Axia IP Intercom 1.3.6e update

Rev. 2, 19 June 2013

This document describes the procedure for updating Axia IP Intercom rack-mount and desktop stations to the latest software. This software <u>does not</u> update IP-Intercom console drop-in modules.

Note: **if your IP Intercom stations are running software earlier than v1.2.8d, you must update them to v1.2.8 prior to applying this update.**

Download ftp://beta.zephyr.com/~tlscorp/pub/Axia/Updates/iPCom/1.2.x/axiaipcom_1_2_8d_r1.pkg and apply it using the procedure outlined below, *prior* to updating to v1.3.6e.

Installation Procedure:

1. Download the `1601-00523-010 axiaipcom_1_3_6e.pkg` file from the Axia website

2. Using your PC and browser connected to the Axia network, log into a rack mount intercom unit and select the "System Parameters" link.

3. Use the Browse button in the Firmware version section to find the file you downloaded in step 1. Once selected, the path and file will be loaded into the text field and the Apply button is used to load the version.

4. You may also use Axia iProbe to "push" the new software to your IP Intercom components.

5. The upload process can take up to 2 minutes and once complete the page will refresh showing the 1.3.6e version loaded into Bank 1.

6. When ready to upgrade, select bank 1 radio button and press the Apply button. This will reboot the unit to the new code. The reboot process can take up to 1 minute. During this time the unit can not be operated.

Questions? Contact Axia Support at support@AxiaAudio.com or phone +1-216-241-7225.

Version History

Version 1.3.6e:

Bug Fixes:
- Fixed critical stability bug in the Ethernet driver causing unit lock up.
- Fixed broken time stamps in streams which caused distorted audio.
- Fixed memory allocation problem in processing truncated receive packets.
- Fixed handling of IP address change. Earlier build needs reboot after IP address change.
- Changed default IGMP version to 2.
- Fixed a Key assignment issue where a limitation of accepted data from HTML submission would cause the appearance that a key assignment wasn't working.
- Fixed a broken privacy check. Calls from lower priority stations are answered automatically.
- Fixed the MIC mute button so it works for front mic and headset mic.
- Fixed a SIP stack process which prevented the panel from responding.
- Fixed DSP code that would not allow for volume control above 4 simultaneous listens.
- Fixed a deviation from original specification that Alternate label should be shown by default.
- Fixed false condition by Disabling TALK buttons for external sources with no GPIO/IFB control configured.
- Fixed IFB dimming and muting states based on trigger level.
- Fixed CMsg/mcast GPIO control (output direction was broken).
- Fine tuned the GPIO logic signals - debouncing of "software" inputs - in order to prevent loops in GPIO logic.
- Fixed call drop delay logic to avoid external control (GPIO) glitches.
- Fixed IFB channel getting stuck when quickly pressing the TALK button.
- Fixed: Host names starting with digits now properly resolve.

New Features:
- Stations on-air (BUSY) now indicate with icon on the OLED display.
- Push-To-Talk option (per button). Latch enable control per button.
- Rack mounts: add listen mix to a Livewire channel.
- Enhanced support for external PTT devices - Talk to IFB control (route change at audio destination).
- BUSY indication (talk LED blinks showing stations with privacy level blocking incoming calls)
- On-Air increases the trigger/privacy level (busy state)
- Listen-only sources now indicated on OLEDs.
- On-air no wire speaker mute added. Accepts input from selected Control Room Monitor GPIO port channel.
- Talk Active GPO capability added.
- Text display colors now reverse to better show calling station.
- Added "Destination" to iCom configuration for Program Monitor, creating a latched listen key.

- External sources now allows listening to backfeeds.
- Added Push-to-Talk to an Element backfeed (Talk to Element Flex Source, to be released in Element 3.0)
- GPIO Ring Lamp for a "talk" request

Feature Enhancements
- IC label is now generated automatically when installing brand-new units.
- Improved detection of disconnected unit. Now, TCP connection Keep Alive is enabled to time out in 3.5 minutes.
- Front panel displays may now be dimmed.
- Filmcap Stations: calls in progress may now be dropped with a tap.
- Added call progress/busy indication for PTT (IFB control) operation.
- Streamlined Web UI for all standalone stations.
- IC.20, IC.20D and ICC.20: Auto-answer calls on the callback key
- Enabled shift pages for Desktop 20-station OLED.
- Split IFB URL into clear test address and hidden characters password field.

Version 1.2.7c – Bug Fixes:
- WEB interface - corrected HTML syntax; "Tap to latch timeout" was not showing on some WEB browsers

Version 1.2.7b - New and Updated Features:

- Added PTT only, option to disable the latching. Added global parameter: Tap to latch timeout (0 - Push-To-Talk/no-latch, Default: 200ms)
- Button events logged in Syslog (Debug level)
- Tech info on the WEB UI
    - Intercom stations discovery table: http://icred.local/pub/icd.txt
    - Intercom stations static external sources table: http://icred.local/pub/ics.txt
    - Livewire sources (from the advertisement): http://icred.local/pub/lwsrcs.txt
    - Most recent Syslog messages: http://icred.local/pub/log.txt

- Rackmounts I/O management - option to completely disable each audio input
- High temperature Syslog Alert "too hot temperature xxC". Threshold 60degC. Message repeat in exponentially growing intervals: 8min, 16min, 32min and every 1h

Version 1.2.7b - Bug Fixes:

