



# 8705 IntelliNet® Network Control Center (INCC)

## Installation & Setup Guide

|  |    |
|--|----|
| <i>Installing the Package Files</i> .....        | 01 |
| <i>Logging into the INCC Web Interface</i> ..... | 25 |
| <i>Upgrade/Rollback Procedure</i> .....          | 25 |
| <i>Troubleshooting</i> .....                     | 28 |

### *Installing the Package Files*

Requirements for installing the INCC software are as follows:

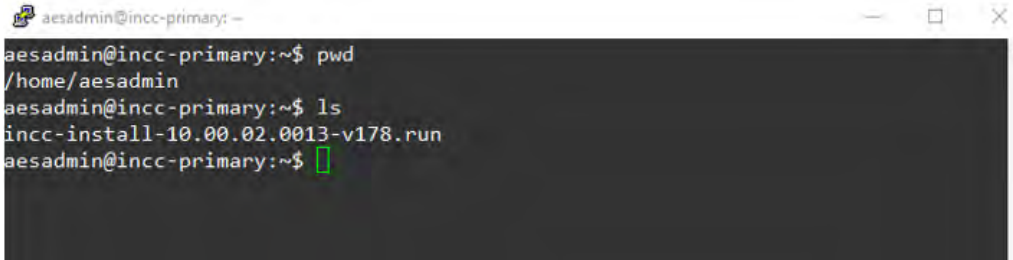
- PuTTY or other third-party SSH client
- WinSCP or other file transfer client
- Install package file (File will be provided by AES in **incc-instal-xx.xx.xx.xxxx-vxx.run** format.)
- Sudo user in Ubuntu — The sudo user should be created while the operating system is installed, or you can create a new 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`).



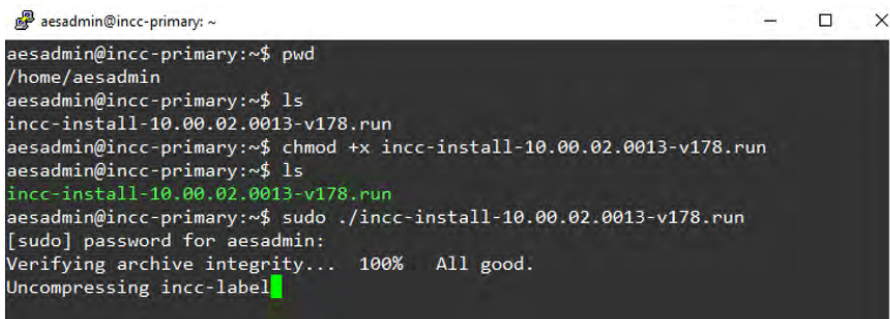
```
aesadmin@incc-primary: ~  
aesadmin@incc-primary:~$ pwd  
/home/aesadmin  
aesadmin@incc-primary:~$ ls  
incc-install-10.00.02.0013-v178.run  
aesadmin@incc-primary:~$
```

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

```
sudo chmod +x instal-xx.xx.xx.xxxx-vxx.run
```

4. Install the primary instance using the following command:

```
sudo ./ instal-xx.xx.xx.xxxx-vxx.run
```



```
aesadmin@incc-primary: ~  
aesadmin@incc-primary:~$ pwd  
/home/aesadmin  
aesadmin@incc-primary:~$ ls  
incc-install-10.00.02.0013-v178.run  
aesadmin@incc-primary:~$ chmod +x incc-install-10.00.02.0013-v178.run  
aesadmin@incc-primary:~$ ls  
incc-install-10.00.02.0013-v178.run  
aesadmin@incc-primary:~$ sudo ./incc-install-10.00.02.0013-v178.run  
[sudo] password for aesadmin:  
Verifying archive integrity... 100% All good.  
Uncompressing incc-label
```

