



# GV-IPCAM Disconnection Issue Troubleshooting





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## All Camera Disconnection Issue

### Symptom

在相同 LAN 網路環境下，所有 cameras 皆有發生斷連線問題。

Time	Device	Information	Event	Note
8/17/2017 10:21:25	BX3400		Camera Connection Resumed	
8/17/2017 10:21:25	EFD2101		Camera Connection Resumed	
8/17/2017 10:21:26	Camera5		Camera Connection Resumed	
8/17/2017 10:21:26	BX12201		Camera Connection Resumed	
8/17/2017 10:22:22	Camera5		Camera Connection Lost	
8/17/2017 10:22:25	EFD2101		Camera Connection Lost	
8/17/2017 10:22:30	EBL1100		Camera Connection Lost	
8/17/2017 10:22:31	BX12201		Camera Connection Lost	
8/17/2017 10:22:32	BX3400		Camera Connection Lost	
8/17/2017 10:23:17	Camera5		Camera Connection Resumed	
8/17/2017 10:23:19	EFD2101		Camera Connection Resumed	
8/17/2017 10:23:25	EBL1100		Camera Connection Resumed	
8/17/2017 10:23:25	BX3400		Camera Connection Resumed	
8/17/2017 10:23:26	BX12201		Camera Connection Resumed	

### Solution

To solve this over exposure issue: (1) 確認網路設備是否異常; (2) 透過 CMD Ping IPCAM 是否發生 Loss 網路封包; (3) PC 端的 IP address 是否與其他設備相衝; (4) 連線環境的流量傳輸是否符合標準, 詳細步驟請參閱以下說明:

#### 1. 確認網路設備是否異常

確認發生斷線的 GV-IPCAM 是否皆有正常供電, 同步確認 POE switch or adapter, 或 network switch 是否故障。

#### 2. 透過 CMD Ping camera IP address 是否發生 loss 網路封包.

開啟 CMD ping camera 確認是否有發生 "Time out".(CMD 指令為: ping IP address -t)

```
Microsoft Windows [Version 6.1.7601]
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C:\Users\Test310>ping 192.168.0.119 -t

Pinging 192.168.0.119 with 32 bytes of data:
Reply from 192.168.0.119: bytes=32 time=1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Request timed out.
Request timed out.
Reply from 192.168.0.119: bytes=32 time=2002ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
```



### 3. 確認是否有其他設備與 PC IP address 相衝.

先透過 CMD 尋找一組無人使用的 IP address, 更換至發生問題的 PC.

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Test310>ping 192.168.0.121 -t

Pinging 192.168.0.121 with 32 bytes of data:
Reply from 192.168.0.120: Destination host unreachable.
Reply from 192.168.0.120: Destination host unreachable.
```

更換後再透過 CMD 同步確認先前 PC 的 IP address 是否仍被使用, 若被使用則會顯示為以下說明.

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Test310>ping 192.168.0.120 -t

Pinging 192.168.0.120 with 32 bytes of data:
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
```

或是透過 CMD 使用 command, 確認該 Mac address 是否為該 PC 所使用, 若不是即為 IP 衝突 (CMD 指令為: arp -a)