- IC.1: Fixed volume control and microphone mute

Version 1.2.7a - New and Updated Features:

- PTT only, option to disable the latching. Added global parameter: Tap to latch timeout (0 - Push-To-Talk/no-latch, Default: 200ms) (Issue #603)

Version 1.2.7a - Bug Fixes:

- Empty device name reported by LWRP/VER command (VER DEVN:"ipcom"). (Issue #602)

Version 1.2.6 - New and Updated Features:

- Button events logged in Syslog (Debug level)
- Tech info on the WEB UI
  - Intercom stations discovery table: http://icred.local/pub/icd.txt
  - Intercom stations static external sources table: http://icred.local/pub/ics.txt
  - Livewire sources (from the advertisement): http://icred.local/pub/lwsrcs.txt
  - Most recent Syslog messages: http://icred.local/pub/log.txt

Version 1.2.6 - Bug Fixes:

- Who called not releasing. Fixed sticky far drop indication occurring when call is received from a 3rd station during the indication period. (Bug #556)
- "Push to talk" registered as "tap to talk". Fixed processing of simultaneous multiple button events. (Bug #557)
- If the Alternate Label is blank, the calls originating form that station fail. (Bug #544)
- Enabled Ethernet controller reset after link negotiation. Allows to clear the Ethernet lock up by unplugging the Ethernet cable or resetting the port on the switch.
- iProbe does not recognize Intercom firmware packages (Bug #489)
- xsync process starts spinning in a busy loop usually within few fours after restart. It does not stop until device is rebooted. The condition causes: 1) Slower response from the unit to normal functions, as the xsync process consumes most of the CPU time. 2) Audio drop outs. Once the xsync is locked up, the SYNC LED may be showing full sync, but the PLL is not working. (Bug #468)
- Rackmounts WEB software update sometimes not working. (Bug #329) Workarounds for software update from the previous version:
  - Power cycle the node and do the software update
  - Telnet to the node and do: 'rm /var/log/messages /tmp/firmware.pkg'; do the WEB software update
- TALK/LISTEN control not working after connection was interrupted (Bug #323)
- Callstack unwanted auto answer. Second call made within 30s always goes through without required manual answer on the IC.20. (Bug #292)
- Zombie calls: Call would remain active on the far end, regardless it was dropped on the calling station. This was happening in case of very short calls (e.g. TALK tapped for <0.5), or when there were some processing delays. (Bug #274)
- Functional difference between the stand alone IC.01 and Element version. TALK button not working on Element filmcap module while the LISTEN is active. (Bug #241)
- Default hostname duplicate. Default hostname generated from device id and 6 last digits of the MAC address to assure uniqueness (example: ipcom803319). User never needs to change the hostname, unless he wants for some management purposes. In previous software versions, all

stations had the same default hostname (ipcom), so manual configuration was required. (Bug #242)

- Source IP address of audio streams invalid. Source IP address of audio streams does not follow configured IP address. As a result source IP address in the packets was either 0 or previous address. (Bug #243)
- Slow call processing by rack mount stations. (Bug #244) Number of software improvements made:
  - Fixed cache configuration in uClinux setup. Only first half of the memory was cached.
  - Optimized address resolution: memory list lookup instead of reading /var/tmp/axiaicom-bonjour.tbl file.
  - Optimization turned on for icomd service build.
  - Event based SIP sockets receive instead of polling.
- IC discovery and signalling improvements. (Bug #248) Implemented recovery for the following situations:
  - Station A calling Station B, before B discovered A (situation after system power cycle)
  - Station A moved and B has outdated information about A
  - Discovery process or name/address resolution of station A failed
  - Invalid lookup table entries appeared after station A changed its IP address or station labels were swapped
  - Call receiving Station B can learn all the properties of Station A originating the call from the call signaling process and update the lookup table accordingly.
  - Performs address resolution at the time user tries to make a call to a station which had been looked up, but it's hostname has not been resolved. This has been observed in case of Power Station/Engine service.
- Duplicate button control. (Bug #250) The line attributes were not cleared before reuse, so the GPIO remained assigned to IC-IC calls with no GPIO configured.
- Syslog: call activity, stations lookup (Bug #251)
- Calling back to the callback section. Station A (IC.1) calls station B (IC.20). A is not assigned to any of B's keys. Call is received on the callstack. A disconnects, B blinks indication that the call was dropped from the far end. During the drop indication period, A cannot call back (while the call should be accepted immediately within 1min of the previous disconnect). (Bug #254)

Version 1.2.5 - New and Updated Features:

- Rackmounts I/O management - option to completely disable each audio input
- High temperature Syslog Alert "too hot temperature xxC". Threshold 60degC. Message repeat in exponentially growing intervals: 8min, 16min, 32min and every 1h

Version 1.2.5 – Bug Fixes:

- GPIO setup: External sources Ui shows port names, not numbers. Those names come from default settings (uClinux: /etc/default/lwr.conf, Engine: /etc/Axia/default/icomid.default). Address of GPIO ports in external source definition were changed, so existing configuration needs to be manually fixed.

- Privacy level: Call to station with trigger priority higher by 2 is signalled rather than connected immediately.
- Fixed some startup condition problems. When intercom was called from another station, before it was discovered, IP address instead of label was used confusing call management.
- Fixed Syslog configuration (System WEB page)
- Fixed listen volume adjustment control with expansion unit keys