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**

```
aesadmin@incc-primary:~$ sudo ./incc-install-10.00.02.0013-v178.run
Verifying archive integrity... 100% All good.
Uncompressing incc-label 100%
==> Do you accept AES Corp Software License Agreement?(yes/no): yes
==> Is this VM primary?(yes/no): yes
==> Is this VM replacement with old one?(yes/no): no
==> Primary IP address detected: 10.0.74.151
==> Do you want to define port ranges for IP Links, IP Subscribers and AA manually?(yes/no): yes
==> Please provide IP Links default port number (default: 7070): 7070
==> Please provide IP Subscriber default port number (default: 9090): 9090
==> Please provide AA port range (default: 6050-6099): 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.

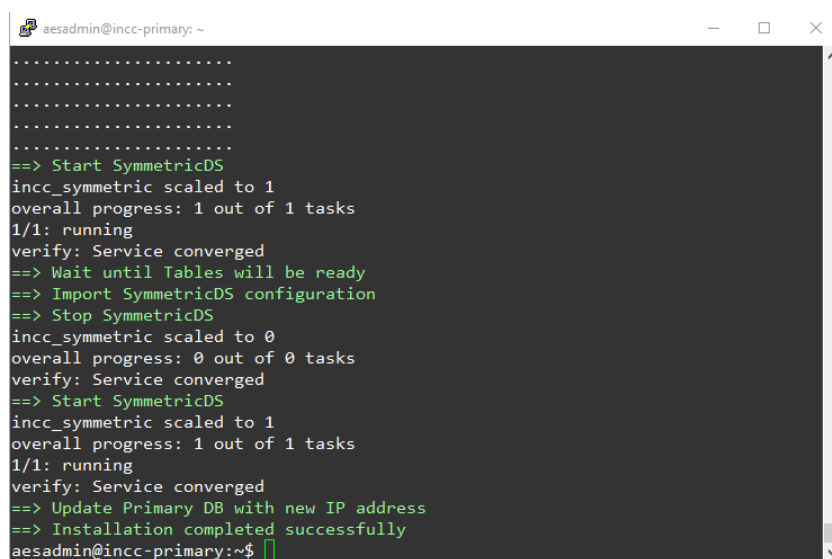
```
==> Creating SSH connection with secondary...
==> Please provide Secondary VM's sudo user: aesadmin
==> Secondary VM's sudo user: aesadmin
==> Please provide Secondary VM IP: 10.0.74.152
==> Generating SSH keys...
==> Please confirm the SSH keys validation and enter secondary VM's password below:
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/root/.ssh/id_rsa.pub"
The authenticity of host '10.0.74.152 (10.0.74.152)' can't be established.
ECDSA key fingerprint is SHA256:necun7E4dsW93w++yLDCtLVVrjfaXgXzfLu1g/NPek4.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
aesadmin@10.0.74.152's password:

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'aesadmin@10.0.74.152'"
and check to make sure that only the key(s) you wanted were added.

==> Configuring visudo on the secondary VM...
==> Please enter secondary VM's password below:
[sudo] password for aesadmin:
aesadmin ALL=(ALL) NOPASSWD: ALL
```

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



```
aesadmin@incc-primary: ~
.....
.....
.....
.....
.....
.....
==> 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**

```
aesadmin@incc-secondary: ~  
aesadmin@incc-secondary:~$ pwd  
/home/aesadmin  
aesadmin@incc-secondary:~$ ls  
incc-install-10.00.02.0013-v178.run  
aesadmin@incc-secondary:~$ chmod +x incc-install-10.00.02.0013-v178.run  
aesadmin@incc-secondary:~$ sudo ./incc-install-10.00.02.0013-v178.run  
Verifying archive integrity... 100% All good.  
Uncompressing incc-label 100%  
==> Do you accept AES Corp Software License Agreement?(yes/no): yes  
==> Is this VM primary?(yes/no): no  
==> Is this VM replacement with old one?(yes/no): no  
==> VM IP address detected: 10.0.74.152  
==> Please provide VM sequence number [2,3..8]: 2  
==> Please provide Primary VM IP: 10.0.74.151  
==> Do you want to define port ranges for IP Links, IP Subscribers and AA manually?(yes/no): yes  
==> Please provide IP Links default port number (default: 7070): 7070  
==> Please provide IP Subscriber default port number (default: 9090): 9090  
==> Please provide AA port range (default: 6050-6099): 6050-6099  
Dependencies Installation  
dpkg: warning: downgrading libc6:amd64 from 2.31-0ubuntu9.14 to 2.31-0ubuntu9.9  
(Reading database ... 72252 files and directories currently installed.)  
Preparing to unpack .../libc6_2.31-0ubuntu9.9_amd64.deb ...  
Unpacking libc6:amd64 (2.31-0ubuntu9.9) over (2.31-0ubuntu9.14) ...
```

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

```
aesadmin@incc-secondary: ~  
.....  
.....  
.....  
.....  
==> Upload MySQL dump  
==> Create additional tables  
==> Start INCC backend  
incc_back scaled to 1  
overall progress: 1 out of 1 tasks  
1/1: running  
verify: Service converged  
==> Start SymmetricDS  
incc_symmetric scaled to 1  
overall progress: 1 out of 1 tasks  
1/1: running  
verify: Service converged  
==> Start INCC frontend  
.....  
.....  
.....  
.....  
==> Installation completed successfully  
aesadmin@incc-secondary:~$
```

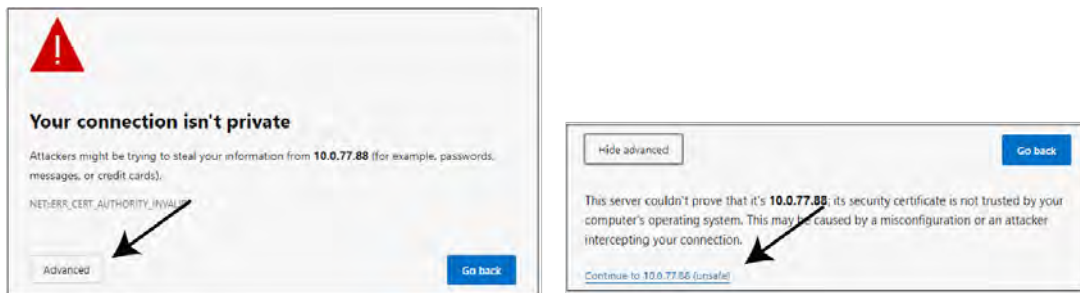
## Logging in to the INCC Web Interface

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.

