by <u>Trigger</u> . A recipient can be added to BUs by the admin.		
Restoral	Specific code that says the alarm/alert is fixed.		
RF	Radio frequency—the main channel for radio subscribers.		
RF Interference	Radio frequency interference is the conduction or radiation of radio frequency energy that causes an electronic or electrical device to produce noise that typically interferes with the function of an adjacent device.		
Role	The set of permissions. The INCC has an AES admin role and four user roles:Admin		
	Central Monitoring Station Admin (CMS Admin)/tier 1		
	Manager/tier 2		
	Operator/tier 3		
	A user can see other users and their data only if the other roles are lower.		
Route	See Path.		
Routing Table	A routing table exists for each subscriber on a network. It can contain up to eight viable transmission routes. The routing tables are visible only via a handheld programmer or through IP control. Routes, also known as paths, are what subscribers will depend on to deliver alarm signals back to the central monitoring station. This table is dynamic, meaning that as conditions change (i.e., other subscribers have troubles or are removed from the network), the table changes and other subscribers are entered into the list. The best route is always first on the list.		
Secondary	Standby INCC instance to keep the system up if the primary is down.		
Service Log	Occasionally, subscribers may require service, and this log identifies all the subscribers in need of service.		
SMNR	Software MultiNet Receiver, another name for the INCC.		
Subscriber	Hardware unit that monitors fire or burglary and sends signals to the INCC.		

AES IntelliNet® Network Control Center (INCC) Installation, Configuration, and Operations Manual

Name	Definition			
Subscribers over time	This chart displays how many signals the INCC received from every model of connected subscribers.			
Tier 1	Role: central monitoring station admin (CMS admin)			
Tier 2	Role: manager			
Tier 3	Role: operator (this role can access only one BU)			
Top Repeater	To convey packets along their route toward an IP Link, it's normal for some subscribers to repeat RF packets originating from other subscribers. However, excessive packet repetition by a single subscriber may reduce network efficiency and cause delays.			
Top Talker	Ideally, all subscribers in the network should generate roughly an equal numbers of RF packets. Excess RF traffic from a single subscriber may reduce network efficiency by consuming airtime. Tips for reducing excess activity on a subscriber are described <u>here</u> .			
Total Signals Received	A business unit statistics chart that displays the number of signals received from all units.			
Trigger	Trigger is a customizable event to send a notification to recipient.			
TTL	Time to Live period that can be set for check-in, status, alarm, trouble, and restoral.			
UL	The UL enterprise is a global safety science company that provides certification of safety standards.			
Unit	AES/non-AES hardware module.			
Updater	Software installation package that provides seamless update for an existing INCC.			
User	A registered person who has access to the INCC.			
Zone	Adjustable hardware part of subscriber/hybrid.			

10. Version Control Schema

AES has established the following version control schema to align itself with contemporary software development practices and to provide greater consistency and visibility into software releases. The software recevier version number begins **v10**, followed by other digits. The details on version identification are described in the diagram below:



* The second, third, and fourth decimal places increment beginning with the number 1 and will always be represented as a whole number. The third decimal place has a leading zero, whereas the second and fourth decimal places do not have leading zeros.

** Other designators are used internally to distinguish between the alpha and beta releases ("a" versus "b"). Development releases, designated by an "x", are also used internally.

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Once you receive the Return Material Authorization Number, repack the equipment in its original or equivalent packaging. Inside the box, please include a contact name, telephone number, address and a brief description of the reason for return.

Ship items freight-prepaid to:
Repair Services, RMA#
AES Corporation,
285 Newbury Street
Peabody, MA 01960 USA
(Contact AES for Return Material Authorization number)

April 2019

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