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

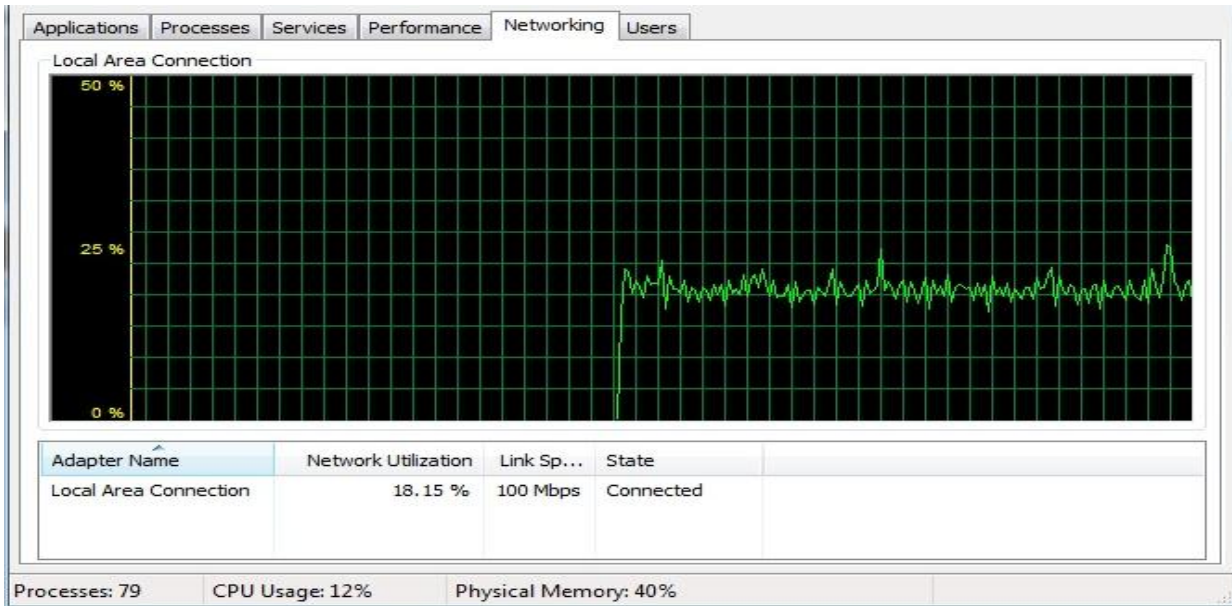
C:\Users\Test310>arp -a

Interface: 192.168.0.103 --- 0xa
Internet Address      Physical Address      Type
192.168.0.1           54-e6-fc-b6-e4-8e    dynamic
192.168.0.14          00-13-e2-0e-eb-50    dynamic
192.168.0.15          00-13-e2-12-42-52    dynamic
192.168.0.16          00-13-e2-10-53-dc    dynamic
192.168.0.17          00-13-e2-ff-1b-0b    dynamic
192.168.0.18          00-13-e2-ff-21-c4    dynamic
192.168.0.100         70-4d-7b-c4-b9-94    dynamic
192.168.0.101         00-13-e2-f9-04-80    dynamic
192.168.0.105         4c-80-93-24-a5-09    dynamic
192.168.0.255         ff-ff-ff-ff-ff-ff    static
224.0.0.2             01-00-5e-00-00-02    static
224.0.0.22            01-00-5e-00-00-16    static
224.0.0.251           01-00-5e-00-00-fb    static
224.0.0.252           01-00-5e-00-00-fc    static
239.255.255.250      01-00-5e-7f-ff-fa    static
255.255.255.255      ff-ff-ff-ff-ff-ff    static
```



**4. 確認 PC 的網路環境流量傳輸是否符合標準。**

開啟 Windows Task Manager 確認 Network Utilization 是否操過負荷(若 keep 在 100%代表網路頻寬過小 IPCAM 封包無法正常傳輸)



**5. 若上述操作皆無法排除，請協助開啟 Camera Web page 並擷取 debug log 提供給相關 FAE 問題釐清，後續仍無法從 Log 確認問題，則再協助提供遠端連線確認釐清發生問題原因。**



## 少數 Camera Disconnection Issue

### Symptom

在相同 LAN 網路環境下，所有 cameras 中，僅少數 camera 發生斷連線問題。

Time	Device	Information	Event	Note
9/29/2016 20:26:42	Camera9		Camera Connection Resumed	
9/29/2016 20:26:42	Camera9		Camera Connection Lost	
9/29/2016 20:26:43	Camera9		Camera Connection Resumed	
9/30/2016 0:22:26	Camera9		Camera Connection Lost	
9/30/2016 0:22:45	Camera9		Camera Connection Resumed	
9/30/2016 2:16:28	Camera9		Camera Connection Lost	
9/30/2016 2:16:52	Camera9		Camera Connection Resumed	
9/30/2016 5:31:31	Camera9		Camera Connection Lost	
9/30/2016 5:32:36	Camera9		Camera Connection Resumed	
9/30/2016 5:32:36	Camera9		Camera Connection Lost	
9/30/2016 5:32:37	Camera9		Camera Connection Resumed	
9/30/2016 9:56:00	Camera9		Camera Connection Lost	
9/30/2016 9:56:09	Camera9		Camera Connection Resumed	
9/30/2016 10:18:30	Camera9		Camera Connection Lost	

### Solution

To solve this over exposure issue: (1) 透過 CMD Ping IPCAM 是否發生 Loss 網路封包;(2) camera network cable length 是否過長; (3) 更換 camera Network 接線方式; (4) 連線環境的流量傳輸是否符合標準; (5) 是否搭配多個 NVR/VMS 使用, 詳細步驟請參閱以下說明:

#### 1. 透過 CMD Ping camera IP address 是否發生 loss 網路封包.

開啟 CMD ping camera 確認是否有發生"Time out".(CMD 指令為: ping IP address -t)

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Test310>ping 192.168.0.119 -t

Pinging 192.168.0.119 with 32 bytes of data:
Reply from 192.168.0.119: bytes=32 time=1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Request timed out.
Request timed out.
Reply from 192.168.0.119: bytes=32 time=2002ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
```