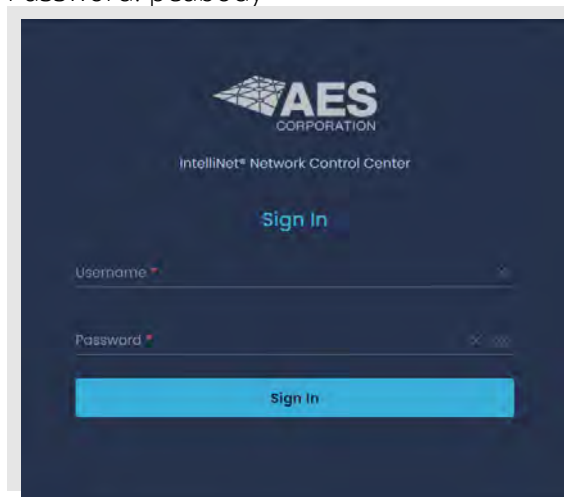
Example: <https://10.0.77.220>

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 (will be provided by AES in incc-upgrade-xx.xx.xx.xxxx-vxx.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 (i.e., if you created "01.01.2023" folder and you have a sudo user named "aesadmin" the folder will be home/aesadmin/01.01.2023).

Navigate to the new folder:

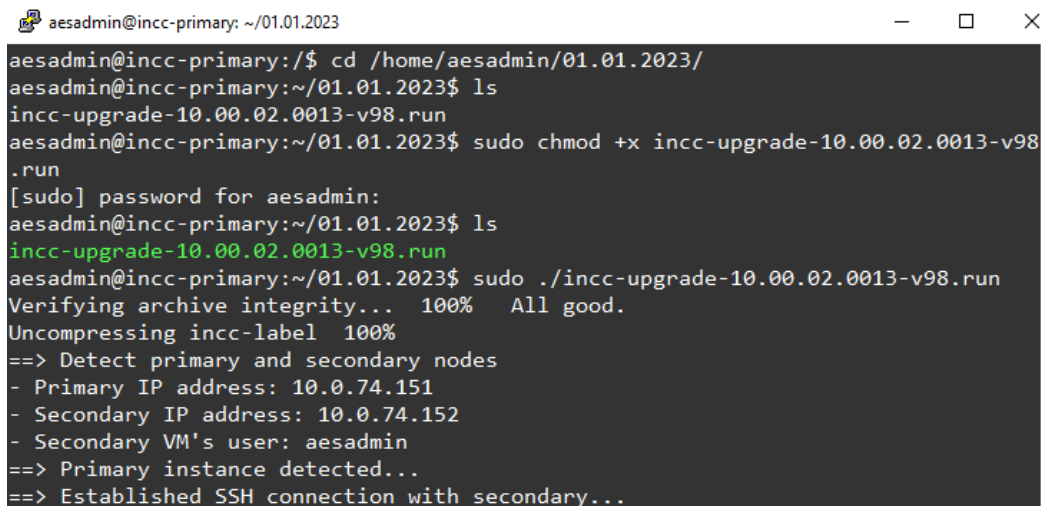
```
cd /home/aesadmin/01.01.2023
```

Make the upgrade package file executable using the following command:

```
sudo chmod +x upgrade-xx.xx.xx.xxxx-vxx.run
```

You are now ready to upgrade instances:

```
sudo ./ upgrade-xx.xx.xx.xxxx-vxx.run
```



```
aesadmin@incc-primary: ~/01.01.2023
aesadmin@incc-primary:/$ cd /home/aesadmin/01.01.2023/
aesadmin@incc-primary:~/01.01.2023$ ls
incc-upgrade-10.00.02.0013-v98.run
aesadmin@incc-primary:~/01.01.2023$ sudo chmod +x incc-upgrade-10.00.02.0013-v98
.run
[sudo] password for aesadmin:
aesadmin@incc-primary:~/01.01.2023$ ls
incc-upgrade-10.00.02.0013-v98.run
aesadmin@incc-primary:~/01.01.2023$ sudo ./incc-upgrade-10.00.02.0013-v98.run
Verifying archive integrity... 100% All good.
Uncompressing incc-label 100%
==> Detect primary and secondary nodes
- Primary IP address: 10.0.74.151
- Secondary IP address: 10.0.74.152
- Secondary VM's user: aesadmin
==> Primary instance detected...
==> Established SSH connection with secondary...
```

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 will be finished:

