Merit LILIN Application Note
LILIN IP Camera OS 1.4

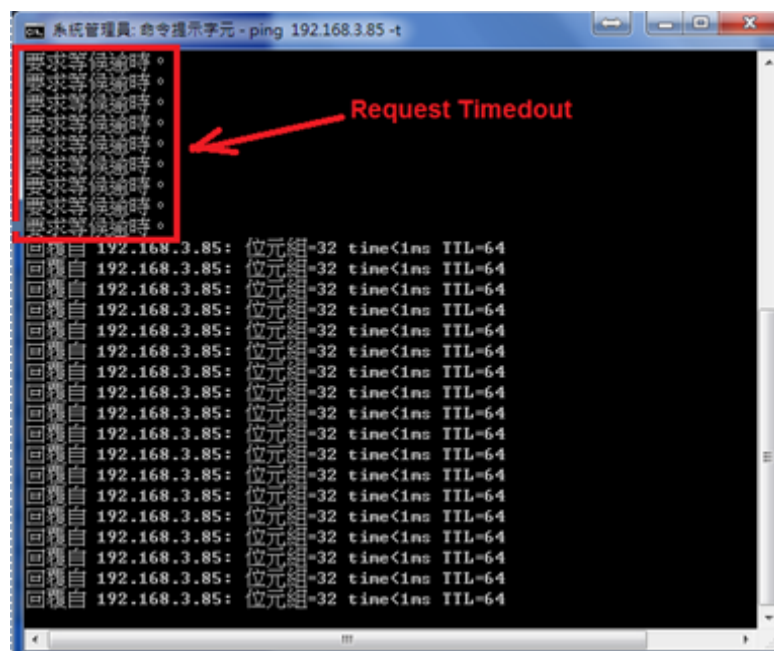**Subject:** What is LILIN IP Camera OS 1.4

LILIN Pro Series IP cameras are based on OS version 1.0. LILIN L Series IP cameras are based on OS version 1.1.

LILIN have now consolidated firmware OS 1.0 and OS 1.1 into OS 1.4. Users can now benefit from a single firmware policy for LILIN Pro and L series cameras.

- If the firmware version is based on 1.0 (Pro Series), please update flashaml.bin for OS 1.4 on your IP camera.
- If the firmware version is based on 1.1 (L Series), please update flashaml32.bin for OS 1.4 on your IP camera.
- If the firmware version is based on 1.4 (OS 1.4), please update flasham33.bin for upgrade on your IP camera.

Products: Pro series, L series, Z series, VS212, FD2452,

Warning: To update to OS 1.4, it takes about 10 minutes to finish the upgrade process. Do not reboot the camera while the firmware is upgrading. Try to ping the camera continuously as shown below: When the firmware has upgraded, the camera will reboot by itself, you will then see a request timed out notification in the command prompt window. Once the camera reboots, you can verify the camera is back online by ping command. Try to refresh the webpage again once the camera is back online.

How to determine the OS of the IP camera

Visit System->General. If the firmware version is 1.0.xx, the firmware is OS 1.0. If the firmware version is 1.4.xx, the firmware is OS 1.4.

What is new in OS 1.4

- SNMP v1, v2,and v3
  In typical uses of SNMP one or more administrative computers called managers have the task of monitoring or managing a group of hosts or devices on a computer network. Each managed system executes, at all times, a software component called an agent which reports information via SNMP to the manager.

  SNMP agents expose management data on the managed systems as variables. The protocol also permits active management tasks, such as modifying and applying a new configuration through remote modification of these variables. The variables accessible via SNMP are organized in hierarchies. These hierarchies and other metadata (such as type and description of the variable) are described by Management Information Bases (MIBs).

  For more detail, visit
  http://en.wikipedia.org/wiki/Simple_Network_Management_Protocol#Overview_and_basic_concepts.

  Visit Application Note A00063.PDF for "how to enable SNMP trap on camera for the event and heartbeat via SNMP v2".

- Multicast
  LILIN IP camera can now support multicast protocol for steaming video for third party software like Genetec and LILIN NVR in a closed LAN environment. Multicast video streaming protocol is for many video clients receiving video from a single video source.

  To use multicast video streaming technology, make sure that you understand the complication of multicast technology. Multicast storm might be caused in a LAN environment.

- Session Initiation Protocol (SIP)
  SIP protocol is primarily used by the doorphone industry for video conferencing application. The camera now supports SIP protocol for video and audio via SIP protocol.

- IP filtering
  Allows you to filter out the IP accesses of source IP devices.

- Extra three IP addresses
  Allows you to have three IP address on a single device. One IP address might be used for internal LAN access. One IP address might be used for Internet access. The camera can now support three IP address at different subnet.

- HTTP event post with JPEG snapshot
  HTTP event notification allows a manually enter Uniform Resource Locator (URL) for notifying of digital input and/or motion detection signal to a network device.

- ONVIF is certified via ONVIF tool 14.06

- APNS (Apple Push Notification Service)
  Digital input and motion detection signals can be notified via APNS to LILINViewer.

- GCM (Google Cloud Messaging)
  Digital input and motion detection signals can be notified via GCM to LILINViewer.

- Bonjour
  Apple device discovery protocol, LILIN camera can be discovered by Apple Mac.

- Samba
  LILIN cameras can record AVI video into a network device via NAS with Samba or a PC with network neighborhood protocol.

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