#### 2. Camera network cable length 是否過長

確認發生斷連線的問題 IPCAM 連接 Network cable length 是否超過 100M, 如果是, 是否有加裝 PoE Extender 確保傳輸品質.



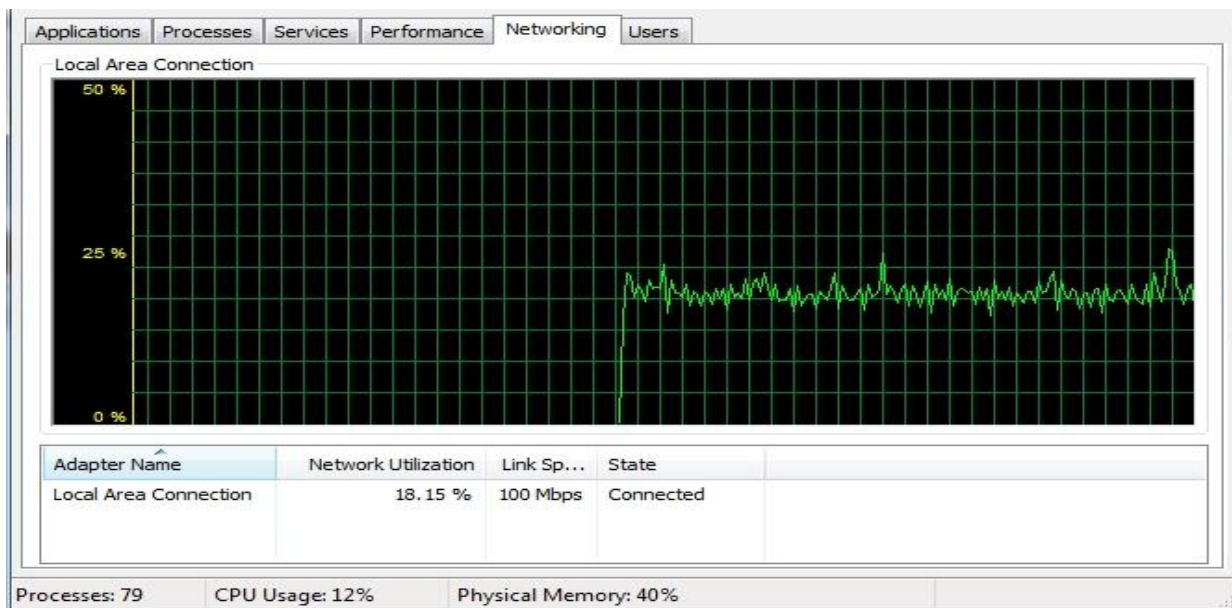
### 3. 更換 camera Network 接線方式

針對發生斷連線問題的 IPCAM, 請進行以下方法測試

- 嘗試更換 Network cable 釐清是否與 Network cable 有關.
- 更換 Camera 所連接的 PoE switch Port, 釐清是否因 PoE switch 該 port 故障造成.

### 4. 確認 PC 的網路環境流量傳輸是否符合標準

開啟 Windows Task Manager 確認 Network Utilization 是否操過負荷(若 keep 在 100%代表網路頻寬過小 IPCAM 封包無法正常傳輸)



### 5. 是否搭配多個 NVR/VMS 使用

針對發生斷連線問題的 IPCAM, 確認是否有連線兩台 NVR or VMS S/W 以上, 若是, 需確認 S/W 所設定的 resolution 是否一致(若設定不同會造成 resolution 相互切換問題)

- 若上述操作皆無法排除, 請協助開啟 Camera Web page 並擷取 debug log 提供給相關 FAE 問題釐清, 後續仍無法從 Log 確認問題, 則再協助提供遠端連線確認釐清發生問題原因.



## Camera 斷線後無法成功連線 Issue

### Symptom

在相同 LAN 網路環境下, Camera 發生斷線後無法恢復連線問題.



### Solution

To solve this over exposure issue: (1) 透過 CMD Ping IPCAM 是否發生 Loss 網路封包;(2) Check IPCAM Status LED 是否恆亮; (3) 確認是否有其他設備與 Camera 的 IP address 相衝, 詳細步驟請參閱以下說明:

#### 1. 透過 CMD Ping camera IP address 是否發生 loss 網路封包.

開啟 CMD ping camera 確認是否有發生 "Time out", 若未發生 Time out 請從 No3 步驟開始確認.

(CMD 指令為: ping IP address -t)

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Test310>ping 192.168.0.119 -t

Pinging 192.168.0.119 with 32 bytes of data:
Reply from 192.168.0.119: bytes=32 time=1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Request timed out.
Request timed out.
Reply from 192.168.0.119: bytes=32 time=2002ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
Reply from 192.168.0.119: bytes=32 time<1ms TTL=64
```

#### 2. Check IPCAM Status LED 是否恆亮

若持續發生 Time out, 需協助連絡客戶, 確認發生斷線的 camera 的 Status LED 是否恆亮顯示正常作動.

Status LED 未亮: 表示 Camera 未正常供電.

Status LED 恆亮: 需嘗試 H/W reboot 恢復連線, 後續再請連絡相關 FAE, 開啟 camera telnet 協助追蹤.



### 3. 確認是否有其他設備與 Camera 的 IP address 相衝

嘗試登入 Camera 的 Web UI, 確認 Live View 是否異常.

➤ 可正常登入 Camera Web UI:

- a. Live View 取得: 確認搭配 S/W 端相關設定有誤, 造成無法取得影像(EX: VSS port 設定不同)
- b. Live View 無法取得: 需請連絡相關 FAE, 透過開啟 camera telnet 確認相關 Log 釐清發生問題原因.

**Note:** 若無法開啟 telnet, 則必須請客戶協助進行 H/W reboot, 待恢復連線後再進行追蹤

➤ 無法登入 Camera Web UI:

請嘗試將 Camera 進行斷電, 並透過 CMD 確認 Camera 的 IP address 是否仍被使用, 若被使用則會顯示為以下說明.

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Test310>ping 192.168.0.120 -t

Pinging 192.168.0.120 with 32 bytes of data:
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
Reply from 192.168.0.120: bytes=32 time<1ms TTL=128
```

或是透過 CMD 使用 command, 確認該 Mac address 是否為該 GV-IP device 所使用, 若不是即為 IP 衝突 (CMD 指令為: arp -a)

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Test310>arp -a

Interface: 192.168.0.103 --- 0xa
Internet Address      Physical Address      Type
192.168.0.1          54-e6-fc-b6-e4-8e    dynamic
192.168.0.14         00-13-e2-0e-eb-50    dynamic
192.168.0.15         00-13-e2-12-42-52    dynamic
192.168.0.16         00-13-e2-10-53-dc    dynamic
192.168.0.17         00-13-e2-ff-1b-0b    dynamic
192.168.0.18         00-13-e2-ff-21-c4    dynamic
192.168.0.100        70-4d-7b-c4-b9-94    dynamic
192.168.0.101        00-13-e2-f9-04-80    dynamic
192.168.0.105        4c-80-93-24-a5-09    dynamic
192.168.0.255        ff-ff-ff-ff-ff-ff    static
224.0.0.2            01-00-5e-00-00-02    static
224.0.0.22           01-00-5e-00-00-16    static
224.0.0.251          01-00-5e-00-00-fb    static
224.0.0.252          01-00-5e-00-00-fc    static
239.255.255.250     01-00-5e-7f-ff-fa    static
255.255.255.255     ff-ff-ff-ff-ff-ff    static
```

### 4. 若上述操作皆無法排除, 請協助提供遠端連線給相關 FAE 問題釐清發生原因.